

LXinstruments GmbH
Rudolf-Diesel-Str. 36
71154 Nufringen
Germany



TECHNICAL PRODUCT INFORMATION

Test & measurement instruments

- high - quality
- moderate prices
- excellent precision

Your contact:

Technical support, services, demo & rental equipment, price information
& quotes, consulting:

Tel.: +49(0)7032 / 895 93-3

Mail: sales@lxinstruments.com

Web: www.lxinstruments.com

Shop: www.lxinstruments.com/shop

Your Power Testing Solution

IT-M3800 Regenerative DC electronic load

	Model	Current	Power	Size
10V	IT-M3801-10-120	3~120A	12~1200W	1U
	IT-M3802-10-240	4~240A	40~2400W	1U
	IT-M3803-10-360	6~360A	60~3600W	1U
	IT-M3807-10-720	12~720A	120~7200W	2U

	Model	Current	Power	Size
80V	IT-M3802-80-40	40A	2kW	1U
	IT-M3804-80-80	80A	4kW	1U
	IT-M3806-80-120	120A	6kW	1U
	IT-M3812-80-240	240A	12kW	2U

	Model	Current	Power	Size
500V	IT-M3802-500-12	12A	2kW	1U
	IT-M3804-500-24	24A	4kW	1U
	IT-M3806-500-36	36A	6kW	1U
	IT-M3812-500-72	72A	12kW	2U

	Model	Current	Power	Size
1500V	IT-M3806-1500-12	12A	6kW	1U
	IT-M3812-1500-24	24A	12kW	2U

	Model	Current	Power	Size
32V	IT-M3802-32-80	80A	2kW	1U
	IT-M3804-32-160	160A	4kW	1U
	IT-M3806-32-240	240A	6kW	1U
	IT-M3812-32-480	480A	12kW	2U

	Model	Current	Power	Size
300V	IT-M3802-300-20	20A	2kW	1U
	IT-M3804-300-40	40A	4kW	1U
	IT-M3806-300-60	60A	6kW	1U
	IT-M3812-300-120	120A	12kW	2U

	Model	Current	Power	Size
800V	IT-M3802-800-8	8A	2kW	1U
	IT-M3804-800-16	16A	4kW	1U
	IT-M3806-800-24	24A	6kW	1U
	IT-M3812-800-48	48A	12kW	2U

*This information is subject to change without notice.

