



PRODUCT-DETAILS

AFC12-30-10-80

AFC12-30-10-80 220-230V50Hz 230-240V60Hz Contactor



General Information

Extended Product Type	AFC12-30-10-80
Product ID	1SBL151001R8010
EAN	3471523014121
Catalog Description	AFC12-30-10-80 220-230V50Hz 230-240V60Hz Contactor
Long Description	The AFC12-30-10-80 is a 3-pole - 690 V IEC or 600 V UL contactor with 1 N.O built-in auxiliary contact and Screw terminals, mainly controlling power circuits up to 5.5 kW / 400 V AC (AC-3) or 7.5 hp / 480 V AC UL and 28 A (AC-1) or 28 A UL general use. Within the AF platform, AFC contactors offer an optimized operating time for AC controlled applications with electromagnetic coil (control voltage : 220 ... 230 V AC 50 Hz / 230 ... 240 V AC 60 Hz). AFC contactors have a block type design and can be easily extended with add-on auxiliary contact blocks and a wide range of additionnal accessories.

Ordering

Minimum Order Quantity	1 piece
Customs Tariff Number	85364900

Popular Downloads

Data Sheet, Technical	1SBC100219C0201
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Information

Instructions and Manuals	1SBC101027M6801
Instructions and Manuals (Part 2)	1SAC200017M0002
CAD Dimensional Drawing	2CDC001079B0201

Dimensions

Product Net Width	45 mm
Product Net Depth / Length	77 mm
Product Net Height	86 mm
Product Net Weight	0.298 kg

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
Number of Poles	3P
Standards	IEC/EN 60947-1, IEC/EN 60947-4-1, UL 60947-4-1, CSA C22.2 No. 60947-4-1, UL 60335-2-40 LZGH2 A2L
Rated Operational Voltage	Auxiliary Circuit 690 V Main Circuit 690 V
Rated Frequency (f)	Auxiliary Circuit 50 / 60 Hz Control Circuit 50 / 60 Hz Main Circuit 50 / 60 Hz
Conventional Free-air Thermal Current (I_{th})	acc. to IEC 60947-1, Open Contactors $\Theta = 40^\circ\text{C}$ 35 A acc. to IEC 60947-5-1, $\Theta = 40^\circ\text{C}$ 16 A
Rated Operational Current AC-1 (I_e)	(690 V) 40 °C 28 A (690 V) 60 °C 28 A (690 V) 70 °C 24 A
Rated Operational Current AC-3 (I_e)	(415 V) 60 °C 12 A (440 V) 60 °C 12 A (500 V) 60 °C 12.5 A (690 V) 60 °C 9 A (380 / 400 V) 60 °C 12 A (220 / 230 / 240 V) 60 °C 12 A
Rated Operational Current AC-3e (I_e)	(415 V) 60 °C 12 A (440 V) 60 °C 12 A (500 V) 60 °C 12.5 A (690 V) 60 °C 9 A (380 / 400 V) 60 °C 12 A (220 / 230 / 240 V) 60 °C 12 A
Rated Operational Current AC-15 (I_e)	(500 V) 2 A (690 V) 2 A (24 / 127 V) 6 A (220 / 240 V) 4 A (400 / 440 V) 3 A
Rated Operational Current DC-1 (I_e)	(110 V) 1-Pole, 40 °C 15 A (110 V) 1-Pole, 60 °C 15 A (110 V) 1-Pole, 70 °C 15 A (110 V) 2 Poles in Series, 40 °C 27 A (110 V) 2 Poles in Series, 60 °C 27 A (110 V) 2 Poles in Series, 70 °C 24 A (110 V) 3 Poles in Series, 40 °C 27 A (110 V) 3 Poles in Series, 60 °C 27 A (110 V) 3 Poles in Series, 70 °C 24 A (220 V) 2 Poles in Series, 40 °C 15 A (220 V) 2 Poles in Series, 60 °C 15 A (220 V) 2 Poles in Series, 70 °C 15 A (220 V) 3 Poles in Series, 40 °C 27 A

	(220 V) 3 Poles in Series, 60 °C 27 A
	(220 V) 3 Poles in Series, 70 °C 24 A
	(72 V) 1-Pole, 40 °C 27 A
	(72 V) 1-Pole, 60 °C 27 A
	(72 V) 1-Pole, 70 °C 24 A
	(72 V) 2 Poles in Series, 40 °C 27 A
	(72 V) 2 Poles in Series, 60 °C 27 A
	(72 V) 2 Poles in Series, 70 °C 24 A
	(72 V) 3 Poles in Series, 40 °C 27 A
	(72 V) 3 Poles in Series, 60 °C 27 A
	(72 V) 3 Poles in Series, 70 °C 24 A

