

**Product**

IT-M3100 Ultra-compact Wide Range  
DC Power Supply

# Grand Unveiling of IT-M series

Extendable

High Performance

Multiple choices of models

Ultra-compact size

## **IT-M3100** Ultra-compact Wide Range DC Power Supply

### APPLICATIONS

- Research
- Design
- Verification
- Multi-channel
- ATS

*Your Power Testing Solution*

**Schulz Electronic**  
Professional Power Supplies

Schulz-Electronic GmbH  
Dr.-Rudolf-Eberle-Straße 2  
D-76534 Baden-Baden  
Fon + 49.7223.9636.0  
Fax + 49.7223.9636.90  
vertrieb@schulz-electronic.de  
www.schulz-electronic.de



# IT-M3100 Series

## Ultra-compact Wide Range DC Power Supply



To meet increasing test demands from various industries, ITECH newly released IT-M3100 series is not only innovative in terms of product technology, but also from the perspective of industry application to provide complete innovative solutions. Breaking through the traditional tech limits, in the ultra compact size of only 1U Half-Rack, the unit can not only output high power, but also has high performance and versatility . It supports the master-slave parallel mode. The full range of models support multiple stacking and parallel connection by handily designing "leg" plug-in. Fit with rack mount kit to achieve the perfect use. This new series will empower the engineers with innovation and implement test technology advancements more quickly and more accurately.

The IT-M3100 series consists of 12 models, providing 6 voltages grades, and can be combined to achieve a variety of output power. It has a flexible modular architecture, independent multi-channel design, and supports synchronous operation. Users can configure each channel according to the test requirements of DUT, up to max. 16\*16 channels, to meet the needs of customized solutions. It has a wide range of application values and is suitable for a variety of applications such as research and development, design verification and automatic test systems intergration.

### FEATURE

- 1U Half-Rack, Ultra-Compact Size
- Adjustable rising/falling speed of output current, to meet various test applications
- High speed test, up to 10 times per second
- Up to 100 steps LIST operation, support output of various dynamic waveforms
- Support CC/CV loop speed and priority setting
- Parallel operation can be easily controlled by one unit
- Independent control of multi- channels, one communication card can control up to 16 channels, max.256 channels
- Support output of different timings of each channel, can synchronize or delay the output, and supports the output of different ratios of voltage
- Support CANOPEN, LXI, SCPI and other communication protocols
- Five optional cards , providing RS232, CAN, LAN, GPIB, USB\_TMC, USB\_VCP, RS485, external analog and IO communication interfaces
- Support TRACE function, can draw voltage and current waveforms in real time ( Supported by program)
- Battery charging test function
- Software watchdog provides more reliable and safe automatic battery test solution
- Various protection functions such as OVP,  $\pm$ OCP,  $\pm$ OPP, OTP, ensure secure testing
- Provide self-locking function, when the device is self-locked, the device will not be able to output

#### 20V

Model	Voltage	Current	Power
IT-M3110	20V	100A	400W
IT-M3120	20V	100A	850W

#### 30V

Model	Voltage	Current	Power
IT-M3111	30V	70A	400W
IT-M3121	30V	70A	850W

#### 80V

Model	Voltage	Current	Power
IT-M3112	80V	22A	400W
IT-M3122	80V	22A	850W

#### 150V

Model	Voltage	Current	Power
IT-M3113	150V	12A	400W
IT-M3123	150V	12A	850W

#### 300V

Model	Voltage	Current	Power
IT-M3114	300V	6A	400W
IT-M3124	300V	6A	850W

#### 600V

Model	Voltage	Current	Power
IT-M3115	600V	3A	400W
IT-M3125	600V	3A	850W

\* Models coming soon 20V/30V/80V/150V

# Your Power Testing Solution

## IT-M3100 Ultra-compact Wide Range DC Power Supply

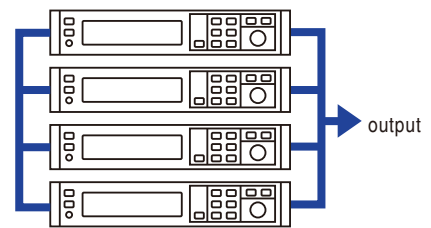
### Ultra-compacted - Only 1U Half-Rack

IT-M3100 series power supply is only 1U Half-Rack. But its maximum output power is up to 850W. It has not only high power density, but also has high precision and resolution and reliable stability. The maximum output voltage is up to 600V and maximum output current is up to 100A. Since the output voltage and current are restricted by limited power, lower current can get higher voltage and lower voltage can get higher current. One unit can be used in various applications.



