



Controle de Religador S-Grid-On

Mayo de 2024



Powering Business Worldwide

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Control para Reconectadores EATON S-Grid-On

Principales Características : EATON S-Grid-On



- Control dedicado para aplicación en reconectadores, con funciones avanzadas y embebidas.
- Herramientas de análisis y recursos de ciberseguridad.
- Leds y teclas configurables.
- Lógica programable.
- Datos de carga con capacidad de hasta 210.000 registros.
- Amplio diagnóstico de eventos.
- Registro de fallas dedicado.
- Oscilografía Online y Interactiva.
- Hasta 100 registros oscilográficos, con 128 muestras de 480 ciclos.

Control para Reconectadores EATON S-Grid-On

Principales Características : EATON S-Grid-On



- **Arquitectura modular y flexible**

- Puerto de comunicación serie: Hasta 2 RS-232 o Fibra;
- Puerto de comunicación Ethernet: Hasta 2 RJ-45 o Fibra;
- Puerto USB
- Branura para tarjetas SD
- 6 entradas de medida de tensión y 3 de corriente;
- Entrada SEF hasta 200mA - Estándar (50mA)

Corrente Alternada	I Nominal	I Continua	I Curta Duração	Sobrecarga
Sensível à Falha de Terra (SEF)	1 mA	300 mA	5 A por 1 segundo	< 0.001 VA
	10 mA	1.5 A	20 A por 1 segundo	< 0.001 VA
	50 mA	1.5 A	100 A por 1 segundo	< 0.002 VA
	200 mA	1.5 A	100 A por 1 segundo	< 0.03 VA



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Control para Reconectadores EATON S-Grid-On

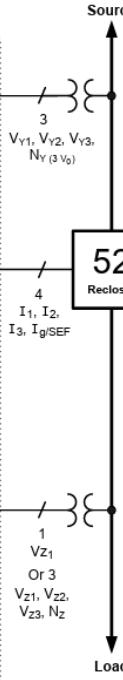
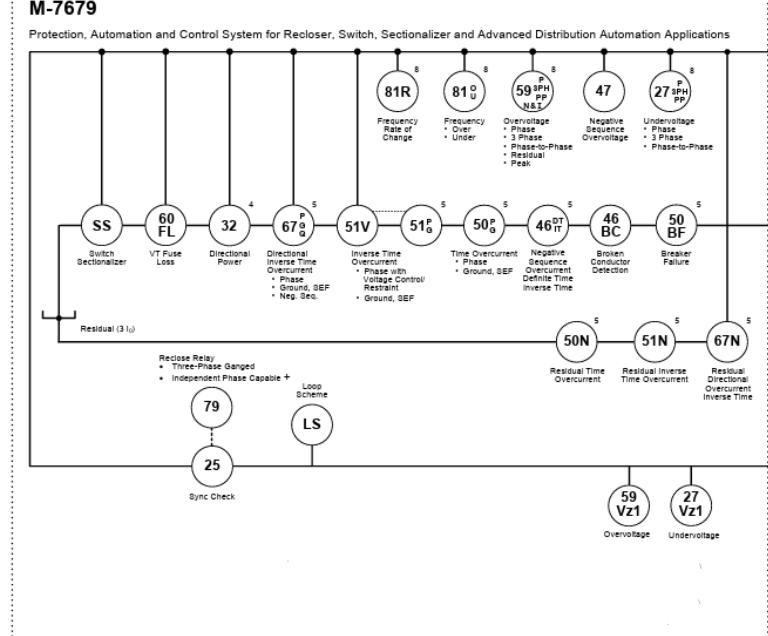
Tabla de Selección



S-Grid-ON - Tabela de Seleção									
S-Grid-ON - V 6 L 1 M H4 SLA 2 00 0 0 0									
S Vertical	V	Mounting							
◆ Horizontal	H								
S 60Hz	6	Frequency							
S 50Hz	5								
S Low (18-60 Vdc)	L	Power Supply							
◆ High (90-315 Vac/Vcd)	H								
S 1 A (3)	1	Phase Current Inputs (11, 12, 13)							
◆ 5 A (3)	5								
◆ 1 A	1								
◆ 5 A	5	Ground Current Input (Ig)							
◆ 200 mA SEF	H								
S 50 mA SEF	M								
◆ 10 mA SEF	L								
◆ (4) LEA-High or VT (300 Vac Max)	H4								
◆ (4) LEA-Low (12 Vac Max)	L4								
◆ (3) LEA-Low (12 Vac Max) and (1) LEA-High or VT (300 Vac Max)	X4								
S (6) LEA-High or VT (300 Vac Max)	H6								
S (6) LEA-Low (12 Vac Max)	L6								
◆ (3) LEA-Low (12 Vac Max) and (3) LEA-High or VT (300 Vac Max)	X6								
S (4) Configurable LV Inputs 9-180C AC/DC, and (4) Configurable Dry Type Outputs	SL								
◆ (4) Configurable HV Inputs 180-300 Vdc, 180-280 Vac, and (4) Configurable Dry Type Outputs	SH	I/O Options							
S (8) Additional LV Inputs 9-180V AC/DC, and (8) Additional Dry Type Outputs	EL								
◆ (8) Additional HV Inputs 180-300 Vdc, 180-280 Vac, and (8) Additional Dry Type Outputs	EH								
CSR									
0 None	X Customer Specific Requirements								
0 Standard (DNP3.0 & MODBUS)									
4 IEC 60870-5-104									
6 IEC 61850 (Requires an Ethernet port)									
9 IEC 61850 + IEC 60870-5-104 (Requires an Ethernet port)									
Protocols									
0 None									
2 TIA-232 Port									
4 TIA-485 Port									
S Serial Fiber Optic ST Port									
V Serial Fiber Optic V-pin Port									
PORT 4 (Serial)									
00 None (none/none)	C0 1 x RJ-45 10/100 MBps Ethernet Port (RJ-45/none)								
C0 1 x RJ-45 10/100 MBps Ethernet Port (RJ-45/none)	F0 1 x ST Fiber Optic Port 100 Base-FX (F0/none)								
CC 2 x RJ-45 10/100 MBps Ethernet Port (RJ-45/RJ-45)	CF 1 x RJ-45 10/100 MBps Ethernet Port + 1 x ST Fiber Optic Port 100 Base-FX (F0/45/FO)								
FF 2 x ST Fiber Optic Port 100 Base-FX (F0/F0)									
2 TIA-232 Port									
4 TIA 485 Port									
PORT 2/ PORT 3 (Ethernet)									
S Serial Fiber Optic ST Port									
V Serial Fiber Optic V-pin Port									
A Analog Output Module									
PORT 1 (Serial)									
S Switch/Sectionalizer (SW/SECT) - Three-Phase- Ganged									
P Distribution Automation Package (79, SW/SECT, LS) - Single Phase/Two Phase									
A Recloser - Three Phase Ganged									
T Recloser - Independent Phase Capable (Requires expanded I/O option)									
V Distribution Automation Package (79, SW/SECT, LS) - Three-Phase Ganged)									
W Distribution Automation Package (79, SW/SECT, LS) - Independent Phase Capable (Requires expanded I/O option)									
Operation Type									
S = Standard									
\$ = Opcional com Acréscimo de Preço									
◆ = Consultar a Fábrica									

