FT8330 series

Multi channel battery simulator

Features

- Voltage output: 0~6V;
- Current output: 0~1A/0~2A/0~3A;
- Voltage accuracy,resolution up to 1/10000;
- Four wiring system can effectively eliminate the measurement impact brought by the wire;
- Single device channels can reach 36, and channels can also be selected according to the demand;
- Each channel is isolated, and can be connected in parallel or series at will;
- Temperature drift coefficient is less than 30ppm/℃;
- Professional test software,supporting data report and data analysis;
- RS485 and Ethernet control interface;
- Support SCPI and Modbus protocols;
- Standard 19 inch, can be installed in the rack;
- Intelligent fan control, long life and low noise.

Ultra high integration

FT8330 series adopts standard 19 inch and two chassis specifications. Single 2U chassis can accommodate up to 24CH, and a 3U chassis can accommodate 36CH. The channels are isolated from each other. One device can test 36 work stations at most at the same time, which can effectively reduce the number of devices used by users and improve the test efficiency.

2U/24 channel

General

The FT8330 series battery simulator is a high precision, multi-channel, single quadrant programmable battery analog power supply.Single device channels is up to 36 and each channel is electrically isolated, it is convenient for users to connect series and parallel power supplies. The ultra-high output accuracy, as well as the characteristics of ultra-low ripple and interference, make this series of power supplies widely used in testing systems such as battery cells, super capacitors, and BMS. The FT8330 series adopts a standard 19 inch chassis and provides Ethernet port and RS485 communication interface, which is convenient for integration into research and development and production line automation testing platforms, and can also be used separately.

Application fields

- BMS(battery management system) testing;
- CMS(capacity management system) testing;
- R&D testing of charge and discharge protection board;
- Battery cell test;
- Super capacitor core test;
- Power supply testing for other types of electronic products.

Ultra high accuracy

FT8330 series has high accuracy, voltage accuracy is 0.01%+0.01% F.S. Voltage resolution is as low as 0.1mV, current resolution is as low as 0.1 μA. For the test of device power consumption in standby mode, the FT8330 has 0.1μA current resolution measurement,can easily measure the standby current of μA level.

Serial connection between channels

FT8330 electrical isolation between each channel. When it is necessary to simulate multiple strings of battery cells, the simulator can support any multi-channel in series, or multiple battery cell simulators in series. Users can also perform remote control and other automatic test applications through remote interfaces.

Ordering information

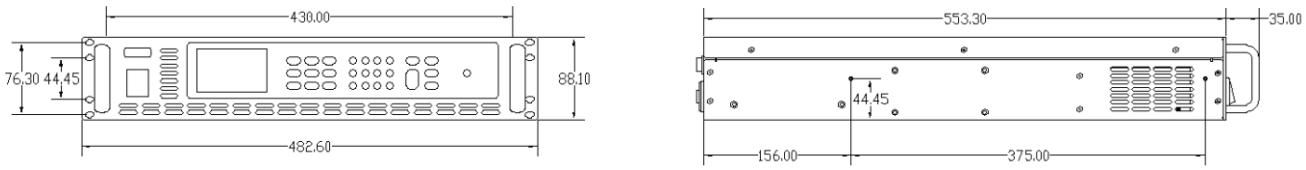
Channels	A series mode	R series mode	Specification	Height	Remark
12CH	FT833012A-6-1	FT833012R-6-1	6V/1A/6W	2U	Series A, current single range; R series, current double range, high sampling rate
	FT833012A-6-2	FT833012R-6-2	6V/2A/12W		
	FT833012A-6-3	FT833012R-6-3	6V/3A/18W		
18CH	FT833018A-6-1	FT833018R-6-1	6V/1A/6W		
	FT833018A-6-2	FT833018R-6-2	6V/2A/12W		
	FT833018A-6-3	FT833018R-6-3	6V/3A/18W		
24CH	FT833024A-6-1	FT833024R-6-1	6V/1A/6W		
	FT833024A-6-2	FT833024R-6-2	6V/2A/12W		
	FT833024A-6-3	FT833024R-6-3	6V/3A/18W		
36CH	FT833036A-6-1	FT833036R-6-1	6V/1A/6W	3U	
	FT833036A-6-2	FT833036R-6-2	6V/2A/12W		
	FT833036A-6-3	FT833036R-6-3	6V/3A/18W		

