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BoltShield™ Surge Protective Devices

QSPD series for load centers

usa.siemens.com/surge

Surge Protective Devices (SPDs) provide the best protection from both externally and internally generated surges when located as close to the building distribution system as possible. For cost and space reasons many buildings only include one SPD located at the main incoming load center and do not cascade SPDs throughout the building as recommended by IEEE. The new Siemens QSPD series of SPDs are economical and easy to install in most panels throughout a building so that whole facility protection can be obtained. See the Siemens Boltshield web page and brochures for more information.

Features

- UL 1449 SPD Type 1*
- Monolithic distribution grade MOV
- Thermally protected MOV
- 65kA surge current protection per phase
- 20kA I-nominal ratings
- 200kA SCCR
- 10 year standard warranty
- Audible Alarm

Product specifications

General specifications		
Maximum surge current rating range		65kA per phase
UL Type designation		SPD Type 1*
UL 1449 I-nominal rating		20kA
UL 1449 short circuit current rating		200kA
Repetitive impulse		5,000 hits
Response time		<1 ns

Physical specifications		
Humidity range		0-95% non-condensing
Operating frequency		0-415Hz
Operating temperature		-25°C to +60°C
Dimensions in inches (mm)	2 pole	3 (77.9) x 2 (50.4) x 2.6 (65.3)
	3 pole	3 (77.9) x 3 (75.2) x 2.6 (65.3)
Weight	2 pole	0.64 lbs (237 g)
	3 pole	0.71 lbs (335 g)
Neutral/ground connection		#14 AWG (pre-wired)

Diagnostic monitoring specifications	Design specifications
Green/red visual mechanical flag failure indicators	Monolithic distribution grade MOV
Flashing dual color led (green/red) status indicator	Integrated optimized thermal protection
Audible alarm w/ silence switch/button	Fits in footprint of Siemens QP breaker
*Type 1 SPDs suitable for use in Type 2 applications	Modes of protection (L-N or L-G, L-L)

UL 1449 performance data and ordering information

System voltage	L-N (L-G)	L-L	I _n	SCCR	MCOV	Catalog numbers	Siemens breaker form factor
120/240V, 1Ø, 3W**	600V	1000	20kA	200kA	150V	QSPD2A065P*	2-P, QP
240/120V, 3Ø, 4W	600V/900V	1200	20kA	200kA	150V	QSPD3B065	3-P, QP
208Y/120V, 3Ø, 4W	600V	1000	20kA	200kA	150V	QSPD3C065	3-P, QP
240V, 3Ø, 3W	900V	1500	20kA	200kA	280V	QSPD3D065	3-P, QP

*QSPD2A065P comes in retail style blister pack packaging.

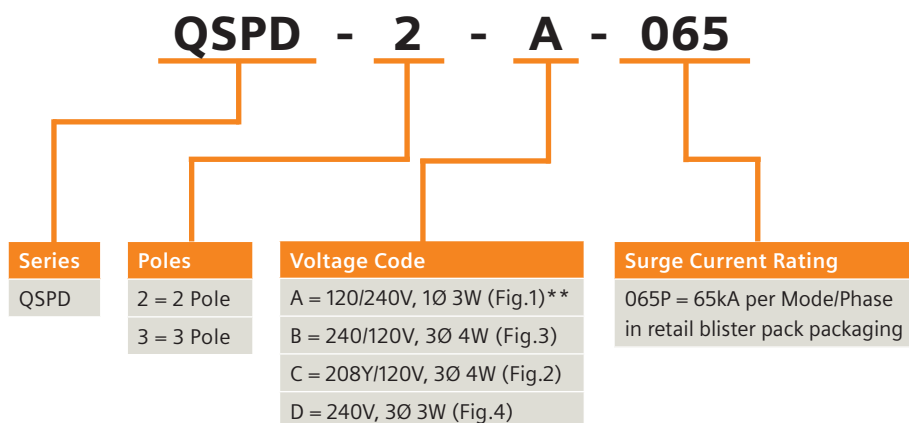
**Can also be used on 208Y/120V, 1Ø, 3W System.

