# Section M SpikeShield® Power Quality Products



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#### **Panel Protection**

The SpikeShield® line of panel surge protection devices offers a broad selection of products to meet the various requirements of industrial, commercial, institutional and residential applications. No other surge suppression system can meet the flexibility, safety and performance standards set by Hubbell.

Hubbell offers surge protection products which can handle peak amperage capacities of 50kA to 320kA.

The SpikeShield product line also includes a line of panels with replaceable modules. This series features improved performance through the use of a low impedance bus-bar design and easily replaceable bolt-down modules.

The SpikeShield branch panel protection system includes the complete compact and economical 50, 80, 100 and 120kA series product offering.

These wired-in products can protect branch panels, safety switches and load centers. They can be installed as an appendage or flush mounted to a finished wall next to the panel. The versatility of the wired-in products allows them to be used on branch panels, as well as main panel protection in smaller commercial facilities.







Features	Benefits
Thermal fusing	Thermal fuse prevents the MOVs from overheating when exposed to high current levels.
Compact design with bus-bar pathways	Allows installation in areas with space restrictions. Minimizes connecting lead length which reduces impedance ensuring improved clamping performance.
Peak amp capacity	Protects equipment under the worst electrical conditions.
Bolt-down modules	Assures positive connection and allows for easy replacement.
Fault-current fusing	Prevents excessive panel damage caused by internal short circuits or component failure.
LED and audible alarm status indicator	Provides visual and audible indication of panel status. Green for operational, red for module failure. Audible alarm for module failure with silencing.
Sine wave tracking	Provides uniform clamping throughout the sine wave.

Note: All panel products are UL Listed to Standard 1449-3rd edition.

Ordering Information and Specifications



The SpikeShield® service entrance product line includes a line of panels with replaceable modules. This series features improved performance through the use of a low impedance bus-bar design and easily replaceable bolt-down modules.

They incorporate a modular (replaceable surge suppression modules) design and feature the latest industry approvals and safety ratings. Including UL 1449-3rd edition.





HBL8P160DA

#### Service/Branch Panel Protection 320,000 Peak Amp Capacity (Type 2 SPD)

Voltage V AC	Configuration	Catalog Number	With Disconnect	Replacement Module
120/240 Single phase	1Ph. 3-wire +G	HBL3P320A	HBL3P320DA	HBL160M120A
120/208 Wye*	3Ph. Wye 4-wire +G	HBL4P320A	HBL4P320DA	HBL160M120A
240/120 Delta split phase	3Ph. Delta 4-wire +G 'High Leg'	HBL6P320A	HBL6P320DA	HBL160M240A & HBL160M120A
277/480 Wye**	3Ph. Wye 4-wire +G	HBL8P320A	HBL8P320DA	HBL160M480A
347/600 Wye	3Ph. Wye 4-wire +G	HBL10P320A	HBL10P320DA	HBL160M600A

#### Service/Branch Panel Protection 160,000 Peak Amp Capacity (Type 2 SPD)

120/240 Single phase	1Ph. 3-wire +G	HBL3P160A	HBL3P160DA	HBL160M120A
120/208 Wye*	3Ph. Wye 4-wire +G	HBL4P160A	HBL4P160DA	HBL160M120A
240/120 Delta split phase	3Ph. Delta 4-wire +G 'High Leg'	HBL6P160A	HBL6P160DA	HBL160M240A & HBL160M120A
277/480 Wye**	3Ph. Wye 4-wire +G	HBL8P160A	HBL8P160DA	HBL160M480A
347/600 Wye	3Ph. Wye 4-wire +G	HBL10P160A	HBL10P160DA	HBL160M600A

Note: Units come standard with Surge Counter.

#### **Electrical Specifications**

						Voltage Protectio	n Rating (VPR)		
Catalog Number		SCCR ◊	In	MCOV †	L-N	Ľ-G	Ň-Ġ	L-L	
HBL3P320A	HBL3P160A	200kA	20kA	150/300	700	700	700	1200	
HBL4P320A	HBL4P160A	200kA	20kA	150/300	700	700	700	1200	
HBL6P320A	HBL6P160A	200kA	20kA	270/150	1200/700	1200/700	700	1500/1000	
HBL8P320A	HBL8P160A	200kA	20kA	320/640	1200	1200	1200	1200	
HBL10P320A	HBL10P160A	200kA	20kA	420/840	1500	1500	1500	2500	

Note: \$ SCCR - Short Circuit Current Rating.

† MCOV - Maximum Continuous Operating Voltage.

 $I_n$  - Nominal discharge current.

#### **Product Specifications**

Max. Surge Current per Phase: 320kA and 160kA

Max. Operating Temperature: -40°F to 149°F (-40°C to 65°C)

Diagnostics:

Red & Green LED's, Diagnostic Test Switches, Dry Contacts, Audible Alarm, Surge Counter
Dimensions (Wye):

6.0"D x 20.0"W x 24.0"L (with Disconnect); 6.0"D x 12.0"W x 12.0"L (without Disconnect)
Dimensions (Delta):

6.0"D x 16.0"W x 20.0"L (with Disconnect); 7.0"D x 14.0"W x 16.0"L (without Disconnect),

Weight (320kA): 54 lbs. (without Disconnect), 57.5 lbs. (with Disconnect)
Weight (160kA): 21.9 lbs. (without Disconnect), 21.8 lbs. (with Disconnect)

Terminal Accommodation: #10 AWG to #2 AWG

 Frequency:
 50/60 Hz

 EMI/RFI:
 Up to -30dB

 NEMA:
 3R/12 Metallic

Listing: cULus UL1449-3rd edition type 2 SPD, UL1283, CSA C22.2 NO. 8-M1986

Warranty: 10 year

<sup>\*120/208</sup> Wye also applies to 127/220 Wve.

<sup>\*\*277/480</sup> Wye also applies to 220/380 Wye, 230/400 Wye and 240/415 Wye.

Ordering Information and Specifications



The SpikeShield® 120kA branch panel product offering features an economical, compact, modular design.

These wired-in products can protect branch panels, safety switches and load centers. They can be installed as an appendage or flush mounted to a finished wall next to the panel. The versatility of the wired-in products allows them to be used on branch panels, as well as main panel protection found in smaller commercial facilities or residential applications.



