

RENTAL LAB-DSP

DC SOURCES WITH SINGLE PHASE INPUT



POSITIVE PROBLEM SOLVING **+=**

The LAB-DSP product family operate from a single phase wide AC input with active PFC. OVP and OCP limits can be adjusted to help safeguard sensitive loads.

Transient response times when operating in constant voltage are better than 2ms with some models <1ms. The actual voltage ramp up and ramp down times can be adjusted from the front panel. Settings up to 99.9 sec are possible. An interlock function is provided enabling the connection of an external emergency stop or output off switch. Along with front panel control and display, RS-485 and analogue interfaces are built-in as standard. An additional IEEE 488.2. interface is available on selected models.

- + RS-485 and Analogue as Standard
- + 16 Bit Setting & Measurement
- + Configurable OCP and OVP
- + Adjustable Voltage Ramp
- + CV/CC Operating Modes
- + Active PFC of 0.99

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FURTHER DETAILS

This series of power supplies can be found in a very wide range of market sectors and applications including: Aerospace, telecom, ATE, quality control, chemical processing, water purification, electroplating, sputtering and coating, semiconductor manufacture, burn-in along with general R&D.

SELECTION TABLE

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Part Number	Max. Power	Voltage Range	Current Range	Ripple ¹		Line Regulation		Load Regulation		Response Time [s]		
				CV mV RMS	CC mA RMS	CV 0.05%+mV	CC 0.1%+mA	CV 0.05%+mV	CC 0.1%+mA	Full Load UP	Full Load DOWN	No Load DOWN
LAB-DSP 150-005-r	750W	0 - 150V	0 - 5A	16	18	17	2.5	17	6.0	0.15	0.15	2.0
LAB-DSP 150-010-r ²	1500W	0 - 150V	0 - 10A	16	18	17	2.5	17	6.0	0.15	0.15	2.0
LAB-DSP 300-005-r ³	1500W	0 - 300V	0 - 5A	16	18	17	2.5	17	6.0	0.15	0.15	2.0

¹ The ripple is measured over a bandwidth of 5Hz to 1MHz.

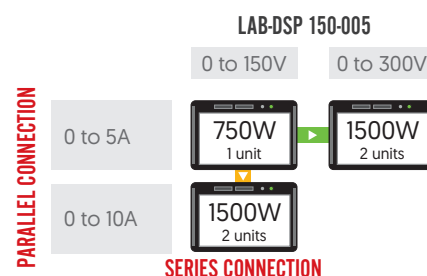
² Comprised of 2 × LAB-DSP 150-005 units in parallel connection. All ripple, line regulation, load regulation and response time values are for a single LAB-DSP 150-005.

³ Comprised of 2 × LAB-DSP 150-005 units in series connection. All ripple, line regulation, load regulation and response time values are for a single LAB-DSP 150-005.

MASTER-SLAVE CAPABILITY

The LAB-DSP 150-010 and LAB-DSP 300-005 systems are comprised from 2 × LAB-DSP 150-005 in master/slave. These can be arranged in a series or parallel configuration. Each module is able to operate independently, so that systems can be reconfigured if needs dictate.

Our rental systems can be combined in series or parallel configurations with any LAB-DSP units you have previously purchased, providing they have the same nominal outputs. Up to 5 LAB-DSP systems can be arranged in parallel, or 2 in series connection (limited to 600V maximum output).



TECHNICAL DATA

GENERAL

Input Voltage [Per 750W Model]	90 - 264VAC [full output power only available at at 115VAC upwards]
Input Frequency	47-63Hz
Input Current [Per 750W Model]	4.1A [at 230VAC]
Insulation Resistance	>100M Ω
Power Factor	0.99
Efficiency Range	76-88% ^[a]
Command Response Time	55ms
Transient Response Time [CV]	≤ 2 ms
Output Polarity	Floating
Output Ramp Up Time	0.1 - 99.9s
Output Ramp Down Time	0.1 - 99.9s ^[b]
Analog Setting Accuracy [0 - 10V] [CC & CV]	$\pm 5\%$
Analog Monitor Accuracy [0 - 10V] [Voltage]	$V_{OUT} \pm 2.5\%$
Analog Monitor Accuracy [0 - 10V] [Current]	$I_{OUT} \pm 2.5\%$
Withstand Voltage [Input - Output]	2000VAC : 1 minute
Withstand Voltage [Input - Ground]	2000VAC : 1 minute
Noise	<70Db [A]
Temperature Coefficient	100PPM/ $^{\circ}$ C of rated output ^[c]
CC Temperature Drift	0.05% rated V_{OUT} after 8hrs ^[d]
Front Panel Resolution	4 or 5 digits, depending on model
Panel Setting Accuracy [V]	$\pm 0.1\% \pm 3C$ at rated voltage
Panel Setting Accuracy [I]	$\pm 0.5\% \pm 3C$ at rated current
Panel Display Accuracy [V]	$\pm 0.2\%$ reading ± 5 digits
Panel Display Accuracy [I]	$\pm 0.5\%$ reading ± 5 digits
Resolution [Set and Read]	16 bits
Command & DA Setting Accuracy [V]	$\pm 0.1\% \pm 3C$ at rated voltage
Command & DA Setting Accuracy [I]	$\pm 0.5\% \pm 3C$ at rated current
Command & AD Measurement Accuracy [V]	$\pm 0.2\% \pm 2C$ at rated voltage
Command & AD Measurement Accuracy [I]	$\pm 0.5\% \pm 3C$ at rated current
Protective Functions	Programmable overvoltage
Protective Functions	Programmable overcurrent
Protective Functions	Overtemperature & sense line loss
Operating Temperature	0 - 40 $^{\circ}$ C [30 - 90%RH]
Storage Temperature	-20 - 70 $^{\circ}$ C [10% - 90%RH]
Cooling	Temperature controlled fan
Weight [Per 750W Model]	5.1kg
Dimensions [Per 750W Model]	44.45mm \times 241.3mm \times 470mm [d]
Remote Sense Compensation	1V to 5V dependent on model

^[a] Actual efficiency depends on model and output. ^[b] Output ramp down time varies between models.

^[c] Measurements accurate following 30 minutes warm-up. ^[d] Measurements accurate following 30 minutes warm-up. Constant line, load & temperature.

Every effort is made to ensure that the information provided within this technical summary is accurate. However, ETPS Ltd must reserve the right to make changes to the published specifications without prior notice. Where certain operating parameters are critical for your application we advise that they be confirmed at the time of order. ETPS Ltd specialises in modifying its proven platforms to suit your needs. Please contact our office if your requirement is non-standard. Please note that your actual unit may differ from those shown.



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**WE ARE
POSITIVE
PEOPLE**
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ETPS engineer electronic power supply and testing systems. Our problem solving skills provide the spark of innovation to some of the world's leading technology brands.



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