Control para Reconectadores EATON S-Grid-On

Características Principales: Más de 30 Elementos de Protección



50P-Phase Instantaneous/Definite Time Overcurrent

#1	#2	#3	#4	#5
Phase ABC				
<input checked="" type="checkbox"/> Enable	Settings			
Primary Value	1600	Pickup	1.50	0.02 < <input type="checkbox"/> > 20.00 (A)
Definite Time	0.05	0.00 < <input type="checkbox"/> > 600.00 (s)		
Outputs				
1	2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	7	8	9	10
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	12	1	2	3
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	5	6	7	8
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	10	11	12	FL
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Blocking Inputs				
1	2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	7	8	9	10
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	12	FL	1	2
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

High Current Lockout

Phase Settings				
<input checked="" type="checkbox"/> HCL Phase Enable				
Primary Value	5000	Ref. Current	3.00	0.10 < <input type="checkbox"/> > 100.00 (A)
Time Delay	0.00	0.00 < <input type="checkbox"/> > 600.00 (s)		

51P/51V-Phase Inverse Time Overcurrent with Voltage Control

#1	#2	#3	#4	#5
Phase ABC				
<input checked="" type="checkbox"/> Enable	Settings			
51P	Primary Value	800	Pickup	0
			Curve	BSFC
			Time Multiplier (Dial)	2
			Time Adder	0
			Mn. Response Time Adder	0
			Electromechanical Reset	Reset 0.001, 0.001 < <input type="checkbox"/> > 30.000 (s)
Outputs				
1	2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	7	8	9	10
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	12	FL	1	2
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Blocking Inputs				
1	2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	7	8	9	10
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	12	FL	1	2
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

51V

Voltage Control	10.0	4.0 < <input type="checkbox"/> > 150.0 (%)
<input type="radio"/> Disable	<input type="radio"/> Voltage Control	<input type="radio"/> Voltage Restraint

Outputs

1	2	3	4	5	6	7	8	9	10	11	12	FL	1	2	3
<input type="checkbox"/>															

Blocking Inputs

1	2	3	4	5	6	7	8	9	10	11	12	FL	1	2	3
<input type="checkbox"/>															

Virtual Input

1	2	3
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Buttons: Undo/Refresh, Comment, Save, Exit



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Control para Reconectadores EATON S-Grid-On

Características Principales: Más de 30 Elementos de Protección

- Tiempo definido (50P)
- Tiempo inverso (51P)
- Tiempo definido de neutro (50N)
- Tiempo inverso de neutro (51N)
- Tiempo definido de sec. neg. (46DT)
- Tiempo inverso de sec. neg. (46IT)
- Tiempo definido SEF (50GS)
- Tiempo inverso SEF (51GS)
- Direccional de sobrecorriente: Fase, Sec. Neg., Terra, SEF (67P-DT, 67P-IT, 67Q-DT, 67Q-IT, 67N-DT, 67N-IT, 67GS-DT, 67GS-IT)
- Sub e sobrevoltaje (27/59)
- Sobrevoltaje de neutro (59N)
- Sobrevoltaje de secuencia negativa (47)
- Sub e sobre frecuencia (81U/O)
- Tasa de cambio de frecuencia (81R)
- Conductor roto (46BC)
- Sobrecorriente con restricción de voltaje (51V)
- Sobrecorriente por control de voltaje (51C)
- Direccional de potencia (32)
- Verificador de sincronismo (25CS)
- Falla de interruptor (50BF)
- Recierre (79)
- Loop Scheme (LS)
- Modo Sec/Switch (SECT)
- Restricción de inrush (IHR)
- Carga em frio (CLPU)
- Auto restauración (AR)
- Disparo único
- Falla de Alta Impedancia (SGI)
- Detección de pierda de potencial (60FL)
- Disparo por armónico (THD/TDD)



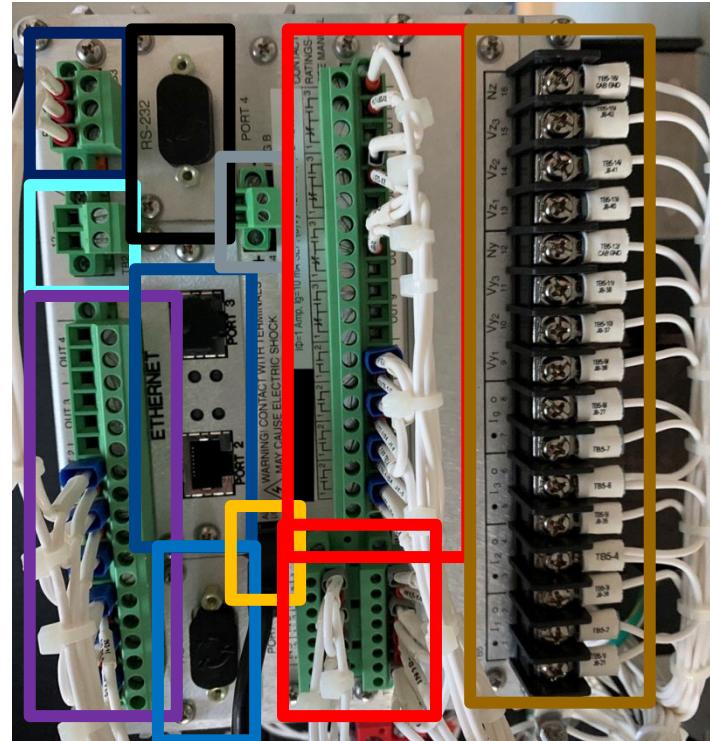
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Control para Reconectadores EATON S-Grid-On

