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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

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Step switch, with 0 position, Connection method: Screw connection, Number of positions: 1, Function: Four steps, Switching zones: 1, Switching program number: S0241, Rated continuous current: 20 A, Voltage: 690 V

#### Why buy this product

- The compact rotary switch is designed for use in energy technology applications with the available switching programs
- The use of high-quality materials results in a long mechanical and electrical service life
- High level of safety thanks to non-conductive plastic parts
- The terminal points are designed in such a way that shock protection according to BGV A2 is ensured
- The rotary switch is free from cadmium and compliant with the RoHS directive



### **Key Commercial Data**

Packing unit	1 STK
GTIN	4 046356 785273
GTIN	4046356785273

#### Technical data

#### General

Number of connections	4
Color	silver/black
Rotary switch function	Four steps
Switching program number	S0241
Switching angle	60 °
Rated continuous current	20 A
Maximum load current	20 A
Rated surge voltage	6 kV
Rated insulation voltage	690 V (Valid for networks with grounded neutral point, overvoltage category III, degree of pollution 3)



## Technical data

### General

Rated operating current according to AC-15 (switching of solenoid drives, contactors, valves, pulling electromagnets)  4 A (380 - 440 V)  Rated operating current according to AC-21A (switching of ohmic loads including small overloads)  Rated operating current according to AC-22A (switching of mixed ohmic and inductive loads, including small overloads)  20 A (220 - 500 V)  Switching power according to AC-3 (squirrel-cage motors: direct starting, switching off motors during operation, star-delta startup (CH16B))  5.5 kW (380 - 440 V; 3-phase, 3-pos.)  5.5 kW (660 - 690 V; 3-phase, 3-pos.)  5.5 kW (660 - 690 V; 1-phase, 2-pos.)  2.2 kW (220 - 240 V; 1-phase, 2-pos.)  3 kW (380 - 440 V; 1-phase, 2-pos.)  Switching power according to AC-4 (squirrel-cage motors: starting, reversing, plugging, inching)  0.55 kW (220 - 240 V; 3-phase, 3-pos.)  1.5 kW (380 - 440 V; 3-phase, 3-pos.)  1.5 kW (380 - 440 V; 3-phase, 3-pos.)  1.5 kW (660 - 690 V; 3-phase, 3-pos.)  1.5 kW (660 - 690 V; 3-phase, 3-pos.)  1.5 kW (200 - 240 V; 1-phase, 2-pos.)  0.55 kW (220 - 240 V; 3-phase, 3-pos.)  1.5 kW (500 V; 3-phase, 3-pos.)	Rated operating current according to AC-15 (switching of solenoid	1
Rated operating current according to AC-21A (switching of ohmic loads including small overloads)  Rated operating current according to AC-22A (switching of mixed ohmic and inductive loads, including small overloads)  20 A (220 - 500 V)  20 A (660 - 690 V)  Switching power according to AC-3 (squirrel-cage motors: direct starting, switching off motors during operation, star-delta startup (CH16B))  5.5 kW (380 - 440 V; 3-phase, 3-pos.)  5.5 kW (500 V; 3-phase, 3-pos.)  5.5 kW (660 - 690 V; 3-phase, 3-pos.)  6.6 kW (110 - 120 V; 1-phase, 2-pos.)  2.2 kW (220 - 240 V; 1-phase, 2-pos.)  Switching power according to AC-4 (squirrel-cage motors: starting, reversing, plugging, inching)  7.5 kW (380 - 440 V; 3-phase, 3-pos.)  1.5 kW (380 - 440 V; 3-phase, 3-pos.)  1.5 kW (380 - 440 V; 3-phase, 3-pos.)  1.5 kW (500 V; 3-phase, 3-pos.)  1.5 kW (500 V; 3-phase, 3-pos.)  1.5 kW (660 - 690 V; 3-phase, 3-pos.)		5 A (220 - 240 V)
