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T5B-2-8211/E - Changeoverswitches, T5B, 63 A, flush mounting, 2 contact unit(s), Contacts: 4, 60 °, maintained, With 0 (Off) position, 1-0-2, design no. 8211



093094 T5B-2-8211/E

[Overview](#) [Specifications](#) [Resources](#)



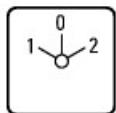
## 093094 T5B-2-8211/E

Changeoverswitches, T5B, 63 A, flush mounting, 2 contact unit(s), Contacts: 4, 60 °, maintained, With 0 (Off) position, 1-0-2, design no. 8211

EL-Nummer (Norway)

1456929

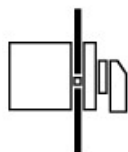
Changeover switch, Product range: Control switches, Part group reference: T5B, with black thumb grip and front plate, Contacts: 4, Degree of Protection: Front IP65, Design: flush mounting, Switching angle: 60 °, Switching performance: maintained, With 0 (Off) position, front plate: 1-0-2, Motor rating AC-23A, 50 - 60 Hz 400 V: P = 30 kW, Rated uninterrupted current: I<sub>u</sub> = 63 A, 2 contact unit(s), Standards: IEC/EN 60947, VDE 0660, IEC/EN 60204, CSA, UL, Switch-disconnector according to IEC/EN 60947-3



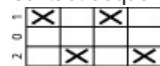
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- [Dimensions](#)

### Delivery program

Product range  
Control switches  
Part group reference  
T5B  
Basic function  
Changeoverswitches  
with black thumb grip and front plate  
Contacts  
4  
Degree of Protection  
Front IP65  
Design  
flush mounting

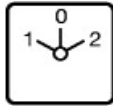


Contact sequence



Switching angle  
60 °

Switching performance  
maintained  
With 0 (Off) position  
Design number  
8211  
Front plate no.



## FS 684

front plate  
1-0-2

Motor rating AC-23A, 50 - 60 Hz [P]

400 V [P]

30 kW

Rated uninterrupted current [ $I_u$ ]

63 A

Note on rated uninterrupted current  $I_u$

Rated uninterrupted current  $I_u$  is specified for max. cross-section.

Number of contact units

2 contact unit(s)

## Technical data

General

Standards

IEC/EN 60947, VDE 0660, IEC/EN 60204, CSA, UL

Switch-disconnector according to IEC/EN 60947-3

Climatic proofing

Damp heat, constant, to IEC 60068-2-78

Damp heat, cyclic, to IEC 60068-2-30

Ambient temperature Open

-25 - +50 °C

Ambient temperature Enclosed

-25 - +40 °C

Overvoltage category/pollution degree

III/3

Rated impulse withstand voltage [ $U_{imp}$ ]

6000 V AC

Mechanical shock resistance

15 g

Mounting position

As required

Contacts

Electrical characteristics Rated operational voltage [ $U_e$ ]

690 V AC

Electrical characteristics Rated uninterrupted current [ $I_u$ ]

63 A

Electrical characteristics Note on rated uninterrupted current  $I_u$

Rated uninterrupted current  $I_u$  is specified for max. cross-section.

Load rating with intermittent operation, class 12AB 25 % DF

$2 \times I_e$

Load rating with intermittent operation, class 12AB 40 % DF

$1.6 \times I_e$

Load rating with intermittent operation, class 12AB 60 % DF

$1.3 \times I_e$

Short-circuit rating Fuse

80 A gG/gL

Rated short-time withstand current (1 s current) [ $I_{cw}$ ]

1300 A<sub>rms</sub>

Note on rated short-time withstand current  $I_{cw}$

Current for a time of 1 second

Rated conditional short-circuit current [ $I_c$ ]

