





Settings


Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
RER620A										
IED Configuration										
HW Configuration										
X110 (BIO)										
Input filtering										
Input 1 filter time						5	ms	5	1000	
Input 2 filter time						5	ms	5	1000	
Input 3 filter time						5	ms	5	1000	
Input 4 filter time						5	ms	5	1000	
Input 5 filter time						5	ms	5	1000	
Input 6 filter time						5	ms	5	1000	
Input 7 filter time						5	ms	5	1000	
Input 8 filter time						5	ms	5	1000	
Input inversion										
Input 1 inversion						False				
Input 2 inversion						False				
Input 3 inversion						False				
Input 4 inversion						False				
Input 5 inversion						False				
Input 6 inversion						False				
Input 7 inversion						False				
Input 8 inversion						False				
X120 (AIM)										
Input filtering										
Input 1 filter time						5	ms	5	1000	
Input 2 filter time						5	ms	5	1000	
Input 3 filter time						5	ms	5	1000	
Input 4 filter time						5	ms	5	1000	
Input inversion										
Input 1 inversion						False				
Input 2 inversion						False				
Input 3 inversion						False				
Input 4 inversion						False				
LEDS										
LED 1										
Alarm mode						Latched-S				
Description						Phase A			64 characters	
LED 2										
Alarm mode						Latched-S				
Description						Phase B			64 characters	
LED 3										
Alarm mode						Latched-S				
Description						Phase C			64 characters	
LED 4										
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				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A RER620A	Document id.	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format		
Alarm mode						Latched-S						
Description						Ground			64 characters			
LED 5												
Alarm mode						Latched-S						
Description						Current			64 characters			
LED 6												
Alarm mode						Latched-S						
Description						Voltage			64 characters			
LED 7												
Alarm mode						Latched-S						
Description						Time			64 characters			
LED 8												
Alarm mode						Latched-S						
Description						Instantaneous			64 characters			
LED 9												
Alarm mode						Follow-S						
Description						79 Lockout			64 characters			
LED 10												
Alarm mode						Latched-S						
Description						Breaker Failure			64 characters			
LED 11												
Alarm mode						Follow-S						
Description						AC LOSS			64 characters			
X105 (BIO)												
Input filtering												
Input 1 filter time						5	ms	5	1000			
Input 2 filter time						5	ms	5	1000			
Input 3 filter time						5	ms	5	1000			
Input 4 filter time						5	ms	5	1000			
Input 5 filter time						5	ms	5	1000			
Input 6 filter time						5	ms	5	1000			
Input 7 filter time						5	ms	5	1000			
Input 8 filter time						5	ms	5	1000			
Input inversion												
Input 1 inversion						False						
Input 2 inversion						False						
Input 3 inversion						False						
Input 4 inversion						False						
Input 5 inversion						False						
Input 6 inversion						False						
Input 7 inversion						False						
Input 8 inversion						False						
Measurements												
CMMXU1: 1												


					Project SE Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q01A1			
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A RER620A	Document id.			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format					
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: 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: 1															
Io-A						0.00	xIn	0.00	40.00						
VMMXU1: 1															
3U															
U12-kV						0.02	xUn	0.00	4.00						
U23-kV						0.01	xUn	0.00	4.00						
U31-kV						0.00	xUn	0.00	4.00						
VMMXU2: 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: 1															
f-Hz						50.00	Hz	35.00	75.00						
CSMSQI1: 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: 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						0.08	xUn	0.00	4.00						
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format				
VSMSQI2: 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					
Disturbance records														
Disturbance recorder: 0														
Disturbance recorder														
Number of recordings						17		0	100					
Rem. amount of rec.						13		0	100					
Rec. memory used						56	%	0	100					
Time to trigger						0	s	0	604800					
Configuration														
Disturbance recorder: 0														
General														
Operation						on								
Channel settings														
Analog channel 1														
Operation						on								
Storage mode						Waveform								
Analog channel 2														
Operation						on								
Storage mode						Waveform								
Analog channel 3														
Operation						on								
Storage mode						Waveform								
Analog channel 4														
Operation						on								
Storage mode						Waveform								
Analog channel 5														
Operation						on								
Storage mode						Waveform								
Analog channel 6														
Operation						on								
Storage mode						Waveform								
Analog channel 7														
Operation						on								
Storage mode						Waveform								
Analog channel 8														
Operation						on								
Storage mode						Waveform								
Analog channel 9														
Operation						on								
Storage mode						Waveform								
Analog channel 10														
Operation						on								
					Project SE Mejillones		Responsible department ABB Ltd.		Technical ref... Document kind		Doc. designation AA1J1Q01A1			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format		
Storage mode						Waveform						
Analog channel 11												
Operation						on						
Storage mode						Waveform						
Analog channel 12												
Operation						on						
Storage mode						Waveform						
Binary channel 1												
Operation						on						
Binary channel 2												
Operation						on						
Binary channel 3												
Operation						on						
Binary channel 4												
Operation						on						
Binary channel 5												
Operation						on						
Binary channel 6												
Operation						on						
Binary channel 7												
Operation						on						
Binary channel 8												
Operation						on						
Binary channel 9												
Operation						on						
Binary channel 10												
Operation						on						
Binary channel 11												
Operation						on						
Binary channel 12												
Operation						on						
Binary channel 13												
Operation						on						
Binary channel 14												
Operation						on						
Binary channel 15												
Operation						on						
Binary channel 16												
Operation						on						
Binary channel 17												
Operation						on						
Binary channel 18												
Operation						on						
Binary channel 19												
Operation						on						
Binary channel 20												
					Project SE Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind		Doc. designation AA1J1Q01A1		
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
Operation						on				
Binary channel 21										
Operation						on				
Binary channel 22										
Operation						on				
Binary channel 23										
Operation						on				
Binary channel 24										
Operation						on				
Binary channel 25										
Operation						on				
Binary channel 26										
Operation						on				
Binary channel 27										
Operation						on				
Binary channel 28										
Operation						on				
Binary channel 29										
Operation						on				
Binary channel 30										
Operation						on				
Binary channel 31										
Operation						on				
Binary channel 32										
Operation						on				
Binary channel 33										
Operation						on				
Binary channel 34										
Operation						on				
Binary channel 35										
Operation						on				
Binary channel 36										
Operation						on				
Binary channel 37										
Operation						on				
Binary channel 38										
Operation						on				
Binary channel 39										
Operation						on				
Binary channel 40										
Operation						on				
Binary channel 41										
Operation						on				
Binary channel 42										
Operation						on				
Binary channel 43										
					Project	Responsible department		Technical ref...	Document kind	Doc. designation
					SE Mejillones	ABB Ltd.				AA1J1Q01A1
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay			Created by	Title	Document id.
									RER620A RER620A	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
Operation						on				
Binary channel 44										
Operation						on				
Binary channel 45										
Operation						on				
Binary channel 46										
Operation						on				
Binary channel 47										
Operation						on				
Binary channel 48										
Operation						on				
Binary channel 49										
Operation						on				
Binary channel 50										
Operation						on				
Binary channel 51										
Operation						on				
Binary channel 52										
Operation						on				
Binary channel 53										
Operation						on				
Binary channel 54										
Operation						on				
Binary channel 55										
Operation						on				
Binary channel 56										
Operation						on				
Binary channel 57										
Operation						on				
Binary channel 58										
Operation						on				
Binary channel 59										
Operation						on				
Binary channel 60										
Operation						on				
Binary channel 61										
Operation						on				
Binary channel 62										
Operation						on				
Binary channel 63										
Operation						on				
Binary channel 64										
Operation						on				
Control										
SCBXCBR1: 1										
I<->O CB										
					Project	Responsible department	Technical ref...	Document kind		Doc. designation
					SE Mejillones	ABB Ltd.				AA1J1Q01A1
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								RER620A		
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format	
Operation						on					
Select timeout						60000	ms	10000	300000		
Pulse length						100	ms	10	60000		
Operation counter A						8		0	10000		
Operation counter B						8		0	10000		
Operation counter C						8		0	10000		
Control model						sbo-with-enhanced-security					
Adaptive pulse						True					
Event delay						100	ms	0	10000		
Operation timeout						500	ms	10	60000		
System: 0											
System											
Rated frequency						50Hz					
Phase rotation						ABC					
Blocking mode						Freeze timer					
Bay name						RER620/52ET4			20 characters		
Phase order mode						ABC					
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: 0											
Rear port(s)											
IP address						192.168.20.25					
Subnet mask						255.255.255.0					
Default gateway						0.0.0.0					
Mac address						00-90-4F-E5-27-8F			18 characters		
Front port											
IP address						192.168.0.254					
Mac address						00-90-4F-E5-27-8E			18 characters		
Modbus: 1											
Modbus											
Serial port 1						COM 1					


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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
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						COM 2				
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						192.168.20.1 0				
ClientIP2						192.168.20.1 00				
ClientIP3						0.0.0.0				
ClientIP4						0.0.0.0				
ClientIP5						0.0.0.0				
CtlStructPWd1						****			4 characters	
CtlStructPWd2						****			4 characters	
CtlStructPWd3						****			4 characters	
CtlStructPWd4						****			4 characters	
CtlStructPWd5						****			4 characters	
CtlStructPWd6						****			4 characters	
CtlStructPWd7						****			4 characters	
CtlStructPWd8						****			4 characters	
Internal Overflow						False				
DNP3.0: 1										
DNP3.0										
DNP physical layer						Both				
Unit address						1		1	65519	
Master address						3		1	65519	
Serial port						COM 1				
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	
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				


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Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
App confirm TO		5000	ms	100	65535	
App layer fragment		2048	bytes	256	2048	
UR mode		Disable				
UR retries		3		0	65535	
UR TO		5000	ms	0	65535	
UR offline interval		15	min	0	65535	
UR Class 1 Min events		2		0	999	
UR Class 1 TO		50	ms	0	65535	
UR Class 2 Min events		2		0	999	
UR Class 2 TO		50	ms	0	65535	
UR Class 3 Min events		2		0	999	
UR Class 3 TO		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	
Default Var Obj 32		4		1	4	
Serial Ports: 90						
COM1						
Serial mode		RS485 4Wire				
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: 1						
MMSGGIO1						
Unit mode		Nominal				
Time: 0						
System time						
Date		2022.11.05			20 characters	
Time		14:21:40			20 characters	
Time format		24H:MM:SS:MS				
Date format		DD-MM-YYYY				
Local time offset		0	min	-720	720	
Synchronization						
Synch source		SNTP				
IP SNTP primary		192.168.20.2				
		0				
IP SNTP secondary		0.0.0.0				

