



 PRODUCT-DETAILS

AF190-30-11-32

AF190-30-11-32 Contactor



General Information

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| Extended Product Type | AF190-30-11-32 |
| Product ID | 1SFL487002R3211 |
| EAN | 7320500561690 |
| Catalog Description | AF190-30-11-32 Contactor |

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| Long Description | <p>The AF190-30-11-32 is a 3 pole - 1000 V IEC or 600 V UL contactor with Main Circuit Bars, controlling motors up to 90 kW / 400 V AC (AC-3) or 125 hp / 480 V UL and switching power circuits up to 275 A (AC-1) or 250 A UL general use. Thanks to the AF technology, the contactor has a wide control voltage range (48-130 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. Includes Mounting kit, containing all necessary screws, washers and sockets for connecting the terminals, and screws for mounting the device.</p> |
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Ordering

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| Minimum Order Quantity | 1 piece |
| Customs Tariff Number | 8536490099 |

Popular Downloads

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| EPLAN Data | 9AAC174541_EPLAN |
| Data Sheet, Technical Information | 1SBC100214C0202 |
| Data Sheet, Technical Information (Part 2) | 1SAC200017M0002 |
| Instructions and Manuals | 1SFC100008M0201 |
| CAD Dimensional Drawing | 2CDC001079B0201 |

Dimensions

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| Product Net Width | 105 mm |
| Product Net Depth / Length | 165.5 mm |
| Product Net Height | 196 mm |
| Product Net Weight | 2.4 kg |

Technical

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| Number of Main Contacts NO | 3 |
| Number of Main Contacts NC | 0 |
| Number of Auxiliary Contacts NO | 1 |
| Number of Auxiliary Contacts NC | 1 |
| Number of Poles | 3P |
| Rated Operational Voltage | Main Circuit 1000 V |
| Rated Frequency (f) | Main Circuit 50 / 60 Hz |
| Conventional Free-air Thermal Current (I_{th}) | acc. to IEC 60947-4-1, Open Contactors $\Theta = 40\text{ °C}$ 275 A |
| Rated Operational Current AC-1 (I_e) | (1000 V) 40 °C 250 A (1000 V) 60 °C 225 A (1000 V) 70 °C 185 A (690 V) 40 °C 275 A (690 V) 60 °C 250 A (690 V) 70 °C 200 A |
| Rated Operational Current AC-3 (I_e) | (415 V) 60 °C 190 A (440 V) 60 °C 190 A (500 V) 60 °C 156 A (690 V) 60 °C 135 A (1000 V) 60 °C 85 A (380 / 400 V) 60 °C 190 A (220 / 230 / 240 V) 60 °C 190 A |
| Rated Operational Current AC-3e (I_e) | (415 V) 60 °C 190 A (440 V) 60 °C 190 A (500 V) 60 °C 135 A (690 V) 60 °C 135 A (1000 V) 60 °C 85 A (380 / 400 V) 60 °C 190 A (220 / 230 / 240 V) 60 °C 190 A |
| Rated Operational Power AC-3 (P_e) | (415 V) 90 kW (440 V) 110 kW (500 V) 110 kW (690 V) 132 kW (1000 V) 110 kW |

