

PRODUCT-DETAILS

# AFC16-30-01K-80

## AFC16-30-01K-80 220-230V50Hz 230-240V60Hz Contactor



### General Information

|                       |   |
|-----------------------|---|
| Extended Product Type | AFC16-30-01K-80                                     |
| Product ID            | 1SBL171005R8001                                     |
| EAN                   | 3471523014541                                       |
| Catalog Description   | AFC16-30-01K-80 220-230V50Hz 230-240V60Hz Contactor |

**Long Description**

The AFC16-30-01K-80 is a 3 poles - 690 V IEC or 600V UL contactor with 1 N.C built-in auxiliary contact and Push-In terminals, controlling motors up to 7.5 kW / 400 V AC (AC-3) or 10 hp / 480 V AC UL and switching power circuits up to 30 A (AC-1) or 30 A UL general use. Within the AF platform, AFC contactors offer an optimized operating time for AC controlled applications with electromagnetic coil (control voltage : 220 ... 230 V AC 50 Hz / 230 ... 240 V AC 60 Hz). AFC contactors have a block type design and can be easily extended with add-on auxiliary contact blocks and a wide range of additional accessories.

### Ordering

|                        |          |
|------------------------|----------|
| Minimum Order Quantity | 1 piece  |
| Customs Tariff Number  | 85364900 |

### Popular Downloads

|                                   |                 |
|-----------------------------------|-----------------|
| Data Sheet, Technical Information | 1SBC100219C0201 |
| Instructions and Manuals          | 1SBC101060M6801 |

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## Dimensions

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| Product Net Width          | 45 mm    |
| Product Net Depth / Length | 77 mm    |
| Product Net Height         | 92.3 mm  |
| Product Net Weight         | 0.306 kg |

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## Technical

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|---|---|
| Number of Main Contacts NO                                  | 3   |
| Number of Main Contacts NC                                  | 0   |
| Number of Auxiliary Contacts NO                             | 0   |
| Number of Auxiliary Contacts NC                             | 1   |
| Standards   | IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 508, CSA C22.2 N° 14   |
| Rated Operational Voltage                                   | Auxiliary Circuit 690 V<br>Main Circuit 690 V   |
| Rated Frequency (f)   | Auxiliary Circuit 50 / 60 Hz<br>Main Circuit 50 / 60 Hz   |
| Conventional Free-air Thermal Current ( $I_{th}$ )          | acc. to IEC 60947-4-1, Open Contactors $q = 40\text{ °C}$ 35 A<br>acc. to IEC 60947-5-1, $q = 40\text{ °C}$ 16 A  |
| Rated Operational Current AC-1 ( $I_e$ )                    | (690 V) 40 °C 30 A<br>(690 V) 60 °C 30 A<br>(690 V) 70 °C 26 A  |
| Rated Operational Current AC-3 ( $I_e$ )                    | (415 V) 60 °C 18 A<br>(440 V) 60 °C 18 A<br>(500 V) 60 °C 15 A<br>(690 V) 60 °C 10.5 A<br>(380 / 400 V) 60 °C 18 A<br>(220 / 230 / 240 V) 60 °C 18 A  |
| Rated Operational Power AC-3 ( $P_e$ )                      | (415 V) 9 kW<br>(440 V) 9 kW<br>(500 V) 9 kW<br>(690 V) 9 kW<br>(380 / 400 V) 7.5 kW<br>(220 / 230 / 240 V) 4 kW  |
| Rated Operational Current AC-15 ( $I_e$ )                   | (500 V) 2 A<br>(690 V) 2 A<br>(24 / 127 V) 6 A<br>(220 / 240 V) 4 A<br>(400 / 440 V) 3 A  |
| Rated Short-time Withstand Current Low Voltage ( $I_{cw}$ ) | at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 150 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 35 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 60 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 300 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 80 A<br>for 0.1 s 140 A<br>for 1 s 100 A |
| Maximum Breaking Capacity                                   | $\cos \phi = 0.45$ ( $\cos \phi = 0.35$ for $I_e > 100$ A) at 440 V 250 A<br>$\cos \phi = 0.45$ ( $\cos \phi = 0.35$ for $I_e > 100$ A) at 690 V 106 A  |
| Maximum Electrical Switching Frequency                      | (AC-1) 600 cycles per hour<br>(AC-15) 1200 cycles per hour<br>(AC-2 / AC-4) 300 cycles per hour   |

