ITECH

YOUR POWER TESTING SOLUTION

Product

IT-M3100 Ultra-compact Wide Range DC Power Supply

IT-M3100 Ultra-compact Wide Range DC Power Supply

APPLICATIONS

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

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Your Power Testing Solution

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 1500W, 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 23 models, providing 8 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,SCPI,Modbus and other 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, ±OCP, ±OPP, OTP, ensure secure testing
- Provide Inhibit pins to disable and restore the output of the power supply

* For multiple IT-M3100 rack installations, follow the manual's layout for cooling consideration

20V/30V/60V

Model	Voltage	Current	Power
IT-M3110	20V	100A	400W
IT-M3120	20V	100A	850W
IT-M3130	20V	120A	1500W
IT-M3111	30V	70A	400W
IT-M3121	30V	70A	850W
IT-M3131	30V	100A	1500W
IT-M3112S	60V	20A	200W
IT-M3120S	60V	35A	800W

80V/150V/300V

Model	Voltage	Current	Power
IT-M3112	80V	22A	400W
IT-M3122	80V	22A	850W
IT-M3132	80V	40A	1500W
IT-M3113	150V	12A	400W
IT-M3123	150V	12A	850W
IT-M3133	150V	20A	1500W
IT-M3114	300V	6A	400W
IT-M3124	300V	6A	850W
IT-M3134	300V	10A	1500W

600V/1000V

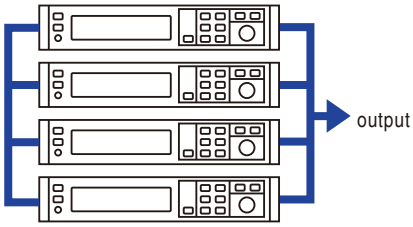
Model	Voltage	Current	Power
IT-M3115	600V	3A	400W
IT-M3125	600V	3A	850W
IT-M3135	600V	5A	1500W
IT-M3116	1000V	3A	400W
IT-M3126	1000V	3A	850W
IT-M3136	1000V	3A	1500W

Ultra-compacted - Only 1U Half-Rack

IT-M3100 series power supply is only 1U Half-Rack. But its maximum output power is up to 1500W. It has not only high power density, but also has high precision and resolution and reliable stability. The maximum output voltage is up to 1000V and maximum output current is up to 120A. 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

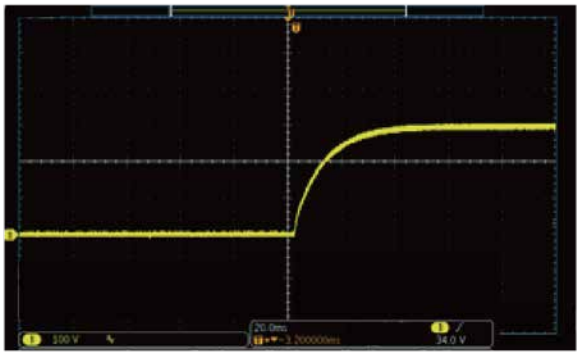
IT-M3100 is extensible. Users can have different current by units parallel connection. For parallel connection, the maximum units quantity is up to 4.



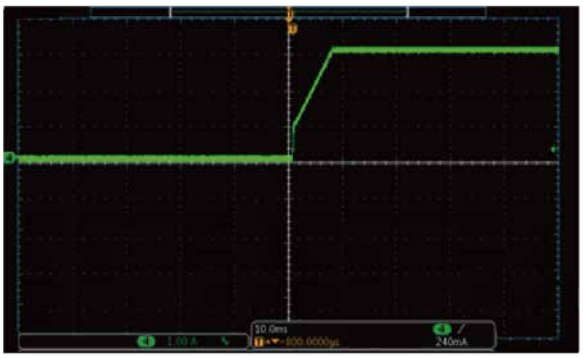
4 units IT-3120 parallel connection

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, 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.

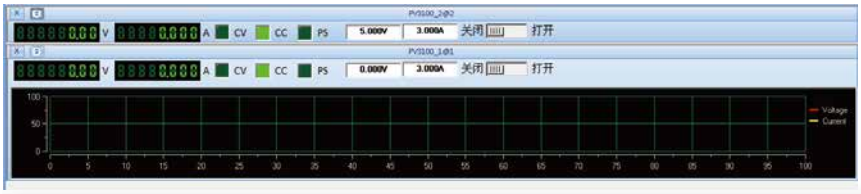
Your Power Testing Solution

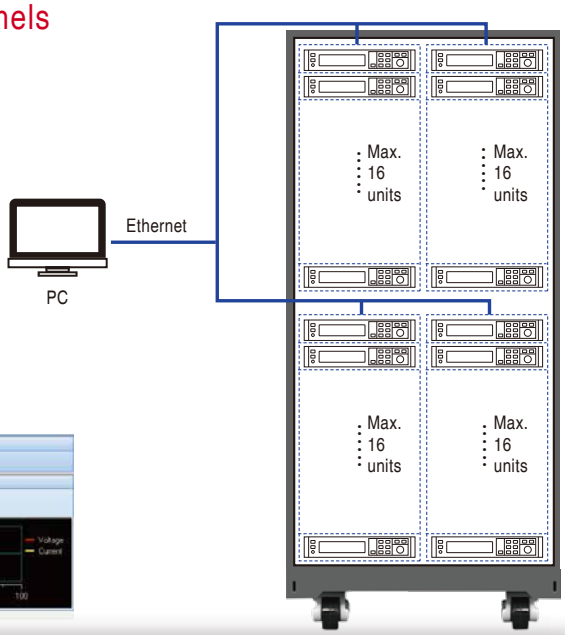
IT-M3100 Ultra-compact Wide Range DC Power Supply

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.





