GOOD WILL INSTRUMENT CO., LTD.
N0. 7-1, Jhongsing Road, Tucheng Dist., New Taipei City, 236, Taiwan
T (886) 2 2268-0389 F (886)2 2268-0639 www.gwinstek.com

PEL-3000 Specifications

The specifications apply when the PEL-3000 is powered on for at least 30 minutes under +20°C~+30°C.

PEL-3021 / PEL-3041 / PEL-3111 / PEL-3211

Model		PEL-3021			PEL-3041			PEL-3111			PEL-3211
Voltage		1.5V~150V			1.5V~150V			1.5V~150V			1.5V~150V
Current		35A			70A			210A			420A
Power		175W			350W			1050W			2100W
Constant Current Mode											
Operating Range		0~35A	0~3.5A	0~0.35A	0~70A	0~7A	0~0.7A	0~210A	0~21A	0~2.1A	420A
Accuracy of Setting	H,M,L	±(0.2 % of set + 0.1 % of f.s*[1]) + Vin*[2]/500 kΩ									±(1.2% of set +1.1% of f.s)
Accuracy of Setting(Parallel)	H,M,L	±(1.2 % of set + 1.1 % of f.s*[3])									
Resolution		1mA	0.1mA	0.01mA	2mA	0.2mA	0.02mA	10mA	1mA	0.1mA	N/A
Constant Resistance Mode											
Operating Range	H	23.33365S~400uS (42.857mΩ~2.5kΩ)			46.6672S~800uS (21.428mΩ~1.25KΩ)			140.0016S~2.4mS (7.1427mΩ~416.6667Ω)			28.0002s~484.8us (35.7135mΩ~2.08334Ω)
	M	2.33336S~40uS (428.566mΩ~25kΩ)			4.6667S~80uS (214.28mΩ~12.5kΩ)			14.0001S~242.4uS (71.427mΩ~4.16667Ω)			
	L	0.233336S~4uS (4.28566Ω~250kΩ)			0.46667S~8uS (2.1428Ω~125kΩ)			1.40001S~24.24uS (714.27mΩ~41.6667kΩ)			
Accuracy of Setting	H,M,L	±(0.5 % of set*[4] + 0.5 % of f.s*[1]) + Vin*[3]/500kΩ									±(1.2% of set +1.1% of f.s)
Resolution		400uS	40uS	4uS	800uS	80uS	8uS	2.4mS	240uS	24uS	N/A
Constant Voltage Mode											

Operating Range	H	1.5V~150V			1.5V~150V			1.5V~150V			1.5V~150V
	L	1.5V~15V			1.5V~15V			1.5V~15V			1.5V~15V
Accuracy of Setting	H,L	±(0.1 % of set + 0.1 % of f.s.)			±(0.1 % of set + 0.1 % of f.s.)			±(0.1 % of set + 0.1 % of f.s.)			N/A
Resolution	H,L	10mV / 1mV			10mV / 1mV			10mV / 1mV			N/A
Constant Power Mode											
Operating Range	H	17.5W~175W			35W~350W			105W~1050W			210W~2100W
	M	1.75W~17.5W			3.5W~35W			10.5W~105W			21W~210W
	L	0.175W~1.75W			0.35W~3.5W			1.05W~10.5W			2.1W~21W
Accuracy of Setting	H,M,L	±(0.6 % of set*5 + 1.4 % of f.s*[6])									N/A
Resolution		10mW	1mW	0.1mW	10mW	1mW	0.1mW	100mW	10mW	1mW	N/A
PARALLEL Mode											
Capacity		875W			1750W			5250W			PEL-3111 with 4 booster units: Max 9.45kW
Slew Rate											
Setting Range (CC mode)	H	2.5mA/us~2.5A/us			5mA/us~5A/us			16mA/us~16A/us			16mA/us~16A/us
	M	250uA/us~250mA/us			500uA/us~500mA/us			1.6mA/us~1.6A/us			1.6mA/us~1.6A/us
	L	25uA/us~25mA/us			50uA/us~50mA/us			160uA/us~160mA/us			N/A
Resolution		0.1uA ~ 1mA			0.2uA ~ 2mA			0.6uA ~ 6mA			N/A
Setting Range (CR mode)	H	250uA/us~250mA/us			500uA/us~500mA/us			1.6mA/us~1.6A/us			1.6mA/us~1.6A/us
	M	25uA/us~25mA/us			50uA/us~50mA/us			160uA/us~160mA/us			160uA/us~160mA/us
	L	2.5uA/us~2.5mA/us			5uA/us~5mA/us			16uA/us~16mA/us			N/A
Resolution		0.1uA ~ 1mA			0.2uA ~ 2mA			0.6uA ~ 6mA			N/A
Accuracy of Setting	H,M,L	±(10 % of set*[7]+ 5us)									N/A
METER											
Voltmeter	Accuracy	±(0.1 % of rdg + 0.1 % of f.s.)									N/A
Ammeter	Accuracy	±(0.2 % of rdg + 0.3 % of f.s.)									N/A
Ammeter (Parallel Operation)	Accuracy	±(1.2 % of rdg + 1.1 % of f.s.)									N/A
DYNAMIC MODE											
Operation mode		CC / CR									
T1 & T2		0.025ms ~ 10ms / Res : 1us ; 1ms ~ 30s / Res : 1ms									
Accuracy		1us / 1ms ±100ppm									
Slew Rate (CC Mode)	H	2.5mA/us~2.5A/us			5mA/us~5A/us			16mA/us~16A/us			16mA/us~16A/us
	M	250uA/us~250mA/us			500uA/us~500mA/us			1.6mA/us~1.6A/us			1.6mA/us~1.6A/us
	L	25uA/us~25mA/us			50uA/us~50mA/us			160uA/us~160mA/us			N/A
Slew Rate	H	250uA/us~250mA/us			500uA/us~500mA/us			1.6mA/us~1.6A/us			1.6mA/us~1.6A/us

