





## Settings


Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
RER620A										
Programado										
IED Configuration										
HW Configuration										
X110 (BIO)										
Input filtering										
1 filter time					Input	5	ms	5	1000	
2 filter time					Input	5	ms	5	1000	
3 filter time					Input	5	ms	5	1000	
4 filter time					Input	5	ms	5	1000	
5 filter time					Input	5	ms	5	1000	
6 filter time					Input	5	ms	5	1000	
7 filter time					Input	5	ms	5	1000	
8 filter time					Input	5	ms	5	1000	
Input inversion										
1 inversion					Input	False				
2 inversion					Input	False				
3 inversion					Input	False				
4 inversion					Input	False				
5 inversion					Input	False				
6 inversion					Input	False				
7 inversion					Input	False				
8 inversion					Input	False				
X120 (AIM)										
Input filtering										
1 filter time					Input	5	ms	5	1000	
2 filter time					Input	5	ms	5	1000	
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Group / Parameter Name				IED Value	PC Value	Unit	Min	Max	Format						
Input					5	ms	5	1000							
3 filter time															
Input					5	ms	5	1000							
4 filter time															
Input															
inversion															
Input					False										
1 inversion															
Input					False										
2 inversion															
Input					False										
3 inversion															
Input					False										
4 inversion															
LEDS															
LED 1															
Alarm					Latched-S										
mode															
Description					Phase A			64 character(s)							
LED 2															
Alarm					Latched-S										
mode															
Description					Phase B			64 character(s)							
LED 3															
Alarm					Latched-S										
mode															
Description					Phase C			64 character(s)							
LED 4															
Alarm					Latched-S										
mode															
Description					Ground			64 character(s)							
LED 5															
Alarm					Latched-S										
mode															
Description					Current			64 character(s)							
LED 6															
Alarm					Latched-S										
mode															
Description					Voltage			64 character(s)							
LED 7															
Alarm					Latched-S										
mode															
Description					Time			64 character(s)							
LED 8															
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1		
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Alarm mode			Latched-S							
Description			Instantaneous			64 character(s)				
LED 9										
Alarm mode			Follow-S							
Description			79 Lockout			64 character(s)				
LED 10										
Alarm mode			Latched-S							
Description			Breaker Failure			64 character(s)				
LED 11										
Alarm mode			Follow-S							
Description			AC LOSS			64 character(s)				
X105 (BIO)										
Input filtering										
1 filter time	Input		5	ms	5	1000				
2 filter time	Input		5	ms	5	1000				
3 filter time	Input		5	ms	5	1000				
4 filter time	Input		5	ms	5	1000				
5 filter time	Input		5	ms	5	1000				
6 filter time	Input		5	ms	5	1000				
7 filter time	Input		5	ms	5	1000				
8 filter time	Input		5	ms	5	1000				
Input inversion										
1 inversion	Input		False							
2 inversion	Input		False							
3 inversion	Input		False							
4 inversion	Input		False							
5 inversion	Input		False							
6 inversion	Input		False							
			Project	Responsible department		Technical ref...	Document kind	Doc. designation		
			Alstom Mejillones	ABB Ltd.				AA1J1Q03A1		
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Group / Parameter Name				IED Value	PC Value	Unit	Min	Max	Format				
Input					False								
7 inversion													
Input					False								
8 inversion													
Measurements													
CMMXU1(IA,IB,I													
C; 3I): 1													
3I													
IL1-A					0,00	xIn	0,00	40,00					
IL2-A					0,00	xIn	0,00	40,00					
IL3-A					0,00	xIn	0,00	40,00					
APEMMXU1(P,S													
P,E; P,SP,E): 1													
P,SP,E													
S-kVA					0,0	kVA	-999999,9	999999,9					
P-kW					0,0	kW	-999999,9	999999,9					
Q-kVAr					0,0	kVAr	-999999,9	999999,9					
PF					0,00		-1,00	1,00					
SA-kVA					0,0	kVA	-999999,9	999999,9					
SB-kVA					0,0	kVA	-999999,9	999999,9					
SC-kVA					0,0	kVA	-999999,9	999999,9					
PA-kW					0,0	kW	-999999,9	999999,9					
PB-kW					0,0	kW	-999999,9	999999,9					
PC-kW					0,0	kW	-999999,9	999999,9					
QA-kVAr					0,0	kVAr	-999999,9	999999,9					
QB-kVAr					0,0	kVAr	-999999,9	999999,9					
QC-kVAr					0,0	kVAr	-999999,9	999999,9					
PFA					0,00		-1,00	1,00					
PFB					0,00		-1,00	1,00					
PFC					0,00		-1,00	1,00					
RESCMMXU1(IG;													
Io): 1													
Io-A					0,00	xIn	0,00	40,00					
VMMXU1(VA,VB,													
VC; 3U): 1													
3U													
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref...	Document kind		Doc. designation AA1J1Q03A1	
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format			
U12-kV			0,00	xUn	0,00	4,00				
U23-kV			0,00	xUn	0,00	4,00				
U31-kV			0,00	xUn	0,00	4,00				
VMMXU2(VA,VB,VC(2); 3U(B)): 2										
3U(B)										
U12B-kV			0,00	xUn	0,00	4,00				
U23B-kV			0,00	xUn	0,00	4,00				
U31B-kV			0,00	xUn	0,00	4,00				
FMMXU1(f; f): 1										
f-Hz			50,00	Hz	35,00	75,00				
CSMSQI1(I1,I2,I0; I1,I2,I0): 1										
I1,I2,I0										
Ng-Seq-A			0,00	xIn	0,00	40,00				
Ps-Seq-A			0,00	xIn	0,00	40,00				
Zro-Seq-A			0,00	xIn	0,00	40,00				
VSMSQI1(V1,V2,V0; U1,U2,U0): 1										
U1,U2,U0										
Ng-Seq-kV			0,00	xUn	0,00	4,00				
Ps-Seq-kV			0,00	xUn	0,00	4,00				
Zro-Seq-kV			0,00	xUn	0,00	4,00				
VSMSQI2(V1,V2,V0(2); U1,U2,U0(B)): 2										
U1,U2,U0(B)										
Ng-SeqB-kV			0,00	xUn	0,00	4,00				
Ps-SeqB-kV			0,00	xUn	0,00	4,00				
Zro-SeqB-kV			0,00	xUn	0,00	4,00				
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				Alstom Mejillones	ABB Ltd.			AA1J1Q03A1		
			Repla...			Created by	Title	Document id.		
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format				
Disturbance records														
Disturbance recorder(Disturbance recorder; Disturbance recorder): 0														
Disturbance recorder														
Number of recordings					16			0	100					
Rem. amount of rec.					14			0	100					
Rec. memory used					52	%		0	100					
Trig recording					Cancel									
Time to trigger					0	s		0	604800					
Configuration														
Disturbance recorder(Disturbance recorder; Disturbance recorder): 0														
General														
Operation					on									
Record length					50	cycles		10	500					
Pre-trg length					20	%		0	100					
Operation mode					Saturation									
Exclusion time					0	ms		0	1000000					
Storage rate					32 samples / cycle									
Periodic trig time					0	s		0	604800					
Stor. mode periodic					Waveform									
Stor. mode manual					Waveform									
Channel settings														
Analog channel 1														

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Group / Parameter Name				IED Value	PC Value	Unit	Min	Max	Format					
Operation					on									
Channel selection					IL1									
Channel id text					IA-A			64 character(s)						
High trigger level					10,00		0,00	60,00						
Low trigger level					0,00		0,00	2,00						
Storage mode					Waveform									
Analog channel 2														
Operation					on									
Channel selection					IL2									
Channel id text					IB-A			64 character(s)						
High trigger level					10,00		0,00	60,00						
Low trigger level					0,00		0,00	2,00						
Storage mode					Waveform									
Analog channel 3														
Operation					on									
Channel selection					IL3									
Channel id text					IC-A			64 character(s)						
High trigger level					10,00		0,00	60,00						
Low trigger level					0,00		0,00	2,00						
Storage mode					Waveform									
Analog channel 4														
Operation					on									
Channel selection					Io									
Channel id text					IG-A			64 character(s)						
High trigger level					10,00		0,00	60,00						
Low trigger level					0,00		0,00	2,00						
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref... Document kind		Doc. designation AA1J1Q03A1			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format	
Storage mode						Waveform					
Analog channel 5											
Operation						on					
Channel selection						U1					
Channel id text						VA-kV			64 character(s)		
High trigger level						10,00		0,00	60,00		
Low trigger level						0,00		0,00	2,00		
Storage mode						Waveform					
Analog channel 6											
Operation						on					
Channel selection						U2					
Channel id text						VB-kV			64 character(s)		
High trigger level						10,00		0,00	60,00		
Low trigger level						0,00		0,00	2,00		
Storage mode						Waveform					
Analog channel 7											
Operation						on					
Channel selection						U3					
Channel id text						VC-kV			64 character(s)		
High trigger level						10,00		0,00	60,00		
Low trigger level						0,00		0,00	2,00		
Storage mode						Waveform					
Analog channel 8											
Operation						on					
Channel selection						U1B					
Channel id text						VA2-kV			64 character(s)		
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High trigger level						10,00		0,00	60,00								
Low trigger level						0,00		0,00	2,00								
Storage mode						Waveform											
Analog channel 9																	
Operation						on											
Channel selection						U2B											
Channel id text						VB2-kV			64 character(s)								
High trigger level						10,00		0,00	60,00								
Low trigger level						0,00		0,00	2,00								
Storage mode						Waveform											
Analog channel 10																	
Operation						on											
Channel selection						U3B											
Channel id text						VC2-kV			64 character(s)								
High trigger level						10,00		0,00	60,00								
Low trigger level						0,00		0,00	2,00								
Storage mode						Waveform											
Analog channel 11																	
Operation						on											
Channel selection						Disabled											
Channel id text						Analog ch 11 input			64 character(s)								
High trigger level						10,00		0,00	60,00								
Low trigger level						0,00		0,00	2,00								
Storage mode						Waveform											
Analog channel 12																	
					Project Alstom Mejillones			Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
Operation						on				
Channel selection						Disabled				
Channel id text						Analog ch 12 input			64 character(s)	
High trigger level						10,00		0,00	60,00	
Low trigger level						0,00		0,00	2,00	
Storage mode						Waveform				
Binary channel 1										
Operation						on				
Level trigger mode						Positive or Rising				
Storage mode						Waveform				
Channel id text						51P Trip			64 character(s)	
Binary channel 2										
Operation						on				
Level trigger mode						Positive or Rising				
Storage mode						Waveform				
Channel id text						50P-1 Trip			64 character(s)	
Binary channel 3										
Operation						on				
Level trigger mode						Positive or Rising				
Storage mode						Waveform				
Channel id text						50P-2 Trip			64 character(s)	
Binary channel 4										
Operation						on				
Level trigger mode						Positive or Rising				
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
Storage mode					Waveform					
Channel id text						50P-3 Trip			64 character(s)	
channel 5					Binary					
Operation						on				
Level trigger mode					Level trigger off					
Storage mode						Waveform				
Channel id text						INR Blk 2H			64 character(s)	
channel 6					Binary					
Operation						on				
Level trigger mode						Positive or Rising				
Storage mode					Waveform					
Channel id text						51N Trip			64 character(s)	
channel 7					Binary					
Operation						on				
Level trigger mode					Positive or Rising					
Storage mode						Waveform				
Channel id text						50N-1 Trip			64 character(s)	
channel 8					Binary					
Operation						on				
Level trigger mode						Positive or Rising				
Storage mode					Waveform					
Channel id text						50N-2 Trip			64 character(s)	
channel 9					Binary					
Operation						on				
					Project					
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					ABB Ltd.					
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					Repla...					
					Alstom					
					Mejillones.Substation.Voltage					
					Level.Bay					
					Created by					
					Based on					
					Title					
					RER620A					
					Programado					
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Group / Parameter Name		IED Value		PC Value		Unit		Min		Max		Format			
Level trigger mode				Positive or Rising											
Storage mode				Waveform											
Channel id text				50N-3 Trip				64 character(s)							
Binary channel 10						Binary									
Operation				on											
Level trigger mode				Positive or Rising											
Storage mode				Waveform											
Channel id text				46-1 Trip						64 character(s)					
Binary channel 11						Binary									
Operation				on											
Level trigger mode				Positive or Rising											
Storage mode				Waveform											
Channel id text				46-2 Trip						64 character(s)					
Binary channel 12						Binary									
Operation				on											
Level trigger mode				Positive or Rising											
Storage mode				Waveform											
Channel id text				46PD Trip						64 character(s)					
Binary channel 13						Binary									
Operation				on											
Level trigger mode				Positive or Rising											
Storage mode				Waveform											
Channel id text				HIZ Trip				64 character(s)							
Binary channel 14						Binary									
					Project Alstom Mejillones			Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1	
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format	
Operation			on					
Level trigger mode			Level trigger off					
Storage mode			Waveform					
Channel id text			50BF Open			64 character(s)		
Binary channel 15								
Operation			on					
Level trigger mode			Level trigger off					
Storage mode			Waveform					
Channel id text			50BF Close			64 character(s)		
Binary channel 16								
Operation			on					
Level trigger mode			Positive or Rising					
Storage mode			Waveform					
Channel id text			DLCM Trip			64 character(s)		
Binary channel 17								
Operation			on					
Level trigger mode			Level trigger off					
Storage mode			Waveform					
Channel id text			DLCM Close			64 character(s)		
Binary channel 18								
Operation			on					
Level trigger mode			Level trigger off					
Storage mode			Waveform					
Channel id text			Phs A Trip Initiate			64 character(s)		
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Binary channel 19								
Operation			on					
Level trigger mode			Level trigger off					
Storage mode			Waveform					
Channel id text			Phs B Trip Initiate			64 character(s)		
Binary channel 20								
Operation			on					
Level trigger mode			Level trigger off					
Storage mode			Waveform					
Channel id text			Phs C Trip Initiate			64 character(s)		
Binary channel 21								
Operation			on					
Level trigger mode			Level trigger off					
Storage mode			Waveform					
Channel id text			3Ph Trip Initiate			64 character(s)		
Binary channel 22								
Operation			on					
Level trigger mode			Level trigger off					
Storage mode			Waveform					
Channel id text			Phs A Close Initiate			64 character(s)		
Binary channel 23								
Operation			on					
Level trigger mode			Level trigger off					
Storage mode			Waveform					


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					Alstom Mejillones	ABB Ltd.			AA1J1Q03A1			
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Channel id text			Phs B Close Initiate			64 character(s)		
Binary channel 24								
Operation			on					
Level trigger mode			Level trigger off					
Storage mode			Waveform					
Channel id text			Phs C Close Initiate			64 character(s)		
Binary channel 25								
Operation			on					
Level trigger mode			Level trigger off					
Storage mode			Waveform					
Channel id text			3Ph Close Initiate			64 character(s)		
Binary channel 26								
Operation			on					
Level trigger mode			Level trigger off					
Storage mode			Waveform					
Channel id text			Phs A Lockout			64 character(s)		
Binary channel 27								
Operation			on					
Level trigger mode			Level trigger off					
Storage mode			Waveform					
Channel id text			Phs B Lockout			64 character(s)		
Binary channel 28								
Operation			on					
Level trigger mode			Level trigger off					
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Storage mode					Waveform					
Channel id text						Phs C Lockout			64 character(s)	
Binary channel 29										
Operation						on				
Level trigger mode					Level trigger off					
Storage mode						Waveform				
Channel id text						3Ph Lockout			64 character(s)	
Binary channel 30										
Operation						on				
Level trigger mode						Level trigger off				
Storage mode					Waveform					
Channel id text						79 in progress			64 character(s)	
Binary channel 31										
Operation						on				
Level trigger mode					Level trigger off					
Storage mode						Waveform				
Channel id text						79 Unsuccessful			64 character(s)	
Binary channel 32										
Operation						on				
Level trigger mode						Positive or Rising				
Storage mode					Waveform					
Channel id text						50SEF Trip			64 character(s)	
Binary channel 33										
Operation						on				
					Project					
					Alstom Mejillones					
					Responsible department					
					ABB Ltd.					
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					Document kind					
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					Repla...					
					Alstom					
					Mejillones.Substation.Voltage					
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format
Level trigger mode			Positive or Rising				
Storage mode			Waveform				
Channel id text			81-1 Trip			64 character(s)	
Binary channel 34							
Operation			on				
Level trigger mode			Positive or Rising				
Storage mode			Waveform				
Channel id text			81-2 Trip			64 character(s)	
Binary channel 35							
Operation			on				
Level trigger mode			Positive or Rising				
Storage mode			Waveform				
Channel id text			81S-1 Trip			64 character(s)	
Binary channel 36							
Operation			on				
Level trigger mode			Positive or Rising				
Storage mode			Waveform				
Channel id text			81S-2 Trip			64 character(s)	
Binary channel 37							
Operation			on				
Level trigger mode			Level trigger off				
Storage mode			Waveform				
Channel id text			25 in progress			64 character(s)	
Binary channel 38							

					Project Alstom Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format	
Operation			on					
Level trigger mode			Level trigger off					
Storage mode			Waveform					
Channel id text			25 OK			64 character(s)		
Binary channel 39								
Operation			on					
Level trigger mode			Level trigger off					
Storage mode			Waveform					
Channel id text			X115 Input 1			64 character(s)		
Binary channel 40								
Operation			on					
Level trigger mode			Level trigger off					
Storage mode			Waveform					
Channel id text			X115 Input 2			64 character(s)		
Binary channel 41								
Operation			on					
Level trigger mode			Level trigger off					
Storage mode			Waveform					
Channel id text			X115 Input 3			64 character(s)		
Binary channel 42								
Operation			on					
Level trigger mode			Level trigger off					
Storage mode			Waveform					
Channel id text			69-Close disabled			64 character(s)		
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					Alstom Mejillones		ABB Ltd.	
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format	
Binary channel 43								
Operation			on					
Level trigger mode			Level trigger off					
Storage mode			Waveform					
Channel id text			Reserved			64 character(s)		
Binary channel 44								
Operation			on					
Level trigger mode			Level trigger off					
Storage mode			Waveform					
Channel id text			Reserved			64 character(s)		
Binary channel 45								
Operation			on					
Level trigger mode			Level trigger off					
Storage mode			Waveform					
Channel id text			X120 Input 1			64 character(s)		
Binary channel 46								
Operation			on					
Level trigger mode			Level trigger off					
Storage mode			Waveform					
Channel id text			X120 Input 2			64 character(s)		
Binary channel 47								
Operation			on					
Level trigger mode			Level trigger off					
Storage mode			Waveform					

					Project Alstom Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A Programado RER620A	Document id.			
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Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		X120 Input 3			64 character(s)	
Binary channel 48						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		X120 Input 4			64 character(s)	
Binary channel 49						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		67N-1 Trip			64 character(s)	
Binary channel 50						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		67N-2 Trip			64 character(s)	
Binary channel 51						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		67P-1 Trip			64 character(s)	
Binary channel 52						
Operation		on				
Level trigger mode		Positive or Rising				


					Project Alstom Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A Programado RER620A	Document id.			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format		
Storage mode						Waveform						
Channel id text						67P-2 Trip			64 character(s)			
Binary channel 53												
Operation						on						
Level trigger mode						Positive or Rising						
Storage mode						Waveform						
Channel id text						59N-1 Trip			64 character(s)			
Binary channel 54												
Operation						on						
Level trigger mode						Positive or Rising						
Storage mode						Waveform						
Channel id text						59N-2 Trip			64 character(s)			
Binary channel 55												
Operation						on						
Level trigger mode						Positive or Rising						
Storage mode						Waveform						
Channel id text						47-1 Trip			64 character(s)			
Binary channel 56												
Operation						on						
Level trigger mode						Positive or Rising						
Storage mode						Waveform						
Channel id text						47-2 Trip			64 character(s)			
Binary channel 57												
Operation						on						
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref... Document kind		Doc. designation AA1J1Q03A1	
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format
Level trigger mode			Positive or Rising				
Storage mode			Waveform				
Channel id text			59PS-1 Trip		64 character(s)		
Binary channel 58							
Operation			on				
Level trigger mode			Positive or Rising				
Storage mode			Waveform				
Channel id text			59PS-2 Trip			64 character(s)	
Binary channel 59							
Operation			on				
Level trigger mode			Positive or Rising				
Storage mode			Waveform				
Channel id text			27-1 Trip			64 character(s)	
Binary channel 60							
Operation			on				
Level trigger mode			Positive or Rising				
Storage mode			Waveform				
Channel id text			27-2 Trip			64 character(s)	
Binary channel 61							
Operation			on				
Level trigger mode			Positive or Rising				
Storage mode			Waveform				
Channel id text			27-3 Trip			64 character(s)	
Binary channel 62							

					Project	Responsible department	Technical ref...	Document kind	Doc. designation			
					Alstom Mejillones	ABB Ltd.			AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title	Document id.			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format				
Operation						on								
Level trigger mode						Positive or Rising								
Storage mode						Waveform								
Channel id text						59-1 Trip			64 character(s)					
Binary channel 63														
Operation						on								
Level trigger mode						Positive or Rising								
Storage mode						Waveform								
Channel id text						59-2 Trip			64 character(s)					
Binary channel 64														
Operation						on								
Level trigger mode						Positive or Rising								
Storage mode						Waveform								
Channel id text						59-3 Trip			64 character(s)					
Control														
SCBXCBR1(52; I<->O CB): 1														
I<->O CB														
Operation						on								
Select timeout						60000	ms	10000	300000					
Pulse length						100	ms	10	60000					
Operation counter A						45		0	10000					
Operation counter B						45		0	10000					
Operation counter C						45		0	10000					
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref... Document kind		Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by	Title RER620A Programado RER620A		Document id.		
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format
Control model			sbo-with-enhanced-security				
Adaptive pulse			True				
Event delay			100	ms	0	10000	
Operation timeout			500	ms	10	60000	
Breaker Op mode			Three Phase				
System(System; System): 0							
System							
Rated frequency			50Hz				
Phase rotation			ABC				
Blocking mode			Freeze timer				
Bay name			RER620			20 character(s)	
Phase order mode			ABC				
HMI(HMI; HMI): 0							
HMI							
FB naming convention			ANSI-ANSI				
Default view			Measurements				
Backlight timeout			60	min	1	60	
Web HMI timeout			10	min	1	60	
SLD symbol format			ANSI				
Autoscroll delay			0	s	0	30	
Communication Ethernet							
Communication(Communication; Communication): 0							
Rear port(s)							
IP address			192.168.2.10				

					Project	Responsible department	Technical ref...	Document kind	Doc. designation			
					Alstom Mejillones	ABB Ltd.			AA1J1Q03A1			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format		
Subnet mask						255.255.255.0						
Default gateway						192.168.2.1						
Mac address						00-90-4F-E5-18-45			18 character(s)			
Front port												
IP address						192.168.0.254						
Mac address						00-90-4F-E5-18-44			18 character(s)			
Modbus(Modbus; Modbus): 1												
Modbus												
Serial port 1						Not in use						
Parity 1						even						
Address 1						1		1	255			
Link mode 1						RTU						
Start delay 1						4	char	0	20			
End delay 1						3	char	0	20			
Serial port 2						Not in use						
Parity 2						even						
Address 2						2		1	255			
Link mode 2						RTU						
Start delay 2						4		0	20			
End delay 2						3		0	20			
MaxTCPClients						5		0	5			
TCPWriteAuthority						All clients						
EventID						Address						
TimeFormat						Local						
ClientIP1						0.0.0.0						
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref... Document kind		Doc. designation AA1J1Q03A1	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
ClientIP2						0.0.0.0				
ClientIP3						0.0.0.0				
ClientIP4						0.0.0.0				
ClientIP5						0.0.0.0				
CtlStructPWd1						****			4 character(s)	
CtlStructPWd2						****			4 character(s)	
CtlStructPWd3						****			4 character(s)	
CtlStructPWd4						****			4 character(s)	
CtlStructPWd5						****			4 character(s)	
CtlStructPWd6						****			4 character(s)	
CtlStructPWd7						****			4 character(s)	
CtlStructPWd8						****			4 character(s)	
Internal Overflow						False				
DNP3.0(DNP3.0; DNP3.0): 1										
DNP3.0										
DNP physical layer						TCP/IP				
Unit address						1		1	65519	
Master address						3		1	65519	
Serial port						Not in use				
Need time interval						30	min	0	65535	
Time format						Local				
CROB select timeout						10	sec	1	65535	
Data link confirm						Never				
Data link confirm TO						3000	ms	100	65535	
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					Mejillones.Substation.Voltage				Approved by	Programado
					Level.Bay					RER620A
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format	
Data link retries			3		0	65535		
Data link Rx to Tx delay			0	ms	0	255		
Data link inter char delay			4	char	0	20		
App layer confirm			Disable					
App confirm TO			5000	ms	100	65535		
App layer fragment			2048	bytes	256	2048		
mode	UR		Disable					
retries	UR		3		0	65535		
TO	UR		5000	ms	0	65535		
offline interval	UR		15	min	0	65535		
Class 1 Min events	UR		2		0	999		
Class 1 TO	UR		50	ms	0	65535		
Class 2 Min events	UR		2		0	999		
Class 2 TO	UR		50	ms	0	65535		
Class 3 Min events	UR		2		0	999		
Class 3 TO	UR		50	ms	0	65535		
Legacy master UR			Disable					
Legacy master SBO			Disable					
Default Var Obj 01			1		1	2		
Default Var Obj 02			2		1	2		
Default Var Obj 30			2		1	4		
				Project	Responsible department	Technical ref...	Document kind	Doc. designation
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Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Default Var Obj 32		4		1	4	
Serial Ports(X000 (COM); X000 (COM)): 90						
COM1						
Serial mode		RS485 2Wire				
CTS delay		0		0	60000	
RTS delay		0		0	60000	
Baudrate		9600				
COM2						
Serial mode		RS485 2Wire				
CTS delay		0		0	60000	
RTS delay		0		0	60000	
Baudrate		9600				
MMSGGIO1(MMS; MMSGGIO1): 1						
MMSGGIO1						
Unit mode		Nominal				
Time(Time; Time): 0						
System time						
Date		2017.01.28			20 character(s)	
Time		22:21:24			20 character(s)	
format Time		24H:MM:SS:MS				
format Date		MM/DD/YYYY				
Local time offset		0	min	-720	720	
Synchronization						
Synch source		SNTP				
IP		10.58.125.165				
SNTP primary						
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			Alstom Mejillones	ABB Ltd.		Doc. designation
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
IP SNTP secondary						192.168.2.165				
Daylight saving time										
DST on time						02:00			5 character(s)	
DST on date						01.05.			6 character(s)	
DST on day						Not in use				
DST offset						0	min	-720	720	
DST off time						02:00			5 character(s)	
DST off date						25.09.			6 character(s)	
DST off day						Not in use				
Authorization(Aut horization; Authorization): 0										
Authorization										
Remote override						True				
Remote viewer									20 character(s)	
Remote operator									20 character(s)	
Remote engineer									20 character(s)	
Remote administrator									20 character(s)	
General(General; General): 0										
General										
Software reset						Cancel				
I/O modules(I/O modules; I/O modules): 0										
Common settings										
Threshold voltage						48	Vdc	18	176	
Input osc. level						30	events/s	2	50	
Input osc. hyst						10	events/s	2	50	
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format	
Condition monitoring								
SPSCBR1(52CM; CBCM): 1								
CBCM								
Operation		on						
stop current	Acc		10,00	A	5,00	500,00		
Open alarm time			40	ms	0	200		
Close alarm time			40	ms	0	200		
Opening time Cor			10	ms	0	100		
Closing time Cor			10	ms	0	100		
Spring charge time			1000	ms	0	60000		
Counter Ini Val A			0		0	9999		
Counter Ini Val B			0		0	9999		
Counter Ini Val C			0		0	9999		
Alarm Op number			200		0	9999		
Lockout Op number			300		0	9999		
Current exponent			2,00		0,00	2,00		
Difference Cor time			5	ms	-10	10		
Alm Acc currents Pwr			2500,00		0,00	20000,00		
LO Acc currents Pwr			2500,00		0,00	20000,00		
Ini Acc Curr Pwr A			0,00		0,00	20000,00		
Ini Acc Curr Pwr B			0,00		0,00	20000,00		
Ini Acc Curr Pwr C			0,00		0,00	20000,00		
Directional Coef			-1,50		-3,00	-0,50		
CB Rmn life A			5000		0	9999		


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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format		
CB Rmn life B					Ini	5000		0	9999			
CB Rmn life C					Ini	5000		0	9999			
Rated Op current						1000,00	A	100,00	5000,00			
Rated fault current						12500,00	A	500,00	75000,00			
number rated					Op	10000		1	99999			
number fault					Op	51		1	10000			
alarm level					Life	500		0	99999			
Pressure alarm time						10	ms	0	60000			
Pres lockout time						10	ms	0	60000			
Inactive Alm days						2000	d	0	9999			
inactive days A					Ini	0	d	0	9999			
inactive days B					Ini	0	d	0	9999			
inactive days C					Ini	0	d	0	9999			
Inactive Alm hours						0	h	0	23			
SEQRFUF1(60; FUSEF): 1												
FUSEF												
Operation						on						
Neg Seq current Lev						0,03	xIn	0,03	0,20			
Neg Seq voltage Lev						0,10	xUn	0,03	0,20			
Current change rate						0,15	xIn	0,01	0,50			
Voltage change rate						0,60	xUn	0,50	0,90			
Change rate enable						False						


