



PEL-5000G 系列

超高功率直流電子負載

特 點

- 4U/6K 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, 4k/5kW 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

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



PEL-5000G 系列



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
- 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

超高功率直流電子負載



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

超高功率直流電子負載

MODEL	PEL-5004C-150-400		PEL-5005C-150-500		PEL-5006C-150-600	
Power ^{*1}	0 ~ 4kW	0 ~ 6kW max. ^{*1}	0 ~ 5kW	0 ~ 7.5kW max. ^{*1}	0 ~ 6kW	0 ~ 9kW max. ^{*1}
Current	0 ~ 400A	0 ~ 600A max. ^{*1}	0 ~ 500A	0 ~ 750A max. ^{*1}	0 ~ 600A	0 ~ 900A max. ^{*1}
Voltage	0 ~ 150V		0 ~ 150V		0 ~ 150V	
Min. Operating Voltage	0.7V@400A		0.7V@500A		0.7V@600A	
Protections						
Over Power Protection(OPP)			105%			
Over Current Protection(OCP)			104%			
Over Voltage Protection(OVP)			105%			
Over Temp Protection(OTP)			90°C±5°C			
Constant Current Mode						
Range ^{*2}	0 ~ 40A	0 ~ 400A	0 ~ 50A	0 ~ 500A	0 ~ 60A	0 ~ 600A
Resolution	0.64mA	6.4mA	0.80mA	8.0mA	0.96mA	9.6mA
Accuracy ^{*3}	± 0.05% of (Setting + Range)					
Constant Resistance Mode						
Range	22.5kΩ ~ 0.375Ω	0.375Ω ~ 0.0018Ω	18kΩ ~ 0.3Ω	0.3Ω ~ 0.0015Ω	15kΩ ~ 0.25Ω	0.25Ω ~ 0.0012Ω
Resolution	44μS	6.25μI	56μS	5μI	67μS	4.167μI
Accuracy ^{*3}	± 0.1% (Vin / Setting) ± 0.1% I.F.S ± 0.1% of (Setting + Range) ± 0.1% I.F.S ± 0.1% (Vin / Setting) ± 0.1% I.F.S ± 0.1% of (Setting + Range) ± 0.1% I.F.S					
Constant Voltage Mode						
Range	0 ~ 150V					
Resolution	2.5mV					
Accuracy	± 0.05% of (Setting + Range)					
Constant Power Mode						
Range	0 ~ 400W	400 ~ 4kW	0 ~ 500W	500 ~ 5kW	0 ~ 600W	600 ~ 6kW
Resolution	6.4mW	64mW	8mW	80mW	9.6mW	96mW
Accuracy ^{*4}	± 0.2% of (Setting + Range)					
Constant Voltage Mode + Current Limit Mode						
Range	150V	400A	150V	500A	150V	600A
Resolution	2.5mV	6.4mA	2.5mV	80mA	2.5mV	9.6mA
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	150V	4kW	150V	5kW	150V	6kW
Resolution	2.5mV	64mW	2.5mV	80mW	2.5mV	96mW
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}						
Short / OCP / OPP Test Function	OFF	ON	OFF	ON	OFF	ON
Max. Current	400A	600A	500A	750A	600A	900A
Max. Power	4000W	6000W	5000W	7500W	6000W	9000W
Test Accuracy ^{*6}	± 1.0% of (Reading + Range)					
Short Time	100 ~ 10000ms	100 ~ 2000ms	100 ~ 10000ms	100 ~ 2000ms	100 ~ 10000ms	100 ~ 2000ms
Setting, Accuracy	Continuous					
Short V Hi	Setting range: 0.00V - 150.00V / Resolution: 0.0025V					
Short V Lo	Setting range: 0.00V - 150.00V / Resolution: 0.0025V					
OCP Time (Tstep)	100ms	20ms	100ms	20ms	100ms	20ms
Setting, Accuracy	± 5ms					
OCP ISTAR / ISTEP / ISTOP	Setting range: 0.00A - 400.00A / Resolution: 6.4mA	Setting range: 0.00A - 600.00A / Resolution: 9.6mA	Setting range: 0.00A - 500.00A / Resolution: 8.0mA	Setting range: 0.00A - 750.00A / Resolution: 12mA	Setting range: 0.00A - 600.00A / Resolution: 9.6mA	Setting range: 0.00A - 900.00A / Resolution: 14.4mA
OCP VTH	Setting range: 0.00V - 150.00V / Resolution: 0.0025V					
OPP Time (Tstep)	100ms	20ms	100ms	20ms	100ms	20ms
Setting, Accuracy	± 5ms					
OPP PSTAR / PSTEP / PSTOP	Setting range: 0.00W - 4000.0W / Resolution: 64.0mW	Setting range: 0.00W - 6000.0W / Resolution: 96.0mW	Setting range: 0.00W - 5000.0W / Resolution: 80.0mW	Setting range: 0.00W - 7500.0W / Resolution: 120mW	Setting range: 0.00W - 6000.0W / Resolution: 96mW	Setting range: 0.00W - 9000.0W / Resolution: 144mW
OPP VTH	Setting range: 0.00V - 150.00V / Resolution: 0.0025V					
BMS Test Mode^{*7}						
Max. Current	400A	600A	500A	750A	600A	900A
Meas. Accuracy ^{*8}	± 0.0% of (Reading + Range)					
Short test Time	0.05ms ~ 10ms / Resolution: 0.01ms					
Meas. Accuracy	± 0.02ms					
Setting Accuracy	± 0.05ms					
Short ITH	Setting range: 0.19A - 200.00A / Resolution: 6.4mA	Setting range: 0.28A - 300.00A / Resolution: 9.6mA	Setting range: 0.24A - 250.00A / Resolution: 8.0mA	Setting range: 0.36A - 375.00A / Resolution: 12mA	Setting range: 0.28A - 300.00A / Resolution: 9.6mA	Setting range: 0.43A - 450.00A / Resolution: 14.4mA
OCP ISTAR	Setting range: 0.64A - 400.00A / Resolution: 6.4mA	Setting range: 0.96A - 600.00A / Resolution: 9.6mA	Setting range: 0.80A - 500.00A / Resolution: 8.0mA	Setting range: 1.20A - 750.00A / Resolution: 12mA	Setting range: 0.96A - 600.00A / Resolution: 9.6mA	Setting range: 1.44A - 900.00A / Resolution: 14.4mA
OCP TSTEP	0.05 ~ 10ms 11 ~ 1000ms	0.05 ~ 10ms 11 ~ 1000ms	0.05 ~ 10ms 11 ~ 1000ms	0.05 ~ 10ms 11 ~ 1000ms	0.05 ~ 10ms 11 ~ 1000ms	0.05 ~ 10ms 11 ~ 1000ms
