

34300E Series

High Power DC Electronic Load (1250V)



COMPACT HIGH POWER DC ELECTRONIC LOAD



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34300E Series Compact High Power DC Electronic Load (1250V)



1250V

5kW~
40kW8
Models
Type

Features

- Maximum power up to 320KW
- Maximum up to 8 units master / slave parallel control
- 5 digit V/A/W Meter.
- High-speed measurement and communication transmission.
- Large LCD Display \ setting values can be adjusted by rotary knob or push button.
- Voltage \ Current and Watt value can be displayed simultaneously.
- Capable for Power Factor Correction (PFC) Test. (600V / 1000V Model)
- OCP \ OPP test function automatically.
- Power ON status can be set.
- CC, CR, CV, CP, Dynamic and Short operation mode.
- SHORT time setting.
- Protections against I, W, °C and over-voltage alert.
- Voltage meter display the polarity positive ("+") or negative ("-") is selectable.
- Support MPPT CC \ CR \ CV test function for solar panel
- Optional Interface : GPIB \ RS232 \ USB \ LAN.
- Built-in soft-start circuit function allowing the U.U.T. power supply to be directly connected to the 34300E series load input terminal, no longer need a large relay switch with an external soft-start circuit.
- Optional 9923 load current waveform generator to provide the battery actual discharge current waveform simulation (option)

Descriptions

- 34300E Series has its own control and display panel, CC / CR / CV / CP / Dynamic modes, 150 sets Store / Recall memory which provides load set-up more efficiently, also can be remote controlled via GPIB \ RS232 \ USB and LAN interface.
- SHORT time setting and SHORT_VH, SHORT_VL setting function, also can measure Short Voltage and Current.
- Dynamic can be simulated under CC, CP mode. The current Rise / Fall slew rate can be adjusted individually and there is an external signal input for a Arbitrary Waveform to simulate load current.
- Single key for OCP \ OPP test function will be more efficiency and accuracy on OCP \ OPP testing.
- Programmable Load ON/OFF voltage, GO/NG meter check, Voltage meter display "+" or "-" is selectable and 150 sets Store/Recall larger memory is much advance feature for each different application.
- 150 sets test parameter and status storage function, user can recall the storage memory real time in accordance with the auto sequence requirement.
- Maximum Voltage up to 1250V provide an idea testing solution for Power Factor Correction test.
- Master / Slave control units maximum are up to 1 MASTER, 7 SLAVES.

Applications

- Voltage / Current source
- SMPS transient response
- CV / Current limit testing and battery emulation
- Battery charger
- Battery discharge
- R&D Quality Control
- ATE system
- Production testing

