Product datasheet

Specifications



Contactor, HFUC5-18，3P (3NO), DC Coil

Main

Product Series	HFUC5
Product or Component Type	Contactor
Device short name	HFUC5-18
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	18 A (at ≤60 °C) at ≤ 400 V AC AC-3 for power circuit 32 A (at ≤60 °C) at ≤ 690 V AC AC-1 for power circuit
[Us] Control circuit voltage (DC Coil)	Voltage: 12 24 36 48 60 72 110 125 220 250
	Code : JD BD CD ED ND SD FD GD MD UD
[Us] Control circuit voltage (DC Coil – Low Consumption)	Voltage: 12 24 48 110 220 250
	Code : JL BL EL FL ML UL

Complementary

Motor power kW	4 kW at 220/230 V AC 50/60 Hz (AC-3) 7.5 kW at 380/400 V AC 50/60 Hz (AC-3) 10 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 3 hp at 220...240 V AC 50/60 Hz for 1 phase motors 5 hp at 200...208 V AC 50/60 Hz for 3 phases motors 5 hp at 220...240 V AC 50/60 Hz for 3 phases motors 10 hp at 440...480 V AC 50/60 Hz for 3 phases motors 15 hp at 550...600 V AC 50/60 Hz for 3 phases motors

Pole contact composition	3 NO
[Ith] Conventional free air thermal current	32 A (at ≤60 °C) for power circuit 10 A (at ≤60 °C) for signalling circuit
[Icw] Rated short-time withstand current	145 A ≤40 °C - 10 s for power circuit 240 A ≤40 °C - 1 s for power circuit 40 A ≤40 °C - 10 min for power circuit 84 A ≤40 °C - 1 min for power circuit
Associated fuse rating	10 A gG for signalling circuit conforming to IEC 60947-5-1 32 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	1.0 M cycles 18 A AC-3 at Ue ≤ 400 V for DC Coil 0.9 M cycles 18 A AC-3 at Ue ≤ 400 V for DC Coil-Low Consumption
Control circuit type	DC
Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.8...1.1 Us (-40...+60 °C): operational for DC Coil 0.1...0.6 Us (-40...+60 °C): drop-out for DC Coil
Inrush power in W	7W (at 25 °C) for DC Coil
Hold-in power consumption in W	7W (at 25 °C) for DC Coil
Control circuit voltage limits	0.8...1.25 Us (-40...60 °C): operational for DC Coil-Low Consumption 0.1...0.3 Us (-40...60 °C): drop-out for DC Coil-Low Consumption
Inrush power in W	3.5W (at 25 °C) for DC Coil-Low Consumption
Hold-in power consumption in W	3.5W (at 25 °C) for DC Coil-Low Consumption
Operating time	Power circuit: 52...72 ms closing, 10...20 ms opening Signalling circuit (NO): 52...72 ms closing, 10...20 ms opening Signalling circuit (NC): 44...68 ms opening, 10...30 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
Fire resistance	Current-carrying parts：850 °C conforming to IEC 60695-2-11
Height	90 mm
Width	45 mm
Depth	103 mm
Net Weight	0.57 kg

Packing Units

Unit type of package 1	1 box
Number of Units in Package 1	1 pcs
Package 1 height	11.7 cm
Package 1 width	5.2 cm
Package 1 length	9.7 cm
Package 1 weight	0.66 kg
Unit type of package 2	1 carton
Number of Units in Package 2	30 pcs
Package 2 height	27.4 cm
Package 2 width	29.3 cm
Package 2 length	33.3 cm
Package 2 weight	18.30 kg

