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PEL-3000/3000H Series

Programmable D.C. Electronic Load

FEATURES

- Operating Voltage (DC): 0~150V(PEL-3000)/0~800V(PEL-3000H)
- Operating Mode: C.C/C.V/C.R/C.P/C.C+C.V/C.R+C.V/C.P+C.V
- Parallel Connection of Inputs for Higher Capacity (Max: 9,450W)
- Support of High Slew Rate : Max 16A/µs(PEL-3000)/0.84A/µs(PEL-3000H)
- Run Program Function (Go/NoGo Test)
- Sequence Function for High Efficient Load Simulations
- Dynamic (Switching) Function: 0.0166Hz~20kHz
- Soft Start Function: Off/On (1~200ms, Res. 1ms)
- Adjustable OCP/OVP/OPP/UVP Setting
- Short Circuit Function
- Timer Function: Elapsed Time of Load on
- Cut Off Time (Auto Load Off Timer): 1s to 999h 59min 59s or Off
- External Channel Control/Monitoring Via Analog Control Connector
- Setup Memories : 100 sets
- 3.5 Inch TFT LCD Display
- Multi Interface: USB 2.0 Device/Host, RS-232, GPIB/LAN (Optional)



Flexible Power Combinations, High-Speed and Versatile Load Simulations

The PEL-3000 Series, a single-channel, programmable D.C. electronic load with 0.01mA current resolution and $16A/\mu$ s current Slew Rate, is very ideal for testing server power supply and SPS (Switching Power Supply) for commercial and industrial computers. For a heavy-duty device like cloud ecosystem running 24-hour nonstop operations, a stable and high-power power supply, ranging from 350W to 1500W, is required to maintain the normal operation of server, Hub, and the equipment of data storage and internet communications. Owing to the increasing demand of data transmission and large scale data storage of telecommunications systems, the infrastructure of internet communications is in the pace of rapid expansion. This has greatly boosted the market demand of telecommunications equipment powered by power supply of 2000W and above. The flexible power combination of PEL-3000 Series meets the test requirements of present high-power power supply. The PEL-3000H Series programmable DC Electronic load, which not only inherited functions and features from the PEL-3000 Series but providing three current ranges for all PEL-3000H Series and adding voltage monitor BNC terminals on the front panel. The PEL-3000H Series, a single-channel, programmable D.C. electronic load with 800V and $0.84A/\mu$ s current Slew Rate, is ideal for the test of the high voltage devices such as the EV & HEV in-vehicle chargers, DC/DC converters or high-voltage batteries. With respect to battery testing applications such as rechargeable battery for electrical tools, battery module and automobile battery, PEL-3000(H) Series has three stand-alone models to offer including 175W, 350W, 1050W and Booster. By connecting Booster 2100W units with master units, the maximum load capacity of the whole system can reach 9,450W. Hence, the PEL-3000(H) Series fulfills various power testing requirements including medium to low power or high-power power supply.

The PEL-3000(H) Series has seven operating modes and three operating functions. Among the seven operating modes, four of them are basic operating modes, including constant current, constant voltage, constant resistance, and constant power, and the other three are advanced operating modes including constant current + constant voltage, constant resistance + constant voltage, and constant power + constant voltage. Users must first select operating mode and then operating function based upon the test requirements. Static, Dynamic and Sequence operating functions can be applied to different testing conditions including a fixed load level, switching between two levels or switching among more than two levels. Sequence function is divided into Fast Sequence and Normal Sequence according to the test time of each step. Both Dynamic and Sequence are to assist users to simulate the genuine load change. For instance, PEL-3000(H) Series can simulate HEV current consumption to make sure that automobile battery can supply HEV with sufficient power need on the road. By so doing, manufacturers can elevate product quality and reliability.

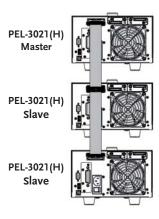
The Soft Start function of the PEL-3000(H) Series can set current rise time for the moment PEL-3000(H) Series is turned on to reduce the abnormal situation of the voltage drop of power supply under test. The adjustable Under Voltage Protection (UVP), GO/NO GO voltage input monitoring function, current monitoring function and Timer Function to control load activation time can be jointly applied to the characteristic tests of battery bleeding to avoid battery damage during bleeding operation. Based upon the functionalities described above, the PEL-3000(H) Series can test a vast variety of power supply ranging from the fundamental static sink current to complex dynamic load simulations so as to enhance product quality and reliability.

The single unit D.C Electronic Load of PEL-3000(H) Series

The PEL-3000(H) Series is a high speed, single channel and programmable D.C. electronic load and its power, functionality, parallel combination and size are listed on the following chart:

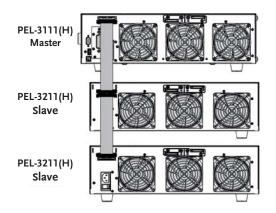
MODEL	PEL-3021(H)	PEL-3041(H)	PEL-3111(H)	PEL-3211(H)
Power	175W	350W	1,050W	2,100W Booster
Function	Full-function Single Unit	Full-function Single Unit	Full-function Single Unit	No control panel, can not be operated alone
Parallel	Parallel with same model, 5 units the	Parallel with same model, 5 units the	Parallel with same model, 5 units the maximum	Parallel with PEL-3111(H)
Combination	maximum	maximum	Parallel with the maximum of four PEL-3211 (H)s	
Size	Half Rack	Half Rack	Full Rack	Full Rack

OPERATING FUNCTION FOR MASTER AND SLAVE IN PARALLEL



Three PEL-3021(H) in Parallel

PEL-3000(H) Series connects with loads via MIL 20-pin interface and connecting cables to designate a master to control other slave units in parallel. One PEL-3111(H) and four PEL-3211(H) in parallel provide the maximum power of 9,450W.

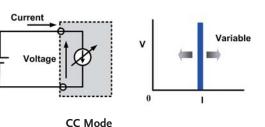


One PEL-3111(H) connects with two PEL-3211(H) in Parallel

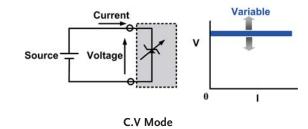
Parallel arrangement allows users to flexibly select and apply different power arrangement which enhances equipment utilization efficiency to save R&D cost.

B. OPERATING MODE

The PEL-3000(H) series provides four fundamental operating modes and three add-on modes of CC, CR and CP separately combining with CV. Users can set different load condition under different operating modes such as setting operating range for load level, Current Slew Rate, input voltage and load current.

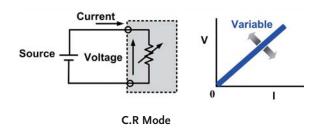


Under constant current mode, electronic load will sink the amount of current users has set. Different current settings via CC mode allow users to test the voltage changes of DC power supply which is called load regulation test.

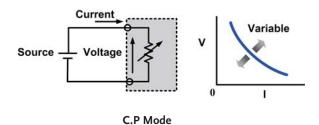


Under constant voltage mode, electronic load will sink sufficient current to regulate the voltage source to the set value. This mode allows users not only to test current limit function of power supply, but also to simulate battery operation in testing battery chargers.

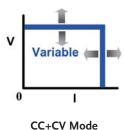
The input voltage range has two levels - high and low. The load current operating range has three levels - high, medium and low current levels which possess different resolution to meet test requirements of different power product specifications.

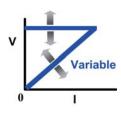


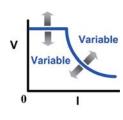
Under constant resistance mode, electronic load will sink load current, which is linearly direct proportion to input voltage. This mode can be utilized in testing voltage or the activation and current limit of power supply.



Under constant power mode, electronic load will sink load current, which is indirect proportion to input voltage to reach preset constant power requirement. Hence, the changes of input voltage will have indirect proportion effect on current sinking so as to reach constant power control.







CP+CV Mode

de CR+CV Mode

+CV mode can be selected under CC, CR or CP mode. When +CV mode function is turned on and electronic load sinks more current than the maximum current of power supply under test, electronic load will automatically switch to CV mode. It is because that the current sunk is the maximum current of power device. Therefore,

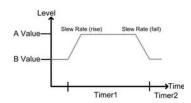
power supply will switch to CC mode and PEL-3000(H) will switch to CV mode to limit electronic load from sinking the total current of power supply so as to prevent power supply under test from damaging. Electronic load will cease operation once the voltage of DUT is lower than the set voltage under +CV mode.

C. THREE OPERATING FUNCTIONS

The PEL-3000(H) series, according to different test conditions, step or continuous changes, test speeds, and selectable modes, has three operating functions: Static, Dynamic and Sequence, which can be separately applied on a fixed load test; between two loads; or among more than two loads. Detailed descriptions of these functions are as follows:

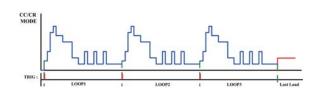
Static function provides a fixed load to test output stability of power supply. Switching load value A to B will be manually operated. Under Dynamic function, two test conditions can be switched automatically and every set of parameter includes Level, Timer and Slew Rate. Timer can be set to the fastest of 25µs to accommodate response time of different power supply and assist testing power supply output status when load is unstable in order to enhance products' reliability and quality.

Operation	Static	Dynamic	ience		
Function	Static	Dynamic	Fast	Normal	
Operating Condition Selection	Single fixed condition	Selection between two conditions	Selection among more than two conditions	Selection from more than two conditions	
Operating Modes	All modes	Two conditions using same mode CR, CC,CP modes	Each condition must use same mode Support CC or CR mode	Each condition using different modeAll modes	
Adjustable Condition Setting	A/B Value Slew Rate	Level 1/Level 2Timer 1/Timer 2 (25µs)Slew Rate 1/Slew Rate 2	Level Timer Slew Rate	Level	
Sequence Step Combination	N/A	N/A	• 1 Sequence • 25µs/step • 1,000 steps • Res. 1µs	• 10 Sequence • 10µs/step • 1,000 steps • Res. 10µs	
Other Functions	N/A	N/A	Trigger Out function	Trigger Out function Ramp function	



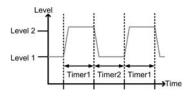
Static Mode

In Sequence function, waveforms of load current edited by Fast Sequence are steps and every step can reach the fastest of $25\mu s$



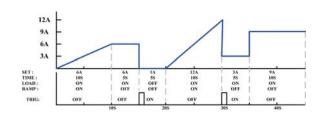
Fast Sequence Diagram

Normal Sequence provides RAMP function to users, according to their requirements, to select between slope and step method under set time to sink current.



Dynamic Mode

to provide the high slew rate for electronic loads.

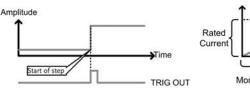


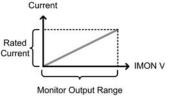
Normal Sequence Diagram

By applying a complete sequence editing function, users can control electronic load without using a computer or writing a program so as to save cost and time of R&D.

TRIGGER SIGNAL AND CURRENT MONITORING (IMON)







BNC connectors on the front panel

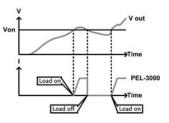
The front panel of PEL-3000(H), via BNC connectors provides two output signals, which are Trigger Signal and IMON. Under Dynamic or Sequence function, the moment the load current setting is changed BNC on the front panel will output a 4.5V and $2\mu s$ pulse voltage. This trigger signal can be set to open or close for every step. Users can use trigger signal to synchronize other devices inside the system.

TRIG OUT = ON

IMON OUTPUT

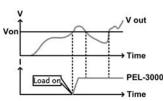
Current monitoring signals, using a BNC connector to compare with the full scale of real load current, output $0 \sim 1V(0\sim10V)$ for PEL-3000H) at high and low current levels and $0 \sim 0.1V(0\sim1V)$ for PEL-3000H) at medium current level. Therefore, users can monitor load current change without using current probe to save cost.

VON VOLTAGE AND VON LATCH FUNCTION



 $Von\ Latch = OFF$

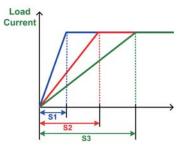
Von Voltage is the threshold voltage for electronic load to activate or terminate sinking current. When Von Latch is set to off, electronic load operation will be activated if input voltage is higher than Von Voltage and electronic load operation will be terminated if input voltage is lower than Von Voltage. When Von



Von Latch = ON

Latch is set to on, electronic load operation will be activated if input voltage is higher than Von Voltage and will continue operation even input voltage is lower than Von Voltage. Von Voltage function can test the transient maximum current capability provided by power supply.

F. SOFT START



Three different load waveforms of Soft Start Time

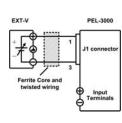
Soft Start regulates the time of current rising from 0 to preset value during the moment load is activated. This function is to prevent voltage from dropping due to the fast transient rising speed of load current. Sudden voltage drop will result in an unsuccessful activation of electronic load or DUT and a damaged DUT.

G. PROTECTION MODES

Protection Functions	ОСР	OVP	OPP	ОТР	UVP	RVP
Adjustable Thresholds	✓	1	1	Fixed	✓	N/A
Load Off	✓	✓	✓	N/A	✓	Fixed
Limit Function	1	N/A	1	N/A	N/A	N/A

The PEL-3000(H) Series provides many protective functions including over current protection (OCP), over voltage protection (OVP), over power protection (OPP), over temperature protection (OTP) and under voltage protection (UVP). Except for OTP, all thresholds of protective functions are adjustable. When protective function is activated, electronic load will send out warning signal and terminate operation. Other than protective functions, Limit function can also be utilized to maintain electronic load in operation at a preset value. The related settings and selections are as above: Take UVP as an example. In battery bleeding tests, electronic load will cease operation if battery voltage is lower than the set protective threshold value in order to prevent battery from over bleeding.





Rear Panel

External Voltage Connection

function, which allows users to connect J1 and J2 MIL 20 pin standard connectors on the rear panel to input voltage or to connect resistance to control electronic load operation. Input voltage is limited to the range of 0 ~ 10V; connecting resistance

The PEL-3000(H) Series provides the external analog channel control is limited to the range of $0\Omega \sim 10k\Omega$; and related to load level are 0~100%. For instance, when operating PEL-3021under CC mode and 35A, external input voltage is 1V and sink current is 3.5A. Users can integrate this function into test system and utilize signals generated from the test system to control PEL-3000(H) Series.

BATT TEST AUTOMATION







BATT Test Automation Editing

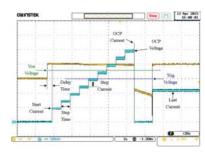
Waveform of TEST Result

Sample of Data Log

The built-in BATT Test Automation of PEL-3000(H) provides battery discharge applications with more flexible discharge stop time setting as well as rise and fall Slew Rate for discharge current settings. Under CP, CC or CR mode, the conditions for stop

discharge can be set respectively. For instance, set the input voltage for stop discharge current, the execution time for discharge current or total discharge current*time (AH) to satisfy the verification of battery capability.

OCP TEST AUTOMATION



OCP test Automation for DUT(Power Supply), provide users with high resolution OCP measurement values to verify DUT's OCP activation point. It also provides users with measurement results so as to help them determine whether DUT's actual OCP activation point meets the regulations. It can test the value of OCP by setting load current increment from start current to stop current. OCP's activation point can be accurately measured.

OPP TEST AUTOMATION



OPP test Automation for DUT (Power Supply), provide users with high resolution OPP measurement values to verify DUT's OPP activation point. It also provides users with measurement results so as to help them determine whether DUT's actual OPP activation point meets the regulations. It can test the value of OPP by setting power increment from start power to stop power. OPP's activation point can be accurately measured.

TIMER FUNCTIONS



Elapsed Time

The PEL-3000(H) Series provides count time and cut off time functions. The display screen will show present activation time when electronic load is activated. When electronic load operation is terminated count time will stop and the total operation time will be shown on the display screen.

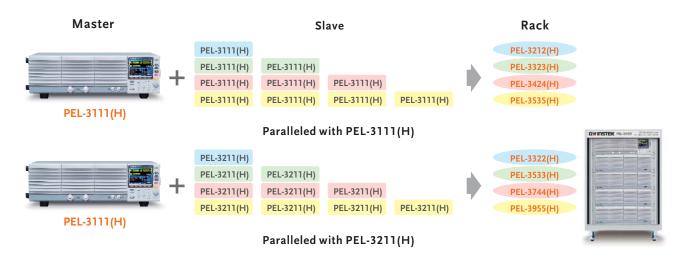
The activation time of cut off time can be set to the maximum length of 999h 59min 59s. When electronic load is activated

Cut Off Time **Voltage at Cut Off Time** Voltage : 5.1223V Enter

Voltage at Cut Off Time

this function will start counting time. Electronic load will cease operation (load off) and show the final input voltage on the screen when preset time is reached. Timer function can provides information and application related to time. Users can obtain the total time of limiting electronic load operation to increase the agility of electronic load tests.

MATER/SLAVE PARALLEL CONTROL



PEL-3111(H) can be used as either master or Slave. PEL-3111(H) can also be connected in parallel with PEL-3211(H) (Booster unit). Customers, based upon their DUT requirements, can collocate different models to meet their power requirements. The system collocation connection and terminals are all copper bar structure. System Rack is also available. When the Master/Slave control mode is selected, Master will automatically calculate current sunk as soon as load has been activated. The system will automatically

distribute current to each Master/Slave unit. For Master/Slave parallel collocation, users only enter settings and edit programs on Master. Logically speaking, Master/Slave parallel collocation can be regarded as one single load unit. Therefore, this collocation can safely provide load capacity with actual current and power in the respective level. Parallel collocation can also meet different current and power requirements.

RACK MODEL COLLOCATION AND RATED POWER

Model				
Watt	3150W	5250W	7350W	9450W
Current	0~630A	0~1050A	0~1470A	0~1890A
Collocation	PEL-3111+PEL-3211	PEL-3111+PEL-3211 x 2	PEL-3111+PEL-3211 x 3	PEL-3111+PEL-3211 x 4

Model	PEL-3212			
Watt	2100W	3150W	4200W	5250W
Current	0~420A	0~630A	0~840A	0~1050A
Collocation	PEL-3111 x 2	PEL-3111 x 3	PEL-3111 x 4	PEL-3111 x 5

Model				PEL-3955H
Watt	3150W	5250W	7350W	9450W
Current	0~157.5A	0~262.5A	0~367.5A	0~472.5A
Collocation	PEL-3111H+PEL-3211H	PEL-3111H+PEL-3211H x 2	PEL-3111H+PEL-3211H x 3	PEL-3111H+PEL-3211H x 4

Model	PEL-3212H	PEL-3323H	PEL-3424H	PEL-3535H
Watt	2100W	3150W	4200W	5250W
Current	0~105A	0~157.5A	0~210A	0~262.5A
Collocation	PEL-3111H x 2	PEL-3111H x 3	PEL-3111H x 4	PEL-3111H x 5

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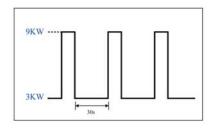
O. SUCCESS CASE OF HIGH POWER MODEL IN PARALLEL

Load's Waveform Shown on Right Diagram:



Connection Diagram of Application

Some large power supply system has a stable load of 3kW under the normal duty operation and its dynamic load of transient peak will reach 9kW. This system uses PEL-3955 to simulate load patterns so as to assist engineers in analyzing and testing DUT. The procedures:



Example the Waveform of Load

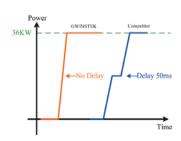
- * Select load mode as CC or CP
- \star Select appropriate operational level: Both I & V range in High
- * Select operational mode as Dynamic mode or Sequence
- * Set related load arguments sequentially Level1, Level2, Slew Rate and Duration Time
- * If Sequence is selected, each segment's load condition must be set according to users' requirements
- * Execute load operation

P. HIGH POWER MODEL AUGMENTATION AND PARALLEL

To meet customers' larger sink current, larger power and flexible application of electronic load requirements, the design concept of the PEL-3000 series not only meets the requirement of low power products with high resolution, but also supports the measurement of high power and large current. Single unit of the series can satisfy various load conditions. For higher power

requirements, users can consider purchasing additional Slave control system to collocate the system in parallel through system connection. For operating PEL-3955 (1.5~150V/1890A/9.45kW), six units of PEL-3955 are arranged in parallel to reach load capacity of 56.7kW. Bus bar connection can guarantee the safety of large power and large current operations.

