

# TDK-Lambda



## **ZERO-UP** 200W/400W/800W Programmable DC Power Supplies

**Built-in RS-232 & RS-485 Interface  
with IEEE488 (GPIB) optional.**

- Constant Voltage/Constant Current
- Built-in RS-232 & RS-485 Interface
- An embedded Microprocessor controller
- Digital Encoder Knob
- Software Calibration
- Last Setting Memory
- Parallel Operation (Master/Slave) Active Current Sharing
- External Voltage or Resistance Programming
- Voltage up to 120V, Current up to 132A
- Active Power Factor Correction: 99%
- 85~265Vac Universal Input Voltage
- 19" Rack Mounted ATE and OEM
- Worldwide Safety Agency Approvals
- CE Mark for LVD and EMC Regulation

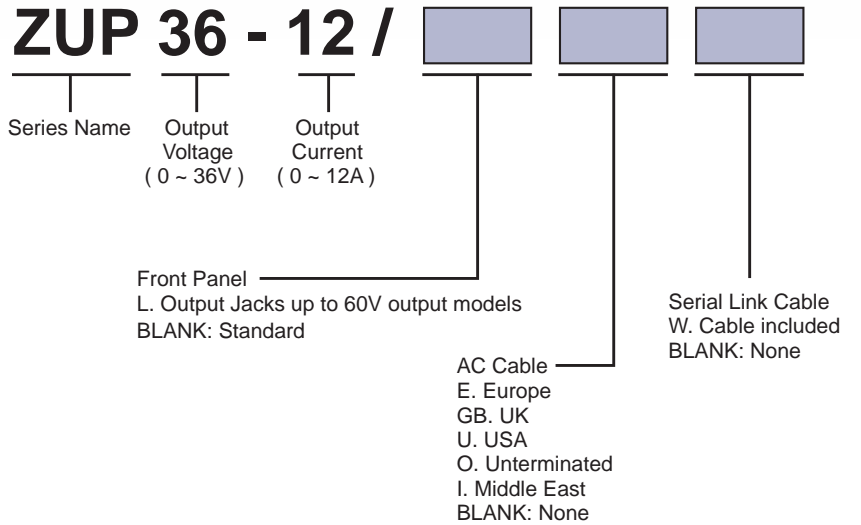


Control Flexibility for Worldwide Applications

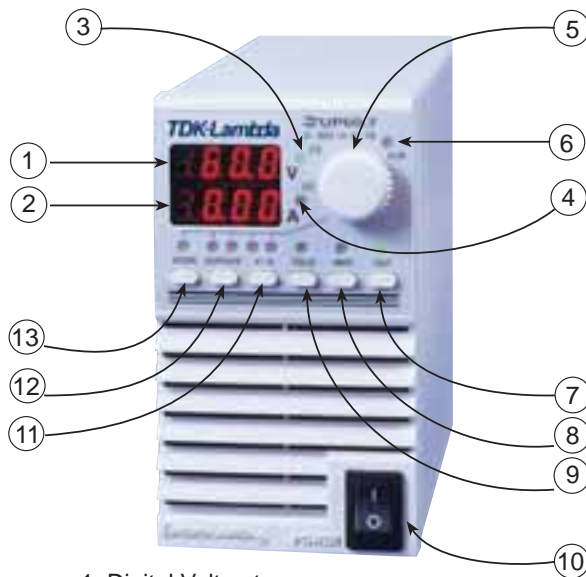
### Product Line Up

| Model      | Output Voltage (VDC) | Output Current (A) | Output Power (W) |
|------------|----------------------|--------------------|------------------|
| ZUP6-33    | 0 ~ 6 VDC            | 0 ~ 33             | 198              |
| ZUP6-66    |                      | 0 ~ 66             | 396              |
| ZUP6-132   |                      | 0 ~ 132            | 792              |
| ZUP10-20   | 0 ~ 10VDC            | 0 ~ 20             | 200              |
| ZUP10-40   |                      | 0 ~ 40             | 400              |
| ZUP10-80   |                      | 0 ~ 80             | 800              |
| ZUP20-10   | 0 ~ 20VDC            | 0 ~ 10             | 200              |
| ZUP20-20   |                      | 0 ~ 20             | 400              |
| ZUP20-40   |                      | 0 ~ 40             | 800              |
| ZUP36-6    | 0 ~ 36VDC            | 0 ~ 6              | 216              |
| ZUP36-12   |                      | 0 ~ 12             | 432              |
| ZUP36-24   |                      | 0 ~ 24             | 864              |
| ZUP60-3.5  | 0 ~ 60VDC            | 0 ~ 3.5            | 210              |
| ZUP60-7    |                      | 0 ~ 7              | 420              |
| ZUP60-14   |                      | 0 ~ 14             | 840              |
| ZUP80-2.5  | 0 ~ 80VDC            | 0 ~ 2.5            | 200              |
| ZUP80-5    |                      | 0 ~ 5              | 400              |
| ZUP120-1.8 | 0 ~ 120VDC           | 0 ~ 1.8            | 216              |
| ZUP120-3.6 |                      | 0 ~ 3.6            | 432              |