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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format				
Daylight saving time														
DST on time						02:00			5 characters					
DST on date						01.05.			6 characters					
DST on day						Not in use								
DST offset						0	min	-720	720					
DST off time						02:00			5 characters					
DST off date						25.09.			6 characters					
DST off day						Not in use								
Authorization: 0														
Authorization														
Remote override						True								
Remote viewer									20 characters					
Remote operator									20 characters					
Remote engineer									20 characters					
Remote administrator									20 characters					
General: 0														
General														
Software reset						Cancel								
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					
Condition monitoring														
SPSCBR1: 1														
CBCM														
Operation						on								
Acc stop current						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					
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									RER620A RER620A					
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format				
Ini CB Rmn life A						5000		0	9999					
Ini CB Rmn life B						5000		0	9999					
Ini CB Rmn life C						5000		0	9999					
Rated Op current						1000.00	A	100.00	5000.00					
Rated fault current						12500.00	A	500.00	75000.00					
Op number rated						10000		1	99999					
Op number fault						51		1	10000					
Life alarm level						500		0	99999					
Pressure alarm time						10	ms	0	60000					
Pres lockout time						10	ms	0	60000					
Inactive Alm days						2000	d	0	9999					
Ini inactive days A						0	d	0	9999					
Ini inactive days B						0	d	0	9999					
Ini inactive days C						0	d	0	9999					
Inactive Alm hours						0	h	0	23					
SEQRFUF1: 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								
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: 1														
3I														
Operation						on								
Measurement mode						RMS								
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: 1														
Io														
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					
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format				
A deadband res						5000		100	100000					
VMMXU1: 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: 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: 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					
F low limit						59.00	Hz	35.00	75.00					
F low low limit						55.00	Hz	35.00	75.00					
F deadband						1000		100	100000					
CSMSQI1: 1														
I1,I2,I0														
Operation						on								
Ps Seq A Hi high Lim						1.40	xIn	0.00	40.00					
Ps Seq A high limit						1.20	xIn	0.00	40.00					
Ps Seq A low limit						0.00	xIn	0.00	40.00					
Ps Seq A low low Lim						0.00	xIn	0.00	40.00					
Ps Seq A deadband						2500		100	100000					
Ng Seq A Hi high Lim						0.20	xIn	0.00	40.00					
Ng Seq A High limit						0.05	xIn	0.00	40.00					
Ng Seq A low limit						0.00	xIn	0.00	40.00					
Ng Seq A low low Lim						0.00	xIn	0.00	40.00					
Ng Seq A deadband						2500		100	100000					
Zro A Hi high Lim						0.20	xIn	0.00	40.00					
Zro A High limit						0.05	xIn	0.00	40.00					
Zro A low limit						0.00	xIn	0.00	40.00					
Zro A low low Lim						0.00	xIn	0.00	40.00					
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format	
Zro A deadband						2500		100	100000		
VSMSQ1: 1											
U1,U2,U0											
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		
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		
VSMSQ2: 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		
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		
APEMMXU1: 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		
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format		
Forward VARh Initial						0		0	999999999			
Reverse VARh Initial						0		0	999999999			
Fault record												
FLTMSTA: 1												
FLTMSTA												
Operation						on						
Trig mode						From all faults						
A measurement mode						RMS						
Generic timers												
TPGAPC1: 1												
TP(1)												
Pulse time						150	ms	0	60000			
TPGAPC2: 2												
TP(2)												
Pulse time						150	ms	0	60000			
TPGAPC3: 3												
TP(3)												
Pulse time						150	ms	0	60000			
TPGAPC4: 4												
TP(4)												
Pulse time						150	ms	0	60000			
TONGAPC1: 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			
On delay time 7						0	ms	0	3600000			
On delay time 8						0	ms	0	3600000			
TOFGAPC1: 1												
TOF(1)												
Off delay time 1						700	ms	0	3600000			
Off delay time 2						800	ms	0	3600000			
Off delay time 3						700	ms	0	3600000			
Off delay time 4						800	ms	0	3600000			
Off delay time 5						700	ms	0	3600000			
Off delay time 6						800	ms	0	3600000			
Off delay time 7						700	ms	0	3600000			
Off delay time 8						800	ms	0	3600000			
PTGAPC1: 1												
PT(1)												
Pulse delay time 1						6000	ms	0	3600000			
Pulse delay time 2						7000	ms	0	3600000			

					Project SE Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q01A1			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format				
Pulse delay time 3						9000	ms	0	3600000					
Pulse delay time 4						10000	ms	0	3600000					
Pulse delay time 5						12000	ms	0	3600000					
Pulse delay time 6						13000	ms	0	3600000					
Pulse delay time 7						0	ms	0	3600000					
Pulse delay time 8						0	ms	0	3600000					
TPSGAPC1: 1														
TPS(1)														
Pulse time						0	s	0	300					
TPMGAPC1: 1														
TPM(1)														
Pulse time						0	min	0	300					
TPSGAPC2: 2														
TPS(2)														
Pulse time						0	s	0	300					
TPMGAPC2: 2														
TPM(2)														
Pulse time						0	min	0	300					
TPSGAPC3: 3														
TPS(3)														
Pulse time						0	s	0	300					
TPMGAPC3: 3														
TPM(3)														
Pulse time						0	min	0	300					
TONGAPC2: 2														
TON(2)														
On delay time 1						5000	ms	0	3600000					
On delay time 2						0	ms	0	3600000					
On delay time 3						0	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					
On delay time 7						0	ms	0	3600000					
On delay time 8						0	ms	0	3600000					
TOFGAPC2: 2														
TOF(2)														
Off delay time 1						1100	ms	0	3600000					
Off delay time 2						0	ms	0	3600000					
Off delay time 3						0	ms	0	3600000					
Off delay time 4						0	ms	0	3600000					
Off delay time 5						0	ms	0	3600000					
Off delay time 6						0	ms	0	3600000					
Off delay time 7						0	ms	0	3600000					
Off delay time 8						0	ms	0	3600000					
PTGAPC2: 2														
PT(2)														
					Project SE Mejillones		Responsible department ABB Ltd.		Technical ref...	Document kind		Doc. designation AA1J1Q01A1		
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay				Created by	Title RER620A RER620A		Document id.		
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format			
Pulse delay time 1						60	ms	0	3600000				
Pulse delay time 2						0	ms	0	3600000				
Pulse delay time 3						0	ms	0	3600000				
Pulse delay time 4						0	ms	0	3600000				
Pulse delay time 5						0	ms	0	3600000				
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): 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): 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): 1													
Voltage (3U,VT)													
Primary voltage						23.000	kV	0.100	440.000				
VT connection						Wye							
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): 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: 0													
SG operation mode						Logic mode 1							
Control: 0													
General													
LR control						LR key							
					Project	Responsible department		Technical ref...	Document kind	Doc. designation			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format	
Generic logic											
SRGAPC1: 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: 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: 1											
UDFCNT1											
Operation						on					
Counter load value						10000		0	2147483647		
Reset counter						Cancel					
Load counter						Cancel					
UDFCNT2: 2											
UDFCNT2											
Operation						on					
Counter load value						10000		0	2147483647		
Reset counter						Cancel					
Load counter						Cancel					
UDFCNT3: 3											
UDFCNT3											
Operation						on					
Counter load value						10000		0	2147483647		
Reset counter						Cancel					
Load counter						Cancel					
UDFCNT4: 4											
UDFCNT4											
Operation						on					
Counter load value						10000		0	2147483647		
Reset counter						Cancel					
Load counter						Cancel					
UDFCNT5: 5											
					Project SE Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind		Doc. designation AA1J1Q01A1	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format					
UDFCNT5															
Operation					on										
Counter load value						10000		0	2147483647						
Reset counter					Cancel										
Load counter						Cancel									
UDFCNT10: 10															
UDFCNT10															
Operation					on										
Counter load value						1		0	2147483647						
Reset counter					Cancel										
Load counter						Cancel									
SPCGGIO1: 1															
Output 1															
Operation mode					Pulsed										
Pulse length						1000	ms	10	3600000						
Description					SG 1 Enabled					20 characters					
Output 2															
Operation mode					Pulsed										
Pulse length						1000	ms	10	3600000						
Description					SG 2 Enabled					20 characters					
Output 3															
Operation mode					Pulsed										
Pulse length						1000	ms	10	3600000						
Description					SG 3 Enabled					20 characters					
Output 4															
Operation mode					Pulsed										
Pulse length						1000	ms	10	3600000						
Description					SG 4 Enabled					20 characters					
Output 5															
Operation mode					Pulsed										
Pulse length						1000	ms	10	3600000						
Description					SG 5 Enabled					20 characters					
Output 6															
Operation mode					Pulsed										
Pulse length						1000	ms	10	3600000						
Description					SG 6 Enabled					20 characters					
Output 7															
Operation mode					Toggle										
Pulse length						1000	ms	10	3600000						
Description					Switch Mode Enabled					20 characters					
					Project SE Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q01A1		
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format				
Output 8														
Operation mode						Pulsed								
Pulse length						1000	ms	10	3600000					
Description						Hot Line Tag ON/OFF			20 characters					
Output 9														
Operation mode						Toggle								
Pulse length						1000	ms	10	3600000					
Description						Ground Blocked			20 characters					
Output 10														
Operation mode						Toggle								
Pulse length						1000	ms	10	3600000					
Description						Reclose Blocked			20 characters					
Output 11														
Operation mode						Pulsed								
Pulse length						1000	ms	10	3600000					
Description						Battery Test			20 characters					
Output 12														
Operation mode						Toggle								
Pulse length						1000	ms	10	3600000					
Description						50SEF Blocked			20 characters					
Output 13														
Operation mode						Toggle								
Pulse length						1000	ms	10	3600000					
Description						Source 1 Disabled			20 characters					
Output 14														
Operation mode						Toggle								
Pulse length						1000	ms	10	3600000					
Description						Source 2 Disabled			20 characters					
Output 15														
Operation mode						Pulsed								
Pulse length						1000	ms	10	3600000					
Description						Loop Scheme Reset			20 characters					
Output 16														
Operation mode						Pulsed								
Pulse length						1000	ms	10	3600000					
Description						Emergency Open 3P			20 characters					
SPCGGIO2: 2														
Output 1														
Operation mode						Toggle								
					Project SE Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q01A1	
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format
Pulse length			1000	ms	10	3600000	
Description			SPCGGIO2 Output 1			20 characters	
Output 2							
Operation mode			Toggle				
Pulse length			1000	ms	10	3600000	
Description			SPCGGIO2 Output 2			20 characters	
Output 3							
Operation mode			Toggle				
Pulse length			1000	ms	10	3600000	
Description			SPCGGIO2 Output 3			20 characters	
Output 4							
Operation mode			Pulsed				
Pulse length			1000	ms	10	3600000	
Description			SPCGGIO2 Output 4			20 characters	
Output 5							
Operation mode			Off				
Pulse length			1000	ms	10	3600000	
Description			SPCGGIO2 Output 5			20 characters	
Output 6							
Operation mode			Off				
Pulse length			1000	ms	10	3600000	
Description			SPCGGIO2 Output 6			20 characters	
Output 7							
Operation mode			Off				
Pulse length			1000	ms	10	3600000	
Description			SPCGGIO2 Output 7			20 characters	
Output 8							
Operation mode			Off				
Pulse length			1000	ms	10	3600000	
Description			SPCGGIO2 Output 8			20 characters	
Output 9							
Operation mode			Off				
Pulse length			1000	ms	10	3600000	
Description			SPCGGIO2 Output 9			20 characters	
Output 10							
Operation mode			Off				
Pulse length			1000	ms	10	3600000	
Description			SPCGGIO2 Output 10			20 characters	