LARGER POWER MODEL DYNAMIC SYNCHRONIZATION CONTROL



Waveform of power load

To ensure each Rack can execute synchronized parallel load operation and to simulate the real dynamic load operation. The orange curve of the above diagram shows PEL-3955 executing dynamic synchronized control under external parallel. Comparing with other electronic loads in parallel, the PEL-3000 series does not delay. PEL-3955, with its superior performance and distinct characteristics, has been widely used as test and verification

equipment in the power test field. In addition to single unit electronic load of 1kW, larger power models have power outputs including 3kW/5kW/7kW/9kW/18kW/27kW/36kW/54kW, which provide the most important test and verification platform for R&D and QA in the fields of server power system, communications power system, hybrid power pack, solar power module.

PANEL INTRODUCTION







- 1. ON / STBY
- 2. LCD Display
- 3. Function Keys
- 4. Operation Key
- 5. Front Panel Input Terminals
- 6. I MON, TRIG OUT Terminals

C € USB GPIB Analog Control RS-232

- 7. Rear Panel Inputs Terminals
- 8. Frame Control Ports, J1, J2
- 9. GPIB/LAN
- 10. RS232C Port
- 11. USB Port





PEL-3000H Serie

- 1. ON / STBY
- 2. LCD Display
- 3. Function Keys
- 4. Operation Key
- 5. Front Panel Input Terminals
- 6. VMON, I MON, TRIG OUT Terminals
- 7. Rear Panel Inputs Terminals
- 8. Frame Control Ports, J1, J2
- 9. GPIB/LAN
- 10. RS232C Port
- 11. USB Port
- 12. Variable Resistors

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SPECIFICATIONS						
Model			PEL-3021	PEL-3041	PEL-3111	PEL-3211
Voltage			0V~150V	0V~150V	0V~150V	0V~150V
Current Power			35A	70A	210A	420A
Input Resistance			175W 500 kΩ	350W 500 kΩ	1050W 500 kΩ	2100W N/A
Min. Operating			0.75V@17.5A	0.75V@35A	0.75V@105A	0.75V@210A
Voltage(DC)(Typ.) CONSTANT CURRENT MOD	\F		1.5V@35A	1.5V@70A	1.5V@210A	1.5V@420A
Operating Range	H,M,	L	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	Н,М,		\pm (0.2 % of set + 0.1 % of f.s ^{*1}	±(1.2% of set+1.1% of f.s)		
Accuracy of Setting(Parallel)	Н,М,	L	±(1.2% of set +1.1% of f.s.*3)	±(1.2% of set+1.1% of f.s)		
Resolution	Н,М,	L	1mA 0.1mA 0.01mA	2mA 0.2mA 0.02mA	10mA 1mA 0.1mA	N/A
CR MODE			22 22265 400 6	46.66726.000.6	140,00166, 2.4. 6	
Operating Range		н	23.3336S~400μS (42.857mΩ~2.5kΩ)	46.6672S~800μS (21.428mΩ~1.25kΩ)	140.0016S~2.4mS (7.1427mΩ~416.6667Ω)	
			2.33336S~40µS	4.6667S~80µS	14.0001S~242.4µS	28.0002s~484.8μs
	Range	М	(428.566m Ω ~25k Ω)	$(214.28 \text{m}\Omega \sim 12.5 \text{k}\Omega)$	$(71.427$ m Ω ~4.16667k Ω)	$(35.7135 \text{m}\Omega \sim 2.08334\Omega)$
			0.233336S~4μS	0.46667S~8μS	1.40001S~24.24μS	
		L	$(4.28566\Omega\sim250k\Omega)$	(4.28566 Ω ~250k Ω) (2.1428 Ω ~125k Ω) (714.27m Ω ~41.6667k Ω)		
Accuracy of Setting	Н,М,	L	$\pm (0.5 \% \text{ of set}^{*6} + 0.5 \% \text{ of f.s}$	*1) + Vin*3/500kΩ		±(1.2% of set +1.1% of f.s)
Parallel			$\pm (1.2 \% \text{ of set} + 1.1 \% \text{ of f.s}^{*3})$			
Resolution	Н,М,	L	400μS 40μS 4μS	800μS 80μS 8μS	2.4mS 240μS 24μS	N/A
CONSTANT VOLTAGE MOD	E		1.57/ 1507/			1 51/ 3501/
Operating Range	Range	Н .	1.5V~150V			1.5V~150V
	_	L	1.5V~15V			1.5V~15V
Accuracy of Setting	H,L		±(0.1 % of set + 0.1 % of f.s)			N/A
Resolution CONSTANT POWER MODE	H,L		10mV/1mV			7
		Н	17.5W~175W	35W~350W	105W~1050W	210W~2100W
Operating Range	Range	М	1.75W~17.5W	3.5W~35W	10.5W~105W	21W~210W
	Kange	L	0.175W~1.75W	0.35W~3.5W	1.05W~10.5W	2.1W~21W
Accuracy of Satting	H,M,L		±(0.6 % of set *5 + 1.4 % of f.:		1.05 W~10.5 W	2.1 W~21W
Accuracy of Setting Resolution	H,M,		,	100mW 10mW 1mW	N/A	
PARALLEL Mode	П, М,	_	10mW 1mW 0.1mW			
Capacity			875W	1750W	5250W	PEL-3111 with 4 booster
SLEW RATE						units : Max 9.45kW
Operation Mode			CC, CR	CC, CR	CC. CR	N/A
'		Н	2.5mA/μs~2.5A/μs	5mA/μs~5A/μs	16mA/μs~16A/μs	16mA/μs~16A/μs
Setting Range (CC mode)	Range	М	250μA/μs~250mA/μs	500μA/μs~500mA/μs	1.6mA/μs~1.6A/μs	1.6mA/μs~1.6A/μs
(ee mode)	Kange	L	25μA/μs~25mA/μs	50μA/μs~50mA/μs	160μA/μs~160mA/μs	Ν/Α
			250μA/μs~250mA/μs	500μA/μs~500mA/μs		1.6mA/μs~1.6A/μs
Setting Range (CR Mode)	Danas	Н	25μA/μs~25mA/μs	50μA/μs~50mA/μs	1.6mA/μs~1.6A/μs 160μA/μs~160mA/μs	1.60μA/μs~1.60mA/μs
(CR Wode)	Range	M L	2.5μA/μs~2.5mA/μs	5μA/μs~5mA/μs	16μΑ/μs~16mΑ/μs	
A				σμΑ/μs~σπιΑ/μs	τομΑ/μς~τοπΑ/μς	N/A
Accuracy of Setting Resolution	H,M,L	•	±(10 % of set** + 5μs)	2 A (FOO A . F.A ()	C A (1 CA 1 CA ()	N/A
			1mA(250mA~2.5A/μs) 100μA(25mA~250mA/μs)	2mA(500mA~5A/μs) 200μA(50mA~500mA/μs)	6mA(1.6A~16A/μs) 600μA(160mA~1.6A/μs)	
			10μA(2.5mA~25mA/μs)	20μA(5mA~25mA/μs)	60μA(16mA~160mA/μs)	N/A
			1μA(250μA~2.5mA/μs)	2μA(500μA~5mA/μs)	6μA(1.6mA~16mA/μs)	N/A
						N/A
METER			1μA(250μA~2.5mA/μs) 100nA(25μA~250μA/μs) 10nA(2.5μA~25μA/μs)	2μA(500μA~5mA/μs) 200nA(50μA~500μA/μs) 20nA(5μA~50μA/μs)	6μA(1.6mA~16mA/μs) 600nA(160μA~1.6mA/μs)	N/A
Voltmeter	Accuracy		1μ A(250μA~2.5mA/μs) 100nA(25μA~250μA/μs) 10nA(2.5μA~25μA/μs) \pm (0.1 % of rdg + 0.1 % of f.s)	2μΑ(500μΑ~5mA/μs) 200nΑ(50μΑ~500μΑ/μs) 20nΑ(5μΑ~50μΑ/μs)	6μA(1.6mA~16mA/μs) 600nA(160μA~1.6mA/μs)	· -
Voltmeter Ammeter	Accuracy		1μ A(250μA~2.5mA/μs) 100nA(25μA~250μA/μs) 10nA(2.5μA~25μA/μs) \pm (0.1 % of rdg + 0.1 % of f.s) \pm (0.2 % of rdg + 0.3 % of f.s)	2μΑ(500μΑ~5mA/μs) 200nΑ(50μΑ~500μΑ/μs) 20nΑ(5μΑ~50μΑ/μs)	6μA(1.6mA~16mA/μs) 600nA(160μA~1.6mA/μs)	N/A
Voltmeter			1μ A(250μA~2.5mA/μs) 100nA(25μA~250μA/μs) 10nA(2.5μA~25μA/μs) \pm (0.1 % of rdg + 0.1 % of f.s)	2μΑ(500μΑ~5mA/μs) 200nΑ(50μΑ~500μΑ/μs) 20nΑ(5μΑ~50μΑ/μs)	6μA(1.6mA~16mA/μs) 600nA(160μA~1.6mA/μs)	· -
Voltmeter Ammeter Ammeter(Parallel Operation)	Accuracy		$\begin{array}{l} 1\mu A(250\mu A-2.5mA/\mu s)\\ 100nA(25\mu A-250\mu A/\mu s)\\ 100nA(2.5\mu A-250\mu A/\mu s)\\ \hline\\ \pm(0.1\ \%\ of\ rdg+0.1\ \%\ of\ f.s)\\ \pm(0.2\ \%\ of\ rdg+0.3\ \%\ of\ f.s)\\ \pm(1.2\%\ of\ rdg+1.1\%\ of\ f.s.)\\ \hline\\ CC\ and\ CR\\ \end{array}$	2μA(\$00μA~5mA/μs) 200nA(50μA~500μA/μs) 20nA(5μA~50μA/μs)	6μA(1.6mA~16mA/μs) 600nA(160μA~1.6mA/μs)	
Voltmeter Ammeter Ammeter(Parallel Operation) DYNAMIC MODE Operation Mode T1 & T2	Accuracy		$\begin{array}{l} 1\mu A(250\mu A-2.5mA/\mu s)\\ 100nA(25\mu A-250\mu A/\mu s)\\ 100nA(2.5\mu A-250\mu A/\mu s)\\ \hline\\ \pm(0.1~\%~of~rdg+0.1~\%~of~f.s)\\ \pm(0.2~\%~of~rdg+0.3~\%~of~f.s)\\ \pm(1.2\%~of~rdg+1.1\%~of~f.s.)\\ \hline\\ CC~and~CR\\ 0.025mS~10mS/Res:1\mu s;1\\ \hline\end{array}$	2μA(\$00μA~5mA/μs) 200nA(50μA~500μA/μs) 20nA(5μA~50μA/μs)	6μA(1.6mA~16mA/μs) 600nA(160μA~1.6mA/μs)	· -
Voltmeter Ammeter Ammeter(Parallel Operation) DYNAMIC MODE Operation Mode T1 & T2 Accuracy	Accuracy		$\begin{array}{l} 1\mu A(250\mu A-2.5mA/\mu s)\\ 100nA(25\mu A-2.5mA/\mu s)\\ 100nA(2.5\mu A-250\mu A/\mu s)\\ 10nA(2.5\mu A-25\mu A/\mu s)\\ \\ \pm(0.1\% \ of \ rdg + 0.1\% \ of \ f.s)\\ \pm(0.2\% \ of \ rdg + 0.3\% \ of \ f.s)\\ \pm(1.2\% \ of \ rdg + 1.1\% \ of \ f.s.)\\ \\ CC \ and \ CR\\ 0.025mS\sim10mS/Res: 1\mu s; 1\\ 1\mu S/1ms \pm 100ppm \end{array}$	2μA(\$00μA~5mA/μs) 200nA(50μA~500μA/μs) 20nA(5μA~50μA/μs) ms~30s/Res : 1ms	6μA(1.6mA~16mA/μs) 600nA(160μA~1.6mA/μs) 60nA(16μA~160μA/μs)	N/A
Voltmeter Ammeter Ammeter(Parallel Operation) DYNAMIC MODE Operation Mode T1 & T2 Accuracy Slew Rate	Accuracy	н	$\begin{array}{l} 1\mu A(250\mu A-2.5mA/\mu s)\\ 100nA(25\mu A-250\mu A/\mu s)\\ 100nA(2.5\mu A-250\mu A/\mu s)\\ 10nA(2.5\mu A-25\mu A/\mu s)\\ \\ \pm(0.1\% \ of \ rdg + 0.1\% \ of \ f.s)\\ \pm(0.2\% \ of \ rdg + 0.3\% \ of \ f.s)\\ \pm(1.2\% \ of \ rdg + 1.1\% \ of \ f.s.)\\ \\ CC \ and \ CR\\ 0.025mS-10mS/Res: 1\mu s; 1\\ 1\mu S/1ms \pm 100ppm\\ 2.5mA/\mu s\sim 2.5A/\mu s \end{array}$	2μA(\$00μA~5mA/μs) 200nA(\$0μA~500μA/μs) 20nA(\$μA~50μA/μs) ms~30s/Res : 1ms	6μA(1.6mA~16mA/μs) 600nA(160μA~1.6mA/μs) 60nA(16μA~160μA/μs)	N/A N/A 16mA/μs~16A/μs
Voltmeter Ammeter Ammeter(Parallel Operation) DYNAMIC MODE Operation Mode T1 & T2 Accuracy	Accuracy	H	$\begin{array}{l} 1\mu A(250\mu A-2.5mA/\mu s)\\ 100nA(25\mu A-250\mu A/\mu s)\\ 100nA(2.5\mu A-250\mu A/\mu s)\\ 10nA(2.5\mu A-25\mu A/\mu s)\\ \\ \pm(0.1\% \ of \ rdg + 0.1\% \ of \ f.s)\\ \pm(0.2\% \ of \ rdg + 0.3\% \ of \ f.s)\\ \pm(1.2\% \ of \ rdg + 1.1\% \ of \ f.s.)\\ \\ CC \ and \ CR\\ 0.025mS-10mS/Res: 1 \mu s; 1\\ 1\mu S/1ms \pm 100ppm\\ 2.5mA/\mu s-2.5A/\mu s\\ 250\mu A/\mu s-250mA/\mu s\\ \end{array}$	2μA(500μA~5mA/μs) 200nA(50μA~500μA/μs) 20nA(5μA~50μA/μs) ms~30s/Res : 1ms 5mA/μs~5A/μs 500μA/μs~500mA/μs	6μA(1.6mA~16mA/μs) 600nA(160μA~1.6mA/μs) 60nA(16μA~160μA/μs) 60nA(16μA~160μA/μs)	N/A 16mA/μs~16A/μs 1.6mA/μs~1.6A/μs
Voltmeter Ammeter(Parallel Operation) DYNAMIC MODE Operation Mode T1 & T2 Accuracy Slew Rate (CC Mode)	Accuracy	H M L	$\begin{array}{l} 1\mu A(250\mu A-2.5mA/\mu s)\\ 100nA(25\mu A-250\mu A/\mu s)\\ 100nA(2.5\mu A-250\mu A/\mu s)\\ 10nA(2.5\mu A-25\mu A/\mu s)\\ \\ \pm(0.1\% \ of \ rdg + 0.1\% \ of \ f.s)\\ \pm(0.2\% \ of \ rdg + 0.3\% \ of \ f.s)\\ \pm(1.2\% \ of \ rdg + 1.1\% \ of \ f.s.)\\ \\ CC \ and \ CR\\ 0.025mS\sim10mS/Res: 1\mu s; 1\\ 1\mu S/1ms \pm 100ppm\\ 2.5mA/\mu s\sim2.5A/\mu s\\ 250\mu A/\mu s\sim25mA/\mu s\\ \\ 25\mu A/\mu s\sim25mA/\mu s\\ \end{array}$	2μA(\$00μA~5mA/μs) 200nA(\$0μA~500μA/μs) 20nA(\$μA~50μA/μs) ms~30s/Res: 1ms 5mA/μs~5A/μs 50μA/μs~500mA/μs 50μA/μs~50mA/μs	6μA(1.6mA~16mA/μs) 600nA(160μA~1.6mA/μs) 60nA(16μA~160μA/μs) 16mA/μs~16A/μs 1.6mA/μs~1.6A/μs 160μA/μs~160mA/μs	N/A N/A 16mA/μs~16A/μs
Voltmeter Ammeter Ammeter(Parallel Operation) DYNAMIC MODE Operation Mode T1 & T2 Accuracy Slew Rate (CC Mode)	Accuracy Accuracy Range	H M L	$\begin{array}{l} 1\mu A(250\mu A-2.5mA/\mu s)\\ 100nA(25\mu A-2.5mA/\mu s)\\ 100nA(2.5\mu A-250\mu A/\mu s)\\ 10nA(2.5\mu A-25\mu A/\mu s)\\ \\ \pm(0.1\% \ of \ rdg + 0.1\% \ of \ f.s)\\ \pm(0.2\% \ of \ rdg + 0.3\% \ of \ f.s)\\ \pm(1.2\% \ of \ rdg + 1.1\% \ of \ f.s.)\\ \\ CC \ and \ CR\\ 0.025mS\sim10mS/Res: 1\mu s; 1\\ 1\mu S/1ms \pm 100ppm\\ 2.5mA/\mu s\sim2.5A/\mu s\\ 250\mu A/\mu s\sim250mA/\mu s\\ \\ 250\mu A/\mu s\sim250mA/\mu s\\ \\ 250\mu A/\mu s\sim250mA/\mu s\\ \end{array}$	2μA(\$00μA~5mA/μs) 200nA(\$0μA~500μA/μs) 20nA(\$μA~50μA/μs) 20nA(\$μA~50μA/μs) ms~30s/Res: 1ms 5mA/μs~5A/μs 500μA/μs~50mA/μs 50μA/μs~50mA/μs	6μΑ(1.6mA~16mA/μs) 600nA(160μA~1.6mA/μs) 60nA(16μA~160μA/μs) 16mA/μs~16A/μs 1.6mA/μs~1.6A/μs 160μA/μs~160mA/μs	N/A 16mA/μs~16A/μs 1.6mA/μs~1.6A/μs N/A
Voltmeter Ammeter(Parallel Operation) DYNAMIC MODE Operation Mode T1 & T2 Accuracy Slew Rate (CC Mode)	Accuracy	H M L H	$\begin{array}{l} 1\mu A(250\mu A-2.5mA/\mu s)\\ 100nA(25\mu A-250\mu A/\mu s)\\ 100nA(2.5\mu A-250\mu A/\mu s)\\ 10nA(2.5\mu A-25\mu A/\mu s)\\ \\ \pm(0.1\% \ of \ rdg + 0.1\% \ of \ f.s)\\ \pm(0.2\% \ of \ rdg + 0.3\% \ of \ f.s)\\ \pm(1.2\% \ of \ rdg + 1.1\% \ of \ f.s.)\\ \\ CC \ and \ CR\\ 0.025mS\sim10mS/Res: 1\mu s; 1\\ 1\mu S/1ms \pm 100ppm\\ 2.5mA/\mu s\sim2.5A/\mu s\\ 250\mu A/\mu s\sim250mA/\mu s\\ 250\mu A/\mu s\sim250mA/\mu s\\ 25\mu A/\mu s\sim25mA/\mu s\\ \\ 25\mu A/\mu s\sim25mA/\mu s\\ \end{array}$	2μA(\$00μA~5mA/μs) 200nA(\$0μA~500μA/μs) 20nA(\$μA~50μA/μs) ms~30s/Res: 1ms 5mA/μs~5A/μs 500μA/μs~50mA/μs 500μA/μs~50mA/μs 500μA/μs~50mA/μs	16mA/μs~16mA/μs) 600nA(160μA~1.6mA/μs) 60nA(16μA~160μA/μs) 16mA/μs~16A/μs 1.6mA/μs~1.6A/μs 160μA/μs~160mA/μs 1.6mA/μs~1.6A/μs	N/A 16mA/μs~16A/μs 1.6mA/μs~1.6A/μs
Voltmeter Ammeter (Parallel Operation) DYNAMIC MODE Operation Mode T1 & T2 Accuracy Slew Rate (CC Mode)	Accuracy Accuracy Range	H M L	1μA(250μA~2.5mA/μs) 100nA(25μA~250μA/μs) 10nA(2.5μA~25μA/μs) 10nA(2.5μA~25μA/μs) ±(0.1 % of rdg + 0.1 % of f.s) ±(0.2 % of rdg + 0.3 % of f.s) ±(1.2% of rdg + 1.1% of f.s.) CC and CR 0.025mS~10mS/Res : 1μs ; 1 1μS/1ms ± 100ppm 2.5mA/μs~2.5A/μs 250μA/μs~250mA/μs 25μA/μs~25mA/μs 250μA/μs~25mA/μs 25μA/μs~25mA/μs 25μA/μs~25mA/μs	2μA(\$00μA~5mA/μs) 200nA(\$0μA~500μA/μs) 20nA(\$μA~50μA/μs) 20nA(\$μA~50μA/μs) ms~30s/Res: 1ms 5mA/μs~5A/μs 500μA/μs~50mA/μs 500μA/μs~50mA/μs 500μA/μs~50mA/μs 50μA/μs~50mA/μs 5μA/μs~50mA/μs	6μΑ(1.6mΑ~16mA/μs) 600nA(160μΑ~1.6mA/μs) 60nA(16μΑ~160μΑ/μs) 16mA/μs~16Α/μs 1.6mA/μs~1.6A/μs 160μΑ/μs~160mA/μs 1.6mA/μs~16Α/μs 16μΑ/μs~160mA/μs 16μΑ/μs~160mA/μs	N/A 16mA/μs~16A/μs 1.6mA/μs~1.6A/μs N/A
Voltmeter Ammeter (Parallel Operation) DYNAMIC MODE Operation Mode T1 & T2 Accuracy Slew Rate (CC Mode) Slew Rate (CR Mode) Current Accuracy	Accuracy Accuracy Range	H M L H	$\begin{array}{l} 1\mu A(250\mu A-2.5mA/\mu s)\\ 100nA(25\mu A-250\mu A/\mu s)\\ 100nA(2.5\mu A-250\mu A/\mu s)\\ 10nA(2.5\mu A-25\mu A/\mu s)\\ \\ \pm(0.1\% \ of \ rdg + 0.1\% \ of \ f.s)\\ \pm(0.2\% \ of \ rdg + 0.3\% \ of \ f.s)\\ \pm(1.2\% \ of \ rdg + 1.1\% \ of \ f.s.)\\ \\ CC \ and \ CR\\ 0.025mS\sim10mS/Res: 1\mu s; 1\\ 1\mu S/1ms \pm 100ppm\\ 2.5mA/\mu s\sim2.5A/\mu s\\ 250\mu A/\mu s\sim250mA/\mu s\\ 250\mu A/\mu s\sim250mA/\mu s\\ 25\mu A/\mu s\sim25mA/\mu s\\ \\ 25\mu A/\mu s\sim25mA/\mu s\\ \end{array}$	2μA(\$00μA~5mA/μs) 200nA(\$0μA~500μA/μs) 20nA(\$μA~50μA/μs) ms~30s/Res: 1ms 5mA/μs~5A/μs 500μA/μs~50mA/μs 500μA/μs~50mA/μs 500μA/μs~50mA/μs	16mA/μs~16mA/μs) 600nA(160μA~1.6mA/μs) 60nA(16μA~160μA/μs) 16mA/μs~16A/μs 1.6mA/μs~1.6A/μs 160μA/μs~160mA/μs 1.6mA/μs~1.6A/μs	N/A 16mA/μs~16A/μs 1.6mA/μs~1.6A/μs N/A
Voltmeter Ammeter (Parallel Operation) DYNAMIC MODE Operation Mode T1 & T2 Accuracy Slew Rate (CC Mode) Slew Rate (CR Mode) Current Accuracy PROTECTION FUNCTION	Accuracy Accuracy Range	H M L H	1μA(250μA~2.5mA/μs) 100nA(25μA~250μA/μs) 10nA(2.5μA~25μA/μs) 10nA(2.5μA~25μA/μs) ±(0.1 % of rdg + 0.1 % of f.s) ±(0.2 % of rdg + 0.3 % of f.s) ±(1.2% of rdg +1.1% of f.s.) CC and CR 0.025mS~10mS/Res: 1μs; 1 1μS/1ms ± 100ppm 2.5mA/μs~2.5A/μs 250μA/μs~250mA/μs 25μA/μs~25mA/μs 25μA/μs~25mA/μs 25μA/μs~25mA/μs 25μA/μs~25mA/μs 25μA/μs~25mA/μs 2.5μA/μs~2.5mA/μs	2μA(\$00μA~5mA/μs) 200nA(\$0μA~5mA/μs) 200nA(\$0μA~500μA/μs) 20nA(\$μA~50μA/μs) ms~30s/Res: 1ms 5mA/μs~5A/μs 500μA/μs~50mA/μs 50μA/μs~50mA/μs 50μA/μs~50mA/μs 50μA/μs~50mA/μs 5μA/μs~5mA/μs 5μA/μs~5mA/μs	16mA/μs~16mA/μs) 600nA(160μA~1.6mA/μs) 60nA(16μA~160μA/μs) 60nA(16μA~160μA/μs) 1.6mA/μs~1.6A/μs 1.6mA/μs~1.6A/μs 1.6mA/μs~1.6A/μs 1.6mA/μs~1.6A/μs 1.6mA/μs~1.6A/μs 1.6mA/μs~1.6A/μs 1.6mA/μs~1.6A/μs	N/A 16mA/μs~16A/μs 1.6mA/μs~1.6A/μs N/A N/A ±(1.2%of set+1.1% of F.S.)
Voltmeter Ammeter (Parallel Operation) DYNAMIC MODE Operation Mode T1 & T2 Accuracy Slew Rate (CC Mode) Slew Rate (CR Mode) Current Accuracy	Accuracy Accuracy Range	H M L H	1μA(250μA~2.5mA/μs) 100nA(25μA~250μA/μs) 10nA(2.5μA~25μA/μs) ±(0.1 % of rdg + 0.1 % of f.s) ±(0.2 % of rdg + 0.3 % of f.s) ±(1.2% of rdg +1.1% of f.s.) CC and CR 0.025mS~10mS/Res: 1μs; 1 1μS/1ms ± 100ppm 2.5mA/μs~2.5A/μs 250μA/μs~250mA/μs 25μA/μs~25mA/μs 25μA/μs~25mA/μs 25μA/μs~25mA/μs 25μA/μs~25mA/μs 25μA/μs~25mA/μs 2.5μA/μs~2.5mA/μs 2.5μA/μs~2.5mA/μs	2μA(\$00μA~5mA/μs) 200nA(\$0μA~5mA/μs) 200nA(\$0μA~500μA/μs) 20nA(\$μA~50μA/μs) ms~30s/Res: 1ms 5mA/μs~5A/μs 500μA/μs~50mA/μs 50μA/μs~50mA/μs 50μA/μs~50mA/μs 50μA/μs~50mA/μs 5μA/μs~5mA/μs 5μA/μs~5mA/μs	6μΑ(1.6mA~16mA/μs) 600nA(160μA~1.6mA/μs) 60nA(16μA~160μA/μs) 16mA/μs~160μA/μs 1.6mA/μs~1.6A/μs 160μA/μs~160mA/μs 160μA/μs~160mA/μs 16μA/μs~160mA/μs 16μA/μs~16mA/μs 20.4%F.S.	N/A 16mA/μs~16A/μs 1.6mA/μs~1.6A/μs N/A N/A ±(1.2%of set+1.1% of F.S.)
Voltmeter Ammeter Ammeter(Parallel Operation) DYNAMIC MODE Operation Mode T1 & T2 Accuracy Slew Rate (CC Mode) Slew Rate (CR Mode) Current Accuracy PROTECTION FUNCTION Functions GENERAL	Accuracy Accuracy Range	H M L H	1μA(250μA-2.5mA/μs) 100nA(25μA-250μA/μs) 100nA(2.5μA-250μA/μs) 10nA(2.5μA-25μA/μs) ±(0.1 % of rdg + 0.1 % of f.s) ±(0.2 % of rdg + 0.3 % of f.s) ±(1.2% of rdg +1.1% of f.s.) CC and CR 0.025mS-10mS/Res : 1μs ; 1 1μS/1ms ± 100ppm 2.5mA/μs-2.5A/μs 250μA/μs-250mA/μs 25μA/μs-250mA/μs 25μA/μs-250mA/μs 25μA/μs-25mA/μs ±0.4%F.S. Overvoltage protection(OVP) Undervoltage protection(UVF	2μA(\$00μA~5mA/μs) 200nA(\$0μA~500μA/μs) 20nA(\$μA~500μA/μs) 20nA(\$μA~50μA/μs) ms~30s/Res : 1ms 5mA/μs~5A/μs 500μA/μs~50mA/μs 50μA/μs~50mA/μs 50μA/μs~50mA/μs 50μA/μs~50mA/μs 5μA/μs~5mA/μs ±0.4%F.S. , Overcurrent protection (OCP), (1), Reverse connection protection	6μΑ(1.6mA~16mA/μs) 600nA(160μA~1.6mA/μs) 60nA(16μA~160μA/μs) 16mA/μs~160μA/μs 1.6mA/μs~1.6A/μs 160μA/μs~160mA/μs 160μA/μs~160mA/μs 16μA/μs~160mA/μs 16μA/μs~16mA/μs 20.4%F.S.	N/A 16mA/μs~16A/μs 1.6mA/μs~1.6A/μs N/A N/A ±(1.2%of set+1.1% of F.S.)
Voltmeter Ammeter Ammeter(Parallel Operation) DYNAMIC MODE Operation Mode T1 & T2 Accuracy Slew Rate (CC Mode) Slew Rate (CR Mode) Current Accuracy PROTECTION FUNCTION Functions GENERAL Input Range	Accuracy Accuracy Range	H M L H	1μA(250μA~2.5mA/μs) 100nA(25μA~250μA/μs) 100nA(2.5μA~25μA/μs) 10nA(2.5μA~25μA/μs) ±(0.1 % of rdg + 0.1 % of f.s) ±(0.2 % of rdg + 0.3 % of f.s) ±(1.2% of rdg + 1.1% of f.s.) CC and CR 0.025mS~10mS/Res : 1μs ; 1 1μS/1ms ± 100ppm 2.5mA/μs~2.5A/μs 250μA/μs~250mA/μs 25μA/μs~25mA/μs 25μA/μs~25mA/μs 2.5μA/μs~25mA/μs 2.5μA/μs~2.5mA/μs ±0.4%F.S. Overvoltage protection (OVP) Undervoltage protection (UVF	2μA(\$00μA~5mA/μs) 200nA(\$0μA~500μA/μs) 20nA(\$μA~500μA/μs) 20nA(\$μA~50μA/μs) ms~30s/Res: 1ms 5mA/μs~5A/μs 500μA/μs~50mA/μs 50μA/μs~50mA/μs 50μA/μs~50mA/μs 50μA/μs~50mA/μs 5μA/μs~5mA/μs ±0.4%F.S. Overcurrent protection (OCP), 6 c), Reverse connection protection	6μΑ(1.6mA~16mA/μs) 600nA(160μA~1.6mA/μs) 60nA(16μA~160μA/μs) 60nA(16μA~160μA/μs) 1.6mA/μs~1.6A/μs 1.6mA/μs~1.6A/μs 1.6mA/μs~1.6A/μs 1.6mA/μs~1.6A/μs 1.6μA/μs~160mA/μs 1.6μA/μs~16mA/μs 1.6μA/μs~16mA/μs 1.6μA/μs~16mA/μs	N/A 16mA/μs~16A/μs 1.6mA/μs~1.6A/μs N/A N/A ±(1.2%of set+1.1% of F.S.)
Voltmeter Ammeter Ammeter(Parallel Operation) DYNAMIC MODE Operation Mode T1 & T2 Accuracy Slew Rate (CC Mode) Slew Rate (CR Mode) Current Accuracy PROTECTION FUNCTION Functions GENERAL Input Range Power(Max.)	Accuracy Accuracy Range	H M L H	1μA(250μA~2.5mA/μs) 100nA(25μA~250μA/μs) 100nA(2.5μA~25μA/μs) 10nA(2.5μA~25μA/μs) ±(0.1 % of rdg + 0.1 % of f.s) ±(0.2 % of rdg + 0.3 % of f.s) ±(1.2% of rdg + 1.1% of f.s.) CC and CR 0.025mS~10mS/Res : 1μs ; 1 1μS/1ms ± 100ppm 2.5mA/μs~2.5A/μs 250μA/μs~250mA/μs 25μA/μs~25mA/μs 250μA/μs~25mA/μs 25μA/μs~25mA/μs 25μA/μs~25mA/μs 2.5μA/μs~2.5mA/μs 2.5μA/μs~2.5mA/μs 40.4%F.S. Overvoltage protection (OVP) Undervoltage protection (UVF	2μA(\$00μA~5mA/μs) 200nA(\$0μA~5mA/μs) 200nA(\$0μA~500μA/μs) 20nA(\$μA~50μA/μs) ms~30s/Res: 1ms 5mA/μs~5A/μs 500μA/μs~50mA/μs 50μA/μs~50mA/μs 50μA/μs~50mA/μs 50μA/μs~50mA/μs 5μA/μs~5mA/μs 5μA/μs~5mA/μs - to.4%F.S. , Overcurrent protection (OCP), (2), (3), Reverse connection protection (CS), (3), Reverse connection protection (CS), (4), Reverse connection protection (CS), (5), Reverse connection protection (CS), (5), Reverse connection protection (CS), (6), Reverse connection (CS), (6), Reverse	6μΑ(1.6mA~16mA/μs) 600nA(160μA~1.6mA/μs) 60nA(16μA~160μA/μs) 16mA/μs~160μA/μs 1.6mA/μs~1.6A/μs 160μA/μs~160mA/μs 160μA/μs~160mA/μs 16μA/μs~160mA/μs 16μA/μs~16mA/μs 20.4%F.S.	N/A 16mA/μs~16A/μs 1.6mA/μs~1.6A/μs N/A N/A ±(1.2%of set+1.1% of F.S.)
Voltmeter Ammeter Ammeter(Parallel Operation) DYNAMIC MODE Operation Mode T1 & T2 Accuracy Slew Rate (CC Mode) Slew Rate (CR Mode) Current Accuracy PROTECTION FUNCTION Functions GENERAL Input Range	Accuracy Accuracy Range	H M L H	1μA(250μA~2.5mA/μs) 100nA(25μA~250μA/μs) 100nA(2.5μA~25μA/μs) 10nA(2.5μA~25μA/μs) ±(0.1 % of rdg + 0.1 % of f.s) ±(0.2 % of rdg + 0.3 % of f.s) ±(1.2% of rdg + 1.1% of f.s.) CC and CR 0.025mS~10mS/Res : 1μs ; 1 1μS/1ms ± 100ppm 2.5mA/μs~2.5A/μs 250μA/μs~250mA/μs 25μA/μs~25mA/μs 25μA/μs~25mA/μs 2.5μA/μs~25mA/μs 2.5μA/μs~2.5mA/μs ±0.4%F.S. Overvoltage protection (OVP) Undervoltage protection (UVF	2μA(\$00μA~5mA/μs) 200nA(\$0μA~5mA/μs) 200nA(\$0μA~500μA/μs) 20nA(\$μA~50μA/μs) ms~30s/Res: 1ms 5mA/μs~5A/μs 500μA/μs~50mA/μs 50μA/μs~50mA/μs 50μA/μs~50mA/μs 50μA/μs~50mA/μs 5μA/μs~5mA/μs 5μA/μs~5mA/μs - to.4%F.S. , Overcurrent protection (OCP), (2), (3), Reverse connection protection (CS), (3), Reverse connection protection (CS), (4), Reverse connection protection (CS), (5), Reverse connection protection (CS), (5), Reverse connection protection (CS), (6), Reverse connection (CS), (6), Reverse	6μΑ(1.6mA~16mA/μs) 600nA(160μA~1.6mA/μs) 60nA(16μA~160μA/μs) 60nA(16μA~160μA/μs) 1.6mA/μs~1.6A/μs 1.6mA/μs~1.6A/μs 1.6mA/μs~1.6A/μs 1.6mA/μs~1.6A/μs 1.6μA/μs~160mA/μs 1.6μA/μs~16mA/μs 1.6μA/μs~16mA/μs 1.6μA/μs~16mA/μs	N/A 16mA/μs~16A/μs 1.6mA/μs~1.6A/μs N/A N/A ±(1.2%of set+1.1% of F.S.)

