ADVANCED THERMOELECTRIC

Technical Data Sheet

DIN RAIL Power Supply
120W 24V Single Output

UNIT CODE	DESCRIPTION
DIN RP-120W-24V	120 Watt, 24V, Single Output DIN RAIL Power Supply with PFC Function

SPECIFICATIONS		
Input	Output	Agency approvals
Universal AC Input 88~132VAC/ 176~264VAC	+24VDC@0-5A	UL / CUL / TUV / CB / CE

Features at a Glance:

Low cost, high reliability, 85% efficient
UL 508(industrial control equipment)approved
Cooling by free air (natural) convection
Working Temperature: -10~60ºC (see derating curve)
Output voltage: 24VDC @ 5A
AC input selectable by switch - 88~132VAC/ 176~264VAC
Input current @ maximum load: 2.8A (115V)/1.7A(230V)

Soft-start circuit, limiting Ac surge current
Short circuit, overload, overvoltage protected
Built-in EMI filter, low ripple noise
100% full load burn in test
Installed on DIN rail TS35 / 7.5 or 15
Fixed switching frequency at 55KHz
Safety standards: **UL508**, UL60950-1, TUV EN60950-1 approved
EMC standards: EN55022 class B, EN61000-3-2,3, EN61000-6-2, EN61000-4-2,3,4,5,6,8,11, ENV50204
LED indicator for power on
100% full load burn-in test
3 years warranty
MTBF hours: 136.8Khrs min. MIL-HDBK-217F (25)
Case: 921

Weight: 1.4 lbs (0.63 Kgs)

Dimensions: 2.6"L x 3.9"W x 4.9"H
65.5L X 100W X 124.4H mm

DRP-120 series are compact 120Watt Single Output DIN rail type AC-to-DC type power suppliess (transformers) designed for the fast growing DIN rail segment. Universal AC input means that they will work anywhere and with built-in passive PFC function your componets will work flawlessly.

What we most like is that these units can work with natural convection cooling only in ambients over +55℃. This significantly increases the reliability and lifetime of the power supply in elctronics enclosures and they compliment our Powercool enclosure air conditioners in telecom, factory automation and electro-mechanical applications with low to moderate power demand.

Pricing: 1+ $ 129.50
10+ 97.35
25+ 89.70

ELECTRACOOL.COM

ADVANCED THERMOELECTRIC

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120W Single Output Industrial DIN RAIL Power Supply DR-120 series

Features :

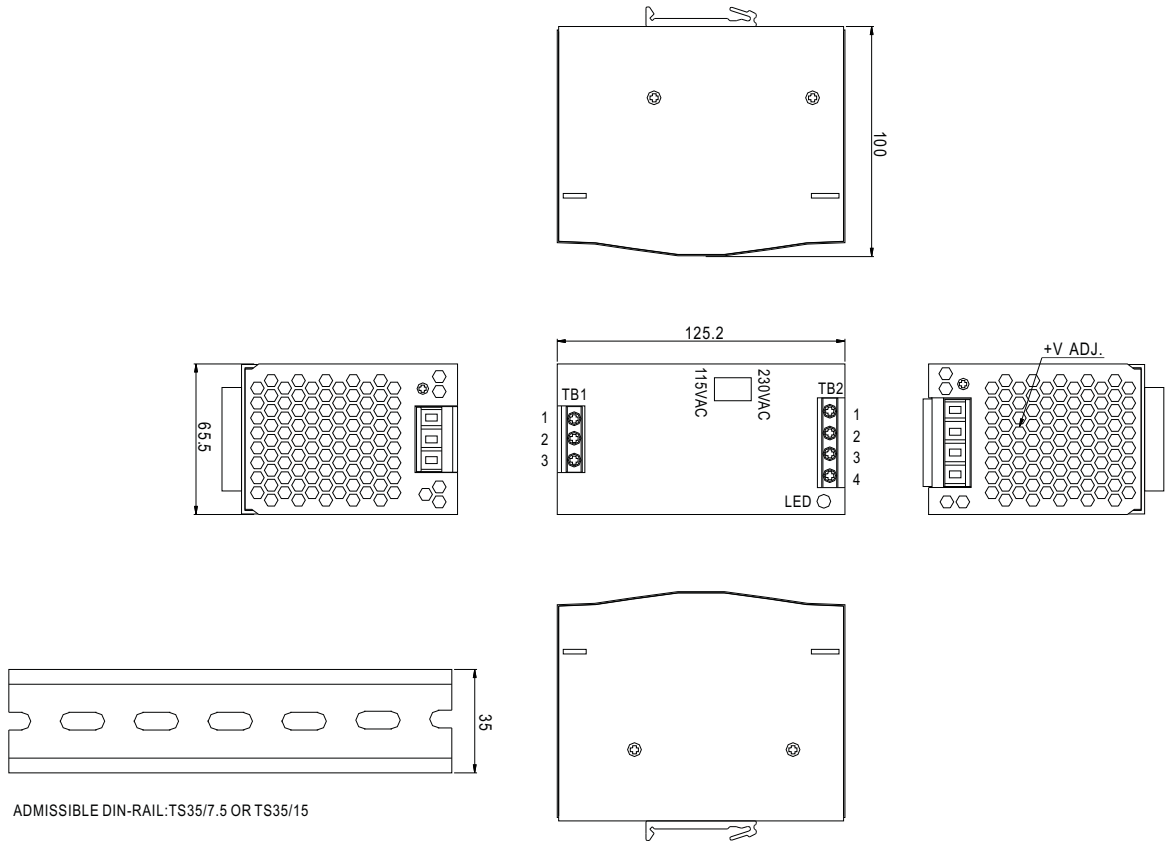
- AC input range selectable by switch
- Protections:Short circuit/Over load/Over voltage/Over temperature
- Cooling by free air convection
- Can be installed on DIN rail TS-35/7.5 or 15
- UL 508(industrial control equipment)approved
- LED indicator for power on
- 100% full load burn-in test
- Fixed switching frequency at 55KHz
- 3 years warranty

