RPS480 | INDUSTRIAL POWER SUPPLIES



Features :

- Supports 90 - 264 VAC / 127 - 370 VDC
- Power factor > 0.95 @ full load over entire input range
- Efficiencies up to 93 %
- Protection against short circuit, overload, overvoltage & over temperature
- Cooling by free air convection
- UL 508 approved (E522848)

Model Number Legend:

RPS480 - □ □ - CU
1

1. Output Voltage: 24: 24 V
48: 48 V

Certification : CE RoHS compliant c UL us LISTED

SPECIFICATIONS:

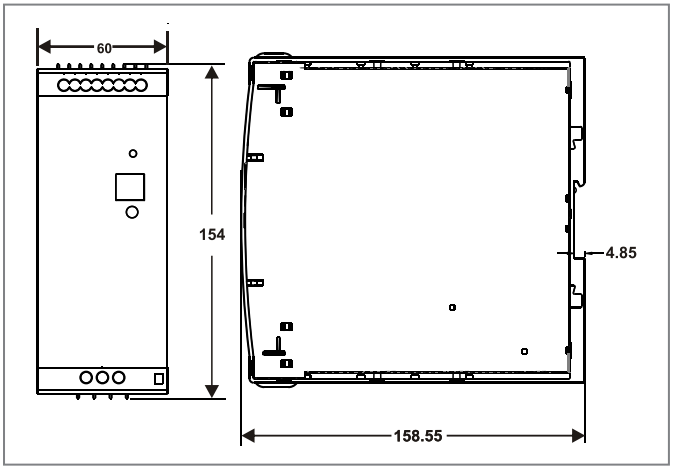
MODEL		RPS480-24-CU	RPS480-48-CU
OUTPUT	NOMINAL DC VOLTAGE	24 V	48 V
	RATED CURRENT	20 A	10 A
	CURRENT RANGE	0 - 20 A	0 - 10 A
	RATED POWER	480 W	480 W
	RIPPLE & NOISE (max)	< 1 % of Vout	< 1 % of Vout
	VOLTAGE ADJ. RANGE	24 to 28 V	48 to 56 V
	VOLTAGE TOLERANCE	± 1 %	
	LINE REGULATION	± 1 %	
	LOAD REGULATION	± 1 %	
	TURN ON TIME	< 2 sec; at full load	
	HOLD UP TIME	> 20 mS at 24 V & > 12 mS at 28 V @ 115 / 230 VAC, Full Load	> 20 mS at 48 V & > 12 mS at 56 V @ 115 / 230 VAC, Full Load
	RISE TIME	< 100 ms	
INPUT	VOLTAGE RANGE *	90 - 264 VAC / 127 - 370 VDC De-rate output power linearly below 100 VAC from 100 % at 100 VAC to 90 % at 90 VAC	
	FREQUENCY RANGE	50 / 60 Hz	
	POWER FACTOR	> 0.95 @ Full load over entire input range	
	EFFICIENCY @ 230V AC	Up to 93.5 %	Up to 94 %
	AC CURRENT	4.8 A @ 115 VAC; 2.4 A @ 230 VAC	
	INRUSH CURRENT	< 60 Amps; Measured at 264 VAC, 25°C Ambient, Cold start	
	LEAKAGE CURRENT	< 1 mA; 264 VAC input	
PROTECTION	OVERLOAD	110 % to 140 % of rated output current; Hiccup type; Autorecovery	
	OVERVOLTAGE	31 VDC ± 0.5 VDC	60 VDC ± 1 VDC
		Latched type; Input AC power to be recycled to recover the power supply	
	OUTPUT SHORT CIRCUIT	Hiccup mode when output is shorted; Autorecovery type.	
	OVER TEMPERATURE	Power supply shuts down when the temperature of PCB below main transformer reaches typically 120°C; Turns on only after the temperature falls below 90°C typically and AC power is recycled thereafter.	
FUNCTION	DC OK SIGNAL	Contact closes @ 23.0 V (typ.) Contact opens @ 22.5 V (typ.)	Contact closes @ 46.0 V (typ.) Contact opens @ 45.0 V (typ.)
		Contact Rating : 30 VDC 1 A; 60 VDC 0.5 A; 125 VAC 0.5 A; resistive load, min. current 1 mA	
ENVIRONMENT	OPERATING TEMP	- 25°C to + 70°C; De-rate linearly above 50°C from 100 % load at 50°C to 50 % load at 70°C, - 25°C to 0°C startup is guaranteed with specification deviation (Output ripple can be more than 10 % of the output voltage.)	
	STORAGE TEMP	- 40°C to + 85°C	
	COOLING	Natural convection cooled	
	HUMIDITY	5 to 95 % RH, Non condensing	
	ALTITUDE	2000m	
	VIBRATION	Component: 10 ~ 500 Hz, 2 G 10 min. / 1 cycle, period for 60 min. each along X, Y, Z axes	
SAFETY & EMC	DIELECTRIC WITHSTAND VOLTAGE	I/P to Earth: 2500 VAC O/P to Earth: 1500 VAC I/P to O/P: 4000 VAC O/P to DC-OK: 500 VAC	
RELIABILITY	MTBF	> 135K hrs. as per MIL-HDBK-217F (25°C)	
OTHERS	DIMENSION	60 x 154 x 158.55 mm (W x H x D)	
	WEIGHT	1050 gms	
	MOUNTING	35 mm DIN rail	

* Although power supply will work for the specified DC input voltage range, UL approval is only for the specified AC input voltage range.

