

Surge Protector and Filter Specifications

Bulletin Numbers 4983-DC, 4983-DD, 4983-DH, 4983-DS, 4983-PF

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Summary of Changes

This publication contains new and updated information as indicated in the following table.

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DIN Rail Heavy Duty AC Surge Protectors, 4983-DH

Bulletin 4983-DH is a heavy-duty surge protector. This SPD combines a high-energy varistor (MOV) network with a gas discharge tube to increase performance in protection level, life duration, and suppression of leakage current. The Bulletin 4983-DH product is connected in parallel.

Features

- Highest energy absorption capability of all Bulletin 4893 products
- Robust design avoids unnecessary replacement
- DIN Rail mounted Type 2
- Visual status indicator (on unit)
- Remote status indicator



Product Selection

- N = Neutral
- L/N = Line/neutral
- N/G = Neutral/ground

AC Network	Connection Mode	No. of Poles and Devices Needed	Max. Continuous Operating Voltage (MCOV) (U_c) [V AC]	Lightning Current 10/350 μ s (I_{imp}) [kA]	Max. Discharge Current 8/20 μ s (I_{max}) [kA]	Nominal Discharge Current 8/20 μ s (I_n) [kA]	Protection Level (U_p) [kV]	Measured Limited Voltage [Vpk]	Appropriate Fusing ⁽¹⁾ [A Max.]	Cat. No.
120	L/G or N/G	1	150	25	70	20	1.0	1580	250	4983-DH120-25
	L/G, N/G	2								
120/208	L1/G, L2/G, L3/G, N/G	4	330	25	70	20	1.5	1850	250	4983-DH300-25
230/400	L/G or N/G	1								
	L/G, N/G	2								
	L1/G, L2/G, L3/G, N/G	3								
	L1/G, L2/G, L3/G, N/G	4								
277/480Y	L1/G, L2/G, L3/G, N/G	4	330	50	70	20	1.5	1580	500	4983-DH300-50
230/400	L/G or N/G	1								
	L/G, N/G	2								
	L1/G, L2/G, L3/G or N/G	3								
	L1/G, L2/G, L3/G, N/G	4								
277/480 Y	L1/G, L2/G, L3/G, N/G	4								

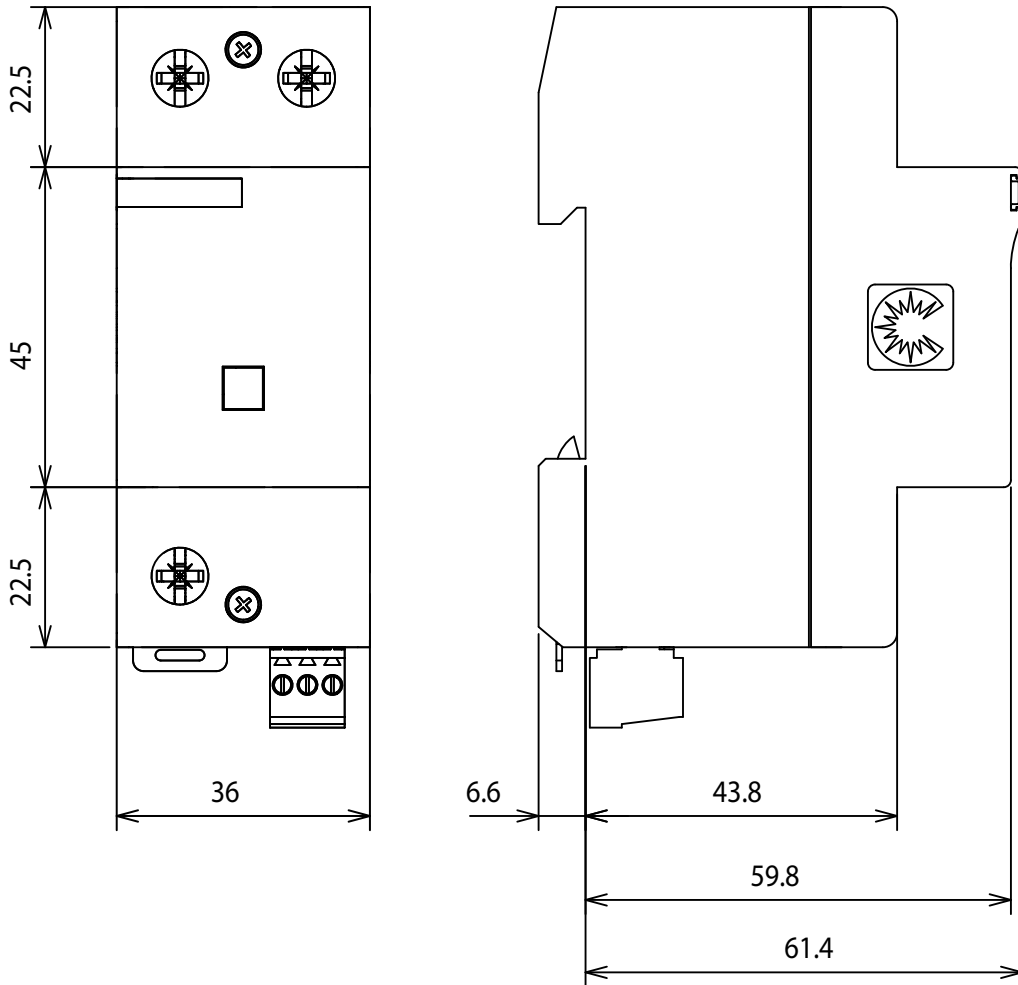
(1) Fuses required to protect the surge protector in case of short-circuit failure. They must be installed in series with each pole of the surge protector.