### Parallel operation can be easily controlled by one unit

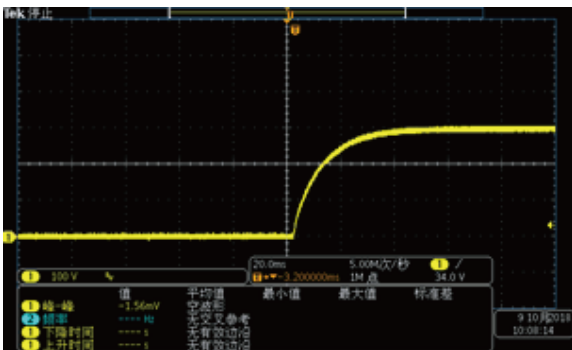
IT-M3100 is extensible. Users can have different current by units parallel connection. For parallel connection, the maximum units quantity is up to 4.



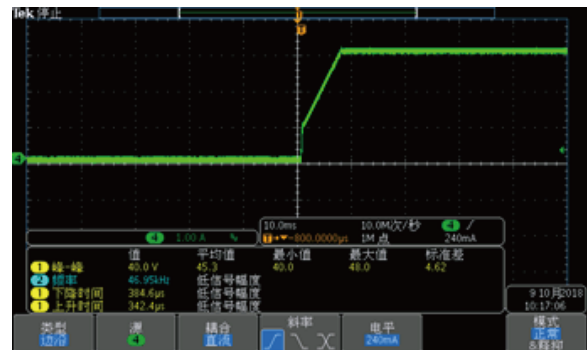
4 units IT-3120 parallel connection

### CC&CV Priority

IT-M3100 series keep the function of CC/CV priority. It can make the test easier especially for the applications like high speed power supply or no overshooting current. Users can get fast voltage rising time by CV priority mode. This is helpful in the high speed voltage test. Users can also choose CC priority mode to output no overshooting current. It's good for test DUT under CC working condition. This is used in various application field such as laser test, IC test, charge and discharge test, military, transient simulation of power supply in automotive electronics and so on.



CV priority, voltage without overshoot



CC priority, current without overshoot

### Synchronism

IT-M3100 has the function of synchronism between multiple channels. There are 3 options On/Off、Track、 Duplicate. The synchronism works for On/Off, Save/Recall, Priority mode, rising or falling of voltage and current value setting and function of Protect. And the voltage change can be proportional between different units.

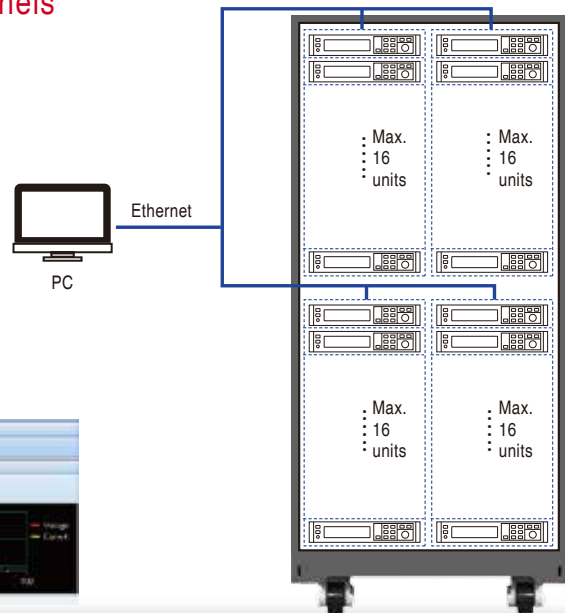
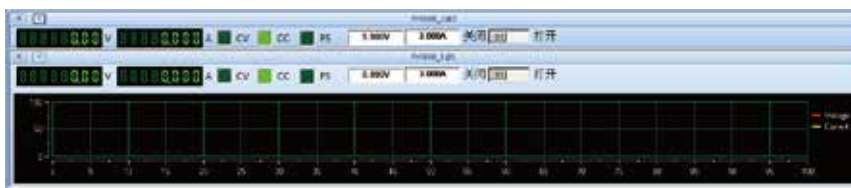
# Your Power Testing Solution

## IT-M3100 Ultra-compact Wide Range DC Power Supply

### Multi-channel independent control, maximum 256 channels

IT-M3100 Series is provided with independent multi-channel design. The channel sequence will be displayed when 16 units IT-M3100 combines to be a multi-channel power system. The user can control each unit independently by PC software when connecting the communication interface of one unit with PC. Each channel can be operated separately.