### Power Supply Identification / Accessories

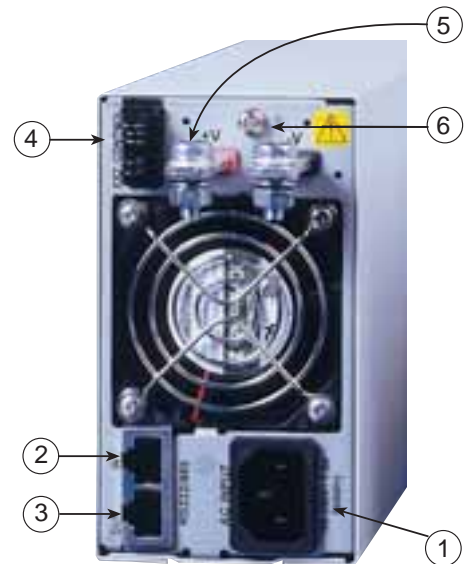


### Front Panel



1. Digital Voltmeter
2. Digital Amperemeter
3. Constant Voltage Mode Indicator
4. Constant Current Mode Indicator
5. Voltage/Current, OVP/UV, Address Adjust
6. Alarm ( OVP, OTP, FOLD )
7. Output ON/OFF Control
8. Local/Remote Select
9. Foldback Protection Control
10. AC Power Switch
11. Voltage/Current Mode Control
12. Overvoltage/Undervoltage Setting
13. Address Setting

### Rear Panel



1. IEC320 AC Input Connectors
2. Remote IN Programming via RS-232/RS-485
3. Remote OUT Via RS-485 Communications Chaining Power Supplies to Serial Communication Bus.
4. External Analog Programming Control Connector
5. Output Bus Bars (6V to 60V) model shown. 80V to 120V models PHOENIX: PSC Plug Connectors
6. Ground Thread

## ZUP Configurations

### BENCHTOP POWER SUPPLY

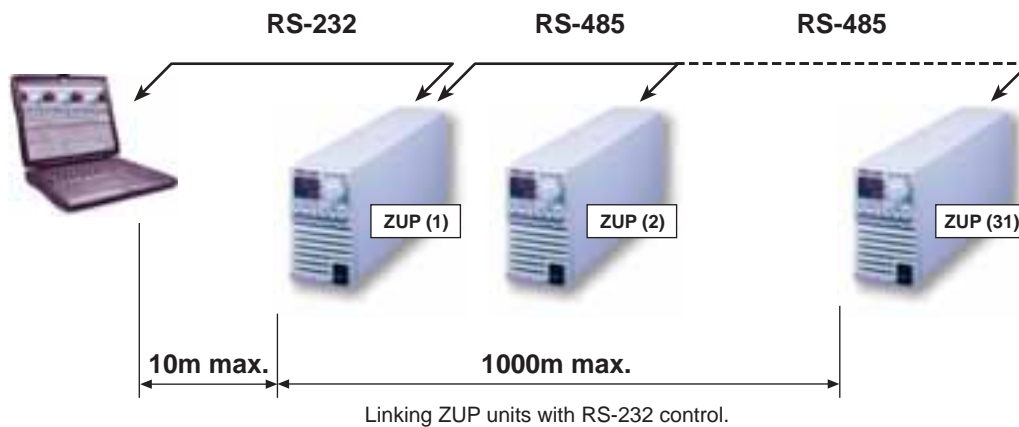


### PARALLEL OPERATION

Master - Slave method: Active current sharing up to 5 units.

### REMOTE PROGRAMMING VIA RS-232

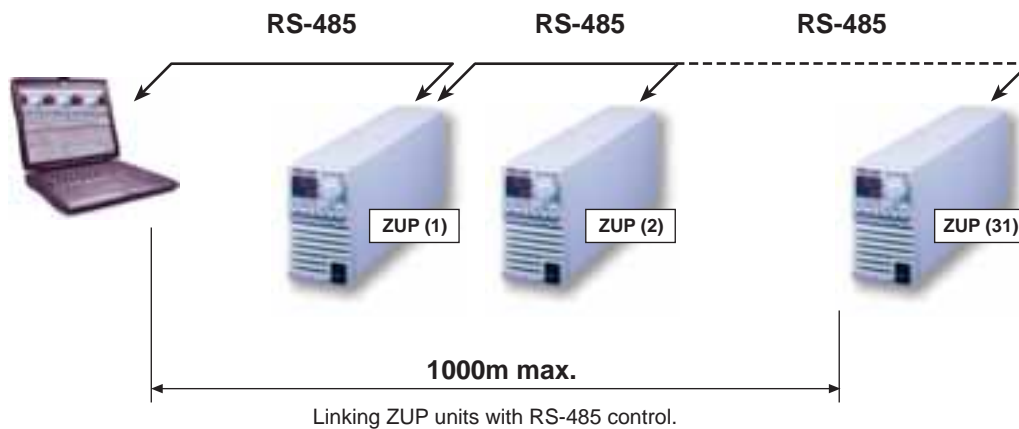
Up to 31 ZUP units can be controlled via RS-232 interface.



### REMOTE PROGRAMMING VIA RS-485

Up to 31 ZUP units can be controlled via RS-485 interface

For operation environments that require high noise immunity or long distance communication, it is recommended to use the built-in RS-485 interface.



