



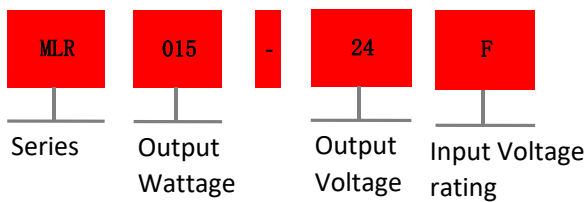
▲ Features

- Ultra slim design with 17.5mm(1SU) width
- Pass LPS(Limited power source)
- No load power consumption < 0.3W
- DIN rail TS-35/7.5 or15 mountable
- Full range AC input 85~264VAC(277VAC operational)
- DC output voltage adjustable
- Isolation Class II
- Cooling by free air convection(Operation Temp. : -30~+70°C)
- LED indicator for power ON
- Over voltage classIII
- Protections : Short circuit/Over load/Over voltage
- 3 years warranty

▲ Applications

- Building automation
- Household control system
- Industrial control system
- Factory automation
- Electro-mechanical equipment

▲ Model encoding

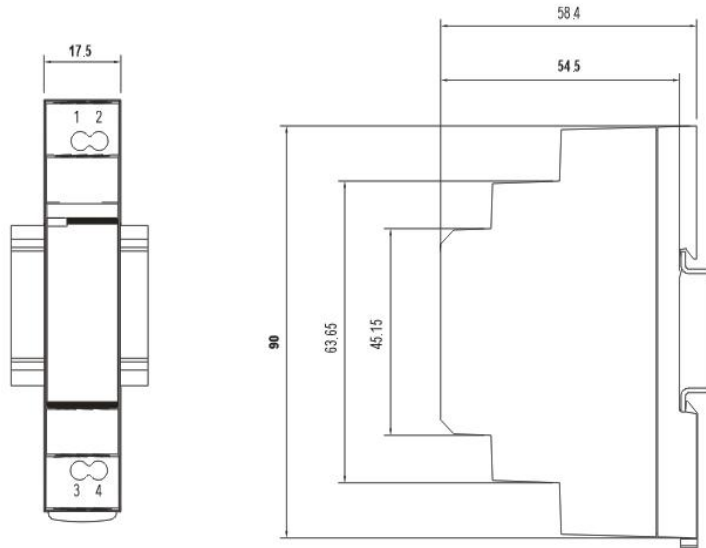


Specification

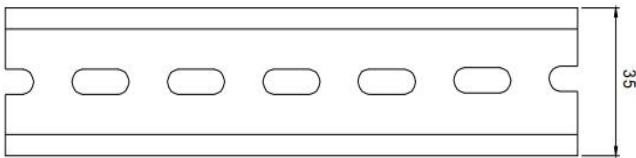
Input					
Input voltage range	85 ~ 264VAC(277VAC Operational) 120 ~ 370VDC(390VDC Operational)				
Frequency range	47 ~ 63Hz				
AC current(Typ.)	0.5A/115VAC 0.25A/230VAC				
Inrush current (Typ.)	Cold start 25A/115VAC 45A/230VAC				
Output					
Model	MLR015-05F	MLR015-12F	MLR015-15F	MLR015-24F	MLR015-48F
Output Voltage	5V	12V	15V	24V	48V
Efficiency(Typ.)	80.0%	85%	85.5%	86%	87%
Voltage ADJ range	4.5 ~ 5.5V	10.8 ~ 13.8V	13.5 ~ 18V	21.6 ~ 29V	43.2 ~ 55.2V
Rated current	2.4A	1.25A	1A	0.63A	0.32A
Current range	0 ~ 2.4A	0 ~ 1.25A	0 ~ 1A	0 ~ 0.63A	0 ~ 0.32A
Rated power	12W	15W	15W	15.2W	15.4W
Ripple & Noise(Max)*2	80mVp-p	120mVp-p	120mVp-p	150mVp-p	240mVp-p
Voltage tolerance *3	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%
Line Regulation	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
Load Regulation	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
Setup, Rise time	2000ms,80ms/230VAC 2000ms,80ms/115VAC(@Full load)				
Holdup time (Typ.)	30ms/230VAC 12ms/115VAC(@Full load)				
Indicator	Green LED				
Protection					
Over load	110% ~ 145% of rated output power				
	Hiccup mode when output voltage < 50%, recovers automatically after fault condition is removed				
	Constant current limiting when output voltage between 50% ~ 100%, recovers automatically after fault condition is removed				
Over voltage	5.75 ~ 6.75V	14.2 ~ 16.2V	18.8 ~ 22.5V	30 ~ 36V	56.5 ~ 64.8V
	Shut down output voltage, clamping by zener diode				
Safety & EMC					
Withstand Voltage	I/P-O/P:4KVAC				
Isolation resistance	I/P-O/P:100M Ohms/500VDC/25°C/70% RH				
Safety standards	Design refer to EN IEC 62368-1、GB4943.1				
EMC Emission	Parameter	Standard			Test Level/Note
	Conducted	EN 55032			Class B
	Radiated	EN 55032			Class B
	Voltage Flicker	EN 61000-3-3			Design refer to Class A
EMC Immunity	Parameter	Standard			Test Level/Note
	ESD	EN61000-4-2			Level 3 8KV air
	Radiated Susceptibility	EN61000-4-3			Level 3 10V/m
	EFT/Burest	EN61000-4-4			Level 3 2KV
	Surge	EN61000-4-5			Level 3 2KV/L-N
	Conducted	EN61000-4-6			Level 2 3V/m
	Magnetic Field	EN61000-4-8			Level 2 3A/m
Voltage Dips and interruptions	EN 61000-4-11			> 95% dip 0.5 periods, 30% dip 25 periods, > 95% interruptions 250 periods	
Environment					
Operating Temp.	-30 ~ +70°C(Refer to "Derating Curve")				
Operating Humidity	20 ~ 90% RH,non-condensing				
Storage Temp. & Humidity	-40 ~ +85°C,10 ~ 95% RH,non-condensing				
Temp. coefficient	±0.03%/°C (0 ~ 50°C)				
Vibration	10 ~ 500Hz, 2G 10min/1 cycle, period for 60 min. each along X, Y, Z axes;Mounting: Compliance to IEC60068-2-6				
Operating Altitude	2000m(*4)				
Over Voltage Category	III;According to EN61558, EN50178,EN60664-1, EN62477-1; Altitude up to 2000m				

