



Control switch, Change over switchServ.d



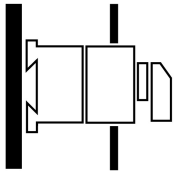
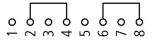

Powering Business Worldwide™

Part no. T0-2-15432/IVS
Article no. 041229

Catalog No. CT02-15432-SDKBQ



Delivery programme

Product range			Control switches															
Basic function			Hand/Auto switches															
Part group reference			T0															
			With 0 (Off) position with black thumb grip and front plate															
Main circuits Poles			2															
Protection type			Front IP30															
Design			service distribution board mounting															
																		
Contact sequence			<table border="1" style="display: inline-table; margin-right: 10px;"> <tr> <td>AUTO</td> <td>X</td> <td></td> <td>X</td> <td></td> </tr> <tr> <td>0</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>HAND</td> <td></td> <td>X</td> <td></td> <td>X</td> </tr> </table> 	AUTO	X		X		0					HAND		X		X
AUTO	X		X															
0																		
HAND		X		X														
Front plate no.			 FS 1401															
Bemessungsbetriebsleistung AC-23A, 50 - 60 Hz																		
400 V	P	kW	6.5															
Rated uninterrupted current	I _u	A	20															

Approvals

Product Standards
 UL File No.
 UL Category Control No.
 CSA File No.
 CSA Class No.
 North America Certification
 Specially designed for North America
 Suitable for
 Degree of Protection

UL 508; CSA-C22.2 No. 14-05; IEC/EN 60947-3; CE marking
 E36332
 NLRV
 12528
 3211-05
 UL listed, CSA certified
 Yes, in combination with "+NA" (105864)
 Branch circuits
 IEC: IP30; UL/CSA Type: –

General

Standards			IEC/EN 60947, VDE 0660, IEC/EN 60204, CSA, UL Lasttrennschalter nach IEC/EN 60947-3
Climatic proofing			Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Ambient temperature		°C	
Open		°C	-25 - +50
Enclosed		°C	-25 - +40
Overvoltage category/pollution degree			III/3

Rated impulse withstand voltage	U_{imp}	V AC	6000
Mechanical shock resistance		g	15
Mounting position			As required
Protection against direct contact when actuated from front (EN 50274)			Finger and back-of-hand proof
Contacts			
Mechanical variables			
Main circuits Poles			2
Electrical characteristics			
Rated operational voltage	U_e	V AC	690
Rated uninterrupted current	I_u	A	20
Hinweis zum Bemessungsdauerstrom I_u			Der Bemessungsdauerstrom I_u ist bei max. Querschnitt angegeben.
Load rating with intermittent operation, class 12			
AB 25 % DF		$\times I_e$	2
AB 40 % DF		$\times I_e$	1.6
AB 60 % DF		$\times I_e$	1.3
Short-circuit rating			
Fuse		A gG/ gL	20
Rated short-time withstand current (1 s current)	I_{cw}	A_{rms}	320
Hinweis zur Bemessungskurzzeitstromfestigkeit I_{cw}			1-Sekunden-Strom
Switching capacity			
Bemessungsausschaltvermögen $\cos \varphi$ nach IEC 60947-3		A	
230 V		A	100
400/415 V		A	110
500 V		A	80
690 V		A	60
Safe isolation to EN 61140			
between the contacts		V AC	440
Current heat loss per contact at I_e		W	0.6
Lifespan, mechanical	Operations	$\times 10^6$	> 0.4
Maximum operating frequency	Operations/ h		1200
AC			
AC-3			
Rating, motor load switch	P	kW	
220 V 230 V	P	kW	3
230 V Star-delta	P	kW	4
380 V 400 V	P	kW	4
400 V 415 V	P	kW	4
400 V Star-delta	P	kW	5.5
500 V	P	kW	5.5
500 V Star-delta	P	kW	7.5
690 V	P	kW	4
690 V Star-delta	P	kW	5.5
Bemessungsbetriebsstrom Motorschalter			
230 V	I_e	A	11.5
230 V Stern-Dreieck	I_e	A	14.8
400V 415 V	I_e	A	11.5
400 V Stern-Dreieck	I_e	A	11.3
500 V	I_e	A	9
500 V Stern-Dreieck	I_e	A	12.1
690 V	I_e	A	4.9

