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PSP Surge Protection Devices

For over 30 years PSP Products, Inc. has been providing superior products for the surge protection markets. Over the last five years we have developed state of the art load management systems for residential and commercial applications.

All PSP surge protection devices are designed, tested and built to deliver consistent and superior performance for decades. In addition to excellent performance, function and protection, they also carry some of the best warranties in the industry. The unique, hybrid design allows these units to perform as well as new, even after years in extreme power and environmental conditions.

Main panel, subpanel and point of use applications up to 200kAIC fault current rating. Status LED with audible alarm. 120kA available in all 1-phase and 3-phase. NEMA 4X (IP65/IP66) indoor/outdoor rated enclosure.

Features

- I_{max}: 120kA per phase
- I_n: 20kA
- Thermally fused metal oxide varistor (TFMOV) suppression with added gas discharge tube (GDT) technology
- LED indicator and audible alarm
- EMI/RFI noise filtration (-40db)
- Repositionable lid allows for label orientation
- Meets UL 96A lightning protection master label
- NEMA 4X (IP65/IP66) indoor/outdoor rated enclosure
- Lifetime warranty: 1-phase
- 25 year warranty: 3-phase

Add-On Items

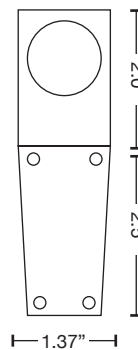
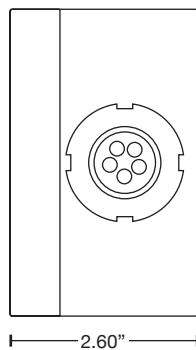
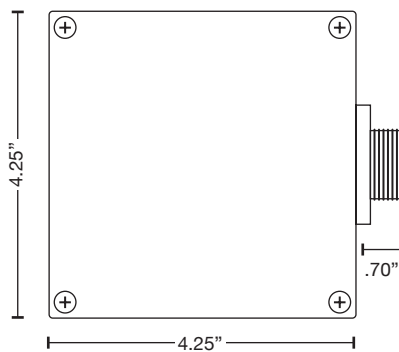
- Mounting bracket to allow installation inside of electrical panel – Item# VR-LB
- Flush mount cover – Item# VR-FMC



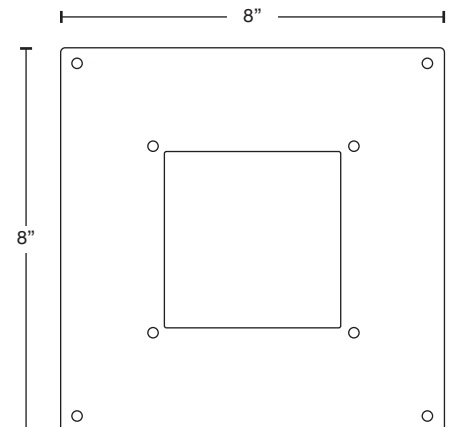
VR-120
1-Phase & 3-Phase



VR-GEN



Mounting Bracket



Flush Mount Cover

Part Number Breakdown

VR(#)-120-4XM

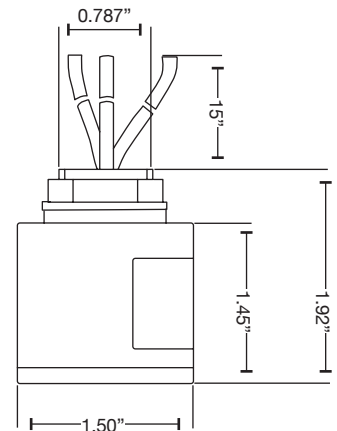
- **Surge Rating: 120** =120kA/phase
- **Voltage Identifier:** 1=120/240 1-phase, 2=120/208 3-phase Wye, 3=120/120/240 3-phase high-leg Delta, 4=277/480 3-phase Wye, 5=480 3-phase Delta, 6=347/600 3-phase Wye, 7=600 3-phase Delta, 8=220/380 3-phase Wye, 9=240 3-phase Delta

Description		VR-GEN	VR1	VR2	VR3	VR4	VR5	VR6	VR7	VR8	VR9
System Voltage	VAC	120/240	120/240	120/208	120/120/240	277/480	480	347/600	600	220/380	240
System Wiring		3W+G (1-Phase)	3W+G (1-Phase)	4W+G (3-Phase Wye)	4W+G (3-Phase High-Leg Delta)	4W+G (3-Phase Wye)	3W+G (3-Phase Delta)	4W+G (3-Phase Wye)	3W+G (3-Phase Delta)	4W+G (3-Phase Wye)	3W+G (3-Phase Delta)
Maximum Operating Voltage (MCOV)	L-N	150	150	150	150/300	320	N/A	550	N/A	320	N/A
	N-G	150	150	150	150/300	320	N/A	550	N/A	320	N/A
	L-G	150	150	150	150	320	550	550	750	320	320
	L-L	300	300	300	300/300	520	550	750	750	550	640
Voltage Protection Rating (VPR)	L-N	700	700	700	700/1,200	1,200	N/A	1,800	N/A	1,200	N/A
	N-G	700	700	700	700/1,200	1,000	N/A	1,800	N/A	1,200	N/A
	L-G	700	700	700	700/1,200	1,200	1,800	1,800	1,800	1,000	1,200
	L-L	1,000	1,000	1,000	1,800/1,800	2,500	3,000	3,000	2,000	1,800	1,800
Operating Current (Ic)		<10 mA	<10 mA	<10 mA	<30 mA	<10 mA	<30 mA	<10 mA	<30 mA	<10 mA	<30 mA
Follow Current (If)		None									
Maximum Leakage Current (Ipe)		1 mA									
Frequency (f)		50/60/400 Hz									
Nominal Discharge Current Per Mode (In)		20kA									
Maximum Discharge Current (Imax)		120kA Per Phase									
Short Circuit Current Rating (SCCR)		200kA									
EMI/RFI Filtering		1283 Electromagnetic Interference Filter (-40 dB)									
Thermal Disconnecter		Internal to Each Component									
Overload Disconnecter		Internal to Each Device									
Operating Temperature		-40 to +85°C									
Housing-Enclosure Material		Cast Aluminum									
Mounting Type		Nipple/Wall Mounting, Bracket Mount (Not Included) or Flush Mount (Cover Not Included)									
Environmental Rating		NEMA 4X, IP65, IP66, Indoor/Outdoor									
Connection Type		Lead Length: 36" / #10 AWG									
Standards, Compliance or Recognition		UL 1449 5th Edition Type 1 Listed, UL Listed to US and Canadian Safety Standards									

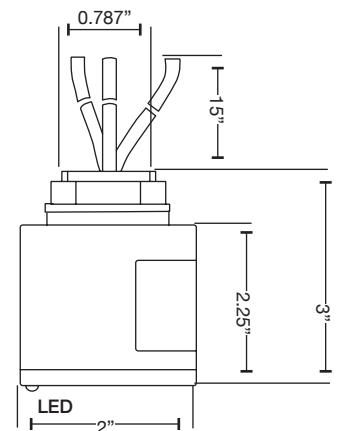
The Vortexx Series A devices are designed and built to combine excellent performance, a space saving and flexible design and serious cost efficiency. Available in either 1-phase/ single pole (L-N-G) configurations of 120VAC, 240–277VAC and 480VAC, or a double pole version configuration of 120/240VAC (L-G) which is UL 1449 5th edition listed. These units are an excellent choice for UL 508 panels. They can be built into any UL certified device.

Features

- I_{max}: 50kA
- I_n: 10kA
- Small footprint
- Thermally fused metal oxide varistor (TFMOV) suppression with added gas discharge tube (GDT) technology
- LED diagnostic indicator
- Nipple mount or bracket mount installation
- Single pole is a UL recognized component
- Double pole is a UL 1449 5th edition listed component
- NEMA 4X indoor/outdoor enclosure
- 25 year warranty



Single Pole
VA1S-50-4XP, VA4S-50-4XP, VA5S-50-4XP



Double Pole
VA1-50-4XP

	VA1S-50-4XP	VA4S-50-4XP	VA5S-50-4XP	VA1-50-4XP
System Voltage	120VAC	240-277VAC	480VAC	120/240 & 120VAC 1-Phase
Maximum Continuous Voltage (MCOV)	150VAC L-G, L-N, N-G	320VAC L-G, L-N, N-G	550VAC L-G, L-N, N-G	150VAC L-G, 300 L-L
Nominal Discharge Current (I _n)	10kA			
Maximum Discharge Current (I _{max})	50kA Per Phase			
Voltage Protection Rating (VPR)	800VAC L-G, L-N, N-G	1200VAC L-G, L-N, N-G	1500VAC L-G, L-N, N-G	800VAC L-G, 1200 L-L
Short Circuit Current Rating (SCCR)	100kA			
Suppression Technology	Thermally Fused MOV/Gas Discharge Tube			
Operating Temperature	-40 to +85°C			
Housing-Enclosure Material	Molded Sealed Polycarbonate			
Mounting Type	Nipple or Bracket Mounting			
Environmental Rating	NEMA 4X / IP65 - Indoor/Outdoor			
Connection Type	Lead Length: 15" / #14 AWG			
Standards, Compliance or Recognition	UL Recognized Component to US and Canadian Safety Standards			UL 1449 5th Edition Type 1 Listed, UL Listed to US and Canadian Safety Standards

