Sorensen XPF Series

Dual Output DC Power Supply with Powerflex™

350–840 W

35–60 V

10–20 A

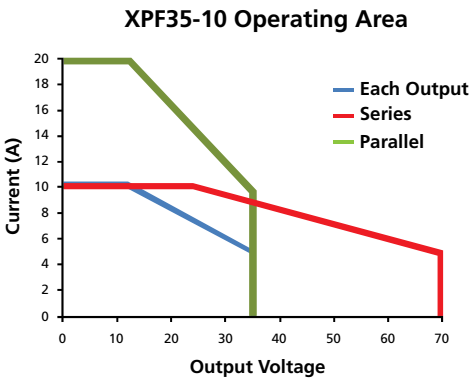
	~	115	230

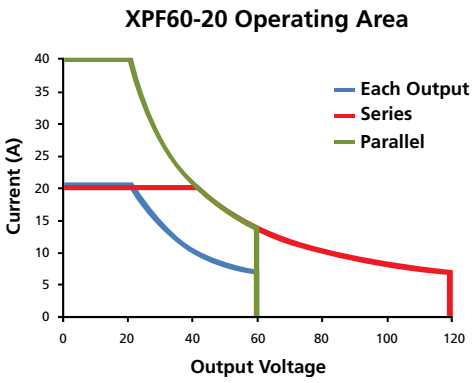
- PowerFlex design with parallel or series configuration gives variable voltage/current combinations equivalent to 6 power supplies in one unit
- Individual on/off switch per output
- Dual isolated outputs
- Coarse and fine voltage controls
- Simultaneous display of output voltage and current for each output

The Sorensen 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.

PowerFlex Operating Configurations





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AMETEK®
PROGRAMMABLE POWER

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XPF Series : Product Specifications

Output : Voltage and Current		
Models	35-10	60-20
Output Ratings (Each Output)		
Output Voltage	0 - 35 V	0 - 60 V
Output Current	0 - 10 A	0 - 20 A
Outputs	2	2
Output Power	up to 175 W	up to 420 W (See XPF 35-10 and XPF 60-20 PowerFlex power envelope graph)
Output		
OVP Range	10% -110% of maximum output voltage	
Voltage Setting	By coarse and fine controls	
Current Setting	By single logarithmic control	
Output Impedance	Typically <5mΩ in constant voltage mode. Typically >5kΩ 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 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, <10mV pk-pk, (20 MHz bandwidth) both outputs loaded (10A @ 42V) CV mode (XPF 60-20)	
Transient Response	<2ms to within 100mV of set level (XPF 35-10) and <250µs to within 50 mV of set level (XPF 60-20) 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 for XPF35-10 and 70V for XPF60-20. Reverse protection by diode clap forreverse currents up to 3A.	
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 60-20)	
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	
Input		
AC Input	XPF35-10: 110V-120V AC or 220V-240V AC ± 10% (adjustable internally, option HV for factory set 220-240 VAC input) 50/60 Hz . XPF60-20: 115V-240VAC ±10%, 50/60Hz. Installation Category II.	
Environmental		
Operating Temperature	Indoor use at altitudes up to 2000m, Pollution Degree 2	
Storage Temperature	-40 °C to + 70 °C	
Physical		
Dimensions	Width: 8.3" (210 mm) Height: 5.1" (130 mm) Depth: 14.8" (375 mm)	
Weight	11 lb. (5kg)	
General		
Cooling	Convection (XPF 35-10), Fan (XPF 42-20)	
Power Consumption	600 VA max. (XPF 35-10), 1100 VA max. (XPF 60-20)	
Safety	Complies with EN61010-1	
EMC	Complies with EN61326	
Regulatory	CE-marked units meet: EN61010-1 and EN61326	
Protection Features		
Over voltage protection per output		
Switchable remote or local sense		

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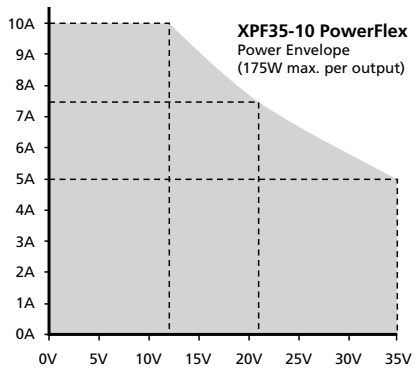
Power Envelope (each output)

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 and lower.

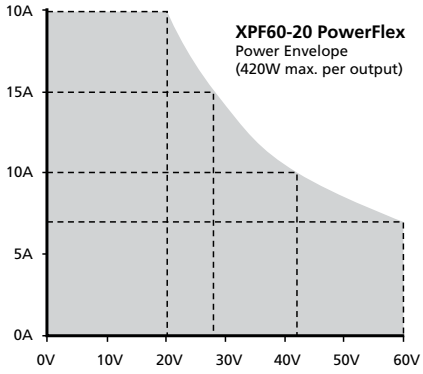
Double the current or double the voltage can be achieved by parallel or series connection of the two outputs.



XPF35-10 PowerFlex
Power Envelope
(175W max. per output)

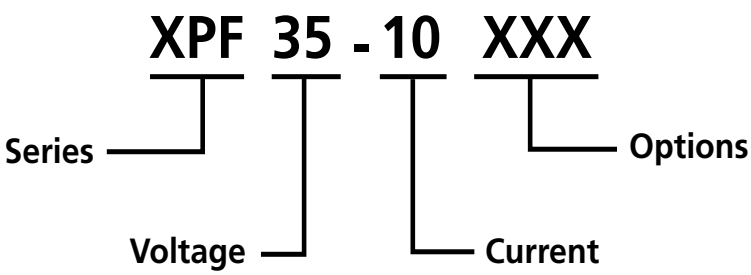
The maximum current at any voltage setting is limited by the power envelope which is set to give 7A at 60V rising to 20A at 20V and lower.

Double the current or double the voltage can be achieved by parallel or series connection of the two outputs.



XPF60-20 PowerFlex
Power Envelope
(420W max. per output)

Model Number Description



Options and Accessories

HV (Input Voltage Option)	230 VAC input factory set

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