

34300E 系列

超高功率直流電子負載



COMPACT HIGH POWER DC ELECTRONIC LOAD

PRODIGIT
INSTRUMENT PROFESSIONAL

博計電子股份有限公司

新北市新店區寶中路88號8樓

TEL : 886-2-2918-2620 FAX : 886-2-2912-9870

<http://www.prodigit.com.tw> E-mail : carry@prodigit.com.tw





1250V

5kW~
40kW

8機種



特 性

- 最大功率可達 320KW
- 最高達 8 台主/從並聯控制
- 5位數之數位電壓、電流以及功率錶
- 高速量測及通訊傳輸速率
- 大型 LCD Display、可用飛梭旋鈕或按鍵調整設定值
- 可同時顯示電壓值、電流值、瓦特值
- 適用於功率因數調整器(PFC)測試用 (600V,1000V機種)
- 可自動執行OCP、OPP測試
- 可設定開機狀態值
- 定電流、定電阻、定電壓、定功率、定電流+定電壓、定功率+定電壓、動態及短路模式
- 於短路測試時可設定短路時間
- 過電流、功率、溫度保護及過電壓示警
- 電壓極性顯示可設成正值 ("+") 或負值 ("−")
- 支援太陽能板MPPT CC、CR、CV測試
- 可選用介面：GPIB、RS232、USB、LAN

說 明

- 34300E系列具有獨立的控制及顯示面板、定電流/定電阻/定電壓/定功率/動態模式，配合面板上的150組 儲存/呼叫 記憶，能有效地控制所有負載的設定，更可透過RS232、Ethernet、USB和GPIB等介面進行遠端控制。
- 具備短路測試功能及設定短路時間，並可量測短路電壓及電流。
- 在定電流及定功率模式下，可做動態負載之模擬，其電流上升、下降斜率均為獨立可調，另具有-外部輸入任意波形之動態負載功能。
- 具有OCP、OPP單鍵測試功能，使得OCP、OPP之測試更有效率及準確。
- 可設定的吃載/停止吃載(LOAD ON/OFF)電壓點及良/不良(GO/NG)的比較判斷功能、電壓極性顯示可正可負及150組 儲存/呼叫 記憶，使得負載更適用於各種不同的應用。
- 多達150組測試參數及狀態的儲存功能，讓其可根據自動測試 (auto sequence)需求，隨時將儲存記憶調出來任意使用。
- 因其耐壓可高達1000V，故而非常適用於功率因數調整器 (PFC) 的測試應用。
- 主/從控制最多為1個MASTER，7個SLAVE

應 用

- 電壓/電流源測試
- 交換式電源供應器暫態響應
- 定電壓模式供限流測試及模擬電池
- 電池放電
- 電池充電
- 研發、品管
- ATE系統
- 生產測試

規 格

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	$\pm (0.1\% \text{ of Setting} + 0.2\% \text{ of Range})$							
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	$\pm 0.2\% \text{ of (Setting + Range)}$							
Constant Voltage Mode								
Range	1250V							
Resolution	20mV							
Accuracy	$\pm 0.05\% \text{ of (Setting + Range)}$							
Constant Power Mode								
Range	500W	5000W	1000W	10000W	1500W	15000W	2000W	20000W
Resolution	8mW	80mW	16mW	160mW	24mW	240mW	32mW	320mW
Accuracy	$\pm 0.5\% \text{ of (Setting + Range)}$							
Constant Voltage Mode + Constant Current Mode								
Range	1250V	25A	1250V	50A	1250V	75A	1250V	100A
Resolution	20mV	0.4mA	20mV	0.8mA	20mV	1.2mA	20mV	1.6mA
Accuracy	$\pm 1\% \text{ of (Setting + Range)}$							
Constant Voltage Mode + Constant Power Mode								
Range	1250V	5000W	1250V	10000W	1250V	15000W	1250V	20000W
Resolution	20mV	80mW	20mV	160mW	20mV	240mW	20mV	320mW
Accuracy	$\pm 1.0\% \text{ of (Setting + Range)}$							
MPPT Mode								
Algorithm	P&O + Scanning							
Load mode	CC, CR, CV (MPPT C, R, V)							
Sampling interval	10ms~2000ms ; resolution 1ms							
P&O interval	10ms~2000ms ; resolution 1ms							
Memory situation	Discard old data and keep catching new data							
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)							
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	$\pm 0.025\% \text{ of (Reading + Range)}$							
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	$\pm 0.1\% \text{ of (Reading + Range)}$							
Power Read Back								
Range (5 Digital)	1000W	5000W	1000W	10000W	10000W	15000W	10000W	20000W
Resolution	0.01W	0.1W	0.01W	1W	0.1W	1W	0.1W	1W
Accuracy	$\pm 0.125\% \text{ of (Reading + Range)}$							
General								
Short Circuit								
Current	25A		50A		75A		100A	
Load ON Voltage	0 ~ 250V							
Load OFF Voltage	0 ~ 250V							
Power Consumption	600 Wmax		1000Wmax		1450Wmax		1900Wmax	
Operating Temperature²	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							