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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format	
Min Op voltage delta						0,70	xUn	0,01	1,00		
Min Op current delta						0,10	xIn	0,01	1,00		
Seal in voltage						0,70	xUn	0,01	1,00		
Enable seal in					False						
Current dead Lin Val						0,05	xIn	0,05	1,00		
Measurements											
CMMXU1(IA,IB,I C; 3I): 1											
3I											
Operation						on					
Measurement mode					DFT						
Num of phases						1 out of 3					
Demand interval					1 minute						
A high high limit						1,40	xIn	0,00	40,00		
A high limit						1,20	xIn	0,00	40,00		
A low limit						0,00	xIn	0,00	40,00		
A low low limit						0,00	xIn	0,00	40,00		
A deadband						2500		100	100000		
RESCMMXU1(IG; lo): 1											
lo											
Operation					on						
Measurement mode						DFT					
A Hi high limit res						2,00	xIn	0,00	40,00		
A high limit res						1,50	xIn	0,00	40,00		
A deadband res						5000		100	100000		
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format				
VMMXU1(VA,VB,VC; 3U): 1														
3U														
Operation						on								
Measurement mode						DFT								
Num of phases						1 out of 3								
V high high limit						1,40	xUn	0,00	4,00					
V high limit						1,20	xUn	0,00	4,00					
V low limit						0,00	xUn	0,00	4,00					
V low low limit						0,00	xUn	0,00	4,00					
V deadband						10000		100	100000					
VMMXU2(VA,VB,VC(2); 3U(B)): 2														
3U(B)														
Operation						on								
Measurement mode						DFT								
Num of phases						1 out of 3								
V high high limit						1,40	xUn	0,00	4,00					
V high limit						1,20	xUn	0,00	4,00					
V low limit						0,00	xUn	0,00	4,00					
V low low limit						0,00	xUn	0,00	4,00					
V deadband						10000		100	100000					
FMMXU1(f; f): 1														
f														
Operation						on								
F high high limit						65,00	Hz	35,00	75,00					
F high limit						61,00	Hz	35,00	75,00					
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref... Document kind		Doc. designation AA1J1Q03A1			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format				
F						59,00	Hz	35,00	75,00					
low limit														
F						55,00	Hz	35,00	75,00					
low low limit														
F						1000		100	100000					
deadband														
CSMSQ1(I1,I2,I0 ; I1,I2,I0): 1														
I1,I2,I0														
Operation						on								
Ps						1,40	xIn	0,00	40,00					
Seq A Hi high Lim														
Ps						1,20	xIn	0,00	40,00					
Seq A high limit														
Ps						0,00	xIn	0,00	40,00					
Seq A low limit														
Ps						0,00	xIn	0,00	40,00					
Seq A low low Lim														
Ps						2500		100	100000					
Seq A deadband														
Ng						0,20	xIn	0,00	40,00					
Seq A Hi high Lim														
Ng						0,05	xIn	0,00	40,00					
Seq A High limit														
Ng						0,00	xIn	0,00	40,00					
Seq A low limit														
Ng						0,00	xIn	0,00	40,00					
Seq A low low Lim														
Ng						2500		100	100000					
Seq A deadband														
Zro						0,20	xIn	0,00	40,00					
A Hi high Lim														
Zro						0,05	xIn	0,00	40,00					
A High limit														
Zro						0,00	xIn	0,00	40,00					
A low limit														
Zro						0,00	xIn	0,00	40,00					
A low low Lim														
Zro						2500		100	100000					
A deadband														
VSMSQ1(V1,V2, V0; U1,U2,U0): 1														
U1,U2,U0														
Operation						on								
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format							
Ps Seq V Hi high Lim						1,40	xUn	0,00	4,00								
Ps Seq V high limit						1,20	xUn	0,00	4,00								
Ps Seq V low limit						0,00	xUn	0,00	4,00								
Ps Seq V low low Lim						0,00	xUn	0,00	4,00								
Ps Seq V deadband						10000		100	100000								
Ng Seq V Hi high Lim						0,20	xUn	0,00	4,00								
Ng Seq V High limit						0,05	xUn	0,00	4,00								
Ng Seq V low limit						0,00	xUn	0,00	4,00								
Ng Seq V low low Lim						0,00	xUn	0,00	4,00								
Ng Seq V deadband						10000		100	100000								
Zro V Hi high Lim						0,20	xUn	0,00	4,00								
Zro V High limit						0,05	xUn	0,00	4,00								
Zro V low limit						0,00	xUn	0,00	4,00								
Zro V low low Lim						0,00	xUn	0,00	4,00								
Zro V deadband						10000		100	100000								
VSMSQI2(V1,V2, V0(2); U1,U2,U0(B)): 2																	
U1,U2,U0(B)																	
Operation						on											
Ps Seq V Hi high Lim						1,40	xUn	0,00	4,00								
Ps Seq V high limit						1,20	xUn	0,00	4,00								
Ps Seq V low limit						0,00	xUn	0,00	4,00								
Ps Seq V low low Lim						0,00	xUn	0,00	4,00								
Ps Seq V deadband						10000		100	100000								
Ng Seq V Hi high Lim						0,20	xUn	0,00	4,00								
					Project Alstom Mejillones			Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay					Created by		Title RER620A Programado RER620A		Document id.			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format					
Seq V High limit					Ng	0,05	xUn	0,00	4,00						
Seq V low limit					Ng	0,00	xUn	0,00	4,00						
Seq V low low Lim					Ng	0,00	xUn	0,00	4,00						
Seq V deadband					Ng	10000		100	100000						
V Hi high Lim					Zro	0,20	xUn	0,00	4,00						
V High limit					Zro	0,05	xUn	0,00	4,00						
V low limit					Zro	0,00	xUn	0,00	4,00						
V low low Lim					Zro	0,00	xUn	0,00	4,00						
V deadband					Zro	10000		100	100000						
APEMMXU1(P,S P,E; P,SP,E): 1															
P,SP,E															
Operation						on									
Power unit Mult						Kilo									
Energy unit Mult						Kilo									
Active power Dir						Forward									
Reactive power Dir						Forward									
Forward Wh Initial						0		0	999999999						
Reverse Wh Initial						0		0	999999999						
Forward VARh Initial						0		0	999999999						
Reverse VARh Initial						0		0	999999999						
Fault record															
FLTMSTA(FLTM STA; FLTMSTA): 1															
					Project Alstom Mejillones			Responsible department ABB Ltd.		Technical ref...	Document kind		Doc. designation AA1J1Q03A1		
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay					Created by	Title RER620A Programado RER620A		Document id.		
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format				
FLTMSTA											
Operation			on								
mode		Trig	From all faults								
A measurement mode			DFT								
Generic timers											
TPGAPC1(TP-1; TP(1)): 1											
TP(1)											
Pulse time			150	ms	0	60000					
TPGAPC2(TP-2; TP(2)): 2											
TP(2)											
Pulse time			150	ms	0	60000					
TPGAPC3(TP-3; TP(3)): 3											
TP(3)											
Pulse time			150	ms	0	60000					
TPGAPC4(TP-4; TP(4)): 4											
TP(4)											
Pulse time			150	ms	0	60000					
TONGAPC1(TONGAPC1; TON(1)): 1											
TON(1)											
On delay time 1			1200	ms	0	3600000					
On delay time 2			1200	ms	0	3600000					
On delay time 3			1200	ms	0	3600000					
On delay time 4			0	ms	0	3600000					
On delay time 5			0	ms	0	3600000					
On delay time 6			0	ms	0	3600000					
				Project	Responsible department		Technical ref...	Document kind		Doc. designation	
				Alstom Mejillones	ABB Ltd.					AA1J1Q03A1	
				Repla...			Created by	Title		Document id.	
				Alstom Mejillones.Substation.Voltage Level.Bay			Approved by	RER620A Programado RER620A			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format				
On						0	ms	0	3600000					
delay time 7														
On						0	ms	0	3600000					
delay time 8														
TOFGAPC1(TOFGAPC1; TOF(1)): 1														
TOF(1)														
Off						700	ms	0	3600000					
delay time 1														
Off						800	ms	0	3600000					
delay time 2														
Off						700	ms	0	3600000					
delay time 3														
Off						800	ms	0	3600000					
delay time 4														
Off						700	ms	0	3600000					
delay time 5														
Off						800	ms	0	3600000					
delay time 6														
Off						700	ms	0	3600000					
delay time 7														
Off						800	ms	0	3600000					
delay time 8														
PTGAPC1(PTGAPC1; PT(1)): 1														
PT(1)														
Pulse delay time 1						6000	ms	0	3600000					
						7000	ms	0	3600000					
Pulse delay time 2														
Pulse delay time 3						9000	ms	0	3600000					
						10000	ms	0	3600000					
Pulse delay time 4														
Pulse delay time 5						12000	ms	0	3600000					
						13000	ms	0	3600000					
Pulse delay time 6														
Pulse delay time 7						0	ms	0	3600000					
						0	ms	0	3600000					
Pulse delay time 8														
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref...	Document kind		Doc. designation AA1J1Q03A1		
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by	Title RER620A Programado RER620A		Document id.		
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format			
TPSGAPC1(62CLD-1; TPS(1)): 1													
TPS(1)													
Pulse time						0	s	0	300				
TPMGAPC1(62CLD-2; TPM(1)): 1													
TPM(1)													
Pulse time						0	min	0	300				
TPSGAPC2(62CLD-3; TPS(2)): 2													
TPS(2)													
Pulse time						0	s	0	300				
TPMGAPC2(62CLD-4; TPM(2)): 2													
TPM(2)													
Pulse time						0	min	0	300				
TPSGAPC3(62CLD-5; TPS(3)): 3													
TPS(3)													
Pulse time						0	s	0	300				
TPMGAPC3(62CLD-6; TPM(3)): 3													
TPM(3)													
Pulse time						0	min	0	300				
TONGAPC2(TONGAPC2; TON(2)): 2													
TON(2)													
On delay time 1						5000	ms	0	3600000				
On delay time 2						0	ms	0	3600000				

					Project Alstom Mejillones			Responsible department ABB Ltd.		Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay					Created by	Title RER620A Programado RER620A	Document id.			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format				
On						0	ms	0	3600000					
delay time 3														
On						0	ms	0	3600000					
delay time 4														
On						0	ms	0	3600000					
delay time 5														
On						0	ms	0	3600000					
delay time 6														
On						0	ms	0	3600000					
delay time 7														
On						0	ms	0	3600000					
delay time 8														
TOFGAPC2(TOFGAPC2; TOF(2)): 2														
TOF(2)														
Off						1100	ms	0	3600000					
delay time 1														
Off						0	ms	0	3600000					
delay time 2														
Off						0	ms	0	3600000					
delay time 3														
Off						0	ms	0	3600000					
delay time 4														
Off						0	ms	0	3600000					
delay time 5														
Off						0	ms	0	3600000					
delay time 6														
Off						0	ms	0	3600000					
delay time 7														
Off						0	ms	0	3600000					
delay time 8														
PTGAPC2(PTGAPC2; PT(2)): 2														
PT(2)														
Pulse delay time 1						60	ms	0	3600000					
						0	ms	0	3600000					
Pulse delay time 2														
Pulse delay time 3						0	ms	0	3600000					
						0	ms	0	3600000					
Pulse delay time 4														
Pulse delay time 5						0	ms	0	3600000					
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by	Title RER620A Programado RER620A	Document id.			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format			
Pulse delay time 6						0	ms	0	3600000				
Pulse delay time 7						0	ms	0	3600000				
Pulse delay time 8						0	ms	0	3600000				
Analog inputs													
Current (3I,CT)(Current (IA,IB,IC,CT); Current (3I,CT)): 1													
Current (3I,CT)													
Secondary current						1A							
Primary current						600,0	A	1,0	6000,0				
Amplitude corr. A						1,000		0,900	1,100				
Amplitude corr. B						1,000		0,900	1,100				
Amplitude corr. C						1,000		0,900	1,100				
Reverse polarity						False							
Current (Io,CT)(Current (IG,CT); Current (Io,CT)): 1													
Current (Io,CT)													
Secondary current						0.2A							
Primary current						120,0	A	1,0	6000,0				
Amplitude corr.						1,000		0,900	1,100				
Reverse polarity						False							
Voltage (3U,VT)(Voltage (VA,VB,VC,VT); Voltage (3U,VT)): 1													
Voltage (3U,VT)													
					Project	Responsible department		Technical ref...	Document kind	Doc. designation			
					Alstom Mejillones	ABB Ltd.				AA1J1Q03A1			
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Group / Parameter Name				IED Value	PC Value	Unit	Min	Max	Format						
Primary voltage					20,000	kV	0,100	440,000							
VT connection					Delta										
Amplitude corr. A					1,023		0,500	1,500							
Amplitude corr. B					1,030		0,500	1,500							
Amplitude corr. C					1,010		0,500	1,500							
Division ratio					10000		1000	20000							
Voltage input type				CVD sensor											
Voltage (3UB,VT)(Voltage (VA2,VB2,VC2,VT); Voltage (3UB,VT)): 2															
Voltage (3UB,VT)															
Primary voltage					13,200	kV	0,100	440,000							
Secondary voltage					120	V	60	210							
VT connection					Wye										
Amplitude corr. A					1,000		0,500	1,500							
Amplitude corr. B					1,000		0,500	1,500							
Amplitude corr. C					1,000		0,500	1,500							
Voltage input type					Voltage trafo										
Setting group(Setting group; Setting group): 0															
SG operation mode					Logic mode 1										
Control(Control; Control): 0															
General															
LR control					LR key										
Station authority					Not used										
Generic logic															
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1		
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format	
SRGAPC1(SRGA PC1; SR(1)): 1								
SR(1)								
Reset Q1			Cancel					
Reset Q2			Cancel					
Reset Q3			Cancel					
Reset Q4			Cancel					
Reset Q5			Cancel					
Reset Q6			Cancel					
Reset Q7			Cancel					
Reset Q8			Cancel					
SRGAPC2(SRGA PC2; SR(2)): 2								
SR(2)								
Reset Q1			Cancel					
Reset Q2			Cancel					
Reset Q3			Cancel					
Reset Q4			Cancel					
Reset Q5			Cancel					
Reset Q6			Cancel					
Reset Q7			Cancel					
Reset Q8			Cancel					
UDFCNT1(UDFC NT1; UDFCNT1): 1								
UDFCNT1								
Operation			on					
Counter load value			10000		0	2147483647		
Reset counter			Cancel					
				Project	Responsible department	Technical ref...	Document kind	Doc. designation
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Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Cancel						
Load counter						
UDFCNT2(UDFC NT2; UDFCNT2): 2						
UDFCNT2						
Operation		on				
Counter load value		10000		0	2147483647	
Reset counter		Cancel				
Cancel						
Load counter						
UDFCNT3(UDFC NT3; UDFCNT3): 3						
UDFCNT3						
Operation		on				
Counter load value		10000		0	2147483647	
Reset counter		Cancel				
Cancel						
Load counter						
UDFCNT4(UDFC NT4; UDFCNT4): 4						
UDFCNT4						
Operation		on				
Counter load value		10000		0	2147483647	
Reset counter		Cancel				
Cancel						
Load counter						
UDFCNT5(UDFC NT5; UDFCNT5): 5						
UDFCNT5						


  


					Project Alstom Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format			
Operation						on							
Counter load value						10000		0	2147483647				
Reset counter						Cancel							
Load counter						Cancel							
UDFCNT10(UDF CNT10; UDFCNT10): 10													
UDFCNT10													
Operation						on							
Counter load value						1		0	2147483647				
Reset counter						Cancel							
Load counter						Cancel							
SPCGGIO1(SPC GGIO1; SPCGGIO1): 1													
Output 1													
Operation mode						Pulsed							
Pulse length						1000	ms	10	3600000				
Description						SG 1 Enabled			20 character(s)				
Output 2													
Operation mode						Pulsed							
Pulse length						1000	ms	10	3600000				
Description						SG 2 Enabled			20 character(s)				
Output 3													
Operation mode						Pulsed							
Pulse length						1000	ms	10	3600000				
Description						SG 3 Enabled			20 character(s)				
					Project	Responsible department		Technical ref...	Document kind	Doc. designation			
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Group / Parameter Name		IED Value		PC Value		Unit		Min		Max		Format		
Output 4														
Operation mode				Pulsed										
Pulse length				1000		ms		10		3600000				
Description				SG 4 Enabled						20 character(s)				
Output 5														
Operation mode				Pulsed										
Pulse length				1000		ms		10		3600000				
Description				SG 5 Enabled						20 character(s)				
Output 6														
Operation mode				Pulsed										
Pulse length				1000		ms		10		3600000				
Description				SG 6 Enabled						20 character(s)				
Output 7														
Operation mode				Toggle										
Pulse length				1000		ms		10		3600000				
Description				Switch Mode Enabled						20 character(s)				
Output 8														
Operation mode				Pulsed										
Pulse length				1000		ms		10		3600000				
Description				Hot Line Tag ON/OFF						20 character(s)				
Output 9														
Operation mode				Toggle										
Pulse length				1000		ms		10		3600000				
Description				Ground Blocked						20 character(s)				
Output 10														
Operation mode				Toggle										
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1	
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Group / Parameter Name		IED Value		PC Value		Unit		Min		Max		Format			
Pulse length				1000		ms		10		3600000					
Description				Reclose Blocked						20 character(s)					
Output 11															
Operation mode				Pulsed											
Pulse length				1000		ms		10		3600000					
Description				Battery Test						20 character(s)					
Output 12															
Operation mode				Toggle											
Pulse length				1000		ms		10		3600000					
Description				50SEF Blocked						20 character(s)					
Output 13															
Operation mode				Toggle											
Pulse length				1000		ms		10		3600000					
Description				Source 1 Disabled						20 character(s)					
Output 14															
Operation mode				Toggle											
Pulse length				1000		ms		10		3600000					
Description				Source 2 Disabled						20 character(s)					
Output 15															
Operation mode				Pulsed											
Pulse length				1000		ms		10		3600000					
Description				Loop Scheme Reset						20 character(s)					
Output 16															
Operation mode				Pulsed											
Pulse length				1000		ms		10		3600000					
Description				Emergency Open 3P						20 character(s)					
					Project Alstom Mejillones			Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1	
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format			
SPCGGIO2(SPCGGIO2; SPCGGIO2): 2										
Output 1										
Operation mode			Toggle							
Pulse length			1000	ms	10	3600000				
Description			SPCGGIO2 Output 1				20 character(s)			
Output 2										
Operation mode			Toggle							
Pulse length			1000	ms	10	3600000				
Description			SPCGGIO2 Output 2				20 character(s)			
Output 3										
Operation mode			Toggle							
Pulse length			1000	ms	10	3600000				
Description			SPCGGIO2 Output 3				20 character(s)			
Output 4										
Operation mode			Pulsed							
Pulse length			1000	ms	10	3600000				
Description			SPCGGIO2 Output 4				20 character(s)			
Output 5										
Operation mode			Off							
Pulse length			1000	ms	10	3600000				
Description			SPCGGIO2 Output 5				20 character(s)			
Output 6										
Operation mode			Off							
Pulse length			1000	ms	10	3600000				
Description			SPCGGIO2 Output 6				20 character(s)			
					Project		Responsible department			
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format	
Output 7								
Operation mode		Off						
Pulse length			1000	ms	10	3600000		
Description		SPCGGIO2 Output 7					20 character(s)	
Output 8								
Operation mode		Off						
Pulse length			1000	ms	10	3600000		
Description		SPCGGIO2 Output 8					20 character(s)	
Output 9								
Operation mode		Off						
Pulse length			1000	ms	10	3600000		
Description		SPCGGIO2 Output 9					20 character(s)	
Output 10								
Operation mode		Off						
Pulse length			1000	ms	10	3600000		
Description		SPCGGIO2 Output 10					20 character(s)	
Output 11								
Operation mode		Off						
Pulse length			1000	ms	10	3600000		
Description		SPCGGIO2 Output 11					20 character(s)	
Output 12								
Operation mode		Off						
Pulse length			1000	ms	10	3600000		
Description		SPCGGIO2 Output 12					20 character(s)	
Output 13								
Operation mode		Off						

					Project Alstom Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format
Pulse length			1000	ms	10	3600000	
Description			SPCGGIO2 Output 13			20 character(s)	
Output 14							
Operation mode			Off				
Pulse length			1000	ms	10	3600000	
Description			SPCGGIO2 Output 14			20 character(s)	
Output 15							
Operation mode			Off				
Pulse length			1000	ms	10	3600000	
Description			SPCGGIO2 Output 15			20 character(s)	
Output 16							
Operation mode			Off				
Pulse length			1000	ms	10	3600000	
Description			SPCGGIO2 Output 16			20 character(s)	
UPS Settings							
UPS_Settings(UPS_Settings; UPS_Settings): 1							
UPS_Settings							
Aux Mode			Enable				
Aux Voltage			12 V				
Boost Voltage			240		60	250	
CVD clamping							
ZBAT1(ZBAT1; ZBAT1): 1							
CVD clamping			Disable				
UPD Settings							


					Project Alstom Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A Programado RER620A	Document id.			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format		
X115 (UPD)(X115 (UPD); X115 (UPD)): 115												
UPD												
Profile Selection						38kV SCA						
Profile Selection												
Monitoring												
Communication												
Modbus(Modbus; Modbus): 1												
Serial												
Status 1						False						
Received frames 1						-1		-1	2147483646			
Checksum errors 1						-1		-1	2147483646			
Transmitted frames 1						-1		-1	2147483646			
Transmitted exc A 1						-1		-1	2147483646			
Transmitted exc B 1						-1		-1	2147483646			
Status 2						False						
Received frames 2						-1		-1	2147483646			
Checksum errors 2						-1		-1	2147483646			
Transmitted frames 2						-1		-1	2147483646			
Transmitted exc A 2						-1		-1	2147483646			
Transmitted exc B 2						-1		-1	2147483646			
Ethernet												
Status 1						False						
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref... Document kind		Doc. designation AA1J1Q03A1	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format					
Received frames 1						-1		-1	2147483646						
Transmitted frames 1						-1		-1	2147483646						
Transmitted exc A 1						-1		-1	2147483646						
Transmitted exc B 1						-1		-1	2147483646						
Status 2						False									
Received frames 2						-1		-1	2147483646						
Transmitted frames 2						-1		-1	2147483646						
Transmitted exc A 2						-1		-1	2147483646						
Transmitted exc B 2						-1		-1	2147483646						
Status 3						False									
Received frames 3						-1		-1	2147483646						
Transmitted frames 3						-1		-1	2147483646						
Transmitted exc A 3						-1		-1	2147483646						
Transmitted exc B 3						-1		-1	2147483646						
Status 4						False									
Received frames 4						-1		-1	2147483646						
Transmitted frames 4						-1		-1	2147483646						
Transmitted exc A 4						-1		-1	2147483646						
Transmitted exc B 4						-1		-1	2147483646						
					Project	Alstom Mejillones		Responsible department	ABB Ltd.	Technical ref...	Document kind	Doc. designation			
					Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by	Title	Document id.			
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format	
Status 5			False					
Received frames 5			-1		-1	2147483646		
Transmitted frames 5			-1		-1	2147483646		
Transmitted exc A 5			-1		-1	2147483646		
Transmitted exc B 5			-1		-1	2147483646		
CnReject No Sockets			-1		-1	2147483647		
CnReject Unregistered			-1		-1	2147483647		
X000 (COM)(X000 (COM); X000 (COM)): 90								
COM1								
Link status			False					
Characters received			-1		-1	2147483646		
Frames received			-1		-1	2147483646		
Frames discarded			-1		-1	2147483646		
Frames trasmitted			-1		-1	2147483646		
CD lost			-1		-1	2147483646		
Collision			-1		-1	2147483646		
CTS Timeout			-1		-1	2147483646		
Transmission timeout			-1		-1	2147483646		
Parity errors			-1		-1	2147483646		
Overrun errors			-1		-1	2147483646		
Framing errors			-1		-1	2147483646		
COM2								
				Project	Responsible department	Technical ref...	Document kind	Doc. designation
				Alstom Mejillones	ABB Ltd.			AA1J1Q03A1
			Repla...			Created by	Title	Document id.
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				Alstom Mejillones.Substation.Voltage Level.Bay				


Group / Parameter Name				IED Value	PC Value	Unit	Min	Max	Format				
Link status					False								
Characters received					-1		-1	2147483646					
Frames received					-1		-1	2147483646					
Frames discarded					-1		-1	2147483646					
Frames trasmitted					-1		-1	2147483646					
CD lost					-1		-1	2147483646					
Collision					-1		-1	2147483646					
CTS Timeout					-1		-1	2147483646					
Transmission timeout					-1		-1	2147483646					
Parity errors					-1		-1	2147483646					
Overrun errors					-1		-1	2147483646					
Framing errors					-1		-1	2147483646					
MMSGGIO1(MMS; MMSGGIO1): 1													
MMSGGIO1													
Reset counters					False								
Successful conn.					37		0	10000000					
Failed conn.					0		0	10000000					
Concludes					35		0	10000000					
Sent aborts					0		0	10000000					
Recv. aborts					1		0	10000000					
Sent rejects					0		0	10000000					
Recv. requests					2055		0	10000000					
Failed requests					0		0	10000000					
Reads					1019		0	10000000					
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref... Document kind		Doc. designation AA1J1Q03A1		
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by	Title RER620A Programado RER620A		Document id.	
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format							
Failed reads			0		0	10000000								
Writes			3		0	10000000								
Failed writes			0		0	10000000								
Reports			0		0	10000000								
Active conn.			1		0	10000000								
IED status(IED status; IED status): 0														
Self-supervision														
Warning		All ok												
Internal Fault			All ok											
Boot up time			2017-01-28T21:39:30.583Z			34 character(s)								
Composition changes														
No of comp. changes			0		0	100000								
Time synchronization														
Synch status			Bad											
Synch source			Not defined											
Control command														
Control(Control; Control): 0														
Control														
Command response			No commands											
LR state			Remote											
I/O status														
Control														
SDARREC1(79; O->I): 1														
O->I														
Inputs														
					Project		Responsible department		Technical ref...		Document kind		Doc. designation	
					Alstom Mejillones		ABB Ltd.						AA1J1Q03A1	
				Repla...	Alstom				Created by		Title		Document id.	
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format	
INIT_1			False					
INIT_2			False					
INIT_3			False					
INIT_4			False					
INIT_5			False					
INIT_6			False					
DEL_INIT_2			False					
DEL_INIT_3			False					
DEL_INIT_4			False					
BLK_RECL_T			False					
BLK_RCLM_T			False					
BLK_THERM			False					
CB_POS			False					
CB_READY			True					
INC_SHOTP			False					
INHIBIT_RECL			False					
RECL_ON			False					
SYNC			False					
Outputs								
OPEN_CB			False					
CLOSE_CB			False					
CMD_WAIT			False					
INPRO			False					
PROT_CRD			False					
UNSUC_RECL			False					
AR_ON			True					
				Project	Responsible department	Technical ref...	Document kind	Doc. designation
				Alstom Mejillones	ABB Ltd.			AA1J1Q03A1
			Repla...			Created by	Title	Document id.
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				Alstom Mejillones.Substation.Voltage Level.Bay				

Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format	
READY			False					
Monitored data								
DISA_COUNT			False					
FRQ_OPR_CNT			0		0	2147483647		
FRQ_OPR_AL			False					
STATUS			Not defined					
ACTIVE			False					
INPRO_1			False					
INPRO_2			False					
INPRO_3			False					
INPRO_4			False					
INPRO_5			False					
DISCR_INPRO			False					
CUTOUT_INPRO			False					
SUC_RECL			False					
UNSUC_CB			False					
CNT_SHOT1			4		0	2147483647		
CNT_SHOT2			4		0	2147483647		
CNT_SHOT3			4		0	2147483647		
CNT_SHOT4			0		0	2147483647		
CNT_SHOT5			0		0	2147483647		
COUNTER			12		0	2147483647		
SHOT_PTR			1		0	6		
MAN_CB_CL			False					
SOTF			False					


					Project Alstom Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A Programado RER620A	Document id.			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format				
SCBXCBR1(52; I<->O CB): 1														
I<->O CB														
Inputs														
ENA_OPEN_A						True								
ENA_OPEN_B					True									
ENA_OPEN_C						True								
ENA_CLOSE_A					True									
ENA_CLOSE_B						True								
ENA_CLOSE_C					True									
BLK_OPEN_A						False								
BLK_OPEN_B					False									
BLK_OPEN_C						False								
BLK_CLOSE_A					False									
BLK_CLOSE_B						False								
BLK_CLOSE_C					False									
ITL_BYPASS_A						False								
ITL_BYPASS_B					False									
ITL_BYPASS_C						False								
Outputs														
OKPOS_A						True								
OKPOS_B					True									
OKPOS_C						True								
SELECTED					False									
SELECTED_A						False								
SELECTED_B					False									
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref... Document kind		Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by		Title RER620A Programado RER620A		Document id.	
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format	
SELECTED_C			False					
EXE_OP_3P			False					
EXE_OP_A			False					
EXE_OP_B			False					
EXE_OP_C			False					
EXE_CL_3P			False					
EXE_CL_A			False					
EXE_CL_B			False					
EXE_CL_C			False					
OPENPOS_A			True					
OPENPOS_B			True					
OPENPOS_C			True					
CLOSEPOS_A			False					
CLOSEPOS_B			False					
CLOSEPOS_C			False					
OPEN_ENAD			True					
OPEN_ENAD_A			True					
OPEN_ENAD_B			True					
OPEN_ENAD_C			True					
CLOSE_ENAD			True					
CLOSE_ENAD_A			True					
CLOSE_ENAD_B			True					
CLOSE_ENAD_C			True					
Monitored data								
POS_3P			open					
				Project	Responsible department	Technical ref...	Document kind	Doc. designation
				Alstom Mejillones	ABB Ltd.			AA1J1Q03A1
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
POS_A						open				
POS_B						open				
POS_C						open				
SECRSYN1(25; SYNC): 1										
SYNC										
Inputs										
BLOCK						False				
CL_COMMAND						False				
BYPASS						False				
Outputs										
SYNC_INPRO						False				
SYNC_OK						False				
CL_FAIL_AL						False				
CMD_FAIL_AL						False				
LLDB						False				
LLLB						False				
DLLB						False				
DLDB						False				
Monitored data										
ENERG_STATE						Unknown				
U_DIFF_MEAS						0,00	xUn	0,00	1,00	
FR_DIFF_MEAS						0,000	xFn	0,000	0,100	
PH_DIFF_MEAS						0,00	deg	0,00	180,00	
U_DIFF_SYNC						False				
PH_DIF_SYNC						False				
					Project		Responsible department		Technical ref...	
					Alstom Mejillones		ABB Ltd.		Document kind	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format			
FR_DIFF_SYNC						False							
SDAIGGIO1(79-I N1; O->I (IN1)): 1													
O->I (IN1)													
Inputs													
TRIP_IN_A						False							
TRIP_IN_B						False							
TRIP_IN_C						False							
TRIP_IN_3P						False							
TRIP_IN_N						False							
PU_IN_A						False							
PU_IN_B						False							
PU_IN_C						False							
Outputs													
ACTIVE_A						False							
ACTIVE_B						False							
ACTIVE_C						False							
ACTIVE_3P						False							
TRIP_OUT						False							
SDAIGGIO2(79-I N2; O->I (IN2)): 1													
O->I (IN2)													
Inputs													
TRIP_IN_A						False							
TRIP_IN_B						False							
TRIP_IN_C						False							
TRIP_IN_3P						False							
					Project	Responsible department		Technical ref...	Document kind	Doc. designation			
					Alstom Mejillones	ABB Ltd.				AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay			Created by	Title RER620A Programado RER620A	Document id.			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format		
TRIP_IN_N						False						
PU_IN_A						False						
PU_IN_B						False						
PU_IN_C						False						
Outputs												
ACTIVE_A						False						
ACTIVE_B						False						
ACTIVE_C						False						
ACTIVE_3P						False						
TRIP_OUT						False						
SDAIGGIO3(79-I N3; O->I (IN3)): 1												
O->I (IN3)												
Inputs												
TRIP_IN_A						False						
TRIP_IN_B						False						
TRIP_IN_C						False						
TRIP_IN_3P						False						
TRIP_IN_N						False						
PU_IN_A						False						
PU_IN_B						False						
PU_IN_C						False						
Outputs												
ACTIVE_A						False						
ACTIVE_B						False						
ACTIVE_C						False						
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref... Document kind		Doc. designation AA1J1Q03A1	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by Title		Document id.	
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Group / Parameter Name		IED Value		PC Value		Unit		Min		Max		Format		
ACTIVE_3P				False										
TRIP_OUT				False										
SDAIGGIO4(79-IN4; O->I (IN4)): 1														
O->I (IN4)														
Inputs														
TRIP_IN_A				False										
TRIP_IN_B				False										
TRIP_IN_C				False										
TRIP_IN_3P				False										
TRIP_IN_N				False										
PU_IN_A				False										
PU_IN_B				False										
PU_IN_C				False										
Outputs														
ACTIVE_A				False										
ACTIVE_B				False										
ACTIVE_C				False										
ACTIVE_3P				False										
TRIP_OUT				False										
SDAIGGIO5(79-IN5; O->I (IN5)): 1														
O->I (IN5)														
Inputs														
TRIP_IN_A				False										
TRIP_IN_B				False										
TRIP_IN_C				False										
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1	
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Group / Parameter Name		IED Value		PC Value		Unit		Min		Max		Format	
TRIP_IN_3P				False									
TRIP_IN_N				False									
PU_IN_A				False									
PU_IN_B				False									
PU_IN_C				False									
Outputs													
ACTIVE_A				False									
ACTIVE_B				False									
ACTIVE_C				False									
ACTIVE_3P				False									
TRIP_OUT				False									
SDAIGGIO6(79-I N6; O->I (IN6)): 1													
O->I (IN6)													
Inputs													
TRIP_IN_A				False									
TRIP_IN_B				False									
TRIP_IN_C				False									
TRIP_IN_3P				False									
TRIP_IN_N				False									
PU_IN_A				False									
PU_IN_B				False									
PU_IN_C				False									
Outputs													
ACTIVE_A				False									
ACTIVE_B				False									


