

Quality&Precise



MAXWELLON MXFL

5000V/ 500A/ 15KW

Precision DC Regulated Power Supply
2025

Maxwellon

1U Half-Width Precision DC Power Supply



The MXFL series features an ultra-thin design, providing enhanced power density and operational efficiency. It incorporates optional active power factor correction (PFC) to reduce reactive power losses. With a wide output voltage and current range, the power supply supports constant voltage (CV), constant current (CC), and constant power (CP) modes with seamless automatic switching. It also supports parallel and series configurations for expanded power output, ensuring greater flexibility in application.

To guarantee reliable operation, the MXFL series is equipped with comprehensive protection mechanisms, including overvoltage protection (OVP), overcurrent protection (OCP), overpower protection (OPP), overtemperature protection (OTP), and short-circuit protection (SCP). A dual-layer hardware and software protection design further enhances system reliability. The power supply supports multiple communication interfaces to accommodate diverse application scenarios. Additionally, it features built-in photovoltaic panel simulation and automotive electronics waveform testing capabilities.

■ Key Feature

- **Standard 1U half-width 19-inch rack-mount chassis**
- **Wide voltage output range:** 0–1000V (higher voltage customization available)
- **Wide current output range:** 0–100A (higher current customization available)
- **High-precision 4.5-digit LCD display** with bilingual (Chinese/English) support
- **Programmable analog input control** for independent voltage and current adjustment (User-selectable: 5V/10V, 4–20mA) [Optional]
- **External ON/OFF control and fault signal output** (Fault state: 5V high level, otherwise low level) [Optional]
- **Advanced programmable output functions** for flexible operation
- **Wide-range remote voltage sensing capability** for precise compensation
- **Dedicated voltage and current monitoring outputs**
- **Comprehensive protection mechanisms** including OVP, OCP, OPP, OTP, and SCP
- **Standard RS232 and RS485 communication interfaces**, with optional LAN and GPIB support; compatible with SCPI and MODBUS protocols
- **Intelligent fan control** for extended lifespan and reduced noise
- **Constant power output mode** [Optional]
- **Master-slave parallel and series operation mode** for power expansion [Optional]

■ Specifications

Input Characteristics		
Input Voltage/Frequency	Single-phase 220VAC ± 10%	
Efficiency	85%–88%	
Power Factor	≤1.5kW (0.99 optional)	
Inrush Current	<5A	
DC Output Characteristics		
Voltage Adjustment Range	0.2% to 100% of the rated output voltage	
Current Adjustment Range	0.2% to 100% of the rated output current	
Constant Voltage Mode		
Maximum Line Regulation	≤0.2% of the rated value	
Maximum Load Regulation	≤0.5% of the rated value	
Time Drift	≤0.5% of the rated value (for continuous operation exceeding 8 hours)	
Temperature Drift	≤0.5% of the rated value per °C	
Ripple (RMS)	≤0.5% of the rated value (FS)	
Output Voltage Response Time (ms)	Rise Time (0 to Rated Value)	<60V: 80ms
		60V–300V: <120ms
		600V: <250ms
	No-Load Drop Time	1U models: 1000ms–5000ms
		2U and 3U models: 3000ms–10s
	Full-Load Drop Time	1U models: 250ms
		2U and 3U models: 500ms
Transient Response Time	The time required for the output voltage to recover to within ±0.5% of the rated value after a sudden change in output current from 10% to 90% of the rated current.	
	Applicable Output Voltage Range: 10%–100% of the rated voltage	
	Response Time	For models with rated voltage ≤100V: ≤8ms For models with rated voltage >100V: ≤10ms
Constant Current Mode		
Maximum Line Regulation	≤0.5% of the rated value (caused by input voltage variation within ±10%–90%)	
Maximum Load Regulation	≤0.5% of the rated value (due to load variation from 10%–90%)	
Time Drift	≤0.5% of the rated value (for continuous operation exceeding 8 hours)	
Temperature Drift	≤0.5% of the rated value per °C	
Ripple (RMS)	≤±0.5% of the rated value (FS)	
Measurement Accuracy		
Voltage Display	4.5-digit LCD, resolution of 1 digit, accuracy ≤0.5% of the rated value (FS)	
Current Display	4.5-digit LCD, resolution of 1 digit, accuracy ≤0.5% of the rated value (FS)	
Analog Programming		
Voltage & Current Programming Accuracy	0–100% of rated output	
	Selectable voltage: 0–5V / 0–10V	
	Accuracy and linearity: ±0.5% of rated output value	
Voltage & Current Readback Accuracy	Selectable monitoring voltage: 0–5V / 0–10V	
	Accuracy: 1%	
Fault Signal Output	4–5V (abnormal), 0V (normal)	
	Output impedance: 200Ω	
Dimensions & Weight		
Dimensions (L × W × H)	360 × 215 × 44 mm (including 10mm foot height)	
	Depth without potentiometer and output terminals: 360mm	
	Depth including potentiometer and output terminals: 390mm	
Gross Weight (including packaging)	7kg	

