

33-150W Single Output, High Reliability AC-DC Power Supplies

Features

- ◆ 33W to 150W
- ◆ Universal Input (85 - 265VAC)
- ◆ Power factor Corrected
- ◆ Convection Cooled
- ◆ 5 year warranty
- ◆ Compact Design



Key Market Segments & Applications



| Specifications | | ZWS50BAF | ZWS75BAF | ZWS100BAF | ZWS150BAF |
|------------------------------------|-----|---|-------------------|---|--------------------|
| AC Input Voltage range | - | 85-265VAC (47-63Hz) | | | |
| DC Input Voltage range | - | 120 - 370VDC* | | | |
| Input Current (Typical) | A | 0.65 / 0.35 | 0.95 / 0.5 | 1.3 / 0.65 | 1.9 / 0.95 |
| Inrush Current | A | 14 / 28 25°C ambient, cold start | | | |
| Power Factor (Active) | - | Meets EN61000-3-2 (Typically 0.97/0.91) | | | |
| Maximum Ripple and Noise | mV | 3.3 & 5V: 120mV, 12 to 24V: 150mV, 48V: 200mV | | | |
| Temperature Coefficient | - | <0.02%/°C | | | |
| Overcurrent Protection (1) | - | >105% of maximum output current | | | |
| Hold Up Time (Typ) at 100VAC | ms | 20ms | | | |
| Leakage Current | - | 0.5mA max, 0.4mA typ at 230VAC | | | |
| Remote On / Off | - | None | | Optional | |
| Operating Temperature (Convection) | °C | -10 to +70°C, derate linearly to 50% load from 50 to 70°C | | | |
| Operating Temperature (Forced Air) | °C | N/A | | -10 ~+70°C, derate linearly to 75% load from 60 ~70°C | |
| Storage Temperature | °C | -30 to +75°C | | | |
| Humidity (non condensing) | - | Operating: 30 - 90%RH, storage: 10 - 90%RH | | | |
| Withstand Voltage | - | I/P to Grnd 2kVAC (10mA), I/P to O/P 3kVAC (10mA), O/P to Grnd 500VAC (20mA) for 1 min. | | | |
| Isolation Resistance | - | >100M at 25C & 70%RH, Output to Ground 500VDC | | | |
| Vibration (non operating) | - | 10 - 55Hz (1 minute sweep), 19.6m/s ² constant X, Y, Z 1 hour | | | |
| Shock | - | < 196.1 m/s ² | | | |
| Safety Agency Certifications | - | IEC/EN/UL/CSA60950-1, IEC/EN/UL/CSA62368-1, EN50178 (OV II), CE Mark | | | |
| Conducted & Radiated EMI | - | EN55011/EN55022-B, FCC-B, VCCI-B | | | |
| Immunity | - | IEC61000-4-2 (lv 2,3), -3 (lv3), -4 (lv 3), -5 (lv 3,4), -6 (lv 3), -8 (lv 4), -11 | | | |
| Weight (Typ) | g | 165 | 230 | 290 | 390 |
| Size (W x H x D) | in | 1.97 x 1.02 x 5.2" | 1.97 x 1.3 x 5.9" | 2.44 x 1.3 x 6.1" | 2.95 x 1.46 x 6.3" |
| Warranty | yrs | Five Years | | | |

Notes:

- (1) Avoid prolonged operation in overload
- (2) 100 / 200VAC Input
- (3) 60°C: 70% load