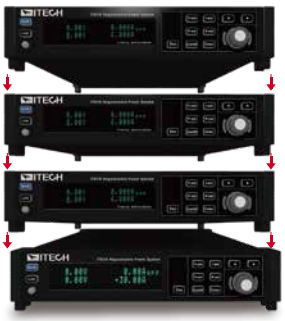
IT-M3100 multi-channel power supplies are widely used in production testing, multi-channel load aging system, integrated circuits etc. fields.

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

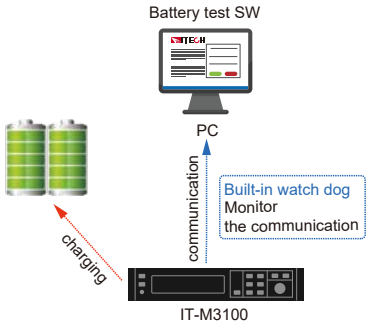
IT-M3100 breaks through the shackles of traditional product design, with a patented design and side ventilation design. The flexible modular design makes it simple for IT-M3100 to stack directly, no need to purchase any accessories. The open structure brings users with different free combinations, just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



* Stack up to 10 units without rack mount kit

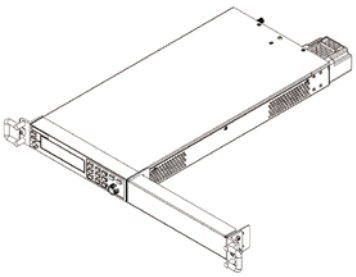
Battery Charging function

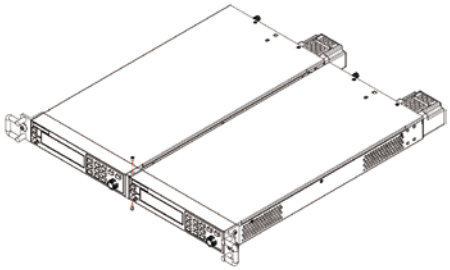
IT-M3100 series can test batteries with its battery charging function. The users can set different parameters as turn off conditions: voltage, current, capacity and charging time. When any of the above parameters meet the set condition, it will shut off the test automatically. During the process, the users can observe the voltage, charging time and capacity. Additionally, IT-M3100 can be operated with free software PV3100 to achieve reliable auto-test.



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	GPIB 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

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IT-M3100 Ultra-compact Wide Range DC Power Supply

