PEL-5000G 系列

高功率密度直流電子負載

特　點

- 4 U/6 kW 高功率密度設計, 便於桌上測試
- Turbo Mode 功能，可在兩秒內使用1.5倍的額定功率或額定電流
- Turbo Mode 可搭配 OCP/OPP/BMS/Short Mode/Surge Mode/ Hot Plug-In 等測試使用
- 環境溫度耐受度高，4 kW/5 kW 機型使用功率不受環境溫度影響
- 可設定開機狀態值
- 於短路測試時可設定短路時間
- 電壓極性顯示可設成正值(”+”)或負值(”－”)
- 可選用介面 : GPIB、RS232、USB、LAN
- 提供電池 BMS 保護板之保護功能測試
- 過電流、功率、溫度保護及過電壓示警

GW INSTEK
Simply Reliable

高功率密度直流電子負載

	NORMAL MODE	TURBO MODE
PEL-5004G-150-400	150 V / 400 A / 4000 W	150 V / 600 A / 6000 W
PEL-5005G-150-500	150 V / 500 A / 5000 W	150 V / 750 A / 7500 W
PEL-5006G-150-600	150 V / 600 A / 6000 W	150 V / 900 A / 9000 W
PEL-5004G-600-280	600 V / 280 A / 4000 W	600 V / 420 A / 6000 W
PEL-5005G-600-350	600 V / 350 A / 5000 W	600 V / 525 A / 7500 W
PEL-5006G-600-420	600 V / 420 A / 6000 W	600 V / 630 A / 9000 W
PEL-5004G-1200-160	1200 V / 160 A / 4000 W	1200 V / 240 A / 6000 W
PEL-5005G-1200-200	1200 V / 200 A / 5000 W	1200 V / 300 A / 7500 W
PEL-5006G-1200-240	1200 V / 240 A / 6000 W	1200 V / 360 A / 9000 W

PEL-5000G 系列

CE RS-232 GPIB USB LAN UKCA

說　明

- 每個PEL-5000G系列模組均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，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，另具有一外部輸入任意波形之動態負載功能
- 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)電壓點及合格/不合格(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
- 針對電池BMS保護板提供Short、OCCP及OCDP之保護功能測試

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
- 電池放電容量
- 鋰電池BMS充放電保護
- 研發、品管
- ATE系統
- 生產測試

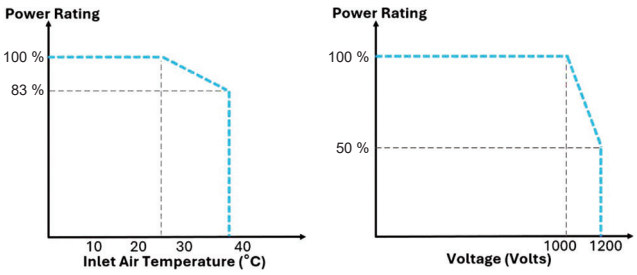
高功率密度直流電子負載

了解電子負載規格的眉角

電子負載就像飛行模擬器，飛行模擬器提供各種飛行的情境來訓練飛行員，可透過航線的選擇來模擬正常起飛、降落與異常的應變；同理電子負載的主要功能是模擬電源會遇到的各種負載情境來確認電源的設計目標與應變能力，透過電流輪廓(Current Profile)的設定可形成我們在規格書中的定電流(C.C)、定電壓(C.V)、定電阻(C.R)等基本操作模式並吸收電源輸出功率。電子負載的應用廣泛：除了用來測試電源供應器、電池充電器、電池、太陽能電池板等電源裝置外；亦可測試由電流制動以及承載電流的零組件，例如：各類電流保護電驛、開關、繼電器、保險絲、電纜線..等；電源的細節測試項目則包含電源負載調整率、不同負載下的效率及溫升等，所以有電源的地方就需要負載來進行測試。

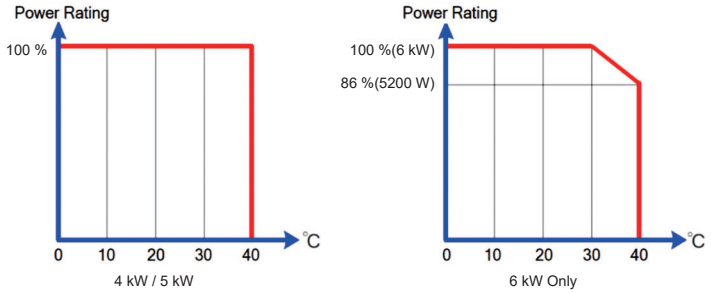
電子負載的規格書通常是展現最佳狀態，最佳狀態是基於特定的優良工作條件暖機 30 分鐘到 60 分鐘；電量實驗室溫度要求 (23.0 ± 2.0) °C，而電子負載的規格會受到工作電壓，工作溫度等因素影響而有降額定(De-Rating)的現象。

以下是 C 牌 632XA 系列規格書上的降額定曲線，圖一左圖為超過 25 °C 的電量實驗室環境後，當工作溫度是 40 °C 時，功率的額定能力下降 17 % (僅剩 83 %)，當工作電壓是 1200 V 時功率的額定能力下降 50 %。



C 牌型錄上的曲線，左為溫度降額定曲線；右為電壓降額定曲線

圖二為固緯電子 PEL-5000G 系列，150 V/600 V 機型的降額定曲線，4 kW/5 kW 機型在 40 °C 時依然可提供足功率，6 kW 機型在 40 °C 時功率的額定能力下降 14 %(剩 86 %，較同業高出 3 %)， 圖三為 PEL-5000G 1200 V 機型的降額定曲線，額定能力下降 40 %(剩 60 %，較同業高出 10 %)， 從這個降額定的規格來看，如果您是 1200 V 的應用從 C 牌的規格來看，功率僅剩固緯產品的 90 %，所以價格應該便宜固緯多少，您心中便可有定量的基準了。

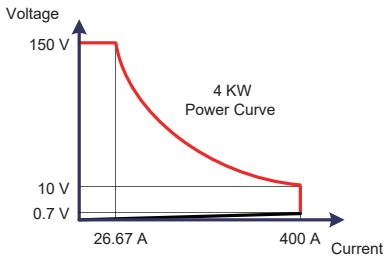


PEL-5000G 150 V/600 V 機型的降額定曲線

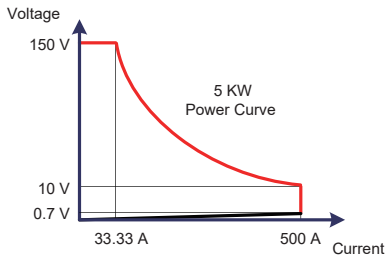
您可能會好奇，為什麼固緯的產品在 4 kW/5 kW 可以做到足功率？原因是電子負載的散熱片通常每 1 kW 便有一組，4 kW/5 kW 機種一般廠家僅用 4 或 5 組散熱片，但是固緯在 4 kW/5 kW 依然使用6 kW 的散熱設計，使用 6 組散熱片，所以在 4 kW/5 kW 的散熱能力較佳，所以可以維持足功率，另外則是單組散熱設計亦優於 C 牌，所以 6 kW 的降額定依然優於同業。

