

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

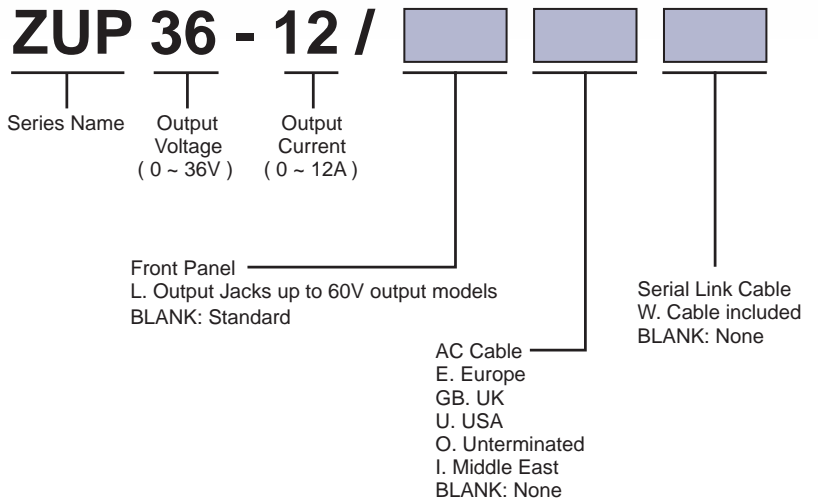


Control Flexibility for Worldwide Applications

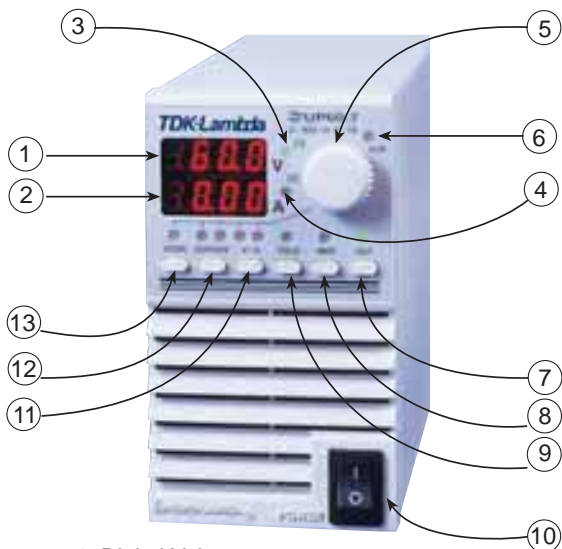
Product Line Up

| 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

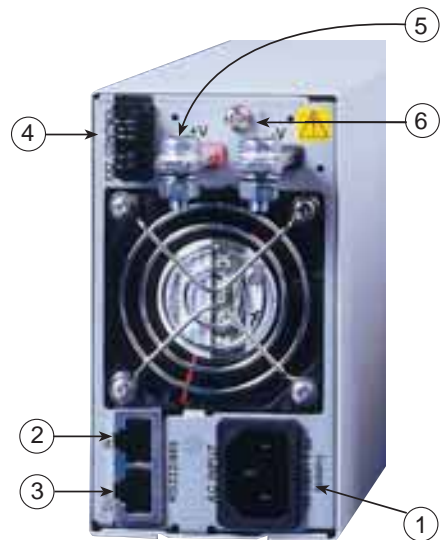


Front Panel



1. Digital Voltmeter
2. Digital Amperemeter
3. Constant Voltage Mode Indicator
4. Constant Current Mode Indicator
5. Voltage/Current, OVP/UVP, 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

