

PRODUCT-DETAILS

# AF52-30-00-14

## AF52-30-00-14 250-500V50/60HZ-DC Contactor



### Informations générales

|                              |  |
|------------------------------|--|
| Extension du type de produit | AF52-30-00-14                              |
| Code de produit              | 1SBL367001R1400                            |
| EAN                          | 3471523132344                              |
| Description courte           | AF52-30-00-14 250-500V50/60HZ-DC Contactor |

|                    |  |
|--------------------|--|
| Description longue | <p>The AF52-30-00-14 is a 3 pole - 690 V IEC or 600 UL contactor with screw terminals, controlling motors up to 22 kW / 400 V AC (AC-3) or 40 hp / 480 V UL and switching power circuits up to 100 A (AC-1) or 80 A UL general use. Thanks to the AF technology, the contactor has a wide control voltage range (250-500 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.</p> |
|--------------------|--|

### Commande

|                  |          |
|------------------|----------|
| Quantité minimum | 1 pièce  |
| Code douanier    | 85364900 |

### Downloads Préférés

|                         |                 |
|-------------------------|-----------------|
| Instructions et manuels | 1SBC101036M6801 |
|-------------------------|-----------------|

CAD Dimensional  
Drawing

2CDC001079B0201

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## Dimensions

|                      |          |
|----------------------|----------|
| Produit Largeur Net  | 55 mm    |
| Produit Longueur Net | 111 mm   |
| Produit Hauteur Net  | 125.5 mm |
| Poids net            | 0.95 kg  |

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## Technique

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|--|--|
| Number of Main Contacts<br>NO                                    | 3  |
| Number of Main Contacts<br>NC                                    | 0  |
| Number of Auxiliary<br>Contacts NO                               | 0  |
| Number of Auxiliary<br>Contacts NC                               | 0  |
| Normes et standards  | IEC/EN 60947-1, IEC/EN 60947-4-1, UL 60947-1, UL 60947-4-1, CSA C22.2<br>No. 60947-1:22, CSA C22.2 No. 60947-4-1:22                                |
| Tension  | Circuit principal 690 V  |
| Fréquence assignée (f)   | Circuit de commande 50 / 60 Hz<br>Circuit principal 50 / 60 Hz   |
| Courant thermique<br>conventionnel à l'air libre<br>( $I_{th}$ ) | acc. to IEC 60947-4-1, Open Contactors $\Theta = 40\text{ °C}$ 105 A   |
| Courant assignée d'<br>emploi AC-1 ( $I_e$ )                     | (690 V) 40 °C 100 A<br>(690 V) 60 °C 80 A<br>(690 V) 70 °C 70 A  |
| Courant assignée d'<br>emploi AC-3 ( $I_e$ )                     | (415 V) 60 °C 53 A<br>(440 V) 60 °C 53 A<br>(500 V) 60 °C 45 A<br>(690 V) 60 °C 35 A<br>(380 / 400 V) 60 °C 53 A<br>(220 / 230 / 240 V) 60 °C 53 A |
| Courant assignée d'<br>emploi AC-3e ( $I_e$ )                    | (415 V) 60 °C 53 A<br>(440 V) 60 °C 53 A<br>(500 V) 60 °C 45 A<br>(690 V) 60 °C 35 A<br>(380 / 400 V) 60 °C 53 A<br>(220 / 230 / 240 V) 60 °C 53 A |
| Puissance assignée d'<br>emploi AC-3 ( $P_e$ )                   | (400 V) 22 kW<br>(415 V) 30 kW<br>(440 V) 30 kW<br>(500 V) 30 kW<br>(690 V) 30 kW<br>(380 / 400 V) 22 kW<br>(220 / 230 / 240 V) 15 kW              |
| Puissance assignée d'<br>emploi AC-3e ( $P_e$ )                  | (415 V) 30 kW<br>(440 V) 30 kW<br>(500 V) 30 kW<br>(690 V) 30 kW<br>(380 / 400 V) 22 kW<br>(220 / 230 / 240 V) 15 kW                               |