#### Service/Branch Panel Protection 120,000 Peak Amp Capacity (Type 2 SPD)

Voltage V AC	Configuration	Catalog Number	Replacement Module
120/240 Single Phase	1Ph. 3-wire +G	HBL3P120B	HBL3P120BM
120/208 Wye*	3Ph. Wye 4-wire +G	HBL4P120B	HBL4P120BM
240/120 Delta split phase	3Ph. Delta 4-wire +G 'High Leg'	HBL6P120B	HBL6P120BM
277/480 Wye**	3Ph. Wye 4-wire +G	HBL8P120B	HBL8P120BM
347/600 Wye	3Ph. Wye 4-wire +G	HBL10P120B	HBL10P120BM

Note: Units come standard with Surge Counter.

#### **Electrical Specifications**

					Voltage Protection	n Rating (VPR)		
Catalog Number	SCCR♦	In	MCOV †	L-N	Ľ-G	N-G	L-L	
HBL3P120B	200kA	20kA	150/270	700	700	700	1200	
HBL4P120B	200kA	20kA	150/270	700	700	700	1200	
HBL6P120B	200kA	20kA	275/150	1000/700	1000/700	700	1500/1200	
HBL8P120B	200kA	20kA	320/640	1200	1200	1200	2000	
HBL10P120B	200kA	20kA	390/780	1500	1500	1500	2500	

Note: ♦ SCCR - Short Circuit Current Rating. † MCOV - Maximum Continuous Operating Voltage.

#### **Product Specifications**

Max. Surge Current per Phase: 120kA

Max. Operating Temperature: -40°F to 149°F (-40°C to 65°C)

Red & Green LED's, Diagnostic Test Switches, Dry Contacts, Audible Alarm, Surge Counter Diagnostics:

Dimensions: 7.0"D x 14.0"W x 16.0"L

21.8 lbs. Weight:

Terminal Accommodation: #12 AWG to #2 AWG

Frequency: 50/60 Hz EMI/RFI: Up to -30dB NEMA: 3R/12 Metallic

Listing: cULus UL1449-3rd edition type 2 SPD, UL1283, CSA C22.2 NO. 8-M1986

Warranty: 10 year

<sup>\*120/208</sup> Wye also applies to 127/220 Wye.
\*\*277/480 Wye also applies to 220/380 Wye, 230/400 Wye and 240/415 Wye.

*I<sub>n</sub>* - Nominal discharge current.



The wired-in surge protection device brick design is ideal for areas where space is a major consideration. The surge unit can be mounted directly to the panel through a chase nipple connection which will reduce lead length and impedance while increasing protection levels.

The 100kA product features a NEMA 4X housing and a 200kA SCCR rating.

They SpikeShield wired-in surge protective devices are UL 1449-3rd edition listed.



#### Wired-In Branch Panel Protection 100,000 Peak Amp Capacity (Type 2 SPD)

Service Voltage V AC	Configuration	Catalog Number
120/240 Single Phase	1Ph. 3-wire +G	HBL3W100C
120/208 Wye*	3Ph. Wye 4-wire +G	HBL4W100C
240 Delta	3Ph. Delta 3-wire Corner Gnd <sup>△</sup>	HBL5W100C
240/120 Delta split phase	3Ph. Delta 4-wire +G 'High Leg'	HBL6W100C
277/480 Wye**	3Ph. Wye 4-wire +G	HBL8W100C
480 Delta	3Ph. Delta 3-wire Corner Gnd <sup>∆</sup>	HBL9W100C
347/600 Wye	3Ph. Wye 4-wire +G	HBL10W100C
600 Delta	3Ph. Delta 3-wire Corner Gnd <sup>∆</sup>	HBL11W100C

Note: \*120/208 Wye also applies to 127/220 Wye.

#### **Electrical Specifications**

					Voltage Protection	on Rating (VPR)	
Catalog Number	SCCR♦	In	MCOV †	L-N	L-G	N-G	L-L
HBL3W100C	200kA	20kA	150/270	900	1200	700	1500
HBL4W100C	200kA	20kA	150/270	900	1200	700	1500
HBL5W100C	200kA	20kA	300	N/A	N/A	N/A	1500
HBL6W100C	200kA	20kA	275/150	1000	1200	700	1500
HBL8W100C	200kA	20kA	320/640	1200	2000	1000	2500
HBL9W100C	200kA	20kA	640	N/A	N/A	N/A	3000
HBL10W100C	200kA	20kA	390/780	1500	2500	1500	3000
HBL11W100C	200kA	20kA	780	N/A	N/A	N/A	3000

Note:  $\Diamond$  SCCR - Short Circuit Current Rating.

† MCOV - Maximum Continuous Operating Voltage.

#### **Product Specifications**

Max. Surge Current per Phase: 100kA

Max. Operating Temperature: -40°F to 140°F (-40°C to 60°C)

Diagnostics: Green Status LED's, Audible Alarm, Dry Contacts

Dimensions: 3.1"D x 9.9"W x 4.8"H

Weight: 4.78 lbs.

Terminal Accommodation: #10 AWG 18.0" Wire Leads

 Frequency:
 50/60 Hz

 EMI/RFI:
 Up to -30dB

 NEMA:
 Type 4X

Listing: cULus UL1449-3rd edition type 2 SPD,

UL1283 (Wye prod. only), CSA C22.2 NO. 8-M1986

Warranty: 10 year

<sup>\*\*277/480</sup> Wye also applies to 220/380 Wye, 230/400 Wye and 240/415 Wye.

<sup>△</sup>Also can be used on ungrounded systems.

In - Nominal discharge current.

36,000, 40,000 and 50,000 Peak Amperage Capacity



Surge Arrestors are a low cost solution that may be installed on the line side or load side of the service entrance. These are also excellent for OEM applications where size is an important variable.

Hubbell's 50kA single phase wired-in surge protective devices feature a compact design, NEMA 4X rating and are UL 1449-3rd edition listed.



