

STABILINE®

DIN3 Series — Surge Protective Devices (SPD)
Parallel and/or "In-Line" Connected Design
Single Pole (Mode) Protectors



UL Recognized for USA and Canada

DIN3 Series Benefits

- ◆ **DIN Rail mountable surge protection devices**
- ◆ **165 kA surge amp capacity models for high exposure locations**
- ◆ **Compact, lightweight yet rugged**
- ◆ **Visual monitor advises protection present status**
- ◆ **Model choices allow for single mode or all-mode protection strategies**
- ◆ **All protectors (except N-G model) equipped with signaling relay contacts for remote monitoring of protection status**

Heavy Duty DIN Rail Protectors

DIN3 Series STABILINE Transient Voltage Surge Suppressors are single pole, parallel and/or "in-line" connected, MOV technology Class I, Category C Surge Protective Devices suitable for use in AC electrical power systems for protection against surge and transient activity. DIN3 Series protectors provide 70, 100 or 165 kA Surge Amp Capacity in a maintenance free, low profile, DIN Rail mountable module. All line voltage protectors (L-In / L-Out) can also be connected "in-line" and provide for 50A maximum continuous operating current protection.

Installation

DIN3 Series Protectors are installed/connected in parallel and/or "in-line" with the line and the equipment to be protected. The DIN3 unit should be installed down stream of a 200A maximum fuse or breaker. If pre-existing fuses or breakers are present, then the fusing or breaker used for the DIN3 protector should have a lower rating in order to be properly coordinated, as per applicable electrical regulatory standards. The short circuit current rating for these DIN3 protectors are 25,000 Amps using a 50A Class J time delayed fuse.

Remote Monitoring

All DIN3 protectors (except N-G protector) come standard with one remote monitoring relay with "dry Form C contacts" per module. The contact can be used to drive several different types of indicators such as a remote light indicator or an audible alarm. The signal strength is (Vmax: 250V rms, Imax: 2A). The connection to the remote signal is through the screw terminals. Protector DIN3-165-480-L1 is provided with a "Form B dry contact" per module.

Visual Protection Status

All DIN3 protectors are maintenance free devices. If the unit is subjected to a prolonged over-voltage condition, an internal thermal element will activate, disconnecting the DIN3 from the line. When the unit is no longer providing protection the window on the front of the DIN3 becomes red and a replacement unit will be required.

DIN3 Series Features

- ◆ 120, 220, 240-277, 480 VAC and N-G models
- ◆ Low profile, DIN Rail (35mm symmetrical) mounting
- ◆ 70 and 165 kA surge amp capacity protection, line voltage protectors
- ◆ 100 kA surge amp capacity protection, neutral to ground protector
- ◆ 165 kA models provide multi-redundant (3 stage) protection, fault monitor indicators and signal relay contacts
- ◆ Window monitor allows for visual protection present status of MOV element
- ◆ Protectors incorporate internal thermal disconnect system
- ◆ Form B or C (SPDT) relay contacts for remote monitoring
- ◆ 10 – Year warranty
- ◆ UL 1449, 2nd Edition

Model Numbers	Typical Service Configurations	Protection Mode	Protector Quantity Required (Quantities in both columns are needed)		
			Line Voltage Version	N-G Version	MCOV
DIN3-70-120-L1	1 Ø, 120 VAC, 2-Wire, w/ground	L-N, N-G	1	1	150 VAC
	1 Ø, 120/240 VAC, 3-Wire SPLIT-PHASE, w/ground	L-N / L-N, N-G	2	1	
	3 Ø, 208Y/120 VAC, 4-Wire WYE, w/ground	L-N / L-N / L-N, N-G	3	1	
DIN3-70-220-L1	1 Ø, 220 VAC, 2-Wire, w/ground	L-N, N-G	1	1	330 VAC
	3 Ø, 380Y/220 VAC, 4-Wire WYE, w/ground	L-N / L-N / L-N, N-G	3	1	
	3 Ø, 220 or 240 VAC, 3-Wire DELTA	L-L / L-L / L-L	3	N/A	
DIN3-70-277-L1	1 Ø, 277 VAC, 2-Wire, w/ground	L-N, N-G	1	1	330 VAC
	3 Ø, 480Y/277 VAC, 4-Wire WYE, w/ground	L-N / L-N / L-N, N-G	3	1	