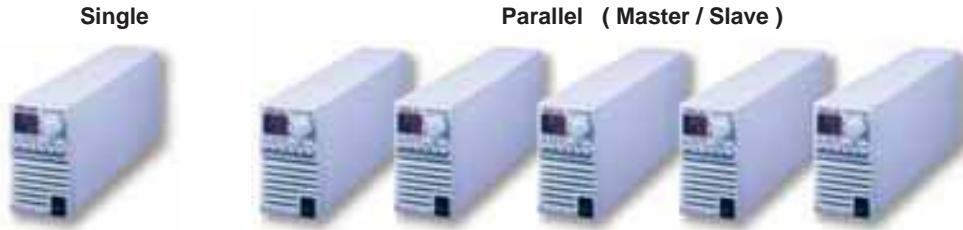
Rear Panel



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

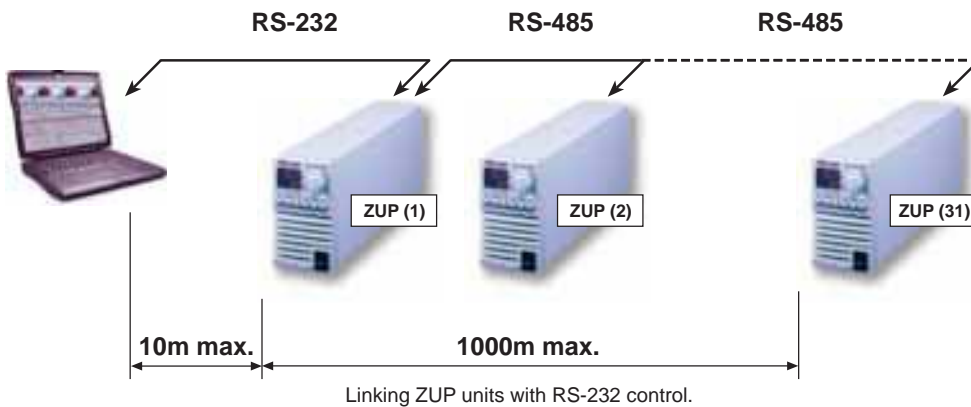


PARALLEL OPERATION

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

REMOTE PROGRAMMING VIA RS-232

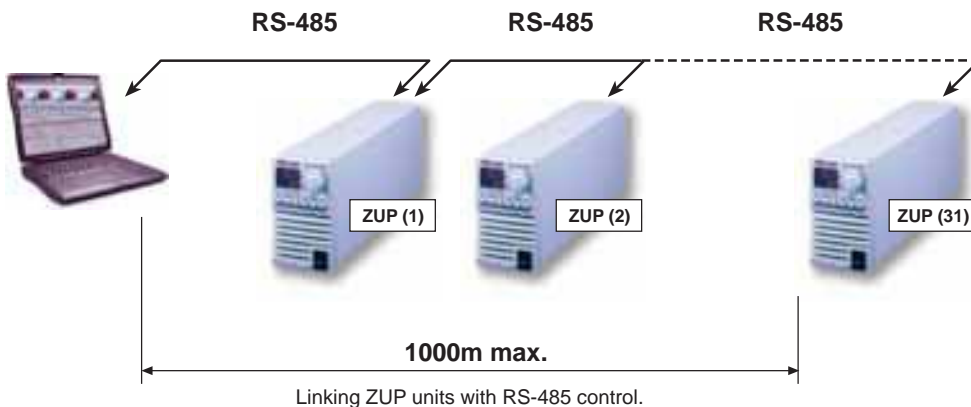
Up to 31 ZUP units can be controlled via RS-232 interface.



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.



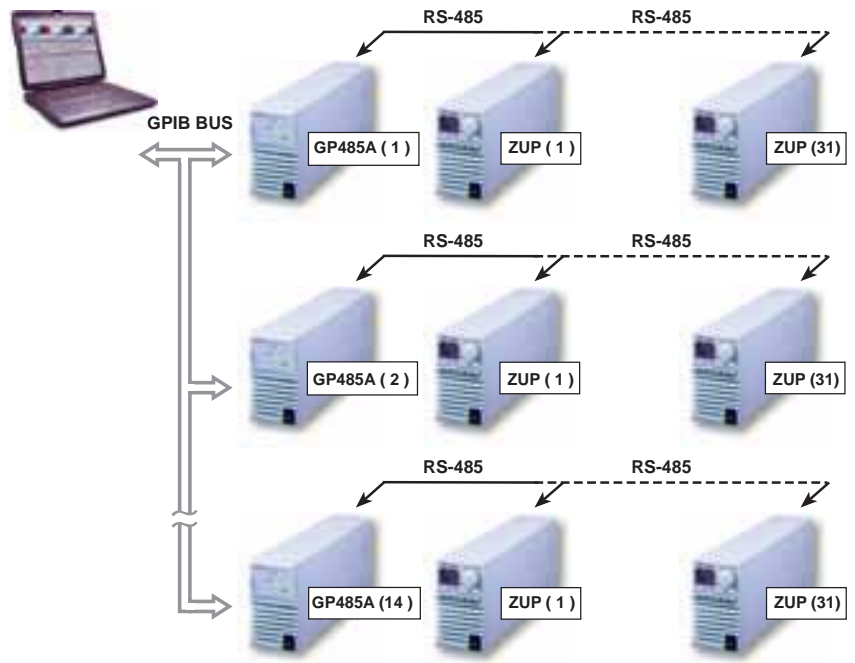
Remote Programming Via GPIB.

