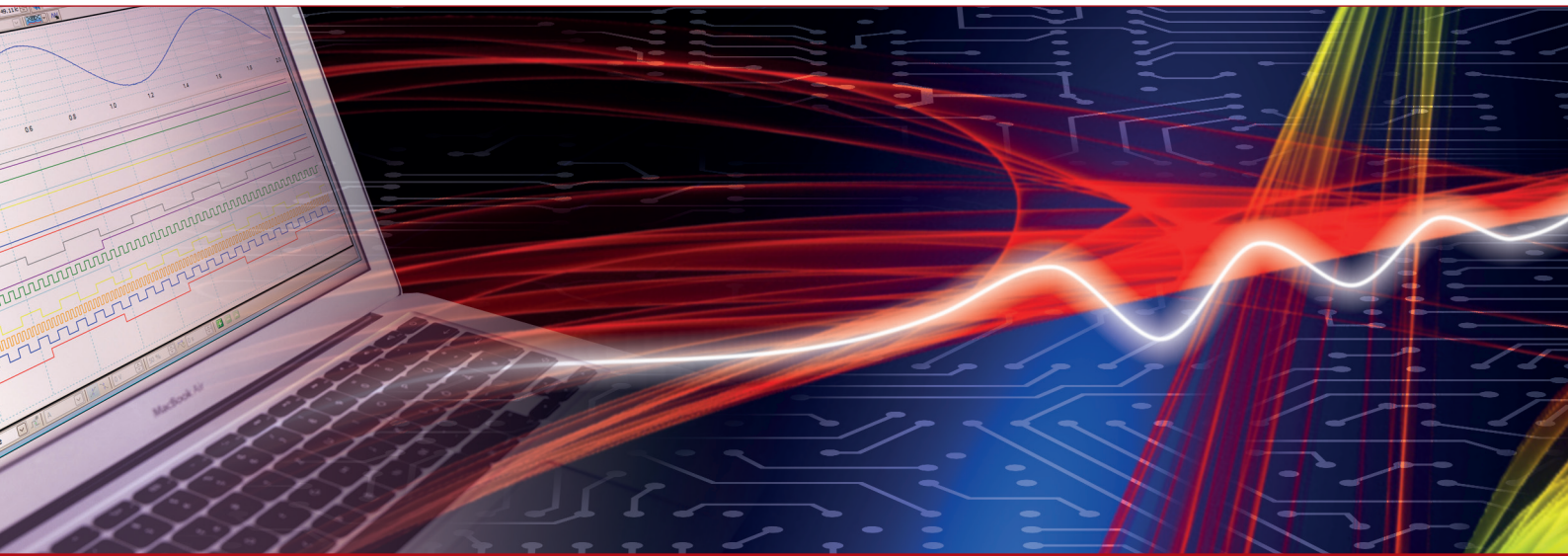


Product Datasheet - Technical Specifications



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10 Technical Specification

This chapter will introduce the main technical parameters of this instrument, such as rated voltage/current/power and so on. Besides, we will introduce the working environment and storage temperature.

- ◆ IT-M3312
- ◆ IT-M3322
- ◆ IT-M3332
- ◆ IT-M3313
- ◆ IT-M3323
- ◆ IT-M3333
- ◆ IT-M3314
- ◆ IT-M3324
- ◆ IT-M3334
- ◆ IT-M3315
- ◆ IT-M3325
- ◆ IT-M3335

10.1 IT-M3312

Parameter		IT-M3312 V1.2
Rated value (0-40 °C)	Input Voltage	0-60V
	Input Current	0-30A
	Input Power	0-200W
	Min. operating voltage	1V at 30A
CC	Range	0-30A
	Setup Resolution	10mA
	Accuracy	<0.1% I _{max} +0.1%I _{current}
CV	Range	0-60V
	Setup Resolution	1mV
	Accuracy	<0.1% U _{max}
CR	Range	0.04-600Ω
	Resolution	Min.0.001Ω
	Accuracy	(1/R _{min})*2%: (0.04~60Ω), (1/R _{min})*5%: (60~600Ω)
CP	Range	0-200W

	Setup Resolution	0.1W
	Accuracy	<1.0% Pmax
Dynamic mode	Rising slope	30A/ms
	Falling slope	30A/ms
	Min. rise time	1ms
Input Read-back		
Read-back current	Range	0-30A
	Resolution	1mA
	Accuracy	<0.1% I _{max} +0.1%I _{current}
Read-back Voltage	Range	0-60V
	Resolution	1mV
	Accuracy	<0.1% U _{max}
Read-back Resistance	Range	0.04-600Ω
	Resolution	Min.0.001Ω
	Accuracy	(1/R _{min})*2%: (0.04~60Ω), (1/R _{min})*5%: (60~600Ω)
Read-back Power	Range	0-200W
	Resolution	0.1W
	Accuracy	<1% Pmax
Temperature Coefficient		
Temperature Coefficient	Voltage Temperature Coefficient	100ppm/°C
	Current Temperature Coefficient	50ppm/°C
Battery Test		
AH Measurement	AH Range	0AH-300AH
	Accuracy	0.20%
	Resolution	0.001AH
Protection range		
OCP		31A
OVP		61V
OPP		210W
Short circuit test		
Current		33A
External analog (optional)		