■ Product selection

Model	Voltage (V)	Current (A)	Power (W)	Input Voltage (VAC)	Interface
MXFL-15-20	15	20	300	Single-phase 220	RS485 (default) / RS232
MXFL-15-30	15	30	450	Single-phase 220	RS485 (default) / RS232
MXFL-15-50	15	50	750	Single-phase 220	RS485 (default) / RS232
MXFL-15-60	15	60	900	Single-phase 220	RS485 (default) / RS232
MXFL-15-80	15	80	1200	Single-phase 220	RS485 (default) / RS232
MXFL-15-100	15	100	1500	Single-phase 220	RS485 (default) / RS232
MXFL-30-10	30	10	300	Single-phase 220	RS485 (default) / RS232
MXFL-30-20	30	20	600	Single-phase 220	RS485 (default) / RS232
MXFL-30-30	30	30	900	Single-phase 220	RS485 (default) / RS232
MXFL-30-40	30	40	1200	Single-phase 220	RS485 (default) / RS232
MXFL-30-50	30	50	1500	Single-phase 220	RS485 (default) / RS232
MXFL-30-60	30	60	1800	Single-phase 220	RS485 (default) / RS232
MXFL-50-30	50	30	1500	Single-phase 220	RS485 (default) / RS232
MXFL-60-25	60	25	1500	Single-phase 220	RS485 (default) / RS232
MXFL-100-5	100	5	500	Single-phase 220	RS485 (default) / RS232
MXFL-100-10	100	10	1000	Single-phase 220	RS485 (default) / RS232
MXFL-100-15	100	15	1500	Single-phase 220	RS485 (default) / RS232
MXFL-120-5	120	5	600	Single-phase 220	RS485 (default) / RS232
MXFL-120-10	120	10	1200	Single-phase 220	RS485 (default) / RS232
MXFL-120-15	120	15	1800	Single-phase 220	RS485 (default) / RS232
MXFL-150-5	150	5	750	Single-phase 220	RS485 (default) / RS232
MXFL-150-10	150	10	1500	Single-phase 220	RS485 (default) / RS232
MXFL-300-5	300	5	1500	Single-phase 220	RS485 (default) / RS232
MXFL-500-3	500	3	1500	Single-phase 220	RS485 (default) / RS232
MXFL-600-2.5	600	2.5	1500	Single-phase 220	RS485 (default) / RS232
MXFL-600-3	600	3	1800	Single-phase 220	RS485 (default) / RS232
MXFL-1000-1	1000	1	1000	Single-phase 220	RS485 (default) / RS232

Note: This model features a compact design, low noise, and is suitable for desktop use. It offers superior performance with high display accuracy, comparable to professional benchtop instruments.

■ Packing List

No.	Name	Qty
1	User Manual	1
2	Certificate of Conformity	1
3	Product Test Report	1
4	Power Input Cable	1

1U Full-Width Model



The MXFL series features an ultra-thin design, offering higher power density and operational efficiency. It incorporates an optional active power factor correction (PFC) to reduce reactive power losses. With a wide output voltage and current range, it ensures stable operation and supports CV/CC/CP triple-loop control with automatic mode switching. The power supply allows for parallel and series expansion, enhancing usability. Equipped with multiple protection modes—OVP, OCP, OPP, OTP, and SCP—it features dual hardware and software protection for reliable performance. Additionally, it supports various communication interfaces for broader application adaptability. Built-in photovoltaic panel simulation and automotive electronics testing waveforms further enhance its functionality.