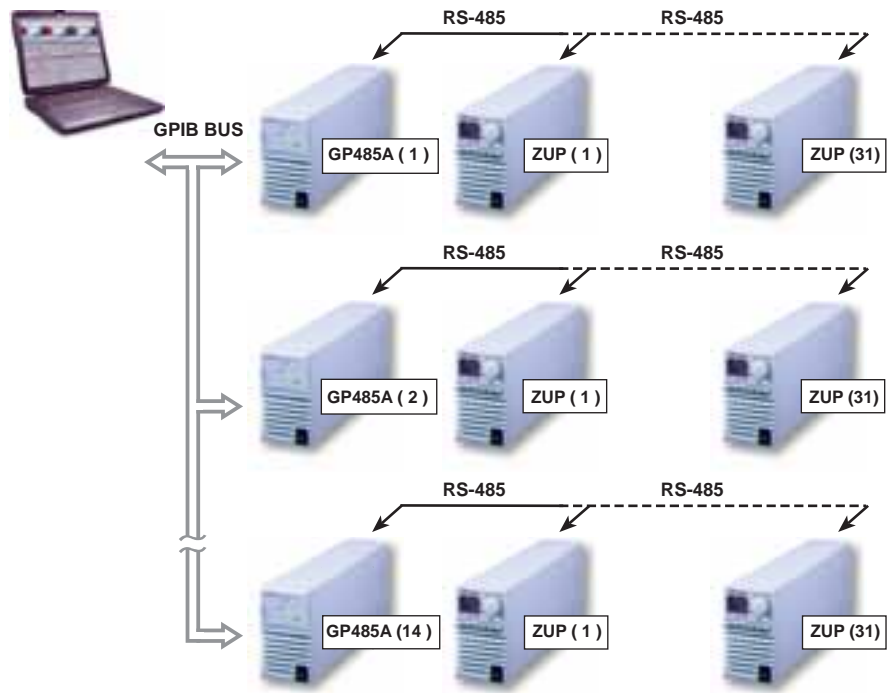
## Remote Programming Via GPIB.

### GPIB ↔ RS-485 CONTROLLER

The GP485A is a high performance serial to GPIB Interface

It enables a ZUP series with RS-485 port to be a Talker, Listener, or controller on the GPIB

- \* Controls up to 31 ZUP units through a single GPIB address.
- \* Conforms to all versions of the IEEE488 standard, including IEEE488.2.
- \* 19" racking possibility.
- \* Application software - LabView, LabWindows.



## Rack Mounted ATE and OEM up to 2.4KW

Six units can be assembled into 19-inch rack / 3U high to meet your configuration requirements

### Power Modules Table

| Module Type   | 200W        | 400W        | 800W        |
|---------------|-------------|-------------|-------------|
| 0 ~ 6V        | 33A         | 66A         | 132A        |
| 0 ~ 10V       | 20A         | 40A         | 80A         |
| 0 ~ 20V       | 10A         | 20A         | 40A         |
| 0 ~ 36V       | 6A          | 12A         | 24A         |
| 0 ~ 60V       | 3.5A        | 7A          | 14A         |
| 0 ~ 80V       | 2.5A        | 5A          |             |
| 0 ~ 120V      | 1.8A        | 3.6A        |             |
| 19"rack width | 1 / 6 width | 1 / 6 width | 2 / 6 width |



