# imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

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.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Voltmeter changeover switch, with 0 position, Connection method: Screw connection, Function: L3-L1 - L2-L3 - L1-L2 - 0 - L1-N - L2-N - L3-N, Switching zones: 2, Switching program number: S0004, Rated continuous current: 20 A, Voltage: 690 V

#### Why buy this product

- If 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
- ☑ Comprehensive approvals ensure international use
- 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
- ${\ensuremath{\,^{\scriptsize \Box}}}$  The rotary switch is free from cadmium and compliant with the RoHS directive

#### RoHS

#### Key Commercial Data

Packing unit	1 STK
GTIN	4 046356 771474
GTIN	4046356771474

#### Technical data

#### General

Number of connections	12
Color	silver/black
Rotary switch function	L3-L1 - L2-L3 - L1-L2 - 0 - L1-N - L2-N - L3-N
Switching program number	S0004
Switching angle	45 °
Rated continuous current	20 A
Maximum load current	20 A
Rated surge voltage	6 kV



#### Technical data

#### General

Rated insulation voltage	690 V (Valid for networks with grounded neutral point, overvoltage category III, degree of pollution 3)
Rated operating current according to AC-15 (switching of solenoid drives, contactors, valves, pulling electromagnets)	5 A (220 - 240 V)
	4 A (380 - 440 V)
Rated operating current according to AC-21A (switching of ohmic loads including small overloads)	20 A
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 (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.)
	0.75 kW (220 - 240 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.)
	7.5 kW (380 - 440 V; 3-phase, 3-pos.)
	7.5 kW (500 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.)
	2.5 kW (220 - 240 V; 1-phase, 2-pos.)
	3.7 kW (380 - 440 V; 1-phase, 2-pos.)
Breaking capacity	150 A (220 - 240 V)
	150 A (380 - 440 V)
	80 A (660 - 690 V)
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)
IP immunity to short-circuiting with maximum backup fuse	25 A (gL/gG characteristics)
Rated short-time current resistance	140 A (1 s current)



#### Technical data

#### Dimensions

Width	48 mm	
Length	81.5 mm	
Height	48 mm	
Hole diameter	7 mm	
Height	29 mm	
Installation depth	43 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 mm <sup>2</sup>	
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 mm <sup>2</sup>	
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 mm <sup>2</sup>	
Conductor cross section / stranded with ferrule without plastic sleeve max.	2.5 mm <sup>2</sup>	
Conductor cross section / stranded with ferrule with plastic sleeve min.	1.5 mm <sup>2</sup>	
Conductor cross section / stranded, with ferrule with plastic sleeve max.	1.5 mm <sup>2</sup>	
2 conductors with same cross section, solid min.	0.5 mm <sup>2</sup>	
2 conductors with same cross section, solid max.	2.5 mm <sup>2</sup>	
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 mm <sup>2</sup>	
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 mm <sup>2</sup>	
2 conductors with the same cross section/stranded, with ferrule and without plastic sleeve, maximum	2.5 mm <sup>2</sup>	
2 conductors with the same cross section/stranded, with ferrule and plastic sleeve, minimum	1.5 mm <sup>2</sup>	
2 conductors with the same cross section/stranded, with ferrule and plastic sleeve, maximum	1.5 mm²	

Standards and Regulations

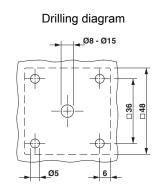


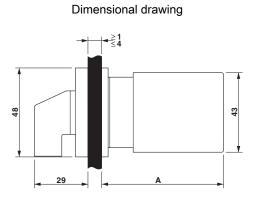
#### Technical data

#### Standards and Regulations

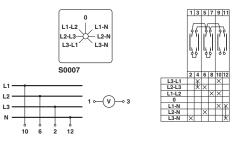
Flammability rating according to UL 94 V0	
Environmental Product Compliance	
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

#### Drawings





#### Circuit diagram



### Approvals

Approvals

#### Approvals

UL Listed / cUL Listed / EAC / cULus Listed

#### Ex Approvals

#### Approval details

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Approvals

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

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

EAC	ERC	EAC-Zulassung
cULus Listed	CUL US LISTED	

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