*Safety certified for AC input only

| Model Selector | | | | | | | |
|----------------|----------------|------------|---------|--------------------|---------------|---------------|-----------|
| Model | Adjust Voltage | Max Range | Current | Efficiency (typ) % | Load Reg (mV) | Line Reg (mV) | OVP (V) |
| ZWS50BAF-3 | 3.3V | 2.97-3.63V | 10A | 76 / 78 | 40 | 20 | 3.79-4.95 |
| ZWS75BAF-3 | 3.3V | 2.97-3.63V | 15A | 76 / 78 | 40 | 20 | 3.79-4.95 |
| ZWS100BAF-3 | 3.3V | 2.97-3.63V | 20A | 82 / 84 | 40 | 20 | 3.79-4.95 |
| ZWS150BAF-3 | 3.3V | 2.97-3.63V | 30A | 82 / 84 | 40 | 20 | 3.79-4.95 |
| ZWS50BAF-5 | 5V | 4.5-5.5V | 10A | 82 / 84 | 40 | 20 | 5.75-7.0 |
| ZWS75BAF-5 | 5V | 4.5-5.5V | 15A | 82 / 84 | 40 | 20 | 5.75-7.0 |
| ZWS100BAF-5 | 5V | 4.5-5.5V | 20A | 84 / 86 | 40 | 20 | 5.75-7.0 |
| ZWS150BAF-5 | 5V | 4.5-5.5V | 30A | 85 / 87 | 40 | 20 | 5.75-7.0 |
| ZWS50BAF-12 | 12V | 10.8-13.2V | 4.3A | 83 / 85 | 96 | 48 | 13.8-16.2 |
| ZWS75BAF-12 | 12V | 10.8-13.2V | 6.3A | 83 / 85 | 96 | 48 | 13.8-16.2 |
| ZWS100BAF-12 | 12V | 10.8-13.2V | 8.5A | 86 / 88 | 96 | 48 | 13.8-16.2 |
| ZWS150BAF-12 | 12V | 10.8-13.2V | 12.5A | 85 / 88 | 96 | 48 | 13.8-16.2 |
| ZWS50BAF-15 | 15V | 13.5-16.5V | 3.5A | 83 / 86 | 120 | 60 | 17.3-20.3 |
| ZWS75BAF-15 | 15V | 13.5-16.5V | 5A | 84 / 86 | 120 | 60 | 17.3-20.3 |
| ZWS100BAF-15 | 15V | 13.5-16.5V | 6.7A | 86 / 88 | 120 | 60 | 17.3-20.3 |
| ZWS150BAF-15 | 15V | 13.5-16.5V | 10A | 86 / 89 | 120 | 60 | 17.3-20.3 |
| ZWS50BAF-24 | 24V | 21.6-26.4V | 2.1A | 84 / 87 | 150 | 96 | 27.6-32.4 |
| ZWS75BAF-24 | 24V | 21.6-26.4V | 3.2A | 84 / 87 | 150 | 96 | 27.6-32.4 |
| ZWS100BAF-24 | 24V | 21.6-26.4V | 4.3A | 87 / 89 | 150 | 96 | 27.6-32.4 |
| ZWS150BAF-24 | 24V | 21.6-26.4V | 6.3A | 88 / 90 | 150 | 96 | 27.6-32.4 |
| ZWS50BAF-48 | 48V | 39.5-52.8V | 1.1A | 84 / 86 | 240 | 192 | 55.2-64.8 |
| ZWS75BAF-48 | 48V | 39.5-52.8V | 1.6A | 85 / 88 | 240 | 192 | 55.2-64.8 |
| ZWS100BAF-48 | 48V | 39.5-52.8V | 2.1A | 88 / 90 | 240 | 192 | 55.2-64.8 |
| ZWS150BAF-48 | 48V | 39.5-52.8V | 3.2A | 89 / 91 | 240 | 192 | 55.2-64.8 |



| Other Industrial Products | |
|---------------------------|---|
| HWS | 15W to 1800W Single output |
| ZPSA | 20W to 60W Single, Dual & Triple output |
| NV | 175W to 300W Single, Dual, Triple & Quad output |
| CSS | 40W to 150W Single output |

| Options | | |
|---------|------------------------|-----------------------|
| Suffix | Description | Notes |
| - | Open Frame | - |
| /L | With L bracket case | - |
| /A | With L bracket & Cover | - |
| /R | Remote On/Off | Not on ZWS50 or 75BAF |
| /CO2 | Conformal Coating | - |

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