	ONS	- 1	DEL 2010	DEL 2222	DEL 2424	DEL 2525	DEL 2222	DEL 2522	DEL 2744	DEL 205
Model			PEL-3212	PEL-3323	PEL-3424	PEL-3535	PEL-3322	PEL-3533	PEL-3744	PEL-395
Voltage			0V~150V	0V~150V	0V~150V	0V~150V	0V~150V	0V~150V	0V~150V	0V~150V
Current Power			0~420A 2100W	0~630A 3150W	0~840A 4200W	0~1050A 5250W	0~630A 3150W	0~1050A 5250W	0~1470A 7350W	0~1890A 9450W
Input Resistance			250 kΩ	166.7 kΩ	125 kΩ	100 kΩ	500 kΩ	500 kΩ	500 kΩ	500 kΩ
Min. Operating			0.75V@210A	0.75V@315A	0.75V@420A	0.75V@525A	0.75V@315A	0.75V@525A	0.75V@735A	0.75V@945
Voltage(DC)(Typ.) CONSTANT CURREN	NT MOI	DE	1.5V@420A	1.5V@630A	1.5V@840A	1.5V@1050A	1.5V@630A	1.5V@1050A	1.5V@1470A	1.5V@1890
1	H,M	_	0~420A 0~42A 0~4.2A	0 6200 0 620 0 6 20	0 8404 0 844 0 8 44	0 10504 0 1054 0 1054	0 620A 0 62A N/A	0~1050A 0~105A N/A	0~1470A 0~147A N/A	0~1890A 0~189A N
Operating Range						U~1030A U~103A U~10.3A	U~03UA U~03A N/A	0~1030A 0~103A 1N/A	U~14/UA U~14/A IN/A	U~169UA U~169A 1
Accuracy of Setting	H,M	_	±(0.2 % of set + 0.1 %	, . , , ,						
Resolution CR MODE	H,M	,L	20mA 2mA 0.2mA	30mA 3mA 0.3mA	40mA 4mA 0.4mA	50mA 5mA 0.5mA	30mA 3mA N/A	50mA 5mA N/A	70mA 7mA N/A	90mA 9mA N
			280.0032S~4.8mS	420.0048S~7.2mS	560.0064S~9.6mS	700.008S~12mS	420.0048S~7.2mS	700.008S~12mS	980.0112S~16.8mS	1260.0144S~21.6
Operating Range		н	(3.57138mΩ~	(2.38092mΩ~	(1.78569mΩ~	/00.0085~12ms (1.42855mΩ~	(2.38092mΩ~	/00.0085~12ms (1.42855mΩ~	$(1.02039 \text{m}\Omega$ ~	(793.641uΩ~
			208.333Ω)	138.888Ω)	104.166Ω)	83.3333Ω)	138.888Ω)	83.3333Ω)	59.5238Ω)	46.2963Ω)
			28.00032S~480µS	42.00048S~720µS	56.00064S~960µS	70.0008S~1.2mS	42.00048S~720µS	70.0008S~1.2mS	98.00112S~1.68mS	126.00144S~2.16
	Range	М	$(35.7138m\Omega$ ~	(23.8092mΩ~	(17.8569mΩ~	(14.2855mΩ~	(23.8092mΩ~	(14.2855mΩ~	(10.2039mΩ~	(7.93641mΩ~
		\perp	2083.33Ω)	1388.88Ω)	1041.66Ω)	833.333Ω)	1388.88Ω)	833.333Ω)	595.238Ω)	462.963Ω)
		.	2.800032S~48μS	4.200048S~72μS	5.600064S~96µS	7.00008S~120µS				
		L	(357.138mΩ~ 20.8333kΩ)	(238.092mΩ~ 13.8888kΩ)	(178.569mΩ~ 10.4166kΩ)	(142.855mΩ~ 8.33333kΩ)	N/A	N/A	N/A	N/A
		.	,	,	,	8.33333K12)				
Accuracy of Setting	H,M		$\pm (0.5 \% \text{ of set}^{*6} + 0.5)$, ,			land of the second			
Resolution	H,M	_	4.8mS 480μS 48μS	7.2mS 720μS 72μS	9.6mS 960μS 96μS	12mS 1.2mS 120μS	7.2mS 720μS –	12mS 1.2mS -	16.8mS 1.68mS -	21.6mS 2.16mS
CONSTANT VOLTAC	SE MOL									
Operating Range	Range	Н	1.5V~150V							
		L	1.5V~15V							
Accuracy of Setting	H,L		±(0.1 % of set + 0.1 %	6 of f.s)						
Resolution	H,L	.	10mV/1mV							
CONSTANT POWER			,							
Operating Range		н	210W~2100W	315W~3150W	420W~4200W	525W~5250W	315W~3150W	525W~5250W	735W~7350W	945W~9450W
	Range	-	21W~210W	31.5W~315W	42W~420W	52.5W~525W	31.5W~315W	52.5W~525W	93.5W~735W	94.5W~945W
	Runge	-	2.1W~21W	3.15W~31.5W	4.2W~42W	5.25W~52.5W	N/A	N/A	N/A	N/A
		L			4.2 W~42 W	J.23W~J2.JW	IV/A	IV/A	IV/A	IV/A
Accuracy of Setting	H,M		±(0.6 % of set + 1.4 %							
Resolution	H,M	,L	200mW 20mW 2mW	300mW 30mW 3mW	400mW 40mW 4mW	500mW 50mW 5mW	300mW 30mW -	500mW 50mW -	700mW 70mW -	900mW 90mW
PARALLEL Mode										
Capacity			-	_	-	_	_	-	-	_
SLEW RATE			CC CD	CC CD	CC CD	CC CD	CC CD	CC CD	CC CD	CC CD
Operation Mode		\dashv	CC, CR	CC, CR	CC, CR	CC, CR	CC, CR	CC, CR	CC, CR	CC, CR
Setting Range		Н	32mA/μs~16A/μs	48mA/μs~16A/μs	64mA/μs~16A/μs	80mA/μs~16A/μs	48mA/μs~16A/μs	80mA/μs~16A/μs	112mA/μs~16A/μs	144mA/μs~16A
(CC mode)	Range	М	3.2mA/μs~1.6A/μs	4.8mA/μs~1.6A/μs	6.4mA/μs~1.6A/μs	8mA/μs~1.6A/μs	4.8mA/μs~1.6A/μs		11.2mA/μs~1.6A/μs	14.4mA/μs~1.6A
		L	320μA/μs~160mA/μs	480μA/μs~160mA/μs	640μA/μs~160mA/μs	800μA/μs~160mA/μs	N/A	N/A	N/A	N/A
Setting Range		н	3.2mA/μs~1.6A/μs	4.8mA/μs~1.6A/μs	6.4mA/μs~1.6A/μs	8mA/μs~1.6A/μs	4.8mA/μs~1.6A/μs	8mA/μs~1.6A/μs	11.2mA/μs~1.6A/μs	14.4mA/μs~1.6A
(CR Mode)	Range	-	320μA/μs~160mA/μs		640μA/μs~160mA/μs	,	480uA/us~160mA/us	800μA/μs~160mA/μs		l ''
(311 111040)	Runge	L	32μA/μs~16mA/μs			80μA/μs~16mA/μs		N/A	N/A	N/A
Accuracy of Setting	H,M		±10 % of set*9 + 5us)		ο τριτή με	σομιτήμα τοπιτήμα	14//1	14//	14//	14/7
Accuracy or Setting	n, IVI	, L	(
- I			12m4(1 64. 164/c)							
Resolution			12mA(1.6A~16A/μs)	18mA(1.6A~16A/μs)	24mA/μs(1.6A~16A/μs)	30mA(1.6A~16A/μs)	18mA(1.6A~16A/μs)	30mA(1.6A~16A/μs)	42mA(1.6A~16A/μs)	54mA(1.6A~16A/μs)
Resolution			1.2mA(160mA~1.6A/μs)	1.8mA(160mA~1.6A/μs)	2.4mA/μs (160mA~1.6A/μs)	3mA(160mA~1.6A/μs)	1.8mA(160mA~1.6A/μs)	3mA(160mA~1.6A/μs)	4.2mA(160mA~1.6A/μs)	5.4mA(160mA~1.6A)
Resolution			1.2mA(160mA~1.6A/μs) 120μA(16mA~160mA/μs) 12μA(1.6mA~16mA/μs)	1.8mA(160mA~1.6A/µs) 180µA(16mA~160mA/µs) 18µA(1.6mA~16mA/µs)	2.4mA/μs(160mA~1.6A/μs) 240μA/μs(16mA~160mA/μs) 24μA/μs(1.6mA~16mA/μs)	3mA(160mA~1.6A/μs) 300μA(16mA~160mA/μs) 30μA(1.6mA~16mA/μs)	1.8mA(160mA~1.6A/μs) 180μA(16mA~160mA/μs) 18μA(1.6mA~16mA/μs)	3mA(160mA~1.6A/μs) 300μA(16mA~160mA/μs) 30μA(1.6μA~16mA/μs)	4.2mA(160mA~1.6A/μs) 420μA(16mA~160mA/μs) 42μA(1.6mA~16mA/μs)	5.4mA(160mA~1.6A) 540μA(16mA~160m) 54μA(1.6mA~16mA)
Resolution			1.2mA(160mA~1.6A/μs) 120μA(16mA~160mA/μs) 12μA(1.6mA~16mA/μs) 1.2μA(160μA~1.6mA/μs)	1.8mA(160mA~1.6A/μs) 180μA(16mA~160mA/μs) 18μA(1.6mA~16mA/μs) 1.800μA(160μA~1.6mA/μs)	2.4mA/µs (160mA~1.6A/µs) 240µA/µs (16mA~160mA/µs) 24µA/µs (1.6mA~16mA/µs) 2.4µA/µs (160µA~1.6mA/µs)	3mA(160mA~1.6A/μs) 300μA(16mA~160mA/μs) 30μA(1.6mA~16mA/μs) 3μA(160μA~1.6mA/μs)	1.8mA(160mA~1.6A/μs) 180μA(16mA~160mA/μs) 18μA(1.6mA~16mA/μs) 1.8μA(160μA~1.6mA/μs)	3mA(160mA~1.6A/μs) 300μA(16mA~160mA/μs) 30μA(1.6μA~16mA/μs) 3μA(160μA~1.6mA/μs)	4.2mA(160mA~1.6A/μs) 420μA(16mA~160mA/μs) 42μA(1.6mA~16mA/μs) 4.2μA(160μA~1.6mA/μs)	5.4mA(160mA~1.6A) 540µA(16mA~160mA 54µA(1.6mA~16mA/ 5.4µA(160µA~1.6mA
			1.2mA(160mA~1.6A/μs) 120μA(16mA~160mA/μs) 12μA(1.6mA~16mA/μs)	1.8mA(160mA~1.6A/μs) 180μA(16mA~160mA/μs) 18μA(1.6mA~16mA/μs) 1.800μA(160μA~1.6mA/μs)	2.4mA/μs(160mA~1.6A/μs) 240μA/μs(16mA~160mA/μs) 24μA/μs(1.6mA~16mA/μs)	3mA(160mA~1.6A/μs) 300μA(16mA~160mA/μs) 30μA(1.6mA~16mA/μs)	1.8mA(160mA~1.6A/μs) 180μA(16mA~160mA/μs) 18μA(1.6mA~16mA/μs)	3mA(160mA~1.6A/μs) 300μA(16mA~160mA/μs) 30μA(1.6μA~16mA/μs)	4.2mA(160mA~1.6A/μs) 420μA(16mA~160mA/μs) 42μA(1.6mA~16mA/μs)	5.4mA(160mA~1.6A) 540μA(16mA~160m) 54μA(1.6mA~16mA)
METER			1.2mA(160mA~1.6A/μs) 120μA(16mA~160mA/μs) 12μA(1.6mA~16mA/μs) 1.2μA(160μA~1.6mA/μs) 1.2μA(160μA~1.6mA/μs)	1.8mA(160mA1.6A/μs) 180μA(16mA-160mA/μs) 18μA(1.6mA-16mA/μs) 1.800μA(160μA-1.6mA/μs) 1.800μA(160μA-1.6mA/μs)	2.4mA/µs (160mA~1.6A/µs) 240µA/µs (16mA~160mA/µs) 24µA/µs (1.6mA~16mA/µs) 2.4µA/µs (160µA~1.6mA/µs)	3mA(160mA~1.6A/μs) 300μA(16mA~160mA/μs) 30μA(1.6mA~16mA/μs) 3μA(160μA~1.6mA/μs)	1.8mA(160mA~1.6A/μs) 180μA(16mA~160mA/μs) 18μA(1.6mA~16mA/μs) 1.8μA(160μA~1.6mA/μs)	3mA(160mA~1.6A/μs) 300μA(16mA~160mA/μs) 30μA(1.6μA~16mA/μs) 3μA(160μA~1.6mA/μs)	4.2mA(160mA~1.6A/μs) 420μA(16mA~160mA/μs) 42μA(1.6mA~16mA/μs) 4.2μA(160μA~1.6mA/μs)	5.4mA(160mA~1.6A) 540µA(16mA~160mA 54µA(1.6mA~16mA/ 5.4µA(160µA~1.6mA
METER Voltmeter	Accura	1	1.2mÅ(160mA-1.6Å/μs) 120μA(16mA-160mA/μs) 12μA(1.6mA-16mA/μs) 1.2μÅ(160μA-1.6mA/μs) 120nA(16μA-160μA/μs) ±(0.1 % of rdg + 0.1 %	1.8mA(160mA-1.6A/µs) 180µA(16mA-160mA/µs) 18µA(1.6mA-16mA/µs) 1.800µA(160µA-1.6mA/µs) 1.800µA(160µA-1.6mA/µs) 280nA(16µA-160µA/µs)	2.4mA/µs (160mA~1.6A/µs) 240µA/µs (16mA~160mA/µs) 24µA/µs (1.6mA~16mA/µs) 2.4µA/µs (160µA~1.6mA/µs)	3mA(160mA~1.6A/μs) 300μA(16mA~160mA/μs) 30μA(1.6mA~16mA/μs) 3μA(160μA~1.6mA/μs)	1.8mA(160mA~1.6A/μs) 180μA(16mA~160mA/μs) 18μA(1.6mA~16mA/μs) 1.8μA(160μA~1.6mA/μs)	3mA(160mA~1.6A/μs) 300μA(16mA~160mA/μs) 30μA(1.6μA~16mA/μs) 3μA(160μA~1.6mA/μs)	4.2mA(160mA~1.6A/μs) 420μA(16mA~160mA/μs) 42μA(1.6mA~16mA/μs) 4.2μA(160μA~1.6mA/μs)	5.4mA(160mA~1.6A) 540µA(16mA~160mA 54µA(1.6mA~16mA/ 5.4µA(160µA~1.6mA
METER Voltmeter Ammeter	Accura Accura	1	1.2mA(160mA~1.6A/μs) 120μA(16mA~160mA/μs) 12μA(1.6mA~16mA/μs) 1.2μA(160μA~1.6mA/μs) 1.2μA(160μA~1.6mA/μs)	1.8mA(160mA-1.6A/µs) 180µA(16mA-160mA/µs) 18µA(1.6mA-16mA/µs) 1.800µA(160µA-1.6mA/µs) 1.800µA(160µA-1.6mA/µs) 280nA(16µA-160µA/µs)	2.4mA/µs (160mA~1.6A/µs) 240µA/µs (16mA~160mA/µs) 24µA/µs (1.6mA~16mA/µs) 2.4µA/µs (160µA~1.6mA/µs)	3mA(160mA~1.6A/μs) 300μA(16mA~160mA/μs) 30μA(1.6mA~16mA/μs) 3μA(160μA~1.6mA/μs)	1.8mA(160mA~1.6A/μs) 180μA(16mA~160mA/μs) 18μA(1.6mA~16mA/μs) 1.8μA(160μA~1.6mA/μs)	3mA(160mA~1.6A/μs) 300μA(16mA~160mA/μs) 30μA(1.6μA~16mA/μs) 3μA(160μA~1.6mA/μs)	4.2mA(160mA~1.6A/μs) 420μA(16mA~160mA/μs) 42μA(1.6mA~16mA/μs) 4.2μA(160μA~1.6mA/μs)	5.4mA(160mA~1.6A) 540µA(16mA~160mA 54µA(1.6mA~16mA/ 5.4µA(160µA~1.6mA
METER Voltmeter Ammeter DYNAMIC MODE		1	$\begin{array}{l} 1.2\text{mÅ}(160\text{mA}-1.6\text{Å}/\mu\text{s}) \\ 120\mu\text{A}(16\text{mA}-160\text{mÅ}/\mu\text{s}) \\ 12\mu\text{A}(1.6\text{mA}-160\text{mÅ}/\mu\text{s}) \\ 1.2\mu\text{A}(160\mu\text{A}-1.6\text{mA}/\mu\text{s}) \\ 1.2\mu\text{A}(160\mu\text{A}-1.6\text{m}/\mu\text{k}/\mu\text{s}) \\ 120\text{nA}(16\mu\text{A}-160\mu\text{A}/\mu\text{s}) \\ \\ \pm (0.1~\%~\text{of}~\text{rdg} + 0.1~\% \\ \pm (0.2~\%~\text{of}~\text{rdg} + 0.3~\% \\ \end{array}$	1.8mA(160mA-1.6A/µs) 180µA(16mA-160mA/µs) 18µA(1.6mA-16mA/µs) 1.800µA(160µA-1.6mA/µs) 1.800µA(160µA-1.6mA/µs) 280nA(16µA-160µA/µs)	2.4mA/µs (160mA~1.6A/µs) 240µA/µs (16mA~160mA/µs) 24µA/µs (1.6mA~16mA/µs) 2.4µA/µs (160µA~1.6mA/µs)	3mA(160mA~1.6A/μs) 300μA(16mA~160mA/μs) 30μA(1.6mA~16mA/μs) 3μA(160μA~1.6mA/μs)	1.8mA(160mA~1.6A/μs) 180μA(16mA~160mA/μs) 18μA(1.6mA~16mA/μs) 1.8μA(160μA~1.6mA/μs)	3mA(160mA~1.6A/μs) 300μA(16mA~160mA/μs) 30μA(1.6μA~16mA/μs) 3μA(160μA~1.6mA/μs)	4.2mA(160mA~1.6A/μs) 420μA(16mA~160mA/μs) 42μA(1.6mA~16mA/μs) 4.2μA(160μA~1.6mA/μs)	5.4mA(160mA~1.6A/ 540µA(16mA~160mA 54µA(1.6mA~16mA/ 5.4µA(160µA~1.6mA
METER Voltmeter Ammeter DYNAMIC MODE Operation Mode		1	1.2mÅ(160mA-1.6Å/μs) 120μΔ(16mA-160mA/μs) 12μΔ(1.6mA-160mA/μs) 12μΔ(1.6mA-1.6mA/μs) 12μΔ(160μA-1.6mΔ/μs) 120nΔ(16μΔ-160μΔ/μs) ±(0.1 % of rdg + 0.1 \$ ±(0.2 % of rdg + 0.3 \$	1.8mA(160mA-1.6A/µs) 180µA(16mA-160mA/µs) 18µA(1.6mA-160mA/µs) 1.800µA(160µA-1.6mA/µs) 1.800µA(160µA-1.6mA/µs) 1.800µA(160µA-1.6mA/µs) 1.800µA(160µA-1.6mA/µs) 1.800µA(1.60µA/µs)	2.4mA/µs(160mA-1.6A/µs) 240µA/µs(16mA-160mA/µs) 24µA/µs(1.6mA-16mA/µs) 24µA/µs(160µA-1.6mA/µs) 240nA/µs(16µA-160µA/µs)	3mA(160mA~1.6A/μs) 300μA(16mA~160mA/μs) 30μA(1.6mA~16mA/μs) 3μA(160μA~1.6mA/μs)	1.8mA(160mA~1.6A/μs) 180μA(16mA~160mA/μs) 18μA(1.6mA~16mA/μs) 1.8μA(160μA~1.6mA/μs)	3mA(160mA~1.6A/μs) 300μA(16mA~160mA/μs) 30μA(1.6μA~16mA/μs) 3μA(160μA~1.6mA/μs)	4.2mA(160mA~1.6A/μs) 420μA(16mA~160mA/μs) 42μA(1.6mA~16mA/μs) 4.2μA(160μA~1.6mA/μs)	5.4mA(160mA~1.6A) 540µA(16mA~160mA 54µA(1.6mA~16mA/ 5.4µA(160µA~1.6mA
METER Voltmeter Ammeter DYNAMIC MODE Operation Mode T1 & T2		1	$\begin{array}{l} 1.2\text{mÅ}(160\text{mA}-1.6\text{Å}/\mu\text{s}) \\ 120\mu\text{A}(16\text{mA}-160\text{mA}/\mu\text{s}) \\ 12\mu\text{A}(1.6\text{mA}-16\text{mA}/\mu\text{s}) \\ 1.2\mu\text{A}(1.60\mu\text{A}-1.6\text{mA}/\mu\text{s}) \\ 1.2\mu\text{A}(160\mu\text{A}-1.6\text{mA}/\mu\text{s}) \\ 120\text{nÅ}(16\mu\text{A}-160\mu\text{A}/\mu\text{s}) \\ \\ \pm(0.1~\%~of~rdg+0.1~\%) \\ \\ \pm(0.2~\%~of~rdg+0.3~\%) \\ \\ \text{CC and CR} \\ 0.025\text{mS}\sim10\text{mS/Res} \end{array}$	1.8mA(160mA-1.6A/µs) 180µA(16mA-160mA/µs) 18µA(1.6mA-16mA/µs) 1.800µA(160µA-1.6mA/µs) 1.800µA(160µA-1.6mA/µs) 280nA(16µA-160µA/µs)	2.4mA/µs(160mA-1.6A/µs) 240µA/µs(16mA-160mA/µs) 24µA/µs(1.6mA-16mA/µs) 24µA/µs(160µA-1.6mA/µs) 240nA/µs(16µA-160µA/µs)	3mA(160mA~1.6A/μs) 300μA(16mA~160mA/μs) 30μA(1.6mA~16mA/μs) 3μA(160μA~1.6mA/μs)	1.8mA(160mA~1.6A/μs) 180μA(16mA~160mA/μs) 18μA(1.6mA~16mA/μs) 1.8μA(160μA~1.6mA/μs)	3mA(160mA~1.6A/μs) 300μA(16mA~160mA/μs) 30μA(1.6μA~16mA/μs) 3μA(160μA~1.6mA/μs)	4.2mA(160mA~1.6A/μs) 420μA(16mA~160mA/μs) 42μA(1.6mA~16mA/μs) 4.2μA(160μA~1.6mA/μs)	5.4mA(160mA~1.6A/ 540µA(16mA~160mA 54µA(1.6mA~16mA/ 5.4µA(160µA~1.6mA
METER Voltmeter Ammeter DYNAMIC MODE Operation Mode T1 & T2 Accuracy		cy	1.2mÅ(160mA-1.6Å/μs) 120μΑ(16mA-160mA/μs) 12μΑ(1.6mA-160mA/μs) 1.2μΑ(160μΑ-1.6mA/μs) 1.2υΛΑ(160μΑ-1.6mA/μs) 200πΑ(16μΑ-160μΑ/μs) ±(0.1 % of rdg + 0.1 5 ±(0.2 % of rdg + 0.3 5) CC and CR 0.025mS~10mS/Res 1μS/1ms ± 100ppm	1.8mA(160mA-1.6A/µs) 180µA(16mA-160mA/µs) 18µA(1.6mA-160mA/µs) 1.800µA(160µA-1.6mA/µs) 180nA(160µA-1.6mA/µs) 180nA(16µA-160µA/µs) % of f.s) % of f.s)	2.4mA/µs(160mA-1.6A/µs) 240µA/µs(16mA-160mA/µs) 24µA/µs(1.6mA-160mA/µs) 24µA/µs(1.6mA-1.6mA/µs) 2.4µA/µs(160µA-1.6mA/µs) 240nA/µs(16µA-160µA/µs)	3mA(160mA-1.6Å/μs) 300μA(16mA-160mA/μs) 30μA(1.6mA-16mA/μs) 3μA(160μA-1.6mA/μs) 300nA(16μA-160μA/μs)	1.8mÅ(160mA-1.6A/µs) 180µA(16mA-160mA/µs) 18µA(1.6mA-16mA/µs) 1.8µA(160µA-1.6mA/µs) N/A	3mA(160mA-1.6Å/μs) 300μA(16mA-160mA/μs) 30μA(1.6μA-16mA/μs) 3μA(160μA-1.6mA/μs) N/A	4.2mA(160mA-1.6A/μs) 420μA(16mA-160mA/μs) 42μA(1.6mA-16mA/μs) 4.2μA(160μA-1.6mA/μs) N/A	5.4mA(160mA-1.6A/ 540µA(16mA-160m/ 54µA(1.6mA-16mA/ 5.4µA(160µA-1.6mA/ N/A
