



MAXWELLON MXDB

1500V/ 100A/ 8KW

Wide Range Programmable DC Power Supply
2025

MXDB series DC power has a maximum output voltage/current of 1500V/100A, a maximum power of 8KW and a standard 2U/3U chassis for easy mounting. The product has high resolution and high precision, low ripple and low noise, high stability, high reliability and so on.

■ Key Feature

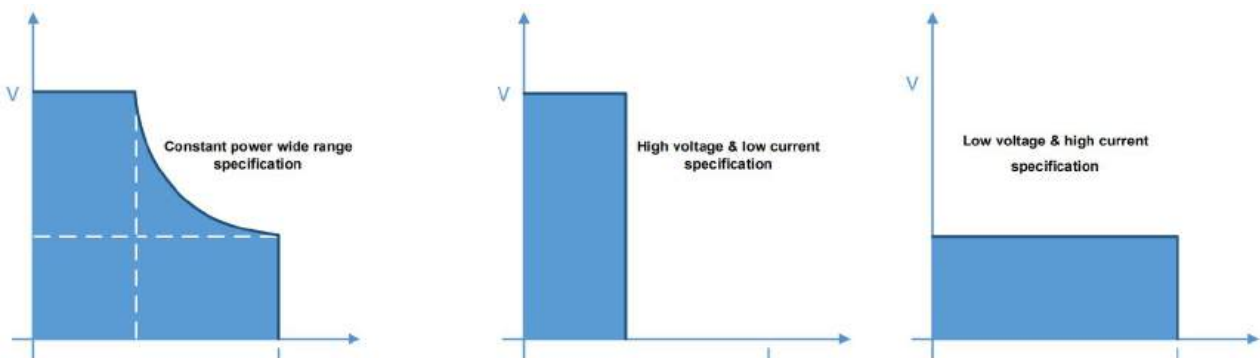
- **Standard 19-inch 2U/3U chassis** with high power density
- **4.3-inch high-brightness TFT display** with a wide viewing angle and high resolution
- High accuracy and resolution up to **1mV/0.1mA**
- **Constant power mode**, offering a wide output voltage and current range
- **CV & CC priority** with adjustable rise/fall time for versatile applications
- **Multiple built-in functions**, including a function generator for dynamic waveforms and a **50-step LIST function**
- **SCOPE display support** for real-time visualization of voltage, current, and power curves
- **128 memory groups** for easy test condition recall and switching
- **Parallel connection support** for expanded current and power output
- **Comprehensive protection features**, including **OVP, OCP, OPP, UVP, UCP, and SCP**
- **Standard interfaces: RS485/CAN; Optional interfaces: dry contact, analog, USB, LAN**
- **Remote voltage compensation support**
- **Temperature-controlled fan** for effective noise reduction

■ Application

- Aerospace Test Photovoltaic
- Energy storage system
- New energy automotive
- Data center
- Industrial motor
- Power semiconductor device
- Automatic test system (ATE)
- Lithium battery, fuel cell electronic
- Equipment aging
- Precision plating, sputtering, surface treatment

Wide Range of automatic measuring range

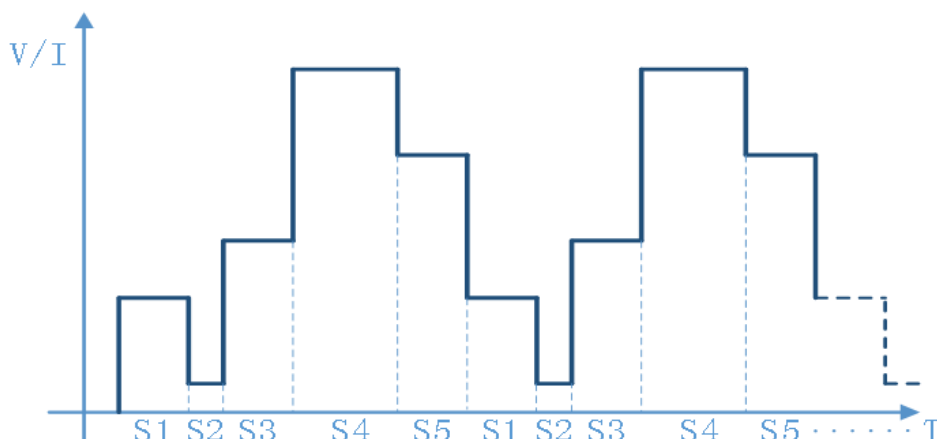
Under constant output power limit, automatic switching of voltage and current range, which can output large voltage when small current, and large current when small voltage, provides a wider output range; A power supply can achieve a variety of voltage and current combination, greatly improving the utilization of power.



