

# Power Electric Tester

## C. TH6700 Series Programmable Switch DC Power Supply

### Features

- Wide range, and constant power output
- High efficiency and high power density
- Programmable internal resistance, designed for battery output simulation
- Constant current (CC) priority mode, prevent overshoot for LED power supply
- Master-slave series and parallel operation
- 24-bit 4.3-inch color LCD display
- Numeric keyboard operation
- Voltage and current adjustment with knob
- Timed output (0-3600.0s)
- programmable voltage or current rising time
- RS232, USB HOST, USB DEVICE, LAN, and analog control interface



### TH6700

Rack mount (mm): 215(W) x 132(H) x 420(D)      Net weight : 7.5kg  
 Dimension (mm): 215(W) x 146(H) x 420(D)

Standard RS232  USB HOST  USB DEVICE  Analog Control Interface  LAN

### Application

- R & D and design verification common test
- Clean energy, solar cells, electric vehicles
- Production line table routine testing and maintenance
- Automated device integration testing
- Solar photovoltaic simulation test
- Teaching laboratory
- LED test

### Specifications

Parameter		TH6711	TH6712	TH6713	TH6721	TH6722	TH6723	TH6731	TH6732	TH6733	TH6741	TH6742	TH6743
Rated Output	Rated Power	360W	720W	1080W	360W	720W	1080W	360W	720W	1080W	360W	720W	1080W
	Max Power	Rated output *105%											
	Rated Voltage	0-30V	0-30V	0-30V	0-80V	0-80V	0-80V	0-250V		0-800V			
	Max Voltage	31.5V			84V			262.5V		840V			
	Rated Current	0-33A	0-66A	0-100A	0-12.5A	0-25A	0-37.5A	4.2A	8.4A	12.6A	1.32A	2.64A	3.96A
Setting	Max Current	36A	72A	108A	13.5A	27A	40.5A	4.5A	9A	13.5A	1.44A	2.88A	4.32A
	Voltage Range	0-31.5V			0-84V			0-262.5V		0-840V			
Load Regulation	Current Range	0-36A	0-72A	0-108A	0-13.5A	0-27A	0-40.5A	0-4.5A	0-9A	0-13.5A	0-1.44A	0-2.88A	0-4.32A
	Voltage	≤20mV			≤45mV			≤130mV		≤405mV			
Line Regulation	Current	≤41mA	≤77mA	≤113mA	≤18.5mA	≤32mA	≤45.5mA	≤9.5mA	≤14mA	≤18.5mA	≤6.44mA	≤7.88mA	≤9.32mA
	Voltage	≤18mV			≤43mV			≤128mV		≤403mV			
Set Value Resolution	Current	≤41mA	≤77mA	≤113mA	≤18.5mA	≤32mA	≤45.5mA	≤9.5mA	≤14mA	≤18.5mA	≤6.44mA	≤7.88mA	≤9.32mA
	Voltage	10mV						100mV		100mV			
Readback Value Resolution	Current	10mA	10mA	100mA	10mA	10mA	10mA	1mA	1mA	10mA	1mA	1mA	1mA
	Voltage	10mV						100mV		100mV			
Set Value Accuracy (25°C ± 5°C)	Voltage (>0.1V)	≤0.1%+10mV						≤0.1%+200mV				≤0.1%+400mV	
	Current (>0.1A)	≤0.1%+30mA	≤0.1%+60mA	≤0.1%+100mA	≤0.1%+20mA	≤0.1%+40mA	≤0.1%+50mA	≤0.1%+5mA	≤0.1%+10mA	≤0.1%+20mA	≤0.1%+2mA	≤0.1%+4mA	≤0.1%+6mA
Readback Value Accuracy (25°C ± 5°C)	Voltage (>0.1V)	≤0.1%+20mV						≤0.1%+200mV				≤0.1%+400mV	
	Current (>0.1A)	≤0.1%+40mA	≤0.1%+70mA	≤0.1%+100mA	≤0.1%+20mA	≤0.1%+40mA	≤0.1%+50mA	≤0.1%+5mA	≤0.1%+10mA	≤0.1%+20mA	≤0.1%+2mA	≤0.1%+4mA	≤0.1%+6mA
"Ripple and Noise (20Hz-2MHz)"	Differential Mode Voltage	≤60mVp-p and 7mVrms	≤80mVp-p and 11mVrms	≤100mVp-p and 14mVrms	≤60mVp-p and 7mVrms	≤80mVp-p and 11mVrms	≤100mVp-p and 14mVrms	≤80mVp-p and 15mVrms	≤100mVp-p and 15mVrms	≤120mVp-p and 15mVrms	≤150mVp-p and 30mVrms	≤200mVp-p and 30mVrms	≤200mVp-p and 30mVrms
	Differential Mode Current	≤72mArms	≤144mArms	≤216mArms	≤27mArms	≤54mArms	≤81mArms	≤10mArms	≤20mArms	≤30mArms	≤5mArms	≤10mArms	≤15mArms