Specifications

Connection/Mounting Type	Parallel/DIN Rail mount
Standards Compliance	UL 1449, CSA 22.2, No.8, IEC 61643-1, EN 61643-11
Certifications	cURus recognized, CE marked, CSA
Conductor Material	Cu, solid or stranded
Conductor Range	#9...3 AWG (6...35 mm ²)
Strip Length	0.6 in. (16 mm)
Tightening Torque	31...35.4 lb-in. (3.5...4 N·m)
No. of Conductors/Terminal	1
Operating Temperature	-40...+80 °C (-40...176 °F)

Approximate Dimensions

Dimensions are shown in millimeters. Dimensions are not intended for manufacturing purposes.



DIN Rail AC Power Surge Protective Device, 4983-DS

Bulletin 4983-DS offers a number of options to meet your basic surge protection needs. The Bulletin 4983-DS products are connected in parallel and use an MOV to clamp high-voltage surges. The Bulletin 4983-DS devices are primarily used in the main electrical panel for the protection of 1- and 3-phase systems.



Features

- Compact modular design
- Robust design avoids unnecessary replacement
- DIN Rail mounted, Type 2
- Replacement (pluggable) module
- Visual status indicator (on unit)
- Remote status indicator

Product Selection

- N = Neutral
- L/N = Line/neutral
- N/G = Neutral/ground

AC Network	Connection Mode	No. of Poles	Max. Continuous Operating Voltage (MCOV) (U_c) [V AC]	Max. Discharge Current 8/20 μ s (I_{max}) [kA]	Nominal Discharge Current 8/20 μ s (I_n) [kA]	Protection Level (U_p) [kV]	UL 1449 Voltage Protection Rating (VPR) [V]	Appropriate Fuse ⁽¹⁾ [A] Max.	Cat. No. Base and Module	Cat. No. Replacement Module Only	Cat. No. Replacement Module Only Gas Discharge Tube						
120	L/G or N/G	1	150	40	20	0.9	700	125	4983-DS120-401	4983-DS120-40	—						
	L/G, N/G	2							4983-DS120-402								
120/ 208Y	L1/G, L2/G, L3/G	3							4983-DS120-403								
	L1/G, L2/G, L3/G, N/G	4							4983-DS120-404								
230/ 400	L/G or N/G	1							275	40	20	1.25	1000	125	4983-DS230-401	4983-DS230-40	—
	L/G, N/G	2													4983-DS230-402		
	L1/G, L2/G, N/G	3	4983-DS230-403														
277/ 480Y	L/G or N/G	1	420	40	20	1.8	1500	125	4983-DS277-401	4983-DS277-40	—						
	L1/G, L2/G, L3/G	3							4983-DS277-403								
L1/G, L2/G, L3/G, N/G		4							4983-DS277-404								
480D	L1/G, L2/G, L3/G	3							550	40	20	1.8	1800	125	4983-DS480-403	4983-DS480-40	—
230/ 400	L/G, N/G	2	275	40	20	1.25	1000	125	4983-DS230-401G	4983-DS230-40	4983-DS230-40G						
	L1/G, L2/G, L3/G, N/G	4							4983-DS230-403G								

AC Network	Connection Mode	No. of Poles	Max. Continuous Operating Voltage (MCOV) (U_c) [V AC]	Max. Discharge Current 8/20 μ s (I_{max}) [kA]	Nominal Discharge Current 8/20 μ s (I_n) [kA]	Protection Level (U_p) [kV]	UL 1449 Voltage Protection Rating (VPR) [V]	Appropriate Fuse ⁽¹⁾ [A] Max.	Cat. No. Base and Module	Cat. No. Replacement Module Only	Cat. No. Replacement Module Only Gas Discharge Tube			
120	L/G or N/G	1	150	80	20	0.9	700	125	4983-DS120-801	4983-DS120-80	—			
	L/G, N/G	2							4983-DS120-802					
120/208Y	L1/G, L2/G, L3/G	3							4983-DS120-803					
230/400	L/G or N/G	1	275			80	20		1.25	1000	125	4983-DS230-801	4983-DS230-80	—
	L/G, N/G	2										4983-DS230-802		
	L1/G, L2/G, N/G	3										4983-DS230-803		
277	L/G or N/G	1	420	80	20			1.8	1500	125		4983-DS277-801	4983-DS277-80	—
277/480Y	L1/G, L2/G, L3/G	3										4983-DS277-803		
	L1/G, L2/G, L3/G, N/G	4										4983-DS277-804		
480D	L1/G, L2/G, L3/G	4				680	4983-DS277-804							
600D	L1/G, L2/G, L3/G	4	690			4983-DS600-804		4983-DS600-80	—					