## Zup Series Specifications

| MODEL                        |                                     | ZUP6-33   | ZUP6-66   | ZUP6-132  | ZUP10-20    | ZUP10-40   | ZUP10-80  | ZUP20-10     | ZUP20-20   | ZUP20-40  | ZUP36-6      | ZUP36-12   | ZUP36-24  | ZUP60-3.5    | ZUP60-7    | ZUP60-14  | ZUP80-2.5    | ZUP80-5    | ZUP120-1.8   | ZUP120-3.6 |           |  |
|------------------------------|-------------------------------------|---|---|-----------|-------------|------------|-----------|--------------|------------|-----------|--------------|------------|-----------|--------------|------------|-----------|--------------|------------|--------------|------------|-----------|--|
| OUTPUT VOLTAGE (*1)          | V                                   | 0-6   |   |           | 0-10        |            |           | 0-20         |            |           | 0-36         |            |           | 0-60         |            |           | 0-80         |            | 0-120        |            |           |  |
| OUTPUT CURRENT (*2)          | A                                   | 0-33  | 0-66  | 0-132     | 0-20        | 0-40       | 0-80      | 0-10         | 0-20       | 0-40      | 0-6          | 0-12       | 0-24      | 0-3.5        | 0-7        | 0-14      | 0-2.5        | 0-5        | 0-1.8        | 0-3.6      |           |  |
| RATED OUTPUT POWER           | W                                   | 198   | 396   | 792       | 200         | 400        | 800       | 200          | 400        | 800       | 216          | 432        | 864       | 210          | 420        | 840       | 200          | 400        | 216          | 432        |           |  |
| CONSTANT VOLTAGE             | LOAD REGULATION                     | - 0.005%+2mV From No load to Full load, constant input voltage.                               |   |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |
|                              | LINE REGULATION                     | - 0.005%+1mV From 85-132VAC or 170-265VAC, constant load.                                     |   |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |
|                              | RMS RIPPLE (5Hz-1MHz Bandwidth)     | mV  | 5   | 5         | 8           | 5          | 5         | 8            | 5          | 5         | 5            | 5          | 5         | 5            | 5          | 5         | 5            | 20         | 20           | 20         | 20        |  |
|                              | RIPPLE (pk to pk) (20MHz Bandwidth) | mV  | 50  | 50        | 100         | 50         | 50        | 90           | 50         | 50        | 80           | 50         | 50        | 70           | 50         | 50        | 60           | 70         | 70           | 80         | 80        |  |
|                              | RECOVERY TIME (*3)                  | mS  | 1   |           |             | 0.5        |           |              | 0.2        |           |              | 0.2        |           |              | 0.2        |           |              | 0.2        |              | 0.2        |           |  |
|                              | TEMPERATURE COEFFICIENT             | -   | 30ppm/°C from rated voltage following 30-minute warm-up.  |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |
|                              | TEMPERATURE DRIFT                   | -   | 0.01%+2mV Change in output over 8-hour interval under constant line, load and ambient temp following 30-minute warm-up. |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |
|                              | UP PROGRAMMING RESPONSE TIME (*4)   | mS  | 50  | 50        | 60          | 50         | 50        | 60           | 50         | 50        | 60           | 50         | 50        | 60           | 50         | 50        | 60           | 100        | 100          | 100        | 100       |  |
|                              | DOWN PROGRAMMING FULL LOAD          | mS  | 50  | 50        | 50          | 50         | 50        | 50           | 50         | 50        | 50           | 50         | 50        | 50           | 50         | 50        | 70           | 60         | 60           | 80         | 80        |  |
|                              | RESPONSE TIME NO LOAD               | mS  | 250   |           |             | 350        |           |              | 400        |           |              | 500        |           |              | 750        |           |              | 800        |              | 1000       |           |  |
| CONSTANT CURRENT             | LOAD REGULATION (*5)                | -   | 0.01%+5mA   | 0.01%+5mA | 0.07%+10mA  | 0.01%+5mA  | 0.01%+5mA | 0.07%+10mA   | 0.01%+5mA  | 0.01%+5mA | 0.07%+10mA   | 0.01%+5mA  | 0.01%+5mA | 0.07%+10mA   | 0.01%+5mA  | 0.01%+5mA | 0.07%+10mA   | 0.01%+5mA  | 0.01%+5mA    | 0.01%+5mA  | 0.01%+5mA |  |
|                              | LINE REGULATION (*6)                | -   | 0.01%+2mA   | 0.01%+2mA | 0.01%+5mA   | 0.01%+2mA  | 0.01%+2mA | 0.01%+5mA    | 0.01%+2mA  | 0.01%+2mA | 0.01%+5mA    | 0.01%+2mA  | 0.01%+2mA | 0.01%+5mA    | 0.01%+2mA  | 0.01%+2mA | 0.01%+5mA    | 0.01%+2mA  | 0.01%+2mA    | 0.01%+2mA  | 0.01%+2mA |  |
|                              | RMS RIPPLE (5Hz-1MHz Bandwidth)     | mA  | 50  | 100       | 200         | 25         | 50        | 100          | 15         | 30        | 60           | 7.5        | 15        | 30           | 5          | 10        | 20           | 5          | 5            | 5          | 5         |  |
|                              | TEMPERATURE COEFFICIENT             | -   | 100ppm/°C from rated current following 30-minute warm-up.   |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |
|                              | TEMPERATURE DRIFT (*8)              | -   | 0.02%+5mA   | 0.02%+5mA | 0.05%+10mA  | 0.02%+5mA  | 0.02%+5mA | 0.05%+10mA   | 0.02%+5mA  | 0.02%+5mA | 0.05%+10mA   | 0.02%+5mA  | 0.02%+5mA | 0.05%+10mA   | 0.02%+5mA  | 0.02%+5mA | 0.05%+10mA   | 0.02%+5mA  | 0.02%+5mA    | 0.02%+5mA  | 0.02%+5mA |  |
| PROGRAMMING (*9)             | RESOLUTION                          | - Better than 0.028% of rated output voltage  |   |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |
|                              | VOLTAGE ACCURACY                    | - 0.02%+5mV   |   |           | - 0.02%+8mV |            |           | - 0.02%+12mV |            |           | - 0.02%+20mV |            |           | - 0.02%+35mV |            |           | - 0.02%+50mV |            | - 0.02%+80mV |            |           |  |
|                              | RESOLUTION                          | - Better than 0.03% of rated output current   |   |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |
|                              | CURRENT ACCURACY                    | - 0.4%+40mA   |   |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |
| OVERVOLTAGE PROTECTION (*10) | V                                   | 0-7.5   |   |           | 0-13        |            |           | 0-24         |            |           | 0-40         |            |           | 0-66         |            |           | 0-88         |            | 0-132        |            |           |  |
| HOLD-UP TIME                 | -                                   | 20mS At 100V/200VAC, rated output voltage and output current.                                 |   |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |
| DISPLAY                      | VOLTAGE                             | - 3 digits ( 6v; 20v; 36v; 60v; 80v); 3.5 digits ( 10v; 120v ) accuracy: 0.2% +/- 2 digits.   |   |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |
|                              | CURRENT                             | - 3.5 digits (132A); All others 3 digits, accuracy: 0.5% +/- 3 digits.                        |   |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |
|                              | STATUS                              | - CV/CC, Alarm, Fold, Local/Remote, On/Off.   |   |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |
| OUTPUT PROTECTIONS           | -                                   | Over Voltage, Over Temperature, Foldback.   |   |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |
| INPUT                        | INPUT VOLTAGE (*11)                 | - 85-265Vac Continuous, 47-63Hz   |   |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |
|                              | INPUT CURRENT (*12)                 | A   | 3.0/1.5   | 5.6/2.7   | 11.2/5.4    | 2.9/1.4    | 5.6/2.7   | 11.2/5.4     | 2.9/1.4    | 5.6/2.7   | 11.2/5.4     | 2.9/1.4    | 5.6/2.7   | 11.2/5.4     | 2.9/1.4    | 5.6/2.7   | 11.2/5.4     | 2.6/1.3    | 4.9/2.4      | 2.9/1.4    | 5.3/2.6   |  |
|                              | INRUSH CURRENT ( 100/200Vac )       | A   | 15/30 (*7)  | 15        | 30          | 15/30 (*7) | 15        | 30           | 15/30 (*7) | 15        | 30           | 15/30 (*7) | 15        | 30           | 15/30 (*7) | 15        | 30           | 15/30 (*7) | 15           | 15/30 (*7) | 15        |  |
|                              | EFFICIENCY (*12)                    | %   | 69/72   | 74/77     | 74/77       | 73/77      | 79/82     | 77/81        | 74/78      | 79/83     | 79/82        | 76/80      | 80/84     | 80/84        | 75/79      | 80/84     | 80/84        | 78/82      | 83/87        | 78/82      | 82/86     |  |
|                              | INPUT CURRENT HARMONICS             | -   | Complies with EN61000-3-2, Class A  |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |
|                              | POWER FACTOR (TYP)                  | -   | 0.99 at 100/200Vac, 100% load.  |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |
| ENVIRONMENT                  | OPERATING TEMPERATURE               | - 0 to 50 °C ; 100% Load.   |   |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |
|                              | OPERATING HUMIDITY                  | - 30-90% RH ( No dewdrop ).   |   |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |
|                              | STORAGE TEMPERATURE                 | - -20 to 70 °C  |   |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |
|                              | STORAGE HUMIDITY                    | - 10 - 95% RH (No dewdrop).   |   |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |
| MECHANICAL                   | VIBRATION                           | - 10-55Hz, Amplitude (sweep 1 min ) 2G, X, Y, Z, When mounted with mounting screws.           |   |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |
|                              | SHOCK                               | - Less than 20G   |   |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |
|                              | WEIGHT                              | Kg  | 2.9   | 3.2       | 5.8         | 2.9        | 3.2       | 5.8          | 2.9        | 3.2       | 5.8          | 2.9        | 3.2       | 5.8          | 2.9        | 3.2       | 5.8          | 2.9        | 3.2          | 2.9        | 3.2       |  |
|                              | SIZE (WxHxD)                        | mm  | 200W and 400W units: 70 x 124 x 350. 800W units: 140 x 124 x 350 (Refer to outline drawing)                             |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |
| EXTERNAL CONTROL FUNCTIONS   | OUTPUT ON/OFF                       | - By TTL Signal or Dry Contact (Refer to instruction manual).                                 |   |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |
|                              | OUTPUT GOOD                         | - Open collector (Refer to instruction manual).   |   |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |
|                              | OUTPUT VOLTAGE PROGRAMMING          | - By Voltage ( 0-4V ) or by Resistance ( 0-4K ) (Refer to instruction manual).                |   |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |
|                              | OUTPUT CURRENT PROGRAMMING          | - By Voltage ( 0-4V ) or by Resistance ( 0-4K ) (Refer to instruction manual).                |   |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |
|                              | REMOTE SENSING                      | - Maximum 0.5V drop on each load wire for model up to 60V and 2V for the 80V, 120V models     |   |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |
|                              | COMMUNICATION INTERFACE             | - RS-232 and RS-485 Built-in, IEEE488 Optional.   |   |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |
| APPROVALS                    | SAFETY STANDARDS                    | - UL3111-1, EN61010-1   |   |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |
|                              | EMC STANDARDS                       | - EN61326-1, IEC 61326-1, FCC part 15 (class A).  |   |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |
| CONDUCTED EMI                | -                                   | EN55022-B, FCC-B, VCCI-B  |   |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |
| RADIATED EMI                 | -                                   | EN55022-A, FCC-A, VCCI-A  |   |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |
| SERIES OPERATION             | -                                   | Up to 2 units (Refer to instruction manual).  |   |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |
| PARALLEL OPERATION           | -                                   | Master - Slave method; up to 5 units (Refer to instruction manual).                           |   |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |
| COOLING                      | -                                   | Forced air by blower fan (Blower fan is mounted within unit).                                 |   |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |
| WITHSTAND VOLTAGE            | -                                   | Input - Chassis...2.0kVAC 1 min, Input - Output...3.0kVac 1 min, Output - GND...500VAC 1 min. |   |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |
| ISOLATION RESISTANCE         | -                                   | More than 100MOhm at 25 °C and 70% R.H.   |   |           |             |            |           |              |            |           |              |            |           |              |            |           |              |            |              |            |           |  |

