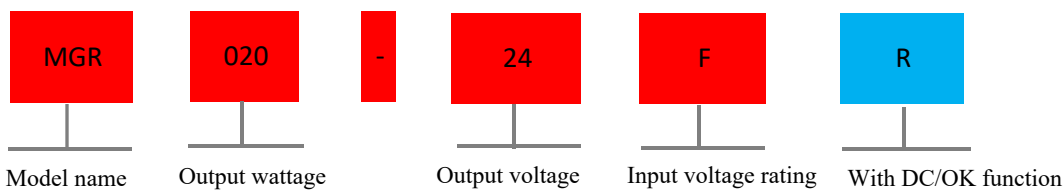




### ▲ Features

- 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
- Built in DC OK active signal
- LED indicator for power on
- No load power consumption<0.75W
- 100% full load burn -in test
- 3 years warranty

### ▲ Model Encoding



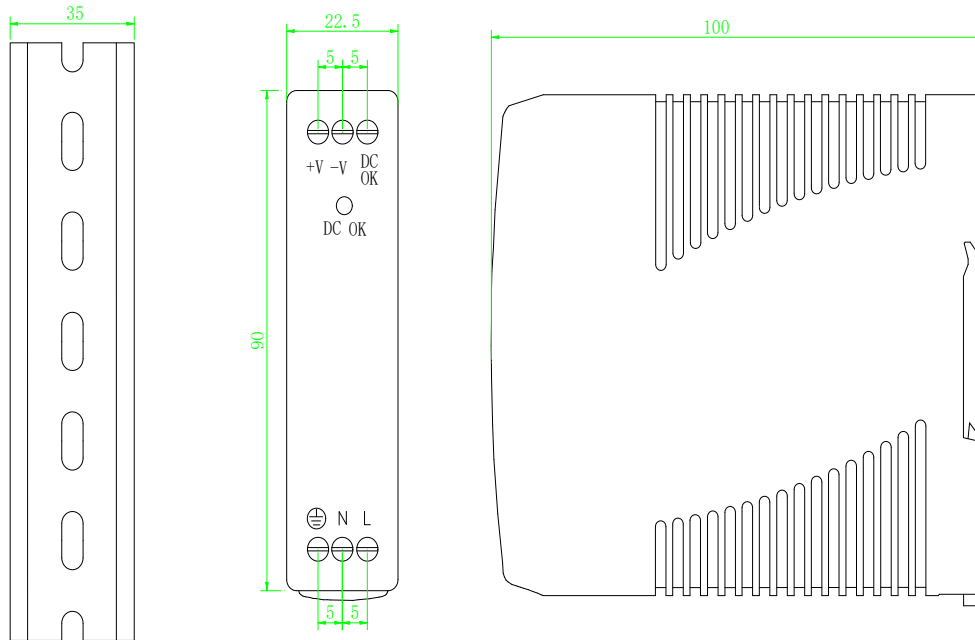


## Specification

Input				
Voltage range	85-264VAC 120-370VDC			
AC current	0.55A/115VAC 0.35A/230VAC			
Frequency range	47-63Hz			
Inrush current (max)	Cold start: 20A/115VAC 40A/230VAC			
Output				
DC voltage (V)	5V	12V	15V	24V
Efficiency	76%	80%	80%	83%
Rated Current (A)	3A	1.67A	1.34A	1A
Rated power(W)	15W	20W	20W	24W
Voltage ADJ.range	4.75-5.5V	10.8-13.2V	13.5-16.5V	21.6-26.4V
Ripple & noise(max ) Note.2	80mVp-p	120mVp-p	120mVp-p	150mVp-p
Voltage tolerance Note.3	±2%	±1%	±1%	±1%
Line regulation	±1%	±1%	±1%	±1%
Load regulation	±1%	±1%	±1%	±1%
Setup, rise time Note.4	500ms 30ms/230VAC 1000ms 30ms/115VAC(at full load)			
Hold up time	50ms/230VAC 20ms/115VAC(at full load)			
Status indicator	Green LED			
Protection				
Overload	110%-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			
DC OK signal(max.)	3.75-6V/50mA	9-13.5V/40mA	11.5-16.5V/40mA	18-27V/20mA
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			

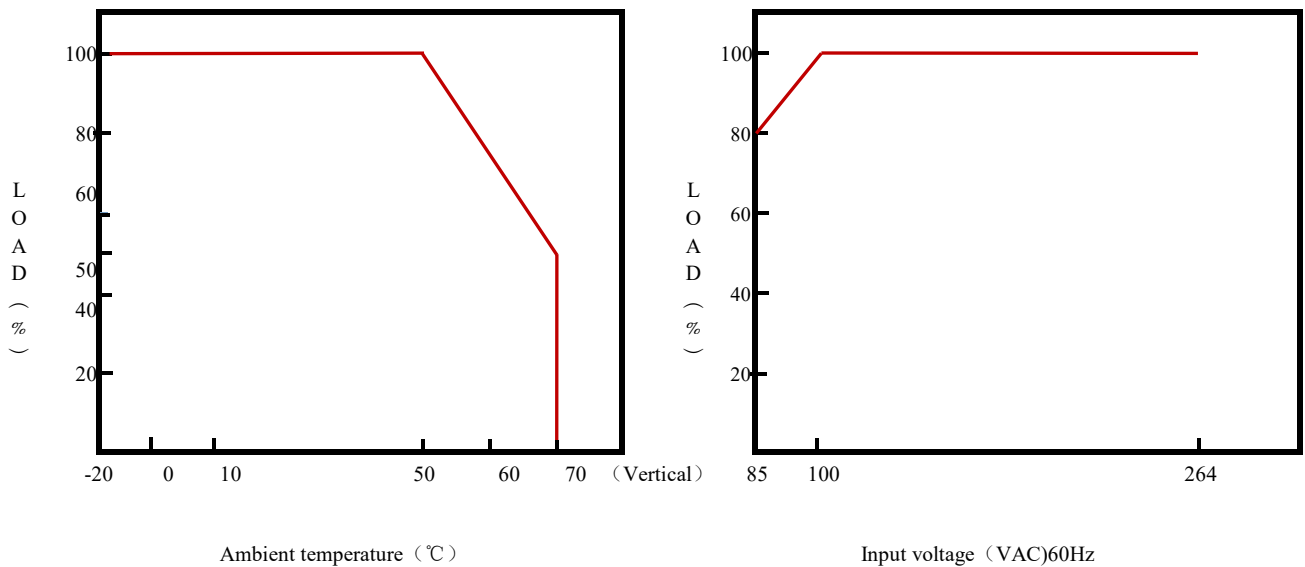
Others		
Mean time between failure	236.9K hrs min MIL-HDBK-217F(25°C)	
Installation	Install on DIN rail TS35	
Protection class	IP20	
Weight	0.2kg	
Length*width*height	90*22.5*100mm	
Data	Details	Model name
	MGR 15W 3A/5V	MGR020-05F
	MGR 20W 1.67A/12V	MGR020-12F
	MGR 20W 1.34A/15V	MGR020-15F
	MGR 24W 1A/24V	MGR020-24F
	MGR 15W 3A/5V	MGR020-05FR
	MGR 20W 1.67A/12V	MGR020-12FR
	MGR 20W 1.34A/15V	MGR020-15FR
	MGR 24W 1A/24V	MGR020-24FR

## 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 statr.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)