Courant assigné de courte

at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 600 A

|  |  |
|--|--|
| durée admissible ( $I_{cw}$ )            | at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 110 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 250 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1000 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 3500 A   |
| Maximum Breaking Capacity                | cos phi=0.45 (cos phi=0.35 for $I_e > 100$ A) at 440 V 950 A<br>cos phi=0.45 (cos phi=0.35 for $I_e > 100$ A) at 690 V 600 A   |
| Maximum Electrical Switching Frequency   | (AC-1) 600 cycles per hour<br>(AC-2 / AC-4) 150 cycles per hour<br>(AC-3) 1200 cycles per hour   |
| Courant assignée d'emploi DC-1 ( $I_e$ ) | (110 V) 2 Poles in Series, 40 °C 100 A<br>(110 V) 2 Poles in Series, 60 °C 80 A<br>(110 V) 2 Poles in Series, 70 °C 70 A<br>(110 V) 3 Poles in Series, 40 °C 100 A<br>(110 V) 3 Poles in Series, 60 °C 80 A<br>(110 V) 3 Poles in Series, 70 °C 70 A<br>(220 V) 3 Poles in Series, 40 °C 100 A<br>(220 V) 3 Poles in Series, 60 °C 80 A<br>(220 V) 3 Poles in Series, 70 °C 70 A<br>(72 V) 1-Pole, 40 °C 100 A<br>(72 V) 1-Pole, 60 °C 80 A<br>(72 V) 1-Pole, 70 °C 70 A<br>(72 V) 2 Poles in Series, 40 °C 100 A<br>(72 V) 2 Poles in Series, 60 °C 80 A<br>(72 V) 2 Poles in Series, 70 °C 70 A<br>(72 V) 3 Poles in Series, 40 °C 100 A<br>(72 V) 3 Poles in Series, 60 °C 80 A<br>(72 V) 3 Poles in Series, 70 °C 70 A |
| Courant assignée d'emploi DC-3 ( $I_e$ ) | (110 V) 2 Poles in Series, 40 °C 100 A<br>(110 V) 2 Poles in Series, 60 °C 80 A<br>(110 V) 2 Poles in Series, 70 °C 70 A<br>(110 V) 3 Poles in Series, 40 °C 100 A<br>(110 V) 3 Poles in Series, 60 °C 80 A<br>(110 V) 3 Poles in Series, 70 °C 70 A<br>(220 V) 3 Poles in Series, 40 °C 100 A<br>(220 V) 3 Poles in Series, 60 °C 80 A<br>(220 V) 3 Poles in Series, 70 °C 70 A<br>(72 V) 1-Pole, 40 °C 100 A<br>(72 V) 1-Pole, 60 °C 80 A<br>(72 V) 1-Pole, 70 °C 70 A<br>(72 V) 2 Poles in Series, 40 °C 100 A<br>(72 V) 2 Poles in Series, 60 °C 80 A<br>(72 V) 2 Poles in Series, 70 °C 70 A<br>(72 V) 3 Poles in Series, 40 °C 100 A<br>(72 V) 3 Poles in Series, 60 °C 80 A<br>(72 V) 3 Poles in Series, 70 °C 70 A |
| Courant assignée d'emploi DC-5 ( $I_e$ ) | (110 V) 2 Poles in Series, 40 °C 100 A<br>(110 V) 2 Poles in Series, 60 °C 80 A<br>(110 V) 2 Poles in Series, 70 °C 70 A<br>(110 V) 3 Poles in Series, 40 °C 100 A<br>(110 V) 3 Poles in Series, 60 °C 80 A<br>(110 V) 3 Poles in Series, 70 °C 70 A<br>(220 V) 3 Poles in Series, 40 °C 100 A<br>(220 V) 3 Poles in Series, 60 °C 80 A<br>(220 V) 3 Poles in Series, 70 °C 70 A<br>(72 V) 1-Pole, 40 °C 100 A<br>(72 V) 1-Pole, 60 °C 80 A<br>(72 V) 1-Pole, 70 °C 70 A<br>(72 V) 2 Poles in Series, 40 °C 100 A<br>(72 V) 2 Poles in Series, 60 °C 80 A<br>(72 V) 2 Poles in Series, 70 °C 70 A<br>(72 V) 3 Poles in Series, 40 °C 100 A<br>(72 V) 3 Poles in Series, 60 °C 80 A<br>(72 V) 3 Poles in Series, 70 °C 70 A |
| Tension assignée d'isolement ( $U_i$ )   | acc. to IEC 60947-4-1 690 V<br>acc. to UL/CSA 600 V  |
| Tension assignée de                      | 6 kV   |