Choosing information

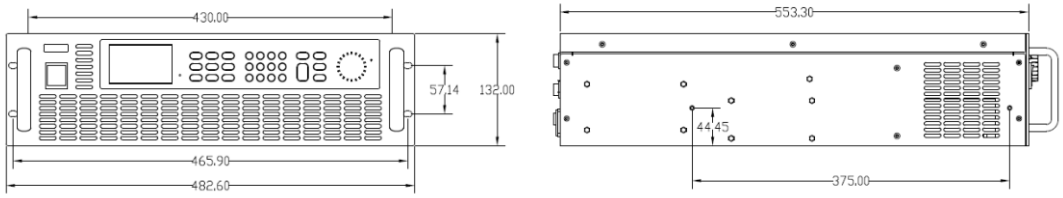
Optional part 1

Name	Model or Spec.	Description
Testing wire	FT8330-TL03A	3A test wire/wire length 1.5m

Overall dimensions



2U model dimensions



3U model dimensions

Specification

Specification-1			
Model	FT833024A-6-1	FT833024A-6-2	FT833024A-6-3
Current	1A	2A	3A
Voltage	6V	6V	6V
Power	6W	12W	18W
Channels	24CH		
CV mode			
Range	0~6V		
Set resolution	0.1mV		
Set accuracy(25±3℃)	0.01%+0.01%F.S.		
Readback resolution	0.1mV		
Readback accuracy(25±3℃)	0.01%+0.01%F.S.		
Voltage load regulation rate	＜0.02%F.S.		
Temperature coefficient	＜30ppm/℃		
Voltage ripple(rms)	2mV		
Current ripple(rms)	1.2mA		
Voltage rise time(No load)	＜3ms		
Voltage rise time(full load)	＜3ms		
Voltage fall time(No load)	＜3s		
Voltage fall time(full load)	＜3ms		
Dynamic response time	＜1ms		
CC mode			
Range	0~1A	0~2A	0~3A
Set resolution	0.25mA	0.5mA	0.75mA
Set accuracy(25±3℃)	0.05%+0.05%F.S		
Readback resolution	0.25mA	0.5mA	0.75mA
Readback accuracy(25±3℃)	0.05%+0.05%F.S		
Current load regulation rate	＜0.01%F.S.		
Temperature coefficient	＜30ppm/℃		
Other characteristics			
Withstand voltage (output to ground)	1500VDC		
Withstand voltage (channel to channel)	1500VDC		
Single channel sampling speed	4Hz		
Programming response time	＜10ms		
Communication interface	LAN、RS485(isolated)		
AC input voltage	1φ 110V/220V ac ±10% VLN, 50/60Hz		
Dimension (H x W x D)	88.1mm×482.6mm×521.4mm		
Weight	10kg		

Specification

Specification-2						
Model	FT833024R-6-1		FT833024R-6-2		FT833024R-6-3	
Current	1mA/1A		1mA/2A		1mA/3A	
Voltage	6V		6V		6V	
Power	6W		12W		18W	
Channels	24CH					
CV mode						
Range	0~6V					
Set resolution	0.1mV					
Set accuracy(25±5℃)	0.01%+0.01%F.S.					
Readback resolution	0.1mV					
Readback accuracy(25±5℃)	0.01%+0.01%F.S.					
Voltage load regulation rate	＜0.02%F.S.					
Temperature coefficient(0~40℃)	＜30ppm/℃					
Voltage ripple(20Hz~20MHz)	≤2mVrms					
Voltage rise time(No load)	＜3ms					
Voltage rise time(full load)	＜3ms					
Voltage fall time(No load)	＜3s					
Voltage fall time(full load)	＜3ms					
Dynamic response time	＜1ms					
CC mode						
Range	0~1mA	0~1A	0~1mA	0~2A	0~1mA	0~3A
Set resolution	0.1uA	0.1mA	0.1uA	0.2mA	0.1uA	0.3mA
Set accuracy(25±5℃)	0.05%+0.05%F.S					
Readback resolution	0.1uA	0.1mA	0.1uA	0.2mA	0.1uA	0.3mA
Readback accuracy(25±5℃)	0.05%+0.05%F.S					
Current ripple(20Hz~20MHz)	3uArms	0.3mArms	3uArms	0.3mArms	3uArms	0.3mArms
Current load regulation rate	＜0.01%F.S.					
Temperature coefficient	＜30ppm/℃					
Other characteristics						
Withstand voltage (output relative to ground)	1500VDC					
Withstand voltage (channel to channel)	1500VDC					
Single channel sampling speed	20Hz					
Programming response time	＜10ms					
Communication interface	LAN、RS485(isolated)					
AC input voltage	1φ 110V/220V ac ±10% VLN，50/60Hz					
Dimension (H x W x D）	88.1mm*482.6mm*521.4mm					
Weight	10kg					