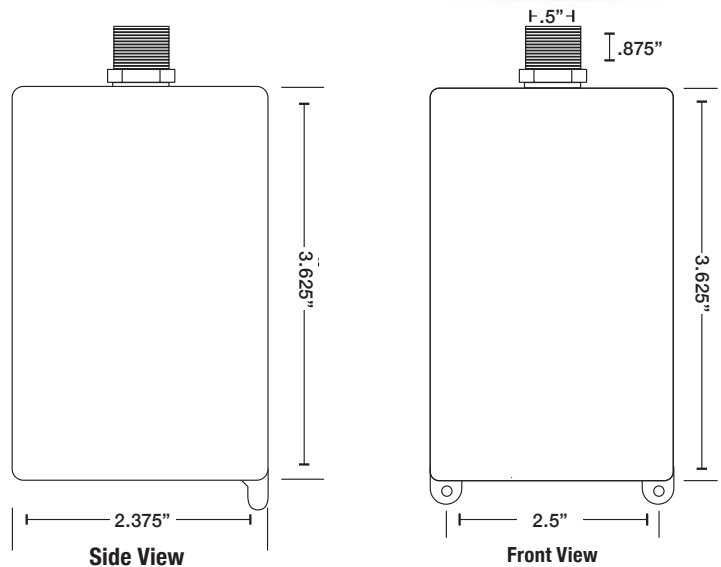
Main panel, subpanel and point of use applications up to 200kAIC fault current rating. Status LED. 60kA or 100kA available. NEMA 4X (IP65) indoor/outdoor rated enclosure.

Features

- I_{max}: 60kA or 100kA per phase
- I_n: 20kA
- Thermally fused metal oxide varistor (TFMOV) suppression with added gas discharge tube (GDT) technology
- Real-time per phase LED indicators and audible alarm
- Designed to allow installation inside of electrical box
- Flush mount option
- NEMA 4X (IP66) indoor/outdoor rated enclosure
- Lifetime warranty

Add-On Items

- Flush mount cover - Item# VB-FMC



	VB1-60-4XP	VB1-100-4XP
System Voltage	120/240VAC 1-Phase	
Maximum Continuous Voltage (MCOV)	150VAC L-G, 300VAC L-L	150VAC L-G, 150VAC L-N, 150VAC N-G, 300VAC L-L
Nominal Discharge Current (In)	20kA	
Maximum Discharge Current (I_{max})	60kA Per Phase	100kA Per Phase
Voltage Protection Rating (VPR)	700VAC L-G, 1200VAC L-L	700VAC L-G, 700VAC L-N, 700VAC N-G, 1200VAC L-L
Short Circuit Current Rating (SCCR)	200kA	
Suppression Technology	Thermally Fused MOV/Gas Discharge Tube	
Operating Temperature	-40 to +80°C	
Housing-Enclosure Material	Molded Sealed Polycarbonate	
Mounting Type	Nipple/Wall Mounting	
Environmental Rating	NEMA 4X - Indoor/Outdoor	
Connection Type	Lead Length: 18" / #12 AWG	
Standards, Compliance or Recognition	UL 1449 5th Edition Type 1 Listed, UL Listed to US and Canadian Safety Standards	

The Vortex Series C devices provide a 200kAIC SCCR, making them suitable for installation at either service entrance or subpanel locations. Models are available in 120kA, 240kA per phase and in all Wye and Delta voltage configurations. Weatherproof, compact enclosures allow for installation in virtually any location.

Features

- I_{max}: 120–240kA per phase
- I_n: 20kA
- Thermally fused metal oxide varistor suppression
- Real-time per phase LED indicators, remote contacts
- Sine wave tracking
- EMI/RFI noise filtration
- NEMA 4X plastic nipple mount enclosure
- 25 year warranty

Add-On Items

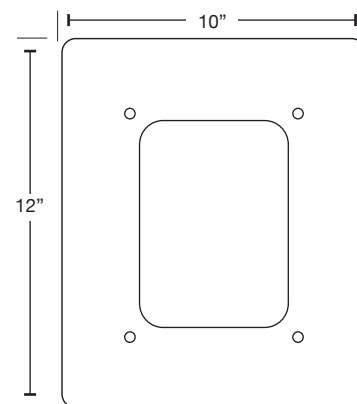
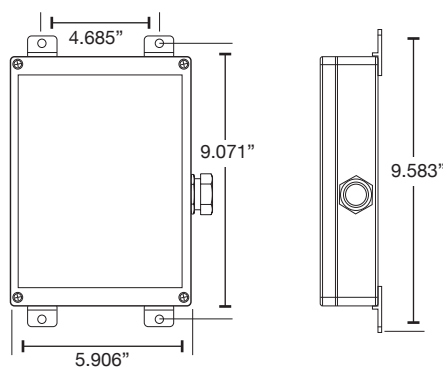
- Flush mount cover - Item# VC-FMC



Nipple Mount Version



Flush Mount Version



Flush Mount Cover

Part Number Breakdown

VC(#)-(###)-4XP

- **Surge Rating Identifier:** 120=120kA/phase, 240=240kA/phase
- **Voltage Identifier:** 1=120/240 1-phase, 2=120/208 3-phase Wye, 3=120/120/240 3-phase high-leg Delta, 4=277/480 3-phase Wye, 5=480 3-phase Delta, 6=347/600 3-phase Wye, 8=240/415 3-phase Wye, 9=240 3-phase Delta

Description		VC1	VC2	VC3	VC4	VC5	VC6	VC8	VC9
System Voltage	VAC	120/240	120/208	120/120/240	277/480	480	347/600	240/415	240
System Wiring		3W+G (1-Phase)	4W+G (3-Phase Wye)	4W+G (3-Phase High-Leg Delta)	4W+G (3-Phase Wye)	3W+G (3-Phase Delta)	4W+G (3-Phase Wye)	4W+G (3-Phase Wye)	3W+G (3-Phase Delta)
Maximum Operating Voltage (MCOV)	L-N	150	150	150/320	320		550	320	
	N-G	150	150	150/320	320		550	320	
	L-G	150	150	150	320	550	550	320	320
	L-L	300	300	300/470	640	550	1100	640	640
Voltage Protection Rating (VPR)	L-N	700	700	700	1,200		1,800	1,200	
	N-G	700	700	700	1,000		1,800	1,000	
	L-G	700	700	700	1,000	1,800	1,800	1,000	1,200
	L-L	1,000	1,000	1,800	1,800	3,000	3,000	1,800	1,800
Operating Current (Ic)		<10 mA	<10 mA	<30 mA	<10 mA	<30 mA	<10 mA	<10 mA	<30 mA
Follow Current (If)		None							
Maximum Leakage Current (Ipe)		1 mA							
Maximum Fuse Rating		200A, Class J							
Frequency (f)		50/60/400 Hz							
Nominal Discharge Current Per Mode (In)		20kA							
Maximum Discharge Current (Imax)		120kA–240kA Per Phase							
Short Circuit Current Rating (SCCR)		200kA							
EMI/RFI Filtering		1283 Electromagnetic Interference Filter (-40 dB)							
Thermal Disconnect		Internal to Each Component							
Overload Disconnect		Internal to Each Device							
Operating Temperature		-40 to +85°C							
Housing-Enclosure Material		NEMA 4X Polymer							
Mounting Type		Nipple Mount or Wall Mounting by Screws (Not Included)							
Connection Type		Lead Length: 40" / #10 AWG							
Environmental Rating		NEMA 4X, IP65, IP66, Indoor/Outdoor							
Standards, Compliance or Recognition		UL 1449 5th Edition Type 1 Listed, UL Listed to US and Canadian Safety Standards							