### NOTES:

- \*1. Minimum voltage is guaranteed to maximum 0.2% of the rated output voltage.
- \*2. Minimum current is guaranteed to maximum 0.4% of the rated output current.
- \*3. Time for recovery to within +/-50mV against current change of 50% to 100%.

- \*4. From zero volts to full scale, resistive load and current setting at maximum.
- \*5. From no load to full load, constant input voltage.
- \*6. From 85-132Vac or 170-265Vac constant load.
- \*7. At cold start Ta=25 °C.

- \*8. Change in output over 8 hour interval constant line, load and ambient temperature following 30-minutes warm-up.
- \*9. Given for control of the output via the serial communication or via front panel controls.
- \*10. Inverter shut down method, manual reset (OVP will shut down output)

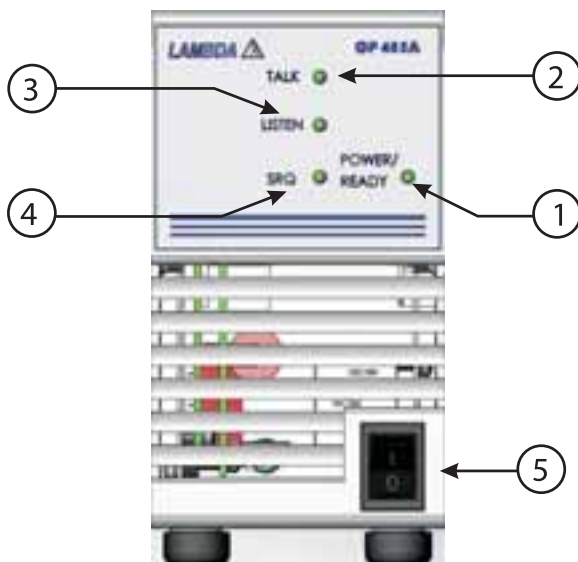
- \*11. For cases where conformance to various safety specs. (UL, IEC, etc.) are required, to be described as 100-240VAC (50/60Hz) on name plate.
- \*12. At 100/200Vac and Maximum Output Power.

