

Programmable DC Power Supplies Suit ATE applications



Offering high efficiency, flexibility and reliability, Z+ Series programmable DC power supplies from TDK-Lambda are designed to meet the demands of a wide variety of ATE and OEM applications, such as Test & Measurement, Semiconductor Burn-in, Component Test, Laser Diode, Heater Supplies, RF Amplifiers and Electromagnets. The first of the high-density, 2U format benchtop and rack-mounted power supplies to be introduced is the Z+400; providing 400W of output power, with models available with output voltages up to 100Vdc and output current up to 75A.

The Z+400 is 33% smaller and 40% lighter in weight than the previous generation ZUP range and other similar mature products on the market and thus offers a 49% increase in power density – 200, 600 and 800W units in the same size dimensions will be added to the Z+ Series early in 2012. The standard models are only 70mm wide, so up to 6 units can be accommodated in a 19" rack. Options for front panel output terminals and a dual unit housing are available for bench use.

The Z+ programmable power supply has comprehensive front panel controls with individual rotary encoders for output current and voltage, and access to power supply settings such as OVP level, start-up modes and remote control and monitoring parameters. Separate 4-digit volt and current displays are provided along with function/status LEDs, pushbuttons for output preview, output on/off, fine/coarse and other features. The air intake is also on the front panel with the exit at the rear to allow zero stacking in order to maximise system flexibility and power density.

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The Z+ Series offers arbitrary function generation and up to 6 pre-programmed functions can be stored – ideal for automotive or laser simulation tasks. Z+ power supplies also have a fast command processing time, output sequencing and two programmable output pins (that could be used to control isolation relays for example).

All models within the Z+400 Series operate in constant current and constant voltage modes from a wide 85 to 265Vac input. They feature active power factor correction, variable speed fans and extensive safety features, including user-selectable Safe-Start and Auto-Re-Start. With Safe-Start, the power supply returns to the last used settings after a power interruption, but with the output disabled. With Auto-Re-Start, the supply resumes normal operation without intervention after a power interruption, thereby meeting typical requirements for unattended use.

Common to all Z+400 models are the built-in USB, RS232 and RS485 interfaces. Using the standard serial RS485 interface between units enables daisy chain control of up to 31 power supplies on the same bus. Analogue remote programming and monitoring is user selectable from 0 - 5V or 0 - 10V. Other digital and isolated analogue interfaces are optional: the GPIB interface is IEEE-488.2 SCPI compliant and multi-drop (only one unit needs the IEEE interface, which can then feed the commands to others via RS485). LabView® and LabWindows® drivers are also available. Isolated analogue programming and monitoring options include either 0-5V or 0-10V, and 4-20mA control. An LXI-C compliant LAN interface is also available.

Higher power systems can be achieved by connecting up to 6 identical units in parallel with active current sharing. In advanced parallel configuration, the master unit reports total system output current, which means that up to 6 units appear as a single power supply, increasing flexibility for system designers. Up to 2 units may be connected in series to increase the output voltage or to provide a bipolar output.

CE marked in accordance with the Low Voltage Directive, the Z+400 conducted and radiated EMI conforms to EN55022-B, FCC part-15-B, VCCI-B. Safety approvals include UL/EN/IEC61010-1 and the Z+ series is designed to meet UL/EN60950-1. All models carry a 5-year warranty.

For more information about the Z+ Series, including a comprehensive datasheet, please call TDK-Lambda UK directly on +44 (0)1271 856600 or visit the website at: www.uk.tdk-lambda.com/zplus

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