Current programming	External 0V~10V is 0~30A
Current monitoring	External 0V~10V is 0~30A
Voltage programming	External 0V~10V is 0~60V
Voltage monitoring	External 0V~10V is 0~60V
AC parameters	
Voltage range	100VAC -240VAC
OVP	264VAC
UVP	90VAC
Frequency	47Hz~63Hz
Max. current (rms)	1Aac (AC220V)
DC Offset	-0.1A~+0.1A
Environment	
Working temperature	0- 40 °C
Storage temperature	-20- 70°C
Noise	60dB
External temperature measurement	
Measurement range	-20°C——120°C
Measurement accuracy	±1°C
Measurement resolution	0.1°C
Efficiency	
Max. efficiency (Full-load)	86%
Communication (Optional)	
Communication interfaces	RS232/USB/RS485/CAN/LAN/GPIB/Analog
Mechanical parameters	
Size and weight	450mm*214mm*43.5mm
Net weight	5kg

Calculation method of resistance precision range in load mode: lower limit: $1/(1/R+(1/R)*0.05+0.004)$; Upper limit: $1/(1/R-(1/R)*0.05-0.004)$

10.2 IT-M3322

Parameter		IT-M3322 V1.2
Rated value(0 °C-40 °C)	Input Voltage	0-60V
	Input Current	0-30A
	Input Power	0-400W
	Min. operating voltage	1V at 30A
CC	Range	0-30A
	Setup Resolution	10mA
	Accuracy	<0.1% I _{max} +0.1%I _{current}
CV	Range	0-60V
	Setup Resolution	1mV
	Accuracy	<0.1% U _{max}
CR	Range	0.04-600Ω
	Resolution	Min.0.001Ω
	Accuracy	(1/R _{min})*2%: (0.04~60Ω), (1/R _{min})*5%: (60~600Ω)
CP	Range	0-400W
	Setup Resolution	0.1W
	Accuracy	<1.0% P _{max}
Dynamic mode	Rising slope	30A/ms
	Falling slope	30A/ms
	Min. rise time	1ms
Input Read-back		
Read-back current	Range	0-30A
	Resolution	1mA
	Accuracy	<0.1% I _{max} +0.1%I _{current}
Read-back Voltage	Range	0-60V
	Resolution	1mV
	Accuracy	<0.1% U _{max}
Read-back Resistance	Range	0.04-600Ω
	Resolution	Min.0.001Ω
	Accuracy	(1/R _{min})*2%: (0.04~60Ω), (1/R _{min})*5%: (60~600Ω)

Read-back Power	Range	0-400W
	Resolution	0.1W
	Accuracy	<1% Pmax
Temperature Coefficient		
Temperature Coefficient	Voltage Temperature Coefficient	100ppm/°C
	Current Temperature Coefficient	50ppm/°C
Battery Test		
AH Measurement	AH Range	0AH-300AH
	Accuracy	0.20%
	Resolution	0.001AH
Protection range		
OCP		31A
OVP		61V
OPP		410W
Short circuit test		
Current		33A
External analog (optional)		
Current programming		External 0V~10V is 0~30A
Current monitoring		External 0V~10V is 0~30A
Voltage programming		External 0V~10V is 0~60V
Voltage monitoring		External 0V~10V is 0~60V
AC parameters		
Voltage range		100VAC -240VAC
OVP		264VAC
UVP		90VAC
Frequency		47Hz~63Hz
Max. current (rms)		2Aac (AC220V)
DC Offset		-0.1A~+0.1A
Environment		
Working temperature		0-40°C
Storage temperature		-20- 70°C
Noise		60dB
External temperature measurement		

Measurement range	-20°C——120°C
Measurement accuracy	±1°C
Measurement resolution	0.1°C
Efficiency	
Max. efficiency (Full-load)	86%
Communication (Optional)	
Communication interfaces	RS232/USB/RS485/CAN/LAN/GPIB/Analog
Mechanical parameters	
Size and weight	450mm*214mm*43.5mm
Net weight	5kg

Calculation method of resistance precision range in load mode: lower limit: $1/(1/R+(1/R)*0.05+0.004)$; Upper limit: $1/(1/R-(1/R)*0.05-0.004)$