## GP485A SPECIFICATIONS

The GP485A has all the software and logic required to implement the physical and electrical Specifications of the IEEE488 and RS-485 standards

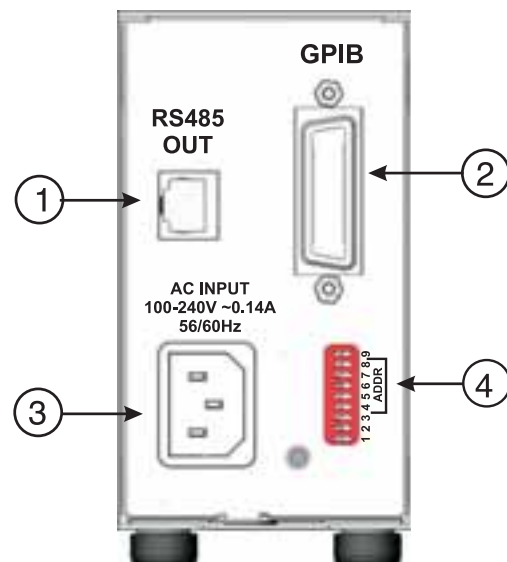
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|---------------------|-----|--|
| Input Voltage /freq | Vac | 85 ~ 265Vac continuous 47 ~ 63 Hz  |
| Input consumption   | W   | 5W   |
| IEEE 488 Capability |     | SH1,AH1,T6,TE0,L4,LE0,SR1,RL0,PP1,DC1,DT0,C0,E1,E2   |
| Indication LED's    |     | Power /Ready ,Talk ,Listen ,SRQ  |
| Baud rate           | bps | Optional 300 , 600 ,1200 , 2400 , 4800 , 9600      Default :9600                                 |
| Address             |     | 1 up to 30 can be set using an address switch  |
| Operating temp      | °C  | 0~ 50  |
| Storage temp        | °C  | -20 ~ 70   |
| Conducted emission  |     | EN5022B,FCC-B  |
| Radiated emission   |     | EN5022A,FCC-A  |
| Safety standards    |     | UL3111-1 , EN61010-1   |
| EMC standards       |     | EN61326-1, IEC 61326-1, FCC part 15 (class A).   |
| Withstand voltage   |     | Input - Chassis...2.0kVAC 1min, Input - Output...3.0kVac 1 min, Output - Chassis...500VAC 1 min. |
| Vibration           | G   | 10-55Hz, Amplitude (sweep 1 min ) 2G, X, Y, Z, When mounted with mounting screws.                |
| Size (WxHxD)        | mm  | 70x124x350 (GP 485A has all the mechanical specifications & mounting hole as ZUP200W/400W units) |
| Weight              | Kg  | 1.95   |

### Front Panel



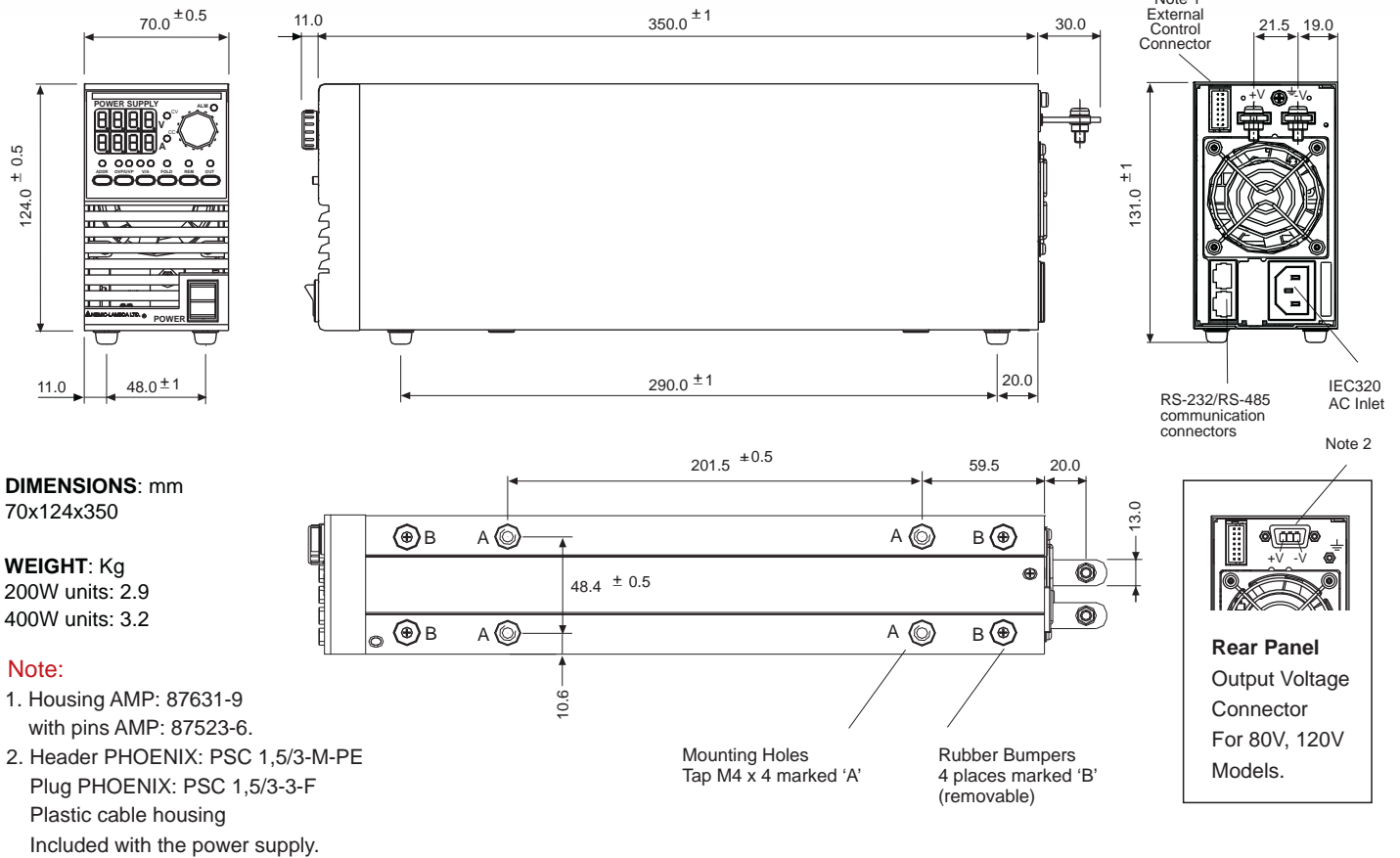
1. Power/Ready: Indicates that the power is "ON" and the self-test has passed successfully. The unit is ready to operate once the LED illuminates.
2. Talk: Indicates that the GP485A is addressed as a GPIB Talker.
3. Listen: Indicates that the GP485A is addressed as a GPIB Listener.
4. SRQ: Indicates that the GP485A signal line SRQ is asserted.
5. AC ON/OFF: Turns AC power On and Off.