■ Key Feature

- Standard 1U full-width 19-inch rack-mountable design
- Output voltage range: 0~1000V (higher voltage customization available)
- Output current range: 0~100A (higher current customization available)
- High-precision 4.5-digit LCD display, supports both Chinese and English
- Analog programming input for independent voltage and current control (user-selectable 5V/10V, 4-20mA) [optional]
- External ON/OFF control port and fault signal output (fault: 5V high level; normal: low level) [optional]
- Powerful and flexible programmable output
- Wide-range remote voltage compensation capability
- Supports voltage and current monitoring output
- Comprehensive protection: over-voltage (OVP), over-current (OCP), over-temperature (OTP), etc.
- Standard RS232 and RS485 communication interfaces (optional LAN and GPIB), supporting SCPI and MODBUS protocols
- Intelligent fan control for extended fan lifespan and reduced noise
- Constant power output support [optional]
- Master-slave parallel/series operation mode for expanded output power [optional]

■ Specifications

Input Characteristics		
Input Voltage/Frequency	Single-phase 220VAC ± 10%	
Efficiency	85%–88%	
Power Factor	≤1.5kW (0.99 optional)	
Inrush Current	<5A	
DC Output Characteristics		
Voltage Adjustment Range	0.2% to 100% of the rated output voltage	
Current Adjustment Range	0.2% to 100% of the rated output current	
Constant Voltage Mode		
Maximum Line Regulation	≤0.2% of the rated value	
Maximum Load Regulation	≤0.5% of the rated value	
Time Drift	≤0.5% of the rated value (for continuous operation exceeding 8 hours)	
Temperature Drift	≤0.5% of the rated value per °C	
Ripple (RMS)	≤0.5% of the rated value (FS)	
Output Voltage Response Time (ms)	Rise Time (0 to Rated Value)	<60V: 80ms
		60V–300V: <120ms
		600V: <250ms
	No-Load Drop Time	1U models: 1000ms–5000ms
		2U and 3U models: 3000ms–10s
	Full-Load Drop Time	1U models: 250ms
		2U and 3U models: 500ms
Transient Response Time	The time required for the output voltage to recover to within ±0.5% of the rated value after a sudden change in output current from 10% to 90% of the rated current.	
	Applicable Output Voltage Range: 10%–100% of the rated voltage	
	Response Time	For models with rated voltage ≤100V: ≤8ms
		For models with rated voltage >100V: ≤10ms
Constant Current Mode		
Maximum Line Regulation	≤0.5% of the rated value (caused by input voltage variation within ±10%–90%)	
Maximum Load Regulation	≤0.5% of the rated value (due to load variation from 10%–90%)	
Time Drift	≤0.5% of the rated value (for continuous operation exceeding 8 hours)	
Temperature Drift	≤0.5% of the rated value per °C	
Ripple (RMS)	≤±0.5% of the rated value (FS)	
Measurement Accuracy		
Voltage Display	4.5-digit LCD, resolution of 1 digit, accuracy ≤0.5% of the rated value (FS)	
Current Display	4.5-digit LCD, resolution of 1 digit, accuracy ≤0.5% of the rated value (FS)	
Analog Programming		
Voltage & Current Programming Accuracy	0–100% of rated output	
	Selectable voltage: 0–5V / 0–10V	
	Accuracy and linearity: ±0.5% of rated output value	
Voltage & Current Readback Accuracy	Selectable monitoring voltage: 0–5V / 0–10V	
	Accuracy: 1%	
Fault Signal Output	4–5V (abnormal), 0V (normal)	
	Output impedance: 200Ω	
Dimensions & Weight		
Dimensions (L × W × H)	460*430*44 mm (including 10mm foot height)	
	Depth without potentiometer and output terminals: 460mm	
	Depth including potentiometer and output terminals: 536mm	
Gross Weight (including packaging)	8kg	