10.3 IT-M3332

Parameter		IT-M3332 V1.2
Rated value(0 °C-40 °C)	Input Voltage	0-60V
	Input Current	0-30A
	Input Power	0-800W
	Min. operating voltage	1V at 30A
CC	Range	0-30A
	Setup Resolution	10mA
	Accuracy	<0.1% I _{max} +0.1% I _{current}
CV	Range	0-60V
	Setup Resolution	1mV
	Accuracy	<0.1% U _{max}
CR	Range	0.04-600Ω
	Resolution	Min.0.001Ω
	Accuracy	(1/R _{min})*2%: (0.04~60Ω), (1/R _{min})*5%: (60~600Ω)
CP	Range	0-800W
	Setup Resolution	0.1W

	Accuracy	<1.0% Pmax
Dynamic mode	Rising slope	30A/ms
	Falling slope	30A/ms
	Min. rise time	1ms
Input Read-back		
Read-back current	Range	0-30A
	Resolution	1mA
	Accuracy	<0.1% I _{max} +0.1%I _{current}
Read-back Voltage	Range	0-60V
	Resolution	1mV
	Accuracy	<0.1% U _{max}
Read-back Resistance	Range	0.04-600Ω
	Resolution	Min.0.001Ω
	Accuracy	(1/R _{min})*2%: (0.04~60Ω), (1/R _{min})*5%: (60~600Ω)
Read-back Power	Range	0-800W
	Resolution	0.1W
	Accuracy	<1% Pmax
Temperature Coefficient		
Temperature Coefficient	Voltage Temperature Coefficient	100ppm/°C
	Current Temperature Coefficient	50ppm/°C
Battery Test		
AH Measurement	AH Range	0AH-300AH
	Accuracy	0.20%
	Resolution	0.001AH
Protection range		
OCP		31A
OVP		61V
OPP		810W
Short circuit test		
Current		33A
External analog (optional)		

Current programming	External 0V~10V is 0~30A
Current monitoring	External 0V~10V is 0~30A
Voltage programming	External 0V~10V is 0~60V
Voltage monitoring	External 0V~10V is 0~60V
AC parameters	
Voltage range	100VAC -240VAC
OVP	264VAC
UVP	90VAC
Frequency	47Hz~63Hz
Max. current (rms)	4Aac (AC220V)
Power factor PF	>0.98 (Lead or Lag)
DC Offset	-0.1A~+0.1A
Harmonic THDI	<5%
Environment	
Working temperature	0- 40 °C
Storage temperature	-20- 70°C
Noise	60dB
External temperature measurement	
Measurement range	-20°C——120°C
Measurement accuracy	±1°C
Measurement resolution	0.1°C
Efficiency	
Max. efficiency (Full-load)	86%
Communication (Optional)	
Communication interfaces	RS232/USB/RS485/CAN/LAN/GPIB/Analog
Mechanical parameters	
Size and weight	450mm*214mm*43.5mm
Net weight	5kg

Calculation method of resistance precision range in load mode: lower limit: $1/(1/R + (1/R)*0.05 + 0.004)$; Upper limit: $1/(1/R - (1/R)*0.05 - 0.004)$

10.4 IT-M3313

Parameter		IT-M3313 V1.2
Rated value(0 °C-40 °C)	Input Voltage	0-150V
	Input Current	0-12A
	Input Power	0-200W
	Min. operating voltage	2V at 12A
CC	Range	0-12A
	Setup Resolution	1mA
	Accuracy	<0.1% I _{max} +0.1%I _{current}
CV	Range	0-150V
	Setup Resolution	10mV
	Accuracy	<0.1% U _{max}
CR	Range	0.25-1500Ω
	Resolution	Min.0.01Ω
	Accuracy	(1/R _{min})*2%: (0.25~100Ω), (1/R _{min})*5%: (100~1500Ω)
CP	Range	0-200W
	Setup Resolution	0.1W
	Accuracy	<1.0% P _{max}
Dynamic mode	Rising slope	12A/ms
	Falling slope	12A/ms
	Min. rise time	1ms
Input Read-back		
Read-back current	Range	0-12A
	Resolution	1mA
	Accuracy	<0.1% I _{max} +0.1%I _{current}
Read-back Voltage	Range	0-150V
	Resolution	10mV
	Accuracy	<0.1% U _{max}

Read-back Resistance	Range	0.25-1500Ω
	Resolution	0.01Ω
	Accuracy	(1/Rmin)*2%: (0.25~100Ω), (1/Rmin)*5%: (100~1500Ω)
Read-back Power	Range	0-200W
	Resolution	0.1W
	Accuracy	<1% Pmax
Temperature Coefficient		
Temperature Coefficient	Voltage Temperature Coefficient	100ppm/°C
	Current Temperature Coefficient	50ppm/°C
Protection range		
OCP		12.5A
OVP		155V
OPP		210W
Short circuit test		
Current		13.2A
External analog (optional)		
Current programming		External 0V~10V is 0~12A
Current monitoring		External 0V~10V is 0~12A
Voltage programming		External 0V~10V is 0~150V
Voltage monitoring		External 0V~10V is 0~150V
AC parameters		
Voltage range		100VAC -240VAC
OVP		264VAC
UVP		90VAC
Frequency		47Hz~63Hz
Max. current (rms)		1Aac (AC220)
DC Offset		-0.1A~+0.1A
Environment		
Working temperature		0- 40 °C
Storage temperature		-20- 70°C
Noise		60dB
External temperature measurement		