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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format				
Output 11														
Operation mode						Off								
Pulse length						1000	ms	10	3600000					
Description						SPCGGIO2 Output 11			20 characters					
Output 12														
Operation mode						Off								
Pulse length						1000	ms	10	3600000					
Description						SPCGGIO2 Output 12			20 characters					
Output 13														
Operation mode						Off								
Pulse length						1000	ms	10	3600000					
Description						SPCGGIO2 Output 13			20 characters					
Output 14														
Operation mode						Off								
Pulse length						1000	ms	10	3600000					
Description						SPCGGIO2 Output 14			20 characters					
Output 15														
Operation mode						Off								
Pulse length						1000	ms	10	3600000					
Description						SPCGGIO2 Output 15			20 characters					
Output 16														
Operation mode						Off								
Pulse length						1000	ms	10	3600000					
Description						SPCGGIO2 Output 16			20 characters					
UPS Settings														
UPS_Settings: 1														
UPS_Settings														
Aux Mode						Enable								
Aux Voltage						12 V								
Boost Voltage						240		60	250					
UPD Settings														
X115 (UPD): 115														
UPD Profile Selection														
Profile Selection						38kV SCA								
Monitoring														
Communication														
Modbus: 1														
Ethernet														
CnReject No Sockets						-1		-1	2147483647					
CnReject Unregistered						-1		-1	2147483647					
MMSGGIO1: 1														
					Project SE Mejillones		Responsible department ABB Ltd.		Technical ref... Document kind		Doc. designation AA1J1Q01A1			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format	
MMSGGIO1											
Reset counters						False					
Successful conn.						68		0	10000000		
Failed conn.						0		0	10000000		
Concludes						64		0	10000000		
Sent aborts						0		0	10000000		
Recv. aborts						3		0	10000000		
Sent rejects						0		0	10000000		
Recv. requests						4888		0	10000000		
Failed requests						0		0	10000000		
Reads						24431		0	10000000		
Failed reads						0		0	10000000		
Writes						2		0	10000000		
Failed writes						0		0	10000000		
Reports						0		0	10000000		
Active conn.						1		0	10000000		
IED status: 0											
Self-supervision											
Warning						UPS comm. error,X115					
Internal Fault						All ok					
Boot up time						2022-11-05T 13:05:19.489 Z			34 characters		
Time synchronization											
Synch status						Bad					
Synch source						Not defined					
Control command											
Control: 0											
Control											
Command response						No commands					
LR state						Remote					
I/O status											
Control											
SDARREC1: 1											
O->I											
Inputs											
INIT_6						False					
Monitored data											
DISA_COUNT						False					
INPRO_1						False					
INPRO_2						False					
INPRO_3						False					
INPRO_4						False					
INPRO_5						False					
SCBXCBR1: 1											
					Project SE Mejillones	Responsible department ABB Ltd.		Technical ref...	Document kind	Doc. designation AA1J1Q01A1	
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay			Created by	Title RER620A RER620A	Document id.	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format			
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							
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						False							
OPENPOS_B						False							
OPENPOS_C						False							
CLOSEPOS_A						True							
CLOSEPOS_B						True							
CLOSEPOS_C						True							
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							
					Project	Responsible department		Technical ref...	Document kind	Doc. designation			
					SE Mejillones	ABB Ltd.				AA1J1Q01A1			
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay			Created by	Title RER620A RER620A	Document id.			
Re v.	Modification	Rel. date	Created by	Based on				Approved by		Rev.	Rel. date	Lan	24 / 108
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format			
CLOSE_ENAD_C						True							
Monitored data													
POS_3P						closed							
POS_A						closed							
POS_B						closed							
POS_C						closed							
SECRSYN1: 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							
LLLБ						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							
FR_DIFF_SYNC						False							
Condition monitoring													
SEQRFUF1: 1													
FUSEF													
Inputs													
BLOCK						False							
CB_CLOSED						False							
DISCON_OPEN						False							
MINCB_OPEN						False							
Outputs													
FUSEF_3PH						False							
FUSEF_U						False							
SPSCBR1: 1													
CBCM													
Inputs													
BLOCK						False							
POSOPEN_A						False							
POSOPEN_B						False							
					Project	Responsible department	Technical ref...	Document kind		Doc. designation			
					SE Mejillones	ABB Ltd.				AA1J1Q01A1			
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay		Created by	Title		Document id.			
								RER620A RER620A					
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
POSOPEN_C						False				
POSCLOSE_A						True				
POSCLOSE_B						True				
POSCLOSE_C						True				
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										
TRV_T_OP_ALM						False				
TRV_T_CL_ALM						False				
SPR_CHR_ALM						False				
OPR_ALM						False				
OPR_LO						False				
IPOW_ALM						True				
IPOW_LO						True				
CB_LIFE_ALM						False				
MON_ALM						False				
PRES_ALM						False				
PRES_LO						False				
OPENPOS_A						False				
OPENPOS_B						False				
OPENPOS_C						False				
INVALIDPOS_A						False				
INVALIDPOS_B						False				
INVALIDPOS_C						False				
CLOSEPOS_A						True				
CLOSEPOS_B						True				
CLOSEPOS_C						True				
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						166		0	99999	
NO_OPR_B						165		0	99999	
NO_OPR_C						172		0	99999	
INA_DAYS_A						0	d	0	9999	
INA_DAYS_B						0	d	0	9999	
					Project SE Mejillones	Responsible department ABB Ltd.		Technical ref...	Document kind	Doc. designation AA1J1Q01A1
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay			Created by	Title RER620A RER620A	Document id.
Re v.	Modification	Rel. date	Created by	Based on				Approved by	Rev. 0	Rel. date 10/11/2022


Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format			
INA_DAYS_C						0	d	0	9999				
CB_LIFE_A						3885		-9999	9999				
CB_LIFE_B						3767		-9999	9999				
CB_LIFE_C						3686		-9999	9999				
IPOW_A						2795.039		0.000	30000.000				
IPOW_B						23364.890		0.000	30000.000				
IPOW_C						24803.440		0.000	30000.000				
Current protection													
INRP HAR1: 1													
3I2f>													
Inputs													
BLOCK						False							
Outputs													
BLK2H						False							
SPHLPTOC1: 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				
SPHLPTOC2: 2													
3I>(2)													
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				
					Project	Responsible department		Technical ref...	Document kind	Doc. designation			
					SE Mejillones	ABB Ltd.				AA1J1Q01A1			
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay			Created by	Title RER620A RER620A	Document id.			
Re v.	Modification	Rel. date	Created by	Based on				Approved by		Rev.	Rel. date	Lan	27 / 108
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format					
SPHHPTOC1: 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						
SPHIPTOC1: 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: 2															
Io>(2)															
Inputs															
BLOCK						False									
ENA_MULT						False									
Outputs															
OPERATE						False									
START						False									
Monitored data															
START_DUR						0.00	%	0.00	100.00						
XEFLPTOC3: 3															
Io>(3)															
Inputs															
BLOCK						False									
					Project SE Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q01A1		
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay				Created by		Title RER620A RER620A		Document id.		
Re v.	Modification	Rel. date	Created by	Based on					Approved by				Rev. 0		Rel. date 10/11/2022

Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format		
ENA_MULT						False						
Outputs												
OPERATE						False						
START						False						
Monitored data												
START_DUR						0.00	%	0.00	100.00			
XEFHPTOC3: 3												
Io>>(3)												
Inputs												
BLOCK						False						
ENA_MULT						False						
Outputs												
OPERATE						False						
START						False						
Monitored data												
START_DUR						0.00	%	0.00	100.00			
XEFIPTOC2: 2												
Io>>>												
Inputs												
BLOCK						False						
ENA_MULT						False						
Outputs												
OPERATE						False						
START						False						
Monitored data												
START_DUR						0.00	%	0.00	100.00			
XNSPTOC1: 1												
I2>(1)												
Inputs												
BLOCK						False						
ENA_MULT						False						
Outputs												
OPERATE						False						
START						False						
Monitored data												
START_DUR						0.00	%	0.00	100.00			
XNSPTOC2: 2												
I2>(2)												
Inputs												
BLOCK						False						
ENA_MULT						False						
Outputs												
OPERATE						False						
START						False						
Monitored data												
START_DUR						0.00	%	0.00	100.00			
					Project SE Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q01A1			
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A RER620A	Document id.			
Re v.	Modification	Rel. date	Created by	Based on			Approved by			Rev. 0	Rel. date 10/11/2022	Lan en


Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
PDNSPTOC1: 1										
I2/I1>										
Inputs										
BLOCK						False				
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: 1										
3I>->(1)										
Inputs										
BLOCK						False				
ENA_MULT						False				
Outputs										
OPERATE						False				
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: 2										
3I>->(2)										
Inputs										
BLOCK						False				
ENA_MULT						False				
Outputs										
OPERATE						False				
START						False				
OPERATE_A						False				
OPERATE_B						False				
OPERATE_C						False				
START_A						False				
Re v.	Modification	Rel. date	Created by	Based on	Project SE Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q01A1	
			Repla...		Process Energy SE Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A RER620A	Document id.	
							Approved by		Rev. 0	Rel. date 10/11/2022
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format	
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: 1											
Io>->(1)											
Inputs											
BLOCK						False					
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		
XDEFLPDEF2: 2											
Io>->(2)											
Inputs											
BLOCK						False					
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: 3											
Io>(3)											
					Project SE Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q01A1		
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A RER620A	Document id.		
Re v.	Modification	Rel. date	Created by	Based on			Approved by			Rev. 0	Rel. date 10/11/2022


Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format						
Inputs																
BLOCK						False										
ENA_MULT						False										
Outputs																
OPERATE						False										
START						False										
Monitored data																
START_DUR						0.00	%	0.00	100.00							
Voltage protection																
ROVPTOV1: 1																
Uo>(1)																
Inputs																
BLOCK						False										
Outputs																
OPERATE						False										
START						False										
Monitored data																
START_DUR						0.00	%	0.00	100.00							
ROVPTOV2: 2																
Uo>(2)																
Inputs																
BLOCK						False										
Outputs																
OPERATE						False										
START						False										
Monitored data																
START_DUR						0.00	%	0.00	100.00							
PSPTOV1: 1																
U1>(1)																
Inputs																
BLOCK						False										
Outputs																
OPERATE						False										
START						False										
Monitored data																
START_DUR						0.00	%	0.00	100.00							
PSPTOV2: 2																
U1>(2)																
Inputs																
BLOCK						False										
Outputs																
OPERATE						False										
START						False										
Monitored data																
START_DUR						0.00	%	0.00	100.00							
NSPTOV1: 1																
					Project SE Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q01A1			
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay				Created by		Title RER620A RER620A		Document id.			
Re v.	Modification	Rel. date	Created by	Based on					Approved by				Rev.	Rel. date	Lan	32 / 108
													0	10/11/2022	en	

Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
U2>(1)										
Inputs										
BLOCK						False				
Outputs										
OPERATE						False				
START						False				
Monitored data										
START_DUR						0.00	%	0.00	100.00	
NSPTOV2: 2										
U2>(2)										
Inputs										
BLOCK						False				
Outputs										
OPERATE						False				
START						False				
Monitored data										
START_DUR						0.00	%	0.00	100.00	
SPHPTOV1: 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	
SPHPTOV2: 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	
SPHPTOV2: 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	
SE Mejjlones										
Project					Responsible department		Technical ref...	Document kind		Doc. designation
SE Mejjlones					ABB Ltd.					AA1J1Q01A1
Repla...					Created by		Title		Document id.	
Process Energy					SE Mejjlones.Substation.Voltage		RER620A		RER620A	
SE Mejjlones.Level.Bay					Approved by				Rev.	
									10/11/2022	
									Lan	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format			
START_DUR						0.00	%	0.00	100.00				
SPHPTOV3: 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							
ST_B_BC						False							
ST_C_CA						False							
Monitored data													
START_DUR						0.00	%	0.00	100.00				
SPHPTUV1: 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: 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				
SE Mejjlones					Responsible department		Technical ref...	Document kind		Doc. designation			
SE Mejjlones					ABB Ltd.					AA1J1Q01A1			
Repla...					Created by		Title			Document id.			
SE Mejjlones.Substation.Voltage					Approved by		RER620A	RER620A					
Level.Bay													
Project					Responsible department		Technical ref...	Document kind		Doc. designation			
SE Mejjlones					ABB Ltd.					AA1J1Q01A1			
Repla...					Created by		Title			Document id.			
SE Mejjlones.Substation.Voltage					Approved by		RER620A	RER620A					
Level.Bay													
Monitored data													
START_DUR					0.00		%	0.00	100.00				


Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format						
SPHPTUV3: 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										
ST_B_BC						False										
ST_C_CA						False										
Monitored data																
START_DUR						0.00	%	0.00	100.00							
Frequency protection																
FRPFRQ1: 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: 2																
f>/f<,df/dt(2)																
Inputs																
BLOCK						False										
Outputs																
OPERATE						False										
OPR_OFRQ						False										
OPR_UFRQ						False										
OPR_FRG						False										
START						False										
ST_OFRQ						False										
ST_UFRQ						False										
					Project		Responsible department		Technical ref...		Document kind		Doc. designation			
					SE Mejillones		ABB Ltd.						AA1J1Q01A1			
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay				Created by		Title		Document id.			
									RER620A RER620A		RER620A					
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format				
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: 1														
UFLS/R(1)														
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					
LSHDPFRQ2: 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					
Other protection														
SCCBRBRF1: 1														
3I>/Io>BF														
Inputs														
BLOCK						False								
START						False								
					Project SE Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q01A1	
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay				Created by		Title RER620A RER620A		Document id.	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
START_A						False				
START_B						False				
START_C						False				
POSCLOSE_A						True				
POSCLOSE_B						True				
POSCLOSE_C						True				
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: 1										
SCCBRBCF1										
Inputs										
BLOCK						False				
START						False				
START_A						False				
START_B						False				
START_C						False				
POSCLOSE_A						True				
POSCLOSE_B						True				
POSCLOSE_C						True				
CB_FAULT						False				
Outputs										
CLS_RET						False				
CLS_RET_A						False				
CLS_RET_B						False				
CLS_RET_C						False				
PHIZ1: 1										
PHIZ1										
Inputs										
BLOCK						False				
Outputs										
OPERATE						False				
Monitored data										
Position						intermediate				
DPSRDIR1: 1										
DPSRDIR1										
Inputs										
BLOCK						False				
					Project SE Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q01A1	
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A RER620A	Document id.	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
Outputs										
RELEASE						False				
DIRECTION						unknown				
Monitored data										
ANGLE_RCA						0.00	deg	-180.00	180.00	
DNZSRDIR1: 1										
DNZSRDIR1										
Inputs										
BLOCK						False				
RCA_CTL						False				
Outputs										
RELEASE						False				
DIRECTION						unknown				
Monitored data										
ANGLE_RCA						0.00	deg	-180.00	180.00	
DRFLO1: 1										
DRFLO1										
Monitored data										
FLT_DIST						3000.00		0.00	9999.00	
FLT_LOOP						No fault				
FLT_R						999.00	ohm	0.00	999.00	
XF_LOOP						999.00	ohm	0.00	9999.00	
TIME_FLT_LOC						2008-01-01T00:00:00.0Z			34 characters	
DLCM1: 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): 120										
X120 (AIM)										
X120-Input 1						False				
X120-Input 2						False				


					Project	Responsible department	Technical ref...	Document kind	Doc. designation			
					SE Mejillones	ABB Ltd.			AA1J1Q01A1			
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay		Created by	Title	Document id.			
							Approved by	RER620A RER620A				
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format	
X120-Input 3						False					
X120-Input 4						False					
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): 105											
Binary input values											
X105 (BIO)											
X105-Input 1						False					
X105-Input 2						False					
X105-Input 3						True					
X105-Input 4						False					
X105-Input 5						False					
X105-Input 6						False					
X105-Input 7						False					
X105-Input 8						False					
Binary output values											
X110 (BIO): 110											
Binary output values											
X110 (BIO)											
X110-SO1						False					
X110-SO2						False					
X110-SO3						True					
X110-SO4						False					
X105 (BIO): 105											
Binary output values											
X105 (BIO)											
X105-SO1						False					
X105-SO2						False					
X105-SO3						False					
X105-SO4						False					
X100 (PSM): 100											
X100 (PSM)											
X100-PO1						False					
X100-PO2						False					
X100-SO1						False					
X100-SO2						False					
X100-PO3						False					
					Project SE Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind		Doc. designation AA1J1Q01A1	
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A RER620A		Document id.	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format		
X100-PO4						False						
Communication												
GSEGGIO1: 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			
ConfRev errors						0		0	10000000			
NdsComm errors						0		0	10000000			
Dataset errors						0		0	10000000			
Measurements												
CMMXU1: 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			
I_RANGE_C					normal							
RESCMMXU1: 1												
Io												
Inputs												
BLOCK					False							
					Project	Responsible department	Technical ref...	Document kind	Doc. designation			
					SE Mejillones	ABB Ltd.			AA1J1Q01A1			
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay		Created by	Title	Document id.			
								RER620A RER620A				
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format				
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: 1														
3U														
Inputs														
BLOCK						False								
Outputs														
HIGH_ALARM						False								
HIGH_WARN						False								
LOW_WARN						False								
LOW_ALARM						False								
Monitored data														
U_INST_AB						0.02	xUn	0.00	4.00					
U_DB_AB						0.02	xUn	0.00	4.00					
U_RANGE_AB						normal								
U_INST_BC						0.01	xUn	0.00	4.00					
U_DB_BC						0.01	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						0.07	xUn	0.00	5.00					
U_INST_B						0.09	xUn	0.00	5.00					
U_INST_C						0.08	xUn	0.00	5.00					
VMMXU2: 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 SE Mejillones		Responsible department ABB Ltd.		Technical ref...	Document kind		Doc. designation AA1J1Q01A1		
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay				Created by	Title RER620A 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: 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: 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				
U1_RANGE						normal							
U0_INST						0.08	xUn	0.00	4.00				
U0_DB						0.08	xUn	0.00	4.00				
U0_RANGE						high							
FMMXU1: 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: 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				
					Project SE Mejillones	Responsible department ABB Ltd.		Technical ref...	Document kind	Doc. designation AA1J1Q01A1			
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay			Created by	Title RER620A RER620A	Document id.			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format	
U0_RANGE						normal					
APEMMXU1: 1											
P,SP,E											
Inputs											
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						118	kVArh	0	999999999		
EA_FWD_ACM						259147556	kWh	0	999999999		
ER_FWD_ACM						85332456	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		
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: 1											
TP(1)											
Outputs											
					Project SE Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q01A1		
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A RER620A	Document id.		
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
OUT1						False				
OUT2						False				
TPGAPC2: 2										
TP(2)										
Outputs										
OUT1						False				
OUT2						False				
TPGAPC3: 3										
TP(3)										
Outputs										
OUT1						False				
OUT2						False				
TPGAPC4: 4										
TP(4)										
Outputs										
OUT1						False				
OUT2						False				
TPSGAPC1: 1										
TPS(1)										
Outputs										
OUT1						False				
OUT2						False				
TPMGAPC1: 1										
TPM(1)										
Outputs										
OUT1						False				
OUT2						False				
TPSGAPC2: 2										
TPS(2)										
Outputs										
OUT1						False				
OUT2						False				
TPMGAPC2: 2										
TPM(2)										
Outputs										
OUT1						False				
OUT2						False				
TPSGAPC3: 3										
TPS(3)										
Outputs										
OUT1						False				
OUT2						False				
TPMGAPC3: 3										
TPM(3)										
Outputs										
OUT1						False				
Re v.	Modification	Rel. date	Created by	Based on	Project SE Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q01A1	
			Repla...		Process Energy SE Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A RER620A	Document id.	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
OUT2						False				
TONGAPC1: 1										
TON(1)										
Inputs										
IN1						False				
IN2						True				
IN3						False				
IN4						False				
IN5						False				
IN6						False				
IN7						False				
IN8						False				
Outputs										
Q1						False				
Q2						True				
Q3						False				
Q4						False				
Q5						False				
Q6						False				
Q7						False				
Q8						False				
TOFGAPC1: 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				
Q4						False				
Q5						False				
Q6						False				
Q7						False				
Q8						False				
PTGAPC1: 1										
PT(1)										
Inputs										
IN1						False				
IN2						False				
Re v.	Modification	Rel. date	Created by	Based on	Project SE Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q01A1	
			Repla...		Process Energy SE Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A RER620A	Document id.	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
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				
TONGAPC2: 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: 2										
TOF(2)										
Inputs										
IN1						False				
IN2						False				
IN3						False				
IN4						False				
IN5						False				
IN6						False				
IN7						False				
IN8						False				
Re v.	Modification	Rel. date	Created by	Based on	Project SE Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q01A1	
			Repla...		Process Energy SE Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A	Document id.	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format	
Outputs											
Q1						False					
Q2						False					
Q3						False					
Q4						False					
Q5						False					
Q6						False					
Q7						False					
Q8						False					
PTGAPC2: 2											
PT(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					
Generic logic											
SPCGGIO1: 1											
SPCGGIO1											
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					
					Project SE Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind		Doc. designation AA1J1Q01A1	
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A RER620A		Document id.	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format		
O14						False						
O15						False						
O16						False						
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						
MVGAPC1: 1												
MV(1)												
Outputs												
Q1						False						
Q2						True						
Q3						False						
Q4						False						
Q5						False						
Q6						True						
Q7						True						
Q8						True						
SRGAPC1: 1												
SR(1)												
Inputs												
S1						False						
R1						False						
S2						False						
R2						False						
S3						False						
R3						False						
S4						False						
R4						False						
S5						False						
R5						False						
					Project SE Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q01A1			
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A RER620A	Document id.			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format		
S6						False						
R6						False						
S7						False						
R7						False						
S8						False						
R8						False						
Outputs												
Q1						False						
Q2						False						
Q3						False						
Q4						False						
Q5						False						
Q6						False						
Q7						False						
Q8						False						
MVGAPC2: 2												
MV(2)												
Outputs												
Q1						False						
Q2						False						
Q3						False						
Q4						False						
Q5						False						
Q6						False						
Q7						False						
Q8						False						
SRGAPC2: 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												
					Project	Responsible department	Technical ref...	Document kind		Doc. designation		
					SE Mejillones	ABB Ltd.				AA1J1Q01A1		
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay		Created by	Title		Document id.		
								RER620A RER620A				
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
Q1						False				
Q2						False				
Q3						False				
Q4						False				
Q5						False				
Q6						False				
Q7						False				
Q8						False				
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						1		0	2147483647	
UDFCNT2: 2										
UDFCNT2										
Inputs										
UP_CNT						False				
DOWN_CNT						False				
RESET						False				
LOAD						False				
Outputs										
UPCNT_STS						False				
DNCNT_STS						False				
Monitored data										
CNT_VAL						1		0	2147483647	
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						2		0	2147483647	
UDFCNT4: 4										
UDFCNT4										