■ Product selection

Model	Voltage (V)	Current (A)	Power (W)	Input Voltage (VAC)	Interface
MXFL-15-20	15	20	300	Single-phase 220	RS485 (default) / RS232
MXFL-15-30	15	30	450	Single-phase 220	RS485 (default) / RS232
MXFL-15-50	15	50	750	Single-phase 220	RS485 (default) / RS232
MXFL-15-60	15	60	900	Single-phase 220	RS485 (default) / RS232
MXFL-15-80	15	80	1200	Single-phase 220	RS485 (default) / RS232
MXFL-15-100	15	100	1500	Single-phase 220	RS485 (default) / RS232
MXFL-30-10	30	10	300	Single-phase 220	RS485 (default) / RS232
MXFL-30-20	30	20	600	Single-phase 220	RS485 (default) / RS232
MXFL-30-30	30	30	900	Single-phase 220	RS485 (default) / RS232
MXFL-30-40	30	40	1200	Single-phase 220	RS485 (default) / RS232
MXFL-30-50	30	50	1500	Single-phase 220	RS485 (default) / RS232
MXFL-30-60	30	60	1800	Single-phase 220	RS485 (default) / RS232
MXFL-50-30	50	30	1500	Single-phase 220	RS485 (default) / RS232
MXFL-60-25	60	25	1500	Single-phase 220	RS485 (default) / RS232
MXFL-100-5	100	5	500	Single-phase 220	RS485 (default) / RS232
MXFL-100-10	100	10	1000	Single-phase 220	RS485 (default) / RS232
MXFL-100-15	100	15	1500	Single-phase 220	RS485 (default) / RS232
MXFL-100-20	100	20	2000	Single-phase 220	RS485 (default) / RS232
MXFL-120-5	120	5	600	Single-phase 220	RS485 (default) / RS232
MXFL-120-10	120	10	1200	Single-phase 220	RS485 (default) / RS232
MXFL-120-15	120	15	1800	Single-phase 220	RS485 (default) / RS232
MXFL-150-5	150	5	750	Single-phase 220	RS485 (default) / RS232
MXFL-150-10	150	10	1500	Single-phase 220	RS485 (default) / RS232
MXFL-300-5	300	5	1500	Single-phase 220	RS485 (default) / RS232
MXFL-500-3	500	3	1500	Single-phase 220	RS485 (default) / RS232
MXFL-600-2.5	600	2.5	1500	Single-phase 220	RS485 (default) / RS232
MXFL-600-3	600	3	1800	Single-phase 220	RS485 (default) / RS232
MXFL-1000-1	1000	1	1000	Single-phase 220	RS485 (default) / RS232

- This model is compatible with a 19-inch standard rack, and the bottom footpads can be removed.
- This model can be configured for dual-channel output, which can be independently controlled or linked together. The dual-channel output can have different power ratings.

■ Packing List

No.	Name	Qty
1	User Manual	1
2	Certificate of Conformity	1
3	Product Test Report	1
4	Power Input Cable	1

2U Full-Width Model



The MXFL series features an ultra-thin design, offering higher power density and operational efficiency to meet various high-precision power requirements. It supports Active Power Factor Correction (PFC) (optional) to minimize reactive power loss and ensures stable operation over a wide voltage and current range.

This power supply supports CV (Constant Voltage), CC (Constant Current), and CP (Constant Power) control modes, with automatic mode switching. Additionally, it features parallel/series expansion capabilities, making it ideal for high-power applications. A dual-layer hardware and software protection system ensures operational safety and reliability, with multiple communication interfaces for seamless integration.

The built-in solar panel simulation function and automotive electronics testing waveforms make it suitable for research, industrial testing, and laboratory applications.

■ Key Feature

- Standard 2U full-width 19-inch rack-mounted design, compatible with mainstream cabinets
- Voltage output range: 0~2500V (customizable for higher voltage)
- Current output range: 0~250A (customizable for higher current)
- High-precision 4.5-digit LCD display, supporting English and Chinese interfaces
- Analog programming input function (independently controls voltage and current; 5V/10V, 4-20mA selectable, optional)
- External ON/OFF control port with fault signal output (5V high level indicates fault; low level indicates normal operation, optional)
- Flexible programmable output for complex test scenarios
- Wide-range remote voltage compensation for stable output
- Supports voltage and current monitoring output
- Comprehensive protection features: Overvoltage (OVP), Overcurrent (OCP), Overpower (OPP), Overtemperature (OTP), and Short Circuit Protection (SCP)
- RS232 & RS485 communication interfaces (standard), supporting SCPI and MODBUS protocols (LAN/GPIB optional)
- Intelligent fan control for optimized cooling, reduced noise, and extended fan lifespan
- Supports constant power output (optional)
- Master-slave parallel/series operation mode for expanded output power (optional)

