



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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200-800W 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)
Z160-1.3-U	0 - 160	0 - 1.3	208	10	100	1.2	79 / 81
Z160-2.6-U	0 - 160	0 - 2.6	416	10	100	1.5	84 / 86
Z160-4-U	0 - 160	0 - 4	640	10	100	2.0	86.5 / 88.5
Z160-5-U	0 - 160	0 - 5	800	10	100	2.0	86.5 / 88.5
Z320-0.65-U	0 - 320	0 - 0.65	208	25	150	0.8	79 / 81
Z320-1.3-U	0 - 320	0 - 1.3	416	25	150	1.0	84 / 86
Z320-2-U	0 - 320	0 - 2	640	30	150	1.5	87 / 88.5
Z320-2.5-U	0 - 320	0 - 2.5	800	30	150	1.5	86.5 / 89
Z375-2.2-U	0 - 375	0 - 2.2	825	30	150	1.5	87.5 / 89.5
Z650-0.32-U	0 - 650	0 - 0.32	208	60	250	0.5	79 / 81
Z650-0.64-U	0 - 650	0 - 0.64	416	60	250	0.6	84 / 86
Z650-1-U	0 - 650	0 - 1	650	60	250	1.0	86.5 / 88.5
Z650-1.25-U	0 - 650	0 - 1.25	812	60	250	1.0	87 / 89

Options	
	Option Code
IEC320 cable USA plug (Included in model number above)	-U
Front panel insulated output sockets (650V or 5A max)*	-L2
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	-LAN

Part Number Example
Z160-1.3-LAN-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 brochure on website for full detailed specifications)

Model		Z160	Z320	Z375	Z650
Load Regulation	CV	0.01% of rated voltage over 0 - 100% load change			
Line Regulation	CV	0.01% of rated voltage over 0 - 100% input change			
Recovery Time (1)	CV	2ms			
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 of rated output voltage			
Up programming response time (10-90% or 90-10% of Vmax)	CV	80ms	150ms	55ms	150ms
Down programming resp time (CV) (10-90% or 90-10% of Vmax)	Full load	100ms	150ms	65ms	150ms
Down programming resp time (CV) (90-10% of Vmax)	Zero load	2ms	2.5ms	2.5ms	3ms
Load Regulation	CC	0.09% 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	0.02% 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 + 0.05% of actual, 0.2% 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	5 - 176	5 - 353	5 - 413	5 - 717
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	5	5	5	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: 20 - 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 EMI	-	IEC/EN61326-1 Industrial location B, FCC part 15-B, VCCI-B			
Radiated EMI	-	IEC/EN61326-1 Industrial location A, FCC part 15-A, VCCI-A			
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