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| | (380 / 400 V) 90 kW (220 / 230 / 240 V) 55 kW |
| Rated Operational Power AC-3e (P _e) | (415 V) 90 kW (440 V) 110 kW (500 V) 110 kW (690 V) 132 kW (1000 V) 110 kW (380 / 400 V) 90 kW (220 / 230 / 240 V) 55 kW |
| Rated Breaking Capacity AC-3 | 8 x I _e AC-3 |
| Rated Breaking Capacity AC-3e | 8.5 x I _e AC-3e |
| Rated Making Capacity AC-3 | 10 x I _e AC-3 |
| Rated Making Capacity AC-3e | 12 x I _e AC-3e |
| Rated Short-time Withstand Current Low Voltage (I _{cw}) | at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 1520 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 275 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 621 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1900 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 878 A |
| Maximum Breaking Capacity | cos phi=0.45 (cos phi=0.35 for I _e > 100 A) at 440 V 3300 A cos phi=0.45 (cos phi=0.35 for I _e > 100 A) at 690 V 2200 A |
| Rated Insulation Voltage (U _i) | acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 1000 V acc. to UL/CSA 1000 V |
| Rated Impulse Withstand Voltage (U _{imp}) | Main Circuit 8 kV |
| Maximum Electrical Switching Frequency | (AC-1) 300 cycles per hour (AC-2 / AC-4) 150 cycles per hour (AC-3) 300 cycles per hour |
| Mechanical Durability | 5 million |
| Maximum Mechanical Switching Frequency | 300 cycles per hour |
| Rated Control Circuit Voltage (U _c) | 50 Hz 48 ... 130 V 60 Hz 48 ... 130 V DC Operation 48 ... 130 V |
| Coil Consumption | Holding at Max. Rated Control Circuit Voltage 50 Hz 14.5 V·A Holding at Max. Rated Control Circuit Voltage 50 Hz 2 W Holding at Max. Rated Control Circuit Voltage 60 Hz 14.5 V·A Holding at Max. Rated Control Circuit Voltage 60 Hz 2 W Holding at Max. Rated Control Circuit Voltage DC 2.5 V·A Holding at Max. Rated Control Circuit Voltage DC 2.5 W Pull-in at Max. Rated Control Circuit Voltage 50 Hz 340 V·A Pull-in at Max. Rated Control Circuit Voltage 60 Hz 340 V·A Pull-in at Max. Rated Control Circuit Voltage DC 465 V·A Pull-in at Max. Rated Control Circuit Voltage DC 465 W |
| Power Loss | at Rated Operating Conditions AC-1 per Pole 15 W at Rated Operating Conditions AC-3 per Pole 7 W |
| Operate Time | Between Coil De-energization and NO Contact Opening 45 ... 80 ms Between Coil Energization and NO Contact Closing 25 ... 60 ms |
| Connecting Capacity Auxiliary Circuit | Flexible with Ferrule 1x 0.75 ... 2.5 mm ² Flexible with Ferrule 2x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 2x 0.75 ... 2.5 mm ² Flexible 1x 0.75 ... 2.5 mm ² Flexible 2x 0.75 ... 2.5 mm ² Solid 1x 1 ... 4 mm ² Solid 2x 1 ... 4 mm ² Stranded 1x 1 ... 4 mm ² Stranded 2x 1 ... 4 mm ² |
| Connecting Capacity | Flexible 2 x 50 ... 95 mm ² Rigid Al-Cable 1 x 95 ... 185 mm ² Rigid Cu-Cable 1 x 6 ... 150 mm ² |

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| Wire Stripping Length | Auxiliary Circuit 9 mm Control Circuit 9 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 IP00 |
| Recommended Screw Driver | Main Circuit M8 Control Circuit M3.5 |
| Tightening Torque | Auxiliary Circuit 1 N-m Cable Lug 18 N-m Control Circuit 1 N-m Main Circuit 14 ... 31 N-m |
| Terminal Type | Main Circuit: Bars |
| Product Name | Block Contactor |

Technical UL/CSA

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| Maximum Operating Voltage UL/CSA | Main Circuit 1000 V |
| General Use Rating UL/CSA | (1000 V AC) 250 A |
| Horsepower Rating UL/CSA | (200 ... 208 V AC) Three Phase 50 hp (220 ... 240 V AC) Three Phase 60 hp (440 ... 480 V AC) Three Phase 125 hp (550 ... 600 V AC) Three Phase 150 hp |
| Tightening Torque UL/CSA | Auxiliary Circuit 9 in-lb Control Circuit 9 in-lb Main Circuit 301 in-lb |
| Full Load Amps Motor Use | (200 ... 208 V AC) Three Phase 150 A (220 ... 240 V AC) Three Phase 154 A (440 ... 480 V AC) Three Phase 156 A (550 ... 600 V AC) Three Phase 144 A |

Environmental

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| Ambient Air Temperature | Close to Contactor Fitted with Thermal O/L Relay (0.85 ... 1.1 Uc) -25 ... 55 °C Close to Contactor without Thermal O/L Relay (0.85 ... 1.1 Uc) -40 ... 70 °C Close to Contactor for Storage -40 ... 70 °C |
| Maximum Operating Altitude Permissible | Without Derating 3000 m |

Material Compliance

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| Conflict Minerals Reporting Template (CMRT) | 9AKK108467A5658 |
| REACH Declaration | 2CMT2021-006202 |
| RoHS Declaration | 2CMT2021-006277 |
| RoHS Information | Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019 |
| Toxic Substances Control Act - TSCA | 2CMT2023-006525 |
| WEEE B2C / B2B | Business To Business |
| WEEE Category | 5. Small Equipment (No External Dimension More Than 50 cm) |

