

400W AC-DC Open Frame Power Supply Series



■ 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-400WL-P is a 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 0.5W. GRT-400WL-P is able to be used for both Class I (with FG) and Class II(no FG) system design. GRT-400WL-PL 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-400WL-P series serves as a high price-to-performance power supply solution for various industrial applications.

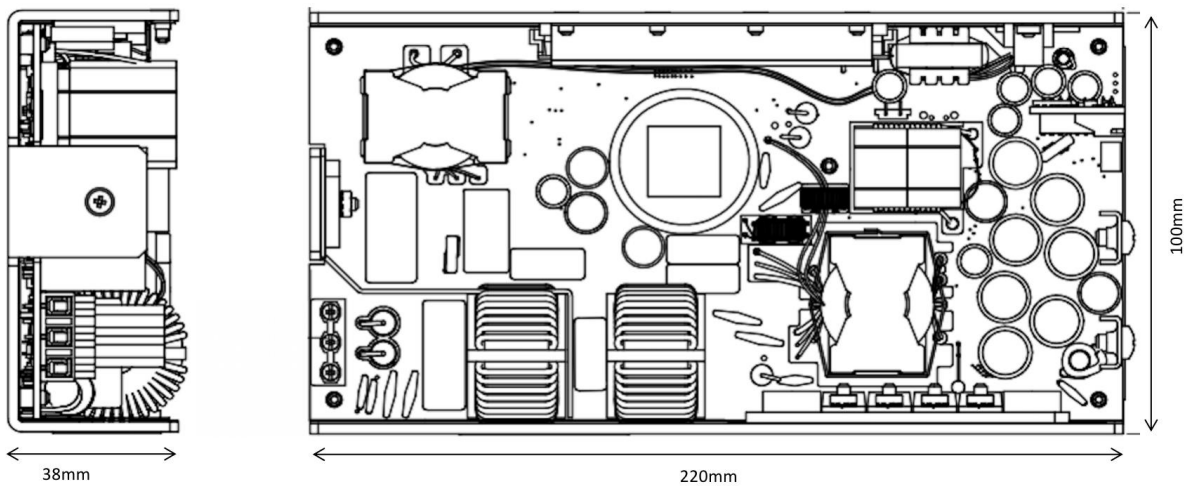
■ Specification

MODEL		GRT-400WL-P-12	GRT-400WL-P-15	GRT-400WL-P-18	GRT-400WL-P-24	GRT-400WL-P-27	GRT-400WL-P-36	GRT-400WL-P-48	
OUTPUT	DC VOLTAGE	12V	15V	18V	24V	27V	36V	48V	
	CURRENT	25CFM	33.3A	26.7A	22.3A	16.7A	14.9A	11.2A	8.4A
		Convection	20.8A	16.7A	13.9A	10.5A	9.3A	7A	5.3A
	RATED POWER	25CFM	399.6W	400.5W	401.4W	400.8W	402.3W	403.2W	403.2W
		Convection	249.6W	250.5W	250.5W	252W	251.1W	252W	254.4W
	RIPPLE & NOISE (max.) Note.2	120mVp-p	150mVp-p	180mVp-p	200mVp-p	200mVp-p	250mVp-p	250mVp-p	
	VOLTAGE ADJ. RANGE(MAIN OUTPUT)	11.4~12.6V	14.3~15.8V	17.1~18.9V	22.8~25.2V	25.6 ~ 28.4V	34.2 ~37.8V	45.6 ~50.4V	
	VOLTAGE TOLERANCE Note.3	±3.0%	±3.0%	±3.0%	±2.0%	±1.0%	±1.0%	±1.0%	
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	
	LOAD REGULATION	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	
SETUP, RISE TIME	1000ms, 30ms/230VAC 1500ms, 30ms/115VAC at full load								
HOLD UP TIME (Typ.)	16ms/230VAC 12ms/115VAC at full load								
INPUT	VOLTAGE RANGE	80 ~ 264VAC		113 ~ 370VDC					
	FREQUENCY RANGE	47 ~ 63Hz							
	POWER FACTOR	PF>0.94/230VAC PF>0.98/115VAC at full load							
	EFFICIENCY (Typ.)	91.5%	92%	93%	93%	93.5%	93%	94%	
	AC CURRENT (Typ.)	4.2A/115VAC		2.1A/230VAC					
	INRUSH CURRENT (Typ.)	COLD START 40A/115VAC		80A/230VAC					
	LEAKAGE CURRENT	<0.75mA / 240VAC							
PROTECTION	OVERLOAD	105 ~ 135% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed							
