



Alternate Catalog No. AF65-30-00-13 Catalog No. 1SBL387001R1300

Description: AF65-30-00-13 100-250V50/60HZ-DC Contactor

UPC No 3471523132634

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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 V 50/60 Hz or 20...500 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 1-stack 3-pole contactors are of the block type design. - Main poles and auxiliary contact blocks: 3 main poles, front and side-mounted add-on auxiliary contacts 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: AC or DC operated - Accessories: a wide range of accessories is available.

Descriptors

Category	AF Contactors
Block Contactor Type	3-Pole Contactor

Specifications

Product Type	AF
General Use Rating UL/CSA	(600 V AC) 90 A
Object Classification Code	Q
Terminal Type	Screw Terminals
Rated Control Circuit Voltage	50 Hz /60 Hz DC Operation 100 250 V
Number of Main Contacts NO	3
Number of Main Contacts NC	0
Climatic Withstand	Category B according to IEC 60947-1 Annex Q
Resistance to Vibrations acc. to IEC 60068-2-6	5 300 Hz 3 g closed position / 3 g open position
Number of Auxiliary Contacts NO	0
RoHS Status	Following EU Directive 2011/65/EU
Reference Ambient Air Temperature	Close to Contactor for Storage -60 +80 °C Close to Contactor without Thermal O/L Relay -40 +70 °C Close to Contactor Fitted with Thermal O/L Relay -25 +60 °C
Rated Operational Voltage	Main Circuit 690 V
Resistance to Shock acc. to IEC 60068-2-27	Closed, Shock Direction: A 25 K40 Closed, Shock Direction: B1 25 K40 Closed, Shock Direction: B2 15 K40 Closed, Shock Direction: C1 25 K40 Closed, Shock Direction: C2 25 K40 Open, Shock Direction: B1 5 K40
Number of Auxiliary Contacts NC	0
Tightening Torque UL/CSA	Control Circuit 11 IA Main Circuit 35 IA
Maximum Operating Altitude Permissible	3000 m
Rated Operational Current AC-1	(690 V) 40 °C 105 A (690 V) 60 °C 90 A (690 V) 70 °C 80 A