					Project Alstom Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A Programado RER620A	Document id.			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format						
ACTIVE_C						False										
ACTIVE_3P						False										
TRIP_OUT						False										
SDAOGGIO1(79-OUT; O->I): 1																
O->I																
Inputs																
ACTIVE_PHA						False										
ACTIVE_PHB						False										
ACTIVE_PHC						False										
ACTIVE_PH3P						True										
CB_POS_A						True										
CB_POS_B						True										
CB_POS_C						True										
CB_POS_3P						True										
RECLOSE_IN						False										
OPEN_IN						False										
LO_IN						False										
IN_PRG_IN						False										
Outputs																
OPEN_CB_A						False										
CLOSE_CB_A						False										
LOCKED_A						False										
OPEN_CB_B						False										
CLOSE_CB_B						False										
LOCKED_B						False										
					Project Alstom Mejillones			Responsible department ABB Ltd.		Technical ref...	Document kind		Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay					Created by	Title RER620A Programado RER620A		Document id.			
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format
OPEN_CB_C			False				
CLOSE_CB_C			False				
LOCKED_C			False				
OPEN_CB_3P			False				
CLOSE_CB_3P			False				
LOCKOUT			True				
AR_CB_POS			False				
Condition monitoring							
SEQRFUF1(60; FUSEF): 1							
FUSEF							
Inputs							
BLOCK			False				
CB_CLOSED			False				
DISCON_OPEN			False				
MINCB_OPEN			False				
Outputs							
FUSEF_3PH			False				
FUSEF_U			False				
SPSCBR1(52CM; CBCM): 1							
CBCM							
Inputs							
BLOCK			False				
POSOPEN_A			True				
POSOPEN_B			True				
POSOPEN_C			True				
				Project	Responsible department	Technical ref...	Document kind
				Alstom Mejillones	ABB Ltd.		Doc. designation
				Repla...		Created by	Title
				Alstom		Approved by	RER620A
Re v.	Modification	Rel. date	Created by	Based on			Programado RER620A
				Mejillones.Substation.Voltage Level.Bay			Document id.
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							0
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							en
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Group / Parameter Name		IED Value		PC Value		Unit	Min	Max	Format	
POSCLOSE_A				False						
POSCLOSE_B				False						
POSCLOSE_C				False						
PRES_ALM_IN				False						
PRES_LO_IN				False						
SPR_CHR_ST				False						
SPR_CHR				False						
RST_IPOW				False						
RST_CB_WEAR				False						
RST_TRV_T				False						
RST_SPR_T				False						
Outputs										
				False						
TRV_T_OP_ALM										
TRV_T_CL_ALM				False						
				False						
SPR_CHR_ALM										
OPR_ALM				False						
OPR_LO				False						
IPOW_ALM				False						
IPOW_LO				False						
CB_LIFE_ALM				False						
MON_ALM				False						
PRES_ALM				False						
PRES_LO				False						
OPENPOS_A				True						
OPENPOS_B				True						

					Project Alstom Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A Programado RER620A	Document id.			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format					
OPENPOS_C						True									
INVALIDPOS_A						False									
INVALIDPOS_B						False									
INVALIDPOS_C						False									
CLOSEPOS_A						False									
CLOSEPOS_B						False									
CLOSEPOS_C						False									
Monitored data															
T_TRV_OP_A						10	ms	0	60000						
T_TRV_OP_B						10	ms	0	60000						
T_TRV_OP_C						10	ms	0	60000						
T_TRV_CL_A						10	ms	0	60000						
T_TRV_CL_B						10	ms	0	60000						
T_TRV_CL_C						10	ms	0	60000						
T_SPR_CHR						0,00	s	0,00	99,99						
NO_OPR_A						45		0	99999						
NO_OPR_B						45		0	99999						
NO_OPR_C						45		0	99999						
INA_DAYS_A						0	d	0	9999						
INA_DAYS_B						0	d	0	9999						
INA_DAYS_C						0	d	0	9999						
CB_LIFE_A						4955		-9999	9999						
CB_LIFE_B						4955		-9999	9999						
CB_LIFE_C						4955		-9999	9999						
IPOW_A						0,000		0,000	30000,000						
IPOW_B						0,000		0,000	30000,000						
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1		
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by		Title RER620A Programado RER620A		Document id.		
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format				
IPOW_C						0,000		0,000	30000,000					
Current protection														
INRP HAR1(INR; 3I2f>): 1														
3I2f>														
Inputs														
BLOCK						False								
Outputs														
BLK2H						False								
SPHLPTOC1(51P ; 3I>(1)): 1														
3I>(1)														
Inputs														
BLOCK						True								
ENA_MULT						False								
Outputs														
OPERATE						False								
OPERATE_A						False								
OPERATE_B						False								
OPERATE_C						False								
START						False								
START_A						False								
START_B						False								
START_C						False								
Monitored data														
START_DUR						0,00	%	0,00	100,00					
SPHLPTOC2(50P -1; 3I>(2)): 2														
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref... Document kind		Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by		Title RER620A Programado RER620A		Document id.	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format				
3I>(2)														
Inputs														
BLOCK						True								
ENA_MULT						False								
Outputs														
OPERATE						False								
OPERATE_A						False								
OPERATE_B						False								
OPERATE_C						False								
START						False								
START_A						False								
START_B						False								
START_C						False								
Monitored data														
START_DUR						0,00	%	0,00	100,00					
SPHHPTOC1(50 P-2; 3I>>(1)): 1														
3I>>(1)														
Inputs														
BLOCK						True								
ENA_MULT						False								
Outputs														
OPERATE						False								
OPERATE_A						False								
OPERATE_B						False								
OPERATE_C						False								
					Project	Alstom Mejillones		Responsible department	Technical ref...	Document kind	Doc. designation			
				Repla...				ABB Ltd.			AA1J1Q03A1			
									Created by	Title	Document id.			
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format
START			False				
START_A			False				
START_B			False				
START_C			False				
Monitored data							
START_DUR			0,00	%	0,00	100,00	
SPHIPTOC1(50P-3; 3I>>>(1)): 1							
3I>>>(1)							
Inputs							
BLOCK			False				
ENA_MULT			False				
Outputs							
OPERATE			False				
OPERATE_A			False				
OPERATE_B			False				
OPERATE_C			False				
START			False				
START_A			False				
START_B			False				
START_C			False				
Monitored data							
START_DUR			0,00	%	0,00	100,00	
XEFLPTOC2(51N; lo>(2)): 2							
lo>(2)							
Inputs							

					Project Alstom Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A Programado RER620A	Document id.			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
BLOCK					True					
ENA_MULT						False				
Outputs										
OPERATE						False				
START					False					
Monitored data										
START_DUR						0,00	%	0,00	100,00	
XEFLPTOC3(50N-1; lo>(3)): 3										
lo>(3)										
Inputs										
BLOCK					True					
ENA_MULT						False				
Outputs										
OPERATE						False				
START					False					
Monitored data										
START_DUR						0,00	%	0,00	100,00	
XEFHPTOC3(50N-2; lo>>(3)): 3										
lo>>(3)										
Inputs										
BLOCK					True					
ENA_MULT						False				
Outputs										
OPERATE						False				
START					False					
					Project	Alstom Mejillones				Responsible department
										ABB Ltd.
					Repla...					Technical ref...
										Document kind
										Doc. designation
										AA1J1Q03A1
										Created by
										Title
										RER620A
										Programado
										RER620A
										Document id.
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										0
										Rel. date
										09/06/2017
										Lan
										en
										72 / 235

Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format				
Monitored data														
START_DUR						0,00	%	0,00	100,00					
XEFIPTOC2(50N-3; Io>>>): 2														
Io>>>														
Inputs														
BLOCK						True								
ENA_MULT						False								
Outputs														
OPERATE						False								
START						False								
Monitored data														
START_DUR						0,00	%	0,00	100,00					
XNSPTOC1(46-1; I2>(1)): 1														
I2>(1)														
Inputs														
BLOCK						True								
ENA_MULT						False								
Outputs														
OPERATE						False								
START						False								
Monitored data														
START_DUR						0,00	%	0,00	100,00					
XNSPTOC2(46-2; I2>(2)): 2														
I2>(2)														
Inputs														
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref... Document kind		Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by Approved by		Title RER620A Programado RER620A		Document id.	
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format	
BLOCK			True					
ENA_MULT			False					
Outputs								
OPERATE			False					
START			False					
Monitored data								
START_DUR			0,00	%	0,00	100,00		
PDNSPTOC1(46 PD; I2/I1>): 1								
I2/I1>								
Inputs								
BLOCK			True					
Outputs								
OPERATE			False					
START			False					
Monitored data								
START_DUR			0,00	%	0,00	100,00		
RATIO_I2_I1			0,00	%	0,00	999,99		
SDPHLPDOC1(6 7/51P-1; 3I>->(1)): 1								
3I>->(1)								
Inputs								
BLOCK			True					
ENA_MULT			False					
NON_DIR			False					
Outputs								
OPERATE			False					
				Project	Responsible department	Technical ref...	Document kind	Doc. designation
				Alstom Mejillones	ABB Ltd.			AA1J1Q03A1
			Repla...			Created by	Title	Document id.
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				Alstom Mejillones.Substation.Voltage Level.Bay				

Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format			
START						False							
OPERATE_A						False							
OPERATE_B						False							
OPERATE_C						False							
START_A						False							
START_B						False							
START_C						False							
Monitored data													
START_DUR						0,00	%	0,00	100,00				
FAULT_DIR						unknown							
DIRECTION						unknown							
DIR_A						unknown							
DIR_B						unknown							
DIR_C						unknown							
ANGLE_A						0,00	deg	-180,00	180,00				
ANGLE_B						0,00	deg	-180,00	180,00				
ANGLE_C						0,00	deg	-180,00	180,00				
SDPHLPDOC2(67/51P-2;3I>->(2)): 2													
3I>->(2)													
Inputs													
BLOCK						True							
ENA_MULT						False							
NON_DIR						False							
Outputs													
OPERATE						False							
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref... Document kind		Doc. designation AA1J1Q03A1		
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by	Title RER620A Programado RER620A		Document id.	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format				
START						False								
OPERATE_A						False								
OPERATE_B						False								
OPERATE_C						False								
START_A						False								
START_B						False								
START_C						False								
Monitored data														
START_DUR						0,00	%	0,00	100,00					
FAULT_DIR						unknown								
DIRECTION						unknown								
DIR_A						unknown								
DIR_B						unknown								
DIR_C						unknown								
ANGLE_A						0,00	deg	-180,00	180,00					
ANGLE_B						0,00	deg	-180,00	180,00					
ANGLE_C						0,00	deg	-180,00	180,00					
XDEFLPDEF1(67 /51N-1; lo>->(1)): 1														
lo>->(1)														
Inputs														
BLOCK						True								
ENA_MULT						False								
RCA_CTL						False								
Outputs														
OPERATE						False								


					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by		Title RER620A Programado RER620A		Document id.			
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Group / Parameter Name			IED Value		PC Value		Unit		Min		Max		Format		
START					False										
Monitored data															
FAULT_DIR					unknown										
START_DUR					0,00		%		0,00		100,00				
DIRECTION					unknown										
ANGLE_RCA					0,00		deg		-180,00		180,00				
ANGLE					0,00		deg		-180,00		180,00				
I_OPER					0,00				0,00		40,00				
XDEFLPDEF2(67 /51N-2; Io>->(2)): 2															
Io>->(2)															
Inputs															
BLOCK					True										
ENA_MULT					False										
RCA_CTL					False										
Outputs															
OPERATE					False										
START					False										
Monitored data															
FAULT_DIR					unknown										
START_DUR					0,00		%		0,00		100,00				
DIRECTION					unknown										
ANGLE_RCA					0,00		deg		-180,00		180,00				
ANGLE					0,00		deg		-180,00		180,00				
I_OPER					0,00				0,00		40,00				
EFLPTOC3(50SE F; Io>(3)): 3															
					Project Alstom Mejillones			Responsible department ABB Ltd.		Technical ref...	Document kind		Doc. designation AA1J1Q03A1		
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay					Created by	Title RER620A Programado RER620A		Document id.		
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Group / Parameter Name		IED Value		PC Value		Unit		Min		Max		Format	
Io>(3)													
Inputs													
BLOCK				True									
ENA_MULT				False									
Outputs													
OPERATE				False									
START				False									
Monitored data													
START_DUR				0,00		%		0,00		100,00			
Voltage protection													
ROVPTOV1(59N-1; Uo>(1)): 1													
Uo>(1)													
Inputs													
BLOCK				False									
Outputs													
OPERATE				False									
START				False									
Monitored data													
START_DUR				0,00		%		0,00		100,00			
ROVPTOV2(59N-2; Uo>(2)): 2													
Uo>(2)													
Inputs													
BLOCK				False									
Outputs													
OPERATE				False									
START				False									
Monitored data													
START_DUR				0,00		%		0,00		100,00			
ROVPTOV2(59N-2; Uo>(2)): 2													
Uo>(2)													
Inputs													
BLOCK				False									
Outputs													
OPERATE				False									

					Project Alstom Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A Programado RER620A	Document id.			
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Group / Parameter Name		IED Value		PC Value		Unit		Min		Max		Format		
START				False										
Monitored data														
START_DUR				0,00		%		0,00		100,00				
PSPTOV1(59PS-1; U1>(1)): 1														
U1>(1)														
Inputs														
BLOCK				False										
Outputs														
OPERATE				False										
START				False										
Monitored data														
START_DUR				0,00		%		0,00		100,00				
PSPTOV2(59PS-2; U1>(2)): 2														
U1>(2)														
Inputs														
BLOCK				False										
Outputs														
OPERATE				False										
START				False										
Monitored data														
START_DUR				0,00		%		0,00		100,00				
NSPTOV1(47-1; U2>(1)): 1														
U2>(1)														
Inputs														
BLOCK				False										
					Project		Responsible department		Technical ref...		Document kind		Doc. designation	
					Alstom Mejillones		ABB Ltd.						AA1J1Q03A1	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by	Title		Document id.		
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0												0	09/06/2017	en

Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
Outputs										
OPERATE						False				
START						False				
Monitored data										
START_DUR						0,00	%	0,00	100,00	
NSPTOV2(47-2; U2>(2)): 2										
U2>(2)										
Inputs										
BLOCK						False				
Outputs										
OPERATE						False				
START						False				
Monitored data										
START_DUR						0,00	%	0,00	100,00	
SPHPTOV1(59-1; 3U>(1)): 1										
3U>(1)										
Inputs										
BLOCK						False				
Outputs										
OPERATE						False				
OPR_A_AB						False				
OPR_B_BC						False				
OPR_C_CA						False				
START						False				
ST_A_AB						False				
					Project		Responsible department		Technical ref...	
					Alstom Mejillones		ABB Ltd.		Document kind	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by	
Re v.	Modification	Rel. date	Created by	Based on					Title	
									RER620A Programado RER620A	
									Document id.	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format				
ST_B_BC						False								
ST_C_CA						False								
Monitored data														
START_DUR						0,00	%	0,00	100,00					
SPHPTOV2(59-2; 3U>(2)): 2														
3U>(2)														
Inputs														
BLOCK						False								
Outputs														
OPERATE						False								
OPR_A_AB						False								
OPR_B_BC						False								
OPR_C_CA						False								
START						False								
ST_A_AB						False								
ST_B_BC						False								
ST_C_CA						False								
Monitored data														
START_DUR						0,00	%	0,00	100,00					
SPHPTOV3(59-3; 3U>(3)): 3														
3U>(3)														
Inputs														
BLOCK						False								
Outputs														
OPERATE						False								
					Project		Responsible department		Technical ref...		Document kind		Doc. designation	
					Alstom Mejillones		ABB Ltd.						AA1J1Q03A1	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by	Title		Document id.		
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format							
OPR_A_AB			False											
OPR_B_BC			False											
OPR_C_CA			False											
START			False											
ST_A_AB			False											
ST_B_BC			False											
ST_C_CA			False											
Monitored data														
START_DUR			0,00	%	0,00	100,00								
SPHPTUV1(27-1; 3U<(1)): 1														
3U<(1)														
Inputs														
BLOCK			False											
Outputs														
OPERATE			False											
OPR_A_AB			False											
OPR_B_BC			False											
OPR_C_CA			False											
START			False											
ST_A_AB			False											
ST_B_BC			False											
ST_C_CA			False											
Monitored data														
START_DUR			0,00	%	0,00	100,00								
SPHPTUV2(27-2; 3U<(2)): 2														
					Project		Responsible department		Technical ref...		Document kind		Doc. designation	
					Alstom Mejillones		ABB Ltd.						AA1J1Q03A1	
					Alstom				Created by		Title		Document id.	
					Mejillones.Substation.Voltage Level.Bay				Approved by		RER620A Programado RER620A			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
3U<(2)										
Inputs										
BLOCK						False				
Outputs										
OPERATE						False				
OPR_A_AB						False				
OPR_B_BC						False				
OPR_C_CA						False				
START						False				
ST_A_AB						False				
ST_B_BC						False				
ST_C_CA						False				
Monitored data										
START_DUR						0,00	%	0,00	100,00	
SPHPTUV3(27-3; 3U<(3)): 3										
3U<(3)										
Inputs										
BLOCK						False				
Outputs										
OPERATE						False				
OPR_A_AB						False				
OPR_B_BC						False				
OPR_C_CA						False				
START						False				
ST_A_AB						False				
					Project					
					Alstom Mejillones		Responsible department		Document kind	
							ABB Ltd.			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by		Title	
							Approved by		RER620A Programado RER620A	
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format							
ST_B_BC			False											
ST_C_CA			False											
Monitored data														
START_DUR			0,00	%	0,00	100,00								
Frequency protection														
FRPFRQ1(81-1; f>/f<,df/dt(1)): 1														
f>/f<,df/dt(1)														
Inputs														
BLOCK			False											
Outputs														
OPERATE			False											
OPR_OFRQ			False											
OPR_UFRQ			False											
OPR_FRG			False											
START			False											
ST_OFRQ			False											
ST_UFRQ			False											
ST_FRG			False											
Monitored data														
START_DUR			0,00	%	0,00	100,00								
ST_DUR_OFRQ			0,00	%	0,00	100,00								
ST_DUR_UFRQ			0,00	%	0,00	100,00								
ST_DUR_FRG			0,00	%	0,00	100,00								
FRPFRQ2(81-2; f>/f<,df/dt(2)): 2														
f>/f<,df/dt(2)														
					Project		Responsible department		Technical ref...		Document kind		Doc. designation	
					Alstom Mejillones		ABB Ltd.						AA1J1Q03A1	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by		Title		Document id.	
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format	
Inputs								
BLOCK			False					
Outputs								
OPERATE			False					
OPR_OFRQ			False					
OPR_UFRQ			False					
OPR_FRG			False					
START			False					
ST_OFRQ			False					
ST_UFRQ			False					
ST_FRG			False					
Monitored data								
START_DUR			0,00	%	0,00	100,00		
ST_DUR_OFRQ			0,00	%	0,00	100,00		
ST_DUR_UFRQ			0,00	%	0,00	100,00		
ST_DUR_FRG			0,00	%	0,00	100,00		
LSHDPFRQ1(81 S-1; UFLS/R(1)): 1								
UFLS/R(1)								
Inputs								
BLOCK			False					
BLK_REST			False					
MAN_RESTORE			False					
Outputs								
OPERATE			False					
OPR_FRQ			False					
				Project	Responsible department	Technical ref...	Document kind	Doc. designation
				Alstom Mejillones	ABB Ltd.			AA1J1Q03A1
			Repla...			Created by	Title	Document id.
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				Alstom Mejillones.Substation.Voltage Level.Bay				

Group / Parameter Name		IED Value		PC Value		Unit		Min		Max		Format		
OPR_FRG				False										
START				False										
ST_FRQ				False										
ST_FRG				False										
RESTORE				False										
ST_REST				False										
Monitored data														
START_DUR				0,00		%		0,00		100,00				
LSHDPFRQ2(81 S-2; UFLS/R(2)): 2														
UFLS/R(2)														
Inputs														
BLOCK				False										
BLK_REST				False										
MAN_RESTORE				False										
Outputs														
OPERATE				False										
OPR_FRQ				False										
OPR_FRG				False										
START				False										
ST_FRQ				False										
ST_FRG				False										
RESTORE				False										
ST_REST				False										
Monitored data														
START_DUR				0,00		%		0,00		100,00				
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by		Title RER620A Programado RER620A		Document id.	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format			
Other protection													
SCCBRBRF1(50 BFT; 3I>/Io>BF): 1													
3I>/Io>BF													
Inputs													
BLOCK						False							
START						False							
START_A						False							
START_B						False							
START_C						False							
POSCLOSE_A						False							
POSCLOSE_B						False							
POSCLOSE_C						False							
CB_FAULT						False							
Outputs													
CB_FAULT_AL						False							
TRBU						False							
TRBU_A						False							
TRBU_B						False							
TRBU_C						False							
TRRET						False							
TRRET_A						False							
TRRET_B						False							
TRRET_C						False							
SCCBRBCF1(50 BFC; SCCBRBCF1): 1													
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref... Document kind		Doc. designation AA1J1Q03A1		
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by Title		Document id.		
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format							
SCCBRBCF1														
Inputs														
BLOCK			False											
START			False											
START_A			False											
START_B			False											
START_C			False											
POSCLOSE_A			False											
POSCLOSE_B			False											
POSCLOSE_C			False											
CB_FAULT			False											
Outputs														
CLS_RET			False											
CLS_RET_A			False											
CLS_RET_B			False											
CLS_RET_C			False											
PHIZ1(HIZ; PHIZ1): 1														
PHIZ1														
Inputs														
BLOCK			False											
Outputs														
OPERATE			False											
Monitored data														
Position			intermediate											
DPSRDIR1(32P; DPSRDIR1): 1														
					Project		Responsible department		Technical ref...		Document kind		Doc. designation	
					Alstom Mejillones		ABB Ltd.						AA1J1Q03A1	
				Repla...	Alstom				Created by		Title		Document id.	
					Mejillones.Substation.Voltage Level.Bay				Approved by		RER620A Programado RER620A			
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Group / Parameter Name		IED Value		PC Value		Unit		Min		Max		Format		
DPSRDIR1														
Inputs														
				False										
BLOCK														
Outputs														
				False										
RELEASE														
DIRECTION				unknown										
Monitored data														
ANGLE_RCA				0,00		deg		-180,00		180,00				
DNZSRDIR1(32N ; DNZSRDIR1): 1														
DNZSRDIR1														
Inputs														
BLOCK				False										
				False										
RCA_CTL														
Outputs														
				False										
RELEASE														
DIRECTION				unknown										
Monitored data														
ANGLE_RCA				0,00		deg		-180,00		180,00				
DRFLO1(FLO; DRFLO1): 1														
DRFLO1														
Monitored data														
FLT_DIST				3000,00				0,00		9999,00				
				No fault										
FLT_LOOP														
FLT_R				999,00		ohm		0,00		999,00				
				999,00		ohm		0,00		9999,00				
XF_LOOP														
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by		Title RER620A Programado RER620A		Document id.	
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format
TIME_FLT_LOC			2008-01-01T00:00:00.0Z			34 character(s)	
DLCM1(LCM; LCM): 1							
LCM							
Inputs							
S1_EN_IN			False				
S2_EN_IN			False				
RESET_IN			False				
BLOCK			False				
Outputs							
LCM_TRIP			False				
SET_GROUP_CHANGE			False				
LCM_CLOSE			False				
S1_STATUS			False				
S2_STATUS			False				
SWOTF			False				
S1_DISABLED			False				
S2_DISABLED			False				
RESET_OUT			False				
Binary input values							
X120 (AIM)(X120 (AIM); X120 (AIM)): 120							
X120 (AIM)							
X120-Input 1			False				
X120-Input 2			False				
X120-Input 3			False				
				Project	Responsible department	Technical ref...	Document kind
				Alstom Mejillones	ABB Ltd.		Doc. designation
				Repla...		Created by	Title
				Alstom Mejillones.Substation.Voltage Level.Bay		Approved by	Document id.
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
X120-Input 4						False				
X110 (BIO)(X110 (BIO); X110 (BIO)): 110										
Binary input values										
X110 (BIO)										
X110-Input 1						False				
X110-Input 2						False				
X110-Input 3						False				
X110-Input 4						False				
X110-Input 5						False				
X110-Input 6						False				
X110-Input 7						False				
X110-Input 8						False				
X105 (BIO)(X105 (BIO); X105 (BIO)): 105										
Binary input values										
X105 (BIO)										
X105-Input 1						False				
X105-Input 2						False				
X105-Input 3						False				
X105-Input 4						False				
X105-Input 5						False				
X105-Input 6						False				
X105-Input 7						False				
X105-Input 8						False				