Hardware

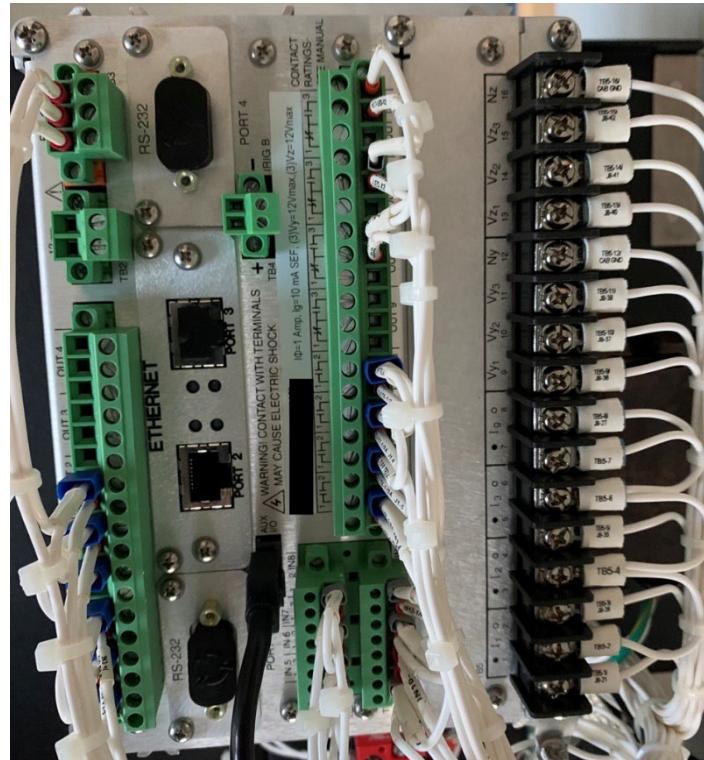
- **TB3 – Alimentación**
 - 24Vcc
- **TB2 – Back up**
 - 12Vcc
- **TB1 – Standard I/O**
- **Port 4 – Serial (Opcional)**
 - RS-232 o Fibra
- **Port 3 & 2 – Ethernet (Opcional)**
 - Cobre o Fibra
- **Port 1 – Serial (Opcional)**
 - RS-232/RS-485 o Fibra
 - Salida analógica 4-20mA
- **TB4 – IRIG B**
- **Conexión SATA – Datos da Batería (Opcional)**
- **TB6 – Extended I/O = Inputs (Opcional)**
- **TB7 – Extended I/O = Inputs (Opcional)**
- **TB8 – Extended I/O Outputs (Opcional)**
- **TB5 – Medición de corriente y voltaje**



Control para Reconectadores EATON S-Grid-On

Hardware

- Hasta 10 entradas y 10 salidas digitales
- Opción de hasta 2 x Puerta Serial
- Opción de hasta 2 x Puerta Ethernet
- Entrada SEF de hasta 10mA
- Entrada de corriente de 1A o 5A
- 6 entradas de voltaje (LEA o TP)
- Puerta USB
- Entrada para tarjeta SD



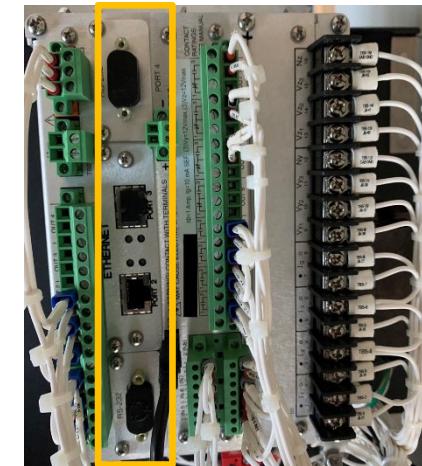
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Control para Reconectadores EATON S-Grid-On

Puertos de comunicación

Puertas – Configuración Modular

- Comunicación Frontal
 - Puerta frontal USB
 - Entrada para tarjeta de memoria SD
- Cyber Security (IEEE 1686)
- PUERTA1 & PUERTA 4
Serial/Analógico
 - RS-232
 - RS-485
 - Fibra (ST o V-Pin)
 - Salida Analógica 4-20mA (Port 1)
- PUERTA2 & PUERTA3
 - R-J45
 - Fibra óptica



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Control para Reconectadores EATON S-Grid-On

Protocolo de Comunicación



Protocolos

- MODBUS
- DNP 3.0
- **IEC-61850 GOOSE**
- MMS
- IEC 60870-104
- FTP
- HTTP
- SNTP
- DHCP

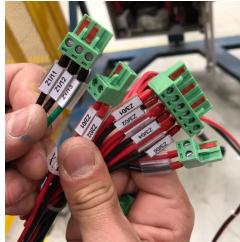
Recursos de Comunicación:

- Multi-Acceso
- Multi-Protocolo
- Selección de Puerta de Comunicación
- Selección de Protocolo
- Configuración para Sistema Radius
- Configuración para Sistemas IPSEC
- DNP3 con Sav (Security)
- Log con Registro de Acceso y Cambios
- Gerenciamiento de Acceso, Conforme IEEE 1686.

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Gabinete de control de reconnectador EATON S-Grid-On

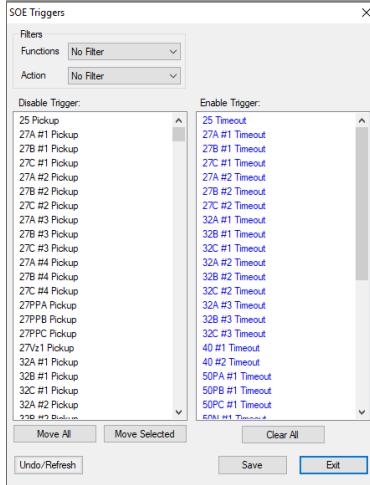
- Grado de protección IP 65
- Bandeja grande para accesorios
- Disyuntor y protección DPS
- Protección de la batería mediante disyuntor
- Látigos identificados y polarizados
- Puerto de acceso único



Control para Reconectadores - Registros

Secuencia de eventos

- SOE con 3500 eventos
- Elementos configurables
- Indicación de oscilografía
- Fácil interpretación y diagnóstico



Sequence of Events Viewer

Open | Apply Filter | Clear Filter

Firmware Version: D-0347V03.16.10 | Downloaded from ITCcom Version: D-0347V10.17.08

Show ITC Time

No Date & Time Events Stored in Record

No	Date & Time	Events Stored in Record
20	9/18/2017 11:55:03.332 AM	51PA #4 Timeout,51PB #4 Timeout,51PC #4 Timeout
19	9/18/2017 11:55:02.918 AM	Output Pickup 1,Output Pickup 5,Output Pickup 7
18	9/18/2017 11:54:57.915 AM	51PA #3 Timeout,51PB #3 Timeout,51PC #3 Timeout
17	9/18/2017 11:54:57.508 AM	51PA #2 Pickup Dropout,51PB #2 Pickup Dropout
16	9/18/2017 11:54:57.508 AM	Output Pickup 2,Output Pickup 6,Output Pickup 8
15	9/18/2017 11:54:55.494 AM	51PA #1 Pickup Dropout,51PB #1 Pickup Dropout
14	9/18/2017 11:54:55.484 AM	Output Pickup 2,Output Pickup 6,Output Pickup 8
13	9/18/2017 11:54:55.293 AM	51PA #1 Pickup,51PC #1 Timeout,laMagPrimary
12	9/18/2017 11:54:55.293 AM	51PC #1 Pickup,laMagPrimary (A)201.8mA
11	9/18/2017 11:54:55.288 AM	51PB #1 Timeout,Output Pickup 1,Output Pickup 3
10	9/18/2017 11:54:55.281 AM	51PB #1 Pickup,laMagPrimary (A)201.8mA
9	9/18/2017 11:49:27.942 AM	51PA #4 Timeout,51PB #4 Timeout,51PC #4 Timeout
8	9/18/2017 11:49:27.530 AM	Output Pickup 2,Output Pickup 6,Output Pickup 8
7	9/18/2017 11:49:22.525 AM	51PA #3 Timeout,51PB #3 Timeout,51PC #3 Timeout
6	9/18/2017 11:49:22.113 AM	Output Pickup 2,Output Pickup 6,Output Pickup 8
5	9/18/2017 11:49:20.100 AM	Output Pickup 2,Output Pickup 6,Output Pickup 8
4	9/18/2017 11:49:19.893 AM	51PA #1 Timeout,51PB #1 Timeout,Output Pickup 1
3	9/18/2017 11:49:19.892 AM	51PB #1 Pickup,laMagPrimary (A)832.8mA
2	9/18/2017 11:49:19.887 AM	51PA #1 Pickup,laMagPrimary (A)832.8mA
1	9/18/2017 11:49:19.883 AM	51PC #1 Pickup,laMagPrimary (A)133.8mA