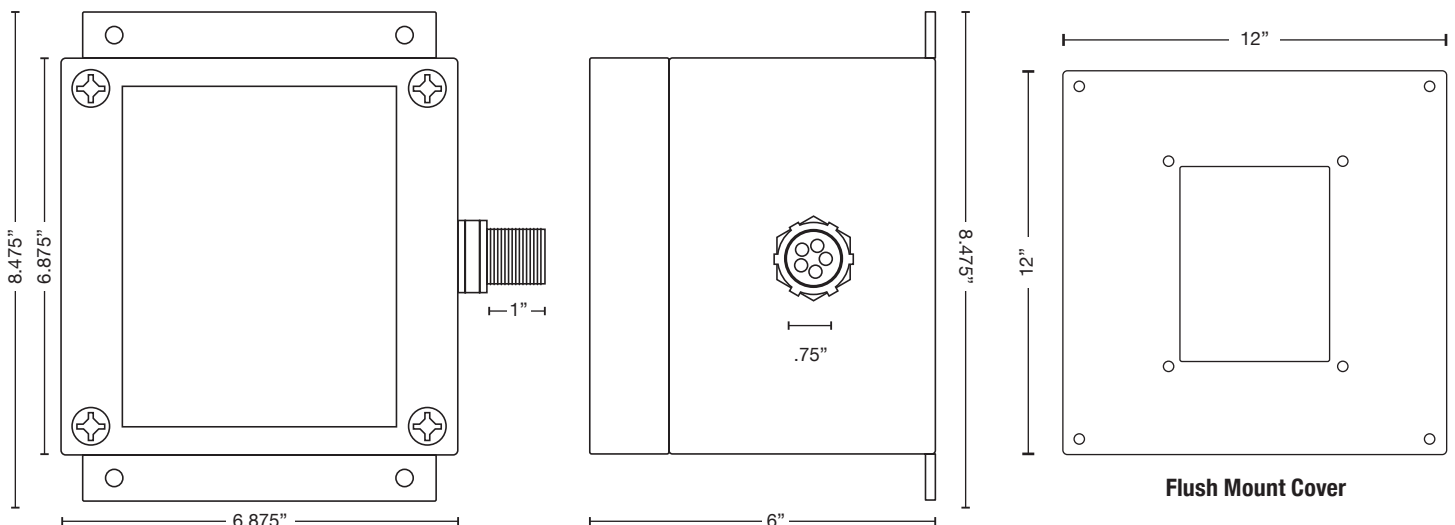
The Category 3 Hurricane is a high-performance SPD designed and built to combine exceptional performance with outstanding value. This multi-stage hybrid design provides “best-in-class” performance. Standard diagnostics include a surge counter, alarm, contacts and EoL indicator. Category 3 Hurricanes are available for all single and three phase configurations up to 600VAC and are housed in a NEMA 4X, cast aluminum indoor/outdoor enclosure.

Features

- I_{max}: 120 or 240kA per phase
- I_n: 20kA
- Thermally fused metal oxide varistor (TFMOV) suppression with added gas discharge tube (GDT) technology
- Real-time per phase LED indicators, audible alarm, remote contacts and surge counter are standard
- Smart diagnostic, indicating remaining surge capacity
- Sine wave tracking
- EMI/RFI noise filtration
- NEMA 4X (IP66) indoor/outdoor rated enclosure
- 25 year warranty

Add-On Items

- Flush mount cover (6" wall depth required) - Item# C3-FMC



Part Number Breakdown

C3H(#)-(###)-4XM

- **Surge Rating Identifier:** 120=120kA/phase, 240=240kA/phase
- **Voltage Identifier:** 1=120/240 1-phase, 2=120/208 3-phase Wye, 3=120/120/240 3-phase high-leg Delta, 4=277/480 3-phase Wye, 5=480 3-phase Delta, 6=347/600 3-phase Wye, 7=600 3-phase Delta, 8=220/380 3-phase Wye, 9=240 3-phase Delta

Description		C3H1	C3H2	C3H3	C3H4	C3H5	C3H6	C3H7	C3H8	C3H9
System Voltage	VAC	120/240	120/208	120/120/240	277/480	480	347/600	600	220/380	240
System Wiring		3W+G (1-Phase)	4W+G (3-Phase Wye)	4W+G (3-Phase High-Leg Delta)	4W+G (3-Phase Wye)	3W+G (3-Phase Delta)	4W+G (3-Phase Wye)	3W+G (3-Phase Delta)	4W+G (3-Phase Wye)	3W+G (3-Phase Delta)
Maximum Operating Voltage (MCOV)	L-N	150	150	150/350	350		460		300	
	N-G	150	150	150	350		460		300	
	L-G	150	150	150/350	350	700	460	920	300	300
	L-L	300	300	300/450	700	700	920	920	600	300
Voltage Protection Rating (VPR)	L-N	700	700	700/1,200	1,200		1,500		900	
	N-G	800	800	800/1,200	1,500		1,500		1,200	
	L-G	800	800	800/1,200	1,200	1,800	1,500	2,500	1,200	1,200
	L-L	1,200	1,200	1,200/2,000	1,800	3,000	2,500	3,000	1,500	1,500
Operating Current (Ic)		<10 mA	<10 mA	<30 mA	<10 mA	<30 mA	<10 mA	<30 mA	<10 mA	<30 mA
Follow Current (If)		None								
Maximum Leakage Current (Ipe)		1 mA								
Frequency (f)		50/60/400 Hz								
Nominal Discharge Current Per Mode (In)		20kA								
Maximum Discharge Current (Imax)		120kA, 240kA (Depending on Model)								
Short Circuit Current Rating (SCCR)		200kA								
EMI/RFI Filtering		1283 Electromagnetic Interference Filter (-40 dB)								
Thermal Disconnecter		Internal to Each Component								
Overload Disconnecter		Internal to Each Device								
Operating Temperature		-40 to +85°C								
Housing-Enclosure Material		NEMA 4X Aluminum								
Mounting Type		Nipple/Wall Mounting or Flush Mount (Cover Not Included)								
Environmental Rating		NEMA 4/12, NEMA 4X, IP66, Indoor/Outdoor								
Connection Type		Lead Length: 36" / #10 AWG								
Standards Compliance or Recognition		UL 1449 5th Edition Type 1 Listed, UL Listed to US and Canadian Safety Standards								

The Category 4 Hurricane is a high-performance SPD designed for critical panels located in the harshest environments. The Category 4 Hurricane is available for all single and three phase configurations up to 600VAC and is housed in a NEMA 4/12 rated metal enclosure or NEMA 4X stainless steel option.

Features

- I_{max}: 200 to 400kA per phase
- I_n: 20kA
- Thermally fused metal oxide varistor (TFMOV) suppression plus added gas discharge tube (GDT) technology and capacitive filtering
- Real-time per phase LED indicators, audible alarm, remote contacts
- Smart diagnostic, indicating remaining surge capacity
- Sine wave tracking
- EMI/RFI noise filtration (-40db)
- NEMA 4/12/13 (IP66) indoor/outdoor rated enclosure
- 25 year warranty

Add-On Options

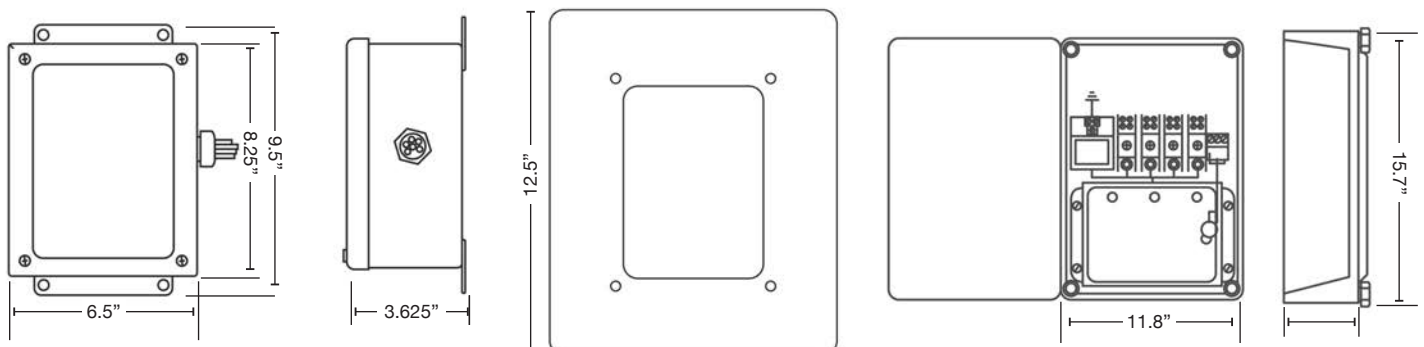
- Surge counter - available on ALL versions
- Integral disconnect - hardwire version ONLY
- NEMA 4X stainless steel
- Flush mount cover - Item# H4-FMC



Nipple Mount Version



Hardwire Version



Part Number Breakdown

H(##)C(##)00-(###)T1-(#)

- **Add On Options:** **SC**=Surge counter, **DS**=Rotary disconnect
- **NEMA Rating/Mounting Type:** **04N**=NEMA 4/12/13 (with leads), **4XN**=NEMA 4X stainless (with leads), **4XH**=NEMA 4X polycarbonate (no leads)
- **Surge Rating Identifier:** **2**=200kA/phase, **3**=300kA/phase, **4**=400kA/phase
- **Voltage Identifier:** **1**=120/240 1-phase, **2**=120/208 3-phase Wye, **3**=120/120/240 3-phase high-leg Delta, **4**=277/480 3-phase Wye, **5**=480 3-phase Delta, **6**=347/600 3-phase Wye, **7**=600 3-phase Delta, **8**=220/380 3-phase Wye, **9**=240 3-phase Delta