Specification

		IT-M3110	IT-M3111	IT-M3112
Rated Output Value (0℃-40℃)	Voltage	0~20V	0~30V	0~80V
	Current	0~100A	0~70A	0~22A
	Power	400W	400W	400W
Load Regulation (%of Output+Offset)	Voltage	≤0.01%+30mV	≤0.01%+20mV	≤0.01%+40mV
	Current	≤0.1%+100mA	≤0.1%+100mA	≤0.1%+20mA
Power Regulation (%of Output+Offset)	Voltage	≤0.01%+20mV	≤0.01%+20mV	≤0.01%+40mV
	Current	≤0.1%+100mA	≤0.1%+100mA	≤0.1%+20mA
Setup Resolution	Voltage	1mV	1mV	10mV
	Current	10mA	10mA	1mA
Readback Resolution	Voltage	1mV	1mV	10mV
	Current	10mA	10mA	1mA
Setting Accuracy within 12 months 25℃±5℃ ±(%of Output +Offset)	Voltage	≤0.03%+30mV	≤0.03%+20mV	≤0.03%+40mV
	Current	≤0.1%+100mA	≤0.1%+70mA	≤0.1%+30mA
Readback Accuracy within 12 months 25℃±5℃ ±(%of Output +Offset)	Voltage	≤0.03%+20mV	≤0.03%+20mV	≤0.03%+40mV
	Current	≤0.1%+100mA	≤0.1%+70mA	≤0.1%+30mA
Ripple (20Hz -20MHz)	Voltage	≤80mVp-p	≤80mVp-p	≤100mVp-p
	Current	≤100mArms	≤70mArms	≤40mArms
Setting Temperature Coefficient ±（PPM/℃+Offset）	Voltage	100 PPM/℃+20mV	100 PPM/℃+20mV	100 PPM/℃+20mV
	Current	200 PPM/℃+30mA	200 PPM/℃+30mA	200 PPM/℃+30mA
Readback Temperature Coefficient ±（PPM/℃+Offset）	Voltage	100 PPM/℃+20mV	100 PPM/℃+20mV	100 PPM/℃+20mV
	Current	200 PPM/℃+30mA	200 PPM/℃+30mA	200 PPM/℃+30mA
Rising Time (no load)	Voltage	≤60ms	≤80ms	≤80ms
Rising Time (CR full load)	Voltage	≤150ms	≤200ms	≤200ms
Falling Time (no load)	Voltage	≤1s	≤4s	≤4s
Falling Time (CR full load)	Voltage	≤300ms	≤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℃	
Dimension （mm）		504.5*234*57.2	504.5*234*57.2	485.6*233.5*57.2
Net. Weight		5Kg	5Kg	5Kg
Parameter				
AC Input	Voltage	99Vac~264Vac	99Vac~264Vac	99Vac~264Vac
	Frequency	47Hz~63Hz	47Hz~63Hz	47Hz~63Hz
Setup Stability-30min （PPM+Offset）	Voltage	100 PPM/℃+10mV	100 PPM/℃+10mV	100 PPM/℃+10mV
	Current	200 PPM/℃+50mA	200 PPM/℃+50mA	200 PPM/℃+50mA
Setup Stability-8h （PPM+Offset）	Voltage	100 PPM/℃+10mV	100 PPM/℃+10mV	100 PPM/℃+10mV
	Current	200 PPM/℃+50mA	200 PPM/℃+50mA	200 PPM/℃+50mA
Readback Stability-30min （PPM+Offset）	Voltage	100 PPM/℃+10mV	100 PPM/℃+10mV	100 PPM/℃+10mV
	Current	200 PPM/℃+70mA	200 PPM/℃+70mA	200 PPM/℃+70mA
Readback Stability-8h （PPM+Offset）	Voltage	100 PPM/℃+10mV	100 PPM/℃+10mV	100 PPM/℃+10mV
	Current	200 PPM/℃+70mA	200 PPM/℃+70mA	200 PPM/℃+70mA
Efficiency		76%	76%	76%
Remote Sense Compensation Voltage		3V	3V	3V
Command Response Time		10~600ms	10~600ms	10~600ms
Power Factor		0.9	0.9	0.9
Maximum Input Current		6A	6A	6A
Maximum Input Apparent Power		600VA	600VA	600VA
Storage Tem.		-10℃~70℃	-10℃~70℃	-10℃~70℃
Protection		OVP/OCP/OTP	OVP/OCP/OTP	OVP/OCP/OTP
Isolation (output to ground)		500V	500V	500V

*This information is subject to change without notice.

Specification

		IT-M3113	IT-M3114	IT-M3115
Rated Output Value (0℃-40℃)	Voltage	0~150V	0~300V	0~600V
	Current	0~12A	0~6A	0~3A
	Power	400W	400W	400W
Load Regulation (%of Output+Offset)	Voltage	≤0.01%+100mV	≤0.01%+100mV	≤0.01%+150mV
	Current	≤0.1%+20mA	≤0.1%+20mA	≤0.1%+20mA
Power Regulation (%of Output+Offset)	Voltage	≤0.01%+40mV	≤0.01%+150mV	≤0.01%+150mV
	Current	≤0.1%+20mA	≤0.1%+20mA	≤0.1%+20mA
Setup Resolution	Voltage	10mV	10mV	10mV
	Current	1mA	1mA	1mA
Readback Resolution	Voltage	10mV	10mV	10mV
	Current	1mA	1mA	1mA
Setting Accuracy within 12 months 25℃±5℃ ±(%of Output +Offset)	Voltage	≤0.03%+75mV	≤0.03%+200mV	≤0.03%+200mV
	Current	≤0.1%+20mA	≤0.1%+20mA	≤0.1%+10mA
Readback Accuracy within 12 months 25℃±5℃ ±(%of Output +Offset)	Voltage	≤0.03%+75mV	≤0.03%+200mV	≤0.03%+200mV
	Current	≤0.1%+20mA	≤0.1%+20mA	≤0.1%+10mA
Ripple (20Hz -20MHz)	Voltage	≤150mVp-p	≤300mVp-p	≤600mVp-p
	Current	≤20mArms	≤50mArms	≤30mArms
Setting Temperature Coefficient ±（PPM/℃+Offset）	Voltage	100 PPM/℃+20mV	100 PPM/℃+100mV	100 PPM/℃+100mV
	Current	200 PPM/℃+30mA	200 PPM/℃+10mA	200 PPM/℃+10mA
Readback Temperature Coefficient ±（PPM/℃+Offset）	Voltage	100 PPM/℃+20mV	100 PPM/℃+100mV	100 PPM/℃+100mV
	Current	200 PPM/℃+30mA	200 PPM/℃+10mA	200 PPM/℃+10mA
Rising Time (no load)	Voltage	≤80ms	≤60ms	≤60ms
Rising Time (CR full load)	Voltage	≤200ms	≤200ms	≤200ms
Falling Time (no load)	Voltage	≤4s	≤6s	≤6s
Falling Time (CR full load)	Voltage	≤300ms	≤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℃			
Dimension（mm）	485.6*233.5*57.2			
Net. Weight	5Kg			
Parameter				
AC Input	Voltage	99Vac~264Vac	99Vac~264Vac	99Vac~264Vac
	Frequency	47Hz~63Hz	47Hz~63Hz	47Hz~63Hz
Setup Stability-30min （PPM+Offset）	Voltage	100 PPM/℃+10mV	100 PPM/℃+30mV	100 PPM/℃+30mV
	Current	200 PPM/℃+50mA	200 PPM/℃+60mA	200 PPM/℃+60mA
Setup Stability-8h （PPM+Offset）	Voltage	100 PPM/℃+10mV	100 PPM/℃+30mV	100 PPM/℃+30mV
	Current	200 PPM/℃+50mA	200 PPM/℃+60mA	200 PPM/℃+60mA
Readback Stability-30min （PPM+Offset）	Voltage	100 PPM/℃+10mV	100 PPM/℃+30mV	100 PPM/℃+30mV
	Current	200 PPM/℃+70mA	200 PPM/℃+60mA	200 PPM/℃+60mA
Readback Stability-8h （PPM+Offset）	Voltage	100 PPM/℃+10mV	100 PPM/℃+30mV	100 PPM/℃+30mV
	Current	200 PPM/℃+70mA	200 PPM/℃+60mA	200 PPM/℃+60mA
Efficiency		76%	76%	76%
Remote Sense Compensation Voltage		3V	3V	3V
Command Response Time		10~600ms	10~600ms	10~600ms
Power Factor		0.9	0.9	0.9
Maximum Input Current		6A	6A	6A
Maximum Input Apparent Power		600VA	600VA	600VA
Storage Tem.		-10℃~70℃	-10℃~70℃	-10℃~70℃
Protection		OVP/OCP/OTP	OVP/OCP/OTP	OVP/OCP/OTP
Isolation (output to ground)		500V	600V	600V