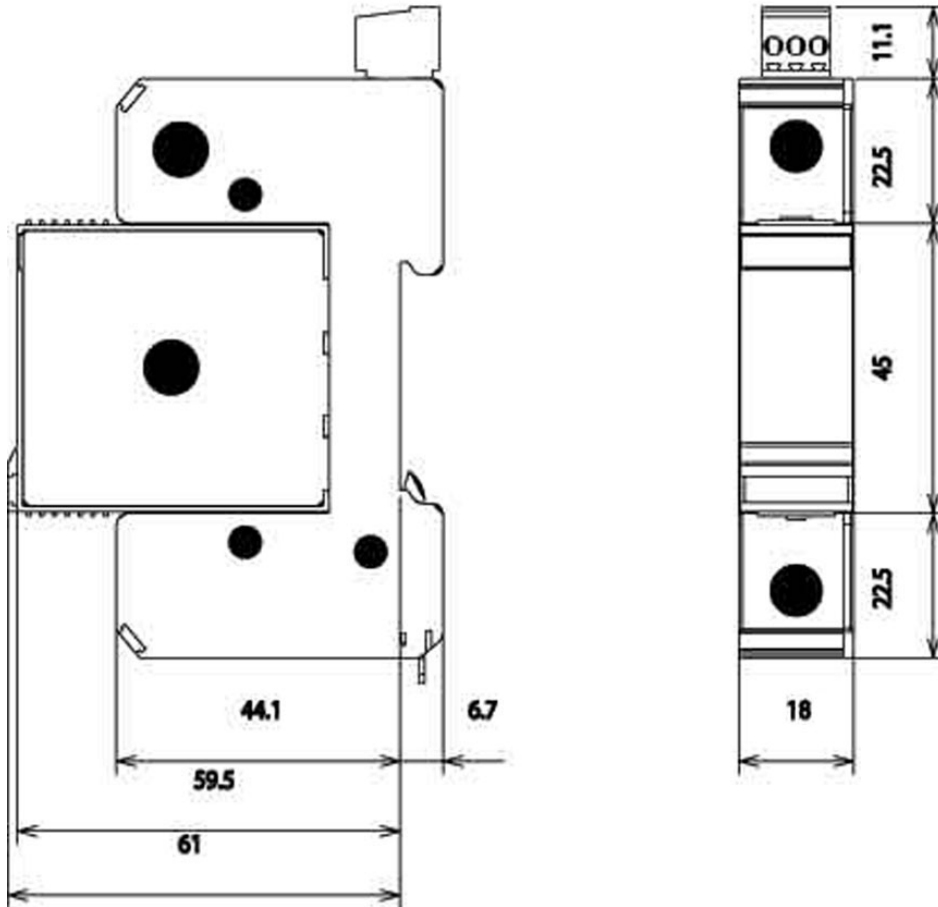
(1) Fuses required to protect the surge protector in case of short-circuit failure. They must be installed in series with each pole of the surge protector.

Specifications

Connection/Mounting Type	Parallel/DIN Rail mount
Standards Compliance	UL 1449, CSA 22.2, No.8, IEC 61643-1, EN 61643-11
Certifications	cURus recognized, CSA, CE marked
Conductor Material	Cu, solid or stranded
Conductor Range	#10...4 AWG (4...28 mm ²)
Strip Length	0.4 in. (10 mm)
Tightening Torque	17.8...22.1 lb•in. (2.0...2.5 N•m)
No. of Conductors/Terminal	1
Operating Temperature	-40...+80 °C (-40...176 °F)

Approximate Dimensions

Dimensions are shown in millimeters. Dimensions are not intended for manufacturing purposes.



DIN Rail Dataline Surge Protective Device, 4983-DD

Bulletin 4983-DD surge protective devices are designed to protect industrial communication networks. This device uses a combination of 3-electrode gas discharge tubes and fast-clamping diodes. Typical applications include industrial processing equipment, transmission systems, I/O cards, probes, actuators, and displays.