2 kA

Switching capacity

$\cos \phi$  rated making capacity as per IEC 60947-3

800 A

Rated breaking capacity  $\cos \phi$  to IEC 60947-3 230 V

520 A  
 Rated breaking capacity  $\cos \phi$  to IEC 60947-3400/415 V  
 600 A  
 Rated breaking capacity  $\cos \phi$  to IEC 60947-3500 V  
 480 A  
 Rated breaking capacity  $\cos \phi$  to IEC 60947-3690 V  
 340 A  
 Safe isolation to EN 61140 between the contacts  
 440 V AC  
 Safe isolation to EN 61140 Current heat loss per contact at  $I_e$   
 4.5 W  
 Safe isolation to EN 61140 Current heat loss per auxiliary circuit at  $I_e$  (AC-15/230 V)  
 4.5 CO  
 Lifespan, mechanical [Operations]  
 $> 0.5 \times 10^6$   
 Maximum operating frequency [Operations/h]  
 1200  
 AC AC-3 Rating, motor load switch [P] 220 V 230 V [P]  
 15 kW  
 AC AC-3 Rating, motor load switch [P] 230 V Star-delta [P]  
 18.5 kW  
 AC AC-3 Rating, motor load switch [P] 400 V 415 V [P]  
 22 kW  
 AC AC-3 Rating, motor load switch [P] 400 V Star-delta [P]  
 30 kW  
 AC AC-3 Rating, motor load switch [P] 500 V [P]  
 22 kW  
 AC AC-3 Rating, motor load switch [P] 500 V Star-delta [P]  
 37 kW  
 AC AC-3 Rating, motor load switch [P] 690 V [P]  
 15 kW  
 AC AC-3 Rating, motor load switch [P] 690 V Star-delta [P]  
 22 kW  
 AC AC-3 Rated operational current motor load switch 230 V [ $I_e$ ]  
 51 A  
 AC AC-3 Rated operational current motor load switch 230 V star-delta [ $I_e$ ]  
 63 A  
 AC AC-3 Rated operational current motor load switch 400 V 415 V [ $I_e$ ]  
 41 A  
 AC AC-3 Rated operational current motor load switch 400 V star-delta [ $I_e$ ]  
 63 A  
 AC AC-3 Rated operational current motor load switch 500 V [ $I_e$ ]  
 33 A  
 AC AC-3 Rated operational current motor load switch 500 V star-delta [ $I_e$ ]  
 57.2 A  
 AC AC-3 Rated operational current motor load switch 690 V [ $I_e$ ]  
 17 A  
 AC AC-3 Rated operational current motor load switch 690 V star-delta [ $I_e$ ]  
 29.4 A  
 AC AC-23A motor rating AC-23A, 50 - 60 Hz [P] 230 V [P]  
 18.5 kW  
 AC AC-23A motor rating AC-23A, 50 - 60 Hz [P] 400 V 415 V [P]  
 30 kW  
 AC AC-23A motor rating AC-23A, 50 - 60 Hz [P] 500 V [P]  
 22 kW  
 AC AC-23A motor rating AC-23A, 50 - 60 Hz [P] 690 V [P]  
 22 kW  
 AC AC-23A Rated operational current motor load switch 230 V [ $I_e$ ]  
 63 A  
 AC AC-23A Rated operational current motor load switch 400 V 415 V [ $I_e$ ]  
 63 A  
 AC AC-23A Rated operational current motor load switch 500 V [ $I_e$ ]  
 33 A  
 AC AC-23A Rated operational current motor load switch 690 V [ $I_e$ ]  
 23.8 A  
 DDC-1, Load-break switches L/R = 1 ms Rated operational current [ $I_e$ ]  
 63 A  
 DDC-1, Load-break switches L/R = 1 ms Voltage per contact pair in series  
 60 V

