

DC Power Supply FTL

Model	FTL series	FTL(Model name ends with suffix "K") series
CV mode		
Source effect	$\leq 0.01\% + 3\text{mV}$	$\leq 0.01\% + 4\text{mV}$
Load effect	$\leq 0.01\% + 3\text{mV} (I \leq 3\text{A})$ $\leq 0.02\% + 5\text{mV} (I > 3\text{A})$	$\leq 0.1\% + 5\text{mV}$
Recover time	$\leq 100\mu\text{s}$ (50% load change, minimum load 0.5A)	$\leq 1.5\text{ ms}$ (50% load change)
Ripple noise	$\leq 1\text{mVrms}$ ($I \leq 3\text{A}$)(5Hz~1MHz) $\leq 2\text{mVrms}$ ($I > 3\text{A}$)(5Hz~1MHz)	2mVrms, 30mVpp
Temperature coefficient	$\leq 100\text{ppm}/^\circ\text{C}$	$\leq 100\text{ ppm}/^\circ\text{C}$
Design accuracy	$\pm(0.03\% + 10\text{mV}) (25 \pm 5^\circ\text{C})$	$\pm(0.03\% \text{ of reading} + 10\text{mV})(25 \pm 5^\circ\text{C})$
CC mode		
Source effect	$\leq 0.1\% + 3\text{mA}$	$\leq 0.1\% + 3\text{ mA}$
Load effect	$\leq 0.1\% + 3\text{mA} (I \leq 3\text{A})$ $\leq 0.1\% + 5\text{mA} (I > 3\text{A})$	$\leq 0.1\% + 5\text{ mA}$
Ripple noise	$\leq 3\text{mArms} (I \leq 3\text{A})$ $\leq 6\text{mArms} (I > 3\text{A})$	$\leq 10\text{mArms}$
Design accuracy	$\pm(0.1\% + 0.1\% \text{ F.S.})(25 \pm 5^\circ\text{C})$	$\pm(0.1\% \text{ of reading} + 0.1\% \text{ F.S.})(25 \pm 5^\circ\text{C})$
Readback		
Voltage	5digits display	
Current	5digits display	
Voltage accuracy	$\pm(0.02\% \text{ of reading} + 5\text{mV})(25 \pm 5^\circ\text{C})$	$\pm(0.02\% \text{ of reading} + 5\text{mV})(25 \pm 5^\circ\text{C})$
Current accuracy	$\pm(0.1\% \text{ of reading} + 0.1\% \text{ of F.S.})(25 \pm 5^\circ\text{C})$	$\pm(0.1\% \text{ of reading} + 0.1\% \text{ of F.S.})(25 \pm 5^\circ\text{C})$
Other features		
Protection	OCP, OVP, OPP, OTP, reverse polarity protection, etc.	
Remote sense	Max compensate voltage 5%F.S.	X
Battery charge	Support	X
Keypad lock	Support	
Communication	Standard RS232, support SCPI (optional analog control interface, RS485, LAN, MODBUS)	
Storage & recall	100 Groups	
Insulation	$\geq 20\text{M}\Omega/500\text{VDC}$	X
Input	AC110V/220V $\pm 10\%$, 50/60Hz	AC220V $\pm 10\%$, 50/60Hz
Size	352(D) \times 215(W) \times 89(H)mm	
Weight	6.8~9.8kg	4.5~5.5kg



- < 0.01% low regulation rate;
- Ultra high resolution and accuracy of 1mV/1mA;
- Low ripple and low noise;

- OCP, OVP, OPP, OTP, reverse polarity protection, etc.;
- CV, CC output modes, switched automatically according to the load condition;
- One-key lock function, prevent misoperation;
- Output ON/OFF control;
- Store/recall 100 groups of V/I data;
- Remote sense voltage compensation;
- Support battery charging;
- Dual range (some models);
- Standard RS232, support SCPI;
- Optional analog control interface, RS485, LAN ports, optional MODBUS-RTU protocol.