Measurement range	-20℃——120℃
Measurement accuracy	±1℃
Measurement resolution	0.1℃
Efficiency	
Max. efficiency (Full-load)	88%
Communication (Optional)	
Communication interfaces	RS232/USB/RS485/CAN/LAN/GPIB/Analog
Mechanical parameters	
Size and weight	450mm*214mm*43.5mm
Net weight	5kg

Calculation method of resistance precision range in load mode: lower limit: $1/(1/R+(1/R)*0.05+0.004)$; Upper limit: $1/(1/R-(1/R)*0.05-0.004)$

10.5 IT-M3323

Parameter		IT-M3323 V1.2
Rated value(0℃-40℃)	Input Voltage	0-150V
	Input Current	0-12A
	Input Power	0-400W
	Min. operating voltage	2V at 12A
CC	Range	0-12A
	Setup Resolution	1mA
	Accuracy	<0.1% I _{max} +0.1%I _{current}
CV	Range	0-150V
	Setup Resolution	10mV
	Accuracy	<0.1% U _{max}
CR	Range	0.25-1500Ω
	Resolution	Min.0.01Ω
	Accuracy	(1/R _{min})*2%: (0.25~100Ω), (1/R _{min})*5%: (100~1500Ω)
CP	Range	0-400W
	Setup Resolution	0.1W

	Accuracy	<1.0% Pmax
Dynamic mode	Rising slope	12A/ms
	Falling slope	12A/ms
	Min. rise time	1ms
Input Read-back		
Read-back current	Range	0-12A
	Resolution	1mA
	Accuracy	<0.1% I _{max} +0.1%I _{current}
Read-back Voltage	Range	0-150V
	Resolution	10mV
	Accuracy	<0.1% U _{max}
Read-back Resistance	Range	0.25-1500Ω
	Resolution	0.01Ω
	Accuracy	(1/R _{min})*2%: (0.25~100Ω), (1/R _{min})*5%: (100~1500Ω)
Read-back Power	Range	0-400W
	Resolution	0.1W
	Accuracy	<1% Pmax
Temperature Coefficient		
Temperature Coefficient	Voltage Temperature Coefficient	100ppm/°C
	Current Temperature Coefficient	50ppm/°C
Protection range		
OCP		12.5A
OVP		155V
OPP		410W
Short circuit test		
Current		13.2A
External analog (optional)		
Current programming		External 0V~10V is 0~12A
Current monitoring		External 0V~10V is 0~12A
Voltage programming		External 0V~10V is 0~150V
Voltage monitoring		External 0V~10V is 0~150V

AC parameters	
Voltage range	100VAC -240VAC
OVP	264VAC
UVP	90VAC
Frequency	47Hz~63Hz
Max. current (rms)	2Aac (AC220)
DC Offset	-0.1A~+0.1A
Environment	
Working temperature	0-40°C
Storage temperature	-20- 70°C
Noise	60dB
External temperature measurement	
Measurement range	-20°C——120°C
Measurement accuracy	±1°C
Measurement resolution	0.1°C
Efficiency	
Max. efficiency (Full-load)	88%
Communication (Optional)	
Communication interfaces	RS232/USB/RS485/CAN/LAN/GPIB/Analog
Mechanical parameters	
Size and weight	450mm*214mm*43.5mm
Net weight	5kg

Calculation method of resistance precision range in load mode: lower limit: $1/(1/R+(1/R)*0.05+0.004)$; Upper limit: $1/(1/R-(1/R)*0.05-0.004)$

10.6 IT-M3333

Parameter		IT-M3333 V1.2
Load Parameter		
Rated value(0 °C-40 °C)	Input Voltage	0-150V
	Input Current	0-12A

	Input Power	0-800W
	Min. operating voltage	2V at 12A
CC	Range	0-12A
	Setup Resolution	1mA
	Accuracy	$<0.1\% I_{max} + 0.1\% I_{current}$
CV	Range	0-150V
	Setup Resolution	10mV
	Accuracy	$<0.1\% U_{max}$
CR	Range	0.25-1500 Ω
	Resolution	Min.0.01 Ω
	Accuracy	$(1/R_{min}) \cdot 2\%: (0.25 \sim 100\Omega), (1/R_{min}) \cdot 5\%: (100 \sim 1500\Omega)$
CP	Range	0-800W
	Setup Resolution	0.1W
	Accuracy	$<1.0\% P_{max}$
Dynamic mode	Rising slope	12A/ms
	Falling slope	12A/ms
	Min. rise time	1ms
Input Read-back		
Read-back current	Range	0-12A
	Resolution	1mA
	Accuracy	$<0.1\% I_{max} + 0.1\% I_{current}$
Read-back Voltage	Range	0-150V
	Resolution	10mV
	Accuracy	$<0.1\% U_{max}$
Read-back Resistance	Range	0.25-1500 Ω
	Resolution	0.01 Ω
	Accuracy	$(1/R_{min}) \cdot 2\%: (0.25 \sim 100\Omega), (1/R_{min}) \cdot 5\%: (100 \sim 1500\Omega)$
Read-back Power	Range	0-800W
	Resolution	0.1W
	Accuracy	$<1\% P_{max}$
Temperature Coefficient		

