



V140F with AC coil

Registration number:

Technical data

Rated insulation voltage	U_i	1000	[V]
Impulse withstand voltage	U_{imp}	8	[kV]
Conventional free air thermal current	I_{th}	260	[A]
Main dimensions W x H x D		148x179x178,5	[mm]
Mass		3,75	[kg]
Mass including unit packing			[kg]
Degree of protection acc. to VDE 0106, part 100		IP20/IP10	
Main Contacts			
Rated operational current I_e			
in AC-1 at 400 V	I_e	160	[A]
in AC-3 at 400 V	I_e	140	
in AC-4 at 400 V	I_e	44	
in DC-1 at 220 V DC	I_e	160	
in DC-3 at 220 V DC	I_e	100	
v / in DC-5 at 220 V DC	I_e	63	
Max. output power of controlled motor in AC-3 (AC-4)			
at 220-230 V		45 (18,5)	[kW]
at 380-400 V		75 (22)	
at 500 V		75 (25)	
at 660-690 V		55	
Short time withstand currents from the cold state at the max. ambient temp. 40°C:			
1 sec	Min. conductor cross section 70 mm ²	1700	[A]
5 sec		1250	
10 sec		1150	
30 sec		750	
1 min		600	
3 min		420	
10 min	300		
Max. number of on-load op. cycles per hour			
in AC-1		300	[op. cycles/hour]
in AC-3		600	
in AC-4		600	
Recommended fuse char. aM		160	[A]
Type of coordination according to IEC 60947-4-1		2	
Mechanical durability		10x10 ⁶	[op. cycles]
Electrical durability in AC-1 at 400V for rated op. current		0,5x10 ⁶	[op. cycles]
Electrical durability in AC-3 at 400V for rated op. current		0,5x10 ⁶	[op. cycles]
Voltage drop on each main pole	ΔU	43	[mV]
	I	225	[A]
Power dissipation per pole	P	9,6	[W]
Operating times from coil energization to			
	closing of the N.O. contact	20	[ms]
	opening of the N.C. contact	-	[ms]
Operating times from coil deenergization to			
	opening of the N.O. contact	15	[ms]
	closing of the N.C. contact	-	[ms]
Positively guided contacts acc. to IEC 60947-4-1/A1 ed. 2 - Annex F (auxiliary contacts linked with power contacts - mirror contact).			
			- YES -
Terminal type			
		Lug terminal	
Screw type / Screw size			
		hexagonal head / M10	
Tightening torque		10, 20	[Nm]
Conductor cross-section:		35..150	[mm ²]
Max. width of connected bar or cable lug for connected wire		34	[mm]
Auxiliary contacts			
Number of contacts		2 x NO + 2 x NC	
Rated insulation voltage	U_i	690	[V]
Impulse withstand voltage	U_{imp}	8	[kV]
Conventional free air thermal current	I_{th}	12	[A]
Rated operational current in AC-15:			
at 220-230 V	I_e	4	[A]
at 380-400 V	I_e	2	[A]
Electrical durability in AC-15:			
at 220-230 V, 4 A		0,8 x 10 ⁶	[op. cycles]
at 380-400 V, 2 A		1 x 10 ⁶	[op. cycles]
Operating times from coil energization to			
	closing of the N.O. contact	18	[ms]
	opening of the N.C. contact	14	[ms]
Operating times from coil deenergization to			
	opening of the N.O. contact	14	[ms]
	closing of the N.C. contact	16	[ms]
Non overlapp. time of the cont. betw. N.O. and N.C.			
		2 - 6	[ms]
Positively guided contacts according to IEC 60947-5-1/A2 ed. 2 - Annex L (mechanically linked contacts).			
			- YES -
Terminal type			
		screw-type terminal	
Screw type			
		combined PH2 + simple slots	
Screw size			
		M3,5	
Tightening torque		0,8	[Nm]
Max. conductor cross-section:			
	Rigid	1 .. 2.5	[mm ²]
	Flexible	0.75 .. 1.5	[mm ²]
Control circuit			
Tolerance of control voltage		85 .. 110	[%]
Drop-out voltage		>25% U_c	[%]
Pull-in input power of AC control coil $\pm 10\%$		365	[VA]
Hold-in input power of AC control coil $\pm 10\%$		61 / 14,5	[VA/W]
Terminal type			
		screw-type terminal	
Screw size			
		M3,5	
Tightening torque		0,8	[Nm]
Max. conductor cross-section:			
	Rigid	1 .. 2.5	[mm ²]
	Flexible	0.75 .. 1.5	[mm ²]
All terminals facilitate connecting of either single conductor up to the maximum cross-section, or two conductors of the same or by one degree different cross-sections except for the maximum one. Flexible conductors must not be compacted by brazing.			

Marking of terminals