					Project	Responsible department	Technical ref...	Document kind	Doc. designation			
					SE Mejillones	ABB Ltd.			AA1J1Q01A1			
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay		Created by	Title	Document id.			
								RER620A	RER620A			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format	
Inputs											
UP_CNT						False					
DOWN_CNT						False					
RESET						False					
LOAD						False					
Outputs											
UPCNT_STS						False					
DNCNT_STS						True					
Monitored data											
CNT_VAL						0		0	2147483647		
UDFCNT5: 5											
UDFCNT5											
Inputs											
UP_CNT						False					
DOWN_CNT						False					
RESET						False					
LOAD						False					
Outputs											
UPCNT_STS						False					
DNCNT_STS						True					
Monitored data											
CNT_VAL						0		0	2147483647		
UDFCNT10: 10											
UDFCNT10											
Inputs											
UP_CNT						False					
DOWN_CNT						False					
RESET						False					
LOAD						False					
Outputs											
UPCNT_STS						False					
DNCNT_STS						True					
Monitored data											
CNT_VAL						0		0	2147483647		
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: 1											
O->I						on					
INRPHAR1: 1											


					Project SE Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q01A1			
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A RER620A	Document id.			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
3I2f>						off				
SPHLPTOC1: 1										
3I>(1)						on				
SPHLPTOC2: 2										
3I>(2)						off				
SPHHPTOC1: 1										
3I>>(1)						off				
SPHIPTOC1: 1										
3I>>>(1)						off				
XEFLPTOC2: 2										
Io>(2)						on				
XEFLPTOC3: 3										
Io>(3)						on				
XEFHPTOC3: 3										
Io>>(3)						off				
XEFIPTOC2: 2										
Io>>>						off				
XNSPTOC1: 1										
I2>(1)						off				
XNSPTOC2: 2										
I2>(2)						off				
SDPHLPDOC1: 1										
3I>->(1)						off				
SDPHLPDOC2: 2										
3I>->(2)						off				
XDEFLPDEF1: 1										
Io>->(1)						off				
XDEFLPDEF2: 2										
Io>->(2)						off				
PDNSPTOC1: 1										
I2/I1>						off				
ROVPTOV1: 1										
Uo>(1)						off				
ROVPTOV2: 2										
Uo>(2)						off				
PSPTOV1: 1										
U1>(1)						off				
PSPTOV2: 2										
U1>(2)						off				
NSPTOV1: 1										
U2>(1)						off				
NSPTOV2: 2										
U2>(2)						off				
FRPFRQ1: 1										
f>/f<,df/dt(1)						off				
FRPFRQ2: 2										