Features

- Compact, modular design
- Cost-effective to protect individual loads



Product Selection

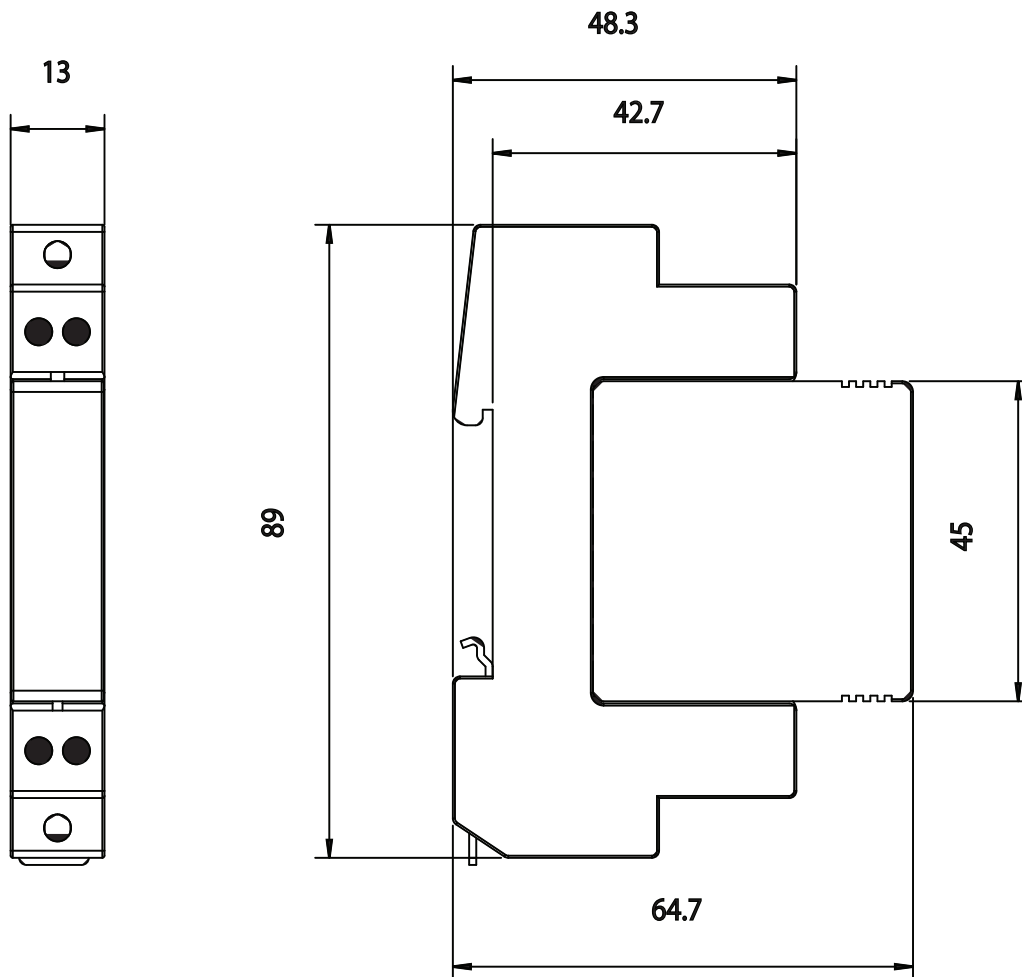
AC Network	Max. Continuous Operating Voltage (MCOV) [V DC]	Nominal Discharge Current 8/20 μ s (I_n) [kA]	Max. Discharge Current 8/20 μ s (I_{max}) [kA]	Protection Level (U_p)	Nominal Line Voltage [V]	Line Type	Cat. No.
4...20 mA Loop type	28	5	20	40V	24V	1 pair with shield	4983-DD24
RS232 type	15	5	20	30V	12V	1 pair with shield	4983-DD12
High-speed transmission (LAN) RS485 type, RS422 type	8	5	20	25V	6V	1 pair with shield	4983-DD06

Specifications

Connection/Mounting Type	Series/DIN Rail mount
Standards Compliance	UL 497B, IEC 61643-21
Certifications	CE marked, UL listed
Conductor Material	Cu, solid or stranded
Conductor Range	#21...16 AWG (0.4...1.5 mm ²)
Strip Length	0.2 in. (5 mm)
Tightening Torque	4.4 lb-in. (0.5 N-m)
No. of Conductors/Terminal	1
Operating Temperature	-40...+80 °C (-40...176 °F)

Approximate Dimensions

Dimensions are shown in millimeters. Dimensions are not intended for manufacturing purposes.



Panel Mount Filter 4983-PF

Bulletin 4983-PF is a panel (flange) mount filter product. The main function of the Bulletin 4983-PF filter is noise protection; it monitors and cleans the wave of high frequency noise disturbances that can cause premature aging.

