RPS40 | INDUSTRIAL POWER SUPPLIES



Features :

- Plastic case
- Support wide range of AC/DC auxiliary supply
- Efficiencies up to 85 %
- Full power between -25°C to +50°C
- Protection against short circuit, overload
- Cooling by free air convection

Model Number Legend:

RPS40 - □□ - CE
1

1. Output Voltage: 12: 12 V
15: 15 V
24: 24 V
48: 48 V

Certification : CE RoHS compliant

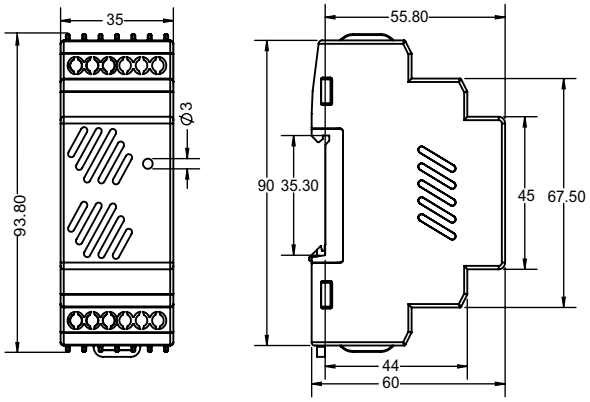
SPECIFICATIONS:

MODEL		RPS40-12-CE	RPS40-15-CE	RPS40-24-CE	RPS40-48-CE
OUTPUT	NOMINAL DC VOLTAGE	12 V	15 V	24 V	48 V
	RATED CURRENT	2.50 A	2.67 A	1.67 A	0.83 A
	RATED POWER	30 W	40 W	40 W	40 W
	RIPPLE & NOISE (max)	< 1 % of Vout	< 1 % of Vout	< 1 % of Vout	< 1 % of Vout
	VOLTAGE TOLERANCE	± 3 %			
	LINE REGULATION	± 1 %			
	LOAD REGULATION	± 1 %			
	TURN ON TIME	< 1 sec @ 230 VAC & < 3 sec @ 115 VAC, Full load			
	HOLD UP TIME	≥ 25 ms @ 230 VAC & ≥ 6 ms @ 115 VAC, Full load			
	RISE TIME	< 100 msec			
INPUT	VOLTAGE RANGE *	90 - 264 VAC / 127 - 370 VDC			
	FREQUENCY RANGE	50 / 60 Hz			
	EFFICIENCY @ 230V AC	Up to 83 %	Up to 83 %	Up to 85 %	Up to 85 %
	AC CURRENT	0.80 A @ 115 VAC; 0.5 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 % of rated output current; Hiccup mode; Autorecovery type.			
	OVERVOLTAGE	> 15 VDC	> 19 VDC	> 30 VDC	> 60 VDC
		Hiccup mode when output over voltage occur; Autorecovery type.			
	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 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	2000 m			
	VIBRATION	Component: 10 ~ 500 Hz, 2 G 10 min. / 1 cycle, period for 60 min. each along X, Y, Z axes			
DIELECTRIC WITHSTAND	TEST VOLTAGE	I/P to Earth : 2000 VAC I/P to O/P : 4000 VAC O/P to Earth : 1500 VAC			
RELIABILITY	MTBF	> 520K hrs. as per MIL-HDBK-217F (25°C)			
MECHANICAL	DIMENSION	35 mm x 93.8 mm x 60 mm (W x H x D)			
	WEIGHT	150 gms			
	MOUNTING	35 mm Din Rail			

Connectors details

Description	Type	Torque
Input connector	GOOSVN : GS017S-5.08 OR Equivalent	0.5 Nm
Output connector		

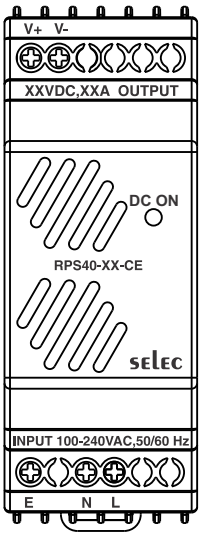
Mechanical dimensions



FRONT VIEW SIDE VIEW

*All dimensions are in mm

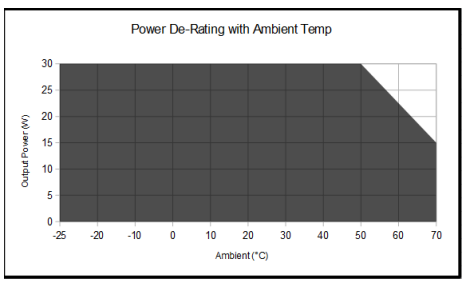
Terminal Connection



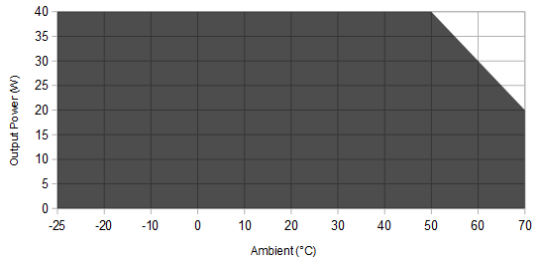
PE (Protective Earth) Input

De-rating curve

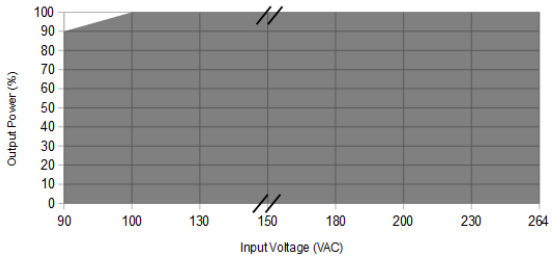
Power De-rating w. r. t. Ambient Temperature for 12 V output



Power De-rating w. r. t. Ambient Temp for 15 V, 24 V & 48 V output



Power De-rating w. r. t. Input Voltage 15 V, 24 V & 48 V output



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	Designed to meet IEC 62368 -1	

Ordering information

Product Code	Description	Certification
RPS40-12-CE	30 W, 12 V / 2.5 A DIN rail mounted Power supply in plastic Housing.	CE RoHS
RPS40-15-CE	40 W, 15 V / 2.67 A DIN rail mounted Power supply in plastic Housing.	CE RoHS
RPS40-24-CE	40 W, 24 V / 1.67 A DIN rail mounted Power supply in plastic Housing.	CE RoHS
RPS40-48-CE	40 W, 48 V / 0.83 A DIN rail mounted Power supply in plastic Housing.	CE RoHS