

PRODUCT-DETAILS

# EF19-1.0

## EF19-1.0 Electronic Overload Relay 0.30 ... 1.0

A



### Informations générales

|                              |   |
|------------------------------|---|
| Extension du type de produit | EF19-1.0  |
| Code de produit              | 1SAX121001R1102                                   |
| EAN                          | 4013614403996                                     |
| Description courte           | EF19-1.0 Electronic Overload Relay 0.30 ... 1.0 A |

**Description longue**

The EF19-1.0 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 electronic overload relay is convincing, above all, due to its wide setting range, high accuracy, high operational temperature range and the possibility to select a trip class (10E, 20E, 30E). Further features are the temperature compensation, trip contact (NC), signal contact (NO), automatic- or manual reset selectable, trip-free mechanism, STOP- and Test function and a trip indication. The overload relays are connected directly to the contactors. Single mounting kits are available as accessory. The EF19 and EF45 have ATEX and IECEx certification 1)

1) ATEX is valid for products produced from week 42, 2014.  
IECEx is valid for products produced from week 15, 2017.

### Commande

|                  |          |
|------------------|----------|
| Quantité minimum | 1 pièce  |
| Code douanier    | 85364900 |

## Downloads Préférés

|  |                                    |
|--|------------------------------------|
| Fiche produit, informations techniques | 2CDC107025D0201                    |
| Instructions et manuels                | 2CDC107023M6803                    |
| Instructions et manuels (Partie 2)     | 1SAC200017M0002                    |
| Ex Operating Instructions              | 2CDC107043M6801                    |
| Time-Current Characteristic Curve      | 1SAX100509F0002<br>1SAX100510F0001 |
| CAD Dimensional Drawing                | 2CDC001079B0201                    |
| Schéma dimensionnel                    | 1SAX100403F0001                    |

## Dimensions

|                      |          |
|----------------------|----------|
| Produit Largeur Net  | 44.4 mm  |
| Produit Hauteur Net  | 85 mm    |
| Produit Longueur Net | 59.3 mm  |
| Poids net            | 0.158 kg |

## Technique

|  |   |
|--|---|
| Setting Range  | 0.30 ... 1.0 A  |
| Tension  | Circuit auxiliaire 600 V AC/DC<br>Circuit principal 690 V AC  |
| Courant nominal de fonctionnement ( $I_g$ )                | 1 A   |
| Fréquence assignée (f)                                     | Circuit auxiliaire 50 Hz<br>Circuit auxiliaire 60 Hz<br>Circuit auxiliaire DC<br>Circuit principal 50 Hz<br>Circuit principal 60 Hz |
| Tension assignée de tenue aux chocs ( $U_{imp}$ )          | Circuit auxiliaire 6 kV<br>Circuit principal 6 kV   |
| Tension assignée d'isolement ( $U_i$ )                     | 690 V   |
| Nombre de pôles  | 3   |
| Number of Auxiliary Contacts NC                            | 1   |
| Number of Auxiliary Contacts NO                            | 1   |
| Number of Protected Poles                                  | 3   |
| Courant thermique conventionnel à l'air libre ( $I_{th}$ ) | Auxiliary Circuit NC 6 A<br>Auxiliary Circuit NO 6 A  |
| Courant assignée d'emploi AC-15 ( $I_g$ )                  | (240 V) NC 3 A<br>(240 V) NO 3 A<br>(400 V) NC 1.1 A<br>(400 V) NO 1.1 A<br>(500 V) NC 0.75 A<br>(500 V) NO 0.75 A                  |

|   |  |
|---|--|
| Courant assignée d'emploi DC-13 ( $I_e$ ) | (125 V) NC 0.55 A<br>(125 V) NO 0.5 A<br>(24 V) NC 1.5 A<br>(24 V) NO 1.5 A<br>(250 V) NC 0.27 A<br>(250 V) NO 0.27 A<br>(60 V) NC 0.55 A<br>(60 V) NO 0.55 A  |
| Indice de protection                      | IP20   |
| Degré de pollution                        | 3  |
| Connecting Capacity Auxiliary Circuit     | Flexible with Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup><br>Flexible with Insulated Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup><br>Flexible 1/2x 0.75 ... 2.5 mm <sup>2</sup><br>Rigid 1/2x 1 ... 4 mm <sup>2</sup> |
| Connecting Capacity Main Circuit          | Flexible with Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup><br>Flexible with Insulated Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup><br>Flexible 1/2x 0.75 ... 2.5 mm <sup>2</sup><br>Rigid 1/2x 1 ... 4 mm <sup>2</sup> |
| Couple de serrage                         | Auxiliary Circuit 0.8 ... 1.2 N·m<br>Main Circuit 0.8 ... 1.5 N·m  |
| Wire Stripping Length                     | Auxiliary Circuit 9 mm<br>Main Circuit 9 mm  |
| Recommended Screw Driver                  | Circuit auxiliaire Pozidriv 2<br>Circuit principal Pozidriv 2  |
| Type d'encastrement                       | 1 ... 6  |
| Power Loss                                | at Rated Operating Conditions per Pole 0.005 ... 0.054 W   |
| Adapté pour                               | AF09<br>AF12<br>AF16<br>AF26   |
| Normes et standards                       | IEC/EN 60947-1<br>IEC/EN 60947-4-1<br>IEC/EN 60947-5-1<br>UL 60947-1<br>UL 60947-4-1   |