690 V Stern-Dreieck	I_e	A	6.5
AC-15			
Rated operational current control switch			
230 V	I_e	A	6
400 V 415 V	I_e	A	4
500 V	I_e	A	2
AC-21A			
Bemessungsbetriebsstrom Lastschalter			
440 V	I_e	A	20
AC-23A			
Bemessungsbetriebsleistung AC-23A, 50 - 60 Hz	P	kW	
230 V	P	kW	3.5
400 V 415 V	P	kW	6.5
500 V	P	kW	7.5
690 V	P	kW	6.5
Bemessungsbetriebsstrom Motorschalter			
230 V	I_e	A	13.3
DC			
DC-1, Load-break switches L/R = 1 ms			
Rated operational current	I_e	A	10
Voltage per contact pair in series		V	60
DC-21A	I_e	A	
Rated operational current	I_e	A	1
Contacts		Quantity	1
DC-23A, motor load switch L/R = 15 ms			
24 V			
Rated operational current	I_e	A	10
Contacts		Quantity	1
48 V			
Rated operational current	I_e	A	10
Contacts		Quantity	2
60 V			
Rated operational current	I_e	A	10
Contacts		Quantity	3
120 V			
Rated operational current	I_e	A	5
Contacts		Quantity	3
240 V			
Rated operational current	I_e	A	5
Contacts		Quantity	5
DC-13, Control switches L/R = 50 ms			
Rated operational current	I_e	A	10
Voltage per contact pair in series		V	32
Control circuit reliability at 24 V DC, 10 mA	Fault probability	H_F	$< 10^{-5}$, < 1 fault in 100000 operations

Terminal capacities

Flexible with ferrules to DIN 46228		mm^2	
Flexible with ferrule		mm^2	1 x (0.75 - 1.5) 2 x (0.75 - 1.5)
Terminal screw			M3.5
Max. tightening torque		Nm	1

Technical data ETIM 5.0

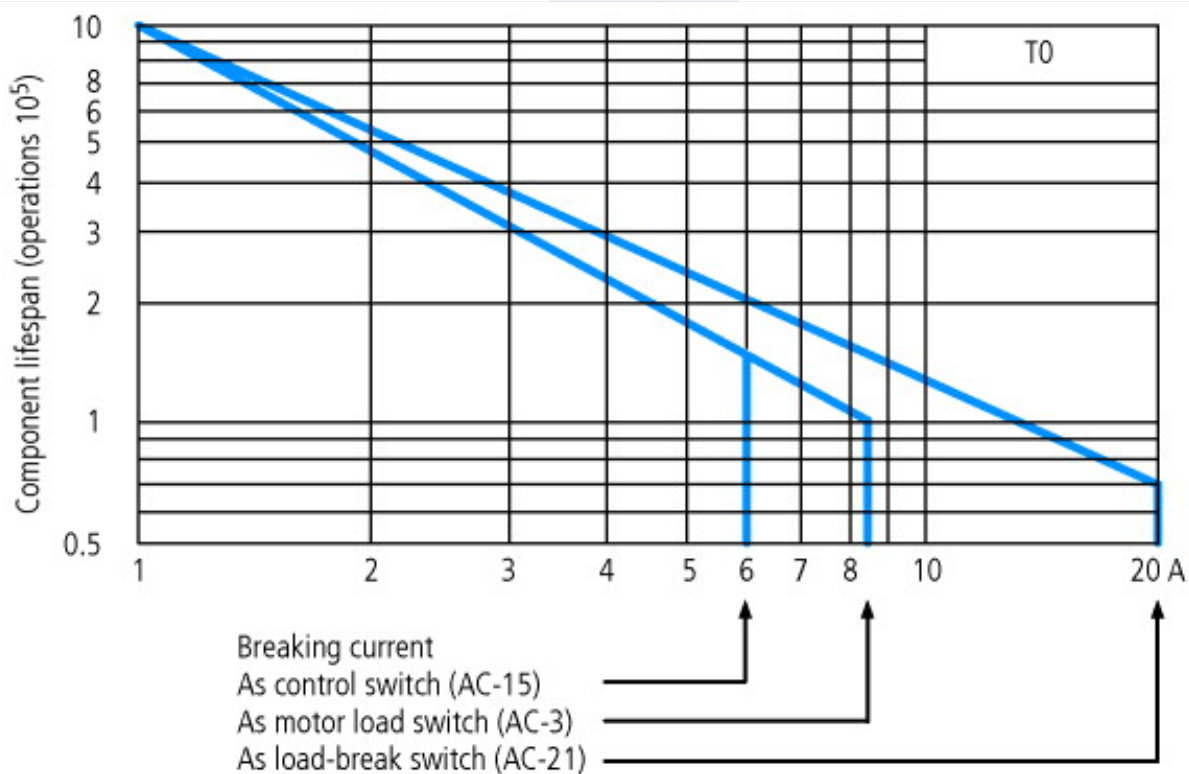
Low-voltage industrial components (EG000017) / Control switch (EC002611)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Control switch (ecl@ss8-27-37-14-14 [ACN998007])

