Product datasheet

Specifications



Contactor, HFUC5-80，3P (3NO), AC/DC Coil

Main

Product Series	HFUC5
Product or Component Type	Contactor
Device short name	HFUC5-80
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	80 A (at ≤60 °C) at ≤ 400 V AC AC-3 for power circuit 125 A (at ≤60 °C) at ≤ 690 V AC AC-1 for power circuit
[Us] Control circuit voltage	Voltage (V)(AC/DC): 24-60 100-250 Code: BNE KUE

Complementary

Motor power kW	22 kW at 220/230 V AC 50/60 Hz (AC-3) 37 kW at 380/400 V AC 50/60 Hz (AC-3) 45 kW at 660/690 V AC 50/60 Hz (AC-3)
Motor power hp	7.5 hp at 110...120 V AC 50/60 Hz for 1 phase motors 15 hp at 200...208 V AC 50/60 Hz for 1 phase motors 15 hp at 220...240 V AC 50/60 Hz for 1 phase motors 25 hp at 200...208 V AC 50/60 Hz for 3 phases motors 30 hp at 220...240 V AC 50/60 Hz for 3 phases motors 60 hp at 440...480 V AC 50/60 Hz for 3 phases motors 75 hp at 550...600 V AC 50/60 Hz for 3 phases motors
Pole contact composition	3 NO

[Ith] Conventional free air thermal current	125 A (at ≤60 °C) for power circuit 10 A (at ≤60 °C) for signalling circuit
[Icw] Rated short-time withstand current	640 A ≤40 °C - 10 s for power circuit 990 A ≤40 °C - 1 s for power circuit 135 A ≤40 °C - 10 min for power circuit 320 A ≤40 °C - 1 min for power circuit
Associated fuse rating	10 A gG for signalling circuit conforming to IEC 60947-5-1 100 A gG at ≤ 690 V coordination type 2 for power circuit
Average impedance	0.8 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	8 kV conforming to IEC 60947
Mechanical durability	4 M cycles
Electrical durability	0.9 M cycles 80 A AC-3 at Ue ≤ 400 V
Control circuit type	AC/DC
Coil technology	With built-in suppressor module
Control circuit voltage limits	0.85 U_{smin}...1.1 U_{smax} (-40...60 °C): operational 0.1 U_{smax}...0.75 U_{smin} (-40...60 °C): drop-out
Inrush power in VA	150VA (at 25 °C)
Inrush power in W	150W (at 25 °C)
Hold-in power consumption in VA	5VA (at 25 °C)
Hold-in power consumption in W	5W (at 25 °C)
Operating time	Power circuit: 40...60 ms closing, 18...60 ms opening Signalling circuit (NO): 40...60 ms closing, 18...60 ms opening Signalling circuit (NC): 32...55 ms opening, 22...65 ms closing
Maximum operating rate	Electrical: 400 cycs/h Mechanical: 1800 cycs/h
Connections - terminals	Power circuit: screw clamp terminals 1 4...50 mm² (AWG 12...1)- cable stiffness: flexible without cable end Power circuit: screw clamp terminals 2 4...25 mm² (AWG 12...4) - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 1 4...50 mm² (AWG 12...4) - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 2 4...16 mm² (AWG 12...6) - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 4...50 mm² (AWG 12...1) - cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 4...25 mm² (AWG 12...4) - 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: 80 lb.in（9 N·m）- on bolt clamp terminals - with internal hexagon socket wrench 4 mm 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，0.1 A for C type signalling circuit 17 V，5 mA for CS type signalling circuit
Insulation resistance	> 10 MΩ for signalling circuit
Mounting support	Screw 35mm or 75mm 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	121 mm
Width	70 mm
Depth	137.5 mm
Net Weight	1.4 kg

Packing Units

Unit type of package 1	1 box
Number of Units in Package 1	1 pcs

Package 1 height	15.0 cm
Package 1 width	7.9 cm
Package 1 length	13.0 cm
Package 1 weight	1.42 kg
Unit type of package 2	1 carton
Number of Units in Package 2	10 pcs
Package 2 height	19.2 cm
Package 2 width	30.6 cm
Package 2 length	45 cm
Package 2 weight	15.50 kg