Wired-In Surge Arrestors, Single Phase 36,000 and Three Phase 40,000 (Type 1 / Type 2 SPD)

Service Voltage V AC	Configuration	Peak Amp Capacity	Mounting Means	Catalog Number	
120/240 Single Phase	1Ph. 3-wire	36kA	Back Nipple Mount	HBLSDSA36	
347/600V Max Three Phase	3Ph. 4-wire	40kA	Back Nipple Mount	HBLSDSA40	

#### Wired-In Surge Protective Devices 50,000 Peak Amp Capacity (Type 1 SPD)

Service Voltage V AC	Configuration	Peak Amp Capacity	Mounting Means	Catalog Number	
120/240 Single Phase	1Ph. 3-wire + G	50kA	Side Nipple Mount	HBL3W50	

#### **Electrical Specifications**

					Voltage Protection Rating (VPR)			
Catalog Number	SCCR♦	In	MCOV †	L-N	L-G	N-G	L-L	
HBLSDSA36	25kA	10kA	150	700	N/A	N/A	1200	
HBLSDSA40	200kA	10kA	750/1500	2500	N/A	N/A	4000	
HBL3W50	25kA	10kA	150	700	800	N/A	1200	
HBL3W120	25kA	10kA	150	700	800	N/A	1200	

Note: \$ SCCR - Short Circuit Current Rating.

† MCOV - Maximum Continuous Operating Voltage.

In - Nominal discharge current.

#### **Product Specifications**

Max. Surge Current per Phase: 36kA 40kA 50kA -40°F to 160°F -40°F to 160°F -40°F to 160°F Max. Operating Temperature: (-40°C to 70°C) (-40°C to 70°C) (-40°C to 70°C) Green Status LED per line Diagnostics: Green Status LED per line Green Status LED per line 1.9"D x 2.25"W x 2.25"H 2.64"D x 3.6"W x 3.0"H 2.7"D x 3.0"W x 3.6"H Dimensions: Weight: .72 lbs. 1.8 lbs. 1.8 lbs. #14 AWG Wire Leads #12 AWG Wire Leads #12 AWG Wire Leads Terminal Accommodation: 50/60 Hz 50/60 Hz 50/60 Hz Frequency: EMI/RFI: Up to -30dB Up to -30dB Up to -30dB NEMA: Type 4X Type 4X Type 4X UL1449-3rd edition UL1449-3rd edition Listing: UL1449-3rd edition 2 year Warranty: 2 year 10 year



## **SPÎKESHÎELD**



**HBL8ESPS1050M**: 1050 joule, 6 foot cord, energy saving unit with master/slave set up. Turns power off to peripherals when item plugged into master is powered off.





**HBL4PS1050USB**: Four outlet, 1050 joule SPD features a black housing, 6 foot cord, 90 degree plug, and two USB ports for charging smart phones and other electronic devices.



**HBL8PS350YL**: Yellow, high visibility, robust, metal housing, 350 joules, 6 foot cord, wire management feature, \$2,500 down-line warranty.



#### SpikeShield® Surge Protective Devices



Plug-in Style Surge Outle	เร						
Description	# of Outlets	Joule Rating	Peak AMP Rating	Cord Length	Color	Warranty	Catalog Number
Single outlet plug-in SPD	1	750	13.5kA	N/A	Off. White	N/A	HBL1PI750
Single outlet plug-in SPD w/phone line protection	1	750	13.5kA	N/A	Off. White	N/A	HBL1PI750M
Single outlet plug-in SPD w/CATV protection	1	750	13.5kA	N/A	Off. White	N/A	HBL1PI750C
Three outlet plug-in SPD	3	750	13.5kA	N/A	Off. White	N/A	HBL3PI750







HBL1PI750C

**HBL3PI750** 

#### SpikeShield® Surge Protection Plug Strips



Metallic Strips							
Description	# of Outlets	Joule Rating	Peak AMP Rating	Cord Length	Color	Down Line Warranty	Catalog Number
Metal Power Strip (No surge protection)	6	N/A	N/A	6'	Off. White	N/A	HBL6MPS
Metal SPD	6	1050	19.5kA	6'	Off. White	\$2,500	HBL6MPS1050
SPD w/Wire Management	6	350	6.5kA	6'	Yellow	\$2,500	HBL6PS350YL
SPD w/Wire Management	8	350	6.5kA	6'	Yellow	\$2,500	HBL8PS350YL
Heavy Duty SPD w/HBL5252BK Receptacles	6	900	30kA	6'	Black	N/A	HBL6PS
Heavy Duty SPD w/HBI 8200HW Receptacles	6	900	30kA	6'	Black	N/A	HBL6PSHG





#### Tamper-Resistant Non-Metallic Strips



Description	# of Outlets	Joule Rating	Peak AMP Rating	Cord Length	Color	Down Line Warranty	
Power Strip	6	N/A	N/A	6'	Off. White	N/A	HBL6PPS
(No surge protection)							
SPD	6	350	6.5kA	6'	Off. White	\$2,500	HBL6PS350A
SPD	6	350	6.5kA	15'	Off. White	\$2,500	HBL6PS35015A
SPD	6	350	6.5kA	25'	Off. White	\$2,500	HBL6PS35025A
SPD w/Fax/Modem	6	1050	19.5kA	6'	Off. White	\$2,500	HBL6PS1050MA
SPD	7	1050	19.5kA	6'	Off. White	\$10,000	HBL7PS1050A
SPD w/Fax/Modem	7	1050	19.5kA	6'	Off. White	\$10,000	HBL7PS1050MA
SPD	7	1050	19.5kA	15'	Off. White	\$10,000	HBL7PS105015A
SPD w/Fax/Modem/CATV	8	2100	39kA	6'	Off. White	\$25,000	HBL8PS2100MA
SPD w/Fax/Modem/CATV/DSS	8	2100	39kA	6'	Off. White	\$25,000	HBL8PS2100DA





#### **Specialty Non-Metallic Surge Strips**

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Description	# of Outlets	Joule Rating	Peak AMP Rating	Cord Length	Color	Down Line Warranty	catalog Number
SPD w/Two USB Ports	4	1050	19.5kA	6'	Black	\$10,000	HBL4PS1050USB*
Remote Switch SPD w/One Keychain Ring Control	6	2100	39kA	6'	Off. White	\$25,000	HBL6RSPS2100
Energy Saving SPD w/Master/ Controlled Design w/Fax/Modem	8	1050	19.5kA	6'	Off. White	\$10,000	HBL8ESPS1050M
Energy Saving SPD Master/ Controlled Design w/CATV Protection	8	1050	19.5kA	6'	Off. White	\$10,000	HBL8ESPS1050C