DCDC-23A, motor load switch L/R = 15 ms24 V Rated operational current [ $I_e$ ]  
 50 A  
 DCDC-23A, motor load switch L/R = 15 ms24 V Contacts  
 1 Quantity  
 DCDC-23A, motor load switch L/R = 15 ms48 V Rated operational current [ $I_e$ ]  
 50 A  
 DCDC-23A, motor load switch L/R = 15 ms48 V Contacts  
 2 Quantity  
 DCDC-23A, motor load switch L/R = 15 ms60 V Rated operational current [ $I_e$ ]  
 50 A  
 DCDC-23A, motor load switch L/R = 15 ms60 V Contacts  
 3 Quantity  
 DCDC-23A, motor load switch L/R = 15 ms120 V Rated operational current [ $I_e$ ]  
 25 A  
 DCDC-23A, motor load switch L/R = 15 ms120 V Contacts  
 3 Quantity  
 DCDC-23A, motor load switch L/R = 15 ms240 V Rated operational current [ $I_e$ ]  
 20 A  
 DCDC-23A, motor load switch L/R = 15 ms240 V Contacts  
 6 Quantity  
 DCDC-13, Control switches L/R = 50 ms Rated operational current [ $I_e$ ]  
 25 A  
 DCDC-13, Control switches L/R = 50 ms Voltage per contact pair in series  
 24 V  
 Control circuit reliability at 24 V DC, 10 mA [Fault probability]  
 $< 10^{-5}$ , < 1 failure in 100,000 switching operations H-  
 Terminal capacities  
 Solid or stranded  
 1 x (2,5 - 35)  
 2 x (2,5 - 16) mm<sup>2</sup>  
 Flexible with ferrules to DIN 46228  
 1 x (1 - 25)  
 2 x (1,5 - 10) mm<sup>2</sup>  
 Terminal screw  
 M6  
 Tightening torque for terminal screw  
 4 Nm  
 Technical safety parameters:  
**Notes**  
 B10<sub>d</sub> values as per EN ISO 13849-1, table C1  
 Rating data for approved types  
 Contacts Rated operational voltage [ $U_e$ ]  
 600 V AC  
 Contacts Rated uninterrupted current max. Main conducting paths General use  
 63 A  
 Switching capacity Maximum motor rating Single-phase 120 V AC  
 3 HP  
 Switching capacity Maximum motor rating Single-phase 200 V AC  
 7.5 HP  
 Switching capacity Maximum motor rating Single-phase 240 V AC  
 10 HP  
 Switching capacity Maximum motor rating Three-phase 200 V AC  
 15 HP  
 Switching capacity Maximum motor rating Three-phase 240 V AC  
 15 HP  
 Switching capacity Maximum motor rating Three-phase 480 V AC  
 40 HP  
 Switching capacity Maximum motor rating Three-phase 600 V AC  
 40 HP  
 Short Circuit Current Rating High fault rating  
 10 kA  
 Short Circuit Current Rating max. Fuse  
 100, Class J A  
 Terminal capacity Solid or flexible conductor with ferrule  
 12 - 4 AWG  
 Terminal capacity Terminal screw  
 M6  
 Terminal capacity Tightening torque  
 35.4 lb-in

## Design verification as per IEC/EN 61439

Technical data for design verification

Rated operational current for specified heat dissipation [ $I_r$ ]

63 A

Heat dissipation per pole, current-dependent [ $P_{vid}$ ]

4.5 W

Equipment heat dissipation, current-dependent [ $P_{vid}$ ]

0 W

Static heat dissipation, non-current-dependent [ $P_{vs}$ ]

0 W

Heat dissipation capacity [ $P_{diss}$ ]

0 W

Operating ambient temperature min.

-25 °C

Operating ambient temperature max.

+50 °C

IEC/EN 61439 design verification

10.2 Strength of materials and parts 10.2.2 Corrosion resistance

Meets the product standard's requirements.

10.2 Strength of materials and parts 10.2.3.1 Verification of thermal stability of enclosures

Meets the product standard's requirements.

10.2 Strength of materials and parts 10.2.3.2 Verification of resistance of insulating materials to normal heat

Meets the product standard's requirements.

10.2 Strength of materials and parts 10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects

Meets the product standard's requirements.

10.2 Strength of materials and parts 10.2.4 Resistance to ultra-violet (UV) radiation

UV resistance only in connection with protective shield.

10.2 Strength of materials and parts 10.2.5 Lifting

Does not apply, since the entire switchgear needs to be evaluated.

10.2 Strength of materials and parts 10.2.6 Mechanical impact

Does not apply, since the entire switchgear needs to be evaluated.

10.2 Strength of materials and parts 10.2.7 Inscriptions

Meets the product standard's requirements.

10.3 Degree of protection of ASSEMBLIES

Does not apply, since the entire switchgear needs to be evaluated.

10.4 Clearances and creepage distances

Meets the product standard's requirements.

10.5 Protection against electric shock

Does not apply, since the entire switchgear needs to be evaluated.

