



### Features:

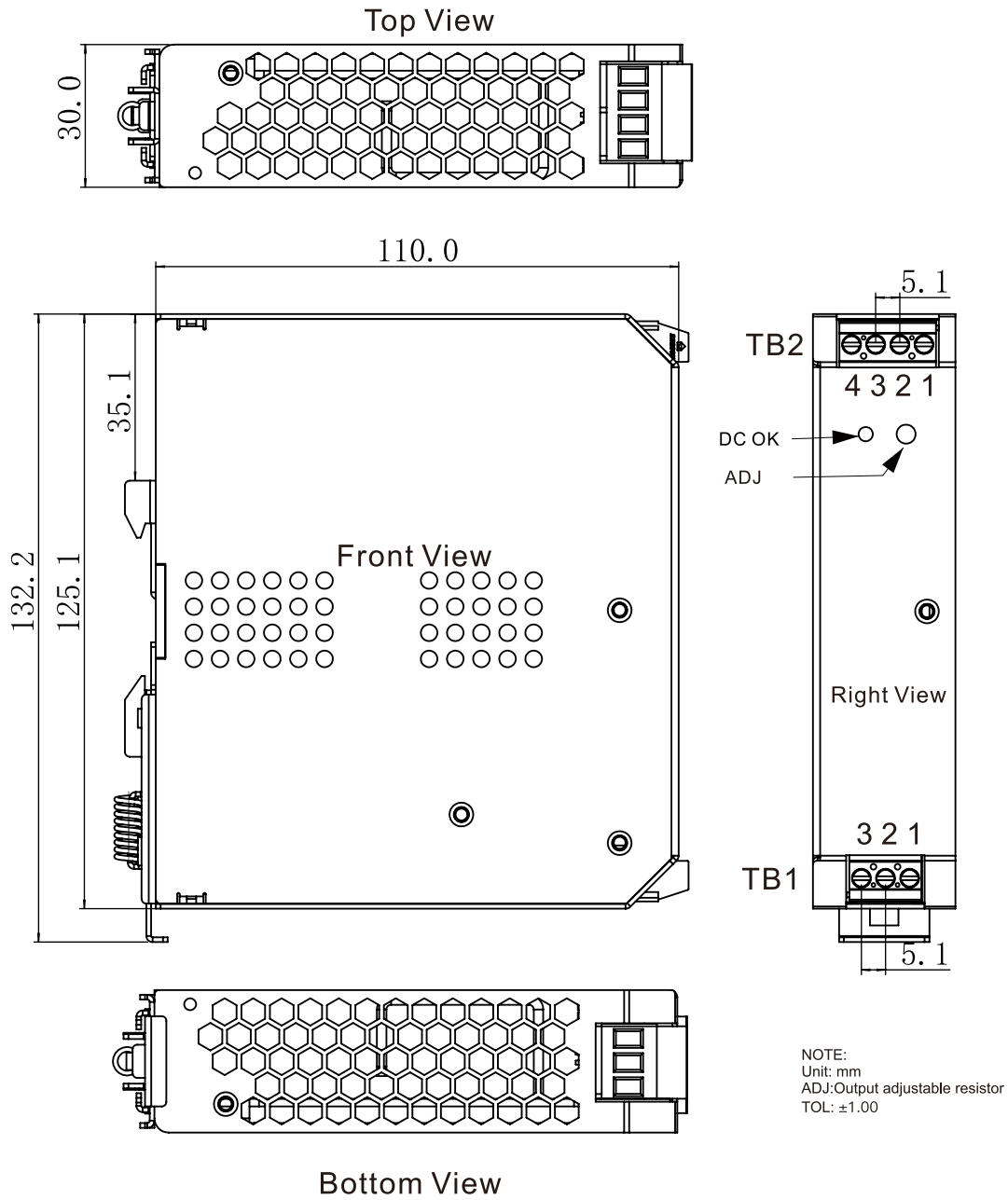
- Universal AC input 90~264VAC
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Can be installed on DIN rail TS-35/7.5 or 15
- The body width is only 30mm
- 100% full load burn-in test
- LED indicator for power on
- High reliability
- 3 years warranty
- Compliance to IEC/EN/UL 62368-1

