### 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. Output Voltage: 24: 24 V 48: 48 V

 $\textbf{Certification: C \in } |c_{\text{\tiny LISTED}}^{\text{\tiny RoHS}}|^{c_{\text{\tiny LISTED}}^{\text{\tiny UL}} \cup s}$ 

#### SPECIFICATIONS:

MODEL		RPS480-24-CU	RPS480-48-CU		
OUTPUT	NOMINAL DC VOLTAGE	24 V	48 V		
	RATED CURRENT	10 A	10 A		
	CURRENT RANGE	0 - 20 A	0 - 10 A		
	RATED POWER	240 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			
	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			
INPUT	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			
	OVERLOAD	110 % to 140 % of rated output current; Hiccup type; Autorecovery			
	0./50./0.51.05	31 VDC ± 0.5 VDC	60 VDC ± 1 VDC		
PROTECTION	OVERVOLTAGE	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 closes @ 46.0 V (typ.)		
		Contact opens @ 22.5 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			
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			

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

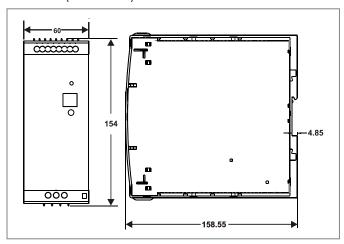
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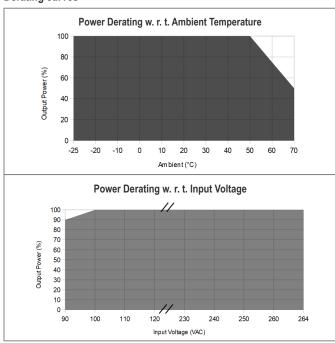
#### **Connectors details**

Description	Туре	Torque
Input connector	GOOSVN : GS007S-7.5 OR Equivalent	0.5 Nm
Output connector	GOOSVN : GS007S-5.08 OR Equivalent	0.0 14111

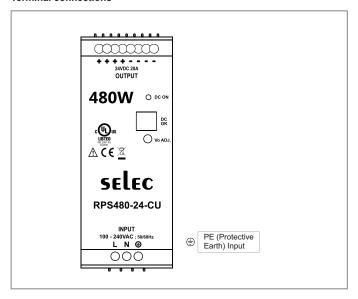
#### Dimensions (All are in mm)



#### **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 (E Designed to meet IE					

#### **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 CONTRIBUTED
RPS480-48-CU	480 W, 48 V / 10 A DIN rail mounted Power Supply in Plastic Housing	CE ROHS CONTRIBUTED

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