EPM Elektropřístroj	Technical data sheet	Contactors	Date: 10. 1. 2024
	DC controlled contactor	Designation / Marking:	
	C50.10 with DC coil	**C50.10 _ _ V DC D** _ _ = nominal control voltage	

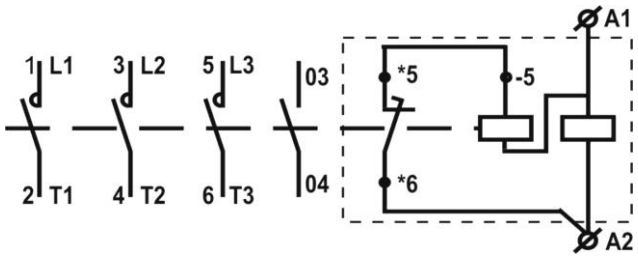
Rating			
Rated insulation voltage	U_i	1000	[V]
Impulse withstand voltage	U_{imp}	8	[kV]
Overvoltage category according to ČSN EN 60947-1		III	[-]
Working environment - degree of pollution		3	[-]
Ambient temperature range		-50 .. +75	[°C]
Storage temperature		-55 .. +75	[°C]
Operating altitude		2000	[m]
Environmental conditions		any acc. to EN 60721-2-1	
Flammability of materials according to EN 60695-11-10 or UL94		V-0	[-]
Vibration and shock resistance according to ČSN EN 61373 ed. 2		category 1, class A	
Level of safety and reliability according to EN 13849-1		B10d = 2 000 000 cycles	
Main dimensions W x H x D		70 × 107 × 116	[mm]
Mass		0.9	[kg]
Mass including unit packing		0.98	[kg]
Degree of protection acc. to VDE 0106, part 100		IP20/IP10	
Main poles			
Number and type of contacts		3 NO	[-]
Conventional free air thermal current - (with conductor cross-section 25 mm[2)]	I_{th}	115	[A]
Rated operational current:			
in AC-1 at 400 V	I_e	75	[A]
in AC-3 at 400 V	I_e	50	[A]
in AC-4 at 400 V	I_e	15.II	[A]
in DC-1 at 220 V DC	I_e	85	[A]
in DC-3 at 220 V DC	I_e	44	[A]
in DC-5 at 220 V DC	I_e	32	[A]
Max. output power of controlled motor in AC-3:			
at 220-230 V		15	[kW]
at 380-400 V		25	[kW]
at 500 V		30	[kW]
at 690 V		30	[kW]
Max. output power of controlled motor in AC-4:			
at 380-400 V		7.5	[kW]
at 500 V		9	[kW]
Max. on-load switching rate:			
in AC-1		300	[op. cycles/hour]
in AC-3		1200	[op. cycles/hour]
in AC-4		600	[op. cycles/hour]
Electrical durability in AC-1 at 400V for rated op. current		0.5×10^6	[op. cycles]
Electrical durability in AC-3 at 400V for rated op. current		10^6	[op. cycles]
Recommended fuse char. aM		50	[A]
Type of coordination with SCPD		2	
Mechanical durability		10×10^6	[op. cycles]
Dissipation on main pole (ea)	ΔU	45	[mV]
	I	85	[A]
	P	3.8	[W]
Operating times from coil energization to			
closing of the N.O contact		15	[ms]
opening of the N.C contact		N/A	[ms]
Operating times from coil deenergization to			
opening of the N.O contact		11	[ms]
closing of the N.C contact		N/A	[ms]
Positively guided contacts according to IEC 60947-4-1/A1 ed. 2 - Annex F (auxiliary contacts linked with power contacts - mirror contact).		N/A	
Terminal type		pillar terminal	
Screw type		combined PH2 + simple slots	
Screw size		M6	
Tightening torque		3	[Nm]
Max. conductor cross-section:			
Rigid		2.5 .. 25	[mm^2]
Flexible		2.5 .. 25	[mm^2]
Short time withstand currents from the cold state at the max. ambient temp. 40°C:			
1 sec	Conductor cross-section 25 mm^2	950	[A]
5 sec		760	
10 sec		640	
30 sec		410	
1 min		300	
3 min		175	
10 min		130	

EPM Elektropřístroj	Technical data sheet	Contactors	Date: 10. 1. 2024
	DC controlled contactor	Designation / Marking:	
	C50.10 with DC coil	**C50.10 _ _ V DC D** _ _ = nominal control voltage	

Auxiliary contact			
Configuration		1 NO	
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		0.8×10^6	[op. cycles]
at 380-400 V, 2 A		1×10^6	[op. cycles]
Dissipation on aux. pole (ea)	ΔU	20	[mV]
	I	4	[A]
	P	0.08	[W]
Operating times from coil energization to			
closing of the N.O. contact		14	[ms]
opening of the N.C. contact		N/A	[ms]
Operating times from coil deenergization to			
opening of the N.O. contact		15	[ms]
closing of the N.C. contact		N/A	[ms]
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			
Control voltage		DC	[V]
Tolerance of rated control voltage		-15 .. +10	[%]
Pull-in input power of DC control coil ±10%		94 .. 99	[W]
Hold-in input power of DC control coil ±10%		1.9 .. 2.2	[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]

Marking of terminals



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.

Ecological sustainability	
REACH Regulation	REACh Declaration
REACH free of SVHC	Yes
EU RoHS Directive	Compliant
Mercury free	Yes
OEEZ - certificate of involvement in the system	AK-6-019136