Meas. Accuracy	± 0.1ms / ± 0.5ms ± 0.5ms ± 0.1ms / ± 0.5ms ± 0.5ms ± 0.1ms / ± 0.5ms ± 0.5ms ± 0.1ms / ± 0.5ms ± 0.5ms ± 0.1ms / ± 0.5ms ± 0.5ms ± 0.1ms					
OCP ISTEP	Setting range: 0.00A - 400.00A / Resolution: 6.4mA	Setting range: 0.00A - 600.00A / Resolution: 9.6mA	Setting range: 0.00A - 500.00A / Resolution: 8.0mA	Setting range: 0.00A - 750.00A / Resolution: 12mA	Setting range: 0.00A - 600.00A / Resolution: 9.6mA	Setting range: 0.00A - 900.00A / Resolution: 14.4mA
OCP ISTOP	Setting range: 0.64A - 400.00A / Resolution: 6.4mA	Setting range: 0.96A - 600.00A / Resolution: 9.6mA	Setting range: 0.80A - 500.00A / Resolution: 8.0mA	Setting range: 1.20A - 750.00A / Resolution: 12mA	Setting range: 0.96A - 600.00A / Resolution: 9.6mA	Setting range: 1.44A - 900.00A / Resolution: 14.4mA
OCP ITH	Setting range: 0.19A - 200.00A / Resolution: 6.4mA	Setting range: 0.28A - 300.00A / Resolution: 9.6mA	Setting range: 0.24A - 250.00A / Resolution: 8.0mA	Setting range: 0.36A - 375.00A / Resolution: 12mA	Setting range: 0.28A - 300.00A / Resolution: 9.6mA	Setting range: 0.43A - 450.00A / Resolution: 14.4mA
Surge Test Mode						
Surge Current	0 ~ 600A		0 ~ 750A		0 ~ 900A	
Normal Current	0 ~ 300A		0 ~ 375A		0 ~ 450A	
Surge Time	10 ~ 2000ms		10 ~ 2000ms		10 ~ 2000ms	
Surge Step	1 ~ 5		1 ~ 5		1 ~ 5	
Batt test Mode						
Mode CC	Setting range: 0.00A - 400.00A / Resolution: 6.4mA		Setting range: 0.00A - 500.00A / Resolution: 8.0mA		Setting range: 0.00A - 600.00A / Resolution: 9.6mA	
Mode CP	Setting range: 0.00W - 4000.0W / Resolution: 64.0mW		Setting range: 0.00W - 5000.0W / Resolution: 80.0mW		Setting range: 0.00W - 6000.0W / Resolution: 96mW	
STOP Voltage(UVP)	Setting range: 0.00V - 150.00V / Resolution: 0.0025V		Setting range: 0.00V - 150.00V / Resolution: 0.0025V		Setting range: 0.00V - 150.00V / Resolution: 0.0025V	
STOP TIME	Setting range: OFF 0.1 - 99999AH / Resolution: 1s		Setting range: OFF 0.1 - 99999AH / Resolution: 0.1AH		Setting range: OFF 0.1 - 99999WH / Resolution: 0.1WH	
STOP CAP.AH	Setting range: OFF 0.1 - 99999AH / Resolution: 0.1AH		Setting range: OFF 0.1 - 99999WH / Resolution: 0.1WH		Setting range: OFF 0.1 - 99999WH / Resolution: 0.1WH	
STOP CAP.WH	Setting range: OFF 0.1 - 99999WH / Resolution: 0.1WH		Setting range: OFF 0.1 - 99999WH / Resolution: 0.1WH		Setting range: OFF 0.1 - 99999WH / Resolution: 0.1WH	
SEQ Load Mode (remote only)						
Load mode	CC / CP					
Setting STEP	2 ~ 16					
Timing	20 ~ 1000 μs / 2 ~ 5533ms / 66 ~ 999sec					
Resolution	10 μs / 1ms / 1sec					
Dynamic Mode						
Timing	0.010 ~ 9.999 / 99.99 / 999.9 / 9999ms					
Thigh & Tlow	0.001 / 0.01 / 0.1 / 1ms					
Resolution	1 μs / 10 μs / 100 μs / 1ms + 50ppm					
Accuracy	± 0.0320 ~ 2.000A / μs ± 0.008A / μs ± 0.3200 ~ 20.000A / μs ± 0.0384 ~ 2.400A / μs ± 0.3840 ~ 24.000A / μs					
Slew Rate	0.0256 ~ 1.600A / μs	0.2560 ~ 16.000A / μs	0.0320 ~ 2.000A / μs	0.3200 ~ 20.000A / μs	0.0384 ~ 2.400A / μs	0.3840 ~ 24.000A / μs
Resolution	0.0064A / μs	0.064A / μs	0.008A / μs	0.08A / μs	0.0096A / μs	0.096A / μs
Min. Rise Time	25 μs (typical)					
Accuracy	± (% of Setting) ± 10 μs					
Conf Key Parameter						
LDON Voltage	Setting range: 0.25V - 62.50V / Resolution: 0.25V					
LDOFF Voltage	Setting range: 0.000V - 62.250V / Resolution: 0.0025V					
Average Time	0 ~ 64					
CV Res. Speed	1 ~ 4 (Fastest)					
Measurement						
Voltage Read Back Range (5 Digital)	0 ~ 15V	15 ~ 150V	0 ~ 15V	15 ~ 150V	0 ~ 15V	15 ~ 150V
Resolution	0.25mV	2.5mV	0.25mV	2.5mV	0.25mV	2.5mV
Accuracy	± 0.025% of (Reading + Range)					
Current Read Back Range (5 Digital)	0 ~ 40A	40 ~ 400A	0 ~ 50A	50 ~ 500A	0 ~ 60A	60 ~ 600A
Resolution	0.64mA	6.4mA	0.8mA	8mA	0.96mA	9.6mA
Accuracy	± 0.05% of (Reading + Range)					
Power Read Back Range (5 Digital)	4kW		5kW		6kW	
Resolution	0.01W					
Accuracy ^{*4}	± 0.06% of (Reading + Range)					
General						
Typical Short Resistance	1.8mΩ		1.5mΩ		1.3mΩ	
Maximum Short Current	400A		500A		600A	
Load ON Voltage	0.25 ~ 62.5V		0.25 ~ 62.5V		0.25 ~ 62.5V	
Load OFF Voltage	0 ~ 62.25V		0 ~ 62.25V		0 ~ 62.25V	
Power Consumption	550VA		550VA		550VA	
Dimension(H x W x D)	177mm x 440mm x 745mm					
Weight	28kg					
Temperature ^{*8}	0 ~ 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 = Voltage 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 OCPD Test
 Note *8 : Operating temperature range is 0~40 °C, All specifications apply for 25 °C±5 °C, Except as noted

