240W AC-DC Open Frame Power Supply Series

UL62368-1 BS EN/EN62368-1 TPTC004 IEC62368-1

■ Features :

·Universal AC input / Full range(90~264VAC)
·Protections: Short circuit / Over current / Over voltage
·Built-in active PFC function
·Cooling by free air convection
·LED indicator for power on
· Fixed Output current level
·100% full load burn-in test&High reliability
·Standby Power<0.5W,fully compliance with EU ERP& CoC version 5
·Suitable for all kinds of equipments
·3 years warranty

■ Applications :

·Industrial automation machinery
·Industrial control system
·Mechanical and electrical equipment
·Electronic instruments,equipments or apparatus

■ Description :

GRT-240WL is a 240WL highly reliable green PCB type power supply with a high power density on the compact footprint. It accepts 80~264VAC input and offers various output voltages between 12V and 48V. The working efficiency is up to 91 % and the extremely low no load power consumption is down below 0.3W. GRT-240WL is able to be used for both Class I (with FG) and Class II(no FG) system design. GRT-240WLL has the complete protection functions; it is complied with the international safety regulations such as TUV BS EN/EN62368-1, UL62368-1 and IEC62368- 1. GRT-240WL series serves as a high price-to-performance power supply solution for various industrial applications.

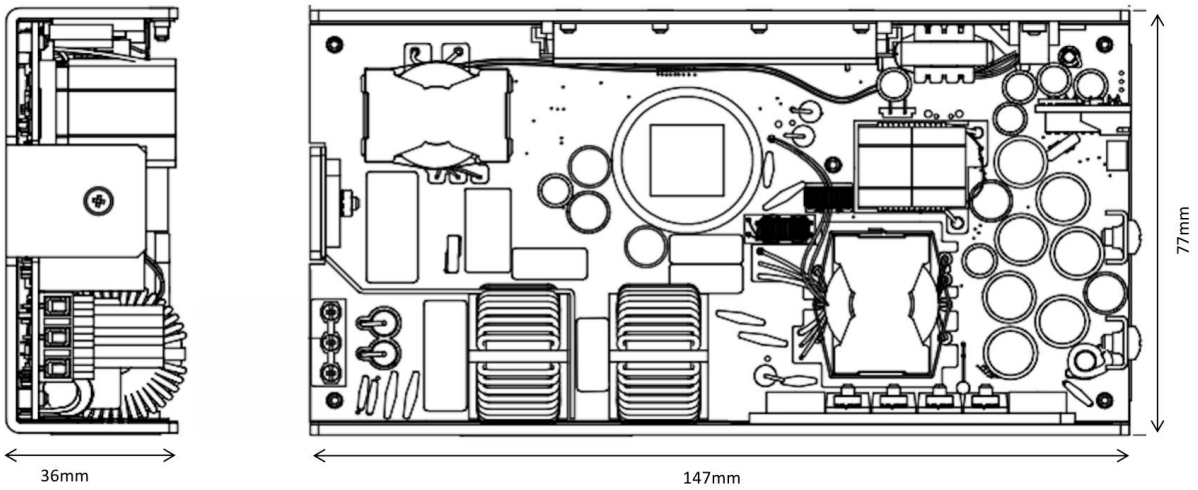
■ Specification

MODEL			GRT-240WL-P-12	GRT-240WL-P-15	GRT-240WL-P-24	GRT-240WL-P-36	GRT-240WL-P-48	GRT-240WL-P-54
OUTPUT	DC VOLTAGE		12V	15V	24V	36V	48V	54V
	RATED CURRENT		16A	15A	10A	6.7A	5A	4.45A
	RATED POWER		192W	225W	240W	241.2W	240W	240.3W
	RIPPLE & NOISE (max.) Note.2		150mVp-p	150mVp-p	150mVp-p	250mVp-p	250mVp-p	350mVp-p
	VOLTAGE ADJ. RANGE Note.5		11.2 ~ 12.8V	14 ~ 16V	22.4 ~ 25.6V	33.5 ~ 38.5V	44.8 ~ 51.2V	50 ~ 57V
	CURRENT ADJ. RANGE		Can be adjusted by internal potentiometer for A type only					
			8 ~ 16A	7.5 ~ 15A	5 ~ 10A	3.3 ~ 6.7A	2.5 ~ 5A	2.23 ~ 4.45A
	VOLTAGE TOLERANCE Note.3		±2.5%	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%
	LINE REGULATION		±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	LOAD REGULATION		±2.0%	±1.5%	±0.5%	±0.5%	±0.5%	±0.5%
	SETUP, RISE TIME Note.6		1000ms,80ms/115VAC 500ms,80ms/230VAC at full load					
	HOLD UP TIME (Typ.)		15ms at full load 230VAC /115VAC					
INPUT	VOLTAGE RANGE Note.4		85~264VAC (277VAC operational) 120~370VDC(390VDC operational)					
	FREQUENCY RANGE		47 ~ 63Hz					
	POWER FACTOR (Typ.)		PF>0.98/115VAC, PF>0.95/230VAC, PF>0.92/277VAC at full load					
	EFFICIENCY (Typ.)		90%	90%	92.5%	92.5%	93%	93.5%
	AC CURRENT (Typ.)	12V	2A / 115VAC 1.05A / 230VAC 0.9A/277VAC					
