Sorensen XPF Series

Single or Dual Output DC Power Supply with Powerflex™

350–840 W

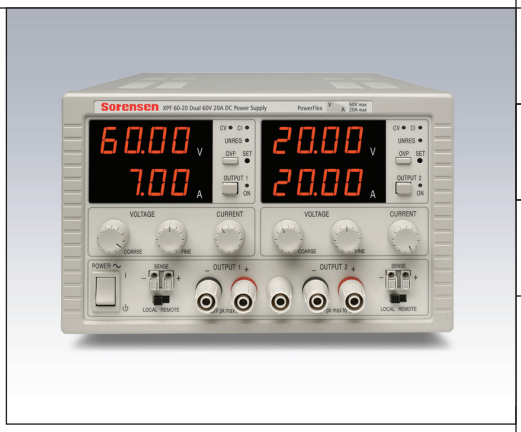
35–60 V

10–20 A

	~	115	230

GPIB RS232 LXI

- 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

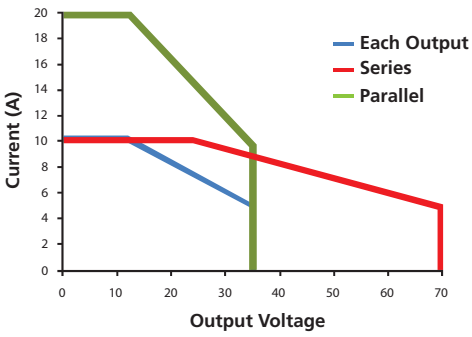


The Sorensen XPF is a new type of bench power supply designed to meet the need for flexibility in the choice of voltage and current. Typically, the maximum voltage and maximum current are not required simultaneously. The PowerFlex™ design enables higher currents to be generated at lower voltages within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

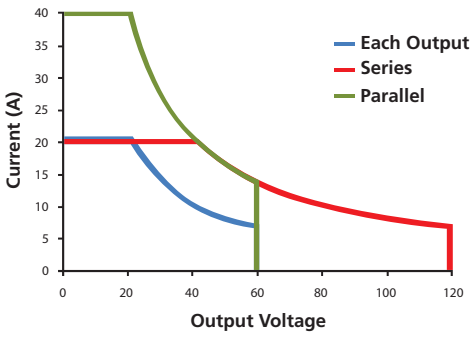
The XPF Series are dual output DC power supplies with two completely independent and isolated outputs. If required, the outputs can be wired in series or parallel to achieve up to double the maximum voltage or double the maximum current.

PowerFlex Operating Configurations

XPF35-10 Series Operating Area



XPF60-20 Series Operating Area



AMETEK
Programmable Power
9250 Brown Deer Road
San Diego, CA 92121-2267
USA

AMETEK® PROGRAMMABLE POWER

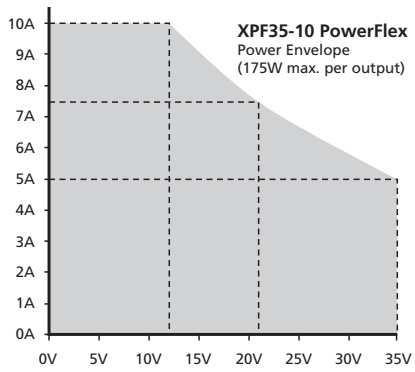
XPF Series : Product Specifications

Output : Voltage and Current		
Models	35-10 Series	60-20 Series
Output Ratings (Each Output)		
Output Voltage	0 - 35 V	0 - 60 V
Output Current	0 - 10 A	0 - 20 A
Outputs	2	Single: 1 Dual: 2
Output Power	up to 175 W (See PowerFlex envelope graph)	up to 420 W (See XPF 35-10 and XPF 60-20 PowerFlex power envelope graph)
Output		
Models	35-10 Series	60-20 Series
OVP Range	10% - 110% of maximum output voltage	1V to 66V
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% for a 10% line voltage change.	
Load Regulation	<0.05% for a 90% load change.	<0.01% for a 90% load change.
Ripple and Noise	typically 2 mV rms, <20 mV pk-pk, (20 MHz bandwidth) both outputs fully loaded (5A @ 35 V), in CV mode.	typically 1 mV rms, <10 mV pk-pk, (20 MHz bandwidth) both outputs loaded (10A @ 42 V), in CV mode.
Transient Response	<2ms to within 100mV of set level for 90% load change.	<250µs to within 50mV of setting for a 5% to 95% 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 Type	Dual 4 digit meters with 12.5mm LEDs. Read rate 4Hz.	
Meter Resolution	10 mV, 10 mA	
Meter Accuracy		
Voltage	0.2% ± 1 digit	0.1% +/- 2 digit
Current	0.5% ±1 digit	0.3% +/- 2 digit
Input		
AC Input	110 V - 120 V AC or 220 V - 240 V AC +/- 10% (adjustable internally, option HV for factory set 220-240 VAC input) 50/60 Hz. Installation Category II	110 to 240 volts ±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	130x210x350mm (½ rack 3U height)	Single - 107 x 130 (¼ rack 3U) x 398mm Dual - 210 x 130 mm (½ rack 3U) x 377mm (size excludes feet, knobs and terminals)
Weight	5kg (11lb)	Single - 4.25kg (9.35lb) Dual - 6.3kg (13.9lb)
General		
Cooling	Convection (XPF 35-10), Fan (XPF 42-20)	
Power Consumption	625 VA max. (XPF 35-10)	1250 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		

Power Envelope (each output)

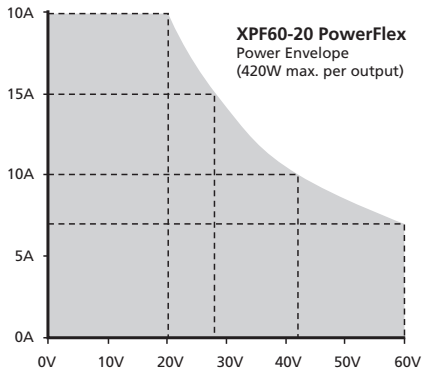
The maximum current at any voltage setting is limited by the power envelope which is set to give 5A at 35V rising to 10A at 12V and lower.

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

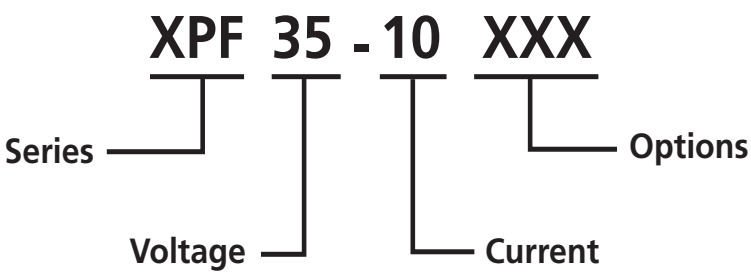


The maximum current at any voltage setting is limited by the power envelope which is set to give 7A at 60V rising to 20A at 20V and lower.

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



Model Number Description



Options and Accessories

MHV (Input Voltage Option)	230 VAC input factory set

Model Table

		Interfaces				
Model	Outputs	Analogue	RS-232	USB	LAN (LXI)	GPIB
PF60-20S	1					
XPF60-20SA	1	•				
XPF60-20SP	1		•	•	•	•
XPF60-20D	2					
XPF60-20DP	2		•	•	•	•

Notes