



BATTERY CHARGER SINGLE PHASE

BP 1012 M

Technical documentation



FEATURES

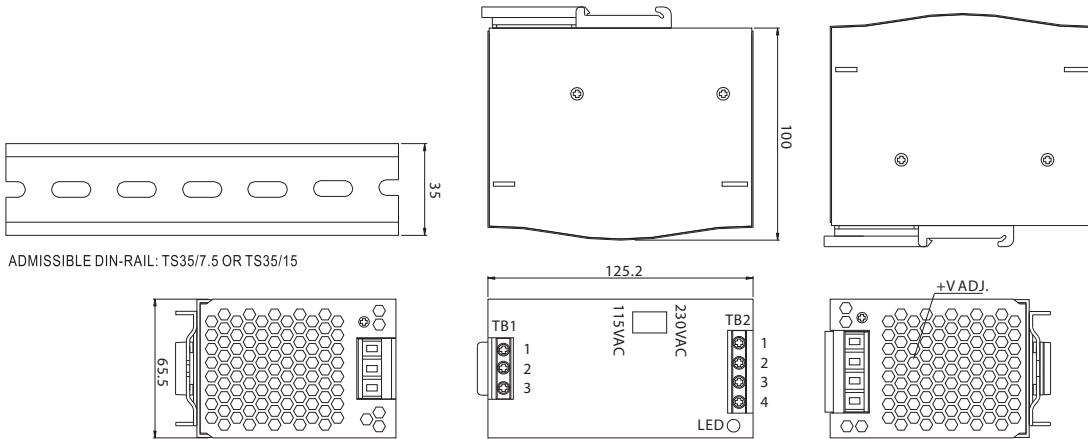
- AC input range selectable by switch
- Protections: Short circuit/ Overload/ Over voltage/ Over temperature
- Cooling by free air convection
- LED indicator for power on
- Can be installed on DIN rail TS-35/7.5 or TS-35/15
- 100% full load burn-in test
- Fixed switching frequency at 55kHz
- 3 years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

OUTPUT	DC VOLTAGE	12 V
	RATED CURRENT	10 A
	CURRENT RANGE	0 ~ 10 A
	RATED POWER	120 W
	RIPPLE & NOISE (Max.)	80mVp-p
	VOLTAGE ADJ. RANGE	12 ~ 14 V
	LINE REGULATION	(+/-) 0.5%
	LOAD REGULATION	(+/-) 1%
	SETUP, RISE TIME	500ms, 70ms/230V _{AC} 500ms, 70ms/115V _{AC} at full load
	HOLD UP TIME (Typ.)	36ms/230V _{AC} 32ms/115V _{AC} at full load
INPUT	⚠ INFORMATION	Please adjust output voltage required with the potentiometer according to the battery charger type before the commissioning
	VOLTAGE RANGE	88 ~ 550V _{AC} / 176 ~ 264V _{AC} by switch 248 ~ 370V _{DC}
	FREQUENCY RANGE	47 ~ 63Hz
	EFFICIENCY (Typ.)	80%
	AC CURRENT (Typ.)	2.6A/115V _{AC} 1.6A/230V _{AC}
	INRUSH CURRENT (Typ.)	Cold start 20A/115V _{AC} 40A/230V _{AC}
	LEAKAGE CURRENT	<3.5mA / 240V _{AC}
PROTECTION	OVERLOAD	105 ~ 150% rated output power Protection type: constant current limiting with auto-recovery after fault condition is removed
	OVER VOLTAGE	15 ~16.5V Protection type : shut down o/p voltage, re-power on to recover
	OVER TEMPERATURE	90°C (+/-)5°C (TSW1) Protection type : shut down o/p voltage, recovers automatically after temperatures goes down
ENVIRONMENT	WORKING TEMP.	(-)10 ~ (+)60°C (Refer to output load derating curve)
	WORKING HUMIDITY	20 ~ 90% RH non condensing
	STORAGE TEMP, HUMIDITY	(-)20 ~ (+)85°C, 10 ~ 95% RH
	TEMP. COEFFICIENT	(+/-)0.03%/°C (0 ~ 50°C)
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes ; Mounting : Compliance with IEC60068-2-6
SAFETY & EMC	SAFETY STANDARDS	UL508, UL60950-1, TUV EN60950-1 approved
	WITHSTAND VOLTAGE	I/P-O/P:3KV _{AC} I/P-FG:1.5KV _{AC} O/P-FG:0.5KV _{AC}
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohm / 500V _{DC}
	EMI CONDUCTION & RADIATION	Compliance with EN55011, EN55022 (CISPR22) Class B
	HARMONIC CURRENT	Compliance with EN61000-3-2.3
	EMS IMMUNITY	Compliance with EN61000-4-2,3,4,5,6,8,11, ENV50204, EN55204, EN61000-6-2 (EN50082-2), heavy industry level, criteria A
OTHERS	MTBF	136.8Khrs min MIL-HDBK-217F (25°C)
	DIMENSION	65.5 x 125.2 x 100mm (W x H x D)
	PACKING	0.79Kg; 20pcs/16.5Kg/1.29CUFT
NOTES	All parameters NOT specially mentioned are measured at 230V _{AC} input, rated load and 25°C of ambient temperature.	
	Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair wire terminated with a 0.1uf & 47uf parallel capacitor.	
	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	