Specifications

MODEL	34305E		34310E		34315E		34320E	
Power	5KW		10KW		15KW		20KW	
Current	0 ~ 2.5A	0 ~ 25A	0 ~ 5A	0 ~ 50A	0 ~ 7.5A	0 ~ 75A	0 ~ 10A	0 ~ 100A
Voltage	0 ~ 1250V							
Protections								
Over Power Protection (OPP)					105%			
Over Current Protection (OCP)					104%			
Over Voltage Protection (OVP)					104%			
Over Temp Protection (OTP)					Yes			
Constant Current Mode								
Range*1	2.5A	25A	5A	50A	7.5A	75A	10A	100A
Resolution	0.04mA	0.4mA	0.08mA	0.8mA	0.12mA	1.2mA	0.16mA	1.6mA
Accuracy*2	±0.05% of (Setting + Range)							
Constant Resistance Mode								
Range	60000Ω~50Ω	50Ω~2.502Ω	30000Ω~25Ω	25Ω~1.251Ω	20004Ω~16.67Ω	16.67Ω~0.834Ω	15000Ω~12.5Ω	12.5Ω~0.627Ω
Resolution	0.3334μS	0.834mΩ	0.6667μS	0.417mΩ	0.9998μS	0.278mΩ	1.3333μS	0.209mΩ
Accuracy	±0.2% of (Setting + Range)							
Constant Voltage Mode								
Range	1250V							
Resolution	20mV							
Accuracy	± 0.05% of (Setting + Range)							
Constant Power Mode								
Range	500W	5000W	1000W	10000W	1500W	15000W	2000W	20000W
Resolution	8mW	80mW	16mW	160mW	24mW	240mW	32mW	320mW
Accuracy*3	± 0.1% of (Setting + Range)							
Constant Voltage + Current Limit Mode								
Range	1250V	25A	1250V	50A	1250V	75A	1250V	100A
Resolution	20mV	0.4mA	20mV	0.8mA	20mV	1.2mA	20mV	1.6mA
Accuracy	±0.05% of (Setting+Range)	±1.0% of (Setting+Range)	±0.05% of (Setting+Range)	±1.0% of (Setting+Range)	±0.05% of (Setting+Range)	±1.0% of (Setting+Range)	±0.05% of (Setting+Range)	±1.0% of (Setting+Range)
Constant Voltage + Power Limit Mode								
Range	1250V	5000W	1250V	10000W	1250V	15000W	1250V	20000W
Resolution	20mV	80mW	20mV	160mW	20mV	240mW	20mV	320mW
Accuracy	±0.05% of (Setting+Range)	±1.0% of (Setting+Range)	±0.05% of (Setting+Range)	±1.0% of (Setting+Range)	±0.05% of (Setting+Range)	±1.0% of (Setting+Range)	±0.05% of (Setting+Range)	±1.0% of (Setting+Range)
MPPT Mode								
Algorithm	P&O							
Load mode	CV							
P&O interval	1000ms~60000ms ; resolution 1s							
Dynamic Mode								
Timing								
Thigh & Tlow	0.050~9.999 / 99.99 / 999.9 / 9999ms							
Resolution	0.001 / 0.01 / 0.1 / 1ms							
Accuracy	1μs / 10μs / 100μs / 1ms + 50ppm							
Slew Rate	0.002A~0.125A/μS	0.02A~1.25A/μS	0.004A~0.25A/μS	0.04A~2.5A/μS	0.006A~0.375A/μS	0.06A~3.75A/μS	0.008A~0.5A/μS	0.08A~5A/μS
Resolution	0.0005A/μS	0.005A/μS	0.001A/μS	0.01A/μS	0.0015A/μS	0.015A/μS	0.002A/μS	0.02A/μS
Min. Rise Time	20μs (typical)							
Accuracy	± (5% of Setting) ±10μs							
Current								
Range	0~2.5A	2.5~25A	0~5A	5~50A	0~7.5A	7.5~75A	0~10A	10~100A
Resolution	0.04mA	0.4mA	0.08mA	0.8mA	0.12mA	1.2mA	0.16mA	1.6mA
Measurement								
Voltage Read Back								
Range (5 Digital)	0~125V	125~1250V	0~125V	125~1250V	0~125V	125~1250V	0~125V	125~1250V
Resolution	2mV	20mV	2mV	20mV	2mV	20mV	2mV	20mV
Accuracy	± 0.025% of (Reading + Range)							
Current Read Back								
Range (5 Digital)	0~2.5A	2.5~25A	0~5A	5~50A	0~7.5A	7.5~75A	0~10A	10~100A
Resolution	0.04mA	0.4mA	0.08mA	0.8mA	0.12mA	1.2mA	0.16mA	1.6mA
Accuracy	± 0.05% of (Reading + Range)							
Power Read Back								
Range (5 Digital)	500W	5000W	1000W	10000W	1500W	15000W	2000W	20000W
Resolution	0.1W	1W	0.1W	1W	0.1W	1W	0.1W	1W
Accuracy*4	± 0.06% of (Reading + Range)							
General								
Short Circuit								
Current	25A		50A		75A		100A	
Load ON Voltage	1.0 ~ 250V							
Load OFF Voltage	0 ~ 250V							
Power Consumption	600 Wmax		1000Wmax		1450Wmax		1900Wmax	
Operating Temperature*2	0~40°C							
Dimension (HxWxD)	573x647x766mm		573x647x766mm		728x647x766mm		885x647x766mm	
HxWxD (Not included wheels)	469x647x766mm		469x647x766mm		625x647x766mm		781x647x766mm	
Weight	100 kg		130 kg		170 kg		220 kg	
Safety & EMC								
	CE							