HBL8PS2100MA

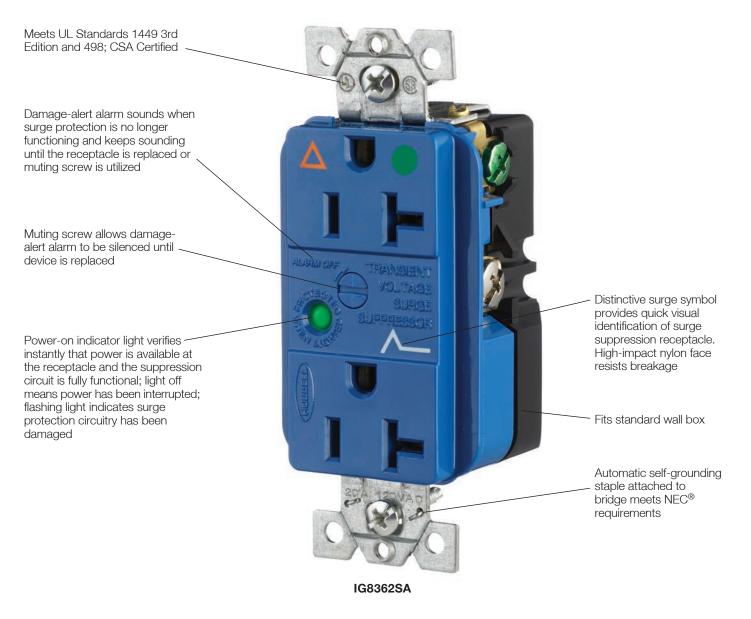
Note: See page Tech-10 for Tamper-Resistant description.
\*With 90 Angle Plug.











Note: The effectiveness of SPD devices diminishes with the increase in distance between the device and the equipment to be protected.

#### Surge Protection Receptacles

Hubbell has the broadest offering of SPD receptacles in the industry with technology that is unsurpassed. Inside Hubbell SPD receptacles are two 22mm square MOVs providing 240 joules of surge protection for each mode. The nylon component shield protects the printed circuit board from moisture and contaminants. An all-glass PC board provides superior moisture immunity for longer life in humid environments. Conformal coating is provided on the printed circuit board for additional moisture immunity.

NEC® is a registered trademark of the National Fire Protection Association (NFPA).



## Circuit Guard®, Specification Grade

125V 5-15R



Duplex Receptacles		<b>15A 125V</b> <b>NEMA 5-15R</b> UL CSA	<b>20A 125V</b> <b>NEMA 5-20R</b> UL CSA
Description	Color	Catalog Number	
Surge suppression receptacles with light, 240 joules/15000A per mode.	Blue	HBL5260SA	HBL5360SA
	Ivory	HBL5260ISA	HBL5360ISA
	Office White	HBL5260OWSA	HBL53600WSA
	White	HBL5260WSA	HBL5360WSA
Surge suppression receptacles with light and alarm, 240 joules/15000A per mode.	Almond	HBL5262ALSA	HBL5362ALSA
	Blue	HBL5262SA	HBL5362SA
	Gray	HBL5262GYSA	HBL5362GYSA
	Ivory	HBL5262ISA	HBL5362ISA
	Office White	HBL5262OWSA	HBL5362OWSA
	White	HBL5262WSA	HBL5362WSA
Isolated ground, surge suppression receptacles with light and alarm, 240 joules/15000A per mode.	Blue	IG5262SA	IG5362SA
	Gray	IG5262GYSA	IG5362GYSA
	Ivory	IG5262ISA	IG5362ISA
	Office White	IG5262OWSA	IG5362OWSA
	Orange	IG5262OSA	IG5362OSA
	White	IG5262WSA	IG5362WSA
4-PLEX® surge suppression receptacles with lights, 80 joules/6500A per mode.	Blue	HBL415S	HBL420S
	Ivory	HBL415IS	HBL420IS



HBL5262GYSA





IG5362SA



HBL8362ISA

Circuit Guard®, Hospital Grade Duplex Receptacles

Description	Color	Catalog Number	
Surge suppression receptacles with	Almond	HBL8262ALSA	HBL8362ALSA
light and alarm, 240 joules/15000A	Blue	HBL8262SA	HBL8362SA
per mode.	Gray	HBL8262GYSA	HBL8362GYSA
	lvory	HBL8262ISA	HBL8362ISA
	Red	HBL8262RSA	HBL8362RSA
	White	HBL8262WSA	HBL8362WSA
Isolated ground, surge suppression	Blue	IG8262SA	IG8362SA
receptacles with light and alarm,	Gray	IG8262GYSA	IG8362GYSA
240 joules/15000A per mode.	lvory	IG8262ISA	IG8362ISA
	Orange	IG8262OSA	IG8362OSA
	Red	IG8262RSA	IG8362RSA
	White	IG8262WSA	IG8362WSA
4-PLEX surge suppression receptacles	Blue	_	HBL420HS
with lights, 80 joules/6500A per mode.	lvory	_	HBL420HIS
	Red	_	HBL420HRS

#### 4-PLEX® Accessories

Description	Color	Catalog Number
4-PLEX adapter plates for 1- and 2-gang	Blue	HBL4APBL
(4-PLEX mount directly to 4" (101.6) square	lvory	HBL4API
device boxes).	Red	HBL4APR
4-PLEX portable box. Portable 4" (101.6) square box	lvory	HBL4PBI
with one cord grip. Accepts up to .66" (16.8) dia. cord.		

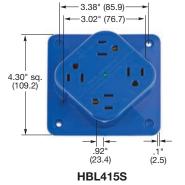
Note: 4-PLEX box is not UL Listed.

Wallplates (Sold Separately)

waiipiates	Journal Seb	aratery					
		High-Impact Ny	lon			Stainless S	Steel (S/S)
Configuration	Color	Standard	Mid-Size	Plated	Steel	Bra	ss
1-Gang	Almond Blue Blue Gray Ivory Ivory Off. White Orange Red White	NP26AL  - NP26GY - NP26I NP26OW NP26OUG** NP26R NP26W	NPJ26AL NPJ26CBL* NPJ26BL NPJ26GY NPJ26I NPJ26I NPJ26OW - NPJ26R NPJ26R	Chrome Brass Plated	SCH26 SBP26	Smooth S/S Smooth S/S Smooth Brass	SS26 SSJ26 ^ SB26

Note: \*Premarked "COMPUTER ONLY." Lettering is block ¼" high.
\*\*Premarked "ISOLATED GROUND." Lettering is block ¼" high.

