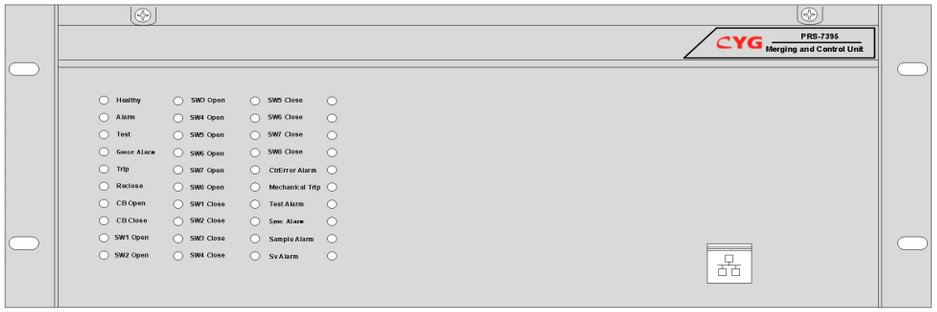
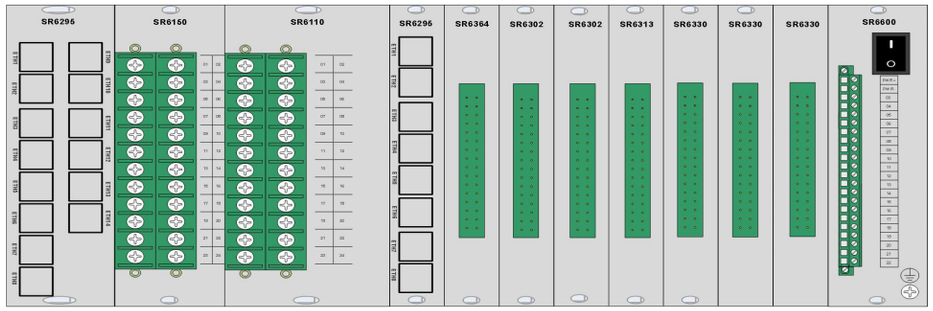
PRS-7395

General Application

PRS-7395 Merging and Control Unit is a device integrating smart substation's Smart Control Unit and Merging Unit with the function of local operating box to provide digital interfaces and act as smart accessories for traditional CBs, disconnect switches and instrument transformers.



❖ **Front Panel**



❖ **Rear Panel**

Feature

Item	Parameter
Performance	32-bit high performance dual-core processor, internal high speed bus and intelligent I/O ports
Hardware	Modularized hardware design, flexibly configurable, easy extension
Communication	Ethernet network, RS-485 serial ports. Communication protocol optional: IEC61850, IEC60870-5-103, DNP3.0.
Time Synchronization	SNTP, IEEE 1588, pulse per second (PPS) and IRIG-B
Analog	Support the protocol IEC60044-8, IEC61850-9-2 and GOOSE, constantly measures and calculates voltage, current, power and frequency.
Recording	Fault and disturbance waves, operation reports, supervision, control operation records and time tagged sequence of event.
Monitor & Control	BI, BO, measurement and control

Functions

Item
Sampling
Digital Signal
Binary Input
DC Sampling
Apparatus Control
Time Synchronization
Supervision Alarm

Specifications

Current Transformer Ratings

Reference		IEC 60255-1,IEC 60255-27
Rated frequency (fn)		50Hz, 60Hz
Nominal range		fn ± 10Hz
Rated current (In)		1/5A
Thermal withstand capability	continuously	3×In
	for 10s	20×In
	for 1s	100×In
Burden		< 0.05VA/phase @1A, < 0.2VA/phase @5A

Voltage Transformer Ratings

Reference		IEC 60255-1,IEC 60255-27
Rated frequency (fn)		50Hz, 60Hz
Nominal range		fn ± 10Hz
Rated voltage (Un)		100V / 220V
Thermal withstand capability	continuously	240V
	10s	360V
	1s	400V
Burden at rated voltage		< 0.10VA @57.7V

Auxiliary Power Supply

Reference	IEC 60255-1, IEC 60255-26
Rated voltage	110V/125V/220VDC
Variation	80% ~ 120%
Maximum interruption time in the auxiliary DC voltage without resetting the IED	0%Un,100ms； 40%Un,200ms； 70%Un,500ms At the Un=DC220V
Gradual shut down / Start up	Class C (60s shut down ramp, 5 min power off, 60s start up ramp)
Ripple in the DC auxiliary voltage	Class A (15% of rated @200Hz, 220VDC)
Maximum load of auxiliary voltage supple	≤40W (normal state), ≤50W (maximum state)

Protection Specifications

Mechanical Specifications

Mounting Way	Flush mounted	
Weight per device	Approx. 8.0kg (fully equipped)	
Mechanical size (width×high×deepth)	482.6mm*177 mm *283 mm	
Hole size (width×high)	450 mm *178 mm	
Display language	Optional: Chinese, English	
Housing material	Metallic plates, parts and screws: Steel Plastic parts: Polycarbonate	
Housing color	Silver grey	
Location of terminal	Rear panel of the device	
Protection class	IEC60225-1: 2009	Front side:IP40 (IP52with seal strip) Rear side, connection terminals: IP20 Other Sides: IP40

Ambient Temperature and Humidity Range

Standard	IEC 60255-1:2009	Standard
Operating temperature range	-40° C ~ +70° C	Operating temperature range
Transport and storage temperature range	-40° C ~ +70° C	Transport and storage temperature range
Damp heat steady	+40℃ 95%humidity	Damp heat steady
Damp-heat test, cyclic	6 cycles, ℃ to +55℃, 5% to 95%	Damp-heat test, cyclic

Measurement Range and Accuracy

Phase range	0° ~ 360°	≤ 0.5% or ±1°
Frequency	35.00Hz ~ 70.00Hz	≤ 0.01Hz
Current	0.05In~1.4In	Measurement: ≤0.25% for 0.6 In to 1.2 In Protection:≤ 2.5% up to 40 x In
Voltage	0.05Un~1.2Un	Measurement: ≤ 0.25% for 0.8 Vn to 1.2 Vn Protection:≤ 1.5 % for 0.1 Vn to 1.2 Vn