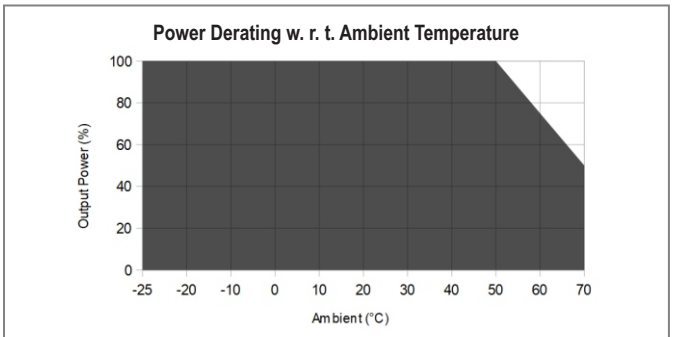
Connectors details

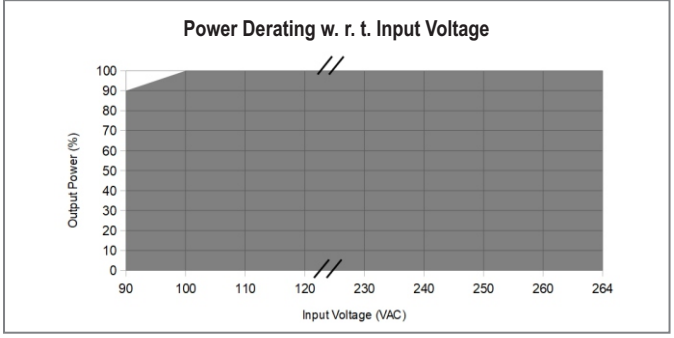
Description	Type	Torque
Input connector	GOOSVN : GS007S-7.5 OR Equivalent	0.5 Nm
Output connector	GOOSVN : GS007S-5.08 OR Equivalent	

Dimensions (All are in mm)

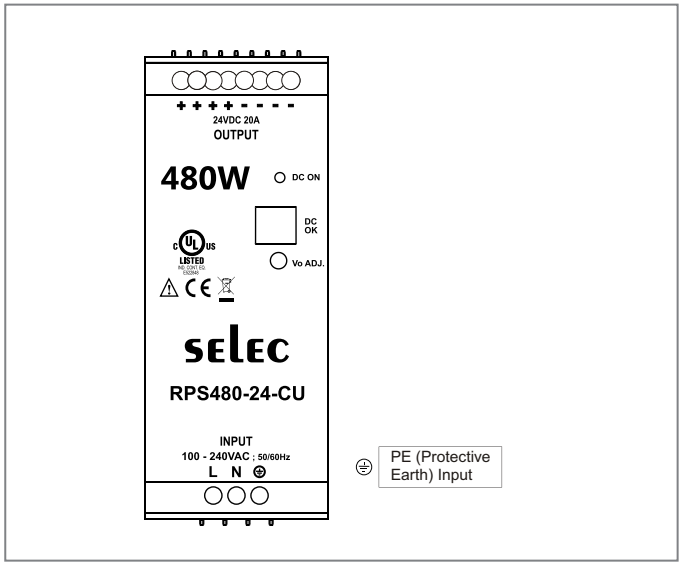


Derating curves





Terminal connections



Compliance

Applicable EMI / EMC Standards		
Category	**Reference Standards**	**Testing Level**
Conducted Emission	CISPR32	CLASS B
Radiated Emission	CISPR32	CLASS A
Electrostatic Discharge	IEC 61000-4-2	Level 4, Criteria A Level 3, Criteria A
Radiated Susceptibility	IEC 61000-4-3	Level 3, Criteria B
Electrical Fast Transient / Burst	IEC 61000-4-4	Level 3, Criteria A
Surge	IEC 61000-4-5	Level 3, Criteria A
Conducted Susceptibility	IEC 61000-4-6	Level 3, Criteria B
Power Frequency Magnetic Field	IEC 61000-4-8	Level 4, Criteria A
Voltage Dips & Interruption	IEC 61000-4-11	Criteria A & B
Safety	UL 508 approved (E522848) Designed to meet IEC 62368-1	

Ordering information

Product Code	Description	Certification
RPS480-24-CU	480 W, 24 V / 20 A DIN rail mounted Power Supply in Plastic Housing	CE RoHS c UL us LISTED
RPS480-48-CU	480 W, 48 V / 10 A DIN rail mounted Power Supply in Plastic Housing	CE RoHS c UL us LISTED