### Specification

MODEL		MDR-100-12	MDR-100-24	MDR-100-48
INPUT	VOLTAGE RANGE	90~264VAC 127~370VDC(refer to 'static characteristic')		
	FREQUENCY RANGE	47~63Hz		
	EFFICIENCY(Typ.)	86%	89%	90%
	AC CURRENT(Typ.)	2A/115VAC 1.2A/230VAC		
	INRUSH CURRENT(Typ.)	23A/115VAC 45A/230VAC (cold start)		
	LEAKAGE CURRENT	<1mA/240VAC		
OUTPUT	DC VOLTAGE	12V	24V	48V
	RATED CURRENT	6.6A	4.2A	2.1A
	CURRENT RANGE	0~6.6A	0~4.2A	0~2.1A
	RATED POWER	79.2W	100.8W	100.8W
	RIPPLE&NOISE (max.)	100mVp-p	120mVp-p	150mVp-p
	VOLTAGE ADJ.RANGE	12~14V	24~28V	48~55V
	VOLTAGE TOLERANCE	±1%	±1%	±1%
	LINE REGULATION	±0.5%	±0.5%	±0.5%
	LOAD REGULATION	±1%	±1%	±1%
	SETUP, RISE TIME	500ms,50ms/230VAC 500ms,50ms/115VAC		
HOLD UP TIME(Typ.)	30ms/230VAC 7ms/115VAC			
PROTECTION	OVER LOAD	105%~135% rated output power		
		Protection type:constant current limiting when output voltage>50%Vo, otherwise hiccup, recovers automatically after fault condition removed		
	OVER VOLTAGE	15~18V	29~33V	56~65V
		Protection type: Shunt down, recovers after repower on		
OVER TEMPERATURE	Protection type: Shunt down, recovers after repower on			
ENVIRONMENT	WORKING TEMP.,HUMIDITY	-20~+70°C (Refer to "Derating curve") , 20~90%RH non-condensing		
	STORAGE TEMP.,HUMIDITY	-40~+85°C, 10~95%RH		
	TEMP. COEFFICIENT	±0.03%/°C (0~50°C)		
	VIBRATION	10~500Hz, 2G 10min./1 cycle, each along X、Y、Z axes		

Safety and electromagnetic compatibility	Safety standards	Refer to UL62368-1,TUV EN62368-1,CCC GB4943.1			
	Withstand voltage and isolation resistance	I/P-O/P: 3KVac; 100MΩ / 500Vdc / 25°C / 70%RH			
		I/P-FG: 2KVac; 100MΩ / 500Vdc / 25°C / 70%RH			
		O/P-FG: 0.5KVac; 100MΩ / 500Vdc / 25°C / 70%RH			
	Electromagnetic	Parameter	Standard		Test Level / Note
		Conducted emission	BS EN/EN55032(CISPR32),FCC PART 15 / CISPR22 ,GB9254.1		Class B
		Radiated emission	BS EN/EN55032(CISPR32),FCC PART 15 / CISPR22 ,GB9254.1		Class B
		Harmonic current	BS EN/EN61000-3-2,GB17625.1		Class A
		Voltage flicker	BS EN/EN61000-3-3		----
	Electromagnetic compatibility immunity	BS EN/EN55035			
		Parameter	Standard		Test Level /Note
		ESD	BS EN/EN61000-4-2		Level 4, 8KV air, Level 2, 4KV contact, criteria A
		RF field susceptibility	BS EN/EN61000-4-3		Level 3, criteria A
		EFT bursts	BS EN/EN61000-4-4		Level 3, criteria A
Surge susceptibility		BS EN/EN61000-4-5		Level 3, 1KV/L-N, 2KV/L/N-FG criteria A	
Conducted susceptibility		BS EN/EN61000-4-6		Level 3, criteria A	
Magnetic field immunity		BS EN/EN61000-4-8		Level 4, criteria A	
Voltage dips and interruptions	BS EN/EN61000-4-11		>95% dip 0.5 periods, 30% dip 25 periods , >95% interruptions 250 periods		
OTHERS	MTBF	≥450Khrs MIL-HDBK-217F(25°C)			
	DIMENSION	30*125.1*110mm(W*H*D)			
	PACKING	0.5Kg; 24pcs/ 13Kg/ 1.34CUFT			
NOTE	<p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</p> <p>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF &amp; 47uF parallel capacitor.</p> <p>3. Tolerance: includes set up tolerance, line regulation and load regulation.</p> <p>4. Line regulation is measured from low line to high line at rated load.</p> <p>5. Load regulation is measured from 0% to 100% rated load</p> <p>6. Length of set up time is measured at cold first start, Turning ON/OFF the power supply very quickly may lead to increase of the set up time.</p> <p>7. The ambient temperature derating of 5°C/1000m is needed for operating altitude great than 2000m(6500ft).</p> <p>8. The power supply is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on a 360mm*360mm metal plate with 1mm of thickness. The final equipment must be re-confirmed that it still meets EMC directives.</p> <p>9. 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.</p>				

Mechanical specification



NOTE:  
Unit: mm  
ADJ: Output adjustable resistor  
TOL: ±1.00

ADMISSIBLE DIN-RAIL: TS35/7.5 OR TS35/15  
Terminal Pin No. Assignment

TB1		TB2	
Pin No.	Assignment	Pin No.	Assignment
1	AC/L	1,2	DC output -V
2	AC/N	3,4	DC output +V
3	FG		

**Block diagram**