PEL-5000G 1200V 機型的降額定曲線

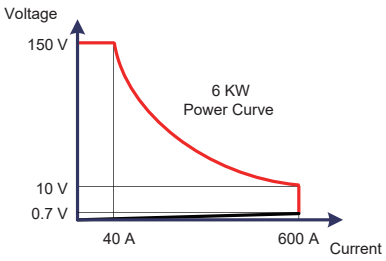
高功率密度直流電子負載



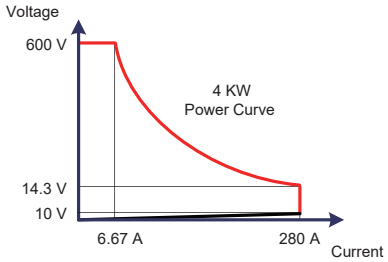
PEL-5004G-150-400



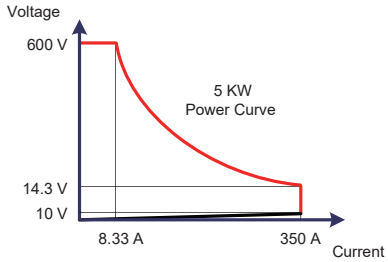
PEL-5005G-150-500



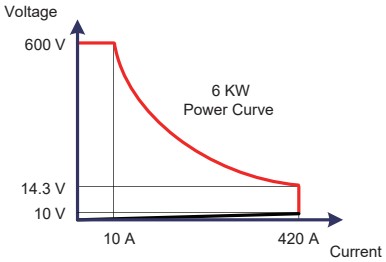
PEL-5006G-150-600



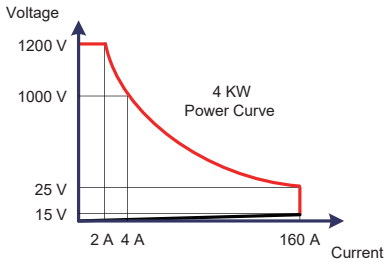
PEL-5004G-600-280



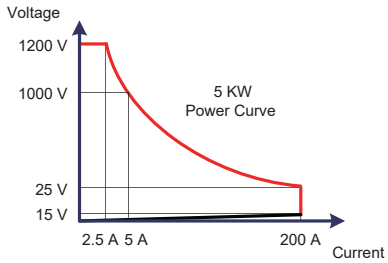
PEL-5005G-600-350



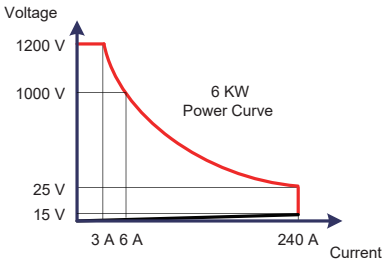
PEL-5006G-600-420



PEL-5004G-1200-160



PEL-5005G-1200-200



PEL-5006G-1200-240

如何用較低的成本滿足瞬間的暫態拉載需求？

在測試電源供應器的動態負載規格或測試保險絲、斷路器等應用常常會有短時間、大電流的應用需求，當然您可以購買更高功率的電子負載來因應，但是這個方法卻需要額外的預算，且多花的預算在一般的應用時又派不上用場，固緯電子 PEL-5000G 1.5 倍 Turbo mode 倍增模式可讓您用正常的預算來滿足這類的測試需求，400 A 機型可提升至 600 A；500 A 機型可提升至 750 A；600 A 機型可提升至 900 A。為什麼固緯的電子負載能有 Turbo mode 的功能？原因就在我們比同業多用了 20 % 的 MOSFET 來提供這個 1.5 倍(瞬時 2 秒)的能力。

結論：要了解規格才能發揮最大的投資效用

在測試電源供應器的動態負載規格或測試保險絲、斷路器等應用常常會有短時間、大電流的應用需求，當然您可以購買更高功率的電子負載來因應，但是這個方法卻需要額外的預算，且多花的預算在一般的應用時又派不上用場，固緯電子 PEL-5000G 1.5 倍 Turbo mode 倍增模式可讓您用正常的預算來滿足這類的測試需求，400 A 機型可提升至 600 A；500 A 機型可提升至 750 A；600 A 機型可提升至 900 A。為什麼固緯的電子負載能有 Turbo mode 的功能？原因就在我們比同業多用了 20 % 的 MOSFET 來提供這個 1.5 倍(瞬時 2 秒)的能力。

