

50W to 600W Single Output General Purpose Power Supplies

Features

- ◆ Low Cost
- ◆ Wide Range AC Input 85 - 265VAC (300VAC for 5s)
- ◆ UL508 Certification on Select Models
- ◆ Enclosed Construction
- ◆ Compact Size
- ◆ 5 Year Warranty



Key Market Segments & Applications



| Specifications | | RWS50B | RWS100B | RWS150B | RWS300B | RWS600B |
|-------------------------------------|-----|---|-------------------|-------------------|-------------------|-------------------|
| AC Input Voltage range (1) | VAC | 85 - 265VAC (47 - 63Hz), 300VAC for 5 seconds | | | | |
| DC Input Voltage range | VDC | 120 - 370VDC (330VDC for RWS600B) | | | | |
| Inrush Current (100 / 200VAC) | A | 18 / 36 | 15 / 30 | 16 / 32 | 17 / 34 | 20 / 40 |
| Power Factor (100 / 200VAC) | - | Meets EN61000-3-2 (0.95 / 0.9) | | | | |
| Input Current (100/200VAC) (Typ) | A | 1.1 / 0.7 | 1.3 / 0.7 | 1.9 / 1.0 | 3.8 / 2.1 | 7.2 / 4.0 |
| Temperature Coefficient | - | <0.02%/°C | | | | |
| Regulation | - | See sheet 2 | | | | |
| Overcurrent Protection | - | >105%, Constant Current Style | | | | |
| Overvoltage Protection | V | 115-140%, Cycle AC line to reset | | | | |
| Hold Up Time (Typ at 100% load) | ms | 20ms (RWS50B: 15ms at 100VAC input) | | | | |
| Leakage Current (max) | uA | 750uA maximum, typically 175uA at 115VAC, 63Hz | | | | |
| Remote Sense | - | No | | | | |
| Operating Temperature | - | -10 to +70°C, derate linearly to 20% load from 50 to 70°C (100-150W from 40 to 70°C) (3) | | | | |
| Storage Temperature | - | -30 to +75°C | | | | |
| Operating Humidity (non condensing) | %RH | 30 - 90%RH | | | | |
| Storage Humidity (non condensing) | %RH | 10 - 90%RH | | | | |
| Cooling | - | Convection | | Internal Fan | | |
| Withstand Voltage | - | Input to Ground 2kVAC, Input to Output 3kVAC, Output to Ground 500VAC for 1 min. | | | | |
| Isolation Resistance | - | >100M at 25°C & 70%RH, Output to Ground 500VDC | | | | |
| Vibration (non operating) | - | 10 - 55Hz: 19.6m/s ² (sweep 1 min) X, Y, Z for 1 hour | | | | |
| Shock | - | < 196.1 m/s ² | | | | |
| Safety Agency Approvals (2) | - | UL / CSA(cUL) / IEC 60950-1 (2nd Ed), UL:508, CSA C22.2 No.107.1-01, CE Mark (Additionally evaluated to EN 60950-1) | | | | |
| Conducted & Radiated EMI | - | EN55011 / EN55022-B, FCC Class B, VCCI-B | | | | |
| Immunity | - | IEC61000-4-2, -3, -4, -5, -6, -8, -11, IEC61000-6-2 | | | | |
| Weight (Typ) | g | 230 | 400 | 480 | 900 | 1600 |
| Size (WxHxD) | mm | 82 x 34 x 81.5 | 94 x 39 x 108 | 94 x 41 x 128 | 102 x 41 x 170 | 120 x 61 x 190 |
| | In | 3.23 x 1.34 x 3.2 | 3.7 x 1.54 x 4.25 | 3.7 x 1.61 x 5.04 | 4.02 x 1.61 x 6.7 | 4.72 x 2.4 x 7.48 |
| Warranty | Yrs | Five Years | | | | |

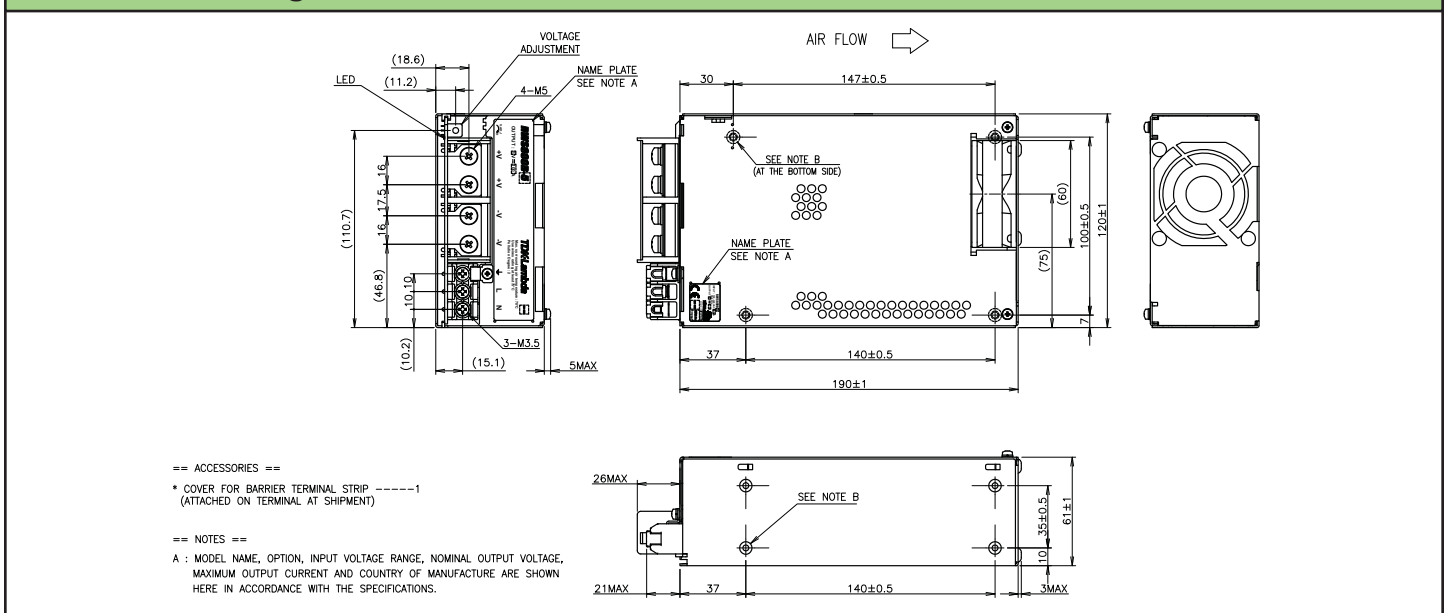
Notes:

- (1) See Instruction Manual for derating below 115VAC input
- (2) UL508 & CSA C22.2 No.107.1-01 on RWS50B-5, -12, -24, RWS100B-5, -12, -24, RWS150B-5, -12, -24 & RWS300B-24 only
- (3) RWS600B operates down to -20°C

Output Ratings

| Model | Voltage | Adjust Range (V) | Max Current (A) | Max Output Power | Load Reg (mV) | Line Reg (mV) | Ripple Noise (mV) | Efficiency (typ) % 100/200VAC |
|------------|---------|------------------|-----------------|------------------|---------------|---------------|-------------------|-------------------------------|
| RWS50B-5 | 5V | 4.5-5.75V | 10 | 50 | 40 | 20 | 120 | 77 / 79 |
| RWS100B-5 | 5V | 4.5-5.75V | 14 | 70 | 40 | 20 | 120 | 77 / 79 |
| RWS150B-5 | 5V | 4.5-5.75V | 21 | 105 | 40 | 20 | 120 | 77 / 79 |
| RWS300B-5 | 5V | 4.5-5.75V | 50 | 250 | 40 | 20 | 120 | 75 / 78 |
| RWS600B-5 | 5V | 4.5-5.75V | 100 | 500 | 70 | 20 | 120 | 74 / 77 |
| RWS50B-12 | 12V | 10.8-13.8V | 4.3 | 51.6 | 96 | 48 | 150 | 82 / 84 |
| RWS100B-12 | 12V | 10.8-13.8V | 8.5 | 102 | 96 | 48 | 150 | 82 / 84 |
| RWS150B-12 | 12V | 10.8-13.8V | 13 | 156 | 96 | 48 | 150 | 84 / 87 |
| RWS300B-12 | 12V | 10.8-13.8V | 25 | 300 | 96 | 48 | 150 | 79 / 82 |
| RWS600B-12 | 12V | 10.8-13.8V | 50 | 600 | 96 | 48 | 150 | 81 / 84 |
| RWS300B-15 | 15V | 13.5-17.2V | 20 | 300 | 120 | 60 | 150 | 81 / 84 |
| RWS600B-15 | 15V | 13.5-17.2V | 40 | 600 | 120 | 60 | 150 | 81 / 84 |
| RWS50B-24 | 24V | 21.6-27.6V | 2.2 | 52.8 | 192 | 96 | 150 | 86 / 87 |
| RWS100B-24 | 24V | 21.6-27.6V | 4.5 | 108 | 192 | 96 | 150 | 85 / 87 |
| RWS150B-24 | 24V | 21.6-27.6V | 6.5 | 156 | 192 | 96 | 150 | 86 / 89 |
| RWS300B-24 | 24V | 21.6-27.6V | 12.5 | 300 | 192 | 96 | 150 | 85 / 88 |
| RWS600B-24 | 24V | 21.6-27.6V | 25 | 600 | 192 | 96 | 150 | 84 / 88 |
| RWS300B-36 | 36V | 32.4-41.4 | 8.4 | 302.4 | 288 | 144 | 200 | 85 / 88 |
| RWS600B-36 | 36V | 32.4-41.4 | 16.7 | 601.2 | 288 | 144 | 200 | 84 / 88 |
| RWS50B-48 | 48V | 43.2-52.8 | 1.1 | 52.8 | 384 | 192 | 200 | 86 / 88 |
| RWS100B-48 | 48V | 43.2-52.8 | 2.1 | 100.8 | 384 | 192 | 200 | 85 / 87 |
| RWS150B-48 | 48V | 43.2-52.8 | 3.3 | 158.4 | 384 | 192 | 200 | 86 / 89 |
| RWS300B-48 | 48V | 43.2-52.8 | 6.3 | 302.4 | 384 | 192 | 200 | 85 / 88 |
| RWS600B-48 | 48V | 43.2-52.8 | 12.5 | 600 | 384 | 192 | 200 | 85 / 88 |

Outline Drawing (RWS600B)



Options

| Suffix | Description |
|--------|--|
| /CO2 | Double Sided Board Coating |
| /R | Remote On/Off (RWS300B only) |
| /RFO | Remote On/Off, Remote Sense, Parallel Operation, DC Good Signal (RWS600B only) |

Other TDK-Lambda Industrial Products

| | |
|-------|--|
| HWS | 15W to 1500W Single output |
| LS | 25W to 200W Single output low cost |
| SWS-L | 600W to 1000W Single output, full featured |

For Additional Information, please visit us.tdk-lambda.com/lp/products/rwsb-series.htm



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