

200 to 800W Programmable Power Supplies

Features

- ◆ 2U high
- ◆ Built-in USB, RS-232 & RS-485 Interface
- ◆ Optional LAN, GPIB & Isolated Analog Programming
- ◆ Bench or Rack Mount
- ◆ Constant Current or Voltage Modes
- ◆ Five Year Warranty

Key Market Segments & Applications



| Model Selector | | | | | | | | |
|----------------|----------------------|----------------------|---------------|----------------------|---------------------|----------------------|---------------------------|-----------------------------------|
| Model | Voltage Adjust Range | Current Adjust Range | Max Power (W) | Ripple 5Hz-1MHz (mV) | Noise 20MHz BW (mV) | Ripple 5Hz-1MHz (mA) | Efficiency % (100-200VAC) | Front Panel Output Jacks (Option) |
| Z10-20-U | 0 - 10 | 0 - 20 | 200 | 5 | 50 | 50 | 80 / 82 | Yes |
| Z10-40-U | 0 - 10 | 0 - 40 | 400 | 5 | 50 | 50 | 80 / 82 | Yes |
| Z10-60-U | 0 - 10 | 0 - 60 | 600 | 6.25 | 75 | 75 | 80 / 82 | Yes |
| Z10-75-U | 0 - 10 | 0 - 75 | 750 | 6.25 | 75 | 75 | 80 / 82 | Yes |
| Z20-10-U | 0 - 20 | 0 - 10 | 200 | 5 | 50 | 30 | 82 / 84 | Yes |
| Z20-20-U | 0 - 20 | 0 - 20 | 400 | 5 | 50 | 30 | 81 / 83 | Yes |
| Z20-30-U | 0 - 20 | 0 - 30 | 600 | 6.25 | 75 | 45 | 82 / 84 | Yes |
| Z20-40-U | 0 - 20 | 0 - 40 | 800 | 6.25 | 75 | 45 | 82 / 84 | Yes |
| Z36-6-U | 0 - 36 | 0 - 6 | 216 | 5 | 50 | 15 | 83 / 85 | Yes |
| Z36-12-U | 0 - 36 | 0 - 12 | 432 | 5 | 50 | 15 | 83 / 85 | Yes |
| Z36-18-U | 0 - 36 | 0 - 18 | 648 | 6.25 | 75 | 22 | 84 / 85 | Yes |
| Z36-24-U | 0 - 36 | 0 - 24 | 864 | 6.25 | 75 | 22 | 84 / 85 | Yes |
| Z60-3.5-U | 0 - 60 | 0 - 3.5 | 210 | 5 | 50 | 8 | 83 / 85 | Yes |
| Z60-7-U | 0 - 60 | 0 - 7 | 420 | 5 | 50 | 8 | 83 / 85 | Yes |
| Z60-10-U | 0 - 60 | 0 - 10 | 600 | 6.25 | 75 | 12 | 83 / 85 | Yes |
| Z60-14-U | 0 - 60 | 0 - 14 | 840 | 6.25 | 75 | 12 | 83 / 85 | Yes |
| Z100-2-U | 0 - 100 | 0 - 2 | 200 | 8 | 80 | 3 | 83 / 85 | No |
| Z100-4-U | 0 - 100 | 0 - 4 | 400 | 8 | 80 | 3 | 84 / 86 | No |
| Z100-6-U | 0 - 100 | 0 - 6 | 600 | 10 | 100 | 4.5 | 84 / 86 | No |
| Z100-8-U | 0 - 100 | 0 - 8 | 800 | 10 | 100 | 4.5 | 84 / 86 | No |

| Factory Installed Options | |
|-------------------------------------------------------|-------------|
| | Option Code |
| Front panel terminals (60V or 24A max)* | -L |
| Only one of the options below can be included: | |
| GPIB Interface* | -IEEE |
| Voltage Programming Isolated Analog Interface* | -IS510 |
| Current Programming Isolated Analog Interface* | -IS420 |
| LAN Interface (Complies with "LXI" Class C) | -LAN |

| Part Number Example |
|---------------------|
| Z10-20-LAN-L-U |

*Requires wide body (105mm) case style

| Accessories | |
|--------------------------------------------------------------------------------|-------------|
| | Part Number |
| 19" Rack Housing (Accepts four 105mm width units or six 70mm width units) | Z-NL100 |
| Blanking Panel for 19" Rack (70mm) | Z-BP |
| Blanking Panel for 19" Rack (105mm) | Z-WBP |
| Dual/Triple Housing (Accepts two 105mm case units or three 70mm case units) | Z-NL200 |
| Serial Link Cable (One is included with each power supply) | Z-RJ45 |
| Communication Cable RS485 | Z-485-9 |
| Communication Cable RS232 | Z-232-9 |
| North American Line Cord (One included with -U suffix) | Z-U |