#9

Secondary Primary

I/O Status

Item	Value	Unit
Active Profile	1	
Current A Max	1.16	A
Current A Inst	1.16	A
Current A Avg	1.16	A
Current A Min	0	A
Current B Max	1.187	A
Current B Inst	1.16	A
Current B Avg	1.16	A
Current B Min	0	A

Voltage Current

Harmonics:

Harmonics	A	B	C
1:60Hz	0.00	0.00	0.00
2:120Hz	0.00	0.00	0.00
3:180Hz	0.00	0.00	0.00
4:240Hz	0.00	0.00	0.00
5:300Hz	0.00	0.00	0.00
6:360Hz	0.00	0.00	0.00
7:420Hz	0.00	0.00	0.00
8:480Hz	0.00	0.00	0.00
9:540Hz	0.00	0.00	0.00
10:600Hz	0.00	0.00	0.00
11:660Hz	0.00	0.00	0.00
12:720Hz	0.00	0.00	0.00
13:780Hz	0.00	0.00	0.00
14:840Hz	0.00	0.00	0.00
15:900Hz	0.00	0.00	0.00
16:960Hz	0.00	0.00	0.00
17:1020Hz	0.00	0.00	0.00
18:1080Hz	0.00	0.00	0.00
19:1140Hz	0.00	0.00	0.00
20:1200Hz	0.00	0.00	0.00
21:1260Hz	0.00	0.00	0.00
22:1320Hz	0.00	0.00	0.00
23:1380Hz	0.00	0.00	0.00
24:1440Hz	0.00	0.00	0.00
25:1500Hz	0.00	0.00	0.00

Pickup Status

No	
1	51PA #4 Pickup
2	51PB #4 Pickup
3	51PC #4 Pickup

Timeout Status

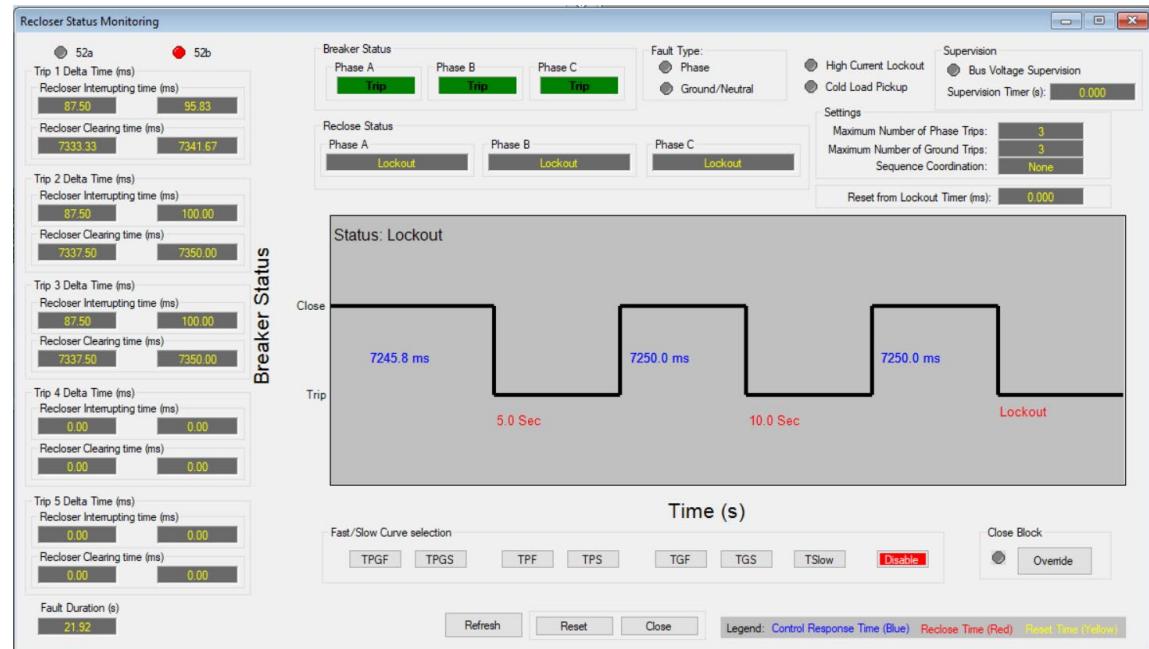
No	
1	51PA #4 Timeout
2	51PB #4 Timeout
3	51PC #4 Timeout

Note: The SOE records highlighted in red (if any) have an Oscilograph record associated with it. Connect to control to retrieve.

Control para Reconectadores EATON S-Grid-On

Monitoreo de reconexión

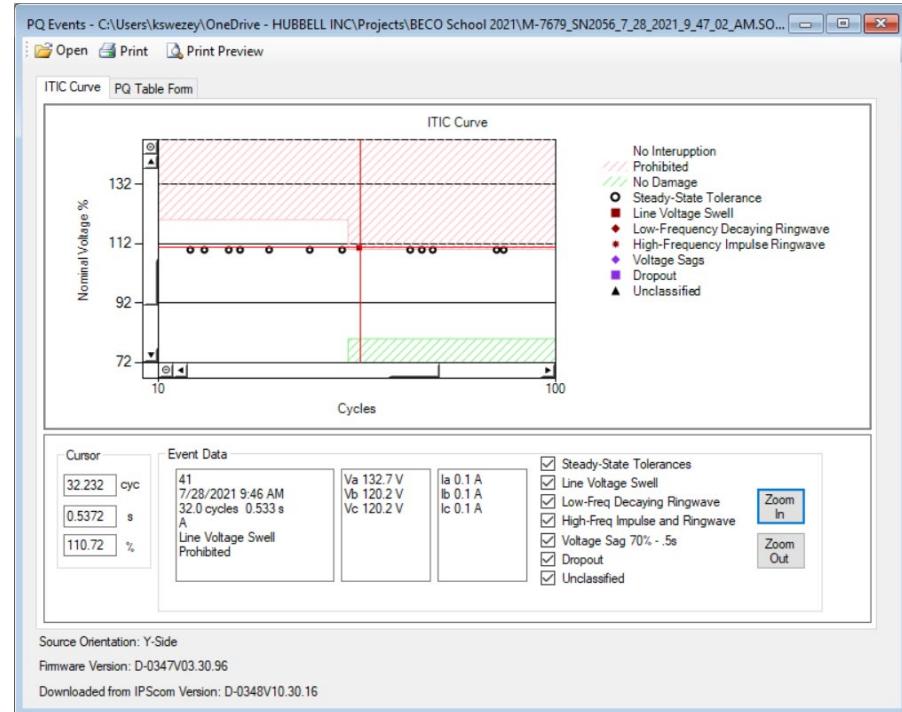
- Estado de recierre
- Indicación del tiempo muerto
- Numero de disparo
- Tipo de falla
- Estado de disparo único



