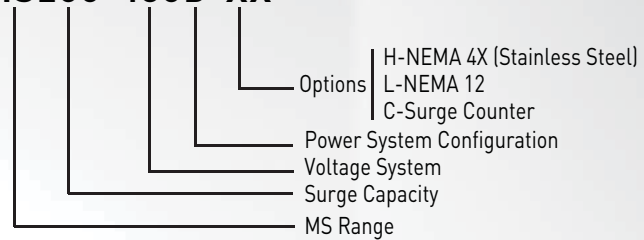


Data Sheet

Type 1 Surge Protective Device **MS200 Series**



MS200-480D-XX



Application

The MS Series is a high-performance UL 1449 Listed Type 1 SPD designed for critical panels located in the harshest environments. The Surge Protective Device (SPD) achieves the highest UL performance ratings for the Nominal Discharge Current (In) and High Current (SCCR) tests while providing a low Voltage Protection Rating (VPR).

It is ideally suited for all NEC compliant locations including a UL96A Master Label Lightning Protection System and thus can be deployed with complete confidence.

In addition to its rugged performance, the MS Series has a new Smart-Diagnostic system that includes a multi-stage LED to indicate the exact level of protection present per phase, an audible alarm, remote signal contacts and an optional surge counter.

The MS Series is available for all single & 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} 220kA per phase
- Protects All Modes
- Real-Time LED indicators, Audible Alarm, Remote Contacts
- Smart Diagnostic Indicating Remaining Surge Capacity
- All Environmental Ratings Available
- Optional Surge Counter
- Optional UL1283 Electromagnetic Interference Filter

UL

- UL 1449 4th Edition
- Listed UL Type 1 Surge Protective Device
- In 20kA (All models and all modes)
- SCCR 200kA (All models)
- VPR L-N is 700V for 120V, 120/240V, 120/208V (See page 2 for full table)
- File # VZCA.E326289 (www.ul.com)



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Data Sheet

Type 1 Surge Protective Device MS200 Series

Technical Data

| Description | | | MS200-120T | MS200-120Y | MS200-240Y | MS200-240DCT | MS200-240D | MS200-277Y | MS200-347Y | MS200-480D | MS200-480DCT |
|--------------------------------------|------------------------------|------|---------------|-------------|-------------|------------------|-----------------------------------------------------|-------------|-------------|-------------|------------------|
| System voltage | | | 120/240 Vac | 120/208 Vac | 240/415 Vac | 120/120/240 Vac | 240 Vac | 277/480 Vac | 347/600 Vac | 480 Vac | 320/580 Vac |
| System | | | Split 2Ph+N+G | Wye 3Ph+N+G | Wye 3Ph+N+G | Hi-Leg D 3Ph+N+G | Delta 3Ph+G | Wye 3Ph+N+G | Wye 3Ph+N+G | Delta 3Ph+G | Hi-Leg D 3Ph+N+G |
| Maximum Operating Voltage | MCOV [V] | L- G | 150 | 150 | 320 | 150/320 | 320 | 320 | 550 | 550 | 550/1100 |
| | | L-N | 150 | 150 | 320 | 150/320 | - | 320 | 550 | - | 550/1100 |
| | | N-G | 150 | 150 | 320 | 150 | - | 320 | 550 | - | 550 |
| | | L-L | 300 | 300 | 640 | 300/470 | 640 | 640 | 1100 | 640 | 550/1000 |
| Operating Current | Ic | mA | <10 mA | <10 mA | <10 mA | <30 mA | <30 mA | <10 mA | <10 mA | <30 mA | <30 mA |
| Follow current | If | A | | | | | NONE | | | | |
| Maximum Leakage Current | Ipe | mA | | | | | 1 mA | | | | |
| Maximum Recommended fuse if any | Rating, Type | | | | | | 200 A | | | | |
| Frequency | f | Hz | | | | | 50/60 Hz | | | | |
| Nominal discharge current per mode | In [8/20] | kA | | | | | 20 kA | | | | |
| Maximum Discharge Current per phase | I _{max} [8/20 kA] | kA | | | | | 220 kA | | | | |
| Impulse Discharge Current per phase | I _{imp} [10/350] | kA | | | | | 12.5 kA | | | | |
| Total Maximal Discharge Current | I _{total} [8/20] | kA | | | | | 440 kA | | | | |
| Total Maximal Discharge Current | I _{total} [10/350] | kA | | | | | 38 kA | | | | |
| Let through Voltage | U _{res} [V] at 20kA | L- G | | | | | - | | | | |
| | | L- N | | | | | - | | | | |
| | | N- G | | | | | - | | | | |
| | | L- L | | | | | - | | | | |
| Voltage Protection Rating | VPR [V] | L- G | 700 | 700 | 1200 | 700 | 1200 | 1200 | 1800 | 1800 | 1200 |
| | | L- N | 700 | 700 | 1000 | 700 | - | 1000 | 1800 | - | 1000 |
| | | N- G | 700 | 700 | 1000 | 700 | - | 1000 | 1800 | - | 1000 |
| | | L- L | 1000 | 1000 | 1800 | 1800 | 1800 | 1800 | 3000 | 3000 | 1800 |
| Short Circuit Current Rating | SCCR | kA | | | | | 200 | | | | |
| Standard's Compliance or recognition | UL1449 ed. 4 | | | | | | UL Type 1 Listed SPD | | | | |
| RFI Filtering | | | | | | | Optional UL1283 Electromagnetic Interference Filter | | | | |
| Thermal disconnect | | | | | | | Internal to each component | | | | |
| Overload disconnect | | | | | | | Internal to each surge protector | | | | |
| Failure Indicators | | | | | | | LED, audible alarm and remote signaling | | | | |
| Operating Temperature | | °F | | | | | -40 +185°F (-40/+85°C) | | | | |
| Housing- Enclosure material | | | | | | | Steel or Stainless Steel Options | | | | |
| Mounting type | | | | | | | Wall Mounting by screws (not included) | | | | |
| Environmental rating | | IP | | | | | IP66, IP65 | | | | |
| Nema | | | | | | | NEMA4, NEMA4X, NEMA12 | | | | |
| Location Installation | | | | | | | Indoor/Outdoor (Depending on Version) | | | | |

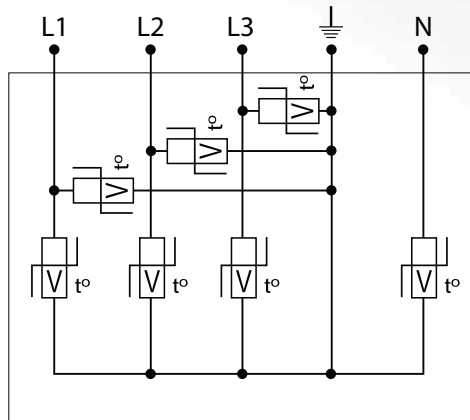


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Data Sheet

Type 1 Surge Protective Device MS200 Series

Electrical Diagram



V : High energy varistor
t° : Thermally Protected

Dimensions (in mm)