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|  | (AC-3) 1200 cycles per hour<br>(DC-13) 900 cycles per hour  |
| Rated Operational Current<br>DC-13 ( $I_b$ )     | (24 V) 6 A / 144 W<br>(48 V) 2.8 A / 134 W<br>(72 V) 1 A / 72 W<br>(110 V) 0.55 A / 60 W<br>(125 V) 0.55 A / 69 W<br>(220 V) 0.27 A / 60 W<br>(250 V) 0.27 A / 68 W<br>(400 V) 0.15 A / 60 W<br>(500 V) 0.13 A / 65 W<br>(600 V) 0.1 A / 60 W                           |
| Rated Insulation Voltage<br>( $U_i$ )            | acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 690 V<br>acc. to IEC 60947-5-1 and VDE 0110 (Gr. C) 690 V<br>acc. to UL/CSA 600 V  |
| Rated Impulse Withstand<br>Voltage ( $U_{imp}$ ) | 6 kV  |
| Maximum Mechanical<br>Switching Frequency        | 3600 cycles per hour  |
| Rated Control Circuit<br>Voltage ( $U_c$ )       | 50 Hz 220 ... 230 V<br>60 Hz 230 ... 240 V  |
| Operate Time                                     | Between Coil De-energization and NC Contact Closing 9 ... 20 ms<br>Between Coil De-energization and NO Contact Opening 4 ... 18 ms<br>Between Coil Energization and NC Contact Opening 7 ... 21 ms<br>Between Coil Energization and NO Contact Closing 10 ... 26 ms     |
| Connecting Capacity Main<br>Circuit              | Flexible with Ferrule 1/2x 0.5 ... 4 mm <sup>2</sup><br>Flexible with Insulated Ferrule 1x 0.5 ... 4 mm <sup>2</sup><br>Flexible with Insulated Ferrule 2x 0.5 ... 2.5 mm <sup>2</sup><br>Flexible 1/2x 0.5 ... 4 mm <sup>2</sup><br>Rigid 1/2x 1 ... 6 mm <sup>2</sup> |
| Connecting Capacity<br>Auxiliary Circuit         | Flexible with Insulated Ferrule 1/2x 0.5 ... 1.5 mm <sup>2</sup><br>Flexible 1/2x 0.5 ... 4 mm <sup>2</sup><br>Rigid 1/2x 1 ... 2.5 mm <sup>2</sup>   |
| Connecting Capacity<br>Control Circuit           | Flexible with Ferrule 1/2x 0.5 ... 2.5 mm <sup>2</sup><br>Flexible with Insulated Ferrule 1/2x 0.5 ... 1.5 mm <sup>2</sup><br>Flexible 1/2x 0.5 ... 2.5 mm <sup>2</sup><br>Rigid 1/2x 1 ... 2.5 mm <sup>2</sup>   |
| Wire Stripping Length                            | Auxiliary Circuit 10 mm<br>Control Circuit 10 mm<br>Main Circuit 12 mm  |
| Degree of Protection                             | acc. to IEC 60529, IEC 60947-1, EN 60529 Auxiliary Terminals IP20<br>acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP20<br>acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP20   |
| Terminal Type                                    | Push-in Spring Terminals  |

## Technical UL/CSA

|                              |  |
|------------------------------|--|
| General Use Rating<br>UL/CSA | (600 V AC) 30 A  |
| Horsepower Rating<br>UL/CSA  | (120 V AC) Single Phase 1-1/2 hp<br>(200 ... 208 V AC) Three Phase 5 hp<br>(220 ... 240 V AC) Three Phase 5 hp<br>(240 V AC) Single Phase 3 hp<br>(440 ... 480 V AC) Three Phase 10 hp<br>(550 ... 600 V AC) Three Phase 15 hp |

## Environmental

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|-------------------------|--|
| Ambient Air Temperature | Close to Contactor without Thermal O/L Relay (0.85 ... 1.1 $U_c$ ) -40 ... 60 °C<br>Close to Contactor without Thermal O/L Relay ( $U_c$ ) -40 ... 70 °C |
|-------------------------|--|

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|  | Close to Contactor for Storage -60 ... +80 °C        |
| Climatic Withstand                             | Category B according to IEC 60947-1 Annex Q          |
| Maximum Operating Altitude Permissible         | Without Derating 3000 m                              |
| Resistance to Vibrations acc. to IEC 60068-2-6 | 5 ... 300 Hz 4 g closed position / 2 g open position |

## Certificates and Declarations (Document Number)

|                                 |                         |
|---------------------------------|-------------------------|
| CB Certificate                  | CB_SE-96551M1           |
| CQC Certificate                 | CQC2010010304445624     |
| Declaration of Conformity - CCC | 2020980304001253        |
| Declaration of Conformity - CE  | 1SBD250024U1000         |
| Instructions and Manuals        | 1SBC101060M6801         |
| RoHS Information                | 1SBD251089E1000         |
| UL Certificate                  | UL_20191021-E312527_7_1 |

## Container Information

|                                |               |
|--------------------------------|---------------|
| Package Level 1 Units          | box 1 piece   |
| Package Level 1 Width          | 93 mm         |
| Package Level 1 Depth / Length | 86 mm         |
| Package Level 1 Height         | 45 mm         |
| Package Level 1 Gross Weight   | 0.306 kg      |
| Package Level 1 EAN            | 3471523014541 |
| Package Level 3 Units          | 1080 piece    |

## Classifications

|                            |  |
|----------------------------|--|
| Object Classification Code | Q  |
| ETIM 6                     | EC000066 - Power contactor, AC switching |
| ETIM 7                     | EC000066 - Power contactor, AC switching |
| eClass                     | V11.0 : 27371003                         |

## Categories

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