### Rear Panel

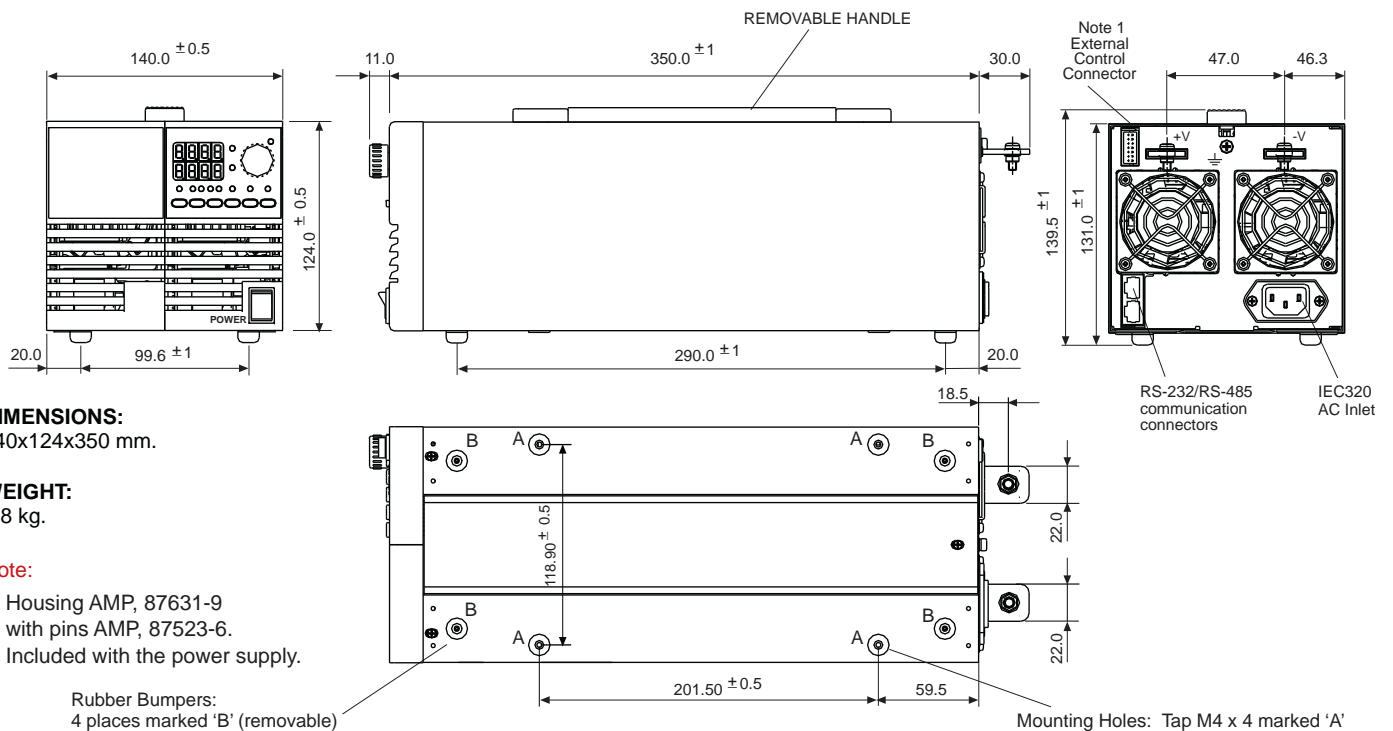


1. RS-485 OUT: EIA-568A shielded type connector, used for RS-485 communication with ZUP power supplies.
2. GPIB: Shielded 24-pin Champ female connector, with metric screwlock. Used for GPIB communication with the GPIB controller.
3. AC Input: IEC type appliance inlet.
4. Address setting Dip switch.

