

# MULTIPLE OUTPUT LINEAR D.C. POWER SUPPLY



## GPS-2303/3303/4303



Patent No: ZL 02 3 35264 . 7

### FEATURES

- \* 2, 3 and 4 Independent Isolated Output
- \* Four "3 Digits" LED Displays
- \* 0.01% Load and Line Regulation
- \* Low Ripple and Noise
- \* Tracking Operation and Auto Series/Parallel Operation
- \* Output ON/OFF Switch
- \* Output Voltage and Current Setting When Output Disable (Except for GPS-2303)
- \* Fan Speed Control Circuit to Minimize Fan Noise
- \* Over Load and Reverse Polarity Protection
- \* Optional European Jack Type Terminal

### GPS-001

Voltage/Current protection Knob



### Rear Panel



GPS-3303

The GPS-Series are 2-4 channel, 180 to 200W output, linear DC power supplies. Overload and reverse polarity protection and an output on/off switch keep the GPS-Series and their load safe from unexpected conditions. A High regulation (0.01%+3mV) and low ripple/noise (< 1mVrms, 5Hz~1MHz) are maintained for channel 1 and 2 in constant voltage mode. Automated cooling fan speed control minimizes fan noise according to load conditions, ensuring quiet operation. The GPS-Series are an ideal solution for lightweight, inexpensive bench-top or portable applications requiring high regulation and multiple outputs.