See section N for additional wallplates. See page M-19 for technical information.



Dimensions in Inches (mm)

<sup>▲</sup> Jumbo size plate.







#### Surge Suppression Receptacles

SpikeShield® SNAPConnect® tamper-resistant surge receptacles provide excellent point of use protection for sensitive electronic loads from every day power spikes and surges.





#### **Isolated Ground Receptacles**

SNAPConnect® Isolated Ground devices provide a clean ground path for sensitive equipment. Devices come with power indication, tamper-resistant or a combination of both.

### Immediate Benefits!

#### **Project Timing**

- Save Time and Money
- Consistent Installation
- Meet Job Deadlines

#### **Installation Efficiency**

- No Stripping
- No Looping/No Tape
- No Exposed Terminals

#### In-Use

- Flush Appearance
- Simple Replacement
- Shallow Box Depth

### SpikeShield® Power Quality Products SNAPConnect® Surge Protection and Isolated Ground Receptacles **Heavy Duty Specification Grade**



## SNAPConnect® Tamper-Resistant Surge

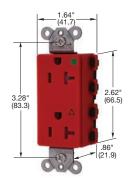








000 **SNAP5262S** 



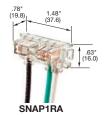
SNAP2182RIGTR



SNAP5362IGL



SNAP8300RIGLTR



Dimensions in Inches (mm)

<b>Protection Receptacle with Powe</b>	NEMA 5-15R UL CSA	NEMA 5-20R UL CSA	
Description	Color	Catalog Number	
Hospital Grade ● SNAPConnect <sup>®</sup> Tamper-Resistant, surge supression receptacle, smooth face, duplex.	Blue	SNAP8262S	SNAP8362S
	Gray	SNAP8262GYS	SNAP8362GYS
	Ivory	SNAP8262IS	SNAP8362IS
	Light Almond	SNAP8262LAS	SNAP8362LAS
	Red	SNAP8262RS	SNAP8362RS
	White	SNAP8262WS	SNAP8362WS
Commercial Grade SNAPConnect® Tamper-Resistant, surge supression receptacle, smooth face, duplex.	Blue	SNAP5262S	SNAP5362S
	Gray	SNAP5262GYS	SNAP5362GYS
	Ivory	SNAP5262IS	SNAP5362IS
	Light Almond	SNAP5262LAS	SNAP5362LAS
	White	SNAP5262WS	SNAP5362WS

SNAPConnect® Tamper-Resistant Isolated Ground Receptacle

Description	Color	Catalog Number	
Hospital Grade • SNAPConnect® Tamper-Resistant, isolated ground, smooth face, duplex.	Orange Red	SNAP8200IGTR SNAP8200RIGTR	SNAP8300IGTR SNAP8300RIGTR
Hospital Grade ● Style Line® decorator SNAPConnect® Tamper-Resistant, isolated ground, smooth face, duplex.	Orange Red	SNAP2172IGTR SNAP2172RIGTR	SNAP2182IGTR SNAP2182RIGTR
Commercial Grade, isolated ground	Orange	SNAP5262IGTR	SNAP5362IGTR
Style Line® Decorator	Orange	SNAP2152IGTR	SNAP2162IGTR

#### SNAPConnect® Isolated Ground Receptacle with Power Indicating LED

Description	Color	Catalog Number	
Hospital Grade • SNAPConnect® Tamper-Resistant, isolated ground, smooth face, duplex.	Orange Red	SNAP8200IGL SNAP8200RIGL	SNAP8300IGL SNAP8300RIGL
Hospital Grade • Style Line® decorator SNAPConnect® Tamper-Resistant, isolated ground, smooth face, duplex.	Orange Red	SNAP2172IGL SNAP2172RIGL	SNAP2182IGL SNAP2182RIGL
Commercial Grade, isolated ground	Orange	SNAP5262IGL	SNAP5362IGL
Style Line® Decorator	Orange	SNAP2152IGL	SNAP2162IGL

#### SNAPConnect® Tamper-Resistant Isolated Ground Receptacle with Power Indicating LED

Description	Color	Catalog Number	
Hospital Grade • SNAPConnect® Tamper-Resistant, isolated ground, smooth face, duplex.	Orange Red	SNAP8200IGLTR SNAP8200RIGLTR	SNAP8300IGLTR SNAP8300RIGLTR
Commercial Grade Style Line <sup>®</sup> decorator	Orange Red	SNAP2172IGLTR SNAP2172RIGLTR	SNAP2182IGLTR SNAP2182RIGLTR
Commercial Grade, isolated ground	Orange	SNAP5262IGLTR	SNAP5362IGLTR
Style Line® decorator	Orange	SNAP2152IGLTR	SNAP2162IGLTR

#### SNAPConnect® Right Angle Pigtailed Connector for General Use

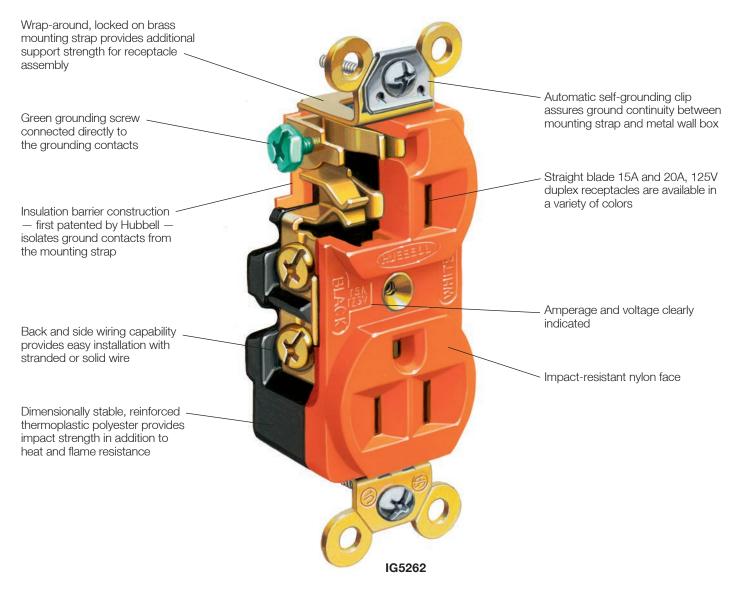
Description	Solid Wire	Stranded Wire
Clear right angle terminal with 6 inch leads #12 AWG THHN/	SNAP1RA	SNAP2RA
THWN-2, 600V, Polycarbonate housing material		

Note: See page Tech-10 for Power Indicating and Tamper-Resistant descriptions. See page M-19 for SNAPConnect® technical information.

