

FT8330 Series

Multi-channel Battery cell simulator



Front Panel

-
-
-
-
-

Features :

- Voltage output: 0~6V/0~15V; current output: 0~1A/0~2A/0~3A/0~4A/0~6A;
- Voltage accuracy, resolution up to 10000;
- The four-wire system can effectively eliminate the measurement influence caused by the wire;

The number of channels can be up to 24, and it 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/°C;

Professional testing software to support data reporting and data analysis;

RS485 and Ethernet control interface;

Standard 19-inch 2U chassis design, which can be installed in a rack;

- Intelligent fan control, long life, low noise.

Brief introduction

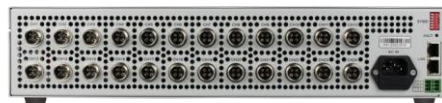
FT8330 series battery simulator is a high-precision, multi-channel, single-quadrant programmable cell analog power supply. The number of single channel up to 24 and each channel electrical isolation, convenient for users to string and power. The characteristics of ultra-high output precision, ultra-low ripple and interference make this series of power supply widely used in battery cells, super capacitors, BMS and other testing systems.

The FT8330 series uses a standard 19-inch chassis with a 2U height and provides an RS485 communication interface for easy integration into the R&D and production line automated test platform, or can be used alone.

-
-

Application areas :

- Battery core test; Supercapacitor core test;
- BMS (Battery Management system) test
- CMS (Supercapacity Management System) test
- Charge and discharge protection board research and development test
- Power supply test of other electronic products.



RearPanel

Ordering information

Model	Specification	Remark
FT8330A	FT8330 series special case	A single can install up to 4 battery simulator module. In the same host, different type module cannot be mixed.
FT83306A-6-1	Battery Simulator Module 6V/1A/6W, 6 channels	Single quadrant/single range
FT83306A-6-2	Battery Simulator Module 6V/2A/12W, 6 channels	Single quadrant/single range
FT83306R-6-1	Battery Simulator Module 6V/1A/6W, 6 channels	Single quadrant/double range, high sampling speed
FT83306R-6-2	Battery Simulator Module 6V/2A/12W, 6 channels	Single quadrant/double range, high sampling speed
FT83306R-6-3	Battery Simulator Module 6V/3A/18W, 6 channels	Single quadrant/double range, high sampling speed
FT83306R-15-1	Battery Simulator Module 15V/1A/15W, 6 channels	Single quadrant/double range, high sampling speed
FT83303R-6-4	Battery Simulator Module 6V/4A/24W, 3 channels	Single quadrant/double range, high sampling speed
FT83303R-6-6	Battery Simulator Module 6V/6A/36W, 3 channels	Single quadrant/double range, high sampling speed
FT83303R-15-2	Battery Simulator Module 15V/2A/30W, 3 channels	Single quadrant/double range, high sampling speed

Specification sheet-1 :

Model	FT83306A-6-1	FT83306A-6-2
current	1A	2A
voltage	6V	6V
power	6W	12W
channel	6CH	6CH
Constant voltage model		
Range	0~6V	0~6V
Setting resolution	0.1mV	0.1mV
Setting accuracy (25±3°C)	0.01%+0.01%F.S	0.01%+0.01%F.S
Readback resolution	0.1mV	0.1mV
Reading back accuracy (25±3°C)	0.01%+0.01%F.S	0.01%+0.01%F.S
Voltage load adjustment rate	<0.02%F.S	
Temperature coefficient	<30ppm/°C	
Voltage ripple (rms)	2mV	2mV
Current ripple (rms)	1.2mA	1.2mA
Voltage rise time (no load)	<3ms	<3ms
Voltage rise time (full load)	<3ms	<3ms
Voltage drop time (no load)	<3s	<3s
Voltage drop time (full load)	<3ms	<3ms
Dynamic response time	<1ms	<1ms
Constant current mode		
Range	0~1A	0~2A
Set resolution	0.25mA	0.5mA
Setting accuracy (25±3°C)	0.05%+0.05%F.S	0.05%+0.05%F.S
Readback resolution	0.25mA	0.5mA
Readback accuracy (25±3°C)	0.05%+0.05%F.S	0.05%+0.05%F.S
Current load adjustment rate	<0.01%F.S.	
Temperature coefficient	<30ppm/°C	
Other characteristics		
Withstand voltage (output relative to earth)	1500VDC	1500VDC
Withstand voltage (channel to channel)	1500VDC	1500VDC
Channel connection mode	Aviation plug	Aviation plug
Single channel sampling speed	4Hz	
Programming response time	<10ms	
Communication interface	LAN/RS485(Isolation)	
Ac input voltage	220VAC±10%	
Size (H×W×D)	88.1mm×482.6mm×521.4mm	
weight	10kg	

Specification sheet-2 :