Offer Sustainability

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

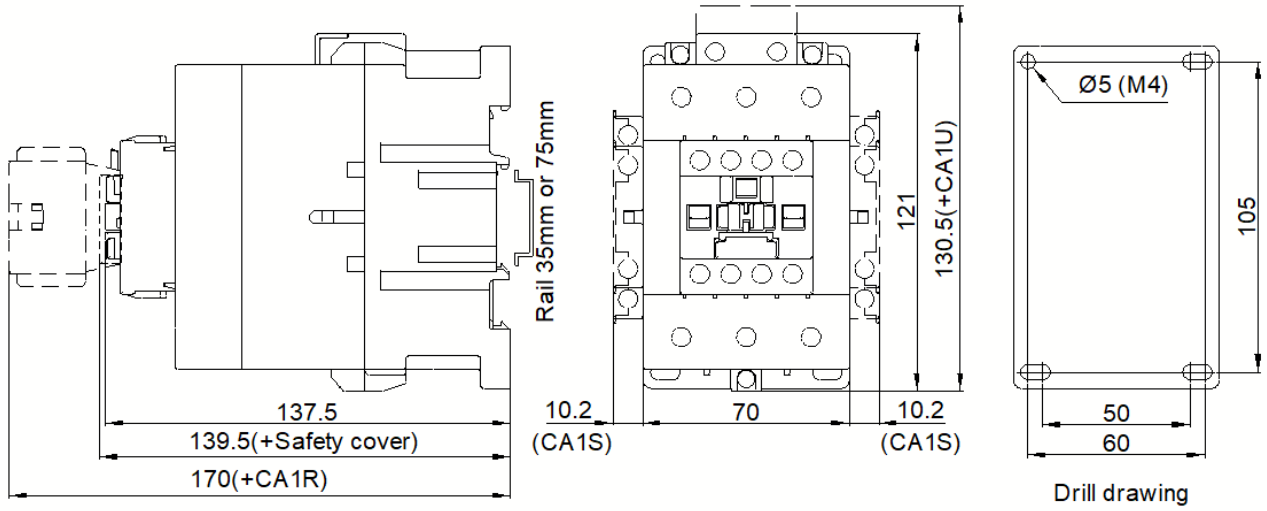
Contractual warranty

Warranty	18 months

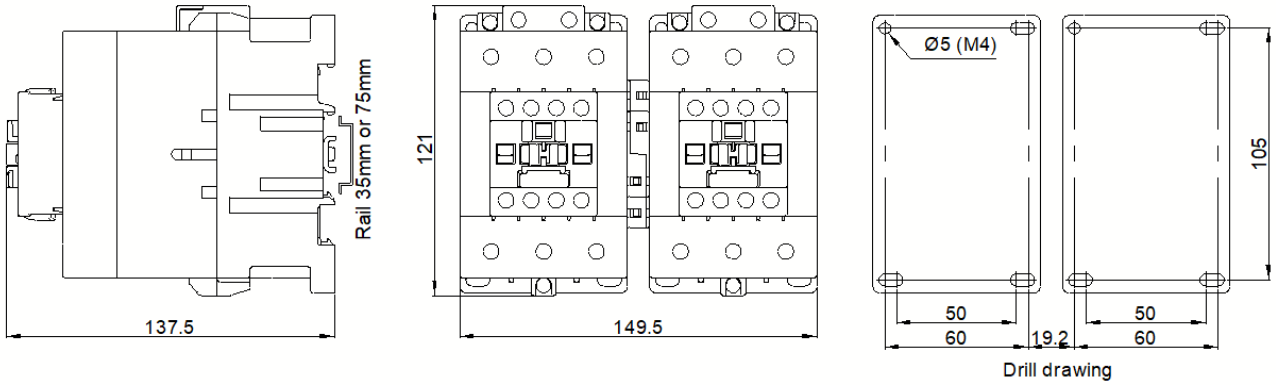
Dimensions

HFUC5-80~95 (3P, AC/DC coil)

AC contactor:

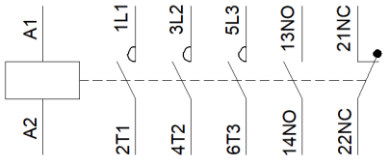
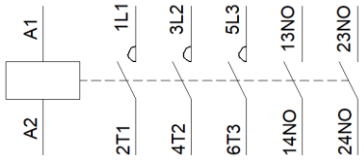
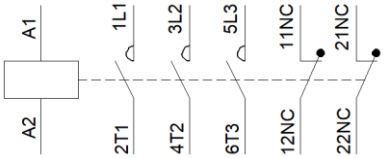
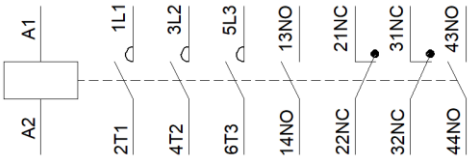
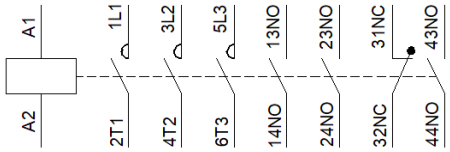
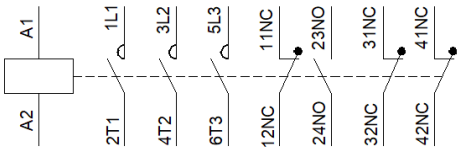
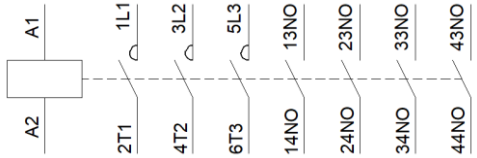
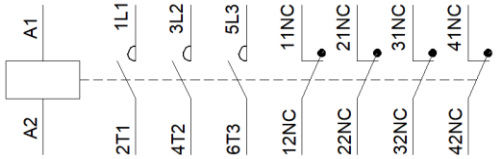


Mechanical interlocking contactor:

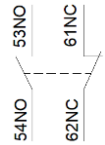
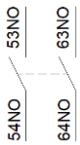
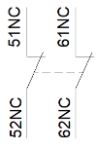
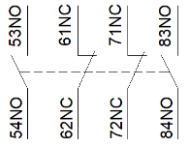
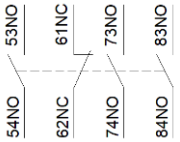
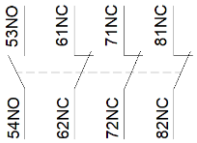
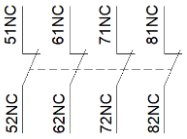


Note: The unit is mm. The tolerance for mounting holes: ± 0.5; for other external dimensions: ± 1.5, unless otherwise specified.

Wiring diagram

AC contactor	
3P+1NO1NC	3P+2NO
	
3P+2NC	3P+2NO2NC
	
3P+3NO1NC	3P+1NO3NC
	
3P+4NO	3P+4NC
	

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)
