# Single output 600W Programmable Medical and ITE Power Supplies

# **Features**

- ◆ Convection Cooled
- ◆ Up to 95% Efficient
- ◆ RS-485 Read-Write Communication (Modbus RTU protocol)
- ◆ Constant Voltage & Constant Current Modes
- ◆ Monitoring & Programming Functions
- Digital or Analog Programming
- Seven Year Warranty

# **Key Market Segments & Applications**













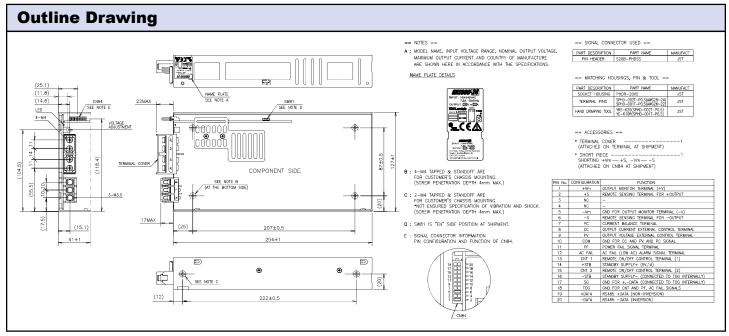


| Model   |       | GXE600-24  | GXE600-48    |  |
|---|-------|--|--------------|--|
| AC Input Voltage range (1)                    | VAC   | 85 - 265VAC (47 - 63Hz). Withstands 300VAC for 5s                              |              |  |
| Inrush Current (100 / 200VAC)                 | Α     | 40 / 40A   |              |  |
| Power Factor (100 / 200VAC)                   | -     | Meets EN61000-3-2 (0.99 / 0.95)  |              |  |
| Input Current (115/230VAC) (Typ)              | Α     | 6.1 / 3.1A   |              |  |
| Nominal Output Voltage                        | VDC   | 24V  | 48V          |  |
| Maximum Output Current                        | Α     | 25A  | 12.5A        |  |
| Output Voltage Range (Manual Adjust)          | VDC   | 19.2 - 28.8V   | 38.4 - 57.6V |  |
| Output Voltage Range (Via Programming) (2)    | VDC   | 4.8 - 28.8V  | 9.6 - 57.6V  |  |
| Current Limit Set Point (Via Programming) (2) | Α     | 5 - 28.8A  | 2.5 - 14.4A  |  |
| Temperature Coefficient                       | %/°C  | <0.02%   | %/°C         |  |
| Regulation                                    | -     | See Model Selector   |              |  |
| Overcurrent Protection (3)                    | -     | >28.8A   | >14.4A       |  |
| Overvoltage Protection (3)                    | V     | 28.8 - 31.2V   | 57.6 - 62.4V |  |
| Hold Up Time (Typ at 100% load)               | ms    | 20m  | ns           |  |
| Leakage Current (max)                         | mΑ    | <0.3mA   |              |  |
| Standby Voltage Vsb)                          | -     | 4.8V - 5.2V 1A   |              |  |
| Remote Sense                                  | -     | Yes  |              |  |
| Remote On/Off                                 | -     | Isolated opto-coupler. Unit off when current is flowing through the opto diode |              |  |
| Power Fail Signal                             | -     | Signal is high when the output voltage drops due to AC loss or OCP, OVP, OTP   |              |  |
| AC Fail Signal                                | -     | Signal goes high when the AC input is not present                              |              |  |
| Parallel Operation                            | -     | Yes, up to five units  |              |  |
| Operating Temperature (-40°C start up)        | °C    | Convection: -20 to +70°C, derate linearly to 50% load from 50 to 70°C (4)      |              |  |
| Storage Temperature                           | °C    | -40 to +85°C   |              |  |
| Operating Humidity (non condensing)           | %RH   | 20 - 90%RH   |              |  |
| Storage Humidity (non condensing)             | %RH   | 10 - 90%RH   |              |  |
| Cooling                                       | -     | Convection or forced air cooling   |              |  |
| Withstand Voltage                             | VAC   | Input to Ground 2kVAC (1xMOPP), Input to Output 4kVAC (2xMOPP),                |              |  |
| •   |       | Output to Ground 1.5kVAC (1xMOPP),   |              |  |
| Isolation Resistance                          | МΩ    | >100MΩ at 25°C & 70%RH, Output to Ground 500VDC                                |              |  |
| Vibration (non operating)                     | -     | 10 - 55Hz: 19.6m/s² (sweep 1 min) X, Y, Z for 1 hour                           |              |  |
| ( )   |       | /HD version: Designed to meet MIL  |              |  |
| Shock   | -     | < 196.1m/s² /HD version: Designed to meet MIL-STD-810G 516.7 Procedure I, VI   |              |  |
| Safety Agency Certifications                  | -     | IEC/UL/CSA/EN60950-1, IEC/UL/CSA/E   | •            |  |
|   |       | IEC/EN62477-1 (O   |              |  |
| Line Dips                                     | -     | SEMI-F47 (200VAC input)  |              |  |
| Conducted & Radiated EMI                      | -     | EN55011 / EN55032-B, FCC Class B, VCCI-B                                       |              |  |
| Immunity                                      | -     | IEC61000-4-2, -3, -4, -5, -6, -8, -11, IEC61000-6-2, IEC60601-1-2 Ed 4         |              |  |
| Weight (Typ)                                  | g     | 1300   |              |  |
| Size (WxHxD)                                  | mm    | 127 x 41 x 254mm   |              |  |
| MTBF - Telcordia SR-332 issue 3*              | Hours |  |              |  |
| Warranty                                      | Yrs   | Seven Years  |              |  |