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MODEL	PEL-5004G-600-280		PEL-5005G-600-350		PEL-5006G-600-420	
Power ^{*1}	0 - 4kW	0 - 6kW max. ^{*1}	0 - 5kW	0 - 7.5kW max. ^{*1}	0 - 6kW	0 - 9kW max. ^{*1}
Current	0 - 280A	0 - 420A max. ^{*1}	0 - 350A	0 - 525A max. ^{*1}	0 - 420A	0 - 630A max. ^{*1}
Voltage	0 - 600V		0 - 600V		0 - 600V	
Min. Operating Voltage	10V@280A		10V@350A		10V@420A	
Protections						
Over Power Protection(OPP)	105%					
Over Current Protection(OCP)	104%					
Over Voltage Protection(OVP)	105%					
Over Temp Protection(OTP)	90°C±5°C					
Constant Current Mode						
Range ^{*2}	0 - 28A	0 - 280A	0 - 35A	0 - 350A	0 - 42A	0 - 420A
Resolution	0.448mA	4.48mA	0.56mA	5.6mA	0.672mA	6.72mA
Accuracy ^{*3}	± 0.05% of (Setting + Range)					
Constant Resistance Mode						
Range	128610Ω - 2.1435Ω	2.1435Ω - 0.0357Ω	102888Ω - 1.7148Ω	1.7148Ω - 0.0285Ω	85740Ω - 1.4290Ω	1.4290Ω - 0.0238Ω
Resolution	8 μS	35.73μΩ	10 μS	28.584μΩ	12 μS	23.82μΩ
Accuracy	± 0.1% (Vin / Setting) ± 0.1% I.F.S. ± 0.1% of (Setting + Range) ± 0.1% I.F.S. ± 0.1% of (Setting + Range) ± 0.1% I.F.S. ± 0.1% of (Setting + Range) ± 0.1% I.F.S.					
Constant Voltage Mode						
Range	0 - 600V					
Resolution	10mV					
Accuracy	± 0.05% of (Setting + Range)					
Constant Power Mode						
Range	0 - 400W	400 - 4kW	0 - 500W	500 - 5kW	0 - 600W	600 - 6kW
Resolution	64mW	64mW	8mW	80mW	9.6mW	96mW
Accuracy ^{*4}	± 0.2% of (Setting + Range)					
Constant Voltage Mode + Current Limit Mode						
Range	600V	280A	600V	350A	600V	420A
Resolution	10mV	4.48mA	10mV	5.6mA	10mV	6.72mA
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	600V	4kW	600V	5kW	600V	6kW
Resolution	10mV	64mW	10mV	80mW	10mV	96mW
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}						
Short / OCP / OPP Test Function	OFF		ON		OFF	
Max. Current	280A	420A	350A	525A	420A	630A
Max. Power	4000W	6000W	5000W	7500W	6000W	9000W
Test Accuracy ^{*6}	± 1.0% of (Reading + Range)					
Short Time	100 - 10000ms	100 - 2000ms	100 - 10000ms	100 - 2000ms	100 - 10000ms	100 - 2000ms
Setting Accuracy	Continuous					
Short V Hi	±5ms					
Short V Lo	Setting range: 0.00V - 600.00V / Resolution: 0.01V					
OCP Time (Tstep)	100ms	20ms	100ms	20ms	100ms	20ms
Setting Accuracy	±5ms					
OCP ISTAR / ISTEP / ISTOP	Setting range: 0.00A - 280.00A / Resolution: 4.48mA	Setting range: 0.00A - 420.00A / Resolution: 6.72mA	Setting range: 0.00A - 350.00A / Resolution: 5.6mA	Setting range: 0.00A - 525.00A / Resolution: 8.4mA	Setting range: 0.00A - 420.00A / Resolution: 6.72mA	Setting range: 0.00A - 630.00A / Resolution: 10.08mA
OCP VTH	Setting range: 0.00V - 600.00V / Resolution: 0.01V					
OPP Time(Tstep)	100ms	20ms	100ms	20ms	100ms	20ms
Setting Accuracy	±5ms					
OPP PSTAR / PSTEP / PSTOP	Setting range: 0.00W - 4000.00W / Resolution: 64.0mW	Setting range: 0.00W - 6000.00W / Resolution: 96.0mW	Setting range: 0.00W - 5000.00W / Resolution: 80.0mW	Setting range: 0.00W - 7500.00W / Resolution: 120mW	Setting range: 0.00W - 6000.00W / Resolution: 96mW	Setting range: 0.00W - 9000.00W / Resolution: 144mW
OPP VTH	Setting range: 0.00V - 600.00V / Resolution: 0.01V					
BMS Test Mode^{*7}						
Max. Current	280A	420A	350A	525A	420A	630A
Meas. Accuracy ^{*8}	±3.0% of (Reading + Range)					
Short test Time	0.05ms-10ms / Resolution: 0.01ms					
Meas. Accuracy	±0.02ms					
Setting Accuracy	±0.05ms					
Short ITH	Setting range: 0.13A - 140.00A / Resolution: 4.48mA	Setting range: 0.20A - 210.00A / Resolution: 6.72mA	Setting range: 0.16A - 175.00A / Resolution: 5.6mA	Setting range: 0.25A - 262.50A / Resolution: 8.4mA	Setting range: 0.20A - 210.00A / Resolution: 6.72mA	Setting range: 0.30A - 315.00A / Resolution: 10.08mA
OCP ISTAR	Setting range: 0.44A - 280.00A / Resolution: 4.48mA	Setting range: 0.67A - 420.00A / Resolution: 6.72mA	Setting range: 0.56A - 350.00A / Resolution: 5.6mA	Setting range: 0.84A - 525.00A / Resolution: 8.4mA	Setting range: 0.67A - 420.00A / Resolution: 6.72mA	Setting range: 1.00A - 630.00A / Resolution: 10.08mA