Description		H1C	H2C	H3C	H4C	H5C	H6C	H7C	H8C	H9C
System Voltage	VAC	120/240	120/208	120/120/240	277/480	480	347/600	600	220/380	240
System Wiring		3W+G (1-Phase)	4W+G (3-Phase Wye)	4W+G (3-Phase High-Leg Delta)	4W+G (3-Phase Wye)	3W+G (3-Phase Delta)	4W+G (3-Phase Wye)	3W+G (3-Phase Delta)	4W+G (3-Phase Wye)	3W+G (3-Phase Delta)
Maximum Operating Voltage (MCOV)	L-N	150	150	150/320	320		550		275	
	N-G	150	150	150	320		550		275	
	L-G	150	150	150/320	320	550	550	750	275	275
	L-L	300	300	320	550	550	750	750	550	275
Voltage Protection Rating (VPR)	L-N	700	700	700/1,200	1,000		1,800		1,000	
	N-G	700	700	700/1,200	1,000		1,800		1,000	
	L-G	700	700	700/1,200	1,000	1,800	1,800	1,800	1,000	1,000
	L-L	1,000	1,000	1,000/3,000	1,800	3,000	3,000	3,000	1,800	1,800
Operating Current (Ic)		<10 mA	<10 mA	<30 mA	<10 mA	<30 mA	<10 mA	<30 mA	<10 mA	<30 mA
Follow Current (If)		None								
Maximum Leakage Current (Ipe)		1 mA								
Maximum Recommended Fuse if Any		200A, Class J								
Frequency (f)		50/60/400 Hz								
Nominal Discharge Current Per Mode (In)		20kA								
Maximum Discharge Current (Imax)		200–400kA (Depending on Model)								
Short Circuit Current Rating (SCCR)		200kA								
EMI/RFI Filtering		1283 Electromagnetic Interference Filter (-40 dB)								
Thermal Disconnecter		Internal to Each Component								
Overload Disconnecter		Internal to Each Device								
Operating Temperature		-40 to +85°C								
Housing-Enclosure Material		Nipple Version: NEMA 4 Steel or NEMA 4X Stainless Steel, Hardwire Version: NEMA 4X Polycarbonate								
Mounting Type		Nipple Mount or Wall Mounting by Screws (Not Included)								
Environmental Rating		NEMA 4/12/13 Stainless Steel or NEMA 4X Polycarbonate, IP66, Indoor/Outdoor								
Connection Type		Lead Length: 30" / #10 AWG								
Standards, Compliance or Recognition		UL 1449 5th Edition Type 1 Listed, UL Listed to US and Canadian Safety Standards								

The Category 5 Hurricane is the culmination of years of technological research and innovation. This series provides state of the art protection from 200kA to 750kA per phase. Available in all 1-phase and 3-phase voltage configurations. All models available in 7 mode and 10 mode configuration with replaceable modules by mode eliminating unnecessary down time and costly repair or replacement.

Features

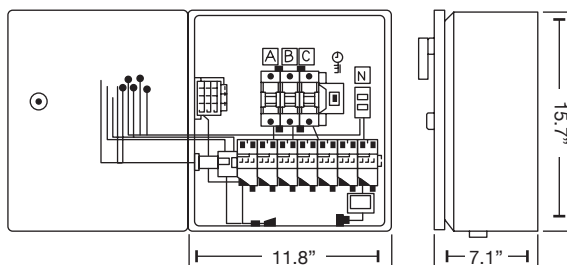
- I_{max}: 200–750kA per phase
- I_n: 20kA
- Thermally fused metal oxide varistor (TFMOV) suppression with added gas discharge tube (GDT) technology
- Real-time LED indicators, audible alarm with silence remote contacts, push to test and surge counter with reset
- Sine wave tracking
- EMI/RFI noise filtration (-40db)
- Field replaceable modules
- Available in 7 and 10 mode configurations
- NEMA 4 (IP66) indoor/outdoor rated steel enclosure
- 10 year warranty

Add-On Options

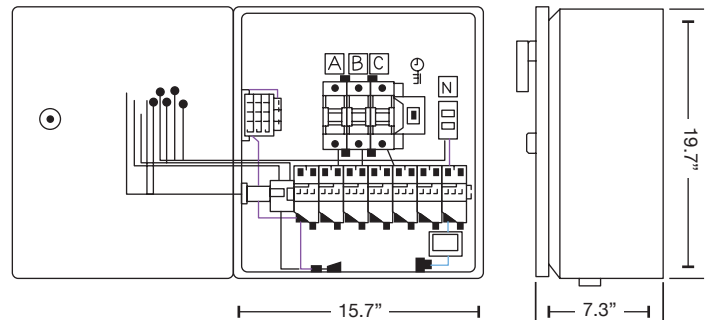
- NEMA 4X polycarbonate enclosure
- Integral disconnect
- NEMA 4X stainless steel
- 15 and 25 year warranty upgrade available on all versions



200–400kA



500–750kA



Part Number Breakdown

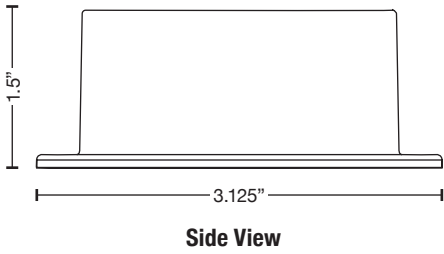
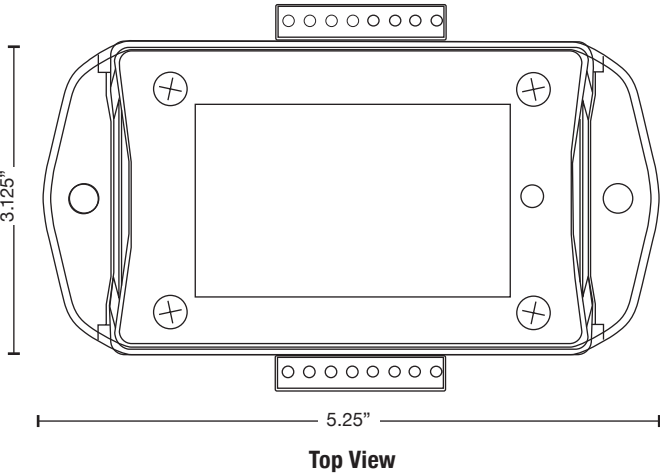
H(##)C(##)00-(###)M-(#)-(##)

- **Add On Options:** I=Internal disconnect, E=External disconnect
- **Protection Modes:** A=All-mode (10 mode), Leave Blank=7 mode
- **NEMA Rating:** 04H=NEMA 4, 4XS=NEMA 4X stainless, 4XP=NEMA 4X polycarbonate
- **Surge Rating Identifier:** 2=200kA/phase, 3=300kA/phase, 4=400kA/phase, 6=600kA/phase, 7=750kA/phase
- **Voltage Identifier:** 1=120/240 1-phase, 2=120/208 3-phase Wye, 3=120/120/240 3-phase high-leg Delta, 4=277/480 3-phase Wye, 5=480 3-phase Delta, 6=347/600 3-phase Wye, 7=600 3-phase Delta, 8=240/415 3-phase Wye, 9=240 3-phase Delta

Description		H1C	H2C	H3C	H4C	H5C	H6C	H7C	H8C	H9C
System Voltage	VAC	120/240	120/208	120/120/240	277/480	480	347/600	600	220/380	240
System Wiring		3W+G (1-phase)	4W+G (3-Phase Wye)	4W+G (3-Phase High-Leg Delta)	4W+G (3-Phase Wye)	3W+G (3-Phase Delta)	4W+G (3-Phase Wye)	3W+G (3-Phase Delta)	4W+G (3-Phase Wye)	3W+G (3-Phase Delta)
Maximum Operating Voltage (MCOV)	L-N	150	150	150/320	320		550		275	
	N-G	150	150	150	320		550		275	
	L-G	150	150	150/320	320	550	550	750	275	275
	L-L	300	300	320	550	550	750	750	550	275
Voltage Protection Rating (VPR)	L-N	800	800	800/1,200	1,200		1,800		1,200	
	N-G	800	800	800/1,200	1,200		1,800		1,200	
	L-G	900	900	800/1,200	1,500	1,800	1,800	2,000	1,500	1,200
	L-L	1,800	1,800	1,800	2,000	3,000	3,000	2,000	2,000	2,000
Operating Current (Ic)		<10 mA	<10 mA	<30 mA	<10 mA	<30 mA	<10 mA	<30 mA	<10 mA	<30 mA
Follow Current (If)		None								
Maximum Leakage Current (Ipe)		1 mA								
Maximum Recommended Fuse if Any		200A								
Frequency (f)		50/60/400 Hz								
Nominal Discharge Current Per Mode (In)		20kA								
Maximum Discharge Current (Imax)		200-750kA (Depending on Model)								
Short Circuit Current Rating (SCCR)		200kA								
EMI/RFI Filtering		1283 Electromagnetic Interference Filter (-40 dB)								
Thermal Disconnecter		Internal to Each Component								
Overload Disconnecter		Internal to Each Device								
Operating Temperature		-40 to +85°C								
Housing-Enclosure Material		NEMA 4 Steel, NEMA 4X Stainless Steel or NEMA 4X Polycarbonate								
Mounting Type		Wall Mounting by Screws (Not Included)								
Environmental Rating		IP65								
NEMA Rating		NEMA 4/12 or NEMA 4X IP66, Indoor/Outdoor								
Standards, Compliance or Recognition		UL 1449 5th Edition Type 1 Listed, UL Listed to US and Canadian Safety Standards								

