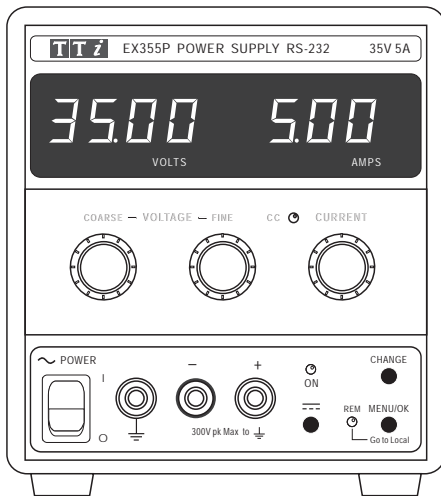


EL302P & EX355P Low-cost bus programmable DC PSUs



- Two models - 30V/2A (EL302P) and 35V/5A (EX355P)
- Built-in RS-232 interface for remote control and readback
- Fully opto-isolated interface. Variable baud rate
- Constant voltage or constant current operation
- Rotary encoders for front panel control
- Setting resolution of 10mV and 10mA
- DC output switch
- Low cost

The EL302P and EX355P have been designed to meet the requirement for a low-cost dc power supply that can be remotely controlled using an RS-232 interface.

A simple remote interface is provided which can be used to set voltage and current levels and operate the output on/off.

Status monitoring enables actual current or actual voltage to be read back together with the operational mode (constant voltage or constant current).

The RS-232 interface is fully opto-isolated from the power supply output thus eliminating any restrictions on how the output is connected.

Front panel rotary encoders allow the units to be operated as conventional bench power supplies. Front panel control can be locked out when using remote control.

The EL302P is an all-linear 60 watt power supply. The EX355P uses mixed mode regulation with a switch-mode pre-regulator followed by a linear post regulator. It can provide 175 watts.

These units are extensions to the highly successful EL and EX series of dc bench power supplies (see separate data sheet).

SPECIFICATIONS (Where EL302P and EX355P specifications vary, the EL specification is quoted first followed by the EX specification).

OUTPUT

- Operating Mode: Constant voltage or constant current with automatic cross-over and indication.
- Voltage Setting: 0V to >rated O/P by coarse and fine rotary encoders. Setting resolution 10mV.
- Current Setting: 0A to >rated O/P by single rotary encoder. Setting resolution 10mA.
- Load regulation: <0.01% of max. O/P for a 90% load change.
- Line regulation: <0.01% of max. O/P for a 10% line voltage change.
- Output impedance: Typically <5mΩ in constant voltage mode. Typically >50kΩ in constant current mode.
- Ripple & Noise (20MHz bandwidth): Typically <1mV rms/<2mV rms (CV mode).
- Transient Response: <20μs/<200μs to within 50mV of set level for 90% load change.
- Temp. Coefficient: Typically <100ppm/°C.
- Output Protection: Outputs will withstand forward voltages above the rated output voltage. Reverse protection by diode clamp for currents up to 3A.
- Status Indication: Output ON lamp. Constant current lamp.
- Output Switch: Electronic. Preset voltage and current displayed when output is off.
- Output Terminals: 4mm terminals on 19mm (0.75") pitch.

METERS

- Meter Types: Separate meters for voltage & current with 14mm (0.56") LED displays. Reading rate 4/sec.
- Meter Resolutions: 10mV, 10mA. (100mV resolution in CC mode)
- Meter Accuracies: Voltage 0.3% ±20mV (CV mode). Current 0.6% ±20mA.

REMOTE CONTROL

- Interface: RS-232 interface, fully opto-isolated from power supply output. 9-pin D connector.
- Baud Rate: Variable from 600 baud to 9,600 baud.
- Remote Functions: Set Voltage, Set Current, Set Output On/Off, Read Voltage, Read Current, Read On/Off Read Mode (CV or CC).
- Setting Accuracy: Voltage 0.3% ±20mV. Current 0.6% ±20mA.
- Setting Resolution: Voltage 10mV. Current 10mA.
- Readback Accuracy: Voltage 0.3% ±100mV. Current 0.6% ±20 mA.
- Readback Resolution: Voltage 100mV. Current 10mA.

POWER

- AC Input: EL302P: 230V or 115V ±10% 50/60Hz.
EX355P: 230V ±14% (115V to order).
Installation Category II.

SIZE AND WEIGHT

- Size: 140 x 320 x 160 mm (WxDxH).
- Weight: EL302P - 4.4 kg; EX355P - 3.0 kg.

ENVIRONMENTAL

- Operating Range: +5°C to +40°C, 20% to 80% RH.
- Storage Range: -40°C to +70°C.
- Environmental: Indoor use at <2000m, Pollution Degree 2.
- Safety: Complies with EN61010-1.
- EMC: Complies with EN61326.

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

EL & EX series - combined range			
Single Output			
EL301	30V/1A	Linear	30 watts
EL183	18V/3.3A	Linear	60 watts
EL302	30V/2A	Linear	60 watts
EL302P	30V/2A	Linear	60 watts
EL561	56V/1.1A	Linear	60 watts
EX355	35V/5A	Mixed Mode	175 watts
EX355P	35V/5A	Mixed Mode	175 watts
EX1810R	18V/10A	Mixed Mode	180 watts
EX4210R	42V/10A	Mixed Mode	420 watts
Dual Output			
EL302D	2 x 30V/2A	Linear	120 watts
EX354D	2 x 35V/4A	Mixed Mode	280 watts
EX752M	2 x 75V/2A or 1 x 75V/4A or 1 x 150V/2A	Mixed Mode	300 watts
Triple Output			
EL302T	2 x 30V/2A + 5V/1A	Linear	125 watts
EX354T	2 x 35V/4A + 5V/5A	Mixed Mode	305 watts

Designed and built in the EEC by:



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