METER Voltmeter Ammeter DYNAMIC MODE Operation Mode T1 & T2 Accuracy Slew Rate	Accura	су	1.2mÅ(160mA-1.6Å/μs) 120μΔ(16mA-160mA/μs) 12μΔ(1.6mA-160mA/μs) 12μΔ(1.6mA-160μΔ-1.5mA/μs) 12υnΔ(160μΔ-1.6mΔ/μs) 120nΔ(16μΔ-160μΔ/μs) ±(0.1 % of rdg + 0.1 \$\frac{\pmathcau}{2}\$ (0.2 % of rdg + 0.3 \$\frac{\pmathcau}{2}\$ CC and CR 0.025mS-10mS/Res 1μS/1ms ± 100ppm 32mA/μs-16A/μs	1.8mA(160mA-1.6A/μs) 180μA(16mA-160mA/μs) 18μA(1.6mA-160mA/μs) 18μA(1.6mA-160mA/μs) 1800μA(160μA-1.6mA/μs) 1800hA(160μA-160μA/μs) % of f.s) % of f.s) 1μs; 1mS~30S/Res	2.4mA/μs(160mA-1.6A/μs) 240μA/μs(16mA-16mA/μs) 24μA/μs(1.6mA-16mA/μs) 24μA/μs(160μA-1.6mA/μs) 24μA/μs(160μA-1.6mA/μs) 240nA/μs(16μA-160μA/μs)	3mA(160mA-1.6Å/μs) 300μA(16mA-160mA/μs) 30μA(1.6mA-160mA/μs) 3μA(160μA-1.6mA/μs) 300nA(16μA-160μA/μs)	1.8mA(160mA-1.6A/μs) 180μA(16mA-160mA/μs) 18μA(1.6mA-16mA/μs) 1.8μA(160μA-1.6mA/μs) N/A	3mA(160mA-1.6A/μs) 300μA(16mA-160mA/μs) 30μA(1.6μA-16mA/μs) 3μA(160μA-1.6mA/μs) N/A	4.2mA(160mA-1.6A/μs) 420μA(16mA-160mA/μs) 42μA(1.6mA-16mA/μs) 4.2μA(160μA-1.6mA/μs) N/A	5.4mA(160mA-1.6A/ 540µA(16mA-160m/ 54µA(1.6mA-16mA/ 5.4µA(160µA-1.6mA/ N/A
METER Voltmeter Ammeter DYNAMIC MODE Operation Mode T1 & T2 Accuracy Slew Rate		H M	1.2mÅ(160mA-1.6Å/μs) 120μA(16mA-160mA/μs) 12μA(1.6mA-160mA/μs) 12μA(1.6mA-160mA/μs) 12μA(160μA-1.6mA/μs) 120nA(160μA-1.6mA/μs) 120nA(16μA-160μA/μs) ±(0.1 % of rdg + 0.1 % ±(0.2 % of rdg + 0.3 % CC and CR 0.025mS-10mS/Res 1μS/1ms ± 100ppm 32mA/μs-16A/μs 3.2mA/μs~1.6mA/μs	1.8mA(160mA-1.6A/μs) 180μA(16mA-160mA/μs) 18μA(1.6mA-160mA/μs) 18μA(1.6mA-160mA/μs) 1800μA(160μA-1.6mA/μs) 1800hA(160μA-160μA/μs) % of f.s) % of f.s) 1 μs; 1mS~30S/Res 48mA/μs~16A/μs 4.8mA/μs~1.6A/μs	2.4mA/μs(160mA-1.6A/μs) 240μA/μs(16mA-16mA/μs) 24μA/μs(1.6mA-16mA/μs) 24μA/μs(160μA-1.6mA/μs) 24μA/μs(160μA-1.6mA/μs) 240nA/μs(16μA-160μA/μs) : 1mS 64mA/μs~16A/μs 6.4mA/μs~1.6A/μs	3mA(160mA-1.6A/μs) 300μA(16mA-160mA/μs) 30μA(1.6mA-160mA/μs) 3μA(160μA-1.6mA/μs) 3μA(160μA-1.6mA/μs) 300nA(16μA-160μA/μs)	1.8mA(160mA-1.6A/μs) 180μA(16mA-160mA/μs) 18μA(1.6mA-16mA/μs) 1.8μA(160μA-1.6mA/μs) N/A 48mA/μs~16A/μs 4.8mA/μs~1.6A/μs	3mA(160mA-1.6A/μs) 300μA(16mA-160mA/μs) 30μA(1.6μA-16mA/μs) 3μA(160μA-1.6mA/μs) N/A 80mA/μs~16A/μs 8mA/μs~16A/μs	4.2mA(160mA-1.6A/μs) 420μA(16mA-160mA/μs) 42μA(1.6mA-16mA/μs) 4.2μA(160μA-1.6mA/μs) N/A 112mA/μs~16A/μs 11.2mA/μs~1.6A/μs	5.4mA(160mA-1.6A/ 540µA(16mA-160m/ 54µA(1.6mA-16mA/ 5.4µA(160µA-1.6mA/ N/A
METER Voltmeter Ammeter DYNAMIC MODE Operation Mode T1 & T2 Accuracy Slew Rate	Accura	су	1.2mÅ(160mA-1.6Å/μs) 120μΔ(16mA-160mA/μs) 12μΔ(1.6mA-160mA/μs) 12μΔ(1.6mA-160μΔ-1.5mA/μs) 12υnΔ(160μΔ-1.6mΔ/μs) 120nΔ(16μΔ-160μΔ/μs) ±(0.1 % of rdg + 0.1 \$\frac{\pmathcau}{2}\$ (0.2 % of rdg + 0.3 \$\frac{\pmathcau}{2}\$ CC and CR 0.025mS-10mS/Res 1μS/1ms ± 100ppm 32mA/μs-16A/μs	1.8mA(160mA-1.6A/μs) 180μA(16mA-160mA/μs) 18μA(1.6mA-160mA/μs) 18μA(1.6mA-160mA/μs) 1800μA(160μA-1.6mA/μs) 1800hA(160μA-160μA/μs) % of f.s) % of f.s) 1 μs; 1mS~30S/Res 48mA/μs~16A/μs 4.8mA/μs~1.6A/μs	2.4mA/μs(160mA-1.6A/μs) 240μA/μs(16mA-16mA/μs) 24μA/μs(1.6mA-16mA/μs) 24μA/μs(1.6mA-16mA/μs) 24μA/μs(160μA-1.6mA/μs) 240nA/μs(160μA-160μA/μs) : 1mS 64mA/μs~16A/μs 6.4mA/μs~1.6A/μs 640μA/μs~1.6MA/μs	3mA(160mA-1.6A/μs) 300μA(16mA-160mA/μs) 30μA(1.6mA-160mA/μs) 3μA(160μA-1.6mA/μs) 3μA(160μA-1.6mA/μs) 300nA(16μA-160μA/μs)	1.8mA(160mA-1.6A/μs) 180μA(16mA-160mA/μs) 18μA(1.6mA-16mA/μs) 1.8μA(160μA-1.6mA/μs) N/A 48mA/μs~16A/μs 4.8mA/μs~1.6A/μs	3mA(160mA-1.6A/μs) 300μA(16mA-160mA/μs) 30μA(1.6μA-16mA/μs) 3μA(160μA-1.6mA/μs) N/A	4.2mA(160mA-1.6A/μs) 420μA(16mA-160mA/μs) 42μA(1.6mA-16mA/μs) 4.2μA(160μA-1.6mA/μs) N/A	5.4mA(160mA-1.6A) 5.40µA(16mA-160mA) 5.4µA(1.6mA-16mA) 5.4µA(160µA-1.6mA) N/A
METER Voltmeter Ammeter DYNAMIC MODE Operation Mode T1 & T2 Accuracy Slew Rate (CC Mode)	Accura	H M	1.2mÅ(160mA-1.6Å/μs) 120μA(16mA-160mA/μs) 12μA(1.6mA-160mA/μs) 12μA(1.6mA-160mA/μs) 12μA(160μA-1.6mA/μs) 120nA(160μA-1.6mA/μs) 120nA(16μA-160μA/μs) ±(0.1 % of rdg + 0.1 % ±(0.2 % of rdg + 0.3 % CC and CR 0.025mS-10mS/Res 1μS/1ms ± 100ppm 32mA/μs-16A/μs 3.2mA/μs~1.6mA/μs	1.8mA(160mA-1.6A/μs) 180μA(16mA-160mA/μs) 18μA(1.6mA-160mA/μs) 18μA(1.6mA-160mA/μs) 1800μA(160μA-1.6mA/μs) 1800hA(160μA-160μA/μs) % of f.s) % of f.s) 1 μs; 1mS~30S/Res 48mA/μs~16A/μs 4.8mA/μs~1.6A/μs	2.4mA/μs(160mA-1.6A/μs) 240μA/μs(16mA-16mA/μs) 24μA/μs(1.6mA-16mA/μs) 24μA/μs(160μA-1.6mA/μs) 24μA/μs(160μA-1.6mA/μs) 240nA/μs(16μA-160μA/μs) : 1mS 64mA/μs~16A/μs 6.4mA/μs~1.6A/μs	3mA(160mA-1.6A/μs) 300μA(16mA-160mA/μs) 30μA(1.6mA-160mA/μs) 3μA(160μA-1.6mA/μs) 3μA(160μA-1.6mA/μs) 300nA(16μA-160μA/μs)	1.8mA(160mA-1.6A/μs) 180μA(16mA-160mA/μs) 18μA(1.6mA-16mA/μs) 1.8μA(160μA-1.6mA/μs) N/A 48mA/μs~16A/μs 4.8mA/μs~1.6A/μs	3mA(160mA-1.6A/μs) 300μA(16mA-160mA/μs) 30μA(1.6μA-16mA/μs) 3μA(160μA-1.6mA/μs) N/A 80mA/μs~16A/μs 8mA/μs~1.6A/μs	4.2mA(160mA-1.6A/μs) 420μA(16mA-160mA/μs) 42μA(1.6mA-16mA/μs) 4.2μA(160μA-1.6mA/μs) N/A 112mA/μs~16A/μs 11.2mA/μs~1.6A/μs	5.4mA(160mA-1.6A/ 540µA(16mA-16mA/ 54µA(1.6mA-16mA/ 5.4µA(160µA-1.6mA/ N/A
METER Voltmeter Ammeter DYNAMIC MODE Operation Mode T1 & T2 Accuracy Slew Rate (CC Mode)	Accura	H M L	1.2mÅ(160mA-1.6Å/μs) 120μΔ(16mA-160mA/μs) 12μΔ(1.6mA-160mA/μs) 12μΔ(1.6mA-160μΔ/μs) 120nΔ(16μΔ-1.6mμΔ/μs) 120nΔ(16μΔ-160μΔ/μs) ±(0.1 % of rdg + 0.1 % ±(0.2 % of rdg + 0.3 % CC and CR 0.025mS~10mS/Res 1μS/1ms ± 100ppm 32mΔ/μs~16Δ/μs 3.2mΔ/μs~1.6mΔ/μs 320μΔ/μs~160mΔ/μs	1.8mA(160mA-1.6A/μs) 180μA(16mA-16mA/μs) 18μA(1.6mA-16mA/μs) 18μα(1.6mA-16mA/μs) 180nA(16μA-16mA/μs) 180nA(16μA-16μA/μs) 6 of f.s) 7 of f.s) 8 of f.s) 48mA/μs~16A/μs 4.8mA/μs~1.6A/μs 4.8mA/μs~160mA/μs 4.8mA/μs~1.6A/μs	2.4mA/μs(160mA-1.6A/μs) 240μA/μs(16mA-16mA/μs) 24μA/μs(1.6mA-16mA/μs) 24μA/μs(1.6mA-16mA/μs) 24μA/μs(160μA-1.6mA/μs) 240nA/μs(160μA-160μA/μs) : 1mS 64mA/μs~16A/μs 6.4mA/μs~1.6A/μs 640μA/μs~1.6MA/μs	3mA(160mA-1.6Å/μs) 300μA(16mA-160mA/μs) 300μA(1.6mA-160mA/μs) 3μμA(1.6mA-160mA/μs) 3μμA(1.6mA-160μA-1.6mA/μs) 3μμA(1.6μA-160μA/μs) 300nA(16μA-160μA/μs) 80mA/μs~16A/μs 8mA/μs~1.6A/μs 8mA/μs~1.6A/μs	1.8mA(160mA-1.6A/µs) 180µA(16mA-160mA/µs) 18µA(1.6mA-16mA/µs) 1.8µA(160µA-1.6mA/µs) N/A 48mA/µs~16A/µs N/A 4.8mA/µs~1.6A/µs	3mA(160mA-1.6A/μs) 300μA(16mA-160mA/μs) 30μA(1.6μA-16mA/μs) 3μA(160μA-1.6mA/μs) N/A 80mA/μs~16A/μs 8mA/μs~1.6A/μs N/A 8mA/μs~1.6A/μs	4.2mA(160mA-1.6A/μs) 420μA(16mA-160mA/μs) 42μA(1.6mA-16mA/μs) 42μA(160μA-1.6mA/μs) N/A 112mA/μs~16A/μs 11.2mA/μs~1.6A/μs N/A	5.4mA(160mA-1.6A/ 540µA(16mA-16mA/ 54µA(1.6mA-16mA/ 5.4µA(160µA-1.6mA/ N/A 144mA/µs~1.6A 14.4mA/µs~1.6A N/A
METER Voltmeter Ammeter DYNAMIC MODE Operation Mode T1 & T2 Accuracy Slew Rate (CC Mode) Slew Rate	Accura	H M L	1.2mÅ(160mA-1.6Å/μs) 120μΔ(16mA-160mA/μs) 12μΔ(1.6mA-160mA/μs) 1.2μΔ(1.6mA-160μΔ/μs) 120nΔ(16μA-160μΔ-μs) 120nΔ(16μA-160μΔ-μs) ±(0.1 % of rdg + 0.1 % ±(0.2 % of rdg + 0.3 % CC and CR 0.025mS~10mS/Res 1μS/1ms ± 100ppm 32mΔ/μs~16Δ/μs 3.2mΔ/μs~1.6mΔ/μs 3.2mΔ/μs~1.6MΔ/μs 3.2mΔ/μs~1.6Δ/μs 320μΔ/μs~1.6Δ/μs	1.8mA(160mA-1.6A/µs) 180µA(16mA-16mA/µs) 18µA(1.6mA-16mA/µs) 1.800µA(16µA-16mA/µs) 1.800µA(16µA-16mA/µs) 1.80nA(16µA-160µA/µs) 2% of f.s) % of f.s) 1 µs ; 1 mS~30S/Res 48mA/µs~16A/µs 4.8mA/µs~1.6A/µs 4.8mA/µs~1.6A/µs 4.8mA/µs~1.6A/µs 4.8mA/µs~1.6A/µs 4.8mA/µs~1.6A/µs	2.4mA/μs(160mA-1.6A/μs) 240μA/μs(16mA-1.6mA/μs) 24μA/μs(1.6mA-16mA/μs) 24μA/μs(16μA-160μA/μs) 240nA/μs(16μA-160μA/μs) 240nA/μs(16μA-160μA/μs) : 1mS 64mA/μs~1.6A/μs 6.4mA/μs~1.6A/μs 640μA/μs~1.60mA/μs 6.4mA/μs~1.6A/μs	3mA(160mA-1.6Å/μs) 300μA(16mA-160mA/μs) 300μA(16mA-160mA/μs) 3μA(16bμA-16mA/μs) 3μA(16bμA-16mA/μs) 3μA(16bμA-160μA/μs) 300nA(16μA-160μA/μs) 80mA/μs~16A/μs 80mA/μs~1.6A/μs 800μA/μs~160mA/μs	1.8mA(160mA-1.6A/µs) 180µA(16mA-160mA/µs) 18µA(1.6mA-16mA/µs) 1.8µA(160µA-1.6mA/µs) N/A 48mA/µs~16A/µs N/A 4.8mA/µs~1.6A/µs N/A 4.8mA/µs~1.6A/µs 4.8mA/µs~1.6A/µs	3mA(160mA-1.6A/μs) 300μA(16mA-160mA/μs) 30μA(1.6μA-16mA/μs) 3μA(160μA-1.6mA/μs) N/A 80mA/μs~16A/μs 8mA/μs~1.6A/μs N/A 8mA/μs~1.6A/μs	4.2mA(160mA-1.6A/μs) 420μA(16mA-160mA/μs) 42μA(1.6mA-160mA/μs) 42μA(1.60μA-1.6mA/μs) N/A 112mA/μs~16A/μs 11.2mA/μs~1.6A/μs N/A	5.4mA(160mA-1.6A) 540µA(16mA-160m/ 54µA(1.6mA-16mA/ 5.4µA(160µA-1.6mA/ N/A 144mA/µs~16A 14.4mA/µs~1.6A N/A
METER Voltmeter Ammeter DYNAMIC MODE Operation Mode T1 & T2 Accuracy Slew Rate (CC Mode) Slew Rate (CR Mode)	Accura	H M L	1.2mÅ(160mA-1.6Å/μs) 120μΔ(16mA-160mA/μs) 12μΔ(1.6mA-160mA/μs) 1.2μΔ(1.6mA-160μΔ/μs) 120nΔ(16μA-160μΔ-μs) 120nΔ(16μA-160μΔ-μs) ±(0.1 % of rdg + 0.1 % ±(0.2 % of rdg + 0.3 % CC and CR 0.025mS~10mS/Res 1μS/1ms ± 100ppm 32mΔ/μs~166MΔ/μs 32μΔ/μs~160mΔ/μs 320μΔ/μs~160mΔ/μs 320μΔ/μs~160mΔ/μs	1.8mA(160mA-1.6A/µs) 180µA(16mA-16mA/µs) 18µA(1.6mA-16mA/µs) 1.800µA(16µA-16mA/µs) 1.800µA(16µA-16mA/µs) 1.80nA(16µA-160µA/µs) 2% of f.s) % of f.s) 1 µs ; 1 mS~30S/Res 4.8mA/µs~16A/µs 4.8mA/µs~1.6A/µs 4.8mA/µs~1.6A/µs 4.8mA/µs~1.6A/µs 4.8mA/µs~1.6A/µs 4.8mA/µs~1.6A/µs 4.8mA/µs~1.6A/µs	2.4mA/μs(160mA-1.6A/μs) 240μA/μs(16mA-1.6mA/μs) 24μA/μs(1.6mA-16mA/μs) 24μA/μs(16mA-16mA/μs) 24μA/μs(16μA-160μA/μs) 240nA/μs(16μA-160μA/μs) 1mS 64mA/μs~16A/μs 6.4mA/μs~1.6A/μs 640μA/μs~160mA/μs 640μA/μs~160mA/μs 640μA/μs~160mA/μs	3mA(160mA-1.6A/μs) 300μA(16mA-160mA/μs) 300μA(16mA-160mA/μs) 3μA(16bμA-160mA/μs) 3μA(16bμA-160μA/μs) 300nA(16μA-160μA/μs) 300nA(16μA-160μA/μs) 80mA/μs~16A/μs 80mA/μs~1.6A/μs 800μA/μs~160mA/μs 800μA/μs~160mA/μs 800μA/μs~160mA/μs	1.8mA(160mA-1.6A/μs) 180μA(16mA-160mA/μs) 18μA(1.6mA-16mA/μs) 1.8μΔ(1.6mA-16mA/μs) 1.8μΔ(160μA-1.6mA/μs) N/A 48mA/μs~16A/μs N/A 4.8mA/μs~1.6A/μs N/A 4.8mA/μs~1.6A/μs	3mA(160mA-1.6A/μs) 300μA(16mA-160mA/μs) 30μA(1.6μA-16mA/μs) 3μA(160μA-1.6mA/μs) N/A 80mA/μs~16A/μs 8mA/μs~1.6A/μs N/A 8mA/μs~1.6A/μs N/A	4.2mA(160mA-1.6A/μs) 420μA(16mA-160mA/μs) 42μA(1.6mA-160mA/μs) 42μA(1.6mA-16mA/μs) N/A 112mA/μs~16A/μs 11.2mA/μs~1.6A/μs N/A 11.2mA/μs~1.6A/μs 1.2mA/μs~160mA/μs	5.4mA(160mA-1.6A) 5.40μA(16mA-160mA) 5.4μA(1.6mA-16mA) 5.4μA(160μA-1.6mA) N/A 14.4mA/μs~1.6A N/A 14.4mA/μs~1.6A N/A 14.4mA/μs~1.60 N/A
METER Voltmeter Ammeter DYNAMIC MODE Operation Mode T1 & T2 Accuracy Slew Rate (CC Mode) Slew Rate (CR Mode) Current Accuracy	Range Range	H M L	1.2mÅ(160mA-1.6Å/μs) 120μΔ(16mA-160mA/μs) 12μΔ(1.6mA-160mA/μs) 1.2μΔ(1.6mA-160μΔ/μs) 120nΔ(16μA-160μΔ-μs) 120nΔ(16μA-160μΔ-μs) ±(0.1 % of rdg + 0.1 % ±(0.2 % of rdg + 0.3 % CC and CR 0.025mS~10mS/Res 1μS/1ms ± 100ppm 32mΔ/μs~16Δ/μs 3.2mΔ/μs~1.6mΔ/μs 3.2mΔ/μs~1.6MΔ/μs 3.2mΔ/μs~1.6Δ/μs 320μΔ/μs~1.6Δ/μs	1.8mA(160mA-1.6A/µs) 180µA(16mA-16mA/µs) 18µA(1.6mA-16mA/µs) 1.800µA(16µA-16mA/µs) 1.800µA(16µA-16mA/µs) 1.80nA(16µA-160µA/µs) 2% of f.s) % of f.s) 1 µs ; 1 mS~30S/Res 48mA/µs~16A/µs 4.8mA/µs~1.6A/µs 4.8mA/µs~1.6A/µs 4.8mA/µs~1.6A/µs 4.8mA/µs~1.6A/µs 4.8mA/µs~1.6A/µs	2.4mA/μs(160mA-1.6A/μs) 240μA/μs(16mA-1.6mA/μs) 24μA/μs(1.6mA-16mA/μs) 24μA/μs(16μA-160μA/μs) 240nA/μs(16μA-160μA/μs) 240nA/μs(16μA-160μA/μs) : 1mS 64mA/μs~1.6A/μs 6.4mA/μs~1.6A/μs 640μA/μs~1.60mA/μs 6.4mA/μs~1.6A/μs	3mA(160mA-1.6Å/μs) 300μA(16mA-160mA/μs) 300μA(16mA-160mA/μs) 3μA(16bμA-16mA/μs) 3μA(16bμA-16mA/μs) 3μA(16bμA-160μA/μs) 300nA(16μA-160μA/μs) 80mA/μs~16A/μs 80mA/μs~1.6A/μs 800μA/μs~160mA/μs	1.8mA(160mA-1.6A/µs) 180µA(16mA-160mA/µs) 18µA(1.6mA-16mA/µs) 1.8µA(160µA-1.6mA/µs) N/A 48mA/µs~16A/µs N/A 4.8mA/µs~1.6A/µs N/A 4.8mA/µs~1.6A/µs 4.8mA/µs~1.6A/µs	3mA(160mA-1.6Å/μs) 300μΔ(16mA-160mA/μs) 30μΔ(1.6μA-16mA/μs) 3μΔ(160μA-1.6mA/μs) N/A 80mA/μs~16A/μs 8mA/μs~1.6A/μs N/A 8mA/μs~1.6A/μs 80μΔ/μs~160mΔ/μs	4.2mA(160mA-1.6A/μs) 420μA(16mA-160mA/μs) 42μA(1.6mA-16mA/μs) 42μA(1.60μA-1.6mA/μs) N/A 11.2mA/μs~16A/μs N/A 11.2mA/μs~1.6A/μs 1.2mA/μs~1.6A/μs 1.2mA/μs~1.6A/μs	5.4mA(160mA-1.6Å, 540µA(1.6mA-160m) 54µA(1.6mA-160m) 5.4µA(1.6mA-16mA) 7.4µA(160µA-1.6mA) N/A 14.4mA/µs-1.6A 14.4mA/µs-1.6. 14.4mA/µs-1.6.
METER Voltmeter Ammeter DYNAMIC MODE Operation Mode T1 & T2 Accuracy Slew Rate (CC Mode) Slew Rate (CR Mode) Current Accuracy PROTECTION FUNC	Range Range	H M L	1.2mÅ(160mA-1.6Å/μs) 120μΔ(16mA-160mA/μs) 12μΔ(1.6mA-160mA/μs) 1.2μΔ(1.6mA-160μΔ/μs) 120nΔ(16μA-160μΔ-μs) 120nΔ(16μA-160μΔ-μs) ±(0.1 % of rdg + 0.1 % ±(0.2 % of rdg + 0.3 % CC and CR 0.025mS~10mS/Res 1μS/1ms ± 100ppm 32mΔ/μs~16Δ/μs 3.2mΔ/μs~1.6mΔ/μs 3.2mΔ/μs~1.6MΔ/μs 3.2mΔ/μs~1.6MΔ/μs 3.2μΔ/μs~160mΔ/μs 32μΔ/μs~160mΔ/μs ±0.4%F.S.	1.8mA(160mA-1.6A/μs) 180μA(16mA-16mA/μs) 18μA(1.6mA-16mA/μs) 1.800μA(16μA-16mA/μs) 1.800μA(16μA-16mA/μs) 1.800hA(16μA-16mA/μs) 1.80nA(16μA-16mA/μs) 2% of f.s) % of f.s) 1μs; 1mS~30S/Res 48mA/μs~16A/μs 4.8mA/μs~1.6A/μs 4.8mA/μs~1.6A/μs 4.8mA/μs~1.6A/μs 4.8mA/μs~1.6A/μs 4.8mA/μs~1.6A/μs	2.4mA/μs(160mA-1.6A/μs) 240μA/μs(16mA-1.6mA/μs) 24μA/μs(16mA-16mA/μs) 24μA/μs(16mA-16mA/μs) 24μA/μs(16μA-160μA/μs) 240nA/μs(16μA-160μA/μs) 240nA/μs(16μA-160μA/μs) 1 mS 64mA/μs~1.6A/μs 6.4mA/μs~1.6A/μs 640μA/μs~1.60mA/μs 640μA/μs~160mA/μs 40μA/μs~160mA/μs 44μA/μs~16mA/μs 44μA/μs~16mA/μs 40.4%F.S.	3mA(160mA-1.6Å/μs) 300μA(16mA-160mA/μs) 300μA(16mA-160mA/μs) 3μμA(16μA-160mA/μs) 3μμA(16μA-160μA/μs) 3μμA(16μA-160μA/μs) 300nA(16μA-160μA/μs) 300nA(16μA-160μA/μs) 80mA/μs~1.6A/μs 800μA/μs~160mA/μs 800μA/μs~160mA/μs 80μA/μs~160mA/μs 40μA/μs~16mA/μs 40μA/μs~16mA/μs 40μA/μs~16mA/μs	1.8mA(160mA-1.6A/μs) 180μA(16mA-160mA/μs) 18μA(1.6mA-16mA/μs) 1.8μA(1.6mA-16mA/μs) 1.8μΔ(160μA-1.6mA/μs) N/A 48mA/μs~16A/μs N/A 4.8mA/μs~1.6A/μs N/A 4.8mA/μs~1.6A/μs N/A ±0.4%F.S.	3mA(160mA-1.6Å/μs) 300μΔ(16mA-160mA/μs) 30μΔ(1.6μA-16mA/μs) 3μΔ(160μA-1.6mA/μs) N/A 80mA/μs~16A/μs 8mA/μs~1.6A/μs N/A 8mA/μs~1.6A/μs N/A ±0.4%F.S.	4.2mA(160mA-1.6A/μs) 420μA(16mA-160mA/μs) 42μA(1.6mA-160mA/μs) 42μA(1.6mA-16mA/μs) N/A 11.2mA/μs~16A/μs N/A 11.2mA/μs~1.6A/μs N/A 11.2mA/μs~1.6A/μs N/A ±0.4%F.S.	5.4mA(160mA-1.6Å) 540µA(1.6mA-160m 54µA(1.6mA-160m 54µA(1.6mA-16mA) 7.4µA(160µA-1.6mA) N/A 14.4mA/µs-1.6A N/A 14.4mA/µs-1.60m N/A