OCP ISTEP	0.05 - 10ms	0.05 - 10ms	0.05 - 10ms	0.05 - 10ms	0.05 - 10ms	0.05 - 10ms
Meas. Accuracy	±0.1ms / ±0.5ms	±0.5ms	±0.1ms / ±0.5ms	±0.5ms	±0.1ms / ±0.5ms	±0.5ms
OCP ISTOP	Setting range: 0.00A - 280.00A / Resolution: 4.48mA	Setting range: 0.20A - 420.00A / Resolution: 6.72mA	Setting range: 0.00A - 350.00A / Resolution: 5.6mA	Setting range: 0.25A - 525.00A / Resolution: 8.4mA	Setting range: 0.00A - 420.00A / Resolution: 6.72mA	Setting range: 0.30A - 630.00A / Resolution: 10.08mA
OCP ISTOP	Setting range: 0.44A - 280.00A / Resolution: 4.48mA	Setting range: 0.67A - 420.00A / Resolution: 6.72mA	Setting range: 0.56A - 350.00A / Resolution: 5.6mA	Setting range: 0.84A - 525.00A / Resolution: 8.4mA	Setting range: 0.67A - 420.00A / Resolution: 6.72mA	Setting range: 1.00A - 630.00A / Resolution: 10.08mA
OCP ITH	Setting range: 0.13A - 140.00A / Resolution: 4.48mA	Setting range: 0.20A - 210.00A / Resolution: 6.72mA	Setting range: 0.16A - 175.00A / Resolution: 5.6mA	Setting range: 0.25A - 262.50A / Resolution: 8.4mA	Setting range: 0.20A - 210.00A / Resolution: 6.72mA	Setting range: 0.30A - 315.00A / Resolution: 10.08mA
Surge Test Mode						
Surge Current	0 - 420A		0 - 525A		0 - 630A	
Normal Current	0 - 210A		0 - 262.5A		0 - 315A	
Surge Time	10 - 2000ms		10 - 2000ms		10 - 2000ms	
Surge Step	1 - 5		1 - 5		1 - 5	
Bat test Mode						
Mode CC	Setting range: 0.00A - 280.00A / Resolution: 4.48mA		Setting range: 0.00A - 350.00A / Resolution: 5.6mA		Setting range: 0.00A - 420.00A / Resolution: 6.72mA	
Mode CP	Setting range: 0.00W - 4000.00W / Resolution: 64.0mW		Setting range: 0.00W - 5000.00W / Resolution: 80.0mW		Setting range: 0.00W - 6000.00W / Resolution: 96mW	
STOP Voltage (UVP)	Setting range: 0.00V - 600.00V / Resolution: 0.01V					
STOP TIME	Setting range: OFF 1 - 99999s / Resolution: 1s					
STOP CAP.AH	Setting range: OFF 0.1 - 19999AH / Resolution: 0.1AH					
STOP CAP.WH	Setting range: OFF 0.1 - 19999WH / Resolution: 0.1WH					
SEQ Load Mode (remote only)						
Load Mode	CC / CP					
Setting STEP	2 - 16					
Timing	20 - 1000 μs / 2 - 65535ms / 66 - 999sec					
Resolution	10 μs / 1ms / 1sec					
Dynamic Mode						
Timing						
Thigh & Tlow	0.010 - 9.999 / 99.99 / 999.9 / 9999ms					
Resolution	0.001 / 0.01 / 0.1 / 1ms					
Accuracy	1 μs / 10 μs / 100 μs / 1ms + 50ppm					
Slow Rate	0.01792 - 1.120A / μs	0.1792 - 11.200A / μs	0.0224 - 1.400A / μs	0.2240 - 14.00A / μs	0.02688 - 1.680A / μs	0.2688 - 16.800A / μs
Resolution	0.00448A / μs	0.0448A / μs	0.0056A / μs	0.056A / μs	0.00672A / μs	0.0672A / μs
Min. Rise Time	25 μs (typical)					
Accuracy	± (3% of Setting) ± 10 μs					
Current						
Range	0 - 28A	28 - 280A	0 - 35A	35 - 350A	0 - 42A	42 - 420A
Resolution	0.45mA	4.48mA	0.56mA	5.6mA	0.67mA	6.72mA
Conf Key Parameter						
LDon Voltage	Setting range: 0.4V - 100.0V / Resolution: 0.4V					
LDoFF Voltage	Setting range: 0.000V - 99.60V / Resolution: 0.01V					
Average Time	0 - 64					
CV Res. Speed	1 - 4 (Fastest)					
Measurement						
Voltage Read Back Range (5 Digital)	0 - 60V	60 - 600V	0 - 60V	60 - 600V	0 - 60V	60 - 600V
Resolution	1.00mV	10.0mV	1.00mV	10.0mV	1.00mV	10.0mV
Accuracy	± 0.025% of (Reading + Range)					
Current Read Back Range (5 Digital)	0 - 28A	28 - 280A	0 - 35A	35 - 350A	0 - 42A	42 - 420A
Resolution	0.448mA	4.48mA	0.56mA	5.6mA	0.672mA	6.72mA
Accuracy	± 0.05% of (Reading + Range)					
Power Read Back Range (5 Digital)	4kW		0.01W		6kW	
Resolution						
Accuracy ^{*4}	± 0.06% of (Reading + Range)					
General						
Typical Short Resistance	35.73mΩ		28.584mΩ		23.82mΩ	
Maximum Short Current	280A		350A		420A	
Load ON Voltage	0.4 - 100V					
Load OFF Voltage	0 - 60V					
Power Consumption	550VA					
Dimension(H x W x D)	177mm x 440mm x 745mm					
Weight	29kg					
Temperature ^{*8}	0 - 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 0.3%, 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 0-40 °C, All specifications apply for 25 °C±5 °C, Except as noted