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Control para Reconnectadores - Cualidad de Energía

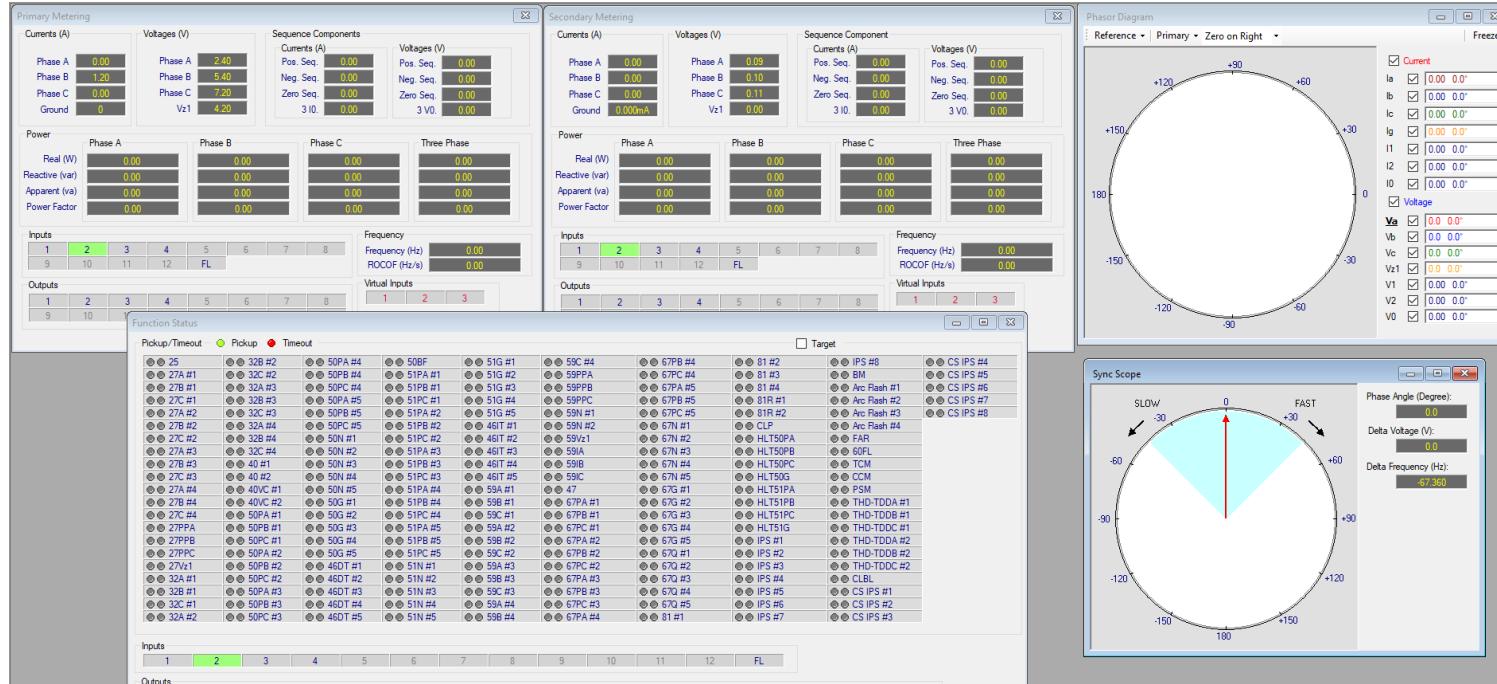
- Monitoreo de Cualidad de Energía
 - Armónica de hasta 63^a orden
 - Visualizador de curva ITIC
 - Detección de SAG y SWELL
- Oscilografía
 - Configurable para hasta 480 ciclos cada disparo
 - Muestras de hasta 128 ciclos
 - 100 registros
 - Configurables por elementos de disparo
- Mediciones
 - Voltajes, Corrientes, Potencias, Componentes Simétricas, Frecuencia, Hz/s, Demanda, Diagrama Fasorial, Voltaje de Sincronismo e etc.
 - Valores Primarios y Secundarios



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Control para Reconeñadores - Monitoreo

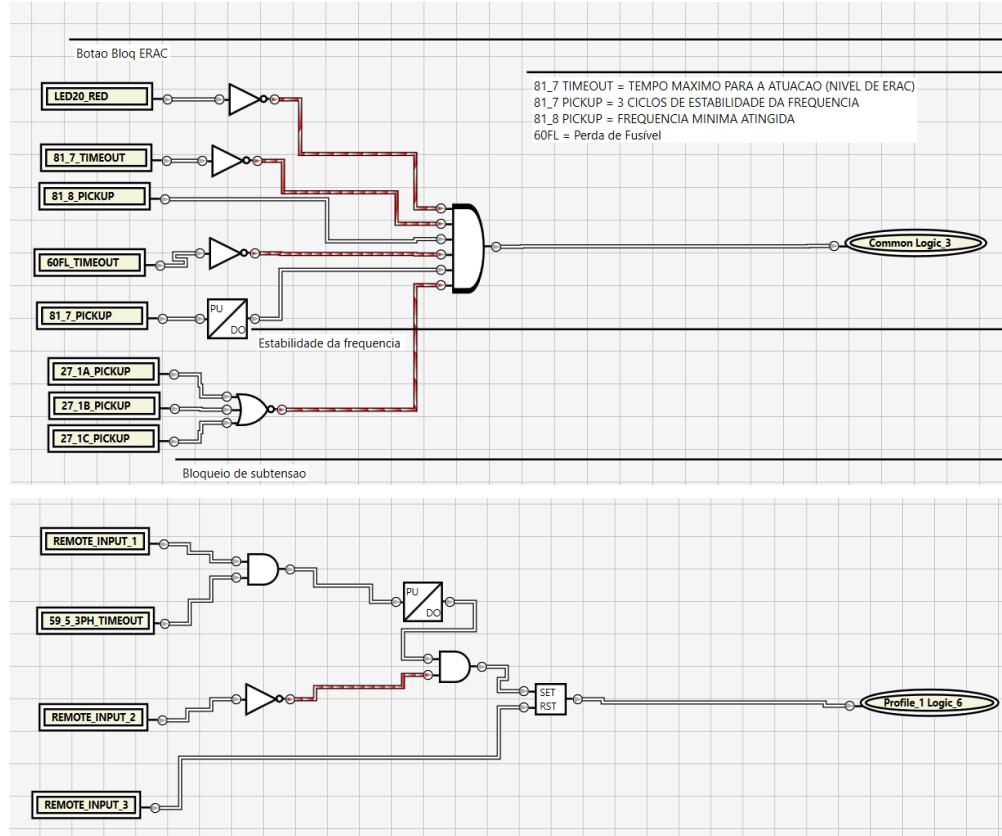
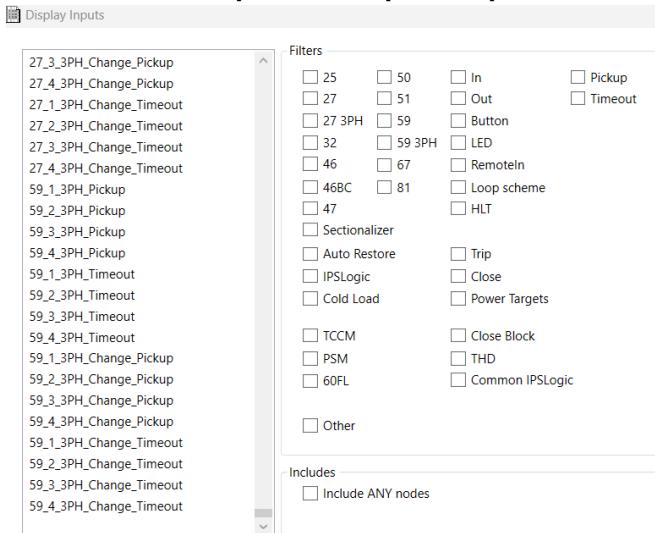
Pantalla de Monitoreo Online