METER Voltmeter Ammeter DYNAMIC MODE Operation Mode T1 & T2 Accuracy Slew Rate (CC Mode) Slew Rate	Range Range	H M L	1.2mA(160mA-1.6A/μs) 120μA(16mA-160mA/μs) 12μA(1.6mA-160mA/μs) 1.2μA(1.6mA-160mA/μs) 1.2μA(1.6mA-160μA/μs) 210nA(16μA-160μA/μs) 210nA(16μA-160μA/μs) 210nA(16μA-160μA/μs) 210nA(16μA-160μA/μs) 210nA(16μA-160μA/μs) 210nA(16μA-160μA/μs) 210nA(16μA-160μA/μs) 210nA(μs-16A/μs) 210μA/μs-160mA/μs 210μA/μs-160mA/μs 210μA/μs-160mA/μs 21μA/μs-160mA/μs 21μA/μs-160mA/μs 21μA/μs-160mA/μs	1.8mA(160mA-1.6A/μs) 180μA(16mA-160mA/μs) 18μα(1.6mA-160mA/μs) 1.800μA(16μA-160mA/μs) 1.800μA(16μA-160μA/μs) % of f.s) % of f.s) 48mA/μs~16A/μs 4.8mA/μs~1.6A/μs 4.8mA/μs~1.6A/μs 4.8mA/μs~1.6A/μs 4.8mA/μs~1.6A/μs 4.8mA/μs~1.6A/μs 4.8mA/μs~1.6A/μs	2.4mA/μs(160mA-1.6A/μs) 240μΑ/μs(16mA-1.6mA/μs) 240μΑ/μs(16mA-16mA/μs) 24μμΑ/μs(16mA-16mA/μs) 2.4μμΑ/μs(16μα-160μΑ/μs) 2.4μμΑ/μs(16μα-160μΑ/μs) 2.4μα/μs(16μα-160μΑ/μs) 2.4mA/μs~16A/μs 6.4mA/μs~1.6A/μs 6.4mA/μs~1.6A/μs 6.4mA/μs~1.6A/μs 6.4mA/μs~1.6A/μs 6.4mA/μs~1.6A/μs 6.4mA/μs~1.6A/μs	3mA(160mA-1.6A/µs) 300µA(16mA-160mA/µs) 30µA(16mA-160mA/µs) 3µA(160µA-16mA/µs) 30µA(16µA-160nA/µs) 300nA(16µA-160µA/µs) 80mA/µs~16A/µs 8mA/µs~1.6A/µs 800µA/µs~160mA/µs 8mA/µs~1.6A/µs 800µA/µs~160mA/µs ±0.4%F.S.	1.8mA(160mA-1.6A/μs) 180μA(16mA-160mA/μs) 18μA(1.6mA-16mA/μs) 1.8μA(1.6mA-16mA/μs) 1.8μΔ(160μA-1.6mA/μs) N/A 48mA/μs~16A/μs N/A 4.8mA/μs~1.6A/μs N/A 4.8mA/μs~1.6A/μs N/A ±0.4%F.S.	3mA(160mA-1.6Å/μs) 300μΔ(16mA-160mA/μs) 30μΔ(1.6μA-16mA/μs) 3μΔ(160μA-1.6mA/μs) N/A 80mA/μs~16A/μs 8mA/μs~1.6A/μs N/A 8mA/μs~1.6A/μs N/A ±0.4%F.S.	4.2mA(160mA-1.6A/μs) 420μA(16mA-160mA/μs) 42μA(1.6mA-160mA/μs) 42μA(1.6mA-16mA/μs) N/A 11.2mA/μs~16A/μs N/A 11.2mA/μs~1.6A/μs N/A 11.2mA/μs~1.6A/μs N/A ±0.4%F.S.	5.4mA(160mA-1.6Å) 540µA(1.6mA-160m 54µA(1.6mA-160m 54µA(1.6mA-16mA) 7.4µA(160µA-1.6mA) N/A 14.4mA/µs-1.6A N/A 14.4mA/µs-1.60m N/A
METER Voltmeter Ammeter DYNAMIC MODE Operation Mode T1 & T2 Accuracy Slew Rate (CC Mode) Slew Rate (CR Mode) Current Accuracy PROTECTION FUNC Functions	Range Range	H M L	1.2mA(160mA-1.6A/μs) 120μA(16mA-160mA/μs) 12μA(1.6mA-160mA/μs) 1.2μA(1.6mA-160mA/μs) 1.2μA(1.6mA-160μA/μs) 210nA(16μA-160μA/μs) 210nA(16μA-160μA/μs) 210nA(16μA-160μA/μs) 210nA(16μA-160μA/μs) 210nA(16μA-160μA/μs) 210nA(16μA-160μA/μs) 210nA(16μA-160μA/μs) 210nA(μs-16A/μs) 210μA/μs-160mA/μs 210μA/μs-160mA/μs 210μA/μs-160mA/μs 21μA/μs-160mA/μs 21μA/μs-160mA/μs 21μA/μs-160mA/μs	1.8mA(160mA-1.6A/μs) 180μA(16mA-16mA/μs) 18μA(1.6mA-16mA/μs) 1.800μA(16μA-16mA/μs) 1.800μA(16μA-16mA/μs) 1.800hA(16μA-16mA/μs) 1.80nA(16μA-16mA/μs) 2% of f.s) % of f.s) 1μs; 1mS~30S/Res 48mA/μs~16A/μs 4.8mA/μs~1.6A/μs 4.8mA/μs~1.6A/μs 4.8mA/μs~1.6A/μs 4.8mA/μs~1.6A/μs 4.8mA/μs~1.6A/μs	2.4mA/μs(160mA-1.6A/μs) 240μΑ/μs(16mA-1.6mA/μs) 240μΑ/μs(16mA-16mA/μs) 24μμΑ/μs(16mA-16mA/μs) 2.4μμΑ/μs(16μα-160μΑ/μs) 2.4μμΑ/μs(16μα-160μΑ/μs) 2.4μα/μs(16μα-160μΑ/μs) 2.4mA/μs~16A/μs 6.4mA/μs~1.6A/μs 6.4mA/μs~1.6A/μs 6.4mA/μs~1.6A/μs 6.4mA/μs~1.6A/μs 6.4mA/μs~1.6A/μs 6.4mA/μs~1.6A/μs	3mA(160mA-1.6A/µs) 300µA(16mA-160mA/µs) 30µA(16mA-160mA/µs) 3µA(160µA-16mA/µs) 30µA(16µA-160nA/µs) 300nA(16µA-160µA/µs) 80mA/µs~16A/µs 8mA/µs~1.6A/µs 800µA/µs~160mA/µs 8mA/µs~1.6A/µs 800µA/µs~160mA/µs ±0.4%F.S.	1.8mA(160mA-1.6A/μs) 180μA(16mA-160mA/μs) 18μA(1.6mA-16mA/μs) 1.8μA(1.6mA-16mA/μs) 1.8μΔ(160μA-1.6mA/μs) N/A 48mA/μs~16A/μs N/A 4.8mA/μs~1.6A/μs N/A 4.8mA/μs~1.6A/μs N/A ±0.4%F.S.	3mA(160mA-1.6Å/μs) 300μΔ(16mA-160mA/μs) 30μΔ(1.6μA-16mA/μs) 3μΔ(160μA-1.6mA/μs) N/A 80mA/μs~16A/μs 8mA/μs~1.6A/μs N/A 8mA/μs~1.6A/μs N/A ±0.4%F.S.	4.2mA(160mA-1.6A/μs) 420μA(16mA-160mA/μs) 42μA(1.6mA-160mA/μs) 42μA(1.6mA-16mA/μs) N/A 11.2mA/μs~16A/μs N/A 11.2mA/μs~1.6A/μs N/A 11.2mA/μs~1.6A/μs N/A ±0.4%F.S.	5.4mA(160mA-1.6Å) 540µA(1.6mA-160m 54µA(1.6mA-160m 54µA(1.6mA-16mA) 7.4µA(160µA-1.6mA) N/A 14.4mA/µs-1.6A N/A 14.4mA/µs-1.60m N/A
METER Voltmeter Ammeter DYNAMIC MODE Operation Mode T1 & T2 Accuracy Slew Rate (CC Mode) Slew Rate (CR Mode) Current Accuracy PROTECTION FUNC Functions GENERAL	Range Range	H M L	1.2mA(160mA-1.6A/μs) 120μA(16mA-160mA/μs) 12μA(1.6mA-160mA/μs) 12μA(1.6mA-160mA/μs) 12μA(1.6mA-160μA/μs) 120nA(16μA-160μA/μs) 120nA(16μA-160μA/μs) CC and CR 0.025mS-10mS/Res 1μS/1ms ± 100ppm 32mA/μs-16A/μs 3.2mA/μs-1.6A/μs 3.2mA/μs-1.6A/μs 3.2μA/μs~1.60mA/μs 3.2μA/μs~160mA/μs 12μA/μs~160mA/μs 12μA/μs~160mA/μs 10.4%F.S. Overvoltage protec Undervoltage protec	1.8mA(160mA-1.6A/μs) 180μA(16mA-16mA/μs) 180μA(16mA-16mA/μs) 1.800μA(16μA-16mA/μs) 1.800μA(16μA-160μA/μs) 2% of f.s) % of f.s) 48mA/μs~16A/μs 4.8mA/μs~1.6A/μs	2.4mA/μs(160mA-1.6A/μs) 240μA/μs(16mA-1.6mA/μs) 240μA/μs(16mA-16mA/μs) 24μA/μs(16μA-160mA/μs) 24μA/μs(160μA-1.6mA/μs) 240nA/μs(16μA-160μA/μs) 1mS 64mA/μs~16A/μs 6.4mA/μs~1.6A/μs 6.4mA/μs~1.6A/μs 6.4mA/μs~160mA/μs 40μA/μs~160mA/μs 40μA/μs~160mA/μs 40μA/μs~160mA/μs 40μA/μs~160mA/μs 40μA/μs~160mA/μs 40μA/μs~160mA/μs 40μA/μs~160mA/μs 40μA/μs~160mA/μs	3mA(160mA-1.6A/µs) 300µA(16mA-160mA/µs) 30µA(16mA-160mA/µs) 3µA(160µA-16mA/µs) 30µA(16µA-160nA/µs) 300nA(16µA-160µA/µs) 80mA/µs~16A/µs 8mA/µs~1.6A/µs 800µA/µs~160mA/µs 8mA/µs~1.6A/µs 800µA/µs~160mA/µs ±0.4%F.S.	1.8mA(160mA-1.6A/μs) 180μA(16mA-160mA/μs) 18μA(1.6mA-16mA/μs) 1.8μA(1.6mA-16mA/μs) 1.8μΔ(160μA-1.6mA/μs) N/A 48mA/μs~16A/μs N/A 4.8mA/μs~1.6A/μs N/A 4.8mA/μs~1.6A/μs N/A ±0.4%F.S.	3mA(160mA-1.6Å/μs) 300μΔ(16mA-160mA/μs) 30μΔ(1.6μA-16mA/μs) 3μΔ(160μA-1.6mA/μs) N/A 80mA/μs~16A/μs 8mA/μs~1.6A/μs N/A 8mA/μs~1.6A/μs N/A ±0.4%F.S.	4.2mA(160mA-1.6A/μs) 420μA(16mA-160mA/μs) 42μA(1.6mA-160mA/μs) 42μA(1.6mA-16mA/μs) N/A 11.2mA/μs~16A/μs N/A 11.2mA/μs~1.6A/μs N/A 11.2mA/μs~1.6A/μs N/A ±0.4%F.S.	5.4mA(160mA-1.6Å) 540µA(1.6mA-160m 54µA(1.6mA-160m 54µA(1.6mA-16mA) 7.4µA(160µA-1.6mA) N/A 14.4mA/µs-1.6A N/A 14.4mA/µs-1.60m N/A
METER Voltmeter Ammeter DYNAMIC MODE Operation Mode T1 & T2 Accuracy Slew Rate (CC Mode) Slew Rate (CR Mode) Current Accuracy PROTECTION FUNC Functions GENERAL Input Range	Range Range	H M L	1.2mA(160mA-1.6A/μs) 120μA(16mA-160mA/μs) 12μA(1.6mA-160mA/μs) 12μA(1.6mA-160mA/μs) 12μA(1.6mA-160μA/μs) 120nA(16μA-160μA/μs) 120nA(16μA-160μA/μs) CC and CR 0.025mS-10mS/Res 1μS/1ms ± 100ppm 32mA/μs-16A/μs 3.2mA/μs-1.6A/μs 3.2mA/μs-1.6A/μs 3.2μA/μs~1.60mA/μs 3.2μA/μs~160mA/μs 12μA/μs~160mA/μs 12μA/μs~160mA/μs 10.4%F.S. Overvoltage protec Undervoltage protec	1.8mA(160mA-1.6A/μs) 180μA(16mA-16mA/μs) 180μA(16mA-16mA/μs) 1.800μA(16μA-16mA/μs) 1.800μA(16μA-16mA/μs) 1.80nA(16μA-160μA/μs) 3% of f.s) % of f.s) 48mA/μs~16A/μs 4.8mA/μs~1.6A/μs 4.8mA/μs~1.6A/μs 4.8mA/μs~1.6A/μs 4.8mA/μs~160mA/μs 4.8mA/μs~16mA/μs	2.4mA/μs(160mA-1.6A/μs) 240μA/μs(16mA-1.6mA/μs) 240μA/μs(16mA-16mA/μs) 24μA/μs(16μA-160mA/μs) 24μA/μs(160μA-1.6mA/μs) 240nA/μs(16μA-160μA/μs) 1mS 64mA/μs~16A/μs 6.4mA/μs~1.6A/μs 6.4mA/μs~1.6A/μs 6.4mA/μs~160mA/μs 40μA/μs~160mA/μs 40μA/μs~160mA/μs 40μA/μs~160mA/μs 40μA/μs~160mA/μs 40μA/μs~160mA/μs 40μA/μs~160mA/μs 40μA/μs~160mA/μs 40μA/μs~160mA/μs	3mA(160mA-1.6A/µs) 300µA(16mA-160mA/µs) 30µA(16mA-160mA/µs) 3µA(160µA-16mA/µs) 30µA(16µA-160nA/µs) 300nA(16µA-160µA/µs) 80mA/µs~16A/µs 8mA/µs~1.6A/µs 800µA/µs~160mA/µs 8mA/µs~1.6A/µs 800µA/µs~160mA/µs ±0.4%F.S.	1.8mA(160mA-1.6A/μs) 180μA(16mA-160mA/μs) 18μA(1.6mA-16mA/μs) 1.8μA(1.6mA-16mA/μs) 1.8μΔ(160μA-1.6mA/μs) N/A 48mA/μs~16A/μs N/A 4.8mA/μs~1.6A/μs N/A 4.8mA/μs~1.6A/μs N/A ±0.4%F.S.	3mA(160mA-1.6Å/μs) 300μΔ(16mA-160mA/μs) 30μΔ(1.6μA-16mA/μs) 3μΔ(160μA-1.6mA/μs) N/A 80mA/μs~16A/μs 8mA/μs~1.6A/μs N/A 8mA/μs~1.6A/μs N/A ±0.4%F.S.	4.2mA(160mA-1.6A/μs) 420μA(16mA-160mA/μs) 42μA(1.6mA-160mA/μs) 42μA(1.6mA-16mA/μs) N/A 11.2mA/μs~16A/μs N/A 11.2mA/μs~1.6A/μs N/A 11.2mA/μs~1.6A/μs N/A ±0.4%F.S.	5.4mA(160mA-1.6Å 540µA(16mA-160m 54µA(1.6mA-16mA) 5.4µA(1.60µA-1.6mA) N/A 14.4mA/µs-16A N/A 14.4mA/µs-1.6 N/A 14.4mA/µs-1.60m N/A
METER Voltmeter Ammeter DYNAMIC MODE Operation Mode T1 & T2 Accuracy Slew Rate (CC Mode) Slew Rate (CR Mode) Current Accuracy PROTECTION FUNC Functions GENERAL Input Range Power(Max.)	Range Range	H M L	1.2mA(160mA-1.6A/μs) 120μA(16mA-160mA/μs) 12μA(1.6mA-160mA/μs) 12μA(1.6mA-160mA/μs) 12μA(1.6mA-160μA/μs) 120nA(16μA-160μA/μs) 120nA(16μA-160μA/μs) 120nA(16μA-160μA/μs) CC and CR 0.025mS-10mS/Res 1μS/1ms ± 100ppm 32mA/μs-16A/μs 3.2mA/μs-1.6A/μs 3.2mA/μs-160mA/μs 3.2mA/μs-160mA/μs ±0.4%F.S. Overvoltage protect Undervoltage protect Undervoltage protections (12μA/μs-132VAC/180V)	1.8mA(160mA-1.6A/μs) 180μA(16mA-16mA/μs) 180μA(16mA-16mA/μs) 1.800μA(16mA-16mA/μs) 1.800μA(16μA-16mA/μs) 1.800hA(16μA-16mA/μs) 1.80nA(16μA-160μA/μs) 6 of f.s) 6 of f.s) 7 of f.s) 48mA/μs~16A/μs 4.8mA/μs~1.6A/μs 4.8mA/μs~1.60mA/μs 4.8mA/μs~160mA/μs 4.8mA/μs~16mA/μs	2.4mA/μs(160mA-1.6A/μs) 240μA/μs(16mA-1.6A/μs) 240μA/μs(16mA-16mA/μs) 24μA/μs(16mA-16mA/μs) 24μA/μs(16μA-160μA/μs) 240nA/μs(16μA-160μA/μs) 240nA/μs(16μA-160μA/μs) 1 mS 64mA/μs~16A/μs 6.4mA/μs~1.6A/μs 6.4mA/μs~1.6A/μs 6.4mA/μs~160mA/μs	3mA(160mA-1.6A/μs) 300μA(16mA-160mA/μs) 300μA(16mA-160mA/μs) 3μA(160μA-16mA/μs) 3μA(160μA-16mA/μs) 3μA(160μA-16mA/μs) 300nA(16μA-160μA/μs) 80mA/μs~16A/μs 80mA/μs~1.6A/μs 800μA/μs~160mA/μs 800μA/μs~160mA/μs 20μA/μs~16mA/μs ±0.4%F.S.	1.8mA(160mA-1.6A/μs) 180μA(16mA-160mA/μs) 18μA(1.6mA-160mA/μs) 1.8μA(1.6mA-1.6mA/μs) 1.8μΔ(160μA-1.6mA/μs) N/A 48mA/μs~16A/μs 4.8mA/μs~1.6A/μs N/A 4.8mA/μs~1.6A/μs N/A 4.8mA/μs~1.60mA/μs N/A ±0.4%F.S. otection(OPP), Ov	3mA(160mA-1.6A/μs) 300μA(16mA-160mA/μs) 30μA(1.6μA-16mA/μs) 3μA(160μA-1.6mA/μs) N/A 80mA/μs~16A/μs 8mA/μs~1.6A/μs N/A 8mA/μs~1.6A/μs N/A ±0.4%F.S.	4.2mA(160mA-1.6A/μs) 420μA(16mA-160mA/μs) 42μA(1.6mA-160mA/μs) 42μA(1.6mA-16mA/μs) N/A 112mA/μs~16A/μs 11.2mA/μs~1.6A/μs 11.2mA/μs~1.6A/μs N/A 11.2mA/μs~1.6A/μs Δ1.2mA/μs~1.6A/μs Δ1.2mA/μs~1.6A/μs	5.4mA(160mA-1.6Å, 540µA(16mA-16mA) 5.4µA(160µA-1.6mA) 5.4µA(160µA-1.6mA) N/A 14.4mA/µs-1.6A N/A 14.4mA/µs-1.60 N/A ±0.4%F.S.
METER Voltmeter Ammeter DYNAMIC MODE Operation Mode T1 & T2 Accuracy Slew Rate (CC Mode) Slew Rate (CR Mode) Current Accuracy PROTECTION FUNC Functions GENERAL	Range	H M L	1.2mÅ(160mA-1.6Å/μs) 120μΔ(16mA-160mA/μs) 12μΔ(1.6mA-160mA/μs) 1.2μΔ(1.6mA-160mA/μs) 1.2μΔ(160μA-1.6mA/μs) 1.2μΔ(160μA-1.6mA/μs) 120nΔ(16μA-160μΔ/μs) ±(0.1 % of rdg + 0.1 % ±(0.2 % of rdg + 0.3 % CC and CR 0.025mS-10mS/Res 1μS/Ims ± 100ppm 32mA/μs-16A/μs 3.2mA/μs-160mA/μs 3.2mA/μs-160mA/μs 3.2mA/μs-160mA/μs 3.2μΔ/μs-160mA/μs ±0.4%F.S. Overvoltage protec Undervoltage protec	1.8mA(160mA-1.6A/μs) 180μA(16mA-16mA/μs) 180μA(16mA-16mA/μs) 1.800μA(16mA-16mA/μs) 1.800μA(16μA-16mA/μs) 1.800hA(16μA-16mA/μs) 1.80nA(16μA-160μA/μs) 6 of f.s) 6 of f.s) 7 of f.s) 48mA/μs~16A/μs 4.8mA/μs~1.6A/μs 4.8mA/μs~1.60mA/μs 4.8mA/μs~160mA/μs 4.8mA/μs~16mA/μs	2.4mA/μs(160mA-1.6A/μs) 240μA/μs(16mA-1.6A/μs) 240μA/μs(16mA-16mA/μs) 24μA/μs(16mA-16mA/μs) 24μA/μs(16μA-160μA/μs) 240nA/μs(16μA-160μA/μs) 240nA/μs(16μA-160μA/μs) 1 mS 64mA/μs~16A/μs 6.4mA/μs~1.6A/μs 6.4mA/μs~1.6A/μs 6.4mA/μs~160mA/μs	3mA(160mA-1.6A/μs) 300μA(16mA-160mA/μs) 300μA(16mA-160mA/μs) 3μA(160μA-16mA/μs) 3μA(160μA-16mA/μs) 3μA(160μA-16mA/μs) 300nA(16μA-160μA/μs) 80mA/μs~16A/μs 80mA/μs~1.6A/μs 800μA/μs~160mA/μs 800μA/μs~160mA/μs 20μA/μs~16mA/μs ±0.4%F.S.	1.8mA(160mA-1.6A/μs) 180μA(16mA-160mA/μs) 18μA(1.6mA-160mA/μs) 1.8μA(1.6mA-1.6mA/μs) 1.8μΔ(160μA-1.6mA/μs) N/A 48mA/μs~16A/μs 4.8mA/μs~1.6A/μs N/A 4.8mA/μs~1.6A/μs N/A 4.8mA/μs~1.60mA/μs N/A ±0.4%F.S. otection(OPP), Ov	3mA(160mA-1.6A/μs) 300μA(16mA-160mA/μs) 30μA(1.6μA-16mA/μs) 3μA(160μA-1.6mA/μs) N/A 80mA/μs~16A/μs 8mA/μs~1.6A/μs N/A 8mA/μs~1.6A/μs N/A ±0.4%F.S.	4.2mA(160mA-1.6A/μs) 420μA(16mA-160mA/μs) 42μA(1.6mA-160mA/μs) 42μA(1.6mA-16mA/μs) N/A 112mA/μs~16A/μs 11.2mA/μs~1.6A/μs 11.2mA/μs~1.6A/μs N/A 11.2mA/μs~1.6A/μs Δ1.2mA/μs~1.6A/μs Δ1.2mA/μs~1.6A/μs	5.4mA(160mA-1.6A) 540μA(16mA-16mA) 54μA(1.6mA-16mA) 5.4μA(1.6mA-1.6mA) N/A 14.4mA/μs~1.6A N/A 14.4mA/μs~1.6A N/A 14.4mA/μs~1.60m N/A ±0.4%F.S.