IT-M3100 supports maximum 16\*16 channels. One 37U rack case contains 64 channels. The user may test DUTs with different power ranges by parallel connection, making tests more flexible and device usage more efficient.



IT-M3100 multi-channel power supplies are widely used in production testing, multi-channel load aging system, integrated circuits etc. fields.

**Application 1** When the product is powered by DC and need to do aging test by many channels, similar to DC-DC converter, the charge part of battery aging test, and circuit board etc., the multi-channel power supply is a must, to ensure the synchronization and output consistency. Meanwhile, the program command is much simpler for system test. The user needs to send many commands to control each power supply with traditional multiple units of power supplies. By using M3100, the user only need to synchronize multiple units, and send one command to control the master unit only.

**Application 2** Nowadays, the development of integrated circuits tends to be miniaturized. Most of the AC input voltage requires multiple power supplies to realize. Normally a high-voltage main input and multiple voltage auxiliary inputs are required. The multi-channel power supply is needed to do AC input test. If adopts the traditional multiple power supply to multi-path mode physically, it will cause asynchronous control, and result in the circuit board not working. The M31 series adopts the synchronous trigger output function to ensure the synchronization of the output, effectively solve this problem.



### Modular design, flexible combination

IT-M3100 breaks through the shackles of traditional product design, with a patented design and side ventilation design. The flexible modular design makes it simple for IT-M3100 to stack directly, no need to purchase any accessories. The open structure brings users with different free combinations, just like blocks stacking, simple and convenient.



\* Stack up to 10 units without rack mount kit



# Your Power Testing Solution

## IT-M3100 Ultra-compact Wide Range DC Power Supply

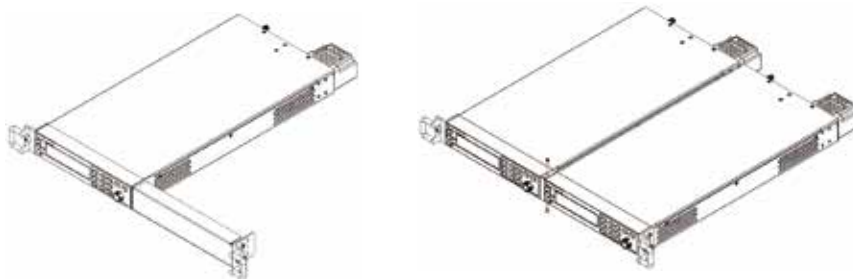
### Battery Charging function

IT-M3100 series can test batteries with its battery charging function. The users can set different parameters as turn off conditions: voltage, current, capacity and charging time. When any of the above parameters meet the set condition, it will shut off the test automatically. During the process, the users can observe the voltage, charging time and capacity. Additionally, IT-M3100 can be operated with software, which to achieve reliable auto-test solution.








### Rack mount kit

IT-M3100 series adopts high density design with 1U Half-Rack space. Users may put 2-3 units on bench for initial tests at low power with less channels. When they need more power or more channels, it is convenient to use IT-E154 to gather one or multiple units IT-M3100 to install into the rack case. It is flexible for the customers to configure based on specific requirements to avoid waste.



### Optional accessory

IT-M3100 series rear panel provide below listed optional extension interfaces for users to choose. Optional rack mount kit is also available.

Pictures	Model	Interface
	IT-E1205	GPB Interface
	IT-E1206	USB/LAN Interface
	IT-E1207	RS-232/CAN Interface
	IT-E1208	Analogue interface /RS485 Interface
	IT-E1209	USB Interface