Others					
MTBF	≥1166.1K hrs,MIL-HDBK-217F(25°C)				
Weight	78g				
Dimension	17.5*90*54.5mm(W*H*D)				
Ordering	Model	Output power	Output Voltage/current	Efficiency	Max. Capacitive Load
	MLR015-05F	12W	5V/2.4A	80%	6800uF
	MLR015-12F	15W	12V/1.25A	85%	4700uF
	MLR015-15F	15W	15V/1A	85.5%	3300uF
	MLR015-24F	15.2W	24V/0.63A	86%	2200uF
	MLR015-48F	15.4W	48V/0.32A	87%	2000uF
Accessory	Parameter		Model		

Installation instruction



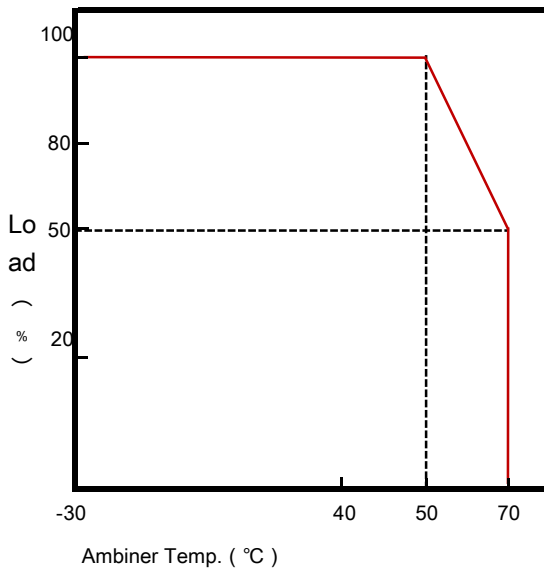
ADMISSIBLE DIN-RAIL: TS35/7.5 OR TS35/15



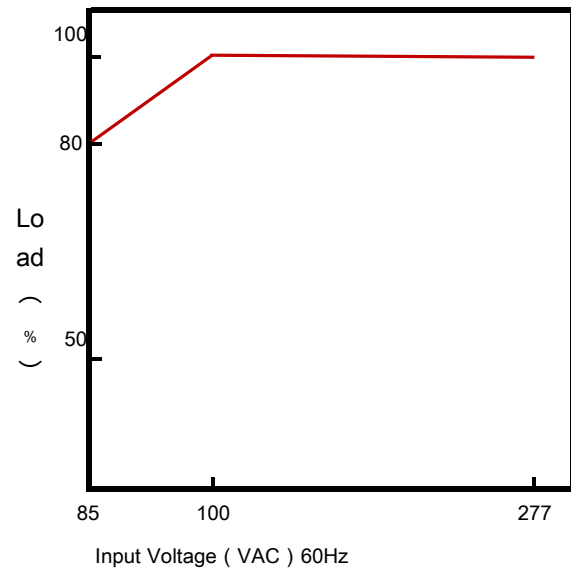
Terminal Pin No. assignment

Pin No.	Assignment	Pin No.	Assignment
1	+V	3	AC/N
2	-V	4	AC/L

Derating Curve



Output Derating VS Input Voltage



- Note:**
- 1: All parameters are measured at 230VAC input, rated load at 25°C of ambient temp. if not special mentioned
 - 2: Ripple & Noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1µf & 47µf parallel capacitor
 - 3: Tolerance: includes set up tolerance, line regulation and load regulation
 - 4: 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.)