PRODUCT-DETAILS

## AF30Z-30-00-20

AF30Z-30-00-20 12-20VDC Contactor


| General Information |  |
| :--- | ---: |
| Extended Product Type | AF30Z-30-00-20 |
| Product ID | 1SBL276001R2000 |
| EAN | 3471523114401 |
| Catalog Description | AF30Z-30-00-20 12-20VDC Contactor |

AF30Z 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..Z contactors include an electronic coil interface accepting a wide control voltage Uc min. ... Uc max. Only four coils cover control voltages between $24 \ldots 250 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ or $12 . . .250 \mathrm{~V}$ DC. AF..Z contactors can manage large control voltage variations. One coil can
be used for different control voltages used worldwide without any coil change. AF..Z
contactors allow direct control by PLC-output $\geq 24 \mathrm{~V}$ DC 500 mA and obtain a reduced holding coil consumption. AF..Z contactors withstand short voltage dips and voltage sags (SEMI F47-0706 compliance) between $24 \ldots 250 \mathrm{~V} 50 / 60 \mathrm{~Hz} \mathrm{AF} . . \mathrm{Z}$ contactors have built-in surge protection and do not require additional surge suppressors The AF... series 1-stack 3pole contactors are of the block type design. - Main poles and auxiliary contact blocks: 3
main poles, 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) - Control circuit: DC operated for AF..Z-30-..-20 contactors. Only AF..Z-30-..-20 contactors need to respect the polarity on the coil terminals (A1+ and A2
-). - Accessories: a wide range of accessories is available.

## Classifications

| ETIM 5 | EC000066 - Magnet contactor, AC-switching |
| :--- | ---: |
| ETIM 6 | EC000066 - Power contactor, AC switching |
| ETIM 7 | EC000066 - Power contactor, AC switching |
| UNSPSC | 39121529 |


| Container Information | box 1 piece |
| :--- | ---: |
| Package Level 1 Units | 87 mm |
| Package Level 1 Width | 87 mm |
| Package Level 1 Depth / |  |
| Length | 47 mm |
| Package Level 1 Height | 0.35 kg |
| Package Level 1 Gross | 3471523114401 |
| Weight | box 21 piece |
| Package Level 1 EAN | 250 mm |
| Package Level 2 Units | 300 mm |
| Package Level 2 Width | 315 mm |
| Package Level 2 Depth / | 15.75 kg |
| Length | 1080 piece |
| Package Level 2 Height |  |
| Package Level 2 Gross |  |
| Weight |  |
| Package Level 3 Units |  |

Certificates and Declarations (Document Number)

| ABS Certificate | ABS_15-GE1349500-PDA_90682247 |
| :--- | ---: |
| BV Certificate | BV_2634H24898B0 |
| CB Certificate | CB_SE-80872M3 |
| CCC Certificate | CCC_2010010304445623 |
| cUL Certificate | UL_20180227_E312527_7_1 |
| Declaration of Conformity | 1SBD250000U1000 |
| CE | DNV-GL_TAE00001AF-3 |
| DNV Certificate | DNV-GL_TAE00001AF-3 |
| DNV GL Certificate | EAC_RU C-FR ME77 B03597 |
| EAC Certificate | 1SBD250149E1000 |
| Environmental Information | DNV-GL_TAE00001AF-3 |
| GL Certificate | GOST_POCCFR.ME77.B07175.pdf |
| GOST Certificate | 1SBC101027M6801 |
| Instructions and Manuals | KC_HW02016-15001A |
| KC Certificate | RINA_ELE240318XG |
| LR Certificate | RMRS_1802705280 |
| RINA Certificate | UL_20140305-E312527_7_1 |
| RMRS Certificate | 1SBD250000U1000 |
| RoHS Information | E312527 |
| UL Certificate |  |


| Technical UL/CSA |  |
| :--- | ---: |
| General Use Rating | $(600 \mathrm{~V} \mathrm{AC)} 50 \mathrm{~A}$ |
| UL/CSA | $(220 \ldots 240 \mathrm{~V} \mathrm{AC})$ Three Phase 10 hp |
| Horsepower Rating | $(440 \ldots 480 \mathrm{VAC})$ Three Phase 20 hp |
| UL/CSA | $(550 \ldots 600 \mathrm{VAC})$ Three Phase 25 hp |
|  | $(120 \mathrm{VAC})$ Single Phase 2 hp |
|  | $(200 \ldots 208 \mathrm{VAC})$ Three Phase 10 hp |
|  | $(240 \mathrm{~V} \mathrm{AC)} \mathrm{Single} \mathrm{Phase} 5 \mathrm{hp}$ |
| Control Circuit 11 IA |  |
| Tightening Torque | Main Circuit 22 IA |
| UL/CSA |  |