Standards compliance and certifications

UL 1449 4th Edition, cUL, UL 96A compliant, ANSI/IEEE C62.41.1-2002, C62.41.2-2002, C62.45-2002, NEC Article 285

ISO 9001:2014 quality management system, ISO 17025:2007 laboratory certification (UL DAP Program) , 100% quality tested prior to shipping

Catalog number logic



National Electric Code (NEC)
The 2020 NEC has added a new requirement for SPDs (Article 230.67) that requires all services supplying dwelling units be provided with a surge-protective device. This means every new home or apartment must have a Type 1 or 2 surge protective device installed integral or adjacent to the service equipment or installed immediately downstream at each next level distribution equipment. This new requirement also applies when service equipment is replaced. The Siemens BoltShield family of QSPD products allows this to be done easily and at a reasonable cost.

**Can also be used on 208Y/120V, 1Ø, 3W System

Benefits of installing multiple QSPDs

Adding multiple QSPDs in a single load center can increase the modes of protection and the surge capacity. See the Boltshield brochure for more details and review the example chart below:

Number of QSPDs	Connection	Modes of protection	Surge current capacity per mode	Surge current capacity per phase
1	Neutral	3	65kA	65kA
2	Neutral + Ground	6	65kA	130kA
2	Neutral	3	130kA	130kA
3	Neutral(2) + Ground(1)	6	130kA(L-N) + 65kA (L-G)	195kA
3	Ground	3	195kA	195kA
4	Neutral(2) + Ground(2)	6	130kA	260kA

Wiring configurations

Split

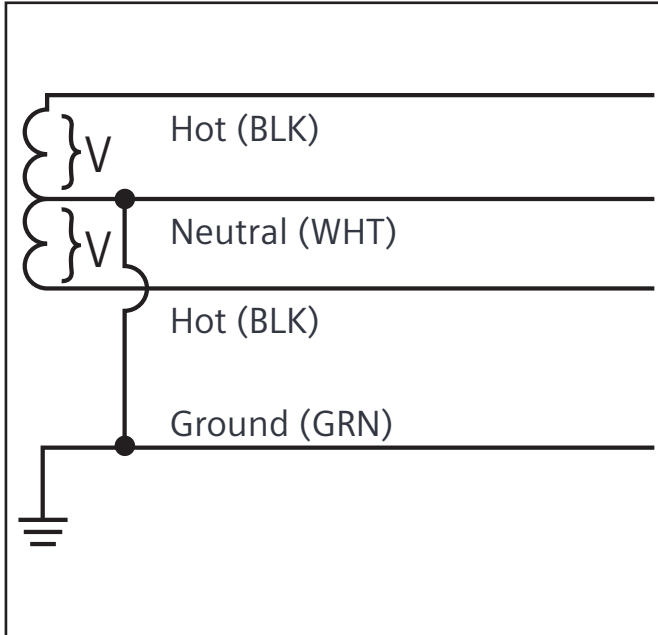


Figure 1

2 Hots, 1 Neu, 1 Grnd

WYE

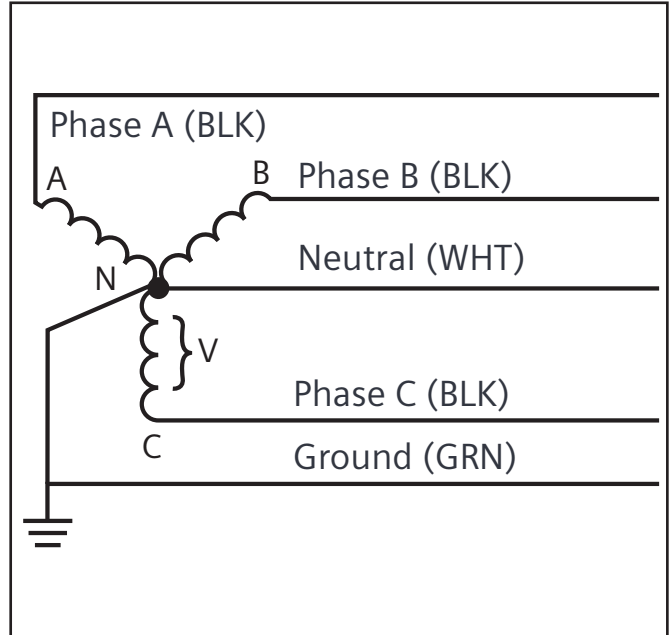


Figure 2

3 Hots, 1 Neu, 1 Grnd

Hi-Leg Delta (B High)