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 | ZUP80-1.8 | ZUP120-3.6 | |
|-----------------------------------|--|-----------|----------|----------|-----------|----------|----------|-----------|----------|----------|-----------|----------|-----------|---------|----------|-----------|---------|-----------|------------|--|
| OUTPUT VOLTAGE (*1) | V | 0-6 | 0-132 | 0-20 | 0-10 | 0-80 | 0-10 | 0-20 | 0-40 | 0-36 | 0-36 | 0-24 | 0-3.5 | 0-7 | 0-14 | 0-2.5 | 0-5 | 0-1.8 | 0-120 | |
| OUTPUT CURRENT (*2) | A | 0-33 | 0-66 | 0-132 | 0-40 | 0-80 | 0-40 | 0-20 | 0-40 | 0-6 | 0-6 | 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 | 200 | 400 | 800 | 216 | 216 | 864 | 210 | 420 | 840 | 200 | 400 | 216 | 432 | |
| CONSTANT VOLTAGE | LOAD REGULATION From No load to Full load, constant input voltage. LINE REGULATION 0.005%+2mV RMS RIPPLE (6Hz-1MHz Bandwidth) From 85-132VAC or 170-265VAC, constant load. RIPPLE (pk to pk) (20MHz Bandwidth) 0.005%+1mV RMS RIPPLE (6Hz-1MHz Bandwidth) 5 5 8 5 5 8 5 5 5 5 5 5 5 5 5 20 20 20 20 20 RECOVERY TIME (*3) mV 50 50 50 100 50 50 50 50 50 50 50 50 50 50 50 70 70 70 80 80 TEMPERATURE COEFFICIENT ms 1 1 1 0.5 0.5 0.5 0.5 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 | | | | | | | | | | | | | | | | | | | |
| TEMPERATURE DRIFT | - 30ppm/°C from rated voltage following 30-minute warm-up. - 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 | 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 | 70 | 60 | 60 | 80 | 80 | |
| RESPONSE TIME NO LOAD | ms | 250 | | | 350 | | 400 | | | 500 | | | 750 | | 800 | | | 1000 | | |
| 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 0.01%+5mA 0.01%+5mA 0.01%+5mA 0.01%+5mA 0.01%+5mA 0.01%+5mA 0.01%+5mA 0.01%+5mA 0.01%+5mA 0.01%+5mA 0.01%+5mA 0.01%+5mA | | | | | | | | | | | | | | | | | | | |
| CURRENT LINE REGULATION (*6) | - 0.01%+2mA | | | | | | | | | | | | | | | | | | | |
| RMS RIPPLE (5Hz-1MHz Bandwidth) | mA | 50 | 100 | 200 | 25 | 50 | 100 | 15 | 30 | 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 | | | | | | | | | | | | | | | | | | | |
| RESOLUTION ACCURACY | - Better than 0.02% of rated output voltage | | | | | | | | | | | | | | | | | | | |
| RESOLUTION ACCURACY | - Better than 0.03% of rated output current | | | | | | | | | | | | | | | | | | | |
| CURRENT ACCURACY | - 0.4%+40mA | | | | | | | | | | | | | | | | | | | |
| OVER VOLTAGE 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. | | | | | | | | | | | | | | | | | | | |
| VOLTAGE DISPLAY | - 3 digits (6v; 20v; 36v; 60v; 80v); 3.5 digits (10v; 120v) accuracy, 0.2% +/- 2 digits. | | | | | | | | | | | | | | | | | | | |
| CURRENT STATUS | - 3.5 digits (132A); All others 3 digits, accuracy: 0.5% +/- 3 digits. | | | | | | | | | | | | | | | | | | | |
| OUTPUT PROTECTIONS | - CV/CC, Alarm, Fold, Local/Remote, On/Off. - Over Voltage, Over Temperature, Feedback. | | | | | | | | | | | | | | | | | | | |
| 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 | 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 (*) | 15 | 30 | 15/30 (*) | 15 | 30 | 15/30 (*) | 15 | 30 | 15/30 (*) | 15 | 15/30 (*) | 15 | 30 | 15/30 (*) | 15 | 15/30 (*) | 15 | |
| EFFICIENCY (*12) | % | 69/72 | 74/77 | 74/77 | 73/77 | 79/82 | 77/81 | 74/78 | 79/83 | 76/80 | 80/84 | 80/84 | 75/79 | 80/84 | 80/84 | 76/82 | 83/87 | 76/82 | 82/86 | |
| INPUT CURRENT HARMONICS | - Complies with EN61000-3-2, Class A | | | | | | | | | | | | | | | | | | | |
| POWER FACTOR (THP) | - 0.99 at 100/200VAC, 100% load. | | | | | | | | | | | | | | | | | | | |
| OPERATING TEMPERATURE | - 0 to 50 °C; 100% Load. | | | | | | | | | | | | | | | | | | | |
| OPERATING HUMIDITY | - 30-90% RH (No dewdrop). | | | | | | | | | | | | | | | | | | | |
| STORAGE TEMPERATURE | - -20 to 70 °C | | | | | | | | | | | | | | | | | | | |
| MECHANICAL STORAGE HUMIDITY | - 10 - 95% RH (No dewdrop). | | | | | | | | | | | | | | | | | | | |
| 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 | 2.9 | 3.2 | 5.8 | 2.9 | 3.2 | 2.9 | 3.2 | |
| EXTERNAL CONTROL FUNCTIONS | SIZE (WHXHD) 200W and 400W units: 70 x 124 x 350. 800W units: 140 x 124 x 350 (Refer to outline drawing) 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 SAFETY STANDARDS - UL3111-1, EN61010-1 EMC STANDARDS - EN61326-1, IEC 61326-1, FCC part 15 (class A), EN50222-B, FCC-B, VCCI-B RADIATED EMI - EN50222-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 100MΩ at 25 °C and 70% R.H. | | | | | | | | | | | | | | | | | | | |

