

## PRODUCT-DETAILS

# A145-30-11-87

## A145-30-11 415-440V 50Hz / 440-460V 60Hz

### Contactor



#### General Information

|                       |                                                                                                                                                                                                                        |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Extended Product Type | A145-30-11-87                                                                                                                                                                                                          |
| Product ID            | 1SFL471001R8711                                                                                                                                                                                                        |
| EAN                   | 7320500209240                                                                                                                                                                                                          |
| Catalog Description   | A145-30-11 415-440V 50Hz / 440-460V 60Hz Contactor                                                                                                                                                                     |
| Long Description      | A 3-phase Contactor suitable for various applications such as Motor starting, Isolation, Bypass and Distribution application up to max 1000 V. Operated with control voltage, versions from 24....690 AC, 50 and 60 Hz |

#### Ordering

|                              |                 |
|------------------------------|-----------------|
| Minimum Order Quantity       | 1 piece         |
| Customs Tariff Number        | 85364900        |
| Replacement Product ID (NEW) | 1SFL447002R1411 |

#### Popular Downloads

|                                   |                 |
|-----------------------------------|-----------------|
| Data Sheet, Technical Information | 1SBC100192C0206 |
| Instructions and Manuals          | 1SFC380003-89   |
| Dimension Diagram                 | 53540923-7      |

## Dimensions

|                            |          |
|----------------------------|----------|
| Product Net Width          | 111.5 mm |
| Product Net Depth / Length | 160 mm   |
| Product Net Height         | 196 mm   |
| Product Net Weight         | 2.9 kg   |

## Technical

|                                                       |                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Number of Main Contacts<br>NO                         | 3                                                                                                                                                                                                                                                                                                                                                    |
| Number of Main Contacts<br>NC                         | 0                                                                                                                                                                                                                                                                                                                                                    |
| Number of Auxiliary<br>Contacts NO                    | 1                                                                                                                                                                                                                                                                                                                                                    |
| Number of Auxiliary<br>Contacts NC                    | 1                                                                                                                                                                                                                                                                                                                                                    |
| Rated Operational Voltage                             | Main Circuit 690 V                                                                                                                                                                                                                                                                                                                                   |
| Rated Frequency (f)                                   | Main Circuit 50/60 Hz                                                                                                                                                                                                                                                                                                                                |
| Conventional Free-air<br>Thermal Current ( $I_{th}$ ) | acc. to IEC 60947-4-1, Open Contactors q = 40 °C 250 A                                                                                                                                                                                                                                                                                               |
| Rated Operational Current<br>AC-1 ( $I_e$ )           | (1000 V) 40 °C 180 A<br>(1000 V) 55 °C 180 A<br>(1000 V) 70 °C 180 A<br>(690 V) 40 °C 250<br>(690 V) 55 °C 230<br>(690 V) 70 °C 180                                                                                                                                                                                                                  |
| Rated Operational Current<br>AC-3 ( $I_e$ )           | (415 V) 55 °C 145 A<br>(440 V) 55 °C 145 A<br>(500 V) 55 °C 145 A<br>(690 V) 55 °C 120 A<br>(1000 V) 55 °C 80 A<br>(380 / 400 V) 55 °C 145 A<br>(220 / 230 / 240 V) 55 °C 145                                                                                                                                                                        |
| Rated Operational Power<br>AC-3 ( $P_e$ )             | (415 V) 75 kW<br>(440 V) 75 kW<br>(500 V) 90 kW<br>(690 V) 110 kW<br>(380 / 400 V) 75 kW<br>(220 / 230 / 240 V) 45 kW                                                                                                                                                                                                                                |
| Rated Breaking Capacity<br>AC-3 acc. to IEC 60947-4-1 | 8 x $I_e$ AC-3                                                                                                                                                                                                                                                                                                                                       |
| Rated Making Capacity<br>AC-3 acc. to IEC 60947-4-1   | 10 x $I_e$ AC-3                                                                                                                                                                                                                                                                                                                                      |
| Short-Circuit Protective<br>Devices                   | gG Type Fuses 315 A                                                                                                                                                                                                                                                                                                                                  |
| Rated Short-time<br>Withstand Current ( $I_{cw}$ )    | at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 1200 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 280 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 600 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1800 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 800 A |
| Maximum Breaking<br>Capacity                          | cos phi=0.45 (cos phi=0.35 for $I_e > 100$ A) at 440 V 1500 A<br>cos phi=0.45 (cos phi=0.35 for $I_e > 100$ A) at 690 V 1200 A                                                                                                                                                                                                                       |
| Maximum Electrical<br>Switching Frequency             | (AC-1) 300 cycles per hour<br>(AC-2 / AC-4) 150 cycles per hour                                                                                                                                                                                                                                                                                      |