冷卻方式：智慧型風扇冷卻

輸入電源：① Load-20KW內(含)：100~230 Vac ±10%，50/60Hz
 ② Load-25KW以上(含)：200~230 Vac ±10%，50/60Hz

註*1:CC Mode 可強制於 range II

註*2:操作溫度範圍為0~40°C，此規格表內之精確度僅適用於25°C±5°C

訂 購 方 式

選購介面：

選購配件：

① GPIB Card



X4

② RS232 Card



③ USB Card



④ LAN Card



34305E 1250V, 25A, 5KW

34310E 1250V, 50A, 10KW

34315E 1250V, 75A, 15KW

34320E 1250V, 100A, 20KW



規 格

MODEL	34325E		34330E		34335E		34340E	
Power	25KW		30KW		35KW		40KW	
Current	0 ~ 12.5A		0 ~ 15A		0 ~ 17.5A		0 ~ 20A	
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			± (0.1% of Setting + 0.2% of 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					1250V			
Range					20mV			
Resolution					± 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			± 0.5% of (Setting + Range)					
Constant Voltage Mode + Constant Current Mode					1250V			
Range	1250V	125A	1250V	150A	1250V	170A	1250V	200A
Resolution	20mV	2mA	20mV	2.4mA	20mV	2.8mA	20mV	3.2mA
Accuracy			± 1% of (Setting + Range)					
Constant Voltage Mode + Constant Power Mode					1250V			
Range	1250V	25000W	1250V	30000W	1250V	35000W	1250V	40000W
Resolution	20mV	400mW	20mV	480mW	20mV	560mW	20mV	640mW
Accuracy			± 1.0% of (Setting + Range)					
MPPT Mode					P&O + Scanning			
Algorithm			CC, CR, CV (MPPT C, R, V)					
Load mode			10ms~2000ms ; resolution 1ms					
Sampling interval			10ms~2000ms ; resolution 1ms					
P&O interval			Discard old data and keep catching new data					
Memory situation								
Dynamic Mode								
Timing					0.050~9.999 / 99.99 / 999.9 / 9999ms			
Thigh & Tlow			0.001 / 0.01 / 0.1 / 1ms					
Resolution			1μs / 10μs / 100μs / 1ms + 50ppm					
Accuracy	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)					
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					±0.025% of (Reading + Range)			
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					±0.1% of (Reading + Range)			
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			±0.1% of (Reading + Range)					
Power Read Back					±0.125% of (Reading + Range)			
Range (5 Digital)	10000W	25000W	10000W	30000W	10000W	35000W	10000W	40000W
Resolution	0.1W	1W	0.1W	1W	0.1W	1W	0.1W	1W
Accuracy			±0.125% of (Reading + Range)					
General								
Short Circuit								
Current	125A		150A		175A		200A	
Load ON Voltage			0 ~ 250V					
Load OFF Voltage			0 ~ 250V					
Power Consumption			2350Wmax		3250Wmax		3700Wmax	
Operating Temperature²			0~40°C					
Dimension (HxWxD)	1041x647x766mm		1197x647x766mm		1353x647x766mm		1509x647x766mm	
HxWxD (Not included wheels)	937x647x766mm		1093x647x766mm		1249x647x766mm		1405x647x766mm	
Weight	280 kg		340 kg		390 kg		430 kg	
Safety & EMC			CE					

冷卻方式：智慧型風扇冷卻

輸入電源：
 Load-20KW內(含) : 100~230 Vac ±10%, 50/60Hz
 Load-25KW以上(含) : 200~230 Vac ±10%, 50/60Hz

註*1:CC Mode 可強制於 range II

註*2:操作溫度範圍為0~40°C，此規格表內之精確度僅適用於25°C±5°C

訂 購 方 式

選購介面：

選購配件：

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



34325E 1250V, 125A, 25KW

34330E 1250V, 150A, 30KW

34335E 1250V, 175A, 35KW

34340E 1250V, 200A, 40KW