Offer Sustainability

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

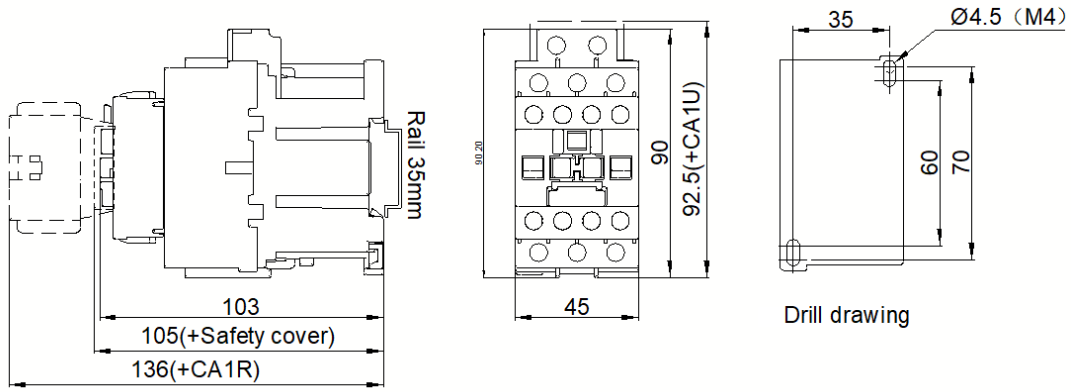
Contractual warranty

Warranty	18 months

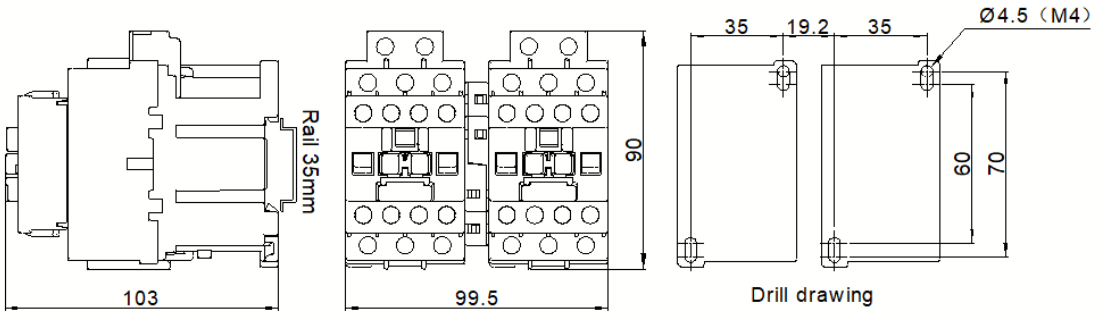
Dimensions

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

AC contactor:

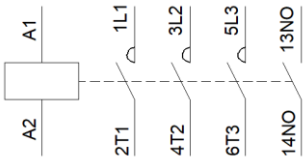
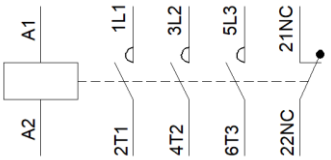
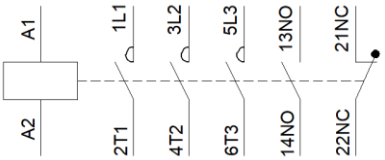
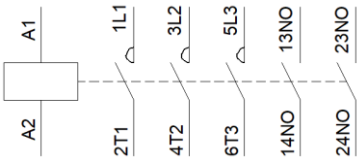
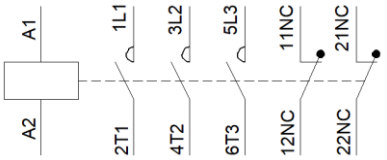
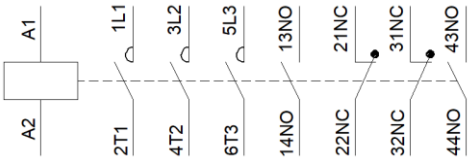
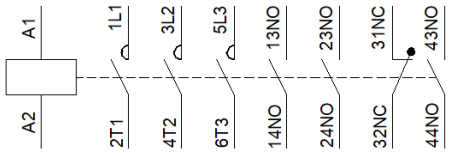
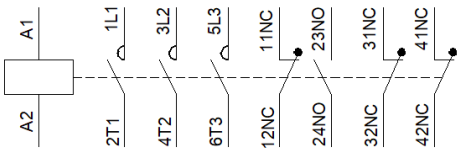
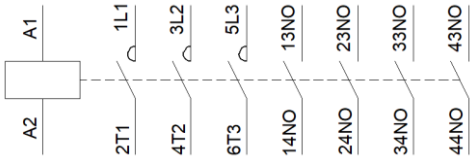
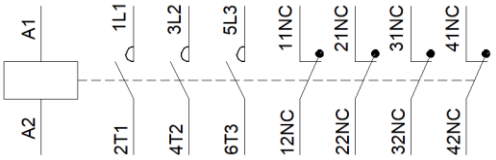


Interlock contactor:



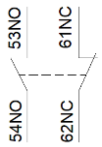
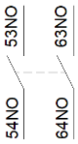
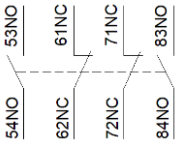
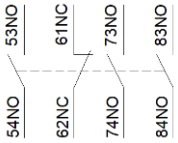
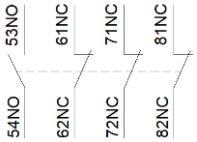
Note: The unit is mm. The tolerance for mounting holes: ± 0.5; for other external dimensions: ± 1.5, unless otherwise specified.

Wiring diagram

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

Note：The DC coil product has positive and negative polarity (positive pole A1, negative pole A2). If the positive and negative poles are connected inversely, the product will not be able to operate.

Top mounting auxiliary contact block (instantaneous auxiliary contact)

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