					Project	Responsible department	Technical ref...	Document kind	Doc. designation			
					Alstom Mejillones	ABB Ltd.			AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A Programado RER620A	Document id.			
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format			
X115 (UPD)(X115 (UPD); X115 (UPD)): 115										
Binary input values										
X115 (UPD)										
X115-Input 1			True							
X115-Input 2			True							
X115-Input 3			True							
X115-Input 4			False							
X115-Input 5			False							
X115-Input 6			False							
Binary output values										
X110 (BIO)(X110 (BIO); X110 (BIO)): 110										
Binary output values										
X110 (BIO)										
X110-SO1			False							
X110-SO2			False							
X110-SO3			False							
X110-SO4			False							
X105 (BIO)(X105 (BIO); X105 (BIO)): 105										
Binary output values										
X105 (BIO)										
X105-SO1			False							
X105-SO2			False							
X105-SO3			False							
				Project	Responsible department	Technical ref...	Document kind	Doc. designation		
				Alstom Mejillones	ABB Ltd.			AA1J1Q03A1		
			Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title	Document id.		
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format		
X105-SO4			False						
X100 (PSM)									
X100-PO1			False						
X100-PO2			False						
X100-SO1			False						
X100-SO2			False						
X100-PO3			False						
X100-PO4			False						
Communication									
GSEGGIO1(GOOSE; GSE): 1									
GSE									
Outputs									
ALARM			False						
Monitoring									
Reset counters			False						
Received msgs			0		0	10000000			
Transmitted msgs			0		0	10000000			
State changes			0		0	10000000			
SeqNum changes			0		0	10000000			
Test msgs			0		0	10000000			
State errors			0		0	10000000			
Sequence errors			0		0	10000000			
Recv. timeouts			0		0	10000000			
				Project	Responsible department	Technical ref...	Document kind	Doc. designation	
				Alstom Mejillones	ABB Ltd.			AA1J1Q03A1	
			Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title	Document id.	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
ConfRev errors						0		0	10000000	
NdsComm errors						0		0	10000000	
Dataset errors						0		0	10000000	
Measurements										
CMMXU1(IA,IB,IC; 3I): 1										
3I										
Inputs										
BLOCK						False				
Outputs										
HIGH_ALARM						False				
HIGH_WARN						False				
LOW_WARN						False				
LOW_ALARM						False				
Monitored data										
I_INST_A						0,00	xIn	0,00	40,00	
I_DB_A						0,00	xIn	0,00	40,00	
I_DMD_A						0,00	xIn	0,00	40,00	
I_RANGE_A						normal				
I_INST_B						0,00	xIn	0,00	40,00	
I_DB_B						0,00	xIn	0,00	40,00	
I_DMD_B						0,00	xIn	0,00	40,00	
I_RANGE_B						normal				
I_INST_C						0,00	xIn	0,00	40,00	
I_DB_C						0,00	xIn	0,00	40,00	
I_DMD_C						0,00	xIn	0,00	40,00	
					Project	Alstom Mejillones		Responsible department	Technical ref...	Document kind
								ABB Ltd.		Doc. designation
				Repla...					Created by	Title
					Alstom					RER620A
					Mejillones.Substation.Voltage				Approved by	Programado
					Level.Bay					RER620A
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format	
I_RANGE_C		normal						
RESCMMXU1(IG; Io): 1								
Io								
Inputs								
BLOCK		False						
Outputs								
HIGH_ALARM		False						
HIGH_WARN			False					
Monitored data								
I_INST_RES			0,00	xIn	0,00	40,00		
I_DB_RES			0,00	xIn	0,00	40,00		
I_RANGE_RES			normal					
VMMXU1(VA,VB, VC; 3U): 1								
3U								
Inputs								
BLOCK			False					
Outputs								
HIGH_ALARM			False					
HIGH_WARN			False					
LOW_WARN			False					
LOW_ALARM			False					
Monitored data								
U_INST_AB			0,00	xUn	0,00	4,00		
U_DB_AB			0,00	xUn	0,00	4,00		
U_RANGE_AB			normal					
U_INST_BC			0,00	xUn	0,00	4,00		
				Project	Responsible department	Technical ref...	Document kind	Doc. designation
				Alstom Mejillones	ABB Ltd.			AA1J1Q03A1
			Repla...			Created by	Title	Document id.
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format				
U_DB_BC						0,00	xUn	0,00	4,00					
U_RANGE_BC						normal								
U_INST_CA						0,00	xUn	0,00	4,00					
U_DB_CA						0,00	xUn	0,00	4,00					
U_RANGE_CA						normal								
U_INST_A						0,00	xUn	0,00	5,00					
U_INST_B						0,00	xUn	0,00	5,00					
U_INST_C						0,00	xUn	0,00	5,00					
VMMXU2(VA,VB, VC(2); 3U(B)): 2														
3U(B)														
Inputs														
BLOCK						False								
Outputs														
HIGH_ALARM						False								
HIGH_WARN						False								
LOW_WARN						False								
LOW_ALARM						False								
Monitored data														
U_INST_AB						0,00	xUn	0,00	4,00					
U_DB_AB						0,00	xUn	0,00	4,00					
U_RANGE_AB						normal								
U_INST_BC						0,00	xUn	0,00	4,00					
U_DB_BC						0,00	xUn	0,00	4,00					
U_RANGE_BC						normal								
U_INST_CA						0,00	xUn	0,00	4,00					
					Project Alstom Mejillones			Responsible department ABB Ltd.		Technical ref...	Document kind		Doc. designation AA1J1Q03A1	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay					Created by	Title RER620A Programado RER620A		Document id.	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format			
U_DB_CA						0,00	xUn	0,00	4,00				
U_RANGE_CA						normal							
U_INST_A						0,00	xUn	0,00	5,00				
U_INST_B						0,00	xUn	0,00	5,00				
U_INST_C						0,00	xUn	0,00	5,00				
CSMSQI1(I1,I2,I0 ; I1,I2,I0): 1													
I1,I2,I0													
Monitored data													
I2_INST						0,00	xIn	0,00	40,00				
I2_DB						0,00	xIn	0,00	40,00				
I2_RANGE						normal							
I1_INST						0,00	xIn	0,00	40,00				
I1_DB						0,00	xIn	0,00	40,00				
I1_RANGE						normal							
I0_INST						0,00	xIn	0,00	40,00				
I0_DB						0,00	xIn	0,00	40,00				
I0_RANGE						normal							
VSMSQI1(V1,V2, V0; U1,U2,U0): 1													
U1,U2,U0													
Monitored data													
U2_INST						0,00	xUn	0,00	4,00				
U2_DB						0,00	xUn	0,00	4,00				
U2_RANGE						normal							
U1_INST						0,00	xUn	0,00	4,00				
U1_DB						0,00	xUn	0,00	4,00				
					Project Alstom Mejillones	Responsible department ABB Ltd.		Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay			Created by	Title RER620A Programado RER620A	Document id.			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
U1_RANGE						normal				
U0_INST						0,00	xUn	0,00	4,00	
U0_DB						0,00	xUn	0,00	4,00	
U0_RANGE						normal				
FMMXU1(f; f): 1										
f										
Monitored data										
F_INST						50,00	Hz	35,00	75,00	
F_DB						50,00	Hz	35,00	75,00	
F_RANGE						low-low				
VSMSQI2(V1,V2, V0(2); U1,U2,U0(B)): 2										
U1,U2,U0(B)										
Monitored data										
U2_INST						0,00	xUn	0,00	4,00	
U2_DB						0,00	xUn	0,00	4,00	
U2_RANGE						normal				
U1_INST						0,00	xUn	0,00	4,00	
U1_DB						0,00	xUn	0,00	4,00	
U1_RANGE						normal				
U0_INST						0,00	xUn	0,00	4,00	
U0_DB						0,00	xUn	0,00	4,00	
U0_RANGE						normal				
APEMMXU1(P,S P,E; P,SP,E): 1										
P,SP,E										
Inputs										
					Project	Alstom Mejillones		Responsible department	Technical ref...	Document kind
								ABB Ltd.		Doc. designation
				Repla...					Created by	Title
					Alstom					RER620A
					Mejillones.Substation.Voltage				Approved by	Programado
					Level.Bay					RER620A
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format					
RSTACM						False									
Monitored data															
S_INST						0,0	kVA	-999999,9	999999,9						
S_DB						0,0	kVA	-999999,9	999999,9						
P_INST						0,0	kW	-999999,9	999999,9						
P_DB						0,0	kW	-999999,9	999999,9						
Q_INST						0,0	kVAr	-999999,9	999999,9						
Q_DB						0,0	kVAr	-999999,9	999999,9						
PF_INST						0,00		-1,00	1,00						
PF_DB						0,00		-1,00	1,00						
EA_RV_ACM						0	kWh	0	999999999						
ER_RV_ACM						0	kVArh	0	999999999						
EA_FWD_ACM						0	kWh	0	999999999						
ER_FWD_ACM						0	kVArh	0	999999999						
SA_INST						0,0	kVA	-999999,9	999999,9						
SA_DB						0,0	kVA	-999999,9	999999,9						
SB_INST						0,0	kVA	-999999,9	999999,9						
SB_DB						0,0	kVA	-999999,9	999999,9						
SC_INST						0,0	kVA	-999999,9	999999,9						
SC_DB						0,0	kVA	-999999,9	999999,9						
PA_INST						0,0	kW	-999999,9	999999,9						
PA_DB						0,0	kW	-999999,9	999999,9						
PB_INST						0,0	kW	-999999,9	999999,9						
PB_DB						0,0	kW	-999999,9	999999,9						
PC_INST						0,0	kW	-999999,9	999999,9						
PC_DB						0,0	kW	-999999,9	999999,9						
					Project Alstom Mejillones			Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay					Created by		Title RER620A Programado RER620A		Document id.	
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format								
QA_INST			0,0	kVAr	-999999,9	999999,9									
QA_DB			0,0	kVAr	-999999,9	999999,9									
QB_INST			0,0	kVAr	-999999,9	999999,9									
QB_DB			0,0	kVAr	-999999,9	999999,9									
QC_INST			0,0	kVAr	-999999,9	999999,9									
QC_DB			0,0	kVAr	-999999,9	999999,9									
PFA_INST			0,00		-1,00	1,00									
PFA_DB			0,00		-1,00	1,00									
PFB_INST			0,00		-1,00	1,00									
PFB_DB			0,00		-1,00	1,00									
PFC_INST			0,00		-1,00	1,00									
PFC_DB			0,00		-1,00	1,00									
Generic timers															
TPGAPC1(TP-1; TP(1)): 1															
TP(1)															
Outputs															
OUT1			False												
OUT2			False												
TPGAPC2(TP-2; TP(2)): 2															
TP(2)															
Outputs															
OUT1			False												
OUT2			False												
TPGAPC3(TP-3; TP(3)): 3															
TP(3)															
					Project		Responsible department		Technical ref...		Document kind		Doc. designation		
					Alstom Mejillones		ABB Ltd.						AA1J1Q03A1		
				Repla...	Alstom				Created by		Title		Document id.		
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format					
Outputs															
OUT1						False									
OUT2						False									
TPGAPC4(TP-4; TP(4)): 4															
TP(4)															
Outputs															
OUT1						False									
OUT2						False									
TPSGAPC1(62CL D-1; TPS(1)): 1															
TPS(1)															
Outputs															
OUT1						False									
OUT2						False									
TPMGAPC1(62C LD-2; TPM(1)): 1															
TPM(1)															
Outputs															
OUT1						False									
OUT2						False									
TPSGAPC2(62CL D-3; TPS(2)): 2															
TPS(2)															
Outputs															
OUT1						False									
OUT2						False									
TPMGAPC2(62C LD-4; TPM(2)): 2															
					Project Alstom Mejillones			Responsible department ABB Ltd.		Technical ref...	Document kind		Doc. designation AA1J1Q03A1		
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay					Created by	Title RER620A Programado RER620A		Document id.		
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format					
TPM(2)															
Outputs															
OUT1						False									
OUT2						False									
TPSGAPC3(62CL D-5; TPS(3)): 3															
TPS(3)															
Outputs															
OUT1						False									
OUT2						False									
TPMGAPC3(62C LD-6; TPM(3)): 3															
TPM(3)															
Outputs															
OUT1						False									
OUT2						False									
TONGAPC1(TON GAPC1; TON(1)): 1															
TON(1)															
Inputs															
IN1						False									
IN2						True									
IN3						False									
IN4						False									
IN5						False									
IN6						False									
IN7						False									
					Project Alstom Mejillones			Responsible department ABB Ltd.		Technical ref...	Document kind		Doc. designation AA1J1Q03A1		
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay					Created by	Title RER620A Programado RER620A		Document id.		
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format		
IN8						False						
Outputs												
Q1						False						
Q2						True						
Q3						False						
Q4						False						
Q5						False						
Q6						False						
Q7						False						
Q8						False						
TOFGAPC1(TOF GAPC1; TOF(1)): 1												
TOF(1)												
Inputs												
IN1						False						
IN2						False						
IN3						False						
IN4						False						
IN5						False						
IN6						False						
IN7						False						
IN8						False						
Outputs												
Q1						False						
Q2						False						
Q3						False						
					Project	Responsible department		Technical ref...	Document kind	Doc. designation		
					Alstom Mejillones	ABB Ltd.				AA1J1Q03A1		
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay			Created by	Title RER620A Programado RER620A	Document id.		
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
Q4						False				
Q5						False				
Q6						False				
Q7						False				
Q8						False				
PTGAPC1(PTGA PC1; PT(1)): 1										
PT(1)										
Inputs										
IN1						False				
IN2						False				
IN3						False				
IN4						False				
IN5						False				
IN6						False				
IN7						False				
IN8						False				
Outputs										
Q1						False				
Q2						False				
Q3						False				
Q4						False				
Q5						False				
Q6						False				
Q7						False				
Q8						False				
					Project		Responsible department		Technical ref...	
					Alstom Mejillones		ABB Ltd.		Document kind	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by	
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Group / Parameter Name		IED Value		PC Value		Unit		Min		Max		Format				
TONGAPC2(TONGAPC2; TON(2)):																
2																
TON(2)																
Inputs																
IN1				False												
IN2				False												
IN3				False												
IN4				False												
IN5				False												
IN6				False												
IN7				False												
IN8				False												
Outputs																
Q1				False												
Q2				False												
Q3				False												
Q4				False												
Q5				False												
Q6				False												
Q7				False												
Q8				False												
TOFGAPC2(TOFGAPC2; TOF(2)):																
2																
TOF(2)																
Inputs																
IN1				False												
					Project				Responsible department		Technical ref...		Document kind		Doc. designation	
					Alstom Mejillones				ABB Ltd.						AA1J1Q03A1	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay						Created by		Title		Document id.	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format					
IN2						False									
IN3						False									
IN4						False									
IN5						False									
IN6						False									
IN7						False									
IN8						False									
Outputs															
Q1						False									
Q2						False									
Q3						False									
Q4						False									
Q5						False									
Q6						False									
Q7						False									
Q8						False									
PTGAPC2(PTGA PC2; PT(2)): 2															
PT(2)															
Inputs															
IN1						False									
IN2						False									
IN3						False									
IN4						False									
IN5						False									
IN6						False									
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1		
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by		Title RER620A Programado		Document id.		
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Group / Parameter Name						IED Value	PC Value	Unit	Min	Max	Format
IN7							False				
IN8							False				
Outputs											
Q1							False				
Q2							False				
Q3							False				
Q4							False				
Q5							False				
Q6							False				
Q7							False				
Q8							False				
Generic logic											
SPCGGIO1(SPCGGIO1; SPCGGIO1): 1											
SPCGGIO1											
Outputs											
O1							False				
O2							False				
O3							False				
O4							False				
O5							False				
O6							False				
O7							True				
O8							False				
O9							False				
O10							False				


					Project Alstom Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A Programado RER620A	Document id.			
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Group / Parameter Name		IED Value		PC Value		Unit		Min		Max		Format		
O11				False										
O12				False										
O13				False										
O14				False										
O15				False										
O16				False										
SPCGGIO2(SPCGGIO2; GGIO2; SPCGGIO2): 2														
SPCGGIO2														
Outputs														
O1				False										
O2				False										
O3				False										
O4				False										
O5				False										
O6				False										
O7				False										
O8				False										
O9				False										
O10				False										
O11				False										
O12				False										
O13				False										
O14				False										
O15				False										
O16				False										
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by		Title RER620A Programado RER620A		Document id.	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format							
MVGAPC1(MVG APC1; MV(1)): 1																	
MV(1)																	
Outputs																	
						True											
Q1																	
Q2						False											
						True											
Q3																	
Q4						True											
						True											
Q5																	
Q6						False											
						False											
Q7																	
Q8						False											
SRGAPC1(SRGA PC1; SR(1)): 1																	
SR(1)																	
Inputs																	
S1						False											
						False											
R1																	
S2						False											
						False											
R2																	
S3						False											
						False											
R3																	
S4						False											
						False											
R4																	
S5						False											
						False											
R5																	
S6						False											
					Project Alstom Mejillones			Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay					Created by		Title RER620A Programado RER620A		Document id.			
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Group / Parameter Name		IED Value		PC Value		Unit	Min	Max	Format	
R6				False						
S7				False						
R7				True						
S8				False						
R8				False						
Outputs										
Q1				False						
Q2				False						
Q3				False						
Q4				False						
Q5				False						
Q6				True						
Q7				False						
Q8				False						
MVGAPC2(MVG APC2; MV(2)): 2										
MV(2)										
Outputs										
Q1				False						
Q2				False						
Q3				False						
Q4				False						
Q5				False						
Q6				False						
Q7				False						
Q8				False						
					Project Alstom Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q03A1	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A Programado RER620A	Document id.	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format				
SRGAPC2(SRGA PC2; SR(2)): 2														
SR(2)														
Inputs														
S1					False									
R1						False								
S2					False									
R2						False								
S3					False									
R3						False								
S4					False									
R4						False								
S5					False									
R5						False								
S6					False									
R6						False								
S7					False									
R7						False								
S8					False									
R8						False								
Outputs														
Q1						False								
Q2					False									
Q3						False								
Q4					False									
Q5						False								
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref... Document kind		Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by		Title RER620A Programado RER620A		Document id.	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format	
Q6						False					
Q7						False					
Q8						False					
UDFCNT1(UDFCNT1; UDFCNT1): 1											
UDFCNT1											
Inputs											
UP_CNT						False					
DOWN_CNT						False					
RESET						False					
LOAD						False					
Outputs											
UPCNT_STS						False					
DNCNT_STS						False					
Monitored data											
CNT_VAL						4		0	2147483647		
UDFCNT2(UDFCNT2; UDFCNT2): 2											
UDFCNT2											
Inputs											
UP_CNT						False					
DOWN_CNT						False					
RESET						False					
LOAD						False					
Outputs											
UPCNT_STS						False					
					Project	Responsible department		Technical ref...	Document kind	Doc. designation	
					Alstom Mejillones	ABB Ltd.				AA1J1Q03A1	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title	Document id.		
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format
DNCNT_STS		False					
Monitored data							
CNT_VAL		4			0	2147483647	
UDFCNT3(UDFCNT3; UDFCNT3): 3							
UDFCNT3							
Inputs							
UP_CNT		False					
DOWN_CNT			False				
RESET		False					
LOAD			False				
Outputs							
UPCNT_STS			False				
DNCNT_STS		False					
Monitored data							
CNT_VAL		4			0	2147483647	
UDFCNT4(UDFCNT4; UDFCNT4): 4							
UDFCNT4							
Inputs							
UP_CNT		False					
DOWN_CNT			False				
RESET		False					
LOAD			False				
Outputs							
UPCNT_STS			False				
				Project	Responsible department	Technical ref...	Document kind
				Alstom Mejillones	ABB Ltd.		Doc. designation
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				Alstom Mejillones.Substation.Voltage Level.Bay		Approved by	Document id.
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
DNCNT_STS					True					
Monitored data										
CNT_VAL					0			0	2147483647	
UDFCNT5(UDFCNT5; UDFCNT5): 5										
UDFCNT5										
Inputs										
UP_CNT					False					
DOWN_CNT						False				
RESET					False					
LOAD						False				
Outputs										
UPCNT_STS						False				
DNCNT_STS					False					
Monitored data										
CNT_VAL					12			0	2147483647	
UDFCNT10(UDFCNT10; UDFCNT10): 10										
UDFCNT10										
Inputs										
UP_CNT					False					
DOWN_CNT						False				
RESET					False					
LOAD						False				
Outputs										
UPCNT_STS						False				
					Project		Responsible department		Technical ref...	
					Alstom Mejillones		ABB Ltd.		Document kind	
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format				
DNCNT_STS			True								
Monitored data											
CNT_VAL			0		0	2147483647					
Setting group(Setting group; Setting group): 0											
Outputs											
SG_1_ACT			True								
SG_2_ACT			False								
SG_3_ACT			False								
SG_4_ACT			False								
SG_5_ACT			False								
SG_6_ACT			False								
FB status											
SDARREC1(79; O->I): 1											
O->I			on								
INRPHAR1(INR; 3I2f>): 1											
3I2f>			off								
SPHLPTOC1(51P ; 3I>(1)): 1											
3I>(1)			blocked								
SPHLPTOC2(50P -1; 3I>(2)): 2											
3I>(2)			blocked								
SPHHPTOC1(50 P-2; 3I>>(1)): 1											
3I>>(1)			blocked								
SPHIPTOC1(50P -3; 3I>>>(1)): 1											
3I>>>(1)			off								
XEFLPTOC2(51N ; Io>(2)): 2											
				Project	Responsible department	Technical ref...	Document kind	Doc. designation			
				Alstom Mejillones	ABB Ltd.			AA1J1Q03A1			
				Repla...		Created by	Title	Document id.			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
Io>(2)						blocked				
XEFLPTOC3(50N-1; Io>(3)): 3										
Io>(3)						blocked				
XEFHPTOC3(50N-2; Io>>(3)): 3										
Io>>(3)						blocked				
XEFIPTOC2(50N-3; Io>>>): 2										
Io>>>						blocked				
XNSPTOC1(46-1; I2>(1)): 1										
I2>(1)						blocked				
XNSPTOC2(46-2; I2>(2)): 2										
I2>(2)						blocked				
SDPHLPDOC1(67/51P-1; 3I>->(1)): 1										
3I>->(1)						blocked				
SDPHLPDOC2(67/51P-2; 3I>->(2)): 2										
3I>->(2)						blocked				
XDEFLPDEF1(67/51N-1; Io>->(1)): 1										
Io>->(1)						blocked				
XDEFLPDEF2(67/51N-2; Io>->(2)): 2										
Io>->(2)						blocked				
PDNSPTOC1(46PD; I2/I1>): 1										
I2/I1>						blocked				
ROVPTOV1(59N-1; Uo>(1)): 1										


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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format		
Uo>(1)						off						
ROVPTOV2(59N-2; Uo>(2)): 2												
Uo>(2)						off						
PSPTOV1(59PS-1; U1>(1)): 1												
U1>(1)						off						
PSPTOV2(59PS-2; U1>(2)): 2												
U1>(2)						off						
NSPTOV1(47-1; U2>(1)): 1												
U2>(1)						off						
NSPTOV2(47-2; U2>(2)): 2												
U2>(2)						off						
FRPFRQ1(81-1; f>/f<,df/dt(1)): 1												
f>/f<,df/dt(1)						off						
FRPFRQ2(81-2; f>/f<,df/dt(2)): 2												
f>/f<,df/dt(2)						off						
PHIZ1(HIZ; PHIZ1): 1												
PHIZ1						off						
DRFLO1(FLO; DRFLO1): 1												
DRFLO1						off						
DLCM1(LCM; LCM): 1												
LCM						off						
DPSRDIR1(32P; DPSRDIR1): 1												
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref... Document kind		Doc. designation AA1J1Q03A1	
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format	
DPSRDIR1			off					
SPSCBR1(52CM; CBCM): 1			on					
CBCM			on					
SEQRFUF1(60; FUSEF): 1			on					
FUSEF			on					
LSHDPFRQ1(81 S-1; UFLS/R(1)): 1			off					
UFLS/R(1)			off					
LSHDPFRQ2(81 S-2; UFLS/R(2)): 2			off					
UFLS/R(2)			off					
SCCBRBRF1(50 BFT; 3I>/lo>BF): 1			on					
3I>/lo>BF			on					
SCCBRBCF1(50 BFC; SCCBRBCF1): 1			on					
SCCBRBCF1			on					
DNZSRDIR1(32N ; DNZSRDIR1): 1			off					
DNZSRDIR1			off					
SECRSYN1(25; SYNC): 1			off					
SYNC			off					
EFLPTOC3(50SE F; lo>(3)): 3			blocked					
lo>(3)			blocked					
SPHPTOV1(59-1; 3U>(1)): 1			off					
3U>(1)			off					
				Project	Responsible department	Technical ref...	Document kind	Doc. designation
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format			
SPHPTOV2(59-2; 3U>(2)): 2													
3U>(2)						off							
SPHPTOV3(59-3; 3U>(3)): 3													
3U>(3)						off							
SPHPTUV1(27-1; 3U<(1)): 1													
3U<(1)						off							
SPHPTUV2(27-2; 3U<(2)): 2													
3U<(2)						off							
SPHPTUV3(27-3; 3U<(3)): 3													
3U<(3)						off							
Programmable LEDs(Programma ble LEDs; Programmable LEDs): 1													
Programmable LEDs													
						False							
Programmable LED 1													
Programmable LED 2						False							
						False							
Programmable LED 3													
Programmable LED 4						False							
						False							
Programmable LED 5													
Programmable LED 6						False							
						False							
Programmable LED 7													
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref... Document kind		Doc. designation AA1J1Q03A1		
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by	Title RER620A Programado RER620A		Document id.	
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Group / Parameter Name				IED Value	PC Value	Unit	Min	Max	Format						
Programmable LED 8					False										
Programmable LED 9					True										
Programmable LED 10					False										
Programmable LED 11					False										
Recorded data															
CMMXU1(IA,IB,I C; 3I): 1															
3I															
Max demand IL1					0,03	xIn	0,00	40,00							
Max demand IL2					0,03	xIn	0,00	40,00							
Max demand IL3					0,03	xIn	0,00	40,00							
Time max demand IL1					2016-10-11T01:20:33.924Z			34 character(s)							
Time max demand IL2					2016-10-11T01:20:33.924Z			34 character(s)							
Time max demand IL3					2016-10-11T01:20:33.924Z			34 character(s)							
FLTMSTA(FLTM STA; FLTMSTA): 1															
Fault record															
Fault number					16		0	999999							
Time and date					2016-10-22T01:50:12.457Z			34 character(s)							
Start duration					100,00	%	0,00	100,00							
Setting group					1		0	6							
Max current IL1					0,046	xIn	0,000	50,000							
Max current IL2					0,045	xIn	0,000	50,000							
Max current IL3					0,046	xIn	0,000	50,000							
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1		
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by		Title RER620A Programado RER620A		Document id.		
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Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Max current Io		0,682	xIn	0,000	50,000	
Current IL1		0,045	xIn	0,000	50,000	
Current IL2		0,045	xIn	0,000	50,000	
Current IL3		0,045	xIn	0,000	50,000	
Current Io		0,680	xIn	0,000	50,000	
Current Io-Calc		0,136	xIn	0,000	50,000	
Current Ps-Seq		0,000	xIn	0,000	50,000	
Current Ng-Seq		0,000	xIn	0,000	50,000	
Voltage UL1		0,022	xUn	0,000	4,000	
Voltage UL2		0,013	xUn	0,000	4,000	
Voltage UL3		0,011	xUn	0,000	4,000	
Voltage U12		0,049	xUn	0,000	4,000	
Voltage U23		0,087	xUn	0,000	4,000	
Voltage U31		0,117	xUn	0,000	4,000	
Voltage Uo		0,000	xUn	0,000	4,000	
Voltage Zro-Seq		0,000	xUn	0,000	4,000	
Voltage Ps-Seq		0,013	xUn	0,000	4,000	
Voltage Ng-Seq		0,009	xUn	0,000	4,000	
Angle Uo - Io		0,00	deg	-180,00	180,00	
Angle U23 - IL1		-158,18	deg	-180,00	180,00	
Angle U31 - IL2		-163,97	deg	-180,00	180,00	
Angle U12 - IL3		-164,86	deg	-180,00	180,00	
I2/I1> rat. I2/I1		0,00	%	0,00	999,99	
Frequency		50,00	Hz	30,00	80,00	
Frequency gradient		0,00	Hz/s	-10,00	10,00	


					Project Alstom Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A Programado RER620A	Document id.			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format					
UPS															
Status															
ZBAT1(ZBAT1; ZBAT1): 1															
ZBAT1															
Battery charge V						54,6	V	0,0	60,0						
Battery charge I						0,27	A	0,00	2,56						
Temperature						25	°C	-60	150						
AC Input V						213	V	0	256						
AC_LOSS						False									
Aux Status						On									
Aux Voltage						24 V									
Aux Load I						0,00	A	0,00	3,50						
Aux Protection						Normal									
Internal rail 12V						11,9	V	0,0	16,0						
Internal rail 60V						59		0	65						
Boost Voltage						238		0	256						
Bat Execution Result						0		0	9						
UPS Relay Status						On									
Heater Switch						On									
Days since reset						0		0	65535						
Hours since reset						0		0	24						
Minutes since reset						46		0	60						
Seconds since reset						5		0	60						
UPS Fw Version						1,4		0,0	1000,0						
UPS Hw Version						1,1		0,0	1000,0						
					Project Alstom Mejillones			Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay					Created by		Title RER620A Programado RER620A		Document id.	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format			
UPS Bootldr Version						1,0		0,0	1000,0				
CVD clamping													
ZBAT1(ZBAT1; ZBAT1): 1													
ZBAT1													
CVD_CLP_A						False							
CVD_CLP_B						False							
CVD_CLP_C						False							
Function keys													
FKEYGGIO1(FKEYGGIO1; FKEYGGIO1): 1													
LED status													
L1						True							
L2						False							
L3						False							
L4						False							
L5						False							
L6						False							
L7						True							
L8						False							
L9						False							
L10						False							
L11						True							
L12						False							
L13						False							
L14						False							
L15						False							
L16						False							
KEY status													
K1						False							
K2						False							
K3						False							
K4						False							
K5						False							
K6						False							
K7						False							
					Project	Alstom Mejillones		Responsible department	Technical ref...	Document kind	Doc. designation		
								ABB Ltd.			AA1J1Q03A1		
				Repla...					Created by	Title	Document id.		
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Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
K8		False				
K9		False				
K10		False				
K11		False				
K12		False				
K13		False				
K14		False				
K15		False				
K16		False				
Information						
Product identifiers(Product identifiers; Product identifiers): 0						
Product identifiers						
Type		RER620A				20 character(s)
Serial number		1VAC91017916				20 character(s)
Order code		NARAAAAC33E5 B1NU2D				20 character(s)
Production date		2016-01-25				20 character(s)
Configuration name		RA01				20 character(s)
SW version		1.2.1				20 character(s)
SW date		2015-06-30 08:15 PM				20 character(s)
SW number		2RCA034153B				20 character(s)
HW revision		D				20 character(s)
Site identifiers(Site identifiers; Site identifiers): 0						
Site identifiers						
Customer name						20 character(s)
Street						20 character(s)


  

					Project Alstom Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q03A1	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A Programado RER620A	Document id.	
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format
House number						20 character(s)	
ZIP/Postal code						20 character(s)	
City/Province						20 character(s)	
State						20 character(s)	
Country						20 character(s)	
System identifiers(System identifiers; System identifiers): 0							
Technical key			AA1J1Q03A1			20 character(s)	
HW modules(HW modules; HW modules): 0							
Main board							
Article number			2RCA024772A0001			20 character(s)	
HW revision			D			20 character(s)	
Serial number			1YM192205429			20 character(s)	
Manufacturing date			2015-10-15			20 character(s)	
Test date			2015-10-15			20 character(s)	
LHMI							
Article number			2RCA026033A0001			20 character(s)	
SW version			06.00.02.19			20 character(s)	
HW revision			M			20 character(s)	
Serial number			1YF192282667			20 character(s)	
Manufacturing date			2015-11-12			20 character(s)	
Test date			2015-11-12			20 character(s)	
HW modules							
X000 (COM)(X000 (COM); X000 (COM)): 90							
				Project	Responsible department	Technical ref...	Document kind
				Alstom Mejillones	ABB Ltd.		Doc. designation
				Repla...		Created by	Title
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format			
X000 (COM)						2RCA006820A0004			20 character(s)				
SW version						-			20 character(s)				
HW revision						J			20 character(s)				
Serial number						1YM192183995			20 character(s)				
Manufacturing date						2015-09-30			20 character(s)				
Test date						2015-09-30			20 character(s)				
X110 (BIO)(X110 (BIO); X110 (BIO)): 110													
X110 (BIO)													
Article number						2RCA025501A0001			20 character(s)				
HW revision						E			20 character(s)				
Serial number						1YM192267216			20 character(s)				
Manufacturing date						2015-12-21			20 character(s)				
Test date						2015-12-21			20 character(s)				
X105 (BIO)(X105 (BIO); X105 (BIO)): 105													
X105 (BIO)													
Article number						2RCA025501A0001			20 character(s)				
HW revision						E			20 character(s)				
Serial number						1YM192267189			20 character(s)				
Manufacturing date						2015-12-21			20 character(s)				
Test date						2015-12-21			20 character(s)				
X100 (PSM)(X100 (PSM); X100 (PSM)): 100													
X100 (PSM)													


					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
Article number						2RCA025058A0001			20 character(s)	
revision					HW	P			20 character(s)	
Serial number						1YM192225501			20 character(s)	
Manufacturing date						2015-11-06			20 character(s)	
Test date						2015-11-06			20 character(s)	
X120 (AIM)(X120 (AIM); X120 (AIM)): 120										
(AIM) X120										
Article number						2RCA007128A0002			20 character(s)	
revision					HW	J			20 character(s)	
Serial number						1YM192196107			20 character(s)	
Manufacturing date						2015-10-06			20 character(s)	
Test date						2015-10-06			20 character(s)	
X115 (UPD)(X115 (UPD); X115 (UPD)): 115										
(UPD) X115										
Article number						2RCA021556A0001			20 character(s)	
revision					HW	F			20 character(s)	
Serial number						1YF192144563			20 character(s)	
Manufacturing date						2015-08-25			20 character(s)	
Test date						2015-08-25			20 character(s)	
X130 (SIM)(X130 (SIM); X130 (SIM)): 130										
(SIM) X130										
Article number						2RCA021555A0001			20 character(s)	
					Project	Alstom Mejillones		Responsible department	Technical ref...	Document kind
								ABB Ltd.		Doc. designation
				Repla...				Created by	Title	Document id.
					Alstom	Mejillones.Substation.Voltage Level.Bay		Approved by	RER620A	Rev.
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
revision					HW	B			20 character(s)	
Serial number						1YF192220078			20 character(s)	
Manufacturing date						2015-08-07			20 character(s)	
Test date						2015-08-07			20 character(s)	
Clear										
Disturbance recorder(Disturbance recorder; Disturbance recorder): 0										
Disturbance records						Cancel				
Clear(Clear; Clear): 0										
Clear										
Indications and LEDs						Cancel				
Programmable LEDs						Cancel				
Events						Cancel				
SPSCBR1(52CM; CBCM): 1										
CBCM										
CBCM acc.energy						Cancel				
CBCM rem.life						Cancel				
CBCM travel times						Cancel				
CBCM spr.charge t						Cancel				
CMMXU1(IA,IB,IC; 3I): 1										
3I max.demands						Cancel				
					Project		Responsible department		Technical ref...	
					Alstom Mejillones		ABB Ltd.		Document kind	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
FLTMSTA(FLTM STA; FLTMSTA): 1										
Fault records						Cancel				
SDARREC1(79; O->I): 1										
O->I										
O->I reset						Cancel				
O->I counters						Cancel				
APEMMXU1(P,S P,E; P,SP,E): 1										
P,SP,E acc.energy						Cancel				
Control										
SCBXCBR1(52; I<->O CB): 1										
I<->O CB										
All phases						open				
Phase A						open				
Phase B						open				
Phase C						open				
UPS Control(UPS Control; UPS Control): 1										
Reset UPS						False				
Application Configuration										
I_O										
Settings										
Setting group										
Protection: 0										
Setting group										
					1		1	6		
Active group										
Protection										


