

# SWITCHES

## STANDARD FAMILY CODE N000650P1A01

Type	N 650
Number of Poles	1 NO
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	Ceramic in plastic shells
Main Contacts tips Material	S6
Arcing Contacts tips Material	-
Electric Diagram	TU0165/B (DC) - TU0165/C (AC)
Layout Drawing	D53385

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



**MICROELETTRICA**

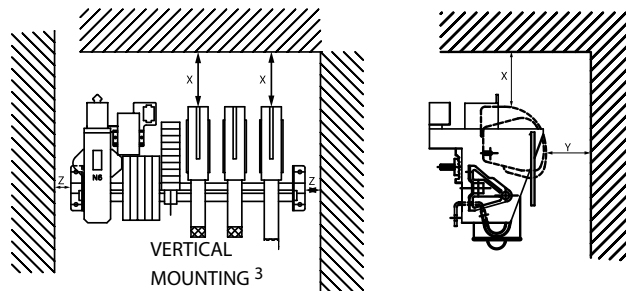
## Description

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>	650			
Conventional Free air thermal current Ith [ at 60°C] <sup>2</sup>	570			
Maximum Making Capacity for 100 ms Ich [kA]	10			
Short Circuit Withstand Current for 100 ms Icw [kA]	12			
Average impedance per pole at 50 Hz [MicroOhm]	300			
Blow out circuit type	Direct			
Electrical Characteristics 1NO pole (S6) for DC application				
Rated Operational Voltage [Vdc]	220	380	440	600
Maximum Breaking Capacity tau=15ms Idcmax [A]	4500	3480	3000	2200
Utilization Category according to IEC60947-4-1: DC1&DC3				
Rated Operational Power Pe [kW]	145	250	265	265
Rated Operational Current Ie [A]	650	650	600	440
Utilization Category according to IEC60947-4-1: DC5				
Rated Operational Power Pe [kW]	120	-	-	-
Rated Operational Current Ie [A]	550	-	-	-
Electrical Characteristics 1NO pole (S6) for AC application				
Rated Operational Voltage [Vac]	220	380	440	600
Maximum Breaking Capacity cosΦ=0,5 Iacmax [A]	8000	4630	4000	2930
Utilization Category according to IEC60947-4-1: AC1&AC2&AC3				
Rated Operational Power Pe [kW] (cosΦ=0,8)	115	200	230	230
Rated Operational Current Ie [A]	650	650	650	480
Utilization Category according to IEC60947-4-1: AC4				
Rated Operational Power Pe [kW] (cosΦ=0,8)	115	190	190	190
Rated Operational Current Ie [A]	650	620	530	390

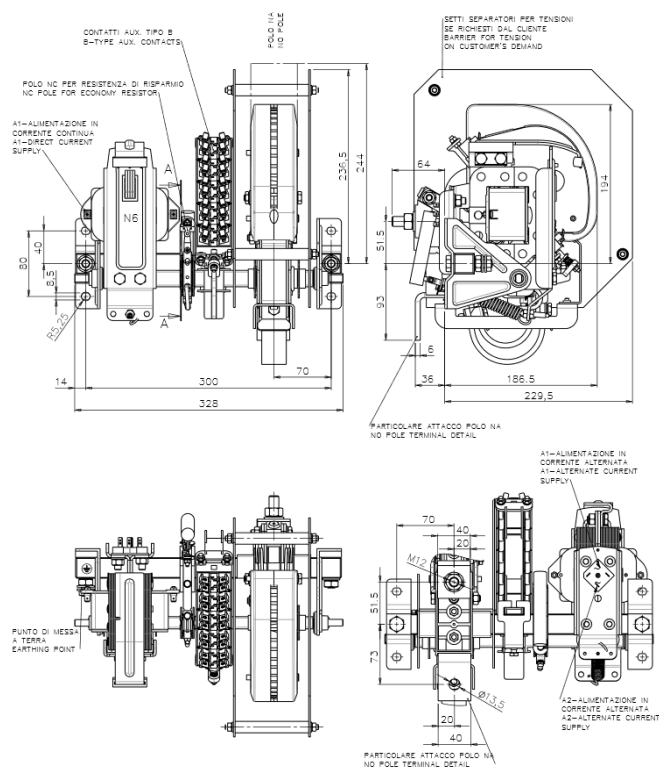
<sup>2</sup> Device cabled according IEC 60947 <sup>3</sup> Other mounting positions not allowed

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



Mechanical Characteristics	
Mechanical Endurance (cycles) <sup>5</sup>	3x10 <sup>6</sup>
Weight [kg]	16.5
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]	300-20
Mechanical Operation Time (U <sub>c</sub> and T = 20°C) when Closing - Opening [ms]	70-20
Mechanical Operation Time (in the worst condition) when Closing - Opening [ms]	350-20
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.

For further technical information on our products visit [www.microelettrica.com](http://www.microelettrica.com)

**Microelettrica Scientifica S.p.A.**

20090 Buccinasco (MI) , Via Lucania 2, Italy

Tel.: +39 02 575731

E-mail: [info@microelettrica.com](mailto:info@microelettrica.com)

[www.microelettrica.com](http://www.microelettrica.com)



 **KNORR-BREMSE**

 **NEW YORK AIR BRAKE**

 **IFE**

 **MERAK**

 **MICROELETTRICA**

 **SELECTRON**

 **KIEPE ELECTRIC**

 **EVAC**

 **ZELISKO**

 **RAILSERVICES**