GOOD WILL INSTRUMENT CO., LTD.
N0. 7-1, Jhongsing Road, Tucheng Dist., New Taipei City, 236, Taiwan
T (886) 2 2268-0389 F (886)2 2268-0639 www.gwinstek.com

(CR Mode)	M	25uA/us~25mA/us	50uA/us~50mA/us	160uA/us~160mA/us	160uA/us~160mA/us
	L	2.5uA/us~2.5mA/us	5uA/us~5mA/us	16uA/us~16mA/us	N/A
Current Accuracy		±0.4%F.S	±0.4%F.S	±0.4%F.S	±(1.2% of set +1.1% of f.s)
Protection Function					
Overvoltage (OVP)		Adjustable ; Turns off the load at 110% of the rated voltage			N/A
Overcurrent (OCP)		0.03A ~ 38.5A (Adjustable)	0.06A ~ 77A (Adjustable)	0.2A ~ 231A (Adjustable)	
Overpower (OPP)		0.1W ~ 192.5W (Adjustable)	0.3W ~ 385W (Adjustable)	1W ~ 1155W (Adjustable)	
Overheat (OHP)		Turns off the load when the heat sink temperature reaches 95 °C			
Undervoltage (UVP)		Adjustable : Turns off the load when detected. Can be set in the range of 0 V to 150 V or Off.			
Reverse connection (REV)		By diode. Turns off the load when an alarm occurs.			
General Specifications					
Power Source		AC100V ~ 230V±10% ; 50Hz / 60Hz ± 2Hz			
Interface		USB/RS232C/Analog Control (Standard) ; GPIB(Option)			
Weight		Approx. 6kg	7kg	17kg	23kg
DIMENSIONS & WEIGHT		214.5(W)x124(H)x400(D)mm.	214.5(W)x124(H)x400(D)mm	429.5(W)x128(H)x400(D)mm	427.7(W)x128(H)x592.5(D)mm

GOOD WILL INSTRUMENT CO., LTD.
N0. 7-1, Jhongsing Road, Tucheng Dist., New Taipei City, 236, Taiwan
T (886) 2 2268-0389 F (886)2 2268-0639 www.gwinstek.com

