

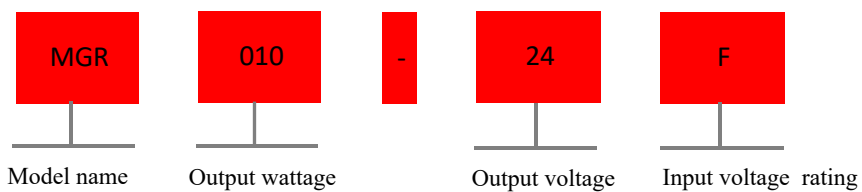
## MGR010-□F Series



### ▲ Features

- Universal AC input/full range
- Protections: short circuit/overload/over voltage
- Cooling by free air convection
- Can be installed on DIN rail TS-35/7.5 or 15
- LED indicator for power on
- No load power consumption < 0.75W
- 100% full load burn-in test
- 3 years warranty

### ▲ Model Encoding



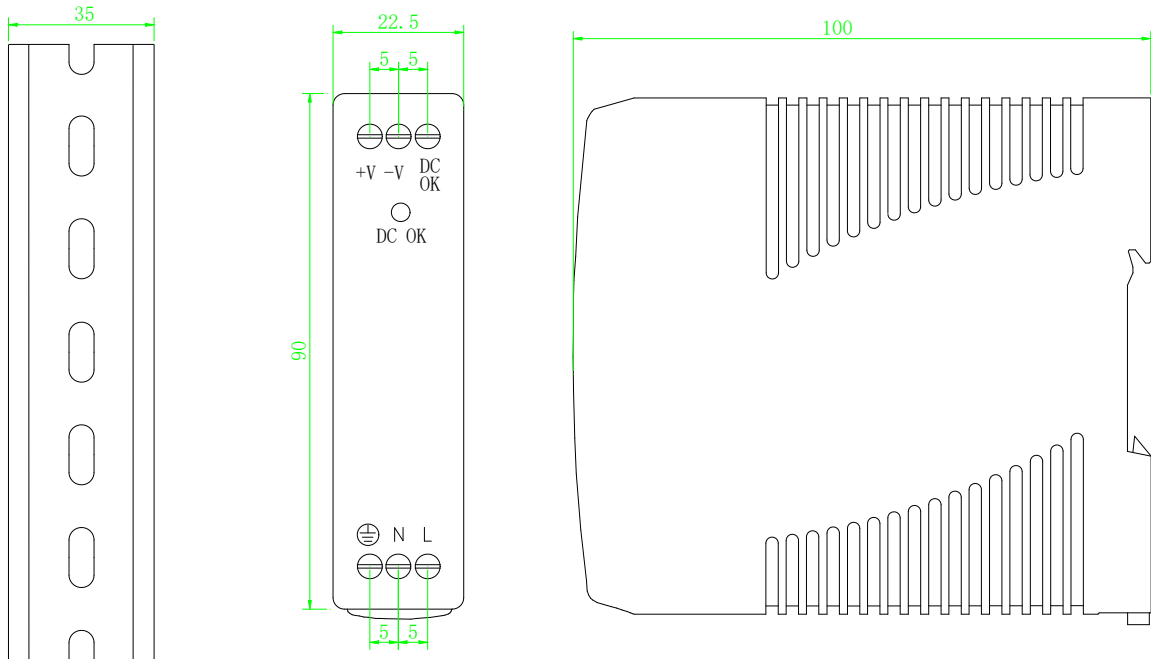


## Specification

Input				
Voltage range	85-264VAC 120-370VDC			
AC current	0.33A/115VAC 0.21A/230VAC			
Frequency range	47-63Hz			
Inrush current (max)	Cold start: 35A/115VAC 70A/230VAC			
Output				
DC voltage (V)	5V	12V	15V	24V
Efficiency	76%	80%	80%	83%
Rated Current (A)	2A	0.84A	0.67A	0.42A
Rated power(W)	10W	10W	10W	10W
Ripple & noise(max) Note.2	80mVp-p	120mVp-p	120mVp-p	150mVp-p
Voltage tolerance Note.3	±5%	±3%	±3%	±2%
Line regulation	±1%	±1%	±1%	±1%
Load regulation	±5%	±3%	±3%	±2%
Setup, rise time Note.4	500ms 30ms/230VAC 1000ms 30ms/115VAC(at full load)			
Hold up time	120ms/230VAC 25ms/115VAC(at full load)			
Status indicator	Green LED			
Protection				
Overload	105%-150% rated output power			
	Protection type: Hiccup mode, recovers automatically after fault condition is removed			
Over voltage(V)	5.75-6.75V	13.8-16.2V	17.25-20.25V	27.6-32.4V
	Protection type: Shut down O/P voltage ,re-power on to recover			
Safety and EMC				
Withstand voltage	I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC			
Isolation resistance	I/P-O/P,I/P-FG,O/P-FG :100M Ohms/500VDC/25°C/70% RH			
Safety standards	Design reference EN IEC 62368-1、GB 4943.1			
EMC emission	Parameter	Standard		Test Level/Note
	Conducted	EN 55032		Class B