Features

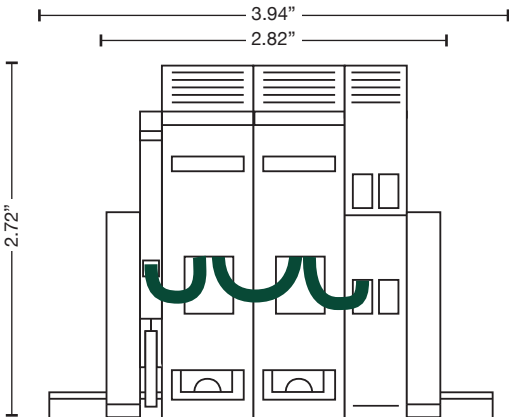
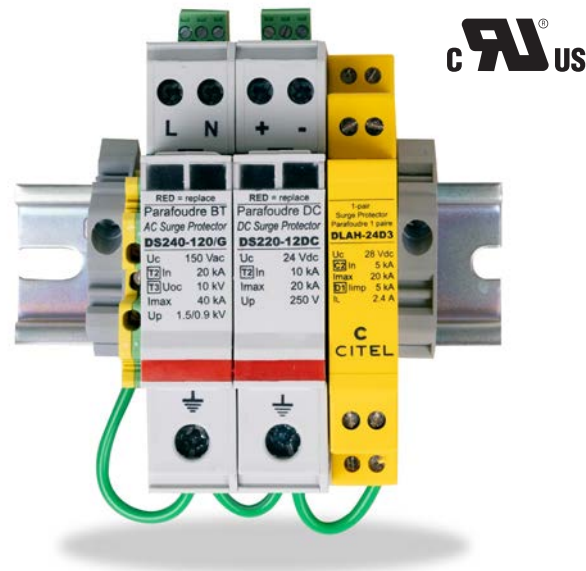
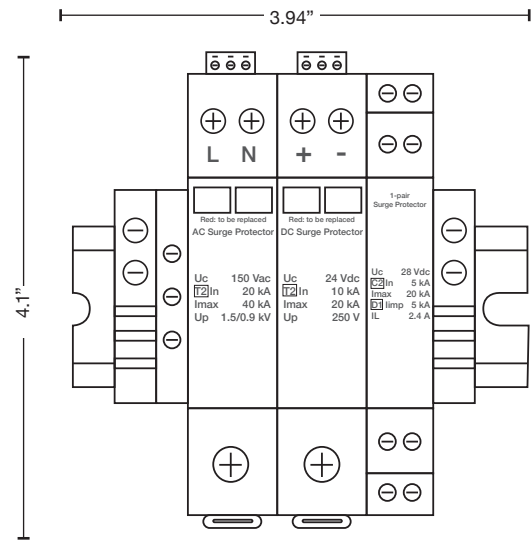
- Universal design works with most generators
- Protects 120VAC charge circuit, 12VDC signal control lines and 120/240VAC sensing lines
- Installs at either (or both of) the generator and ATS
- Flange mount for installation flexibility
- Multiple ground points for optimum performance
- Replaceable terminal strip speeds replacement
- Diagnostic LED monitors protection
- 5 year warranty



Description	Sensing Circuit	Charge Circuit	Signal Control Lines
System Operating Voltage	120 / 240VAC	120VAC	12VDC
System Operating Current	<10A		
Maximum Continuous Operating Voltage (MCOV)	150 / 300VAC	150VAC	18VDC
Nominal Discharge Current Per Mode (In)	10kA		
Maximum Discharge Current (Imax) Per Mode	25kA	25kA	8kA
EMI/RFI Filtering	Yes		
Thermal Disconnecter	Yes		
Overload Disconnecter	Yes		
Operating Temperature	-40 to +85°C		
Housing-Enclosure Material	ABS Plastic / UL94 V-0		
Mounting Type	Flange		
Environmental Rating	NEMA 1		
Connection Type	Screw Terminal		
Standards, Compliance or Recognition	Meets ANSI/UL 1449 5th Edition		

Features

- Designed to work with Kohler generators
- Protects charge circuit, 12VDC power and RS485 data
- Installs at either (or both of) the generator and ATS
- DIN-rail mount for installation flexibility
- Multiple ground points for optimum performance
- Dry contacts for remote monitoring on power circuits
- 5 year warranty



Description	Charge Circuit	12VDC Power	RS485 / RS232 Data
System Operating Voltage	120VAC	12VDC	12V–24V Data
System Operating Current	20A	20A	2.4A
Maximum Continuous Operating Voltage (MCOV)	150VAC	24VDC	28VDC
Nominal Discharge Current Per Mode (In)	20kA	10kA	5kA
Maximum Discharge Current (I _{max}) Per Mode	40kA	20kA	20kA
Thermal Disconnecter	Yes	Yes	No
Overload Disconnecter	Yes	Yes	No
Operating Temperature	-40 to +85°C		
Housing-Enclosure Material	ABS Plastic / UL94 V-0		
Mounting Type	DIN-Rail		
Environmental Rating	NEMA 1		
Connection Type	Screw Terminal		
Standards, Compliance or Recognition	UL Recognized Component, CSA	UL Recognized Component, UL 497B Listed	UL 497B Listed

Low Voltage Surge Protectors

DIN-Rail AC Surge Protector



- AC DIN-rail products
- Available from 40kA to 200kA capacity
- Dry contacts and visual indicators available on all products
- Noise filtration assemblies available in all voltages

DIN-Rail DC Surge Protector



- DC surge protection from 12 to 350VDC
- These devices are based on high energy varistors (MOV) matched with the DC operating voltage (from 12 to 350VDC). The MOVs are equipped with internal thermal disconnectors in order to provide safe end of life.

DIN-Rail In-Line Data Surge Device



- 1 and 2 pair series DIN-rail surge protection for Telephone, ADSL/SDSL/SHDSL, ISDN, Fieldbus-H2, 4-20mA, RS232 & RS485, MIC/T2 and 10BaseT
- Available from 6 to 150VDC, 20kA capacity
- Field replaceable modules

CCTV & Cable Protector



- The P8AX series coaxial surge protectors have been designed to protect antennas, microwaves, broadband applications, two-way radios, cellular, GPS and CATV equipment against lightning surges and electrical transients
- A first line of defense for your sensitive equipment
- Available in a broad selection of connector types

Two/Four Pair Data Line Protector



- B180/480 series are wall mount DC signal line surge protectors designed to protect your sensitive telephone, datacom and instrumentation equipment against harmful lightning surges and electrical transients

RJ45/RJ45 POE Surge Protector



- The MJ8/MJ8POE series is designed to protect sensitive data-monitoring equipment connected to various network protocols from transient over voltages
- The transient protection circuit is based on high energy gas discharge tubes (GDT) and a network of fast response silicon avalanche diodes (SAD) to achieve sharp clamping of very large surge events

Type 1 PV Surge Protector



- Photovoltaic surge protectors 500 to 1,000VDC with 40kA I_{max}
- Type 1 UL SPD with high energy MOVs, I_{max} 40kA modular design is UL 1449 5th edition listed
- Available in 500, 600, 800 and 1,000VDC configurations
- DIN-rail mount

Marine Plug Strip

- Commercial grade plug strip
- 6 plug, NEMA 515 outlet
- Complies with CID # A-A-50622
- 15A capacity
- UL listed



PSP Load Shedding and Load Management

Cutting edge, innovative, and next generation are all terms that have been used to described PSP Products' generator load management systems.

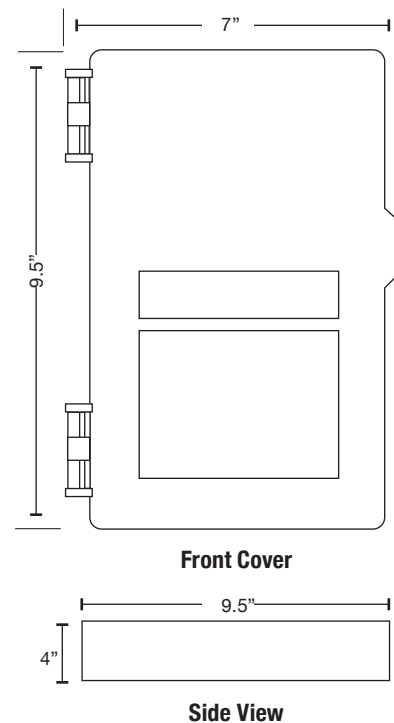
PSP is the industry leader in load management systems. Some of our "Industry Firsts" include magnetic latching relays instead of contactors up to 600A to eliminate hum and chatter, and wireless load management up to 200A.

Designed for new installation of electric vehicle chargers (EVC) and other load management / peak shaving applications.

Allows loads up to 60A to be added to any main service panel or sub panel that is at risk of overload, or will become overloaded, when a new load is introduced. The onboard intelligent micro-controller monitors the load on the existing panel and only allows the added load access to the panel when capacity is available. Installation requires open breaker.