Control para Reconnectadores – Entorno lógico

Lógicas - IPSLogic

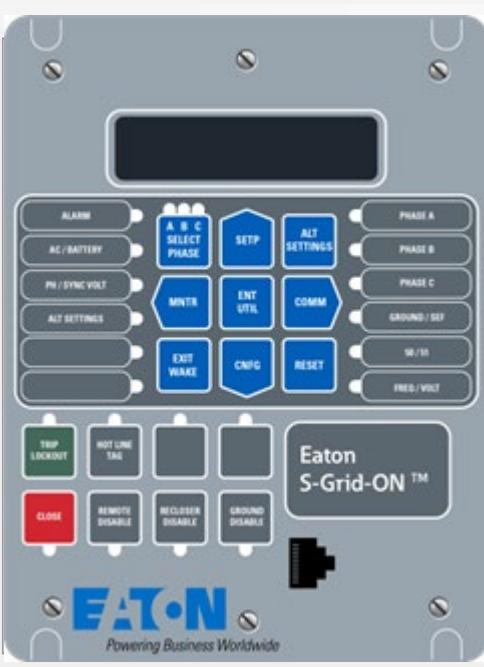
- Creaciones de funciones
 - Customizaciones
 - Nuevos puntos para protocolo



Control para Reconectadores – Panel frontal

Configuraciones de LED y botones

Front Panel Setup	
File	Saved Settings
Button	Assigned Function
S10	→ TRIP LOCKOUT
S11	→
S12	→
S13	→ RECLOSE DISABLE
S14	→ CLOSE
S15	→ REMOTE DISABLE
S16	→ Block F50BF
S17	→ Block All Frequency Functions



Front Panel Button Editor

Smart Function

Initiate

- SELECT PHASE
- TRIP LOCKOUT
- CLOSE
- GROUND DISABLE
- RESIDUAL DISABLE
- GROUND RESIDUAL DISABLE
- Resid Cnt Reset
- Grid Cnt Reset
- LS DISABLE
- RECLOSE DISABLE
- RESET
- LOCK
- REMOTE DISABLE
- HOT LINE TAG
- CLP Initiate
- PROFILE SWITCH
- TPGF(Trip Phase and Gnd with Fast curves)
- TPGS(Trip Phase and Gnd with Slow curves)
- TPF(Trip Phase ONLY With Fast curve)
- TPS(Trip Phase ONLY With Slow curve)
- TGF(Trip Gnd ONLY With Fast curve)
- TGS(Trip Gnd ONLY With Slow curve)
- TSlow(Trip Slow Elements ONLY Phase/Gnd)
- Close Block Override
- External Battery Test
- Go to Setpoints
- Go to Monitor
- Display Fault
- Activate Profile 1
- Activate Profile 2
- Activate Profile 3
- Activate Profile 4

Currently Selected

Selected Button: S13
Selected Function: RECLOSE DISABLE
 User Confirmation to Execute

Assigned

Confirm
Function Name: RECLOSE DISABLE

Done Cancel

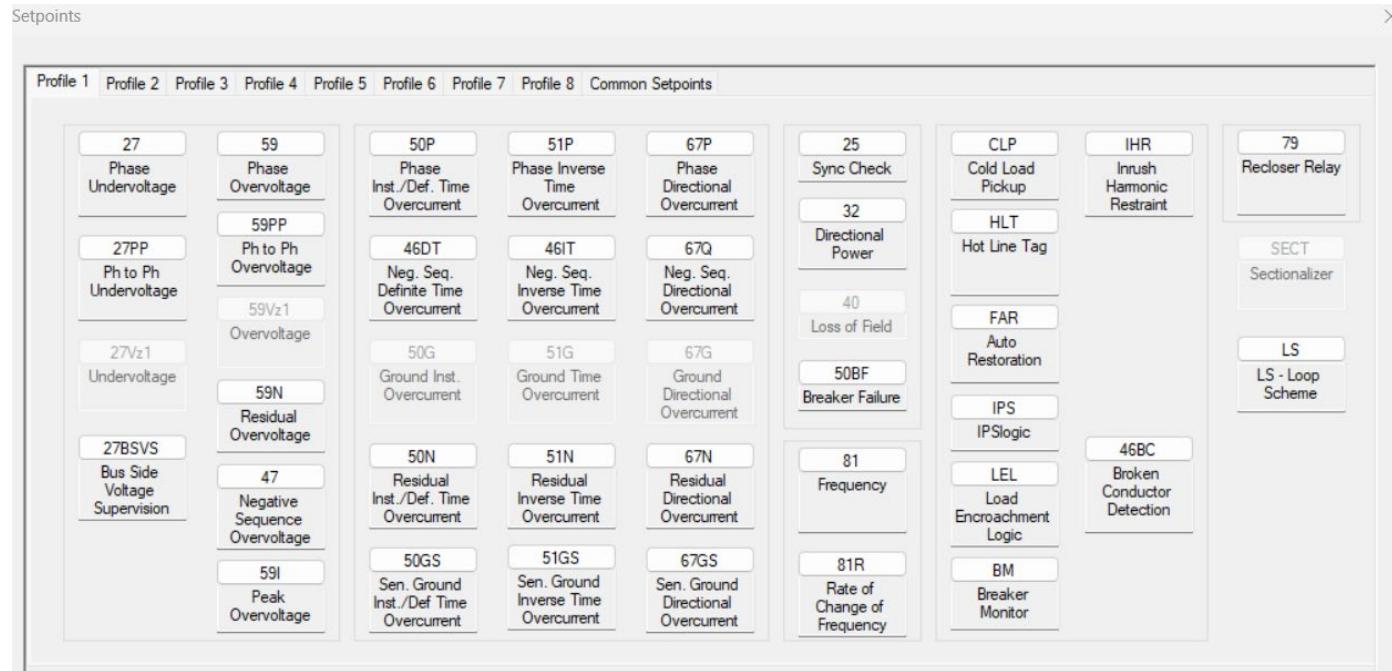


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Control para Reconectadores – Ajustes de protección