## Environmental

| Ambient Air Temperature | Close to Contactor for Storage $-60 \ldots+80^{\circ} \mathrm{C}$ <br> Close to Contactor without Thermal O/L Relay -40 ... $+70^{\circ} \mathrm{C}$ Close to Contactor Fitted with Thermal O/L Relay $-25 \ldots+60^{\circ} \mathrm{C}$ |
| :---: | :---: |
| Climatic Withstand | Category B according to IEC 60947-1 Annex Q |
| Maximum Operating Altitude Permissible | 3000 m |
| Resistance to Vibrations acc. to IEC 60068-2-6 | $5 \ldots 300 \mathrm{~Hz} 4 \mathrm{~g}$ closed position / 2 g open position |
| Resistance to Shock acc. to IEC 60068-2-27 | Shock Direction: A 30 K40 <br> Shock Direction: B2 15 K40 <br> Shock Direction: C1 25 K40 <br> Shock Direction: C2 25 K40 <br> Closed, Shock Direction: B1 25 K40 <br> Open, Shock Direction: B1 5 K40 |
| 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 | 0 |
| Number of Auxiliary Contacts NC | 0 |
| Standards | IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 508, CSA C22. 2 N $^{\circ}$ <br> 14 |
| Rated Operational Voltage | Main Circuit 690 V |
| Rated Frequency (f) | Main Circuit $50 / 60 \mathrm{~Hz}$ |
| Conventional Free-air Thermal Current ( $I_{\text {th }}$ ) | acc. to IEC 60947-4-1, Open Contactors $\mathrm{q}=40^{\circ} \mathrm{C} 50 \mathrm{~A}$ |
| Rated Operational Current $A C-1\left(I_{e}\right)$ |  |
| Rated Operational Current AC-3 ( $\mathrm{I}_{\mathrm{e}}$ ) | $\begin{array}{r} (220 / 230 / 240 \mathrm{~V}) 60^{\circ} \mathrm{C} 33 \mathrm{~A} \\ (380 / 400 \mathrm{~V}) 60^{\circ} \mathrm{C} 32 \mathrm{~A} \\ (415 \mathrm{~V}) 60^{\circ} \mathrm{C} 32 \mathrm{~A} \\ (440 \mathrm{~V}) 60^{\circ} \mathrm{C} 32 \mathrm{~A} \\ (500 \mathrm{~V}) 60^{\circ} \mathrm{C} 28 \mathrm{~A} \\ (690 \mathrm{~V}) 60^{\circ} \mathrm{C} 21 \mathrm{~A} \end{array}$ |
| Rated Operational Power | (220 / 230 / 240 V) 9 KWT (380 / 400 V) 15 KWT |


| AC-3 ( $\mathrm{P}_{\mathrm{e}}$ ) | (415 V) 15 KWT (440 V) 18.5 KWT ( 500 V) 18.5 KWT ( 690 V) 18.5 KWT (400 V) 15 KWT |
| :---: | :---: |
| Rated Short-time Withstand Current (I ${ }_{c w}$ ) | at $40^{\circ} \mathrm{C}$ Ambient Temp, in Free Air, from a Cold State 10 s 350 A at $40^{\circ} \mathrm{C}$ Ambient Temp, in Free Air, from a Cold State 15 min 50 A at $40^{\circ} \mathrm{C}$ Ambient Temp, in Free Air, from a Cold State 1 min 150 A at $40^{\circ} \mathrm{C}$ Ambient Temp, in Free Air, from a Cold State 1 s 700 A at $40^{\circ} \mathrm{C}$ Ambient Temp, in Free Air, from a Cold State 30 s 225 A for 1 s -empty- A |
| Maximum Breaking Capacity | cos phi $=0.45(\cos$ phi $=0.35$ for le $>100 \mathrm{~A})$ at 440 V 500 A cos phi $=0.45$ (cos phi $=0.35$ for le $>100 \mathrm{~A}$ ) at 690 V 200 A |
| Maximum Electrical Switching Frequency | AC-1 600 cycles per hour AC-2 / AC-4 150 cycles per hour AC-3 1200 cycles per hour |
| Rated Insulation Voltage $\left(U_{i}\right)$ | acc. to UL/CSA 600 V 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 ( $\mathrm{U}_{\mathrm{c}}$ ) | $\begin{array}{r} 50 \mathrm{~Hz}- \\ 50 \mathrm{~Hz} / 60 \mathrm{~Hz} 100 \ldots 250 \mathrm{~V} \\ 60 \mathrm{~Hz}- \\ \text { DC Operation } 12 \ldots 20 \mathrm{~V} \end{array}$ |
| Operate Time | Between Coil De-energization and NC Contact Closing 13 ... 98 ms Between Coil De-energization and NO Contact Opening 11 ... 95 ms Between Coil Energization and NC Contact Opening 38 ... 90 ms Between Coil Energization and NO Contact Closing 40 ... 95 ms |
| Connecting Capacity Main Circuit | Rigid $1 / 2 \times 2.5 \ldots 10 \mathrm{~m}^{2}$ Flexible with Ferrule $1 / 2 \times 1.5 \ldots 10 \mathrm{~m}^{2}$ Flexible with Insulated Ferrule $1 \times 1.5 \ldots 10 \mathrm{~m}^{2}$ Flexible with Insulated Ferrule $2 \times 1.5 \ldots 4 \mathrm{~m}^{2}$ |
| Connecting Capacity Control Circuit | Flexible with Ferrule $1 / 2 \times 0.75 \ldots 2.5 \mathrm{~m}^{2}$ Flexible with Insulated Ferrule $1 \times 0.75 \ldots 2.5 \mathrm{~m}^{2}$ Flexible with Insulated Ferrule $2 \times 0.75 \ldots 1.5 \mathrm{~m}^{2}$ Rigid $1 / 2 \times 1 \ldots 2.5 \mathrm{~m}^{2}$ |
| Wire Stripping Length | Control Circuit 10 mm Main Circuit 14 mm |
| Degree of Protection | 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 | Screw Terminals |


| Dimensions |  |
| :--- | ---: |
| Product Net Width | 45 mm |
| Product Net Depth / 86 mm <br> Length  | 86 mm |
| Product Net Height | 0.35 kg |
| Product Net Weight |  |

## Popular Downloads

## Ordering

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

## Categories

Low Voltage Products and Systems $\rightarrow$ Control Products $\rightarrow$ Contactors $\rightarrow$ Block Contactors


