

Change over switch, 2-way switch Flush mounting



Powering Business Worldwide™

Part no.
Article no.

T0-1-8220/E
031728

Front IP65

Program

Range			Load current switches Control switches
Basic function			Changeoverswitches
Part group reference (e.g. DIL)			T0
Design			Flush mounting
Protection type			Front IP65
Emergency stop			without emergency switching off/emergency stop function
			Without 0 (Off) position with black thumb grip and front plate
Contact sequence			
Front plate no.			 FS 943
Main conducting paths			
No. of poles		M	1
Max. motor rating			
AC-23A			
400/415 V 50-60 Hz	P	kW	6.5
Rated uninterrupted current	I _u	A	20

Approbationen

UL approval
CSA approval
Product Standards
UL File No.
UL CCN
CSA File No.
CSA Class No.
NA Certification
Specially designed for NA
Suitable for
Degree of Protection

Yes
Yes
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: IP65; UL/CSA Type 3R, 12

General

Standards			IEC/EN 60947, VDE 0660, IEC/EN 60204, CSA, UL Switch-disconnectors to IEC/EN 60947-3 Load-break switches to IEC/EN 60947-3
Lifespan, mechanical	Operations	x 10 ⁶	0.5

Maximum operating frequency		Operations h	3000
Climatic proofing			Damp heat, constant, to IEC 60068-2-78; Damp heat, cyclical, to IEC 60068-2-30
Ambient temperature		°C	
Open		°C	- 25 - 50
Enclosed		°C	- 25 - 40
Mounting position			As required
Mechanical shock resistance to IEC 60068-2-27	Half-sinusoidal shock 20 ms	g	> 15

Contacts

Rated operational voltage	U_e	V AC	690
Rated impulse withstand voltage	U_{imp}	V AC	6000
Overvoltage category/pollution degree			III/3
Rated uninterrupted current	I_u	A	
open	I_u	A	20
Enclosed	I_u	A	20
Load rating with intermittent operation, class 12			
AB 25 % DF		x I_e	2
AB 40 % DF		x I_e	1.6
AB 60 % DF		x 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
Safe isolation to VDE 0106 Part 101 and Part 101/A1			
between the contacts		V AC	440
Switching angles		°	90 60 45 30
Contact units			11
Double-break contacts			max. 22
Current heat loss per contact at I_e		W	0.6

Terminal capacities

Solid or stranded		mm ²	1 x (1 - 2.5) 2 x (1 - 2.5)
Flexible with ferrule to DIN 46228		mm ²	1 x (0.75 - 1.5) 2 x (0.75 - 1.5)
Terminal screw			M3.5
Tightening torque		Nm	1

Switching capacity

AC		x U_s	
Rated making capacity $\cos \varphi = 0.35$		A	130
Rated breaking capacity, motor load switch $\cos \varphi = 0.35$		A	
230 V		A	100
400 V		A	110
500 V		A	80
690 V		A	60
Rated operational current 440 V load-break switch AC-21A	I_e	A	20
Rating, AC-3 motor load switch	P	kW	
220/230 V	P	kW	1.1
230 V Star-delta	P	kW	4
400 V	P	kW	1.3
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
AC-23A Motor load switches (main switches maintenance switches)	P	kW	
230 V	P	kW	3.5
400 V	P	kW	6.5
500 V	P	kW	7.5
Rated operational current control switch AC-15			
230 V	I _e	A	6
400 V	I _e	A	4
500 V	I _e	A	2
DC		x U _s	
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 240 V	I _e	A	1
240 V 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

Notes

Notes The following applies for solid, multiwire, and flexible terminal capacities:
If 2 conductors are being used, a max. difference of 2 cross-section categories is permissible

