# RPS60 | INDUSTRIAL POWER SUPPLIES




## Features :

- Supports 90 - 264 VAC / 127 - 370 VDC
- Efficiencies up to 87 %
- Protection against short circuit, overload, overvoltage & over temperature
- Cooling by free air convection
- UL 508 approved (E522848)

**Model Number Legend:**

RPS60 - □□ - CU

1

1. Output Voltage: 05: 5 V
12: 12 V
24: 24 V
48: 48 V

Certification :

## SPECIFICATIONS:

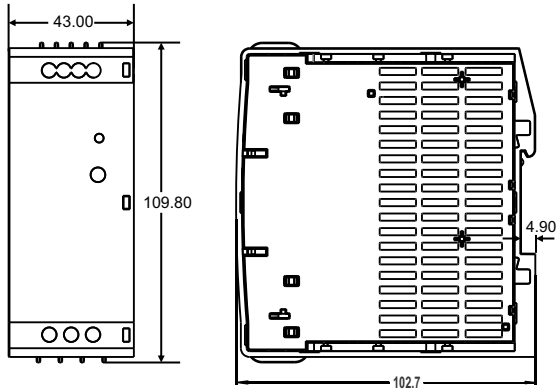
| | | RPS60-05-CU | RPS60-12-CU | RPS60-24-CU | RPS60-48-CU |
|---|---|---|---|---|---|
| OUTPUT | NOMINAL DC VOLTAGE | 5 V | 12 V | 24 V | 48 V |
| | RATED CURRENT | 10 A | 5 A | 2.5 A | 1.25 A |
| | CURRENT RANGE | 0 - 10 A | 0 - 5 A | 0 - 2.5 A | 0 - 1.25 A |
| | RATED POWER | 50 W | 60 W | 60 W | 60 W |
| | RIPPLE & NOISE (max) | < 1.5 % of Vout | < 1 % of Vout | < 1 % of Vout | < 1 % of Vout |
| | VOLTAGE ADJ. RANGE | 5.0 to 6.0 V | 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 @ 230 VAC & ≥ 15 ms @ 115 VAC, Full load | | | |
| | RISE TIME | < 100 ms | | | |
| INPUT | VOLTAGE RANGE* | 90 - 264 VAC / 127 - 370 VDC | | | |
| | FREQUENCY RANGE | 50 / 60 Hz | | | |
| | EFFICIENCY @ 230V AC | Up to 78 % | Up to 86 % | Up to 87 % | Up to 87 % |
| | AC CURRENT | 1.2 A @ 115 VAC; 0.8 A @ 230 VAC | | | |
| | INRUSH CURRENT | < 48 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 | 7 - 9 VDC | 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 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 | | | |
| SAFETY & EMC | DIELECTRIC WITH STAND VOLTAGE | I/P to Earth: 2500 VAC<br>I/P to O/P: 4000 VAC<br>O/P to Earth: 1500 VAC | | | |
| RELIABILITY | MTBF | > 330K hrs. as per MIL-HDBK-217F (25°C) | | | |
| OTHERS | DIMENSION | 43 x 109.8 x 102.7 mm (W x H x D) | | | |
| | WEIGHT | 285 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.

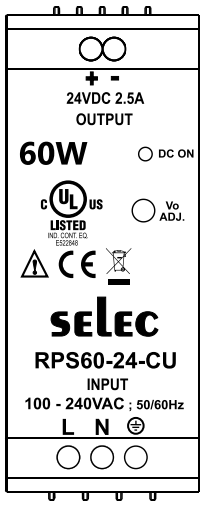
### Connectors details

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

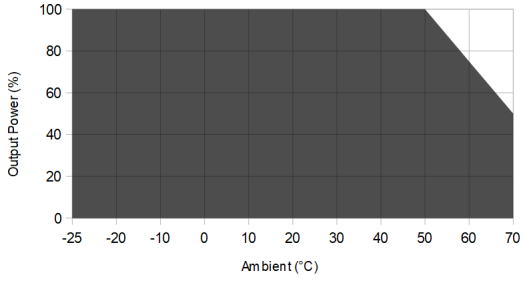
### Dimensions (All are in mm)




### Terminal connections




### 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<br>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)<br>Designed to meet IEC 62368-1 | |

### Ordering information

| Product Code | Description | Certification |
|---|---|---|
| RPS60-05-CU | 50 W, 05 V / 10 A DIN rail mounted Power Supply in Plastic Housing | CE RoHS c UL us LISTED |
| RPS60-12-CU | 60 W, 12 V / 5 A DIN rail mounted Power Supply in Plastic Housing | CE RoHS c UL us LISTED |
| RPS60-24-CU | 60 W, 24 V / 2.5 A DIN rail mounted Power Supply in Plastic Housing | CE RoHS c UL us LISTED |
| RPS60-48-CU | 60 W, 48 V / 1.25 A DIN rail mounted Power Supply in Plastic Housing | CE RoHS c UL us LISTED |