PEL-3212 / PEL-3323 / PEL-3424 / PEL-3535

Model		**PEL-3212**			**PEL-3323**			**PEL-3424**			**PEL-3535**		
Voltage		1.5V~150V			1.5V~150V			1.5V~150V			1.5V~150V		
Current		0~420A			0~630A			0~840A			0~1050A		
Power		2100W			3150W			4200W			5250W		
Constant Current Mode													
Operating Range		0~420A	0~42A	0~4.2A	0~630A	0~63A	0~6.3A	0~840A	0~84A	0~8.4A	0~1050A	0~105A	0~10.5A
Accuracy of Setting	H,M,L	±(0.2 % of set + 0.1 % of f.s*[1]) + Vin*[2]/500 kΩ											
Accuracy of Setting(Parallel)	H,M,L	N/A											
Resolution		20mA	2mA	0.2mA	30mA	3mA	0.3mA	40mA	4mA	0.4mA	50mA	5mA	0.5mA
Constant Resistance Mode													
Operating Range	H	280.0032S~4.8mS (3.57138mΩ~208.333Ω)			420.0048S~7.2mS (2.38092mΩ~138.888Ω)			560.0064S~9.6mS (1.78569mΩ~104.166Ω)			700.008S~12mS (1.42855mΩ~83.3333Ω)		
	M	28.00032S~480uS (35.7138mΩ~2083.33Ω)			42.00048S~720uS (23.8092mΩ~1388.88Ω)			56.00064S~960uS (17.8569mΩ~1041.66Ω)			70.0008S~1.2mS (14.2855mΩ~833.333Ω)		
	L	2.800032S~48uS (357.138mΩ~20.8333kΩ)			4.200048S~72uS (238.092mΩ~13.8888kΩ)			5.600064S~96uS (178.569mΩ~10.4166kΩ)			7.00008S~120uS (142.855mΩ~8.33333kΩ)		
Accuracy of Setting	H,M,L	±(0.5 % of set*[4] + 0.5 % of f.s.*[3]) + Vin*[2]/500 kΩ			±(0.5 % of set*[4] + 0.5 % of f.s.*[3]) + Vin*[2]/500 kΩ			±(0.5 % of set*[4] + 0.5 % of f.s.*[3]) + Vin*[2]/500 kΩ			±(0.5 % of set*[4] + 0.5 % of f.s.*[3]) + Vin*[2]/500 kΩ		

Resolution		4.8mS	480uS	48uS	7.2mS	720uS	72uS	9.6mS	960uS	96uS	12mS	1.2mS	120uS
Constant Voltage Mode													
Operating Range	H	1.5V~150V			1.5V~150V			1.5V~150V			1.5V~150V		
	L	1.5V~15V			1.5V~15V			1.5V~15V			1.5V~15V		
Accuracy of Setting	H,L	±(0.1 % of set + 0.1 % of f.s)			±(0.1 % of set + 0.1 % of f.s)			±(0.1 % of set + 0.1 % of f.s)			±(0.1 % of set + 0.1 % of f.s)		
Resolution	H,L	10mV / 1mV			10mV / 1mV			10mV / 1mV			10mV / 1mV		
Constant Power Mode													
Operating Range	H	210W~2100W			315W~3150W			420W~4200W			525W~5250W		
	M	21W~210W			31.5W~315W			42W~420W			52.5W~525W		
	L	2.1W~21W			3.15W~31.5W			4.2W~42W			5.25W~52.5W		
Accuracy of Setting	H,M,L	±(0.6 % of set + 1.4 % of f.s*[3])			±(0.6 % of set + 1.4 % of f.s*[3])			±(0.6 % of set + 1.4 % of f.s*[3])			±(0.6 % of set + 1.4 % of f.s*[3])		
Resolution		200mW	20mW	2mW	300mW	30mW	3mW	400mW	40mW	4mW	500mW	50mW	5mW
PARALLEL Mode													
Capacity		N/A											
Slew Rate													
Setting Range (CC mode)	H	32mA/us~16A/us			48mA/us~16A/us			64mA/us~16A/us			80mA/us~16A/us		
	M	3.2mA/us~1.6A/us			4.8mA/us~1.6A/us			6.4mA/us~1.6A/us			8mA/us~1.6A/us		
	L	320uA/us~160mA/us			480uA/us~160mA/us			640uA/us~160mA/us			800uA/us~160mA/us		
Resolution		1.2uA~12mA			1.8uA~18mA			2.4uA~24mA			3uA~30mA		
Setting Range (CR mode)	H	3.2mA/us~1.6A/us			4.8mA/us~1.6A/us			6.4mA/us~1.6A/us			8mA/us~1.6A/us		
	M	320uA/us~160mA/us			480uA/us~160mA/us			640uA/us~160mA/us			800uA/us~160mA/us		
	L	32uA/us~16mA/us			48uA/us~16mA/us			64uA/us~16mA/us			80uA/us~16mA/us		
Resolution		120nA~1.2mA			180nA~1.8mA			240nA~2.4mA			300nA~3.0mA		
Accuracy of Setting	H,M,L	±(10 % of set*[7]+ 5us)											
METER													
Voltmeter	Accuracy	±(0.1 % of rdg + 0.1 % of f.s)			±(0.1 % of rdg + 0.1 % of f.s)			±(0.1 % of rdg + 0.1 % of f.s)			±(0.1 % of rdg + 0.1 % of f.s)		
Ammeter	Accuracy	±(0.2 % of rdg + 0.3 % of f.s)			±(0.2 % of rdg + 0.3 % of f.s)			±(0.2 % of rdg + 0.3 % of f.s)			±(0.2 % of rdg + 0.3 % of f.s)		
Ammeter(Parallel Operation)	Accuracy	N/A											
DYNAMIC MODE													
Operation mode		CC and CR			CC and CR			CC and CR			CC and CR		
T1 & T2		0.025mS ~ 10mS / Res : 1uS 1mS ~ 30S / Res : 1mS			0.025mS ~ 10mS / Res : 1uS 1mS ~ 30S / Res : 1mS			0.025mS ~ 10mS / Res : 1uS 1mS ~ 30S / Res : 1mS			0.025mS ~ 10mS / Res : 1uS 1mS ~ 30S / Res : 1mS		