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SPECIFICATIONS								
			PEL-3021H	PEL-3041H	DEI 2111 L	PEL-3211H		
Model					PEL-3111H			
Voltage			0V~800V	0V~800V	0V~800V	0V~800V		
Current Power			8.75A 175W	17.5A 350W	52,5A 1050W	105A 2100W		
Input Resistance			3.24ΜΩ	3.24ΜΩ	3.24ΜΩ	N/A		
Min. Operating			5V@8.75A	5V@17.5A	5V@52.5A	5V@105A		
Voltage(DC)(Typ.)	_		2.5V@4.375A	2.5V@8.75A	2.5V@26.25A	2.5V@52,5A		
CONSTANT CURRENT MOD			0 9 75 4 0 9 75 4 0 9 7 5 4	0 17 54 0 1 754 0 1754	0 52 54 0 5 254 0 525 4	0 1054 0 1054 0 1054		
Operating Range	H,M,				0~52.5A 0~5.25A 0~525mA	0~105A 0~10.5A 0~1.05A ±(1.2% of set+1.1% of f.s)		
Accuracy of Setting	H,M,		$\pm (0.2 \% \text{ of set} + 0.1 \% \text{ of f.s}^{*1})$) + Vin /3.24MΩ		±(1.2% of set+1.1% of f.s)		
Accuracy of Setting(Parallel)	Н,М,		,	±(1.2% of set +1.1% of f.s.*3)				
Resolution CR MODE	Н,М,		300μΑ 30μΑ 3μΑ	0.6mA 60μA 6μA	2mA 200μA 20μA	N/A		
		T .	1.755.205	2.50.00	10.50, 100.5	215, 2605		
Operating Range		н	1.75S~30μS (571Ω~33.3MΩ)	3.5S~60μS (285m Ω ~16.6k Ω)	10.5S~180μS (95.2mΩ~5.55kΩ)	21S~360μS (95.2mΩ~2.777kΩ)		
			,	350mS~6µS	,	,		
	Range	М	1.75mS~3μS (5.71Ω~333MΩ)	350mS~6μS (2.85mΩ~166kΩ)	1.05S~18μS (952m Ω ~55.5k Ω)	2.1S~36μS (476mΩ~27.77kΩ)		
				35mS~0.6μS	,			
		L	17.5mS~0.3μS	$(28.5 \text{m}\Omega \sim 1.66 \text{M}\Omega)$	105mS~1.8μS (9.52Ω~555kΩ)	210mS~3.6μS (4.762Ω~277.7kΩ)		
			(57.1Ω~3.33MΩ)	,	(9.3252~333852)	,		
Accuracy of Setting	Н,М,	L	±(0.5% set + 0.5% f.S*1) + Vir	1 -/3.24MΩ		±(1.2% of set +1.1% of f.s)TYP		
Parallel			±(1.2 % of set + 1.1 % of f.s*3)			N/A		
Resolution	Н,М,	L	30μS 3μS 0.3μS	60μS 6μS 0.6μS	180μS 18μS 1.8μS	N/A		
CONSTANT VOLTAGE MOD	E							
Operating Range	Range	Н	5V~800V			5V~800V		
Operating Nange	ange	L	5V~80V			5V~80V		
Accuracy of Setting	Range	H,L	±(0.2% of set + 0.2% of f.s)			\pm (0.2% of set + 0.2% of f.s)		
-	Parallel	TYP	±(0.2% of set + 0.2% of f.s)			\pm (0.2% of set + 0.2% of f.s)		
Resolution	Range	H,L	20mV/2mV			N/A		
CONSTANT POWER MODE			·			· · · · · · · · · · · · · · · · · · ·		
Operating Range		Н	17.5W~175W	35W~350W	105W~1050W	210W~2100W		
- L	Range	М	1.75W~17.5W	3.5W~350W	10.5W~105W	21W~210W		
		L	0.175W~1.75W	0.35W~10.5W	1.05W~10.5W	2.1W~21W		
Accuracy of Setting	Н,М		±(0.6 % of set + 1.4 % of f.s)-	I .		±(5 % of f.s)TYP		
Resolution	Н,М,	1		10mW 1mW 0.1mW 10mW 1mW 0.1mW 100mW 10mW 1mW				
PARALLEL Mode	11,101,		TOTTIW O.THIW	1011W 1111W 0.1111W	TOOM TOMW TIME	N/A		
Capacity			875W	1750W	5250W	PEL-3111H with 4 booster		
Capacity			075W	1730W	3230W	units : Max 9.45kW		
SLEW RATE								
Operation Mode			CC, CR	CC, CR	CC, CR	N/A		
Satting Banga		н	0.14mA/μs~140mA/μs	0.280mA/μs~280.0mA/μs	0.840mA/us~840mA/us	,		
Setting Range (CC mode)	Danas		0.014μA/μs~14mA/μs	0.0280mA/µs~28.00mA/µs	0.0840mA/μs~84.00mA/μs	N/A		
(ee mode)	Range	М		/ / / /	,, ,,	19/2		
		L	1.4μΑ/μς~1400μΑ/μς	2.80μΑ/μς~2800μΑ/μς	0.00840mA/μs~8.400mA/μs			
Setting Range		Н	0.014mA/μs~14mA/μs	0.0280mA/μs~28.00mA/μs	0.0840mA/μs~84.00mA/μs			
(CR Mode)	Range	М	0.0014mA/μs~1.4mA/μs	0.00280mA/μs~2.800mA/μs	0.00840mA/μs~8.400mA/μs	N/A		
· ·		L	0.14μΑ/μς~140μΑ/μς	0.280μΑ/μς~280.0μΑ/μς	0.000840mA/µs~0.8400mA/µs	· '		
A course of Setting			. ,, , , , , , , , , , , , , , , , , ,		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	N/A		
Accuracy of Setting Resolution	H,M,I	<u> </u>	\pm (10 % of set + 25 μ s)	T		IN/A		
Resolution			50μA(14mA~140mA/μs)	100μA(28mA~280mA/μs)	300μA(84mA~0.84A/μs)			
			5μA(1.4mA~14mA/μs) 0.5μA(140μA~1.4mA/μs)	10μA(2.8mA~28mA/μs) 1μA(280μA~2.8mA/μs)	30μA(8.4mA~84mA/μs) 3μA(840μA~8.4mA/μs)			
			50nA(14μΑ~140μA/μs)	0.1μA(28μΑ~280μA/μs)	0.3μA(84μΑ~840μΑ/μs)	N/A		
			5nA(1.4μΑ~14μΑ/μs)	10nA(2.8µA~28µA/µs)	30nA(8.4μA~84μA/μs)			
			0.5nA(0.14μΑ~1.4μΑ/μs)	1nA(0.28μΑ~2.8μΑ/μs)	3nA(0.84μA~8.4μA/μs)			
METER								
Voltmeter	Accuracy		±(0.1 % of rdg + 0.1 % of f.s)			±(0.1 % of rdg + 0.1 % of f.s)TYP		
Ammeter	Accuracy		\pm (0.2 % of rdg + 0.3 % of f.s)			N/A		
Ammeter(Parallel Operation)	Accuracy	<u>'</u>	±(1.2% of rdg +1.1% of f.s.)			±(1.2% of rdg +1.1% of f.s.)TYP		
DYNAMIC MODE								
Operation Mode			CC, CR, CP	0 60 /0 7		N/A		
T1 & T2 Accuracy			0.025mS \sim 10mS/Res : 1 μ s ; 1 \pm 100ppm of setting	ums~60s/Res : Ims		N/A \pm 100ppm of setting		
•			1.1	0.200 0.00 04 /	0.940 ma A / c = 9.40 0 A /	= 100ppm or setting		
Slew Rate		Н	0.140mA/μs~140.0A/μs	0.280mA/μs~280.0A/μs	0.840mA/μs~840.0mA/μs	****		
(CC Mode)	Range	М	0.014mA/μs~14.00mA/μs	0.028mA/μs~28.00mA/μs	0.084mA/μs~84.00A/μs	N/A		
		L	1.400μΑ/μς~1400.0μΑ/μς	2.800μΑ/μς~2800μΑ/μς	0.0084mA/μs~8.400mA/μs			
Slew Rate		н	0.014mA/μs~14.000mA/μs	0.028mA/μs~28.00mA/μs	0.084mA/μs~84.00mA/μs			
(CR Mode)	Range	М	0.0014mA/μs~1.4000mA/μs	0.028mA/μs~2.800mA/μs	0.0084mA/μs~8.400mA/μs	N/A		
	nunge		'''			14/7		
		L	0.1400μΑ/μς~140.00μΑ/μς	0.280μΑ/μς~280.0μΑ/μς	0.00084mA/μs~0.8400mA/μs			
Current Accuracy			±0.4%F.S.	±0.4%F.S.	±0.4%F.S.	±0.4%F.S.		
PROTECTION FUNCTION				_	_			
Functions					Overpower protection (OPP), Over	heat protection (OHP),		
			Undervoltage protection (UVP), Reverse connection protection	n(KEV)			
GENERAL			00.40 100.45	0.01 1 1 1 1 1 1 1 1 1				
Input Range			90VAC~132VAC/180VAC~250VAC		100/4	22214		
			90VA	; Opt : GPIB/LAN	190VA	230VA		
Power(Max.)								
Interface			Std: USB/RS232/Analog Control		427.0000324(1), 422.5(2)	427 70V0127 0 (L) 552 5 (C)		
			213.8(W)x124(H)x400.5(D)mm; Approx. 6kg		427.8(W)x124(H)x400.5(D)mm; Approx. 17kg	427.7(W)x127.8(H)x553.5(D)mm; Approx. 23kg		