Standard rear panel



Rear panel with optional interface

# Your Power Testing Solution

## IT-M3100 Ultra-compact Wide Range DC Power Supply

### Specification

		IT-M3110	IT-M3111
Rated Output Value (0 C-40 C)	Voltage	0-20V	0-30V
	Current	0-100A	0-70A
	Power	400W	400W
Load Regulation (% of Output+Offset)	Voltage	≤ 0.01%+30mV	≤ 0.01%+20mV
	Current	≤ 0.1%+100mA	≤ 0.1%+100mA
Power Regulation (% of Output+Offset)	Voltage	≤ 0.01%+20mV	≤ 0.01%+20mV
	Current	≤ 0.1%+100mA	≤ 0.1%+100mA
Setup Resolution	Voltage	1mV	10mV
	Current	10mA	10mA
Readback Resolution	Voltage	1mV	10mV
	Current	10mA	10mA
Setting Accuracy within 12 months 25±5° ± (% of Output +Offset )	Voltage	≤ 0.03%+30mV	≤ 0.03%+20mV
	Current	≤ 0.1%+100mA	≤ 0.1%+70mA
Readback Accuracy within 12 months 25±5° ± (% of Output +Offset )	Voltage	≤ 0.03%+20mV	≤ 0.03%+20mV
	Current	≤ 0.1%+100mA	≤ 0.1%+70mA
Ripple (20Hz -20MHz)	Voltage	≤ 80mVp-p	≤ 80mVp-p
	Current	≤ 100mArms	≤ 70mArms
Setting Temperature Coefficient ± ( PPM/ C +Offset )	Voltage	100 PPM/°C+20mV	100 PPM/°C+20mV
	Current	200 PPM/°C+30mA	200 PPM/°C+30mA
Readback Temperature Coefficient ± ( PPM/ C +Offset )	Voltage	100 PPM/°C+20mV	100 PPM/°C+20mV
	Current	200 PPM/°C+30mA	200 PPM/°C+30mA
Rising Time (no load)	Voltage	≤ 60mS	≤ 80mS
Rising Time (CR full load)	Voltage	≤ 150mS	≤ 200mS
Falling Time (no load)	Voltage	≤ 1S	≤ 4S
Falling Time (CR full load)	Voltage	≤ 300mS	≤ 300mS
Dynamic Mode	Output voltage is restored to within 0.5% of the rated output voltage ( 10%-90%load) ≤ 1mS		
Working Tem.	0-40 C		
Dimension (mm)	1U Half-Rack		
Net. Weight	5Kg		
Parameter			
AC Input	Voltage 1	176V- 264V (400W)	176V- 264V (400W)
	Voltage 2	99V- 121V (400W)	99V- 121V (400W)
	Frequency	47Hz-63Hz	47Hz-63Hz
Setup Stability-30min ( PPM+Offset )	Voltage	100 PPM/°C+10mV	100 PPM/°C+10mV
	Current	200 PPM/°C+50mA	200 PPM/°C+50mA
Setup Stability-8h ( PPM+Offset )	Voltage	100 PPM/°C+10mV	100 PPM/°C+10mV
	Current	200 PPM/°C+50mA	200 PPM/°C+50mA
Readback Stability-30min ( PPM+Offset )	Voltage	100 PPM/°C+10mV	100 PPM/°C+10mV
	Current	200 PPM/°C+70mA	200 PPM/°C+70mA
Readback Stability-8h ( PPM+Offset )	Voltage	100 PPM/°C+10mV	100 PPM/°C+10mV
	Current	200 PPM/°C+70mA	200 PPM/°C+70mA
Efficiency	76%		76%
Remote Sense Compensation Voltage	3V		3V
Command Response Time	10-600mS		10-600mS
Power Factor	0.9		0.9
Maximum Input Current	6A		6A
Maximum Input Apparent Power	600VA		600VA
Storage Tem.	-10°C-70°C		-10 C -70 C
Protection	OVP/OCP/OTP		OVP/OCP/OTP
Isolation ( output to ground)	500V		500V

\*This information is subject to change without notice.