Cooling : Advanced Fan Cooled

Input AC Power : ① Load-20KW (include) : 100~230 Vac ±10% , 50/60Hz
② Load-25KW above (include) : 200~230 Vac ±10% , 50/60Hz

Note *1 : The range is automatically or forcing to range II only in CC mode

Note *2 : If the operating current is below range 0.1%, the accuracy specification is 0.1% F.S.

Note *3 : If the operating voltage is higher than 600V, the accuracy specification is 0.5% F.S.

Note *4 : Power F.S. = Vrange F.S. x Irange F.S.

Note *5 : Operating temperature range is 0~40℃, All specifications apply for 25℃±5℃, Except as noted

Order Information

Optional interface :

- ① GPIB Card
- ② RS232 Card
- ③ USB Card
- ④ LAN Card

Options :

Hook ring



x4



34325E 1250V , 125A , 25KW



34330E 1250V , 150A , 30KW



34335E 1250V , 175A , 35KW



34340E 1250V , 200A , 40KW

Specifications

MODEL	34325E		34330E		34335E		34340E	
Power	25KW		30KW		35KW		40KW	
Current	0 ~ 12.5A	0 ~ 125A	0 ~ 15A	0 ~ 150A	0 ~ 17.5A	0 ~ 175A	0 ~ 20A	0 ~ 200A
Voltage	0 ~ 1250V							
Protections								
Over Power Protection (OPP)					105%			
Over Current Protection (OCP)					104%			
Over Voltage Protection (OVP)					104%			
Over Temp Protection (OTP)					Yes			
Constant Current Mode								
Range*1	12.5A	125A	15A	150A	17.5A	175A	20A	200A
Resolution	0.2mA	2mA	0.24mA	2.4mA	0.28mA	2.8mA	0.32mA	3.2mA
Accuracy	± 0.05% of (Setting + Range)							
Constant Resistance Mode								
Range	12000Ω~10Ω	10Ω~0.501Ω	9996Ω~8.33Ω	8.33Ω~0.417Ω	8568Ω~7.14Ω	7.14Ω~0.357Ω	7500Ω~6.25Ω	6.25Ω~0.315Ω
Resolution	1.6667μS	0.167mΩ	2.0008μS	0.139mΩ	2.334μS	0.119mΩ	2.6667μS	0.105mΩ
Accuracy	± 0.2% of (Setting + Range)							
Constant Voltage Mode								
Range	1250V							
Resolution	20mV							
Accuracy	± 0.05% of (Setting + Range)							
Constant Power Mode								
Range	2500W	25000W	3000W	30000W	3500W	35000W	4000W	40000W
Resolution	40mW	400mW	48mW	480mW	56mW	560mW	64mW	640mW
Accuracy	± 0.1% of (Setting + Range)							
Constant Voltage + Current Limit Mode								
Range	1250V	125A	1250V	150A	1250V	175A	1250V	200A
Resolution	20mV	2mA	20mV	2.4mA	20mV	2.8mA	20mV	3.2mA
Accuracy	±0.05% of (Setting+Range)	±1.0% of (Setting+Range)	±0.05% of (Setting+Range)	±1.0% of (Setting+Range)	±0.05% of (Setting+Range)	±1.0% of (Setting+Range)	±0.05% of (Setting+Range)	±1.0% of (Setting+Range)
Constant Voltage + Power Limit Mode								
Range	1250V	25000W	1250V	30000W	1250V	35000W	1250V	40000W
Resolution	20mV	400mW	20mV	480mW	20mV	560mW	20mV	640mW
Accuracy	±0.05% of (Setting+Range)	±1.0% of (Setting+Range)	±0.05% of (Setting+Range)	±1.0% of (Setting+Range)	±0.05% of (Setting+Range)	±1.0% of (Setting+Range)	±0.05% of (Setting+Range)	±1.0% of (Setting+Range)
