

3330F 系列

雙直流電子負載



DUAL DC ELECTRONIC LOAD



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3330F 250W&50W

3332F 120W&120W

3336F 40W&40W

3337F 150W&150W



特 性

- 5位數之數位電壓、電流以及功率表
- 單一模組具有相互隔離兩組負載
- 大型LCD Display、可用飛梭旋鈕或按鍵調整設定值
- 可同時顯示2組電壓值、電流值、瓦特值
- 可執行OCP、OPP測試
- 須安裝於機框3302F〔單個插槽機框〕、3305F〔二個插槽機框〕或3300F〔四個插槽機框〕上，且機框上具有150組 儲存/呼叫 記憶。
- 可設定開機狀態值
- 定電流、定電阻、定電壓、定功率、動態及短路模式
- 於短路測試時可設定短路時間
- 過電壓、電流、功率及溫度保護
- 電壓極性顯示可設成正值（“+”）或負值（“-”）
- 具有同步並聯執行之功能（SYNC. Load on）
- 可選用介面：GPIB、RS232、USB、LAN

說 明

- 3330F系列 雙負載模組，一模組即具有兩組直流電子負載，每個3330F系列模組均有雙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3300F機框上的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。
- 於模組上新增的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。

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 | 3330F | | 3332F | | 3336F | | 3337F | |
|------------------------------------|--|-------------------------------|--------------------------------------|-------------------------------------|-------------------|------------------------------------|---------------------|--------------|
| Power | 250W | 50W | 120Wx2 | | 40Wx2 | | 150Wx2 | |
| Current | 0 ~ 60A | 0 ~ 6A | 0 ~ 24A | 0 ~ 24A | 0 ~ 3A | 0 ~ 3A | 0 ~ 30A | 0 ~ 30A |
| Voltage | 0 ~ 80V | 0 ~ 80V | 0 ~ 80V | 0 ~ 80V | 0 ~ 80V | 0 ~ 80V | 0 ~ 80V | 0 ~ 80V |
| Min.Operation Voltage | 0.8V @ 60A | 0.8V @ 6A | 0.8V @ 24A | 0.8V @ 24A | 0.3V @ 3A | 0.3V @ 3A | 1V @ 30A | 1V @ 30A |
| CC MODE | | | | | | | | |
| Range *1 | 0 ~ 6A / 60A | 0 ~ 0.6A / 6A | 0 ~ 2.4A / 24A | 0 ~ 2.4A / 24A | 0 ~ 0.3A / 3A | 0 ~ 0.3A / 3A | 0 ~ 3A / 30A | 0 ~ 3A / 30A |
| Resolution | 0.1 / 1mA | 0.01 / 0.1mA | 0.04 / 0.4mA | | 0.005mA / 0.05mA | | 0.05mA / 0.5mA | |
| Accuracy | 0.1% + 0.1% F.S. | | 0.1% + 0.1% F.S. | | 0.1% + 0.1% F.S. | | 0.1% + 0.1% F.S. | |
| CR MODE | | | | | | | | |
| Range | 0.01335~1.335~80.1KΩ | 0.1335~13.35~801KΩ | 0.0333~3.33~199.8KΩ | 0.0333~3.33~199.8KΩ | 0.267~26.7~1602KΩ | | 0.0443~2.66~159.6KΩ | |
| Resolution | 16bits | | | | | | | |
| Accuracy | 0.2% OF (Setting + Range) | | | | | | | |
| CV MODE | | | | | | | | |
| Range | 6V / 80V | | | | | | | |
| Resolution | 0.135mV / 1.35mV | | | | | | | |
| Accuracy | 0.05% + 0.05% F.S. | | | | | | | |
| CP MODE | | | | | | | | |
| Range | 25W / 250W | 5W / 50W | 12W / 120W | 4W / 40W | | 15W / 150W | | |
| Resolution | 0.417mW/4.17mW | 0.084mW/0.84mW | 0.2mW / 2mW | 0.067mW / 0.67mW | | 0.25mW / 2.5mW | | |
| Accuracy | 0.5% + 0.5% F.S. | | | | | | | |
| DYNAMIC MODE -CC | | | | | | | | |
| 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 | 4mA~250mA/μS 40mA~2500mA/μS | 0.4mA~25mA/μS 4mA~250mA/μS | 1.6mA ~ 100mA/μS 16mA ~ 1000mA/μS | 0.2mA ~ 12.5mA/μS 2mA ~ 125mA/μS | | 2mA ~ 125mA/μS 20mA ~ 1250mA/μS | | |