APP

1. Step Mode (sequence programming)

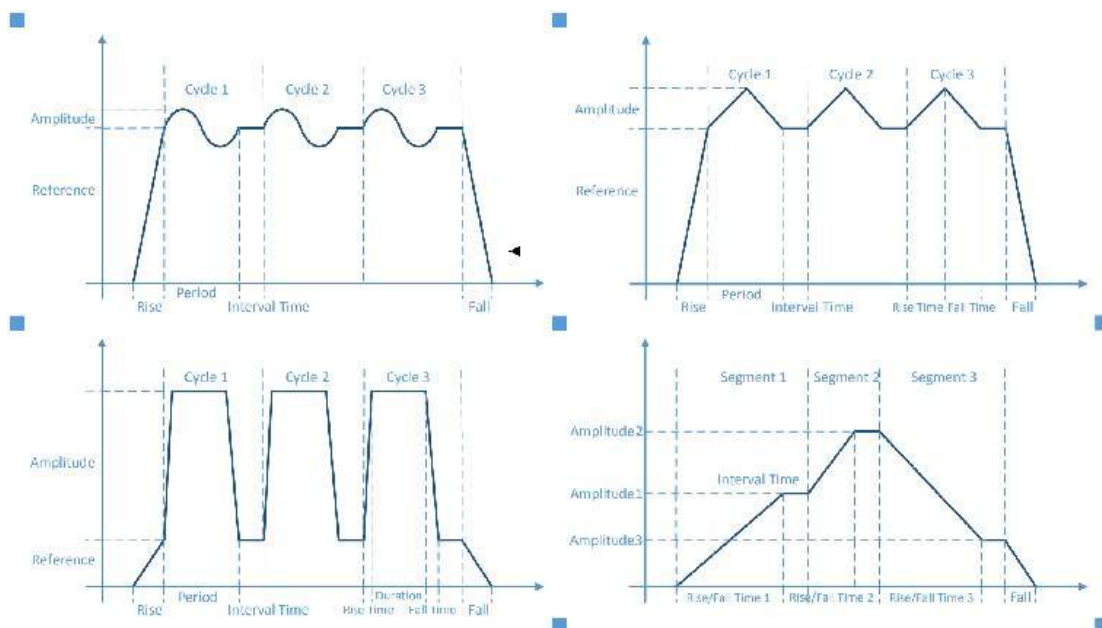
The device supports a maximum of 50 sequences. The user can edit each step function according to the actual needs, and make the device output in constant voltage and constant current mode in sequence to meet the specific test requirements.



2. Charging Mode

Charging mode is suitable for charge and discharge aging test of different electric energy storage media such as lithium battery and capacitor. Set up a maximum of 10 steps to support charging sequence, each step can be independently set voltage/current reference value and judging conditions to determine whether to go to the next step, can simulate the fine charging curve.

3. Function generator mode

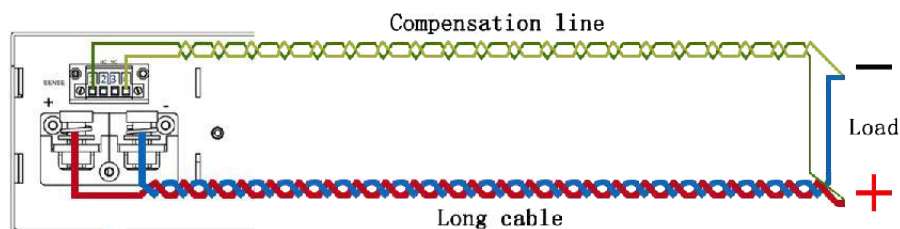


The Function generator mode produces regular waveforms such as sine, triangle, sawtooth, rectangle, pulse and Zigzag, as well as a combination of the above waveforms, and overlays the edited waveforms on top of the output voltage or current. The default function will provide the user with all the necessary parameters, such as the benchmark, the number of cycles, waveform amplitude, time and a complete set of configuration parameters.

Note: the falling waveform part of the waveform needs to be guaranteed by load discharge

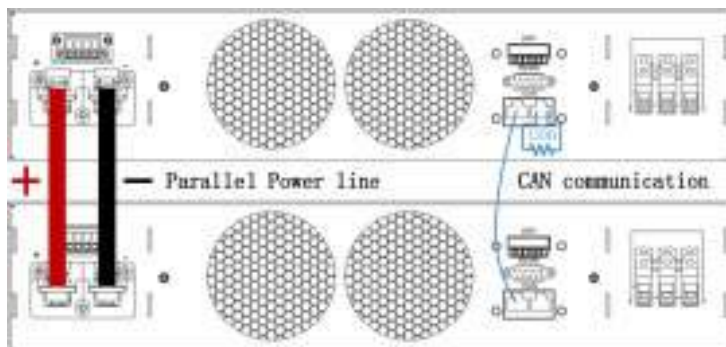
Remote Compensation

This function is used to compensate the voltage drop on the load line to improve the test accuracy. When using the remote compensation function, remove the two short terminals and connect the PIN1 and PIN4 to the load positive and negative Poles (PIN2 and PIN3 suspended) respectively. The maximum compensation voltage is 5% of rated voltage, the output power should be less than 1.05 times of the rated power.