					Project Alstom Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
Settings										
Current protection										
INRP HAR1(INR; 3I2f>): 1										
3I2f>										
Operation					off					
Reset delay time						20	ms	0	60000	
Setting Group 1										
Start value						20	%	5	100	
Operate delay time						20	ms	20	60000	
Setting Group 2										
Start value						20	%	5	100	
Operate delay time						20	ms	20	60000	
Setting Group 3										
Start value						20	%	5	100	
Operate delay time						20	ms	20	60000	
Setting Group 4										
Start value						20	%	5	100	
Operate delay time						20	ms	20	60000	
Setting Group 5										
Start value						20	%	5	100	
Operate delay time						20	ms	20	60000	
Setting Group 6										
Start value						20	%	5	100	
					Project		Responsible department		Technical ref...	
					Alstom Mejillones		ABB Ltd.		Document kind	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format		
Operate delay time						20	ms	20	60000			
SPHLPTOC1(51P ; 3I>(1)): 1												
3I>(1)												
Operation					on							
Num of start phases						1 out of 3						
Minimum operate time						20	ms	20	60000			
Reset delay time						20	ms	0	60000			
Measurement mode					DFT							
Curve parameter A						28,2000		0,0086	120,0000			
Curve parameter B						0,1217		0,0000	0,7120			
Curve parameter C						2,00		0,02	2,00			
Curve parameter D						29,10		0,46	30,00			
Curve parameter E						1,0		0,0	1,0			
Setting Group 1												
Start value						2,00	xIn	0,05	5,00			
Start value Mult						1,0		0,8	10,0			
Time multiplier						0,55		0,05	15,00			
Operate delay time						500	ms	40	200000			
Operating curve type						Recloser Y (120)						
Type of reset curve					Immediate							
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref... Document kind		Doc. designation AA1J1Q03A1	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by Title		Document id.	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format				
Start Block Value						5,00	xIn	1,00	40,00					
Start Block Enable					Off									
Time Adder						0,20		0,00	2,00					
Setting Group 2														
Start value						1,00	xIn	0,05	5,00					
Start value Mult						2,0		0,8	10,0					
Time multiplier						5,00		0,05	15,00					
Operate delay time						40	ms	40	200000					
Operating curve type						ANSI Ext. inv.								
Type of reset curve					Immediate									
Start Block Value						5,00	xIn	1,00	40,00					
Start Block Enable					Off									
Time Adder						0,00		0,00	2,00					
Setting Group 3														
Start value						1,00	xIn	0,05	5,00					
Start value Mult						2,0		0,8	10,0					
Time multiplier						5,00		0,05	15,00					
Operate delay time						40	ms	40	200000					
Operating curve type						ANSI Ext. inv.								
Type of reset curve					Immediate									
Start Block Value						5,00	xIn	1,00	40,00					
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by		Title RER620A Programado RER620A		Document id.	
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Group / Parameter Name		IED Value		PC Value		Unit		Min		Max		Format		
Start Block Enable				Off										
Time Adder				0,00				0,00		2,00				
Setting Group 4														
Start value				1,00		xIn		0,05		5,00				
Start value Mult				2,0				0,8		10,0				
Time multiplier				5,00				0,05		15,00				
Operate delay time				40		ms		40		200000				
Operating curve type				ANSI Ext. inv.										
Type of reset curve				Immediate										
Start Block Value				5,00		xIn		1,00		40,00				
Start Block Enable				Off										
Time Adder				0,00				0,00		2,00				
Setting Group 5														
Start value				1,00		xIn		0,05		5,00				
Start value Mult				2,0				0,8		10,0				
Time multiplier				5,00				0,05		15,00				
Operate delay time				40		ms		40		200000				
Operating curve type				ANSI Ext. inv.										
Type of reset curve				Immediate										
Start Block Value				5,00		xIn		1,00		40,00				
Start Block Enable				Off										
					Project Alstom Mejillones			Responsible department ABB Ltd.		Technical ref...	Document kind		Doc. designation AA1J1Q03A1	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay					Created by	Title RER620A Programado RER620A		Document id.	
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format
Time Adder			0,00		0,00	2,00	
Setting Group 6							
Start value			1,00	xln	0,05	5,00	
Start value Mult			2,0		0,8	10,0	
Time multiplier			5,00		0,05	15,00	
Operate delay time			40	ms	40	200000	
Operating curve type			ANSI Ext. inv.				
Type of reset curve			Immediate				
Start Block Value			5,00	xln	1,00	40,00	
Start Block Enable			Off				
Time Adder			0,00		0,00	2,00	
SPHLPTOC2(50P-1; 3I>(2)): 2							
3I>(2)							
Operation			off				
Num of start phases			1 out of 3				
Minimum operate time			20	ms	20	60000	
Reset delay time			20	ms	0	60000	
Measurement mode			DFT				
Curve parameter A			28,2000		0,0086	120,0000	
Curve parameter B			0,1217		0,0000	0,7120	
Curve parameter C			2,00		0,02	2,00	
				Project	Responsible department	Technical ref...	Document kind
				Alstom Mejillones	ABB Ltd.		Doc. designation
				Repla...		Created by	Title
				Alstom			Document id.
				Mejillones.Substation.Voltage Level.Bay		Approved by	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
Curve parameter D						29,10		0,46	30,00	
Curve parameter E						1,0		0,0	1,0	
Setting Group 1										
Start value						3,00	xln	0,05	5,00	
Start value Mult						1,5		0,8	10,0	
Time multiplier						0,50		0,05	15,00	
Operate delay time						40	ms	40	200000	
Operating curve type						ANSI Def. Time				
Type of reset curve						Immediate				
Start Block Value						5,00		1,00	40,00	
Start Block Enable						Off				
Time Adder						0,00		0,00	2,00	
Setting Group 2										
Start value						3,00	xln	0,05	5,00	
Start value Mult						1,5		0,8	10,0	
Time multiplier						0,50		0,05	15,00	
Operate delay time						40	ms	40	200000	
Operating curve type						ANSI Def. Time				
Type of reset curve						Immediate				
Start Block Value						5,00		1,00	40,00	
Start Block Enable						Off				
					Project	Alstom Mejillones		Responsible department	Technical ref...	Document kind
								ABB Ltd.		Doc. designation
				Repla...				Created by	Title	Document id.
					Alstom				RER620A	
					Mejillones.Substation.Voltage			Approved by	Programado	
Rev.	Modification	Rel. date	Created by	Based on	Level.Bay				RER620A	
										Rev.
										Rel. date
										Lan
										135 / 235


Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format				
Time Adder			0,00		0,00	2,00					
Setting Group 3											
Start value			3,00	xIn	0,05	5,00					
Start value Mult			1,5		0,8	10,0					
Time multiplier			0,50		0,05	15,00					
Operate delay time			40	ms	40	200000					
Operating curve type			ANSI Def. Time								
Type of reset curve			Immediate								
Start Block Value			5,00		1,00	40,00					
Start Block Enable			Off								
Time Adder			0,00		0,00	2,00					
Setting Group 4											
Start value			3,00	xIn	0,05	5,00					
Start value Mult			1,5		0,8	10,0					
Time multiplier			0,50		0,05	15,00					
Operate delay time			40	ms	40	200000					
Operating curve type			ANSI Def. Time								
Type of reset curve			Immediate								
Start Block Value			5,00		1,00	40,00					
Start Block Enable			Off								
Time Adder			0,00		0,00	2,00					
Setting Group 5											
					Project	Responsible department	Technical ref...	Document kind	Doc. designation		
					Alstom Mejillones	ABB Ltd.			AA1J1Q03A1		
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title	Document id.		
Re v.	Modification	Rel. date	Created by	Based on			Approved by	RER620A Programado RER620A	Rev.	Rel. date	Lan
0								09/06/2017	en		

Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format	
Start value			3,00	xIn	0,05	5,00		
Start value Mult			1,5		0,8	10,0		
Time multiplier			0,50		0,05	15,00		
Operate delay time			40	ms	40	200000		
Operating curve type			ANSI Def. Time					
Type of reset curve			Immediate					
Start Block Value			5,00		1,00	40,00		
Start Block Enable			Off					
Time Adder			0,00		0,00	2,00		
Setting Group 6								
Start value			3,00	xIn	0,05	5,00		
Start value Mult			1,5		0,8	10,0		
Time multiplier			0,50		0,05	15,00		
Operate delay time			40	ms	40	200000		
Operating curve type			ANSI Def. Time					
Type of reset curve			Immediate					
Start Block Value			5,00		1,00	40,00		
Start Block Enable			Off					
Time Adder			0,00		0,00	2,00		
SPHHPTOC1(50 P-2; 3I>>(1)): 1								
3I>>(1)								
				Project	Responsible department	Technical ref...	Document kind	Doc. designation
				Alstom Mejillones	ABB Ltd.			AA1J1Q03A1
			Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title	Document id.
Re v.	Modification	Rel. date	Created by			Approved by	RER620A Programado RER620A	Rev. 0
			Based on					137 / 235

Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
Operation					off					
Num of start phases						1 out of 3				
Minimum operate time						20	ms	20	60000	
Reset delay time						20	ms	0	60000	
Measurement mode					DFT					
Curve parameter A						28,2000		0,0086	120,0000	
Curve parameter B						0,1217		0,0000	0,7120	
Curve parameter C						2,00		0,02	2,00	
Curve parameter D						29,10		0,46	30,00	
Curve parameter E						1,0		0,0	1,0	
Setting Group 1										
Start value						3,00	xln	0,10	40,00	
Start value Mult						2,0		0,8	10,0	
Time multiplier						1,00		0,05	15,00	
Operate delay time						100	ms	40	200000	
Operating curve type						ANSI Def. Time				
Type of reset curve					Immediate					
Start Block Value						5,00	xln	1,00	40,00	
Start Block Enable					Off					
Time Adder						0,00		0,00	2,00	
					Project		Responsible department		Document kind	Doc. designation
					Alstom Mejillones		ABB Ltd.			AA1J1Q03A1
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by	Title
Re v.	Modification	Rel. date	Created by	Based on					Approved by	RER620A Programado RER620A
									Rev.	Rel. date
									0	09/06/2017
									Lan	138 / 235
									en	


Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format				
Setting Group 2														
Start value						3,00	xIn	0,10	40,00					
Start value Mult						2,0		0,8	10,0					
Time multiplier						1,00		0,05	15,00					
Operate delay time						100	ms	40	200000					
Operating curve type						ANSI Def. Time								
Type of reset curve						Immediate								
Start Block Value						5,00	xIn	1,00	40,00					
Start Block Enable						Off								
Time Adder						0,00		0,00	2,00					
Setting Group 3														
Start value						3,00	xIn	0,10	40,00					
Start value Mult						2,0		0,8	10,0					
Time multiplier						1,00		0,05	15,00					
Operate delay time						100	ms	40	200000					
Operating curve type						ANSI Def. Time								
Type of reset curve						Immediate								
Start Block Value						5,00	xIn	1,00	40,00					
Start Block Enable						Off								
Time Adder						0,00		0,00	2,00					
Setting Group 4														
Start value						3,00	xIn	0,10	40,00					

					Project Alstom Mejillones			Responsible department ABB Ltd.		Technical ref...	Document kind		Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay					Created by	Title RER620A Programado RER620A		Document id.			
Re v.	Modification	Rel. date	Created by	Based on						Approved by			Rev.	Rel. date	Lan	139 / 235
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Group / Parameter Name			IED Value		PC Value		Unit		Min		Max		Format			
Start value Mult					2,0				0,8		10,0					
Time multiplier					1,00				0,05		15,00					
Operate delay time					100		ms		40		200000					
Operating curve type					ANSI Def. Time											
Type of reset curve					Immediate											
Start Block Value					5,00		xIn		1,00		40,00					
Start Block Enable					Off											
Time Adder					0,00				0,00		2,00					
Setting Group 5																
Start value					3,00		xIn		0,10		40,00					
Start value Mult					2,0				0,8		10,0					
Time multiplier					1,00				0,05		15,00					
Operate delay time					100		ms		40		200000					
Operating curve type					ANSI Def. Time											
Type of reset curve					Immediate											
Start Block Value					5,00		xIn		1,00		40,00					
Start Block Enable					Off											
Time Adder					0,00				0,00		2,00					
Setting Group 6																
Start value					3,00		xIn		0,10		40,00					
Start value Mult					2,0				0,8		10,0					
Time multiplier					1,00				0,05		15,00					
					Project Alstom Mejillones			Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1		
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay					Created by		Title RER620A Programado RER620A		Document id.		
Re v.	Modification	Rel. date	Created by	Based on						Approved by		Rev. 0		Rel. date 09/06/2017		Lan en





Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format
Operate delay time			100	ms	40	200000	
Operating curve type			ANSI Def. Time				
Type of reset curve			Immediate				
Start Block Value			5,00	xIn	1,00	40,00	
Start Block Enable			Off				
Time Adder			0,00		0,00	2,00	
SPHIPTOC1(50P-3; 3I>>>>(1)): 1							
3I>>>>(1)							
Operation			off				
Num of start phases			1 out of 3				
Reset delay time			20	ms	0	60000	
Setting Group 1							
Start value			10,00	xIn	0,10	40,00	
Start value Mult			1,0		0,8	10,0	
Operate delay time			100	ms	40	200000	
Start Block Value			5,00	xIn	1,00	40,00	
Start Block Enable			Off				
Setting Group 2							
Start value			10,00	xIn	0,10	40,00	
Start value Mult			1,0		0,8	10,0	
Operate delay time			100	ms	40	200000	


					Project Alstom Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A Programado RER620A	Document id.			
Re v.	Modification	Rel. date	Created by	Based on			Approved by		Rev. 0	Rel. date 09/06/2017	Lan en	141 / 235

Group / Parameter Name		IED Value		PC Value		Unit		Min		Max		Format	
Start Block Value				5,00		xIn		1,00		40,00			
Start Block Enable				Off									
Setting Group 3													
Start value				10,00		xIn		0,10		40,00			
Start value Mult				1,0				0,8		10,0			
Operate delay time				100		ms		40		200000			
Start Block Value				5,00		xIn		1,00		40,00			
Start Block Enable				Off									
Setting Group 4													
Start value				10,00		xIn		0,10		40,00			
Start value Mult				1,0				0,8		10,0			
Operate delay time				100		ms		40		200000			
Start Block Value				5,00		xIn		1,00		40,00			
Start Block Enable				Off									
Setting Group 5													
Start value				10,00		xIn		0,10		40,00			
Start value Mult				1,0				0,8		10,0			
Operate delay time				100		ms		40		200000			
Start Block Value				5,00		xIn		1,00		40,00			
Start Block Enable				Off									
Setting Group 6													


					Project Alstom Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A Programado RER620A	Document id.			
Re v.	Modification	Rel. date	Created by	Based on			Approved by		Rev. 0	Rel. date 09/06/2017	Lan en	142 / 235

Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format						
Start value						10,00	xIn	0,10	40,00							
Start value Mult						1,0		0,8	10,0							
Operate delay time						100	ms	40	200000							
Start Block Value						5,00	xIn	1,00	40,00							
Start Block Enable						Off										
XEFLPTOC2(51N ; Io>(2)): 2																
Io>(2)																
Operation						on										
Minimum operate time						20	ms	20	60000							
Reset delay time						20	ms	0	60000							
Measurement mode						DFT										
Curve parameter A						28,2000		0,0086	120,0000							
Curve parameter B						0,1217		0,0000	0,7120							
Curve parameter C						2,00		0,02	2,00							
Curve parameter D						29,10		0,46	30,00							
Curve parameter E						1,0		0,0	1,0							
Io signal Sel						Calculated Io										
Setting Group 1																
Start value						0,200	xIn	0,010	5,000							
Start value Mult						1,0		0,8	10,0							
Time multiplier						2,00		0,05	15,00							
					Project Alstom Mejillones			Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1		
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay					Created by		Title RER620A Programado RER620A		Document id.		
Re v.	Modification	Rel. date	Created by	Based on						Approved by				Rev. 0	Rel. date 09/06/2017	Lan en


Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format					
Operate delay time						500	ms	40	200000						
Operating curve type					Recloser 9 (131)										
Type of reset curve						Immediate									
Start Block Value						5,00		1,00	40,00						
Start Block Enable						Off									
Time Adder						0,20		0,00	2,00						
Setting Group 2															
Start value						0,500	xIn	0,010	5,000						
Start value Mult						2,0		0,8	10,0						
Time multiplier						5,00		0,05	15,00						
Operate delay time						40	ms	40	200000						
Operating curve type					ANSI Ext. inv.										
Type of reset curve						Immediate									
Start Block Value						5,00		1,00	40,00						
Start Block Enable						Off									
Time Adder						0,00		0,00	2,00						
Setting Group 3															
Start value						0,500	xIn	0,010	5,000						
Start value Mult						2,0		0,8	10,0						
Time multiplier						5,00		0,05	15,00						
Operate delay time						40	ms	40	200000						
					Project Alstom Mejillones			Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay					Created by		Title RER620A Programado RER620A		Document id.	
Re v.	Modification	Rel. date	Created by	Based on						Approved by				Rev.	Rel. date
												0		09/06/2017 en	

Group / Parameter Name		IED Value		PC Value		Unit		Min		Max		Format				
Operating curve type				ANSI Ext. inv.												
Type of reset curve				Immediate												
Start Block Value				5,00				1,00		40,00						
Start Block Enable				Off												
Time Adder				0,00				0,00		2,00						
Setting Group 4																
Start value				0,500		xln		0,010		5,000						
Start value Mult				2,0				0,8		10,0						
Time multiplier				5,00				0,05		15,00						
Operate delay time				40		ms		40		200000						
Operating curve type				ANSI Ext. inv.												
Type of reset curve				Immediate												
Start Block Value				5,00				1,00		40,00						
Start Block Enable				Off												
Time Adder				0,00				0,00		2,00						
Setting Group 5																
Start value				0,500		xln		0,010		5,000						
Start value Mult				2,0				0,8		10,0						
Time multiplier				5,00				0,05		15,00						
Operate delay time				40		ms		40		200000						
Operating curve type				ANSI Ext. inv.												
					Project Alstom Mejillones			Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1		
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay					Created by		Title RER620A Programado RER620A		Document id.		
Re v.	Modification	Rel. date	Created by	Based on						Approved by		Rev. 0		Rel. date 09/06/2017		Lan en

Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format	
Type of reset curve			Immediate					
Start Block Value			5,00		1,00	40,00		
Start Block Enable			Off					
Time Adder			0,00		0,00	2,00		
Setting Group 6								
Start value			0,500	xln	0,010	5,000		
Start value Mult			2,0		0,8	10,0		
Time multiplier			5,00		0,05	15,00		
Operate delay time			40	ms	40	200000		
Operating curve type			ANSI Ext. inv.					
Type of reset curve			Immediate					
Start Block Value			5,00		1,00	40,00		
Start Block Enable			Off					
Time Adder			0,00		0,00	2,00		
XEFLPTOC3(50N-1; lo>(3)): 3								
lo>(3)								
Operation			on					
Minimum operate time			20	ms	20	60000		
Reset delay time			20	ms	0	60000		
Measurement mode			DFT					
Curve parameter A			28,2000		0,0086	120,0000		


					Project Alstom Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title	Document id.			
Re v.	Modification	Rel. date	Created by	Based on			Approved by	RER620A Programado RER620A	Rev. 0	Rel. date 09/06/2017	Lan en	146 / 235


Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format	
Curve parameter B			0,1217		0,0000	0,7120		
Curve parameter C			2,00		0,02	2,00		
Curve parameter D			29,10		0,46	30,00		
Curve parameter E			1,0		0,0	1,0		
Io signal Sel		Calculated Io						
Setting Group 1								
Start value			0,400	xIn	0,010	5,000		
Start value Mult			1,0		0,8	10,0		
Time multiplier			1,00		0,05	15,00		
Operate delay time			1000	ms	40	200000		
Operating curve type		ANSI Def. Time						
Type of reset curve			Immediate					
Start Block Value			5,00	xIn	1,00	40,00		
Start Block Enable			Off					
Time Adder			0,00		0,00	2,00		
Setting Group 2								
Start value			1,500	xIn	0,010	5,000		
Start value Mult			2,0		0,8	10,0		
Time multiplier			1,00		0,05	15,00		
Operate delay time			40	ms	40	200000		
Operating curve type		ANSI Def. Time						


Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format					
Type of reset curve						Immediate									
Start Block Value						5,00	xln	1,00	40,00						
Start Block Enable						Off									
Time Adder						0,00		0,00	2,00						
Setting Group 3															
Start value						1,500	xln	0,010	5,000						
Start value Mult						2,0		0,8	10,0						
Time multiplier						1,00		0,05	15,00						
Operate delay time						40	ms	40	200000						
Operating curve type					ANSI Def. Time										
Type of reset curve						Immediate									
Start Block Value						5,00	xln	1,00	40,00						
Start Block Enable						Off									
Time Adder						0,00		0,00	2,00						
Setting Group 4															
Start value						1,500	xln	0,010	5,000						
Start value Mult						2,0		0,8	10,0						
Time multiplier						1,00		0,05	15,00						
Operate delay time						40	ms	40	200000						
Operating curve type					ANSI Def. Time										
Type of reset curve						Immediate									
					Project Alstom Mejillones			Responsible department ABB Ltd.		Technical ref...	Document kind		Doc. designation AA1J1Q03A1		
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay					Created by	Title RER620A Programado RER620A		Document id.		
Re v.	Modification	Rel. date	Created by	Based on						Approved by			Rev. 0	Rel. date 09/06/2017	Lan en





Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format
Start Block Value			5,00	xIn	1,00	40,00	
Start Block Enable			Off				
Time Adder			0,00		0,00	2,00	
Setting Group 5							
Start value			1,500	xIn	0,010	5,000	
Start value Mult			2,0		0,8	10,0	
Time multiplier			1,00		0,05	15,00	
Operate delay time			40	ms	40	200000	
Operating curve type			ANSI Def. Time				
Type of reset curve			Immediate				
Start Block Value			5,00	xIn	1,00	40,00	
Start Block Enable			Off				
Time Adder			0,00		0,00	2,00	
Setting Group 6							
Start value			1,500	xIn	0,010	5,000	
Start value Mult			2,0		0,8	10,0	
Time multiplier			1,00		0,05	15,00	
Operate delay time			40	ms	40	200000	
Operating curve type			ANSI Def. Time				
Type of reset curve			Immediate				
Start Block Value			5,00	xIn	1,00	40,00	


					Project Alstom Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A Programado RER620A	Document id.			
Rev.	Modification	Rel. date	Created by	Based on			Approved by		Rev. 0	Rel. date 09/06/2017	Lan en	149 / 235


Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format	
Start Block Enable			Off					
Time Adder			0,00		0,00	2,00		
XEFHPTOC3(50 N-2; lo>>(3)): 3								
lo>>(3)								
Operation			off					
Minimum operate time			20	ms	20	60000		
Reset delay time			20	ms	0	60000		
Measurement mode			DFT					
Curve parameter A			28,2000		0,0086	120,0000		
Curve parameter B			0,1217		0,0000	0,7120		
Curve parameter C			2,00		0,02	2,00		
Curve parameter D			29,10		0,46	30,00		
Curve parameter E			1,0		0,0	1,0		
Io signal Sel			Calculated Io					
Setting Group 1								
Start value			1,500	xIn	0,100	40,000		
Start value Mult			2,0		0,8	10,0		
Time multiplier			1,00		0,05	15,00		
Operate delay time			100	ms	40	200000		
Operating curve type			ANSI Def. Time					
Type of reset curve			Immediate					
				Project	Responsible department	Technical ref...	Document kind	Doc. designation
				Alstom Mejillones	ABB Ltd.			AA1J1Q03A1
			Repla...			Created by	Title	Document id.
Re v.	Modification	Rel. date	Created by	Based on		Approved by	RER620A Programado RER620A	Rev. 0 Rel. date 09/06/2017 Lan en 150 / 235
				Alstom Mejillones.Substation.Voltage Level.Bay				


Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
Start Block Value						5,00		1,00	40,00	
Start Block Enable						Off				
Time Adder						0,00		0,00	2,00	
Setting Group 2										
Start value						1,500	xln	0,100	40,000	
Start value Mult						2,0		0,8	10,0	
Time multiplier						1,00		0,05	15,00	
Operate delay time						100	ms	40	200000	
Operating curve type						ANSI Def. Time				
Type of reset curve						Immediate				
Start Block Value						5,00		1,00	40,00	
Start Block Enable						Off				
Time Adder						0,00		0,00	2,00	
Setting Group 3										
Start value						1,500	xln	0,100	40,000	
Start value Mult						2,0		0,8	10,0	
Time multiplier						1,00		0,05	15,00	
Operate delay time						100	ms	40	200000	
Operating curve type						ANSI Def. Time				
Type of reset curve						Immediate				
Start Block Value						5,00		1,00	40,00	
Re v.	Modification	Rel. date	Created by	Based on	Project Alstom Mejillones			Responsible department ABB Ltd.		Doc. designation AA1J1Q03A1
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay					Document id.
								Created by	Title RER620A Programado RER620A	Rev. 0
								Approved by		
										Rel. date 09/06/2017
										Lan en
										151 / 235

Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format			
Start Block Enable						Off							
Time Adder						0,00		0,00	2,00				
Setting Group 4													
Start value						1,500	xIn	0,100	40,000				
Start value Mult						2,0		0,8	10,0				
Time multiplier						1,00		0,05	15,00				
Operate delay time						100	ms	40	200000				
Operating curve type					ANSI Def. Time								
Type of reset curve						Immediate							
Start Block Value						5,00		1,00	40,00				
Start Block Enable						Off							
Time Adder						0,00		0,00	2,00				
Setting Group 5													
Start value						1,500	xIn	0,100	40,000				
Start value Mult						2,0		0,8	10,0				
Time multiplier						1,00		0,05	15,00				
Operate delay time						100	ms	40	200000				
Operating curve type					ANSI Def. Time								
Type of reset curve						Immediate							
Start Block Value						5,00		1,00	40,00				
Start Block Enable						Off							
					Project	Responsible department		Technical ref...	Document kind	Doc. designation			
					Alstom Mejillones	ABB Ltd.				AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay			Created by	Title	Document id.			
Re v.	Modification	Rel. date	Created by	Based on				Approved by	Programado RER620A	Rev.	Rel. date	Lan	152 / 235
										0	09/06/2017	en	

Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format			
Time Adder			0,00		0,00	2,00				
Setting Group 6										
Start value			1,500	xIn	0,100	40,000				
Start value Mult			2,0		0,8	10,0				
Time multiplier			1,00		0,05	15,00				
Operate delay time			100	ms	40	200000				
Operating curve type			ANSI Def. Time							
Type of reset curve			Immediate							
Start Block Value			5,00		1,00	40,00				
Start Block Enable			Off							
Time Adder			0,00		0,00	2,00				
XEFIPTOC2(50N-3; Io>>>): 2										
Io>>>										
Operation			off							
Reset delay time			20	ms	0	60000				
Io signal Sel			Calculated Io							
Setting Group 1										
Start value			1,50	xIn	1,00	40,00				
Start value Mult			1,0		0,8	10,0				
Operate delay time			100	ms	20	200000				
Start Block Value			5,00		1,00	40,00				
Start Block Enable			Off							
				Project	Responsible department	Technical ref...	Document kind	Doc. designation		
				Alstom Mejillones	ABB Ltd.			AA1J1Q03A1		
			Repla...			Created by	Title	Document id.		
Re v.	Modification	Rel. date	Created by	Based on		Approved by	RER620A Programado RER620A	Rev. 0	Rel. date 09/06/2017	Lan en
				Alstom Mejillones.Substation.Voltage Level.Bay						


Group / Parameter Name		IED Value		PC Value		Unit		Min		Max		Format								
Setting Group 2																				
Start value				1,50		xIn		1,00		40,00										
Start value Mult				1,0				0,8		10,0										
Operate delay time				100		ms		20		200000										
Start Block Value				5,00				1,00		40,00										
Start Block Enable				Off																
Setting Group 3																				
Start value				1,50		xIn		1,00		40,00										
Start value Mult				1,0				0,8		10,0										
Operate delay time				100		ms		20		200000										
Start Block Value				5,00				1,00		40,00										
Start Block Enable				Off																
Setting Group 4																				
Start value				1,50		xIn		1,00		40,00										
Start value Mult				1,0				0,8		10,0										
Operate delay time				100		ms		20		200000										
Start Block Value				5,00				1,00		40,00										
Start Block Enable				Off																
Setting Group 5																				
Start value				1,50		xIn		1,00		40,00										
Start value Mult				1,0				0,8		10,0										
Operate delay time				100		ms		20		200000										
					Project Alstom Mejillones				Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1					
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay						Created by		Title RER620A Programado RER620A		Document id.					
Re v.	Modification	Rel. date	Created by	Based on							Approved by				Rev. 0		Rel. date 09/06/2017		Lan en	

Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format					
Start Block Value						5,00		1,00	40,00						
Start Block Enable						Off									
Setting Group 6															
Start value						1,50	xIn	1,00	40,00						
Start value Mult						1,0		0,8	10,0						
Operate delay time						100	ms	20	200000						
Start Block Value						5,00		1,00	40,00						
Start Block Enable						Off									
XNSPTOC1(46-1; I2>(1)): 1															
I2>(1)															
Operation						off									
Minimum operate time						20	ms	20	60000						
Reset delay time						20	ms	0	60000						
Curve parameter A						28,2000		0,0086	120,0000						
Curve parameter B						0,1217		0,0000	0,7120						
Curve parameter C						2,00		0,02	2,00						
Curve parameter D						29,10		0,46	30,00						
Curve parameter E						1,0		0,0	1,0						
Setting Group 1															
Start value						1,00	xIn	0,01	5,00						
Start value Mult						2,0		0,8	10,0						
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1		
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by	Title RER620A Programado RER620A		Document id.			
Re v.	Modification	Rel. date	Created by	Based on					Approved by			Rev.	Rel. date	Lan	155 / 235
0												09/06/2017	en		


