

# SWITCHES

## STANDARD FAMILY CODE N000190P1B01

Type	N 190
Number of Poles	1 NC
Connection between poles	None
Mounting Position	Vertical
Control Voltage Rating $U_c$ [Vdc]	110Vdc/Vac - 220Vdc/Vac <sup>1</sup>
Auxiliary Contact Blocks	5 NO + 5 NC
Block Type	B
Arc chute Material	Plastic Shells
Main Contacts tips Material	S6
Arcing Contacts tips Material	-
Electric Diagram	TU0165/B (DC) - TU0165/C (AC)
Layout Drawing	D53562

<sup>1</sup> To be specified in order phase.



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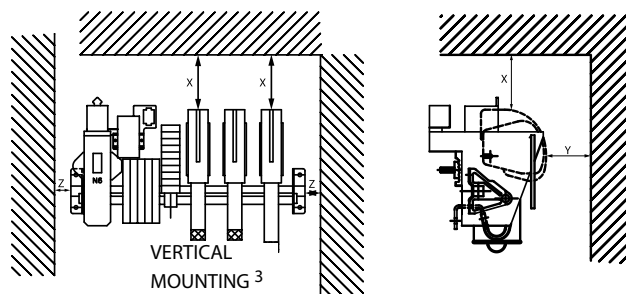
## Description

Contactors with single interruption in air, electromagnetic control by power save system (economy resistor). Typical application control of all type of motor for standard or severe duty application. Control of resistive, inductive and capacitive circuits: heating, lighting, cosfi rectification, normal stand-by. Reference Standard IEC 60947-4-1.

Electrical Characteristics				
Rated Operational Voltage Ue [Vac/Vdc]	220	380	440	600
Rated Insulation Voltage Ui [Vdc]	1000			
Conventional Free air thermal current Ith [ at 40°C] <sup>2</sup>	190			
Conventional Free air thermal current Ith [ at 60°C] <sup>2</sup>	165			
Maximum Making Capacity for 100 ms I <sub>ch</sub> [kA]	2			
Short Circuit Withstand Current for 100 ms I <sub>cw</sub> [kA]	3			
Average impedance per pole at 50 Hz [MicroOhm]	600			
Blow out circuit type	Direct			
Electrical Characteristics 1NC pole (S6) for DC application				
Rated Operational Voltage [Vdc]	220	380	440	600
Maximum Breaking Capacity tau=15ms I <sub>dc</sub> max [A]	950	520	450	350
Utilization Category according to IEC60947-4-1:DC1&DC3				
Max Operational Making Current [A]	360	210	180	130
Max Operational Breaking Current [A]	230	95	80	65
Electrical Characteristics 1NC pole (S6) for AC application				
Rated Operational Voltage [Vac]	220	380	440	600
Maximum Breaking Capacity cosΦ=0,5 I <sub>ac</sub> max [A]	1250	725	625	460
Utilization Category according to IEC60947-4-1: AC1&AC2&AC3				
Max Operational Power P <sub>e</sub> [kW]	35	35	35	35
Max Operational Making and breaking Current I <sub>e</sub> [A]	110	65	55	40
Utilization Category according to IEC60947-4-1: AC4				
Max Operational Power P <sub>e</sub> [kW]	30	30	30	30
Max Operational Making and breaking Current I <sub>e</sub> [A]	95	55	45	35