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### Specifications

"Dynamic Recovery Time (50%-100% Load) Load Frequency =100Hz"	Recover to 0.1% + 10mV: ≤2ms												≤2ms						
Rise Time (Full Load)	10%-90%	≤50ms												≤100ms			≤150ms		
Rise Time (No Load)	10%-90%	≤50ms												≤100ms			≤150ms		
Drop Time (Full Load)	90%-10%	≤50ms												≤150ms			≤300ms		
Drop Time (No Load)	90%-10%	≤500ms												≤1200ms			≤2000ms		
Timer	Setting Range	0-9999999 (Hour, Minute, Second)												0-9999999 (Hour, Minute, Second)					
Start Delay	Setting Range	0-99.99s												0-99.99s					
Stop Delay	Setting Range	0-99.99s												0-99.99s					
Slope Setting	Voltage Rise	0.01-60V/s						0.1-160V/s			0.1-500V/s			1-1600V/s					
	Voltage Drop	0.01-60V/s						0.1-160V/s			0.1-500V/s			1-1600V/s					
	Current Rise	0.01-72A/s	0.1-144A/s	0.1-216A/s	0.01-27A/s	0.01-54A/s	0.01-81A/s	0.001-9A/s	0.01-18A/s	0.01-27A/s	0.001-2.88A/s	0.001-5.76A/s	0.001-8.64A/s						
	Current Drop	0.01-72A/s	0.1-144A/s	0.1-216A/s	0.01-27A/s	0.01-54A/s	0.01-81A/s	0.001-9A/s	0.01-18A/s	0.01-27A/s	0.001-2.88A/s	0.001-5.76A/s	0.001-8.64A/s						
Analog Internal Resistance	Setting Range	0-0.833 Ω	0-0.417 Ω	0-0.278 Ω	0-5.926 Ω	0-2.963 Ω	0-1.975 Ω	0-55.55 Ω	0-27.77 Ω	0-18.51 Ω	0-555.5 Ω	0-277.8 Ω	0-185.1 Ω						
"External Voltage Control (25°C ± 5°C)"	CV Accuracy	Rated Output Voltage ± 0.5%												Rated Output Voltage ± 0.5%					
	CC Accuracy	Rated Output Current ± 1%												Rated Output Current ± 1%					
"External resistance control (25°C ± 5°C)"	CV Accuracy	Rated Output Voltage ± 1.5%												Rated Output Voltage ± 1.5%					
	CC Accuracy	Rated Output Current ± 1.5%												Rated Output Current ± 1.5%					
Power Factor	100VAC (Full Load)	0.99												0.99			0.99		
	200VAC (Full Load)	0.97												0.97			0.97		
Efficient	100VAC (Full Load)	75%						76%			77%			78%					
	200VAC (Full Load)	77%						78%			79%			80%					
Master-Slave Control	Master-Slave Parallel	3 Sets including the mater tester												3 Sets including the mater tester					
	Master-Slave Series	2 Sets including the mater tester												Not Available					
Protection	OVP	3-33V	3-33V	3-33V	8-88V	8-88V	8-88V	20-275V			20-880V								
	Accuracy	N/A												± 2% Rated Output Voltage					
	OCP	3.6-37.8A	5-75.6A	5-113.4A	1.35-14.18A	2.7-28.35A	4.05-42.53A	0.45-4.72A	0.9-9.45A	1.35-14.17A	0.144-1.512A	0.288-3.024A	0.432-4.536A						
	Accuracy	N/A												± 2% Rated Output Current					
	OTP	Internal Temperature Rise Determines												Internal Temperature Rise Determines					
Size and Weight	Overall Size (mm)	215(W) × 146(H) × 420(D)																	
	Shelf Size (mm)	215(W) × 132(H) × 420(D)																	
	Net Weight	3kg	5.3kg	7.5kg	3kg	5.3kg	7.5kg	3kg	5.3kg	7.5kg	3kg	5.3kg	7.5kg						
Power Supply	88-265VAC, 50/60HZ												88-265VAC, 50/60Hz						
<p>"Note: Power regulation rate (88-132VAC or 170-265VAC, constant load).            Load regulation rate (no load - full load, constant input voltage).            Rise time (10%-90% of rated output voltage, with rated resistive load)            Drop time (90%-10% of rated output voltage, with rated resistive load)            Dynamic recovery time (when the load changes from 50% to 100% of the rated output current, the time for the output voltage to recover within the range of 0.1%+10mV of the rated output"</p>																			