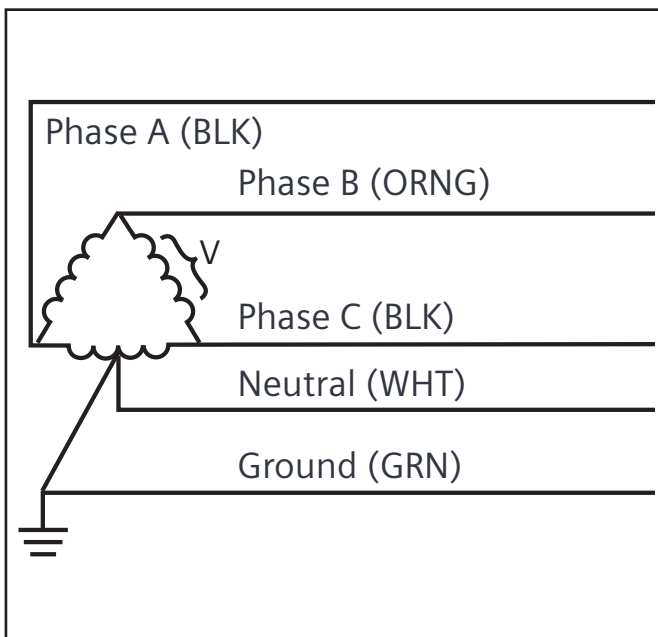


Figure 3

3 Hots (B High), 1 Neu, 1 Grnd

Delta & HRG WYE

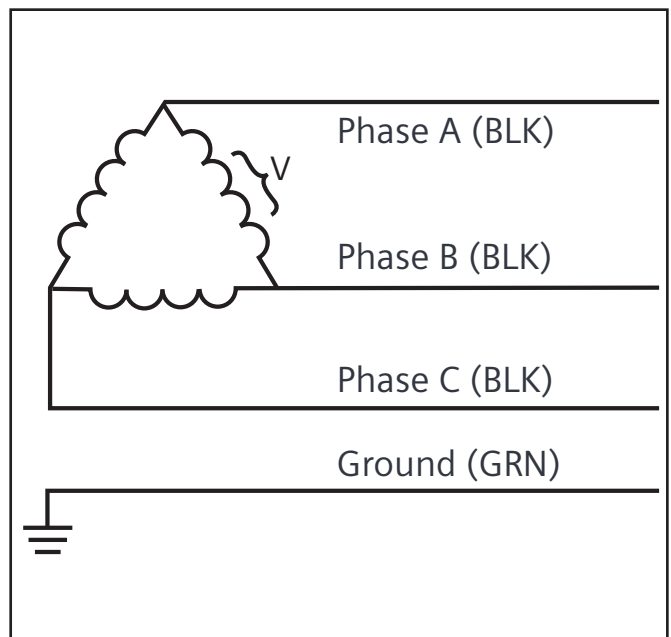
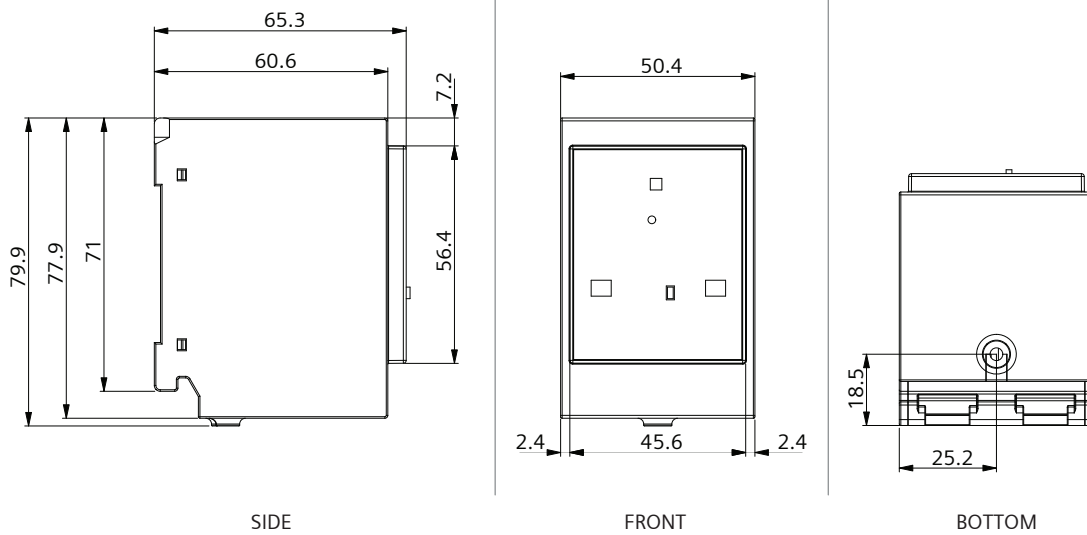


