

SSAC THREE PHASE VOLTAGE MONITORS

Three Phase Voltage Monitors	WVM	DLM	PLM	PLMU	TVM	PLS
Line Voltage						
Type	3 Phase Delta or Wye with no connection to neutral					
Line Frequency	50...60 Hz					
Phase Sequence	ABC					
Output Circuit						
Type	Isolated SPDT Electromechanical Relay: Energized when voltages are acceptable and phase sequence is correct					
Rating	10A resistive @ 250 VAC; 6A inductive @ 250 V AC	10 A resistive @240 V AC 1/4 hp @ 125 V AC; 1/3 hp @ 250 V AC	8 A resistive @ 240 V AC	10 A resistive @240 V AC 1/4 hp @ 125 V AC; 1/3 hp @ 250 V AC	208...240 V AC (40°C) 10 A resistive @ 125 V AC, 5 A @250 V AC, 1/4hp @ 125 V AC	120 & 240 V AC 10 A resistive @ 240 V AC
					10 A resistive @240 V AC 1/4 hp @ 125 V AC; 1/3 hp @ 250 V AC	380 & 480 V AC 8 A resistive @ 240 V AC
Max Contact Voltage	277 V AC					
Operating Voltage	200...600 V AC in 4 ranges	110...600 V AC in 5 ranges	200...480 V AC in 3 ranges	200...480 V AC Universal	Fixed; 208...480V AC	120...480 V AC in 4 ranges
Overvoltage, Undervoltage, & Voltage Unbalance						N/A
Overvoltage Trip Point	109...113% of adjusted line voltage					
Reset Voltage	-2% of Trip Point	-3% of trip voltage		-2% of trip voltage	≈ -3% of trip voltage	N/A
Undervoltage Trip Point	88...92% of adjusted voltage					
Reset Voltage	+2% of Trip Point	+ 3% of trip voltage		+2% of trip voltage	≈ +3% of trip voltage	N/A
Voltage Unbalance	Adjustable from 2...10%	Adjustable from 2...8%	Factory fixed from 4...8%	Adjustable from 2...10% or fixed 4...10%	Factory fixed 4...10%	N/A
Trip Delay (All +/- 15%)	Adjustable from 0.25...30s	Adjustable from 2...20 s	Factory fixed from 2...20 s +/-	Adjustable 0.25...30 s	Fixed from 0.3s...100s +/- 15%	≤ 25ms
Phase Loss (Severe Unbalance Spec)	> 15% unbalance	N/A	N/A	> 15% unbalance	> 15% unbalance	N/A
Response Time to Phase Loss & Reversal	≤ 200ms					
Reset	Automatic or Manual			Automatic		
Random Start Delay Range	3...15s					
Restart Delay	0.25 s...64 m in 3 ranges	N/A	N/A	≈0.6s	Fixed, from 0.5s...999m, +/-15%	≤ 50 ms
Fault Memory	Nonvolatile; Stores last 10 faults					
Status Indicators	6 LEDs provide existing status & memory readout	Red LED	Red LED	Bi-color LED	Bi-color LED	N/A
Protection Surge	IEEE C62.41- 1991 Level B					
Isolation Voltage (Input to output)	≥ 2500 V RMS input to output				204...240 V AC ≥ 1500 RMS 380...480 V AC ≥ 2500 RMS	120 & 240 V AC ≥ 1500 RMS 380 & 480 V AC ≥ 2500 RMS
Circuitry	N/A	Encapsulated	Encapsulated 380 & 480 V	N/A	Encapsulated	N/A
Mechanical						
Mounting	Surface with 4 #8 (M4 x 0.7) screws	35mm DIN Rail or surface	8 pin plug-in socket rated 600 V AC		Surface mount with one #8 (M5 x 0.8) screw	Plug-in socket rated 600 V AC
Package Dimensions	4.4 X 6.9 X 2.4 in (112 X 175 X 61mm)	1.97 X 2.95 X 4.33in (50 x75x110mm)	1.78 x 2.39 x 3.2 in. (45.2 x 60.7 x 81.3mm)	1.78 x 2.39 x 3.03 in. (45.2 x 60.7 x 77.0mm)	2 X 2 X ≤ 1.86 in (50.6 X 50.6 X ≤ 47.7mm)	1.78 X 2.39 X 2.91 in (45.2 X 60.7 X 73.9mm)
Termination	Screw terminals with captive wire clamps for up to #12 AWG (3.2mm ²) wire	Screw terminals with captive wire clamps for up to #14 AWG (2.5mm ²) wire	8-pin octal socket		0.25 in (6.35mm) male quick connects	8-pin, octal socket
Environmental						
Operating Temperature	-40° C... +65° C	-40°C...+60°C	240&480VAC -40°C...+60°C 480VAC -40°C...+50°C	-40°C...+60°C	See Chart	-40°C...+55°C
Storage Temperature	-40°C...+85°C				208...240 V AC -30°C...+85°C 380...480 V AC -40...+85°C	-40°C...+60°C
Weight	≈ 25oz (709g)	120&480VAC ≈ 8.6oz (244g) 380...600VAC 16.3oz (462g)	240VAC ≈ 6.1 oz (173g) 380&480VAC ≈ 9.3oz(264g)	≈ 8.6 oz (244g)	208/240 ≈ 2.8 oz (79.4g) 380/480 ≈ 4.3 oz (121.9g)	≈ 6 oz (170g)
Life	Mechanical -- 1 x 10 ⁶			Electrical -- 1 x 10 ⁵		N/A
Humidity	95% relative, non condensing				95% relative, non condensing	