SPECIFICATION	SNC									
Model			PEL-3212H	PEL-3323H	PEL-3424H	PEL-3535H	PEL-3322H	PEL-3533H	PEL-3744H	PEL-3955H
Voltage			0V~800V	0V~800V	0V~800V	0V~800V	0V~800V	0V~800V	0V~800V	0V~800V
Current			0~105A	0~157.5A	0~210A	0~262.5A	0~157.5A	0~262.5A	0~367.5A	0~472.5A
Power Input Resistance			2100W 1.62MΩ	3150W 1.08MΩ	4200W 0.81MΩ	5250W 0.648MΩ	3150W 3.24MΩ	5250W 3.24MΩ	7350W 3.24MΩ	9450W 3.24MΩ
Min. Operating			5V@105A	5V@157.5A	5V@210A	5V@262.5A	5V@157.5A	5V@262.5A	5V@367.5A	5V@472.5A
Voltage(DC)(Typ.)			2.5V@52.5A	2.5V@78.75A	2.5V@105A	2.5V@131.25A	2.5V@78.75A	2.5V@131.25A	2.5V@183.75A	2.5V@236.25A
CONSTANT CURRE										
Operating Range	H,M		0~105A 0~10.5A 0~1.05A			0~262.5A 0~26.25A 0~2.625A				0~472.5A 0~47.25A 0~4.72
Accuracy of Setting	H,M	_	±(0.2 % of set + 0.1 %				,	1 % of f.s ^{*1}) + Vin ^{*2} /3		
Resolution CR MODE	H,M	,L	4mA 0.4mA 0.04mA	6mA 0.6mA 0.06mA	8mA 0.8mA 0.08mA	10mA 1mA 0.1mA	6mA 0.6mA 0.06mA	10mA 1mA 0.1mA	14mA 1.4mA 0.14mA	18mA 1.8mA 0.18m
Operating Range ^{*4}		н	21S~360μS (47.619mΩ~	31.5S~540μS (31.746mΩ~	42S~0.72mS (23.8095mΩ~	52.5S~0.9mS (19.0476mΩ~	31.5S~540μS (31.746mΩ~	52.5S~0.9mS (19.0476mΩ~	73.5S~1.26mS (13.6054mΩ~	94.5S~1.26mS (10.582mΩ~
			2.778kΩ)	1.85185kΩ)	1.3889kΩ)	1.11111kΩ)	1.85185kΩ)	1.11111kΩ)	793.651Ω)	617.284Ω)
	Range	М	2.1S~36μS	3.15S~540μS	4.2S~0.72mS	5.25S~0.9mS	3.15S~540μS	5.25S~0.9mS	7.35S~126µS	9.45S~126μS
	Runge	IVI	(476.19mΩ~ 27.778kΩ)	(317.46mΩ~ 18.5185kΩ)	(238.095mΩ~ 13.8889kΩ)	(190.476mΩ~ 11.1111kΩ)	(317.46mΩ~ 18.5185kΩ)	(190.476mΩ~ 11.1111kΩ)	(136.054mΩ~ 7.93651kΩ)	(105.82mΩ~ 6.17284kΩ)
			210mS~3.6μS	315mS~540μS	420mS~0.72mS	525mS~0.9mS	315mS~540μS	525mS~0.9mS	735mS~12.6μS	945mS~162μS
		L	(4.7619Ω~	(3.1746Ω~	(2.38095Ω~	(1.90476Ω~	(3.1746Ω~	(1.90476Ω~	(1.36054Ω~	(1.0582Ω~
			277.78kΩ)	`185.185kΩ)	`138.888kΩ)	`111.111kΩ)	`185.185kΩ)	`111.111kΩ)	`79.365kΩ)	`61.7284kΩ)
Accuracy of Setting*5	H,M	,L	\pm (0.5 % of set*6 + 0.5	% of f.s*1) + Vin*2/3.24	4 Μ Ω) : Alone operat	ion specifications				
Resolution			360μS 36μS 3.6μS	540μS 54μS 5.4μS	720μS 72μS 7.2μS	900μS 90μS 9μS	540μS 54μS 5.4μS	900μS 90μS 9μS	1.26mS 126μS 12.6μS	1.62mS 162μS 16.2μ
CONSTANT VOLTA	GE MOI	DE								
Operating Range	Range	Н	5V~800V							
- Perusing manage		L	5V~80V							
Accuracy of Setting*7	Range	H,L	±(0.2 % of set + 0.2 %	6 of f.s)						
Resolution	Range	H,L	20mV/2mV							
CONSTANT POWER	R MODE		·							
Operating Range		Н	0W~2100W	0W~3150W	0W~4200W	0W~5250W	0W~3150W	0W~5250W	0W~7350W	0W~9450W
	Range	М	0W~210W	0W~315W	0W~420W	0W~525W	0W~315W	0W~525W	0W~735W	0W~945W
		L	0W~21W	0W~31.5W	0W~42W	0W~52.5W	0W~31.5W	0W~52.5W	0W~73.5W	0W~94.5W
Accuracy of Setting*8	H,M	,L	±(0.6 % of set + 1.4 %	6 of f.s*3) + Vin x Vin*3	/3.24MΩ : Alone ope	ration specifications				
Resolution	,			300mW 30mW 3mW		· · · · · · · · · · · · · · · · · · ·		500mW 50mW 5mW	700mW 70mW 7mW	900mW 90mW 9mV
PARALLEL Mode			200111W 20111W 2111W	JOOITW JOITW JITTW	400111W W11100F	300111W 30111W 3111VV	30011W 3011W 3111W	30011W 3011W 3111W	700111 70111 7111	
Capacity			_	-	_	_	_	-	-	_
SLEW RATE										
Operation Mode			CC, CR	CC, CR	CC, CR	CC, CR	CC, CR	CC, CR	CC, CR	CC, CR
Setting Range		Н	1.68mA/μs~840mA/μs	2.52mA/μs~839.7mA/μs	3.36mA/µs~840mA/µs	4.2mA/μs~840mA/μs	2.52mA/µs~839.70mA/µs	4.2mA/μs~840mA/μs	5.88mA/μs~840mA/μs	7.56mA/µs~839.7mA/µ
(CC mode)	Range	М	168μA/μs~84mA/μs	252μA/μs~83.97mA/μs	336μA/μs~84mA/μs	420μA/μs~84mA/μs	252μA/μs~83.97mA/μs	420μA/μs~84mA/μs	588μA/μs~84mA/μs	756μA/μs~83.97mA/μ
		L	16.8μA/μs~8.4mA/μs	25.2μA/μs~8.397mA/μs	33.6μA/μs~8.4mA/μs	42μA/μs~8.4mA/μs	25.2μA/μs~8.397mA/μs	42μA/μs~8.4mA/μs	58.8μA/μs~8.4mA/μs	75.6μA/μs~8.397mA/μ
Setting Range		н	168μA/μs~84mA/μs	252μA/μs~83.97mA/μs	336µA/µs~84mA/µs	420μA/μs~84mA/μs	252μA/μs~83.97mA/μs	420μA/μs~84mA/μs	588μA/μs~84mA/μs	756μA/μs~83.97mA/μ
(CR Mode)	Range	-	16.8μA/μs~8.4mA/μs	25.2μA/μs~8.397mA/μs		42μA/μs~8.4mA/μs	25.2μA/μs~8.397mA/μs	42μA/μs~8.4mA/μs	58.8μA/μs~8.4mA/μs	75.6μA/μs~8.397mA/μ
(en moue)	Runge	L	1.68μA/μs~840μA/μs	2.52μΑ/μς~839.7μΑ/μς		4.2μΑ/μs~840μΑ/μs	2.52μA/μs~839.7μA/μs			7.56μA/μs~839.7μA/μ
Accuracy of Setting*9	H,M		±(10 % of set + 25μs)	2.52μη/μ3-055.7μη/μ3	3.30μη/μ3 ⁻ -040μη/μ3	τ. Σμη / μ3 - ο το μη / μ3	2.52μη/μ3-055.7μη/μ3	τ. Σμη μισ-οτομη μισ	3.00μn/μ3 ⁻ -040μn/μ3	7.30μA/μ5~833.7μA/μ
Resolution	11,101	,-	600μA(168mA~840mA/μs)	900μA(252mA~839.7mA/μs)	1.2mA(336mA~840mA/µs)	1.5mA(420mA~840mA/μs)	900μA(252mA~839.7mA/μs)	1.5mA(420mA~840mA/μs)	2.1mA(588mA~840mA/μs)	2.7mA(756mA~839.70mA/µ
Resolution			60μA(16.8mA~84mA/μs)	90μA(25.2mA~83.97mA/μs)	120μA(33.6mA~84mA/μs)	150μA(42mA~84mA/μs)	90μA(25.2mA~83.97mA/μs)	150μA(42mA~84mA/μs)	210μA(58.8mA~84mA/μs)	270μA(75.6mA~83.974mA/μ
			6μA(1.68mA~8.4mA/μs)	9μA(2.52mA~8.397mA/μs)	12μA(3.36mA~8.4mA/μs)	15μA(4.2mA~8.4mA/μs)	9μA(2.52mA~8.397mA/μs)	15μA(4.2mA~8.4mA/μs)	21μA(5.88mA~8.4mA/μs)	27μA(7.56mA~8.397mA/μs)
			600nA(0.1680mA~84mA/μs) 60nA(0.01680mA~8.4mA/μs)	900nA (252nA~83.97mA/μs) 90nA (25.2μΑ~8.397μΑ/μs)	1.2μA(336μA~84mA/μs) 120nA(33.6μA~8.4mA/μs)	1.5μA(420μA~84mA/μs) 150nA(42μA~8.4mA/μs)	900nA(252nA~83.97mA/μs) 90nA(25.2μA~8.397mA/μs)	1.5μA(420μA~84mA/μs) 150nA(42μA~8.4mA/μs)	2.1μA(588μA~84mA/μs) 210nA(58.8μA~8.4mA/μs)	2.7μA(756μA~83.97mA/μs) 270nA(75.6μA~8.397mA/μs)
			6nA(0.00168mA~0.84mA/μs)	9nA(2.52μΑ~0.8397μΑ/μs)	12nA(3.36μA~0.84mA/μs)	15nA(4.2μA~0.84mA/μs)	9nA(2.52μA~0.8397mA/μs)	15nA(4.2μA~0.84mA/μs)	21nA(5.88μA~0.84mA/μs)	27nA(7.56μA~0.8397mA/μs
METER										
Voltmeter	Accura	су	±(0.1 % of rdg + 0.1 s	% of f.s)						
Ammeter	Accura	ıcy	±(1.2 % of rdg + 1.1 9							
DYNAMIC MODE										
Operation Mode			CC and CR							
T1 & T2 Accuracy				: 1μs ; 10mS~30S/Res	s : 1mS					
<u> </u>			1μS/1ms ± 100ppm	0.50 4/ 000 7 4/	226 11 212 11		0.50 4/ 000 7 4/	10.11.010.11	500 1/ 0/0 1/	756 44 000 7 44
Slew Rate (CC Mode)	_	Н		2.52mA/μs~839.7mA/μs		4.2mA/μs~840mA/μs	2.52mA/µs~839.7mA/µs		5.88mA/μs~840mA/μs	7.56mA/µs~839.7mA/µ
(cc wode)	Range	-	168μA/μs~84mA/μs	252μΑ/μς~83.97mΑ/μς		420μA/μs~84mA/μs	252μΑ/μς~83.97mΑ/μς		588μA/μs~84mA/μs	756μA/μs~83.97mA/μ
		L	16.8μA/μs~8.4mA/μs	25.2μA/μs~8.397mA/μs	33.6μA/μs~8.4mA/μs	42μA/μs~8.4mA/μs	25.2μA/μs~8.397mA/μs	42μA/μs~8.4mA/μs	58.8μA/μs~8.4mA/μs	75.6μA/μs~8.397mA/μ
Slew Rate		Н	168μA/μs~8.4mA/μs	252μA/μs~83.97mA/μs	336μA/μs~84mA/μs	420μA/μs~84mA/μs	252μA/μs~83.97mA/μs	420μA/μs~84mA/μs	588μA/μs~84mA/μs	756μA/μs~83.97mA/į
(CR Mode)	Range	М	16.8μA/μs~8.4mA/μs	25.2μΑ/μς~8.397mΑ/μς	33.6μA/μs~8.4mA/μs	42μA/μs~8.4mA/μs	25.2μA/μs~8.397mA/μs	$42\mu A/\mu s\sim 8.4mA/\mu s$	58.8μA/μs~8.4mA/μs	75.6μA/μs~8.397mA/
		L	1.68μΑ/μς~840μΑ/μς	2.52μΑ/μς~839.7μΑ/μς	3.36μΑ/μς~840μΑ/μς	4.2μΑ/μς~840μΑ/μς	2.52μΑ/μς~839.7μΑ/μς	4.2μΑ/μς~840μΑ/μς	5.88μΑ/μς~840μΑ/μς	7.56µA/µs~839.7µA/į
Current Accuracy			±0.4%F.S.	±0.4%F.S.	±0.4%F.S.	±0.4%F.S.	±0.4%F.S.	±0.4%F.S.	±0.4%F.S.	±0.4%F.S.
PROTECTION FUN	CTION									
Functions				tion (OVP), Overcur			otection(OPP), Ov	erheat protection(OHP),	
			Undervoltage prote	ction (UVP), Revers	e connection prote	ection(REV)		<u> </u>		
GENERAL			00/46 330/45/333	(A.C. 2F0) (A.C.C. 1	h 4711 - 6011					
Input Range			90VAC~132VAC/180\ 380VA	/AC~250VAC Single-p 570VA	hase; 47Hz~63Hz 760VA	950VA	420VA	650VA	880VA	1110VA
Power(Max.) Interface			Std: USB/RS232/Ana)301A	7401/	03044	00017	ITTOVA
Dimensions & Weig	ht		598(W)x877(H)x	598(W)x877(H)x	598(W)x877(H)x	598(W)x877(H)x	598(W)x877(H)x	598(W)x877(H)x	598(W)x877(H)x	598(W)x877(H)x
			706(D)mm;	706(D)mm;	706(D)mm;	706(D)mm;	706(D)mm;	706(D)mm;	706(D)mm;	706(D)mm;
			Approx. 67.5kg	Approx. 85.5kg	Approx. 110kg	Approx. 127.5kg	Approx. 73kg	Approx. 96.5kg	Approx. 125kg	Approx. 149kg