Specifications

at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1000 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 350 A for 1 s - ARated Operational Current AC-3(220 / 230 / 240 V) 60 °C 65 A (415 V) 60 °C 65 A (500 V) 60 °C 65 A (500 V) 60 °C 65 A (690 V) 60 °C 65 A		
Horsepower Rating UL/CSA(440, 480 V AC) Three Phase 50 hp (120 V AC) Single Phase 50 hp (120 V AC) Single Phase 50 hp (240 V AC) Single Phase 15 hpConventional Free-air Thermal Currentacc. to IEC 60947-41, Open Contactors q = 40 °C 105 A Main Circuit 60 Hz at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 600 A at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 600 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 110 at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1000 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1000 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1000 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1000 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 350 A for 1 s - A for 0 s C 65 A (380 / 400 V 160 °C 65 A (380 / 400 V 160 °C 65 A (380 / 400 V 160 °C 65 A (650	Rated Operational Power AC-3	(380 / 400 V) 30 KWT (415 V) 37 KWT (440 V) 37 KWT (500 V) 37 KWT (690 V) 37 KWT (400 V) 30 KWT
Rated Frequency Main Circuit 50Hz Main Circuit 60 Hz at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 600 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 110 A Rated Short-time Withstand Current at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 110 A Rated Operational Current at 40 °C Ambient Temp, in Free Air, from a Cold State 1 5 min 250 A A 40 °C Ambient Temp, in Free Air, from a Cold State 1 5 min 250 A A 40 °C Ambient Temp, in Free Air, from a Cold State 1 5 min 250 A A 40 °C Ambient Temp, in Free Air, from a Cold State 1 5 min 250 A A 40 °C Ambient Temp, in Free Air, from a Cold State 1 5 min 100 A A 40 °C Ambient Temp, in Free Air, from a Cold State 1 5 min 250 A A 40 °C Ambient Temp, in Free Air, from a Cold State 1 5 min 100 A A 60 O Y 60 °C 65 A (380 / 400 V) 60 °C 65 A (440 V) 60 °C 65 A (500 V) 60 °C 25 A (500 V) (500 Cycles per hour AC-1 foc 50	Horsepower Rating UL/CSA	(440 480 V AC) Three Phase 50 hp (550 600 V AC) Three Phase 60 hp (120 V AC) Single Phase 5 hp (200 208 V AC) Three Phase 20 hp
Rated Prequency Main Circuit 60 Hz at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 600 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 110 A Rated Short-time Withstand Current at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1000 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1000 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1000 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1000 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 350 A for 1 s - A (220 7230 /240 V) 60 °C 65 A (380 /400 V) 60 °C 65 A (220 7230 /240 V) 60 °C 65 A (415 V) 60 °C 65 A (500 V) 60 °C 55 A (690 V) 60 °C 255 A (500 V) 60 °C 255 A (500 V) 60 °C 255 A Maximum Electrical Switching Frequency AC-2 / AC-4 150 cycles per hour AC-2 / AC-4 150 cycles per hour AC-3 / AC-4 1200 cycles per hour Ac-3 / AC-4 1200 cycles per hour AC-3 / AC-4 1200 cycles per hour Ac-2 / AC-4 150 cycles per hour AC-3 / AC-4 1200 cycles per hour Ac-3 / Co cycles per hour AC-3 / AC-4 1200 cycles per hour Ac-2 / AC-4 150 cycles per hour AC-3 / AC-4 140 VD E0110 (Gr. C) 690 V Gos 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 440 V 950 A Max	Conventional Free-air Thermal Current	acc. to IEC 60947-4-1, Open Contactors $q = 40$ °C 105 A
at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 600 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s min 110 ARated Short-time Withstand Currentat 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1000 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1000 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1000 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1000 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1000 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1000 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 350 A for 1 s - ARated Operational Current AC-3(220 / 230 / 420 V) 60 °C 65 A (300 V) 60 °C 65 A (500 V) 60 °C 55 A (500 V) 60 °C 609 A/ -41 and VDE 0110 (Gr. C) 690 V acc. to LIC 60947 -41 and VDE 0110 (Gr. C) 690 V acc. to LIC 60947 -41 and VDE 0110 (Gr. C) 690 V acc. to LIC 60947 -41 and VDE 0110 (Gr. C) 690 V 	Rated Frequency	
Rated Operational Current AC-3(380 / 400 V) 60 °C 65 A (415 V) 60 °C 65 A (440 V) 60 °C 65 A (400 V) 60 °C 65 A (500 V) 60 °C 65 A (500 V) 60 °C 55 A (500 V) 60 °C 65 P (500 V) 60 °C 65 P (500 V) 60 °C 65 P (500 A) at 440 V 950 A (500 A) 400 V) 60 °C 65 P (500 A) 400 A) 400 V 600 A (500 A) 400 V 600 A (500 A) 400 V 600 A) (500 A) 400 V 600 A)<	Rated Short-time Withstand Current	at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 600 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 110 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 250 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1000 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 350 A
Maximum Electrical Switching FrequencyAC-2 / AC-4 150 cycles per hour AC-3 1200 cycles per hour AC-3 1200 cycles per hourRated Insulation Voltageacc. to UL/CSA 600 V acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 690 V 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 AMaximum Mechanical Switching Frequency3600 cycles per hourMaximum Mechanical Switching FrequencyBetween Coil De-energization and NC Contact Closing 19 105 ms Between Coil De-energization and NO Contact Opening 17 100 ms Between Coil Energization and NO Contact Opening 38 95 ms Between Coil Energization and NO Contact Closing 42 100 ms Between Coil Energization and NO Contact Closing 42 100 ms Between Coil Energization and NO Contact Closing 42 100 ms Between Coil Energization and NO Contact Closing 42 100 ms Between Coil Energization and NO Contact Closing 42 100 ms Between Coil Energization and NO Contact Closing 42 100 ms 	Rated Operational Current AC-3	(380 / 400 V) 60 °C 65 A (415 V) 60 °C 65 A (440 V) 60 °C 65 A (500 V) 60 °C 55 A (690 V) 60 °C 39 A
