



# Tier 460 Motor SPD

## Contactorm 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.

*Innovative Solutions for Clean, Reliable Power*





**Southern Tier**  
Technologies

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**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 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 C: Enclosure Size**

Model Code	Dimensions	Capacity	Enclosure Material	Contact 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

**Table D: Contactor Current or Shunt Trip Supply Voltage**

Model Code	Contact Current	Supply Voltage
3	30 Amp	120 Volt
6	60 Amp	120 Volt
A	None	24 Volt
B	None	120 Volt
C	None	277 Volt
S	Custom	Custom

**Tier 460 Motor Protection Series, 460 Family Ordering Information: Example Model Number: T46120Y075ADM32C3**

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	Contact 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 Center	See Table D