## Outline Drawings ZUP 200W/400W Units



## Outline Drawings ZUP 800W Unit



## Accessories

### 1. AC Cord Sets

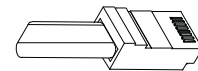
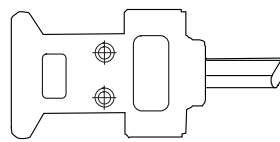
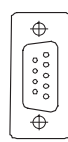
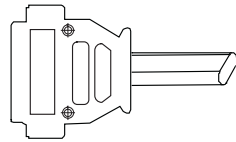
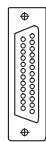
Five optional cords are possible according to order:

| Region                 | Europe          | United Kingdom  | Japan           | Middle East     | North America   |
|------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Output Power           | 850W            | 850W            | 850W            | 850W            | 850W            |
| AC Cords               | 10A/250Vac L=2m | 10A/250Vac L=2m | 13A/125Vac L=2m | 10A/250Vac L=2m | 13A/125Vac L=2m |
| Wall Plug              | INT'L 7/VII     | BS1363          |                 | SI-32           | NEMA 5-15P      |
| Power Supply Connector | IEC320-C13      | IEC320-C13      | IEC320-C13      | IEC320-C13      | IEC320-C13      |
|                        |                 |                 |                 |                 |                 |
| Part Number            | P/N: ZUP/E      | P/N: ZUP/GB     | P/N: ZUP/J      | P/N: ZUP/I      | P/N : ZUP/U     |

### 2. Communication Cable

RS-232/RS-485 cable is used to connect the power supply to the PC controller

| Mode                   | RS-232               | RS-485               | RS-232               | RS-485               |
|------------------------|----------------------|----------------------|----------------------|----------------------|
| PC Connector           | DB-9F                | DB-9F                | DB-25F               | DB-25F               |
| Communication Cable    | Shield Ground L=1m   | Shield Ground L=1m   | Shield Ground L=1m   | Shield Ground L=1m   |
| Power Supply Connector | EIA/TIA-568A (RJ-45) | EIA/TIA-568A (RJ-45) | EIA/TIA-568A (RJ-45) | EIA/TIA-568A (RJ-45) |
| P/N                    | ZUP/NC401            | ZUP/NC402            | ZUP/NC403            | ZUP/NC404            |



DB-25F (female connector)

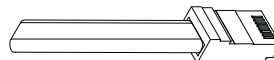
DB-9F (female connector)

EIA/TIA (RJ-45)

### 3. ZUP serial link cable

Used to chain Power Supply to Power Supply from a serial communication bus

| Mode   | Communication cable    | Power Supply Connector Remote IN /OUT | P/N    |
|--------|------------------------|---------------------------------------|--------|
| RS 485 | Shield Ground , L=50cm | EIA /TIA -568 A (RJ-45)               | ZUP/ W |



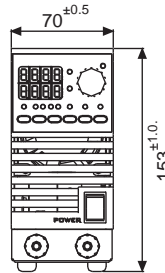


### Options ( 200W, 400W, 800W Models )

#### 1. FRONT PANEL OUTPUT JACKS

Up to 60V output models

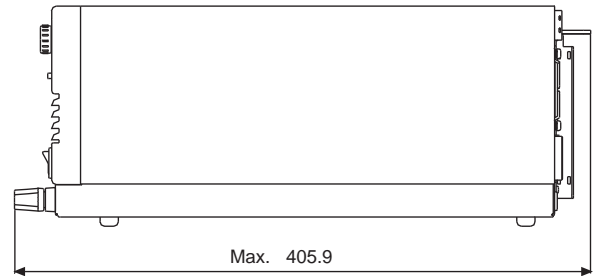
P/N: ZUP / L



Outline Drawing: Physical Dimensions in mm.

ZUP 200W/400W Units: 70x153x405.9

ZUP 800W Units: 140x153x405.9

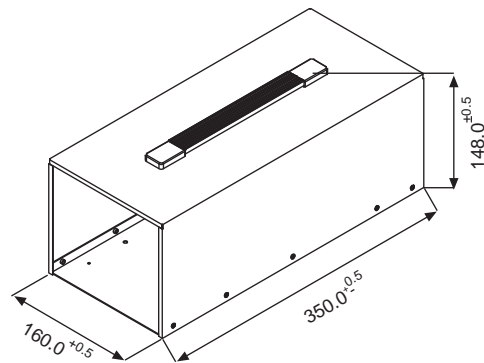


Up to 20A output current via front panel jacks.

#### 2. ZUP ASSEMBLIES

Dual Output Packing 200W/400W models

P/N: NL200

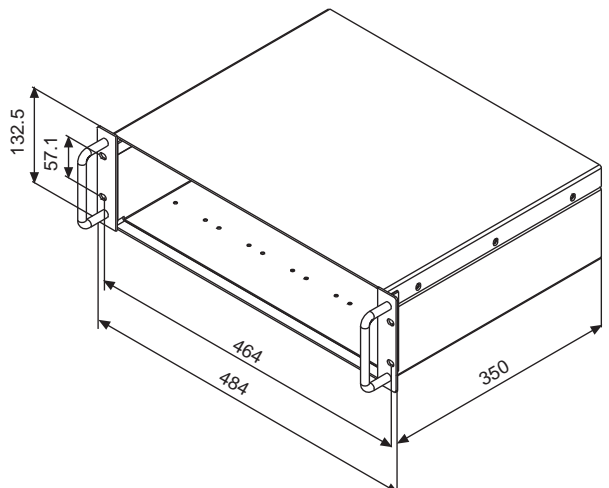


#### 3. 19" RACK MOUNTED ATE AND OEM UP TO 2.4 KW

Up to six power units can be assembled into a 19", 3U rack, kit P/N: NL100.

In cases where the entire rack is not occupied with power units, P/N: NL101 blank panels can be installed.

P/N: NL100



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E-mail: info@nemic.co.il  
www.nemic.co.il



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