



Representative Image

## Alternate Catalog No. AF1250-30-22-71 Catalog No. 1SFL647001R7122

**Description:** AF1250-30-22 250-500V 50/60Hz / 250-500V DC Contactor

**UPC No** 7320500355121

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A 3-phase Contactor suitable for various applications such as, Isolation, By-pass and Distribution application up to max 1000 V. Operated with wide control voltage range 250-500 V, AC/DC

### Descriptors

|                      |                  |
|----------------------|------------------|
| Category             | AF Contactors    |
| Block Contactor Type | 3-Pole Contactor |

### Specifications

|                                                    |                                                                                                                                                                                                                     |
|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Type                                       | AF                                                                                                                                                                                                                  |
| General Use Rating UL/CSA                          | (600 V AC) 1210 A                                                                                                                                                                                                   |
| Object Classification Code                         | Q                                                                                                                                                                                                                   |
| Terminal Type                                      | Main Circuit: Bars                                                                                                                                                                                                  |
| Rated Control Circuit Voltage                      | 50 Hz /60 Hz DC Operation 250 ... 500 V                                                                                                                                                                             |
| Number of Main Contacts NO                         | 3                                                                                                                                                                                                                   |
| Number of Main Contacts NC                         | 0                                                                                                                                                                                                                   |
| Maximum Operating Voltage UL/CSA                   | Main Circuit 600 V                                                                                                                                                                                                  |
| Number of Auxiliary Contacts NO                    | 2                                                                                                                                                                                                                   |
| RoHS Status                                        | Following EU Directive 2011/65/EU                                                                                                                                                                                   |
| Reference Ambient Air Temperature                  | Close to Contactor for Storage -40 ... +70 °C<br>Close to Contactor Fitted with Thermal O/L Relay (0.85 ... 1.1 Uc) -25 ... +50 °C<br>Close to Contactor without Thermal O/L Relay (0.85 ... 1.1 Uc) -40 ... +70 °C |
| Rated Operational Voltage                          | Main Circuit 1000 V                                                                                                                                                                                                 |
| Number of Auxiliary Contacts NC                    | 2                                                                                                                                                                                                                   |
| Maximum Operating Altitude Permissible             | 3000 m                                                                                                                                                                                                              |
| Rated Operational Current AC-1                     | (1000 V) 40 °C 1260 A<br>(1000 V) 55 °C 1040 A<br>(1000 V) 70 °C 875 A<br>(690 V) 40 °C 1260 A<br>(690 V) 55 °C 1040 A<br>(690 V) 70 °C 875 A                                                                       |
| Rated Breaking Capacity AC-3 acc. to IEC 60947-4-1 | 8 x Ie AC-3                                                                                                                                                                                                         |
| Conventional Free-air Thermal Current              | acc. to IEC 60947-4-1, Open Contactors q = 40 °C 1050 A                                                                                                                                                             |
| Rated Frequency                                    | Main Circuit 50Hz<br>Main Circuit 60 Hz                                                                                                                                                                             |

