# AF09-30-10K-13 <br> AF09-30-10K-13 100-250V50/60HZ-DC Contactor 



| General Information |  |
| :--- | ---: |
| Extended Product Type | AFO9-30-10K-13 |
| Product ID | 1SBL137005R1310 |
| EAN | 3471523154032 |
| Catalog Description | AF09-30-10K-13 100-250V50/60HZ-DC Contactor |

AF09..K 3-pole contactors are used for controlling power circuits up to 690 V AC and 220 V DC. They are mainly used for controlling 3-phase motors, non-inductive or slightly inductive loads. AF... contactors include an electronic coil interface accepting a wide control voltage Uc min. ... Uc max. Only four coils cover control voltages between $24 \ldots 500 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ or $20 \ldots . .500 \mathrm{~V}$ DC. AF contactors can manage large control voltage variations. One coil can be used for different control voltages used worldwide without any coil change. AF contactors have built-in surge protection and do not require

## Long Description

 additional surge suppressors. AF09..K include Push-in Spring terminals. Only one push is all you need for extremely fast wiring: faster than ever installation, easier than everwiring, reliable as ever connections. The AF... series 1 -stack 3 -pole contactors are of the block type design. - Main poles and auxiliary contact blocks: 3 main poles, 1 built-in auxiliary contact, front and side-mounted add-on auxiliary contact blocks. (mechanically-linked auxiliary contacts compliant with Annex L of IEC 60947-5-1. N.C. mirror contacts compliant with Annex F of IEC 60947-4-1) - Accessories: a wide range of accessories is available.

## Classifications

| Object Classification <br> Code |  |
| :--- | ---: |
| ETIM 4 | EC000066-Magnet contactor, AC-switching |
| ETIM 5 | EC000066 - Magnet contactor, AC-switching |
| ETIM 6 | EC000066 - Power contactor, AC switching |


| ETIM 7 | ECOOOO66 - Power contactor, AC switching |
| :--- | ---: |
| UNSPSC | 39121529 |
| E-Number (Sweden) | 3210583 |

## Container Information

| Package Level 1 Units | box 1 piece |
| :--- | ---: |
| Package Level 1 Width | 93 mm |
| Package Level 1 Depth / <br> Length | 86 mm |
| Package Level 1 Height | 45 mm |
| Package Level 1 Gross | 0.3 kg |
| Weight | 3471523154032 |
| Package Level 1 EAN | box 21 piece |
| Package Level 2 Units | 250 mm |
| Package Level 2 Width | 300 mm |
| Package Level 2 Depth / | 315 mm |
| Length | 13.5 kg |
| Package Level 2 Height | 1080 piece |
| Weight |  |
| Package Level 3 Units |  |

## Certificates and Declarations (Document Number)

| CB Certificate | CB_SE-96551 |
| :--- | ---: |
| CCC Certificate | CCC_2010010304445624 |
| cUL Certificate | UL_20180227_E312527_7_1 |
| Declaration of | 1SBD250000U1000 |
| Conformity - CE | DNV-GL_TAE00001AF-3 |
| DNV Certificate | DNV-GL_TAE00001AF-3 |
| DNV GL Certificate | DNV-GL_TAEO0001AF-3 |
| GL Certificate | 1SBC101054M6801 |
| Instructions and |  |
| Manuals | RINA_ELE240318XG |
| RINA Certificate | RMRS_1802705280 |
| RMRS Certificate | 1SBD250000U1000 |
| RoHS Information |  |

## Technical UL/CSA

| General Use Rating | (600 V AC) 25 A |
| :--- | ---: |
| UL/CSA | $(220 \ldots 240 \mathrm{~V} \mathrm{AC})$ Three Phase 2 hp |
| Horsepower Rating | $(440 \ldots 480 \mathrm{VAC})$ Three Phase 5 hp |
| UL/CSA | $(550 \ldots 600 \mathrm{~V} \mathrm{AC)} \mathrm{Three} \mathrm{Phase} 7-1 / 2 \mathrm{hp}$ |
|  | (120 V AC) Single Phase $3 / 4 \mathrm{hp}$ |
|  | $(200 \ldots 208 \mathrm{~V} \mathrm{AC)} \mathrm{Three} \mathrm{Phase} 2 \mathrm{hp}$ |
| (240 V AC) Single Phase $1-1 / 2 \mathrm{hp}$ |  |