GOOD WILL INSTRUMENT CO., LTD.
N0. 7-1, Jhongsing Road, Tucheng Dist., New Taipei City, 236, Taiwan
T (886) 2 2268-0389 F (886)2 2268-0639 www.gwinstek.com

Accuracy		1uS / 1mS ± 100ppm	1uS / 1mS ± 100ppm	1uS / 1mS ± 100ppm	1uS / 1mS ± 100ppm
Slew Rate (CC Mode)	H	32mA/us~16A/us	48mA/us~16A/us	64mA/us~16A/us	80mA/us~16A/us
	M	3.2mA/us~1.6A/us	4.8mA/us~1.6A/us	6.4mA/us~1.6A/us	8mA/us~1.6A/us
	L	320uA/us~160mA/us	480uA/us~160mA/us	640uA/us~160mA/us	800uA/us~160mA/us
Slew Rate (CR Mode)	H	3.2mA/us~1.6A/us	4.8mA/us~1.6A/us	6.4mA/us~1.6A/us	8mA/us~1.6A/us
	M	320uA/us~160mA/us	480uA/us~160mA/us	640uA/us~160mA/us	800uA/us~160mA/us
	L	32uA/us~16mA/us	48uA/us~16mA/us	64uA/us~16mA/us	80uA/us~16mA/us
Current Accuracy		±0.4%F.S.	±0.4%F.S.	±0.4%F.S.	±0.4%F.S.
Protection Function					
Overvoltage (OVP)		Turns off the load at 110% of the rated voltage			
Overcurrent (OCP)		0.4A~462A	0.6A~693A	0.8A~924A	1.0A~1155A
Overpower (OPP)		2W~2310W	3W~3465W	4W~4620W	5W~5775W
Overheat (OHP)		Turns off the load when the heat sink temperature reaches 95 °C			
Undervoltage (UVP)		Turns off the load when detected. Can be set in the range of 0 V to 150 V or Off.			
Reverse connection (REV)		By diode. Turns off the load when an alarm occurs.			
General Specifications					
Power Source		AC100V ~ 230V±10% ; 50Hz / 60Hz ± 2Hz			
Interface		USB/RS232C/Analog Control (Standard) ; GPIB(Option)			
Weight		Approx. 67.5kg	Approx. 85.5kg	Approx. 110kg	Approx. 127.5kg
DIMENSIONS & WEIGHT		598(W)x611(H)x706(D)mm	598(W)x611(H)x706(D)mm	598(W)x877(H)x706(D)mm	598(W)x877(H)x706(D)mm

