EDR-120 Guide rail power supply Series



DIMENSION : 40*125.2*113.5mm

Features:

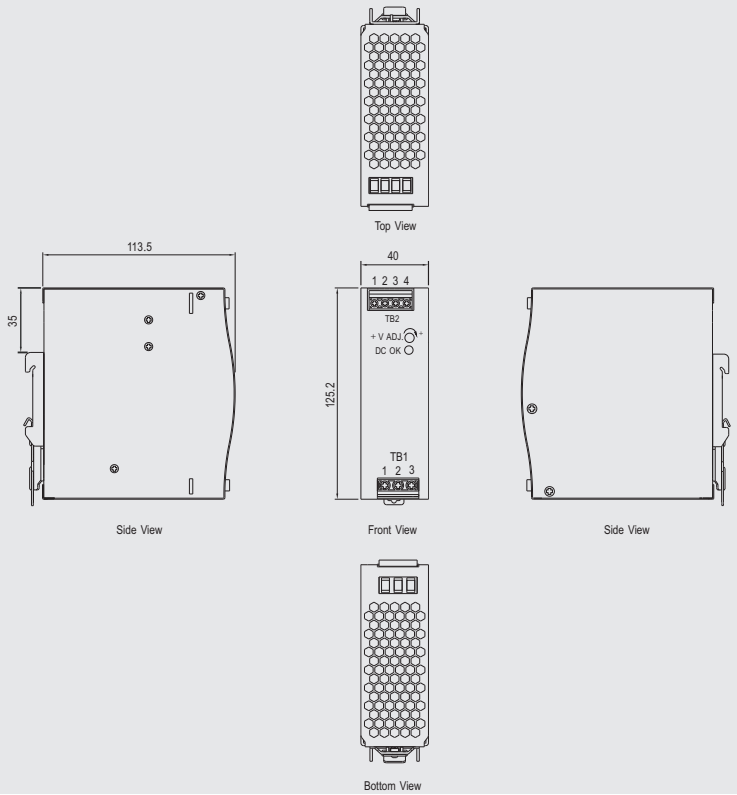
- Universal AC input/Full range
- Protections: Short circuit/Overload/Over voltage/Over temperature
- Cooling by free air convection
- Built-in EMI filter with minimal Bellows
- Power Protection Level : IP31
- 100% full load burn-in test
- Complay with EN55022:2010+AC : 2010+AC : 2011/EN61000-3-2 and EN61000-4-2,3,4,5,6,8,11/EN60950-1
- 3-year quality assurance (two replacement per year, free maintenance for two years)