# Your Power Testing Solution

## IT-M3100 Ultra-compact Wide Range DC Power Supply

### Specification

		IT-M3112	IT-M3113
Rated Output Value (0°C-40°C)	Voltage	0-80V	0-150V
	Current	0-22A	0-12A
	Power	400W	400W
Load Regulation (% of Output+Offset)	Voltage	≤0.01%+40mV	≤0.01%+100mV
	Current	≤0.1%+20mA	≤0.1%+20mA
Power Regulation (% of Output+Offset)	Voltage	≤0.01%+40mV	≤0.01%+40mV
	Current	≤0.1%+20mA	≤0.1%+20mA
Setup Resolution	Voltage	10mV	10mV
	Current	1mA	1mA
Readback Resolution	Voltage	10mV	10mV
	Current	1mA	1mA
Setting Accuracy within 12 months 25±5° ± (% of Output +Offset)	Voltage	≤0.03%+40mV	≤0.03%+75mV
	Current	≤0.1%+30mA	≤0.1%+10mA
Readback Accuracy within 12 months 25±5° ± (% of Output +Offset)	Voltage	≤0.03%+40mV	≤0.03%+75mV
	Current	≤0.1%+30mA	≤0.1%+10mA
Ripple (20Hz -20MHz)	Voltage	≤100mVp-p	≤150mVp-p
	Current	≤40mArms	≤20mArms
Setting Temperature Coefficient ± (PPM/°C+Offset)	Voltage	100 PPM/°C+20mV	100 PPM/°C+20mV
	Current	200 PPM/°C+30mA	200 PPM/°C+30mA
Readback Temperature Coefficient ± (PPM/°C+Offset)	Voltage	100 PPM/°C+20mV	100 PPM/°C+20mV
	Current	200 PPM/°C+30mA	200 PPM/°C+30mA
Rising Time (no load)	Voltage	≤80mS	≤80mS
Rising Time (CR full load)	Voltage	≤200mS	≤200mS
Falling Time (no load)	Voltage	≤4S	≤4S
Falling Time (CR full load)	Voltage	≤300mS	≤300mS
Dynamic Mode	Output voltage is restored to within 0.5% of the rated output voltage (10%-90%load) ≤1mS		
Working Tem.	0-40°C		
Net. Dimension (mm)	1U Half-Rack		
Net. Weight	5Kg		
Parameter			
AC Input	Voltage 1	176V~ 264V (400W)	176V~ 264V (400W)
	Voltage 2	99V~ 121V (400W)	99V~ 121V (400W)
	Frequency	47Hz-63Hz	47Hz-63Hz
Setup Stability-30min (PPM+Offset)	Voltage	100 PPM/°C+10mV	100 PPM/°C+10mV
	Current	200 PPM/°C+50mA	200 PPM/°C+50mA
Setup Stability-8h (PPM+Offset)	Voltage	100 PPM/°C+10mV	100 PPM/°C+10mV
	Current	200 PPM/°C+50mA	200 PPM/°C+50mA
Readback Stability-30min (PPM+Offset)	Voltage	100 PPM/°C+10mV	100 PPM/°C+10mV
	Current	200 PPM/°C+70mA	200 PPM/°C+70mA
Readback Stability-8h (PPM+Offset)	Voltage	100 PPM/°C+10mV	100 PPM/°C+10mV
	Current	200 PPM/°C+70mA	200 PPM/°C+70mA
Efficiency	76%		76%
Remote Sense Compensation Voltage	3V		3V
Command Response Time	10-600mS		10-600mS
Power Factor	0.9		0.9
Maximum Input Current	6A		6A
Maximum Input Apparent Power	60VA		600VA
Storage Tem.	-10°C-70°C		-10°C-70°C
Protection	OVP/OCP/OTP		OVP/OCP/OTP
Isolation (output to ground)	500V		500V

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# Your Power Testing Solution

## IT-M3100 Ultra-compact Wide Range DC Power Supply

### Specification

		IT-M3114	IT-M3115
Rated Output Value (0°C-40°C)	Voltage	0-300V	0-600V
	Current	0-6A	0-3A
	Power	400W	400W
Load Regulation (% of Output+Offset)	Voltage	≤ 0.01%+100mV	≤ 0.01%+150mV
	Current	≤ 0.1%+20mA	≤ 0.1%+20mA
Power Regulation (% of Output+Offset)	Voltage	≤ 0.01%+150mV	≤ 0.01%+150mV
	Current	≤ 0.1%+20mA	≤ 0.1%+20mA
Setup Resolution	Voltage	10mV	10mV
	Current	1mA	1mA
Readback Resolution	Voltage	10mV	10mV
	Current	1mA	1mA
Setting Accuracy within 12 months 25±5° ± (% of Output +Offset )	Voltage	≤ 0.03%+200mV	≤ 0.03%+200mV
	Current	≤ 0.1%+30mA	≤ 0.1%+30mA
Readback Accuracy within 12 months 25±5° ± (% of Output +Offset )	Voltage	≤ 0.03%+200mV	≤ 0.03%+200mV
	Current	≤ 0.1%+30mA	≤ 0.1%+30mA
Ripple (20Hz -20MHz)	Voltage	≤ 300mVp-p	≤ 600mVp-p
	Current	≤ 50mArms	≤ 30mArms
Setting Temperature Coefficient ± (PPM/°C+Offset)	Voltage	100 PPM/°C+100mV	100 PPM/°C+100mV
	Current	200 PPM/°C+10mA	200 PPM/°C+10mA
Readback Temperature Coefficient ± (PPM/°C+Offset)	Voltage	100 PPM/°C+100mV	100 PPM/°C+100mV
	Current	200 PPM/°C+10mA	200 PPM/°C+10mA
Rising Time (no load)	Voltage	≤ 60mS	≤ 60mS
Rising Time (CR full load)	Voltage	≤ 200mS	≤ 200mS
Falling Time (no load)	Voltage	≤ 6S	≤ 6S
Falling Time (CR full load)	Voltage	≤ 300mS	≤ 300mS
Dynamic Mode	Output voltage is restored to within 0.5% of the rated output voltage (10%-90%load) ≤ 1mS		
Working Tem.	0-40°C		
Dimension (mm)	1U Half-Rack		
Net. Weight	5Kg		
Parameter			
AC Input	Voltage 1	176V~ 264V (400W)	176V~ 264V (400W)
	Voltage 2	99V~ 121V (400W)	99V~ 121V (400W)
	Frequency	47Hz~63Hz	47Hz~63Hz
Setup Stability-30min (PPM+Offset)	Voltage	100 PPM/°C+30mV	100 PPM/°C+30mV
	Current	200 PPM/°C+60mA	200 PPM/°C+60mA
Setup Stability-8h (PPM+Offset)	Voltage	100 PPM/°C+30mV	100 PPM/°C+30mV
	Current	200 PPM/°C+60mA	200 PPM/°C+60mA
Readback Stability-30min (PPM+Offset)	Voltage	100 PPM/°C+30mV	100 PPM/°C+30mV
	Current	200 PPM/°C+60mA	200 PPM/°C+60mA
Readback Stability-8h (PPM+Offset)	Voltage	100 PPM/°C+30mV	100 PPM/°C+30mV
	Current	200 PPM/°C+60mA	200 PPM/°C+60mA
Efficiency	76%		76%
Remote Sense Compensation Voltage	3V		3V
Command Response Time	10~600mS		10~600mS
Power Factor	0.9		0.9
Maximum Input Current	6A		6A
Maximum Input Apparent Power	600VA		600VA
Storage Tem.	-10°C~70°C		-10°C~70°C
Protection	OVP/OCP/OTP		OVP/OCP/OTP
Isolation ( output to ground)	600V		600V