## Technique UL/CSA

|  |  |
|--|--|
| Maximum Operating Voltage UL/CSA             | Circuit principal 600 V AC                                     |
| Contact Rating UL/CSA                        | (NC:) B600<br>(NC:) Q600<br>(NO:) B600<br>(NO:) Q600           |
| Connecting Capacity Main Circuit UL/CSA      | Flexible 1/2x 16-10 AWG<br>Stranded 1/2x 16-10 AWG             |
| Connecting Capacity Auxiliary Circuit UL/CSA | Flexible 1/2x 18-10 AWG<br>Stranded 1/2x 18-10 AWG             |
| Tightening Torque UL/CSA                     | Auxiliary Circuit 7 ... 1 in·lb<br>Main Circuit 7 ... 13 in·lb |

## Environnement

|                              |  |
|------------------------------|--|
| Température de l'air ambiant | Operation -25 ... +70 °C<br>Operation Compensated -25 ... +70 °C<br>Storage -50 ... +80 °C |
| Ambient Air Temperature      | Oui  |

---

**Compensation**

|   |  |
|---|--|
| Altitude de<br>fonctionnement maximale<br>autorisée | 2000 m   |
| Résistance aux chocs<br>selon CEI 60068-2-27        | 11 ms Pulse 25g  |
| Resistance to Vibrations<br>acc. to IEC 60068-2-6   | 3g / 3 ... 150 Hz  |
| Statut RoHS   | Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019 |

---



---

**Eco Transparence**

|                                   |                 |
|-----------------------------------|-----------------|
| Informations<br>environnementales | 1SAC200096H0001 |
|-----------------------------------|-----------------|

---



---

**Certificats et Déclarations (Numéro de document)**

|                                     |                     |
|-------------------------------------|---------------------|
| Certificat ABS                      | 1SAA941002-0102     |
| Certificat ATEX                     | 1SAA941004-3901     |
| Certificat BV                       | 1SAA941002-0201     |
| CB Certificate                      | 1SAA964002-2002     |
| CCS Certificate                     | 1SAA941001-0901     |
| CQC Certificate                     | CQC2008010309289447 |
| Declaration of Conformity<br>- CCC  | 2020980309000285    |
| Déclaration de Conformité<br>- CE   | 1SAD101100-3601     |
| Declaration of Conformity<br>- UKCA | 1SAD201100-3601     |
| Certificat DNV                      | 1SAA941003-0302     |
| EAC Certificate                     | 1SAA941003-2701     |
| IECEX Certificate                   | 1SAA941000-4001     |
| Certificat LR                       | 1SAA941002-0501     |
| Certificat RINA                     | RINA_ELE376813CS    |
| Certificat RMRS                     | 1SAA964000-0703     |
| Certificat UL                       | E48139-19990512     |

---



---

**Emballage**

|                                |               |
|--------------------------------|---------------|
| Emballage Niveau 1<br>Unités   | 1 pièce       |
| Emballage Niveau 1<br>Largeur  | 91 mm         |
| Emballage Niveau 1<br>Hauteur  | 51.5 mm       |
| Emballage Niveau 1<br>Longueur | 68 mm         |
| Emballage Niveau 1 Poids       | 0.183 kg      |
| Emballage Niveau 1 EAN         | 4013614403996 |
| Emballage Niveau 2             | 100 pièce     |

| Unités                         |               |
|--------------------------------|---------------|
| Emballage Niveau 2<br>Largeur  | 463 mm        |
| Emballage Niveau 2<br>Hauteur  | 276 mm        |
| Emballage Niveau 2<br>Longueur | 263 mm        |
| Emballage Niveau 2 Poids       | 18.863 kg     |
| Emballage Niveau 2 EAN         | 4013614483271 |

## Classifications

|  |   |
|--|---|
| Code de classification d'objet           | F   |
| ETIM 4                                   | EC001080 - Electronic overload relay        |
| ETIM 5                                   | EC001080 - Electronic overload relay        |
| ETIM 6                                   | EC001080 - relais de surcharge électronique |
| ETIM 7                                   | EC001080 - Electronic overload relay        |
| ETIM 8                                   | EC001080 - Electronic overload relay        |
| eClass                                   | V11.0 : 27371502                            |
| UNSPSC                                   | 39122330                                    |
| Code de catégorie granulaire IDEA (IGCC) | 5365 >> Electronic overload relay           |
| E-Number (Finland)                       | 3706152                                     |
| E-Number (Sweden)                        | 3224181                                     |

## Accessories

| Identifiant     | Description   | Type        | Quantity | Unit Of Measure |
|-----------------|---|-------------|----------|-----------------|
| 1SAX101910R1001 | DB19EF Single Mounting Kit, Circuit principal 50 Hz | DB19EF      | 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           |
| 1SAX101911R1011 | DRS-F-EF-01 Remote Coil                             | DRS-F-EF-01 | 1        | piece           |
| 1SAX101911R1012 | DRS-F-EF-02 Remote Coil                             | DRS-F-EF-02 | 1        | piece           |
| 1SAX101911R1013 | DRS-F-EF-03 Remote Coil                             | DRS-F-EF-03 | 1        | piece           |
| 1SAX101911R1014 | DRS-F-EF-04 Remote Coil                             | DRS-F-EF-04 | 1        | piece           |
| 1SAZ701903R1001 | WRH-F Holder  | WRH-F       | 1        | piece           |
| 1SAZ701903R1011 | WRB-400 Bowden Wire                                 | WRB-400     | 1        | piece           |
| 1SAZ701903R1012 | WRB-600 Bowden Wire                                 | WRB-600     | 1        | piece           |
| 1SAZ701903R1013 | WRB-1000 Bowden Wire                                | WRB-1000    | 1        | piece           |
| 1SAZ701903R1030 | WRBG Gasket   | WRBG        | 1        | piece           |
| 1SFA616162R1014 | KPR3-101L Reset push button                         | KPR-101L    | 1        | piece           |

---

## Catégories

---

Produits basse tension → Produits de Contrôle, Protection et sécurité machines → Contacteurs → Relais électroniques de protection contre les surcharges