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MODEL	PEL-5004G-1200-160		PEL-5005G-1200-200		PEL-5006G-1200-240	
Power ¹	0 - 4kW		0 - 5kW		0 - 6kW	
Current	0 - 160A		0 - 200A		0 - 240A	
Voltage	0 - 1200V		0 - 1200V		0 - 1200V	
Min. Operating Voltage	15V@100A		15V@200A		15V@240A	
Protections						
Over Power Protection(OPP)			105%			
Over Current Protection(OCP)			104%			
Over Voltage Protection(OVP)			105%			
Over Temp Protection(OTP)			90°C±5°C			
Constant Current Mode						
Range ²	0 - 16A		0 - 20A		0 - 24A	
Resolution	0.256mA		0.32mA		0.384mA	
Accuracy ³			± 0.05% of (Setting + Range)			
Constant Resistance Mode						
Range	450Ω - 7.5Ω		360Ω - 6Ω		300Ω - 5Ω	
Resolution	2.2 μS		2.8 μS		3.3 μS	
Accuracy	± 0.1% (Vin / Setting) ± 0.1% I.F.S.		± 0.1% (Vin / Setting) ± 0.1% I.F.S.		± 0.1% (Vin / Setting) ± 0.1% I.F.S.	
Constant Voltage Mode						
Range	0 - 1200V		0 - 1200V		0 - 1200V	
Resolution	20mV		20mV		20mV	
Accuracy			± 0.05% of (Setting + Range)			
Constant Power Mode						
Range	0 - 400W		0 - 500W		0 - 600W	
Resolution	6.4mW		8mW		9.6mW	
Accuracy			± 0.2% of (Setting + Range)			
Constant Voltage Mode + Current Limit Mode						
Range	1200V		1200V		1200V	
Resolution	20mV		20mV		20mV	
Accuracy ⁴	± 0.05% of (Setting + Range)		± 0.05% of (Setting + Range)		± 0.05% of (Setting + Range)	
Constant Voltage Mode + Power Limit Mode						
Range	1200V		1200V		1200V	
Resolution	20mV		20mV		20mV	
Accuracy ⁴	± 0.05% of (Setting + Range)		± 0.05% of (Setting + Range)		± 0.05% of (Setting + Range)	
Turbo Mode⁵						
Short / OCP / OPP Test Function	OFF		ON		OFF	
Max. Current	160A		200A		240A	
Max. Power	4000W		5000W		6000W	
Test Accuracy ⁶			± 1.0% of (Reading + Range)			
Short Time	100 - 10000ms		100 - 10000ms		100 - 10000ms	
Setting Accuracy	Continuous		Continuous		Continuous	
Short V Hi			±5ms			
Short V Lo			Setting range: 0.25V - 1200.0V / Resolution: 0.02V			
OCP Time(Tstep)	100ms		100ms		100ms	
Setting Accuracy			±5ms			
OCP ISTAR / ISTEP / ISTOP	Setting range: 0.00A - 160.00A / Resolution: 2.56mA		Setting range: 0.00A - 200.00A / Resolution: 3.2mA		Setting range: 0.00A - 240.00A / Resolution: 3.84mA	
OCP VTH			Setting range: 0.00V - 1200.00V / Resolution: 0.02V			
OPP Time(Tstep)	100ms		100ms		100ms	
Setting Accuracy			±5ms			
OPP PSTAR / PSTEP / PSTOP	Setting range: 0.00W - 4000.0W / Resolution: 64.0mW		Setting range: 0.00W - 5000.0W / Resolution: 80.0mW		Setting range: 0.00W - 6000.0W / Resolution: 96.0mW	
OPP VTH			Setting range: 0.00V - 1200.00V / Resolution: 0.02V			
BMS Test Mode⁷						
Max. Current	160A		200A		240A	
Meas. Accuracy ⁸			±3.0% of (Reading + Range)			
Short Test Time			0.05ms-10ms / Resolution: 0.01ms			
Meas. Accuracy			±0.02ms			
Setting Accuracy			±0.05ms			
Short ITH	Setting range: 0.07A - 80.00A / Resolution: 2.56mA		Setting range: 0.09A - 100.00A / Resolution: 3.2mA		Setting range: 0.11A - 120.00A / Resolution: 3.84mA	
OCP ISTAR	Setting range: 0.25A - 160.00A / Resolution: 2.56mA		Setting range: 0.32A - 200.00A / Resolution: 3.2mA		Setting range: 0.38A - 240.00A / Resolution: 3.84mA	