NOTES:

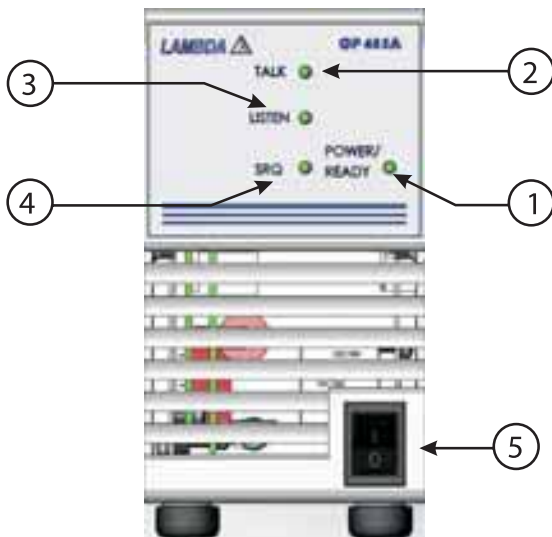
*1. Minimum voltage is guaranteed to maximum 0.2% of the rated output voltage.
 *2. Minimum current is guaranteed to maximum 0.4% of the rated output current.
 *3. Time for recovery to within +/-50mV against current change of 50% to 100%.
 *4. From zero volts to full scale , resistive load and current 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 (60/60Hz) 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