tenue aux chocs ( $U_{imp}$ )

|   |   |
|---|---|
| Maximum Mechanical Switching Frequency  | 3600 cycles per hour  |
| Rated Control Circuit Voltage ( $U_c$ ) | 50 Hz 250 ... 500 V<br>60 Hz 250 ... 500 V<br>DC Operation 250 ... 500 V  |
| Coil Consumption                        | Average Holding Value 50 / 60 Hz 4 V·A<br>Average Holding Value 50 Hz 4 V·A<br>Average Holding Value 60 Hz 4 V·A<br>Average Holding Value DC 2 W<br>Average Holding Value, from Warm State 2 W  |
| Durée de fonctionnement nominale        | Entre la mise hors tension de la bobine et la fermeture du contact NC (normally closed) 19 ... 105 ms<br>Entre la mise hors tension de la bobine et l'ouverture du contact NO (normally open) 17 ... 100 ms<br>Entre la mise sous tension de la bobine et l'ouverture du contact NC 38 ... 95 ms<br>Entre la mise sous tension de la bobine et la fermeture du contact NO 42 ... 100 ms |
| Montage sur rail DIN                    | TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715<br>TH35-7.5 (35 x 7.5 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 4 ... 35 mm <sup>2</sup><br>Flexible with Insulated Ferrule 1/2x 4 ... 35 mm <sup>2</sup><br>Rigid Stranded 1/2x 6 ... 35 mm <sup>2</sup>  |
| Connecting Capacity Control Circuit     | Flexible with Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup><br>Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm <sup>2</sup><br>Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm <sup>2</sup><br>Rigid Solid 1/2x 1 ... 2.5 mm <sup>2</sup><br>Rigid Stranded 1/2x 1 ... 2.5 mm <sup>2</sup>  |
| Wire Stripping Length                   | Control Circuit 10 mm<br>Main Circuit 16 mm   |
| Indice de 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  |
| Type de borne                           | Screw Terminals   |

## Technique UL/CSA

|  |   |
|--|---|
| Maximum Operating Voltage UL/CSA           | Circuit principal 600 V   |
| General Use Rating UL/CSA                  | (600 V AC) 80 A   |
| Puissance nominale UL/CSA                  | (120 V AC) Single Phase 3 hp<br>(200 ... 208 V AC) Three Phase 15 hp<br>(220 ... 240 V AC) Three Phase 20 hp<br>(240 V AC) Single Phase 10 hp<br>(440 ... 480 V AC) Three Phase 40 hp<br>(550 ... 600 V AC) Three Phase 50 hp |
| Connecting Capacity Main Circuit UL/CSA    | Rigid Stranded 1/2x 10-2 AWG  |
| Connecting Capacity Control Circuit UL/CSA | Rigid Solid 1/2x 18-14 AWG<br>Rigid Stranded 1/2x 18-14 AWG   |
| Tightening Torque UL/CSA                   | Control Circuit 11 in·lb<br>Main Circuit 35 in·lb   |

