



Benefits:

- UL 1449 4th Edition Listed Type 2 SPD and CSA 22.2 No. 269.2
- Rapid-Ship, Cellular Manufacturing in Florida, USA
- 160kA - 40kA Per Phase Ratings
- 20kA Nominal Discharge Current (I-nominal)
- 100kA SCCRs
- NEMA 4X Polycarbonate Enclosure
- UL 96A Lightning Protection Master Label compliant
- All Modes of Protection
- Optional Sinewave-Tracking EMI/RFI Filtering
- Easy Installation
 - Pre-wired 10 AWG Leads (3 feet / 1m), Connect to 20 - 30A breaker
- 5 year warranty (longer optional)

Performance Specifications

Surge Capacities	L-N	L-G	N-G
160kA Per Phase	80kA	80kA	80kA
120kA Per Phase	60kA	60kA	60kA
80kA Per Phase	40kA	40kA	40kA
40kA Per Phase (10kA I_n)	20kA	20kA	20kA
UL 1449 Fourth Edition tested Inominal (I _n): 20kA			
UL 1449 Fourth Edition tested SCCR: 100kA			
Optional Filtering up to -50dB from 10kHz to 100MHz			
Repetitive Impulse: 5,000 hits			
Less than 1 nanosecond response time			

Physical Specifications

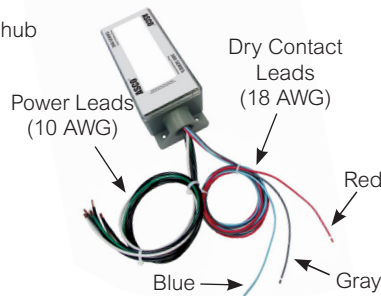
Relative Humidity Range: 0 - 95% non-condensing
Operating Frequency: 40 - 500Hz
Operating Temperature: -40°C (-40°F) to +85°C (185°F)
Weight: 3lbs (1.5kg)
NEMA 4X Polycarbonate enclosure: UL 746C(f1) & UL 94-5VA
3/4" female threaded hub

Optional Form C Dry Contact

Form C Dry Contact:
 Three (3) #18 wires exit the hub

- Gray is Common
- Blue is Normally Closed
- Red is Normally Open

- For Normally Closed: Use Gray & Blue
- For Normally Open: Use Gray & Red



Design Attributes

Designed, Manufactured & Tested consistent with:
– ANSI/IEEE C62.41.1-2002, C62.41.2-2002, C62.45-2002, C62.62-2010, C62.72-2016, IEEE SA 1100-2005 (Emerald Book)
– NEC® Article 285
– NEC® Articles 620.51(E), 645.18, 670.6, 695.15, 700.8 & 708 requiring SPDs
– UL 96A and NFPA 780 Lightning Protection
– IEC 61643, CE
High Energy Parallel Design for IEEE Category C-High applications, plus Categories B & A
For Internal or External Mounting in Process, Automation, Traffic Control, UL 508 Cabinets, Switchgear, etc.
Robust 25mm Thermally Protected MOVs
Solid State Bidirectional Operation

Diagnostic Monitoring

LED Indicator Monitoring:
– Separate L-N and L-G LEDs for each phase
LEDs Extinguish Upon Phase Loss
Optional Form C Dry Contacts (Contacts rated 240V, 5A; leads are pre-wired through nipple with 18 AWG)

Quality, Standards & Validation

Type 2: UL 1449 Fourth Edition, CSA 22.2 No. 269.2
UL file: VZCA.E321351 at www.UL.com
RoHS-compliant
Burn-In tested prior to shipment
ISO 9001:2008 Quality Management System
ISO 17025:2005 Laboratory Qualification

Model 340 Number Configurator & Options

340

Model 340 Product Line



Voltage Codes

P

Per Phase kA Rating System



kA Rating Per Phase

A

Modes of Protection (Default)

W

Connection Type
W = Wire Leads



Monitoring Options

J

Enclosure

2

UL 1449 Type



Accessory/Option(s)

Common Systems

- 120S = 240/120V Split Phase - 1Ø, 3W+Grnd, (Fig 1)
- 120N = 120V Single Phase (Fig 2)

- 16 = 160kA
- 12 = 120kA
- 08 = 80kA
- 04 = 40kA

- S = LEDs
- R = LEDs/Relay

- 2 = UL 1449 Type 2
- 0 = No Trailing Accessory/Option
- X = Yes Trailing Accessory/Option
- XADDF1 = EMI/RFI Filtering

J = NEMA 4X Non-Metallic (Polycarbonate)
Size - 8.3" x 3.6" x 3.0"

Available Accessories (Order Separately)

XMFMKIT - Flush Mount Kit

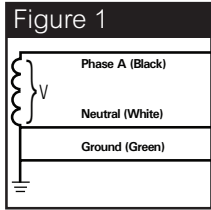


Figure 1
SINGLE POLE
1 Phase, 1 Neutral,
1 Ground

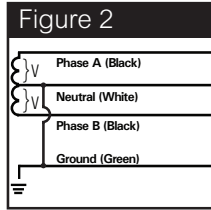
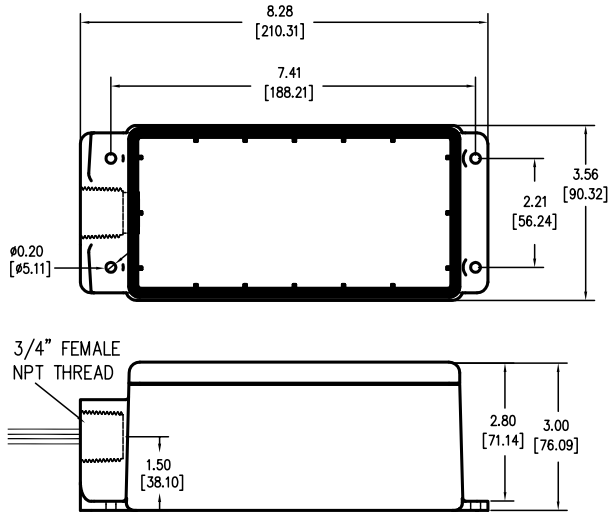


Figure 2
SPLIT
2 Phases, 1 Neutral,
1 Ground



Model 340 Application Guide

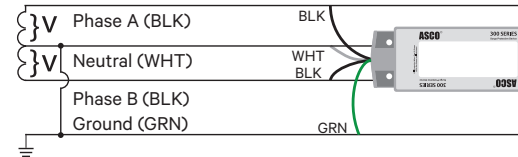
Required circuit breaker not shown - More Voltages Coming Soon

2 POLE / SPLIT 1 POLE / SINGLE



V=120V

340120N...



Voltage

Model Number

V=120V (120/240V)

340120S...

Performance Data (includes circuit breaker)

Common North American Systems		UL 1449 Fourth Edition Test Data							
		Voltage Protection Rating 6kV, 3kA				Type	I _n	SCCR	MCOV
Model	System Voltage & Config	L-N	L-G	N-G	L-L				
120N	120V	700	700	700	-	Type 2	20kA	100kA	150
120S	120V/240V	700	700	700	1200	Type 2	20kA	100kA	150