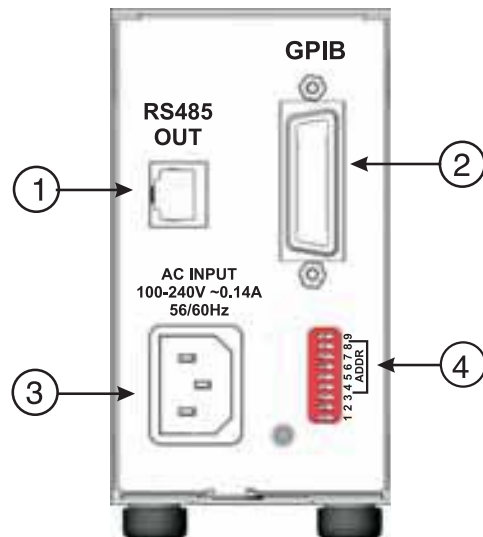
| | | |
|---------------------|-----|--|
| Input Voltage /freq | Vac | 85 ~ 265Vac continuous 47 ~ 63 Hz |
| Input consumption | W | 5W |
| IEEE 488 Capability | | SH1,AH1,T6,TE0,L4,LE0,SR1,RL0,PP1,DC1,DT0,C0,E1,E2 |
| Indication LED's | | Power /Ready ,Talk ,Listen ,SRQ |
| Baud rate | bps | Optional 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



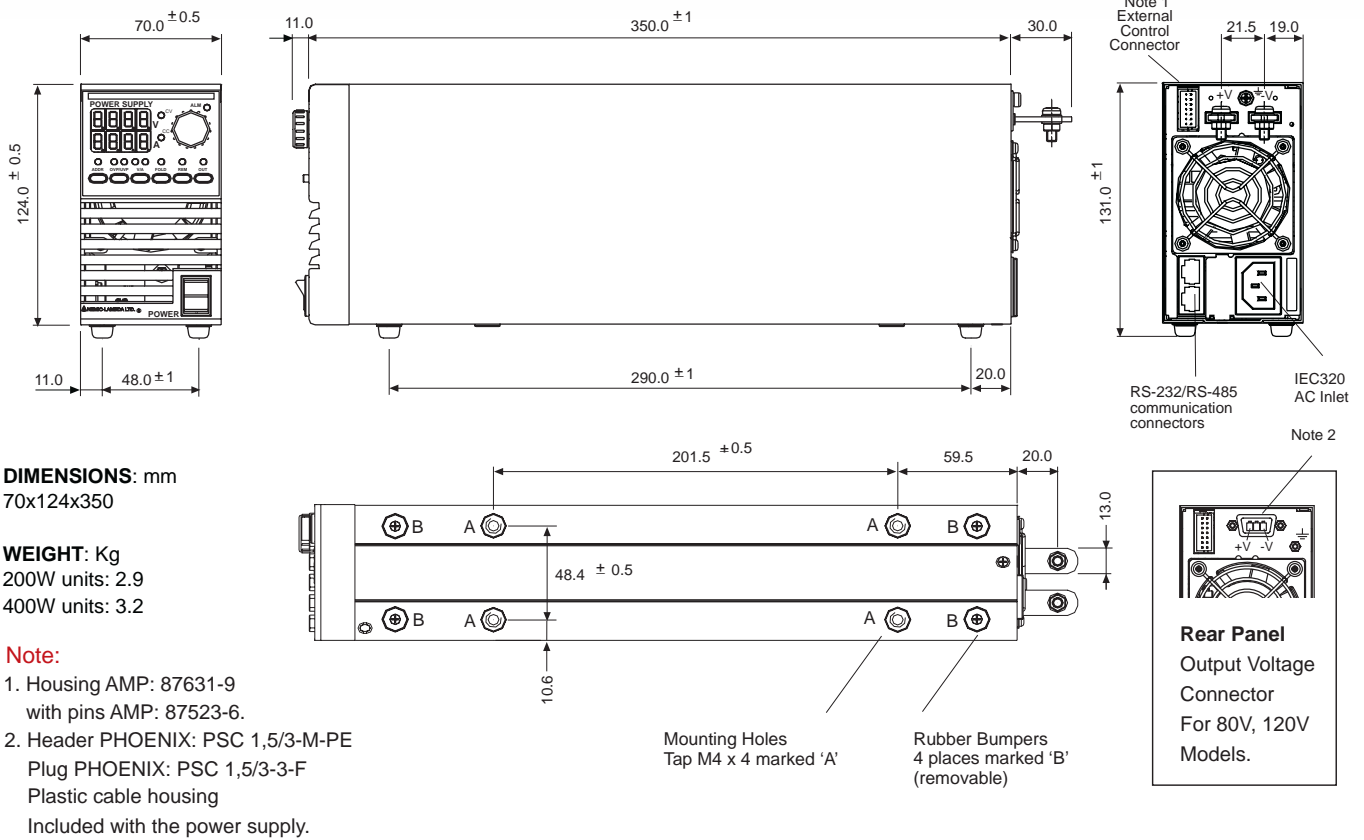
1. Power/Ready: Indicates that the power is "ON" and the self-test has passed successfully. The unit is ready to operate once the LED illuminates.
2. Talk: Indicates that the GP485A is addressed as a GPIB Talker.
3. Listen: Indicates that the GP485A is addressed as a GPIB Listener.
4. SRQ: Indicates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