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IT-M3100 Ultra-compact Wide Range DC Power Supply

Specification

		IT-M3120	IT-M3121	IT-M3122
Rated Output Value (0℃-40℃)	Voltage	0~20V	0~30V	0~80V
	Current	0~100A	0~70A	0~22A
	Power	850W	850W	850W
Load Regulation (%of Output+Offset)	Voltage	≤0.01%+30mV	≤0.01%+20mV	≤0.01%+40mV
	Current	≤0.1%+100mA	≤0.1%+100mA	≤0.1%+20mA
Power Regulation (%of Output+Offset)	Voltage	≤0.01%+20mV	≤0.01%+20mV	≤0.01%+40mV
	Current	≤0.1%+100mA	≤0.1%+100mA	≤0.1%+20mA
Setup Resolution	Voltage	1mV	1mV	10mV
	Current	10mA	10mA	1mA
Readback Resolution	Voltage	1mV	1mV	10mV
	Current	10mA	10mA	1mA
Setting Accuracy within 12 months 25℃±5℃ ±(%of Output +Offset)	Voltage	≤0.03%+20mV	≤0.03%+20mV	≤0.03%+40mV
	Current	≤0.1%+100mA	≤0.1%+70mA	≤0.1%+30mA
Readback Accuracy within 12 months 25℃±5℃ ±(%of Output +Offset)	Voltage	≤0.03%+20mV	≤0.03%+20mV	≤0.03%+40mV
	Current	≤0.1%+100mA	≤0.1%+70mA	≤0.1%+30mA
Ripple (20Hz -20MHz)	Voltage	≤80mVp-p	≤80mVp-p	≤100mVp-p
	Current	≤100mArms	≤70mArms	≤40mArms
Setting Temperature Coefficient ±（PPM/℃+Offset）	Voltage	100 PPM/℃+20mV	100 PPM/℃+20mV	100 PPM/℃+20mV
	Current	200 PPM/℃+30mA	200 PPM/℃+30mA	200 PPM/℃+30mA
Readback Temperature Coefficient ±（PPM/℃+Offset）	Voltage	100 PPM/℃+20mV	100 PPM/℃+20mV	100 PPM/℃+20mV
	Current	200 PPM/℃+30mA	200 PPM/℃+30mA	200 PPM/℃+30mA
Rising Time (no load)	Voltage	≤60ms	≤80ms	≤80ms
Rising Time (CR full load)	Voltage	≤150ms	≤200ms	≤200ms
Falling Time (no load)	Voltage	≤1s	≤4s	≤4s
Falling Time (CR full load)	Voltage	≤300ms	≤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℃	
Dimension （mm）		504.5*234*57.2	504.5*234*57.2	485.6*233.5*57.2
Net. Weight		5Kg	5Kg	5Kg
Parameter				
AC Input	Voltage 1	176Vac~264Vac (rated power)	176Vac~264Vac (rated power)	176Vac~264Vac (rated power)
	Voltage 2	99Vac~121Vac (600W)	99Vac~121Vac (600W)	99Vac~121Vac (600W)
	Frequency	47Hz~63Hz	47Hz~63Hz	47Hz~63Hz
Setup Stability-30min （PPM+Offset）	Voltage	100 PPM/℃+10mV	100 PPM/℃+10mV	100 PPM/℃+10mV
	Current	200 PPM/℃+50mA	200 PPM/℃+50mA	200 PPM/℃+50mA
Setup Stability-8h （PPM+Offset）	Voltage	100 PPM/℃+10mV	100 PPM/℃+10mV	100 PPM/℃+10mV
	Current	200 PPM/℃+50mA	200 PPM/℃+50mA	200 PPM/℃+50mA
Readback Stability-30min （PPM+Offset）	Voltage	100 PPM/℃+10mV	100 PPM/℃+10mV	100 PPM/℃+10mV
	Current	200 PPM/℃+70mA	200 PPM/℃+70mA	200 PPM/℃+70mA
Readback Stability-8h （PPM+Offset）	Voltage	100 PPM/℃+10mV	100 PPM/℃+10mV	100 PPM/℃+10mV
	Current	200 PPM/℃+70mA	200 PPM/℃+70mA	200 PPM/℃+70mA
Efficiency		82%	82%	82%
Remote Sense Compensation Voltage		3V	3V	3V
Command Response Time		10~600ms	10~600ms	10~600ms
Power Factor		0.98	0.98	0.98
Maximum Input Current		11A	11A	11A
Maximum Input Apparent Power		1000VA	1000VA	1000VA
Storage Tem.		-10℃~70℃	-10℃~70℃	-10℃~70℃
Protection		OVP/OCP/OTP	OVP/OCP/OTP	OVP/OCP/OTP
Isolation (output to ground)		500V	500V	500V