including small overloads)  Rated operating current according to AC-22A (switching of mixed ohmic and inductive loads, including small overloads)  20 A (220 - 500 V)  20 A (660 - 690 V)  Switching power according to AC-3 (squirrel-cage motors: direct starting, switching off motors during operation, star-delta startup (CH16B))  3 kW (220 - 240 V; 3-phase, 3-pos.)  5.5 kW (380 - 440 V; 3-phase, 3-pos.)  5.5 kW (660 - 690 V; 3-phase, 3-pos.)  6.6 kW (110 - 120 V; 1-phase, 2-pos.)  2.2 kW (220 - 240 V; 1-phase, 2-pos.)  3 kW (380 - 440 V; 1-phase, 2-pos.)  5.5 kW (380 - 440 V; 3-phase, 3-pos.)  1.5 kW (380 - 440 V; 3-phase, 3-pos.)  1.5 kW (500 V; 3-phase, 3-pos.)		4 A (380 - 440 V)
and inductive loads, including small overloads)  20 A (660 - 690 V)  Switching power according to AC-3 (squirrel-cage motors: direct starting, switching off motors during operation, star-delta startup (CH16B))  3 kW (220 - 240 V; 3-phase, 3-pos.)  5.5 kW (380 - 440 V; 3-phase, 3-pos.)  5.5 kW (660 - 690 V; 3-phase, 3-pos.)  6.6 kW (110 - 120 V; 1-phase, 2-pos.)  2.2 kW (220 - 240 V; 1-phase, 2-pos.)  3 kW (380 - 440 V; 1-phase, 2-pos.)  Switching power according to AC-4 (squirrel-cage motors: starting, reversing, plugging, inching)  1.5 kW (380 - 440 V; 3-phase, 3-pos.)  1.5 kW (380 - 440 V; 3-phase, 3-pos.)  1.5 kW (500 V; 3-phase, 3-pos.)  1.5 kW (660 - 690 V; 3-phase, 3-pos.)  1.5 kW (660 - 690 V; 3-phase, 3-pos.)		20 A
Switching power according to AC-3 (squirrel-cage motors: direct starting, switching off motors during operation, star-delta startup (CH16B))  5.5 kW (380 - 440 V; 3-phase, 3-pos.)  5.5 kW (500 V; 3-phase, 3-pos.)  5.5 kW (660 - 690 V; 3-phase, 3-pos.)  0.6 kW (110 - 120 V; 1-phase, 2-pos.)  2.2 kW (220 - 240 V; 1-phase, 2-pos.)  3 kW (380 - 440 V; 1-phase, 2-pos.)  Switching power according to AC-4 (squirrel-cage motors: starting, reversing, plugging, inching)  0.55 kW (220 - 240 V; 3-phase, 3-pos.)  1.5 kW (380 - 440 V; 3-phase, 3-pos.)  1.5 kW (500 V; 3-phase, 3-pos.)  1.5 kW (660 - 690 V; 3-phase, 3-pos.)  1.5 kW (660 - 690 V; 3-phase, 3-pos.)		20 A (220 - 500 V)
switching off motors during operation, star-delta startup (CH16B))  5.5 kW (380 - 440 V; 3-phase, 3-pos.)  5.5 kW (500 V; 3-phase, 3-pos.)  5.5 kW (660 - 690 V; 3-phase, 3-pos.)  0.6 kW (110 - 120 V; 1-phase, 2-pos.)  2.2 kW (220 - 240 V; 1-phase, 2-pos.)  3 kW (380 - 440 V; 1-phase, 2-pos.)  Switching power according to AC-4 (squirrel-cage motors: starting, reversing, plugging, inching)  0.55 kW (220 - 240 V; 3-phase, 3-pos.)  1.5 kW (380 - 440 V; 3-phase, 3-pos.)  1.5 kW (500 V; 3-phase, 3-pos.)  1.5 kW (500 V; 3-phase, 3-pos.)  1.5 kW (660 - 690 V; 3-phase, 3-pos.)  0.3 kW (110 - 120 V; 1-phase, 2-pos.)		20 A (660 - 690 V)
5.5 kW (500 V; 3-phase, 3-pos.)  5.5 kW (660 - 690 V; 3-phase, 3-pos.)  0.6 kW (110 - 120 V; 1-phase, 2-pos.)  2.2 kW (220 - 240 V; 1-phase, 2-pos.)  3 kW (380 - 440 V; 1-phase, 2-pos.)  Switching power according to AC-4 (squirrel-cage motors: starting, reversing, plugging, inching)  0.55 kW (220 - 240 V; 3-phase, 3-pos.)  1.5 kW (380 - 440 V; 3-phase, 3-pos.)  1.5 kW (500 V; 3-phase, 3-pos.)  1.5 kW (660 - 690 V; 3-phase, 3-pos.)  0.3 kW (110 - 120 V; 1-phase, 2-pos.)		3 kW (220 - 240 V; 3-phase, 3-pos.)
5.5 kW (660 - 690 V; 3-phase, 3-pos.)  0.6 kW (110 - 120 V; 1-phase, 2-pos.)  2.2 kW (220 - 240 V; 1-phase, 2-pos.)  3 kW (380 - 440 V; 1-phase, 2-pos.)  Switching power according to AC-4 (squirrel-cage motors: starting, reversing, plugging, inching)  0.55 kW (220 - 240 V; 3-phase, 3-pos.)  1.5 kW (380 - 440 V; 3-phase, 3-pos.)  1.5 kW (500 V; 3-phase, 3-pos.)  1.5 kW (660 - 690 V; 3-phase, 3-pos.)  0.3 kW (110 - 120 V; 1-phase, 2-pos.)		5.5 kW (380 - 440 V; 3-phase, 3-pos.)
