



English



EF45-45

Print to PDF

Buy now

General Information

Extended Product Type:

EF45-45

Product ID:

1SAX221001R1102

EAN:

4013614403972

Catalog Description:

EF45-45 Electronic Overload Relay 15 ... 45 A

Long Description:

The EF45-45 is a self-supplied electronic overload relay, which means no extra external supply is needed. It offers reliable and fast protection for motors in the event of overload or phase failure. Easy to use like a thermal overload relay and compatible with standard motor applications, the elect... [Show more](#)

Add to Cart

Read More

Data Sheet	Downloads	Buy now	Categories	Related Links	Related Products
------------	-----------	---------	------------	---------------	------------------

Go To Section:

Ordering
Dimensions
Technical UL/CSA
Material Compliance
Certificates and Declarations
External Classifications and Standards

Popular Downloads
Technical
Environmental
ABB EcoSolutions
Container Information
Accessories

Ordering**Minimum Order Quantity:**

1 piece

Customs Tariff Number:

85364900

Popular Downloads**Data Sheet, Technical Information:**

[Data sheet - Electronic Overload Relay EF19, EF45, DB19EF, DB45EF](#)

Instructions and Manuals:

[Installation Instructions - EF45 Electronic Overload Relay](#)

Instructions and Manuals (Part 2):

[Contactors and Overload relays guide](#)

Ex Operating Instructions:

[ATEX - Operating instructions for EF electronic overload relay for potentially explosive areas](#)

Time-Current Characteristic Curve:

[Tripping characteristic - Electronic overload relay EF19, EF45, EF65, EF96, EF146, EF205, EF370, EF460, EF750 from cold state](#)

[Tripping characteristic - Electronic overload relay EF19, EF45, EF65, EF96, EF146, EF205, EF370, EF460, EF750 from warm state.](#)

CAD Dimensional Drawing:

[Information - 2D and 3D files for CAD systems](#)

Dimension Diagram:

[Dimension Drawing - EF45 Electronic Overload Relay](#)

Dimensions**Product Net Width:**

45 mm

Product Net Height:

104.7 mm

Product Net Depth / Length:

86 mm

Product Net Weight:

0.362 kg

Technical**Setting Range:**

15 ... 45 A

Rated Operational Voltage:

Auxiliary Circuit 600 V AC/DC

Main Circuit 690 V AC

Rated Operational Current (I_e):

45 A

Rated Frequency (f):

Auxiliary Circuit 50 Hz

Auxiliary Circuit 60 Hz

Auxiliary Circuit DC

Main Circuit 50 Hz

Main Circuit 60 Hz

Rated Impulse Withstand Voltage (U_{imp}):

Auxiliary Circuit 6 kV

Main Circuit 6 kV

Rated Insulation Voltage (U_i):

690 V

Number of Poles:

3P

Number of Auxiliary Contacts NC:

1

Number of Auxiliary Contacts NO:

1

Number of Protected Poles:

3

Conventional Free-air Thermal Current (I_{th}):

Auxiliary Circuit NC 6 A

Auxiliary Circuit NO 6 A

Rated Operational Current AC-15 (I_e):

(240 V) NC 3 A

(240 V) NO 3 A

(400 V) NC 1.1 A

(400 V) NO 1.1 A

(500 V) NC 0.75 A

(500 V) NO 0.75 A

Rated Operational Current DC-13 (I_e):

(125 V) NC 0.55 A

(125 V) NO 0.5 A

(24 V) NC 1.5 A

(24 V) NO 1.5 A

(250 V) NC 0.27 A

(250 V) NO 0.27 A

(60 V) NC 0.55 A

(60 V) NO 0.55 A

Degree of Protection:

IP20

Pollution Degree:

3

Connecting Capacity Auxiliary Circuit:Flexible with Ferrule 1/2x 0.75 ... 2.5 mm²Flexible with Insulated Ferrule 1/2x 0.75 ... 2.5 mm²Flexible 1/2x 0.75 ... 2.5 mm²Rigid 1/2x 1 ... 4 mm²**Connecting Capacity Main Circuit:**Flexible with Ferrule 1/2x 2.5 ... 10 mm²Flexible with Insulated Ferrule 1/2x 2.5 ... 10 mm²Flexible 1/2x 2.5 ... 10 mm²Rigid 1/2x 2.5 ... 16 mm²**Tightening Torque:**