OCP TSTEP	0.05 - 10ms		0.05 - 10ms		0.05 - 10ms	
Meas. Accuracy	±1 - 1000ms		±1 - 1000ms		±1 - 1000ms	
OCP ISTEP	Setting range: 0.00A - 160.00A / Resolution: 2.56mA		Setting range: 0.00A - 200.00A / Resolution: 3.2mA		Setting range: 0.00A - 240.00A / Resolution: 3.84mA	
OCP ISTOP	Setting range: 0.25A - 160.00A / Resolution: 2.56mA		Setting range: 0.32A - 200.00A / Resolution: 3.2mA		Setting range: 0.38A - 240.00A / Resolution: 3.84mA	
OCP ITH	Setting range: 0.07A - 80.00A / Resolution: 2.56mA		Setting range: 0.09A - 100.00A / Resolution: 3.2mA		Setting range: 0.11A - 120.00A / Resolution: 3.84mA	
Surge Test Mode						
Surge Current	0 - 240A		0 - 300A		0 - 360A	
Normal Current	0 - 120A		0 - 150A		0 - 180A	
Surge Time	10 - 2000ms		10 - 2000ms		10 - 2000ms	
Surge Step	1 - 5		1 - 5		1 - 5	
Batt test Mode						
Mode CC	Setting range: 0.00A - 160.00A / Resolution: 2.56mA		Setting range: 0.00A - 200.00A / Resolution: 3.2mA		Setting range: 0.00A - 240.00A / Resolution: 3.84mA	
Mode CP	Setting range: 0.00W - 4000.0W / Resolution: 64.0mW		Setting range: 0.00W - 5000.0W / Resolution: 80.0mW		Setting range: 0.00W - 6000.0W / Resolution: 96.0mW	
STOP Voltage (UVP)			Setting range: 0.00V - 1200.00V / Resolution: 0.02V			
STOP TIME			Setting range: OFF 1 - 9999ms / Resolution: 1s			
STOP CAP.AH			Setting range: OFF 0.1 - 19999AH / Resolution: 0.1AH			
STOP CAP.WH			Setting range: OFF 0.1 - 19999WH / Resolution: 0.1WH			
SEQ Load Mode (remote only)						
Load Mode			CC / CP			
Setting STEP			2 - 16			
Timing			20 - 1000 μs / 2 - 65535ms / 66 - 999sec			
Resolution			10 μs / 1ms / 1sec			
Dynamic Mode						
Timing			0.010-9.999 / 99.99 / 999.9 / 9999ms			
Thigh & Tlow			0.001 / 0.01 / 0.1 / 1ms			
Resolution			1 μs / 10 μs / 100 μs / 1ms + 50ppm			
Accuracy						
Slew Rate	0.01024 - 0.640A / μs		0.0128 - 0.800A / μs		0.01536 - 0.960A / μs	
Resolution	0.00256A / μs		0.0032A / μs		0.00384A / μs	
Min. Rise Time			25 μs (typical)			
Current			± (3% of Setting) ± 10 μs			
Range	0 - 16A		0 - 20A		0 - 24A	
Resolution	0.26mA		0.32mA		0.38mA	
Conf Key Parameter						
LDON Voltage			Setting range: 1V - 250.0V / Resolution: 1V			
LDoff Voltage			Setting range: 0.000V - 249.0V / Resolution: 0.02V			
Average Time			0 - 64			
CV Res. Speed			1 - 4 (Fastest)			
Measurement						
Voltage Read Back Range (5 Digital)	0 - 120V		0 - 120V		0 - 120V	
Resolution	2.00mV		2.00mV		2.00mV	
Accuracy			± 0.025% of (Reading + Range)			
Current Read Back Range (5 Digital)	0 - 16A		0 - 20A		0 - 24A	
Resolution	0.256mA		0.32mA		0.384mA	
Accuracy			± 0.05% of (Reading + Range)			
Power Read Back Range (5 Digital)	4kW		5kW		6kW	
Resolution			0.01W			
Accuracy ⁴			± 0.06% of (Reading + Range)			
General						
Typical Short Resistance	93.75mΩ		75mΩ		62.505mΩ	
Maximum Short Current	160A		200A		240A	
Load ON Voltage			1 - 250V			
Load OFF Voltage			0 - 249V			
Power Consumption			550VA			
Dimension(H x W x D)			177mm x 440mm x 745mm			
Weight			29kg			
Temperature ⁸			0 - 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