Features

- Can be installed on any main or sub panel up to 1,000A to add managed loads up to 60A continuous.
- Adapts to any application using the precision field adjustable set points. These maximize access to the added load and prevent looping.
- Field adjustable set points include: panel overload amperage, overload inrush cutoff delay, restore amperage threshold, load restore delay time and line-loss compensation adjustment for CTs. Controller LCD displays actual real-time amperage on panel.
- Prevents overloading and saves costly upgrades to panel and/or electrical infrastructure.
- Controller is self-powered from line in voltage. External power supply not required. Can control 120VAC single pole or 208-240VAC double pole circuits.
- Utilizes a magnetic latching relay for long-term reliability, and box-lug in and out terminals for ease of installation.
- Complies with NEC 2023 Art. 750, as permitted by Art. 220.70 (Energy Management Systems)
- Split core CTs available in 100A, 250A, 500A and 1,000A ratings.
- CTs prewired with 12' #18 AWG shielded UL approved leads
- Comes standard in polycarbonate 3R enclosure. Available in NEMA 01, 03, 04 steel and stainless steel enclosures.
- UL listed to US and Canadian safety standards
- 2 year warranty



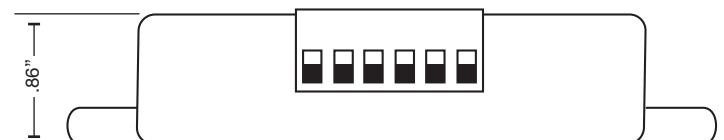
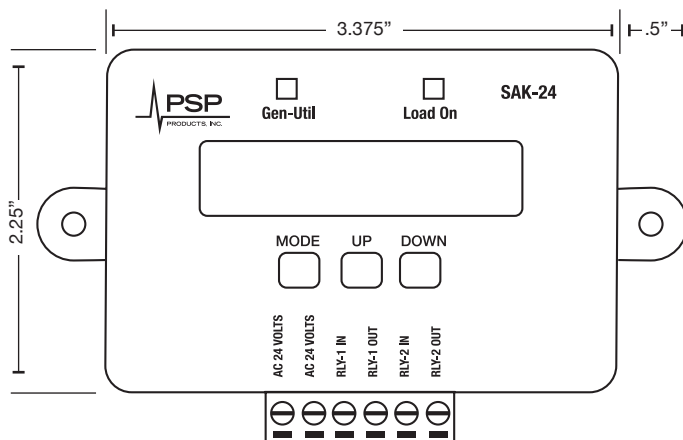
The SAK-24 provides a wireless solution to control loads of devices with form "A" dry contact. The contacts are rated for up to 5A and 250VAC to control a broad range of applications. The SAK-24 is powered by 24VAC that can be derived from anywhere within the electrical system. A connection or control wire back to the generator or transfer switch is not required.

When a power outage occurs, and power is restored, the SAK-24 will open the relays and begin to analyze the AC power from the input. When utility power is detected the SAK-24 will close the relay after 2–5 minutes and enter into a sleep mode until the next outage occurs. When generator voltage is detected the relay will remain open and the SAK-24 will continue to monitor the AC line waveform. When utility power returns, the load will be restored after 2–5 minutes and the SAK-24 will enter sleep mode until a power outage occurs.



Features

- Wireless technology drops load when generator power is detected
- No control wires needed from the transfer switch
- Can be installed anywhere in the electrical system that is 24VAC accessible
- 2 form "A" control dry contacts
- Mounting flanges for surface mount installation
- Time delay "on" function
- User adjustable startup delay and under frequency restoration timers provide an unlimited number of devices with custom priority settings
- Adjustable frequency drop out settings and delay times for under frequency detection
- Precision adjustments from 50.0 to 59.9 Hz for frequency and from 00.1 to 10.9 seconds delay before load shedding
- Overload detection locks out connected device for an adjustable period of time whenever the restored load overloads a generator
- All adjustments are performed in minutes with three buttons using the LCD display
- Compact size
- 2 year warranty



Proprietary, adaptable generator detection and under frequency circuitry for precision wireless load dropping and load management functions.

Features

- NO/NC dry-contact control input
- Time delay “on” function
- User adjustable startup delay and under frequency restoration timers provide an unlimited number of devices with custom priority settings
- Adjustable frequency drop out settings and delay times for under frequency detection
- Precision adjustments from 50.0 to 59.9 Hz for frequency and from 00.1 to 10.9 seconds delay before load shed
- Nuisance load detection locks out load for an adjustable extended period of time whenever a restored load immediately overloads a generator
- Installs inline with 120VAC or 240VAC volt connected load
- Relay is self powered from Line IN voltage, no external power supply needed
- Complies with NEC 2023 Art. 750, as permitted by Art. 220.70 (Energy Management Systems)
- Switches at zero cross over point for maximum life expectancy
- Can be installed as a standalone hardwired 60A latching relay with dry-contact control inputs
- Can be installed as a 60A time delay relay up to 999 seconds
- Can be used as a 60A over/under voltage protection relay with brownout and short cycle protection
- No computer or programming tool required, all adjustments are performed in minutes with three buttons using the LCD display
- Compact size
- Snap on finger guards
- Accepts wire size up to #3 AWG
- UL listed to US and Canadian safety standards
- 2 year warranty



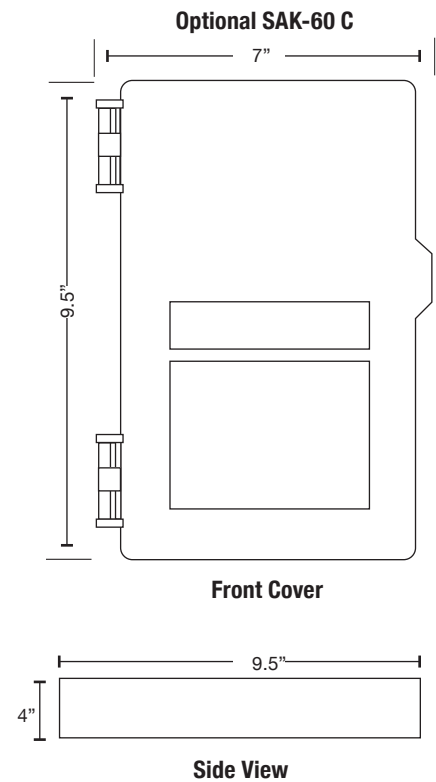
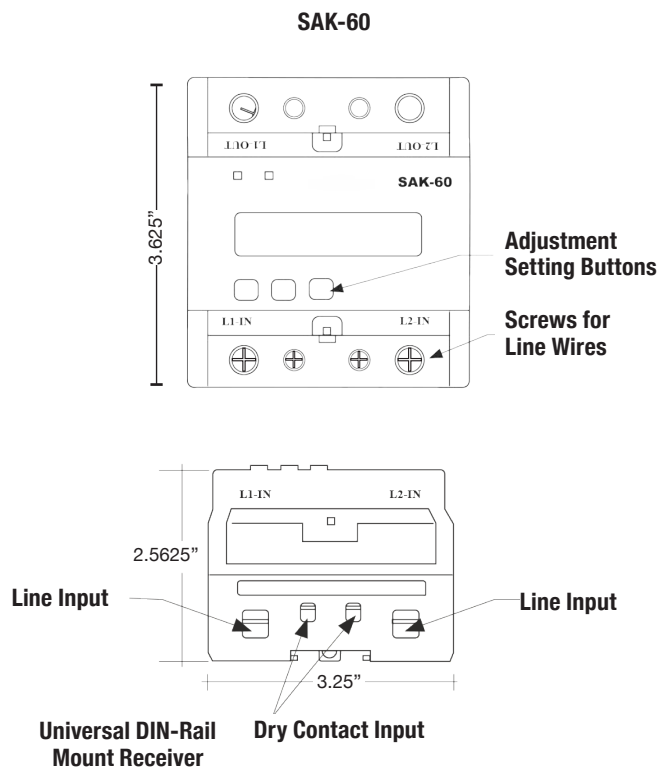
All-in-One 60A Wireless 2-Pole Latching Relay



**Multiple Loads in One Enclosure
for Easy and Clean Installation**

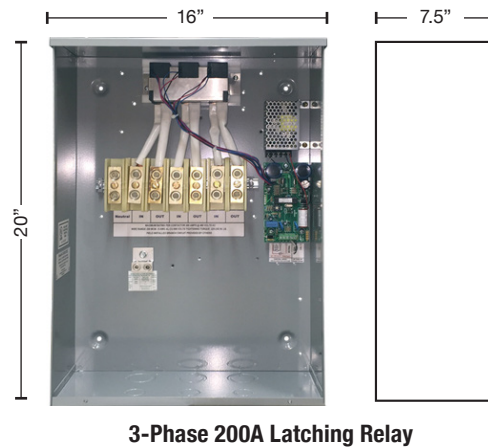
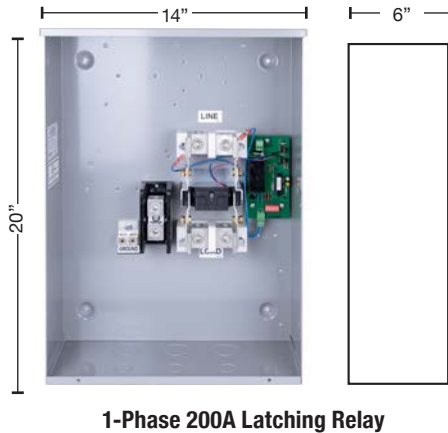
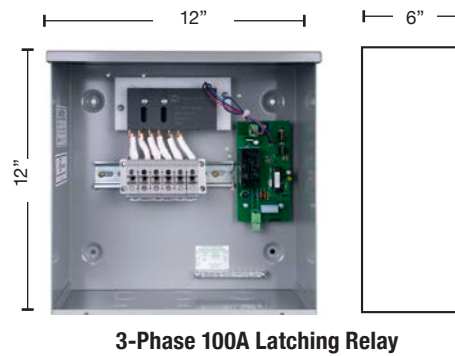
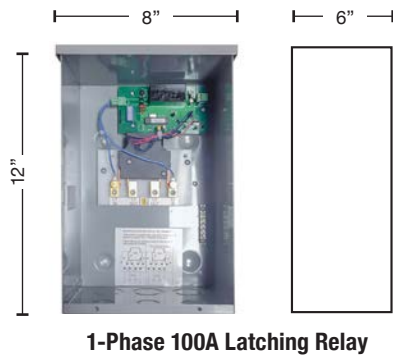
Features