GOOD WILL INSTRUMENT CO., LTD.
N0. 7-1, Jhongsing Road, Tucheng Dist., New Taipei City, 236, Taiwan
T (886) 2 2268-0389 F (886)2 2268-0639 www.gwinstek.com

PEL-3322 / PEL-3533 / PEL-3744 / PEL-3955

Model		**PEL-3322**			**PEL-3533**			**PEL-3744**			**PEL-3955**		
Voltage		1.5V~150V			1.5V~150V			1.5V~150V			1.5V~150V		
Current		0~630A			0~1050A			0~1470A			0~1890A		
Power		3150W			5250W			7350W			9450W		
Constant Current Mode													
Operating Range		0~630A	0~63A	N/A	0~1050A	0~105A	N/A	0~1470A	0~147A	N/A	0~1890A	0~189A	N/A
Accuracy of Setting	H,M,L	±(0.2 % of set + 0.1 % of f.s*[1]) + Vin*[2]/500 kΩ											
Accuracy of Setting(Parallel)	H,M,L	N/A											
Resolution		30mA	3mA	N/A	50mA	5mA	N/A	70mA	7mA	N/A	90mA	9mA	N/A
Constant Resistance Mode													
Operating Range	H	420.0048S~7.2mS (2.38092mΩ~138.888Ω)			700.008S~12mS (1.42855mΩ~83.3333Ω)			980.0112S~16.8mS (1.02039mΩ~59.5238Ω)			1260.0144S~21.6mS (793.641uΩ~46.2963Ω)		
	M	42.00048S~720uS (23.8092mΩ~1388.88Ω)			70.0008S~1.2mS (14.2855mΩ~833.333Ω)			98.00112S~1.68mS (10.2039mΩ~595.238Ω)			126.00144S~2.16mS (7.93641mΩ~462.963Ω)		
	L	N/A			N/A			N/A			N/A		
Accuracy of Setting	H,M,L	±(0.5 % of set*[4] + 0.5 % of f.s.*[3]) + Vin*[2]/500 kΩ			±(0.5 % of set*[4] + 0.5 % of f.s.*[3]) + Vin*[2]/500 kΩ			±(0.5 % of set*[4] + 0.5 % of f.s.*[3]) + Vin*[2]/500 kΩ			±(0.5 % of set*[4] + 0.5 % of f.s.*[3]) + Vin*[2]/500 kΩ		
Resolution		7.2mS	720uS	N/A	12mS	1.2mS	N/A	16.8mS	1.68mS	N/A	21.6mS	2.16mS	N/A

