RPS120 | INDUSTRIAL POWER SUPPLIES



Features :

- Supports 90 - 264 VAC / 127 - 370 VDC
- Efficiencies up to 89 %
- Protection against short circuit, overload, overvoltage & over temperature
- Cooling by free air convection
- UL 508 approved (E522848)

Model Number Legend:

RPS120 - $\frac{\square\,\square}{1}$ - CU

1. Output Voltage: 12: 12 V
24: 24 V
48: 48 V

Certification : CE RoHS compliant c UL us LISTED

SPECIFICATIONS:

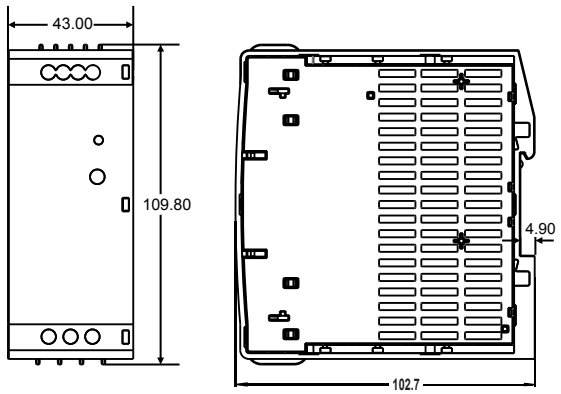
MODEL		RPS120-12-CU	RPS120-24-CU	RPS120-48-CU
OUTPUT	NOMINAL DC VOLTAGE	12 V	24 V	48 V
	RATED CURRENT	8 A	5 A	2.5 A
	CURRENT RANGE	0 - 8 A	0 - 5 A	0 - 2.5 A
	RATED POWER	96 W	120 W	120 W
	RIPPLE & NOISE (max)	< 1 % of Vout	< 1 % of Vout	< 1 % of Vout
	VOLTAGE ADJ. RANGE	12 to 14 V	24 to 28 V	48 to 56 V
	VOLTAGE TOLERANCE	± 1 %		
	LINE REGULATION	± 1 %		
	LOAD REGULATION	± 1 %		
	TURN ON TIME	< 1 sec @ 230 VAC & < 3 sec @ 115 VAC, Full load		
	HOLD UP TIME	≥ 60 ms at 230 VAC & ≥ 15 ms at 115 VAC, Full load		
	RISE TIME	< 100 ms		
INPUT	VOLTAGE RANGE *	90 - 264 VAC / 127 - 370 VDC		
	FREQUENCY RANGE	50 / 60 Hz		
	EFFICIENCY @ 230 V AC	Up to 89 %		
	AC CURRENT	2.2 A @ 115 VAC; 1.5 A @ 230 VAC		
	INRUSH CURRENT	< 75 Amps; Measured at 264 VAC, 25°C Ambient, Cold start		
	LEAKAGE CURRENT	< 1 mA; 264 VAC input		
PROTECTION	OVERLOAD	> 110 % of rated output current; Hiccup type; Autorecovery		
	OVERVOLTAGE	15.5 - 18.5 VDC	28.5 - 33.5 VDC	56.5 - 65.5 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		
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 spec 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	2000 m		
	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 I/P to O/P: 4000 VAC O/P to Earth: 1500 VAC		
RELIABILITY	MTBF	> 220K hrs. as per MIL-HDBK-217F (25°C)		
OTHERS	DIMENSION	43 x 109.8 x 102.7 mm (W x H x D)		
	WEIGHT	350 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.

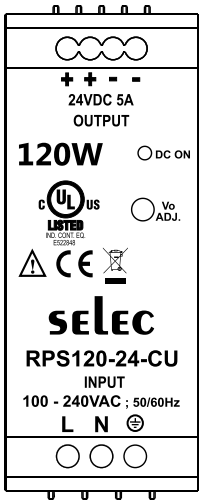
Connectors details

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)

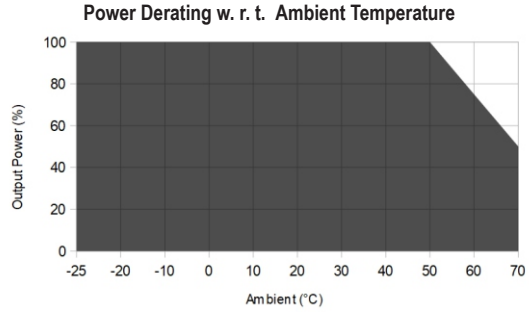


Terminal connections



PE (Protective Earth) Input

Derating curve



Compliance

Applicable EMI / EMC Standards		
Category	**Reference Standards**	**Testing Level**
Conducted Emission	CISPR32	CLASS A
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
RPS120-12-CU	96 W, 12 V / 8 A Din rail mounted Power Supply in Plastic Housing	CE RoHS c UL us LISTED
RPS120-24-CU	120 W, 24 V / 5 A DIN rail mounted Power Supply in Plastic Housing	CE RoHS c UL us LISTED
RPS120-48-CU	120 W, 48 V / 2.5 A DIN rail mounted Power Supply in Plastic Housing	CE RoHS c UL us LISTED