APPLICATION

5G Communications & Data Centre

Server power supply, HVDC power supply
48V rack power supply



Industrial component

Fuse, automotive connector, current sensor



Photovoltaic Energy Storage

MPPT DC-DC power supply, power optimizer



Aging

Power module, wiring harness



Your Power Testing Solution

IT-M3800 Regenerative DC electronic load

Specification

		IT-M3803-10-360	IT-M3806-32-240	IT-M3806-80-120
Input Rating	Voltage	0~10V	0~32V	0~80V
	Current	6A~360A	0~240A	0~120A
	Power	60W~3600W	0~6000W	0~6000W
	Resistance	0.003Ω~1.67Ω	0.005Ω~400Ω	0.01Ω~800Ω
	Min. operation Voltage	0.6V at 360A	0.5V at 240A	0.8V at 120A
	Input leak current	0.03A	0.01A	0.01A
Input Resolution	Voltage	0.001V	0.001V	0.001V
	Current	0.1A	0.01A	0.01A
	Power	0.1W	0.1W	0.1W
	Resistance	0.001Ω	0.001Ω	0.001Ω
Readback Resolution	Voltage	0.001V	0.001V	0.001V
	Current	0.1A	0.01A	0.01A
	Power	1W	1W	1W
Setup Accuracy	Voltage	≤0.05% + 0.05%FS	≤0.05% + 0.05%FS	≤0.03% + 0.03%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
	Power	≤0.5% + 0.5%FS	≤0.5% + 0.5%FS	≤0.5% + 0.5%FS
	Resistance*1	min.: $1/(1/Rset+(1/Rset)*0.1+0.008)$ max.: $1/(1/Rset-(1/Rset)*0.1-0.008)$	min.: $1/(1/Rset+(1/Rset)*0.05+0.0005)$ max.: $1/(1/Rset-(1/Rset)*0.05-0.0005)$	min.: $1/(1/Rset+(1/Rset)*0.05+0.0005)$ max.: $1/(1/Rset-(1/Rset)*0.05-0.0005)$
Readback Accuracy	Voltage	≤0.05% + 0.05%FS	≤0.05% + 0.05%FS	≤0.03% + 0.03%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
	Power	≤0.5% + 0.5%FS	≤0.5% + 0.5%FS	≤0.5% + 0.5%FS
Input Drift Temperature Coefficient	Voltage	≤30ppm/ °C	≤30ppm/ °C	≤30ppm/ °C
	Current	≤50ppm/ °C	≤50ppm/ °C	≤50ppm/ °C
Readback Drift Temperature Coefficient	Voltage	≤30ppm/ °C	≤30ppm/ °C	≤30ppm/ °C
	Current	≤50ppm/ °C	≤50ppm/ °C	≤50ppm/ °C
Dynamic Response Time	Rise speed rate	24A/ms	240A/ms	120A/ms
	Fall speed rate	24A/ms	240A/ms	120A/ms
Power Regulation Rate	Voltage	≤0.01% + 0.01%FS	≤0.01% + 0.01%FS	≤0.01% + 0.01%FS
	Current	≤0.03% + 0.03%FS	≤0.03% + 0.03%FS	≤0.03% + 0.03%FS
Load Regulation Rate	Voltage	≤0.002%*I + 0.05%FS	≤0.02% + 0.02%FS	≤0.01% + 0.01%FS
	Current	≤0.05% + 0.05%FS	≤0.05% + 0.05%FS	≤0.05% + 0.05%FS
Short Circuit	Current	367.2A	244.8A	122.4A
Input Protection Scope	Ocp	375A	247.2A	126A
	Opp	3672W	6120W	6120W
Remote Aense Compensation Voltage		≤2V	≤10V	≤8 V
AC Input *2	Voltage	3phase 200V~480V singel phase 100V~240V	3phase 200V~480V singel phase 100V~240V	3phase 200V~480V singel phase 85V~300V
	Frequency	50/60Hz	50/60Hz	50/60Hz
Max. AC Apparent Power		5.55kVA	6.5kVA	6.5kVA
Max. AC Current		12.5Aac	12.5Aac	12.5Aac
Max. Efficiency		89.0%	90%	92%
Power Factor		0.99	0.99	0.99
Dc Component		≤0.2A	≤0.2A	≤0.2A
Current Harmonic		≤3%	≤3%	≤3%
Working Temperature		0~40 °C	0~40 °C	0~40 °C
Storage Temperature		-10 °C ~70 °C	-10 °C ~70 °C	-10 °C ~70 °C
Programming Response Time		0.1ms	0.1ms	0.1ms
Withstand Voltage (DC to ground)		200Vdc/1min	200Vdc/1min	500Vdc/1min
Withstand Voltage (AC to ground)		3000Vdc/1min	3000Vdc/1min	3000Vdc/1min
Withstand Voltage(AC to DC)		2250Vdc/1min	2250Vdc/1min	2250Vdc/1min
Type Of Cooling		air	air	air
Isolation Voltage		200Vdc	200Vdc	300Vdc

*1 Resistance accuracy -- current / voltage not less than 10%FS

*2 The AC will be limited to 12.5Aac. When the AC input is low, power will be limited. E.g:Three-phase input, line voltage 200Vac, the power is: $P=200Vac*12.5Aac*1.732=4330VA$
Single-phase input, phase voltage 200Vac, the power is: $P=200Vac*12.5Aac=2500VA$

* This information is subject to change without notice.