- NEMA 3R enclosure
- Fully assembled
- Ready to mount and wire
- Double latching door locks



Features

- Wireless (air-cooled generators only) or dry contact under frequency load management
- Universal load managing relays work with ANY generator transfer switch or control circuit to quickly lock out or manage loads up to 200A
- Wireless option includes priority time delay of 3–6 minutes for up to 4 loads
- Utilizes magnetic latching relays, eliminating the normal humming, chattering and heat associated with contactors
- Available as a 100A or 200A 1-phase, or 100A or 200A (wired controller only) 3-phase
- UL listed 508 control panel, UL listed to US and Canadian safety standards
- 2 year controller warranty, 5 year warranty on magnetic latching relays



Part Number Breakdown

(#)BX-(#)-(###)-(##)-(#)

- Add On Options: W=Wireless (1 relay, 1-phase only)
- Enclosure: 01=NEMA 1 steel, 3R=NEMA 3R steel, SS=NEMA 4X stainless steel
- Amperage: 100, 200
- Wiring Configuration: 1=1-phase, 3=3-phase
- Relays: 1, 2, 4

Features

- Universal load shedding system works with ANY generator or transfer switch in managing 2–4 circuits from 20 to 100A each and up to 2 HVAC systems using low voltage circuits
- Field programmable using installer programming tool
- Utilizes CT inputs for precision load management and to reduce the possibility of overloading generators
- Program adjustments include: generator available amperage, start up delay, amperage of each load
- Utilizes magnetic latching relays eliminating the normal humming, chattering and heat associated with contactors
- Assembled in NEMA 1 steel enclosure; NEMA 3R raintight enclosure optional
- Compact flush mount version fits inside of studs and optional flush mount cover extends .75" past edge of can on all 4 sides for finished walls
- UL listed 508 control panel, UL listed to US and Canadian safety standards
- 2 year controller warranty, 5 year warranty on magnetic latching relays



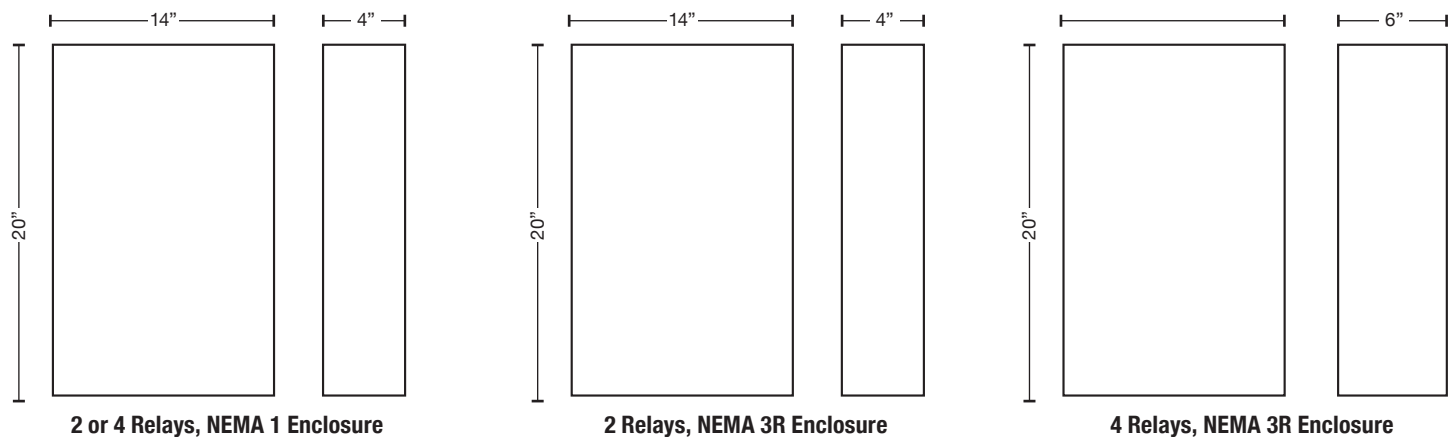
Easy-to-Use 3 Button
Programming Module
with LCD display



Includes Dual CTs for Precision
Load Shedding Control

Add-On Items

- 23–100KW requires CT Upgrade Kit PCB for liquid cooled generators – Item# Model-2274



Part Number Breakdown

(#)CX-100-(##)

- Enclosure: 01=NEMA 1 steel, 3R=NEMA 3R steel, SS=NEMA 4X stainless steel
- Relays: 2, 4

Features

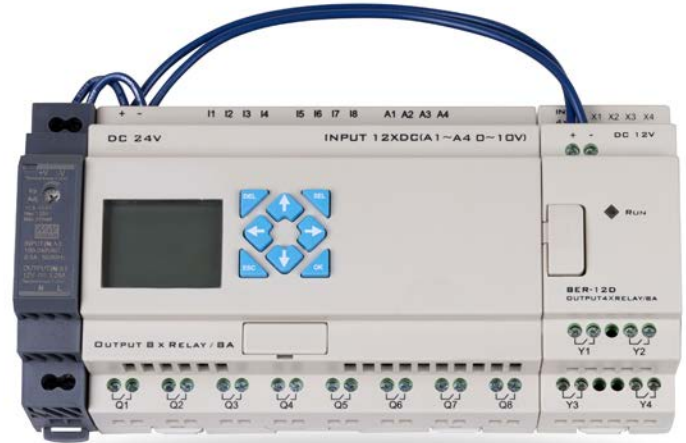
- Uses current transformers to read the generator's actual current and accurately manage loads to prevent overloading
- Robust programming features allow for customization to meet almost any application
- CTs sold separately
- Field programmable with front panel controls (no laptop or programming tool required)
- Available in 1-phase or 3-phase
- Available in 4, 8, and 12 load configurations; each load can be independently controlled or locked out
- Small DIN-rail mount footprint allows for installation in most transfer switches
- Easy to use, entire program can be set up in 5 minutes or less
- 2 year warranty



LSC-04
1-Phase



LSC-08
1-Phase or 3-Phase

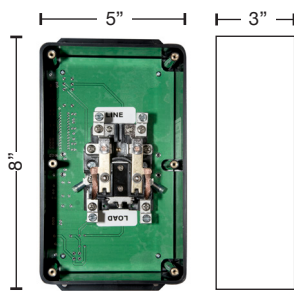


LSC-12
1-Phase or 3-Phase

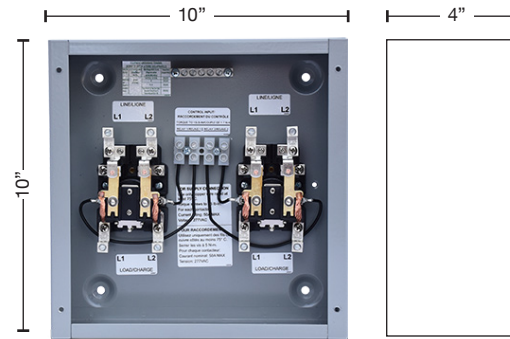
Description	LSC-04	LSC-08	LSC-12
Input Voltage	120VAC with 24 VDC power supply		
Number of control relays (SPST 8A resistive load)	4	8	12
Display	4 line, 16 Character LCD		
Program interface	8 Programming Keys		
Memory Type	Retentive Flash Memory		
Analog Inputs	10-bit, 0-10 VDC		
Terminal Wire Size	#26-16 AWG		
Operating Temperature	-40 to +80°C		
Mounting Type	DIN-Rail		
Standards, Compliance or Recognition	UL Listed to US and Canadian Safety Standards		

Features

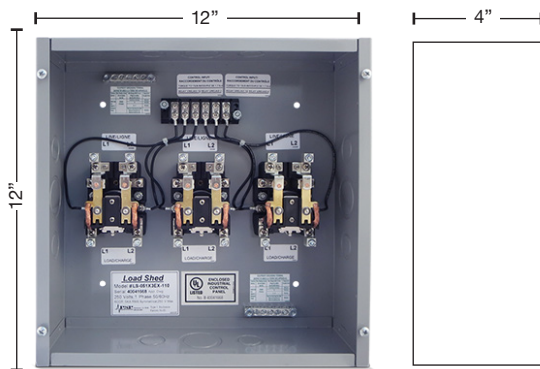
- Relays available individually or as pre-assembled enclosures with (1), (2), (3) or (4) 50A normally closed relay(s)
- Box lug termination
- Small footprint, standard open frame configuration
- Available as an individual component or mounted in NEMA 1 or 3R enclosures with grounding bar
- Low profile allows for flush mounting in standard 2x4" stud wall with optional flush mount cover (1/2/3 relay versions)
- UL listed 508 control panel, UL listed to US and Canadian safety standards
- 2 year warranty