Features

- Features Islatrol filter technology
- LED power indication
- Panel (flange) mount



Product Selection

Operating Voltage [V AC]	Max. Continuous Operating Voltage	Line Frequency [Hz]	Ampacity [A]	Cat. No.
120	150V rms @ 120	47...63	2.5	4983-PF120-02
			5.0	4983-PF120-05
			15	4983-PF120-15
			30	4983-PF120-30
240	275V rms @ 240		2.5	4983-PF240-02
			5.0	4983-PF240-05
			15	4983-PF240-15
			30	4983-PF240-30

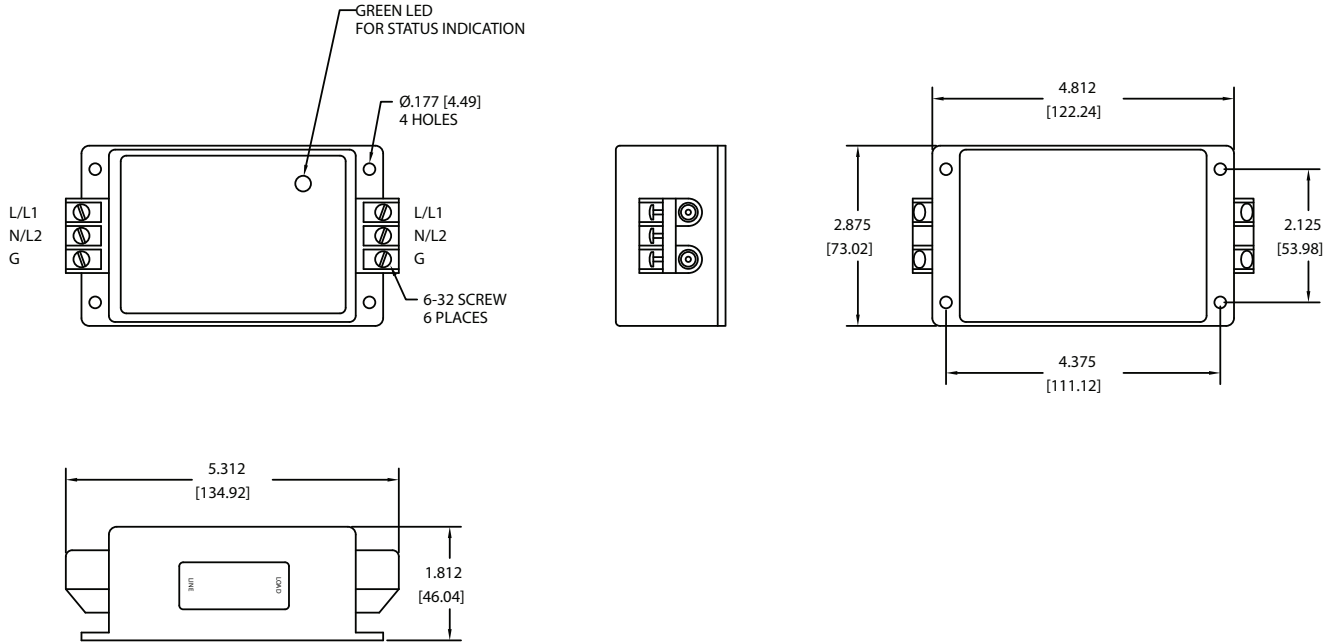
Specifications

Connection/Mounting Type	Series/Panel (Flange) mount
Enclosure	Grey, high-impact plastic, 94V-0, product label
Approximate Weight	2.5 A — 1.5 lb 5.0 A — 1.5 lb 15 A — 4 lb 30 A — 6.5 lb
Modes of Protection	Line — Neutral Line — Line Line — PE Neutral — PE
Certifications	UR recognized component, CE Marked
Typical Cat. A Ringwave Rating	< 10V peak
Typical Cat. B Ringwave Rating	< 50V peak
Status Indication	Single green LED for power indication
Response Time	Normal mode: < 0.5 ns Common Mode: < 5 ns
Operating Temperature	-40...+60 °C derate linearly to 60% @ +70 °C
Fusing	Appropriate external fusing is required
Frequency Response (Forward - Reverse) 100 kHz...50 MHz	Normal Mode — 90 dB min. Common Mode — 60 dB min. 3 kHz cut-off frequency
Peak Surge Current Capability (8 x 20 μs)	
All Mode Unit	
Line to Neutral	15 kA
Line to Ground	15 kA
Neutral to Ground	15 kA

