

Tier 460 Motor SPD

Contactor Restart 30 or 60 Amp or Shunt Trip Controller

400 Series Surge Protective Device With Active Monitoring & Control



Features:

Surge

- Thermally Protected MOV
- · Surge Levels Available
- 50 kA/Mode, 100kA/ Phase to 150 kA/Mode, 300kA/ Phase
- ANSI/UL 1449 4th Edition, CSA
- Sine Wave Tracking: Type 2
- Surge Impulse Rated and Tested

Monitoring & Control

- Monitor Under/Over voltage, Phase Loss, Imbalance
- Audible Alarm w/ disable switch, and LED indication
- Active Load Disconnect & Reset
- User Selectable Controls:
- +/- 5, 7.5, 10, 15, 20, 25% Over/Under Voltage Trip Settings
- Auto restart available with user selectable reset time. Includes: No delay, 5s, 10s. 30s. 1m. 5m. 10m. No restart

Why Install surge protection with a Tier 460 Contactor or Shunt Trip?

Transient impulses can significantly impact your facility's power quality, easily disrupting or damaging your process or equipment. And while its important to protect against high-energy events, a more frequent, yet often overlooked power quality concern is the damage caused by a phase loss, a temporary voltage sag or a voltage swell condition. Disconnecting your sensitive loads during these longer duration PQ events, is the easiest way to safeguard important equipment.

Why Install a Tier 460 Shunt Trip Controller?

Shunt Trip Controller Devices will protect a motor, or an entire system, from power quality events. It runs an onboard surge protection device in parallel with an onboard shunt trip controller. The shunt trip controller will send a signal, at predetermined levels, to a shunt trip breaker located on a panel, or at the system or motor, and force it to disconnect the load. Please note, shunt trips require a manual reset after a disconnection event.

Available for 120V or 240V breakers.



Tier 460 Motor SPD

Contactor Restart 30 or 60 Amp or Shunt Trip Controller

400 Series Surge Protective Device With Active Monitoring & Control

Why Install a Tier 460 Contactor auto disconnect and Restart Controller?

The Tier 460 Motor Surge Protection Contactor Restart Device will protect a motor, or an entire system, from power quality events. It runs an onboard surge protection device with a series onboard contactor. The contactor will disconnect the load at predetermined levels, and will reconnect the load at separate predetermined levels automatically. The onboard SPD remains online while the load is disconnected.

This twofold level of protection greatly improves system defenses from power disruption damage.

General Technical Specifications					
Connection Type	Shunt Trip is Parallel Contactor is Series				
Maximum Continuous Operating Voltage	120V, 150 VAC, 125%; 240V, 320 VAC; 277V, 320 VAC; 480V, 550 VAC; All Others 115%				
Short Circuit Current Rating (SCCR)	200kAIC Surge; 22kAIC Contactor				
Contactor Current Rating	30 Amp or 60 Amp (Both 120V Supply Voltage)				
Shunt Trip Breaker Voltage Levels	120V or 240V				
Shunt Trip Separate Supply Voltage	24V, 120V, or 277V				
Protection Modes	All Connected Modes: L-N, L-L, L-G, N-G				
Operating Frequency Range	47 - 63 Hz				
UL 1449 Location Type	Type 1 or Type 2				
UL 1449 Nominal Discharge Current (In)	20 kA				
Connection	Disconnect or Terminal Block				
Status Indication	Blue/Red LEDs, Form C, Audible Alarm w/ disable switch				
Monitoring	Under Voltage/ Over Voltage + activation LED, Phase loss, Phase Imbalance				
Enclosure	NEMA 4, 12, &13 Rated (16 Gauge Steel)				
50 Ohm EMI/RFI Attenuation	60 /40dB Max				
Response Time	<0.5 nanoseconds				
Operating Temperature	-40°C to +75°C				
Operating Humidity	0% to 95% non-condensing				
Weight	40lbs				
50 - 150 kA/Mode Case Size	16.00" x 16.00" x 8.00"				
50 - 150 kA/Mode Mounting	14.50" x 14.50"				
Selectable Over/Under Voltage Trigger Levels	+/- 5%, 7.5%, 10%, 15%, 20%, 25%				
Contactor Options for Auto Reset	Selectable resets: No Delay, 5s, 10s, 30s, 1m, 5m, 10 m, No Restart				
Warranty	SPD: 10 years				

