



Change over switch, 2-way switch Serv.dis



Powering Business Worldwide™

Part no. T0-2-8221/IVS
Article no. 057832

Catalog No. CT02-8221-SDKBQ



Delivery programme

Product range			Switch-disconnectors
Basic function			Changeoverswitches
Part group reference			T0
Design			Distribution board - assembly
Protection type			Front IP30
Emergency stop			without emergency switching off/emergency stop function
Contact sequence			Without 0 (Off) position with black thumb grip and front plate
Front plate no.			 FS 943
Main conducting paths			
No. of poles		M	2
Max. motor rating			
AC-23A			
400/415 V 50-60 Hz	P	kW	6.5
Rated uninterrupted current	I _u	A	20

Approvals

Product Standards
UL File No.
UL CCN
CSA File No.
CSA Class No.
NA Certification
Specially designed for NA
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 Switch-disconnectors to IEC/EN 60947-3 Load-break switches to IEC/EN 60947-3
Lifespan, mechanical	Operations	x 10 ⁶	0.4

Maximum operating frequency		Operations	3000
Climatic proofing		h	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 EN 61140			
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 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
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 V 230 V	P	kW	2.2
230 V Star-delta	P	kW	4
380 V 400 V	P	kW	2.2

400 V Star-delta	P	kW	5.5
500 V	P	kW	5.5
500 V Star-delta	P	kW	7.5
660 V 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			
220 V 230 V 240 V	I _e	A	6
380 V 400 V 415 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

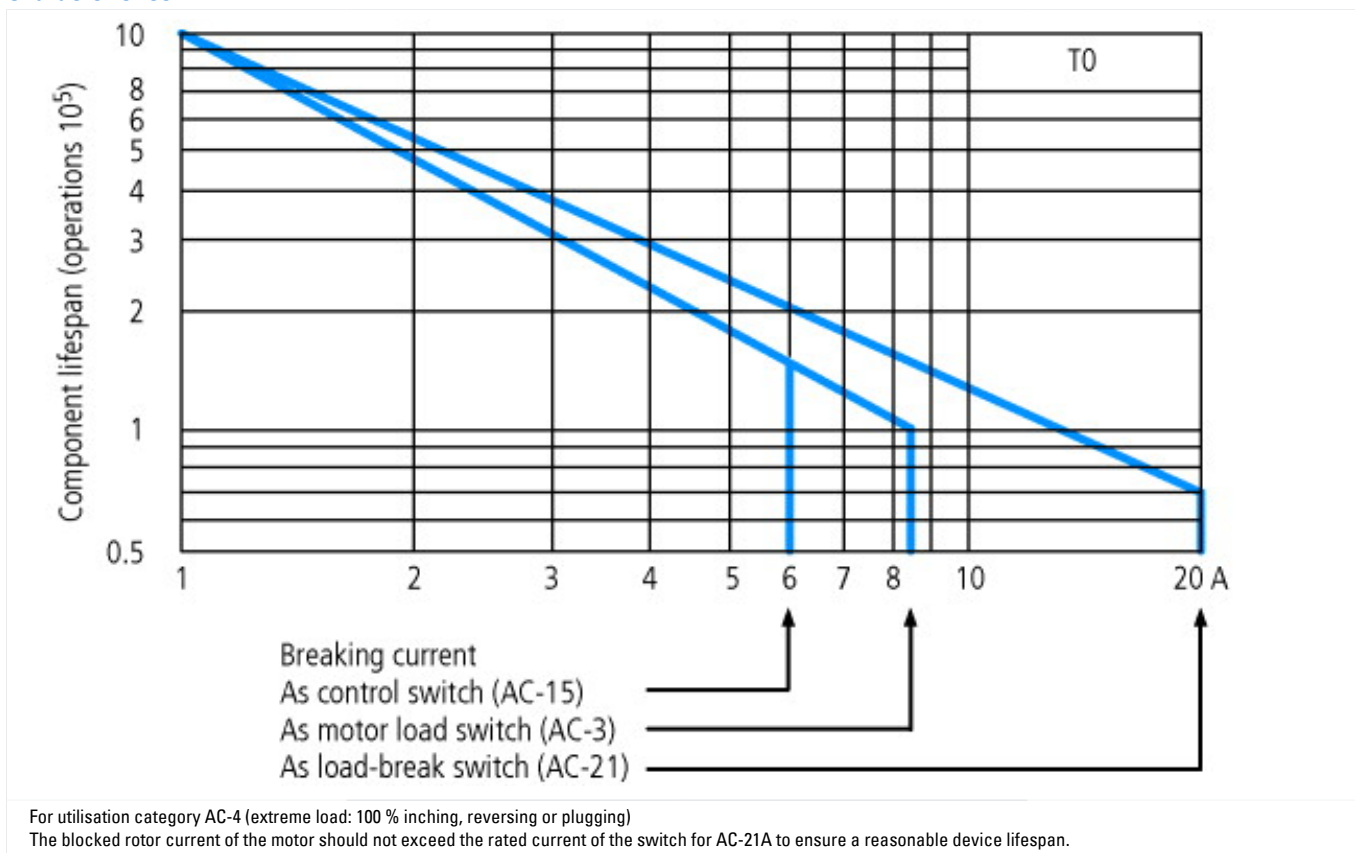
Notes The following applies for solid, multiwire, and flexible terminal capacities:
If 2 conductors are being used, a max. difference of 2 cross-section categories is permissible