Switch function			Reverser
Number of poles			2
Max. rated operation voltage Ue AC		V	690
Rated permanent current Iu		A	20
Number of switch positions			3
With 0 (off) position			Yes
With retraction in 0-position			No
Device construction			Built-in device
Width in number of modular spacings			4
Suitable for ground mounting			Yes
Suitable for front mounting 4-hole			No
Suitable for distribution board installation			Yes
Suitable for intermediate mounting			No
Complete device in housing			No
Type of control element			Toggle
Front shield size			-
Degree of protection (IP), front side			IP30

Characteristics

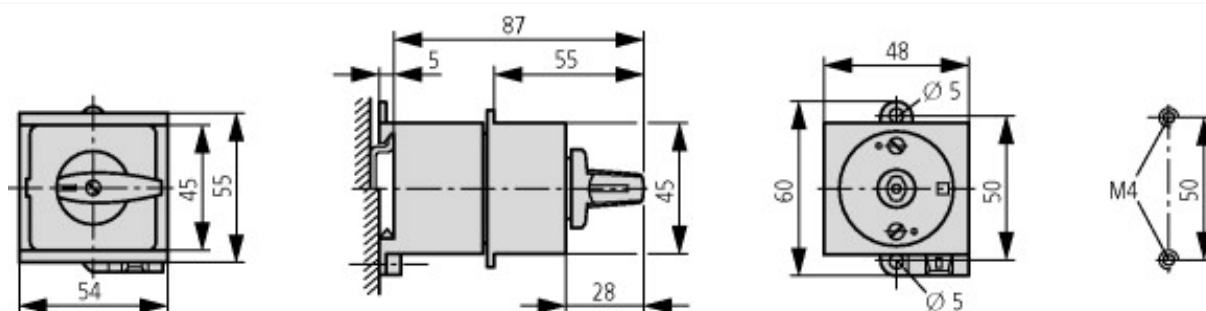
Characteristic curves



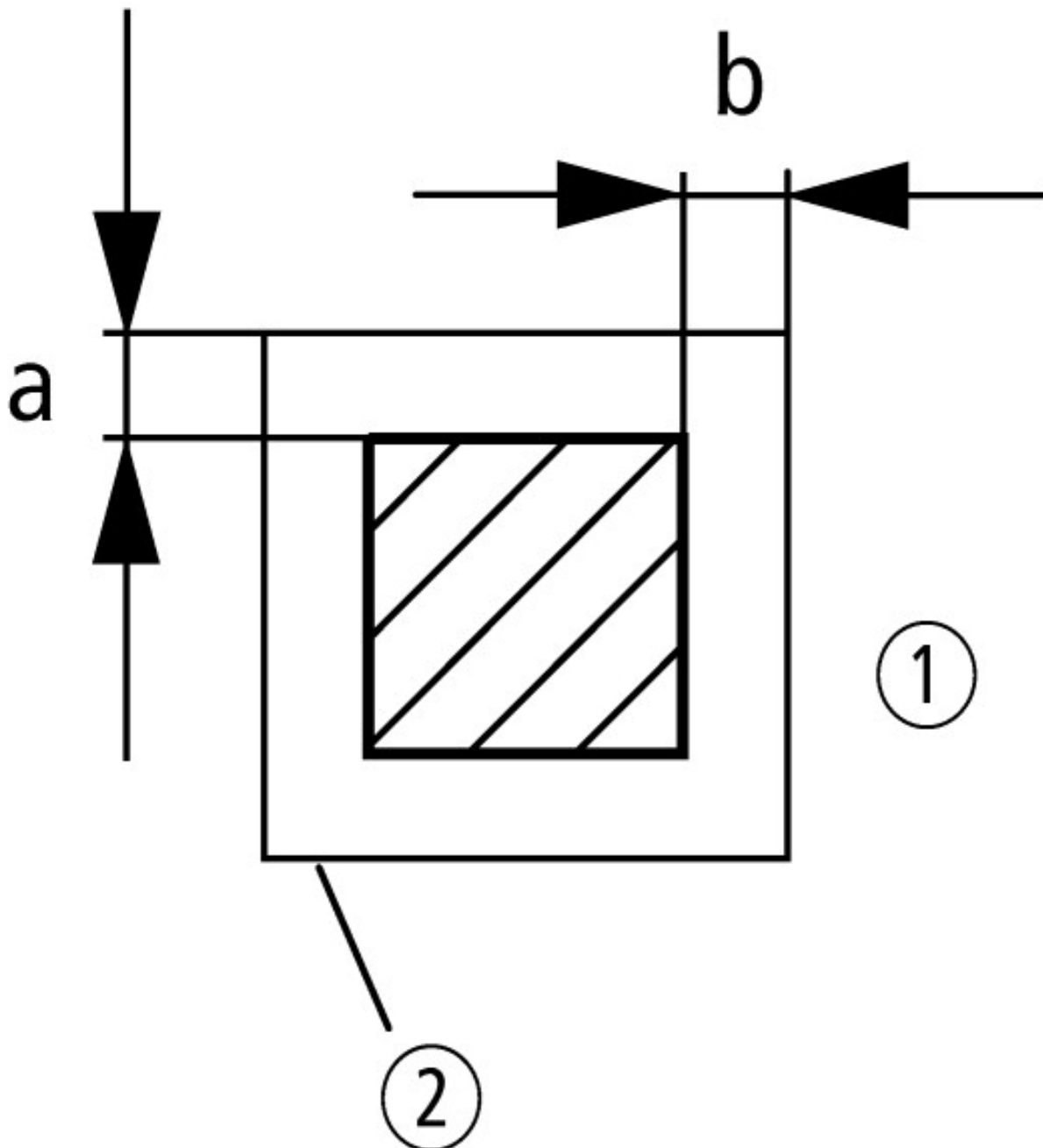
For utilisation category AC-4 (extreme load: 100 % inching, reversing or plugging)

The blocked rotor current of the motor should not exceed the rated current of the switch for AC-21A to ensure a reasonable device lifespan.

Dimensions



Depth of a contact unit: 9.5 mm



- ① Montageabstände a und b: 4 mm
- ② leitfähiges berührbares Teil (Metall)

Additional product information (links)

<http://ecat.moeller.net/flip-cat/?edition=HPLEN&startpage=4.87>

<http://ecat.moeller.net/flip-cat/?edition=K115A&startpage=108>