Reference: AF65-30-22-13
Code: 1SBL387001R1322

AF65-30-22-13 100-250V50/60HZ-DC Contactor

Buy it at Electric Automation Network

## Electric Automation



AF65 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 $24 . .500 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ or $20 . .500 \mathrm{~V}$ 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 additional surge suppressors. The AF... series 2-stack 3-pole contactors are of the block type design. - Main poles and auxiliary contact blocks: 3 main poles with a non-removable front-mounted 2 N.O. +2 N.C. auxiliary contact block, side-mounted add-on auxiliary contact blocks (mechanically-linked auxiliary contacts compliant with Annex L of IEC 60947-5-1 including the "Mechanically Linked" symbol on the contactor side. N.C. mirror contacts compliant with Annex F of IEC 60947-4-1) Control circuit: AC or DC operated - Accessories: a wide range of accessories is available. Note: 2-stack contactors available in some countries: please consult your ABB representative.

Ordering

| EAN: | 3471523132832 |
| :--- | :--- |
| Minimum Order Quantity: | 1 piece |
| Customs Tariff Number: | 85369085 |

Dimensions

| Product Net Width: | 55 mm |
| :--- | :--- |
| Product Net Depth: | 144 mm |
| Product Net Height: | 125.5 mm |
| Product Net Weight: | 1.000 kg |

## Container Information

| Package Level 1 Units: | 1 piece |
| :--- | :--- |
| Package Level 1 Width: | 180 mm |
| Package Level 1 Length: | 150 mm |
| Package Level 1 Height: | 102 mm |
| Package Level 1 Gross Weight: | 1.14 kg |
| Package Level 1 EAN: | 3471523132832 |
| Package Level 2 Units: | 10 piece |
| Package Level 2 Width: | 300 mm |
| Package Level 2 Length: | 320 mm |
| Package Level 2 Height: | 500 mm |

## 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: | Auxiliary Circuit 690 V Main Circuit 690 V |
| Rated Frequency (f): | Auxiliary Circuit $50 / 60 \mathrm{~Hz}$ <br> Main Circuit 50 / 60 Hz |
| Conventional Free-air Thermal Current ( $\mathrm{I}_{\text {th }}$ ): | acc. to IEC 60947-4-1, Open Contactors $q=40^{\circ} \mathrm{C} 105 \mathrm{~A}$ acc. to IEC 60947-5-1, q $=40^{\circ} \mathrm{C} 16 \mathrm{~A}$ |
| Rated Operational Current AC-1 (1e): | $\begin{aligned} & (690 \mathrm{~V}) 40^{\circ} \mathrm{C} 105 \mathrm{~A} \\ & (690 \mathrm{~V}) 60^{\circ} \mathrm{C} 90 \mathrm{~A} \\ & (690 \mathrm{~V}) 70^{\circ} \mathrm{C} 80 \mathrm{~A} \end{aligned}$ |
| Rated Operational Current AC-3 (1e): | $\begin{aligned} & (220 / 230 / 240 \mathrm{~V}) 60^{\circ} \mathrm{C} 65 \mathrm{~A} \\ & (380 / 400 \mathrm{~V}) 60^{\circ} \mathrm{C} 65 \mathrm{~A} \\ & (415 \mathrm{~V}) 60^{\circ} \mathrm{C} 65 \mathrm{~A} \\ & (440 \mathrm{~V}) 60^{\circ} \mathrm{C} 65 \mathrm{~A} \\ & (500 \mathrm{~V}) 60^{\circ} \mathrm{C} 55 \mathrm{~A} \\ & (690 \mathrm{~V}) 60^{\circ} \mathrm{C} 39 \mathrm{~A} \end{aligned}$ |
| Rated Operational Power AC-3 ( $\mathrm{Pe}_{\mathrm{e}}$ ): | $\begin{aligned} & (220 / 230 / 240 \mathrm{~V}) 18.5 \mathrm{~kW} \\ & (380 / 400 \mathrm{~V}) 30 \mathrm{~kW} \\ & (415 \mathrm{~V}) 37 \mathrm{~kW} \\ & (440 \mathrm{~V}) 37 \mathrm{~kW} \\ & (500 \mathrm{~V}) 37 \mathrm{~kW} \\ & (690 \mathrm{~V}) 37 \mathrm{~kW} \end{aligned}$ |