10.6 Incorporation of switching devices and components

Does not apply, since the entire switchgear needs to be evaluated.

10.7 Internal electrical circuits and connections

Is the panel builder's responsibility.

10.8 Connections for external conductors

Is the panel builder's responsibility.

10.9 Insulation properties 10.9.2 Power-frequency electric strength

Is the panel builder's responsibility.

10.9 Insulation properties 10.9.3 Impulse withstand voltage

Is the panel builder's responsibility.

10.9 Insulation properties 10.9.4 Testing of enclosures made of insulating material

Is the panel builder's responsibility.

10.10 Temperature rise

The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.

10.11 Short-circuit rating

Is the panel builder's responsibility. The specifications for the switchgear must be observed.

10.12 Electromagnetic compatibility

Is the panel builder's responsibility. The specifications for the switchgear must be observed.

10.13 Mechanical function

The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

## Technical data ETIM 7.0

Low-voltage industrial components (EG000017) / Off-load switch (EC001105)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Changeover switch (ecl@ss10.0.1-27-37-14-05 [AKF062013])

Model

Reverser  
Number of poles  
2  
With 0 (off) position  
Yes  
With retraction in 0-position  
No  
Rated permanent current I<sub>u</sub>  
63 A  
Rated operation current I<sub>e</sub> at AC-3, 400 V  
41 A  
Rated operation power at AC-3, 400 V  
22 kW  
Degree of protection (IP), front side  
IP65  
Degree of protection (NEMA), front side  
12  
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  
No  
Suitable for front mounting 4-hole  
Yes  
Suitable for distribution board installation  
No  
Suitable for intermediate mounting  
No  
Complete device in housing  
No  
Material housing  
Plastic  
Type of control element  
Toggle  
Type of electrical connection of main circuit  
Screw connection

## Approvals

Product Standards  
UL 60947-4-1; CSA - C22.2 No. 60947-4-1-14; CSA-C22.2 No. 94; IEC/EN 60947-3; CE marking  
UL File No.  
E36332  
UL Category Control No.  
NLRV  
CSA File No.  
12528  
CSA Class No.  
3211-05  
North America Certification  
UL listed, CSA certified  
Suitable for  
Branch circuits, suitable as motor disconnect  
Degree of Protection  
IEC: IP65; UL/CSA Type 1, 12

## Dimensions



- ZFS-... Label mount not included as standard
  - Drilling dimensions door
- Cam switches T5B and T5 are same size, only their contacts are different

- [Product-specific CAD data](#)  
(Web)
- [3D Preview](#)  
(Web)

## DWG files

- [DA-CD-t5\(b\)\\_2\\_e](#)  
File  
(Web)

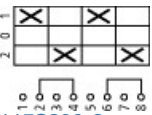
## edz files

- [DA-CE-ETNT5B-2-8211\\_E](#)  
File  
(Web)

## Step files

- [DA-CS-t5\(b\)\\_2\\_e](#)  
File  
(Web)

## Wiring diagram


- 

[115S290-2](#)

Line drawing

Changeover switch with 0 position

## Dimensions single product

- 

[115X291](#)

Line drawing

Flush mounting

ZFS... Label mount not included as standard

Drilling dimensions door

## Product photo

- 




[1150PIC-964](#)

Photo

Flush mounting group changeover switch with 0 position

## 3D drawing

- 

[1150DRV-5](#)

Line drawing

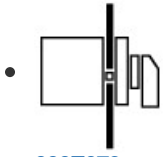
Flush mounting type

## Instruction Leaflet

- [Camswitch: switch-disconnector \(IL03801009Z\)](#)

Asset  
former AWA1150-1982  
(PDF, 06/2021, multilingual)

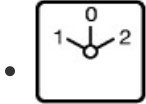
## Symbol



000Z079

Graphic

Rotary switch installation



FS 684

115K003

Graphic

FS684 standard front plate

## Declaration of Conformity

### EU

- [Rotary Cam Switch T5B, T5 \(DA-DC-00003634\)](#)  
Asset  
(PDF)

### UK

- [Rotary Cam Switch T5B, T5 \(DA-DC-00003986\)](#)  
Asset  
(PDF)

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