

# GPD100C



General Purpose, Dual-Output, High Voltage Power Supply  
Adjustable up to  $\pm 1000\text{VDC}$ , 150W per channel



## ■ SUMMARY

The GPD100C is a general purpose, dual-output, reversible, high-voltage power supply designed for scientific, laboratory and industrial applications.

## ■ SPECIFICATIONS

### Input Power Range

- 90 to 264 VAC at 50/60Hz

### Output On/Off Control

- Front panel switches (two independent controls)
- Remote digital control, USB, RS-232

### Output Voltage Setpoint Control

- Front panel controls (two independent controls)
- Remote analog setpoint, USB, RS-232

### Output Voltage Polarity Control

- Front panel controls (two independent switches)
- Remote digital control, USB, RS-232

### Output Monitors

- Voltage: 0 to  $\pm 10\text{VDC}$  (0 to  $\pm 1000\text{VDC}$  full scale)
- Current: 0 to  $\pm 10\text{VDC}$  (0 to  $\pm 200\text{mA}$  full scale)
- Analog monitors impedance: 600ohms

### Output Voltage Ripple

- 0.1% RMS of rated full load

### Output Protection and Safety

- Output short circuit protected
- High temperature shutdown
- Forced discharge circuit
- Interlock circuit

## ■ FEATURES

- General purpose high voltage power supply
- Two independent, reversible outputs
- High-power capability in a compact enclosure
- Efficient switch-mode (SMPS) topology

### Output Voltage Range

- From 0V to  $\pm 1000\text{VDC}$ , 0 to 150mA continuous

### Rear Panel Connections

- GES MCS605 series six-pin high voltage connectors
- IEC-60320 type AC input connector, locking
- DB-25F subminiature remote control connector
- DB-9F subminiature RS-232 connectors
- USB Type A connector
- Ground stud

### Environmental Conditions

- 0°C to 40°C operating temperature
- To 85% relative humidity (non-condensing)

### Dimensions

- 88.14mm (H) x 430.8mm (W) x 425.0mm (D)
- Panel Width: 482.6mm (19")

### Weight

- 10.4kg (23lbs)

### Export Classifications

- Meets EAR99 NLR export requirements
- RoHS compliant

### Supplied Accessories

- User's manual and power cord



## Gripping Power, Inc.

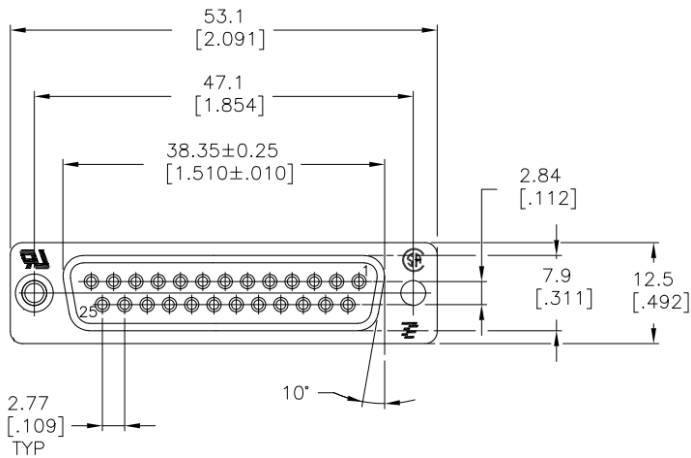
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## ■ INTERFACE SPECIFICATIONS

### Digital and Analog Remote Control

The analog/digital interface remote interface connector is a DB-25 female type.



The recommended interface pin connections are -

- 1 Shield
- 2 HV1 Enable (*Run HV1 Program*)
- 3 HV2 Enable (*Run HV2 Program*)
- 4 Set HV1 polarity (open positive HV)
- 5 Set HV2 polarity (open positive HV)
- 6 Digital Input source/sink voltage (DISS)
- 7 Digital ground
- 8 Force HV off and discharge outputs (*Abort*)
- 9 V1 output voltage setpoint magnitude (0-10VDC)
- 10 V2 output voltage setpoint magnitude (0-10VDC)
- 11 V1 current setpoint (reg/limit) (0-10VDC)
- 12 V2 current setpoint (reg/limit) (0-10VDC)
- 13 Analog ground
- 14 Fault (overload, output fault or over temp)
- 15 HV1 is on (*HV1 program active*)
- 16 HV2 is on (*HV2 program active*)
- 17 Remote mode (*not in local mode*)
- 18 Digital Output source/sink voltage (DOSS)
- 19 +24 VDC (current limited)
- 20 Interlock input (relay input)
- 21 AC/DC power is on
- 22 V1 output voltage monitor (0 to ±10VDC)
- 23 V2 output voltage monitor (0 to ±10VDC)
- 24 V1 current monitor (0 to ±10VDC)
- 25 V2 current monitor (0 to ±10VDC)

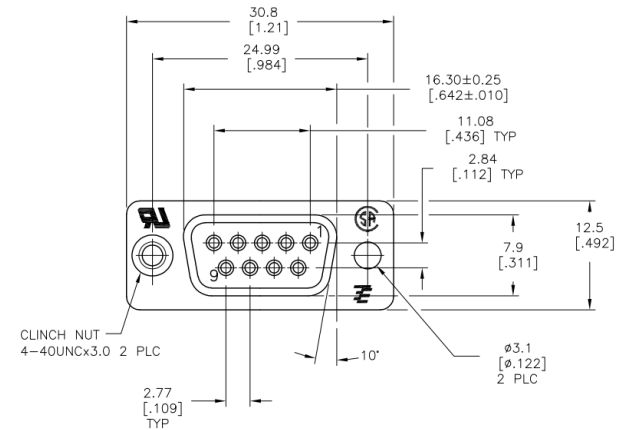
Pin 20 must be connected to a +24 VDC source (or pin 19) for the high voltage output to enable.

*Refer to the user's manual for detailed information.*

All digital inputs and outputs can be sourcing (active high) or sinking (active low), depending on the connections to DISS and DOSS. Digital outputs are dry contact type. Digital inputs are bidirectional and optically isolated.

### RS-232 Interface

The RS-232 interface connector is a DB-9 female type.



The RS-232 serial interface pin connections are -

- 2 Transmit Data Output
- 3 Receive Data Input
- 5 Common

The GPD100C can be configured for 9600 or 19.2k baud.

### High Voltage Connector

The high voltage output connectors are GES GB-MCS605 panel mount receptacles, with these connections -



- 1 Chassis (Earth ground)
- 2 High Voltage Output (+)
- 3 Interlock
- 4 Interlock
- 5 High Voltage Output (-)
- 6 No Connection

The high voltage output of each channel is available across pin 2 to pin 5. The output is fully-floating and either output pin may be connected to ground.

For the high voltage output to enable pin 3 must be connected to pin 4.

*These specifications are subject to change without notice.*