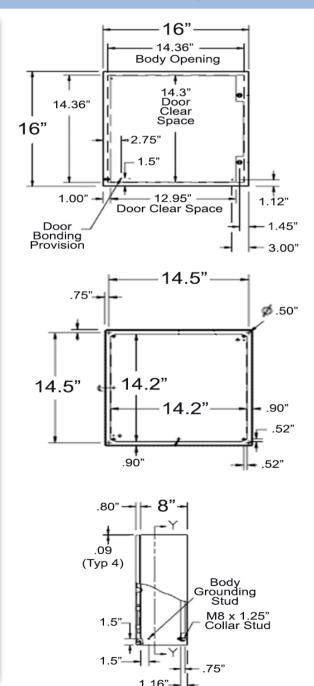




Table A: Voltage & Source Configuration						
Model Code	Voltage	Source Configuration				
0000	N/A	N/A				
120S	120/240	Split Phase, 3W+G (L1, L2, N G)				
120N	120	Single Phase , 2W+G (L1, N, G)				
120Y	120/208	Three Phase Wye, 4W+G (L1, L2, L3, N, G)				
208N	208	Single Phase, 2W+G (L1, L2, G)				
240N	240	Single Phase, 2W+G (L1, L2, G)				
240D	240	Three Phase Delta, 3W+G (L1, L2, L3, G)				
277Y	277/480	Three Phase Wye, 4W+G (L1, L2, L3, N, G)				
480D	480	Three Phase Delta, 4W+G (L1, L2, L3, N, G)				

Table C: Enclosure Size						
Model Code	Dimensions	Capacity	Enclosure Material	Contactor Current or Shunt Trip Supply Volt		
2	13.50" x 13.00" x 6.375"	25kA	Steel	30 or 60 Amp		
5	8.695" x 11.25" x 4.000"	25kA	Polycarbonate	30 Amp; or 24V or 120V or 277V supply voltage		
3	16.00" x 16.00" x 8.00"	50kA- 150kA	Steel	30 or 60 Amp; or 24V or 120V or 277V supply voltage		
5	8.695" x 11.25" x 4.000"	None	Polycarbonate	30 Amp Contactor only		

Tier 460 Motor SPD

Contactor Restart 30 or 60 Amp or Shunt Trip Controller

400 Series Surge Protective Device With Active Monitoring & Control

Table B: Surge Current Capacity					
Model Code	Surge Capacity /Mode	Surge Capacity / Phase			
000	None	None			
025	25 kA	50kA			
050	50 kA	100 kA			
075	75 kA	150 kA			
100	100 kA	200 kA			
125	125 kA	250 kA			
150	150 kA	300 kA			

Table D: Contactor Current or Shunt Trip Supply Voltage						
Model Code	Contactor Current	Supply Voltage				
3	30 Amp	120 Volt				
6	60 Amp	120 Volt				
А	None	24 Volt				
В	None	120 Volt				
С	None	277 Volt				
S	Custom	Custom				

Her 460	Motor Protec	ction Series, 4	60 Family C	raering intor	mation: E	xample woo	iei Number:	146120107	5ADW32C3
Positions: 1-3	Positions: 4-7	Positions: 8-10	Position: 11	Position: 12	Position: 13	Position: 14	Position: 15	Position: 16	Position: 17
Product Family	Voltage/ Phase Configuration	Surge Capacity	Surge Protected Modes	Connection Type	Enclosure Type	Enclosure Size	UL Type	Options	Contactor Current or Shunt Trip Supply Voltage
T46 = 460 Family	See Table A	See Table B	A = All connected modes N=No Surge	W = Wire Lead L = Terminal Block D = Disconnect R = Line Cord Receptacle	P=NEMA 4X; Polycarbonate M=NEMA 4; Steel	See Table C	1=UL Type 1 2=UL Type 2 N= No Surge	S = Standard /No Options C = Surge Conter	See Table D