Rated Operational Current
DC-3 (I_e)

	(110 V) 1-Pole, 40 °C 7 A
	(110 V) 1-Pole, 60 °C 7 A
	(110 V) 1-Pole, 70 °C 7 A
	(110 V) 2 Poles in Series, 40 °C 27 A
	(110 V) 2 Poles in Series, 60 °C 27 A
	(110 V) 2 Poles in Series, 70 °C 24 A
	(110 V) 3 Poles in Series, 40 °C 27 A
	(110 V) 3 Poles in Series, 60 °C 27 A
	(110 V) 3 Poles in Series, 70 °C 24 A
	(220 V) 2 Poles in Series, 40 °C 7 A
	(220 V) 2 Poles in Series, 60 °C 7 A
	(220 V) 2 Poles in Series, 70 °C 7 A
	(220 V) 3 Poles in Series, 40 °C 27 A
	(220 V) 3 Poles in Series, 60 °C 27 A
	(220 V) 3 Poles in Series, 70 °C 24 A
	(72 V) 1-Pole, 40 °C 27 A
	(72 V) 1-Pole, 60 °C 27 A
	(72 V) 1-Pole, 70 °C 24 A
	(72 V) 2 Poles in Series, 40 °C 27 A
	(72 V) 2 Poles in Series, 60 °C 27 A
	(72 V) 2 Poles in Series, 70 °C 24 A
	(72 V) 3 Poles in Series, 40 °C 27 A
	(72 V) 3 Poles in Series, 60 °C 27 A
	(72 V) 3 Poles in Series, 70 °C 24 A

Rated Operational Current
DC-5 (I_e)

	(110 V) 1-Pole, 40 °C 4 A
	(110 V) 1-Pole, 60 °C 4 A
	(110 V) 1-Pole, 70 °C 4 A
	(110 V) 2 Poles in Series, 40 °C 15 A
	(110 V) 2 Poles in Series, 60 °C 15 A
	(110 V) 2 Poles in Series, 70 °C 15 A
	(110 V) 3 Poles in Series, 40 °C 27 A
	(110 V) 3 Poles in Series, 60 °C 27 A
	(110 V) 3 Poles in Series, 70 °C 24 A
	(220 V) 2 Poles in Series, 40 °C 4 A
	(220 V) 2 Poles in Series, 60 °C 4 A
	(220 V) 2 Poles in Series, 70 °C 4 A
	(220 V) 3 Poles in Series, 40 °C 12 A
	(220 V) 3 Poles in Series, 60 °C 12 A
	(220 V) 3 Poles in Series, 70 °C 12 A
	(72 V) 1-Pole, 40 °C 12 A
	(72 V) 1-Pole, 60 °C 12 A
	(72 V) 1-Pole, 70 °C 12 A
	(72 V) 2 Poles in Series, 40 °C 27 A
	(72 V) 2 Poles in Series, 60 °C 27 A
	(72 V) 2 Poles in Series, 70 °C 24 A
	(72 V) 3 Poles in Series, 40 °C 27 A
	(72 V) 3 Poles in Series, 60 °C 27 A
	(72 V) 3 Poles in Series, 70 °C 24 A

Rated Operational Current
DC-13 (I_e)

	(24 V) 6 A / 144 W
	(48 V) 2.8 A / 134 W
	(72 V) 1 A / 72 W
	(110 V) 0.55 A / 60 W
	(125 V) 0.55 A / 69 W
	(220 V) 0.27 A / 60 W
	(250 V) 0.27 A / 68 W
	(400 V) 0.15 A / 60 W
	(500 V) 0.13 A / 65 W
	(600 V) 0.1 A / 60 W

Rated Operational Power
AC-3 (P_e)

	(415 V) 5.5 kW
	(440 V) 5.5 kW
	(500 V) 7.5 kW
	(690 V) 7.5 kW
	(380 / 400 V) 5.5 kW
	(220 / 230 / 240 V) 3 kW

Rated Operational Power
AC-3e (P_e)