<sup>(1) 85</sup>Vac: 360W, 100 to <170Vac: 500W, 170V to 265Vac: 600W (Convection cooled). 600W when forced air is applied (see installation manual) (2) Using RS-485 communications or external 1-6V voltage source. See installation manual for details (3) Overcurrent & Overvoltage limits and recovery modes can be set using the RS-485 communications (4) See installation manual for full derating curves \*24V output model, 25°C ambient, full load, 230VAC input

| Model Selector |                       |                         |                  |                  |                      |                                   |
|----------------|-----------------------|-------------------------|------------------|------------------|----------------------|-----------------------------------|
| Model          | Output<br>Voltage (V) | Max Output<br>Power (W) | Load Reg<br>(mV) | Line Reg<br>(mV) | Ripple Noise<br>(mV) | Efficiency (typ) %<br>115/230 VAC |
| GXE600-24      | 24                    | 600                     | 144              | 96               | 150                  | 92 / 95                           |
| GXE600-48      | 48                    | 600                     | 288              | 192              | 350                  | 92 / 95                           |

| Monitoring and Programming Functions  |   |  |  |  |  |
|---------------------------------------|---|--|--|--|--|
| Function                              | Digital (RS-485) Control  | Analog Control                                 |  |  |  |
| Output Voltage Monitor                | Read back   | No   |  |  |  |
| Output Current Monitor                | Read back   | No   |  |  |  |
| Output Voltage Programming            | Adjustable  | Adjustable, use a 1-6V external voltage source |  |  |  |
| Output Current Programming            | Adjustable  | Adjustable, use a 1-6V external voltage source |  |  |  |
| Over Voltage Protection Set Point     | Adjustable  | Fixed  |  |  |  |
| Over Voltage Recovery                 | Auto-recovery or manual settings  | Cycle AC input or use the remote on/off        |  |  |  |
| Over Current Set Point                | Adjustable  | Fixed  |  |  |  |
| Over Current Recovery                 | Auto recovery: Constant current, hiccup or foldback<br>Latching: Constant current or foldback | Constant current, auto-recovery                |  |  |  |
| Over Temperature Recovery             | Cycle AC input or use the remote on/off   | Cycle AC input or use the remote on/off        |  |  |  |
| Remote On/Off                         | Yes, enable or inhibit type   | Yes, enable or inhibit type                    |  |  |  |
| Internal Temperature Monitoring       | Yes, -20 to +100oC  | No   |  |  |  |
| Operating Run Time Log                | Records more than 20 years of data  | No   |  |  |  |
| Remaining Electrolytic Capacitor Life | Indicates hours left  | No   |  |  |  |
| Alarm History                         | OCP, OVP, OTP, remote on/off, system error  | No   |  |  |  |
| Slew Rate (Rise-time) Control         | Voltage and current   | No   |  |  |  |
| Communication Configuration           | ID, Baud Rate, Parity   | Not applicable                                 |  |  |  |
| Product Information                   | Model #, serial #, lot #, firmware version  | Not applicable                                 |  |  |  |
| Power Fail Signal Threshold           | Adjustable for either output voltage or current   | Fixed (voltage only)                           |  |  |  |



| Options |  |  |
|---------|--|--|
| Suffix  | Description  |  |
| Blank   | U channel chassis                                      |  |
| /A      | U channel chassis with cover                           |  |
| /HD     | U channel chassis, ruggedized & pcb coating            |  |
| /HDA    | U channel chassis with cover, ruggedized & pcb coating |  |

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



For Additional Information, please visit https://www.emea.lambda.tdk.com/gxe600

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