#### SpikeShield® Power Quality Products Straight Blade Isolated Ground Receptacles

Features and Benefits





#### Isolated Ground Receptacles. A "Clean" Path Provides A "Clean" Ground For Sensitive Equipment

In February 1968, Hubbell patented the first isolated ground receptacle. Today - when a clean, noise-free ground is more important than ever – Hubbell is still setting the standard.

Hubbell uses insulation barrier construction on many models to isolate the ground contacts from the mounting strap. The green grounding screw is connected directly to the grounding contacts. In this way, ground contacts are separated from the mounting strap and also from the conventional grounding system. The isolated ground circuit is completed by running a dedicated insulated ground wire from the system ground buss to the green grounding screw. And there's more to the Hubbell line:

- Available in 19 NEMA configurations and a total of 60 different type receptacles.
- Versatility and mobility: With Hubbell's grounding method, Hubbell's IG devices can be mounted in boxes, on metal panels...almost anywhere.
- Hubbell quality: Every Hubbell IG device meets and exceeds all applicable codes and standards, plus the toughest standard of all...the Hubbell standard of excellence.

IG triangle on the face of the receptacle clearly indicates

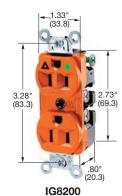


#### Hospital Grade ●, HBL® Extra Heavy Duty, Isolated Ground Receptacles





Description	Color	Catalog Number	
Flush, thermoplastic polyester face, duplex, back and side wired, multiple drive screws.	Orange	IG8200	IG8300
	Red	IG8200R	IG8300R
Style Line® decorator.	Orange	_	IG2182
	Ivory	_	IG2182I
	White	_	IG2182WA
Flush, thermoplastic polyester face, single.	Orange	IG8210	IG8310



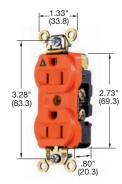
#### 15A and 20A, 125V HBL® Extra Heavy Duty, Specification Grade, Isolated Ground Receptacles





20A 125V NEMA 5-20R UL CSA 1 HP

isolated distalla Heocptables		0.0 111	
Description	Color	Catalog Number	
Flush, nylon face, duplex, back and side wired, multiple drive screws.	Orange Gray Ivory Red White	IG5262 IG5262GY IG5262I IG5262R —	IG5362 IG5362GY IG5362I IG5362R IG5362W
Weather Resistant, duplex, isolated ground.	Orange Gray Ivory Red White	IG5262WR IG5262GYWR IG5262IWR IG5262RWR	IG5362WR IG5362GYWR IG5362IWR IG5362RWR IG5362WWR
Finder groove, nylon face, duplex, back and side wired.	Orange Black Blue Gray Ivory Office White White	CR5252IG CR5252IGBK — CR5252IGGY CR5252IGI CR5252IGOW CR5252IGW	CR5352IG CR5352IGBK CR5352IGBL CR5352IGGY CR5352IGI CR5352IGOW CR5352IGW
Style Line® decorator, flush, nylon face, back and side wired.	Orange Gray	IG2152 —	IG2162 IG2162GY
4-PLEX® receptacle.	Orange	IG415	IG420*
Flush, nylon face, single, back and side wired.	Orange	IG5261	IG5361
Weather Resistant, single, Isolated ground.	Orange	IG5261WR	IG5361WR



IG5262

3.28" (83.3)

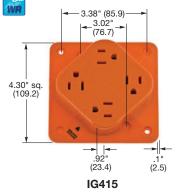
3.28" (83.3) 2.73" (69.3) .80" (20.3) .80" (20.3)

CR5252IG

Note: \*Not Fed. Spec. Listed.

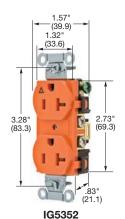
See page Tech-10 for Weather Resistant description. See page M-20 for isolated ground technical information.

See page A-46 and A-47 for accessories. See page A-23 for 4-PLEX accessories.



Dimensions in Inches (mm)





#### **Hubbell-PRO Heavy Duty Specification Grade**





Description	Color	Catalog Number	
Smooth face, duplex,	Orange	IG5252	IG5352
back and side wired.	Almond	IG5252AL	IG5352AL
	Gray	IG5252GY	IG5352GY
	Ivory	IG5252I	IG5352I
	Light Almond	IG5252LA	IG5352LA
	White	IG5252W	IG5352W
Tamper-Resistant,	Orange	IG5252TR	IG5352TR
smooth face, duplex,	lvory	IG5252ITR	IG5352ITR
back and side wired.	White	IG5252WTR	IG5352WTR

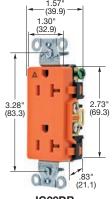
Note: See page Tech-10 for Tamper-Resistant description.

## (39.9)(33.6)2.73" (69.3)

IG20CR

#### **Commercial Specification Grade**

Description	Color	Catalog Number	
Smooth face, duplex, side wired.	Orange Almond Gray Ivory Light Almond White	IG15CR IG15CRAL IG15CRGRY IG15CRI IG15CRLA IG15CRWHI	IG20CR IG20CRAL IG20CRGRY IG20CRI IG20CRLA IG20CRWHI
Style Line <sup>®</sup> decorator; smooth face; back and side wired.	Orange Almond Gray Ivory Light Almond White	IG15DR IG15DRAL IG15DRGRY IG15DRI IG15DRLA IG15DRWHI	IG20DR IG20DRAL IG20DRGRY IG20DRI IG20DRLA IG20DRWHI



IG20DR

3.28" (57.15) 3.28" (85.3) -1.81" (46.0)

IG9308

15A and 20A, 250V HBL® Extra Heavy Duty, Specification Grade, **Isolated Ground Receptacles** 

Flush, nylon face, duplex,

Flush, nylon face, single.

back and side wired, multiple drive screws.