*This information is subject to change without notice.

Specification

		IT-M3123	IT-M3124	IT-M3125
Rated Output Value (0 ℃-40 ℃)	Voltage	0~150V	0~300V	0~600V
	Current	0~12A	0~6A	0~3A
	Power	850W	850W	850W
Load Regulation (%of Output+Offset)	Voltage	≤0.01%+100mV	≤0.01%+100mV	≤0.01%+150mV
	Current	≤0.1%+20mA	≤0.1%+20mA	≤0.1%+20mA
Power Regulation (%of Output+Offset)	Voltage	≤0.01%+40mV	≤0.01%+150mV	≤0.01%+150mV
	Current	≤0.1%+20mA	≤0.1%+20mA	≤0.1%+20mA
Setup Resolution	Voltage	10mV	10mV	10mV
	Current	1mA	1mA	1mA
Readback Resolution	Voltage	10mV	10mV	10mV
	Current	1mA	1mA	1mA
Setting Accuracy within 12 months 25℃±5℃ ±(%of Output +Offset)	Voltage	≤0.03%+75mV	≤0.03%+200mV	≤0.03%+200mV
	Current	≤0.1%+10mA	≤0.1%+30mA	≤0.1%+10mA
Readback Accuracy within 12 months 25℃±5℃ ±(%of Output +Offset)	Voltage	≤0.03%+75mV	≤0.03%+200mV	≤0.03%+200mV
	Current	≤0.1%+10mA	≤0.1%+30mA	≤0.1%+10mA
Ripple (20Hz -20MHz)	Voltage	≤150mVp-p	≤300mVp-p	≤600mVp-p
	Current	≤20mArms	≤50mArms	≤30mArms
Setting Temperature Coefficient ± （PPM/ ℃+Offset）	Voltage	100 PPM/°C+20mV	100 PPM/°C+100mV	100 PPM/°C+100mV
	Current	200 PPM/°C+30mA	200 PPM/°C+10mA	200 PPM/°C+10mA
Readback Temperature Coefficient ± （PPM/ ℃+Offset）	Voltage	100 PPM/°C+20mV	100 PPM/°C+100mV	100 PPM/°C+100mV
	Current	200 PPM/°C+30mA	200 PPM/°C+10mA	200 PPM/°C+10mA
Rising Time (no load)	Voltage	≤80ms	≤60ms	≤60ms
Rising Time (CR full load)	Voltage	≤200ms	≤200ms	≤200ms
Falling Time (no load)	Voltage	≤4s	≤6s	≤6s
Falling Time (CR full load)	Voltage	≤300ms	≤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）	485.6*233.5*57.2			
Net. Weight	5Kg			
Parameter				
AC Input	Voltage 1	176Vac~264Vac (rated power)	176Vac~264Vac (rated power)	176Vac~264Vac (rated power)
	Voltage 2	99Vac~121Vac (600W)	99Vac~121Vac (600W)	99Vac~121Vac (600W)
	Frequency	47Hz~63Hz	47Hz~63Hz	47Hz~63Hz
Setup Stability-30min （PPM+Offset）	Voltage	100 PPM/°C+10mV	100 PPM/°C+30mV	100 PPM/°C+30mV
	Current	200 PPM/°C+50mA	200 PPM/°C+60mA	200 PPM/°C+60mA
Setup Stability-8h （PPM+Offset）	Voltage	100 PPM/°C+10mV	100 PPM/°C+30mV	100 PPM/°C+30mV
	Current	200 PPM/°C+50mA	200 PPM/°C+60mA	200 PPM/°C+60mA
Readback Stability-30min （PPM+Offset）	Voltage	100 PPM/°C+10mV	100 PPM/°C+30mV	100 PPM/°C+30mV
	Current	200 PPM/°C+70mA	200 PPM/°C+60mA	200 PPM/°C+60mA
Readback Stability-8h （PPM+Offset）	Voltage	100 PPM/°C+10mV	100 PPM/°C+30mV	100 PPM/°C+30mV
	Current	200 PPM/°C+70mA	200 PPM/°C+60mA	200 PPM/°C+60mA
Efficiency		82%	82%	82%
Remote Sense Compensation Voltage		3V	3V	3V
Command Response Time		10~600ms	10~600ms	10~600ms
Power Factor		0.98	0.98	0.98
Maximum Input Current		11A	11A	11A
Maximum Input Apparent Power		1000VA	1000VA	1000VA
Storage Tem.		-10°C~70°C	-10°C~70°C	-10°C~70°C
Protection		OVP/OCP/OTP	OVP/OCP/OTP	OVP/OCP/OTP