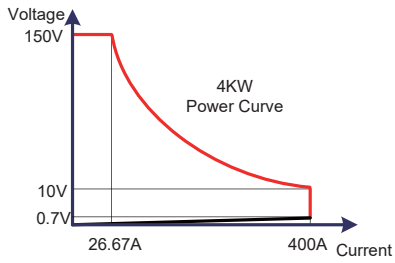
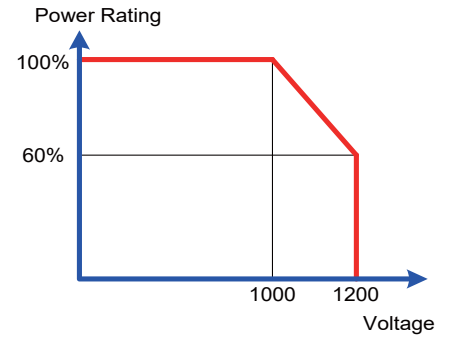
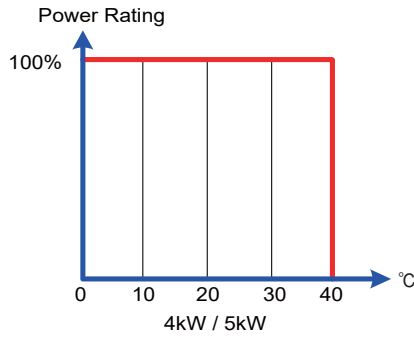
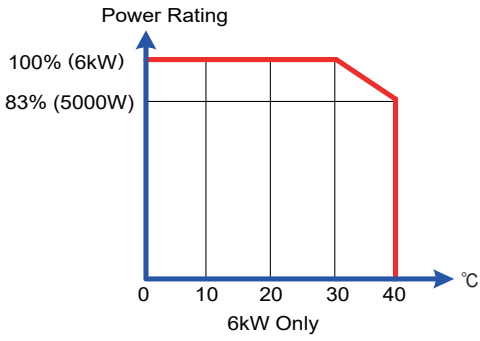
Note *6 : The best accuracy of OCP /OPP test is Istep /Pstep=1%FS

