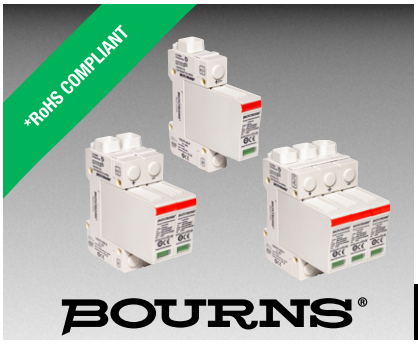


Features

- High energy MOV technology with Thermal Disconnector
- Status indicator
- Replaceable modular design
- For Common Mode and Differential Mode protection
- Remote signaling capability
- IEC/EN 61643-31 compliant Class I + Class II / T1+T2 SPD
- With 80 kA I_{max} (8/20 µs) and 12.5 kA I_{imp} (10/350 µs) current capability
- RoHS compliant*

1430 Series – IEC Class I DC Surge Protective Device

General Information

The Bourns® Model 1430 Series is an IEC Class I + Class II DC Surge Protective Device (SPD) designed to protect power systems from damage due to lightning, transients and power surges, up to rated limits.

The Model 1430 Series is a Din-Rail mountable SPD designed to protect DC power systems operating up to 1500 VDC.

Additional Information

Click these links for more information:

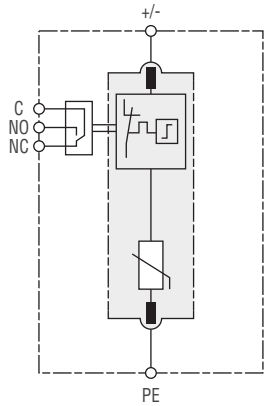
PRODUCT | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

Electrical Characteristics

Characteristic	Model No.				
	1430-PV-48-P 1430-PV-48-D	1430-PV-60-P 1430-PV-60-D	1430-PV-100-P 1430-PV-100-D 1430-PV-100-Y	1430-PV-150-P 1430-PV-150-D	1430-PV-200-P 1430-PV-200-D 1430-PV-200-Y
Network Voltage (U_n) DC	48 VDC	60 VDC	100 VDC	150 VDC	200 VDC
Compliance	IEC/EN 61643-31 Class I + Class II / T1 + T2				
Product Technologies	High energy MOV Technology Thermal Disconnector				
Protection Mode	Single CM[1]		Single CM CM/DM[1]	Single CM[1]	Single CM CM/DM[1]
Max. Operating Voltage (U_c) DC	85 VDC	100 VDC	125 VDC 170 VDC (Y config.)	170 VDC	225 VDC 250 VDC (Y config.)
Nominal Discharge Current (I_n) 8/20 µs	25 kA				
Max. Discharge Current (I_{max}) 1 Impulse 8/20 µs	80 kA				
Impulse Discharge Current (I_{imp}) 10/350 µs	12.5 kA				
Protection Level (U_p)	≤0.6 kV ≤0.6 kV	≤0.7 kV ≤0.7 kV	≤0.7 kV ≤0.7 kV ≤1.0 kV	≤0.8 kV ≤0.8 kV	≤1.0 kV ≤1.0 kV ≤1.2 kV
Short Circuit Current Rating (I_{scpv})	25 kA				
Leakage Current at U_c	< 100 µA				
Follow Current (I_f)	None				

Note 1. CM = Common Mode (+/PE or -/PE) and CM/DM = Common Mode and Differential Mode (±).

Electrical Diagram



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*RoHS Directive 2015/863, Mar 31, 2015 and Annex.
Actual product may differ from image shown.
Specifications are subject to change without notice.
Users should verify actual device performance in their specific applications.