|                                                                    |                                                                                                                                                                                                                                                                     |
|--------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                    | (AC-3) 300 cycles per hour                                                                                                                                                                                                                                          |
| Rated Operational Current<br>DC-1 ( $I_e$ )                        | (110 V) 2 Poles in Series, 40 °C 250 A<br>(220 V) 3 Poles in Series, 40 °C 250 A                                                                                                                                                                                    |
| Rated Operational Current<br>DC-3 ( $I_e$ )                        | (110 V) 2 Poles in Series, 40 °C 250 A<br>(220 V) 3 Poles in Series, 40 °C 250 A                                                                                                                                                                                    |
| Rated Operational Current<br>DC-5 ( $I_e$ )                        | (110 V) 2 Poles in Series, 40 °C 250 A<br>(220 V) 3 Poles in Series, 40 °C 250 A                                                                                                                                                                                    |
| Rated Insulation Voltage<br>( $U_i$ )                              | acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 1000 V<br>acc. to UL/CSA 600 V                                                                                                                                                                                           |
| Rated Impulse Withstand<br>Voltage ( $U_{imp}$ )                   | Main Circuit 8 kV                                                                                                                                                                                                                                                   |
| Mechanical Durability                                              | 5 million                                                                                                                                                                                                                                                           |
| Maximum Mechanical<br>Switching Frequency                          | 3600 cycles per hour                                                                                                                                                                                                                                                |
| Coil Operating Limits                                              | (acc. to IEC 60947-4-1) 0.85 x $U_c$ Min. ... 1.1 x $U_c$ Max. (at $\theta \leq 70$ °C)                                                                                                                                                                             |
| Rated Control Circuit<br>Voltage ( $U_c$ )                         | 50 Hz 415 ... 440 V<br>60 Hz 440 ... 460 V                                                                                                                                                                                                                          |
| Coil Consumption                                                   | Holding at Max. Rated Control Circuit Voltage 50 Hz 35 V·A<br>Holding at Max. Rated Control Circuit Voltage 60 Hz 40 V·A<br>Pull-in at Max. Rated Control Circuit Voltage 50 Hz 550 V·A<br>Pull-in at Max. Rated Control Circuit Voltage 60 Hz 600 V·A              |
| Operate Time                                                       | Between Coil De-energization and NC Contact Closing 5 ... 10 ms<br>Between Coil De-energization and NO Contact Opening 9 ... 13 ms<br>Between Coil Energization and NC Contact Opening 8 ... 22 ms<br>Between Coil Energization and NO Contact Closing 13 ... 27 ms |
| Connecting Capacity Main<br>Circuit                                | Bar 24 mm <sup>2</sup><br>Rigid Al-Cable 1 x 25 ... 150 mm <sup>2</sup><br>Rigid Cu-Cable 1 x 6 ... 185 mm <sup>2</sup>                                                                                                                                             |
| Connecting Capacity<br>Auxiliary Circuit                           | Flexible with Ferrule 1x 0.75 ... 2.5 mm <sup>2</sup><br>Flexible with Insulated Ferrule 2x 0.75 ... 2.5 mm <sup>2</sup><br>Flexible 2x0.75 ... 2.5 mm <sup>2</sup><br>Solid 2 x 1 ... 4 mm <sup>2</sup><br>Stranded 2 x 1 ... 4 mm <sup>2</sup>                    |
| Degree of Protection                                               | acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP20<br>acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP00                                                                                                                                        |
| Connecting Terminals<br>(delivered in open<br>position) Main Poles | Flat type c/w screws and bolts                                                                                                                                                                                                                                      |
| Terminal Type                                                      | Main Circuit: Bars                                                                                                                                                                                                                                                  |