固緯電子倍增模式(Turbo Mode)圖示

高功率密度直流電子負載

規　　格

	PEL-5004G-150-400		PEL-5005G-150-500		PEL-5006G-150-600	
Power[*1]	0 W to 4 kW	0 W to 6 kW max.[*1]	0 W to 5 kW	0 W to 7.5 kW max.[*1]	0 W to 6 kW	0 W to 9 kW max.[*1]
Current	0 A to 400 A	0 A to 600 A max.[*1]	0 A to 500 A	0 A to 750 A max.[*1]	0 A to 600 A	0 A to 900 A max.[*1]
Voltage	0 V to 150 V		0 V to 150 V		0 V to 150 V	
Min. Operating Voltage	0.7 V@400 A		0.7 V@500 A		0.7 V@600 A	
Protections						
Over Power	105%					
Over Current	104%					
Over Voltage	105%					
Over Temp Protection(OTP)	90 °C ± 5 °C					
Constant Current Mode						
Range[*2]	0 A to 40 A	0 A to 400 A	0 A to 50 A	0 A to 500 A	0 A to 60 A	0 A to 600 A
Resolution	0.64 mA	6.4 mA	0.80 mA	8.0 mA	0.96 mA	9.6 mA
Accuracy[*3]	± 0.05% of (Setting + Range)					
Constant Resistance Mode						
Range	22.5 kΩ to 0.375 Ω	0.375 Ω to 0.0018 Ω	18 kΩ to 0.3 Ω	0.3 Ω to 0.0015 Ω	15 kΩ to 0.25 Ω	0.25 Ω to 0.0012 Ω
Resolution	44 µS	6.25 µΩ	56 µS	5 µΩ	67 µS	4.167 µΩ
Accuracy	± (0.1 %(Vin / Setting) + 0.1 % IF.S.)	± (0.2 %(Vin / Setting) + 0.5 % IF.S.)[*9]	± (0.1 %(Vin / Setting) + 0.1 % IF.S.)	± (0.2 %(Vin / Setting) + 0.5 % IF.S.)[*9]	± (0.1 %(Vin / Setting) + 0.1 % IF.S.)	± (0.2 %(Vin / Setting) + 0.5 % IF.S.)[*9]
Constant Voltage Mode						
Range	0 to 150 V					
Resolution	2.5 mV					
Accuracy	± 0.05 % of (Setting + Range)					
Constant Power Mode						
Range	0 W to 400 W	400 to 4 kW	0 W to 500 W	500 W to 5 kW	0 W to 600 W	600 W to 6 kW
Resolution	6.4 mW	64 mW	8 mW	80 mW	9.6 mW	96 mW
Accuracy[*4]	± 0.2 % of (Setting + Range)					
Constant Voltage Mode + Current Limit Mode						
Range	150 V	400 A	150 V	500 A	150 V	600 A
Resolution	2.5 mV	6.4 mA	2.5 mV	8 mA	2.5 mV	9.6 mA
Accuracy[*4]	± 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 Mode + Power Limit Mode						
Range	150 V	4 kW	150 V	5 kW	150 V	6 kW
Resolution	2.5 mV	64 mW	2.5 mV	80 mW	2.5 mV	96 mW
Accuracy[*4]	± 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)
Turbo Mode[*5]	OFF	ON	OFF	ON	OFF	ON
Short / OCP / OPP Test Function						
Max. Current	400 A	600 A	500 A	750 A	600 A	900 A
Max. Power	4000 W	6000 W	5000 W	7500 W	6000 W	9000 W
Test Accuracy[*6]	± 1.0 % of (Reading + Range)					
Short Time	100 ms to 10000 ms Continuous	100 ms to 2000 ms	100 ms to 10000 ms Continuous	100 ms to 2000 ms	100 ms to 10000 ms Continuous	100 ms to 2000 ms
Setting. Accuracy	±5 ms					
Short V Hi	Setting range : 0.00 V to 150.00 V / Resolution : 0.0025 V					
Short V Lo	Setting range : 0.00 V to 150.00 V / Resolution : 0.0025 V					
OCP Time(Tstep)	100 ms	20 ms	100 ms	20 ms	100 ms	20 ms
Setting. Accuracy	±5 ms					
OCP ISTAR / ISTEP / ISTOP	Setting range : 0.00 A to 400.00 A / Resolution : 6.4 mA	Setting range : 0.00 A to 600.00 A / Resolution : 9.6 mA	Setting range : 0.00 A to 500.00 A / Resolution : 8.0 mA	Setting range : 0.00 A to 750.00 A / Resolution : 12 mA	Setting range : 0.00 A to 600.00 A / Resolution : 9.60 mA	Setting range : 0.00 A to 900.00 A / Resolution : 14.4 mA
OCP VTH	Setting range : 0.00 V to 150.00 V / Resolution : 0.0025 V					
OPP Time(Tstep)	100 ms	20 ms	100 ms	20 ms	100 ms	20 ms
Setting. Accuracy	±5 ms					
OPP PSTAR / PSTEP / PSTOP	Setting range : 0.00 W to 4000.0 W / Resolution : 64.0 mW	Setting range : 0.00 W to 6000.0 W / Resolution : 96.0 mW	Setting range : 0.00 W to 5000.0 W / Resolution : 80.0 mW	Setting range : 0.00 W to 7500.0 W / Resolution : 120 mW	Setting range : 0.00 W to 6000.0 W / Resolution : 96 mW	Setting range : 0.00 W to 9000.0 W / Resolution : 144 mW
OPP VTH	Setting range : 0.00 V to 150.00 V / Resolution : 0.0025 V					
BMS Test Mode *7						
Max. Current	400 A	600 A	500 A	750 A	600 A	900 A
Meas. Accuracy[*6]	±3.0 % of (Reading + Range)					
Short test Time	0.05 ms to 10 ms / Resolution : 0.01 ms					
Meas. Accuracy	±0.02 ms					
Setting Accuracy	±0.05 ms					
Short ITH	Setting range : 0.19 A to 200.00 A / Resolution : 6.4 mA	Setting range : 0.28 A to 300.00 A / Resolution : 9.6 mA	Setting range : 0.24 A to 250.00 A / Resolution : 8.0 mA	Setting range : 0.36 A to 375.00 A / Resolution : 12 mA	Setting range : 0.28 A to 300.00 A / Resolution : 9.6 mA	Setting range : 0.43 A to 450.00 A / Resolution : 14.4 mA
OCP ISTAR	Setting range : 0.64 A to 400.00 A / Resolution : 6.4 mA	Setting range : 0.96 A to 600.00 A / Resolution : 9.6 mA	Setting range : 0.80 A to 500.00 A / Resolution : 8.0 mA	Setting range : 1.20 A to 750.00 A / Resolution : 12 mA	Setting range : 0.96 A to 600.00 A / Resolution : 9.6 mA	Setting range : 1.44 A to 900.00 A / Resolution : 14.4 mA