## Environmental


acc. to IEC 60068-2-6

| RoHS Status | Following EU Directive 2011/65/EU |
| :---: | :---: |
| Technical |  |
| Number of Main Contacts NO | 3 |
| Number of Main Contacts NC | 0 |
| Number of Auxiliary Contacts NO | 1 |
| Number of Auxiliary Contacts NC | 0 |
| Rated Operational Voltage | Main Circuit 690 V Auxiliary Circuit 690 V |
| Rated Frequency (f) | Auxiliary Circuit $50 / 60 \mathrm{~Hz}$ Main Circuit $50 / 60 \mathrm{~Hz}$ |
| Conventional Free-air Thermal Current (Ith) | acc. to IEC 60947-5-1, q $=40^{\circ} \mathrm{C} 16 \mathrm{~A}$ acc. to IEC 60947-4-1, Open Contactors $q=40^{\circ} \mathrm{C} 35 \mathrm{~A}$ |
| Rated Operational Current AC-1 ( $\mathrm{I}_{\mathrm{e}}$ ) |  |
| Rated Operational <br> Current AC-3 (1e) | $\begin{array}{r} (220 / 230 / 240 \mathrm{~V}) 60^{\circ} \mathrm{C} 9 \mathrm{~A} \\ (380 / 400 \mathrm{~V}) 60^{\circ} \mathrm{C} 9 \mathrm{~A} \\ (415 \mathrm{~V}) 60^{\circ} \mathrm{C} 9 \mathrm{~A} \\ (440 \mathrm{~V}) 60^{\circ} \mathrm{C} 9 \mathrm{~A} \\ (500 \mathrm{~V}) 60^{\circ} \mathrm{C} 9.5 \mathrm{~A} \\ (690 \mathrm{~V}) 60^{\circ} \mathrm{C} 7 \mathrm{~A} \end{array}$ |
| Rated Operational Power $\mathrm{AC}-3\left(\mathrm{Pe}_{\mathrm{e}}\right)$ | $\begin{array}{r} (220 / 230 / 240 \mathrm{~V}) 2.2 \mathrm{~kW} \\ (380 / 400 \mathrm{~V}) 4 \mathrm{~kW} \\ (415 \mathrm{~V}) 4 \mathrm{~kW} \\ (440 \mathrm{~V}) 4 \mathrm{~kW} \\ (500 \mathrm{~V}) 5.5 \mathrm{~kW} \\ (690 \mathrm{~V}) 5.5 \mathrm{~kW} \end{array}$ |
| Rated Operational <br> Current AC-15 (le) | $\begin{array}{r} (220 / 240 \mathrm{~V}) 4 \mathrm{~A} \\ (24 / 127 \mathrm{~V}) 6 \mathrm{~A} \\ (500 \mathrm{~V}) 2 \mathrm{~A} \\ (690 \mathrm{~V}) 2 \mathrm{~A} \\ (400 / 440 \mathrm{~V}) 3 \mathrm{~A} \end{array}$ |

Rated Short-time at $40^{\circ} \mathrm{C}$ Ambient Temp, in Free Air, from a Cold State 10 s 150 A Withstand Current ( $\mathrm{I}_{\mathrm{cw}}$ ) at $40^{\circ} \mathrm{C}$ Ambient Temp, in Free Air, from a Cold State 15 min 35 A at $40^{\circ} \mathrm{C}$ Ambient Temp, in Free Air, from a Cold State 1 min 60 A at $40^{\circ} \mathrm{C}$ Ambient Temp, in Free Air, from a Cold State 1 s 300 A at $40^{\circ} \mathrm{C}$ Ambient Temp, in Free Air, from a Cold State 30 s 80 A for 0.1 s 140 A for 1 s 100 A

