

Bulletin Engineered Systems and Application Products
Power Monitoring
 Specifications

These specifications apply to the Line Synchronization Module (1402-LS51).



Class I Div. 2 Hazardous



Inputs	
Current	0...5 A rms Cont., 200 A rms 1 s
Frequency	47...63 Hz (steady-state)
Dielectric Withstand Voltage	2500V rms
Burden	0.0025V A
Voltage	120V rms (339 Vpk-pk) maximum peak
Input Impedance/Burden	728 kΩ/0.02V A
Synchronization Window Independent Upper and Lower Thresholds	
Voltage	0.05% steps
Frequency	0.01 Hz steps
Phase	1 degree steps
Isolated Load Sharing Input/Output	
Max. Common Mode Voltage	240V AC
Continuous Voltage	2...4V DC
Input Impedance	45 kΩ
Backplane Current Load	1.1 A @ 5V DC
Environmental Conditions	
Operating Temperature	0...60 °C (32...140 °F)
Storage Temperature	-40...100 °C (-40...212 °F)
Humidity	5...95% (without condensation)
Update Rate	
Synchronizing Bus Error Parameters	100 ms
Load Share and Monitor Parameters	200 ms (synchronization inactive) 1 s (synchronization active)
Accuracy @ 25 °C (77 °F)	
Full Scale = 1.75 x CT Primary x PT Primary	
Current Measurement	±0.2% of full scale (full scale = 1.4 x CT primary)
Voltage Measurement	±0.2% of full scale (full scale = 1.25 x PT primary)
Frequency and Slip Frequency Measurement	±0.05 Hz (within the 47...63 range)
Power, Power Factor, VA	±0.4% of full scale power consumption
Weight	2.72 kg (6.0 lbs)

These specifications apply to the Powermonitor 3000 Base Module (1404 Series)

Input and Output Ratings		
Control Power	1404-Mx05A-xxx	120V/240V AC 50/60Hz or 125V/250V DC
Voltage Inputs	0...399V _{L-N} 0...691V _{L-L}	
Current Inputs	0...10.6 A	
Status Inputs	Contact closure (internal 24V DC)	
Terminal Blocks		
1404-Mx Power Supply and Voltage Input Terminals	#12 AWG (4 mm²) max. Screw torque: 1.02 Nm (9 lb•in) 75 °C Copper wire only	
1404-Mx Relay, KYZ Outputs, Current Input Terminals	#14 AWG (2.5 mm²) max Screw torque: 1.18 Nm (10.4 lb•in) 75 °C Copper wire only	
1404-Mx Status Inputs, RS-485, remote I/O, DeviceNet	#14 AWG (2.5 mm²) Screw torque: 0.56 Nm (5 lb•in)	
General Specifications		
Dielectric Withstand	Control Power (1404-Mx)	2000V
	Voltage Inputs	2000V
	Current Inputs	2000V
	Status Inputs	750V
	Control Relays	1600V
Operating Temperature	-20...60 °C (-4...140 °F)	
Storage Temperature	-40...85 °C (-40...185 °F)	
Humidity	5...95% (without condensation)	
Vibration	10...500 Hz	
	operational: 1 g (±0.006 in.) non-operational: 2.5 g (±0.015 in.)	