高功率密度直流電子負載

規　格

	PEL-5004G-150-400		PEL-5005G-150-500		PEL-5006G-150-600	
OCP TSTEP	0.05 ms to 10 ms 11 ms to 1000 ms	0.05 ms to 10 ms	0.05 ms to 10 ms 11 ms to 1000 ms	0.05 ms to 10 ms	0.05 ms to 10 ms 11 ms to 1000 ms	0.05 ms to 10 ms
Meas. Accuracy	± 0.1 ms / ± 0.5 ms	± 0.5 ms	± 0.1 ms / ± 0.5 ms	± 0.5 ms	± 0.1 ms / ± 0.5 ms	± 0.5 ms
OCP ISTEP	Setting range : 0.00 A to 400.00 A / Resolution : 6.4 mA	Setting range : 6.00 A to 600.00 A / Resolution : 9.6 mA	Setting range : 0.00 A to 500.00 A / Resolution : 8.0 mA	Setting range : 7.50 A to 750.00 A / Resolution : 12 mA	Setting range : 0.00 A to 600.00 A / Resolution : 9.6 mA	Setting range : 9.00 A to 900.00 A / Resolution : 14.4 mA
OCP ISTOP	Setting range : 0.64 A to 400.00 A / Resolution : 6.4 mA	Setting range : 0.96 A to 600.00 A / Resolution : 9.6 mA	Setting range : 0.80 A to 500.00 A / Resolution : 8.0 mA	Setting range : 1.20 A to 750.00 A / Resolution : 12 mA	Setting range : 0.96 A to 600.00 A / Resolution : 9.6 mA	Setting range : 1.44 A to 900.00 A / Resolution : 14.4 mA
OCP ITH	Setting range : 0.19 A to 200.00 A / Resolution : 6.4 mA	Setting range : 0.29 A to 300.00 A / Resolution : 9.6 mA	Setting range : 0.24 A to 250.00 A / Resolution : 8.0 mA	Setting range : 0.37 A to 375.00 A / Resolution : 12 mA	Setting range : 0.29 A to 300.00 A / Resolution : 9.6 mA	Setting range : 0.44 A to 450.00 A / Resolution : 14.4 mA
Surge Test Mode						
Surge Current	0 A to 600 A		0 A to 750 A		0 A to 900 A	
Normal Current	0 A to 300 A		0 A to 375 A		0 A to 450 A	
Surge Time	10 ms to 2000 ms		10 ms to 2000 ms		10 ms to 2000 ms	
Surge Step	1 to 5		1 to 5		1 to 5	
Batt test Mode						
Mode CC	Setting range : 0.00 A to 400.00 A / Resolution : 6.4 mA		Setting range : 0.00 A to 500.00 A / Resolution : 8.0 mA		Setting range : 0.00 A to 600.00 A / Resolution : 9.6 mA	
Mode CP	Setting range : 0.00 W to 4000.0 W / Resolution : 64.0 mW		Setting range : 0.00 W to 5000.0 W / Resolution : 80.0 mW		Setting range : 0.00 W to 6000.0 W / Resolution : 96 mW	
STOP Voltage (UVP)	Setting range : 0.00 V to 150.00 V / Resolution : 0.0025 V					
STOP TIME	Setting range : OFF , 1 sec. to 99999 sec. / Resolution : 1 sec.					
STOP CAP. AH	Setting range : OFF, 0.1 AH to 19999 AH / Resolution : 0.1 AH					
STOP CAP. WH	Setting range : OFF, 0.1 WH to 19999 WH / Resolution : 0.1 WH					
SEQ Load Mode (remote only)						
Load Mode	CC / CP					
Setting STEP	2 to 16					
Timing	20 µs to 1000 µs / 2 ms to 65535 ms / 66 sec to 999 sec.					
Resolution	10 µs / 1 ms / 1 sec.					
Dynamic Mode						
Timing Thigh & Tlow	0.010 ms to 9.999 ms/ 99.99 ms / 999.9 ms/ 9999 ms					
Resolution	0.001 ms / 0.01 ms/ 0.1 ms/ 1 ms					
Accuracy	1 µs / 10 µs / 100 µs / 1 ms + 50 ppm					
Slew Rate	0.0256 A/µs to 1.600 A/µs	0.2560 A/µs to 16.000 A/µs	0.0320 A/µs to 2.000 A/µs	0.3200 A/µs to 20.000 A/µs	0.0384 A/µs to 2.400 A/µs	0.3840 A/µs to 24.000 A/µs
Resolution	0.0064 A/µs	0.064 A/µs	0.008 A/µs	0.08 A/µs	0.0096 A/µs	0.096 A/µs
Min. Rise Time	25 µs(typical)					
Accuracy	±(5 % of Setting)±10 µs					
Current Range	0 A to 40 A	40 A to 400 A	0 A to 50 A	50 A to 500 A	0 A to 60 A	60 A to 600 A
Resolution	0.64 mA	6.4 mA	0.8 mA	8 mA	0.96 mA	9.6 mA
Conf Key Parameter						
LDon Voltage	Setting range : 0.25 V to 62.50 V / Resolution : 0.25 V					
LDoFF Voltage	Setting range : 0.000 V to 62.250 V / Resolution : 0.0025 V					
Average Times	0 to 64					
CV Res. Speed	1 to 4 (Fastest)					
Measurement						
Voltage Read Back	0 V to 15 V	15 V to 150 V	0 V to 15 V	15 V to 150 V	0 V to 15 V	15 V to 150 V
Resolution	0.25 mV	2.5 mV	0.25 mV	2.5 mV	0.25 mV	2.5 mV
Accuracy	± 0.025 % of (Reading + Range)					
Current Read Back	0 A to 40 A	40 A to 400 A	0 A to 50 A	50 A to 500 A	0 A to 60 A	60 A to 600 A
Resolution	0.64 mA	6.4 mA	0.8 mA	8 mA	0.96 mA	9.6 mA
Accuracy	± 0.05 % of (Reading + Range)					
Power Read Back	4 kW		5 kW		6 kW	
Resolution	0.01 W					
Accuracy[*4]	± 0.06 % of (Reading + Range)					
General						
Typical Short Resistance	1.8 mΩ		1.5 mΩ		1.2 mΩ	
Maximum Short Current	400 A		500 A		600 A	
Load ON Voltage	0.25 V to 62.5 V					
Load OFF Voltage	0 V to 62.25 V					
Input Range & Power Onsumption	100 Vac to 240 Vac,47 Hz to 63 Hz ; 550 VA(max.)					
Dimension(H x W x D)	177 mm x 440 mm x 745 mm					
Weight	32 kg ±0.5 kg		32.5 kg ± 0.5 kg		32.5 kg ± 0.5 kg	
Temperature[*8]	0 °C to 40 °C					
Safety & EMC	CE					