## Environnement

|  |  |
|--|--|
| Température de l'air ambiant                   | Close to Contactor Fitted with Thermal O/L Relay -40 ... 70 °C<br>Close to Contactor without Thermal O/L Relay -40 ... 70 °C<br>Close to Contactor for Storage -60 ... +80 °C                                    |
| Climatic Withstand                             | Category B according to IEC 60947-1 Annex Q  |
| Altitude de fonctionnement maximale autorisée  | Without Derating 3000 m  |
| REACH Declaration                              | 2CMT2021-006202  |
| Résistance aux chocs selon CEI 60068-2-27      | Closed, Shock Direction: A 25 g<br>Closed, Shock Direction: B1 25 g<br>Closed, Shock Direction: B2 15 g<br>Closed, Shock Direction: C1 25 g<br>Closed, Shock Direction: C2 25 g<br>Open, Shock Direction: B1 5 g |
| Resistance to Vibrations acc. to IEC 60068-2-6 | 5 ... 300 Hz 3 g closed position / 3 g open position   |
| Informations RoHS                              | 2CMT2021-006277  |
| Statut RoHS                                    | Following EU Directive 2011/65/EU  |

## Certificats et Déclarations (Numéro de document)

|                                  |  |
|----------------------------------|--|
| Certificat ABS                   | ABS_20-2060694-PDA   |
| Certificat BV                    | BV_2634H36994B1  |
| CB Certificate                   | CB_SE-108889A1M1   |
| CCC Certificate                  | CCC_2012010304589737<br>CCC_2015010304824714                   |
| CQC Certificate                  | CQC2015010304824714<br>CQC2012010304589737                     |
| Declaration of Conformity - CCC  | 2020980304001256<br>2020980304001074                           |
| Déclaration de Conformité - CE   | 1SBD250000U1000  |
| Declaration of Conformity - UKCA | 1SBD250031U1000  |
| Certificat DNV                   | DNV_TAE00001AF-4   |
| EAC Certificate                  | EAC_RU_FRME77B03447  |
| KC Certificate                   | KC_HW02016-15010C  |
| Certificat LR                    | LRS_LR2002723TA-02   |
| Certificat RINA                  | RINA_ELE084013XG   |
| Certificat RMRS                  | RMRS_1802705280  |
| Certificat UL                    | UL-US-L312527-1141-10303102-9<br>UL-CA-L312527-4141-10303102-9 |
| UL Listing Card                  | UL_E312527   |

## Emballage

|                             |             |
|-----------------------------|-------------|
| Emballage Niveau 1 Unités   | box 1 pièce |
| Emballage Niveau 1 Largeur  | 150 mm      |
| Emballage Niveau 1 Longueur | 150 mm      |

|                                |               |
|--------------------------------|---------------|
| Emballage Niveau 1<br>Hauteur  | 97 mm         |
| Emballage Niveau 1 Poids       | 1.05 kg       |
| Emballage Niveau 1 EAN         | 3471523132344 |
| Emballage Niveau 2<br>Unités   | box 10 pièce  |
| Emballage Niveau 2<br>Largeur  | 250 mm        |
| Emballage Niveau 2<br>Longueur | 300 mm        |
| Emballage Niveau 2<br>Hauteur  | 300 mm        |
| Emballage Niveau 2 Poids       | 10.5 kg       |
| Emballage Niveau 3<br>Unités   | 240 pièce     |

## Classifications

|   |   |
|---|---|
| Code de classification<br>d'objet           | Q   |
| ETIM 4                                      | EC000066 - Magnet contactor, AC-switching                                 |
| ETIM 5                                      | EC000066 - Magnet contactor, AC-switching                                 |
| ETIM 6                                      | EC000066 - contacteur de puissance pour commutation de courant alternatif |
| ETIM 7                                      | EC000066 - Power contactor, AC switching                                  |
| ETIM 8                                      | EC000066 - Power contactor, AC switching                                  |
| eClass                                      | V11.0 : 27371003  |
| UNSPSC                                      | 39121529  |
| Code de catégorie<br>granulaire IDEA (IGCC) | 4758 >> Iec Contactors  |
| E-Number (Finland)                          | 3707017   |
| E-Number (Sweden)                           | 3210040   |