Rear Panel

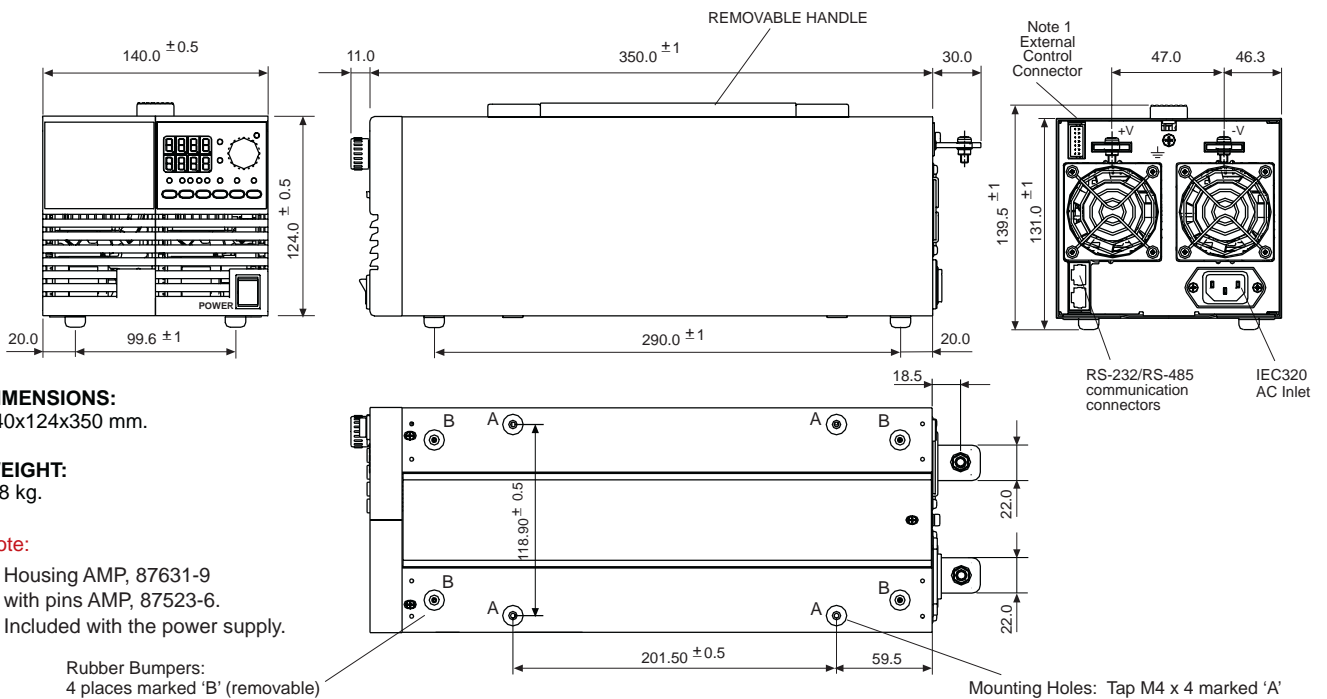


1. RS-485 OUT: EIA-568A shielded type connector, used for RS-485 communication with ZUP power supplies.
2. GPIB: Shielded 24-pin Champ female connector, with metric screwlock. Used for GPIB communication with the GPIB controller.
3. AC Input: IEC type appliance inlet.
4. Address setting Dip switch.