15A 250V NEMA 6-15R UL CSA 1.5 HP
Catalog Num



NEMA 6-15R UL CSA 1.5 HP	NEMA 6-20R UL CSA 2 HP	
Catalog Number		
IG5662	IG5462	
IG5661	IG5461	

	IP20
	SUITABILITY
125V and 250V	

30A, 125V and 250V Isolated Ground Receptacles	
Description	

solated Ground Receptacles		UL CSA 2 HP	UL CSA 2 HP	
escription	Color	Catalog Number		
ingle receptacle,	Orange	IG9308	IG9330	

Color

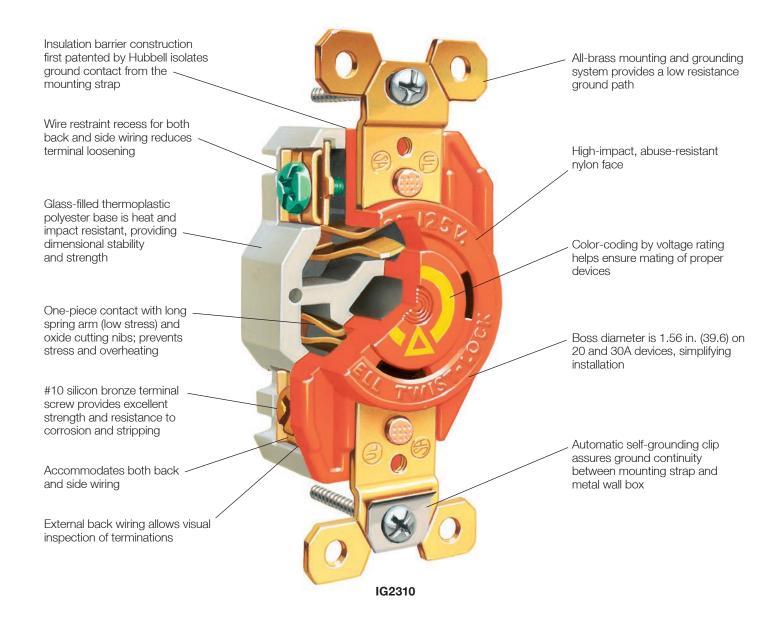
Orange

Orange

Note: See page M-20 for isolated ground technical information.

Features and Benefits





Face color-coding by voltage facilitates locating and mating of proper devices.

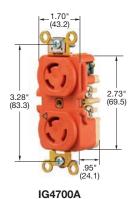












3.28" (83.3)

3.28" (83.3)

2.67"

(24.9)

IG2310

(35.1)

IG4710

#### 15A, 125V and 250V **Back and Side Wired**





Description	Poles/Wires	Color	Catalog Numbe	r
Flush, RTP face, duplex.	2 pole, 3 wire	Orange	IG4700A*	IG4550A*
Flush, RTP face, single.	2 pole, 3 wire	Orange	IG4710	IG4560

Note: RTP is an abbreviation for reinforced thermoplastic polyester. \*Supplied with break-off tabs for split circuit wiring.







20A, 125V, 250V and 480V AC **Back and Side Wired** 

NEMA L5-2
UL/CSA
1 HP

IG2340

Description	Poles/Wires	Color	Catalog Number		
Flush, nylon face, single.	2 pole, 3 wire	Orange	IG2310	IG2320	



Back and Side Wired





Description	Poles/Wires	Color	Catalog Number	
Flush, nylon face, single.	2 pole, 3 wire	Orange	IG2610	IG2620





#### 20A 125/250V AC NEMA L14-20R UL/CSA 2 (1) HP

20A 3Ø 250V AC NEMA L15-20R

Description	Poles/Wires	Color	Catalog Number	er	
Flush, nylon face, single.	3 pole, 4 wire	Orange	IG2410	IG2420	



#### 30A, 125V/250V and 3Ø 250V AC Back and Side Wired



Dack and Side Wired			2 (2) HP	3 HP	
Description	Poles/Wires	Color	Catalog Numbe	er	
Flush, nylon face, single.	3 pole, 4 wire	Orange	IG2710	IG2720	







#### 20A and 30A, 3ØY 120/208V AC **Back and Side Wired**

Description	Poles/Wires	Color	Catalog Number	
Flush, nylon face, single.	4 pole, 5 wire	Orange	IG2510	IG2810

Note: See page M-20 for isolated ground technical information.

# SpikeShield® Power Quality Products **Surge Protection Device Specifications** *Technical Information*



SpikeShield® Surge Protection Plug Strips

	PS350 Series	MPS1050 Series	PS350YL Series	PS1050 Series	PS2100 Series	6PS Series	HBLCATC
Operating Specifications							
Max. Cont. Operating Voltage	130	130	130	130	130	130	24Vpk
Operating Frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Max Surge Current	6.5kA	19.5kA	6.5kA	19.5kA	39.0kA	30.0kA	200
Operating Temperature			0°F to 160°F (-40°C	C to 70°C)			
Performance							
UL Voltage Protection Rating	400V	400V	400V	400V	400V	500V	45V
EMI/RFI Noise Rejection	n/a	n/a	n/a	-20dB	-20dB	-20dB	n/a
Warranty							
Downline Warranty	\$2,500	\$2,500	\$2,500	\$2,500 (6PS1050) \$10,000 (all others)	\$25,000	None	None
Physical Specifications							
Housing Type	ABS	Metal	Metal	ABS	ABS	Metal	ABS
Color	Off. White	Off. White	Yellow	Off. White "USB" version is Black	Off. White	Black	Off. White

Dimensions	Length	Width	Height	
HBL6PS350/1050 Series & HBL6PPS	11.2" (284.5)	2.36" (59.9)	1.85" (47.0)	
HBL7PS1050 Series	14.75" (374.7)	2.36" (59.9)	1.85" (47.0)	
HBL6MPS Series	12.25" (311.2)	2.5" (63.5)	1.5" (38.1)	
HBL6PS350YL	14.75" (374.7)	2.5" (63.5)	1.85" (47.0)	
HBL8PS350YL	10.0" (254.0)	6.0" (152.4)	1.85" (47.0)	
HBL8ESPS Series	10.4" (264.2)	3.8" (96.5)	1.44" (36.6)	
HBL6RSPS Series	9.12" (231.6)	4.4" (111.8)	1.68" (42.7)	
HBL4PS1050USB	10.38" (263.7)	3.81" (96.8)	1.44" (36.6)	

