Product datasheet

Specifications



Contactor, HFUC5-12，3P (3NO), AC Coil

Main

Product Series	HFUC5
Product or Component Type	Contactor
Device short name	HFUC5-12
Contactor application	Motor control Resistive load
Utilisation category	AC-3 AC-4 AC-1
Poles description	3P
[Ue] Rated operational voltage	Power circuit: ≤ 690 V AC 50/60Hz
[Ie] Rated operational current	12 A (at ≤60 °C) at ≤ 400 V AC AC-3 for power circuit 25 A (at ≤60 °C) at ≤ 690 V AC AC-1 for power circuit
[Us] Control circuit voltage (AC 50/60Hz)	Voltage (V): 24 36 42 48 110 115 127 220 230 240 380 400 415 Code: B7 CC7 D7 E7 F7 FE7 FC7 M7 P7 U7 Q7 V7 N7

Complementary

Motor power kW	3 kW at 220/230 V AC 50/60 Hz (AC-3) 5.5 kW at 380/400 V AC 50/60 Hz (AC-3) 7.5 kW at 660/690 V AC 50/60 Hz (AC-3)
Motor power hp	1 hp at 110...120 V AC 50/60 Hz for 1 phase motors 2 hp at 200...208 V AC 50/60 Hz for 1 phase motors 2 hp at 220...240 V AC 50/60 Hz for 1 phase motors 3 hp at 200...208 V AC 50/60 Hz for 3 phases motors 3 hp at 220...240 V AC 50/60 Hz for 3 phases motors 7.5 hp at 440...480 V AC 50/60 Hz for 3 phases motors 10 hp at 550...600 V AC 50/60 Hz for 3 phases motors
Pole contact composition	3 NO
[Ith] Conventional free air thermal	25 A (at ≤60 °C) for power circuit

current	10 A (at ≤60 °C) for signalling circuit
[Icw] Rated short-time withstand current	105 A ≤40 °C - 10 s for power circuit 210 A ≤40 °C - 1 s for power circuit 30 A ≤40 °C - 10 min for power circuit 61 A ≤40 °C - 1 min for power circuit
Associated fuse rating	10 A gG for signalling circuit conforming to IEC 60947-5-1 25 A gG at ≤ 690 V coordination type 2 for power circuit
Average impedance	2.7 mΩ - Ith 50 Hz for power circuit
[Ui] Rated insulation voltage	Power circuit: 690 V conforming to IEC 60947-4-1 Power circuit: 600 V UL Certified Signalling circuit: 690 V conforming to IEC 60947-5-1 Signalling circuit: 600 V UL Certified
Overvoltage category	III
Pollution degree	3
[Uimp] Rated impulse withstand voltage	6 kV conforming to IEC 60947
Mechanical durability	10 M cycles
Electrical durability	1.2 M cycles 12 A AC-3 at Ue ≤ 400 V
Control circuit type	AC at 50/60 Hz standard
Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.8...1.1 Us (-40...+60 °C): operational AC 50 Hz 0.85...1.1 Us (-40...+60 °C): operational AC 60 Hz 1...1.1 Us (+60...+70 °C): operational AC 50/60 Hz 0.2...0.75 Us (-40...+70 °C): drop-out AC 50/60 Hz
Inrush power in VA	63 VA 50/60 Hz (at 25 °C)
Hold-in power consumption in VA	9 VA 50/60 Hz (at 25 °C)
Operating time	Power circuit: 12...22 ms closing, 4...19 ms opening Signalling circuit (NO): 15...26 ms closing, 4...19 ms opening Signalling circuit (NC): 4...19 ms opening, 12...32 ms closing
Maximum operating rate	Electrical: 750 cycs/h Mechanical: 3600 cycs/h
Connections - terminals	Power circuit: screw clamp terminals 1 1...6 mm² (AWG 18...10)- cable stiffness: flexible without cable end Power circuit: screw clamp terminals 2 1...6 mm² (AWG 18...10)- cable stiffness: flexible without cable end Power circuit: screw clamp terminals 1 1...6 mm² (AWG 18...10)- cable stiffness: flexible with cable end Power circuit: screw clamp terminals 2 1...4 mm² (AWG 18...12)- cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 1...6 mm² (AWG 18...10)- cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 1...6 mm² (AWG 18...10)- cable stiffness: solid without cable end Control circuit: screw clamp terminals 1 1...4 mm² (AWG 18...12)- cable stiffness: flexible

	without cable end Control circuit: screw clamp terminals 2 1...4 mm² (AWG 18...12)- cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 1...4 mm² (AWG 18...12)- cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 1...2.5 mm² (AWG 18...14)- cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 1...4 mm² (AWG 18...12)- cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 1...4 mm² (AWG 18...12)- cable stiffness: solid without cable end
Tightening torque	Power circuit: 13 lb.in（1.5 N·m）- on screw clamp terminals - with screwdriver flat Ø 6 mm Power circuit: 13 lb.in（1.5 N·m）- on screw clamp terminals - with screwdriver Philips No 2 Control circuit: 11 lb.in （1.2 N·m）- on screw clamp terminals - with screwdriver flat Ø 6 mm Control circuit: 11 lb.in （1.2 N·m）- on screw clamp terminals - with screwdriver Philips No 2
Auxiliary contact composition	1NO1NC，2NO2NC，other combinations can be customized
Minimum switching capacity	24 V，0.1A for C type signalling circuit 17V，5mA for CS type signalling circuit
Insulation resistance	> 10 MΩ for signalling circuit
Mounting support	Screw 35mm DIN Rail