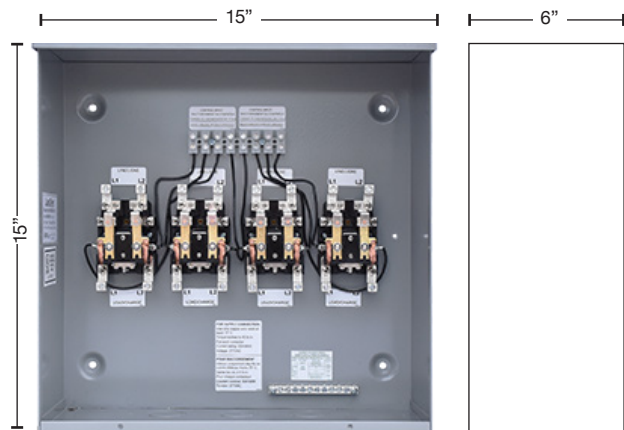
1 Relay, NEMA 1 Enclosure



2 Relays, NEMA 1 Enclosure



3 or 4 Relays, NEMA 1 Enclosure



4 Relays, NEMA 3R Enclosure

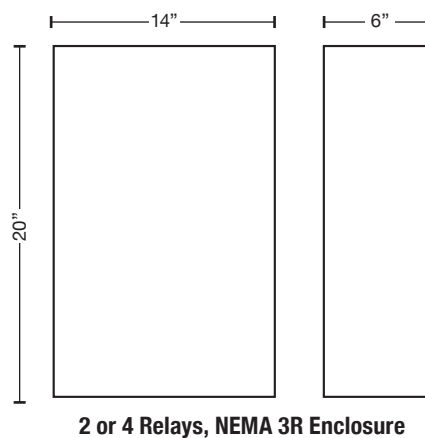
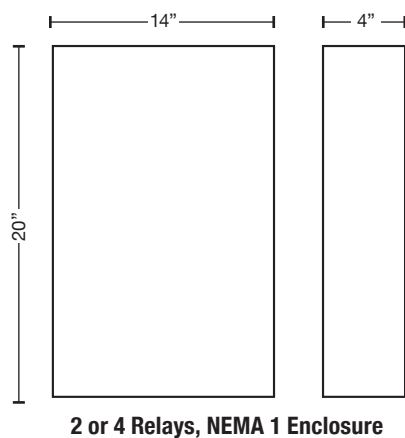
Part Number Breakdown

(#)EX-050-(##)-(###)

- Add On Options: Coil voltage=12, 24, 120, 240
- Enclosure: 01=NEMA 1 ABS (1 Relay) or NEMA 1 steel (2-4 relays), 3R= NEMA 3R steel
- Relays: 1, 2, 3, 4

Features

- Universal load shedding system works with almost any generator or transfer switch in managing 2–4 circuits from 20 to 100A each
- Directly connects to any Kohler®, Generac® or Cummins® load shedding module – even the new Generac® low voltage board
- Utilizes magnetic latching relays eliminating the normal humming, chattering and heat associated with contactors
- Assembled in NEMA 1 steel enclosure; NEMA 3R raintight enclosure optional
- Compact flush mount version fits inside of studs and optional flush mount cover extends .75" past edge of can on all 4 sides for finished walls
- UL listed 508 control panel, UL listed to US and Canadian safety standards
- 2 year PCB warranty, 5 year warranty on magnetic latching relays



Part Number Breakdown

(#)LX-100-(#)

- Enclosure: 01= NEMA 1 Steel, 3R= NEMA 3R Steel
- Relays: 2/4

NCR-50A | Universal Normally Closed Load Shed Relay

Features

- Available as individual relays or with 1, 2, 3 or 4 relays with termination blocks and grounding bar (EX Series)
- Specify 12V, 24V, 120V or 240V coil voltage
- Box lug termination for easy installation
- Small footprint
- Standard open-frame relay configuration
- Available as individual items or in a variety of enclosure configurations including NEMA 1 and NEMA 3R
- UL listed to US and Canadian safety standards
- 2 year warranty



NOC Series | Universal Normally Open Load Shed Contactors

Features

- Universal load shedding normally open contactors
- 50, 65, and 100A contactor modules
- Specify 24V, 120V or 240V coil
- Provides load shedding capabilities for circuits up to 100A
- Reduces installation time and space requirements and assists in meeting the new NEC codes
- DIN-rail mounting allows for fast and easy customization for any configuration required
- Available as individual items or can be pre-installed in a variety of enclosure configurations including NEMA 1 and NEMA 3R
- UL listed to US and Canadian safety standards
- 2 year warranty



KTSE-1 | Kohler® RXT Transfer Switch Expander

Features

- Daisy chain multiple RXT transfer switches
- Works with Kohler RXT-JFNC models up to 200A
- Eliminates need for RDT switch as slave switch
- Comes with components necessary for a successful installation
- Transfer switch control board harness (P13 connector), plugs into jumper connector provided with KTSE-1 for added safety
- LED light illuminates upon transfer to generator power
- Maintenance free, requires no batteries or adjustments
- RXT control board can be removed from slave transfer switches
- Small footprint that easily installs in transfer switch enclosure where control board was located
- One unit required for each slave switch being installed
- 5 year warranty



KTSE-3 | 3-Phase Kohler® RXT Transfer Switch Expander

Features

- For 120/208VAC RXT transfer switches up to 200A
- Daisy chain multiple RXT transfer switches
- Allows use of cost-effective RXT switches for 3-phase application
- Transfer switch control board plug connects directly into the RXT expander
- LED light illuminates upon transfer to generator power
- Maintenance free, requires no batteries or adjustments
- RXT control board can be removed from slave transfer switches
- Small footprint that easily installs in transfer switch enclosure where control board was located
- One unit required for each slave switch being installed
- 5 year warranty



KTWS-1 | Kohler® RBUS to 2-Wire Start Converter

Features

- Allows a 2-wire start generator to be installed without having to change the transfer switch or wiring between the transfer switch and generator
- Works with all 1-phase Kohler RXT models
- Provides the necessary voltage sensing, timing functions and switching circuits required for automatic operation
- Converts from RBUS connections to 2-wire start
- Connects to any 2-wire start generator
- Utility loss timer selectable 5 seconds or 30 sec.
- Generator cool-down: 10 sec., 300 sec., or 600 sec.
- Utility return transfer timer selectable between 30 sec., 129 sec., or 600 sec.
- LED lights to indicate utility mode, generator mode, and transfer
- Connects to factory P-13 connector for easy installation
- 2 year warranty

Add-On Items

- Weekly exercise timer – Item# DTS-1



How it Works

When utility power fails, the KTWS-1 will pause for 5 seconds to ensure an actual power outage has occurred. The KTWS-1 will then initiate a 2-wire generator start signal, starting up the generator. After a 10 second warm-up period it will confirm the generator voltage is within acceptable levels and will then output the generator transfer signal.

When utility power is restored, it will determine power is stable and within 10 seconds the generator will start the cool down period. After 129 seconds the KTWS-1 will automatically transfer the power back to utility.

KGC-1 | 240VAC Sensing ATS to 2-Wire Start Converter

Features

- Allows any 2-wire start generator to be installed without having to change the transfer switch or wiring between the transfer switch and generator.
- Provides the necessary voltage sensing, timing functions and switching circuits required for automatic operation
- Works with Generac® and Briggs & Stratton® transfer switches
- Utility loss timer selectable 5 seconds or 30 sec.
- Generator cool-down: 10 sec., 300 sec., or 600 sec.
- Utility return transfer timer selectable between 30 sec., 129 sec., or 600 sec.
- LED lights to indicate utility mode, generator mode, and transfer
- 3-phase models available - consult factory
- 2 year warranty

Add-On Items

- Weekly exercise timer – Item# DTS-1



How it works

When utility power fails, the KGC-1 will pause for 5 seconds to ensure an actual power outage has occurred. The KGC-1 will then initiate a 2-wire generator start signal, starting up the generator. After a 10 second warm-up period the KGC-1 will confirm the generator voltage is within acceptable levels and will then output the generator transfer signal.

When utility power is restored, the KGC-1 will determine power is stable and within 10 seconds the generator will start the cool down period. After 129 seconds the KGC-1 will automatically transfer the power back to utility.

PSP Products Inc. has served the industrial, commercial, utility and residential markets for over 30 years by providing superior products and services. From our humble beginnings in the office products industry, we have evolved into a forward-thinking company offering innovative products to meet the demand of an ever-changing market.

We strongly believe that our customer is our most valuable asset. Unlike many of our larger competitors, we believe in working for our customers and conforming to meet their needs, not ours. We stand ready to assist in any way possible, supporting our customers through challenges and unique/urgent requirements they may encounter.