Specifications (See website for detailed specifications)

| Model | | Z10 | Z20 | Z36 | Z60 | Z100 |
|------------------------------------------------------------|-----------|--------------------------------------------------------------------------|--------|--------|--------|---------|
| Load Regulation | CV | 2mV + 0.01% of rated voltage over 0 - 100% load change | | | | |
| Line Regulation | CV | 2mV + 0.01% of rated voltage over a 85 - 132 or 170 - 265VAC line change | | | | |
| Recovery Time(1) | CV | 1ms | | | | |
| Temperature Coefficient | CV | 30ppm/°C following 30 minute warm up | | | | |
| Temperature Stability | CV | 0.02% of rated voltage over 8 hours following 30 minute warm up time | | | | |
| Warm up Drift(2) | CV | <0.05% of rated voltage + 2mV of rated output voltage | | | | |
| Up programming response time (10-90% or 90-10% of Vmax) | CV | 15ms | 30ms | 30ms | 50ms | 50ms |
| Down programming resp time (CV) (10-90% or 90-10% of Vmax) | Full load | 10ms | 30ms | 30ms | 50ms | 50ms |
| Down programming resp time (CV) (90-10% of Vmax) | Zero load | 190ms | 200ms | 250ms | 310ms | 900ms |
| Load Regulation | CC | 5mA + 0.01% of rated current over 0 - 100% Vout change | | | | |
| Load Regulation thermal drift | CC | < 0.05% of rated current over 30 minutes after load change | | | | |
| Line Regulation | CC | 2mA + 0.01% of rated current over a 85 - 132 or 170 - 265VAC line change | | | | |
| Temperature Coefficient | CC | 100ppm/°C of rated current after 30 minute warm up time | | | | |
| Temperature Stability | CC | 0.05% of rated current over 8 hours following 30 minute warm up time | | | | |
| Warm up Drift(2) | CC | <±0.1% of rated current | | | | |
| Vout & Iout programming & readback resolution | Digitally | < 0.012% of rated voltage/current | | | | |
| Vout & Iout programming & readback accuracy | Digitally | < 0.05% of rated voltage, < 0.1% of rated current | | | | |
| Voltage & Current Programming | Analog | By either Voltage (0-5V or 0-10V) or Resistance (0-5k or 0-10k) | | | | |
| Voltage & Current Monitoring | Analog | 0-5V or 0-10V Voltage (user selectable), ±1% accuracy | | | | |
| Overvoltage Shutdown (user programmable) | V | 0.5 - 12 | 1 - 24 | 2 - 40 | 5 - 66 | 5 - 110 |
| Overtemperature Protection | - | User selectable - latched or non-latching | | | | |
| Display - Voltage | - | 4 digits. Accuracy 0.5% of rated voltage or current ±1 count | | | | |
| Remote On/Off | - | By applied voltage or dry contact relay (user selectable logic) | | | | |
| Output Good | - | Open Collector, Low on fail | | | | |
| Remote Sense Compensation (per wire) | V | 1 | 1 | 2 | 3 | 5 |
| Communication Interface | - | RS232, RS485 & USB standard, IEEE488 (GPIB) & LAN optional | | | | |
| Series Operation | - | Up to two identical units (with external diodes) | | | | |
| Parallel Operation | - | Up to six units in master-slave configuration | | | | |
| Input Voltage / Frequency | - | 85-265VAC, 47-63Hz | | | | |
| Inrush Current | - | < 25A | | | | |
| Hold Up Time (Typical) | ms | 16ms | | | | |
| Power Factor Correction | - | Complies with EN61000-3-2 Class A (0.99 typ) | | | | |
| Operating Temperature | °C | 0 - 50°C | | | | |
| Storage Temperature | °C | -20 to +85°C | | | | |
| Humidity (non condensing) | %RH | Operating: 10 - 90%RH, Storage 10 - 95%RH | | | | |
| Cooling | - | Internal temperature controlled fan | | | | |
| Withstand Voltage | - | I/P to GND 2kVAC, I/P to O/P 3kVAC, O/P to GND 1380VDC 1 min | | | | |
| Insulation Resistance | - | >100M at 25°C & 70%RH | | | | |
| Vibration (non operating) | - | IEC60068-2-64 | | | | |
| Shock | - | <20G, half sine, 11ms. IEC60068-2-27 | | | | |
| Safety Agency Certifications | - | UL61010-1, EN61010-1, IEC61010 (Designed to meet UL/EN60950-1) | | | | |
| Immunity | - | IEC61326 (Designed to meet EN55022 / EN55024) | | | | |
| Conducted & Radiated EMI | - | EN55022-B, FCC part 15-B, VCCI-B | | | | |
| Size (H x W x D) (Excluding handles and busbars) | mm | Standard body 83 x 70 x 350mm; Wide Body 83 x 105 x 350mm | | | | |
| Weight | kg | Standard body 1.9kg; Wide Body 2.4kg | | | | |
| Warranty | yrs | Five Years | | | | |

Notes:

- (1) Recovery to within 0.5% of rated voltage after a load change of 10-90% (Output current 10-100% of I_{max})
- (2) Over 30 minute warm up time after power on

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