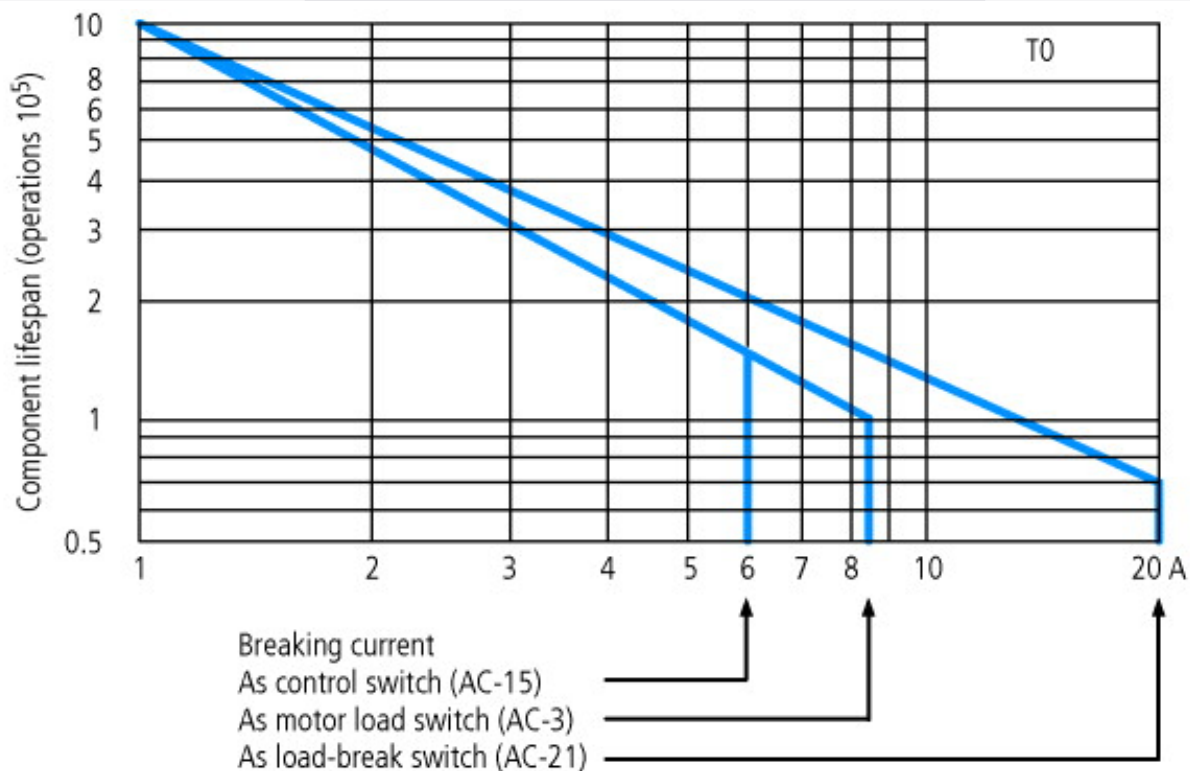
Technical data according to ETIM 4.0

Number of auxiliary contacts as N/Cs			0
With 0 (off) position			No
Type			Changeover switch
Motor rating at AC-3, 400 V		kWh	4
Number of auxiliary contacts as N/Os			0
Suitable for front mounting			YES
Protection type (IP), at front			IP65
Rated uninterrupted current I _u		A	20
Suitable for base fixing			No
Number of auxiliary contacts as changeover contacts			0

Suitable for distribution board installation		No
Suitable for rear mounting		No
Complete device in housing		No
Type of control element		Toggle
Number of poles		1
Connection type main circuit		Screw connection

Characteristics

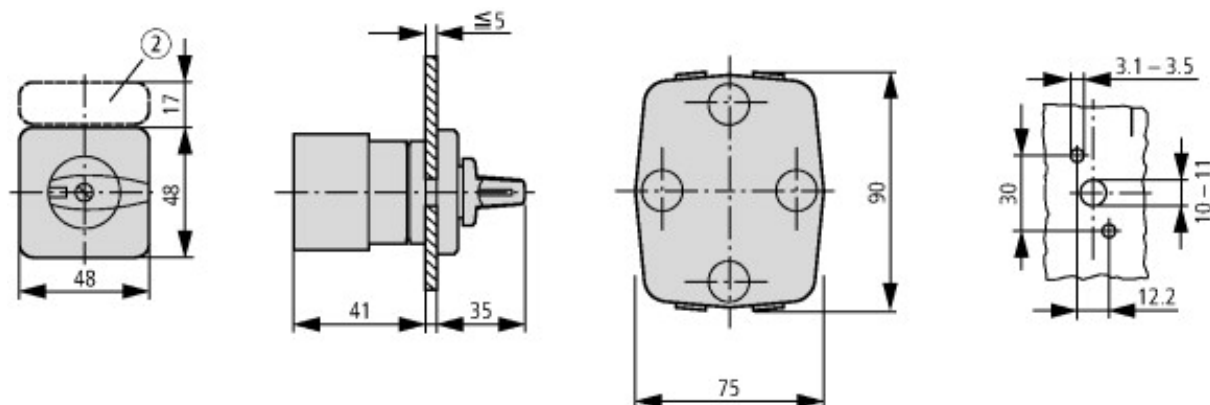
Form for ordering non-standard front plates



