

MTL MA3350

Cost effective surge protection
for integration into OEM
applications or AC cabinets

- **Smallest 3 phase 50kA (8/20 μ s) SPD available**
- **3 phase protection in a package only 38mm wide**
- **Full range covering TNS, TNC-S, IT and TT systems**
- **Highest fault current clearing, 100kA without backup fuses**
- **Easy DIN rail mounting**
- **Perfect for OEM or cabinet applications**
- **Single pole version with 50kA (10/350 μ s), 200kA (8/20 μ s) rating**

The MA3350 is ideal for AC applications where high surge current protection is needed in a small space. Typical three phase DIN rail mounting SPDs are 89mm wide, the MA3350, at 38mm wide, is a remarkable 64% thinner. Each mode in the MA3350 is rated to a full 50kA (8/20 μ s). In the three phase unit there are 4 such modes giving a total unit rating of 200kA.

The MA3350 carries a suite of diagnostics that are more sophisticated than typical devices with a mechanical flag. Each unit has positive indication showing both the presence of AC power and the status of the unit. Red and green LED's leave the user in no doubt of the MA3350's operational readiness. Remote monitoring of the MA3350 is possible using the standard voltage free contacts.



All modules are DIN rail mounted and are supplied complete with hook-up cables for ease of installation.

The single pole MA3350 carries the highest surge current ratings. Ratings of 200kA (8/20 μ s) and 50kA (10/350 μ s) mean that this device will perform as both a Class I and Class II device in accordance with IEC 61643-11:2011

In addition to industry-leading surge current ratings **the MA3350 also carries industry leading fault clearing ratings.** The MA3350 can be used on power systems with up to 100kA prospective fault currents.

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MA3350	120-1R	240-1R	240-2R	480-2R	120-3R	240-3R	480-3R	120-4R	240-4R	120-XR	240-XR
EU and Japan modelst	100-1R	200-1R	200-2R	380-2R 415-2R	100-3R	200-3R	380-3R 415-3R	100-4R	200-4R	100-XR	200-XR
Modes of protection	L-N, L-E, N-PE	L-L, L-E, L-N, N-E	L-L, L-E	L-L, L-E	L-L, L-E, L-N, N-E	L-L, L-E	L-L, L-E	L-L, L-E, L-N, N-E	L-L, L-E, L-N, N-E	L-N/E	L-N/E
Circuit diagram	A	A	B	B	C	D	D	E	E	F	F
Typical application	Single Phase	Single Phase	Delta/TT /IT	Delta/TT /IT	Split Phase	Delta/TT /IT	Delta/TT /IT	Wye/ TNC-S	Wye/ TNC-S	All	All
IEC category	II	II	II	II	II	II	II	II	II	I	I
Nominal voltage U_n (Line to Neutral)†	120V AC	240V AC			120V AC			120V AC	240V AC	120V AC	240V AC
Nominal voltage U_n (Line to Line)†			240V AC	480V AC	240V AC	240V AC	480V AC	240V AC	415V AC		
Max. Continuous voltage U_c (AC)†	150V	320V	(300V)*	(600V)*	150V, (300)*	(300V)*	(600V)*	150V, (300V)*	300V, (600V)*	150V	300V
Leakage current to PE at U_n	<0.3mA	<0.3mA	<0.3mA	<0.3mA	<0.3mA	<0.3mA	<0.3mA	<0.3mA	<0.3mA	<0.3mA	<0.3mA
Lightning test current I_{imp} (10/350µs) I_{imp}	15kA	15kA	15kA	15kA	15kA	15kA	15kA	15kA	15kA	50kA	50kA
Max discharge surge current I_{max} (8/20µs) per mode	50kA	50kA	50kA	50kA	50kA	50kA	50kA	50kA	50kA	200kA	200kA
Nominal discharge surge current I_n (8/20µs) per mode	10kA	10kA	10kA	10kA	10kA	10kA	10kA	10kA	10kA	40kA	40kA
Protection level at 3000A (8/20µs) L to N	485V	870V	(920V)	(1690V)	485V (920V)	(920V)	(1690V)	485V (920V)	870 (1690V)	435V	870V
Protection level U_p at I_n (10,000A)	<800V	<1200V	<1200V	<2000V	<800V	<1200V	<2000V	<800V	<1200V	<900V	<1500V
Response time t_a	<5ns										
Short circuit withstand (no backup fuse required)	100kA										
Temperature range	-40°C to 80°C										
Protection type according to IEC 60529/EN60529	IP20										
Remote indication contacts (NO/NC)	62.5VA AC, 60W DC, 1A Max.										
Duty cycle	20kA – >4,000; 10kA – >6,000										100kA – >4; 10kA – >15,000
Long duration 10/1000µs	3,600A										5,800A
Lead cross section	3mm ² (#12 AWG)										8mm ² (#8 AWG)