MPPT Mode								
Algorithm	P&O							
Load mode	CV							
P&O interval	1000ms~60000ms ; resolution 1s							
Dynamic Mode								
Timing								
Thigh & Tlow	0.050~9.999 / 99.99 / 999.9 / 9999ms							
Resolution	0.001 / 0.01 / 0.1 / 1ms							
Accuracy	1μs / 10μs / 100μs / 1ms + 50ppm							
Slew Rate	0.01A~0.625A/μS	0.1A~6.25A/μS	0.012A~0.75A/μS	0.12A~7.5A/μS	0.014A~0.875A/μS	0.14A~8.75A/μS	0.016A~1A/μS	0.16A~10A/μS
Resolution	0.0025A/μS	0.025A/μS	0.003A/μS	0.03A/μS	0.0035A/μS	0.035A/μS	0.002A/μS	0.04A/μS
Min. Rise Time	20μs(typical)							
Accuracy	± (5% of Setting) ±10μs							
Current								
Range	0~12.5A	12.5~125A	0~15A	15~150A	0~17.5A	17.5~175A	0~20A	20~200A
Resolution	0.2mA	2mA	0.24mA	2.4mA	0.28mA	2.8mA	0.32mA	3.2mA
Measurement								
Voltage Read Back								
Range (5 Digital)	0~125V	125~1250V	0~125V	125~1250V	0~125V	125~1250V	0~125V	125~1250V
Resolution	2mV	20mV	2mV	20mV	2mV	20mV	2mV	20mV
Accuracy	± 0.025% of (Reading + Range)							
Current Read Back								
Range (5 Digital)	0~12.5A	12.5~125A	0~15A	15~150A	0~17.5A	17.5~175A	0~20A	20~200A
Resolution	0.2mA	2mA	0.24mA	2.4mA	0.28mA	2.8mA	0.32mA	3.2mA
Accuracy	± 0.05% of (Reading + Range)							
Power Read Back								
Range (5 Digital)	2500W	25000W	3000W	30000W	3500W	35000W	4000W	40000W
Resolution	0.1W	1W	0.1W	1W	0.1W	1W	0.1W	1W
Accuracy	± 0.06%% of (Reading + Range)							
General								
Short Circuit								
Current	125A		150A		175A		200A	
Load ON Voltage	1.0 ~ 250V							
Load OFF Voltage	0 ~ 250V							
Power Consumption	2350Wmax		2800Wmax		3250Wmax		3700Wmax	
Operating Temperature*2	0~40℃							
Dimension (HxWxD)	1047x647x766mm		1197x647x766mm		1353x647x766mm		1509x647x766mm	
HxWxD (Not included wheels)	937x647x766mm		1093x647x766mm		1249x647x766mm		1405x647x766mm	
Weight	280 kg		340 kg		390 kg		430 kg	
Safety & EMC								
	CE							

Cooling : Advanced Fan Cooled

Input AC Power : ① Load-20KW (include) : 100~230 Vac ±10% , 50/60Hz
 ② Load-25KW above (include) : 200~230 Vac ±10% , 50/60Hz

Note *1 : The range is automatically or forcing to range II only in CC mode

Note *2 : If the operating current is below range 0.1%, the accuracy specification is 0.1% F.S.

Note *3 : If the operating voltage is higher than 600V, the accuracy specification is 0.5% F.S.

Note *4 : Power F.S. = Vrange F.S. x Irange F.S.

Note *5 : Operating temperature range is 0~40℃, All specifications apply for 25℃±5℃, Except as noted

Order Information

Optional interface :

- ① GPIB Card
- ② RS232 Card
- ③ USB Card
- ④ LAN Card

Options :

Hook ring



x4



34325E 1250V , 125A , 25KW



34330E 1250V , 150A , 30KW



34335E 1250V , 175A , 35KW



34340E 1250V , 200A , 40KW