Applications

- DC power systems
- Photovoltaic systems
- EV charging stations

Electrical Characteristics (continued)

Characteristic	Model No.				
	1430-PV-300-P 1430-PV-300-D 1430-PV-300-Y	**1430-PV-400-P 1430-PV-400-D 1430-PV-400-Y**	**1430-PV-500-P 1430-PV-500-D**	**1430-PV-600-P 1430-PV-600-D 1430-PV-600-Y**	**1430-PV-750-P**
Network Voltage (U_n) DC	300 VDC	400 VDC	500 VDC	600 VDC	750 VDC
Compliance	IEC/EN 61643-31 Class I + Class II / T1 + T2				
Product Technologies	High energy MOV Technology Thermal Disconnector				
Protection Mode	Single CM CM/DM[1]		Single CM[1]	Single CM CM/DM[1]	Single
Max. Operating Voltage (U_c) DC	350 VDC 340 VDC (Y config.)	460 VDC 450 VDC (Y config.)	560 VDC	670 VDC 700 VDC (Y config.)	800 VDC
Nominal Discharge Current (I_n) 8/20 μs	25 kA				
Max. Discharge Current (I_{max}) 1 Impulse 8/20 μs	80 kA				65 kA
Impulse Discharge Current (I_{imp}) 10/350 μs	12.5 kA				8 kA
Protection Level (U_p)	≤1.4 kV ≤1.4 kV ≤1.5 kV	≤1.6 kV ≤1.6 kV ≤2.0 kV	≤1.8 kV ≤1.8 kV	≤2.2 kV ≤2.2 kV ≤2.5 kV	≤2.5 kV
Short Circuit Current Rating (I_{scpv})	25 kA				
Leakage Current at U_c	< 100 μA				
Follow Current (I_f)	None				

Characteristic	Model No.			
	1430-PV-800-Y	**1430-PV-1000-Y**	**1430-PV-1200-Y**	**1430-PV-1500-Y**
Network Voltage (U_n) DC	800 VDC	1000 VDC	1200 VDC	1500 VDC
Compliance	IEC/EN 61643-31 Class I + Class II / T1 + T2			
Product Technologies	High energy MOV Technology Thermal Disconnector			
Protection Mode	CM/DM[1]			
Max. Operating Voltage (U_c) DC	920 VDC	1120 VDC	1340 VDC	1500 VDC
Nominal Discharge Current (I_n) 8/20 μs	25 kA			
Max. Discharge Current (I_{max}) 1 Impulse 8/20 μs	80 kA			65 kA
Impulse Discharge Current (I_{imp}) 10/350 μs	12.5 kA			8 kA
Protection Level (U_p)	≤3.0 kV	≤3.5 kV	≤4.0 kV	≤4.5 kV
Short Circuit Current Rating (I_{scpv})	25 kA			
Leakage Current at U_c	< 100 μA			
Follow Current (I_f)	None			

Note 1. CM = Common Mode (+/PE or -/PE) and CM/DM = Common Mode and Differential Mode (±).

1430 Series – IEC Class I DC Surge Protective Device

BOURNS®

General Characteristics

Characteristic	1430-PV-xxx-x
Thermal Disconnector	Internal green – normal; red - failure
Dimensions	See Product Dimensions
Connection	By Screw Terminal: Single-strand #2 AWG or 35 mm^2; multi-strand #4 AWG or 25 mm^2
Disconnection Indicator	1 Mechanical Indicator
Mounting	Din-Rail, 35 mm Symmetrical
Remote Signaling	250 V / 0.5 A (AC) 125 V / 0.2 A (DC)
Enclosure Material	Thermoplastic UL 94V0

Environmental Characteristics

Characteristic	1430-PV-xxx-x
Operating Temperature	-40 °C to +85 °C
Operating Altitude	≤4000 m
Environmental Rating	IP 20

Standards Compliance

IEC/EN 61643-31 .....Class I + Class II, T1 + T2
RoHS..... RoHS Directive 2015/863, Mar 31, 2015 and Annex