Environment

Standards	GB / T 14048.4, GB/T 14048.5，IEC 60947-4-1, IEC 60947-5-1 UL 60947-4-1, UL 60947-5-1，CSA C22.2 No. 60947-4-1, CSA C22.2 No. 60947-5-1 EN 60947-4-1 (VDE 0660 Teil 102), EN 60947-5-1 (VDE 0660 Teil 200) BS EN 60947-4-1, BS EN 60947-5-1
Product certifications	CCC，UL(cULus Listed)，VDE，CE，UKCA
IP degree of protection	IP20 front face conforming to IEC 60529
Permissible ambient air temperature around the device	-40...+60 °C for normal operating +60...+70 °C with derating (for operation in the range of Us...1.1Us) Storage: -60...+80 °C
Operating altitude	0...3000 m without derating
Fire resistance	Current-carrying parts：850 °C conforming to IEC 60695-2-11
Height	90 mm
Width	45 mm
Depth	96 mm
Net Weight	0.42 kg

Packing Units

Unit type of package 1	1 box
Number of Units in Package 1	1 pcs
Package 1 height	10.4 cm

Package 1 width	5.0 cm
Package 1 length	9.5 cm
Package 1 weight	0.48 kg
Unit type of package 2	1 carton
Number of Units in Package 2	30 pcs
Package 2 height	25.0 cm
Package 2 width	29.0 cm
Package 2 length	32.5 cm
Package 2 weight	14.40 kg

Offer Sustainability

REACH Regulation	Conforming
EU RoHS directive	Conforming
Mercury free	Yes
China RoHS Regulation	Conforming
RoHS exemption information	Yes

