

## PRODUCT-DETAILS

# AF80-22-00-13

## AF80-22-00-13 100-250V50/60HZ-DC Contactor



### General Information

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Extended Product Type | AF80-22-00-13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Product ID            | 1SBL397501R1300                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| EAN                   | 3471523133938                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Catalog Description   | AF80-22-00-13 100-250V50/60HZ-DC Contactor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Long Description      | The AF80-22-00-13 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 (100-250 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. |

### Ordering

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

### Popular Downloads

|                          |                 |
|--------------------------|-----------------|
| Instructions and Manuals | 1SBC101047M6801 |
|--------------------------|-----------------|

### Dimensions

|                            |          |
|----------------------------|----------|
| Product Net Width          | 90 mm    |
| Product Net Depth / Length | 116 mm   |
| Product Net Height         | 125.5 mm |
| Product Net Weight         | 1.44 kg  |

## Technical

|                                                    |                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Number of Main Contacts NO                         | 2                                                                                                                                                                                                                                                                                                                                                                        |
| Number of Main Contacts NC                         | 2                                                                                                                                                                                                                                                                                                                                                                        |
| Number of Auxiliary Contacts NO                    | 0                                                                                                                                                                                                                                                                                                                                                                        |
| Number of Auxiliary Contacts NC                    | 0                                                                                                                                                                                                                                                                                                                                                                        |
| Rated Operational Voltage                          | Main Circuit 1000 V                                                                                                                                                                                                                                                                                                                                                      |
| Rated Frequency (f)                                | Main Circuit 50 / 60 Hz                                                                                                                                                                                                                                                                                                                                                  |
| Conventional Free-air Thermal Current ( $I_{th}$ ) | acc. to IEC 60947-4-1, Open Contactors q = 40 °C 125 A                                                                                                                                                                                                                                                                                                                   |
| Rated Operational Current AC-1 ( $I_e$ )           | (690 V) 40 °C 125<br>(690 V) 60 °C 105 A<br>(690 V) 70 °C 90                                                                                                                                                                                                                                                                                                             |
| Rated Operational Current AC-3 ( $I_e$ )           | (415 V) 60 °C 80 A<br>(440 V) 60 °C 80 A<br>(500 V) 60 °C 65 A<br>(690 V) 60 °C 49 A<br>(1000 V) 60 °C 25 A<br>(380 / 400 V) 60 °C 80 A<br>(220 / 230 / 240 V) 60 °C 80 A                                                                                                                                                                                                |
| Rated Operational Power AC-3 ( $P_e$ )             | (415 V) 45 kW<br>(440 V) 45 kW<br>(500 V) 45 kW<br>(690 V) 45 kW<br>(1000 V) 35 kW<br>(380 / 400 V) 37 kW<br>(220 / 230 / 240 V) 22 kW                                                                                                                                                                                                                                   |
| Rated Short-time Withstand Current ( $I_{cw}$ )    | at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 780 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 140 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 300 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1200 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 450 A<br>for 1 s -empty- A |
| Maximum Electrical Switching Frequency             | (AC-1) 600 cycles per hour                                                                                                                                                                                                                                                                                                                                               |
| Rated Insulation Voltage ( $U_i$ )                 | acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 1000 V<br>acc. to UL/CSA 600 V                                                                                                                                                                                                                                                                                                |
| Rated Impulse Withstand Voltage ( $U_{imp}$ )      | 8 kV                                                                                                                                                                                                                                                                                                                                                                     |
| Maximum Mechanical Switching Frequency             | 3600 cycles per hour                                                                                                                                                                                                                                                                                                                                                     |
| Rated Control Circuit Voltage ( $U_c$ )            | 50 Hz 100 ... 250 V<br>50 Hz / 60 Hz 100 ... 250 V<br>60 Hz 100 ... 250 V<br>DC Operation 100 ... 250 V                                                                                                                                                                                                                                                                  |
| Connecting Capacity Main Circuit                   | Flexible with Ferrule 1/2x 6 ... 50 mm <sup>2</sup><br>Rigid 1x 6 ... 70 mm <sup>2</sup><br>Rigid 2x 6 ... 50 mm <sup>2</sup>                                                                                                                                                                                                                                            |
| Connecting Capacity Control Circuit                | Flexible with Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup><br>Rigid 1/2x 1 ... 2.5 mm <sup>2</sup>                                                                                                                                                                                                                                                                          |
| Wire Stripping Length                              | Main Circuit 17 mm                                                                                                                                                                                                                                                                                                                                                       |
| 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 IP10                                                                                                                                                                                                                                             |
| Terminal Type                                      | Screw Terminals                                                                                                                                                                                                                                                                                                                                                          |