Agency Recognition

Agency	Category	Agency File No.
TÜV SÜD	IEC 61643-31	B118437

How to Order

1430 - PV - xxxx - x

Model Designator
1430 = IEC Class I DC SPD

Application Code
PV = Photovoltaic

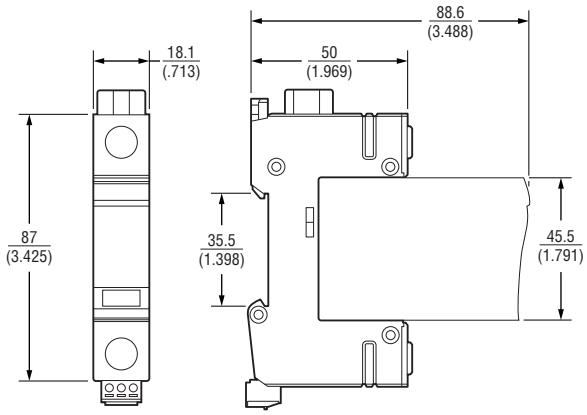
Network Voltage

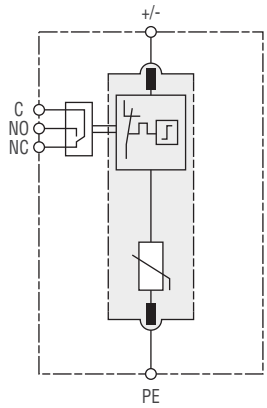
48 = 48 VDC	60 = 60 VDC
100 = 100 VDC	150 = 150 VDC
200 = 200 VDC	300 = 300 VDC
400 = 400 VDC	500 = 500 VDC
600 = 600 VDC	750 = 750 VDC
800 = 800 VDC	1000 = 1000 VDC
1200 = 1200 VDC	1500 = 1500 VDC

Configuration
P = Single protection
D = V configuration
Y = Y configuration

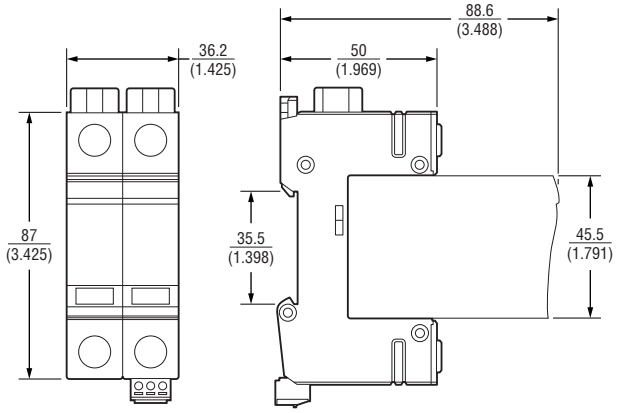
Product Dimensions and Schematics

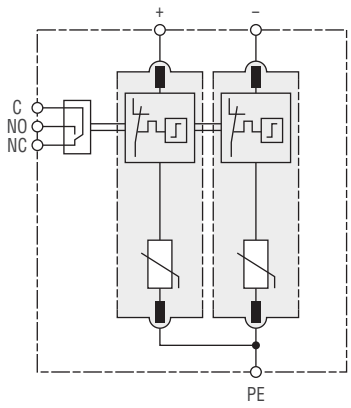
Single Protection



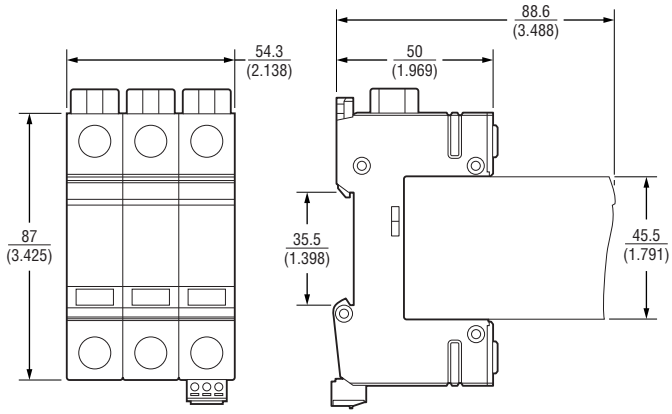


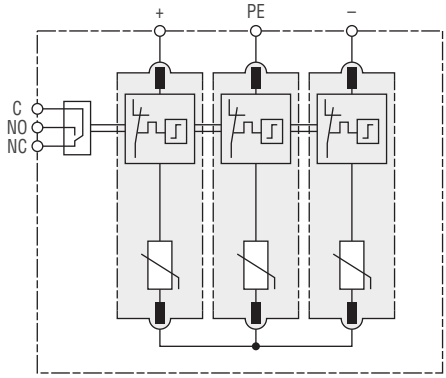
V Configuration





Y Configuration





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