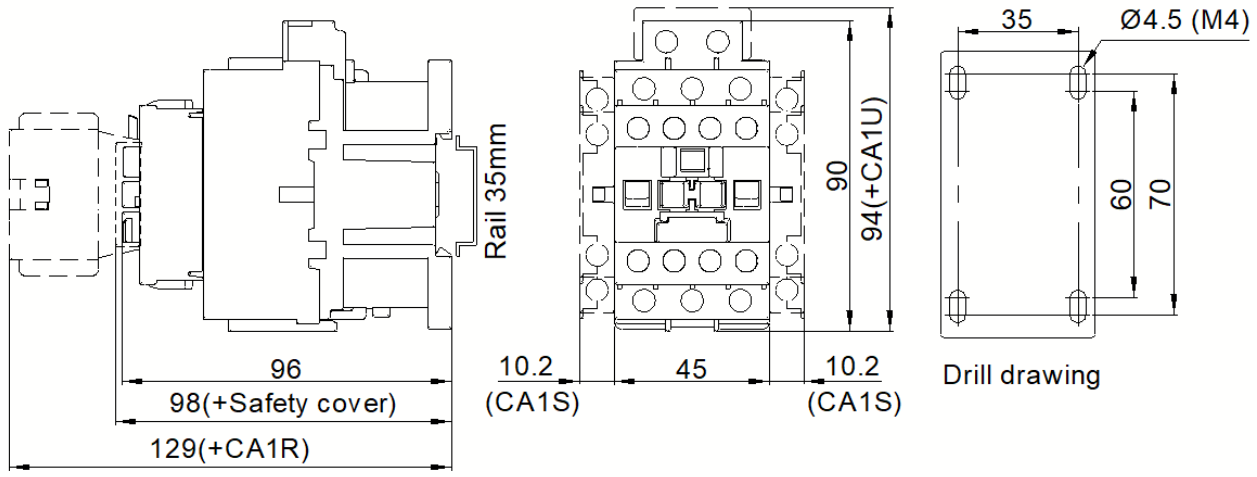
Contractual warranty

Warranty	18 months

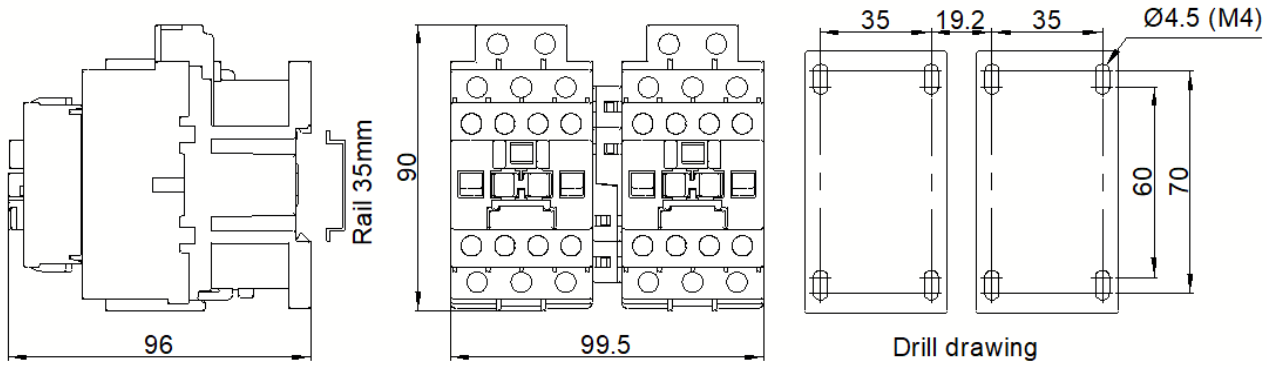
Dimensions

HFUC5-09~18 (3P, AC coil)

AC contactor:

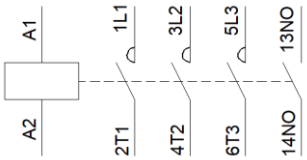
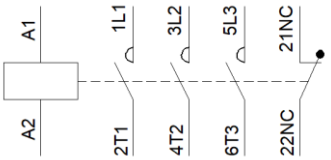
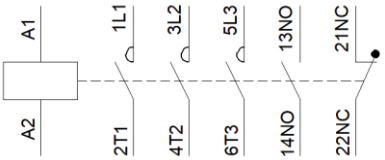
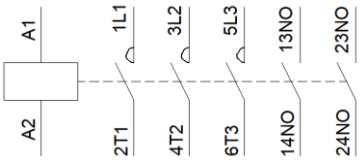
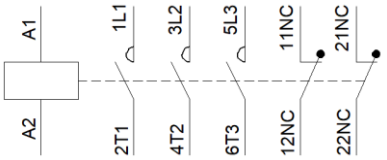
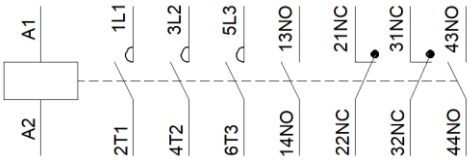
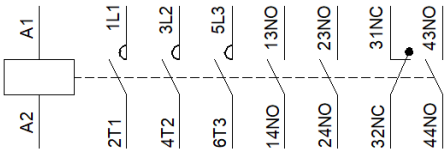
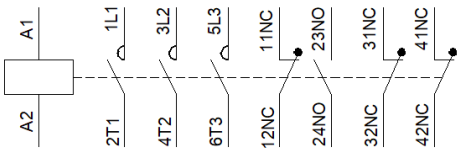
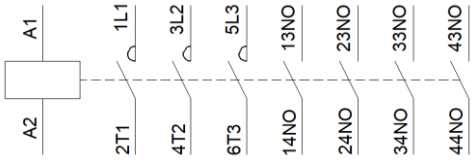
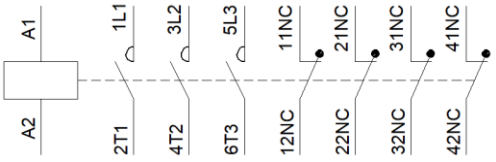


Interlock contactor:

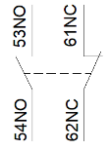
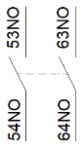
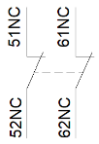
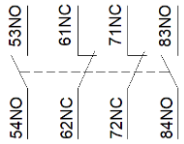
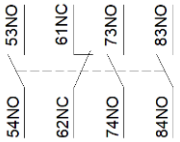
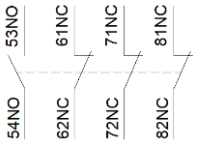
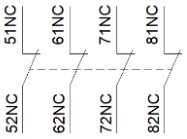


Note: The unit is mm. The tolerance for mounting holes: ± 0.5; for other external dimensions: ± 1.5, unless otherwise specified.

Wiring diagram

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<tr><td>3P+1NO</td><td>3P+1NC</td></tr>
<tr><td>
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<tr><td>3P+1NO1NC</td><td>3P+2NO</td></tr>
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<tr><td>3P+4NO</td><td>3P+4NC</td></tr>
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Top mounting auxiliary contact block (instantaneous auxiliary contact)

CA1R11 (1NO1NC)	CA1R20 (2NO)	CA1R02 (2NC)
		
CA1R22 (2NO2NC)	CA1R31 (3NO1NC)	CA1R13 (1NO3NC)
		
CA1R40 (4NO)	CA1R04 (4NC)	
		

Side mounting auxiliary contact block (instantaneous auxiliary contact)

CA1S11 (1NO1NC)	CA1S20 (2NO)	CA1S02 (2NC)