## Technical UL/CSA

|                              |                                                                                                                                                                                                                                   |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General Use Rating<br>UL/CSA | (600 V AC) 105 A                                                                                                                                                                                                                  |
| Horsepower Rating<br>UL/CSA  | (120 V AC) Single Phase 7-1/2 hp<br>(200 ... 208 V AC) Three Phase 25 hp<br>(220 ... 240 V AC) Three Phase 30 hp<br>(240 V AC) Single Phase 15 hp<br>(440 ... 480 V AC) Three Phase 60 hp<br>(550 ... 600 V AC) Three Phase 75 hp |

## Environmental

|                                                   |                                                                                                          |
|---------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| Ambient Air<br>Temperature                        | Close to Contactor for Storage -60 ... +80 °C<br>Near Contactor for Operation in Free Air -40 ... +70 °C |
| Climatic Withstand                                | Category B according to IEC 60947-1 Annex Q                                                              |
| Maximum Operating<br>Altitude Permissible         | 3000 m                                                                                                   |
| Resistance to Vibrations<br>acc. to IEC 60068-2-6 | 5 ... 300 Hz 3 g Closed position / 2 g Open position                                                     |
| RoHS Status                                       | Following EU Directive 2011/65/EU                                                                        |

## Certificates and Declarations (Document Number)

|                                    |                          |
|------------------------------------|--------------------------|
| BV Certificate                     | BV_2634H36994A           |
| CB Certificate                     | CB_SE-96557              |
| CCC Certificate                    | CCC_2013010304646569     |
| CQC Certificate                    | CQC2013010304646569      |
| Declaration of<br>Conformity - CCC | 2020980304001255         |
| Declaration of<br>Conformity - CE  | 1SBD250001U1000          |
| DNV Certificate                    | DNV-GL_TAE00001AF-3      |
| DNV GL Certificate                 | DNV-GL_TAE00001AF-3      |
| EAC Certificate                    | EAC_RU_FRME77B03447      |
| GL Certificate                     | DNV-GL_TAE00001AF-3      |
| Instructions and<br>Manuals        | 1SBC101047M6801          |
| KC Certificate                     | KC_HW02016-15013C        |
| RoHS Information                   | 1SBD250001U1000          |
| UL Certificate                     | UL_20141124-E312527-14-2 |
| UL Listing Card                    | UL_E312527               |

## Container Information

|                                   |               |
|-----------------------------------|---------------|
| Package Level 1 Units             | box 1 piece   |
| Package Level 1 Width             | 150 mm        |
| Package Level 1 Depth /<br>Length | 150 mm        |
| Package Level 1 Height            | 103 mm        |
| Package Level 1 Gross<br>Weight   | 1.57 kg       |
| Package Level 1 EAN               | 3471523133938 |
| Package Level 2 Units             | box 8 piece   |
| Package Level 2 Width             | 250 mm        |
| Package Level 2 Depth /<br>Length | 300 mm        |
| Package Level 2 Height            | 300 mm        |

|                              |           |
|------------------------------|-----------|
| Package Level 2 Gross Weight | 12.56 kg  |
| Package Level 3 Units        | 192 piece |

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  |
| eClass                     | V11.0 : 27371003                          |
| UNSPSC                     | 39121529                                  |
| E-Number (Finland)         | 3707455                                   |
| E-Number (Sweden)          | 3210352                                   |

Categories

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