	OVER VOLTAGE	13.2 ~ 15.6V	16.5 ~ 19.5V	19.8 ~ 23.4V	26.4 ~ 31.2V	29.7 ~ 35.1V	39.6 ~ 46.8V	52.8 ~ 62.4V	
	OVER TEMPERATURE	Protection type : Shut down o/p voltage, recovers automatically after temperature goes down							
FUNCTION	5V STANDBY	5VSB : 5V@0.6A without fan, 1A with fan 25CFM ; tolerance ±2%, ripple : 120mVp-p(max.)							
	FAN SUPPLY	12V@0.5A for driving a fan ; tolerance -15% ~+10% at main output 35% rated current (25CFM)							
	PS-ON INPUT SIGNAL	Power on: PS-ON = "Hi" or " > 2 ~ 5V" ; Power off: PS-ON = "Low" or " < 0 ~ 0.5V"							
	POWER GOOD / POWER FAIL	500ms>PG>10ms ; The TTL signal goes high with 10ms to 500ms delay after power set up ; The TTL signal							
ENVIRONMENT	WORKING TEMP.	-30 ~ +70°C (Refer to "Derating Curve")							
	WORKING HUMIDITY	20 ~ 90% RH non-condensing							
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C , 10 ~ 95% RH							
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)							
	OPERATING ALTITUDE Note.7	5000 meters							
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes							
SAFETY & EMC (Note 5)	SAFETY STANDARDS	UL62368-1, TUV BS EN/EN62368-1,BS EN/EN60335-1, IEC62368-1, CCC GB4943.1, EAC TP TC 004 approved							
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC							
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG:100M Ohms / 500VDC / 25°C / 70% RH							
	EMC EMISSION	Compliance to BS EN/EN55032 (CISPR32) Class B, BS EN/EN61000-3-2,-3,CCC GB17625.1, GB/T9254, EAC TP TC 020							
	EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55035, BS EN/EN61000-6-2, heavy industry level,							
OTHERS	MTBF	1395.2K hrs min. Telcordia SR-332 (Bellcore) ; 194.1K hrs min. MIL-HDBK-217F (25°C)							
	DIMENSION	220*100*38mm (L*W*H)							
	PACKING	0.39Kg; 36pcs/15Kg/0.96CUFT							

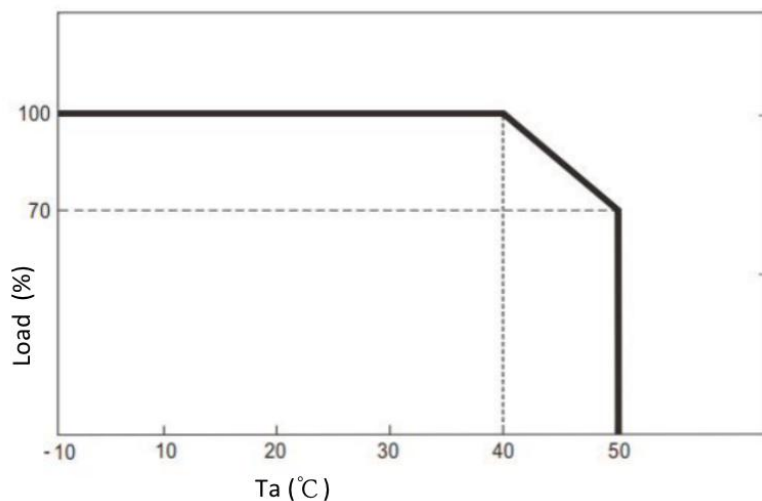
Remarks:

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.