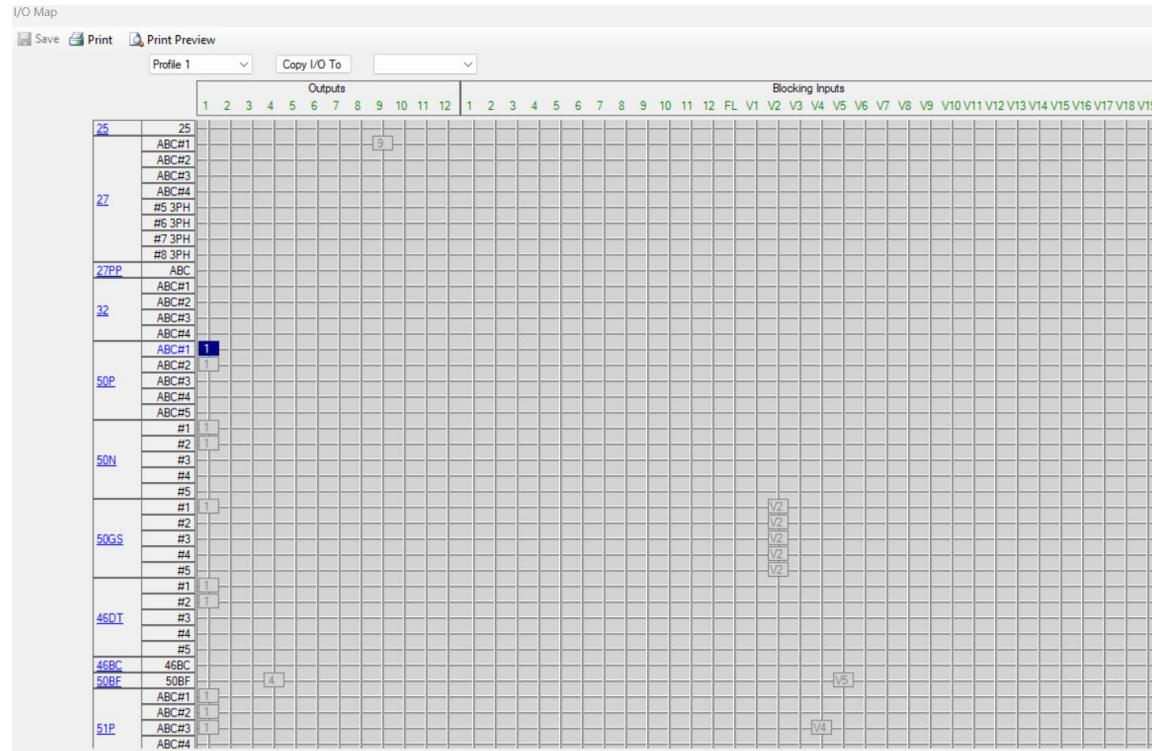
Configuraciones:

- Protecciones de sobrecorriente con 5 elementos de actuación
- Frecuencia con 8 elementos
- Sub e sobrevoltaje con 8 elementos
- 8 tablas de ajustes



Control para Reconectadores – Monitoreo

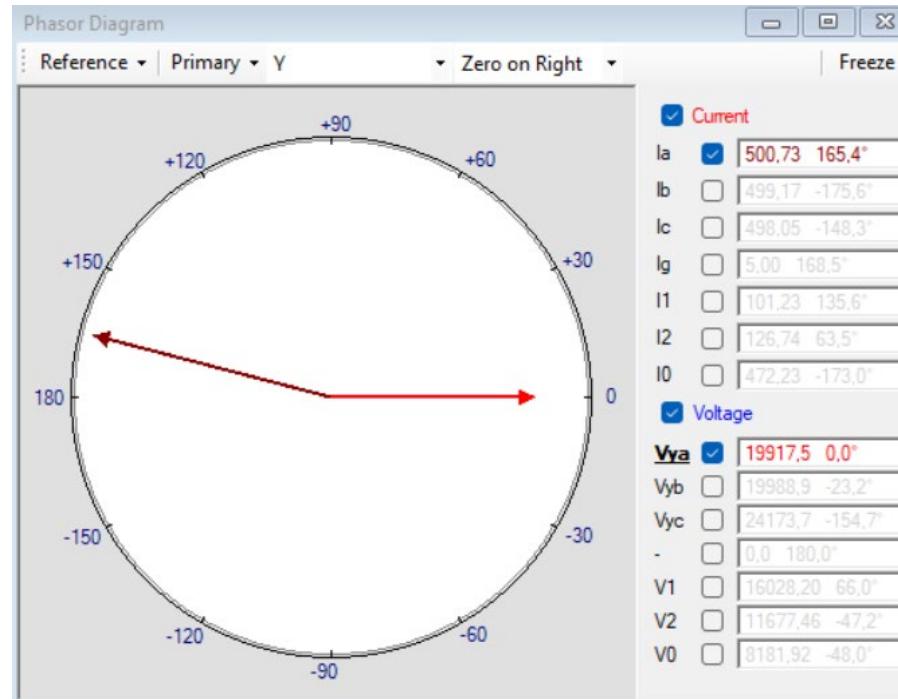
Tabla de Disparos de Funciones y Salidas



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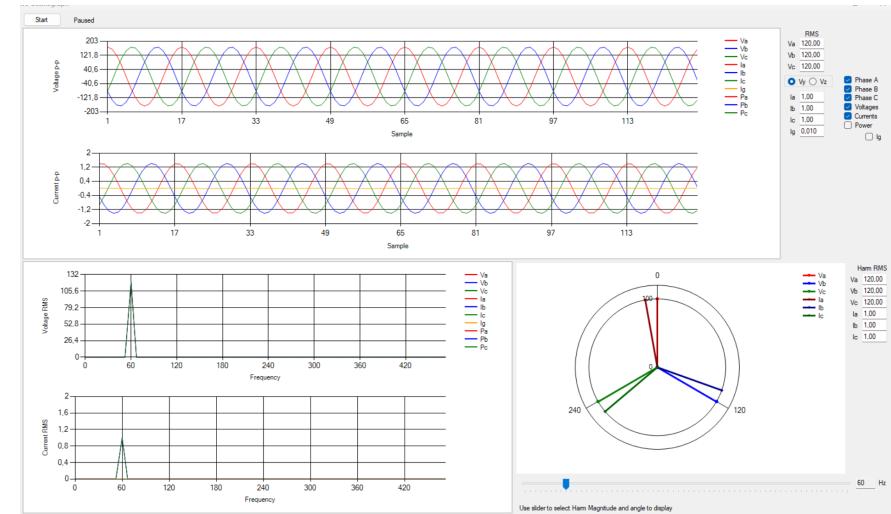
Control para Reconectadores – Monitoreo