Temperature Coefficient	Voltage Temperature Coefficient	100ppm/°C
	Current Temperature Coefficient	50ppm/°C
Protection range		
OCP		12.5A
OVP		155V
OPP		810W
Short circuit test		
Current		13.2A
External analog (optional)		
Current programming		External 0V~10V is 0~12A
Current monitoring		External 0V~10V is 0~12A
Voltage programming		External 0V~10V is 0~150V
Voltage monitoring		External 0V~10V is 0~150V
AC parameters		
Voltage range		100VAC -240VAC
OVP		264VAC
UVP		90VAC
Frequency		47Hz~63Hz
Max. current (rms)		4Aac (AC220)
Power factor PF		>0.98 (Lead or Lag)
DC Offset		-0.1A~+0.1A
Harmonic THDI		<5%
Environment		
Working temperature		0-40°C
Storage temperature		-20- 70°C
Noise		60dB
External temperature measurement		
Measurement range		-20°C——120°C
Measurement accuracy		±1°C
Measurement resolution		0.1°C
Efficiency		
Max. efficiency (Full-load)		88%
Communication (Optional)		

Communication interfaces	RS232/USB/RS485/CAN/LAN/GPIB/Analog
Mechanical parameters	
Size and weight	450mm*214mm*43.5mm
Net weight	5kg

Calculation method of resistance precision range in load mode: lower limit: $1/(1/R+(1/R)*0.05+0.004)$; Upper limit: $1/(1/R-(1/R)*0.05-0.004)$

10.7 IT-M3314

Parameter		IT-M3314 V1.2
Rated value(0 °C-40 °C)	Input Voltage	0-300V
	Input Current	0-6A
	Input Power	0-200W
	Min. operating voltage	5V at 6A
CC	Range	0-6A
	Setup Resolution	1mA
	Accuracy	<0.1% I _{max} +0.1%I _{current}
CV	Range	0-300V
	Setup Resolution	10mV
	Accuracy	<0.1% U _{max}
CR	Range	1-3000Ω
	Resolution	Min.1Ω
	Accuracy	(1/R _{min})*2%: (1~300Ω), (1/R _{min})*5%: (300~3000Ω)
CP	Range	0-200W
	Setup Resolution	0.1W
	Accuracy	<1.0% P _{max}
Dynamic mode	Rising slope	6A/ms
	Falling slope	6A/ms
	Min. rise time	1ms
Input Read-back		
Read-back current	Range	0-6A

	Resolution	0.1mA
	Accuracy	$<0.1\% I_{max} + 0.1\% I_{current}$
Read-back Voltage	Range	0-300V
	Resolution	10mV
	Accuracy	$<0.1\% U_{max}$
Read-back Resistance	Range	1-3000Ω
	Resolution	1Ω
	Accuracy	$(1/R_{min}) * 2\%: (1 \sim 300\Omega), (1/R_{min}) * 5\%: (300 \sim 3000\Omega)$
Read-back Power	Range	0-200W
	Resolution	0.1W
	Accuracy	$<1\% P_{max}$
Temperature Coefficient		
Temperature Coefficient	Voltage Temperature Coefficient	100ppm/°C
	Current Temperature Coefficient	50ppm/°C
Protection range		
OCP		6.2A
OVP		310V
OPP		210W
Short circuit test		
Current		6.6A
External analog (optional)		
Current programming		External 0V~10V is 0~6A
Current monitoring		External 0V~10V is 0~6A
Voltage programming		External 0V~10V is 0~300V
Voltage monitoring		External 0V~10V is 0~300V
AC parameters		
Voltage range		100VAC -240VAC
OVP		264VAC
UVP		90VAC
Frequency		47Hz~63Hz
Max. current (rms)		1Aac (AC220V)
DC Offset		-0.1A~+0.1A

Environment	
Working temperature	0- 40 °C
Storage temperature	-20- 70°C
Noise	60dB
External temperature measurement	
Measurement range	-20°C——120°C
Measurement accuracy	±1°C
Measurement resolution	0.1°C
Efficiency	
Max. efficiency (Full-load)	88%
Communication (Optional)	
Communication interfaces	RS232/USB/RS485/CAN/LAN/GPIB/Analog
Mechanical parameters	
Size and weight	450mm*214mm*43.5mm
Net weight	5kg

Calculation method of resistance precision range in load mode: lower limit: $1/(1/R+(1/R)*0.05+0.004)$; Upper limit: $1/(1/R-(1/R)*0.05-0.004)$