**Surge Protection Receptacles** 

Description	Part	Duplex / SNAPConnect®	4-PLEX®
Type – 2 Pole, 3 Wire, Grounding	Receptacle	15A/20A	15A/20A
	Тор	Nylon	Lexan <sup>®</sup>
	Base	Nylon	Lexan <sup>®</sup>
	Power Contact	.031" (.8) Brass	.032" (.8) Brass
	Contact Design	Tandem Modified Bypass	Triple Wipe
Rating - 15A, 125V AC/20A, 125V AC	Mounting Strap	.050" (1.3) Steel-Zinc Coated	_
Certification – UL Listed File E2186	Clamping Plate	.031" (.8) Brass	.031" (.8) Brass-Line Terminal Plate
Listed to UL Standards 498 Receptacles			.031" (.8) Brass-Neutral-Terminal Plate
Meets UL1449-2.5	Terminal Screws	Brass #8-32 (Duplex only)	Brass #8-32
	Grounding Screw	Steel (Green) (Duplex only)	Brass (Green)
CSA Certified to Specification C22.2 No. 42	Automatic Self-Grounding Clip	Stainless Steel	.050" (1.3) Ground Plate
ANSI/IEEE C62.41 (IEEE 587)	Mounting Screws	Steel-Zinc Plated	Brass
Installation Categories "A" (Ring Wave)	LED	Green	Green
"B" (Unidirectional Impulse)	Alarm Muting Screw	Nylon	_

#### **Performance**

Electrical	Duplex / SNAPConnect®		4-PLEX®			
Frequency	60Hz		60Hz	60Hz		
Voltage	120V AC + 10%-15%		20V AC + 10%-15%			
Response Time	Approximately 5 ns		Approximately 5 ns			
Protection Modes	Normal and Common Modes		Normal and Common Modes			
Transient Suppression	Peak Energy (10 X 100 µs)	Peak Current (8 X 20 µs)	Peak Energy (10 X 100 µs)	Peak Current (8 X 20 µs)		
Normal Mode (L-N)	240 joules	15000A	80 joules	6500A		
Common Mode (L-G), (N-G)	240 joules	15000A	80 joules	6500A		
UL Voltage Protection Rating	600 L-N, 600 L-G	1000 N-G	600 L-N, 600 L-G	900 N-G		
EMI/RFI Attenuation at 50 Ohms Normal Mode	-40 dB					
Operating Temperature	32°F to 140°F (0°C to 60°C)		-40°F to 140°F (-40°C to 60°C)			
Flammability	UL 94V-2		UL 94V-2			







IG5262

#### **Specifications**

Receptacle	Part	Description
Typical Specification – Catalog Number IG5262	Receptacle	15A
Manufacturer's Identification – Hubbell IG5262	Тор	Nylon
Description – Isolated Ground, Straight Blade, Duplex Receptacle	Base	PET*
Type – 2 Pole, 3 Wire, Grounding	Triple Wipe Power Contacts	0.31" (8) Phosphor Bronze
Rating – 15A, 125V	Wire Clamp	0.062" (1.6) Steel Nickel Plated
Certification – UL Listed, CSA Certified, Fed. Spec.	Mounting Strap	0.050" (1.3) Brass
	Insulator	Nylon
	Terminal Screws	Brass #8-32
	Grounding Screw	Brass (Green)
	Center Assembly-Rivet	Brass
	Automatic Self-Grounding Clip	Stainless Steel
	Flat. Hd. Mtg. Screws	Steel Zinc Plated

Note: \*Polyethylene Terephthalate Polyester.

#### **Performance**

Electrical			
Dielectric Voltage	Withstands 2,000V minimum.		
Max. Working Voltage	125V or as rated.		
Current Interrupting	Certified for current interrupting at full rated current.		
Temperature Rise	Max 30°C temperature rise at full rated current after 50 cycles		
	of overload at 150% of rated direct current.		
Mechanical			
Terminal Identification	Terminals identified in accordance with UL 498 and		
	CSA C22.2 No. 42 (Brass, White, Green).		
Terminal Accommodation	#14-10 AWG standard or solid copper conductor only.		
Product Identification	Ratings are permanent part of device.		
Environmental – Material			
Flammability	Top: UL 94V-2, Base: UL 94V-0 and UL 94-5 VA.		
Operating Temperatures	Maximum continuous 75°C;		
	minimum -40°C/F (w/o impact) maximum (167°F, 75°C).		

#### **Specifications**

Receptacle	Part	Description
Catalog Number – IG5352, IG15CR, IG15DR	Receptacle	15A
Description - Isolated Ground, Straight Blade Duplex, Receptacle	Тор	Nylon
Type – 2 Pole, 3 Wire, Grounding	Base	Nylon
Rating – 15A, 125V	Power Contacts	.030" (.8) Brass
Certification – UL Listed, CSA Certified	Terminal Clamp	.062" (1.6) Nickel Plated Steel
	Grounding Screw	#8-32 Plated Steel, TriDrive
	Mounting Strap	.040" (1) Galvanized Steel
	Auto Ground	Stainless Steel
	Mounting Screws	Zinc Plated Steel, Self-Tapping

#### **Performance**

Dielectric Voltage	Withstands 2000V Minimum. 125V. Certified for current interrupting at full rated current.		
Maximum Working Voltage			
Current Interrupting			
Temperature Rise	Max 30°C temperature rise at full rated current after 50 cycles of overload		
	at 150% of rated direct current.		
Mechanical			
Terminal Identification	Terminals identified in accordance with UL 498 and		
	CSA C22.2 No. 42 (Brass, White, Green).		
Terminal Accommodation	#14-10 AWG stranded or solid copper conductors only.		
Product Identification	Ratings are a permanent part of the device.		
Environmental – Material			
Flammability	UL 94V-2.		
Operating Temperatures	Max. continuous: 75°C; Min. continuous: -40°C w/o impact.		