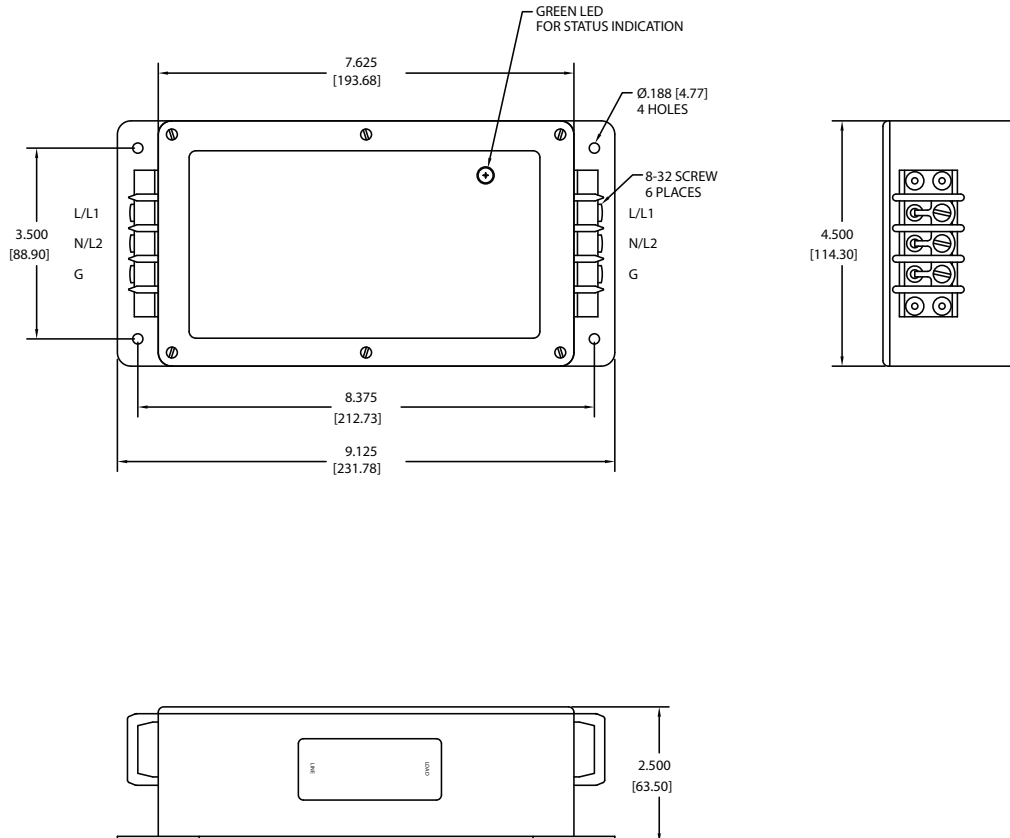
Approximate Dimensions

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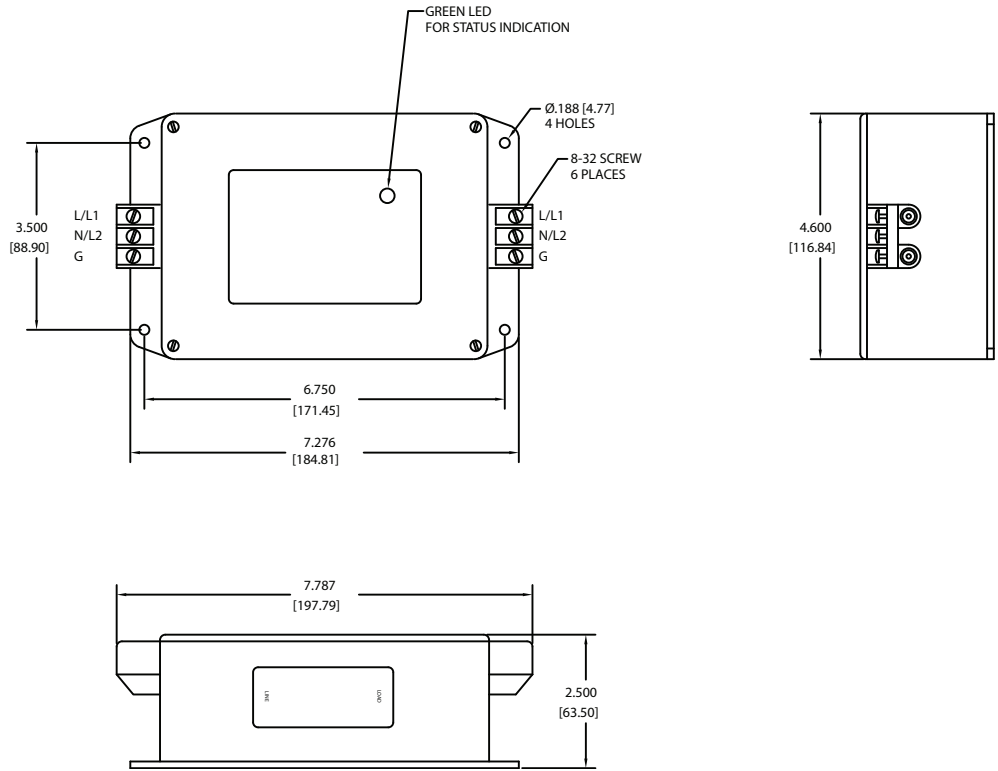
Cat. Nos. 4983-PF120-02, -PF120-05, -PF240-02



