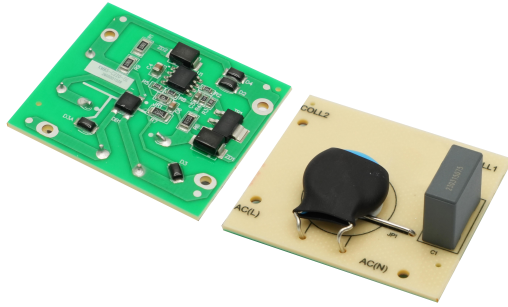


65A Magnetolectric Controller



RoHS 

FEATURE

- Wide voltage input range: 90- 250 VAC/VDC
- Operating temperature range: -40°C to +70°C
- Low power consumption: 2VA (Typ.)
- High reliability: 1200 times/h no-load switching frequency
- Customization available

*KM65-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. The product features low power consumption, compact size, low cost, high reliability, and strong anti-trip capability. It is safe and reliable, with stable contact closure, a wide input voltage range, and suitability for both AC and DC applications. It is widely used in various contactor energy-saving retrofits and new-generation contactors with wide input voltage ranges.*

Selection Guide

Part No.	Rated Input Voltage	Contactor Rated Operational Current (A)	Control Voltage Range
KM65-C220-SE	220VAC	65	90-250VAC/VDC

Input Specifications

Item	Operating Conditions	Min.	Typ.	Max.	Unit
Input Voltage Range	AC/DC Input	90	220	250	VAC/VDC
AC Input Frequency	AC input	47	--	63	Hz
Input Holding Power	220VAC input, full temperature range	--	2	3	VA

Operating Specifications

Item	Operating Conditions	Min.	Typ.	Max.	Unit
Minimum Operating Voltage	Full temperature range	--	--	90	VAC/VDC
Release Voltage				70	
Operating Current	Full temperature range	0.8	1.2	--	A
Hold-in Current		0.06	0.1	--	
Start-up Delay Time	220VAC/VDC	--	50	100	ms
Turn-off Delay Time		--	100	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	40.25 x 35.03 x 17.40mm
Weight	8.4g (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 ±2kV	perf. Criteria A
	CS	IEC/EN61000-4-6	10V.r.m.s	perf. Criteria A

Design Reference

1. Typical application

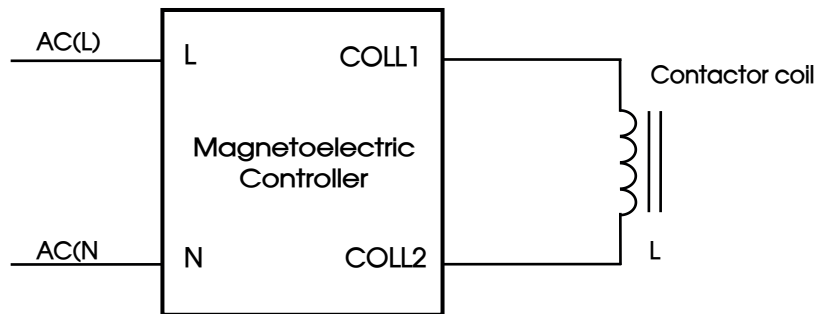
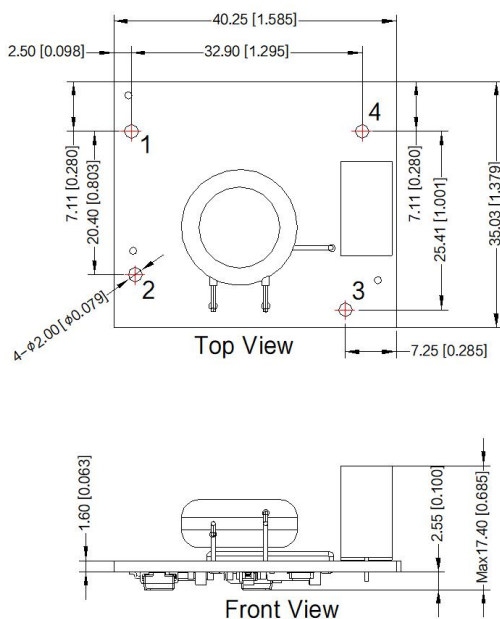


Fig. 1 Typical application

Air-cored inductance (mH)	Release inductance (mH)	Operating inductance (mH)	Coil resistance (Ω)	Coil diameter (mm)	Coil turns (T)
61.2	216.3	721.4	47.2	0.28	1520

- 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	COLL2
2	L
3	N
4	COLL1

- 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](http://www.mornsun-power.com). Packaging bag number: 58220127;
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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