Auxiliary Circuit 0.8 ... 1.2 N·m

Main Circuit 2.3 ... 2.6 N·m

Wire Stripping Length:

Auxiliary Circuit 9 mm

Main Circuit 13 mm

Recommended Screw Driver:

Auxiliary Circuit Pozidriv 2

Main Circuit Pozidriv 2

Mounting Position:

1 ... 6

Power Loss:

at Rated Operating Conditions per Pole 0.059 ... 0.527 W

Suitable For:

AF26

AF30

AF38

Standards:

IEC/EN 60947-1

IEC/EN 60947-4-1

IEC/EN 60947-5-1

UL 60947-1

UL 60947-4-1

Technical UL/CSA**Maximum Operating Voltage UL/CSA:**

Main Circuit 600 V AC

Contact Rating UL/CSA:

(NC:) B600

(NC:) Q600

(NO:) B600

(NO:) Q600

Connecting Capacity Main Circuit UL/CSA:

Flexible 1/2x 14-6 AWG

Stranded 1/2x 14-6 AWG

Connecting Capacity Auxiliary Circuit UL/CSA:

Flexible 1/2x 18-10 AWG

Stranded 1/2x 18-10 AWG

Tightening Torque UL/CSA:

Auxiliary Circuit 7 ... 1 in·lb

Main Circuit 35 in·lb

Environmental**Ambient Air Temperature:**

Operation -25 ... +70 °C

Operation Compensated -25 ... +70 °C

Storage -50 ... +80 °C

Ambient Air Temperature Compensation:

Yes

Maximum Operating Altitude Permissible:

2000 m

Resistance to Shock acc. to IEC 60068-2-27:

11 ms Pulse 25g

Resistance to Vibrations:

5g 3 ... 150 Hz

RoHS Status:

Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019

Toxic Substances Control Act - TSCA:

[Toxic Substances Control Act \(TSCA\) declaration for Contactors](#)

Material Compliance**Conflict Minerals Reporting Template (CMRT):**

[CMRT - Conflict Minerals Reporting Template](#)

REACH Declaration:

[REACH - Letter of Confirmation for block contactors, contactor relays, installation contactors, mini contactors, mini contactor relays, thermal overload relays, electronic overload relays and related accessories](#)

RoHS Information:

[RoHS II declaration for block contactors, installation contactors, mini contactors, mini contactor relays, thermal overload relays, electronic overload relays and related accessories](#)

WEEE B2C / B2B:

Business To Business

WEEE Category:

5. Small Equipment (No External Dimension More Than 50 cm)

ABB EcoSolutions**ABB EcoSolutions:**

Yes

ABB Site Meeting Group Waste To Landfill Target:

UL 2799 Zero Waste To Landfill Validation available

End Of Life Disassembling Instructions:

[End of life instruction EF45](#)

Environmental Information:

[Product Environmental Information EF45 electronic overload relays](#)

Environmental Product Declaration - EPD:

[Environmental Product Declaration - EF45 Electronic Overload Relay](#)

Improved Energy Efficiency for Customers:

Product Efficiency - Product considered more energy-efficient compared to similar product on market or older products from the same line

Recyclability Rate of the Product acc. to EN45555:

Design for Closing Resource Loops - Standard EN45555 - 89.2 %

Certificates and Declarations**ABS Certificate:**

[ABS Certificate - EF19, EF45, EF65, EF96, EF146, EF205, EF370, EF460, EF750 - Electronic Overload Relay](#)

ATEX Certificate:

[Atex Certificate EFxxx](#)

BV Certificate:

[BV Certificate - EF19, EF45, EF65, EF96, EF146, EF205, EF370, EF460, EF750 - Electronic Overload Relay](#)

CB Certificate:

[CB Certificate - E45DU, EF45 - Electronic Overload Relays](#)

CCC Certificate:

[CCC Certificate, Electronic Overload Relay, E45DU, EF45, Made in China](#)

CCS Certificate:

[CCS Certificate EFxxx](#)

CQC Certificate:

[CQC Certificate, Electronic Overload Relay, E45DU, EF45, Made in China](#)

Declaration of Conformity - CCC:

[CCC Declaration of Conformity, Electronic Overload Relay, E45DU, EF45, Made in China](#)

Declaration of Conformity - CE:

[EU Declaration of Conformity - Electronic Overload Relay - EF19, EF45, EF65, EF96, EF146, EF205, EF370, EF460, EF750](#)

Declaration of Conformity - UKCA:

[UK Declaration of Conformity - Electronic Overload Relay - EF19, EF45, EF65, EF96, EF146, EF205, EF370, EF460, EF750](#)

DNV Certificate:

[DNV Certificate - EF19, EF45, EF65, EF96, EF146, EF205, EF370, EF460, EF750 - Electronic Overload Relay](#)

EAC Certificate:

[EAC Certificate - EF19, EF45, EF65, EF96, EF146, EF205, EF370, EF460, EF750, E16DU - Electronic Overload Relay](#)

IECEX Certificate:

[IECEX Certificate - EFxxx - Manual Motor Starter](#)

LR Certificate:

[LR Certificate - EF19, EF45, EF65, EF96, EF146, EF205, EF370, EF460, EF750 - Electronic Overload Relay](#)

RINA Certificate:

[Rina Certificate - EF19, EF45, EF65, EF96, EF146, EF205, EF370, EF460, EF750 - Electronic Overload Relay](#)

RMRS Certificate:

[RMRS Certificate - E16DU, EF19, E45DU, EF45, E80DU, E140DU, E200DU, E320DU, E500DU, E800DU, E1250DU - Electronic Overload Relays](#)

UL Certificate:

[UL Certificate of Compliance - ExxDU, EFxxx, DBxxxE, DBxxEF, DTxxx - Electronic Overload Relays](#)

Container Information

Package Level 1 Units:

box 1 piece

Package Level 1 Width:

111 mm

Package Level 1 Height:

51.5 mm

Package Level 1 Depth / Length:

93 mm

Package Level 1 Gross Weight:

0.398 kg

Package Level 1 EAN:

4013614403972

External Classifications and Standards

Object Classification Code:

F

ETIM 4:

EC001080 - Electronic overload relay

ETIM 5:

EC001080 - Electronic overload relay

ETIM 6:

EC001080 - Electronic overload relay

ETIM 7:

EC001080 - Electronic overload relay

ETIM 8:

EC001080 - Electronic overload relay

eClass:

V11.0 : 27371502

UNSPSC:

39122330

IDEA Granular Category Code (IGCC):

5365 >> Electronic overload relay

E-Number (Finland):

3706157

E-Number (Norway):

4116836

E-Number (Sweden):

3224186

Accessories

Filters

[Clear all](#)

[Show all filters \(38\)](#)

15 Products

Search products...

Identifier	Description	Type	Qty	Unit Of Measure	Actions
1SAX201910R0001	DB45EF Single Mounting Kit	DB45EF	1	piece	
1SAX101911R1001	DRS-F-01 Remote Reset Coil	DRS-F-01	1	piece	
1SAX101911R1002	DRS-F-02 Remote Reset Coil	DRS-F-02	1	piece	
1SAX101911R1003	DRS-F-03 Remote Reset Coil	DRS-F-03	1	piece	
1SAX101911R1004	DRS-F-04 Remote Reset Coil	DRS-F-04	1	piece	



PRODUCTS	INDUSTRY SOLUTIONS	INVESTORS	COMPANY
Offerings A-Z	Channel partners	Investor & shareholder resources	Customer events
Services	Buildings and infrastructure	Quarterly results & annual reports	News & media
Where to buy	Industrial automation	Corporate governance	Who we are

Marine
Oil & gas
Power generation

Calendar, events and publications

Innovation
Careers
Sustainability
Our values
Supplying



Provider
information

Privacy Notice

Cookie settings

© 1995 - 2025