Figure 4

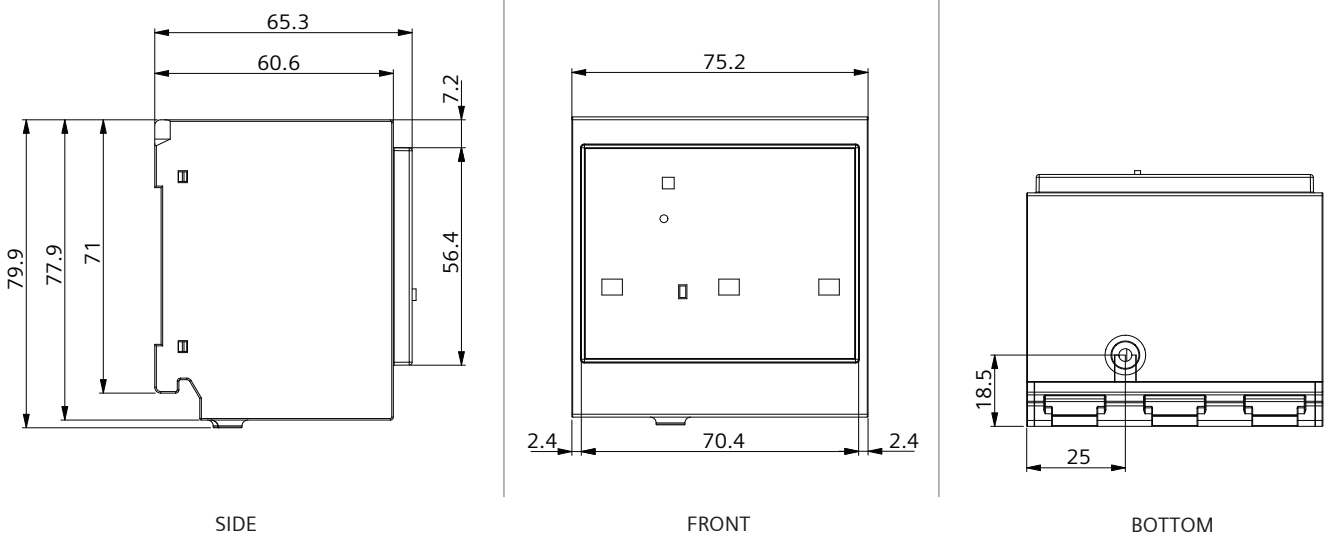
3 Hots, 1 Grnd

Product diagrams (in millimeters)

2-pole: QSPD2A065



3-pole: QSPD3x065



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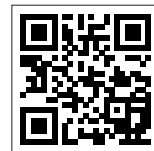
Siemens Industry, Inc.
5400 Triangle Parkway
Norcross, GA 30092

Siemens Technical Support: 1-800-333-7421
info.us@siemens.com

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