10.8 IT-M3324

Parameter		IT-M3324 V1.2
Rated value(0 °C-40 °C)	Input Voltage	0-300V
	Input Current	0-6A
	Input Power	0-400W
	Min. operating voltage	5V at 6A
CC	Range	0-6A
	Setup Resolution	1mA
	Accuracy	<0.1% I _{max} +0.1%I _{current}
CV	Range	0-300V
	Setup Resolution	10mV
	Accuracy	<0.1% U _{max}

CR	Range	1-3000Ω
	Resolution	Min.1Ω
	Accuracy	(1/Rmin)*2%: (1~300Ω), (1/Rmin)*5%: (300~3000Ω)
CP	Range	0-400W
	Setup Resolution	0.1W
	Accuracy	<1.0% Pmax
Dynamic mode	Rising slope	6A/ms
	Falling slope	6A/ms
	Min. rise time	1ms
Input Read-back		
Read-back current	Range	0-6A
	Resolution	0.1mA
	Accuracy	<0.1% I _{max} +0.1%I _{current}
Read-back Voltage	Range	0-300V
	Resolution	10mV
	Accuracy	<0.1% U _{max}
Read-back Resistance	Range	1-3000Ω
	Resolution	1Ω
	Accuracy	(1/Rmin)*2%: (1~300Ω), (1/Rmin)*5%: (300~3000Ω)
Read-back Power	Range	0-400W
	Resolution	0.1W
	Accuracy	<1% Pmax
Temperature Coefficient		
Temperature Coefficient	Voltage Temperature Coefficient	100ppm/°C
	Current Temperature Coefficient	50ppm/°C
Protection range		
OCP		6.2A
OVP		310V
OPP		410W
Short circuit test		
Current		6.6A

External analog (optional)	
Current programming	External 0V~10V is 0~6A
Current monitoring	External 0V~10V is 0~6A
Voltage programming	External 0V~10V is 0~300V
Voltage monitoring	External 0V~10V is 0~300V
AC parameters	
Voltage range	100VAC -240VAC
OVP	264VAC
UVP	90VAC
Frequency	47Hz~63Hz
Max. current (rms)	2Aac (AC220V)
DC Offset	-0.1A~+0.1A
Environment	
Working temperature	0-40°C
Storage temperature	-20- 70°C
Noise	60dB
External temperature measurement	
Measurement range	-20°C——120°C
Measurement accuracy	±1°C
Measurement resolution	0.1°C
Efficiency	
Max. efficiency (Full-load)	88%
Communication (Optional)	
Communication interfaces	RS232/USB/RS485/CAN/LAN/GPIB/Analog
Mechanical parameters	
Size and weight	450mm*214mm*43.5mm
Net weight	5kg

Calculation method of resistance precision range in load mode: lower limit: $1/(1/R+(1/R)*0.05+0.004)$; Upper limit: $1/(1/R-(1/R)*0.05-0.004)$

10.9 IT-M3334

Parameter		IT-M3334 V1.2
Rated value(0 °C-40 °C)	Input Voltage	0-300V
	Input Current	0-6A
	Input Power	0-800W
	Min. operating voltage	5V at 6A
CC	Range	0-6A
	Setup Resolution	1mA
	Accuracy	<0.1% I _{max} +0.1%I _{current}
CV	Range	0-300V
	Setup Resolution	10mV
	Accuracy	<0.1% U _{max}
CR	Range	1-3000Ω
	Resolution	Min.1Ω
	Accuracy	(1/R _{min})*2%: (1~300Ω), (1/R _{min})*5%: (300~3000Ω)
CP	Range	0-800W
	Setup Resolution	0.1W
	Accuracy	<1.0% P _{max}
Dynamic mode	Rising slope	6A/ms
	Falling slope	6A/ms
	Min. rise time	1ms
Input Read-back		
Read-back current	Range	0-6A
	Resolution	0.1mA
	Accuracy	<0.1% I _{max} +0.1%I _{current}
Read-back Voltage	Range	0-300V
	Resolution	10mV
	Accuracy	<0.1% U _{max}
Read-back Resistance	Range	1-3000Ω
	Resolution	1Ω
	Accuracy	(1/R _{min})*2%: (1~300Ω), (1/R _{min})*5%: (300~3000Ω)

Read-back Power	Range	0-800W
	Resolution	0.1W
	Accuracy	<1% Pmax
Temperature Coefficient		
Temperature Coefficient	Voltage Temperature Coefficient	100ppm/°C
	Current Temperature Coefficient	50ppm/°C
Protection range		
OCP		6.2A
OVP		310V
OPP		810W
Short circuit test		
Current		6.6A
External analog (optional)		
Current programming		External 0V~10V is 0~6A
Current monitoring		External 0V~10V is 0~6A
Voltage programming		External 0V~10V is 0~300V
Voltage monitoring		External 0V~10V is 0~300V
AC parameters		
Voltage range		100VAC -240VAC
OVP		264VAC
UVP		90VAC
Frequency		47Hz~63Hz
Max. current (rms)		4Aac (AC220V)
Power factor PF		>0.98 (Lead or Lag)
DC Offset		-0.1A~+0.1A
Harmonic THDI		<5%
Environment		
Working temperature		0-40°C
Storage temperature		-20- 70°C
Noise		60dB
External temperature measurement		
Measurement range		-20°C——120°C
Measurement accuracy		±1°C

