



PRODUCT-DETAILS

AF80-22-00-12

AF80-22-00-12 48-130V50/60HZ-DC Contactor



360°

General Information

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|-----------------------|-------------------------------------------|
| Extended Product Type | AF80-22-00-12 |
| Product ID | 1SBL397501R1200 |
| EAN | 3471523133921 |
| Catalog Description | AF80-22-00-12 48-130V50/60HZ-DC Contactor |

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| Long Description | The AF80-22-00-12 is a 4 pole - 1000 V IEC or 600 UL contactor with screw terminals, controlling motors up to 37 kW / 400 V AC (AC-3) and switching power circuits up to 125 A (AC-1) or 105 A UL general use. Thanks to the AF technology, the contactor has a wide control voltage range (48-130 V 50/60 Hz and DC), managing large control voltage variations, reducing panel energy consumptions and ensuring distinct operations in unstable networks. Furthermore, surge protection is built-in, offering a compact solution. AF contactors have a block type design, can be easily extended with add-on auxiliary contact blocks and an additional wide range of accessories. |
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Ordering

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

Popular Downloads

| | |
|--------------------------|-----------------|
| Instructions and Manuals | 1SBC101047M6801 |
| CAD Dimensional Drawing | 2CDC001079B0201 |

Dimensions

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| Product Net Width | 90 mm |
| Product Net Depth / Length | 116 mm |
| Product Net Height | 125.5 mm |
| Product Net Weight | 1.49 kg |

Technical

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|-------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Number of Main Contacts NO | 2 |
| Number of Main Contacts NC | 2 |
| Number of Auxiliary Contacts NO | 0 |
| Number of Auxiliary Contacts NC | 0 |
| Standards | IEC/EN 60947-1, IEC/EN 60947-4-1, UL 60947-1, UL 60947-4-1, CSA C22.2 No. 60947-1:22, CSA C22.2 No. 60947-4-1:22 |
| Rated Operational Voltage | Main Circuit 1000 V |
| Rated Frequency (f) | Control Circuit 50 / 60 Hz Main Circuit 50 / 60 Hz |
| Conventional Free-air Thermal Current (I _{th}) | acc. to IEC 60947-4-1, Open Contactors $\Theta = 40\text{ }^{\circ}\text{C}$ 125 A |
| Rated Operational Current AC-1 (I _e) | (690 V) 40 °C 125 A (690 V) 60 °C 105 A (690 V) 70 °C 90 A |
| Rated Operational Current AC-3 (I _e) | (415 V) 60 °C 80 A (440 V) 60 °C 80 A (500 V) 60 °C 65 A (690 V) 60 °C 49 A (1000 V) 60 °C 25 A (380 / 400 V) 60 °C 80 A (220 / 230 / 240 V) 60 °C 80 A |
| Rated Operational Power AC-3 (P _e) | (415 V) 45 kW (440 V) 45 kW (500 V) 45 kW (690 V) 45 kW (1000 V) 35 kW (380 / 400 V) 37 kW (220 / 230 / 240 V) 22 kW |
| Rated Short-time Withstand Current Low Voltage (I _{cw}) | at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 780 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 140 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 300 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1200 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 450 A |
| Maximum Breaking Capacity | cos phi=0.45 (cos phi=0.35 for I _e > 100 A) at 440 V 1150 A cos phi=0.45 (cos phi=0.35 for I _e > 100 A) at 690 V 750 A |
| Maximum Electrical Switching Frequency | (AC-1) 600 cycles per hour |
| Rated Insulation Voltage (U _i) | acc. to IEC 60947-4-1 1000 V acc. to UL/CSA 600 V |
| Rated Impulse Withstand Voltage (U _{imp}) | 8 kV |
| Maximum Mechanical Switching Frequency | 3600 cycles per hour |
| Rated Control Circuit Voltage (U _c) | 50 Hz 48 ... 130 V 60 Hz 48 ... 130 V DC Operation 48 ... 130 V |
| Coil Consumption | Average Holding Value 50 / 60 Hz 4 V·A Average Holding Value 50 Hz 4 V·A |