### SPECIFICATIONS

|                                               |                                                                                                                                                                                                    | GPS-4303 |            |  |         | GPS-3303 |         |     | GPS-2303 |     |         |  |
|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------|--|---------|----------|---------|-----|----------|-----|---------|--|
| OUTPUT MODE                                   |                                                                                                                                                                                                    |          |            |  |         |          |         |     |          |     |         |  |
| Voltage                                       | CH1                                                                                                                                                                                                | CH2      | CH3        |  | CH4     |          | CH1     | CH2 | CH3      | CH1 | CH2     |  |
|                                               | 0 ~ 30V                                                                                                                                                                                            |          | 2.2 ~ 5.2V |  | 8 ~ 15V |          | 0 ~ 30V |     | 5V Fixed |     | 0 ~ 30V |  |
| Current                                       | 0 ~ 3A                                                                                                                                                                                             |          | 1A Max.    |  | 1A Max. |          | 0 ~ 3A  |     | 3A Max.  |     | 0 ~ 3A  |  |
| Tracking Series Voltage                       | 0 ~ 60V                                                                                                                                                                                            |          | ----       |  |         |          | 0 ~ 60V |     | ----     |     | 0 ~ 60V |  |
| Tracking Parallel Current                     | 0 ~ 6A                                                                                                                                                                                             |          |            |  |         |          | 0 ~ 6A  |     |          |     | 0 ~ 6A  |  |
| CONSTANT VOLTAGE OPERATION (CH1, CH2)         |                                                                                                                                                                                                    |          |            |  |         |          |         |     |          |     |         |  |
| Line Regulation                               | ≤ 0.01% + 3mV                                                                                                                                                                                      |          |            |  |         |          |         |     |          |     |         |  |
| Load Regulation                               | ≤ 0.01% + 3mV (rating current ≤ 3A)                                                                                                                                                                |          |            |  |         |          |         |     |          |     |         |  |
|                                               | ≤ 0.02% + 5mV (rating current > 3A)                                                                                                                                                                |          |            |  |         |          |         |     |          |     |         |  |
| Ripple & Noise                                | ≤ 1mVrms, 5Hz ~ 1MHz                                                                                                                                                                               |          |            |  |         |          |         |     |          |     |         |  |
| Recovery Time                                 | ≤ 100μS (50% Load change, Minimum load 0.5A)                                                                                                                                                       |          |            |  |         |          |         |     |          |     |         |  |
| CONSTANT CURRENT OPERATION (CH1, CH2)         |                                                                                                                                                                                                    |          |            |  |         |          |         |     |          |     |         |  |
| Line Regulation                               | ≤ 0.2% + 3mA                                                                                                                                                                                       |          |            |  |         |          |         |     |          |     |         |  |
| Load Regulation                               | ≤ 0.2% + 3mA                                                                                                                                                                                       |          |            |  |         |          |         |     |          |     |         |  |
| Ripple & Noise                                | ≤ 3mArms                                                                                                                                                                                           |          |            |  |         |          |         |     |          |     |         |  |
| TRACKING OPERATION (CH1, CH2)                 |                                                                                                                                                                                                    |          |            |  |         |          |         |     |          |     |         |  |
| Tracking Error                                | ≤ 0.5% + 10mV of CH1                                                                                                                                                                               |          |            |  |         |          |         |     |          |     |         |  |
| Series Regulation                             | ≤ 0.01% + 5mV                                                                                                                                                                                      |          |            |  |         |          |         |     |          |     |         |  |
| Load Regulation                               | ≤ 300mV                                                                                                                                                                                            |          |            |  |         |          |         |     |          |     |         |  |
| Ripple & Noise                                | ≤ 2mVrms, 5Hz ~ 1MHz                                                                                                                                                                               |          |            |  |         |          |         |     |          |     |         |  |
| CH3 OPERATION (for GPS-3303/4303)             |                                                                                                                                                                                                    |          |            |  |         |          |         |     |          |     |         |  |
| CH3 Voltage                                   | GPS-4303 : 2.2V ~ 5.2V, GPS-3303 : 5V Fix                                                                                                                                                          |          |            |  |         |          |         |     |          |     |         |  |
| Line Regulation                               | ≤ 5mV                                                                                                                                                                                              |          |            |  |         |          |         |     |          |     |         |  |
| Load Regulation                               | ≤ 15mV                                                                                                                                                                                             |          |            |  |         |          |         |     |          |     |         |  |
| Ripple & Noise                                | ≤ 2mVrms, 5Hz ~ 1MHz                                                                                                                                                                               |          |            |  |         |          |         |     |          |     |         |  |
| Current Output                                | GPS-4303 : 1A, GPS-3303 : 3A                                                                                                                                                                       |          |            |  |         |          |         |     |          |     |         |  |
| CH4 OPERATION (for GPS-4303)                  |                                                                                                                                                                                                    |          |            |  |         |          |         |     |          |     |         |  |
| CH4 VOLTAGE                                   | 8V ~ 15V                                                                                                                                                                                           |          |            |  |         |          |         |     |          |     |         |  |
| Line Regulation                               | ≤ 5mV                                                                                                                                                                                              |          |            |  |         |          |         |     |          |     |         |  |
| Load Regulation                               | ≤ 10mV                                                                                                                                                                                             |          |            |  |         |          |         |     |          |     |         |  |
| Ripple & Noise                                | ≤ 2mVrms, 5Hz ~ 1MHz                                                                                                                                                                               |          |            |  |         |          |         |     |          |     |         |  |
| Current Output                                | 1A                                                                                                                                                                                                 |          |            |  |         |          |         |     |          |     |         |  |
| METER                                         |                                                                                                                                                                                                    |          |            |  |         |          |         |     |          |     |         |  |
| Digital                                       | 3 digits 0.5" LED display<br>GPS-4303/3303 Out ON Accuracy ± (0.5% of rdg + 2 digits)<br>GPS-4303/3303 Out OFF Accuracy ± (0.5% of rdg + 8 digits)<br>GPS-2303 Accuracy ± (0.5% of rdg + 2 digits) |          |            |  |         |          |         |     |          |     |         |  |
| INSULATION                                    |                                                                                                                                                                                                    |          |            |  |         |          |         |     |          |     |         |  |
| Chassis and Terminal                          | ≥ DC 500V / 20MΩ                                                                                                                                                                                   |          |            |  |         |          |         |     |          |     |         |  |
| Chassis and AC Cord                           | ≥ DC 500V / 30MΩ                                                                                                                                                                                   |          |            |  |         |          |         |     |          |     |         |  |
| POWER SOURCE                                  |                                                                                                                                                                                                    |          |            |  |         |          |         |     |          |     |         |  |
| AC 100V/120V/220V±10%, 230V(+10%~6%), 50/60Hz |                                                                                                                                                                                                    |          |            |  |         |          |         |     |          |     |         |  |
| DIMENSIONS & WEIGHT                           |                                                                                                                                                                                                    |          |            |  |         |          |         |     |          |     |         |  |
| 255(W) x 145(H) x 265(D) mm, Approx. 7 kg     |                                                                                                                                                                                                    |          |            |  |         |          |         |     |          |     |         |  |

### ORDERING INFORMATION

- GPS-4303** 4-channels, 200W D.C. Power Supply  
**GPS-3303** 3-channels, 195W D.C. Power Supply  
**GPS-2303** 2-channels, 180W D.C. Power Supply

#### ACCESSORIES :

User manual x 1, Power cord x 1,  
 GPS-4303: Test lead GTL-104 x 2, GTL-105 x 2 ; European test lead GTL-203 x 2, GTL-204 x 2, GTL-201A x 1  
 GPS-3303: Test lead GTL-104 x 2, GTL-105 x 1 ; European test lead GTL-203 x 1, GTL-204 x 2, GTL-201A x 1  
 GPS-2303: Test lead GTL-104 x 2 ; European test lead GTL-204 x 2, GTL-201A x 1

#### OPTIONAL ACCESSORIES

**GPS-001** Voltage/Current Protection Knob (It's available OCT/07' production batch)