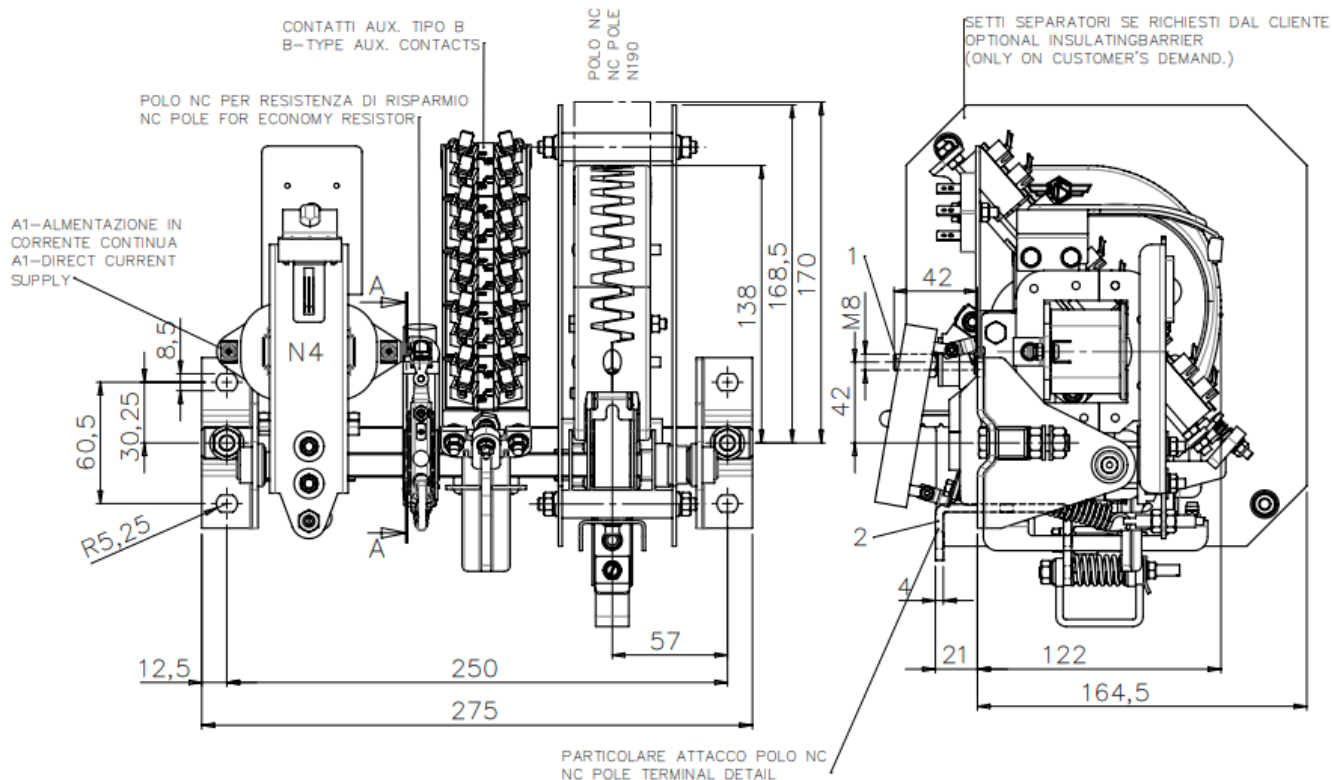
<sup>2</sup> Device cabled according IEC 60947 <sup>3</sup> Other mounting positions not allowed

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



Mechanical Characteristics	
Mechanical Endurance (cycles) <sup>4</sup>	3x10 <sup>6</sup>
Weight [kg]	4.2
Control Circuit	
Control Voltage Range	0.85U <sub>c</sub> ÷ 1.1U <sub>c</sub>
Power Consumption (U <sub>c</sub> and T = 20°C) at Closing - at Opening [W]	130-15
Mechanical Operation Time (U <sub>c</sub> and T = 20°C) when Closing - Opening [ms]	50-15
Mechanical Operation Time (in the worst condition) when Closing - Opening [ms]	200-20
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 <sub>ac</sub> / V <sub>dc</sub> ]	250
Rated Current [A]	10
Minimum Switching Current at 16V <sub>dc</sub> [mA] <sup>5</sup>	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

<sup>4</sup>With respect of the maintenance operations    <sup>5</sup> In clean and dry conditions



The technical specifications reported are not binding and they should be agreed in the contract.

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