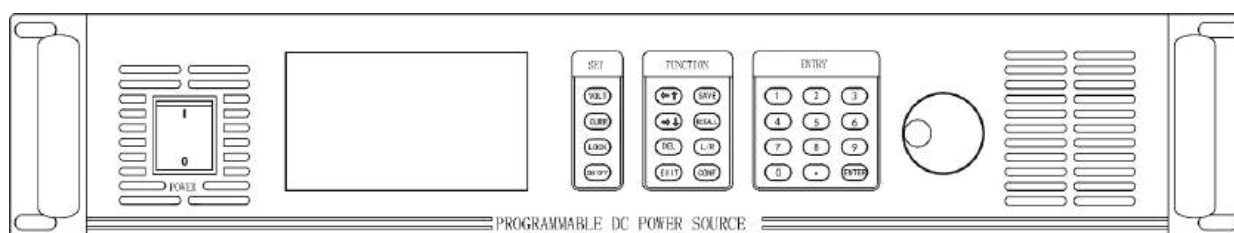
Parallel Function

This series of power supply support master/slave Parallel mode. In parallel mode, the current sharing function equalizes the output power of the power supply in the system, so that the extended power can be guaranteed without affecting the performance of the power supply. CAN parallel mode to achieve the same dynamic response as single machine, to achieve high-speed master-slave synchronous response without delay.



Note:120 ohm is the CAN bus terminal resistor.

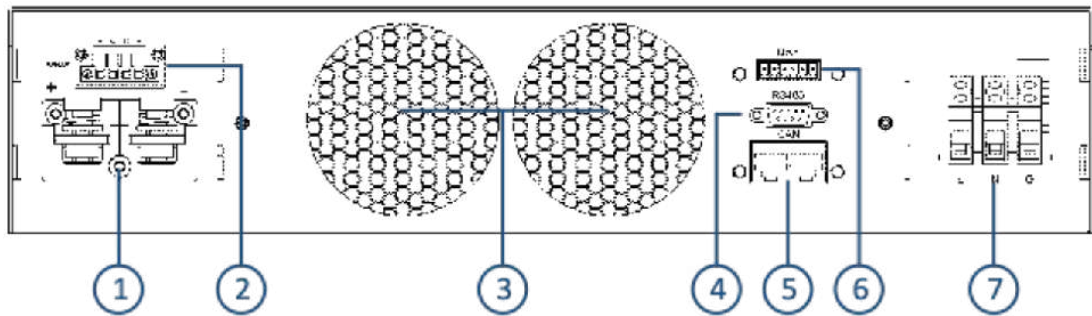
Front Panel



Button	Description
VOLT	Voltage reference set
CURR	Current reference set
VOLT Double Click	Voltage priority switching
CURR Double Click	Current priority switching
VOLT+CURR	Power reference set
LOCK	Lock/Unlock
ON/OFF	Output ON/OFF
←↑	Left/Up shift
→↓	Right/Down shift
DEL	Delete
EXIT	Returns the previous level or exit setting
SAVE	Save current settings

Button	Description	
RECALL	Recall the saved settings	
L/R	local/remote control mode	
CONF	Function Menu	
0~9	Number set	
.	DOT	
ENTER	To Menu/ Confirm input	
	Switch between Main sub-main interface	
Knob	Description	
Press	Menu	
	Confirm Input	
	Home	Single press: Set Voltage
		Double press: Set Current
		Triple press: Set Power
Clockwise rotation	Increase value Up shift	
Anti-Clock rotation	Reduce value Down shift	

Front Panel



No.	Description
1	DC output terminal: RED +, BLACK -
2	Remote voltage compensation
3	Duct outlet (no obstructions within 10 cm)
4	RS485 Interface
5	CAN
6	Dry node/Analog interface
7	AC Input

