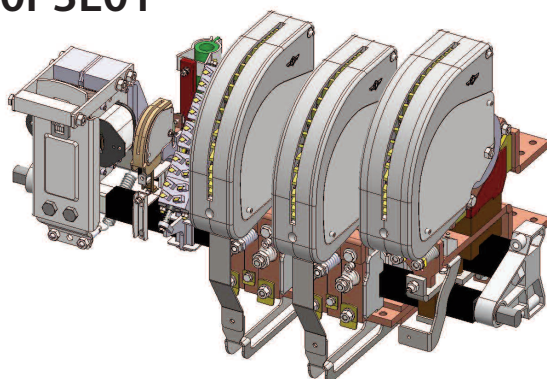


Switches

Standard Family Code N003000P3E01



Description

Contactor with single interruption in air, electromagnetic control by power save system (economy resistor). Typical application DC Motor control with braking circuit. Reference Standard IEC 60947-4-1.

Type	N 3000
Number of Poles	2 NO + 1 NC
Connection between poles	Series for NO pole ¹
Mounting Position	Vertical
Control Voltage Rating U _c [Vdc]	110Vdc/Vac - 220Vdc/Vac ²
Auxiliary Contact Blocks	5 NO + 5 NC
Block Type	B
Arc chute Material	Ceramic in plastic shells
Main Contacts tips Material	S6 (NO Pole) - S4 (NC Pole)
Arcing Contacts tips Material	S8 (No Pole)
Electric Diagram	TU0165/B (DC) - TU0165/C (AC)
Layout Drawing	D53584

¹ Series bar connections available under request

² To be specified in order phase.

Electrical Characteristics

Rated Operational Voltage U _e [Vdc]	220	440	660	750	1000
Rated Insulation Voltage U _i [Vdc]	1000				
Conventional Free air thermal current I _{th} [at 40°C] ³	3000				
Conventional Free air thermal current I _{th} [at 60°C] ³	2650				
Blow out circuit type	Indirect with arcing contact				

Electrical Characteristics 2NO poles series connected (S6) for DC application

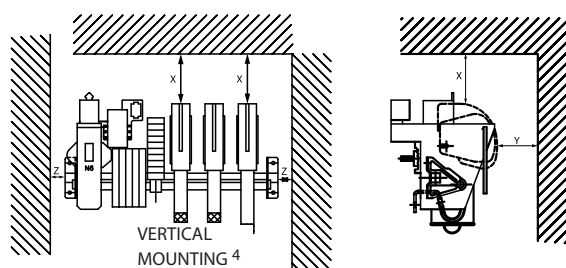
Rated Operational Voltage [Vdc]	220	440	660	750	1000
Maximum Breaking Capacity tau=15ms I _{dmax} [A]	35000	25000	18000	15840	11880
Utilization Category according to IEC60947-4-1: DC3					
Max Operational Power P _e [kW]	2500	2500	2500	2500	2500
Max Operational Making and breaking Current I _e [A]	11364	5682	3788	3333	2500
Utilization Category according to IEC60947-4-1: DC5					
Max Operational Power P _e [kW]	1688	1688	1688	1688	0
Max Operational Making and breaking Current I _e [A]	7670	3835	2557	2250	0
Maximum Making Capacity for 100 ms I _{ch} [kA]	35				
Short Circuit Withstand Current for 100 ms I _{cw} [kA]	40				
Average impedance per pole at 50 Hz [MicroOhm]	150				

Electrical Characteristics 1NC (S4) for DC application (1250A Rating)

Rated Operational Voltage [Vdc]	220	440	660	750	1000
Maximum Breaking Capacity tau=15ms I _{dmax} [A]	5000	3000	2000	0	0
Max Operational Making Current [A]	2500	1250	830	730	550
Max Operational Breaking Current [A]	1550	625	330	0	0
Maximum Making Capacity for 100 ms I _{ch} [kA]	10				
Short Circuit Withstand Current for 100 ms I _{cw} [kA]	13				
Average impedance per pole at 50 Hz [MicroOhm]	450				

³ Device cabled according IEC 60947

Minimum clearances [mm] from:				
Rated Operational Voltage	X	Y	Z	
1000	Metal Parts	100	50	30
	Plastic Parts	50	30	20



4 OTHER MOUNTING POSITIONS NOT ALLOWED

Switches

Standard Family Code
N003000P3E01

Mechanical Characteristics

Mechanical Endurance (cycles) ⁵	3x10 ⁶
Weight [kg]	98

Control Circuit

Control Voltage Range	0.85U _c ÷ 1.1U _c
Power Consumption (U _c and T = 20°C) at Closing - at Opening [W]	1500 - 80
Mechanical Operation Time (U _c and T = 20°C) when Closing - Opening [ms]	110 - 15
Mechanical Operation Time (in the worst condition) when Closing - Opening [ms]	450 - 20
Time Constant (L/R) at Pick Up - when Holding [ms]	
Electrical Connections	Fast-On 6.35x0.8mm

Auxiliary Contacts

Tips material	Solid Silver
Rated Operational Voltage [V _{ac} / V _{dc}]	250
Rated Current [A]	10
Minimum Switching Current at 16 V _{dc} [mA] ⁶	100
Electrical Connections	Fast-On 6.35x0.8mm

Environmental Conditions

Stock Temperature Range	-25°C ÷ +60°C
Operational Temperature Range	-5°C ÷ +55°C
Max Altitude without Performance Derating [m]	2000

⁵ With respect of the maintenance operations

⁶ In clean and dry conditions