\*This information is subject to change without notice.



# Your Power Testing Solution

## IT-M3100 Ultra-compact Wide Range DC Power Supply

### Specification

		IT-M3120	IT-M3121
Rated Output Value (0°C~40°C)	Voltage	0~20V	0~30V
	Current	0~100A	0~70A
	Power	850W	850W
Load Regulation (% of Output+Offset)	Voltage	≤0.01%+30mV	≤0.01%+20mV
	Current	≤0.1%+100mA	≤0.1%+100mA
Power Regulation (% of Output+Offset)	Voltage	≤0.01%+20mV	≤0.01%+20mV
	Current	≤0.1%+100mA	≤0.1%+100mA
Setup Resolution	Voltage	1mV	10mV
	Current	10mA	10mA
Readback Resolution	Voltage	1mV	10mV
	Current	10mA	10mA
Setting Accuracy within 12 months 25±5° ± (% of Output +Offset)	Voltage	≤0.03%+20mV	≤0.03%+20mV
	Current	≤0.1%+100mA	≤0.1%+70mA
Readback Accuracy within 12 months 25±5° ± (% of Output +Offset)	Voltage	≤0.03%+20mV	≤0.03%+20mV
	Current	≤0.1%+100mA	≤0.1%+70mA
Ripple (20Hz ~20MHz)	Voltage	≤80mVp-p	≤80mVp-p
	Current	≤100mA Arms	≤70mA Arms
Setting Temperature Coefficient ± (PPM/°C+Offset)	Voltage	100 PPM/°C+20mV	100 PPM/°C+20mV
	Current	200 PPM/°C+30mA	200 PPM/°C+30mA
Readback Temperature Coefficient ± (PPM/°C+Offset)	Voltage	100 PPM/°C+20mV	100 PPM/°C+20mV
	Current	200 PPM/°C+30mA	200 PPM/°C+30mA
Rising Time (no load)	Voltage	≤60mS	≤80mS
Rising Time (CR full load)	Voltage	≤150mS	≤200mS
Falling Time (no load)	Voltage	≤1S	≤4S
Falling Time (CR full load)	Voltage	≤300mS	≤300mS
Dynamic Mode	Output voltage is restored to within 0.5% of the rated output voltage (10%-90%load) ≤1mS		
Working Tem.	0~40°C		
Dimension (mm)	1U Half-Rack		
Net. Weight	5Kg		
Parameter			
AC Input	Voltage 1	176V~264V (full load)	176V~264V (full load)
	Voltage 2	99V~121V (600W)	99V~121V (600W)
	Frequency	47Hz~63Hz	47Hz~63Hz
Setup Stability-30min (PPM+Offset)	Voltage	100 PPM/°C+10mV	100 PPM/°C+10mV
	Current	200 PPM/°C+50mA	200 PPM/°C+50mA
Setup Stability-8h (PPM+Offset)	Voltage	100 PPM/°C+10mV	100 PPM/°C+10mV
	Current	200 PPM/°C+50mA	200 PPM/°C+50mA
Readback Stability-30min (PPM+Offset)	Voltage	100 PPM/°C+10mV	100 PPM/°C+10mV
	Current	200 PPM/°C+70mA	200 PPM/°C+70mA
Readback Stability-8h (PPM+Offset)	Voltage	100 PPM/°C+10mV	100 PPM/°C+10mV
	Current	200 PPM/°C+70mA	200 PPM/°C+70mA
Efficiency	82%		82%
Remote Sense Compensation Voltage	3V		3V
Command Response Time	10~600mS		10~600mS
Power Factor	0.98		0.98
Maximum Input Current	11A		11A
Maximum Input Apparent Power	1000VA		1000VA
Storage Tem.	-10°C~70°C		-10°C~70°C
Protection	OVP/OCP/OTP		OVP/OCP/OTP
Isolation (output to ground)	500V		500V