■ Specifications

Input Characteristics		
Input Voltage/Frequency	Single-phase 220VAC ±10% / Three-phase 380VAC ±10%, 50Hz ±10Hz	
Efficiency	85%–88%	
Power Factor	≤1.5kW models: 0.99 (optional), Three-phase input: 0.9	
Inrush Current	<5A	
DC Output Characteristics		
Voltage Adjustment Range	0.2% to 100% of the rated output voltage	
Current Adjustment Range	0.2% to 100% of the rated output current	
Constant Voltage Mode		
Maximum Line Regulation	≤0.2% of the rated value	
Maximum Load Regulation	≤0.5% of the rated value	
Time Drift	≤0.5% of the rated value (for continuous operation exceeding 8 hours)	
Temperature Drift	≤0.5% of the rated value per °C	
Ripple (RMS)	≤0.5% of the rated value (FS)	
Output Voltage Response Time (ms)	Rise Time (0 to Rated Value)	<60V: 80ms
		60V–300V: <120ms
		600V: <250ms
	No-Load Drop Time	1U models: 1000ms–5000ms
		2U and 3U models: 3000ms–10s
	Full-Load Drop Time	1U models: 250ms
		2U and 3U models: 500ms
Transient Response Time	The time required for the output voltage to recover to within ±0.5% of the rated value after a sudden change in output current from 10% to 90% of the rated current.	
	Applicable Output Voltage Range: 10%–100% of the rated voltage	
	Response Time	For models with rated voltage ≤100V: ≤8ms
		For models with rated voltage >100V: ≤10ms
Constant Current Mode		
Maximum Line Regulation	≤0.5% of the rated value (caused by input voltage variation within ±10%–90%)	
Maximum Load Regulation	≤0.5% of the rated value (due to load variation from 10%–90%)	
Time Drift	≤0.5% of the rated value (for continuous operation exceeding 8 hours)	
Temperature Drift	≤0.5% of the rated value per °C	
Ripple (RMS)	≤±0.2% of the rated value (FS)	
Measurement Accuracy		
Voltage Display	4.5-digit LCD, resolution of 1 digit, accuracy ≤0.5% of the rated value (FS)	
Current Display	4.5-digit LCD, resolution of 1 digit, accuracy ≤0.5% of the rated value (FS)	
Analog Programming		
Voltage & Current Programming Accuracy	0–100% of rated output	
	Selectable voltage: 0–5V / 0–10V	
	Accuracy and linearity: ±0.5% of rated output value	
Voltage & Current Readback Accuracy	Selectable monitoring voltage: 0–5V / 0–10V	
	Accuracy: 1%	
Fault Signal Output	4–5V (abnormal), 0V (normal)	
	Output impedance: 200Ω	
Dimensions & Weight		
Dimensions (L × W × H)	450*430*88 mm (including 10mm foot height)	
	Depth without potentiometer and output terminals: 450mm	
	Depth including potentiometer and output terminals: 526mm	
Gross Weight (including packaging)	15kg	

■ Product selection

Model	Voltage (V)	Current (A)	Power (W)	Input Voltage (VAC)	Interface
MXFL-5-300	5	300	1500	Single-phase 220	RS485 (default) / RS232
MXFL-15-200	15	200	3000	Single-phase 220	RS485 (default) / RS232
MXFL-15-250	15	250	3750	Single-phase 220	RS485 (default) / RS232
MXFL-20-250	20	250	5000	Single-phase 220	RS485 (default) / RS232
MXFL-30-100	30	100	3000	Single-phase 220	RS485 (default) / RS232
MXFL-30-150	30	150	4500	Single-phase 220	RS485 (default) / RS232
MXFL-30-170	30	170	5100	Single-phase 220	RS485 (default) / RS232
MXFL-30-200	30	200	6000	Single-phase 220 / Three-phase 380	RS485 (default) / RS232
MXFL-30-250	30	250	7500	Three-phase 380	RS485 (default) / RS232
MXFL-50-60	50	60	3000	Single-phase 220	RS485 (default) / RS232
MXFL-50-80	50	80	4000	Single-phase 220	RS485 (default) / RS232
MXFL-50-100	50	100	5000	Single-phase 220	RS485 (default) / RS232
MXFL-50-120	50	120	6000	Single-phase 220 / Three-phase 380	RS485 (default) / RS232
MXFL-50-150	50	150	7500	Three-phase 380	RS485 (default) / RS232
MXFL-60-50	60	50	3000	Single-phase 220	RS485 (default) / RS232
MXFL-60-60	60	60	3600	Single-phase 220	RS485 (default) / RS232
MXFL-60-80	60	80	4800	Single-phase 220	RS485 (default) / RS232
MXFL-60-100	60	100	6000	Single-phase 220 / Three-phase 380	RS485 (default) / RS232
MXFL-60-120	60	120	7200	Three-phase 380	RS485 (default) / RS232
MXFL-80-38	80	38	3040	Single-phase 220	RS485 (default) / RS232
MXFL-80-62	80	62	4960	Single-phase 220	RS485 (default) / RS232
MXFL-100-20	100	20	2000	Single-phase 220	RS485 (default) / RS232
MXFL-100-30	100	30	3000	Single-phase 220	RS485 (default) / RS232
MXFL-100-50	100	50	5000	Single-phase 220	RS485 (default) / RS232
MXFL-100-60	100	60	6000	Single-phase 220 / Three-phase 380	RS485 (default) / RS232
MXFL-120-20	120	20	2400	Single-phase 220	RS485 (default) / RS232
MXFL-120-30	120	30	3600	Single-phase 220	RS485 (default) / RS232
MXFL-120-40	120	40	4800	Single-phase 220	RS485 (default) / RS232
MXFL-120-50	120	50	6000	Single-phase 220 / Three-phase 380	RS485 (default) / RS232
MXFL-120-60	120	60	7200	Three-phase 380	RS485 (default) / RS232
MXFL-150-20	150	20	3000	Single-phase 220	RS485 (default) / RS232
MXFL-150-30	150	30	4500	Single-phase 220	RS485 (default) / RS232
MXFL-150-40	150	40	6000	Single-phase 220 / Three-phase 380	RS485 (default) / RS232
MXFL-150-50	150	50	7500	Three-phase 380	RS485 (default) / RS232
MXFL-200-15	200	15	3000	Single-phase 220	RS485 (default) / RS232
MXFL-200-25	200	25	5000	Single-phase 220	RS485 (default) / RS232
MXFL-300-15	300	15	4500	Single-phase 220	RS485 (default) / RS232
MXFL-300-17	300	17	5100	Single-phase 220	RS485 (default) / RS232
MXFL-300-20	300	20	6000	Single-phase 220 / Three-phase 380	RS485 (default) / RS232
MXFL-150-50	150	50	7500	Three-phase 380	RS485 (default) / RS232
MXFL-200-15	200	15	3000	Single-phase 220	RS485 (default) / RS232
MXFL-200-25	200	25	5000	Single-phase 220	RS485 (default) / RS232
MXFL-300-15	300	15	4500	Single-phase 220	RS485 (default) / RS232
MXFL-300-17	300	17	5100	Single-phase 220	RS485 (default) / RS232
MXFL-300-20	300	20	6000	Single-phase 220 / Three-phase 380	RS485 (default) / RS232
MXFL-400-8	400	8	3200	Single-phase 220	RS485 (default) / RS232

