

Features

- Robust Against Earth Potential Rise (EPR)
- Surge Diversion Elements designed to IEC 61643 International Standard
- Combined Surge Diversion and Power Filtering
- Assists Harmonic and Electrical noise suppression
- Extremely High Energy Handling Capacity
- Physically Robust Design
- Existing 50A filters can be upgraded to meet the PRF-50A specifications by installing the RFU kit.



The Primary Rail Filter (PRF) provides a clean, filtered supply of electricity, to all equipment connected to the unit's output, when installed in accordance with the manufacturers instructions. Protection is achieved via a two stage circuit which:

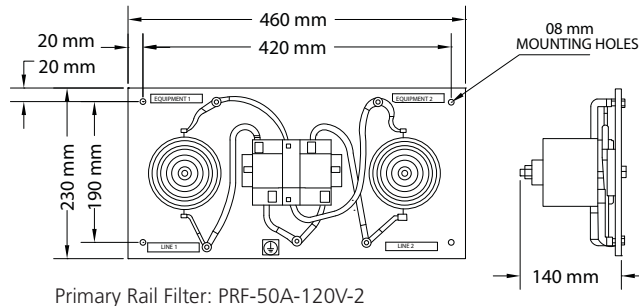
- Clamps transient voltages entering the PRF and diverts the bulk of the current to neutral or ground. This is achieved by the internal CRITEC[®] brand Triggered Spark Gap units which are the primary surge diverters.
- Provides filtering to the clamped waveform to reduce the rate of voltage rise
- Provides a final stage of surge diversion using thermally protected MOV's to protect from transients which may be induced onto the PRF output cables or caused by the load itself

The two stage circuit in the Primary Rail Filter substantially reduces the risk of physical equipment damage, loss of operations and economic loss to the rail industry.



Specifications

| Model | PRF-50A-120V-2 | PRF-100A-120V-2 | PRF-200A-120V-2 | PRF-50A-240V-2 | PRF-50A-440V-2 | RFU |
|--|--|-----------------------------|-----------------------------|-----------------------------|-----------------------------|----------------------------|
| Operating Ratings: | | | | | | |
| Nominal Input Voltage | 120Vrms | 120Vrms | 120Vrms | 240Vrms | 440Vrms | 120Vrms |
| Frequency | 50/60Hz | 50/60Hz | 50/60Hz | 50/60Hz | 50/60Hz | Rail Filter |
| Phase | single phase | single phase | single phase | single phase | single phase | Upgrade Kit |
| Load Current | 50A | 100A | 200A | 50A | 50A | 50A / 100A / 200A |
| Operating Time | <1ns | <1ns | <1ns | <1ns | <1ns | <1ns |
| Primary Protection: | | | | | | |
| Protection Modes | L1-GND, L2-GND | | | | | |
| Arrester Type | CRITEC® brand of Triggered Spark Gap (TSG) | | | | | |
| Surge Rating | 130 kA 8/20µs 50 kA 10/350µs | | | | | |
| Max. Cont. Operating Voltage | 440Vrms | | | | | |
| Multipulse Capability | Yes | | | | | |
| Secondary Protection: | | | | | | |
| Protection Mode | L1-L2 | | | | | |
| Arrester Type | DSD 140 | | | | | |
| Surge Rating | 40kA 8/20µs L1-L2 | | | | | |
| Indication | Yes, mechanical flag | | | | | |
| Max. Cont. Operating Voltage | 150Vrms | 150Vrms | 150Vrms | 275Vrms | 440Vrms | |
| Performance: | | | | | | |
| Cat B (6kV/3kA, 8/20µs) Filter Surge Performance | L1-L2 < 350 V | L1-L2 < 350 V | L1-L2 < 350 V | L1-L2 < 700 V | L1-L2 < 1100 V | |
| Cat B (6kV/3kA, 8/20µs) Filter Surge Performance | L1-GND, L2-GND < 1.500kV | L1-GND, L2-GND < 1.500kV | L1-GND, L2-GND < 1.500kV | L1-GND, L2-GND < 1.500kV | L1-GND, L2-GND < 1.500kV | |
| Cat C (6kV/20kA, 8/20µs) Filter Surge Performance | L1-L2 < 450 V | L1-L2 < 450 V | L1-L2 < 400 V | L1-L2 < 800 V | L1-L2 < 1000 V | |
| Cat B (6kV/20kA, 8/20µs) Filter Surge Performance | L1-GND, L2-GND < 1.600kV | L1-GND, L2-GND < 1.600kV | L1-GND, L2-GND < 1.600kV | L1-GND, L2-GND < 1.600kV | L1-GND, L2-GND < 1.600kV | |
| Physicals: | | | | | | |
| Operating Conditions | 0 to +40°C, 0-90% Humidity | | | | | 0 to +40°C, 0-90% Humidity |
| Wiring Terminals | 10 mm Stud, input / output | | | | | DIN rail - Mounting set |
| Dimensions in mm | | | | | | |
| Overall (length x width x height) | 460 x 230 x 140 | | 750 x 320 x 200 | | 460 x 230 x 140 | |
| Test Standards | | | | | | |
| Approvals: Surge Rated to Meet: | AS 3100 / C-Tick ANSI/IEEE C62.41 - Cat B, Cat C. AS/NZS 1768 - Cat B, Cat C. IEC 61643-1 - Class I, II | | | | | |



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WARNING

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