| Resolution | 8 bits | | | | | | | |
| Accuracy | (5% of setting) ± 10 μS | | | | | | | |
| Min. Rise Time | 24μS (typical) | | | | | | | |
| Current | | | | | | | | |
| Range | 6 / 60A | 0.6A / 6A | 2.4 / 24A | 0.3 / 3A | | 3 / 30A | | |
| Resolution | 0.1 / 1mA | 0.01 / 0.1mA | 0.04 / 0.4mA | 0.005mA / 0.05mA | | 0.05mA / 0.5mA | | |
| Accuracy | 0.1% + 0.1% F.S. | | | | | | | |
| MEASUREMENT | | | | | | | | |
| Voltage Read Back | | | | | | | | |
| Range (5 Digital) | 0 ~ 6V / 80V | | | | | | | |
| Resolution | 0.1mV / 1mV | | | | | | | |
| Accuracy | 0.025% + 0.025% F.S. | | | | | | | |
| Current Read Back | | | | | | | | |
| Range (5 Digital) | 0 ~ 6A / 60A | 0 ~ 0.6A / 6A | 0 ~ 2.4A / 24A | 0 ~ 0.3A / 3A | | 0 ~ 3A / 30A | | |
| Resolution | 0.1mA / 1mA | 0.01mA / 0.1mA | 0.04mA / 0.4mA | 0.005mA / 0.05mA | | 0.05mA / 0.5mA | | |
| Accuracy | 0.1% + 0.1% F.S. | | | | | | | |
| Power Read Back | | | | | | | | |
| Range (5 Digital) | 0 ~ 250W | 0 ~ 50W | 0 ~ 120W | 0 ~ 40W | | 0 ~ 150W | | |
| Accuracy | 0.125% + 0.125% F.S. | | | | | | | |
| PROTECTIONS | | | | | | | | |
| Over Power | 105% of Rated Power | | | | | | | |
| Over Current | 105% of Rated Current | | | | | | | |
| Over Voltage | 105% of Rated Voltage | | | | | | | |
| Over Temp. | Yes | | | | | | | |
| OTHERS | | | | | | | | |
| Load On Voltage | | | | | | | | |
| Range | 0.1 ~ 25.0V | | | | | | | |
| Resolution | 0.1V | | | | | | | |
| Accuracy | 1% of Setting + 0.25V | | | | | | | |
| Load Off Voltage | | | | | | | | |
| Range | 0 ~ 25V | | | | | | | |
| Resolution | 1.35mV | | | | | | | |
| Accuracy | 0.025% + 0.025% F.S. | | | | | | | |
| GENERAL | | | | | | | | |
| Short Circuit | | | | | | | | |
| Current | 60A | 6A | 24A | 3A | | 30A | | |
| Temperature Coefficient | 100ppm / °C (typical) | | | | | | | |
| Power | Supply from Mainframe | | | | | | | |
| Operating Temperature ² | 0 ~ 40 °C | | | | | | | |
| Dimension (HxWxD) | 143 x 108 x 405 mm | | | | | | | |
| Weight | 3.5 kg | | | | | | | |
| Safety & Emc | CE | | | | | | | |

輸入電源：115/230 Vac ±10%，50/60Hz

冷卻方式：智慧型風扇冷卻

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

雙直流電子負載模組：

- 3330F 250W, 60A, 80V & 50W, 6A, 80V
- 3332F 120W, 24A, 80V & 120W, 24A, 80V
- 3336F 40W, 3A, 80V & 40W, 3A, 80V
- 3337F 150W, 30A, 80V & 150W, 30A, 80V



3.5kg
W=108mm
H=143mm
D=405mm

電子負載機框：

選購介面：① GPIB Card ② RS232 Card ③ USB Card ④ LAN Card

3302F (單個插槽機框)



5.5kg
W=160mm
H=177mm
D=452mm

3305F (二個插槽機框)



7.5kg
W=269mm
H=177mm
D=452mm

3300F (四個插槽機框)



9.3kg
W=440mm
H=177mm
D=445mm