\*This information is subject to change without notice.

# Your Power Testing Solution

## IT-M3100 Ultra-compact Wide Range DC Power Supply

### Specification

		IT-M3122	IT-M3123
Rated Output Value (0°C-40°C)	Voltage	0-80V	0-150V
	Current	0-22A	0-12A
	Power	850W	850W
Load Regulation (% of Output+Offset)	Voltage	≤ 0.01%+40mV	≤ 0.01%+100mV
	Current	≤ 0.1%+20mA	≤ 0.1%+20mA
Power Regulation (% of Output+Offset)	Voltage	≤ 0.01%+40mV	≤ 0.01%+40mV
	Current	≤ 0.1%+20mA	≤ 0.1%+20mA
Setup Resolution	Voltage	10mV	10mV
	Current	1mA	1mA
Readback Resolution	Voltage	10mV	10mV
	Current	1mA	1mA
Setting Accuracy within 12 months 25±5° ± (% of Output +Offset)	Voltage	≤ 0.03%+40mV	≤ 0.03%+75mV
	Current	≤ 0.1%+30mA	≤ 0.1%+10mA
Readback Accuracy within 12 months 25±5° ± (% of Output +Offset)	Voltage	≤ 0.03%+40mV	≤ 0.03%+75mV
	Current	≤ 0.1%+30mA	≤ 0.1%+10mA
Ripple (20Hz -20MHz)	Voltage	≤ 100mVp-p	≤ 150mVp-p
	Current	≤ 40mArms	≤ 20mArms
Setting Temperature Coefficient ± (PPM/°C+Offset)	Voltage	100 PPM/°C+20mV	100 PPM/°C+20mV
	Current	200 PPM/°C+30mA	200 PPM/°C+30mA
Readback Temperature Coefficient ± (PPM/°C+Offset)	Voltage	100 PPM/°C+20mV	100 PPM/°C+20mV
	Current	200 PPM/°C+30mA	200 PPM/°C+30mA
Rising Time (no load)	Voltage	≤ 80mS	≤ 80mS
Rising Time (CR full load)	Voltage	≤ 200mS	≤ 200mS
Falling Time (no load)	Voltage	≤ 4S	≤ 4S
Falling Time (CR full load)	Voltage	≤ 300mS	≤ 300mS
Dynamic Mode	Output voltage is restored to within 0.5% of the rated output voltage (10%-90%load) ≤ 1mS		
Working Tem.	0-40°C		
Dimension (mm)	1U Half-Rack		
Net. Weight	5Kg		
Parameter			
AC Input	Voltage 1	176V~ 264V (full load)	176V~ 264V (full load)
	Voltage 2	99V~ 121V (600W)	99V~ 121V (600W)
	Frequency	47Hz-63Hz	47Hz-63Hz
Setup Stability-30min (PPM+Offset)	Voltage	100 PPM/°C+10mV	100 PPM/°C+10mV
	Current	200 PPM/°C+50mA	200 PPM/°C+50mA
Setup Stability-8h (PPM+Offset)	Voltage	100 PPM/°C+10mV	100 PPM/°C+10mV
	Current	200 PPM/°C+50mA	200 PPM/°C+50mA
Readback Stability-30min (PPM+Offset)	Voltage	100 PPM/°C+10mV	100 PPM/°C+10mV
	Current	200 PPM/°C+70mA	200 PPM/°C+70mA
Readback Stability-8h (PPM+Offset)	Voltage	100 PPM/°C+10mV	100 PPM/°C+10mV
	Current	200 PPM/°C+70mA	200 PPM/°C+70mA
Efficiency	82%		82%
Remote Sense Compensation Voltage	3V		3V
Command Response Time	10~600mS		10~600mS
Power Factor	0.98		0.98
Maximum Input Current	11A		11A
Maximum Input Apparent Power	1000VA		1000VA
Storage Tem.	-10°C~70°C		-10°C~70°C
Protection	OVP/OC/OTP		OVP/OC/OTP
Isolation ( output to ground)	500V		500V

