

PEL-2000A Specifications

The specifications apply when the PEL-2000A is powered on for at least 30 minutes under +20°C~+30°C.

PEL-2020A / PEL-2030A / PEL-2040A / PEL-2041A

		PEL-2020A(100Wx2)		PEL-2030A(250W/30W)			PEL-2040A		PEL-2041A	
CHANNEL		L/R	L/R	Left	Right	Right	one channel		one channel	
RANGE		LOW	HIGH	LOW	LOW	HIGH	LOW	HIGH	LOW	HIGH
POWER		100W	100W	30W	250W	250W	350W		350W	
CURRENT		0~2A	0~20A	0~5A	0~4A	0~40A	0~7A	0~70A	0~1A	0~10A
VOLTAGE		0~80V		0~80V			0~80V		0~500V	
MIN.OPERATING VOLTAGE(dc)(Typ.)		0.4V at 2A	0.8V at 20A	0.8V at 5A	0.4V at 4A	0.8V at 40A	0.4V at 7A	0.8V at 70A	1V at 1A	2V at 10A
		0.2V at 1A	0.4V at 10A	0.4V at 2.5A	0.2V at 2A	0.4V at 20A	0.2V at 3.5A	0.4V at 35A	0.5V at 0.5A	1V at 5A
STATIC MODE										
CONSTANT CURRENT MODE										
	Operating Range	0~2A	0~20A	0~5A	0~4A	0~40A	0~7A	0~70A	0~1A	0~10A
	Setting Range	0~2.04A	0~20.4A	0~5.1A	0~4.08A	0~40.8A	0~7.14A	0~71.4A	0~1.02A	0~10.2A
	Resolution	0.1mA	1mA	0.125mA	0.1mA	1mA	0.2mA	2mA	0.05mA	0.5mA
	Accuracy	±(0.1%set + 0.1%F.S.*1)	±(0.1%set + 0.2%F.S.)	±(0.1%set + 0.1%F.S)	±(0.1%set + 0.1%F.S.*1)	±(0.1%set + 0.2%F.S)	±(0.1%set + 0.1%F.S.*1)	±(0.1%set + 0.2%F.S)	±(0.1%set + 0.1%F.S.*1)	±(0.1%set + 0.2%F.S)
CONSTANT RESISTANCE MODE										
	Operating Range	0.075Ω~300Ω(100W/16V)		0.3Ω~1.2KΩ(30W/16V)		0.0375Ω~150Ω(250W/16V)		0.025Ω~100Ω(350W/16V)		1.25Ω~5KΩ(350W/125V)
		3.75Ω~15KΩ(100W/80V)		15Ω~60KΩ(30W/80V)		1.875Ω~7.5KΩ(250W/80V)		1.25Ω~5KΩ(350W/80V)		50Ω~200KΩ(350W/500V)
	Setting Range	0.075Ω~300Ω(100W/16V)		0.3Ω~1.2KΩ(30W/16V)		0.0375Ω~150Ω(250W/16V)		0.025Ω~100Ω(350W/16V)		1.25Ω~5KΩ(350W/125V)
		3.75Ω~15KΩ(100W/80V)		15Ω~60KΩ(30W/80V)		1.875Ω~7.5KΩ(250W/80V)		1.25Ω~5KΩ(350W/80V)		50Ω~200KΩ(350W/500V)
	Resolution*1	0.333mS(100W/16V)		83.333uS(30W/16V)		0.666mS(250W/16V)		1mS(350W/16V)		20uS(350W/125V)