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

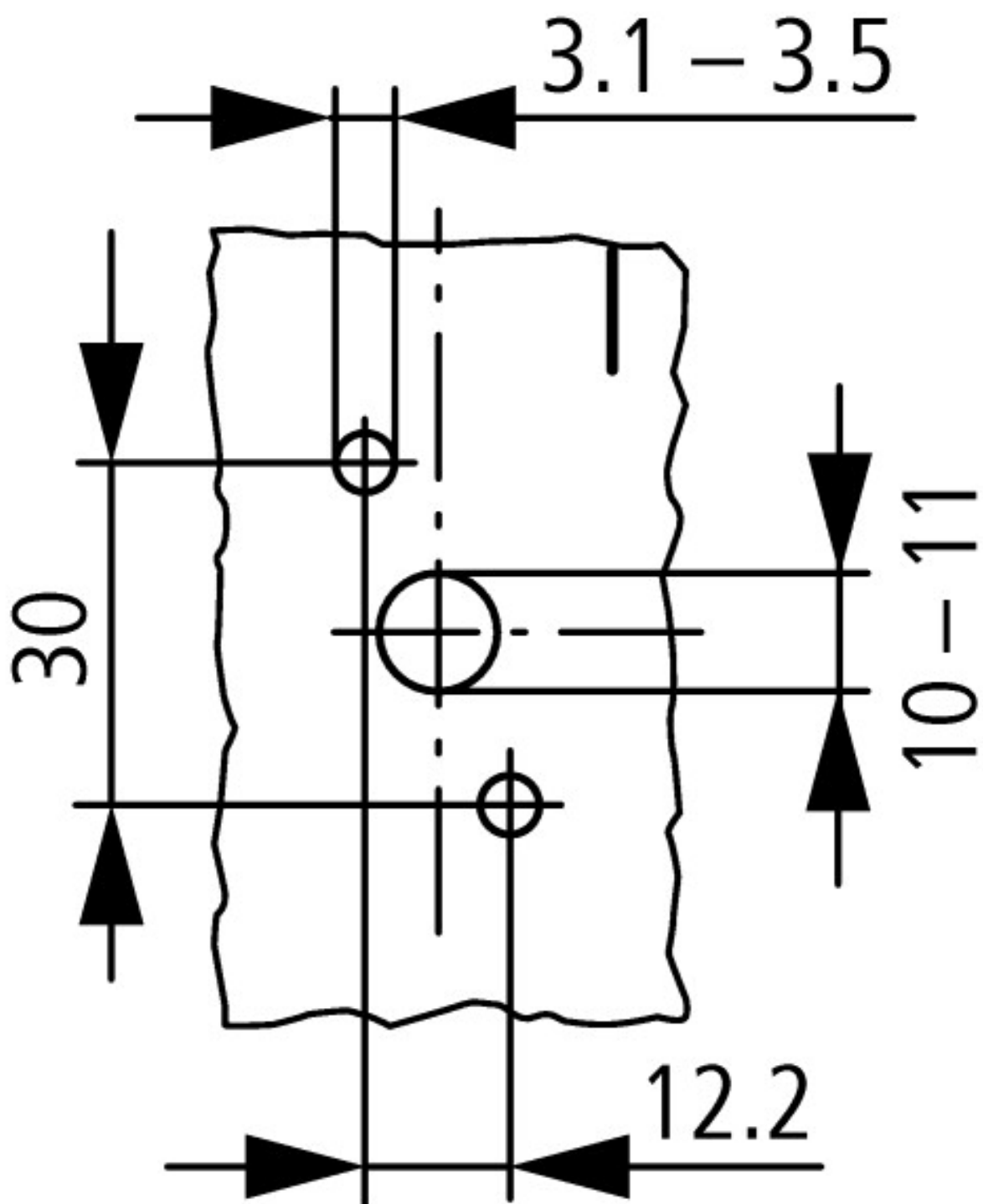
The blocked rotor current of the motor should not exceed the rated current of the switch for AC-21A to ensure a reasonable device lifespan.