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Note: *1. Full scale of H range

- *2. Vin: input terminal voltage of electronic load
- *3. M range applies to the full scale of H range
- *4. Siemens[S] = Input current[A]/Input voltage[V] = $1/\text{resistance}[\Omega]$
- *5. Converted value at the input current. At the input current. It is not applied for the condition of the parallel operation.
- *6, set = Vin/Rset
- *7. At the sensing point during remote sensing under the operating range of the input voltage. It is also applied for the condition of the parallel operation.
- *8. It is not applied for the condition of the parallel operation.
- *9. Time to reach from 10 % to 90 % when the current is varied from 2 % to 100 % (20 % to 100 % in M range) of the rated current.

ORDERING	INFORMATION
PEL-3021	(150V/35A/175W) Single-Channel Programmable D.C. Electronic Load
PEL-3041	(150V/70A/350W) Single-Channel Programmable D.C. Electronic Load
PEL-3111	(150V/210A/1050W) Single-Channel Programmable D.C. Electronic Load
PEL-3211	(150V/420A/2100W) Single-Channel Programmable D.C. Electronic Load
PEL-3212	(150V/420A/2100W) Single-Channel Programmable D.C. Electronic Load
PEL-3322	(150V/630A/3150W) Single-Channel Programmable D.C. Electronic Load
PEL-3323	(150V/630A/3150W) Single-Channel Programmable D.C. Electronic Load
PEL-3424	(150V/840A/4200W) Single-Channel Programmable D.C. Electronic Load
PEL-3533	(150V/1050A/5250W) Single-Channel Programmable D.C. Electronic Load
PEL-3535	(150V/1050A/5250W) Single-Channel Programmable D.C. Electronic Load
PEL-3744	(150V/1470A/7350W) Single-Channel Programmable D.C. Electronic Load
PEL-3955	(150V/1890A/9450W) Single-Channel Programmable D.C. Electronic Load
PEL-3021H	(800V/8.75A/175W) Single-Channel Programmable D.C. Electronic Load
PEL-3041H	(800V/17.5A/350W) Single-Channel Programmable D.C. Electronic Load
PEL-3111H	(800V/52.5A/1050W) Single-Channel Programmable D.C. Electronic Load
PEL-3211H	(800V/105A/2100W) Single-Channel Programmable D.C. Electronic Load
PEL-3212H	(800V/105A/2100W) Single-Channel Programmable D.C. Electronic Load
PEL-3322H	(800V/157.5A/3150W) Single-Channel Programmable D.C. Electronic Load
PEL-3323H	(800V/157.5A/3150W) Single-Channel Programmable D.C. Electronic Load
PEL-3424H	(800V/210A/4200W) Single-Channel Programmable D.C. Electronic Load
PEL-3533H	(800V/262.5A/5250W) Single-Channel Programmable D.C. Electronic Load
PEL-3535H	(800V/262.5A/5250W) Single-Channel Programmable D.C. Electronic Load
PEL-3744H	(800V/367.5A/7350W) Single-Channel Programmable D.C. Electronic Load
PEL-3955H	(800V/472.5A/9450W) Single-Channel Programmable D.C. Electronic Load
ACCESSOR	

ACCESSORIES

Quick Start Guide

CD (User Manual/Programming Manual)

Power Cord

PEL-011 Load Input Terminal Cover

PEL-012 Terminal Fittings Kits

PEL-013 Flexible Terminal Cover

PEL-014 J1/J2 Protection Plug

Front Terminal Washers

GTL-255 Frame Link Cable 300mm

OPTIONAL ACCESSORIES	
CR123A	3V Lithium Battery for Clock.
GRA-413	Rack Mount Bracket for Booster PEL-3211(H) (EIA+JIS)
GRA-414-E	Rack Mount Frame for PEL-3021 (H), PEL-3041 (H), PEL-3111 (H)/EIA
GRA-414-J	Rack Mount Frame for PEL-3021 (H), PEL-3041 (H), PEL-3111 (H)/JIS
GTL-120	Test Lead (Max. 40A)
GTL-248	GPIB Cable, 2.0m
GTL-246	USB Cable Type A- Type B
PEL-010	Dust Filter
PEL-004	GPIB Option
PEL-005	Connect Cu Plate
PEL-006	Connect Cu Plate
PEL-007	Connect Cu Plate
PEL-008	Connect Cu Plate
PEL-009	Connect Cu Plate
PEL-018	LAN Card
FREE DOWNLOAD	

FREE DOWNLOAD

Driver LabView Driver

Specifications subject to change without notice.

PEL-3000/3000HGD1BH

PEL-3000 SERIES



PEL-005 Connect Cu Plate PEL-005 Connect Cu Plate PEL-007 Connect Cu Plate PEL-008 Connect Cu Plate PEL-009 Connect Cu Plate PEL-009 Connect Cu Plate PEL-018 LAN Card



PEL-011 Load Input Terminal Cover PEL-012 Terminal Fittings Kits PEL-013 Flexible Terminal Cover PEL-014 J1/J2 Protection Plug GTL-255 Frame Link Cable GTL-120 Test Lead



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