* = a result in () indicates a measurement L - L

† The parameters Un(Line-Neutral, Un (Line-Line), Uc for the Japan and EU models shall be as per the below table

Japan and EU Models	100-1R	200-1R	200-2R	380-2R	415-2R	100-3R	200-3R	380-3R	415-3R	100-4R	200-4R	100-XR	200-XR
Nominal Volatage U_n (Line-Neutral)	100V AC	200V AC				100V AC				100V AC	200V AC	100V AC	200V AC
Nominal Volatage U_n (Line-Line)			200V AC	380V AC	415V AC		200V AC	380V AC	415V AC	200V	350V		
Max. countinuous voltage U_c (AC)	110V	220V	(250V)*	(475V)*	(600V)*	110V	(250V)*	(475V)*	(600V)*	110V	220V	110V	220V

* = a result in () indicates a measurement L - L

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MA3350-120-1R
MA3350-240-1R
MA3350-100-1R
MA3350-200-1R

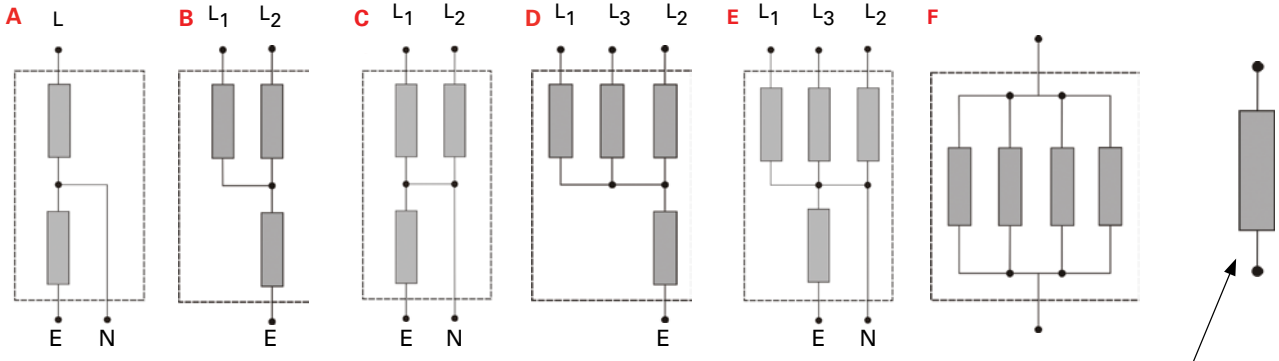
MA3350-240-2R
MA3350-480-2R
MA3350-200-2R
MA3350-380-2R
MA3350-415-2R

MA3350-120-3R
MA3350-100-3R

MA3350-240-3R
MA3350-480-3R
MA3350-200-3R
MA3350-380-3R
MA3350-415-3R

MA3350-120-4R
MA3350-240-4R
MA3350-100-4R
MA3350-200-4R

MA3350-120-XR
MA3350-240-XR
MA3350-100-XR
MA3350-200-XR



This symbol represents individual, high surge-capacity, surge protection devices, fuses capable of interrupting high (100kA AIC) prospective fault arrestor and state-of-the-art status monitoring electronics.

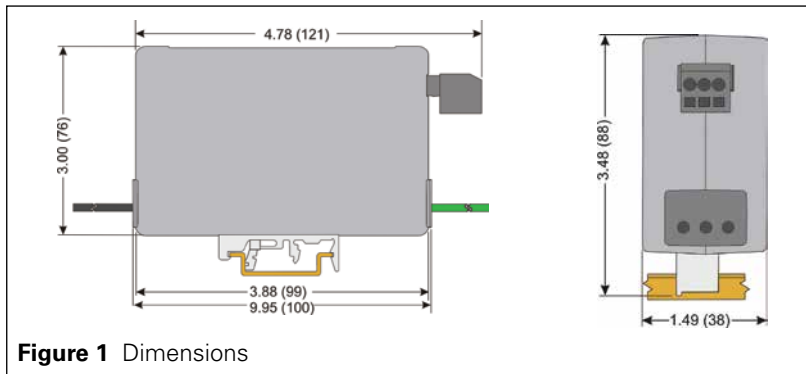


Figure 1 Dimensions



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