Note *7 : Bms Test function for Battery Management System Board SHORT, OCCP and OCCPD Test

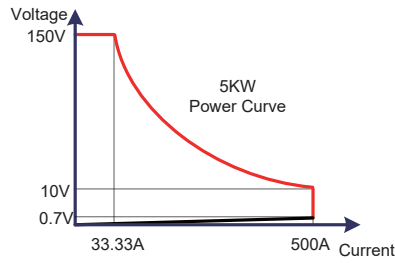
Note *8 : Operating temperature range is 0-40 °C, All specifications apply for 25 °C±5 °C, Except as noted

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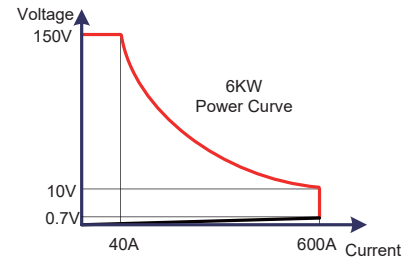
功率曲線



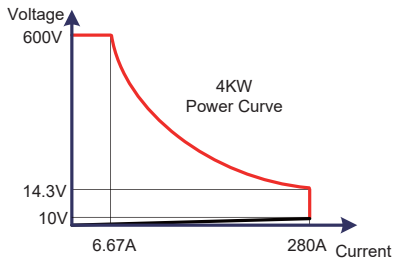
PEL-5004G-150-400



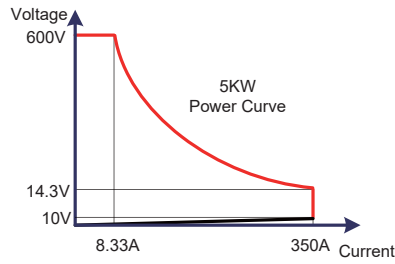
PEL-5005G-150-500



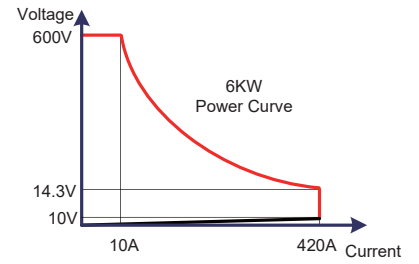
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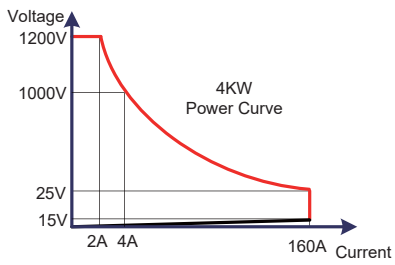
PEL-5004G-600-280



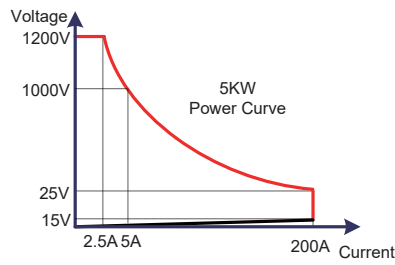
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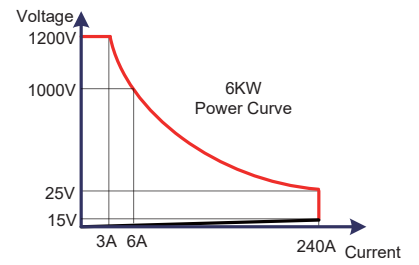
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PEL-5004G-1200-160

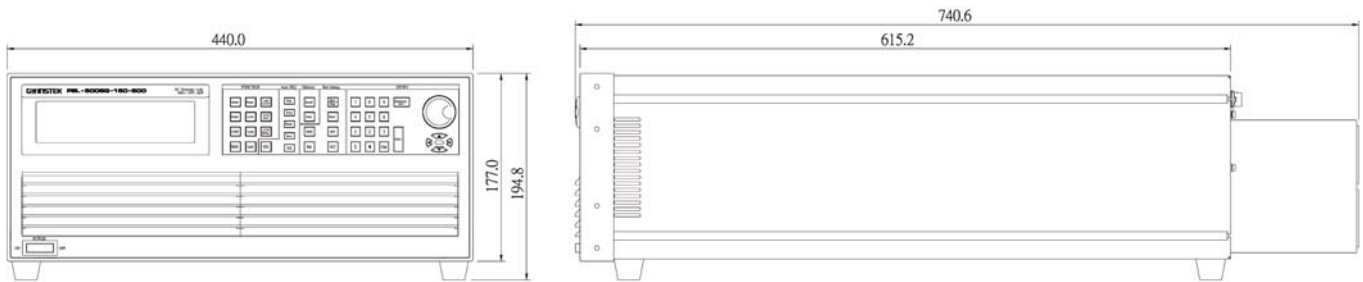


PEL-5005G-1200-200



PEL-5006G-1200-240

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



購買資訊

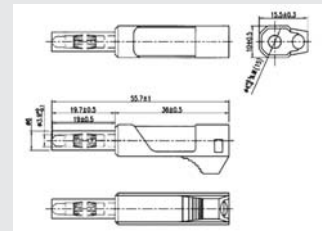
PEL-5004G-150-400	150V/400A/4000W	超高功率直流電子負載
PEL-5005G-150-500	150V/500A/5000W	超高功率直流電子負載
PEL-5006G-150-600	150V/600A/6000W	超高功率直流電子負載
PEL-5004G-600-280	600V/280A/4000W	超高功率直流電子負載
PEL-5005G-600-350	600V/350A/5000W	超高功率直流電子負載
PEL-5006G-600-420	600V/420A/6000W	超高功率直流電子負載
PEL-5004G-1200-160	1200V/160A/4000W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

PEL-5006G-1200-240

Power rating: 6 → 6AKW
Maximum output current: 240 → 240A
Maximum output voltage: 1200 → 1200V

STANDARD ACCESSORIES

BANANA PLUGS : Please refer to Fig.1 x 1
BNC – BNC CABLE : BNC to BNC CABLE, 1m x 1
HD-DSUB : 15PIN Parallel wire Parallel Wire 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	GTL-246	USB Cable, USB 2.0, A-B Type, 1200mm
PEL-023	RS-232 Card	PEL-030	GPIB+RS-232 Card	GTL-248	GPIB Cable, Double Shielded, 2000mm
PEL-024	LAN Card	PEL-032	9923 Current Waveform Generator + RS232 Interface	GTL-250	GPIB Cable, Double Shielded, 600mm

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

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