

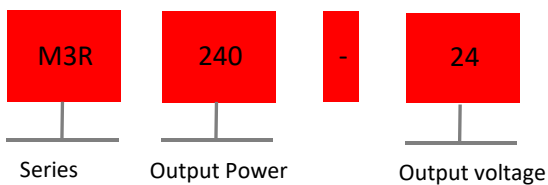
M3R240-□ Series



▲ Features

- 180-550VAC ultra wide input for 1-phase or 2-phase
- Protections: Short circuit/Over load/Over voltage/Over temp.
- Efficiency up to 91%, low power consumption
- Built-in active PFC
- DC OK relay contact
- Mounting on DIN rail TS-35/7.5 or 15
- Cooling by free air convection
- 100% full load burn-in test
- 3 years warranty

▲ Model encoding



Specification

Input			
Voltage range*1	180-550VAC or 254-780VDC		
AC current	1A/400VAC 2A/230VAC		
Frequency range	47-63Hz		
Power factor	PF \geq 0.84/400VAC PF \geq 0.84/230VAC		
Leakage current	<3.5mA/530VAC		
Inrush current (max)	Cold start: 50A		
Output			
DC voltage	24V	48V	
Voltage ADJ. range	24-28V	48-55V	
Rated current	10A	5A	
Current range	0-10A	0-5A	
Rated power	240W	240W	
Ripple & Noise(Max.)*3	150mVp-p	150mVp-p	
Voltage tolerance*4	\pm 1.0%	\pm 1.0%	
Line regulation	\pm 0.5%	\pm 0.5%	
Load regulation	\pm 1.0%	\pm 1.0%	
Efficiency	91%	91%	
Setup/Rise time	800ms 150ms /400VAC 1500ms 150ms/230VAC(@Full load)		
Hold up time	18ms/400VAC 18ms/230VAC(@Full load)		
Status indicator	Green LED		
Protection			
Overload	105%-130% of rated power		
	Constant current limiting, shut down O/P voltage after 3 sec.Recover in 1 min after the fault condition is removed		
Over voltage	29-33V	56-65V	
	Shut down O/P voltage. Recover in 1 min after the fault condition is removed		
Over temp.	90 \pm 5 $^{\circ}$ C (TSW): detect on heatsink of the power switch		
	Shut down O/P voltage. Recover automatically when the temperature goes down		
DC OK signal	Relay contact capacity: 60Vdc/0.3A, 30Vdc/1A,30Vac/0.5A resistive load		
Safety & EMC			
Withstand voltage	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC O/P-DC OK:0.5KVAC		
Isolation resistance	I/P-O/P,I/P-FG,O/P-FG:>100M Ohms/500VDC/25 $^{\circ}$ C/70% RH		
Safety standard	Design refer to EN IEC 62368-1、GB4943.1		
EMC emission	Parameter	Standard	Test Level
	Conducted	EN 55032	Class B
	Radiated	EN 55032	Class B
	Voltage Flicker	EN 61000-3-3	Design refer to Class A
	Harmonic Current	EN IEC 61000-3-2	Class A
EMC immunity	Parameter	standard	Test Level
	ESD	EN 61000-4-2	Level 3 8KV air;Level 2 4KV contact;
	Radiated Susceptibility	EN 61000-4-3	Level 3 10V/m;
	EFT/Burest	EN 61000-4-4	Level 3 2KV/5KHZ;
	Surge	EN 61000-4-5	Level 3 2KV/L-N;Level3 4kV/L-N-FG;
	Conducted	EN 61000-4-6	Level 3 10V;
	Magnetic Field	EN 61000-4-8	Level 4 30A/m;
Voltage Dips and interruptions	EN 61000-4-11	<5% residual voltage for 0.5 cycles ,70% residual voltage for 25 cycles ,<5% residual voltage for 250 cycles:	
Environment			
Operating Temp.*5	-30 \sim +70 $^{\circ}$ C (Refer to "Derating Curve")		
Storage Temp.& humidity	-40 \sim +85 $^{\circ}$ C 10-95%RH		
Operating humidity	20-95% RH, non-condensing		
Vibration	10 \sim 500Hz, 2G 10 min/1 cycle, period for 60 min. each along X, Y, Z axes		