Rated insulation Voltageacc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 690 VMaximum Breaking Capacitycos 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 AMaximum Mechanical Switching Frequency3600 cycles per hourDeprate TimeBetween Coil De-energization and NC Contact Closing 19 105 ms Between Coil De-energization and NO Contact Opening 17 100 ms Between Coil Energization and NC Contact Closing 42 100 msSecondary Rated Impulse Withstand Voltage6 kVConnecting Capacity Main CircuitRigid 1/2x 6 3 5 m² Flexible with Ferrule 1/2x 4 35 m² Flexible with Ferrule 1/2x 0.75 2.5 m²/2x 0.75 1.5 m² Rigid 1/2x 1 2.5 m²Connecting Capacity Control CircuitFlexible with Insulated Ferrule 1x 0.75 2.5 m²/2x 0.75 1.5 m² Rigid 1/2x 1 2.5 m²Degree of Protectionacc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP10 Screw Terminal Type	Maximum Electrical Switching Frequency	AC-2 / AC-4 150 cycles per hour AC-3 1200 cycles per hour
Maximum Breaking Capacitycos phi=0.45 (cos phi=0.35 for le > 100 A) at 690 V 600 AMaximum Mechanical Switching Frequency3600 cycles per hourOperate TimeBetween Coil De-energization and NC Contact Closing 19 105 ms Between Coil De-energization and NO Contact Opening 17 100 ms Between Coil Energization and NC Contact Opening 38 95 ms Between Coil Energization and NO Contact Closing 42 100 msSecondary Rated Impulse Withstand Voltage6 kVConnecting Capacity Main CircuitRigid 1/2x 6 3 5 m² 	Rated Insulation Voltage	acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 690 V
Operate TimeBetween Coil De-energization and NC Contact Closing 19 105 ms Between Coil De-energization and NO Contact Opening 17 100 ms Between Coil Energization and NC Contact Opening 38 95 ms Between Coil Energization and NO Contact Closing 42 100 ms 6 kVSecondary Rated Impulse Withstand Voltage6 kVConnecting Capacity Main CircuitRigid 1/2x 6 3 5 m² Flexible with Ferrule 1/2x 4 35 m² Flexible with Insulated Ferrule 1/2x 4 35 m² Flexible with Insulated Ferrule 1/2x 4 35 m² Flexible with Insulated Ferrule 1/2x 0.75 2.5 m² Pogree of ProtectionDegree of Protectionacc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP10 Screw Terminal Type	Maximum Breaking Capacity	
Operate Timems Between Coil De-energization and NO Contact Opening 17 100 ms Between Coil Energization and NC Contact Opening 38 95 ms Between Coil Energization and NO Contact Closing 42 100 ms Between Coil Energization and NO Contact Closing 42 100 ms 6 kVSecondary Rated Impulse Withstand Voltage6 kVConnecting Capacity Main CircuitRigid 1/2x 6 3 5 m² Flexible with Ferrule 1/2x 4 35 m² Flexible with Insulated Ferrule 1/2x 4 35 m² Flexible with Insulated Ferrule 1/2x 0.75 2.5 m²Connecting Capacity Control CircuitFlexible with Insulated Ferrule 1.x 0.75 2.5 m² Rigid 1/2x 1 2.5 m²Degree of Protectionacc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP10 Screw Terminal Type	Maximum Mechanical Switching Frequency	3600 cycles per hour
Secondary Rated Impulse Withstand Voltage6 kVConnecting Capacity Main CircuitRigid 1/2x 6 3 5 m² Flexible with Ferrule 1/2x 4 35 m² Flexible with Insulated Ferrule 1/2x 4 35 m² Flexible with Insulated Ferrule 1/2x 0.75 2.5 m² Flexible with Insulated Ferrule 1/2x 0.75 2.5 m² Flexible with Insulated Ferrule 1x 0.75 2.5 m²/2x 0.75 1.5 m² Rigid 1/2x 1 2.5 m²Degree of Protectionacc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP10Screw Terminal TypeScrew Terminals	Operate Time	ms Between Coil De-energization and NO Contact Opening 17 100 ms Between Coil Energization and NC Contact Opening 38 95 ms
Connecting Capacity Main CircuitFlexible with Ferrule 1/2x 4 35 m² Flexible with Insulated Ferrule 1/2x 4 35 m² Flexible with Insulated Ferrule 1/2x 0.75 2.5 m² Flexible with Insulated Ferrule 1x 0.75 2.5 m²/2x 0.75 1.5 m² Rigid 1/2x 1 2.5 m²Degree of Protectionacc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP10Screw Terminal TypeScrew Terminals	Secondary Rated Impulse Withstand Voltage	
Connecting Capacity Control CircuitFlexible with Insulated Ferrule 1x 0.75 2.5 m²/2x 0.75 1.5 m² Rigid 1/2x 1 2.5 m²Degree of Protectionacc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP10Screw Terminal TypeScrew Terminals	Connecting Capacity Main Circuit	Flexible with Ferrule $1/2x 4 \dots 35 m^2$ Flexible with Insulated Ferrule $1/2x 4 \dots 35 m^2$
Screw Terminal Type Screw Terminals	Connecting Capacity Control Circuit	Flexible with Insulated Ferrule 1x 0.75 2.5 m ² /2x 0.75 1.5 m ²
	Degree of Protection	acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP10
Wire Stripping Length Main Circuit 16 mm	Screw Terminal Type	Screw Terminals
	Wire Stripping Length	Main Circuit 16 mm

Classifications

ETIM 4	EC000066 - Magnet contactor, AC-switching
ETIM 6.0	EC000066 - Power contactor, AC switching
ETIM 7	EC000066 - Power contactor, AC switching
ETIM 5.0	EC000066 - Magnet contactor, AC-switching

Dimensions

Product Net Weight	0.95 kg
Product Net Depth / Length	111 mm

Dimensions

Product Net Width	55 mm
Product Net Height	125.5 mm

Package Information

Package Level 1 Width	150 mm
Package Level 1 Height	97 mm
Package Level 1 Depth / Length	150 mm
Package Level 1 EAN	3471523132634
Package Level 1 Units	box 1 piece
Package Level 2 Width	250 mm
Package Level 2 Height	300 mm
Package Level 1 Gross Weight	1.05 kg
Package Level 2 Units	box 10 piece
Package Level 3 Units	240 piece
Package Level 2 Depth / Length	300 mm
Package Level 2 Gross Weight	10.5 kg

Ordering

Minimum Order Quantity	1
Customs Tariff Number	85364900