IHM Virtual e Diagrama Fasorial



Control para Reconectadores – Oscilografia Interativa

Oscilografia y Monitoreo de Armónicas



Oscilografia Online

Componentes Harmônicas

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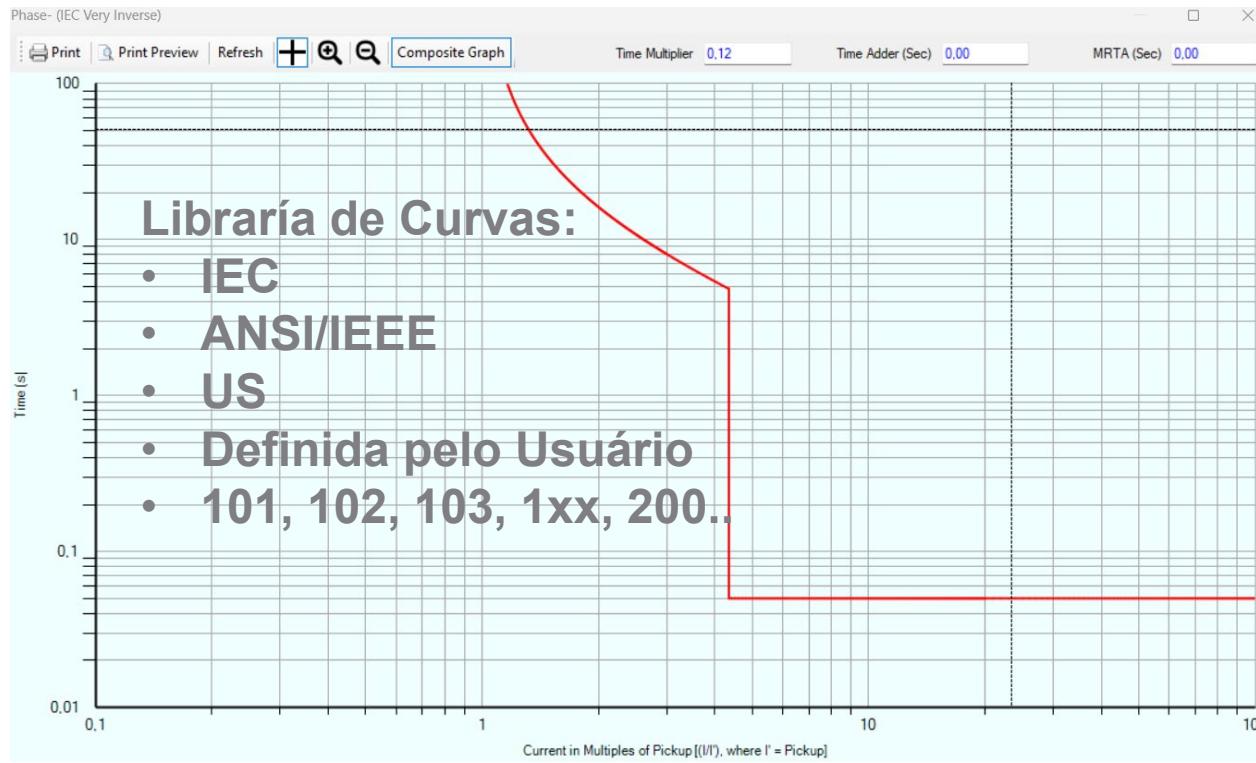
Control para Reconectadores – Estado de la función

Herramienta de Puesta en Servicio

Function Status											
Function		Input		Output		Virtual Input		Virtual Output		Target	
Function		Input		Output		Virtual Input		Virtual Output		Target	
Function	Input	Input	Output	Output	Output	Virtual Input	Virtual Input	Virtual Output	Virtual Output	Target	Target
25	32C #1	50PA #5	51PC #1	51GS #5	59PPA	67PB #5	81 #6	IPS #2	CS IPS #4		
27A #1	32A #2	50PB #5	51PA #2	46IT #1	59PPB	67PC #5	81 #7	IPS #3	CS IPS #5		
27B #1	32B #2	50PC #5	51PB #2	46IT #2	59PPC	67N #1	81 #8	IPS #4	CS IPS #6		
27C #1	32C #2	50N #1	51PC #2	46IT #3	59N #1	67N #2	81R #1	IPS #5	CS IPS #7		
27A #2	32A #3	50N #2	51PA #3	46IT #4	59N #2	67N #3	81R #2	IPS #6	CS IPS #8		
27B #2	32B #3	50N #3	51PB #3	46IT #5	59IA	67N #4	81R #3	IPS #7	SGI		
27C #2	32C #3	50N #4	51PC #3	59A #1	59IB	67N #5	81R #4	IPS #8	HCL		
27A #3	32A #4	50N #5	51PA #4	59B #1	59IC	67GS #1	81R #5	BM #1	HCLB		
27B #3	32B #4	50GS #1	51PB #4	59C #1	47	67GS #2	81R #6	BM #2	HCLC		
27C #3	32C #4	50GS #2	51PC #4	59A #2	67PA #1	67GS #3	81R #7	LS	HCLG_N		
27A #4	50PA #1	50GS #3	51PA #5	59B #2	67PB #1	67GS #4	81R #8	SECT A			
27B #4	50PB #1	50GS #4	51PB #5	59C #2	67PC #1	67GS #5	81R #9	SECT B			
27C #4	50PC #1	50GS #5	51PC #5	59A #3	67PA #2	67Q #1	HLT50PB	SECT C			
27 #5 3PH	50PA #2	46DT #1	51N #1	59B #3	67PB #2	67Q #2	HLT50PC	FAR			
27 #6 3PH	50PB #2	46DT #2	51N #2	59C #3	67PC #2	67Q #3	HLT50GS	60FL			
27 #7 3PH	50PC #2	46DT #3	51N #3	59A #4	67PA #3	67Q #4	HLT51PA	TCM			
27 #8 3PH	50PA #3	46DT #4	51N #4	59B #4	67PB #3	67Q #5	HLT51PB	CCM			
27PPA	50PB #3	46DT #5	51N #5	59C #4	67PC #3	81 #1	HLT51PC	PSM			
27PB	50PC #3	46BC	51GS #1	59 #5 3PH	67PA #4	81 #2	HLT51GS	CLBL			
27PC	50PA #4	50BF	51GS #2	59 #6 3PH	67PB #4	81 #3	HLT50N	CS IPS #1			
32A #1	50PB #4	51PA #1	51GS #3	59 #7 3PH	67PC #4	81 #4	HLT51N	CS IPS #2			
32B #1	50PC #4	51PB #1	51GS #4	59 #8 3PH	67PA #5	81 #5	IPS #1	CS IPS #3			

Control para Reconnectores – Estado de la función Curvas de protección

Visualización de Curvas





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