Dimensions

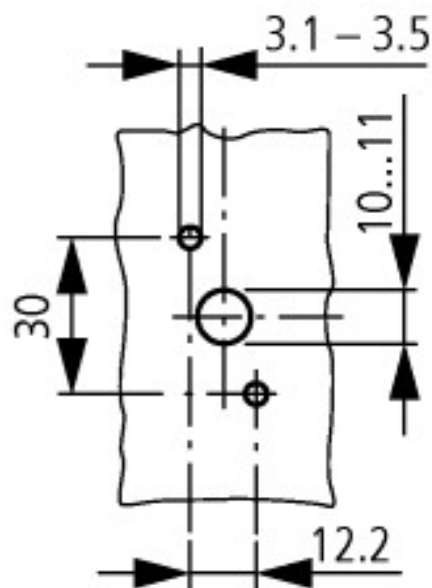
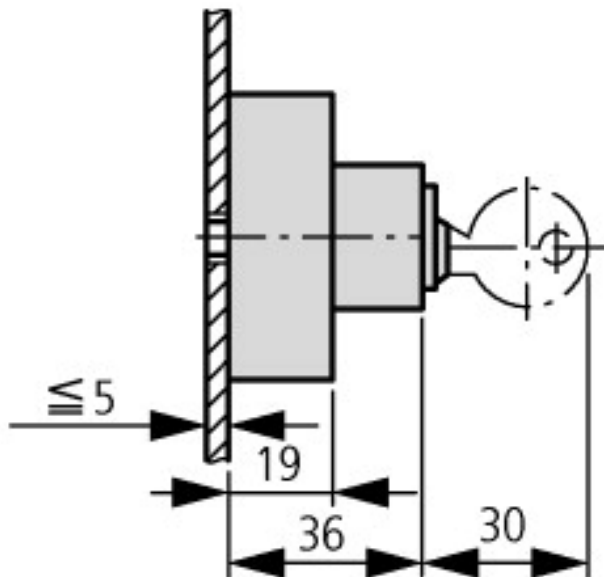
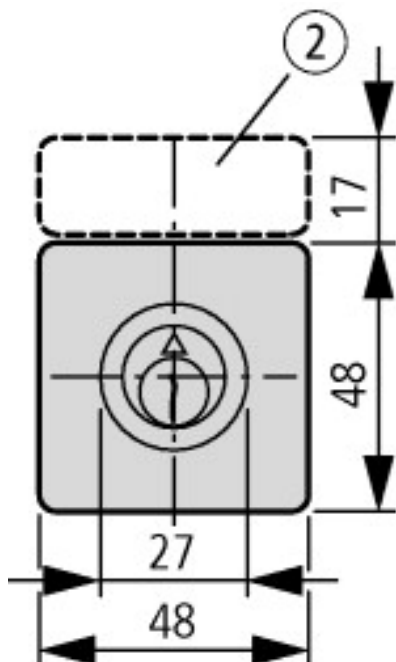


② Label mount not included as standard

One contact unit depth: 9.5 mm



Diameter of drilled hole Door



Key operation lock mechanism
T0.../E + S-(SOND-)T0

Additional product information (links)

AWA1150-0586 (IL03801020Z) Cam switch

ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/05860709.pdf

Engineering

Technical overview

ftp://ftp.moeller.net/DOCUMENTATION/PDF/GB/Ovt_t_p_Leistung_G.pdf

Key to part numbers, modular system

ftp://ftp.moeller.net/DOCUMENTATION/PDF/GB/Ovt_t_p_Typenschlüssel_G.pdf

Ordering of non-standard switches

ftp://ftp.moeller.net/DOCUMENTATION/PDF/GB/Bestellformulare_de.pdf