					Project SE Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q01A1			
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A RER620A	Document id.			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
f>/f<,df/dt(2)						off				
PHIZ1: 1										
PHIZ1						off				
DRFLO1: 1										
DRFLO1						off				
DLCM1: 1										
LCM						off				
DPSRDIR1: 1										
DPSRDIR1						off				
SPSCBR1: 1										
CBCM						on				
SEQRFUF1: 1										
FUSEF						on				
LSHDPFRQ1: 1										
UFLS/R(1)						off				
LSHDPFRQ2: 2										
UFLS/R(2)						off				
SCCBRBRF1: 1										
3I>/I0>BF						on				
SCCBRBCF1: 1										
SCCBRBCF1						off				
DNZSRDIR1: 1										
DNZSRDIR1						off				
SECRSYN1: 1										
SYNC						off				
EFLPTOC3: 3										
I0>(3)						off				
SPHPTOV1: 1										
3U>(1)						off				
SPHPTOV2: 2										
3U>(2)						off				
SPHPTOV3: 3										
3U>(3)						off				
SPHPTUV1: 1										
3U<(1)						off				
SPHPTUV2: 2										
3U<(2)						off				
SPHPTUV3: 3										
3U<(3)						off				
Programmable LEDs: 1										
Programmable LEDs										
Programmable LED 1						False				
Programmable LED 2						False				
Programmable LED 3						False				
Programmable LED 4						False				
Programmable LED 5						False				
					Project SE Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q01A1	
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A RER620A	Document id.	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format					
Programmable LED 6						False									
Programmable LED 7						False									
Programmable LED 8						False									
Programmable LED 9						False									
Programmable LED 10						False									
Programmable LED 11						False									
Recorded data															
CMMXU1: 1															
3I															
Max demand IL1						30.77	xIn	0.00	40.00						
Max demand IL2						31.99	xIn	0.00	40.00						
Max demand IL3						31.98	xIn	0.00	40.00						
Time max demand IL1						2017-06-19T 17:06:11.910 Z			34 characters						
Time max demand IL2						2017-06-19T 17:07:11.911 Z			34 characters						
Time max demand IL3						2017-06-19T 17:07:11.911 Z			34 characters						
FLTMSTA: 1															
Fault record															
Fault number						849		0	999999						
Time and date						2022-11-05T 13:15:43.712 Z			34 characters						
Start duration						0.00	%	0.00	100.00						
Setting group						1		0	6						
Max current IL1						0.112	xIn	0.000	50.000						
Max current IL2						0.104	xIn	0.000	50.000						
Max current IL3						0.066	xIn	0.000	50.000						
Max current Io						0.746	xIn	0.000	50.000						
Current IL1						0.112	xIn	0.000	50.000						
Current IL2						0.101	xIn	0.000	50.000						
Current IL3						0.066	xIn	0.000	50.000						
Current Io						0.688	xIn	0.000	50.000						
Current Io-Calc						0.221	xIn	0.000	50.000						
Current Ps-Seq						0.025	xIn	0.000	50.000						
Current Ng-Seq						0.008	xIn	0.000	50.000						
Voltage UL1						0.069	xUn	0.000	4.000						
Voltage UL2						0.091	xUn	0.000	4.000						
Voltage UL3						0.078	xUn	0.000	4.000						
Voltage U12						0.022	xUn	0.000	4.000						
Voltage U23						0.014	xUn	0.000	4.000						
Voltage U31						0.009	xUn	0.000	4.000						
Voltage Uo						0.000	xUn	0.000	4.000						
Voltage Zro-Seq						0.080	xUn	0.000	4.000						
					Project SE Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q01A1		
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay				Created by		Title RER620A RER620A		Document id.		
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format	
Voltage Ps-Seq						0.007	xUn	0.000	4.000		
Voltage Ng-Seq						0.006	xUn	0.000	4.000		
Angle Uo - Io						0.00	deg	-180.00	180.00		
Angle U23 - IL1						-147.82	deg	-180.00	180.00		
Angle U31 - IL2						-101.26	deg	-180.00	180.00		
Angle U12 - IL3						112.30	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		
UPS Status											
ZBAT1: 1											
ZBAT1											
Battery charge V						0.0	V	0.0	60.0		
Battery charge I						0.00	A	0.00	2.56		
Temperature						0	°C	-60	150		
AC Input V						0	V	0	256		
AC_LOSS						False					
Aux Status						Off					
Aux Voltage						12 V					
Aux Load I						0.00	A	0.00	3.50		
Aux Protection						Normal					
Internal rail 12V						0.0	V	0.0	16.0		
Internal rail 60V						0		0	65		
Boost Voltage						0		0	256		
Bat Execution Result						0		0	9		
UPS Relay Status						Off					
Heater Switch						Off					
Days since reset						0		0	65535		
Hours since reset						0		0	24		
Minutes since reset						0		0	60		
Seconds since reset						0		0	60		
UPS Fw Version						0.0		0.0	1000.0		
UPS Hw Version						0.0		0.0	1000.0		
UPS Bootldr Version						0.0		0.0	1000.0		
Function keys											
FKEYGGIO1: 1											
LED status											
L1						True					
L2						False					
L3						False					
L4						False					
L5						False					
L6						False					
L7						False					
L8						False					
L9						False					
					Project	Responsible department		Technical ref...	Document kind	Doc. designation	
					SE Mejillones	ABB Ltd.				AA1J1Q01A1	
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A RER620A	Document id.		
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
L10						False				
L11						False				
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				
K8						False				
K9						False				
K10						False				
K11						False				
K12						False				
K13						False				
K14						False				
K15						False				
K16						False				
Information										
Product identifiers: 0										
Product identifiers										
Type						RER620A			20 characters	
Serial number						1VAC91021203			20 characters	
Order code						NARAAAAC33E5B1NU2D			20 characters	
Production date						2017-04-19			20 characters	
Configuration name						RA01			20 characters	
SW version						1.2.2			20 characters	
SW date						2017-01-12 11:03 PM			20 characters	
SW number						2RCA034153C			20 characters	
HW revision						D			20 characters	
Site identifiers: 0										
Site identifiers										
Customer name									20 characters	
Street									20 characters	
House number									20 characters	
ZIP/Postal code									20 characters	
City/Province									20 characters	
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			Repla...		Process Energy SE Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A	Document id.	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format		
State									20 characters			
Country									20 characters			
System identifiers: 0												
Technical key						AA1J1Q01A1			20 characters			
HW modules: 0												
Main board												
Article number						2RCA024772 A0001			20 characters			
HW revision						D			20 characters			
Serial number						1YF1924753 39			20 characters			
Manufacturing date						2017-01-11			20 characters			
Test date						2017-01-11			20 characters			
LHMI												
Article number						2RCA026033 A0001			20 characters			
SW version						06.00.02.19			20 characters			
HW revision						M			20 characters			
Serial number						1YF1925318 71			20 characters			
Manufacturing date						2017-03-18			20 characters			
Test date						2017-03-18			20 characters			
HW modules												
X000 (COM): 90												
X000 (COM)												
Article number						2RCA006820 A0004			20 characters			
SW version						-			20 characters			
HW revision						J			20 characters			
Serial number						1YM1921839 95			20 characters			
Manufacturing date						2015-09-30			20 characters			
Test date						2015-09-30			20 characters			
X110 (BIO): 110												
X110 (BIO)												
Article number						2RCA025501 A0001			20 characters			
HW revision						E			20 characters			
Serial number						1YF1925176 55			20 characters			
Manufacturing date						2017-02-16			20 characters			
Test date						2017-02-16			20 characters			
X105 (BIO): 105												
X105 (BIO)												
Article number						2RCA025501 A0001			20 characters			
HW revision						E			20 characters			
					Project SE Mejillones		Responsible department ABB Ltd.		Technical ref... Document kind		Doc. designation AA1J1Q01A1	
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay				Created by Title RER620A RER620A		Document id.	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
Serial number						1YF1924778 11			20 characters	
Manufacturing date						2016-12-13			20 characters	
Test date						2016-12-13			20 characters	
X100 (PSM): 100										
X100 (PSM)										
Article number						2RCA025058 A0001			20 characters	
HW revision						P			20 characters	
Serial number						1YF1925041 50			20 characters	
Manufacturing date						2017-01-24			20 characters	
Test date						2017-01-24			20 characters	
X120 (AIM): 120										
X120 (AIM)										
Article number						2RCA007128 A0002			20 characters	
HW revision						J			20 characters	
Serial number						1YF1924322 20			20 characters	
Manufacturing date						2016-09-02			20 characters	
Test date						2016-09-02			20 characters	
X115 (UPD): 115										
X115 (UPD)										
Article number						2RCA021556 A0001			20 characters	
HW revision						J			20 characters	
Serial number						1YF1924326 47			20 characters	
Manufacturing date						2016-09-17			20 characters	
Test date						2016-09-17			20 characters	
X130 (SIM): 130										
X130 (SIM)										
Article number						2RCA021555 A0001			20 characters	
HW revision						B			20 characters	
Serial number						1YF1922200 78			20 characters	
Manufacturing date						2015-08-07			20 characters	
Test date						2015-08-07			20 characters	
Clear										
Clear: 0										
Clear										
Indications and LEDs						Cancel				
Programmable LEDs						Cancel				
Events						Cancel				
SPSCBR1: 1										
CBCM										

					Project SE Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q01A1			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
CBCM acc.energy						Cancel				
CBCM rem.life						Cancel				
CBCM travel times						Cancel				
CBCM spr.charge t						Cancel				
CMMXU1: 1										
3I max.demands						Cancel				
FLTMSTA: 1										
Fault records						Cancel				
SDARREC1: 1										
O->I										
O->I reset						Cancel				
O->I counters						Cancel				
APEMMXU1: 1										
P,SP,E acc.energy						Cancel				
Control										
SCBXCBR1: 1										
I<->O CB										
All phases						closed				
Phase A						closed				
Phase B						closed				
Phase C						closed				
UPS Control: 1										
Reset UPS						False				
Application Configuration										
I_O										
Settings										
Setting group										
Protection: 0										
Setting group										
Active group						1		1	6	
Protection										
Settings										
Current protection										
INRPCHAR1: 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	
					Project SE Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q01A1	
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A RER620A	Document id.	
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							0	10/11/2022	en	

Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format	
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		
Operate delay time						20	ms	20	60000		
SPHLPTOC1: 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						RMS					
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	xln	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					
Start Block Value						5.00	xln	1.00	40.00		
Start Block Enable						Off					
Time Adder						0.20		0.00	2.00		
Setting Group 2											
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		
Setting Group 3											
Start value						1.00	xln	0.05	5.00		
Start value Mult						2.0		0.8	10.0		
					Project SE Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q01A1		
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A RER620A	Document id.		
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format					
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 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										
Time Adder						0.00		0.00	2.00						
Setting Group 6															
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						
SPHLPTOC2: 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						
					Project SE Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q01A1		
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay				Created by		Title RER620A RER620A		Document id.		
Re v.	Modification	Rel. date	Created by	Based on					Approved by				Rev. 0		Rel. date 10/11/2022


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							
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										
Time Adder						0.00		0.00	2.00							
Setting Group 3																
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 4																
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										
Type of reset curve						Immediate										
					Project SE Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q01A1			
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay				Created by		Title RER620A RER620A		Document id.			
Re v.	Modification	Rel. date	Created by	Based on					Approved by				Rev. 0 Rel. date 10/11/2022 Lan en 62 / 108			

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 5						
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 6						
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	
SPHHPTOC1: 1						
3l>>(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	
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	


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 2										
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	
Setting Group 3										
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	
Setting Group 4										
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	
Setting Group 5										
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	
Setting Group 6										
					Project	Responsible department		Technical ref...	Document kind	Doc. designation
					SE Mejillones	ABB Ltd.				AA1J1Q01A1
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay			Created by	Title	Document id.
									RER620A RER620A	
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										64 / 108

Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format	
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		
SPHIPTOC1: 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		
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 SE Mejillones		Responsible department ABB Ltd.		Technical ref...	Document kind		Doc. designation AA1J1Q01A1			
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay				Created by	Title RER620A RER620A		Document id.			
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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: 2															
Io>(2)															
Operation						on									
Minimum operate time						20	ms	20	60000						
Reset delay time						20	ms	0	60000						
Measurement mode						RMS									
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						
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						
Operating curve type						ANSI Ext. inv.									
					Project SE Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q01A1		
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay				Created by		Title RER620A RER620A		Document id.		
Re v.	Modification	Rel. date	Created by	Based on					Approved by				Rev.	Rel. date	Lan
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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 4													
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 5													
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 6													
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				
XEFLPTOC3: 3													
Io>(3)													
Operation						on							
Minimum operate time						20	ms	20	60000				
Reset delay time						20	ms	0	60000				
Measurement mode						RMS							
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 SE Mejillones		Responsible department ABB Ltd.		Technical ref...	Document kind		Doc. designation AA1J1Q01A1			
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay				Created by	Title RER620A RER620A		Document id.			
Re v.	Modification	Rel. date	Created by	Based on					Approved by			Rev.	Rel. date	Lan	67 / 108
												0	10/11/2022	en	


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				
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							
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						1.500	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 4													
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 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				
Start Block Enable						Off							
Time Adder						0.00		0.00	2.00				
Setting Group 7													
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 8													
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 9													
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 10													
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 11													
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 12													
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 13													
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 14													
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 15													
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 16													
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 17													
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 18													
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 19													
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 20													
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 21													
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 22													
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 23													
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 24													
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					


Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format				
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					
Start Block Enable						Off								
Time Adder						0.00		0.00	2.00					
XEFHPTOC3: 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						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								
Start Block Value						5.00		1.00	40.00					
Start Block Enable						Off								
Time Adder						0.00		0.00	2.00					
Setting Group 2														


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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format					
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 3															
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 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									
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						
					Project SE Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q01A1		
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay				Created by	Title RER620A RER620A		Document id.			
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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		1.00	40.00				
Start Block Enable						Off							
Time Adder						0.00		0.00	2.00				
XEFIPTOC2: 2													
Io>>>													
Operation						off							
Reset delay time						20	ms	0	60000				
Io signal Sel						Calculated Io							
Setting Group 1													
Start value						1.50	xln	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 2													
Start value						1.50	xln	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	xln	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	xln	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	xln	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 6													
Start value						1.50	xln	1.00	40.00				
Start value Mult						1.0		0.8	10.0				
Operate delay time						100	ms	20	200000				
Setting Group 7													
Start value						1.50	xln	1.00	40.00				
Start value Mult						1.0		0.8	10.0				
Operate delay time						100	ms	20	200000				

Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format			
Start Block Value						5.00		1.00	40.00				
Start Block Enable						Off							
XNSPTOC1: 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	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				
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	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 4													
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							
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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 5															
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						
XNSPTOC2: 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	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 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						
					Project SE Mejillones		Responsible department ABB Ltd.		Technical ref...	Document kind		Doc. designation AA1J1Q01A1			
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay				Created by	Title RER620A RER620A		Document id.			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format	
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											
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: 1											
3I>->(1)											
Operation						off					
Num of start phases						1 out of 3					
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					
Setting Group 1											
					Project SE Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q01A1		
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A RER620A	Document id.		
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format			
Start value						0.35	xln	0.05	5.00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Time Adder						0.00		0.00	2.00				
Voltage Mem time						40	ms	0	3000				
Directional mode						Forward							
Characteristic angle						60	deg	-179	180				
Pol quantity						Cross pol							
Setting Group 2													
Start value						0.35	xln	0.05	5.00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Time Adder						0.00		0.00	2.00				
Voltage Mem time						40	ms	0	3000				
Directional mode						Forward							
Characteristic angle						60	deg	-179	180				
Pol quantity						Cross pol							
Setting Group 3													
Start value						0.35	xln	0.05	5.00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Time Adder						0.00		0.00	2.00				
Voltage Mem time						40	ms	0	3000				
Directional mode						Forward							
Characteristic angle						60	deg	-179	180				
Pol quantity						Cross pol							
Setting Group 4													
Start value						0.35	xln	0.05	5.00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Time Adder						0.00		0.00	2.00				
Voltage Mem time						40	ms	0	3000				
Directional mode						Forward							
Characteristic angle						60	deg	-179	180				
Pol quantity						Cross pol							
Setting Group 5													
Start value						0.35	xln	0.05	5.00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Time Adder						0.00		0.00	2.00				
Voltage Mem time						40	ms	0	3000				
Directional mode						Forward							
Characteristic angle						60	deg	-179	180				
Pol quantity						Cross pol							
Setting Group 6													
Start value						0.35	xln	0.05	5.00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Time Adder						0.00		0.00	2.00				
Voltage Mem time						40	ms	0	3000				
Directional mode						Forward							
Characteristic angle						60	deg	-179	180				
Pol quantity						Cross pol							
Setting Group 7													
Start value						0.35	xln	0.05	5.00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Time Adder						0.00		0.00	2.00				
Voltage Mem time						40	ms	0	3000				
Directional mode						Forward							
Characteristic angle						60	deg	-179	180				
Pol quantity						Cross pol							
Setting Group 8													
Start value						0.35	xln	0.05	5.00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Time Adder						0.00		0.00	2.00				
Voltage Mem time						40	ms	0	3000				
Directional mode						Forward							
Characteristic angle						60	deg	-179	180				
Pol quantity						Cross pol							
Setting Group 9													
Start value						0.35	xln	0.05	5.00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Time Adder						0.00		0.00	2.00				
Voltage Mem time						40	ms	0	3000				
Directional mode						Forward							
Characteristic angle						60	deg	-179	180				
Pol quantity						Cross pol							
Setting Group 10													
Start value						0.35	xln	0.05	5.00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Time Adder						0.00		0.00	2.00				
Voltage Mem time						40	ms	0	3000				
Directional mode						Forward							
Characteristic angle						60	deg	-179	180				
Pol quantity						Cross pol							
Setting Group 11													
Start value						0.35	xln	0.05	5.00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Time Adder						0.00		0.00	2.00				
Voltage Mem time						40	ms	0	3000				
Directional mode						Forward							
Characteristic angle						60	deg	-179	180				
Pol quantity						Cross pol							
Setting Group 12													
Start value						0.35	xln	0.05	5.00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Time Adder						0.00		0.00	2.00				
Voltage Mem time						40	ms	0	3000				
Directional mode						Forward							
Characteristic angle						60	deg	-179	180				
Pol quantity						Cross pol							
Setting Group 13													
Start value						0.35	xln	0.05	5.00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Time Adder						0.00		0.00	2.00				
Voltage Mem time						40	ms	0	3000				
Directional mode						Forward							
Characteristic angle						60	deg	-179	180				
Pol quantity						Cross pol							
Setting Group 14													
Start value						0.35	xln	0.05	5.00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Time Adder						0.00		0.00	2.00				
Voltage Mem time						40	ms	0	3000				
Directional mode						Forward							
Characteristic angle						60	deg	-179	180				
Pol quantity						Cross pol							
Setting Group 15													
Start value						0.35	xln	0.05	5.00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Time Adder						0.00		0.00	2.00				
Voltage Mem time						40	ms	0	3000				
Directional mode						Forward							
Characteristic angle						60	deg	-179	180				
Pol quantity						Cross pol							
Setting Group 16													
Start value						0.35	xln	0.05	5.00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Time Adder						0.00		0.00	2.00				
Voltage Mem time						40	ms	0	3000				
Directional mode						Forward							
Characteristic angle						60	deg	-179	180				
Pol quantity						Cross pol							
Setting Group 17													
Start value						0.35	xln	0.05	5.00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Time Adder						0.00		0.00	2.00				
Voltage Mem time						40	ms	0	3000				
Directional mode						Forward							
Characteristic angle						60	deg	-179	180				
Pol quantity						Cross pol							
Setting Group 18													
Start value						0.35	xln	0.05	5.00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Time Adder						0.00		0.00	2.00				
Voltage Mem time						40	ms	0	3000				
Directional mode						Forward							
Characteristic angle						60	deg	-179	180				
Pol quantity						Cross pol							
Setting Group 19													
Start value						0.35	xln	0.05	5.00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Time Adder						0.00		0.00	2.00				
Voltage Mem time						40	ms	0	3000				
Directional mode						Forward							
Characteristic angle						60	deg	-179	180				
Pol quantity						Cross pol							
Setting Group 20													
Start value						0.35	xln	0.05	5.00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Time Adder						0.00		0.00	2.00				
Voltage Mem time						40	ms	0	3000				
Directional mode						Forward							
Characteristic angle						60	deg	-179	180				
Pol quantity						Cross pol							
Setting Group 21													
Start value						0.35	xln	0.05	5.00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Time Adder						0.00		0.00	2.00				
Voltage Mem time						40	ms	0	3000				
Directional mode						Forward							
Characteristic angle						60	deg	-179	180				
Pol quantity						Cross pol							
Setting Group 22													
Start value						0.35	xln	0.05	5.00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Time Adder						0.00		0.00	2.00				
Voltage Mem time						40	ms	0	3000				
Directional mode						Forward							
Characteristic angle						60	deg	-179	180				
Pol quantity						Cross pol							
Setting Group 23													
Start value						0.35	xln	0.05	5.00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Time Adder						0.00		0.00	2.00				
Voltage Mem time						40	ms	0	3000				
Directional mode						Forward							
Characteristic angle						60	deg	-179	180				
Pol quantity						Cross pol							
Setting Group 24													
Start value						0.35	xln	0.05	5.00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Time Adder						0.00		0.00	2.00				
Voltage Mem time						40	ms	0	3000				
Directional mode						Forward							
Characteristic angle						60	deg	-179	180				
Pol quantity						Cross pol							
Setting Group 25													
Start value						0.35	xln	0.05	5.00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Time Adder						0.00		0.00	2.00				
Voltage Mem time						40	ms	0	3000				
Directional mode						Forward							
Characteristic angle						60	deg	-179	180				
Pol quantity						Cross pol							
Setting Group 26													
Start value						0.35	xln	0.05	5.00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Time Adder						0.00		0.00	2.00				
Voltage Mem time						40	ms	0	3000				
Directional mode						Forward							
Characteristic angle						60	deg	-179	180				
Pol quantity						Cross pol							
Setting Group 27													
Start value						0.35	xln	0.05	5.00				
Operate delay time						40	ms	40	200000				
Operating curve type						ANSI Ext. inv.							
Time Adder						0.00		0.00	2.00				
Voltage Mem time						40	ms	0	3000				
Directional mode						Forward							
Characteristic angle						60	deg						

Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
Characteristic angle						60	deg	-179	180	
Pol quantity						Cross pol				
Setting Group 6										
Start value						0.35	xln	0.05	5.00	
Operate delay time						40	ms	40	200000	
Operating curve type						ANSI Ext. inv.				
Time Adder						0.00		0.00	2.00	
Voltage Mem time						40	ms	0	3000	
Directional mode						Forward				
Characteristic angle						60	deg	-179	180	
Pol quantity						Cross pol				
SDPHLPDOC2: 2										
3I>-(2)										
Operation						off				
Num of start phases						1 out of 3				
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				
Setting Group 1										
Start value						0.35	xln	0.05	5.00	
Operate delay time						40	ms	40	200000	
Operating curve type						ANSI Ext. inv.				
Time Adder						0.00		0.00	2.00	
Voltage Mem time						40	ms	0	3000	
Directional mode						Forward				
Characteristic angle						60	deg	-179	180	
Pol quantity						Cross pol				
Setting Group 2										
Start value						0.35	xln	0.05	5.00	
Operate delay time						40	ms	40	200000	
Operating curve type						ANSI Ext. inv.				
Time Adder						0.00		0.00	2.00	
Voltage Mem time						40	ms	0	3000	
Directional mode						Forward				
Characteristic angle						60	deg	-179	180	
Pol quantity						Cross pol				
Setting Group 3										
Start value						0.35	xln	0.05	5.00	
Operate delay time						40	ms	40	200000	
Operating curve type						ANSI Ext. inv.				
					Project	Responsible department		Technical ref...	Document kind	Doc. designation
					SE Mejillones	ABB Ltd.				AA1J1Q01A1
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay			Created by	Title	Document id.
									RER620A RER620A	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
Time Adder						0.00		0.00	2.00	
Voltage Mem time						40	ms	0	3000	
Directional mode						Forward				
Characteristic angle						60	deg	-179	180	
Pol quantity						Cross pol				
Setting Group 4										
Start value						0.35	xIn	0.05	5.00	
Operate delay time						40	ms	40	200000	
Operating curve type						ANSI Ext. inv.				
Time Adder						0.00		0.00	2.00	
Voltage Mem time						40	ms	0	3000	
Directional mode						Forward				
Characteristic angle						60	deg	-179	180	
Pol quantity						Cross pol				
Setting Group 5										
Start value						0.35	xIn	0.05	5.00	
Operate delay time						40	ms	40	200000	
Operating curve type						ANSI Ext. inv.				
Time Adder						0.00		0.00	2.00	
Voltage Mem time						40	ms	0	3000	
Directional mode						Forward				
Characteristic angle						60	deg	-179	180	
Pol quantity						Cross pol				
Setting Group 6										
Start value						0.35	xIn	0.05	5.00	
Operate delay time						40	ms	40	200000	
Operating curve type						ANSI Ext. inv.				
Time Adder						0.00		0.00	2.00	
Voltage Mem time						40	ms	0	3000	
Directional mode						Forward				
Characteristic angle						60	deg	-179	180	
Pol quantity						Cross pol				
XDEFLPDEF1: 1										
Io>->(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	
Pol reversal						False				