SPECIFICATION

MODEL		EDR-120-12	EDR-120-24	NDR-120-48
OUTPUT	DC VOLTAGE	12V	24V	48V
	RATED CURRENT	10.0A	5.0A	2.5A
	CURRENT RANGE	0-10.0A	0-5.0A	0-2.5A
	RATED POWER	120W	120W	120W
	RIPPLE & NOISE (max.) Note.2	100mVp-p	120mVp-p	150mVp-p
	VOLTAGE ADJ. RANGE	12-14V	24-28V	48-55V
	VOLTAGE TOLERANCE Note.3	±2.0%	±1.0%	±1.0%
	LINE REGULATION	±0.5%	±0.5%	±0.5%
	LOAD REGULATION	±1.0%	±1.0%	±1.0%
	SETUP, RISE TIME	1200ms,60ms/230VAC 2500ms,60ms/115VAC(at full load)		
	HOLD UP TIME (Typ.)	16ms/230VAC 10ms/115VAC(at full load)		
INPUT	VOLTAGE RANGE Note.6	90~264VAC 127~370VDC [DC input operation possible by connecting AC/L(+),AC/N(-)]		
	FREQUENCY RANGE	47~63Hz		
	EFFICIENCY(Typ.)	85%	87.5%	88.5%
	AC CURRENT(Typ.)	2.25A/115VAC 1.3A/230VAC		
	INRUSH CURRENT (Typ.)	20A/115VAC 35A/230VAC		
	LEAKAGE CURRENT	<1mA/240VAC		
PROTECTION	OVERLOAD	105%~130% rated output power		
		Protection type : Constant current limiting, recovers automatically after fault condition is removed		
	OVER VOLTAGE	14~17V	29~33V	56~65V
		Protection type : Shut down o/p voltage, re-power on to recover		
	OVER TEMPERATURE	Shut down o/p voltage, re-power on to recover		
ENVIRONMENT	WORKING TEMP.	-20℃~+60℃ (Refer to "Derating Curve")		
	WORKING HUMIDITY	20~95%RH non-condensing		
	STORAGE TEMP.,HUNMIDITY	-40~+85℃ , 10~90%RH		
	TEMP. COEFFICIENT	±0.03%/℃ (0~50℃)		
	VIBRATION	Component : 10~500Hz,2G 10min./1 cycle , 60min. each along X,Y,Z axes; Mounting: Compliance IEC60068-2-6		
SAFETY& EMC (Note.4)	SAFETY STANDARADS	UL508,TUV BS EN/EN62368-1, EAC TP TC 004, BSMI CNS14336-1, IS13252(Part1)/IEC60950-1 approved; (meet BS EN/EN60204-1)		
	WITHSTAND VOLTAGE	I/P-O/P : 2KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC		
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG: > 100M Ohms/500VDC/25℃/70%RH		
	EMC EMISSION	Compliance to BS EN/EN55032(CISPR32) Class A, BS EN/EN61000-3-2 , EAC TP TC 020, CNS13438 Class A		
	EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11,BS EN/EN55024, BS EN/EN61000-6-2(BS EN/EN50082-2), heavy industry level, criteria A , EAC TP TC 020		
OTHERS	MTBF	474.6K hrs. MIL-HDBK-217F(25℃)		
	DIMENSION	40*125.2*113.5mm(W*H*D)		
	PACKING	0.6Kg; 20pcs/13Kg/1.16CUFT		
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ 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 ragulation and load regulation. 4. The power supply is considered a component which will be installed into final equipment. The final equipment must be re-confirmed that it still meets EMC directives. 5. 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 soure, 15mm clearance is recommended. 6. Derating may be needed under low input voltage. Please check the derating curve for more details.			

Mechanical Specification

measurement unit : mm



Terminal Pin No. Assignment (TB1)

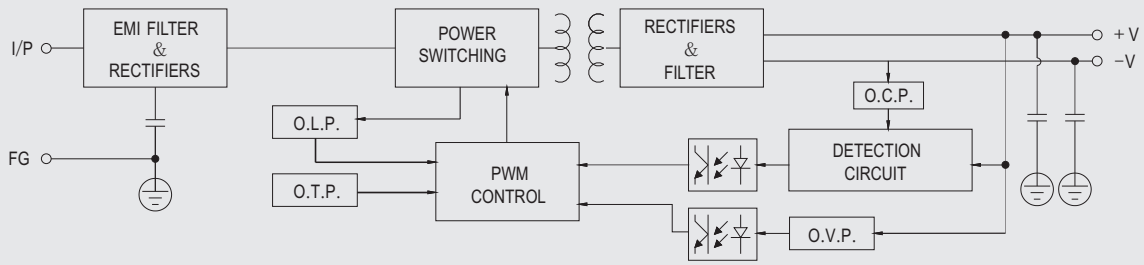
Pin No.	Assignment
1	FG ⏚
2	AC/N or DC −
3	AC/L or DC +

Terminal Pin No. Assignment (TB2)

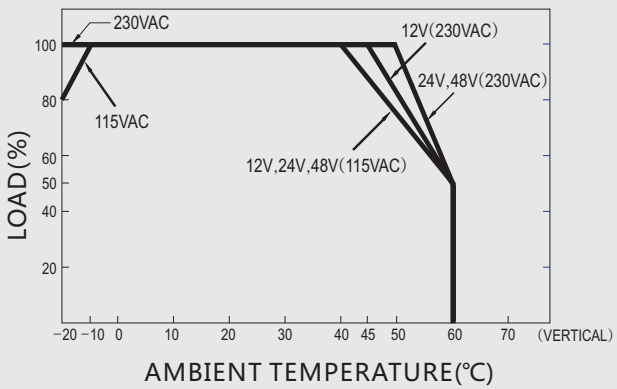
Pin No.	Assignment
1,2	DC OUTPUT −V
3,4	DC OUTPUT+ V

Block Diagram

fosc : 70KHz



Derating Curve



Static Characteristics