DIN3-165-120-L1	1 Ø, 120 VAC, 2-Wire, w/ground	L-N, N-G	1	1	150 VAC
	1 Ø, 120/240 VAC, 3-Wire SPLIT-PHASE, w/ground	L-N / L-N, N-G	2	1	
	3 Ø, 208Y/120 VAC, 4-Wire WYE, w/ground	L-N / L-N / L-N, N-G	3	1	
DIN3-165-220-L1	1 Ø, 220 VAC, 2-Wire, w/ground	L-N, N-G	1	1	330 VAC
	3 Ø, 380Y/220 VAC, 4-Wire WYE, w/ground	L-N / L-N / L-N, N-G	3	1	
	3 Ø, 220 or 240 VAC, 3-Wire DELTA	L-L / L-L / L-L	3	N/A	
DIN3-165-277-L1	1 Ø, 277 VAC, 2-Wire, w/ground	L-N, N-G	1	1	330 VAC
	3 Ø, 480Y/277 VAC, 4-Wire WYE, w/ground	L-N / L-N / L-N, N-G	3	1	
DIN3-165-480-L1	1 Ø, 480 VAC, 2-Wire, w/grounded neutral	L-N, N-G	1	1	550 VAC
	3 Ø, 380 or 480 VAC, 3-Wire DELTA	L-L / L-L / L-L	3	N/A	
DIN3-100-NG1	120, 120/240, 220, 277, 380, 480 VAC Neutral to Ground	N-G	N/A	1	600 VAC

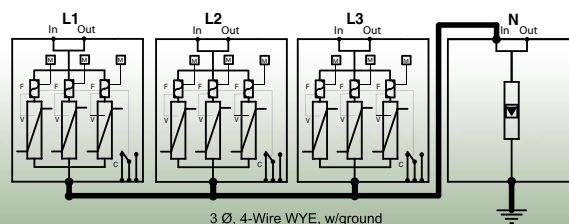
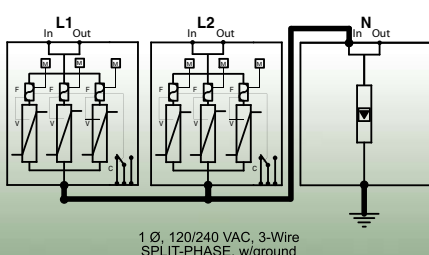
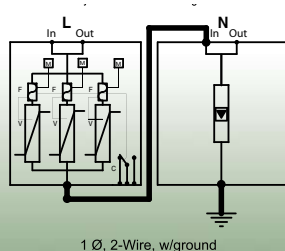
● For a minimum of (20) 8 x 20usec surges

● UL 1449 2nd Edition, (6kV, 500A 8 x 20usec) Surge Voltage Rating

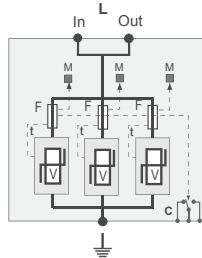
● C3 Combination WWave, 20kV, 8 x 20usec, 10 kA

Typical Service Configurations for Parallel-Connected Models

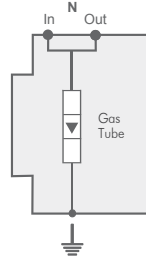
Contact factory for additional configurations



Internal Schematics



Line Voltage Protector



Neutral to Ground Protector

V= Heavy Duty Varistor

F= Thermal Fuse

C= Remote and Signal Contact

t= Thermal Disconnect

M= Monitor Window

Surge Performance

Max Surge Current Rating	Nominal Surge Current Rating ●	UL 1449 SVR Rating ●	C3 Comb Wave ●
70 kA	30 kA	400 VAC	400 VAC
70 kA	30 kA	600 VAC	600 VAC
70 kA	30 kA	600 VAC	600 VAC

165 kA	70 kA	500 VAC	625 VAC
165 kA	70 kA	900 VAC	950 VAC
165 kA	70 kA	900 VAC	950 VAC
165 kA	70 kA	1500 VAC	1750 VAC
100 kA	50 kA	800 VAC	—

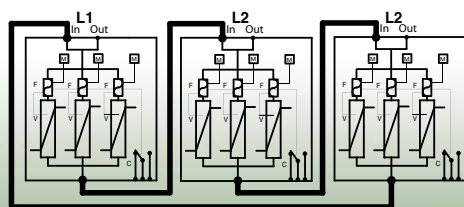
Applications

- ◆ Control panels feeding PLCs, VSDs and other control system components
- ◆ Surveillance and irrigation control systems
- ◆ Lighting and fire alarm systems
- ◆ DIN3-165 models for high exposure lightning locations, capacitor bank switching and large inductive loads