		15~54V	2.5A / 115VAC 1.3A / 230VAC 1.1A/277VAC					
	INRUSH CURRENT(Typ.)		COLD START 75A at 230VAC					
	LEAKAGE CURRENT		<0.75mA / 277VAC					
PROTECTION	OVER CURRENT		105 ~ 125%					
			Protection type : Constant current limiting, recovers automatically after fault condition is removed					
	SHORT CIRCUIT		Constant current limiting, recovers automatically after fault condition is removed					
	OVER VOLTAGE		13.5 ~ 18V	17.5 ~ 21.5V	27 ~ 34V	43 ~ 49V	55 ~ 63V	60 ~ 67V
			Protection type : Shut down and latch off o/p voltage, re-power on to recover					
	OVER TEMPERATURE		Shut down o/p voltage, recovers automatically after temperature goes down					
ENVIRONMENT	WORKING TEMP.		-55 ~ +70℃ (Refer to "Derating Curve")					
	WORKING HUMIDITY		20 ~ 95% RH non-condensing					
	STORAGE TEMP., HUMIDITY		-60 ~ +80℃, 10 ~ 95% RH non-condensing					
	TEMP. COEFFICIENT		±0.03%/℃ (0 ~ 60℃)					
	VIBRATION		20 ~ 500Hz, 10G 12min./1cycle, period for 72min. each along X, Y, Z axes					
SAFETY & EMC	SAFETY STANDARDS		UL62368-1, IEC62368-1, IP65 (or IP68 for GRT-240WL-P Blank-Type), EAC TP TC 004 approved; Design refer to BS					
	WITHSTAND VOLTAGE		I/P-O/P:3.75KVAC I/P-FG:2KVAC O/P-FG:1.5KVAC					
	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 B, BS EN/EN61000-3-2,-3, EAC TP TC 020					
	EMC IMMUNITY		Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55035, light industry level (surge 6KV), EAC TP TC 020					
OTHERS	MTBF		2008.7K hrs min. Telcordia SR-332 (Bellcore) ; 171.3Khrs min. MIL-HDBK-217F (25℃)					
	DIMENSION		147*77*36mm (L*W*H)					
	PACKING		1.3Kg; 12pcs/16.6Kg/0.84CUFT					

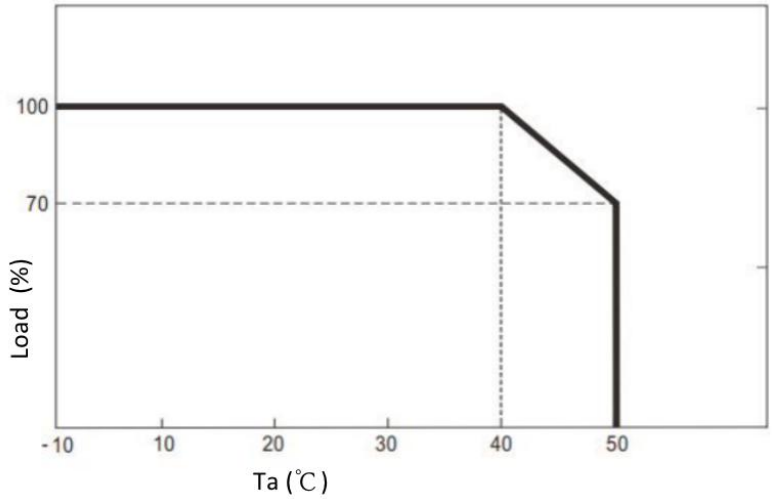
Remarks:

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. Derating may be needed under low input voltages. Please check the derating curve for more details.
5. Touch current was measured from primary input to DC output.
6. The power supply is considered a component which will be installed into a final equipment. All the Class I (with FG) EMC test are been executed by mounting the unit on a 360mm*360mm metal plate with 1mm of thickness. The Class I (without FG) EMC test is been executed by mounting the unit on a 130mm*86.6mm metal plate with 1mm of thickness. final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to EMI testing of component power supplies." (as available on http://www.greatpwr.com)
7. The ambient temperature derating of 3.5C/1000m with fanless models and of 5'C/1000m with fan models for operating altitude higher than 2000m(650ft).

■ Dimension(mm)



■ Derating Curve



■ Disclaimer

Subject to change without notice. Errors and omission excepted. Always make sure to use the most recent release.