Isolation (output to ground)		500V	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-M3130	IT-M3131	IT-M3132
Rated Output Value (0 ℃-40 ℃)	Voltage	0~20V	0~30V	0~80V
	Current	0~120A	0~100A	0~40A
	Power	1500W	1500W	1500W
Load Regulation (%of Output+Offset)	Voltage	0.005%+3mV	0.005%+3mV	0.004%+5mV
	Current	≤50mA	≤40mA	≤10mA
Power Regulation (%of Output+Offset)	Voltage	0.001%+2mV	0.001%+2mV	0.001%+5mV
	Current	≤40mA	≤30mA	≤10mA
Setup Resolution	Voltage	1mV	1mV	1mV
	Current	1mA	1mA	1mA
Readback Resolution	Voltage	1mV	1mV	1mV
	Current	1mA	1mA	1mA
Setting Accuracy within 12 months 25℃±5℃ ±(%of Output +Offset)	Voltage	≤0.03% + 0.02%F.S.	≤0.03% + 0.02%F.S.	≤0.03% + 0.02%F.S.
	Current	≤0.1% + 0.1%F.S.	≤0.1% + 0.1%F.S.	≤0.05% + 0.05%F.S.
Readback Accuracy within 12 months 25℃±5℃ ±(%of Output +Offset)	Voltage	≤0.03% + 0.02%F.S.	≤0.03% + 0.02%F.S.	≤0.03% + 0.02%F.S.
	Current	≤0.1% + 0.1%F.S.	≤0.1% + 0.1%F.S.	≤0.05% + 0.05%F.S.
Ripple (20Hz -20MHz)	Voltage	≤50mV	≤50mV	≤140mV
	Current	≤120mA	≤100mA	≤40mA
Setting Temperature Coefficient ± （PPM/℃+Offset）	Voltage	≤20PPM/℃	≤20PPM/℃	≤20PPM/℃
	Current	≤50PPM/℃	≤50PPM/℃	≤50PPM/℃
Readback Temperature Coefficient ± （PPM/℃+Offset）	Voltage	≤20PPM/℃	≤20PPM/℃	≤20PPM/℃
	Current	≤50PPM/℃	≤50PPM/℃	≤50PPM/℃
Rising Time (no load)	Voltage	≤60ms	≤60ms	≤60ms
Rising Time (CR full load)	Voltage	≤150ms	≤150ms	≤150ms
Falling Time (no load)	Voltage	≤2s	≤2s	≤2s
Falling Time (CR full load)	Voltage	≤200ms	≤200ms	≤200ms
Dynamic Mode		≤1ms	≤1ms	≤1ms
Working Tem.		0~40℃	0~40℃	0~40℃
Dimension （mm）		234W*505D*58H	234W*505D*58H	234W*505D*58H
Net. Weight		（6±0.5） Kg	（6±0.5） Kg	（6±0.5） Kg
Parameter				
AC Input	Voltage 1	176Vac~264Vac (rated power)	176Vac~264Vac (rated power)	176Vac~264Vac (rated power)
	Voltage 2	99Vac~121Vac (decrease to 750W)	99Vac~121Vac （decrease to 750W)	99Vac~121Vac (decrease to 750W)
	Frequency	47Hz~63Hz	47Hz~63Hz	47Hz~63Hz
Setup Stability-30min （PPM+Offset）	Voltage	0.01%+2mV	0.01%+2mV	0.01%+8mV
	Current	0.03%+35mA	0.03%+35mA	0.01%+10mA
Setup Stability-8h （PPM+Offset）	Voltage	0.01%+2mV	0.01%+2mV	0.01%+10mV
	Current	0.03%+40mA	0.03%+40mA	0.01%+10mA
Readback Stability-30min （PPM+Offset）	Voltage	0.01%+2mV	0.01%+2mV	0.01%+8mV
	Current	0.03%+35mA	0.03%+35mA	0.01%+10mA
Readback Stability-8h （PPM+Offset）	Voltage	0.01%+2mV	0.01%+2mV	0.01%+10mV
	Current	0.03%+35mA	0.03%+35mA	0.01%+10mA
Efficiency		89%	89%	89%
Remote Sense Compensation Voltage		≤3V	≤3V	≤3V
Command Response Time		5ms	5ms	5ms
Power Factor		0.99	0.99	0.99
Maximum Input Current		12A	12A	12A
Maximum Input Apparent Power		1800VA	1800VA	1800VA
Storage Tem.		-10℃~70℃	-10℃~70℃	-10℃~70℃
Protection		OVP/OCP/OTP/OPP/UVP/UCP Sense	OVP/OCP/OTP/OPP/UVP/UCP Sense	OVP/OCP/OTP/OPP/UVP/UCP Sense
Isolation (output to ground)		500VDC	500VDC	500VDC

*This information is subject to change without notice.