Constant Voltage Mode													
Operating Range	H	1.5V~150V			1.5V~150V			1.5V~150V			1.5V~150V		
	L	1.5V~15V			1.5V~15V			1.5V~15V			1.5V~15V		
Accuracy of Setting	H,L	±(0.1 % of set + 0.1 % of f.s)			±(0.1 % of set + 0.1 % of f.s)			±(0.1 % of set + 0.1 % of f.s)			±(0.1 % of set + 0.1 % of f.s)		
Resolution	H,L	10mV / 1mV			10mV / 1mV			10mV / 1mV			10mV / 1mV		
Constant Power Mode													
Operating Range	H	315W~3150W			525W~5250W			735W~7350W			945W~9450W		
	M	31.5W~315W			52.5W~525W			73.5W~735W			94.5W~945W		
	L	N/A			N/A			N/A			N/A		
Accuracy of Setting	H,M,L	±(0.6 % of set + 1.4 % of f.s*[3])			±(0.6 % of set + 1.4 % of f.s*[3])			±(0.6 % of set + 1.4 % of f.s*[3])			±(0.6 % of set + 1.4 % of f.s*[3])		
Resolution		300mW	30mW	N/A	500mW	50mW	N/A	700mW	70mW	N/A	900mW	90mW	N/A
PARALLEL Mode													
Capacity		N/A											
Slew Rate													
Setting Range (CC mode)	H	48mA/us~16A/us			80mA/us~16A/us			112mA/us~16A/us			144mA/us~16A/us		
	M	4.8mA/us~1.6A/us			8mA/us~1.6A/us			11.2mA/us~1.6A/us			14.4mA/us~1.6A/us		
	L	N/A			N/A			N/A			N/A		
Resolution		1.8uA~18mA			3uA~30mA			4.2uA~42mA			5.4uA~54mA		
Setting Range (CR mode)	H	4.8mA/us~1.6A/us			8mA/us~1.6A/us			11.2mA/us~1.6A/us			14.4mA/us~1.6A/us		
	M	480uA/us~160mA/us			800uA/us~160mA/us			1.12mA/us~160mA/us			1.44mA/us~160mA/us		
	L	N/A			N/A			N/A			N/A		
Resolution		0.18nA~18mA			0.3nA~3.0mA			0.42nA~4.2mA			0.54nA~5.4mA		
Accuracy of Setting	H,M,L	±(10 % of set*7+ 5us)											
METER													
Voltmeter	Accuracy	±(0.1 % of rdg + 0.1 % of f.s)			±(0.1 % of rdg + 0.1 % of f.s)			±(0.1 % of rdg + 0.1 % of f.s)			±(0.1 % of rdg + 0.1 % of f.s)		
Ammeter	Accuracy	±(0.2 % of rdg + 0.3 % of f.s)			±(0.2 % of rdg + 0.3 % of f.s)			±(0.2 % of rdg + 0.3 % of f.s)			±(0.2 % of rdg + 0.3 % of f.s)		
Ammeter(Parallel Operation)	Accuracy	N/A											
DYNAMIC MODE													
Operation mode		CC and CR			CC and CR			CC and CR			CC and CR		
T1 & T2		0.025mS ~ 10mS / Res : 1uS 1mS ~ 30S / Res : 1mS			0.025mS ~ 10mS / Res : 1uS 1mS ~ 30S / Res : 1mS			0.025mS ~ 10mS / Res : 1uS 1mS ~ 30S / Res : 1mS			0.025mS ~ 10mS / Res : 1uS 1mS ~ 30S / Res : 1mS		
Accuracy		1uS / 1mS ± 100ppm			1uS / 1mS ± 100ppm			1uS / 1mS ± 100ppm			1uS / 1mS ± 100ppm		

Slew Rate(CC Mode)	H	48mA/us~16A/us	80mA/us~16A/us	112mA/us~16A/us	144mA/us~16A/us
	M	4.8mA/us~1.6A/us	8mA/us~1.6A/us	11.2mA/us~1.6A/us	14.4mA/us~1.6A/us
	L	N/A	N/A	N/A	N/A
Slew Rate(CR Mode)	H	4.8mA/us~1.6A/us	8mA/us~1.6A/us	11.2mA/us~1.6A/us	14.4mA/us~1.6A/us
	M	480uA/us~160mA/us	800uA/us~160mA/us	1.12mA/us~160mA/us	1.44mA/us~160mA/us
	L	N/A	N/A	N/A	N/A
Current Accuracy		±0.4%F.S.	±0.4%F.S.	±0.4%F.S.	±0.4%F.S.
Protection Function					
Overvoltage (OVP)		Turns off the load at 110% of the rated voltage			
Overcurrent (OCP)		0.6A~693A	1.0A~1155A	1.4A~1617A	1.8A~2079A
Overpower (OPP)		3W~3465W	5W~5775W	7W~8085W	9W~10395W
Overheat (OHP)		Turns off the load when the heat sink temperature reaches 95 °C			
Undervoltage (UVP)		Turns off the load when detected. Can be set in the range of 0 V to 150 V or Off.			
Reverse connection (REV)		By diode. Turns off the load when an alarm occurs.			
General Specifications					
Power Source		AC100V ~ 230V±10% ; 50Hz / 60Hz ± 2Hz			
Interface		USB/RS232C/Analog Control (Standard) ; GPIB(Option)			
Weight		Approx. 73kg	Approx. 96.5kg	Approx. 125kg	Approx. 149kg
DIMENSIONS & WEIGHT		598(W)x611(H)x706(D)mm	598(W)x611(H)x706(D)mm	598(W)x877(H)x706(D)mm	598(W)x877(H)x706(D)mm

*1 Full scale of H range rated current.

*2 Vin: input terminal voltage of electric load.

*3 M range applies to the full scale of H range

*4 Set = Vin / Rset

*5 It is not applied for the condition of the parallel operation

*6 M range applies to the full scale of H range

*7 Time to reach from 10% ~ 90% when the current is varied from 2% ~ 100% (20% ~ 100% in M range) of the rated current.