Your Power Testing Solution

IT-M3800 Regenerative DC electronic load

Specification

		IT-M3806-300-60	IT-M3806-500-36
Input Rating	Voltage	0 ~ 300V	0 ~ 500V
	Current	0 ~ 60A	0 ~ 36A
	Power	0 ~ 6000W	0 ~ 6000W
	Resistance	0.05Ω ~ 3000Ω	0.1Ω ~ 5000Ω
	Min. operation Voltage	3V at 60A	2.5V at 36A
	Input leak current	0.01A	0.003A
Input Resolution	Voltage	0.001V	0.01V
	Current	0.01A	0.001A
	Power	0.1W	1W
	Resistance	0.001Ω	0.01Ω
Readback Resolution	Voltage	0.001V	0.01V
	Current	0.01A	0.001A
	Power	1W	1W
Setup Accuracy	Voltage	≤0.03% + 0.03%FS	≤0.03% + 0.03%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
	Power	≤0.5% + 0.5%FS	≤0.5% + 0.5%FS
	Resistance*1	min.: $1/(1/Rset+(1/Rset)*0.05+0.0001)$ max.: $1/(1/Rset-(1/Rset)*0.05-0.0001)$	min.: $1/(1/Rset+(1/Rset)*0.05+0.0001)$ max.: $1/(1/Rset-(1/Rset)*0.05-0.0001)$
Readback Accuracy	Voltage	≤0.03% + 0.03%FS	≤0.03% + 0.03%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
	Power	≤0.5% + 0.5%FS	≤0.5% + 0.5%FS
Input Drift Temperature Coefficient	Voltage	≤30ppm/°C	≤30ppm/°C
	Current	≤50ppm/°C	≤50ppm/°C
Readback Drift Temperature Coefficient	Voltage	≤30ppm/°C	≤30ppm/°C
	Current	≤50ppm/°C	≤50ppm/°C
Dynamic Response Time	Rise speed rate	60A/ms	36A/ms
	Fall speed rate	60A/ms	36A/ms
Power Regulation Rate	Voltage	≤0.01% + 0.01%FS	≤0.01% + 0.01%FS
	Current	≤0.03% + 0.03%FS	≤0.03% + 0.03%FS
Load Regulation Rate	Voltage	≤0.01% + 0.01%FS	≤0.01% + 0.01%FS
	Current	≤0.05% + 0.05%FS	≤0.05% + 0.05%FS
Short Circuit	Current	62A	36.72A
Input Protection Scope	Ocp	63A	37.5A
	Opp	6120W	6120W
Remote Aense Compensation Voltage		≤10V	≤10V
AC Input *2	Voltage	3phase 200V ~ 480V singel phase 100V ~ 240V	3phase 110V ~ 520V singel phase 85V ~ 300V
	Frequency	50/60Hz	50/60Hz
Max. AC Apparent Power		6.5kVA	6.5kVA
Max. AC Current		12.5Aac	12.5Aac
Max. Efficiency		93%	93%
Power Factor		0.99	0.99
Dc Component		≤0.2A	≤0.2A
Current Harmonic		≤3%	≤3%
Working Temperature		0 ~ 40 °C	0 ~ 40 °C
Storage Temperature		-10 °C ~ 70 °C	-10 °C ~ 70 °C
Programming Response Time		0.1ms	0.1ms
Withstand Voltage (DC to ground)		2000Vdc/1min	2000Vdc/1min
Withstand Voltage (AC to ground)		3000Vdc/1min	3000Vdc/1min
Withstand Voltage(AC to DC)		2250Vdc/1min	2250Vdc/1min
Type Of Cooling		air	air
Isolation Voltage		300Vdc	500Vdc

*1 Resistance accuracy -- current / voltage not less than 10%FS

*2 The AC will be limited to 12.5Aac. When the AC input is low, power will be limited. E.g:Three-phase input, line voltage 200Vac, the power is: $P=200Vac*12.5Aac*1.732=4330VA$
Single-phase input, phase voltage 200Vac, the power is: $P=200Vac*12.5Aac=2500VA$

* This information is subject to change without notice.