	Radiated	EN 55032		Class B
	Voltage Flicker	EN 61000-3-3		Design reference Class A
EMC immunity	Harmonic Current	EN IEC 61000-3-2		Design reference Class A
	Parameter	Standard		Test Level/Note
	ESD	EN 61000-4-2		Level 3 8KV air
	Radiated Susceptibility	EN 61000-4-3		Level 2 3V/m
	EFT/Burest	EN 61000-4-4		Level 2 1KV/5KHZ
	Surge	EN 61000-4-5		Level 2 1KV/L-N;Level2 2KV/L-N-FG
	Conducted	EN 61000-4-6		Level 2 3V
Magnetic Field	EN 61000-4-8		Level 2 3A/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	
Environmental				
Working temperature	- 20~+70 °C (Refer to "Derating curve ")			
Storage temperature	-40~+85°C			
Storage humidity	10-95% RH			
Vibration	Component:10-500Hz,2G 10 min/1cycle ,60 min.each along X,Y,Z axes			

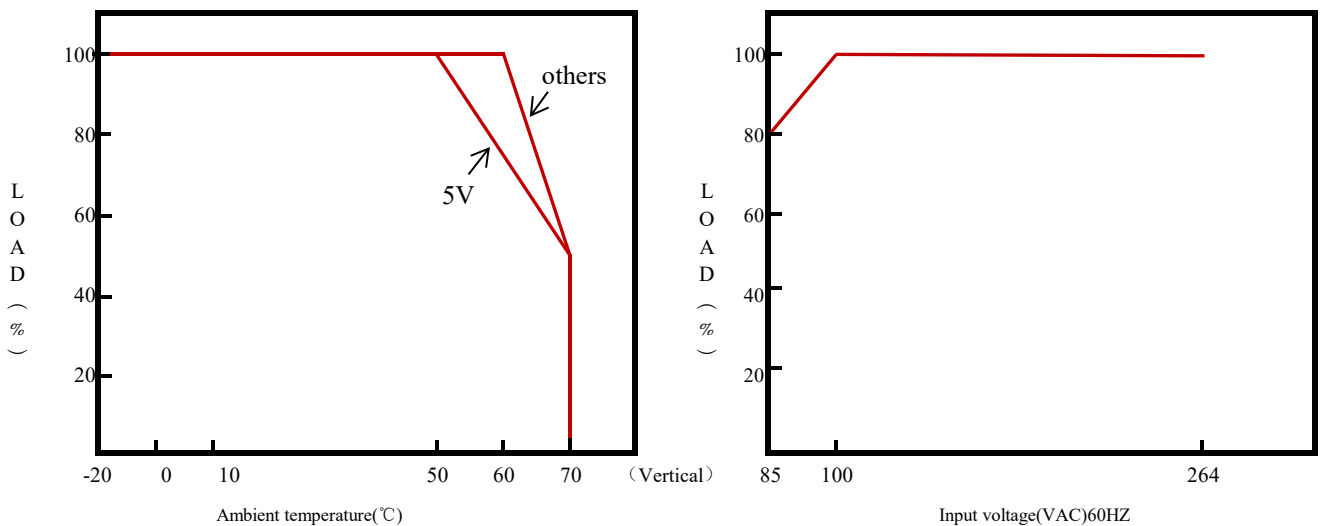
Others		
Mean time between failure	584K hrs min MIL-HDBK-217F(25°C)	
Installation	Install on DIN rail TS35	
Protection class	IP20	
Weight	About 0.18kg	
Length*width*height	90*22.5*100mm	
Data	Details	Model name
	MGR 10W 2A/5V	MGR010-05F
	MGR 10W 0.84A/12V	MGR010-12F
	MGR 10W 0.67A/15V	MGR010-15F
	MGR 10W 0.42A/24V	MGR010-24F

## Installation Instruction



Install DIN rail TS35/7.5 or TS35/15  
Tightening Torque Max. :5 kgf-cm (4.4 Lb-in)

## Derating curve



### Note:

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple & noise are measured at 20MHZ of bandwidth by using a "12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
3. Tolerance: includes set up tolerance, line regulation and load regulation.
4. Length of set up time is measured at cold first start. Turning ON/OFF the power supply may lead to increase of the set up time.
5. 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).