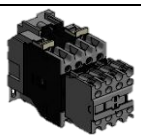
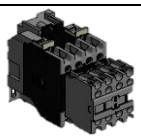
EPM Elektropřístroj	Technical data sheet	Contactors	Date: 1.9.2024
	DC controlled contactors	Designation / Marking:	
	C9.0040 DC D PK21T with DC D coil	**C9.0040 _ _ V DC D PK21T** _ _ rated control voltage	

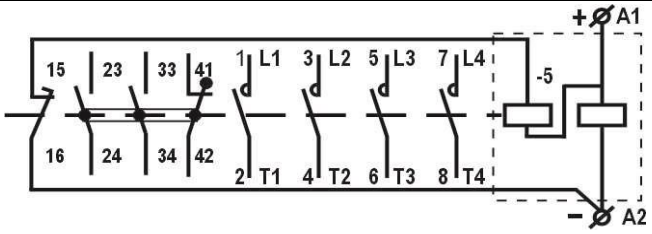
Technical data			
Rated insulation voltage	U_i	690	[V]
Impulse withstand voltage	U_{imp}	8	[kV]
Overvoltage category according to ČSN EN 60947-1		III	[-]
Working environment - degree of pollution		3	[-]
Ambient temperature range		-50 .. +60	[°C]
Storage temperature		-55 .. +80	[°C]
Operating altitude		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		45 x 78,5 x 104,7	[mm]
Mass		0,355	[kg]
Mass including unit packing		0,365	[kg]
Degree of protection acc. to VDE 0106, part 100		IP20	
Main poles			
Number and type of contacts		4 x NO	
Conventional free air thermal current	I_{th}	32	[A]
Rated operational current I_e			
in AC-1 at 400 V	I_e	25	[A]
in AC-1 at 500 V	I_e	25	
in AC-3 at 400 V	I_e	11,3	
in AC-4 at 400 V	I_e	4,7	
in DC-1 at 220 V DC (all three poles connected in series)	I_e	25	
in DC-3 at 220 V DC (all three poles connected in series)	I_e	12	
in DC-5 at 220 V DC (all three poles connected in series)	I_e	8	
Max. output power of controlled motor in AC-3			[kW]
at 220-230 V		2,2	
at 380-400 V		5,5	
at 500 V		5,5	
at 660-690 V		5,5	
Max. output power of controlled motor in AC-4:			
at 380-400 V		2	[kW]
at 500 V		2,5	
Short time withstand currents from the cold state at the max. ambient temp. 40 °C:			
1 sec	Min. conductor cross section 2,5 mm²	220	[A]
5 sec		150	
10 sec		120	
30 sec		75	
1 min		60	
3 min		40	
10 min		30	
Max. number of on-load op. cycles per hour			[op. cycles/hour]
in AC-1		300	
in AC-3		1200	
in AC-4		600	
Recommended fuse char. aM		10	[A]
Type of coordination according to IEC 60947-4-1		2	
Mechanical durability		$10x10^6$	[op. cycles]
Electrical durability in AC-1 at 400 V for rated op. current		$0,15×10^6$	
Electrical durability in AC-3 at 400 V for rated op. current		$1,5 x 10^6$	
Dissipation on main pole (ea)	ΔU	48	[mV]
	I	25	[A]
Power dissipation per pole	P	1,2	[W]
Operating times from coil energization to			
closing of the N.O. contact		12,7 - 16,6	[ms]
opening of the N.C. contact		non aplicable	[ms]
Operating times from coil deenergization to			
opening of the N.O. contact		7,1 - 12,2	[ms]
closing of the N.C. contact		non aplicable	[ms]
Positively guided contacts acc. to IEC 60947-4-1/A1 ed. 2 - Annex F (aux. contacts linked with power contacts - mirror contact).		YES	
Terminal type		Screw-type	
Screw type / Screw size		combined PH2 + simple slots / M3,5	
Tightening torque		0,8	[Nm]
Conductor cross-section:			
Rigid		1..4	[mm^2]
Flexible		1..2,5	[mm^2]

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	DC controlled contactors	Designation / Marking:	
	C9.0040 DC D PK21T with DC D coil	**C9.0040 _ _ V DC D PK21T** _ _ rated control voltage	

Auxiliary contacts			
Configuration		2 x NO + 1 x NC	
		can be completed with additional blocks PKB11	
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]
Mechanical durability		10×10^6	[op. cycles]
Electrical durability in AC-15:			
at 220-230 V, 4 A		$0{,}8 \times 10^6$	[op. cycles]
at 380-400 V, 2 A		1×10^6	[op. cycles]
Dissipation on aux. pole (ea)	ΔU	20	[mV]
	I	4	[A]
Power Disipation for one aux. pole NO	P	0,08	[W]
Operating times from coil energization to			
closing of the N.O. contact		12,0 - 12,7	[ms]
opening of the N.C. contact		non aplicable	[ms]
Operating times from coil deenergization to			
opening of the N.O. contact		10,1 - 10,9	[ms]
closing of the N.C. contact		non aplicable	[ms]
Positively guided contacts according to IEC 60947-5-1/A2 ed. 2 - Annex L (mechanically linked contacts).		YES	
Positively guided contacts according to IEC 60947-4-1/A1 ed. 2 - Annex F (aux. cont. linked with power contacts - mirror contact).		YES	
Terminal type		screw-type terminal	
Screw type / Screw size		combined PH2 + simple slots / 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		
Rated control voltage	DC	[V]
Tolerance of control voltage	-15 .. +10	[%]
Drop-out voltage	>25% Uc	
Pull-in input power of DC control coil ±10%	70..80	[W]
Hold-in input power of DC control coil ±10%	1,5..1,9	[W]
Terminal type	Screw-type	
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 ba 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