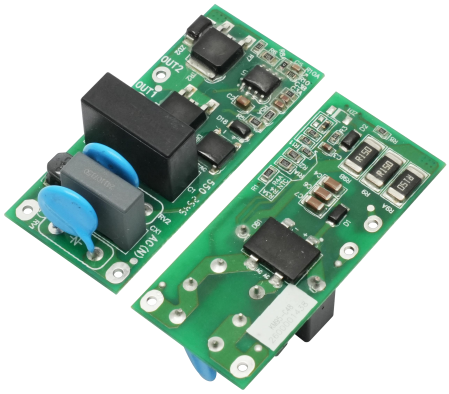
95A Magnetoelectric Controller



RoHS

FEATURE

- Wide voltage input range: 24-60VAC/VDC
- Operating temperature range: -40℃ to +70℃
- Attracting current 8A(Typ.)
- Holding current 0.6A(Typ.)
- High reliability
- 1.5W low input hold-in power
- Maximum operating frequency: 2400 times
- Customization available

KM95-C48---- is a controller specially designed for contactor. It only needs one coil and is compatible with many contactor models. It features low power consumption, low delay, small size, low cost, high reliability and strong anti-tripping capability. The product is safe and reliable, with stable pull-in, fast response, wide input voltage range, strong anti-grid power shaking capability, universal AC and DC, no need for short-circuit design. It is widely used in various types of contactor power-saving and a new generation of wide-voltage input contactors. Applicable to the upgrade and optimization needs of most 95A shells in the market.

Selection Guide

Part No.	Contactor Rated Operational Current (A)	Control voltage range
KM95-C48	95	24-60VAC/VDC

Input Specifications

Item	Operating Conditions	Min.	Typ.	Max.	Unit
Input Voltage Range	AC/DC input	24	48	60	VAC/VDC
AC Input Frequency	AC input	47	--	63	Hz
Input Hold-in Power	48VAC	--	1.5	2.5	W

Operating Specifications

Item	Operating Conditions	Min.	Typ.	Max.	Unit
Minimum Operate Voltage	AC/DC input	--	18	20	VAC/VDC
Release Voltage		--	11	13	
Attracting Current	48VAC input, full temperature range	6	8	--	A
Holding Current		0.3	0.6	--	
Power Up Delay Time		--	60	80	ms
Turn-Off time	Full voltage / temperature range	--	60	90	
Maximum Operating Frequency	25℃, 60VAC	2400 times/h			
	70℃, 60VAC	1200 times/h			

General Specifications

Item	Operating Conditions	Min.	Typ.	Max.	Unit
Operating Temperature	Full input voltage / temperature range	-40	--	+70	℃
Storage Temperature	Temperature	-40	--	+85	
Storage Humidity		--	--	95	%RH
MTBF	MIL-HDBK-217F@25℃	⩾300,000 h			

Mechanical Specifications

Dimension	52.00 x 22.90 x 16.50mm (Typ.)
Weight	9.4g (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 ±1kV	perf. Criteria A
	CS	IEC/EN61000-4-6	10Vr.m.s	perf. Criteria A
	Voltage dips*	IEC/EN61000-4-11	70% Un, 25/30 periods (50/60Hz)	perf. Criteria A
Note: *Un Maximum input nominal voltage.				

Design Reference

1.Typical application

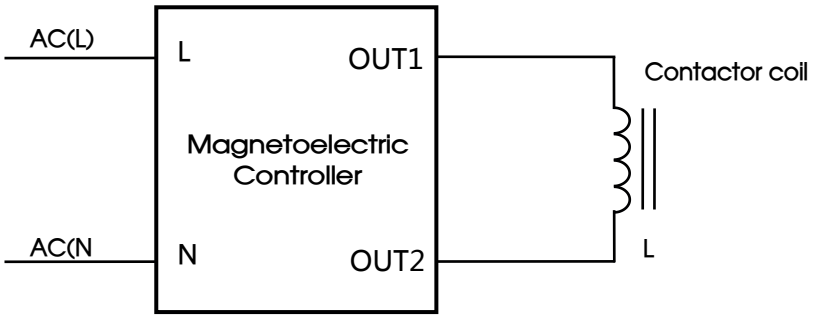


Fig. 1 Typical application

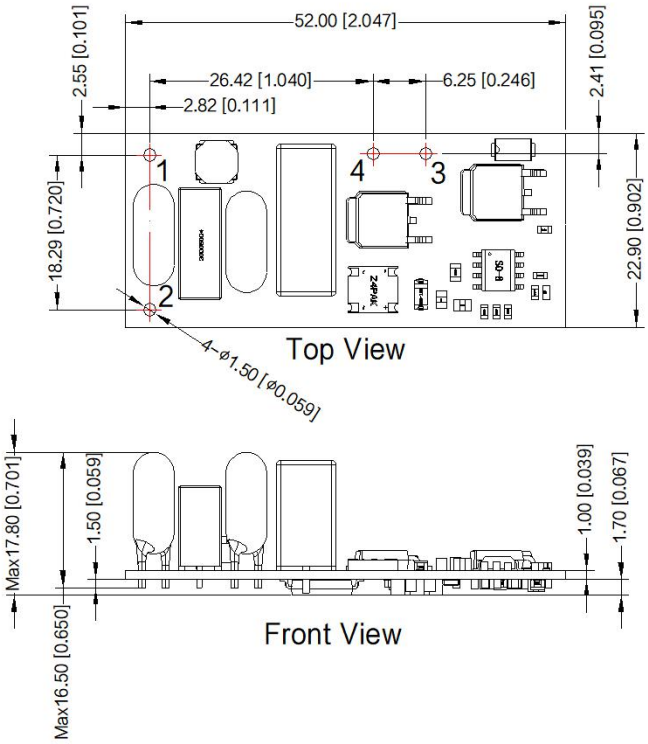
Recommended coil parameter table:

Air-cored inductance (mH)	Release inductance (mH)	Operating inductance (mH)	Coil resistance (Ω)	Coil diameter (mm)	Coil turns (T)
1.75	6.22	8.5	1.45	0.67	250

Note:
1. Hot plug is unavailable;
2. 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℃.

Dimensions and Recommended Layout

THIRD ANGLE PROJECTION



Pin-Out	
Pin	Mark
1	AC(L)
2	AC(N)
3	OUT2
4	OUT1

Note:
Unit: mm[inch]
General tolerances: ± 0.50[± 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 Ta=25℃, 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 Magnetoelectric 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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