| Rated Operational Current AC-15 (1e): | $\begin{aligned} & (220 / 240 \mathrm{~V}) 4 \mathrm{~A} \\ & (24 / 127 \mathrm{~V}) 6 \mathrm{~A} \\ & (400 / 440 \mathrm{~V}) 3 \mathrm{~A} \\ & (500 \mathrm{~V}) 2 \mathrm{~A} \\ & (690 \mathrm{~V}) 2 \mathrm{~A} \end{aligned}$ |
| :---: | :---: |
| Rated Short-time Withstand Current ( $\mathrm{I}_{\mathrm{cw}}$ ) : | at $40{ }^{\circ} \mathrm{C}$ Ambient Temp, in Free Air, from a Cold State 10 $\text { s } 600 \mathrm{~A}$ <br> at $40^{\circ} \mathrm{C}$ Ambient Temp, in Free Air, from a Cold State 15 $\min 110 \mathrm{~A}$ <br> at $40^{\circ} \mathrm{C}$ Ambient Temp, in Free Air, from a Cold State 1 $\min 250 \mathrm{~A}$ <br> at $40^{\circ} \mathrm{C}$ Ambient Temp, in Free Air, from a Cold State 1 s 1000 A <br> at $40^{\circ} \mathrm{C}$ Ambient Temp, in Free Air, from a Cold State 30 $\text { s } 350 \mathrm{~A}$ <br> for 0.1 s 140 A <br> for 1 s 100 A |
| Maximum Breaking Capacity: | ```cos phi=0.45(cos phi=0.35 for le>100 A) at 440 V 950 A cos phi=0.45(cos phi=0.35 for le > 100 A) at 690 V 600 A``` |
| Maximum Electrical Switching Frequency: | AC-1 600 cycles per hour AC-15 1200 cycles per hour AC-2 / AC-4 150 cycles per hour AC-3 1200 cycles per hour DC-13 900 cycles per hour |
| Rated Operational Current DC-13 (1e): | (110 V) 0.55 A / 60 W (125 V) 0.55 A / 69 W (220 V) $0.27 \mathrm{~A} / 60 \mathrm{~W}$ (24 V) 6 A / 144 W (250 V) $0.27 \mathrm{~A} / 68 \mathrm{~W}$ (400 V) 0.15 A / 60 W (48 V) 2.8 A / 134 W (500 V) 0.13 A / 65 W ( 600 V ) 0.1 A / 60 W (72 V) 1 A / 72 W |
| Rated Insulation Voltage ( $\mathrm{U}_{\mathrm{i}}$ ) : | acc. to UL/CSA 600 V <br> acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 690 V |
| Rated Impulse Withstand Voltage ( $\mathrm{U}_{\mathrm{imp}}$ ) : | 6 kV |
| Maximum Mechanical Switching Frequency: | 3600 cycles per hour |
| Rated Control Circuit Voltage ( $\mathrm{U}_{\mathrm{c}}$ ) | $\begin{aligned} & 50 \mathrm{~Hz} 100 \ldots 250 \mathrm{~V} \\ & 60 \mathrm{~Hz} 100 \ldots 250 \mathrm{~V} \\ & \text { DC Operation } 100 \text {... } 250 \mathrm{~V} \end{aligned}$ |
| Operate Time: | Between Coil De-energization and NC Contact Closing 19 ... 105 ms <br> Between Coil De-energization and NO Contact Opening $17 \ldots 100 \mathrm{~ms}$ <br> Between Coil Energization and NC Contact Opening 38 $\text { ... } 95 \mathrm{~ms}$ <br> Between Coil Energization and NO Contact Closing 42 ... $100 \text { ms }$ |
| Connecting Capacity-Main Circuit: | Flexible with Insulated Ferrule $1 / 2 \times 4 \ldots 35 \mathrm{~mm}^{2}$ Flexible with Ferrule 1/2x $4 \ldots 35 \mathrm{~mm}^{2}$ <br> Rigid 1/2x $6 \ldots 35 \mathrm{~mm}^{2}$ |
| Connecting Capacity-Auxiliary Circuit: | Flexible with Ferrule $1 / 2 \times 0.75 \ldots 2.5 \mathrm{~mm}^{2}$ <br> Flexible with Insulated Ferrule $1 \times 0.75 \ldots 2.5 \mathrm{~mm}^{2}$ <br> Flexible with Insulated Ferrule $2 \times 0.75 \ldots 1.5 \mathrm{~mm}^{2}$ <br> Rigid $1 / 2 \times 1 . . .2 .5 \mathrm{~mm}^{2}$ |