Outline Drawings ZUP 200W/400W Units



Outline Drawings ZUP 800W Unit



Accessories

1. AC Cord Sets

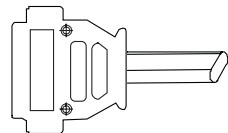
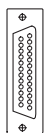
Five optional cords are possible according to order:

| 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 |

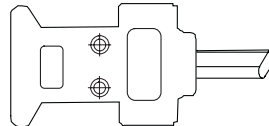
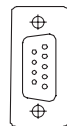
2. Communication Cable

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)

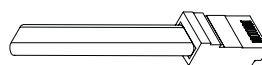
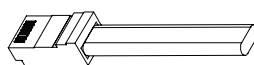


EIA/TIA (RJ-45)

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 |

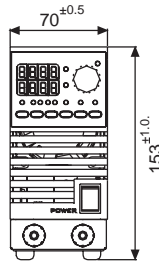


Options (200W, 400W, 800W Models)

1. FRONT PANEL OUTPUT JACKS

Up to 60V output models

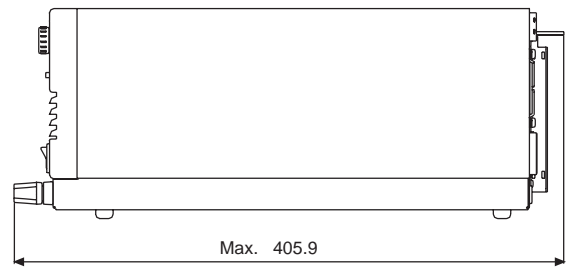
P/N: ZUP / L



Outline Drawing: Physical Dimensions in mm.

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

ZUP 800W Units: 140x153x405.9

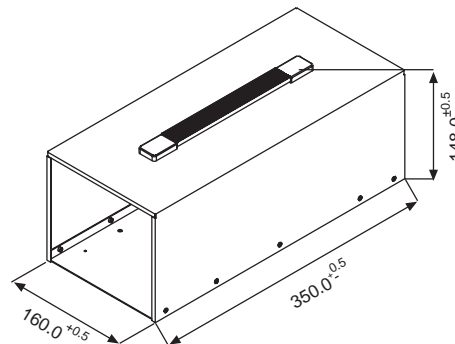


Up to 20A output current via front panel jacks.

2. ZUP ASSEMBLIES

Dual Output Packing 200W/400W models

P/N: NL200

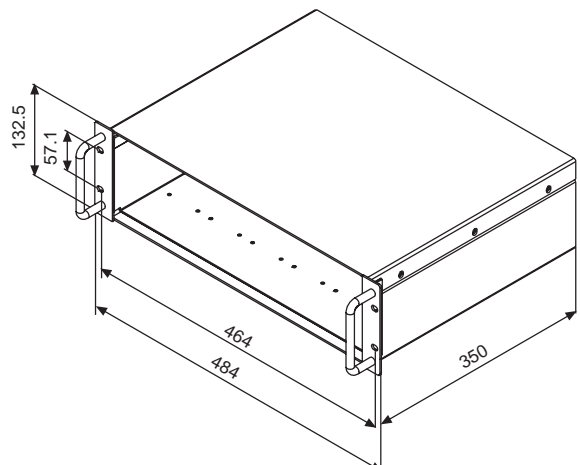


3. 19" RACK MOUNTED ATE AND OEM UP TO 2.4 KW

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



Europe / North America

NORTH AMERICA

Lambda Americas, Inc.
3055 Del Sol Boulevard
San Diego, CA 92154
Tel: +1-800-LAMBDA-4
Tel: +1-619-575-4400
Fax: +1-619-429-1011
www.lambdapower.com

Lambda Americas, Inc.
405 Essex Rd. Neptune, NJ 07753
Tel: +1-732-922-9300 Fax: +1-732-922-1441
www.lambda-hp.com

UK

Lambda UK
Kingsley Avenue Ilfracombe, Devon
EX 34 8ES United Kingdom
Tel: +44-1271-856666 Fax: +44-1271-864894
E-mail: powersolutions@lambda-europe.com
www.lambda-gb.com