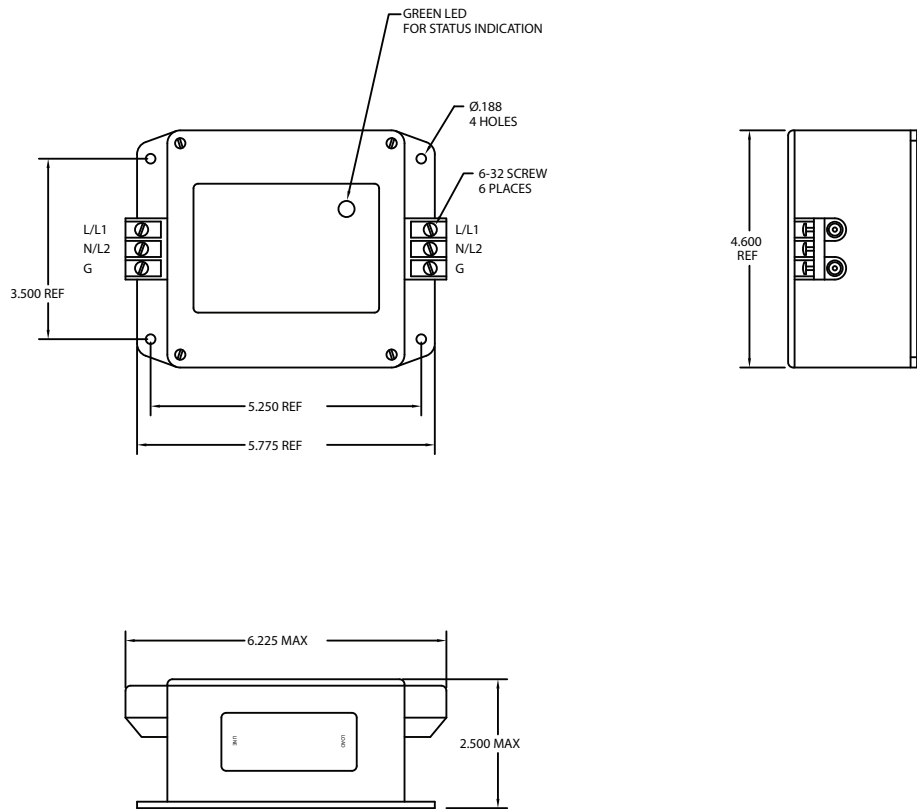
Cat. Nos. 4983-PF120-02, -PF120-05, -PF240-02



Cat. Nos. 4983-PF120-15



Cat. No. 4983-PF240-05



DIN Rail Combination Filter and Surge Protective Device 4983-DC

Bulletin 4983-DC is the combination of a filter and a surge protective device. The Bulletin 4983-DC product meets both UL 1449 and UL 1283. This product allows transient and noise protection in one small package.

Features

- Small combination (filter and SPD) package size
- Features Isatrol technology
- All-mode transient protection with exceptional Line to Neutral value of 25 kA
- LED power indication
- Form C contact for remote status indication
- DIN Rail mountable



Product Selection

AC Network	Connection Mode	Frequency [Hz]	Max. Continuous Operating Voltage (MCOV) (Uc) [V AC]	Maximum Discharge Current 8/20 μ s (I_{max}) [kA]			Nominal Discharge Current 8/20 μ s (I_n) [kA]	UL1449 Voltage Protection Rating (VPR) [V AC]				Ampacity [A]	Cat. No.
				L/G	L/N	N/G		L/G	L/N	N/G	L-L		
120V AC	L/G, L/N, N/G	47...63	150	10	25	10	3	600	400	600	-	3.0	4983-DC120-03
												5.0	4983-DC120-05
			320	10	25	10	3	1200	-	-	800	10	4983-DC120-10
												20	4983-DC120-20
240V AC	L/G, L/N, N/G	47...63	150	10	25	10	3	600	400	600	-	3.0	4983-DC240-03
												5.0	4983-DC240-05
			320	10	25	10	3	1200	-	-	800	10	4983-DC240-10
												20	4983-DC240-20

