

FTL-P series

Wide range low power programmable DC power supply



Characteristics

- 4.3" TFT color LCD display, can fully display the status of the power supply;
- 300 sets storage and call function, can store/call 100 sets of voltage and current and other data, can realize some automatic testing;
- High accuracy and high resolution 1mV/1mA;
- With timing output function, support unlimited and specified number of cycles of output;
- Remote induction to compensate the load line pressure drop;
- One-key lock function, effectively prevent misoperation;
- Can display the load resistance value, with low resistance measurement function;
- Battery charging function;
- Support U disk storage;
- Standard RS232, RS485 interface, programming instruction set in line with SCPI, MODBUS-RTU;
- Optional RS232+LAN interface or RS485+LAN interface;
- Standard external trigger interface;
- Overload protection, polarity reverse protection, over voltage protection, over current protection, over temperature protection.

Protection function

Perfect protection circuit, with overload, polarity reverse protection, over voltage protection, over current protection, over temperature protection functions. With voltage and current protection function at the same time, the power supply can be automatically switched between CC/CV according to the load of access, improve the power supply's adaptability to the load. The efficient cooling system can automatically adjust the speed of the cooling fan according to the temperature of the system, which can reduce the noise of the system and improve the power density of the system.

Ordering information

Model	Specifications	Voltage resolution	Current resolution	Redundancy range
FTL8020P	80V/20A/400W	1mV	1mA	80.5V/20.5A/400W
FTL35110P	35V/110A/850W	1mV	10mA	35V/111A/850W
FTL35110P-015	35V/110A/1500W	1mV	10mA	35V/111A/1500W
FTL60005P	600V/5A/850W	10mV	1mA	605V/5.5A/850W
FTL60005P-015	600V/5A/1500W	10mV	1mA	605V/5.5A/1500W

Summary

FTL-P series wide range low power programmable DC power supply is a kind of super practical and versatile power supply developed by Faith after many years of experience in the design and development of DC switching power supply. The product uses active power factor correction circuit, with high power density, high power efficiency, high power factor.

Products can be widely used in laboratory testing, electronic product design and other test links, its wide range of characteristics, so that it can reach a larger output voltage or current, one can replace a variety of models. It is a common configuration on the desk of power electronics engineers.

Man-machine interface and operation

FTL-P series convenient and fast operation and setting interface in line with ergonomic principle, and provides two display modes of ordinary display mode and waveform display mode, users can choose the display mode suitable for observation according to needs. The product has constant current and constant voltage automatic switching function, according to the load situation automatic switching. Power supply support SCPI, MODBUS-RTU protocol programmable instrument standard instruction, equipped with RS232, RS485 interface, easy to form ATE system with other programmable instruments, suitable for PLC control, to achieve automatic control. The product adopts full electronic calibration, and the chassis is free from disassembly.

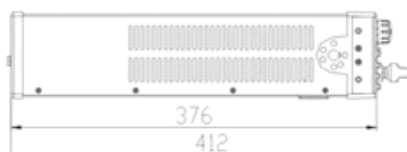
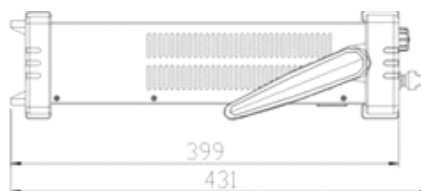
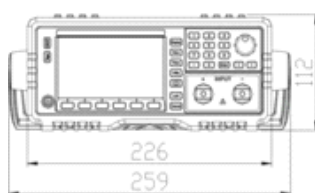
Specification table

Model	FTL8020P	FTL35110P	FTL35110P-015	FTL60005P	FTL60005P-015
Index adaptation temperature (25±5℃)					
Voltage	0-80V	0-35V		0-600V	
Current	0-20A	0-110A		0-5A	
Power	400W	850W	1500W	850W	1500W
Voltage output					
Power supply effect	≤0.01% of reading + 2.5mV	≤0.01% of reading + 5mV		≤0.01% of reading + 50mV	
Load effect	≤0.01% of reading + 5mV			≤0.01% of reading + 100mV	
Recovery time	≤5ms	≤500us			
Rise time	≤300ms(no load); ≤1s(full load)	≤300ms(no load); ≤500ms(full load)		≤300ms(no load); ≤1s(full load)	
Descent time	≤500ms(no load); ≤300ms(full load)	≤5s(no load); ≤150ms(full load)		≤5s(no load); ≤200ms(full load)	
Ripple and noise	≤50mVpp	≤100mVpp		≤300mVpp	
Temperature coefficient	≤100ppm				
Set accuracy	±(0.01% of reading + 10mV)			±(0.03% of reading + 200mV)	
Set resolution	1mV			10mV	
Current output					
Power supply effect	≤0.1%+2.5mA	≤0.1%+10mA			
Load effect	≤0.1%+5mA	≤0.1%+10mA			
Ripple and noise	≤15mArms	≤150mArms		≤30mArms	
Set accuracy	±(0.1% of reading + 10mA)	±(0.1% of reading + 60mA)		±(0.1% of reading + 10mA)	
Set resolution	1mA	10mA		1mA	
Display					
Voltage	5 digits display				
Current	5 digits display				
Voltage resolution	1mV			10mV	
Current resolution	1mA	10mA		1mA	
Voltage accuracy	±(0.01% of reading + 5mV)			±(0.02% of reading + 100mV)	
Current accuracy	±(0.1% of reading +10mA)	±(0.1% of reading +40mA)		±(0.1% of reading +5mA)(25±5℃)	
SENSE compensation voltage	1V				
Protection	Overload protection, polarity reverse protection, over voltage protection, over current protection, over temperature protection				
Lock keyboard	available				
Interfaces	RS232, RS485 interface, support standard SCPI instruction set, MODBUS-RTU protocol, external trigger interface				
Storage call out	300 groups				
Insulation	Between base and terminal: ≥20MΩ/500VDC				
Operating environment	Indoor use, altitude: ≤2000m, ambient temperature: 0 ~ 40℃				
	Relative humidity: ≤80%, installation grade: II, pollution degree: 2				
Storage environment	Ambient temperature: -10 ~ 70℃, relative humidity: ≤70%				
Power input	110V±10%(half power); 220V±10%(full power); 47~63Hz				
Accessories	1 power cord, 1 RS232 cross cable				
Dimensions	215 (W) X89 (H) X412 (D) mm	215 (W) X89 (H) X507 (D) mm			

Dimensional drawing

FTL-P(400W and below power)

Dimensions: 215(W)*89(H)*412(D)mm



FTL-P(850W and above power)

Dimensions: 215(W)*89(H)*507(D)mm