Model	Voltage (V)	Current (A)	Power (W)	Input Voltage (VAC)	Interface
MXFL-600-5	600	5	3000	Single-phase 220	RS485 (default) / RS232
MXFL-600-8	600	8	4800	Single-phase 220	RS485 (default) / RS232
MXFL-600-10	600	10	6000	Single-phase 220 / Three-phase 380	RS485 (default) / RS232
MXFL-900-5	900	5	4500	Single-phase 220	RS485 (default) / RS232
MXFL-900-8	900	8	7200	Three-phase 380	RS485 (default) / RS232
MXFL-1000-2	1000	2	2000	Single-phase 220	RS485 (default) / RS232
MXFL-1000-3	1000	3	3000	Single-phase 220	RS485 (default) / RS232
MXFL-1000-5	1000	5	5000	Single-phase 220	RS485 (default) / RS232
MXFL-1200-4	1200	4	4800	Single-phase 220	RS485 (default) / RS232
MXFL-1200-5	1200	5	6000	Single-phase 220 / Three-phase 380	RS485 (default) / RS232
MXFL-1500-3	1500	3	4500	Single-phase 220	RS485 (default) / RS232
MXFL-1500-5	1500	5	7500	Three-phase 380	RS485 (default) / RS232
MXFL-2000-1	2000	1	2000	Single-phase 220	RS485 (default) / RS232
MXFL-2000-2	2000	2	4000	Single-phase 220	RS485 (default) / RS232
MXFL-2000-2.5	2000	2.5	5000	Single-phase 220	RS485 (default) / RS232
MXFL-2000-3	2000	3	6000	Three-phase 380	RS485 (default) / RS232
MXFL-2500-2	2500	2	5000	Single-phase 220	RS485 (default) / RS232
MXFL-2500-3	2500	3	7500	Three-phase 380	RS485 (default) / RS232

- This model is compatible with a 19-inch standard rack, and the bottom foot pads can be removed.
- The maximum power for 380V input is 7KW; for 220V input, the maximum is 5KW. Models with 6KW power on a 220V input require a 3U chassis.

■ Packing List

No.	Name	Qty
1	User Manual	1
2	Certificate of Conformity	1
3	Product Test Report	1
4	Power Input Cable (Standard configuration applies to models with power ratings below 3KW)	1

3U Full-Width Rack Power Supply



The MXFL Series features an ultra-thin 3U full-width 19-inch rack design, offering higher power density and improved operational efficiency. With optional active Power Factor Correction (PFC), it minimizes reactive power losses. The unit ensures stable operation across a wide output voltage and current range, supporting CV/CC/CP triple operating modes with automatic switching. The system supports parallel and series expansion, making it highly flexible and convenient for various applications.