0.6 kW (110 - 120 V; 1-phase, 2-pos.)  2.2 kW (220 - 240 V; 1-phase, 2-pos.)  3 kW (380 - 440 V; 1-phase, 2-pos.)  Switching power according to AC-4 (squirrel-cage motors: starting, reversing, plugging, inching)  0.55 kW (220 - 240 V; 3-phase, 3-pos.)  1.5 kW (380 - 440 V; 3-phase, 3-pos.)  1.5 kW (500 V; 3-phase, 3-pos.)  1.5 kW (660 - 690 V; 3-phase, 3-pos.)  0.3 kW (110 - 120 V; 1-phase, 2-pos.)		5.5 kW (500 V; 3-phase, 3-pos.)
2.2 kW (220 - 240 V; 1-phase, 2-pos.)  3 kW (380 - 440 V; 1-phase, 2-pos.)  Switching power according to AC-4 (squirrel-cage motors: starting, reversing, plugging, inching)  0.55 kW (220 - 240 V; 3-phase, 3-pos.)  1.5 kW (380 - 440 V; 3-phase, 3-pos.)  1.5 kW (500 V; 3-phase, 3-pos.)  1.5 kW (660 - 690 V; 3-phase, 3-pos.)  0.3 kW (110 - 120 V; 1-phase, 2-pos.)		5.5 kW (660 - 690 V; 3-phase, 3-pos.)
3 kW (380 - 440 V; 1-phase, 2-pos.)  Switching power according to AC-4 (squirrel-cage motors: starting, reversing, plugging, inching)  1.5 kW (380 - 440 V; 3-phase, 3-pos.)  1.5 kW (500 V; 3-phase, 3-pos.)  1.5 kW (660 - 690 V; 3-phase, 3-pos.)  0.3 kW (110 - 120 V; 1-phase, 2-pos.)		0.6 kW (110 - 120 V; 1-phase, 2-pos.)
Switching power according to AC-4 (squirrel-cage motors: starting, reversing, plugging, inching)       0.55 kW (220 - 240 V; 3-phase, 3-pos.)         1.5 kW (380 - 440 V; 3-phase, 3-pos.)       1.5 kW (500 V; 3-phase, 3-pos.)         1.5 kW (660 - 690 V; 3-phase, 3-pos.)       0.3 kW (110 - 120 V; 1-phase, 2-pos.)		2.2 kW (220 - 240 V; 1-phase, 2-pos.)
reversing, plugging, inching)  1.5 kW (380 - 440 V; 3-phase, 3-pos.)  1.5 kW (500 V; 3-phase, 3-pos.)  1.5 kW (660 - 690 V; 3-phase, 3-pos.)  0.3 kW (110 - 120 V; 1-phase, 2-pos.)		3 kW (380 - 440 V; 1-phase, 2-pos.)
1.5 kW (500 V; 3-phase, 3-pos.)  1.5 kW (660 - 690 V; 3-phase, 3-pos.)  0.3 kW (110 - 120 V; 1-phase, 2-pos.)		0.55 kW (220 - 240 V; 3-phase, 3-pos.)
1.5 kW (660 - 690 V; 3-phase, 3-pos.) 0.3 kW (110 - 120 V; 1-phase, 2-pos.)		1.5 kW (380 - 440 V; 3-phase, 3-pos.)
0.3 kW (110 - 120 V; 1-phase, 2-pos.)		1.5 kW (500 V; 3-phase, 3-pos.)
		1.5 kW (660 - 690 V; 3-phase, 3-pos.)
0.75 kW (220 - 240 V; 1-phase, 2-pos.)		0.3 kW (110 - 120 V; 1-phase, 2-pos.)
		0.75 kW (220 - 240 V; 1-phase, 2-pos.)
1.5 kW (380 - 440 V; 1-phase, 2-pos.)		1.5 kW (380 - 440 V; 1-phase, 2-pos.)
Switching power according to AC-23A (frequent switching of motors or other highly inductive loads)  3.7 kW (220 - 240 V; 3-phase, 3-pos.)		3.7 kW (220 - 240 V; 3-phase, 3-pos.)
7.5 kW (380 - 440 V; 3-phase, 3-pos.)		7.5 kW (380 - 440 V; 3-phase, 3-pos.)
7.5 kW (500 V; 3-phase, 3-pos.)		7.5 kW (500 V; 3-phase, 3-pos.)
7.5 kW (660 - 690 V; 3-phase, 3-pos.)		7.5 kW (660 - 690 V; 3-phase, 3-pos.)
0.75 kW (110 - 120 V; 1-phase, 2-pos.)		0.75 kW (110 - 120 V; 1-phase, 2-pos.)
2.5 kW (220 - 240 V; 1-phase, 2-pos.)		2.5 kW (220 - 240 V; 1-phase, 2-pos.)
3.7 kW (380 - 440 V; 1-phase, 2-pos.)		3.7 kW (380 - 440 V; 1-phase, 2-pos.)
Breaking capacity 150 A (220 - 240 V)	Breaking capacity	150 A (220 - 240 V)
150 A (380 - 440 V)		150 A (380 - 440 V)
80 A (660 - 690 V)		80 A (660 - 690 V)
Maximum power dissipation for nominal condition 0.9 W	Maximum power dissipation for nominal condition	0.9 W
Ambient temperature (operation) -35 °C 55 °C (Open, at 100% load, with peaks up to 60°C)	Ambient temperature (operation)	-35 °C 55 °C (Open, at 100% load, with peaks up to 60°C)
IP immunity to short-circuiting with maximum backup fuse 25 A (gL/gG characteristics)	IP immunity to short-circuiting with maximum backup fuse	25 A (gL/gG characteristics)
Rated short-time current resistance 140 A (1 s current)	Rated short-time current resistance	140 A (1 s current)