Group / Parameter Name		IED Value		PC Value		Unit		Min		Max		Format		
Time multiplier				1,00				0,05		15,00				
Operate delay time				40		ms		40		200000				
Operating curve type				ANSI Ext. inv.										
Type of reset curve				Immediate										
Time Adder				0,00				0,00		2,00				
Setting Group 2														
Start value				1,00		xIn		0,01		5,00				
Start value Mult				2,0				0,8		10,0				
Time multiplier				1,00				0,05		15,00				
Operate delay time				40		ms		40		200000				
Operating curve type				ANSI Ext. inv.										
Type of reset curve				Immediate										
Time Adder				0,00				0,00		2,00				
Setting Group 3														
Start value				1,00		xIn		0,01		5,00				
Start value Mult				2,0				0,8		10,0				
Time multiplier				1,00				0,05		15,00				
Operate delay time				40		ms		40		200000				
Operating curve type				ANSI Ext. inv.										
Type of reset curve				Immediate										
Time Adder				0,00				0,00		2,00				
Setting Group 4														
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by		Title RER620A Programado RER620A		Document id.	
Re v.	Modification	Rel. date	Created by	Based on					Approved by		Rev. 0		Rel. date 09/06/2017	





Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format			
Start value						1,00	xln	0,01	5,00				
Start value Mult						2,0		0,8	10,0				
Time multiplier						1,00		0,05	15,00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Type of reset curve						Immediate							
Time Adder						0,00		0,00	2,00				
Setting Group 5													
Start value						1,00	xln	0,01	5,00				
Start value Mult						2,0		0,8	10,0				
Time multiplier						1,00		0,05	15,00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Type of reset curve						Immediate							
Time Adder						0,00		0,00	2,00				
Setting Group 6													
Start value						1,00	xln	0,01	5,00				
Start value Mult						2,0		0,8	10,0				
Time multiplier						1,00		0,05	15,00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Type of reset curve						Immediate							
Time Adder						0,00		0,00	2,00				
Setting Group 7													
Start value						1,00	xln	0,01	5,00				
Start value Mult						2,0		0,8	10,0				
Time multiplier						1,00		0,05	15,00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Type of reset curve						Immediate							
Time Adder						0,00		0,00	2,00				
Setting Group 8													
Start value						1,00	xln	0,01	5,00				
Start value Mult						2,0		0,8	10,0				
Time multiplier						1,00		0,05	15,00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Type of reset curve						Immediate							
Time Adder						0,00		0,00	2,00				
Setting Group 9													
Start value						1,00	xln	0,01	5,00				
Start value Mult						2,0		0,8	10,0				
Time multiplier						1,00		0,05	15,00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Type of reset curve						Immediate							
Time Adder						0,00		0,00	2,00				
Setting Group 10													
Start value						1,00	xln	0,01	5,00				
Start value Mult						2,0		0,8	10,0				
Time multiplier						1,00		0,05	15,00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Type of reset curve						Immediate							
Time Adder						0,00		0,00	2,00				
Setting Group 11													
Start value						1,00	xln	0,01	5,00				
Start value Mult						2,0		0,8	10,0				
Time multiplier						1,00		0,05	15,00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Type of reset curve						Immediate							
Time Adder						0,00		0,00	2,00				
Setting Group 12													
Start value						1,00	xln	0,01	5,00				
Start value Mult						2,0		0,8	10,0				
Time multiplier						1,00		0,05	15,00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Type of reset curve						Immediate							
Time Adder						0,00		0,00	2,00				
Setting Group 13													
Start value						1,00	xln	0,01	5,00				
Start value Mult						2,0		0,8	10,0				
Time multiplier						1,00		0,05	15,00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Type of reset curve						Immediate							
Time Adder						0,00		0,00	2,00				
Setting Group 14													
Start value						1,00	xln	0,01	5,00				
Start value Mult						2,0		0,8	10,0				
Time multiplier						1,00		0,05	15,00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Type of reset curve						Immediate							
Time Adder						0,00		0,00	2,00				
Setting Group 15													
Start value						1,00	xln	0,01	5,00				
Start value Mult						2,0		0,8	10,0				
Time multiplier						1,00		0,05	15,00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Type of reset curve						Immediate							
Time Adder						0,00		0,00	2,00				
Setting Group 16													
Start value						1,00	xln	0,01	5,00				
Start value Mult						2,0		0,8	10,0				
Time multiplier						1,00		0,05	15,00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Type of reset curve						Immediate							
Time Adder						0,00		0,00	2,00				
Setting Group 17													
Start value						1,00	xln	0,01	5,00				
Start value Mult						2,0		0,8	10,0				
Time multiplier						1,00		0,05	15,00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Type of reset curve						Immediate							
Time Adder						0,00		0,00	2,00				
Setting Group 18													
Start value						1,00	xln	0,01	5,00				
Start value Mult						2,0		0,8	10,0				
Time multiplier						1,00		0,05	15,00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Type of reset curve						Immediate							
Time Adder						0,00		0,00	2,00				
Setting Group 19													
Start value						1,00	xln	0,01	5,00				
Start value Mult						2,0		0,8	10,0				
Time multiplier						1,00		0,05	15,00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Type of reset curve						Immediate							
Time Adder						0,00		0,00	2,00				
Setting Group 20													
Start value						1,00	xln	0,01	5,00				
Start value Mult						2,0		0,8	10,0				
Time multiplier						1,00		0,05	15,00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Type of reset curve						Immediate							
Time Adder						0,00		0,00	2,00				
Setting Group 21													
Start value						1,00	xln	0,01	5,00				
Start value Mult						2,0		0,8	10,0				
Time multiplier						1,00		0,05	15,00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Type of reset curve						Immediate							
Time Adder						0,00		0,00	2,00				
Setting Group 22													
Start value						1,00	xln	0,01	5,00				
Start value Mult						2,0		0,8	10,0				
Time multiplier						1,00		0,05	15,00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Type of reset curve						Immediate							
Time Adder						0,00		0,00	2,00				
Setting Group 23													
Start value						1,00	xln	0,01	5,00				
Start value Mult						2,0		0,8	10,0				
Time multiplier						1,00		0,05	15,00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Type of reset curve						Immediate							
Time Adder						0,00		0,00	2,00				
Setting Group 24													
Start value						1,00	xln	0,01	5,00				
Start value Mult						2,0		0,8	10,0				
Time multiplier						1,00		0,05	15,00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Type of reset curve						Immediate							
Time Adder						0,00		0,00	2,00				
Setting Group 25													
Start value						1,00	xln	0,01	5,00				
Start value Mult						2,0		0,8	10,0				
Time multiplier						1,00		0,05	15,00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Type of reset curve						Immediate							
Time Adder						0,00		0,00	2,00				
Setting Group 26													
Start value						1,00	xln	0,01	5,00				
Start value Mult						2,0		0,8	10,0				
Time multiplier						1,00		0,05	15,00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Type of reset curve						Immediate							
Time Adder						0,00		0,00	2,00				
Setting Group 27													
Start value						1,00	xln	0,01	5,00				
Start value Mult						2,0		0,8	10,0				
Time multiplier						1,00		0,05	15,00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Type of reset curve						Immediate							
Time Adder						0,00		0,00	2,00				
Setting Group 28													
Start value						1,00	xln	0,01	5,00				
Start value Mult						2,0		0,8	10,0				
Time multiplier						1,00		0,05	15,00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Type of reset curve						Immediate							
Time Adder						0,00		0,00	2,00				
Setting Group 29													
Start value						1,00	xln	0,01	5,00				
Start value Mult						2,0		0,8	10,0				
Time multiplier						1,00		0,05	15,00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Type of reset curve						Immediate							
Time Adder						0,00		0,00	2,00				
Setting Group 30													
Start value						1,00	xln	0,01	5,00				
Start value Mult						2,0		0,8	10,0				
Time multiplier						1,00		0,05	15,00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Type of reset curve						Immediate							
Time Adder						0,00		0,00	2,00				
Setting Group 31													
Start value						1,00	xln	0,01	5,00				
Start value Mult						2,0		0,8	10,0				
Time multiplier						1,00		0,05	15,00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Type of reset curve						Immediate							
Time Adder						0,00		0,00	2,00				
Setting Group 32													
Start value						1,00	xln	0,01	5,00				
Start value Mult						2,0		0,8	10,0				
Time multiplier						1,00		0,05	15,00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Type of reset curve						Immediate							
Time Adder						0,00		0,00	2,00				
Setting Group 33													
Start value						1,00	xln	0,01	5,00				
Start value Mult						2,0		0,8	10,0				
Time multiplier						1,00		0,05	15,00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Type of reset curve						Immediate							
Time Adder						0,00		0,00	2,00				
Setting Group 34													
Start value						1,00	xln	0,01	5,00				
Start value Mult						2,0		0,8	10,0				
Time multiplier						1,00		0,05	15,00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Type of reset curve						Immediate							
Time Adder						0,00		0,00	2,00				
Setting Group 35													
Start value						1,00	xln	0,01	5,00	</			


Group / Parameter Name			IED Value	PC Value	Unit	Min	Max	Format			
Time Adder				0,00		0,00	2,00				
XNSPTOC2(46-2; I2>(2)): 2											
I2>(2)											
Operation				off							
Minimum operate time				20	ms	20	60000				
Reset delay time				20	ms	0	60000				
Curve parameter A				28,2000		0,0086	120,0000				
Curve parameter B				0,1217		0,0000	0,7120				
Curve parameter C				2,00		0,02	2,00				
Curve parameter D				29,10		0,46	30,00				
Curve parameter E				1,0		0,0	1,0				
Setting Group 1											
Start value				1,00	xln	0,01	5,00				
Start value Mult				2,0		0,8	10,0				
Time multiplier				1,00		0,05	15,00				
Operate delay time				40	ms	40	200000				
Operating curve type				ANSI Ext. inv.							
Type of reset curve				Immediate							
Time Adder				0,00		0,00	2,00				
Setting Group 2											
Start value				1,00	xln	0,01	5,00				
Start value Mult				2,0		0,8	10,0				
					Project	Responsible department		Technical ref...	Document kind	Doc. designation	
					Alstom Mejillones	ABB Ltd.				AA1J1Q03A1	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay			Created by	Title	Document id.	
Re v.	Modification	Rel. date	Created by	Based on				Approved by	RER620A Programado RER620A	Rev. 0	Rel. date 09/06/2017


Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format	
Time multiplier			1,00		0,05	15,00		
Operate delay time			40	ms	40	200000		
Operating curve type			ANSI Ext. inv.					
Type of reset curve		Immediate						
Time Adder			0,00		0,00	2,00		
Setting Group 3								
Start value			1,00	xIn	0,01	5,00		
Start value Mult		2,0			0,8	10,0		
Time multiplier			1,00		0,05	15,00		
Operate delay time			40	ms	40	200000		
Operating curve type			ANSI Ext. inv.					
Type of reset curve		Immediate						
Time Adder			0,00		0,00	2,00		
Setting Group 4								
Start value			1,00	xIn	0,01	5,00		
Start value Mult		2,0			0,8	10,0		
Time multiplier			1,00		0,05	15,00		
Operate delay time			40	ms	40	200000		
Operating curve type			ANSI Ext. inv.					
Type of reset curve		Immediate						
Time Adder			0,00		0,00	2,00		
Setting Group 5								


					Project Alstom Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A Programado RER620A	Document id.			
Re v.	Modification	Rel. date	Created by	Based on			Approved by		Rev. 0	Rel. date 09/06/2017	Lan en	159 / 235

Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format				
Start value			1,00	xIn	0,01	5,00					
Start value Mult			2,0		0,8	10,0					
Time multiplier		1,00			0,05	15,00					
Operate delay time			40	ms	40	200000					
Operating curve type			ANSI Ext. inv.								
Type of reset curve			Immediate								
Time Adder		0,00			0,00	2,00					
Setting Group 6											
Start value			1,00	xIn	0,01	5,00					
Start value Mult			2,0		0,8	10,0					
Time multiplier		1,00			0,05	15,00					
Operate delay time			40	ms	40	200000					
Operating curve type			ANSI Ext. inv.								
Type of reset curve			Immediate								
Time Adder		0,00			0,00	2,00					
SDPHLPDOC1(67/51P-1; 3I>->(1)): 1											
3I>->(1)											
Operation			off								
Num of start phases			1 out of 3								
Minimum operate time			20	ms	20	60000					
Reset delay time		20	ms	0	60000						
					Project	Responsible department	Technical ref...	Document kind	Doc. designation		
					Alstom Mejillones	ABB Ltd.			AA1J1Q03A1		
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title	Document id.		
Re v.	Modification	Rel. date	Created by	Based on			Approved by	RER620A Programado RER620A	Rev.	Rel. date	Lan
0								09/06/2017	en		


Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format	
Measurement mode		DFT						
Curve parameter A			28,2000		0,0086	120,0000		
Curve parameter B			0,1217		0,0000	0,7120		
Curve parameter C			2,00		0,02	2,00		
Curve parameter D			29,10		0,46	30,00		
Curve parameter E			1,0		0,0	1,0		
Allow Non Dir		False						
Min operate current			0,01	xIn	0,01	1,00		
Min operate voltage			0,01	xUn	0,01	1,00		
Setting Group 1								
Start value			0,35	xIn	0,05	5,00		
Start value Mult			2,0		0,8	10,0		
Time multiplier			1,00		0,05	15,00		
Operate delay time			40	ms	40	200000		
Operating curve type		ANSI Ext. inv.						
Type of reset curve			Immediate					
Time Adder			0,00		0,00	2,00		
Voltage Mem time			40	ms	0	3000		
Directional mode		Forward						
Characteristic angle			60	deg	-179	180		
				Project	Responsible department	Technical ref...	Document kind	Doc. designation
				Alstom Mejillones	ABB Ltd.			AA1J1Q03A1
			Repla...			Created by	Title	Document id.
Re v.	Modification	Rel. date	Created by	Based on		Approved by	RER620A Programado RER620A	Rev. 0 Rel. date 09/06/2017 Lan en
				Alstom Mejillones.Substation.Voltage Level.Bay				161 / 235


Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format				
Max forward angle			80	deg	0	90					
Max reverse angle			80	deg	0	90					
Min forward angle			80	deg	0	90					
Min reverse angle			80	deg	0	90					
Pol quantity		Cross pol									
Setting Group 2											
Start value			0,35	xIn	0,05	5,00					
Start value Mult			2,0		0,8	10,0					
Time multiplier			1,00		0,05	15,00					
Operate delay time			40	ms	40	200000					
Operating curve type		ANSI Ext. inv.									
Type of reset curve			Immediate								
Time Adder			0,00		0,00	2,00					
Voltage Mem time			40	ms	0	3000					
Directional mode		Forward									
Characteristic angle			60	deg	-179	180					
Max forward angle			80	deg	0	90					
Max reverse angle			80	deg	0	90					
Min forward angle			80	deg	0	90					
Min reverse angle			80	deg	0	90					
					Project	Responsible department		Technical ref...	Document kind	Doc. designation	
					Alstom Mejillones	ABB Ltd.				AA1J1Q03A1	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay			Created by	Title	Document id.	
Re v.	Modification	Rel. date	Created by	Based on				Approved by	RER620A Programado RER620A	Rev. 0	Rel. date 09/06/2017


Group / Parameter Name		IED Value		PC Value		Unit		Min		Max		Format			
				Cross pol											
Pol quantity															
Setting Group 3															
Start value				0,35		xln		0,05		5,00					
Start value Mult				2,0				0,8		10,0					
Time multiplier				1,00				0,05		15,00					
Operate delay time				40		ms		40		200000					
Operating curve type				ANSI Ext. inv.											
Type of reset curve				Immediate											
Time Adder				0,00				0,00		2,00					
Voltage Mem time				40		ms		0		3000					
Directional mode				Forward											
Characteristic angle				60		deg		-179		180					
Max forward angle				80		deg		0		90					
Max reverse angle				80		deg		0		90					
Min forward angle				80		deg		0		90					
Min reverse angle				80		deg		0		90					
Pol quantity				Cross pol											
Setting Group 4															
Start value				0,35		xln		0,05		5,00					
Start value Mult				2,0				0,8		10,0					
Time multiplier				1,00				0,05		15,00					
Operate delay time				40		ms		40		200000					
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1		
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by		Title RER620A Programado RER620A		Document id.		
Re v.	Modification	Rel. date	Created by	Based on					Approved by				Rev. 0		Rel. date 09/06/2017


Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format		
Operating curve type		ANSI Ext. inv.							
Type of reset curve			Immediate						
Time Adder			0,00		0,00	2,00			
Voltage Mem time			40	ms	0	3000			
Directional mode		Forward							
Characteristic angle			60	deg	-179	180			
Max forward angle			80	deg	0	90			
Max reverse angle			80	deg	0	90			
Min forward angle			80	deg	0	90			
Min reverse angle			80	deg	0	90			
Pol quantity		Cross pol							
Setting Group 5									
Start value			0,35	xIn	0,05	5,00			
Start value Mult			2,0		0,8	10,0			
Time multiplier			1,00		0,05	15,00			
Operate delay time			40	ms	40	200000			
Operating curve type		ANSI Ext. inv.							
Type of reset curve			Immediate						
Time Adder			0,00		0,00	2,00			
Voltage Mem time			40	ms	0	3000			
Directional mode		Forward							
			Project		Responsible department		Technical ref...		
			Alstom Mejillones		ABB Ltd.		Document kind		
			Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by	
			Title						
						Approved by		Document id.	
								Rev.	
								0	
								09/06/2017	
								Lan	
								164 / 235	
								en	





Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format				
Characteristic angle						60	deg	-179	180					
Max forward angle						80	deg	0	90					
Max reverse angle						80	deg	0	90					
Min forward angle						80	deg	0	90					
Min reverse angle						80	deg	0	90					
Pol quantity					Cross pol									
Setting Group 6														
Start value						0,35	xIn	0,05	5,00					
Start value Mult						2,0		0,8	10,0					
Time multiplier						1,00		0,05	15,00					
Operate delay time						40	ms	40	200000					
Operating curve type					ANSI Ext. inv.									
Type of reset curve						Immediate								
Time Adder						0,00		0,00	2,00					
Voltage Mem time						40	ms	0	3000					
Directional mode					Forward									
Characteristic angle						60	deg	-179	180					
Max forward angle						80	deg	0	90					
Max reverse angle						80	deg	0	90					
Min forward angle						80	deg	0	90					
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by	Title RER620A Programado RER620A	Document id.			
Re v.	Modification	Rel. date	Created by	Based on					Approved by		Rev. 0	Rel. date 09/06/2017	Lan en	165 / 235


Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format				
Min reverse angle						80	deg	0	90					
Pol quantity					Cross pol									
SDPHLPDOC2(67/51P-2; 3I->(2)): 2														
3I->(2)														
Operation						off								
Num of start phases					1 out of 3									
Minimum operate time						20	ms	20	60000					
Reset delay time						20	ms	0	60000					
Measurement mode						DFT								
Curve parameter A						28,2000		0,0086	120,0000					
Curve parameter B						0,1217		0,0000	0,7120					
Curve parameter C						2,00		0,02	2,00					
Curve parameter D						29,10		0,46	30,00					
Curve parameter E						1,0		0,0	1,0					
Allow Non Dir						False								
Min operate current						0,01	xIn	0,01	1,00					
Min operate voltage						0,01	xUn	0,01	1,00					
Setting Group 1														
Start value						0,35	xIn	0,05	5,00					
Start value Mult						2,0		0,8	10,0					
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by	Title RER620A Programado RER620A	Document id.			
Re v.	Modification	Rel. date	Created by	Based on					Approved by		Rev.	Rel. date	Lan	166 / 235
											0	09/06/2017	en	


Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format	
Time multiplier			1,00		0,05	15,00		
Operate delay time			40	ms	40	200000		
Operating curve type			ANSI Ext. inv.					
Type of reset curve			Immediate					
Time Adder			0,00		0,00	2,00		
Voltage Mem time			40	ms	0	3000		
Directional mode			Forward					
Characteristic angle			60	deg	-179	180		
Max forward angle			80	deg	0	90		
Max reverse angle			80	deg	0	90		
Min forward angle			80	deg	0	90		
Min reverse angle			80	deg	0	90		
Pol quantity			Cross pol					
Setting Group 2								
Start value			0,35	xIn	0,05	5,00		
Start value Mult			2,0		0,8	10,0		
Time multiplier			1,00		0,05	15,00		
Operate delay time			40	ms	40	200000		
Operating curve type			ANSI Ext. inv.					
Type of reset curve			Immediate					
Time Adder			0,00		0,00	2,00		
				Project	Responsible department	Technical ref...	Document kind	Doc. designation
				Alstom Mejillones	ABB Ltd.			AA1J1Q03A1
			Repla...			Created by	Title	Document id.
Re v.	Modification	Rel. date	Created by	Based on		Approved by	RER620A Programado RER620A	Rev. 0 Rel. date 09/06/2017 Lan en
				Alstom Mejillones.Substation.Voltage Level.Bay				167 / 235

Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format			
Voltage Mem time			40	ms	0	3000				
Directional mode			Forward							
Characteristic angle			60	deg	-179	180				
Max forward angle			80	deg	0	90				
Max reverse angle			80	deg	0	90				
Min forward angle			80	deg	0	90				
Min reverse angle			80	deg	0	90				
Pol quantity			Cross pol							
Setting Group 3										
Start value			0,35	xIn	0,05	5,00				
Start value Mult			2,0		0,8	10,0				
Time multiplier			1,00		0,05	15,00				
Operate delay time			40	ms	40	200000				
Operating curve type			ANSI Ext. inv.							
Type of reset curve			Immediate							
Time Adder			0,00		0,00	2,00				
Voltage Mem time			40	ms	0	3000				
Directional mode			Forward							
Characteristic angle			60	deg	-179	180				
Max forward angle			80	deg	0	90				
				Project	Responsible department	Technical ref...	Document kind	Doc. designation		
				Alstom Mejillones	ABB Ltd.			AA1J1Q03A1		
			Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title	Document id.		
Re v.	Modification	Rel. date	Created by			Based on	Approved by	RER620A Programado RER620A	Rev. 0	Rel. date 09/06/2017


Group / Parameter Name		IED Value		PC Value	Unit	Min	Max	Format		
Max reverse angle				80	deg	0	90			
Min forward angle				80	deg	0	90			
Min reverse angle				80	deg	0	90			
Pol quantity				Cross pol						
Setting Group 4										
Start value				0,35	xln	0,05	5,00			
Start value Mult				2,0		0,8	10,0			
Time multiplier				1,00		0,05	15,00			
Operate delay time				40	ms	40	200000			
Operating curve type				ANSI Ext. inv.						
Type of reset curve				Immediate						
Time Adder				0,00		0,00	2,00			
Voltage Mem time				40	ms	0	3000			
Directional mode				Forward						
Characteristic angle				60	deg	-179	180			
Max forward angle				80	deg	0	90			
Max reverse angle				80	deg	0	90			
Min forward angle				80	deg	0	90			
Min reverse angle				80	deg	0	90			
Pol quantity				Cross pol						
Setting Group 5										
					Project Alstom Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q03A1	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A Programado RER620A	Document id.	
Re v.	Modification	Rel. date	Created by	Based on			Approved by		Rev. 0	Rel. date 09/06/2017


Group / Parameter Name		IED Value		PC Value		Unit		Min		Max		Format		
Start value				0,35		xln		0,05		5,00				
Start value Mult				2,0				0,8		10,0				
Time multiplier				1,00				0,05		15,00				
Operate delay time				40		ms		40		200000				
Operating curve type				ANSI Ext. inv.										
Type of reset curve				Immediate										
Time Adder				0,00				0,00		2,00				
Voltage Mem time				40		ms		0		3000				
Directional mode				Forward										
Characteristic angle				60		deg		-179		180				
Max forward angle				80		deg		0		90				
Max reverse angle				80		deg		0		90				
Min forward angle				80		deg		0		90				
Min reverse angle				80		deg		0		90				
Pol quantity				Cross pol										
Setting Group 6														
Start value				0,35		xln		0,05		5,00				
Start value Mult				2,0				0,8		10,0				
Time multiplier				1,00				0,05		15,00				
Operate delay time				40		ms		40		200000				
Operating curve type				ANSI Ext. inv.										
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by		Title RER620A Programado RER620A		Document id.	
Re v.	Modification	Rel. date	Created by	Based on					Approved by		Rev. 0		Rel. date 09/06/2017	

Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
Type of reset curve					Immediate					
Time Adder						0,00		0,00	2,00	
Voltage Mem time						40	ms	0	3000	
Directional mode						Forward				
Characteristic angle						60	deg	-179	180	
Max forward angle						80	deg	0	90	
Max reverse angle						80	deg	0	90	
Min forward angle						80	deg	0	90	
Min reverse angle						80	deg	0	90	
Pol quantity						Cross pol				
XDEFLPDEF1(67 /51N-1; lo>->(1)): 1										
lo>->(1)										
Operation						off				
Reset delay time						20	ms	0	60000	
Minimum operate time						60	ms	60	60000	
Allow Non Dir						False				
Measurement mode						DFT				
Min operate current						0,005	xIn	0,005	1,000	
Min operate voltage						0,01	xUn	0,01	1,00	
Correction angle						0,0	deg	0,0	10,0	
					Project		Responsible department		Document kind	
					Alstom Mejillones		ABB Ltd.			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Title	
									RER620A Programado RER620A	
Rev.	Modification	Rel. date	Created by	Based on			Approved by		Rev.	Rel. date
									0	09/06/2017
									Lan	171 / 235
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format									
Pol reversal			False													
Curve parameter A			28,2000		0,0086	120,0000										
Curve parameter B			0,1217		0,0000	0,7120										
Curve parameter C			2,00		0,02	2,00										
Curve parameter D			29,10		0,46	30,00										
Curve parameter E			1,0		0,0	1,0										
Io signal Sel			Calculated Io													
Pol signal Sel			Calculated Uo													
Setting Group 1																
Start value			0,200	xIn	0,010	5,000										
Start value Mult			2,0		0,8	10,0										
Directional mode			Forward													
Time multiplier			1,00		0,05	15,00										
Operating curve type			ANSI Ext. inv.													
Type of reset curve			Immediate													
Operate delay time			60	ms	60	200000										
Operation mode			Phase angle													
Characteristic angle			-90	deg	-179	180										
Max forward angle			88	deg	0	180										
Max reverse angle			88	deg	0	180										
Min forward angle			88	deg	0	180										
					Project		Responsible department		Technical ref...		Document kind		Doc. designation			
					Alstom Mejillones		ABB Ltd.						AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by		Title		Document id.			
				Approved by					RER620A Programado RER620A							
Re v.	Modification	Rel. date	Created by	Based on									Rev.	Rel. date	Lan	172 / 235
0													0	09/06/2017	en	




Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format				
Min reverse angle						88	deg	0	180					
Voltage start value						0,010	xUn	0,010	1,000					
Enable voltage limit						True								
Time Adder						0,00		0,00	2,00					
Setting Group 2														
Start value						0,200	xIn	0,010	5,000					
Start value Mult						2,0		0,8	10,0					
Directional mode						Forward								
Time multiplier						1,00		0,05	15,00					
Operating curve type						ANSI Ext. inv.								
Type of reset curve						Immediate								
Operate delay time						60	ms	60	200000					
Operation mode						Phase angle								
Characteristic angle						-90	deg	-179	180					
Max forward angle						88	deg	0	180					
Max reverse angle						88	deg	0	180					
Min forward angle						88	deg	0	180					
Min reverse angle						88	deg	0	180					
Voltage start value						0,010	xUn	0,010	1,000					
Enable voltage limit						True								
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by	Title RER620A Programado RER620A	Document id.			
Re v.	Modification	Rel. date	Created by	Based on					Approved by		Rev. 0	Rel. date 09/06/2017	Lan en	173 / 235

Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format					
Time Adder						0,00		0,00	2,00						
Setting Group 3															
Start value						0,200	xIn	0,010	5,000						
Start value Mult						2,0		0,8	10,0						
Directional mode						Forward									
Time multiplier						1,00		0,05	15,00						
Operating curve type						ANSI Ext. inv.									
Type of reset curve						Immediate									
Operate delay time						60	ms	60	200000						
Operation mode						Phase angle									
Characteristic angle						-90	deg	-179	180						
Max forward angle						88	deg	0	180						
Max reverse angle						88	deg	0	180						
Min forward angle						88	deg	0	180						
Min reverse angle						88	deg	0	180						
Voltage start value						0,010	xUn	0,010	1,000						
Enable voltage limit						True									
Time Adder						0,00		0,00	2,00						
Setting Group 4															
Start value						0,200	xIn	0,010	5,000						
Start value Mult						2,0		0,8	10,0						
Directional mode						Forward									
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1		
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by	Title RER620A Programado RER620A		Document id.			
Re v.	Modification	Rel. date	Created by	Based on					Approved by	Rev.	Rel. date	Lan	174 / 235		


Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
Time multiplier						1,00		0,05	15,00	
Operating curve type					ANSI Ext. inv.					
Type of reset curve						Immediate				
Operate delay time						60	ms	60	200000	
Operation mode						Phase angle				
Characteristic angle						-90	deg	-179	180	
Max forward angle						88	deg	0	180	
Max reverse angle						88	deg	0	180	
Min forward angle						88	deg	0	180	
Min reverse angle						88	deg	0	180	
Voltage start value						0,010	xUn	0,010	1,000	
Enable voltage limit					True					
Time Adder						0,00		0,00	2,00	
Setting Group 5										
Start value						0,200	xIn	0,010	5,000	
Start value Mult						2,0		0,8	10,0	
Directional mode						Forward				
Time multiplier						1,00		0,05	15,00	
Operating curve type						ANSI Ext. inv.				
Type of reset curve					Immediate					
					Project	Alstom Mejillones		Responsible department	Technical ref...	Document kind
								ABB Ltd.		Doc. designation
				Repla...					Created by	Title
					Alstom					RER620A
					Mejillones.Substation.Voltage				Approved by	Programado
Rev.	Modification	Rel. date	Created by	Based on	Level.Bay					RER620A
									Rev.	Rel. date
									0	09/06/2017
									Lan	175 /
									en	235


Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format				
Operate delay time						60	ms	60	200000					
Operation mode					Phase angle									
Characteristic angle						-90	deg	-179	180					
Max forward angle						88	deg	0	180					
Max reverse angle						88	deg	0	180					
Min forward angle						88	deg	0	180					
Min reverse angle						88	deg	0	180					
Voltage start value						0,010	xUn	0,010	1,000					
Enable voltage limit						True								
Time Adder						0,00		0,00	2,00					
Setting Group 6														
Start value						0,200	xIn	0,010	5,000					
Start value Mult						2,0		0,8	10,0					
Directional mode					Forward									
Time multiplier						1,00		0,05	15,00					
Operating curve type					ANSI Ext. inv.									
Type of reset curve						Immediate								
Operate delay time						60	ms	60	200000					
Operation mode						Phase angle								
Characteristic angle						-90	deg	-179	180					
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref... Document kind		Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by	Title RER620A Programado RER620A		Document id.		
Re v.	Modification	Rel. date	Created by	Based on					Approved by			Rev. 0	Rel. date 09/06/2017	Lan en


Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format
Max forward angle			88	deg	0	180	
Max reverse angle			88	deg	0	180	
Min forward angle			88	deg	0	180	
Min reverse angle			88	deg	0	180	
Voltage start value			0,010	xUn	0,010	1,000	
Enable voltage limit			True				
Time Adder			0,00		0,00	2,00	
XDEFLPDEF2(67/51N-2; Io>->(2)): 2							
Io>->(2)							
Operation			off				
Reset delay time			20	ms	0	60000	
Minimum operate time			60	ms	60	60000	
Allow Non Dir			False				
Measurement mode			DFT				
Min operate current			0,005	xIn	0,005	1,000	
Min operate voltage			0,01	xUn	0,01	1,00	
Correction angle			0,0	deg	0,0	10,0	
Pol reversal			False				
Curve parameter A			28,2000		0,0086	120,0000	
Curve parameter B			0,1217		0,0000	0,7120	

					Project Alstom Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A Programado RER620A	Document id.			
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format	
Curve parameter C			2,00		0,02	2,00		
Curve parameter D			29,10		0,46	30,00		
Curve parameter E			1,0		0,0	1,0		
Io signal Sel			Calculated Io					
Pol signal Sel			Calculated Uo					
Setting Group 1								
Start value			0,200	xIn	0,010	5,000		
Start value Mult			2,0		0,8	10,0		
Directional mode			Forward					
Time multiplier			1,00		0,05	15,00		
Operating curve type			ANSI Ext. inv.					
Type of reset curve			Immediate					
Operate delay time			60	ms	60	200000		
Operation mode			Phase angle					
Characteristic angle			-90	deg	-179	180		
Max forward angle			88	deg	0	180		
Max reverse angle			88	deg	0	180		
Min forward angle			88	deg	0	180		
Min reverse angle			88	deg	0	180		
Voltage start value			0,010	xUn	0,010	1,000		

					Project Alstom Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A Programado RER620A	Document id.			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format				
Enable voltage limit						True								
Time Adder						0,00		0,00	2,00					
Setting Group 2														
Start value						0,200	xIn	0,010	5,000					
Start value Mult						2,0		0,8	10,0					
Directional mode						Forward								
Time multiplier						1,00		0,05	15,00					
Operating curve type						ANSI Ext. inv.								
Type of reset curve						Immediate								
Operate delay time						60	ms	60	200000					
Operation mode						Phase angle								
Characteristic angle						-90	deg	-179	180					
Max forward angle						88	deg	0	180					
Max reverse angle						88	deg	0	180					
Min forward angle						88	deg	0	180					
Min reverse angle						88	deg	0	180					
Voltage start value						0,010	xUn	0,010	1,000					
Enable voltage limit						True								
Time Adder						0,00		0,00	2,00					
Setting Group 3														
Start value						0,200	xIn	0,010	5,000					
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by	Title RER620A Programado RER620A		Document id.		
Re v.	Modification	Rel. date	Created by	Based on					Approved by			Rev. 0	Rel. date 09/06/2017	Lan en


Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format						
Start value Mult						2,0		0,8	10,0							
Directional mode						Forward										
Time multiplier						1,00		0,05	15,00							
Operating curve type						ANSI Ext. inv.										
Type of reset curve						Immediate										
Operate delay time						60	ms	60	200000							
Operation mode						Phase angle										
Characteristic angle						-90	deg	-179	180							
Max forward angle						88	deg	0	180							
Max reverse angle						88	deg	0	180							
Min forward angle						88	deg	0	180							
Min reverse angle						88	deg	0	180							
Voltage start value						0,010	xUn	0,010	1,000							
Enable voltage limit						True										
Time Adder						0,00		0,00	2,00							
Setting Group 4																
Start value						0,200	xIn	0,010	5,000							
Start value Mult						2,0		0,8	10,0							
Directional mode						Forward										
Time multiplier						1,00		0,05	15,00							
Operating curve type						ANSI Ext. inv.										
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by		Title RER620A Programado RER620A		Document id.			
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													0	09/06/2017	en	





Group / Parameter Name		IED Value		PC Value		Unit		Min		Max		Format		
Type of reset curve				Immediate										
Operate delay time				60		ms		60		200000				
Operation mode				Phase angle										
Characteristic angle				-90		deg		-179		180				
Max forward angle				88		deg		0		180				
Max reverse angle				88		deg		0		180				
Min forward angle				88		deg		0		180				
Min reverse angle				88		deg		0		180				
Voltage start value				0,010		xUn		0,010		1,000				
Enable voltage limit				True										
Time Adder				0,00				0,00		2,00				
Setting Group 5														
Start value				0,200		xIn		0,010		5,000				
Start value Mult				2,0				0,8		10,0				
Directional mode				Forward										
Time multiplier				1,00				0,05		15,00				
Operating curve type				ANSI Ext. inv.										
Type of reset curve				Immediate										
Operate delay time				60		ms		60		200000				
Operation mode				Phase angle										
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by		Title RER620A Programado RER620A		Document id.	
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Group / Parameter Name						IED Value	PC Value	Unit	Min	Max	Format			
Characteristic angle							-90	deg	-179	180				
Max forward angle							88	deg	0	180				
Max reverse angle							88	deg	0	180				
Min forward angle							88	deg	0	180				
Min reverse angle							88	deg	0	180				
Voltage start value							0,010	xUn	0,010	1,000				
Enable voltage limit							True							
Time Adder							0,00		0,00	2,00				
Setting Group 6														
Start value							0,200	xIn	0,010	5,000				
Start value Mult							2,0		0,8	10,0				
Directional mode							Forward							
Time multiplier							1,00		0,05	15,00				
Operating curve type							ANSI Ext. inv.							
Type of reset curve							Immediate							
Operate delay time							60	ms	60	200000				
Operation mode							Phase angle							
Characteristic angle							-90	deg	-179	180				
Max forward angle							88	deg	0	180				
Max reverse angle							88	deg	0	180				


					Project Alstom Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A Programado RER620A	Document id.			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format				
Min forward angle						88	deg	0	180					
Min reverse angle						88	deg	0	180					
Voltage start value						0,010	xUn	0,010	1,000					
Enable voltage limit						True								
Time Adder						0,00		0,00	2,00					
PDNSPTOC1(46 PD; I2/I1>): 1														
I2/I1>														
Operation						off								
Reset delay time						20	ms	0	60000					
Min phase current						0,10	xIn	0,05	0,30					
Setting Group 1														
Start value						10	%	10	100					
Operate delay time						100	ms	100	30000					
Setting Group 2														
Start value						10	%	10	100					
Operate delay time						100	ms	100	30000					
Setting Group 3														
Start value						10	%	10	100					
Operate delay time						100	ms	100	30000					
Setting Group 4														
Start value						10	%	10	100					
Operate delay time						100	ms	100	30000					
					Project	Alstom Mejillones		Responsible department	Technical ref...	Document kind	Doc. designation			
								ABB Ltd.			AA1J1Q03A1			
				Repla...					Created by	Title	Document id.			
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											0	09/06/2017	en	


Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format				
Setting Group 5														
Start value						10	%	10	100					
Operate delay time						100	ms	100	30000					
Setting Group 6														
Start value						10	%	10	100					
Operate delay time						100	ms	100	30000					
EFLPTOC3(50SE F; Io>(3)): 3														
Io>(3)														
Operation						off								
Minimum operate time						20	ms	20	60000					
Reset delay time						20	ms	0	60000					
Measurement mode						DFT								
Curve parameter A						28,2000		0,0086	120,0000					
Curve parameter B						0,1217		0,0000	0,7120					
Curve parameter C						2,00		0,02	2,00					
Curve parameter D						29,10		0,46	30,00					
Curve parameter E						1,0		0,0	1,0					
Io signal Sel						Measured Io								
Setting Group 1														
Start value						0,025	xln	0,010	5,000					
Start value Mult						2,0		0,8	10,0					
Time multiplier						1,00		0,05	15,00					
					Project Alstom Mejillones	Responsible department ABB Ltd.		Technical ref...	Document kind	Doc. designation AA1J1Q03A1				
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay			Created by	Title RER620A Programado RER620A	Document id.				
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
Operate delay time						500	ms	40	200000	
Operating curve type					ANSI Def. Time					
Type of reset curve						Immediate				
Setting Group 2										
Start value						0,025	xIn	0,010	5,000	
Start value Mult						2,0		0,8	10,0	
Time multiplier						1,00		0,05	15,00	
Operate delay time						500	ms	40	200000	
Operating curve type						ANSI Def. Time				
Type of reset curve						Immediate				
Setting Group 3										
Start value						0,025	xIn	0,010	5,000	
Start value Mult						2,0		0,8	10,0	
Time multiplier						1,00		0,05	15,00	
Operate delay time						500	ms	40	200000	
Operating curve type						ANSI Def. Time				
Type of reset curve						Immediate				
Setting Group 4										
Start value						0,025	xIn	0,010	5,000	
Start value Mult						2,0		0,8	10,0	
Time multiplier						1,00		0,05	15,00	
Operate delay time						500	ms	40	200000	
Re v.	Modification	Rel. date	Created by	Based on	Project	Responsible department		Technical ref...	Document kind	Doc. designation
					Alstom Mejillones	ABB Ltd.				AA1J1Q03A1
			Repla...		Alstom Mejillones.Substation.Voltage Level.Bay			Created by	Title	Document id.
								Approved by	RER620A Programado RER620A	Rev. 0 Rel. date 09/06/2017 Lan en 185 / 235

Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format
Operating curve type			ANSI Def. Time				
Type of reset curve Immediate							
Setting Group 5							
Start value			0,025	xIn	0,010	5,000	
Start value Mult			2,0		0,8	10,0	
Time multiplier			1,00		0,05	15,00	
Operate delay time			500	ms	40	200000	
Operating curve type			ANSI Def. Time				
Type of reset curve			Immediate				
Setting Group 6							
Start value			0,025	xIn	0,010	5,000	
Start value Mult			2,0		0,8	10,0	
Time multiplier			1,00		0,05	15,00	
Operate delay time			500	ms	40	200000	
Operating curve type			ANSI Def. Time				
Type of reset curve			Immediate				
Voltage protection							
ROVPTOV1(59N-1; Uo>(1)): 1							
Uo>(1)							
Operation off							
Reset delay time			20	ms	0	60000	
Uo signal Sel Calculated Uo							


					Project Alstom Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A Programado RER620A	Document id.			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
Setting Group 1										
Start value						0,030	xUn	0,010	1,000	
Operate delay time						40	ms	40	300000	
Setting Group 2										
Start value						0,030	xUn	0,010	1,000	
Operate delay time						40	ms	40	300000	
Setting Group 3										
Start value						0,030	xUn	0,010	1,000	
Operate delay time						40	ms	40	300000	
Setting Group 4										
Start value						0,030	xUn	0,010	1,000	
Operate delay time						40	ms	40	300000	
Setting Group 5										
Start value						0,030	xUn	0,010	1,000	
Operate delay time						40	ms	40	300000	
Setting Group 6										
Start value						0,030	xUn	0,010	1,000	
Operate delay time						40	ms	40	300000	
ROVPTOV2(59N-2; Uo>(2)): 2										
Uo>(2)										
Operation						off				
Reset delay time						20	ms	0	60000	
Uo signal Sel						Calculated Uo				


					Project Alstom Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title	Document id.			
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format							
Setting Group 1														
Start value			0,030	xUn	0,010	1,000								
Operate delay time			40	ms	40	300000								
Setting Group 2														
Start value			0,030	xUn	0,010	1,000								
Operate delay time			40	ms	40	300000								
Setting Group 3														
Start value			0,030	xUn	0,010	1,000								
Operate delay time			40	ms	40	300000								
Setting Group 4														
Start value			0,030	xUn	0,010	1,000								
Operate delay time			40	ms	40	300000								
Setting Group 5														
Start value			0,030	xUn	0,010	1,000								
Operate delay time			40	ms	40	300000								
Setting Group 6														
Start value			0,030	xUn	0,010	1,000								
Operate delay time			40	ms	40	300000								
PSPTOV1(59PS-1; U1>(1)): 1														
U1>(1)														
Operation			off											
Reset delay time			20	ms	0	60000								
					Project		Responsible department		Technical ref...		Document kind		Doc. designation	
					Alstom Mejillones		ABB Ltd.						AA1J1Q03A1	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by		Title		Document id.	
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											09/06/2017		Lan en 188 / 235	




Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format						
Relative hysteresis						4,0	%	1,0	5,0							
Setting Group 1																
Start value						0,650	xUn	0,400	1,600							
Operate delay time						40	ms	40	120000							
Setting Group 2																
Start value						0,650	xUn	0,400	1,600							
Operate delay time						40	ms	40	120000							
Setting Group 3																
Start value						0,650	xUn	0,400	1,600							
Operate delay time						40	ms	40	120000							
Setting Group 4																
Start value						0,650	xUn	0,400	1,600							
Operate delay time						40	ms	40	120000							
Setting Group 5																
Start value						0,650	xUn	0,400	1,600							
Operate delay time						40	ms	40	120000							
Setting Group 6																
Start value						0,650	xUn	0,400	1,600							
Operate delay time						40	ms	40	120000							
PSPTOV2(59PS-2; U1>(2)): 2																
U1>(2)																
Operation						off										
					Project Alstom Mejillones			Responsible department ABB Ltd.		Technical ref...	Document kind		Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay					Created by	Title RER620A Programado RER620A		Document id.			
Re v.	Modification	Rel. date	Created by	Based on						Approved by			Rev.	Rel. date	Lan	189 / 235
													0	09/06/2017	en	


Group / Parameter Name		IED Value		PC Value		Unit		Min		Max		Format			
Reset delay time				20		ms		0		60000					
Relative hysteresis				4,0		%		1,0		5,0					
Setting Group 1															
Start value				0,650		xUn		0,400		1,600					
Operate delay time				40		ms		40		120000					
Setting Group 2															
Start value				0,650		xUn		0,400		1,600					
Operate delay time				40		ms		40		120000					
Setting Group 3															
Start value				0,650		xUn		0,400		1,600					
Operate delay time				40		ms		40		120000					
Setting Group 4															
Start value				0,650		xUn		0,400		1,600					
Operate delay time				40		ms		40		120000					
Setting Group 5															
Start value				0,650		xUn		0,400		1,600					
Operate delay time				40		ms		40		120000					
Setting Group 6															
Start value				0,650		xUn		0,400		1,600					
Operate delay time				40		ms		40		120000					
NSPTOV1(47-1; U2>(1)): 1															
U2>(1)															
					Project Alstom Mejillones			Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay					Created by		Title RER620A Programado RER620A		Document id.	
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format							
Operation			off											
Reset delay time			20	ms	0	60000								
Setting Group 1														
Start value			0,030	xUn	0,010	1,000								
Operate delay time			40	ms	40	120000								
Setting Group 2														
Start value			0,030	xUn	0,010	1,000								
Operate delay time			40	ms	40	120000								
Setting Group 3														
Start value			0,030	xUn	0,010	1,000								
Operate delay time			40	ms	40	120000								
Setting Group 4														
Start value			0,030	xUn	0,010	1,000								
Operate delay time			40	ms	40	120000								
Setting Group 5														
Start value			0,030	xUn	0,010	1,000								
Operate delay time			40	ms	40	120000								
Setting Group 6														
Start value			0,030	xUn	0,010	1,000								
Operate delay time			40	ms	40	120000								
NSPTOV2(47-2; U2>(2)): 2														
U2>(2)														
Operation			off											
					Project		Responsible department		Technical ref...		Document kind		Doc. designation	
					Alstom Mejillones		ABB Ltd.						AA1J1Q03A1	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by		Title		Document id.	
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format
Reset delay time			20	ms	0	60000	
Setting Group 1							
Start value			0,030	xUn	0,010	1,000	
Operate delay time			40	ms	40	120000	
Setting Group 2							
Start value			0,030	xUn	0,010	1,000	
Operate delay time			40	ms	40	120000	
Setting Group 3							
Start value			0,030	xUn	0,010	1,000	
Operate delay time			40	ms	40	120000	
Setting Group 4							
Start value			0,030	xUn	0,010	1,000	
Operate delay time			40	ms	40	120000	
Setting Group 5							
Start value			0,030	xUn	0,010	1,000	
Operate delay time			40	ms	40	120000	
Setting Group 6							
Start value			0,030	xUn	0,010	1,000	
Operate delay time			40	ms	40	120000	
SPHPTOV1(59-1; 3U>(1)): 1							
3U>(1)							
Operation			off				

					Project Alstom Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A Programado RER620A	Document id.			
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[illegible]


Group / Parameter Name		IED Value		PC Value		Unit		Min		Max		Format			
Operate delay time				10000		ms		40		300000					
Operating curve type		ANSI Def. Time													
Type of reset curve				Immediate											
Setting Group 3															
Start value				1,17		xUn		0,05		1,60					
Time multiplier				1,00				0,05		15,00					
Operate delay time				10000		ms		40		300000					
Operating curve type		ANSI Def. Time													
Type of reset curve				Immediate											
Setting Group 4															
Start value				1,17		xUn		0,05		1,60					
Time multiplier				1,00				0,05		15,00					
Operate delay time				10000		ms		40		300000					
Operating curve type		ANSI Def. Time													
Type of reset curve				Immediate											
Setting Group 5															
Start value				1,17		xUn		0,05		1,60					
Time multiplier				1,00				0,05		15,00					
Operate delay time				10000		ms		40		300000					
Operating curve type		ANSI Def. Time													
Type of reset curve				Immediate											
					Project Alstom Mejillones			Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay					Created by		Title RER620A Programado RER620A		Document id.	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
Setting Group 6										
Start value						1,17	xUn	0,05	1,60	
Time multiplier						1,00		0,05	15,00	
Operate delay time						10000	ms	40	300000	
ANSI Def. Time										
Operating curve type										
Type of reset curve						Immediate				
SPHPTOV2(59-2; 3U>(2)): 2										
3U>(2)										
off										
Operation										
Num of start phases						1 out of 3				
Minimum operate time						40	ms	40	60000	
Reset delay time						20	ms	0	60000	
Curve parameter A						1,000		0,005	200,000	
Curve parameter B						1,00		0,50	100,00	
Curve parameter C						0,0		0,0	1,0	
Curve parameter D						0,000		0,000	60,000	
Curve parameter E						1,000		0,000	3,000	
Curve Sat Relative						2,0		0,0	3,0	
phase-to-phase										
Voltage selection										
Relative hysteresis						4,0	%	1,0	5,0	
					Project		Responsible department		Technical ref...	
					Alstom Mejillones		ABB Ltd.		Document kind	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by	
Re v.	Modification	Rel. date	Created by	Based on					Title	
									RER620A	
									Programado	
									RER620A	
									Rev.	Rel. date
									0	09/06/2017
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format	
Setting Group 1								
Start value			1,17	xUn	0,05	1,60		
Time multiplier			1,00		0,05	15,00		
Operate delay time			10000	ms	40	300000		
Operating curve type		ANSI Def. Time						
Type of reset curve			Immediate					
Setting Group 2								
Start value			1,17	xUn	0,05	1,60		
Time multiplier			1,00		0,05	15,00		
Operate delay time			10000	ms	40	300000		
Operating curve type		ANSI Def. Time						
Type of reset curve			Immediate					
Setting Group 3								
Start value			1,17	xUn	0,05	1,60		
Time multiplier			1,00		0,05	15,00		
Operate delay time			10000	ms	40	300000		
Operating curve type		ANSI Def. Time						
Type of reset curve			Immediate					
Setting Group 4								
Start value			1,17	xUn	0,05	1,60		
Time multiplier			1,00		0,05	15,00		
Operate delay time			10000	ms	40	300000		
					Project		Responsible department	
					Alstom Mejillones		ABB Ltd.	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay			
Re v.	Modification	Rel. date	Created by	Based on	Technical ref...		Document kind	
					Created by		Title	
					Approved by		RER620A Programado RER620A	
							Document id.	
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Group / Parameter Name		IED Value		PC Value		Unit		Min		Max		Format			
				ANSI Def. Time											
Operating curve type															
Type of reset curve				Immediate											
				Setting Group 5											
Start value				1,17		xUn		0,05		1,60					
Time multiplier				1,00				0,05		15,00					
Operate delay time				10000		ms		40		300000					
				ANSI Def. Time											
Operating curve type															
Type of reset curve				Immediate											
				Setting Group 6											
Start value				1,17		xUn		0,05		1,60					
Time multiplier				1,00				0,05		15,00					
Operate delay time				10000		ms		40		300000					
				ANSI Def. Time											
Operating curve type															
Type of reset curve				Immediate											
				SPHPTOV3(59-3; 3U>(3)): 3											
3U>(3)															
				off											
Operation															
Num of start phases				1 out of 3											
Minimum operate time				40		ms		40		60000					
Reset delay time				20		ms		0		60000					
				1,000				0,005		200,000					
Curve parameter A															
					Project Alstom Mejillones			Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay					Created by		Title RER620A Programado RER620A		Document id.	
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format	
Curve parameter B			1,00		0,50	100,00		
Curve parameter C			0,0		0,0	1,0		
Curve parameter D			0,000		0,000	60,000		
Curve parameter E			1,000		0,000	3,000		
Curve Sat Relative			2,0		0,0	3,0		
Voltage selection			phase-to-phase					
Relative hysteresis			4,0	%	1,0	5,0		
Setting Group 1								
Start value			1,17	xUn	0,05	1,60		
Time multiplier			1,00		0,05	15,00		
Operate delay time			10000	ms	40	300000		
Operating curve type			ANSI Def. Time					
Type of reset curve			Immediate					
Setting Group 2								
Start value			1,17	xUn	0,05	1,60		
Time multiplier			1,00		0,05	15,00		
Operate delay time			10000	ms	40	300000		
Operating curve type			ANSI Def. Time					
Type of reset curve			Immediate					
Setting Group 3								
Start value			1,17	xUn	0,05	1,60		
					Project		Responsible department	
					Alstom Mejillones		ABB Ltd.	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay			
							Technical ref...	
							Document kind	
							Doc. designation	
							AA1J1Q03A1	
							Created by	
							Title	
							RER620A	
							Programado	
							RER620A	
							Approved by	
							Document id.	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
Time multiplier						1,00		0,05	15,00	
Operate delay time						10000	ms	40	300000	
Operating curve type					ANSI Def. Time					
Type of reset curve						Immediate				
Setting Group 4										
Start value						1,17	xUn	0,05	1,60	
Time multiplier						1,00		0,05	15,00	
Operate delay time						10000	ms	40	300000	
Operating curve type					ANSI Def. Time					
Type of reset curve						Immediate				
Setting Group 5										
Start value						1,17	xUn	0,05	1,60	
Time multiplier						1,00		0,05	15,00	
Operate delay time						10000	ms	40	300000	
Operating curve type					ANSI Def. Time					
Type of reset curve						Immediate				
Setting Group 6										
Start value						1,17	xUn	0,05	1,60	
Time multiplier						1,00		0,05	15,00	
Operate delay time						10000	ms	40	300000	
Operating curve type					ANSI Def. Time					
Re v.	Modification	Rel. date	Created by	Based on	Project Alstom Mejillones			Responsible department ABB Ltd.		Doc. designation AA1J1Q03A1
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay					Document id.
										Rev. 0 Rel. date 09/06/2017 Lan en 199 / 235
								Created by	Title RER620A Programado RER620A	
								Approved by		


Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format
Type of reset curve			Immediate				
SPHPTUV1(27-1; 3U<(1)): 1							
3U<(1)							
Operation			off				
Num of start phases			1 out of 3				
Minimum operate time			60	ms	60	60000	
Reset delay time			20	ms	0	60000	
Curve parameter A			1,000		0,005	200,000	
Curve parameter B			1,00		0,50	100,00	
Curve parameter C			0,0		0,0	1,0	
Curve parameter D			0,000		0,000	60,000	
Curve parameter E			1,000		0,000	3,000	
Curve Sat Relative			2,0		0,0	3,0	
Voltage block value			0,20	xUn	0,05	1,00	
Enable block value			True				
Voltage selection			phase-to-phase				
Relative hysteresis			4,0	%	1,0	5,0	
Setting Group 1							
Start value			0,83	xUn	0,05	1,20	
Time multiplier			1,00		0,05	15,00	

					Project Alstom Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A Programado RER620A	Document id.			
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format	
Operate delay time			10000	ms	60	300000		
Operating curve type		ANSI Def. Time						
Type of reset curve			Immediate					
Setting Group 2								
Start value			0,83	xUn	0,05	1,20		
Time multiplier			1,00		0,05	15,00		
Operate delay time			10000	ms	60	300000		
Operating curve type		ANSI Def. Time						
Type of reset curve			Immediate					
Setting Group 3								
Start value			0,83	xUn	0,05	1,20		
Time multiplier			1,00		0,05	15,00		
Operate delay time			10000	ms	60	300000		
Operating curve type		ANSI Def. Time						
Type of reset curve			Immediate					
Setting Group 4								
Start value			0,83	xUn	0,05	1,20		
Time multiplier			1,00		0,05	15,00		
Operate delay time			10000	ms	60	300000		
Operating curve type		ANSI Def. Time						
Type of reset curve			Immediate					
Re v.	Modification	Rel. date	Created by	Based on	Project Alstom Mejillones		Responsible department ABB Ltd.	
			Repla...		Alstom Mejillones.Substation.Voltage Level.Bay			
					Technical ref...		Document kind	
					Created by		Title RER620A Programado RER620A	
					Approved by		Document id.	
							Rev.	Rel. date
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format					
Setting Group 5															
Start value						0,83	xUn	0,05	1,20						
Time multiplier						1,00		0,05	15,00						
Operate delay time						10000	ms	60	300000						
Operating curve type					ANSI Def. Time										
Type of reset curve						Immediate									
Setting Group 6															
Start value						0,83	xUn	0,05	1,20						
Time multiplier						1,00		0,05	15,00						
Operate delay time						10000	ms	60	300000						
Operating curve type					ANSI Def. Time										
Type of reset curve						Immediate									
SPHPTUV2(27-2; 3U<(2)): 2															
3U<(2)															
Operation					off										
Num of start phases						1 out of 3									
Minimum operate time						60	ms	60	60000						
Reset delay time						20	ms	0	60000						
Curve parameter A						1,000		0,005	200,000						
Curve parameter B						1,00		0,50	100,00						
Curve parameter C						0,0		0,0	1,0						
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1		
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by		Title RER620A Programado RER620A		Document id.		
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format							
Curve parameter D			0,000		0,000	60,000								
Curve parameter E			1,000		0,000	3,000								
Curve Sat Relative			2,0		0,0	3,0								
Voltage block value			0,20	xUn	0,05	1,00								
Enable block value			True											
Voltage selection			phase-to-phase											
Relative hysteresis			4,0	%	1,0	5,0								
Setting Group 1														
Start value			0,83	xUn	0,05	1,20								
Time multiplier			1,00		0,05	15,00								
Operate delay time			10000	ms	60	300000								
Operating curve type			ANSI Def. Time											
Type of reset curve			Immediate											
Setting Group 2														
Start value			0,83	xUn	0,05	1,20								
Time multiplier			1,00		0,05	15,00								
Operate delay time			10000	ms	60	300000								
Operating curve type			ANSI Def. Time											
Type of reset curve			Immediate											
Setting Group 3														
Start value			0,83	xUn	0,05	1,20								
					Project		Responsible department							
					Alstom Mejillones		ABB Ltd.							
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by		Title		Document id.	
									Approved by		RER620A Programado RER620A		Document id.	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format						
Time multiplier						1,00		0,05	15,00							
Operate delay time						10000	ms	60	300000							
Operating curve type					ANSI Def. Time											
Type of reset curve						Immediate										
Setting Group 4																
Start value						0,83	xUn	0,05	1,20							
Time multiplier						1,00		0,05	15,00							
Operate delay time						10000	ms	60	300000							
Operating curve type					ANSI Def. Time											
Type of reset curve						Immediate										
Setting Group 5																
Start value						0,83	xUn	0,05	1,20							
Time multiplier						1,00		0,05	15,00							
Operate delay time						10000	ms	60	300000							
Operating curve type					ANSI Def. Time											
Type of reset curve						Immediate										
Setting Group 6																
Start value						0,83	xUn	0,05	1,20							
Time multiplier						1,00		0,05	15,00							
Operate delay time						10000	ms	60	300000							
Operating curve type					ANSI Def. Time											
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by		Title RER620A Programado RER620A		Document id.			
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format
Type of reset curve			Immediate				
SPHPTUV3(27-3; 3U<(3)): 3							
3U<(3)							
Operation			off				
Num of start phases			1 out of 3				
Minimum operate time			60	ms	60	60000	
Reset delay time			20	ms	0	60000	
Curve parameter A			1,000		0,005	200,000	
Curve parameter B			1,00		0,50	100,00	
Curve parameter C			0,0		0,0	1,0	
Curve parameter D			0,000		0,000	60,000	
Curve parameter E			1,000		0,000	3,000	
Curve Sat Relative			2,0		0,0	3,0	
Voltage block value			0,20	xUn	0,05	1,00	
Enable block value			True				
Voltage selection			phase-to-phase				
Relative hysteresis			4,0	%	1,0	5,0	
Setting Group 1							
Start value			0,83	xUn	0,05	1,20	
Time multiplier			1,00		0,05	15,00	


					Project Alstom Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A Programado RER620A	Document id.			
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format						
Operate delay time			10000	ms	60	300000							
Operating curve type		ANSI Def. Time											
Type of reset curve			Immediate										
Setting Group 2													
Start value			0,83	xUn	0,05	1,20							
Time multiplier			1,00		0,05	15,00							
Operate delay time			10000	ms	60	300000							
Operating curve type		ANSI Def. Time											
Type of reset curve			Immediate										
Setting Group 3													
Start value			0,83	xUn	0,05	1,20							
Time multiplier			1,00		0,05	15,00							
Operate delay time			10000	ms	60	300000							
Operating curve type		ANSI Def. Time											
Type of reset curve			Immediate										
Setting Group 4													
Start value			0,83	xUn	0,05	1,20							
Time multiplier			1,00		0,05	15,00							
Operate delay time			10000	ms	60	300000							
Operating curve type		ANSI Def. Time											
Type of reset curve			Immediate										
Re v.	Modification	Rel. date	Created by	Based on	Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref... Document kind		Doc. designation AA1J1Q03A1		
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by	Title RER620A Programado RER620A		Document id.	
									Approved by			Rev. 0	Rel. date 09/06/2017


Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format	
Setting Group 5								
Start value			0,83	xUn	0,05	1,20		
Time multiplier			1,00		0,05	15,00		
Operate delay time			10000	ms	60	300000		
Operating curve type		ANSI Def. Time						
Type of reset curve			Immediate					
Setting Group 6								
Start value			0,83	xUn	0,05	1,20		
Time multiplier			1,00		0,05	15,00		
Operate delay time			10000	ms	60	300000		
Operating curve type		ANSI Def. Time						
Type of reset curve			Immediate					
Frequency protection								
FRPFRQ1(81-1; f>/f<,df/dt(1)): 1								
f>/f<,df/dt(1)								
Operation			off					
Reset delay Tm Freq			0	ms	0	60000		
Reset delay Tm df/dt			0	ms	0	60000		
Setting Group 1								
Operation mode			Freq<					
Start value Freq>			1,050	xFn	0,900	1,200		
					Project		Responsible department	
					Alstom Mejillones		ABB Ltd.	
				Repla...	Alstom		Created by	
					Mejillones.Substation.Voltage Level.Bay		Title	
					RER620A		Document id.	
					Programado		Rev.	
					RER620A		09/06/2017	
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format	
Start value Freq<			0,950	xFn	0,800	1,100		
Start value df/dt			0,010	xFn /s	-0,200	0,200		
Operate Tm Freq			200	ms	80	200000		
Operate Tm df/dt			400	ms	120	200000		
Setting Group 2								
Operation mode			Freq<					
Start value Freq>			1,050	xFn	0,900	1,200		
Start value Freq<			0,950	xFn	0,800	1,100		
Start value df/dt			0,010	xFn /s	-0,200	0,200		
Operate Tm Freq			200	ms	80	200000		
Operate Tm df/dt			400	ms	120	200000		
Setting Group 3								
Operation mode			Freq<					
Start value Freq>			1,050	xFn	0,900	1,200		
Start value Freq<			0,950	xFn	0,800	1,100		
Start value df/dt			0,010	xFn /s	-0,200	0,200		
Operate Tm Freq			200	ms	80	200000		
Operate Tm df/dt			400	ms	120	200000		
Setting Group 4								
Operation mode			Freq<					
Start value Freq>			1,050	xFn	0,900	1,200		
Start value Freq<			0,950	xFn	0,800	1,100		
Start value df/dt			0,010	xFn /s	-0,200	0,200		
Operate Tm Freq			200	ms	80	200000		
Operate Tm df/dt			400	ms	120	200000		
Setting Group 4								
Operation mode			Freq<					
Start value Freq>			1,050	xFn	0,900	1,200		


					Project	Responsible department	Technical ref...	Document kind	Doc. designation			
					Alstom Mejillones	ABB Ltd.			AA1J1Q03A1			
				Repla...			Created by	Title	Document id.			
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format					
Start value Freq<			0,950	xFn	0,800	1,100						
Start value df/dt			0,010	xFn /s	-0,200	0,200						
Operate Tm Freq			200	ms	80	200000						
Operate Tm df/dt			400	ms	120	200000						
Setting Group 5												
Operation mode			Freq<									
Start value Freq>			1,050	xFn	0,900	1,200						
Start value Freq<			0,950	xFn	0,800	1,100						
Start value df/dt			0,010	xFn /s	-0,200	0,200						
Operate Tm Freq			200	ms	80	200000						
Operate Tm df/dt			400	ms	120	200000						
Setting Group 6												
Operation mode			Freq<									
Start value Freq>			1,050	xFn	0,900	1,200						
Start value Freq<			0,950	xFn	0,800	1,100						
Start value df/dt			0,010	xFn /s	-0,200	0,200						
Operate Tm Freq			200	ms	80	200000						
Operate Tm df/dt			400	ms	120	200000						
FRPFRQ2(81-2; f>/f<,df/dt(2)): 2												
f>/f<,df/dt(2)												
off												
Operation												
					Project	Responsible department	Technical ref...	Document kind	Doc. designation			
					Alstom Mejillones	ABB Ltd.			AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title	Document id.			
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format	
Reset delay Tm Freq			0	ms	0	60000		
Reset delay Tm df/dt			0	ms	0	60000		
Setting Group 1								
Operation mode			Freq<					
Start value Freq>			1,050	xFn	0,900	1,200		
Start value Freq<			0,950	xFn	0,800	1,100		
Start value df/dt			0,010	xFn /s	-0,200	0,200		
Operate Tm Freq			200	ms	80	200000		
Operate Tm df/dt			400	ms	120	200000		
Setting Group 2								
Operation mode			Freq<					
Start value Freq>			1,050	xFn	0,900	1,200		
Start value Freq<			0,950	xFn	0,800	1,100		
Start value df/dt			0,010	xFn /s	-0,200	0,200		
Operate Tm Freq			200	ms	80	200000		
Operate Tm df/dt			400	ms	120	200000		
Setting Group 3								
Operation mode			Freq<					
Start value Freq>			1,050	xFn	0,900	1,200		
Start value Freq<			0,950	xFn	0,800	1,100		
Start value df/dt			0,010	xFn /s	-0,200	0,200		
Operate Tm Freq			200	ms	80	200000		
Operate Tm df/dt			400	ms	120	200000		
Setting Group 4								
Operation mode			Freq<					
Start value Freq>			1,050	xFn	0,900	1,200		
Start value Freq<			0,950	xFn	0,800	1,100		
Start value df/dt			0,010	xFn /s	-0,200	0,200		


					Project Alstom Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A Programado RER620A	Document id.			
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format
Operate Tm Freq			200	ms	80	200000	
Operate Tm df/dt			400	ms	120	200000	
Setting Group 4							
Operation mode			Freq<				
Start value Freq>			1,050	xFn	0,900	1,200	
Start value Freq<			0,950	xFn	0,800	1,100	
Start value df/dt			0,010	xFn /s	-0,200	0,200	
Operate Tm Freq			200	ms	80	200000	
Operate Tm df/dt			400	ms	120	200000	
Setting Group 5							
Operation mode				Freq<			
Start value Freq>			1,050	xFn	0,900	1,200	
Start value Freq<			0,950	xFn	0,800	1,100	
Start value df/dt			0,010	xFn /s	-0,200	0,200	
Operate Tm Freq			200	ms	80	200000	
Operate Tm df/dt			400	ms	120	200000	
Setting Group 6							
Operation mode			Freq<				
Start value Freq>			1,050	xFn	0,900	1,200	
Start value Freq<			0,950	xFn	0,800	1,100	
Start value df/dt			0,010	xFn /s	-0,200	0,200	
Operate Tm Freq			200	ms	80	200000	
Operate Tm df/dt			400	ms	120	200000	
Setting Group 6							
Operation mode			Freq<				
Start value Freq>			1,050	xFn	0,900	1,200	
Start value Freq<			0,950	xFn	0,800	1,100	
Start value df/dt			0,010	xFn /s	-0,200	0,200	


					Project Alstom Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A Programado RER620A	Document id.			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
Operate Tm Freq						200	ms	80	200000	
Operate Tm df/dt						400	ms	120	200000	
Other protection										
PHIZ1(HIZ; PHIZ1): 1										
PHIZ1										
off										
Operation										
System type						Grounded				
Setting Group 1										
Security Level						5		1	10	
Setting Group 2										
Security Level						5		1	10	
Setting Group 3										
Security Level						5		1	10	
Setting Group 4										
Security Level						5		1	10	
Setting Group 5										
Security Level						5		1	10	
Setting Group 6										
Security Level						5		1	10	
DPSRDIR1(32P; DPSRDIR1): 1										
DPSRDIR1										
off										
Operation										
Reset delay time						20	ms	0	60000	
Min operate current						0,10	xIn	0,01	1,00	
					Project		Responsible department		Technical ref...	
					Alstom Mejillones		ABB Ltd.		Document kind	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by	
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format									
Min operate voltage			0,30	xUn	0,01	1,00										
Setting Group 1																
Release delay time			10	ms	0	1000										
Characteristic angle			60	deg	-179	180										
Max forward angle			88	deg	0	90										
Max reverse angle			88	deg	0	90										
Min forward angle			88	deg	0	90										
Min reverse angle			88	deg	0	90										
Directional mode			Forward													
Setting Group 2																
Release delay time			10	ms	0	1000										
Characteristic angle			60	deg	-179	180										
Max forward angle			88	deg	0	90										
Max reverse angle			88	deg	0	90										
Min forward angle			88	deg	0	90										
Min reverse angle			88	deg	0	90										
Directional mode			Forward													
Setting Group 3																
Release delay time			10	ms	0	1000										
Characteristic angle			60	deg	-179	180										
					Project		Responsible department		Technical ref...		Document kind		Doc. designation			
					Alstom Mejillones		ABB Ltd.						AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by		Title		Document id.			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
Max forward angle						88	deg	0	90	
Max reverse angle						88	deg	0	90	
Min forward angle						88	deg	0	90	
Min reverse angle						88	deg	0	90	
Directional mode						Forward				
Setting Group 4										
Release delay time						10	ms	0	1000	
Characteristic angle						60	deg	-179	180	
Max forward angle						88	deg	0	90	
Max reverse angle						88	deg	0	90	
Min forward angle						88	deg	0	90	
Min reverse angle						88	deg	0	90	
Directional mode						Forward				
Setting Group 5										
Release delay time						10	ms	0	1000	
Characteristic angle						60	deg	-179	180	
Max forward angle						88	deg	0	90	
Max reverse angle						88	deg	0	90	
Min forward angle						88	deg	0	90	
					Project		Responsible department		Technical ref...	
					Alstom Mejillones		ABB Ltd.		Document kind	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by	
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format										
Min reverse angle			88	deg	0	90											
Directional mode			Forward														
Setting Group 6																	
Release delay time			10	ms	0	1000											
Characteristic angle			60	deg	-179	180											
Max forward angle			88	deg	0	90											
Max reverse angle			88	deg	0	90											
Min forward angle			88	deg	0	90											
Min reverse angle			88	deg	0	90											
Directional mode			Forward														
SCCBRBRF1(50 BFT; 3I>/Io>BF): 1																	
3I>/Io>BF																	
Operation			off														
Current value			0,30	xIn	0,05	1,00											
Current value Res			0,30	xIn	0,05	1,00											
CB failure trip mode			1 out of 3														
CB failure mode			Both														
CB fail retrip mode			Current check														
Retrip time			50	ms	0	60000											
CB failure delay			150	ms	0	60000											
CB fault delay			5000	ms	0	60000											
					Project		Responsible department		Technical ref...		Document kind		Doc. designation				
					Alstom Mejillones		ABB Ltd.						AA1J1Q03A1				
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by		Title		Document id.				
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format				
Measurement mode						DFT								
Trip pulse time						150	ms	0	60000					
SCCBRBCF1(50 BFC; SCCBRBCF1): 1														
SCCBRBCF1														
Operation						off								
Close delay time						300	ms	0	60000					
Close pulse time						150	ms	0	60000					
DNZSRDIR1(32N ; DNZSRDIR1): 1														
DNZSRDIR1														
Operation						off								
Reset delay time						20	ms	0	60000					
Min operate current						0,10	xIn	0,01	1,00					
Min operate voltage						0,30	xUn	0,01	1,00					
Pol reversal						False								
Io signal Sel						Calculated Io								
Pol signal Sel						Calculated Uo								
Setting Group 1														
Release delay time						10	ms	0	1000					
Directional mode						Forward								
Characteristic angle						60	deg	-179	180					
Max forward angle						88	deg	0	180					
Min forward angle						88	deg	0	180					
					Project	Alstom Mejillones		Responsible department	Technical ref...	Document kind	Doc. designation			
								ABB Ltd.			AA1J1Q03A1			
				Repla...					Created by	Title	Document id.			
					Alstom					RER620A				
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Group / Parameter Name		IED Value		PC Value		Unit		Min		Max		Format			
Max reverse angle				88		deg		0		180					
Min reverse angle				88		deg		0		180					
Setting Group 2															
Release delay time				10		ms		0		1000					
Directional mode				Forward											
Characteristic angle				60		deg		-179		180					
Max forward angle				88		deg		0		180					
Min forward angle				88		deg		0		180					
Max reverse angle				88		deg		0		180					
Min reverse angle				88		deg		0		180					
Setting Group 3															
Release delay time				10		ms		0		1000					
Directional mode				Forward											
Characteristic angle				60		deg		-179		180					
Max forward angle				88		deg		0		180					
Min forward angle				88		deg		0		180					
Max reverse angle				88		deg		0		180					
Min reverse angle				88		deg		0		180					
Setting Group 4															
Release delay time				10		ms		0		1000					
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1		
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by		Title RER620A Programado RER620A		Document id.		
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Group / Parameter Name		IED Value		PC Value		Unit		Min		Max		Format		
Directional mode				Forward										
Characteristic angle				60		deg		-179		180				
Max forward angle				88		deg		0		180				
Min forward angle				88		deg		0		180				
Max reverse angle				88		deg		0		180				
Min reverse angle				88		deg		0		180				
Setting Group 5														
Release delay time				10		ms		0		1000				
Directional mode				Forward										
Characteristic angle				60		deg		-179		180				
Max forward angle				88		deg		0		180				
Min forward angle				88		deg		0		180				
Max reverse angle				88		deg		0		180				
Min reverse angle				88		deg		0		180				
Setting Group 6														
Release delay time				10		ms		0		1000				
Directional mode				Forward										
Characteristic angle				60		deg		-179		180				
Max forward angle				88		deg		0		180				
Min forward angle				88		deg		0		180				
					Project		Responsible department		Technical ref...		Document kind		Doc. designation	
					Alstom Mejillones		ABB Ltd.						AA1J1Q03A1	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by		Title		Document id.	
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format	
Max reverse angle			88	deg	0	180		
Min reverse angle			88	deg	0	180		
Control								
Settings								
Control								
SDARREC1(79; O->I): 1								
O->I								
Operation			off					
Reclosing operation			On					
Manual close mode			False					
Wait close time			250	ms	50	10000		
Max wait time			10000	ms	100	1800000		
Max trip time			10000	ms	100	10000		
Close pulse time			200	ms	10	10000		
Max Thm block time			10000	ms	100	1800000		
Cut-out time			10000	ms	0	1800000		
Reclaim time			10000	ms	100	1800000		
Dsr time shot 1			0	ms	0	10000		
Dsr time shot 2			0	ms	0	10000		
Dsr time shot 3			0	ms	0	10000		
Dsr time shot 4			0	ms	0	10000		
Terminal priority			None					
Synchronisation set			0		0	127		
Auto wait time			2000	ms	0	60000		


					Project	Responsible department	Technical ref...	Document kind	Doc. designation			
					Alstom Mejillones	ABB Ltd.			AA1J1Q03A1			
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format	
Auto lockout reset			True					
Protection crd limit			3		1	5		
Protection crd mode			No condition					
Auto initiation cnd			When sync fails					
Tripping line			63		0	63		
Control line			63		0	63		
Enable shot jump			True					
CB closed Pos status			False					
Fourth delay in SOTF			False					
First reclose time			500	ms	0	300000		
Second reclose time			2000	ms	0	300000		
Third reclose time			5000	ms	0	300000		
Fourth reclose time			5000	ms	0	300000		
Fifth reclose time			5000	ms	0	300000		
Sixth reclose time			5000	ms	0	300000		
Seventh reclose time			5000	ms	0	300000		
Init signals CBB1			63		0	63		
Init signals CBB2			63		0	63		
Init signals CBB3			63		0	63		
Init signals CBB4			0		0	63		
Init signals CBB5			0		0	63		
Init signals CBB6			0		0	63		
Init signals CBB7			0		0	63		
				Project	Responsible department	Technical ref...	Document kind	Doc. designation
				Alstom Mejillones	ABB Ltd.			AA1J1Q03A1
			Repla...			Created by	Title	Document id.
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format			
Blk signals CBB1			0		0	63				
Blk signals CBB2			0		0	63				
Blk signals CBB3			0		0	63				
Blk signals CBB4			0		0	63				
Blk signals CBB5			0		0	63				
Blk signals CBB6			0		0	63				
Blk signals CBB7			0		0	63				
Shot number CBB1			1		0	5				
Shot number CBB2			2		0	5				
Shot number CBB3			3		0	5				
Shot number CBB4			0		0	5				
Shot number CBB5			0		0	5				
Shot number CBB6			0		0	5				
Shot number CBB7			0		0	5				
Str 2 delay shot 1			0	ms	0	300000				
Str 2 delay shot 2			0	ms	0	300000				
Str 2 delay shot 3			0	ms	0	300000				
Str 2 delay shot 4			0	ms	0	300000				
Str 3 delay shot 1			0	ms	0	300000				
Str 3 delay shot 2			0	ms	0	300000				
Str 3 delay shot 3			0	ms	0	300000				
Str 3 delay shot 4			0	ms	0	300000				
Str 4 delay shot 1			0	ms	0	300000				
				Project	Responsible department		Technical ref...		Document kind	
				Alstom Mejillones	ABB Ltd.				Doc. designation	
				Repla...			Created by		Title	
				Alstom					Document id.	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format		
Str 4 delay shot 2						0	ms	0	300000			
Str 4 delay shot 3						0	ms	0	300000			
Str 4 delay shot 4						0	ms	0	300000			
Frq Op counter limit						0		0	250			
Frq Op counter time						1	min	1	250			
Frq Op recovery time						1	min	1	250			
Auto init						0		0	63			
AR Singlephase Mode						OOAP						
Shot mode 1						0		0	63			
Shot mode 2						0		0	63			
Shot mode 3						0		0	63			
Shot mode 4						0		0	63			
Shot mode 5						0		0	63			
3P LO Override						Enable						
SECRSYN1(25; SYNC): 1												
SYNC												
Operation						off						
Synchro check mode						Synchronous						
Control mode						Continuous						
Dead line value						0,2	xUn	0,1	0,8			
Live line value						0,5	xUn	0,2	1,0			
Dead bus value						0,2	xUn	0,1	0,8			
Live bus value						0,5	xUn	0,2	1,0			
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref...	Document kind	Doc. designation AA1J1Q03A1	
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format			
Close pulse			200	ms	200	60000				
Max energizing V			1,05	xUn	0,50	1,15				
Phase shift			180	deg	-180	180				
Minimum Syn time			0	ms	0	60000				
Maximum Syn time			2000	ms	100	6000000				
Energizing time			100	ms	100	60000				
Closing time of CB			60	ms	40	250				
Setting Group 1										
Live dead mode			Both Dead							
Difference voltage			0,05	xUn	0,01	0,50				
Difference frequency			0,001	xFn	0,001	0,100				
Difference angle			5	deg	5	90				
Setting Group 2										
Live dead mode			Both Dead							
Difference voltage			0,05	xUn	0,01	0,50				
Difference frequency			0,001	xFn	0,001	0,100				
Difference angle			5	deg	5	90				
Setting Group 3										
Live dead mode			Both Dead							
Difference voltage			0,05	xUn	0,01	0,50				
Difference frequency			0,001	xFn	0,001	0,100				
Difference angle			5	deg	5	90				
				Project	Responsible department	Technical ref...	Document kind	Doc. designation		
				Alstom Mejillones	ABB Ltd.			AA1J1Q03A1		
				Repla...		Created by	Title	Document id.		
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Group / Parameter Name		IED Value		PC Value		Unit		Min		Max		Format		
Setting Group 4														
Live dead mode				Both Dead										
Difference voltage				0,05		xUn		0,01		0,50				
Difference frequency				0,001		xFn		0,001		0,100				
Difference angle				5		deg		5		90				
Setting Group 5														
Live dead mode				Both Dead										
Difference voltage				0,05		xUn		0,01		0,50				
Difference frequency				0,001		xFn		0,001		0,100				
Difference angle				5		deg		5		90				
Setting Group 6														
Live dead mode				Both Dead										
Difference voltage				0,05		xUn		0,01		0,50				
Difference frequency				0,001		xFn		0,001		0,100				
Difference angle				5		deg		5		90				
Frequency protection														
LSHDPRQ1(81 S-1; UFLS/R(1)): 1														
UFLS/R(1)														
Operation				off										
Reset delay time				50		ms		0		60000				
Setting Group 1														
Load shed mode				Freq<										
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1	
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Group / Parameter Name		IED Value		PC Value		Unit		Min		Max		Format		
Restore mode				Disabled										
Start value Freq				0,975		xFn		0,800		1,200				
Start value df/dt				-0,010		xFn /s		-0,200		-0,005				
Operate Tm Freq				200		ms		80		200000				
Operate Tm df/dt				200		ms		120		200000				
Restore start Val				0,998		xFn		0,800		1,200				
Restore delay time				300		ms		80		200000				
Setting Group 2														
Load shed mode				Freq<										
Restore mode				Disabled										
Start value Freq				0,975		xFn		0,800		1,200				
Start value df/dt				-0,010		xFn /s		-0,200		-0,005				
Operate Tm Freq				200		ms		80		200000				
Operate Tm df/dt				200		ms		120		200000				
Restore start Val				0,998		xFn		0,800		1,200				
Restore delay time				300		ms		80		200000				
Setting Group 3														
Load shed mode				Freq<										
Restore mode				Disabled										
Start value Freq				0,975		xFn		0,800		1,200				
Start value df/dt				-0,010		xFn /s		-0,200		-0,005				
Operate Tm Freq				200		ms		80		200000				
					Project Alstom Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q03A1	
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay				Created by		Title RER620A Programado RER620A		Document id.	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format						
Operate Tm df/dt						200	ms	120	200000							
Restore start Val						0,998	xFn	0,800	1,200							
Restore delay time						300	ms	80	200000							
Setting Group 4																
Load shed mode						Freq<										
Restore mode						Disabled										
Start value Freq						0,975	xFn	0,800	1,200							
Start value df/dt						-0,010	xFn /s	-0,200	-0,005							
Operate Tm Freq						200	ms	80	200000							
Operate Tm df/dt						200	ms	120	200000							
Restore start Val						0,998	xFn	0,800	1,200							
Restore delay time						300	ms	80	200000							
Setting Group 5																
Load shed mode						Freq<										
Restore mode						Disabled										
Start value Freq						0,975	xFn	0,800	1,200							
Start value df/dt						-0,010	xFn /s	-0,200	-0,005							
Operate Tm Freq						200	ms	80	200000							
Operate Tm df/dt						200	ms	120	200000							
Restore start Val						0,998	xFn	0,800	1,200							
Restore delay time						300	ms	80	200000							
Setting Group 6																
					Project Alstom Mejillones			Responsible department ABB Ltd.		Technical ref...	Document kind		Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay					Created by	Title RER620A Programado RER620A		Document id.			
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													0	09/06/2017	en	

Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format
Load shed mode			Freq<				
Restore mode			Disabled				
Start value Freq			0,975	xFn	0,800	1,200	
Start value df/dt			-0,010	xFn /s	-0,200	-0,005	
Operate Tm Freq			200	ms	80	200000	
Operate Tm df/dt			200	ms	120	200000	
Restore start Val			0,998	xFn	0,800	1,200	
Restore delay time			300	ms	80	200000	
LSHDPFRQ2(81 S-2; UFLS/R(2)): 2							
UFLS/R(2)							
Operation			off				
Reset delay time			50	ms	0	60000	
Setting Group 1							
Load shed mode			Freq<				
Restore mode			Disabled				
Start value Freq			0,975	xFn	0,800	1,200	
Start value df/dt			-0,010	xFn /s	-0,200	-0,005	
Operate Tm Freq			200	ms	80	200000	
Operate Tm df/dt			200	ms	120	200000	
Restore start Val			0,998	xFn	0,800	1,200	
Restore delay time			300	ms	80	200000	
Setting Group 2							

					Project Alstom Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A Programado RER620A	Document id.			
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format	
Load shed mode			Freq<					
Restore mode			Disabled					
Start value Freq			0,975	xFn	0,800	1,200		
Start value df/dt			-0,010	xFn /s	-0,200	-0,005		
Operate Tm Freq			200	ms	80	200000		
Operate Tm df/dt			200	ms	120	200000		
Restore start Val			0,998	xFn	0,800	1,200		
Restore delay time			300	ms	80	200000		
Setting Group 3								
Load shed mode			Freq<					
Restore mode			Disabled					
Start value Freq			0,975	xFn	0,800	1,200		
Start value df/dt			-0,010	xFn /s	-0,200	-0,005		
Operate Tm Freq			200	ms	80	200000		
Operate Tm df/dt			200	ms	120	200000		
Restore start Val			0,998	xFn	0,800	1,200		
Restore delay time			300	ms	80	200000		
Setting Group 4								
Load shed mode			Freq<					
Restore mode			Disabled					
Start value Freq			0,975	xFn	0,800	1,200		
Start value df/dt			-0,010	xFn /s	-0,200	-0,005		
Operate Tm Freq			200	ms	80	200000		
Operate Tm df/dt			200	ms	120	200000		
Restore start Val			0,998	xFn	0,800	1,200		
Restore delay time			300	ms	80	200000		
Setting Group 5								
Load shed mode			Freq<					
Restore mode			Disabled					
Start value Freq			0,975	xFn	0,800	1,200		
Start value df/dt			-0,010	xFn /s	-0,200	-0,005		
Operate Tm Freq			200	ms	80	200000		

					Project Alstom Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A Programado RER620A	Document id.			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
Operate Tm df/dt						200	ms	120	200000	
Restore start Val						0,998	xFn	0,800	1,200	
Restore delay time						300	ms	80	200000	
Setting Group 5										
Load shed mode						Freq<				
Restore mode						Disabled				
Start value Freq						0,975	xFn	0,800	1,200	
Start value df/dt						-0,010	xFn /s	-0,200	-0,005	
Operate Tm Freq						200	ms	80	200000	
Operate Tm df/dt						200	ms	120	200000	
Restore start Val						0,998	xFn	0,800	1,200	
Restore delay time						300	ms	80	200000	
Setting Group 6										
Load shed mode						Freq<				
Restore mode						Disabled				
Start value Freq						0,975	xFn	0,800	1,200	
Start value df/dt						-0,010	xFn /s	-0,200	-0,005	
Operate Tm Freq						200	ms	80	200000	
Operate Tm df/dt						200	ms	120	200000	
Restore start Val						0,998	xFn	0,800	1,200	
Restore delay time						300	ms	80	200000	
Other protection										
					Project	Alstom Mejillones		Responsible department	Technical ref...	Document kind
								ABB Ltd.		Doc. designation
				Repla...				Created by	Title	Document id.
					Alstom				RER620A	
					Mejillones.Substation.Voltage			Approved by	Programado	
Re v.	Modification	Rel. date	Created by	Based on	Level.Bay				RER620A	
										Rev.
										0
										09/06/2017
										en
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format
DLCM1(LCM; LCM): 1							
LCM							
Operation			off				
Setting Group 1							
LCM Mode			Disable				
Line side src			S1				
Vt config line			3		1	3	
Vt line phase			A				
Vt line enable			False				
Sect 3P OpMode			Any phase				
Vt config load			3		1	3	
Vt load phase			A				
Vt load enable			False				
Live bus thrshld			1,000	xUn	0,000	2,000	
Dead bus thrshld			1,000	xUn	0,000	2,000	
Live bus time			5	s	1	600	
Dead bus time			5	s	1	600	
Volt regain time			0	s	0	4	
SWOTF time			5	s	0	120	
En set grp chg			False				
Reset on power up			False				
Sectionalizing reset			False				
Setting Group 2							
LCM Mode			Disable				

					Project Alstom Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A Programado RER620A	Document id.			
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format	
Line side src			S1					
Vt config line			3		1	3		
Vt line phase			A					
Vt line enable			False					
Sect 3P OpMode			Any phase					
Vt config load			3		1	3		
Vt load phase			A					
Vt load enable			False					
Live bus thrshld			1,000	xUn	0,000	2,000		
Dead bus thrshld			1,000	xUn	0,000	2,000		
Live bus time			5	s	1	600		
Dead bus time			5	s	1	600		
Volt regain time			0	s	0	4		
SWOTF time			5	s	0	120		
En set grp chg			False					
Reset on power up			False					
Sectionalizing reset			False					
Setting Group 3								
LCM Mode			Disable					
Line side src			S1					
Vt config line			3		1	3		
Vt line phase			A					
Vt line enable			False					
Sect 3P OpMode			Any phase					







					Project	Responsible department	Technical ref...	Document kind	Doc. designation			
					Alstom Mejillones	ABB Ltd.			AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title	Document id.			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
Vt config load						3		1	3	
Vt load phase						A				
Vt load enable						False				
Live bus thrshld						1,000	xUn	0,000	2,000	
Dead bus thrshld						1,000	xUn	0,000	2,000	
Live bus time						5	s	1	600	
Dead bus time						5	s	1	600	
Volt regain time						0	s	0	4	
SWOTF time						5	s	0	120	
En set grp chg						False				
Reset on power up						False				
Sectionalizing reset						False				
Setting Group 4										
LCM Mode						Disable				
Line side src						S1				
Vt config line						3		1	3	
Vt line phase						A				
Vt line enable						False				
Sect 3P OpMode						Any phase				
Vt config load						3		1	3	
Vt load phase						A				
Vt load enable						False				
Live bus thrshld						1,000	xUn	0,000	2,000	
Dead bus thrshld						1,000	xUn	0,000	2,000	

					Project	Responsible department	Technical ref...	Document kind	Doc. designation			
					Alstom Mejillones	ABB Ltd.			AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title	Document id.			
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format	
Live bus time			5	s	1	600		
Dead bus time			5	s	1	600		
Volt regain time			0	s	0	4		
SWOTF time			5	s	0	120		
En set grp chg			False					
Reset on power up			False					
Sectionalizing reset			False					
Setting Group 5								
LCM Mode			Disable					
Line side src			S1					
Vt config line			3		1	3		
Vt line phase			A					
Vt line enable			False					
Sect 3P OpMode			Any phase					
Vt config load			3		1	3		
Vt load phase			A					
Vt load enable			False					
Live bus thrshld			1,000	xUn	0,000	2,000		
Dead bus thrshld			1,000	xUn	0,000	2,000		
Live bus time			5	s	1	600		
Dead bus time			5	s	1	600		
Volt regain time			0	s	0	4		
SWOTF time			5	s	0	120		
En set grp chg			False					

					Project	Responsible department	Technical ref...	Document kind	Doc. designation			
					Alstom Mejillones	ABB Ltd.			AA1J1Q03A1			
				Repla...	Alstom Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A Programado RER620A	Document id.			
Re v.	Modification	Rel. date	Created by	Based on			Approved by		Rev.	Rel. date	Lan	233 / 235
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format	
Reset on power up			False					
Sectionalizing reset			False					
Setting Group 6								
LCM Mode			Disable					
Line side src			S1					
Vt config line			3		1	3		
Vt line phase			A					
Vt line enable			False					
Sect 3P OpMode			Any phase					
Vt config load			3		1	3		
Vt load phase			A					
Vt load enable			False					
Live bus thrshld			1,000	xUn	0,000	2,000		
Dead bus thrshld			1,000	xUn	0,000	2,000		
Live bus time			5	s	1	600		
Dead bus time			5	s	1	600		
Volt regain time			0	s	0	4		
SWOTF time			5	s	0	120		
En set grp chg			False					
Reset on power up			False					
Sectionalizing reset			False					
Measurements								
Settings								
Other protection								
					Project		Responsible department	
					Alstom Mejillones		ABB Ltd.	
				Repla...			Technical ref...	
							Document kind	
							Created by	
							Title	
							Approved by	
							RER620A Programado RER620A	
Re v.	Modification	Rel. date	Created by	Based on	Project		Responsible department	
					Alstom Mejillones.Substation.Voltage Level.Bay		ABB Ltd.	
							Document id.	
							Doc. designation	
							Rev.	
							09/06/2017	
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