Others		
MTBF	≥141.1K hrs MIL-HDBK-217F(25°C)	
Weight	~1.06kg	
Dimension	63*125.2*113.5mm	
Ordering	Description	Model
	M3R 240W 10A/24V	M3R240-24
	M3R 240W 5A/48V	M3R240-48

Installation instruction

Dimensions: 113.5 (height), 125.2 (width), 63 (depth), 35 (mounting tab height).

Mounting: TS35/7.5 or 15

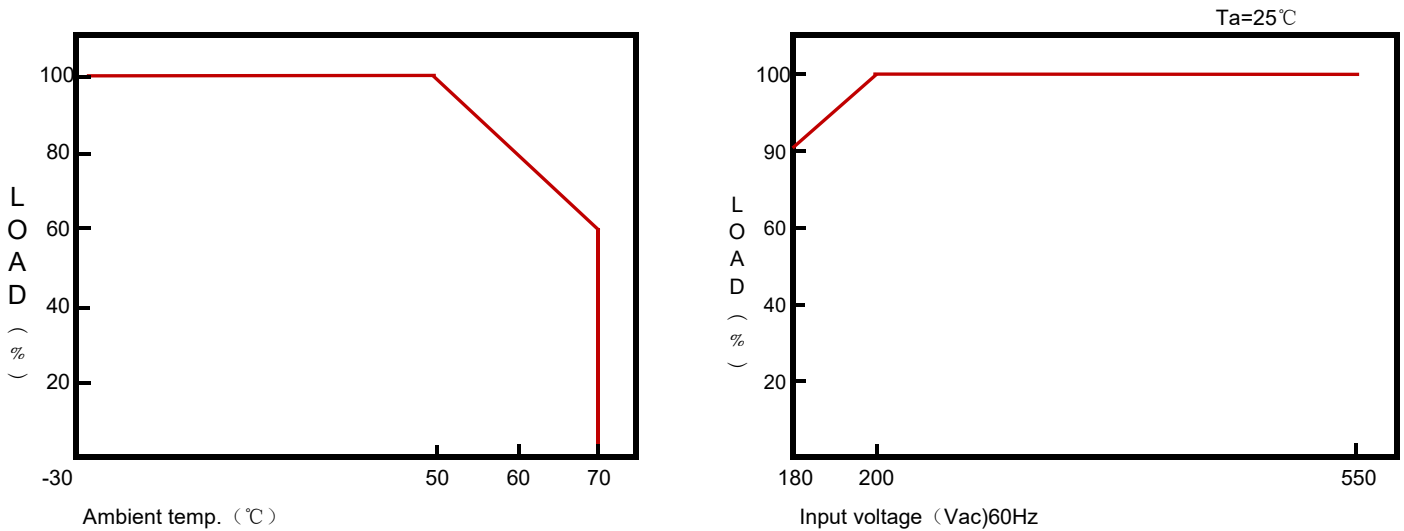
Terminal Pin No. assignment(TB1)

PIN No.	Assignment
1	FG (⊕)
2	AC/L2
3	AC/L1

Terminal Pin No. assignment(TB2)

PIN No.	Assignment
1,2	Relay contact
3,4	DC OUTPUT +V
5,6	DC OUTPUT -V

Derating curve



Note:

- Derating may be needed under low input voltage. Please refer to derating curve for more details.
- Ripple & noise are measured at 20MHZ of bandwidth by using a 12' twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
- Tolerance: includes set up tolerance, line regulation and load regulation.
- The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives
- Installation clearances: 40mm on top, 20mm on the bottom, 5mm on the left and right side are recommended when loaded permanently with full power. In case the adjacent device is a heat source, 15mm clearance is recommended.
- The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).
- All parameters are measured at 400VAC input, rated load and 25°C of ambient temperature unless otherwise specified.