Technical data ETIM 4.0

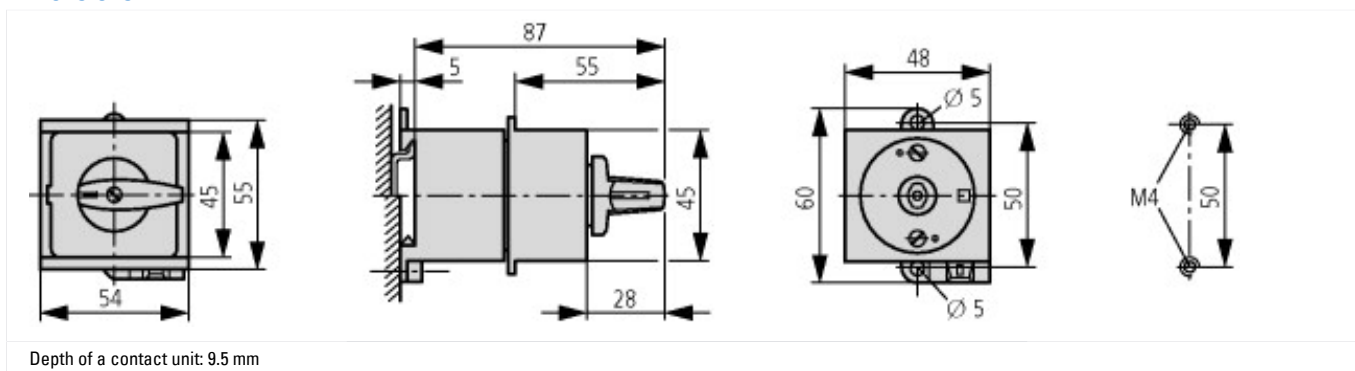
Model			Reverser
Number of poles			2
With 0 (off) position			No
Rated permanent current I _u		A	20
Rated operation power at AC-3, 400 V		kW	4
Degree of protection (IP), front side			IP30
Number of auxiliary contacts as normally closed contact			0
Number of auxiliary contacts as normally open contact			0
Number of auxiliary contacts as change-over contact			0

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
Connection type main current circuit		Screw connection

Characteristics



Dimensions



Additional product information (links)

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

<http://ecat.moeller.net/flip-cat/?edition=K115A&startpage=43>