

## PRODUCT-DETAILS

# AF116-30-22-14

## AF116-30-22-14 Contactor



### General Information

|                       |                                                                                                                                                                                                                   |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Extended Product Type | AF116-30-22-14                                                                                                                                                                                                    |
| Product ID            | 1SFL427001R1422                                                                                                                                                                                                   |
| EAN                   | 7320500476314                                                                                                                                                                                                     |
| Catalog Description   | AF116-30-22-14 Contactor                                                                                                                                                                                          |
| Long Description      | A 3-phase Contactor suitable for various applications such as Motor starting, Isolation, Bypass and Distribution application up to max 690 V. Operated with wide control voltage range 250-500 V, 50/60 Hz and DC |

### Ordering

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

### Popular Downloads

|                                   |                 |
|-----------------------------------|-----------------|
| Data Sheet, Technical Information | 1SBC100192C0206 |
| Instructions and Manuals          | 1SFC100003M0201 |
| Dimension Diagram                 | 1SFB535001G1051 |

## Dimensions

|                            |         |
|----------------------------|---------|
| Product Net Width          | 90 mm   |
| Product Net Depth / Length | 126 mm  |
| Product Net Height         | 150 mm  |
| Product Net Weight         | 1.55 kg |

## Technical

|                                                    |                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Number of Main Contacts NO                         | 3                                                                                                                                                                                                                                                                                                                                                   |
| Number of Main Contacts NC                         | 0                                                                                                                                                                                                                                                                                                                                                   |
| Number of Auxiliary Contacts NO                    | 2                                                                                                                                                                                                                                                                                                                                                   |
| Number of Auxiliary Contacts NC                    | 2                                                                                                                                                                                                                                                                                                                                                   |
| Rated Operational Voltage                          | Main Circuit 690 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 160 A                                                                                                                                                                                                                                                                                              |
| Rated Operational Current AC-1 ( $I_e$ )           | (690 V) 40 °C 160<br>(690 V) 60 °C 145 A<br>(690 V) 70 °C 130                                                                                                                                                                                                                                                                                       |
| Rated Operational Current AC-3 ( $I_e$ )           | (415 V) 55 °C 116 A<br>(440 V) 55 °C 116 A<br>(500 V) 55 °C 110 A<br>(690 V) 55 °C 65 A<br>(380 / 400 V) 55 °C 116 A<br>(220 / 230 / 240 V) 55 °C 116                                                                                                                                                                                               |
| Rated Operational Power AC-3 ( $P_e$ )             | (415 V) 55 kW<br>(440 V) 75 kW<br>(500 V) 75 kW<br>(690 V) 55 kW<br>(380 / 400 V) 55 kW<br>(220 / 230 / 240 V) 30 kW                                                                                                                                                                                                                                |
| Rated Breaking Capacity AC-3 acc. to IEC 60947-4-1 | 8 x $I_e$ AC-3                                                                                                                                                                                                                                                                                                                                      |
| Rated Making Capacity AC-3 acc. to IEC 60947-4-1   | 10 x $I_e$ AC-3                                                                                                                                                                                                                                                                                                                                     |
| Short-Circuit Protective Devices                   | gG Type Fuses 250 A                                                                                                                                                                                                                                                                                                                                 |
| Rated Short-time Withstand Current ( $I_{cw}$ )    | at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 928 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 160 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 379 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1160 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 536 A |
| Maximum Breaking Capacity                          | cos phi=0.45 (cos phi=0.35 for $I_e > 100$ A) at 440 V 2000 A<br>cos phi=0.45 (cos phi=0.35 for $I_e > 100$ A) at 690 V 1000 A                                                                                                                                                                                                                      |
| Maximum Electrical Switching Frequency             | (AC-1) 300 cycles per hour<br>(AC-2 / AC-4) 150 cycles per hour<br>(AC-3) 300 cycles per hour                                                                                                                                                                                                                                                       |
| Rated Operational Current DC-1 ( $I_e$ )           | (110 V) 2 Poles in Series, 40 °C 145 A<br>(220 V) 3 Poles in Series, 40 °C 145 A                                                                                                                                                                                                                                                                    |
| Rated Operational Current                          | (110 V) 2 Poles in Series, 40 °C 145 A                                                                                                                                                                                                                                                                                                              |