Specification

		IT-M3133	IT-M3134	IT-M3135
Rated Output Value (0 ℃-40 ℃)	Voltage	0~150V	0~300V	0~600V
	Current	0~20A	0~10A	0~5A
	Power	1500W	1500W	1500W
Load Regulation (%of Output+Offset)	Voltage	0.004%+12mV	0.004%+20mV	0.004%+30mV
	Current	≤5mA	≤3mA	≤1.5mA
Power Regulation (%of Output+Offset)	Voltage	0.001%+10mV	0.001%+10mV	0.001%+20mV
	Current	≤5mA	≤3mA	≤1.5mA
Setup Resolution	Voltage	10mV	10mV	10mV
	Current	1mA	1mA	1mA
Readback Resolution	Voltage	10mV	10mV	10mV
	Current	1mA	1mA	1mA
Setting Accuracy within 12 months 25℃±5℃ ±(%of Output +Offset)	Voltage	≤0.03% + 0.02%F.S.	≤0.03% + 0.02%F.S.	≤0.03% + 0.02%F.S.
	Current	≤0.05% + 0.05%F.S.	≤0.05% + 0.05%F.S.	≤0.05% + 0.05%F.S.
Readback Accuracy within 12 months 25℃±5℃ ±(%of Output +Offset)	Voltage	≤0.03% + 0.02%F.S.	≤0.03% + 0.02%F.S.	≤0.03% + 0.02%F.S.
	Current	≤0.05% + 0.05%F.S.	≤0.05% + 0.05%F.S.	≤0.05% + 0.05%F.S.
Ripple (20Hz -20MHz)	Voltage	≤150mV	≤300mV	≤600mV
	Current	≤20mA	≤10mA	≤10mA
Setting Temperature Coefficient ± （PPM/ ℃+Offset）	Voltage	≤20PPM/ ℃	≤20PPM/ ℃	≤20PPM/ ℃
	Current	≤50PPM/ ℃	≤50PPM/ ℃	≤50PPM/ ℃
Readback Temperature Coefficient ± （PPM/ ℃+Offset）	Voltage	≤20PPM/ ℃	≤20PPM/ ℃	≤20PPM/ ℃
	Current	≤50PPM/ ℃	≤50PPM/ ℃	≤50PPM/ ℃
Rising Time (no load)	Voltage	≤60ms	≤60ms	≤60ms
Rising Time (CR full load)	Voltage	≤150ms	≤150ms	≤150ms
Falling Time (no load)	Voltage	≤2s	≤2s	≤2s
Falling Time (CR full load)	Voltage	≤200ms	≤200ms	≤200ms
Dynamic Mode		≤1ms	≤1ms	≤1ms
Working Tem.		0~40 ℃	0~40 ℃	0~40 ℃
Dimension （mm）		234W*505D*58H	234W*505D*58H	234W*505D*58H
Net. Weight		（6±0.5） Kg	（6±0.5） Kg	（6±0.5） Kg
Parameter				
AC Input	Voltage 1	176Vac~264Vac (rated power)	176Vac~264Vac (rated power)	176Vac~264Vac (rated power)
	Voltage 2	99Vac~121Vac (decrease to 750W)	99Vac~121Vac (decrease to 750W)	99Vac~121Vac (decrease to 750W)
	Frequency	47Hz~63Hz	47Hz~63Hz	47Hz~63Hz
Setup Stability-30min （PPM+Offset）	Voltage	0.01%+10mV	0.01%+60mV	0.01%+80mV
	Current	0.01%+4mA	0.01%+2.5mA	0.01%+1.6mA
Setup Stability-8h （PPM+Offset）	Voltage	0.01%+12mV	0.01%+75mV	0.01%+100mV
	Current	0.01%+4mA	0.01%+2.5mA	0.01%+1.6mA
Readback Stability-30min （PPM+Offset）	Voltage	0.01%+10mV	0.01%+60mV	0.01%+80mV
	Current	0.01%+4mA	0.01%+2.5mA	0.01%+1.6mA
Readback Stability-8h （PPM+Offset）	Voltage	0.01%+12mV	0.01%+75mV	0.01%+100mV
	Current	0.01%+4mA	0.01%+2.5mA	0.01%+1.6mA
Efficiency		89%	89%	88%
Remote Sense Compensation Voltage		≤3V	≤3V	≤3V
Command Response Time		5ms	5ms	5ms
Power Factor		0.99	0.99	0.99
Maximum Input Current		12A	12A	12A
Maximum Input Apparent Power		1800VA	1800VA	1800VA
Storage Tem.		-10℃~70℃	-10℃~70℃	-10℃~70℃
Protection		OVP/OCP/OTP/OPP/UVP/UCP Sense	OVP/OCP/OTP/OPP/UVP/UCP Sense	OVP/OCP/OTP/OPP/UVP/UCP Sense
Isolation (output to ground)		500VDC	500VDC	1000VDC

*This information is subject to change without notice.