Measurement resolution	0.1°C
Efficiency	
Max. efficiency (Full-load)	88%
Communication (Optional)	
Communication interfaces	RS232/USB/RS485/CAN/LAN/GPIB/Analog
Mechanical parameters	
Size and weight	450mm*214mm*43.5mm
Net weight	5kg

Calculation method of resistance precision range in load mode: lower limit: $1/(1/R+(1/R)*0.05+0.004)$; Upper limit: $1/(1/R-(1/R)*0.05-0.004)$

10.10 IT-M3315

Parameter		IT-M3315 V1.2
Rated value(0 °C-40 °C)	Input Voltage	0-600V
	Input Current	0-3A
	Input Power	0-200W
	Min. operating voltage	10V at 3A
CC	Range	0-3A
	Setup Resolution	1mA
	Accuracy	<0.1% I _{max} +0.1% I _{current}
CV	Range	0-600V
	Setup Resolution	10mV
	Accuracy	<0.1% U _{max}
CR	Range	4-6000Ω
	Resolution	Min.1Ω
	Accuracy	(1/R _{min})*2%: (4~600Ω), (1/R _{min})*5%: (600~6000Ω)
CP	Range	0-200W
	Setup Resolution	0.1W
	Accuracy	<1.0% P _{max}
Dynamic mode	Rising slope	3A/ms

	Falling slope	3A/ms
	Min. rise time	1ms
Input Read-back		
Read-back current	Range	0-3A
	Resolution	0.1mA
	Accuracy	<0.1% I _{max} +0.1% I _{current}
Read-back Voltage	Range	0-600V
	Resolution	10mV
	Accuracy	<0.1% U _{max}
Read-back Resistance	Range	4-6000Ω
	Resolution	4-6000Ω
	Accuracy	(1/R _{min})*2%: (4~600Ω), (1/R _{min})*5%: (600~6000Ω)
Read-back Power	Range	0-200W
	Resolution	0.1W
	Accuracy	<1% P _{max}
Temperature Coefficient		
Temperature Coefficient	Voltage Temperature Coefficient	100ppm/°C
	Current Temperature Coefficient	50ppm/°C
Protection range		
OCP		3.1A
OVP		610V
OPP		210W
Short circuit test		
Current		3.3A
External analog (optional)		
Current programming		External 0V~10V is 0~3A
Current monitoring		External 0V~10V is 0~3A
Voltage programming		External 0V~10V is 0~600V
Voltage monitoring		External 0V~10V is 0~600V
AC parameters		
Voltage range		100VAC -240VAC
OVP		264VAC

UVP	90VAC
Frequency	47Hz~63Hz
Max. current (rms)	1Aac (AC220V)
DC Offset	-0.1A~+0.1A
Environment	
Working temperature	0-40°C
Storage temperature	-20- 70°C
Noise	60dB
External temperature measurement	
Measurement range	-20°C——120°C
Measurement accuracy	±1°C
Measurement resolution	0.1°C
Efficiency	
Max. efficiency (Full-load)	88%
Communication (Optional)	
Communication interfaces	RS232/USB/RS485/CAN/LAN/GPIB/Analog
Mechanical parameters	
Size and weight	450mm*214mm*43.5mm
Net weight	5kg

Calculation method of resistance precision range in load mode: lower limit: $1/(1/R+(1/R)*0.05+0.004)$; Upper limit: $1/(1/R-(1/R)*0.05-0.004)$

10.11 IT-M3325

Parameter		IT-M3325 V1.2
Rated value (0-40 °C)	Input Voltage	0-600V
	Input Current	0-3A
	Input Power	0-400W
	Min. operating voltage	10V at 3A
CC	Range	0-3A
	Setup Resolution	1mA
	Accuracy	<0.1% I _{max} +0.1%I _{current}