#### **Dimensions**

Width	48 mm
Length	62.5 mm



## Technical data

### Dimensions

Height	48 mm
Hole diameter	7 mm
Height	29 mm
Installation depth	33.5 mm

#### Ambient conditions

Ambient temperature (operation)	-35 °C 55 °C (Open, at 100% load, with peaks up to 60°C)

#### Connection data

Conductor cross section solid min.	0.5 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm²
Conductor cross section AWG min.	20
Conductor cross section AWG max.	14
Conductor cross section flexible min.	0.75 mm²
Conductor cross section flexible max.	2.5 mm²
Min. AWG conductor cross section, flexible	18
Max. AWG conductor cross section, flexible	14
Conductor cross section / stranded with ferrule without plastic sleeve min.	2.5 mm²
Conductor cross section / stranded with ferrule without plastic sleeve max.	2.5 mm²
Conductor cross section / stranded with ferrule with plastic sleeve min.	1.5 mm²
Conductor cross section / stranded, with ferrule with plastic sleeve max.	1.5 mm²
2 conductors with same cross section, solid min.	0.5 mm²
2 conductors with same cross section, solid max.	2.5 mm²
Two conductors with the same cross section, AWG solid min.	20
Two conductors with the same cross section, AWG solid max.	14
2 conductors with same cross section, stranded min.	0.75 mm²
2 conductors with same cross section, stranded max.	2.5 mm²
Two conductors with the same cross section, AWG stranded, min.	18
Two conductors with the same cross section, AWG stranded, max.	14
2 conductors with the same cross section/stranded, with ferrule and without plastic sleeve, minimum	2.5 mm²
2 conductors with the same cross section/stranded, with ferrule and without plastic sleeve, maximum	2.5 mm²
2 conductors with the same cross section/stranded, with ferrule and plastic sleeve, minimum	1.5 mm²
2 conductors with the same cross section/stranded, with ferrule and plastic sleeve, maximum	1.5 mm²

## Standards and Regulations

Flammability rating according to UL 94	V0
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### **Environmental Product Compliance**

China RoHS	Environmentally friendly use period: unlimited = EFUP-e

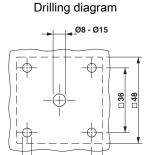


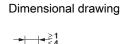
## Technical data

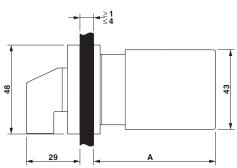
**Environmental Product Compliance** 

No hazardous substances above threshold values

## **Drawings**



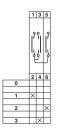




#### Circuit diagram







## **Approvals**

#### Approvals

Approvals

UL Listed / cUL Listed / EAC / cULus Listed

Ex Approvals

### Approval details

UL Listed	UL	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm FILE E 35735		FILE E 357353
mm²/AWG/kcmil			20-12	



## Approvals

Nominal current IN	20 A
Nominal voltage UN	300 V

cUL Listed	C UL	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm		FILE E 357353
mm²/AWG/kcmil			20-12	
Nominal current IN			20 A	
Nominal voltage UN			300 V	

EAC [H[	EAC-Zulassung
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