Your Power Testing Solution

IT-M3100 Ultra-compact Wide Range DC Power Supply

Specification

		IT-M3116	IT-M3126	IT-M3136
Rated Output Value (0 ℃-40 ℃)	Voltage	0~1000V	0~1000V	0~1000V
	Current	0~3A	0~3A	0~3A
	Power	0~400W	0~850W	0～1500W
Load Regulation (%of Output+Offset)	Voltage	0.004%+30mV	0.004%+30mV	0.004%+30mV
	Current	≤0.8mA	≤0.8mA	≤0.8mA
Power Regulation (%of Output+Offset)	Voltage	0.004%+30mV	0.004%+30mV	0.004%+30mV
	Current	≤0.8mA	≤0.8mA	≤0.8mA
Setup Resolution	Voltage	100mV	100mV	100mV
	Current	1mA	1mA	1mA
Readback Resolution	Voltage	100mV	100mV	100mV
	Current	1mA	1mA	1mA
Setting Accuracy within 12 months 25℃±5℃ ±(%of Output +Offset)	Voltage	≤0.02% + 0.02%F.S.	≤0.02% + 0.02%F.S.	≤0.02% + 0.02%F.S.
	Current	≤0.05% + 0.05%F.S.	≤0.05% + 0.05%F.S.	≤0.05% + 0.05%F.S.
Readback Accuracy within 12 months 25℃±5℃ ±(%of Output +Offset)	Voltage	≤0.02% + 0.02%F.S.	≤0.02% + 0.02%F.S.	≤0.02% + 0.02%F.S.
	Current	≤0.05% + 0.05%F.S.	≤0.05% + 0.05%F.S.	≤0.05% + 0.05%F.S.
Ripple (20Hz -20MHz)	Voltage	≤1000mV	≤1000 mV	≤1000mV
	Current	≤5mA	≤5mA	≤5mA
Setting Temperature Coefficient ± （PPM/℃+Offset）	Voltage	≤20PPM/℃	≤20PPM/℃	≤20PPM/℃
	Current	≤50PPM/℃	≤50PPM/℃	≤50PPM/℃
Readback Temperature Coefficient ± （PPM/℃+Offset）	Voltage	≤20PPM/℃	≤20PPM/℃	≤20PPM/℃
	Current	≤50PPM/℃	≤50PPM/℃	≤50PPM/℃
Rising Time (no load)	Voltage	≤60ms	≤60ms	≤60ms
Rising Time (CR full load)	Voltage	≤300ms	≤150ms	≤150ms
Falling Time (no load)	Voltage	≤2s	≤2S	≤2s
Falling Time (CR full load)	Voltage	≤200ms	≤200ms	≤200ms
Dynamic Mode		≤1ms	≤1ms	≤1ms
Working Tem.		0~40℃	0~40℃	0~40℃
Dimension （mm）		234W*505D*58H	234W*505D*58H	234W*505D*58H
Net. Weight		（6±0.5） Kg	（6±0.5） Kg	（6±0.5） Kg
Parameter				
AC Input	Voltage 1	99Vac~264Vac (rated power)	176Vac~264Vac (rated power)	176Vac~264Vac (rated power)
	Voltage 2	/	99Vac~121Vac (decrease to 750W)	99Vac~121Vac (decrease to 750W)
	Frequency	47Hz~63Hz	47~63Hz	47Hz~63Hz
Setup Stability-30min （PPM+Offset）	Voltage	0.005%+60mV	0.005%+60mV	0.005%+60mV
	Current	0.01%+0.9mA	0.01%+0.9mA	0.01%+0.9mA
Setup Stability-8h （PPM+Offset）	Voltage	0.005%+60mV	0.005%+60mV	0.005%+60mV
	Current	0.01%+0.9mA	0.01%+0.9mA	0.01%+0.9mA
Readback Stability-30min （PPM+Offset）	Voltage	0.005%+60mV	0.005%+60mV	0.005%+60mV
	Current	0.01%+0.9mA	0.01%+0.9mA	0.01%+0.9mA
Readback Stability-8h （PPM+Offset）	Voltage	0.005%+60mV	0.005%+60mV	0.005%+60mV
	Current	0.01%+0.9mA	0.01%+0.9mA	0.01%+0.9mA
Efficiency		81%	82%	88%
Remote Sense Compensation Voltage		≤3V	≤3V	≤3V
Command Response Time		5ms	5ms	5ms
Power Factor		0.98	0.98	0.99
Maximum Input Current		6A	6A	12A
Maximum Input Apparent Power		500VA	1000VA	1800VA
Storage Tem.		-10℃~70℃	-10℃~70℃	-10℃~70℃
Protection		OVP/OCP/OTP/OPP/UVP/UCP Sense	OVP/OCP/OTP/OPP/UVP/UCP Sense	OVP/OCP/OTP/OPP/UVP/UCP Sense
Isolation (output to ground)		1200VDC	1200VDC	1200VDC

*This information is subject to change without notice.