Note [*1] : The power rating specifications at ambient temperature = 25 °C
Note [*2] : The range is automatically or forcing to range II only in CC mode
Note [*3] : If the operating current is below range 0.1 %, the accuracy specification is 0.1 % F.S.
Note [*4] : Power range = Vrange x Irange
Note [*5] : Turbo mode for up to 1.5X Current rating & Power rating support Surge, Bms, Short/OCP/OPP test function
Note [*6] : The best accuracy of OCP/OPP test is Istep/Pstep = 1 % FS
Note [*7] : Bms Test function for Battery Management System Board SHORT, OCCP and OCDP Test
Note [*8] : Operating temperature range is 0 °C to 40 °C, All specifications apply for 25 °C ± 5 °C, Except as noted
Note [*9] : The specification is valid only for input voltage >1.5 V and resistance setting > 0.0037 Ω(PEL-5004G-150-400), 0.003 Ω(PEL-5005G-150-500), 0.0025 Ω(PEL-5006G-150-600)

高功率密度直流電子負載

規　格

	PEL-5004G-600-280		PEL-5005G-600-350		PEL-5006G-600-420	
Power[*1]	0 W to 4 kW	0 W to 6 kW max.[*1]	0 W to 5 kW	0 W to 7.5 kW max.[*1]	0 W to 6 kW	0 W to 9 kW max.[*1]
Current	0 A to 280 A	0 A to 420 A max.[*1]	0 A to 350 A	0 A to 525 A max.[*1]	0 A to 420 A	0 A to 630 A max.[*1]
Voltage	0 V to 600 V		0 V to 600 V		0 V to 600 V	
Min. Operating Voltage	10 V@280 A		10 V@350 A		10 V@420 A	
Protections						
Over Power	105%					
Over Current	104%					
Over Voltage	105%					
Over Temp Protection(OTP)	90 °C ± 5 °C					
Constant Current Mode						
Range[*2]	0 A to 28 A	0 A to 280 A	0 A to 35 A	0 A to 350 A	0 A to 42 A	0 A to 420 A
Resolution	0.448 mA	4.48mA	0.56 mA	5.6 mA	0.672 mA	6.72 mA
Accuracy[*3]	± 0.05 % of (Setting + Range)					
Constant Resistance Mode						
Range	128610 Ω to 2.1435 Ω	2.1435 Ω to 0.0357 Ω	102888 Ω to 1.7148 Ω	1.7148 Ω to 0.0285 Ω	85740 Ω to 1.4290 Ω	1.4290 Ω to 0.0238 Ω
Resolution	8 µS	35.73 µΩ	10 µS	28.584 µΩ	12 µS	23.82 µΩ
Accuracy	± (0.1 %(Vin / Setting) + 0.1 % IF.S.)	± (0.2 %(Vin / Setting) + 0.5 % IF.S.)	± (0.1 %(Vin / Setting) + 0.1 % IF.S.)	± (0.2 %(Vin / Setting) + 0.5 % IF.S.)	± (0.1 %(Vin / Setting) + 0.1 % IF.S.)	± (0.2 %(Vin / Setting) + 0.5 % IF.S.)
Constant Voltage Mode						
Range	0 V to 600 V					
Resolution	10 mV					
Accuracy	± 0.05 % of (Setting + Range)					
Constant Power Mode						
Range	0 W to 400 W	400 W to 4 kW	0 W to 500 W	500 W to 5 kW	0 W to 600 W	600 W to 6 kW
Resolution	6.4 mW	64 mW	8 mW	80 mW	9.6 mW	96 mW
Accuracy[*4]	± 0.1 % of (Setting + Range)					
Constant Voltage Mode + Current Limit Mode						
Range	600 V	280 A	600 V	350 A	600 V	420 A
Resolution	10 mV	4.48 mA	10 mV	5.6 mA	10 mV	6.72 mA
Accuracy[*4]	± 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 Mode + Power Limit Mode						
Range	600 V	4 kW	600 V	5 kW	600 V	6 kW
Resolution	10 mV	64 mW	10 mV	80 mW	10 mV	96 mW
Accuracy[*4]	± 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)
Turbo Mode[*5]	OFF	ON	OFF	ON	OFF	ON
Short / OCP / OPP Test Function						
Max. Current	280 A	420 A	350 A	525 A	420 A	630 A
Max. Power	4000 W	6000 W	5000 W	7500 W	6000 W	9000 W
Test Accuracy[*6]	± 1.0 % of (Reading + Range)					
Short Time	100 ms to 10000 ms Continuous	100 ms to 2000 ms	100 ms to 10000 ms Continuous	100 ms to 2000 ms	100 ms to 10000 ms Continuous	100 ms to 2000 ms
Setting. Accuracy	± 5 ms					
Short V Hi	Setting range : 0.00 V to 600.00 V / Resolution : 0.01 V					
Short V Lo	Setting range : 0.00 V to 600.00 V / Resolution : 0.01 V					
OCP Time(Tstep)	100 ms	20 ms	100 ms	20 ms	100 ms	20 ms
Setting. Accuracy	± 5 ms					
OCP ISTAR / ISTEP / ISTOP	Setting range : 0.00 A to 280.00 A / Resolution : 4.48 mA	Setting range : 0.00 A to 420.00 A / Resolution : 6.72 mA	Setting range : 0.00 A to 350.00 A / Resolution : 5.6 mA	Setting range : 0.00 A to 525.00 A / Resolution : 8.4 mA	Setting range : 0.00 A to 420.00 A / Resolution : 6.72 mA	Setting range : 0.00 A to 630.00 A / Resolution : 10.08 mA
OCP VTH	Setting range : 0.00 V to 600.00 V / Resolution : 0.01 V					
OPP Time(Tstep)	100 ms	20 ms	100 ms	20 ms	100 ms	20 ms
Setting. Accuracy	±5 ms					
OPP PSTAR / PSTEP / PSTOP	Setting range : 0.00 W to 4000.0 W / Resolution : 64.0 mW	Setting range : 0.00 W to 6000.0 W / Resolution : 96.0 mW	Setting range : 0.00 W to 5000.0 W / Resolution : 80.0 mW	Setting range : 0.00 W to 7500.0 W / Resolution : 120 mW	Setting range : 0.00 W to 6000.0 W / Resolution : 96 mW	Setting range : 0.00 W to 9000.0 W / Resolution : 144 mW
OPP VTH	Setting range : 0.00 V to 600.00 V / Resolution : 0.01 V					
BMS Test Mode *7						
Max. Current	280 A	420 A	350 A	525 A	420 A	630 A
Meas. Accuracy[*6]	± 3.0 % of (Reading + Range)					
Short test Time	0.05 ms to 10 ms / Resolution : 0.01 ms					
Meas. Accuracy	± 0.02 ms					
Setting Accuracy	± 0.05 ms					
Short ITH	Setting range : 0.13 A to 140.00 A / Resolution : 4.48 mA	Setting range : 0.20 A to 210.00 A / Resolution : 6.72 mA	Setting range : 0.16 A to 175.00 A / Resolution : 5.6 mA	Setting range : 0.25 A to 262.50 A / Resolution : 8.4 mA	Setting range : 0.20 A to 210.00 A / Resolution : 6.72 mA	Setting range : 0.30 A to 315.0 A / Resolution : 10.08 mA
OCP ISTAR	Setting range : 0.44 A to 280.00 A / Resolution : 4.48 mA	Setting range : 0.67 A to 420.00 A / Resolution : 6.72 mA	Setting range : 0.56 A to 350.00 A / Resolution : 5.6 mA	Setting range : 0.84 A to 525.00 A / Resolution : 8.4 mA	Setting range : 0.67 A to 420.00 A / Resolution : 6.72 mA	Setting range : 1.00 A to 630.00 A / Resolution : 10.08 mA
OCP TSTEP	0.05 ms to 10 ms 11 ms to 1000 ms	0.05 ms to 10 ms	0.05 ms to 10 ms 11 ms to 1000 ms	0.05 ms to 10 ms	0.05 ms to 10 ms 11 ms to 1000 ms	0.05ms to 10 ms