CV	Range	0-600V
	Setup Resolution	10mV
	Accuracy	<0.1% Umax
CR	Range	4-6000Ω
	Resolution	Min.1Ω
	Accuracy	(1/Rmin)*2%: (4~600Ω), (1/Rmin)*5%: (600~6000Ω)
CP	Range	0-400W
	Setup Resolution	0.1W
	Accuracy	<1.0% Pmax
Dynamic mode	Rising slope	3A/ms
	Falling slope	3A/ms
	Min. rise time	1ms
Input Read-back		
Read-back current	Range	0-3A
	Resolution	0.1mA
	Accuracy	<0.1% Imax+0.1% Icurrent
Read-back Voltage	Range	0-600V
	Resolution	10mV
	Accuracy	<0.1% Umax
Read-back Resistance	Range	4-6000Ω
	Resolution	4-6000Ω
	Accuracy	(1/Rmin)*2%: (4~600Ω), (1/Rmin)*5%: (600~6000Ω)
Read-back Power	Range	0-400W
	Resolution	0.1W
	Accuracy	<1% Pmax
Temperature Coefficient		
Temperature Coefficient	Voltage Temperature Coefficient	100ppm/°C
	Current Temperature Coefficient	50ppm/°C
Protection range		
OCP		3.1A
OVP		610V

OPP	410W
Short circuit test	
Current	3.3A
External analog (optional)	
Current programming	External 0V~10V is 0~3A
Current monitoring	External 0V~10V is 0~3A
Voltage programming	External 0V~10V is 0~600V
Voltage monitoring	External 0V~10V is 0~600V
AC parameters	
Voltage range	100VAC -240VAC
OVP	264VAC
UVP	90VAC
Frequency	47Hz~63Hz
Max. current (rms)	2Aac (AC220V)
DC Offset	-0.1A~+0.1A
Environment	
Working temperature	0-40°C
Storage temperature	-20- 70°C
Noise	60dB
External temperature measurement	
Measurement range	-20°C——120°C
Measurement accuracy	±1°C
Measurement resolution	0.1°C
Efficiency	
Max. efficiency (Full-load)	88%
Communication (Optional)	
Communication interfaces	RS232/USB/RS485/CAN/LAN/GPIB/Analog
Mechanical parameters	
Size and weight	450mm*214mm*43.5mm
Net weight	5kg

Calculation method of resistance precision range in load mode: lower limit: $1/(1/R+(1/R)*0.05+0.004)$; Upper limit: $1/(1/R-(1/R)*0.05-0.004)$

10.12 IT-M3335

Parameter		IT-M3335 V1.2
Rated value(0 °C-40 °C)	Input Voltage	0-600V
	Input Current	0-3A
	Input Power	0-800W
	Min. operating voltage	10V at 3A
CC	Range	0-3A
	Setup Resolution	1mA
	Accuracy	<0.1% I _{max} +0.1%I _{current}
CV	Range	0-600V
	Setup Resolution	10mV
	Accuracy	<0.1% U _{max}
CR	Range	4-6000Ω
	Resolution	Min.1Ω
	Accuracy	(1/R _{min})*2%: (4~600Ω), (1/R _{min})*5%: (600~6000Ω)
CP	Range	0-800W
	Setup Resolution	0.1W
	Accuracy	<1.0% P _{max}
Dynamic mode	Rising slope	3A/ms
	Falling slope	3A/ms
	Min. rise time	1ms
Input Read-back		
Read-back current	Range	0-3A
	Resolution	0.1mA
	Accuracy	<0.1% I _{max} +0.1%I _{current}
Read-back Voltage	Range	0-600V
	Resolution	10mV
	Accuracy	<0.1% U _{max}
Read-back Resistance	Range	4-6000Ω
	Resolution	4-6000Ω
	Accuracy	(1/R _{min})*2%: (4~600Ω), (1/R _{min})*5%: (600~6000Ω)

Read-back Power	Range	0-800W
	Resolution	0.1W
	Accuracy	<1% Pmax
Temperature Coefficient		
Temperature Coefficient	Voltage Temperature Coefficient	100ppm/°C
	Current Temperature Coefficient	50ppm/°C
Protection range		
OCP		3.1A
OVP		610V
OPP		810W
Short circuit test		
Current		3.3A
External analog (optional)		
Current programming		External 0V~10V is 0~3A
Current monitoring		External 0V~10V is 0~3A
Voltage programming		External 0V~10V is 0~600V
Voltage monitoring		External 0V~10V is 0~600V
AC parameters		
Voltage range		100VAC -240VAC
OVP		264VAC
UVP		90VAC
Frequency		47Hz~63Hz
Max. current (rms)		4Aac (AC220V)
Power factor PF		>0.98 (Lead or Lag)
DC Offset		-0.1A~+0.1A
Harmonic THDI		<5%
Environment		
Working temperature		0-40°C
Storage temperature		-20- 70°C
Noise		60dB
External temperature measurement		
Measurement range		-20°C——120°C
Measurement accuracy		±1°C

Measurement resolution	0.1°C
Efficiency	
Max. efficiency (Full-load)	88%
Communication (Optional)	
Communication interfaces	RS232/USB/RS485/CAN/LAN/GPIB/Analog
Mechanical parameters	
Size and weight	450mm*214mm*43.5mm
Net weight	5kg

Calculation method of resistance precision range in load mode: lower limit: $1/(1/R + (1/R)*0.05 + 0.004)$; Upper limit: $1/(1/R - (1/R)*0.05 - 0.004)$