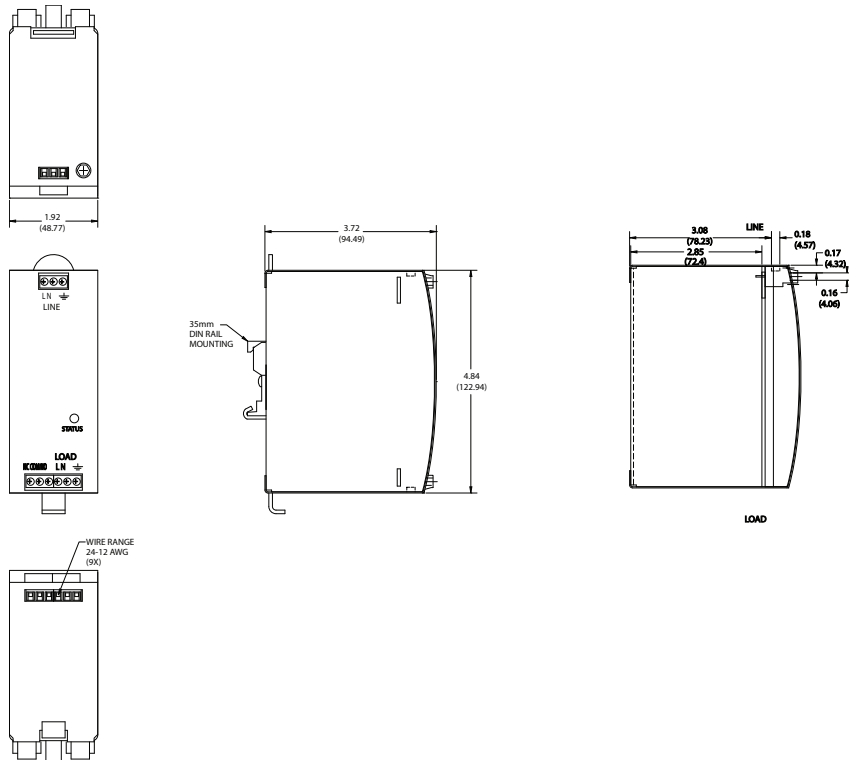
Specifications

Connection/Mounting Type	Series/DIN Rail mount
Enclosure	Metal, DIN Rail mount, product label
Approximate Weight	3 A — 1 lb 5 A — 1 lb 10 A — 1.5 lbs 20 A — 1.5 lbs
Modes of Protection	Line — Neutral Line — Line Line — PE Neutral — PE
Certifications	UR Recognized, CSA, CE Marked
Typical Cat. A Ringwave Rating	< 60V peak
Typical Cat. B Ringwave Rating	< 100V peak
Status Indication	Single green LED indicating MOV integrity Single form C contact (10 A @ 250V AC, 5 A @ 100V DC)
Response Time	Normal mode: < 0.5 ns Common Mode: < 5 ns
Operating Temperature	-40...+60 °C derate linearly to 60% @ +70 °C
Fusing	Appropriate external fusing is required
Frequency Response 100 kHz...50 MHz	Normal Mode (100 kHz...50 MHz) — 90 dB min. Common Mode (5...50MHz) — 60 dB min. 50 kHz cut-off frequency

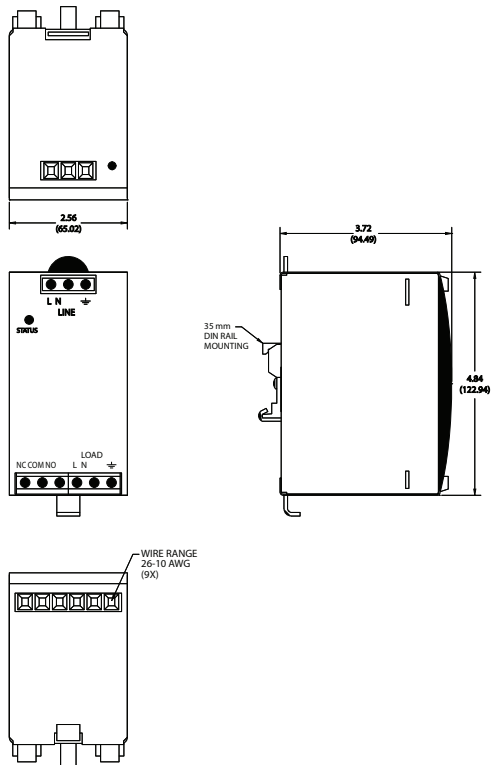
Approximate Dimensions

Dimensions are shown in inches (millimeters). Dimensions are not intended for manufacturing purposes.

Cat. Nos. 4983-DCxxx-03, -DCxxx-05



Cat. Nos. 4983-DCxxx-03, -DCxxx-05



Additional Resources

These documents contain additional information concerning related products from Rockwell Automation.

Resource	Description
Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1	Provides general guidelines for installing a Rockwell Automation industrial system.
Product Certifications website, rok.auto/certifications .	Provides declarations of conformity, certificates, and other certification details.

You can view or download publications at <http://www.rockwellautomation.com/global/literature-library/overview.page>.

Rockwell Automation Support

Use the following resources to access support information.

Technical Support Center	Knowledgebase Articles, How-to Videos, FAQs, Chat, User Forums, and Product Notification Updates.	www.rockwellautomation.com/knowledgebase
Local Technical Support Phone Numbers	Locate the phone number for your country.	www.rockwellautomation.com/global/support/get-support-now.page
Direct Dial Codes	Find the Direct Dial Code for your product. Use the code to route your call directly to a technical support engineer.	www.rockwellautomation.com/global/support/direct-dial.page
Literature Library	Installation Instructions, Manuals, Brochures, and Technical Data.	www.rockwellautomation.com/literature
Product Compatibility and Download Center (PCDC)	Get help determining how products interact, check features and capabilities, and find associated firmware.	www.rockwellautomation.com/global/support/pcdc.page

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