M100

MICRO DRIVE

1-ph/200Vac - 0.4kW ~ 22kW

HmT

LS ELECTRIC

Features

LS Electric M100 Drive

The LS Electric M100 drive is a compact variable frequency drive, designed to control the speed and torque of electric motors in various applications. As a VFD, the M100 drive converts the incoming fixed-frequency AC power from the electrical grid into adjustable frequency and voltage output to the motor. By varying the frequency and voltage supplied to the motor, the M100 drive can regulate the motor's rotational speed, allowing for precise control over the driven equipment.

Space

By adopting a compact product design and facilitating a side-by-side installation of the Din Rail, we have significantly improved space efficiency. This thoughtful engineering allows you to make the most out of your available space while maintaining a clutter-free and organized setup. Furthermore, we have incorporated an Rj45 port into the product, providing you with seamless network connectivity options. Whether you are dealing with limited space or simply seeking a streamlined solution, our innovative design ensures that you can optimize your space utilization without compromising on functionality or connectivity

Built-in EMC Filter

The LS Electric M100 addresses electromagnetic interference (EMI) challenges by incorporating a high-performance C2 EMC filter directly into its design, effectively minimizing conducted electromagnetic interference and ensuring smooth and reliable operation, even in noisy environments. Additionally, the M100 adheres to a new UL standard, undergoing rigorous testing to meet top industry benchmarks for safety and performance, further enhancing its reliability and safety

Dual I/O flexibility

The device comes in two I/O types, standard and advanced, offering flexibility for different applications. It includes a frequently used parameter group for easy access to commonly used settings, along with a built-in potentiometer, allowing manual adjustments without external controls. Additionally, the parameter copier facilitates quick duplication of configurations across multiple devices, while the remote keypad option enables convenient remote operation for enhanced accessibility and safety. These features collectively enhance user convenience and application adaptability, making it a versatile and efficient choice for industrial and automation settings.

Din rail mountable

Intended Use

The device finds wide applicability across various industries and machinery types. It is well-suited for use in small unit machinery like lens grinders, spinning wheels, and other similar applications. Additionally, it proves highly efficient in refrigerant compressors, air conditioners, and refrigerators, ensuring optimal performance and control. In the IAQ (Indoor Air Quality) sector, the device plays a vital role, contributing to improved air quality management. Moreover, it excels in cargo terminal transfer lines, particularly in conveyor systems, facilitating smooth and reliable material handling. Finally, it demonstrates its effectiveness in fans and pumps, offering reliable control and enhanced operational efficiency across different setups and industries.

Side-by-side installation (2mm between drives)

Features

Control

Control Mode	V/F, Slip compensation, simple sensorless
Frequency Setting Resolution	Digital command: 0.01Hz Analog command: 0.06Hz/60Hz
Frequency Setting Level	1% of Max. Output frequency
V/F Pattern	Linear, Square-law torque reduction, user V/F
Overload Capacity	Rated current: 150% 1 minute
Torque Boost	Passive torque boost, Auto torque boost

Operation

Operation Mode	Keypad/Terminal/Communication	
Frequency Setting	Analog: V10~10(V), 12(Advanced I/O) 0~20 (mA) Digital: Keypad	
Operation Function	• Forward/Reverse rotation prevention • Frequency jump • Frequency limit • DC brake • Jog operation • Up-down operation • 3-wire operation	• Dwell operation • Slip compensation • PID control • Energy saving operation • Speed search • Auto restart

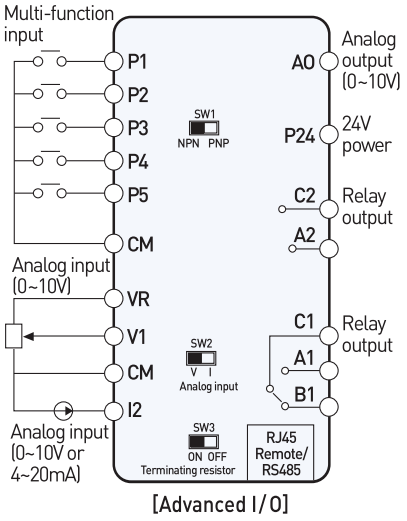
Environment

Ambient Temperature *1)	-10~50°C, Ambient temperature under the condition of no ice or frost
Ambient Humidity	Relative humidity less than 95% RH (to avoid condensation forming)
Storage Temperature	-20~65°C (-4~149°F)
Surrounding Environment	Prevent contact with corrosive gases, inflammable gases, oil stains, dust and other pollutants (Pollution degree 2 environment)
Altitude/Oscillation	Below 1,000 meter, below 9.8 meter/sec2(1G)
Pressure	70~106kPa

*1) 0.1~0.2kW products can be operated at a maximum of 50°C. However, the life span of the may be reduced when continuously with a full load when the ambient temperature exceeds 40°C

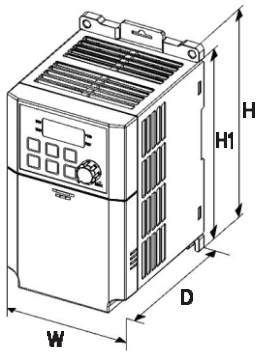
Specifications

I/O Configuration



[Advanced I/O]

Dimensions



mm (inch)

	W	H1	H	D
0004M100-1 0008M100-1	85 (3.34)	153 (6.02)	163 (6.42)	123 (4.84)
0015M100-1 0022M100-1	100 (3.94)	180 (7.08)	190 (7.48)	140 (5.51)

LSLV | 0008 | M100 — 1 | E | 0 | F | N | S

- **Rated Motor**: 0001 : 0.4kW ~ 0022:2.2kW
- **Series Name**: M100
- **Input Voltage**: 1 : 1 Phase 200 ~ 240V
- **Keypad**: E : LED Keypad
- **UL Type**: 0 : UL Open (IP20)
- **EMC Filter**: F : Built-in EMC (C2)
- **Reactor**: N : Non Reactor
- **I/O**: S : Standard I/O; A : Advanced I/O

LSLVM100-EOFN			0004	0008	0015	0022
Applied Motor	Heavy Duty	HP	0.5	1.0	2.0	3.0
		kW	0.4	0.75	1.5	2.2
Rated Output		Rated Capacity (kVA)	0.95	1.9	3.0	4.5
		Rated Current (A)	2.4	4.2	7.5	10.0
		Frequency (Hz)	0-400Hz			
		Voltage (V)	3 phase 200-240V			
Rated Input		Rated Current (A)	3.7	7.1	13.6	18.7
		Frequency (Hz)	50-60Hz (+/- 5%)			
		Voltage (V)	1 phase 200-240Vac (-15% to +10%)			
Cooling Type			Forced fan cooling			
Weight (kg)			1	1	1.45	1.45

HmT

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