XPF Series



350 to 840 W Laboratory DC Power Supply



Dual Output DC Power Supply with Powerflex

The Xantrex XPF is a new type of bench power supply designed to meet the need for flexibility in the choice of voltage and current. Typically, the maximum voltage and maximum current are not required simultaneously. The PowerFlex design enables higher currents to be generated at lower voltages within an overall power limit envelope. This is achieved by using the latest switch-mode technology.

The XPF Series are dual output DC power supplies with two completely independent and isolated outputs. If required, the outputs can be wired in series or parallel to achieve up to double the maximum voltage or double the maximum current.

Product Features

- Power Factor Correction (PFC)
- Individual on/off switch per output
- Dual isolated outputs
- ▶ PowerFlex design gives variable voltage/current combinations
- Coarse and fine voltage controls
- ▶ Simultaneous display of output voltage and current for each output

Protection Features

- Over voltage protection per output
- ▶ Switchable remote or local sense

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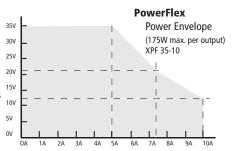


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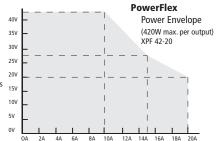
| Models: | 35-10 | 42-20 | |
|-------------------------|--|---|--|
| Output Ratings | | | |
| Output Voltage | 0V - 35 V | 0V - 42 V | |
| Output Current | 0 - 10 A | 0 - 20 A | |
| Outputs | 2 | 2 | |
| Output Power | up to 175 W per output | up to 420 W per output (See XPF 35-10 and XPF 42-20 PowerFlex power envelope graph) | |
| OVP Range | 10% -110% of maximum output voltage | | |
| Voltage Setting | By coarse and fine controls | | |
| Current Setting | By single logarithmic control | | |
| Output Impedance | Typically $<$ 5m Ω in constant voltage mode. Typically $>$ 5k Ω in constant current mode (voltage limit at max.) | | |
| Line Regulation | <0.01% of max. output for a 10% line voltage change | | |
| Load Regulation | <0.05% of max. output (XPF 35-10) and <0.01% of max. output (XPF 42-20) for a 90% load change. | | |
| Ripple and Noise | 5 mV rms max, typically 2 mV rms, <20 mV pk-pk, (20 MHz bandwidth) both outputs fully loaded (7A @ 25V), CV mode (XPF 35-10) | | |
| | Typically <1mV rms, <5mV pk-pk, (20 MHz bandwidth) both outputs loaded (10A @ 42V) CV mode (XPF 42-20) | | |
| Transient Response | <2ms to within 100mV of set level (XPF 35-10) and <250µs to within 50 mV of set level (XPF 42-20) for 90% load change | | |
| Temperature Coefficient | Typically <100ppm/°C | | |
| Output Protection | Forward protection by OVP trip; maximum voltage that should be applied to the terminals is 50 V. Reverse protection by diode clamp for | | |
| | reverse currents up to 3 A | | |
| Status Indication | LED indication of Output On, CV, CI and Power Limit. Message on display for over-voltage trip | | |
| Output Switch | Push-push switch operating electronic power control. Preset voltage and curent are displayed when the output is off | | |
| Output Terminals | 4mm terminals on 19mm (0.75") pitch. 15 A max. rating (XPF 35-10) and 30 A max. rating (XPF 42-20) | | |
| Sensing | Remote sensing via a front panel terminal block or local sensing (at output terminals). Selection by slide switch | | |
| Meter Resolution | 10 mV, 10 mA | | |
| Meter Accuracy: | | | |
| Voltage | 0.2% ± 1 digit | | |
| Current | 0.5% ±1 digit | | |

Power Envelope (each output)

The maximum current at any voltage setting is limited by the power envelope which is set to give 5A at 35V rising to 10A at 12V under all AC supply conditions (both outputs loaded). At lower voltages the power is restricted by the 10 amps current maximum.



The maximum current at any voltage setting is limited by the power envelope which is set to give 10A at 42V rising to 20A at 20V under all AC supply conditions (both outputs loaded). At lower voltages the power is restricted by the 20 amps current maximum.



| General Specifications | | |
|-------------------------------|---|--|
| AC Input | 110V-120V AC or 220V-240V AC \pm 10% (adjustable internally, option HV for factory set 220-240 VAC input) 50/60 Hz. | |
| | Installation Category II. | |
| Cooling | Convection (XPF 35-10), Fan (XPF 42-20) | |
| Power Consumption | 600 VA max. (XPF 35-10), 1100 VA max. (XPF 42-20) | |
| Operating Tempature Range | 5 °C to 40 °C, 20% to 80% RH | |
| Storage Range | -40 °C to + 70 °C | |
| Environmental | Indoor use at altitudes up to 2000m, Pollution Degree 2 | |
| Safety | Complies with EN61010-1 | |
| EMC | Complies with EN61326 | |
| Dimensions (HxWxD) | 5.1 x 8.3 x 14.8" (130 x 210 x 375 mm) | |
| Weight | 11 lb. (5kg) | |
| Warranty | 3 years | |
| Approvals | CE-marked units meet: EN61010-1 and EN61326 | |

Note: Specifications are subject to change without notice.