		6.667uS(100W/80V)		1.666uS(30W/80V)		13.333uS(250W/80V)		20uS(350W/80V)		0.5uS(350W/500V)	
	Accuracy ^{*2} With ≥ 2.5V at input	300Ω : ±(0.2%set + 0.1S)		1.2KΩ : ±(0.2%set + 0.1S)		150Ω : ±(0.2%set + 0.1S)		100Ω : ±(0.2%set + 0.1S)		5KΩ : ±(0.2%set + 0.02S)	
		15KΩ: ±(0.1%set + 0.01S)		60KΩ: ±(0.1%set + 0.01S)		7.5KΩ: ±(0.1%set + 0.01S)		5KΩ: ±(0.1%set + 0.01S)		200KΩ: ±(0.1%set + 0.005S)	
NOTE : *1 : S (siemens) is the unit of conductance, equal to one reciprocal ohm. *2 : Accuracy must be calculated in conductivity units.											
CONSTANT VOLTAGE + CONSTANT CURRENT MODE											
	Operating Range	1~80V	1~16V	1~80V	1~16V	1~80V	1~16V	1~80V	1~16V	2.5~500V	2.5~125V
	Setting Range	0~81.6V	0~16.32V	0~81.6V	0~16.32V	0~81.6V	0~16.32V	0~81.6V	0~16.32V	0~510V	0~127.5V
	Resolution	2mV	0.4mV	2mV	0.4mV	2mV	0.4mV	2mV	0.4mV	10mV	2.5mV
	Accuracy	±(0.05%set + 0.1%F.S.)		±(0.05%set + 0.1%F.S.)		±(0.05%set + 0.1%F.S.)		±(0.05%set + 0.1%F.S.)		±(0.05%set + 0.1%F.S.)	
	Current Setting Range	0~2.04A	0~20.4A	0~5.1A		0~4.08A	0~40.8A	0~7.14A	0~71.4A	0~1.02A	0~10.2A
	Resolution	0.1mA	1mA	0.125mA		0.1mA	1mA	0.2mA	2mA	0.05mA	0.5mA
	Accuracy	±(0.1%set + 0.1%F.S. ^{*1})	±(0.1%set + 0.2%F.S.)	±(0.1%set + 0.2%F.S.)		±(0.1%set + 0.1%F.S. ^{*1})	±(0.1%set + 0.2%F.S)	±(0.1%set + 0.1%F.S. ^{*1})	±(0.1%set + 0.2%F.S)	±(0.1%set + 0.1%F.S. ^{*1})	±(0.1%set + 0.2%F.S)
CONSTANT POWER MODE + CONSTANT CURRENT MODE											
	Operating Range	1~10W	1~100W	1~30W		1~25W	1~250W	1~35W	1~350W	1~35W	1~350W
	Setting Range	0~10.2W	0~102W	0~30.6W		0~25.5W	0~255W	0~35.7W	0~357W	0~35.7W	0~357W
	Resolution	1mW	10mW	1mW		1mW	10mW	1mW	10mW	1mW	10mW
	Accuracy	±(0.5%set + 0.5%F.S. ^{*1})	±(0.5%set + 0.5%F.S)	±(0.5%set + 0.5%F.S)		±(0.5%set + 0.5%F.S. ^{*1})		±(0.5%set + 0.5%F.S. ^{*1})	±(0.5%set + 0.5%F.S)	±(0.5%set + 0.2%F.S. ^{*1})	±(0.5%set + 0.5%F.S)
	Current Setting Range	0~2.04A	0~20.4A	0~5.1A		0~4.08A	0~40.8A	0~7.14A	0~71.4A	0~1.02A	0~10.2A
	Resolution	0.1mA	1mA	0.125mA		0.1mA	1mA	0.2mA	2mA	0.05mA	0.5mA
	Accuracy	±(0.1%set + 0.1%F.S. ^{*1})	±(0.1%set + 0.2%F.S.)	±(0.1%set + 0.2%F.S.)		±(0.1%set + 0.1%F.S. ^{*1})	±(0.1%set + 0.2%F.S)	±(0.1%set + 0.1%F.S. ^{*1})	±(0.1%set + 0.2%F.S)	±(0.1%set + 0.1%F.S. ^{*1})	±(0.1%set + 0.2%F.S)
NOTE : *1 : F.S. = Full scale of H Range											
DYNAMIC MODE											
	T1&T2	0.025mS ~ 10mS / Res : 1uS		0.025mS ~ 10mS / Res : 1uS				0.025mS ~ 10mS / Res : 1uS		0.025mS ~ 10mS / Res : 1uS	
		10mS ~ 30S / Res : 1mS		10mS ~ 30S / Res : 1mS				10mS ~ 30S / Res : 1mS		10mS ~ 30S / Res : 1mS	

