

# STF4402B Series Quadruple-channel Programmable DC Power Supply





Note: The STF4402A has no RS232 port or USB DEVICE port

# **Overview**

The STF4400 series multi-output programmable DC power supply covers five models (single channel power range 5W-180W), of which the STF4402B has a 4-channel output and the remaining models have a 3-channel output. The whole series of power supply has the function of inter-channel series, parallel and synchronous output, and the output parameters of all channels are displayed on the same screen, which is more convenient and intuitive to use.

STF4400 series power supply is linear, programmed output design, so the series of power supply has a small ripple, low noise, high precision, strong stability of the excellent performance.

The whole series adopts 4.3 "TFT LCD display, which is divided into different channels and distinguished by high contrast colors. In terms of UI design, the instrument adopts menu operation, soft key, knob control and input parameters, which is convenient and fast to use, and can well adapt to the fast operation of the production line and the application needs of universities and laboratories. The STF4400 series comes standard with RS232, USB HOST, and USB DEVICE interfaces (note: STF4402A no RS232 interface and USB DEVICE interface), can be optional GPIB interface, support SCPI and MODBUS communication protocols, can easily purchase the upper computer software or edit to meet the needs of system integration. The small size, standard chassis size and the output of both front and rear panels make the STF4400 series power supply easily integrated in a standard cabinet.

# Application

- · Develop and design validation common tests
- $\bullet \ \ Routine \ testing \ and \ \ maintenance \ \ of \ production \ \ line \ \ workbench \ \ 235(W)\times 111(H)\times 440(D) \ Net \ weight: 8.1 kg$
- · Automated equipment integration testing
- Solar photovoltaic simulation test
- · New power vehicle simulation test
- · Teaching laboratory

# Accessories

Accessories: three-core power cord YT3007 Test cable YT3008 Test cable

Optional accessories: SBF0035D high current test cable, SBF0035E high current test cable

#### **Features**

- · Linear design: high stability, low ripple, low noise,
- Three/four channel output: Support series, parallel or synchronous output
- High precision, high resolution: 1mV/0.1mA
- 24-bit color 4.3 "TFT LCD, resolution: 480x272
- · Simple system Settings, English and Chinese operation interface
- Three/four channel voltage, current, power and timing time are displayed
- 1/2 2U ultra-small size, front and rear panel output and sampling end
- 40 groups of state memory are saved and invoked per channel
- Timing output: Time (0.1-99999.9s)
- Knob and numeric keypad set voltage, current and output time
- · Panel function buttons backlight display
- Remote measurement function to compensate for online pressure drop
- Copy screen function
- · Data logging function
- Over voltage, over current protection, intelligent temperature control fan
- Support standard SCPI and MODBUS communication protocols
- · Monitor through computer software and upgrade instrument firmware through

#### STF4400 Series DC Power Supply:

Module No.	CH No.	Voltage	Current	Power
STF4402A	CH1	0-30V	0-3A	90W
	CH2	0-30V	0-3A	90W
	CH3	0-5V	0-3A	15W
STF4402B	CH1	0-30V	0-3A	90W
	CH2	0-30V	0-3A	90W
	CH3	0-10V	0-3A	30W
	CH4	0-5V	0-1A	5W
STF4402	CH1	0-30V	0-3A	90W
	CH2	0-30V	0-3A	90W
	CH3	0-6V	0-5A	30W
STF4412	CH1	0-30V	0-6A	180W
	CH2	0-30V	0-6A	180W
	CH3	0-6V	0-5A	30W
STF4413	CH1	0-60V	0-3A	180W
	CH2	0-60V	0-3A	180W
	CH3	0-6V	0-5A	30W

# Size/Weight

STF4402/STF4402A

Shelf volume (mm): 215(W)×88(H)×412(D)

External volume (mm):

STF4402B/STF4412/STF4413

Shelf volume (mm):  $215(W) \times 88(H) \times 473(D)$ 

External volume (mm):

235(W)×111(H)×501(D) Net weight: 13kg

(STF4402B is 12kg)



# **Specifications**

Model	Model		STF4402A		STF4402B			STF4402			STF4412				STF4413			
Rated output (0°C-40°C)	CH/Range	CH1 (	CH2	СНЗ	CH1	CH2	СН3	CH4	CH1	CH2	СН3	CH1	CH2	СН3		CH1	CH2	СН3
	Voltage	1-30	V	0-5V	1-3	0V	0-10V	0-5V	0-3	0V	0-6V	0	-30V	0-6V		0-60V		0-6V
	Current	1-3A		1-3A		L	0-1A	0-3A		0-5A	0-6A		0-5A		0-3A		0-5A	
	Power	90W	V	15W	90	W	30W	5W	90	W	30W	180W		30W		180W		30W
Load	Voltage	≤0.01%+3mV																
adjustment rate	e Current	≤0.1%+3mA ≤0.01%+3mA																
Power regulation	Voltage	≤0.01%+3mV																
	Current	≤0.1%+3mA						≤0.01%+3mA										
Set value	Voltage	10 mV $1 mV$																
resolution	Current		1mA 0.1mA															
Read back	Voltage	10 mV $1 mV$																
value resolution	Current	lmA 0.1mA																
Set value accuracy	Voltage	≤0.059	%+20r	nV	≤0.1%+20mV			≤0.03%+10mV										
(25°C±5°C)	Current	≤0.29	%+5m	ıA		≤0.2%+5mA		≤0.1%+5mA		≤0.1%+8mA ≤0.1%+5mA		пA	≤0.1%+5mA					
Read back accuracy	Voltage	≤0.05%+20mV			≤0.1%+20mV			≤0.03%+10mV										
(25°C±5°C)	Current	≤0.2%+5mA		≤0.2%+5mA		≤0.1%+5mA		≤0.1%+8mA ≤0.1%+5mA		пA	≤0.1%+5mA							
Ripple and noise (20Hz-20MHz)	Voltage(Vp-p	) ≤31	mVp-p	)	≤3mV		nVp-p		≤3mVp-p ≤4mVp-p		$\leq 4mVp-p$	≤4mVp-p			≤4mVp-p			
	Voltagerms)	≤1r	mVrm	s	≤1mVrms				≤1mVı	rms	≤1mVrms			≤1mVrms		rms		
	Current	≤3r	mArm	s	≤3m		nArms	Arms		Arms	≤5mArms	≤5mAr		Arms		≤4mArms		≤5mArms
Series synchron	Series synchronization error		2%+5n	nA	≤0.2%+10mA		≤0.05%+10mA											
Parallel settin	g Voltage	≤0.02%+5mV		$\leq 0.02\% + 10 \text{mV}$		≤0.02%+5mV		≤0.02%+5mV			≤0.02% + 10mV							
Accuracy	Current	≤0.1%	%+20n	nA	≤0.2%+20mA		≤0.1%+20mA		≤0.1%+30mA			≤0.1%+30mA						
Memory	Callback storage	40 groups of configuration files/channels																
Timer	Function	Timed o	off outp	out														
	Time set	0.1~99	999.9	sec														
	Resolution	0.1 sec																
Operating ten	Operating temperature			0°C~40°C														