\*This information is subject to change without notice.

# Your Power Testing Solution

## IT-M3100 Ultra-compact Wide Range DC Power Supply

### Specification

		IT-M3124	IT-M3125
Rated Output Value (0°C-40°C)	Voltage	0~300V	0~600V
	Current	0~6A	0~3A
	Power	850W	850W
Load Regulation (% of Output+Offset)	Voltage	≤0.01%+100mV	≤0.01%+150mV
	Current	≤0.1%+20mA	≤0.1%+20mA
Power Regulation (% of Output+Offset)	Voltage	≤0.01%+150mV	≤0.01%+150mV
	Current	≤0.1%+20mA	≤0.1%+20mA
Setup Resolution	Voltage	10mV	10mV
	Current	1mA	1mA
Readback Resolution	Voltage	10mV	10mV
	Current	1mA	1mA
Setting Accuracy within 12 months 25±5° ± (% of Output +Offset)	Voltage	≤0.03%+200mV	≤0.03%+200mV
	Current	≤0.1%+30mA	≤0.1%+30mA
Readback Accuracy within 12 months 25±5° ± (% of Output +Offset)	Voltage	≤0.03%+200mV	≤0.03%+200mV
	Current	≤0.1%+30mA	≤0.1%+30mA
Ripple (20Hz -20MHz)	Voltage	≤300mVp-p	≤600mVp-p
	Current	≤50mArms	≤30mArms
Setting Temperature Coefficient ± (PPM/°C+Offset)	Voltage	100 PPM/°C+100mV	100 PPM/°C+100mV
	Current	200 PPM/°C+10mA	200 PPM/°C+10mA
Readback Temperature Coefficient ± (PPM/°C+Offset)	Voltage	100 PPM/°C+100mV	100 PPM/°C+100mV
	Current	200 PPM/°C+10mA	200 PPM/°C+10mA
Rising Time (no load)	Voltage	≤60mS	≤60mS
Rising Time (CR full load)	Voltage	≤200mS	≤200mS
Falling Time (no load)	Voltage	≤6S	≤6S
Falling Time (CR full load)	Voltage	≤300mS	≤300mS
Dynamic Mode	Output voltage is restored to within 0.5% of the rated output voltage (10%-90%load) ≤1mS		
Working Tem.	0-40°C		
Dimension (mm)	1U Half-Rack		
Net. Weight	5Kg		
Parameter			
AC Input	Voltage 1	176V~ 264V (full load)	176V~ 264V (full load)
	Voltage 2	99V~ 121V (600W)	99V~ 121V (600W)
	Frequency	47Hz~63Hz	47Hz~63Hz
Setup Stability-30min (PPM+Offset)	Voltage	100 PPM/°C+30mV	100 PPM/°C+30mV
	Current	200 PPM/°C+60mA	200 PPM/°C+60mA
Setup Stability-8h (PPM+Offset)	Voltage	100 PPM/°C+30mV	100 PPM/°C+30mV
	Current	200 PPM/°C+60mA	200 PPM/°C+60mA
Readback Stability-30min (PPM+Offset)	Voltage	100 PPM/°C+30mV	100 PPM/°C+30mV
	Current	200 PPM/°C+60mA	200 PPM/°C+60mA
Readback Stability-8h (PPM+Offset)	Voltage	100 PPM/°C+30mV	100 PPM/°C+30mV
	Current	200 PPM/°C+60mA	200 PPM/°C+60mA
Efficiency	82%		82%
Remote Sense Compensation Voltage	3V		3V
Command Response Time	10~600mS		10~600mS
Power Factor	0.98		0.98
Maximum Input Current	11A		11A
Maximum Input Apparent Power	1000VA		1000VA
Storage Tem.	-10°C~70°C		-10°C~70°C
Protection	OVP/OCP/OTP		OVP/OCP/OTP
Isolation ( output to ground)	600V		600V

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