| Connecting Capacity-Control Circuit: | Flexible with Ferrule $1 / 2 \times 0.75 \ldots 2.5 \mathrm{~mm}^{2}$ <br> Flexible with Insulated Ferrule $1 \times 0.75 \ldots 2.5 \mathrm{~mm}^{2}$ <br> Flexible with Insulated Ferrule $2 \times 0.75 \ldots 1.5 \mathrm{~mm}^{2}$ <br> Rigid $1 / 2 \times 1$... $2.5 \mathrm{~mm}^{2}$ |
| :---: | :---: |
| Wire Stripping Length: | Main Circuit 16 mm |
| Degree of Protection: | ```acc. to IEC 60529, IEC 60947-1, EN }60529\mathrm{ 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 IP10``` |
| Terminal Type: | Screw Terminals |

## Environmental

| Ambient Air Temperature: | Close to Contactor for Storage $-60 \ldots+80{ }^{\circ} \mathrm{C}$ <br> Close to Contactor Fitted with Thermal O/L Relay -25 ... <br> $+60{ }^{\circ} \mathrm{C}$ <br> Close to Contactor without Thermal O/L Relay $-40 \ldots+70$ <br> ${ }^{\circ} \mathrm{C}$ |
| :--- | :--- |
| Maximum Operating Altitude Permissible: | 3000 m <br> Resistance to Shock acc. to IEC 60068-2-27: |
| Closed, Shock Direction: A 25 g <br> Closed, Shock Direction: B1 25 g <br> Closed, Shock Direction: B 215 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 |

## Technical UL/CSA

|  | $(120 \mathrm{~V} \mathrm{AC})$ Single Phase 5 Hp |
| :--- | :--- |
|  | $(240 \mathrm{VAC})$ Single Phase 15 Hp |
| Horsepower Rating UL/CSA: | $(200 \ldots 208 \mathrm{~V} \mathrm{AC})$ Three Phase 20 Hp |
|  | $(220 \ldots 240 \mathrm{VAC})$ Three Phase 25 Hp |
|  | $(440 \ldots 480 \mathrm{~V} \mathrm{AC})$ Three Phase 50 Hp |
|  | $(550 \ldots 600 \mathrm{VAC})$ Three Phase 60 Hp |
|  | Auxiliary Circuit $11 \mathrm{in} \cdot \mathrm{lb}$ |
| Tightening Torque UL/CSA: | Control Circuit $11 \mathrm{in} \cdot \mathrm{lb}$ |
|  | Main Circuit $35 \mathrm{in} \cdot \mathrm{lb}$ |

## Certificates and Declarations (Document Number)

| ABS Certificate: | ABS_15-GE1349500-PDA_90682247 |
| :--- | :--- |
| BV Certificate: | BV_2634H36994A |
| CB Certificate: | CB_SE_77418 |
| CCC Certificate: | CCC_2012010304589737 |
| CUL Certificate: | UL_20130926-E312527_14_1 |
| Declaration of Conformity -CE: | 1SBD250176C3000 |
| DNV Certificate: | DNV-GL_E13871 |


| EAC Certificate: | EAC_RU C-FR ME77 B01010 |
| :--- | :--- |
| GL Certificate: | DNV-GL_E13871 |
| LR Certificate: | LRS_1300087E1 |
| RINA Certificate: | RINA_ELE084013XG |
| RMRS Certificate: | RMRS_1400682124 |
| RoHS Information: | 1SBD251021E1000 |

## Classifications

| ETIM 5: | EC000066- Magnet contactor, AC-switching |
| :--- | :--- |
| UNSPSC: | 39121529 |