|                                                  |                                                                                                                                                                                                                                                                                                                                                                              |
|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DC-3 ( $I_e$ )                                   | (220 V) 3 Poles in Series, 40 °C 145 A                                                                                                                                                                                                                                                                                                                                       |
| Rated Operational Current<br>DC-5 ( $I_e$ )      | (110 V) 2 Poles in Series, 40 °C 145 A<br>(220 V) 3 Poles in Series, 40 °C 145 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        | 300 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 250 ... 500 V<br>60 Hz 250 ... 500 V<br>DC Operation 250 ... 500 V                                                                                                                                                                                                                                                                                                     |
| Coil Consumption                                 | Holding at Max. Rated Control Circuit Voltage 50 Hz 16.1 V·A<br>Holding at Max. Rated Control Circuit Voltage 60 Hz 16.1 V·A<br>Holding at Max. Rated Control Circuit Voltage DC 4 W<br>Pull-in at Max. Rated Control Circuit Voltage 50 Hz 205 V·A<br>Pull-in at Max. Rated Control Circuit Voltage 60 Hz 205 V·A<br>Pull-in at Max. Rated Control Circuit Voltage DC 204 W |
| Operate Time                                     | Between Coil De-energization and NO Contact Opening 37 ... 47 ms<br>Between Coil Energization and NO Contact Closing 25 ... 55 ms                                                                                                                                                                                                                                            |
| Connecting Capacity Main<br>Circuit              | Flexible 2 x 10 ... 70 mm <sup>2</sup><br>Rigid Cu-Cable 2 x 10 ... 95 mm <sup>2</sup>                                                                                                                                                                                                                                                                                       |
| Connecting Capacity<br>Auxiliary Circuit         | Flexible with Ferrule 2x 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                                                                                                                                                                                                                                                 |
| Terminal Type                                    | Double Clamp                                                                                                                                                                                                                                                                                                                                                                 |

## Technical UL/CSA

|                                     |                                                                                                                                                                                       |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Maximum Operating<br>Voltage UL/CSA | Main Circuit 600 V                                                                                                                                                                    |
| General Use Rating<br>UL/CSA        | (600 V AC) 160 A                                                                                                                                                                      |
| Horsepower Rating<br>UL/CSA         | (200 V AC) Three Phase 30 hp<br>(208 V AC) Three Phase 30 hp<br>(220 ... 240 V AC) Three Phase 40 hp<br>(440 ... 480 V AC) Three Phase 75 hp<br>(550 ... 600 V AC) Three Phase 100 hp |

## Environmental

|                                           |                                                                                                                                                                                                                             |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ambient Air Temperature                   | Close to Contactor Fitted with Thermal O/L Relay (0.85 ... 1.1 $U_c$ ) -25 ... +50 °C<br>Close to Contactor without Thermal O/L Relay (0.85 ... 1.1 $U_c$ ) -40 ... +70 °C<br>Close to Contactor for Storage -40 ... +70 °C |
| Maximum Operating<br>Altitude Permissible | 3000 m                                                                                                                                                                                                                      |
| RoHS Status                               | Following EU Directive 2015/863 July 22, 2019 (RoHS 3)                                                                                                                                                                      |

## Certificates and Declarations (Document Number)

|                                   |                               |
|-----------------------------------|-------------------------------|
| ABS Certificate                   | 14-LD1092198-PDA              |
| BV Certificate                    | BV_36353_A0BV                 |
| CB Certificate                    | SEMKO_SE-70479M1              |
| CCC Certificate                   | 2013010304604055              |
| CCS Certificate                   | GB14T00030                    |
| cUL Certificate                   | 20120925-E36588               |
| Declaration of Conformity<br>- CE | 2CMT2015-005439               |
| DNV Certificate                   | DNV_E-14043                   |
| DNV GL Certificate                | DNV_E-14043                   |
| EAC Certificate                   | 9AKK107046A8618               |
| Environmental Information         | 2CMT004732<br>1SAC200032H0002 |
| GL Certificate                    | DNV_E-14043                   |
| Instructions and Manuals          | 1SFC100003M0201               |
| LR Certificate                    | LR_14_70011(E1)               |
| PRS Certificate                   | TE_2092_880423_16             |
| RINA Certificate                  | ELE060313XG_002               |
| RMRS Certificate                  | 9AKK107045A6978               |
| RoHS Information                  | 2CMT2015-005439               |
| UL Listing Card                   | UL_E36588                     |

## Container Information

|                                   |               |
|-----------------------------------|---------------|
| Package Level 1 Units             | box 1 piece   |
| Package Level 1 Width             | 207 mm        |
| Package Level 1 Depth /<br>Length | 216 mm        |
| Package Level 1 Height            | 150 mm        |
| Package Level 1 Gross<br>Weight   | 1.75 kg       |
| Package Level 1 EAN               | 7320500476314 |

## 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                        |
| E-Number (Finland)                    | 3706172                                   |

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## Categories

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

