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DMM-160/3/I5/C-R - Switch-disconnector, DMM, 160 A, 3 pole, Emergency switching off function, With red rotary handle and yellow locking ring, cylinder lock, in Cl-K5 enclosure



172803 DMM-160/3/I5/C-R

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# 172803 DMM-160/3/I5/C-R

Switch-disconnector, DMM, 160 A, 3 pole, Emergency switching off function, With red rotary handle and yellow locking ring, cylinder lock, in Cl-K5 enclosure

EL-Nummer (Norway)

1405709

Switch-disconnector, Product range: Switch-disconnector, Main switch, maintenance switch, Part group reference: DMM, Stop Function: Emergency switching off function, With red rotary handle and yellow locking ring, Notes: in Cl-K5 enclosure, Information about equipment supplied: auxiliary contact fitted by user., 3 pole, locking arrangement: cylinder lock, Degree of Protection: IP65, Design: surface mounting, Motor rating AC-23A, 50 - 60 Hz 400 V: P = 80 kW, Rated uninterrupted current: I<sub>u</sub> = 160 A, Standards: IEC/EN 60947, VDE 0660, IEC/EN 60204, Switch-disconnector according to IEC/EN 60947-3

• Delivery program

• Technical data

• Design verification as per IEC/EN 61439

• Technical data ETIM 7.0

• Dimensions

## Delivery program

Product range

Switch-disconnector

Main switch

maintenance switch

Part group reference

DMM

Stop Function

Emergency switching off function

With red rotary handle and yellow locking ring

Information about equipment supplied

auxiliary contact fitted by user.

Notes

in Cl-K5 enclosure

Number of poles

3 pole

Auxiliary contacts

1

0 NO

1

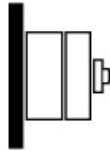
0 NC

locking arrangement

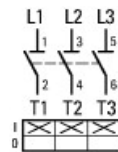
cylinder lock

Degree of Protection

IP65  
Design  
surface mounting



Contact sequence



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

400 V [P]

80 kW

Rated uninterrupted current [ $I_u$ ]

160 A

Note on rated uninterrupted current  $I_u$

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

## Technical data

General

Standards

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

Switch-disconnector according to IEC/EN 60947-3

Certifications

CE, RoHS, KEVA, EAC, Lloyds

Ambient temperatureOperation [9]

-25 - +60 °C

Ambient temperatureStorage [9]

-40 - +80 °C

Overvoltage category/pollution degree

III/3

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

6 kV

Rated insulation voltage [ $U_i$ ]

1000 V

Mounting position

As required

Contacts

Mechanical variablesNumber of poles

3 pole

Mechanical variablesAuxiliary contacts

0 NO

Mechanical variablesAuxiliary contacts

0 NC

Electrical characteristicsRated operational voltage [ $U_n$ ]

690 V AC

Electrical characteristicsRated uninterrupted current [ $I_u$ ]

160 A

Electrical characteristicsNote on rated uninterrupted current  $I_u$

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

Short-circuit ratingfuse

160

Short-circuit ratingRated conditional short-circuit current [ $I_k$ ]