高功率密度直流電子負載

規　　格

	PEL-5004G-600-280		PEL-5005G-600-350		PEL-5006G-600-420	
Meas. Accuracy	±0.1 ms / ± 0.5 ms	± 0.5 ms	±0.1 ms / ± 0.5 ms	± 0.5 ms	±0.1 ms / ± 0.5 ms	± 0.5 ms
OCP ISTEP	Setting range : 0.00 A to 280.00 A / Resolution : 4.48 mA	Setting range : 4.20 A to 420.00 A / Resolution : 6.72 mA	Setting range : 0.00 A to 350.00 A / Resolution : 5.6 mA	Setting range : 5.25 A to 525.00 A / Resolution : 8.4 mA	Setting range : 0.00 A to 420.00 A / Resolution : 6.72 mA	Setting range : 6.30 A to 630.00 A / Resolution : 10.08 mA
OCP ISTOP	Setting range : 0.44 A to 280.00 A / Resolution : 4.48 mA	Setting range : 0.67 A to 420.00 A / Resolution : 6.72 mA	Setting range : 0.56 A to 350.00 A / Resolution : 5.6 mA	Setting range : 0.84 A to 525.00 A / Resolution : 8.4 mA	Setting range : 0.67 A to 420.00 A / Resolution : 6.72 mA	Setting range : 1.00 A to 630.00 A / Resolution : 10.08 mA
OCP ITH	Setting range : 0.13 A to 140.00 A / Resolution : 4.48 mA	Setting range : 0.20 A to 210.00 A / Resolution : 6.72 mA	Setting range : 0.17 A to 175.00 A / Resolution : 5.6 mA	Setting range : 0.26 A to 262.50 A / Resolution : 8.4 mA	Setting range : 0.20 A to 210.00 A / Resolution : 6.72 mA	Setting range : 0.30 A to 315.00 A / Resolution : 10.08 mA
Surge Test Mode						
Surge Current	0 A to 420 A		0 A to 525 A		0 A to 630 A	
Normal Current	0 A to 210 A		0 A to 262.5 A		0 A to 315 A	
Surge Time	10 ms to 2000 ms		10 ms to 2000 ms		10 ms to 2000 ms	
Surge Step	1 to 5		1 to 5		1 to 5	
Batt test Mode						
Mode CC	Setting range : 0.00 A to 280.00 A / Resolution : 4.48 mA		Setting range : 0.00 A to 350.00 A / Resolution : 5.6 mA		Setting range : 0.00 A to 420.00 A / Resolution : 6.72 mA	
Mode CP	Setting range : 0.00 W to 4000.0 W / Resolution : 64.0 mW		Setting range : 0.00 W to 5000.0 W / Resolution : 80.0 mW		Setting range : 0.00 W to 6000.0 W / Resolution : 96 mW	
STOP Voltage (UVP)	Setting range : 0.00 V to 600.00 V / Resolution : 0.01 V					
STOP TIME	Setting range : OFF, 1 sec. to 99999 sec. / Resolution : 1 sec.					
STOP CAP. AH	Setting range : OFF, 0.1 AH to 19999 AH / Resolution : 0.1 AH					
STOP CAP. WH	Setting range : OFF, 0.1 WH to 19999 WH / Resolution : 0.1 WH					
SEQ Load Mode (remote only)						
Load Mode	CC / CP					
Setting STEP	2 to 16					
Timing	20 µs to 1000 µs / 2 ms to 65535 ms / 66 sec. to 999 sec.					
Resolution	10 µs / 1 ms / 1 sec.					
Dynamic Mode						
Timing Thigh & Tlow	0.010 ms to 9.999 ms / 99.99 ms / 999.9 ms / 9999 ms					
Resolution	0.001 ms / 0.01 ms / 0.1 ms / 1 ms					
Accuracy	1 µs / 10 µs / 100 µs / 1 ms + 50 ppm					
Slew Rate	0.01792 A/µs to 1.120 A/µs	0.1792 A/µs to 11.200 A/µs	0.0224 A/µs to 1.400 A/µs	0.2240 A/µs to 14.00 A/µs	0.02688 A/µs to 1.680 A/µs	0.2688 A/µs to 16.800 A/µs
Resolution	0.00448 A/µs	0.0448 A/µs	0.0056 A/µs	0.056 A/µs	0.00672 A/µs	0.0672 A/µs
Min. Rise Time	25 µs(typical)					
Accuracy	±(5 % of Setting)±10 µs					
Current Range	0 A to 28 A	28 A to 280 A	0 A to 35 A	35 A to 350 A	0 A to 42 A	42 A to 420 A
Resolution	0.45 mA	4.48 mA	0.56 mA	5.6 mA	0.67 mA	6.72 mA
Conf Key Parameter						
LDon Voltage	Setting range : 0.4 V to 100.0 V / Resolution : 0.4 V					
LDoFF Voltage	Setting range : 0.000 V to 99.60 V / Resolution : 0. 01 V					
Average Times	0 to 64					
CV Res. Speed	1 to 4 (Fastest)					
Measurement						
Voltage Read Back Range (5 Digital)	0 V to 60 V	60 V to 600 V	0 V to 60 V	60 V to 600 V	0 V to 60 V	60 V to 600 V
Resolution	1.00 mV	10.0 mV	1.00 mV	10.0 mV	1.00 mV	10.0 mV
Accuracy	± 0.025 % of (Reading + Range)					
Current Read Back Range (5 Digital)	0 A to 28 A	28 A to 280 A	0 A to 35 A	35 A to 350 A	0 A to 42 A	42 A to 420 A
Resolution	0.448 mA	4.48 mA	0.56 mA	5.6 mA	0.672 mA	6.72 mA
Accuracy	± 0.05 % of (Reading + Range)					
Power Read Back Range (5 Digital)	4 kW		5 kW		6 kW	
Resolution	0.01 W					
Accuracy *4	± 0.06 % of (Reading + Range)					
General						
Typical Short Resistance	35.73 mΩ		28.584 mΩ		23.82 mΩ	
Maximum Short Current	280 A		350 A		420 A	
Load ON Voltage	0.4 V to 100 V					
Load OFF Voltage	0 V to 99.6 V					
Input Range & Power Onsumption	100 Vac to 240 Vac, 47 Hz to 63 Hz ; 550 VA (max.)					
Dimension(H x W x D)	177 mm x 440 mm x 745 mm					
Weight	32.5 kg ±0.5 kg		33 kg ± 0.5 kg		33 kg ± 0.5 kg	
Temperature *8	0 °C to 40 °C					
Safety & EMC	C E					