General

The FTL series is a programmable DC linear power supply with high performance, multi-function, medium and small power features. The product is stable and mature, and has comprehensive protection functions such as reverse polarity, overvoltage, overcurrent, overload and overtemperature, which can keep the power supply and load safe in unstable environments. FTL has a regulation rate of < 0.01%, ripple and noise of < 1mVrms and fine transient performance, and is suitable for application environments like current surges. The FTL series DC power supply is not only suitable for high-grade laboratory, but also for high-performance test systems.

Self-adaptive CV or CC state

The FTL series power supply is self-adaptive to constant voltage or constant current output state according to the load. The power supply automatically switches the working state between CV and CC.

Fast recall

The FTL series power supply supports a fast recall function, which can call the corresponding power output parameters and state with one key, hence greatly improves the test speed, as well as prevents misoperation. It is very helpful for testing, quality control, and production.

Sequence

FTL series power supply supports multi-step sequence function, the power supply will change the working state according to time or trigger, which is used to test the function and stability of load products.

Remote sense

When the load consumes a large current, a voltage drop will be generated on the connection line from the power supply to the load terminal, and remote sensing can automatically compensate for the voltage drop of the load line.

Battery charging function

FTL series power supply allows for battery charging based on specified parameters. Users can define the trickle charge threshold voltage, float charge voltage, trickle charge current, standard charge current, termination current threshold, charging time and other parameters, hence fully simulate the battery charging process and effectively protect the battery.

Model Options

Model	Specification	Voltage resolution	Current resolution	Redundant output range
FTL3003	30V/3A/90W	1mV	0.1mA	32V/3.2A/90W
FTL3005	30V/5A/150W	1mV	0.1mA	32V/5.5A/150W
FTL3603	36V/3A/108W	1mV	0.1mA	40V/3.2A/108W
FTL3605	36V/5A/180W	1mV	0.1mA	40V/5.5A/180W
FTL6003	60V/3A/180W	1mV	0.1mA	64V/3.2A/180W
FTL6005	60V/5A/300W	1mV	0.1mA	64V/5.5A/300W
FTL7503	75V/3A/225W	1mV	0.1mA	80V/3.2A/225W
FTL7505	75V/5A/375W	1mV	0.1mA	80V/5.5A/375W
FTL3010	30V/10A/300W	1mV	1mA	32V/11A/300W
FTL12001	120V/1A/120W	10mV	0.1mA	128V/1.1A/120W
FTL12002	120V/2A/240W	10mV	0.1mA	128V/2.2A/240W
FTL150015	150V/1.5A/225W	10mV	0.1mA	160V/1.6A/225W
FTL1820	18V/20A/360W	1mV	1mA	19V/21A/360W
FTL12003	120V/3A/360W	10mV	0.1mA	128V/3.2A/360W
FTL300012	300V/1.2A/360W	10mV	0.1mA	320V/1.2A/360W
FTL500007	500V/0.7A/350W	10mV	0.1mA	500V/0.7A/350W
FTL2030K	20V/30A/600W	1mV	1mA	20.5V/30.5A/600W
FTL3020K	30V/20A/ 600W	1mV	1mA	31V/21A/ 600W
FTL6010K	60V/10A/ 600W	1mV	1mA	60.5V/10.5A/600W
FTL80075K	80V/7.5A/600W	1mV	1mA	80.5V/8A/600W
FTL1560K	15V/60A/900W	1mV	1mA	15.5V/60.5A/900W
FTL2045K	20V/45A/900W	1mV	1mA	20.5V/45.5A/900W
FTL3030K	30V/30A/900W	1mV	1mA	31V/31A/900W
FTL3625K	36V/25A/900W	1mV	1mA	36.5V/25.5A/900W
FTL4520K	45V/20A/900W	1mV	1mA	45.5V/20.5A/900W
FTL6015K	60V/15A/900W	1mV	1mA	60.5V/15.5A/900W
FTL8011K	80V/11A/900W	1mV	1mA	80.5V/11.5 A/900W
FTL120075K	120V/7.5A/900W	10mV	1mA	121V/7.6A/900W
FTL15006K	150V/6A/900W	10mV	1mA	151V/6.1A/900W
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