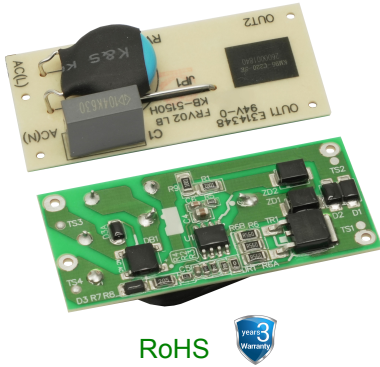


95A Magnetolectric Controller



FEATURE

- Contactor wide voltage energy-saving special control module
- Wide voltage input range: 90- 275VAC/VDC
- Operating temperature range: -40°C to +70°C
- High reliability: 1200 times/h no-load switching Frequency
- Low Input Holding Power: 2.5W (Typ.)
- Customization available

KM95-C220-SE is a control module specifically 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-trip capability. The product is safe and reliable, with stable pull-in performance, a wide input voltage range, and universal AC/DC compatibility. It is widely used in various energy-saving retrofits for contactors and new-generation wide-voltage input contactors.

Selection Guide

Part No.	Rated Input Voltage	Contactor Rated Operational Current (A)	Control Voltage Range
KM95-C220-SE	220VAC	95	90-275VAC/VDC

Input Specifications

Item	Operating Conditions	Min.	Typ.	Max.	Unit
Input Voltage Range	AC/DC input	90	--	275	VAC/VDC
Input Voltage Frequency	AC input	47	--	63	Hz
Input Holding Power	220VAC input, full temperature range	--	2.5	3.5	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	--	--	90	VAC/VDC
Release Voltage	Gradually reduce the input voltage until the contacts open	--	--	70	
Operating Current	Full temperature range, full voltage range	1.6	2.1	--	A
Hold-in Current		0.1	0.15	--	
Start-up Delay Time	Full temperature range, 220VAC/VDC	--	50	100	ms
Turn-off Delay Time		--	150	170	
No-load Switching Frequency	25°C, 220VAC	1200 times/h			
	70°C, 220VAC	1200 times/h			
	-40°C, 220VAC	600 times/h			

General Specifications

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

Mechanical Specifications

Dimension	52.00 x 22.90 x 15.70mm
Weight	6.8g (Typ.)
Cooling Method	Free air convection

Electromagnetic Compatibility (EMC)

EMS	ESD	IEC/EN61000-4-2	Contact ±4kV/ Air ±8kV	perf. Criteria A
	RS	IEC/EN61000-4-3	10V/m	perf. Criteria A
	EFT	IEC/EN61000-4-4	±2kV	perf. Criteria A
	Surge	IEC/EN61000-4-5	Line to line ±2kV	perf. Criteria A
	CS	IEC/EN61000-4-6	10Vr.m.s	perf. Criteria A

Design Reference

1. Typical application

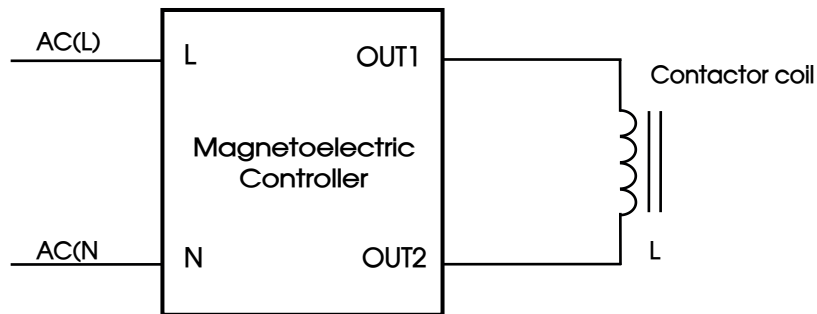


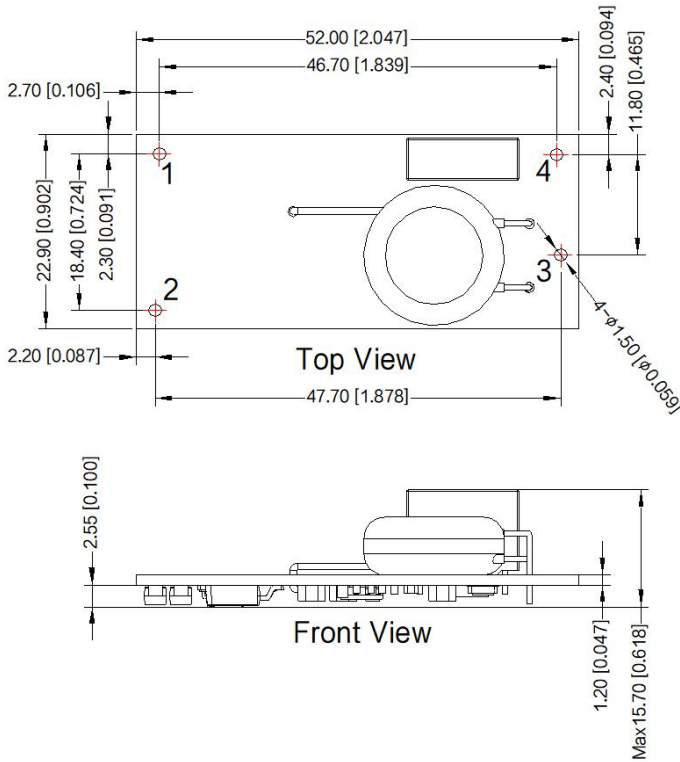
Fig. 1 Typical application

Air-cored inductance (mH)	Release inductance (mH)	Operating inductance (mH)	Coil resistance (Ω)	Coil diameter (mm)	Coil turns (T)
42.5	148.3	711.2	29.6	0.32	1200

- Note:
- Hot plug is unavailable;
 - Air-cored inductance, release inductance and operating inductance are measured under the condition of 10kHz/0.1V, and the above data are measured at 25°C.

Dimensions and Recommended Layout

THIRD ANGLE PROJECTION 



Pin-Out	
Pin	Mark
1	OUT1
2	OUT2
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:

1. For additional information on Product Packaging please refer to www.mornsun-power.com. Packaging bag number: 58060035;
2. 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;
3. All index testing methods in this datasheet are based on company corporate standards;
4. We can provide product customization service, please contact our technicians directly for specific information;
5. Products are related to laws and regulations: see "Features" and "EMC";
6. 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;
7. 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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