Model	FT83306R-6-1		FT83306R-6-2		FT83306R-6-3		FT83306R-15-1	
current	1mA/1A		1mA/2A		1mA/3A		1mA/1A	
voltage	6V		6V		6V		15V	
power	6W		12W		18W		15W	
channel	6CH		6CH		6CH		6CH	
Constant voltage model								
Range	0~6V		0~6V		0~6V		0~15V	
Setting resolution	0.1mV		0.1mV		0.1mV		0.25mV	
Setting accuracy (25±3℃)	0.01%+0.01%F.S.		0.01%+0.01%F.S.		0.01%+0.01%F.S.		0.01%+0.01%F.S.	
Readback resolution	0.1mV		0.1mV		0.1mV		0.25mV	
Reading back accuracy (25±3℃)	0.01%+0.01%F.S.		0.01%+0.01%F.S.		0.01%+0.01%F.S.		0.01%+0.01%F.S.	
Voltage load adjustment rate	<0.02%F.S.				<0.02%F.S.			
Temperature coefficient	<30ppm/℃				<30ppm/℃			
Voltage ripple (20Hz~20MHz)	≤2mVrms				≤2mVrms			
Voltage rise time (no load)	<3ms		<3ms		<3ms		<3ms	
Voltage rise time (full load)	<3ms		<3ms		<3ms		<3ms	
Voltage drop time (no load)	<3s		<3s		<3s		<3s	
Voltage drop time (full load)	<3ms		<3ms		<3ms		<3ms	
Dynamic response time	<1ms		<1ms		<1ms		<1ms	
Constant current mode								
Range	0~1mA	0~1A	0~1mA	0~2A	0~1mA	0~3A	0~1mA	0~1A
Set resolution	0.1uA	0.1mA	0.1uA	0.2mA	0.1uA	0.3mA	0.1uA	0.1mA
Setting accuracy (25±3℃)	0.05%+0.05%F.S.		0.05%+0.05%F.S.		0.05%+0.05%F.S.		0.05%+0.05%F.S.	
Readback resolution	0.1uA	0.1mA	0.1uA	0.2mA	0.1uA	0.3mA	0.1uA	0.1mA
Readback accuracy (25±3℃)	0.05%+0.05%F.S.		0.05%+0.05%F.S.		0.05%+0.05%F.S.		0.05%+0.05%F.S.	
Current load adjustment rate	3uArms	3uArms	3uArms	3uArms	3uArms	3uArms	3uArms	3uArms
Current load adjustment rate	<0.01%F.S.				<0.01%F.S.			
Temperature coefficient	<30ppm/℃				<30ppm/℃			
Other characteristics								
Withstand voltage (output relative to earth)	1500VDC							
Withstand voltage (channel to channel)	1500VDC							
Single channel sampling speed	20Hz							
Programming response time	<10ms							
Communication interface	LAN/RS485 (Isolated)							
Ac input voltage	220VAC±10%							
Size (H×W×D)	88.1mm*482.6mm*521.4mm							
weight	10kg							

Specification sheet-3 :

Model	FT83303R-6-4		FT83303R-6-6		FT83303R-15-2	
current	2mA/4A		2mA/6A		2mA/2A	
voltage	6V		6V		15V	
power	24W		36W		30W	
channel	3CH		3CH		3CH	
Constant voltage model						
Range	0~6V		0~6V		0~15V	
Setting resolution	0.1mV		0.1mV		0.25mV	
Setting accuracy (25±3°C)	0.01%+0.01%F.S.		0.01%+0.01%F.S.		0.01%+0.01%F.S.	
Readback resolution	0.1mV		0.1mV		0.25mV	
Reading back accuracy (25±3°C)	0.01%+0.01%F.S.		0.01%+0.01%F.S.		0.01%+0.01%F.S.	
Voltage load adjustment rate	<0.02%F.S.					
Temperature coefficient	<30ppm/°C					
Voltage ripple (rms)	≤2mVrms					
Voltage rise time (no load)	<3ms		<3ms		<3ms	
Voltage rise time (full load)	<3ms		<3ms		<3ms	
Voltage drop time (no load)	<3s		<3s		<3s	
Voltage drop time (full load)	<3ms		<3ms		<3ms	
Dynamic response time	<1ms		<1ms		<1ms	
Constant current mode						
Range	0~2mA	0~4A	0~2mA	0~6A	0~2mA	0~2A
Set resolution	0.2uA	0.4mA	0.2uA	0.6mA	0.2uA	0.2mA
Setting accuracy (25±3°C)	0.05%+0.05%F.S.		0.05%+0.05%F.S.		0.05%+0.05%F.S.	
Readback resolution	0.2uA	0.4mA	0.2uA	0.6mA	0.2uA	0.2mA
Readback accuracy (25±3°C)	0.05%+0.05%F.S.		0.05%+0.05%F.S.		0.05%+0.05%F.S.	
Current ripple (20Hz~20MHz)	6uArms	0.6mArms	6uArms	0.6mArms	6uArms	0.6mArms
Current load adjustment rate	<0.01%F.S.					
Temperature coefficient	<30ppm/°C					
Other characteristics						
Withstand voltage (output relative to earth)	1500VDC					
Withstand voltage (channel to channel)	1500VDC					
Single channel sampling speed	20Hz					
Programming response time	<10ms					
Communication interface	LAN/RS485 (Isolated)					
Ac input voltage	220VAC±10%					
Size (H×W×D)	88.1mm*482.6mm*521.4mm					
weight	10kg					

Visit Faith website :[https:// en.faithtech.cn](https://en.faithtech.cn) for more information

Optional information

Item	Specification	Instruction
Test wire	FT8300-TL02A	2A test line/line is 1.5 m long
Test wire	FT8300-TL03A	3A test line/line is 1.5 m long
Test wire	FT8300-TL06A	6A test line/line is 1.5 m long

Dimensional drawing :