					Project SE Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q01A1			
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A RER620A	Document id.			
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format
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	
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				
Time Adder			0.00		0.00	2.00	
Setting Group 3							
Start value			0.200	xIn	0.010	5.000	

				Project	Responsible department	Technical ref...	Document kind	Doc. designation			
				SE Mejillones	ABB Ltd.			AA1J1Q01A1			
			Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A RER620A	Document id.			
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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.				
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				
Characteristic angle						-90	deg	-179	180	
Max forward angle						88	deg	0	180	

					Project SE Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q01A1			
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A RER620A	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 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				
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: 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				
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				


					Project SE Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q01A1			
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A RER620A	Document id.			
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format
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 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	
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	Responsible department	Technical ref...	Document kind	Doc. designation			
				SE Mejillones	ABB Ltd.			AA1J1Q01A1			
			Repla...	Process Energy SE 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			
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.							
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							
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				


					Project SE Mejillones		Responsible department ABB Ltd.		Technical ref...	Document kind		Doc. designation AA1J1Q01A1			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
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	
PDNSPTOC1: 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	
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: 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	
					Project SE Mejillones	Responsible department ABB Ltd.		Technical ref...	Document kind	Doc. designation AA1J1Q01A1
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay			Created by	Title RER620A RER620A	Document id.
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format			
Curve parameter E						1.0		0.0	1.0				
Io signal Sel					Measured Io								
Setting Group 1													
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 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				
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				
					Project SE Mejillones	Responsible department ABB Ltd.		Technical ref...	Document kind	Doc. designation AA1J1Q01A1			
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay			Created by	Title RER620A RER620A	Document id.			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format				
Operating curve type						ANSI Def. Time								
Type of reset curve						Immediate								
Voltage protection														
ROVPTOV1: 1														
Uo>(1)														
Operation						off								
Reset delay time						20	ms	0	60000					
Uo signal Sel						Calculated Uo								
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: 2														
Uo>(2)														
Operation						off								
Reset delay time						20	ms	0	60000					
Uo signal Sel						Calculated Uo								
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					

					Project SE Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q01A1			
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A RER620A	Document id.			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format				
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: 1														
U1>(1)														
Operation						off								
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					
PSPTOV2: 2														
U1>(2)														
Operation						off								
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					
					Project SE Mejillones		Responsible department ABB Ltd.		Technical ref...	Document kind		Doc. designation AA1J1Q01A1		
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay				Created by	Title RER620A RER620A		Document id.		
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format		
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: 1												
U2>(1)												
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: 2												
U2>(2)												
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			
					Project SE Mejillones		Responsible department ABB Ltd.		Technical ref... Document kind			
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay				Created by Title			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format						
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: 1																
3U>(1)																
Operation						off										
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							
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							
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										
					Project SE Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q01A1			
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay				Created by		Title RER620A RER620A		Document id.			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format			
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							
Type of reset curve						Immediate							
SPHPTOV2: 2													
3U>(2)													
Operation						off							
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				
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				
Time multiplier						1.00		0.05	15.00				
Operate delay time						10000	ms	40	300000				
					Project SE Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind	Doc. designation AA1J1Q01A1	
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay				Created by	Title RER620A RER620A		Document id.	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format			
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							
Type of reset curve						Immediate							
SPHPTOV3: 3													
3U>(3)													
Operation						off							
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				
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													


					Project SE Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q01A1			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format		
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			
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						
Type of reset curve						Immediate						
SPHPTUV1: 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			
					Project SE Mejillones		Responsible department ABB Ltd.		Technical ref... Document kind			
					Repla... Process Energy SE Mejillones.Substation.Voltage Level.Bay				Created by Title RER620A RER620A			
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Group / Parameter Name		IED Value	PC Value	Unit	Min	Max	Format
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	
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				
Type of reset curve			Immediate				


SPHPTUV2: 2


					Project SE Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q01A1			
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A RER620A	Document id.			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
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	
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	
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	
Re v.	Modification	Rel. date	Created by	Based on	Project SE Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q01A1	
			Repla...		Process Energy SE Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A 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 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										
SPHPTUV3: 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							
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							
					Project SE Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q01A1			
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay				Created by		Title RER620A RER620A		Document id.			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format			
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							
Type of reset curve						Immediate							
Frequency protection													
FRPFRQ1: 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				
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				
					Project	Responsible department	Technical ref...	Document kind		Doc. designation			
					SE Mejillones	ABB Ltd.				AA1J1Q01A1			
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay		Created by	Title		Document id.			
								RER620A RER620A					
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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 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			
FRPFRQ2: 2												
f>/f<,df/dt(2)												
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			
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<						
					Project	Responsible department		Technical ref...	Document kind	Doc. designation		
					SE Mejillones	ABB Ltd.				AA1J1Q01A1		
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							Approved by	RER620A RER620A				
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format	
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 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		
Other protection											
PHIZ1: 1											
PHIZ1											
Operation						off					
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: 1											
DPSRDIR1											
Operation						off					
					Project SE Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q01A1		
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A RER620A	Document id.		
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format						
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							
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							
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							
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							
					Project SE Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q01A1			
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay				Created by		Title RER620A RER620A		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								
SCCBRBRF1: 1														
3I>/Io>BF														
Operation						on								
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						20	ms	0	60000					
CB failure delay						200	ms	0	60000					
CB fault delay						5000	ms	0	60000					
Measurement mode						DFT								
Trip pulse time						150	ms	0	60000					
SCCBRBCF1: 1														
SCCBRBCF1														
Operation						off								
Close delay time						300	ms	0	60000					
Close pulse time						150	ms	0	60000					
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					
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					
					Project SE Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q01A1	
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay				Created by		Title RER620A RER620A		Document id.	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format					
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						
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						
Max reverse angle						88	deg	0	180						
Min reverse angle						88	deg	0	180						
Control															
Settings															
Control															
SDARREC1: 1															
O->I															
Operation						on									
Reclosing operation						Off									
Close pulse time						200	ms	10	10000						
Reclaim time						10000	ms	100	1800000						
Terminal priority						None									
					Project SE Mejillones		Responsible department ABB Ltd.		Technical ref...	Document kind		Doc. designation AA1J1Q01A1			
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay				Created by	Title RER620A RER620A		Document id.			
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format					
Synchronisation set						0		0	127						
Auto initiation cnd						When sync fails									
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						
Shot number CBB3						3		0	5						
Shot number CBB4						0		0	5						
Shot number CBB5						0		0	5						
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: 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						
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						
					Project SE Mejillones		Responsible department ABB Ltd.		Technical ref...	Document kind		Doc. designation AA1J1Q01A1			
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay				Created by	Title RER620A RER620A		Document id.			
				Approved by											
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format					
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						
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															
LSHDPFRQ1: 1															
UFLS/R(1)															
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						
					Project SE Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q01A1		
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay				Created by		Title RER620A RER620A		Document id.		
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format
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	
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										
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	
LSHD PFRQ2: 2										
					Project	Responsible department		Technical ref...	Document kind	Doc. designation
					SE Mejillones	ABB Ltd.				AA1J1Q01A1
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay			Created by	Title	Document id.
									RER620A RER620A	
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format					
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															
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						
Operate Tm df/dt						200	ms	120	200000						
					Project SE Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q01A1		
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay				Created by		Title RER620A RER620A		Document id.		
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format			
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													
DLCM1: 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							
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							
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							
Dead bus thrshld						1.000	xUn	0.000	2.000				
Live bus time						5	s	1	600				
Dead bus time						5	s	1	600				
					Project	Responsible department		Technical ref...	Document kind	Doc. designation			
					SE Mejillones	ABB Ltd.				AA1J1Q01A1			
				Repla...	Process Energy SE 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					
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									
Vt config load						3		1	3						
Vt load phase						A									
Vt load enable						False									
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									
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 5															
LCM Mode						Disable									
Line side src						S1									
Vt config line						3		1	3						
Vt line phase						A									
					Project SE Mejillones		Responsible department ABB Ltd.		Technical ref...		Document kind		Doc. designation AA1J1Q01A1		
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay				Created by		Title RER620A RER620A		Document id.		
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Group / Parameter Name					IED Value	PC Value	Unit	Min	Max	Format			
Vt line enable						False							
Sect 3P OpMode						Any phase							
Vt config load						3		1	3				
Vt load phase						A							
Vt load enable						False							
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 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							
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													
DRFLO1: 1													
DRFLO1													
Operation						off							
Line length						100.0		0.0	300.0				
R1						1.000	ohm	0.000	20.000				
X1						2.000	ohm	0.000	30.000				
R0						0.010	ohm	0.000	20.000				
X0						1.000	ohm	0.000	30.000				
Setting Group 1													
Phase level						0.10	xln	0.05	5.00				
Setting Group 2													
Phase level						0.10	xln	0.05	5.00				
					Project SE Mejillones	Responsible department ABB Ltd.		Technical ref...	Document kind	Doc. designation AA1J1Q01A1			
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay			Created by	Title RER620A RER620A	Document id.			
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Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Setting Group 3						
Phase level		0.10	xIn	0.05	5.00	
Setting Group 4						
Phase level		0.10	xIn	0.05	5.00	
Setting Group 5						
Phase level		0.10	xIn	0.05	5.00	
Setting Group 6						
Phase level		0.10	xIn	0.05	5.00	

					Project SE Mejillones	Responsible department ABB Ltd.	Technical ref...	Document kind	Doc. designation AA1J1Q01A1			
				Repla...	Process Energy SE Mejillones.Substation.Voltage Level.Bay		Created by	Title RER620A RER620A	Document id.			
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