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MECHANICAL SPECIFICATIONS



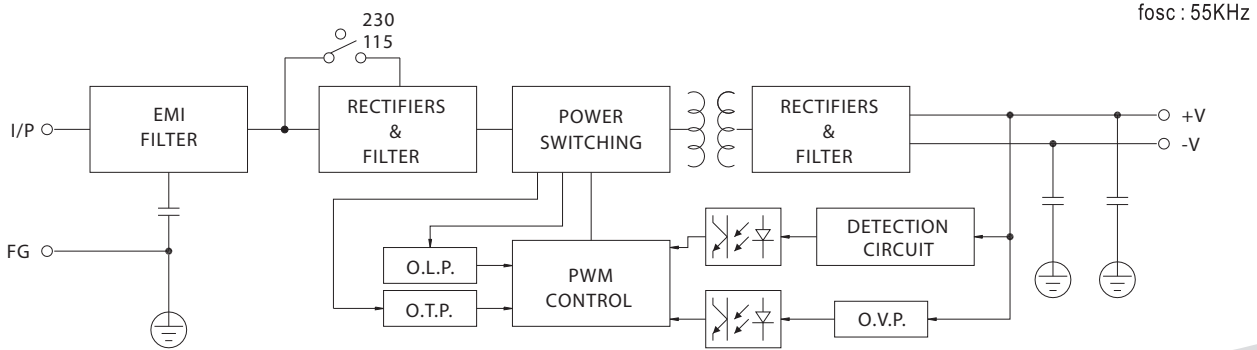
Terminal Pin No. Assignment (TB1)

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

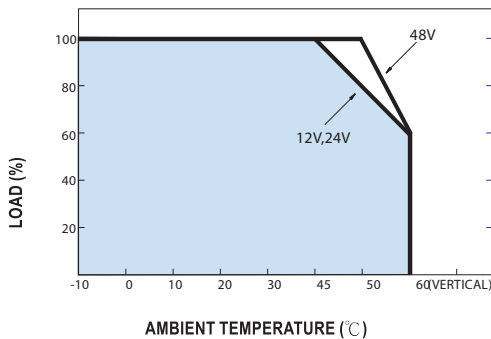
Terminal Pin No. Assignment (TB2)

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

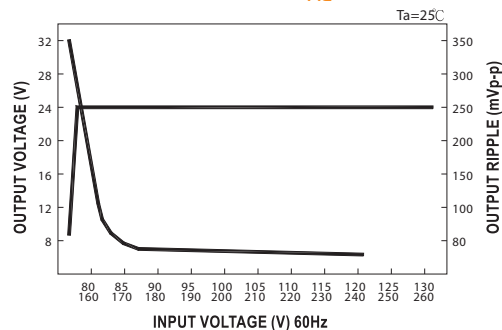
BLOCK DIAGRAM



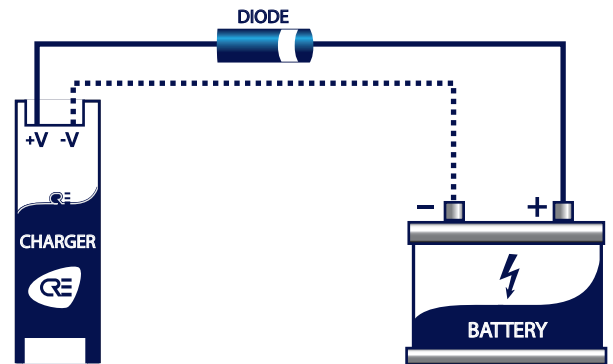
DERATING CURVE



OUTPUT DERATING VS INPUT VOLTAGE (V_{AC})



BP DIODE KIT PROVIDED WITH CHARGER



ASSEMBLY INSTRUCTIONS

P/N: BPX DIODE