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| | Average Holding Value 60 Hz 4 V·A |
| | Average Holding Value DC 2 W |
| | Average Holding Value, from Warm State 2 W |
| Mounting on DIN Rail | TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715 |
| Mounting by Screws (not supplied) | 2 x M4 or 2 x M6 screws placed diagonally |
| Connecting Capacity Main Circuit | Flexible with Ferrule 1/2x 6 ... 50 mm² Flexible with Insulated Ferrule 1/2x 6 ... 50 mm² Rigid Stranded 1x 6 ... 70 mm² Rigid Stranded 2x 6 ... 50 mm² |
| Connecting Capacity Control Circuit | Flexible with Ferrule 1/2x 0.75 ... 2.5 mm² Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm² Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm² Rigid Solid 1/2x 1 ... 2.5 mm² Rigid Stranded 1/2x 1 ... 2.5 mm² |
| Wire Stripping Length | Control Circuit 10 mm Main Circuit 17 mm |
| Degree of Protection | acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP20 acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP10 |
| Terminal Type | Screw Terminals |

Technical UL/CSA

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|--------------------------------------------|-------------------------------------------------------------|
| Maximum Operating Voltage UL/CSA | Main Circuit 600 V |
| General Use Rating UL/CSA | (600 V AC) 105 A |
| Connecting Capacity Main Circuit UL/CSA | Rigid Stranded 1/2x 6-1 AWG |
| Connecting Capacity Control Circuit UL/CSA | Rigid Solid 1/2x 18-14 AWG Rigid Stranded 1/2x 18-14 AWG |
| Tightening Torque UL/CSA | Control Circuit 11 in·lb Main Circuit 53 in·lb |

Environmental

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| Ambient Air Temperature | Close to Contactor for Storage -60 ... +80 °C Near Contactor for Operation in Free Air -40 ... 70 °C |
| Climatic Withstand | Category B according to IEC 60947-1 Annex Q |
| Maximum Operating Altitude Permissible | Without Derating 3000 m |
| Resistance to Vibrations | 3g Closed Position & 2g Open Position 5 ... 300 Hz |

Material Compliance

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|---------------------------------------------|------------------------------------------------------------|
| Conflict Minerals Reporting Template (CMRT) | 9AKK108467A5658 |
| REACH Declaration | 2CMT2021-006202 |
| RoHS Information | 2CMT2021-006277 |
| RoHS Status | Following EU Directive 2011/65/EU |
| Toxic Substances Control Act - TSCA | 2CMT2023-006525 |
| WEEE B2C / B2B | Business To Business |
| WEEE Category | 5. Small Equipment (No External Dimension More Than 50 cm) |

Certificates and Declarations

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|-----------------|----------------------|
| ABS Certificate | ABS_20-2060694-PDA |
| BV Certificate | BV_2634H36994B1 |
| CB Certificate | CB_SE-113142A1 |
| CCC Certificate | CCC_2013010304646569 |

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| CQC Certificate | CQC2013010304646569 |
| Declaration of Conformity - CCC | 2020980304001255 |
| Declaration of Conformity - CE | 1SBD250001U1000 |
| Declaration of Conformity - UKCA | 1SBD250032U1000 |
| DNV Certificate | DNV_TAE00001AF-4 |
| EAC Certificate | EAC_RU_FRME77B03447 |
| KC Certificate | KC_HW02016-15013C |
| UL Certificate | UL-US-L312527-1142-02114102-6 UL-CA-L312527-4142-02114102-6 |
| UL Listing Card | UL_E312527 |

Container Information

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|-----------------------------------|---------------|
| Package Level 1 Units | box 1 piece |
| Package Level 1 Width | 150 mm |
| Package Level 1 Depth / Length | 150 mm |
| Package Level 1 Height | 103 mm |
| Package Level 1 Gross Weight | 1.62 kg |
| Package Level 1 EAN | 3471523133921 |
| Package Level 2 Units | box 8 piece |
| Package Level 2 Width | 250 mm |
| Package Level 2 Depth / Length | 300 mm |
| Package Level 2 Height | 300 mm |
| Package Level 2 Gross Weight | 12.96 kg |
| Package Level 3 Units | 192 piece |

Classifications

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| 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 |
| ETIM 8 | EC000066 - Power contactor, AC switching |
| eClass | V11.0 : 27371003 |
| UNSPSC | 39121529 |
| IDEA Granular Category Code (IGCC) | 4758 >> lec Contactors |
| E-Number (Finland) | 3707449 |
| E-Number (Sweden) | 3210351 |

Categories

Low Voltage Products and Systems → Control Products → Contactors → Block Contactors → AF Contactors → AF80



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