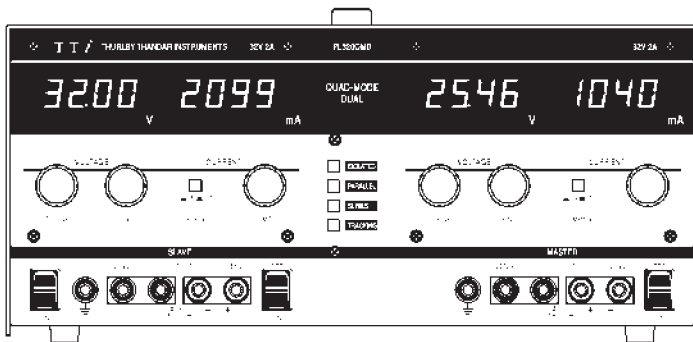


THURLBY THANDAR INSTRUMENTS **PL series Precision Laboratory DC Power Supplies** *More Info>*



- Simultaneous digital metering of voltage and current.
- True constant voltage or constant current operation.
- Twin 3.75 digit meters with large LED displays.
- 0.1% accuracy; 0.01 Volts and 0.001 Amps resolution.
- Excellent stability, resolution and setting accuracy.
- DC output switches, automatic mode indication.
- Precise control and monitoring of current limit settings.
- Remote sense facility for high-current precision.
- Current meter damping switch for fluctuating currents.
- Parallel, series & tracking modes on QMD & QMT models.
- High current "logic supply" output on QMT models.

Model Range:

PL310 - Single output, 0 to 32V at 0 to 1.1A.

PL154 - Single output, 0 to 15.5V at 0 to 4A.

PL320 - Single output, 0 to 32V at 0 to 2.1A.

PL330 - Single output, 0 to 32V at 0 to 3.1A.

PL310QMD - Dual output, 2 x 0 to 32V at 0 to 1.1A.

PL320QMD - Dual output, 2 x 0 to 32V at 0 to 2.1A.

PL330QMD - Dual output, 2 x 0 to 32V at 0 to 3.1A.

PL310QMT - Triple output, 2 x 0 to 32V at 0 to 1.1A plus 5V at 1.5A.

PL320QMT - Triple output, 2 x 0 to 32V at 0 to 2.1A plus 4 to 6V at 0.1 to 4A.

PL330QMT - Triple output, 2 x 0 to 32V at 0 to 3.1A plus 4 to 6V at 0.1 to 7A (Metered).

The Thurlby Thandar PL series of laboratory bench power supplies has established itself in many countries as an "industry standard" range.

High resolution controls are combined with precision metering and remote sense terminals. Dual and triple output models incorporate quad-mode switching which provides push-button selection of isolated, true parallel, series or series-tracking modes.

MAIN OUTPUT(S)

Output Range: 0 - 32 Volts nominal; 0 - 15.5V (PL154); 0 - 1.1A (PL310); 0 - 2.1A (PL320); 0 - 3.1A (PL330); 0 - 4A (PL154).

Voltage Setting: By coarse and fine controls; resolution <5mV.

Current Setting: By single logarithmic control.

Output Mode: Constant voltage or constant current modes with automatic cross-over.

Configuration Selection: Isolated, True parallel, Series or Series Tracking via front panel switches. (QMD and QMT only)

Output Switch: Isolates the output. Permits voltage and current limits to be set up before connecting the load.

Output Terminals: 4mm terminals on 19mm (0.75") spacing.

Output Impedance: Constant Voltage: Typically <5mΩ at 1kHz.
Constant Current: Typically 50kΩ.

Output Protection: Max. output voltage +20 volts forward; diode clamped for reverse, up to 3A reverse current.

Load Regulation: <0.01% of max. output for 90% load change
Line Regulation: <0.01% of max. output for 10% line change
Remote Sense: Eliminates up to 0.5V drop per lead.
Ripple and Noise: Typically <1mV rms
Transient Response: <20μsec to <50mV for 90% load change
Temp. Coefficient: Typically <100ppm/°C
Meter Type: Dual 4 digit with 12.5mm LEDs, Reading rate 4 per second.
Meter Resolution: Voltage: 10mV over the entire range
Current: 1mA over the entire range
Meter Accuracy: Voltage: ±(0.1% of reading + 1 digit)
Current: ±(0.3% of reading + 1 digit)
Nominally 20ms switchable to 2 sec for averaging of rapidly varying loads
Current Meter Damping:

LOGIC OUTPUT - PL310QMT

Output: Fixed 5 V ± 0.1 V at >1.5A
Output Protection: Forward up to 16V. Reverse up to 3A.
Load Regulation: < 0.3% for 50% load change.
Line Regulation: < 0.1% for 10% line change.

LOGIC OUTPUT - PL320QMT & PL330QMT

Output Range: 4 to 6 Volts at 0.1 - 4 Amps (7A on PL330QMT).
Output Switch: Isolates the output and permits output voltage to be set before connecting the load.

Output Protection: Over-voltage protection operates above 7V. Diode clamped for reverse currents up to 3A.

Load Regulation: <0.01% of max. output for 90% load change
Line Regulation: <0.01% of max. output for 10% line change
Remote Sense: Eliminates up to 0.5V drop per lead.
Ripple and Noise: Typically <1mV rms
Transient Response: <20μsec to <50mV for 90% load change
Temp. Coefficient: Typically <100ppm/°C

LOGIC OUTPUT METER - (PL330QMT only)

Meter Type: 3 digit with 12.5mm LEDs. Reading rate 4/s. Shows volts with output off, amps with output on.
Meter Resolution: Voltage: 10mV, Current: 10mA
Meter Accuracy: Voltage: ±(0.2% of reading + 1 digit)
Current: ±(0.5% of reading + 1 digit)

GENERAL

Power Requirements: 110, 120, 220 or 240VAC 50/60Hz ±10%

Operating Range: 5°C to 40°C, 20% to 80% RH
Storage Range: -20°C to +60°C

Size: Single - 170(H) x 155(W) x 265mm(D), (PL330 - 300D)

Dual - 170(H) x 350(W) x 265mm(D), (PL330QMD - 300D)

Triple - 170(H) x 425(W) x 265mm(D), (PL310QMD - 350W, PL330QMD - 300D)

Weight: PL310 - 4.0kg, PL320 & PL154 - 5.0kg, PL330 - 6.0kg, PL310QMD - 8.0kg, PL320QMD - 9.5kg, PL330QMD - 12.0kg, PL310QMT - 11.5kg, PL320QMT - 13.5kg, PL330QMT - 15.5kg.

Electrical Safety: Designed and manufactured to comply with IEC 348 and IEC1010-1. Full safety sockets available to special order.

EMC: Designed and manufactured to comply with EN50081-1 and EN50082-1.

Thurlby Thandar Instruments Ltd. operates a policy of continuous development and reserves the right to alter specifications without prior notice.

Note: This is a faxable data sheet, a colour brochure is also available.