
 <b>Elektropřístroj</b>	<b>Technical data sheet</b>	<b>Contactors</b>	<b>Date: 10. 10. 2020</b>
		<b>V85F with DC D coil</b>	Registration number:

<b>Technical data</b>			
Rated insulation voltage	$U_i$	1000	[V]
Impulse withstand voltage	$U_{imp}$	8	[kV]
Conventional free air thermal current	$I_{th}$	140	[A]
Ambient temperature range		-50 .. +55	[°C]
Main dimensions W x H x D		108x124x140	[mm]
Mass		1,65	[kg]
Mass including unit packing		1,7	[kg]
Degree of protection acc. to VDE 0106, part 100		IP20/10	

<b>Main poles</b>			
Rated operational current $I_e$			
in AC-1 at 400 V	$I_e$	105	[A]
in AC-3 at 400 V	$I_e$	85	[A]
in AC-4 at 400 V	$I_e$	30	[A]
in DC-1 at 220 V DC	$I_e$	105	[A]
in DC-3 at 220 V DC	$I_e$	63	[A]
in DC-5 at 220 V DC	$I_e$	40	[A]
Max. output power of controlled motor in AC-3			
at 220-230 V		25	[kW]
at 380-400 V		45	[kW]
at 500 V		45	[kW]
at 660-690 V		37	[kW]
Max. output power of controlled motor in AC-4:			
at 220-230 V		11	[kW]
at 380-400 V		15	[kW]
at 500 V		15	[kW]
Max. on-load switching rate:			
in AC-1		300	
in AC-3		600	[op. cycles/hour]
in AC-4		600	
Electrical durability in AC-1 at 400V for rated op. current		$0,5 \times 10^6$	[op. cycles]
Electrical durability in AC-3 at 400V for rated op. current		$0,9 \times 10^6$	[op. cycles]
Recommended fuse char. aM		100	[A]
Type of coordination according to IEC 60947-4-1		2	
Mechanical durability		$10 \times 10^6$	[op. cycles]
Voltage drop on each main pole	$\Delta U$	64	[mV]
	$I$	145	[A]
Power dissipation per pole	$P$	9,3	[W]
Operating times from coil energization to			
closing of the N.O. contact		16	[ms]
opening of the N.C. contact		-	[ms]
Operating times from coil deenergization to			
opening of the N.O. contact		10	[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 / M6	
Tightening torque		3	[Nm]
Conductor cross-section:		16..50	[mm <sup>2</sup> ]
Max. width of connected bar or cable lug for connected wire		22	[mm]

<b>Short time withstand currents from the cold state at the max. ambient temp. 40°C:</b>			
1 sec		1200	
5 sec		1000	
10 sec		800	
30 sec		580	[A]
1 min		435	
3 min		270	
10 min		170	
	Min. conductor cross section 35 mm <sup>2</sup>		

<b>Auxiliary contacts</b>			
Number of contacts		2 x NO + 1 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		$0,8 \times 10^6$	[op. cycles]
at 380-400 V, 2 A		$1 \times 10^6$	[op. cycles]
Operating times from coil energization to			
closing of the N.O. contact		17	[ms]
opening of the N.C. contact		12	[ms]
Operating times from coil deenergization to			
opening of the N.O. contact		13	[ms]
closing of the N.C. contact		16	[ms]
Non overlapp. time of the cont. betw. N.O. and N.C.		3 - 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 <sup>2</sup> ]
Flexible		0,75 .. 1,5	[mm <sup>2</sup> ]

<b>Control circuit</b>			
Tolerance of control voltage		85 .. 110	[%]
Pull-in input power of DC control coil $\pm 10\%$		56..70	[W]
Hold-in input power of DC control coil $\pm 10\%$		3,2..4,5	[W]
Terminal type			
		screw-type terminal	
Screw size		M3,5	
Tightening torque		0,8	[Nm]
Max. conductor cross-section:			
Rigid		1 .. 2,5	[mm <sup>2</sup> ]
Flexible		0,75 .. 1,5	[mm <sup>2</sup> ]

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.