| Maximum Breaking Capacity | cos phi $=0.45$ (cos phi=0.35 for le > 100 A ) at 440 V 250 A cos phi=0.45 (cos phi $=0.35$ for le $>100 \mathrm{~A})$ at 690 V 106 A |
| :---: | :---: |
| Maximum Electrical Switching Frequency | AC-1 600 cycles per hour AC-2 / AC-4 300 cycles per hour AC-3 1200 cycles per hour AC-15 1200 cycles per hour DC-13 900 cycles per hour |
| Rated Operational Current DC-13 (le) | ( 125 V ) $0.55 \mathrm{~A} / 69 \mathrm{~W}$ <br> (24 V) 6 A / 144 W ( 250 V ) $0.27 \mathrm{~A} / 68 \mathrm{~W}$ (48 V) 2.8 A / 134 W <br> (72 V) 1 A / 72 W <br> (110 V) 0.55 A / 60 W (220 V) 0.27 A / 60 W ( 400 V ) $0.15 \mathrm{~A} / 60 \mathrm{~W}$ ( 500 V ) 0.13 A / 65 W ( 600 V ) 0.1 A / 60 W |
| Rated Insulation Voltage $\left(U_{i}\right)$ | acc. to UL/CSA 600 V <br> acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 690 V |
| Rated Impulse Withstand Voltage ( $\mathrm{U}_{\text {imp }}$ ) | 6 kV |


| Maximum Mechanical Switching Frequency | 3600 cycles per hour |
| :---: | :---: |
| Rated Control Circuit | 50 Hz 100 ... 250 V |
| Voltage ( $\mathrm{U}_{\mathrm{c}}$ ) | $50 \mathrm{~Hz} / 60 \mathrm{~Hz} 100 . . .250 \mathrm{~V}$ |
|  | $60 \mathrm{~Hz} 100 . . .250 \mathrm{~V}$ |
|  | DC Operation $100 . . .250 \mathrm{~V}$ |
| Operate Time | Between Coil De-energization and NC Contact Closing $13 . . .98 \mathrm{~ms}$ |
|  | Between Coil De-energization and NO Contact Opening $11 . . .95 \mathrm{~ms}$ |
|  | Between Coil Energization and NC Contact Opening $38 . . .90 \mathrm{~ms}$ |
|  | Between Coil Energization and NO Contact Closing 40 ... 95 ms |
| Connecting Capacity | Flexible 1/2x 0.5 ... $4 \mathrm{~m}^{2}$ |
| Main Circuit | Rigid $1 / 2 \times 1 \ldots 6 \mathrm{~m}^{2}$ |
|  | Flexible with Ferrule 1/2x $0.5 \ldots 4 \mathrm{~m}^{2}$ |
|  | Flexible with Insulated Ferrule $1 \times 0.5 \ldots 4 \mathrm{~m}^{2}$ |
|  | Flexible with Insulated Ferrule $2 \times 0.5 \ldots 2.5 \mathrm{~m}^{2}$ |
| Connecting Capacity | Flexible with Ferrule $1 / 2 \times 0.5 \ldots 2.5 \mathrm{~mm}^{2}$ |
| Auxiliary Circuit | Flexible with Insulated Ferrule 1/2x $0.5 \ldots 1.5 \mathrm{~mm}^{2}$ |
|  | Flexible 1/2x 0.5 ... $2.5 \mathrm{~m}^{2}$ |
|  | Rigid 1/2x $1 . . .2 .5 \mathrm{~m}^{2}$ |
| Connecting Capacity | Flexible with Ferrule $1 / 2 \times 0.5 \ldots 2.5 \mathrm{~m}^{2}$ |
| Control Circuit | Flexible with Insulated Ferrule $1 / 2 \times 0.5 \ldots 1.5 \mathrm{~m}^{2}$ |
|  | Flexible 1/2x 0.5 ... $2.5 \mathrm{~m}^{2}$ |
|  | Rigid 1/2x $1 . . .2 .5 \mathrm{~m}^{2}$ |
| Wire Stripping Length | Auxiliary Circuit 10 mm |
|  | Control Circuit 10 mm |
|  | Main Circuit 12 mm |
| Degree of Protection | acc. to IEC 60529, IEC 60947-1, EN 60529 Auxiliary Terminals IP20 |
|  | acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP20 |
|  | acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP20 |
| Terminal Type | Push-in Spring Terminals |


| Dimensions |  |
| :--- | :---: |
| Product Net Width | 45 mm |
| Product Net Depth / 77 mm <br> Length  | 92.3 mm |
| Product Net Height | 0.285 kg |
| Product Net Weight |  |

## Popular Downloads

| Instructions and | 1SBC101054M6801 |
| :--- | :---: |
| Manuals |  |

## Ordering

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

## Categories

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[^0]:    Low Voltage Products and Systems $\rightarrow$ Control Products $\rightarrow$ Contactors $\rightarrow$ Block Contactors