Note *1 : The power rating specifications at ambient temperature = 25 °C
Note *2 : The range is automatically or forcing to range II only in CC mode
Note *3 : If the operating current is below range 0.3 %, the accuracy specification is 0.1 % F.S.
Note *4 : Power range = Vrange x Irange (the specification is valid only for the model PEL-600-XXX with loading current > 0.03 % F.S.)
Note *5 : Turbo mode for up to 1.5X Current rating & Power rating support Surge, Bms, Short/OCP/OPP test function
Note *6 : The best accuracy of OCP/OPP test is Istep/Pstep = 1 % FS
Note *7 : Bms Test function for Battery Management System Board SHORT, OCCP and OCDP Test
Note *8 : Operating temperature range is 0 °C to 40 °C, All specifications apply for 25 °C ± 5 °C, Except as noted

高功率密度直流電子負載

規　格

	PEL-5004G-1200-160		PEL-5005G-1200-200		PEL-5006G-1200-240	
Power[*1]	0 W to 4 kW	0 W to 6 kW max.[*1]	0 W to 5 kW	0 W to 7.5 kW max.[*1]	0 W to 6 kW	0 W to 9 kW max.[*1]
Current	0 A to 160 A	0 A to 240 A max.[*1]	0 A to 200 A	0 A to 300 A max.[*1]	0 A to 240 A	0 A to 360 A max.[*1]
Voltage	0 V to 1200 V		0 V to 1200 V		0 V to 1200 V	
Min. Operating Voltage	15 V@160 A		15 V@200 A		15 V@240 A	
Protections						
Over Power	105%					
Over Current	104%					
Over Voltage	105%					
Over Temp Protection(OTP)	90 °C ± 5 °C					
Constant Current Mode						
Range[*2]	0 A to 16 A	0 A to 160 A	0 A to 20 A	0 A to 200 A	0 A to 24 A	0 A to 240 A
Resolution	0.256 mA	2.56 mA	0.32 mA	3.2 mA	0.384 mA	3.84 mA
Accuracy[*3]	± 0.05 % of (Setting + Range)					
Constant Resistance Mode						
Range	450 kΩ to 7.5 Ω	7.5 Ω to 0.0937 Ω	360 kΩ to 6 Ω	6 Ω to 0.075 Ω	300 kΩ to 5 Ω	5 Ω to 0.0625 Ω
Resolution	2.2 µS	125 µΩ	2.8 µS	100 µΩ	3.3 µS	83.34 µΩ
Accuracy	± (0.1 %(Vin / Setting) + 0.1 % IF.S.)	± (0.2 %(Vin / Setting) + 0.5 % IF.S.)	± (0.1 %(Vin / Setting) + 0.1 % IF.S.)	± (0.2 %(Vin / Setting) + 0.5 % IF.S.)	± (0.1 %(Vin / Setting) + 0.1 % IF.S.)	± (0.2 %(Vin / Setting) + 0.5 % IF.S.)
Constant Voltage Mode						
Range	0 V to 1200 V					
Resolution	20 mV					
Accuracy	± 0.05 % of (Setting + Range)					
Constant Power Mode						
Range	0 W to 400 W	400 W to 4 kW	0 W to 500 W	500 W to 5 kW	0 W to 600 W	600 W to 6 kW
Resolution	6.4 mW	64 mW	8 mW	80 mW	9.6 mW	96 mW
Accuracy[*4]	± 0.2 % of (Setting + Range)					
Constant Voltage Mode + Current Limit Mode						
Range	1200 V	160 A	1200 V	200 A	1200 V	240 A
Resolution	20 mV	2.56 mA	20 mV	3.2 mA	20 mV	3.84 mA
Accuracy[*4]	± 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 Mode + Power Limit Mode						
Range	1200 V	4 kW	1200 V	5 kW	1200 V	6 kW
Resolution	20 mV	64 mW	20 mV	80 mW	20 mV	96 mW
Accuracy[*4]	± 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)
Turbo Mode[*5]	OFF	ON	OFF	ON	OFF	ON
Short / OCP / OPP Test Function						
Max. Current	160 A	240 A	200 A	300 A	240 A	360 A
Max. Power	4000 W	6000 W	5000 W	7500 W	6000 W	9000 W
Test Accuracy[*6]	± 1.0 % of (Reading + Range)					
Short Time	100 ms to 10000 ms Continuous	100 ms to 2000 ms	100 ms to 10000 ms Continuous	100 ms to 2000 ms	100 ms to 10000 ms Continuous	100 ms to 2000 ms
Setting. Accuracy	±5 ms					
Short V Hi	Setting range : 0.25 V to 1200.0 V / Resolution : 0.02 V					
Short V Lo	Setting range : 0.000 V to 1200.0 V / Resolution : 0.02 V					
OCP Time(Tstep)	100 ms	20 ms	100 ms	20 ms	100 ms	20 ms
Setting. Accuracy	±5 ms					
OCP ISTAR / ISTEP / ISTOP	Setting range : 0.00 A to 160.00 A / Resolution : 2.56 mA	Setting range : 0.00 A to 240.00 A / Resolution : 3.84 mA	Setting range : 0.00 A to 200.00 A / Resolution : 3.2 mA	Setting range : 0.00 A to 300.00 A / Resolution : 4.8 mA	Setting range : 0.00 A to 240.00 A / Resolution : 3.84 mA	Setting range : 0.00 A to 360.00 A / Resolution : 5.76 mA
OCP VTH	Setting range : 0.00 V to 1200.00 V / Resolution : 0.02 V					
OPP Time(Tstep)	100 ms	20 ms	100 ms	20 ms	100 ms	20 ms
Setting. Accuracy	±5 ms					
OPP PSTAR / PSTEP / PSTOP	Setting range : 0.00 W to 4000.0 W / Resolution : 64.0 mW	Setting range : 0.00 W to 6000.0 W / Resolution : 96.0 mW	Setting range : 0.00 W to 5000.0 W / Resolution : 80.0 mW	Setting range : 0.00 W to 7500.0 W / Resolution : 120 mW	Setting range : 0.00 W to 6000.0 W / Resolution : 96 mW	Setting range : 0.00 W to 9000.0 W / Resolution : 144 mW
OPP VTH	Setting range : 0.00 V to 1200.00 V / Resolution : 0.02 V					
BMS Test Mode *7						
Max. Current	160 A	240 A	200 A	300 A	240 A	360 A
Meas. Accuracy[*6]	± 3.0 % of (Reading + Range)					
Short test Time	0.05 ms to 10 ms / Resolution : 0.01 ms					
Meas. Accuracy	± 0.02 ms					
Setting Accuracy	± 0.05 ms					
Short ITH	Setting range : 0.07 A to 80.00 A / Resolution : 2.56 mA	Setting range : 0.11 A to 120.00 A / Resolution : 3.84 mA	Setting range : 0.09 A to 100.00 A / Resolution : 3.2 mA	Setting range : 0.14 A to 150.00 A / Resolution : 4.8 mA	Setting range : 0.11 A to 120.00 A / Resolution : 3.84 mA	Setting range : 0.17 A to 180.00 A / Resolution : 5.76 mA
OCP ISTAR	Setting range : 0.25 A to 160.00 A / Resolution : 2.56 mA	Setting range : 0.38 A to 240.00 A / Resolution : 3.84 mA	Setting range : 0.32 A to 200.00 A / Resolution : 3.2 mA	Setting range : 0.48 A to 300.00 A / Resolution : 4.8 mA	Setting range : 0.38 A to 240.00 A / Resolution : 3.84 mA	Setting range : 0.57 A to 360.00 A / Resolution : 5.76 mA
OCP TSTEP	0.05 ms to 10 ms 11 ms to 1000 ms	0.05 ms to 10 ms	0.05 ms to 10 ms 11 ms to 1000 ms	0.05 ms to 10 ms	0.05 ms to 10 ms 11 ms to 1000 ms	0.05 ms to 10 ms