415 V: 30

690 V: 50 kA

Short-circuit ratingBreaking current

13.5 kA

Short-circuit ratingmax. let-through energy

86,9 kA<sup>2</sup>s

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

2500 A<sub>rms</sub>

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

Current for a time of 1 second

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

8 W  
 Switching capacity  
 Rated breaking capacity  $\cos \phi$  to IEC 60947-3400/415 V  
 1080 A  
 Rated breaking capacity  $\cos \phi$  to IEC 60947-3500 V  
 528 A  
 Rated breaking capacity  $\cos \phi$  to IEC 60947-3690 V  
 336 A  
 Safe isolation to EN 61140  
 Current heat loss per contact at  $I_e$   
 7.4 W  
 Lifespan, mechanical [Operations]  
 10000  
 AC AC-21A Rated operational current switch 400 V 415 V [ $I_e$ ]  
 160 A  
 AC AC-21A Rated operational current switch 500 V [ $I_e$ ]  
 160 A  
 AC AC-21A Rated operational current switch 690 V [ $I_e$ ]  
 160 A  
 AC AC-22A Rated operational current switch 400 V 415 V [ $I_e$ ]  
 160 A  
 AC AC-22A Rated operational current switch 500 V [ $I_e$ ]  
 160 A  
 AC AC-22A Rated operational current switch 690 V [ $I_e$ ]  
 160 A  
 AC AC-23A Rated operational current switch 400 V 415 V [ $I_e$ ]  
 140 A  
 AC AC-23A Rated operational current switch 500 V [ $I_e$ ]  
 66 A  
 AC AC-23A Rated operational current switch 690 V [ $I_e$ ]  
 42 A  
 AC AC-23A Mtor rating AC-23A, 50 - 60 Hz [P] 400 V 415 V [P]  
 80 kW  
 AC AC-23A Mtor rating AC-23A, 50 - 60 Hz [P] 500 V [P]  
 45 kW  
 AC AC-23A Mtor rating AC-23A, 50 - 60 Hz [P] 690 V [P]  
 37 kW  
 Terminal capacities  
 Flexible with ferrules to DIN 46228 flexible  
 6 - 70 mm<sup>2</sup>  
 Stripping length  
 21 mm  
 Tightening torque for terminal screw  
 7 Nm  
 Technical safety parameters:  
**Notes**  
 B10<sub>d</sub> values as per EN ISO 13849-1, table C1

## Design verification as per IEC/EN 61439

Technical data for design verification  
 Rated operational current for specified heat dissipation [ $I_e$ ]  
 160 A  
 Heat dissipation per pole, current-dependent [ $P_{id}$ ]  
 8 W  
 Equipment heat dissipation, current-dependent [ $P_{id}$ ]  
 0 W  
 Static heat dissipation, non-current-dependent [ $P_s$ ]  
 0 W  
 Heat dissipation capacity [ $P_{diss}$ ]  
 0 W  
 Operating ambient temperature min.  
 -25 °C  
 Operating ambient temperature max.  
 +40 °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) / Switch disconnecter (EC000216)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnecter (ecl@ss10.0.1-27-37-14-03 [AKF060013])

Version as main switch

Yes

Version as maintenance-/service switch

Yes

Version as safety switch

No

Version as emergency stop installation

Yes

Version as reversing switch

No

Number of switches

1

Max. rated operation voltage  $U_e$  AC

690 V

Rated operating voltage

690 - 690 V

Rated permanent current  $I_u$

160 A

Rated permanent current at AC-23, 400 V

140 A

Rated permanent current at AC-21, 400 V

160 A

Rated operation power at AC-3, 400 V

0 kW  
Rated short-time withstand current I<sub>cw</sub>  
2.5 kA  
Rated operation power at AC-23, 400 V  
0 kW  
Switching power at 400 V  
0 kW  
Conditioned rated short-circuit current I<sub>q</sub>  
50 kA  
Number of poles  
3  
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  
Motor drive optional  
No  
Motor drive integrated  
No  
Voltage release optional  
No  
Device construction  
Complete device in housing  
Suitable for ground mounting  
Yes  
Suitable for front mounting 4-hole  
No  
Suitable for front mounting centre  
No  
Suitable for distribution board installation  
No  
Suitable for intermediate mounting  
No  
Colour control element  
Red  
Type of control element  
Short thumb-grip  
Interlockable  
Yes  
Type of electrical connection of main circuit  
Screw connection  
Degree of protection (IP), front side  
IP65  
Degree of protection (NEVA)  
Other

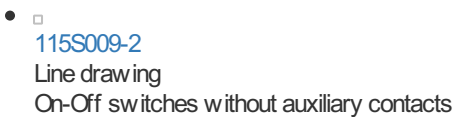
## Dimensions

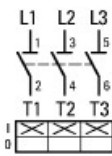


## Product photo




## Wiring diagram

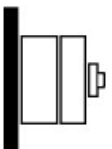


- 
  
[115S262](#)
  
 Line drawing
   
 Main Switches

## Dimensions single product

- 
  
[1150DIM-34](#)
  
 Line drawing

## Symbol

- 
  
[000Z428](#)
  
 Graphic
   
 Load current switches design

## Declaration of Conformity

### UK

- [Dumeco Switch-Disconnectors, type DMM \(DA-DC-00003997\)](#)
  
 Asset
   
[\(PDF\)](#)

## Instruction Leaflet

- [Switch-disconnector \(IL008006ZU\)](#)
  
 Asset
   
[\(PDF, 03/2021, multilingual\)](#)

## CAD data

### edz files

- [DA-CE-ETN.DMM-160\\_3\\_I5\\_C-R](#)
  
 File
   
[\(Web\)](#)

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