Your Power Testing Solution

IT-M3800 Regenerative DC electronic load

Specification

		IT-M3806-800-24	IT-M3806-1500-12
Input Rating	Voltage	0~800V	0~1500V
	Current	0~24A	0~12A
	Power	0~6000W	0~6000W
	Resistance	0.15Ω~7500Ω	0.5Ω~7500Ω
	Min. operation Voltage	4V at 24A	7.5V at 12A
	Input leak current	0.003A	0.003A
Input Resolution	Voltage	0.01V	0.01V
	Current	0.001A	0.001A
	Power	1W	1W
	Resistance	0.01Ω	0.01Ω
Readback Resolution	Voltage	0.01V	0.01V
	Current	0.001A	0.001A
	Power	1W	1W
Setup Accuracy	Voltage	≤0.03% + 0.03%FS	≤0.03% + 0.03%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
	Power	≤0.5% + 0.5%FS	≤0.5% + 0.5%FS
	Resistance *1	min.: 1/(1/Rset+(1/Rset)*0.05+0.0001) max.: 1/(1/Rset-(1/Rset)*0.05-0.0001)	min.: 1/(1/Rset+(1/Rset)*0.05+0.0001) max.: 1/(1/Rset-(1/Rset)*0.05-0.0001)
Readback Accuracy	Voltage	≤0.03% + 0.03%FS	≤0.03% + 0.03%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
	Power	≤0.5% + 0.5%FS	≤0.5% + 0.5%FS
Input Drift Temperature Coefficient	Voltage	≤30ppm/°C	≤30ppm/°C
	Current	≤50ppm/°C	≤50ppm/°C
Readback Drift Temperature Coefficient	Voltage	≤30ppm/°C	≤30ppm/°C
	Current	≤50ppm/°C	≤50ppm/°C
Dynamic Response Time	Rise speed rate	24A/ms	12A/ms
	Fall speed rate	24A/ms	12A/ms
Power Regulation Rate	Voltage	≤0.01% + 0.01%FS	≤0.01% + 0.01%FS
	Current	≤0.03% + 0.03%FS	≤0.03% + 0.03%FS
Load Regulation Rate	Voltage	≤0.01% + 0.01%FS	≤0.01% + 0.01%FS
	Current	≤0.05% + 0.05%FS	≤0.05% + 0.05%FS
Short Circuit	Current	24.48A	12.24A
Input Protection Scope	Ocp	25.2A	12.5A
	Opp	6120W	6120W
Remote Aense Compensation Voltage		≤16V	≤30V
AC Input *2	Voltage	3phase 200V~480V singel phase 100V~240V	3phase 200V~480V singel phase 100V~240V
	Frequency	50/60Hz	50/60Hz
Max. AC Apparent Power		6.5kVA	6.5kVA
Max. AC Current		12.5Aac	12.5Aac
Max. Efficiency		93%	93%
Power Factor		0.99	0.99
Dc Component		≤0.2A	≤0.2A
Current Harmonic		≤3%	≤3%
Working Temperature		0~40°C	0~40°C
Storage Temperature		-10°C~70°C	-10°C~70°C
Programming Response Time		0.1ms	0.1ms
Withstand Voltage (DC to ground)		2000Vdc/1min	2000Vdc/1min
Withstand Voltage (AC to ground)		3000Vdc/1min	3000Vdc/1min
Withstand Voltage(AC to DC)		2250Vdc/1min	2250Vdc/1min
Type Of Cooling		air	air
Isolation Voltage		800Vdc	1500Vdc

*1 Resistance accuracy -- current / voltage not less than 10%FS

*2 The AC will be limited to 12.5Aac. When the AC input is low, power will be limited. E.g:Three-phase input, line voltage 200Vac, the power is: P=200Vac*12.5Aac*1.732=4330VA
Single-phase input, phase voltage 200Vac, the power is: P=200Vac*12.5Aac=2500VA

* This information is subject to change without notice.