■ Specifications

Technical Data	1KW/2KW/3KW	6KW/8KW
AC:Supply		
Voltage	1φ220VAC±10%	3φ380VAC±10%
Frequency	50-60Hz	
DC:Voltage		
Accuracy	< 0.1% of rated value	
Load regulation 0-100%	< 0.05% of rated value	
Line regulation ±10% △ U ^{AC}	< 0.05% of rated value	
Regulation 10-100% load	< 5ms	
Slew rate 10-90%	< 20ms-60s	
Voltage compensation	< 5% rated voltage	
Ripple	< 0.1% of rated value	
DC:Current		
Accuracy	< 0.15% of rated value+20mA	
Load regulation 1-100%	< 0.1% of rated value	
Line regulation ±10% △ U ^{AC}	< 0.05% of rated value	
DC:Power		
Accuracy	< 0.3% of rated value	
Protection		
Over Voltage Protection, Over Current Protection, Over Power, Over temperature Protection and so on		
Insulation		
AC input to enclosure	1500VDC	
AC input to DC output	1500VDC	
DC output to enclosure(PE)	Below 300V:500V(PE)	
	Below 1000V:1500V(PE)	
	Below 2000V:2000V(PE)	
Other		
Digital interfaces	RS485/CAN (standard), RS232/USB/LAN (optional)	
Analog interface (optional)	0-10V/4-20mA control power supply voltage/current output	
	0-10V/4-20mA readback power supply voltage/current output	
	Dry contact start/stop	
Cooling	Air cooling	
Operation temperature	-5℃ - 45℃	
Storage temperature	-20℃ - 60℃	
Humidity	< 80%,No condensation	
Dimensions(W*H*D)	325*88*450mm(1KW)	
	425*88*450mm(2KW&3KW)	
	425*132*551.5mm(6KW&8KW)	
Weight	9KG(1KW)	
	14KG(2KW&3KW)	
	25KG(6KW&8KW)	

■ Product selection

Model	Voltage	Current	Power	Interface
MXD1000B-60	60.000V	30.000A	1000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD1000B-100	100.00V	15.000A	1000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD1000B-200	200.00V	8.0000A	1000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD1000B-300	300.00V	5.0000A	1000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD2000B-45	45.000V	100.00A	2000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD2000B-60	60.000V	80.000A	2000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD2000B-80	80.000V	60.000A	2000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD2000B-100	100.00V	45.000A	2000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD2000B-150	150.00V	30.000A	2000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD2000B-200	200.00V	23.000A	2000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD2000B-300	300.00V	15.000A	2000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD2000B-400	400.00V	12.000A	2000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD2000B-500	500.00V	9.0000A	2000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD2000B-600	600.00V	8.0000A	2000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD3000B-45	45.000V	100.00A	3000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD3000B-60	60.000V	80.000A	3000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD3000B-80	80.000V	60.000A	3000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD3000B-100	100.00V	45.000A	3000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD3000B-150	150.00V	30.000A	3000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD3000B-200	200.00V	23.000A	3000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD3000B-300	300.00V	15.000A	3000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD3000B-400	400.00V	12.000A	3000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD3000B-500	500.00V	9.0000A	3000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD3000B-600	600.00V	8.0000A	3000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD6000B-100	100.00V	100.00A	6000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD6000B-150	150.00V	67.000A	6000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD6000B-200	200.00V	50.000A	6000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD6000B-250	250.00V	40.000A	6000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD6000B-300	300.00V	34.000A	6000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD6000B-400	400.00V	25.000A	6000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD6000B-500	500.00V	20.000A	6000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD6000B-600	600.00V	17.000A	6000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD6000B-800	800.00V	12.000A	6000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD6000B-1000	1000.0V	10.000A	6000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD6000B-1200	1200.0V	8.0000A	6000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD6000B-1500	1500.0V	4.0000A	6000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD8000B-100	100.00V	100.00A	8000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD8000B-150	150.00V	67.000A	8000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD8000B-200	200.00V	50.000A	8000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD8000B-250	250.00V	40.000A	8000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD8000B-300	300.00V	34.000A	8000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD8000B-400	400.00V	25.000A	8000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD8000B-500	500.00V	20.000A	8000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD8000B-600	600.00V	17.000A	8000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD8000B-800	800.00V	12.000A	8000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN

Model	Voltage	Current	Power	Interface
MXD8000B-1000	1000.0V	10.000A	8000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD8000B-1200	1200.0V	8.0000A	8000W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN
MXD8000B-1500	1500.0V	5.0000A	7500W	RS485/RS232/Dry Node/Analog/USB/CAN/LAN

Note: the above specifications are subject to update without notice

■ Packing List

1-3KW Standard Accessories

No.	Name	Qty
1	6PIN terminal block	1
2	1.5m input power line	1
3	Product test report	1
4	Certificate	1

6-8KW Standard Accessories

No.	Name	Qty
1	6PIN terminal block	1
2	User operation manual	1
3	Product test report	1
4	Certificate	1

■ Optional Accessories

No.	Name
1	RS485 to USB module
2	Analog interface
3	Rapid discharge module
4	Three phase input line(6-8KW)

Note: Electronic product information (please contact our salesman or agent for information)



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