Equipped with comprehensive protection mechanisms including OVP, OCP, OPP, OTP, and SCP, and featuring both software and hardware protection, the power supply ensures reliable performance. Multiple communication interfaces are supported to meet diverse usage needs. The system also includes built-in photovoltaic (PV) panel simulation functionality and automotive electronics waveform testing.

■ Key Feature

- Standard 3U full-width 19-inch rack design
- Output voltage range: 0–6000V (higher voltage options available upon request)
- Output current range: 0–500A (higher current options available upon request)
- High-precision 4.5-digit LCD display, supports both English and Chinese
- Optional analog programming input for voltage/current control (selectable 5V/10V, 4–20mA)
- Optional external ON/OFF control port and fault signal output (fault = 5V high level, otherwise low)
- Powerful and flexible programmable output functions
- Wide-range remote voltage compensation capability
- Supports voltage and current monitoring outputs
- Comprehensive protection: OVP, OCP, OTP, and more
- Standard RS232 and RS485 communication interfaces (LAN, GPIB optional), supports SCPI and MODBUS protocols
- Intelligent fan control for longer fan lifespan and lower noise
- Optional constant power output mode
- Optional master-slave parallel/series operation mode for output power expansion

■ Specifications

Input Characteristics		
Input Voltage/Frequency	Single-phase 220Vac ±10% / Three-phase 380Vac ±10%, 50Hz ±10Hz	
Efficiency	85%–88%	
Power Factor	0.9	
Inrush Current	<5A	
DC Output Characteristics		
Voltage Adjustment Range	0.2% to 100% of the rated output voltage	
Current Adjustment Range	0.2% to 100% of the rated output current	
Constant Voltage Mode		
Maximum Line Regulation	≤0.2% of the rated value	
Maximum Load Regulation	≤0.5% of the rated value	
Time Drift	≤0.5% of the rated value (for continuous operation exceeding 8 hours)	
Temperature Drift	≤0.5% of the rated value per °C	
Ripple (RMS)	≤0.5% of the rated value (FS)	
Output Voltage Response Time (ms)	Rise Time (0 to Rated Value)	<60V: 80ms
		60V–300V: <120ms
		600V: <250ms
	No-Load Drop Time	1U models: 1000ms–5000ms
		2U and 3U models: 3000ms–10s
	Full-Load Drop Time	1U models: 250ms
		2U and 3U models: 500ms
Transient Response Time	The time required for the output voltage to recover to within ±0.5% of the rated value after a sudden change in output current from 10% to 90% of the rated current.	
	Applicable Output Voltage Range: 10%–100% of the rated voltage	
	Response Time	For models with rated voltage ≤100V: ≤8ms
		For models with rated voltage >100V: ≤10ms
Constant Current Mode		
Maximum Line Regulation	≤0.5% of the rated value (caused by input voltage variation within ±10%–90%)	
Maximum Load Regulation	≤0.5% of the rated value (due to load variation from 10%–90%)	
Time Drift	≤0.5% of the rated value (for continuous operation exceeding 8 hours)	
Temperature Drift	≤0.5% of the rated value per °C	
Ripple (RMS)	≤±0.5% of the rated value (FS)	
Measurement Accuracy		
Voltage Display	4.5-digit LCD, resolution of 1 digit, accuracy ≤0.5% of the rated value (FS)	
Current Display	4.5-digit LCD, resolution of 1 digit, accuracy ≤0.5% of the rated value (FS)	
Analog Programming		
Voltage & Current Programming Accuracy	0–100% of rated output	
	Selectable voltage: 0–5V / 0–10V	
	Accuracy and linearity: ±0.5% of rated output value	
Voltage & Current Readback Accuracy	Selectable monitoring voltage: 0–5V / 0–10V	
	Accuracy: 1%	
Fault Signal Output	4–5V (abnormal), 0V (normal)	
	Output impedance: 200Ω	
Dimensions & Weight		
Dimensions (L × W × H)	520*430*132 mm (including 10mm foot height)	
	Depth without potentiometer and output terminals: 520mm	
	Depth including potentiometer and output terminals: 57-mm	
Gross Weight (including packaging)	25kg	