Specifications

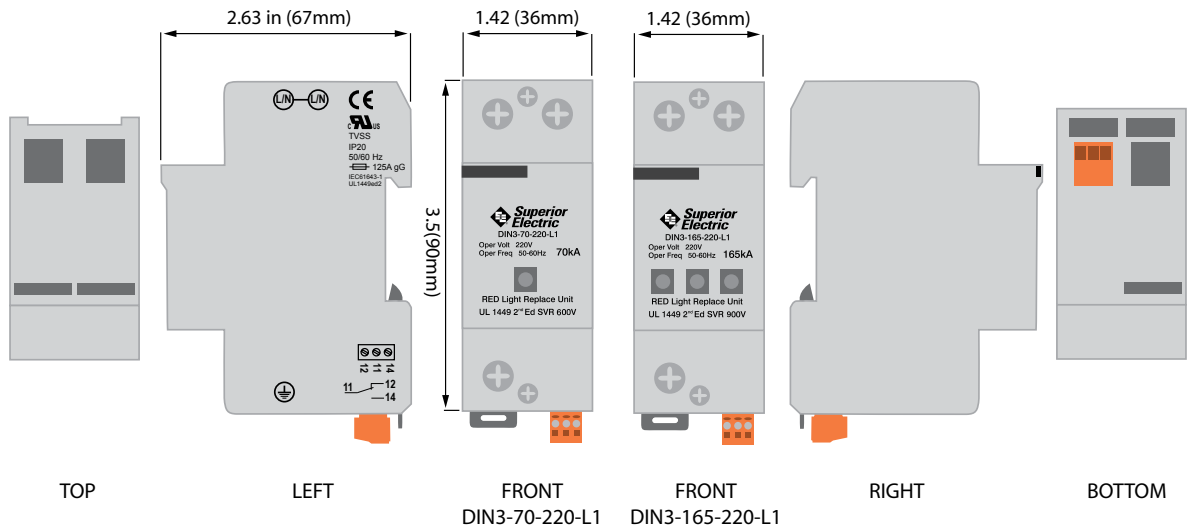
General	Standards Compliance and Safety Approvals:	Meets UL 1449, 2nd Edition, EN61643-11 (Europe), ANSI/IEEE C62.41-2002, NF EN 61643-11 (France), VDE0675-6, CSA-22.2 and CE marked
	Warranty:	Ten Years
Environmental	Operating Temperature:	-40° C to 85° C (-40° F to 185° F)
	Relative Humidity:	5% to 95% non-condensing
	Max. Operating Attitude:	4,000 meters (13,000 feet)
Mechanical	Enclosure:	IP20 enclosures (UL94V0 thermoplastic housing material)
	Mounting:	DIN Rail 35mm symmetrical
	Connection Method:	Screw terminal # 2 - 10 AWG
	Size (H x W x D):	3.5 x 1.42 x 2.63 inches (90.0 x 36.0 x 67 mm)
	Weight (Shipping):	0.80 lbs (0.35 kg)
Electrical	Modes of Protection:	L-N; L-G; L-L protectors use MOV technology and N-G protector uses Gas Tube
	Input Power Frequency:	47-64 Hz
	Associated Fusing:	DIN3 protectors incorporate an internal thermal disconnect system with time-delayed Class J,30A-125A over current fuses



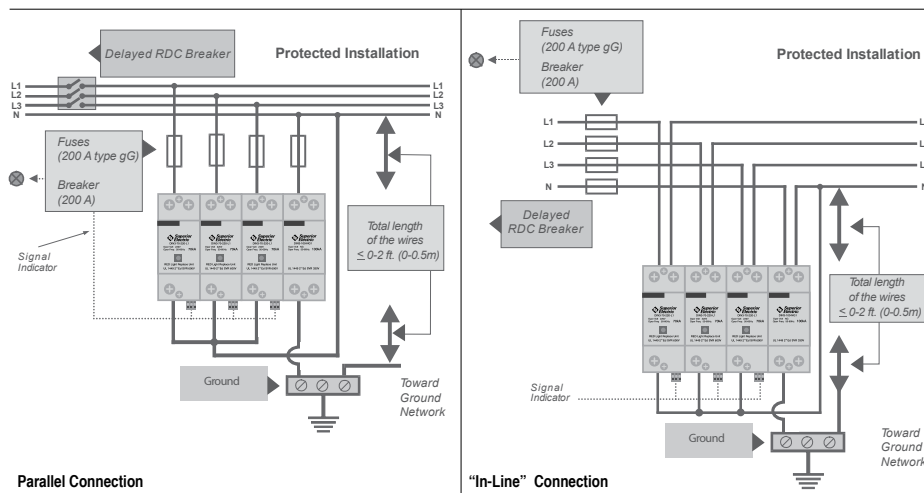
3 Ø, 3-Wire DELTA

Method

Dimensions



Installation



(Example: Service Configuration 3 ϕ ,
4-Wire WYE, w/ground)



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