SPECIFICATION

MODEL		DR-120-12	DR-120-24	DR-120-48
OUTPUT	DC VOLTAGE	12V	24V	48V
	RATED CURRENT	10A	5A	2.5A
	CURRENT RANGE	0 ~ 10A	0 ~ 5A	0 ~ 2.5A
	RATED POWER	120W	120W	120W
	RIPPLE & NOISE (max.) Note.2	80mVp-p	80mVp-p	100mVp-p
	VOLTAGE ADJ. RANGE	12 ~ 14V	24 ~ 28V	48 ~ 53V
	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, HOLD TIME	500ms, 70ms, 30ms/230VAC 500ms, 70ms, 30ms/115VAC at full load		
INPUT	VOLTAGE RANGE	88 ~ 132VAC/176 ~ 264VAC by switch 248 ~ 370VDC		
	FREQUENCY RANGE	47 ~ 63Hz		
	EFFICIENCY (Typ.)	80%	84%	85%
	AC CURRENT	3.3A/115VAC 2A/230VAC		
	INRUSH CURRENT (max.)	COLD START 30A/115VAC 60A/230VAC		
	LEAKAGE CURRENT	<3.5mA / 240VAC		
PROTECTION	OVER LOAD	105 ~ 150% rated output power		
		Protection type : Constant current limiting, recovers automatically after fault condition is removed		
	OVER VOLTAGE	15 ~ 16.5V	29 ~ 33V	58 ~ 65V
		Protection type : Shut down o/p voltage, re-power on to recover		
	OVER TEMPERATURE	85℃±5℃ (TSW1)	90℃±5℃(TSW1)	90℃±5℃(TSW1)
		Protection type : Shut down o/p voltage, recovers automatically after temperature goes down		
ENVIRONMENT	WORKING TEMP.	-10 ~ +60℃ (Refer to output load derating curve)		
	WORKING HUMIDITY	20 ~ 90% RH non-condensing		
	STORAGE TEMP., HUMIDITY	-20 ~ +85℃, 10 ~ 95% RH		
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 50℃)		
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes		
SAFETY & EMC (Note 4)	SAFETY STANDARDS	UL508, UL60950-1, TUV EN60950-1 Approved		
	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		
	EMI CONDUCTION & RADIATION	Compliance to EN55011,EN55022 (CISPR22) Class B		
	HARMONIC CURRENT	Compliance to EN61000-3-2,-3		
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, ENV50204, EN55024, EN61000-6-2 (EN50082-2) Heavy industry level, criteria A		
OTHERS	MTBF	136.8Khrs min. MIL-HDBK-217F (25℃)		
	DIMENSION	65.5*125.2*100mm (W*H*D)		
	PACKING	0.79Kg; 20pcs/16.5Kg/1.1CUFT		
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 regulation and load regulation. 4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.			

■ Mechanical Specification

Case No. 921 Unit:mm



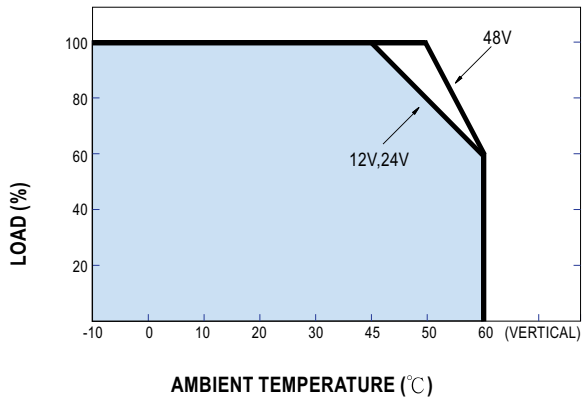
Terminal Pin. No Assignment (TB1)

Pin No.	Assignment
1	FG ⏚
2	AC/N
3	AC/L

Terminal Pin. No Assignment (TB2)

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

■ Output Derating



■ Static Characteristics (24V)