ABB EcoSolutions

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| ABB EcoSolutions | Yes |
| ABB Site Meeting Group Waste To Landfill Target | Non-hazardous waste is sent to a landfill, where there is no alternative option available within 100km of a facility |

UL 2799 Zero Waste To Landfill Validation available

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| End Of Life Disassembling Instructions | 1SFC100112M0001 |
| Environmental Product Declaration - EPD | 1SFC100095D0201 |
| Extended Product Lifetime | Product Durability |
| Improved Energy Efficiency for Customers | Product Efficiency - Product requires less energy to operate compared to similar product on market or older products from the same line Product Efficiency - Product considered more energy-efficient compared to similar product on market or older products from the same line |
| Recyclability Rate of the Product acc. to EN45555 | Design for Closing Resource Loops - Standard EN45555 - 79.1 % |

Certificates and Declarations

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|----------------------------------|------------------|
| A2L Certificate – UL | 9AKK108468A6695 |
| ABS Certificate | 14-LD1092198-PDA |
| Declaration of Conformity - CE | 2CMT2015-005439 |
| Declaration of Conformity - UKCA | 2CMT2020-006118 |
| UL Certificate | 20121023-E36588 |

Container Information

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| Package Level 1 Units | box 1 piece |
| Package Level 1 Width | 160 mm |
| Package Level 1 Depth / Length | 258 mm |
| Package Level 1 Height | 235 mm |
| Package Level 1 Gross Weight | 3 kg |
| Package Level 1 EAN | 7320500561690 |

External Classifications and Standards

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| Object Classification Code | Q |
| ETIM 7 | EC000066 - Power contactor, AC switching |
| ETIM 8 | EC000066 - Power contactor, AC switching |
| ETIM 9 | EC000066 - Power contactor, AC switching |
| eClass | V11.0 : 27371003 |
| UNSPSC | 39121529 |
| IDEA Granular Category Code (IGCC) | 4758 >> lec Contactors |

Accessories

| Identifier | Description | Type | Quantity | Unit Of Measure |
|-----------------|-------------------------------------|------------|----------|-----------------|
| 1SFN074703R1000 | LY185 Connecting Strip | LY185 | 1 | piece |
| 1SFN074807R1000 | LW205 Terminal Enlargement | LW205 | 1 | piece |
| 1SFN074810R1000 | LX205 Terminal Extension | LX205 | 1 | piece |
| 1SFN074807R2000 | LW205-40 Terminal Enlargement | LW205-40 | 1 | piece |
| 1SFN010820R1011 | CAL19-11 Auxiliary Contact Block | CAL19-11 | 1 | piece |
| 1SFN010820R3311 | CAL19-11B Auxiliary Contact Block | CAL19-11B | 1 | piece |
| 1SFN030300R1000 | VM19 Mechanical Interlock Unit | VM19 | 1 | piece |
| 1SFN034403R1000 | VM140/190 Mechanical Interlock Unit | VM140/190 | 1 | piece |
| 1SFN035203R1000 | VM205/265 Mechanical Interlock Unit | VM205/265 | 1 | piece |
| 1SFN010832R1001 | CEL19-01 Auxiliary Contact Block | CEL19-01 | 1 | piece |
| 1SFN010832R1010 | CEL19-10 Auxiliary Contact Block | CEL19-10 | 1 | piece |
| 1SFN124801R1000 | LT205-30C Terminal Shroud | LT205-30C | 1 | piece |
| 1SFN124803R1000 | LT205-30L Terminal Shroud | LT205-30L | 1 | piece |
| 1SFN124804R1000 | LT205-30Y Terminal Shroud | LT205-30Y | 1 | piece |
| 1SFN084806R1000 | BEA205/XT4 Connection Set | BEA205/XT4 | 1 | piece |
| 1SFN084806R1001 | BEA205/T4 Connection Set | BEA205/T4 | 1 | piece |
| 1SFN084811R1000 | BER205-4 Connection Set | BER205-4 | 1 | piece |
| 1SFN084813R1000 | BEY190-4 Connection Set | BEY190-4 | 1 | piece |
| 1SFN084814R1000 | BEP205-30 Connection Set | BEP205-30 | 1 | piece |
| 1SFN085213R1000 | BEY205-4 Connection Set | BEY205-4 | 1 | piece |

Categories

Low Voltage Products and Systems → Control Products → Contactors → Block Contactors → AF Contactors → AF190