## Technical UL/CSA

|                                     |                                                                                                                                                                                        |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Maximum Operating<br>Voltage UL/CSA | Main Circuit 600 V                                                                                                                                                                     |
| General Use Rating<br>UL/CSA        | (600 V AC) 230 A                                                                                                                                                                       |
| Horsepower Rating<br>UL/CSA         | (200 V AC) Three Phase 40 hp<br>(208 V AC) Three Phase 40 hp<br>(220 ... 240 V AC) Three Phase 50 hp<br>(440 ... 480 V AC) Three Phase 100 hp<br>(550 ... 600 V AC) Three Phase 125 hp |

## Environmental

|                         |                                                                                       |
|-------------------------|---------------------------------------------------------------------------------------|
| Ambient Air Temperature | Close to Contactor Fitted with Thermal O/L Relay (0.85 ... 1.1 $U_c$ ) -25 ... +50 °C |
|-------------------------|---------------------------------------------------------------------------------------|

Close to Contactor without Thermal O/L Relay (0.85 ... 1.1 Uc) -40 ... +70 °C  
Close to Contactor for Storage -40 ... +70 °C

|                                               |                                                                                                                                              |
|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Maximum Operating<br>Altitude Permissible     | 3000 m                                                                                                                                       |
| Resistance to Shock acc.<br>to IEC 60068-2-27 | Shock Direction: A 5 K40<br>Shock Direction: B1 5 K40<br>Shock Direction: B2 5 K40<br>Shock Direction: C1 5 K40<br>Shock Direction: C2 5 K40 |
| RoHS Status                                   | Following EU Directive 2011/65/EU                                                                                                            |

## Certificates and Declarations (Document Number)

|                                   |                      |
|-----------------------------------|----------------------|
| BV Certificate                    | 09826/C0 BV          |
| CB Certificate                    | SE-69488             |
| CCC Certificate                   | CQC_2002010304011010 |
| Declaration of Conformity<br>- CE | 2CMT2015-005436      |
| DNV Certificate                   | DNV_E-12191          |
| Environmental Information         | 1SFC101002D0201      |
| GL Certificate                    | GL_15529-00HH        |
| Instructions and Manuals          | 1SFC380003-89        |
| LOVAG Certificate                 | IT99027              |
| LR Certificate                    | LR_12-70003          |
| RINA Certificate                  | ELE060313XG/001      |
| RMRS Certificate                  | RMRS_12-03683-315    |
| RoHS Information                  | 2CMT2015-005436      |

## Container Information

|                                   |               |
|-----------------------------------|---------------|
| Package Level 1 Units             | box 1 piece   |
| Package Level 1 Width             | 178 mm        |
| Package Level 1 Depth /<br>Length | 232 mm        |
| Package Level 1 Height            | 167 mm        |
| Package Level 1 Gross<br>Weight   | 3.5 kg        |
| Package Level 1 EAN               | 7320500209240 |

## Classifications

|                                       |                                           |
|---------------------------------------|-------------------------------------------|
| Object Classification Code            | Q                                         |
| ETIM 4                                | EC000066 - Magnet contactor, AC-switching |
| ETIM 5                                | EC000066 - Magnet contactor, AC-switching |
| ETIM 6                                | EC000066 - Power contactor, AC switching  |
| ETIM 7                                | EC000066 - Power contactor, AC switching  |
| UNSPSC                                | 39121529                                  |
| IDEA Granular Category<br>Code (IGCC) | 4755 >> Contactors                        |

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## Categories

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Low Voltage Products and Systems → Control Products → Contactors → Block Contactors