**by ABB**

## Specifications

|                                                  |                                                                                                                                                                                                                                                                                                                                                                                            |
|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Rated Short-time Withstand Current               | at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 7200 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 1500 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 4000 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 8000 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 5200 A                                    |
| Rated Making Capacity AC-3 acc. to IEC 60947-4-1 | 10 x I <sub>e</sub> AC-3                                                                                                                                                                                                                                                                                                                                                                   |
| Maximum Electrical Switching Frequency           | AC-1 300 cycles per hour                                                                                                                                                                                                                                                                                                                                                                   |
| Rated Operational Current DC-5                   | (220 V) 3 Poles in Series, 40 °C 1250 A<br>(600 V) 3 Poles in Series, 40 °C 1250 A<br>(850 V) 3 Poles in Series, 40 °C 1250 A                                                                                                                                                                                                                                                              |
| Rated Insulation Voltage                         | acc. to UL/CSA 600 V<br>acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 1000 V                                                                                                                                                                                                                                                                                                                  |
| Maximum Breaking Capacity                        | cos phi=0.45 (cos phi=0.35 for I <sub>e</sub> > 100 A) at 440 V 7500 A<br>cos phi=0.45 (cos phi=0.35 for I <sub>e</sub> > 100 A) at 690 V 7000 A                                                                                                                                                                                                                                           |
| Mechanical Durability                            | 0.5 million                                                                                                                                                                                                                                                                                                                                                                                |
| Rated Operational Current DC-3                   | (220 V) 3 Poles in Series, 40 °C 1250 A<br>(600 V) 3 Poles in Series, 40 °C 1250 A<br>(850 V) 3 Poles in Series, 40 °C 1250 A                                                                                                                                                                                                                                                              |
| Coil Operating Limits                            | (acc. to IEC 60947-4-1) 0.85 x U <sub>c</sub> Min. ... 1.1 x U <sub>c</sub> Max. (at $\theta \leq 70^\circ$ C)                                                                                                                                                                                                                                                                             |
| Maximum Mechanical Switching Frequency           | 300 cycles per hour                                                                                                                                                                                                                                                                                                                                                                        |
| Operate Time                                     | Between Coil De-energization and NC Contact Closing 50 ... 70 ms<br>Between Coil De-energization and NO Contact Opening 53 ... 73 ms<br>Between Coil Energization and NC Contact Opening 45 ... 115 ms<br>Between Coil Energization and NO Contact Closing 50 ... 120 ms                                                                                                                   |
| Secondary Rated Impulse Withstand Voltage        | Main Circuit 8 kV                                                                                                                                                                                                                                                                                                                                                                          |
| Connecting Capacity Main Circuit                 | Bar 50 mm                                                                                                                                                                                                                                                                                                                                                                                  |
| Coil Consumption                                 | Holding at Max. Rated Control Circuit Voltage 50 Hz 12 V - A<br>Holding at Max. Rated Control Circuit Voltage 60 Hz 12 V - A<br>Holding at Max. Rated Control Circuit Voltage DC 7.5 V - A<br>Pull-in at Max. Rated Control Circuit Voltage 50 Hz 985 V - A<br>Pull-in at Max. Rated Control Circuit Voltage 60 Hz 985 V - A<br>Pull-in at Max. Rated Control Circuit Voltage DC 910 V - A |
| 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 Capacity Auxiliary Circuit            | Flexible with Insulated Ferrule 1 x 0.75 ... 2.5 m <sup>2</sup><br>Flexible 2x0.75 ... 2.5 m <sup>2</sup><br>Stranded 2 x 1 .... 4 m <sup>2</sup>                                                                                                                                                                                                                                          |

## Classifications

|                                    |                                           |
|------------------------------------|-------------------------------------------|
| ETIM 4                             | EC000066 - Magnet contactor, AC-switching |
| ETIM 6.0                           | EC000066 - Power contactor, AC switching  |
| ETIM 7                             | EC000066 - Power contactor, AC switching  |
| IDEA Granular Category Code (IGCC) | 4755 >> Contactors                        |
| ETIM 5.0                           | EC000066 - Magnet contactor, AC-switching |

## Dimensions

|                            |         |
|----------------------------|---------|
| Product Net Weight         | 14.6 kg |
| Product Net Depth / Length | 242 mm  |
| Product Net Width          | 210 mm  |
| Product Net Height         | 344 mm  |

## Package Information

|                        |        |
|------------------------|--------|
| Package Level 1 Width  | 280 mm |
| Package Level 1 Height | 310 mm |

### Package Information

|                                |               |
|--------------------------------|---------------|
| Package Level 1 Depth / Length | 375 mm        |
| Package Level 1 EAN            | 7320500355121 |
| Package Level 1 Units          | box 1 piece   |
| Package Level 1 Gross Weight   | 16 kg         |

### Ordering

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