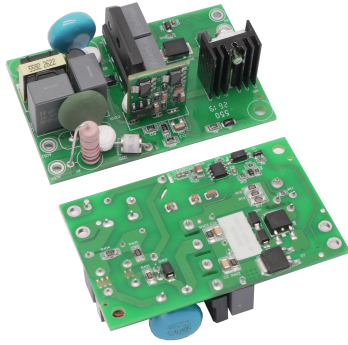


225A Magnetolectric Controller



RoHS



FEATURE

- Wide voltage input range: 170- 550VAC/VDC
- Operating temperature range: -40℃ to +70℃
- High reliability: 1200 times/h no-load switching Frequency
- Low Input Holding Power: 5W (Typ.)
- Customization available

KM225-C500-SF is a control module specially designed by MORNSUN for contactors. It requires only one type of coil and is compatible with multiple contactor models. It features low power consumption, small size, low cost, high reliability, and strong anti-dropout capability. The product is safe and reliable, with stable pick-up performance, wide input voltage range, and universal compatibility with both AC and DC inputs. It is widely used in various contactor energy-saving retrofits and next-generation wide-input voltage contactors.

Selection Guide

Part No.	Rated Input Voltage	Contactor Rated Operational Current (A)	Control Voltage Range
KM225-C500-SF	380VAC	225	170-550VAC/VDC

Input Specifications

Item	Operating Conditions	Min.	Typ.	Max.	Unit
Input Voltage Range	AC/DC input	170	380	550	VAC/VDC
Input Voltage Frequency	AC Input	47	--	63	Hz
Input Holding VA Value	380VAC input	--	15	20	VA
Input Holding Power		--	5	6.5	W

Operating Specifications

Item	Operating Conditions	Min.	Typ.	Max.	Unit
Minimum Operating Voltage	Reduce the voltage during startup until the contactor fails to pull in	--	--	170	VAC/VDC
Release Voltage	Gradually reduce the input voltage until the contacts open	--	--	150	
Operating Current	Full temperature range, full voltage range	1.3	2.0	--	A
Hold-in Current		0.08	0.2	--	
Start-up Delay Time			--	60	140
Turn-off Delay Time	380VAC/VDC	--	35	60	
No-load Switching Frequency	25°C, 550VAC	1200 times/h			
	70°C, 550VAC	600 times/h			
	-40°C, 170VDC	1200 times/h			

General Specifications

Item	Operating Conditions	Min.	Typ.	Max.	Unit
Operating Temperature		-40	--	+70	℃
Storage Temperature		-40	--	+85	
Storage Humidity	Non-condensing	--	--	95	%RH
MTBF	MIL-HDBK-217F@25℃	≥300,000 h			

Mechanical Specifications

Dimension	71.50 x 46.00 x 28.50mm
Weight	47g (Typ.)
Cooling Method	Free air convection

Electromagnetic Compatibility (EMC)

EMI	CE	CISPR32/EN55032	CLASS A	
	RE	CISPR32/EN55032	CLASS A	
EMS	ESD	IEC/EN61000-4-2	Contact $\pm 4\text{kV}$ / Air $\pm 8\text{kV}$	Perf. Criteria A
	RS	IEC/EN61000-4-3	10V/m	Perf. Criteria A
	EFT	IEC/EN61000-4-4	$\pm 2\text{kV}$	Perf. Criteria A
	Surge	IEC/EN61000-4-5	Line to line $\pm 1\text{kV}$	Perf. Criteria A
	CS	IEC/EN61000-4-6	10Vr.m.s	Perf. Criteria A
	Voltage dip*	IEC/EN61000-4-11	70% U_n , 25/30 cycle (50/60Hz)	Perf. Criteria A

Note: * U_n denotes the maximum nominal input voltage.

Design Reference

1. Typical application

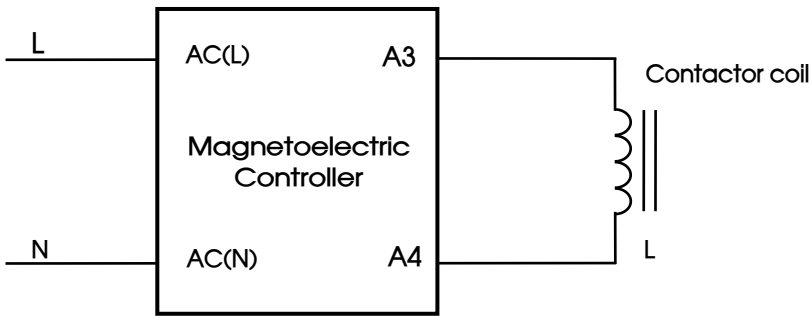
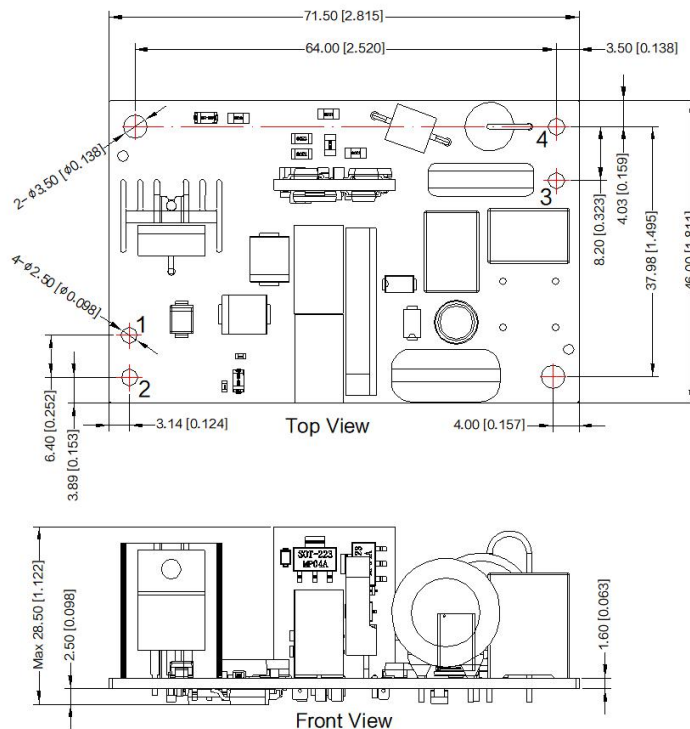


Fig. 1 Typical application

Note: Hot plug is unavailable.

Dimensions and Recommended Layout



THIRD ANGLE PROJECTION

Pin-Out	
Pin	Mark
1	A4
2	A3
3	AC(L)
4	AC(N)

Note:
Unit: mm[inch]
General tolerances: $\pm 0.50[\pm 0.02]$
The layout of the device is for reference only,
please refer to the actual product

Note:

- For additional information on Product Packaging please refer to www.mornsun-power.com. Packaging bag number: 58220017;
- Unless otherwise specified, parameters in this datasheet were measured under the conditions of $T_a=25^{\circ}\text{C}$, humidity<75%RH with nominal input voltage;
- All index testing methods in this datasheet are based on company corporate standards;
- We can provide product customization service, please contact our technicians directly for specific information;
- Products are related to laws and regulations: see "Features" and "EMC";
- The Magnetolectric Controller should be considered as a part of the contactor, all EMC tests need to be confirmed with the contactor. For guidance on EMC test operation, please consult our FAE;
- Our products shall be classified according to ISO14001 and related environmental laws and regulations, and shall be handled by qualified units.

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