	Range	0~2A	0~20A	0~5A	0~4A	0~40A	0~7A	0~70A	0~1A	0~10A
	Resolution	0.04mA	0.4mA	0.1mA	0.08mA	0.8mA	0.14mA	1.4mA	0.02mA	0.2mA
	Accuracy	±(0.05%set + 0.05% F.S. ^{*2})		±(0.05%set + 0.05% F.S. ^{*2})			±(0.05%set + 0.05% F.S. ^{*2})		±(0.05%set + 0.05% F.S. ^{*2})	
POWER READBACK										
	Range	0~10W	0~100W	0~30W	0~25W	0~250W	0~35W	0~350W	0~35W	0~350W
	Accuracy	±(0.1%set + 0.1% F.S. ^{*1})		±(0.1%set + 0.1% F.S. ^{*1})	±(0.1%set + 0.1% F.S. ^{*1})		±(0.1%set + 0.1% F.S. ^{*1})		±(0.1%set + 0.1% F.S. ^{*1})	
NOTE : *1 : Power F.S. = Vrange F.S. x Irange F.S. *2 : F.S. = Full scale of H Range										
PROTECTIVE										
Over Power Protection										
	Range	1~102W		0.9~30.6W	1.25~255W		1.75~357W		1.75~357W	
	Resolution	0.5W		0.15W	1.25W		1.75W		1.75W	
	Accuracy	±(2%set + 0.25%F.S)		±(2%set + 0.25%F.S)	±(2%set + 0.25%F.S)		±(2%set + 0.25%F.S)		±(2%set + 0.25%F.S)	
Over Current Protection										
	Range	0.25~20.4A		0.0625~5.1A	0.5~40.8A		0.875~71.4A		0.125~10.2A	
	Resolution	0.05A		0.0125A	0.1A		0.175A		0.025A	
	Accuracy	±(2%set + 0.25%F.S)		±(2%set + 0.25%F.S)	±(2%set + 0.25%F.S)		±(2%set + 0.25%F.S)		±(2%set + 0.25%F.S)	
Over Voltage Protection										
	Range	1~81.6V		1~81.6V	1~81.6V		1~81.6V		2.5~510V	
	Resolution	0.2V		0.2V	0.2V		0.2V		1.25V	
	Accuracy	±(2%set + 0.25%F.S)		±(2%set + 0.25%F.S)	±(2%set + 0.25%F.S)		±(2%set + 0.25%F.S)		±(2%set + 0.25%F.S)	
	Over Temperature Protection	≒85℃		≒85℃			≒85℃		≒85℃	
Rated Power Protection										
	Value	110W		33W	275W		385W		385W	
	Accuracy	±5%set		±5%set	±5%set		±5%set		±5%set	
GENERAL										

SHORT CIRCUIT											
	Current(CC)	≒2.2/2A	≒22/20A	≒5.5/5A		≒4.4/4A	≒44/40A	≒7.7/7A	≒77/70A	≒1.1/1A	≒11/10A
	Voltage(CV)	≒ 0V	≒ 0V	≒ 0V		≒ 0V	≒ 0V	≒ 0V	≒ 0V	≒ 0V	≒ 0V
	Resistance(CR)	≒3.75Ω	≒0.075Ω	≒15Ω	≒0.3Ω	≒1.875Ω	≒0.0375Ω	≒1.25Ω	≒0.025Ω	≒50Ω	≒1.25Ω
INPUT RESISTANCE(LOAD OFF)		500KΩ(Typical)		500KΩ(Typical)				500KΩ(Typical)		500KΩ(Typical)	
POWER SOURCE		100-120Vac/ 200-240Vac (90-132Vac/ 180-250Vac) 47~63Hz									
WEIGHT		APPROX. 3.8kg									
DIMENSIONS & WEIGHT(PEL-2002A)		272(W) X 200(H) X 581(D) mm; Approx. 16.1kg(Full modules)						272(W) X 200(H) X 581(D) mm; Approx. 16.1kg(Full modules)			
DIMENSIONS & WEIGHT(PEL-2004A)		435(W) X 200(H) X 581(D) mm; Approx. 24.8kg(Full modules)						435(W) X 200(H) X 581(D) mm; Approx. 28.4kg(Full modules)			