FRANCE

Lambda SAS,
ZAC des Delaches
BP 1077 - Gometz le Chatel
91940 LES ULIS
Tel: +33 1 60 12 71 65
Fax: +33 1 60 12 71 66
www.lambda-f.com

GERMANY

Lambda GmbH
Karl-Bold-Str.40,
D-77855 Achern, Germany
Tel: +49-7841-666-0 Fax: +49-7841-500-0
E-mail: info.germany@lambda-europe.com
www.lambda-germany.com

AUSTRIA

Lambda GmbH
Aredstrasse 22,
A - 2544 Leobersdorf, Austria
Tel: +43 - 2256 - 655 84 Fax: +43 - 2256 - 645 12
E-mail: info.germany@lambda-europe.com
www.lambda-austria.com

ITALY

Lambda S.r.l.
Via dei Lavoratori 128/130
IT 20092 Cinisello Balsamo (MI)
Tel: +39-02-6129-3863 Fax: +39-02-6129-0900
www.lambda-italy.com

SCANDINAVIA

Lambda Scandinavia
Rallarvägen 41
SE-184 40 Akersberga
Sweden
Tel: +46 854 084 990
Fax: +46 854 066 096
E-mail: info@lambda-scandinavia.com
www.lambda-scandinavia.com

Asia / Far East / Middle East

JAPAN

Densei Lambda KK,
5F Dempa Bldg, 1-11-15 Higashigotanda,
Shinagawa-Ku, Tokyo 141-0022, Japan
Tel: +81 3 3447 4693
Fax: +81 3 3447 4750
www.densei-lambda.com

CHINA

Shanghai Office of Wuxi Nemic-Lambda Electronic Co. Ltd.
4F 2008 Hongmei Bldg, Hongmei Road,
Cao He Jing Hi-Tech Park,
Shanghai, China 200233
Tel: +86-21-6485-0777 Fax: +86-21-6485-0666

Densei-Lambda K.K. Beijing Office
Room 818 Office Tower One, Beijing Junefield Plaza,
No.6 Xuanwumenwai St.,
Xuanwu District, Beijing P.R.CHINA 100052
Tel: +86-10-6310-4872 Fax: +86-10-6310-4874
www.densei-lambda.com.cn

HONG KONG

Densei Lambda Hong Kong Branch
Room. 8, 27/F, Mega Trade Center
1 Mei Wan St. Tsuen Wan, N.T. Hong Kong
Tel: +852-2420-6693 Fax: +852-2420-3362
www.densei-lambda.com

KOREA

Densei Lambda K.K. Korea Branch
6F Songok Bldg. 4-1 Soonae-Dong
Pundang-Gu, Songnam-Shi Kyonggi-Do, 463-020 Korea
Tel: +82-2-556-1171 Fax: +82-2-555-2706
www.densei-lambda.co.kr

MALAYSIA

Nemic-Lambda (M) SDN. BHD.
No.7.3, 7th Floor, Jaya Shopping Center,
Jalan Semangat Section 14, 46100
Petaling Jaya Selangor, D.E, Malaysia
Tel: +60-3-7957-8800 Fax: +60-3-7958-2400
www.densei-lambda.com

SINGAPORE

Nemic-Lambda (S) PTE Ltd.
Blk 1008 Toa Payoh North # 06-01/08
Singapore 318996
Tel: +65-6251-7211 Fax: +65-6250-9171
www.densei-lambda.com

ISRAEL

Nemic Lambda Ltd.
Sales Office:
Kibbutz Givat Hashlosha Tel-Aviv 48800, Israel
Tel: +972-3-9024-333 Fax: +972-3-9024-777
Plant:
POB 500 Karmiel Industrial Zone 20101, Israel
Tel: +972-4-9887-491 Fax: +972- 4-9583-347
E-mail: info@nemic.co.il
www.nemic.co.il



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

Power Control Electronic GmbH & Co. KG
Bahnhofstr. 22
D-87463 Dietmannsried

Tel: (+49) 08374-23260-0
Fax: (+49) 08374-23260-99