■ Product selection

Model	Voltage (V)	Current (A)	Power (W)	Input Voltage (VAC)	Interface
MXFL-10-500	10	500	5000	Single-phase 220	RS485 (default) / RS232
MXFL-15-300	15	300	4500	Single-phase 220	RS485 (default) / RS232
MXFL-15-500	15	500	7500	Three-phase 380	RS485 (default) / RS232
MXFL-20-300	20	300	6000	Single-phase 220 / 3-phase 380	RS485 (default) / RS232
MXFL-20-500	20	500	10000	Three-phase 380	RS485 (default) / RS232
MXFL-30-200	30	200	6000	Single-phase 220 / 3-phase 380	RS485 (default) / RS232
MXFL-30-250	30	250	7500	Three-phase 380	RS485 (default) / RS232
MXFL-30-500	30	500	15000	Three-phase 380	RS485 (default) / RS232
MXFL-50-120	50	120	6000	Single-phase 220 / 3-phase 380	RS485 (default) / RS232
MXFL-50-150	50	150	7500	Three-phase 380	RS485 (default) / RS232
MXFL-50-200	50	200	10000	Three-phase 380	RS485 (default) / RS232
MXFL-60-100	60	100	6000	Single-phase 220 / 3-phase 380	RS485 (default) / RS232
MXFL-60-120	60	120	7200	Three-phase 380	RS485 (default) / RS232
MXFL-60-150	60	150	9000	Three-phase 380	RS485 (default) / RS232
MXFL-60-200	60	200	12000	Three-phase 380	RS485 (default) / RS232
MXFL-90-80	90	80	7200	Three-phase 380	RS485 (default) / RS232
MXFL-90-100	90	100	9000	Three-phase 380	RS485 (default) / RS232
MXFL-90-150	90	150	13500	Three-phase 380	RS485 (default) / RS232
MXFL-100-80	100	80	8000	Three-phase 380	RS485 (default) / RS232
MXFL-100-100	100	100	10000	Three-phase 380	RS485 (default) / RS232
MXFL-100-150	100	150	15000	Three-phase 380	RS485 (default) / RS232
MXFL-120-60	120	60	7200	Three-phase 380	RS485 (default) / RS232
MXFL-120-80	120	80	9600	Three-phase 380	RS485 (default) / RS232
MXFL-120-100	120	100	12000	Three-phase 380	RS485 (default) / RS232
MXFL-120-120	120	120	14400	Three-phase 380	RS485 (default) / RS232
MXFL-150-50	150	50	7500	Three-phase 380	RS485 (default) / RS232
MXFL-150-60	150	60	9000	Three-phase 380	RS485 (default) / RS232
MXFL-150-80	150	80	12000	Three-phase 380	RS485 (default) / RS232
MXFL-150-100	150	100	15000	Three-phase 380	RS485 (default) / RS232
MXFL-300-20	300	20	6000	Single-phase 220 / 3-phase 380	RS485 (default) / RS232
MXFL-300-30	300	30	9000	Three-phase 380	RS485 (default) / RS232
MXFL-600-8	600	8	4800	Single-phase 220	RS485 (default) / RS232
MXFL-600-10	600	10	6000	Single-phase 220 / 3-phase 380	RS485 (default) / RS232
MXFL-600-15	600	15	9000	Three-phase 380	RS485 (default) / RS232
MXFL-800-10	800	10	8000	Three-phase 380	RS485 (default) / RS232
MXFL-900-10	900	10	9000	Three-phase 380	RS485 (default) / RS232
MXFL-900-15	900	15	13500	Three-phase 380	RS485 (default) / RS232
MXFL-1000-8	1000	8	8000	Three-phase 380	RS485 (default) / RS232
MXFL-1000-10	1000	10	10000	Three-phase 380	RS485 (default) / RS232
MXFL-1200-10	1200	10	12000	Three-phase 380	RS485 (default) / RS232
MXFL-2000-5	2000	5	10000	Three-phase 380	RS485 (default) / RS232
MXFL-2500-4	2500	4	10000	Three-phase 380	RS485 (default) / RS232
MXFL-3000-1	3000	1	3000	Three-phase 380	RS485 (default) / RS232
MXFL-4000-1	4000	1	4000	Three-phase 380	RS485 (default) / RS232
MXFL-5000-0.5	5000	0.5	2500	Three-phase 380	RS485 (default) / RS232

- This model is compatible with standard 19-inch racks. The rubber feet at the bottom of the power supply can be removed for rack installation.
- For power ratings 6 kW and below, both single-phase and three-phase input options are available.
- For power ratings above 6 kW, three-phase input is required.

■ Packing List

No.	Name	Qty
1	User Manual	1
2	Certificate of Conformity	1
3	Product Test Report	1



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