高功率密度直流電子負載

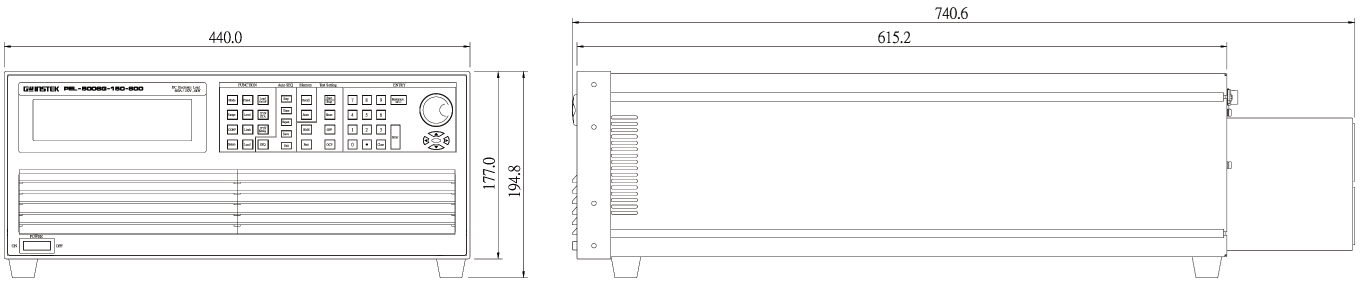
規　　格

	PEL-5004G-1200-160		PEL-5005G-1200-200		PEL-5006G-1200-240	
Meas. Accuracy	± 0.1 ms / ± 0.5 ms	± 0.5 ms	± 0.1 ms / ± 0.5 ms	± 0.5 ms	±0.1 ms / ±0.5 ms	± 0.5 ms
OCP ISTEP	Setting range : 0.00 A to 160.00 A / Resolution : 2.56 mA	Setting range : 2.40 A to 240.00 A / Resolution : 3.84 mA	Setting range : 0.00 A to 200.00 A / Resolution : 3.2 mA	Setting range : 3.00 A to 300.00 A / Resolution : 4.8 mA	Setting range : 0.00 A to 240.00 A / Resolution : 3.84 mA	Setting range : 3.60 A to 360.00 A / Resolution : 5.76 mA
OCP ISTOP	Setting range : 0.25 A to 160.00 A / Resolution : 2.56 mA	Setting range : 0.38 A to 240.00 A / Resolution : 3.84 mA	Setting range : 0.32 A to 200.00 A / Resolution : 3.2 mA	Setting range : 0.48 A to 300.00 A / Resolution : 4.8 mA	Setting range : 0.38 A to 240.00 A / Resolution : 3.84 mA	Setting range : 0.57 A to 360.00 A / Resolution : 5.76 mA
OCP ITH	Setting range : 0.10 A to 80.00 A / Resolution : 2.56 mA	Setting range : 0.15 A to 120.00 A / Resolution : 3.84 mA	Setting range : 0.10 A to 100.00 A / Resolution : 3.2 mA	Setting range : 0.15 A to 150.00 A / Resolution : 4.8 mA	Setting range : 0.10 A to 120.00 A / Resolution : 3.84 mA	Setting range : 0.15 A to 180.00 A / Resolution : 5.76 mA
Surge Test Mode						
Surge Current	0 A to 240 A		0 A to 300 A		0 A to 360 A	
Normal Current	0 A to 120 A		0 A to 150 A		0 A to 180 A	
Surge Time	10 ms to 2000 ms		10 ms to 2000 ms		10 ms to 2000 ms	
Surge Step	1 to 5		1 to 5		1 to 5	
Batt test Mode						
Mode CC	Setting range : 0.00 A to 160.00 A / Resolution : 2.56 mA		Setting range : 0.00 A to 200.00 A / Resolution : 3.2 mA		Setting range : 0.00 A to 240.00 A / Resolution : 3.84 mA	
Mode CP	Setting range : 0.00 W to 4000.0 W / Resolution : 64.0 mW		Setting range : 0.00 W to 5000.0 W / Resolution : 80.0 mW		Setting range : 0.00 W to 6000.0 W / Resolution : 96 mW	
STOP Voltage (UVP)	Setting range : 0.00 V to 1200.00 V / Resolution : 0.02 V					
STOP TIME	Setting range : OFF, 1 sec. - 99999 sec. / Resolution : 1 sec.					
STOP CAP. AH	Setting range : OFF, 0.1 AH to 19999 AH / Resolution : 0.1 AH					
STOP CAP. WH	Setting range : OFF, 0.1 WH to 19999 WH / Resolution : 0.1 WH					
SEQ Load Mode (Remote Only)						
Load Mode	CC / CP					
Setting STEP	2 to 16					
Timing	20 µs to 1000 µs / 2 ms to 65535 ms / 66 sec. to 999 sec.					
Resolution	10 µs / 1 ms / 1 sec.					
Dynamic Mode						
Timing Thigh & Tlow	0.010 ms to 9.999 ms / 99.99 ms / 999.9 ms / 9999 ms					
Resolution	0.001 ms / 0.01 ms / 0.1 ms / 1 ms					
Accuracy	1 µs / 10 µs / 100 µs / 1 ms + 50 ppm					
Slew Rate	0.01024 A/µs to 0.640 A/µs	0.1024 A/µs to 6.400 A/µs	0.0128 A/µs to 0.800 A/µs	0.1280 A/µs to 8.000 A/µs	0.01536 A/µs to 0.960 A/µs	0.1536 A/µs to 9.600 A/µs
Resolution	0.00256 A/µs	0.0256 A/µs	0.0032 A/µs	0.032 A/µs	0.00384 A/µs	0.0384 A/µs
Min. Rise Time	25 µs(typical)					
Accuracy	± (5 % of Setting) ± 10 µs					
Current Range	0 A to 16 A	16 A to 160 A	0 A to 20 A	20 A to 200 A	0 A to 24 A	42 A to 240 A
Resolution	0.26 mA	2.56 mA	0.32 mA	3.2 mA	0.38 mA	3.84 mA
Conf Key Parameter						
LDon Voltage	Setting range : 1 V to 250.0 V / Resolution : 1 V					
LDoFF Voltage	Setting range : 0.000 V to 249.0 V / Resolution : 0.02 V					
Average Times	0 to 64					
CV Res. Speed	1 to 4 (Fastest)					
Measurement						
Voltage Read Back Range (5 Digital)	0 V to 120 V	120 V to 1200 V	0 V to 120 V	120 V to 1200 V	0 V to 120 V	120 V to 1200 V
Resolution	2.00 mV	20.0 mV	2.00 mV	20.0 mV	2.00 mV	20.0 mV
Accuracy	± 0.025 % of (Reading + Range)					
Current Read Back Range (5 Digital)	0 A to 16 A	16 A to 160 A	0 A to 20 A	20 A to 200 A	0 A to 24 A	24 A to 240 A
Resolution	0.256 mA	2.56 mA	0.32 mA	3.2 mA	0.384 mA	3.84 mA
Accuracy	± 0.05 % of (Reading + Range)					
Power Read Back Range (5 Digital)	4 kW		5 kW		6 kW	
Resolution	0.01 W					
Accuracy[*4]	± 0.06 % of (Reading + Range)					
General						
Typical Short Resistance	93.75 mΩ		75 mΩ		62.505 mΩ	
Maximum Short Current	160 A		200 A		240 A	
Load ON Voltage	1 V to 250 V					
Load OFF Voltage	0 V to 249 V					
Input Range & Power	100 Vac to 240 Vac,47 Hz to 63 Hz ; 550 VA (max.)					
Dimension(H x W x D)	177 mm x 440 mm x 745 mm					
Weight	32 kg ± 0.5 kg		32.5 kg ± 0.5 kg		32.5 kg ± 0.5 kg	
Temperature[*8]	0 °C to 40 °C					
Safety & EMC	CE					

Note [*1] : The power rating specifications at ambient temperature = 25 °C
Note [*2] : The range is automatically or forcing to range II only in CC mode
Note [*3] : If the operating current is below range 0.1 %, the accuracy specification is 0.1 % F.S.
Note [*4] : Power range = Vrange x Irange
Note [*5] : Turbo mode for up to 1.5X Current rating & Power rating support Surge, Bms, Short /OCP/OPP test function
Note [*6] : The best accuracy of OCP /OPP test is Istep/Pstep = 1 % FS
Note [*7] : Bms Test function for Battery Management System Board SHORT, OCCP and OCDP Test
Note [*8] : Operating temperature range is 0 °C to 40 °C, All specifications apply for 25 °C±5 °C, Except as noted

高功率密度直流電子負載

外觀尺寸圖



PEL-022
GPIB Card

PEL-023
RS-232 Card

PEL-024
LAN Card

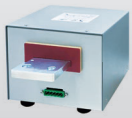
PEL-025
USB Card

PEL-028
Handles

PEL-031
Rack Mount Kit

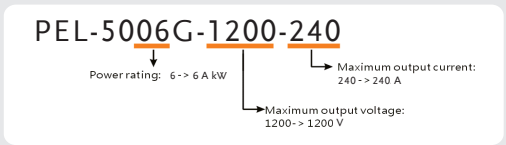
PEL-032
9923 Current Waveform Generator + RS232 Interface

PEL-034
Soft-Start Switch Kit



購買資訊

PEL-5004G-150-400	150 V/400 A/4000 W	高功率密度直流電子負載
PEL-5005G-150-500	150 V/500 A/5000 W	高功率密度直流電子負載
PEL-5006G-150-600	150 V/600 A/6000 W	高功率密度直流電子負載
PEL-5004G-600-280	600 V/280 A/4000 W	高功率密度直流電子負載
PEL-5005G-600-350	600 V/350 A/5000 W	高功率密度直流電子負載
PEL-5006G-600-420	600 V/420 A/6000 W	高功率密度直流電子負載
PEL-5004G-1200-160	1200 V/160 A/4000 W	高功率密度直流電子負載
PEL-5005G-1200-200	1200 V/200 A/5000 W	高功率密度直流電子負載
PEL-5006G-1200-240	1200 V/240 A/6000 W	高功率密度直流電子負載



STANDARD ACCESSORIES
BANANA PLUGS x 2
HD-DSUB 15 PIN Parallel Cable x 1
PEL-028 HANDLES, U-shaped Handle (fixed to the bracket)
PEL-031 Rack Mount Kit For PEL-5000G

OPTIONAL ACCESSORIES

PEL-022	GPIB Card	**PEL-025**	USB Card	**PEL-034**	Soft-Start Switch Kit
PEL-023	RS-232 Card	**PEL-030**	GPIB+RS-232 Card	**GTL-246**	USB Cable, USB 2.0, A-B Type, 1200 mm
PEL-024	LAN Card	**PEL-032**	9923 Current Waveform Generator + RS232 Interface	**GTL-248**	GPIB Cable, Double Shielded, 2000 mm

Note: * Regarding the product delivery date, please contact your regional sales representative.

規格若有局部變更，恕不另行通知！ PEL-5000G_BH1_C_202604

固緯電子實業股份有限公司
新北市土城區中興路 7-1 號
T (02)2268-0389 **F** (02)2268-0639
E-mail: marketing@goodwill.com.tw

高雄 高雄市前鎮區新衙路288之4號5樓之2
T (07) 831-7317 **F** (07) 831-7327

固緯電子(蘇州)有限公司
江蘇省蘇州市新區珠江路521號
T 0512-6661-7177 **F** 0512-6661-7277
E-mail: marketing@instek.com.cn

上海 上海市宜山路 889 號 2 號樓 8 樓
T 021-6485-3399 **F** 021-5450-0789

深圳 深圳市寶安區航城街道三圍社區泰華梧桐工業園13B棟6樓
T 0755-2919-0632 **F** 0755-2907-6570

GW INSTEK
Simply Reliable

產品操作影片 最新活動訊息 產品綜合目錄