	(415 V) 5.5 kW
	(440 V) 5.5 kW
	(500 V) 7.5 kW
	(690 V) 7.5 kW

	(380 / 400 V) 5.5 kW (220 / 230 / 240 V) 3 kW
Rated Operational Power AC-6b (P_e)	(400 / 415 V) 40 °C, 50 / 60 Hz 11 kvar (400 / 415 V) 70 °C, 50 / 60 Hz 9.5 kvar (400 / 415 V) 55 °C, 50 / 60 Hz 11 kvar (500 / 550 V), 40 °C, 50 / 60 Hz 14 kvar (500 / 550 V) 55 °C, 50 / 60 Hz 14 kvar (500 / 550 V) 70 °C, 50 / 60 Hz 12 kvar (690 V) 40 °C, 50 / 60 Hz 19 kvar (690 V) 55 °C, 50 / 60 Hz 19 kvar (690 V) 70 °C, 50 / 60 Hz 16.5 kvar
Rated Short-time Withstand Current Low Voltage (I_{cw})	at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 150 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 35 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 60 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 300 A at 40 °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 $I_e > 100$ A) at 440 V 250 A cos phi=0.45 (cos phi=0.35 for $I_e > 100$ A) at 690 V 106 A
Rated Insulation Voltage (U_i)	acc. to IEC 60947-4-1 690 V acc. to IEC 60947-5-1 690 V acc. to UL/CSA 600 V
Rated Impulse Withstand Voltage (U_{imp})	6 kV
Maximum Electrical Switching Frequency	(AC-1) 600 cycles per hour (AC-15) 1200 cycles per hour (AC-2 / AC-4) 300 cycles per hour (AC-3) 1200 cycles per hour (DC-13) 900 cycles per hour
Maximum Mechanical Switching Frequency	3600 cycles per hour
Rated Control Circuit Voltage (U_c)	50 Hz 220 ... 230 V 60 Hz 230 ... 240 V
Coil Consumption	Average Holding Value 50 / 60 Hz 8 V·A Average Pull-in Value 50 Hz 70 V·A Average Pull-in Value 60 Hz 66 V·A
Power Loss	at 6 A per Pole 0.1 W at Rated Operating Conditions AC-1 per Pole 1 W at Rated Operating Conditions AC-3 per Pole 0.2 W
Operate Time	Between Coil De-energization and NC Contact Closing 9 ... 20 ms Between Coil De-energization and NO Contact Opening 4 ... 18 ms Between Coil Energization and NC Contact Opening 7 ... 21 ms Between Coil Energization and NO Contact Closing 10 ... 26 ms
Mounting on DIN Rail	TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715 TH35-7.5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715
Mounting by Screws (not supplied)	2 x M4 Screws Placed Diagonally
Connecting Capacity Main Circuit	Flexible with Ferrule 1/2x 0.75 ... 6 mm² Flexible with Insulated Ferrule 1x 0.75 ... 4 mm² Flexible with Insulated Ferrule 2x 0.75 ... 2.5 mm² Rigid Solid 1/2x 1 ... 4 mm² Rigid Stranded 1/2x 1 ... 6 mm²
Connecting Capacity Auxiliary Circuit	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm² Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm² Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm² Rigid Solid 1/2x 1 ... 2.5 mm² Rigid Stranded 1/2x 1 ... 2.5 mm²
Connecting Capacity Control Circuit	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm² Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm² Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm² Rigid Solid 1/2x 1 ... 2.5 mm² Rigid Stranded 1/2x 1 ... 2.5 mm²
Wire Stripping Length	Auxiliary Circuit 10 mm Control Circuit 10 mm Main Circuit 10 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
Tightening Torque	Auxiliary Circuit 1.2 N·m Control Circuit 1.2 N·m Main Circuit 1.5 N·m
Terminal Type	Screw Terminals

<u>Product Name</u>	<u>Block Contactor</u>
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Technical UL/CSA

NEMA Size	0
Continuous Current Rating NEMA	18 A
Horsepower Rating NEMA	(115 V AC) Single Phase 1 Hp (200 V AC) Three Phase 3 Hp (230 V AC) Single Phase 2 Hp (230 V AC) Three Phase 3 Hp (460 V AC) Three Phase 5 Hp (575 V AC) Three Phase 5 Hp
Maximum Operating Voltage UL/CSA	Main Circuit 600 V
General Use Rating UL/CSA	(600 V AC) 28 A
Horsepower Rating UL/CSA	(120 V AC) Single Phase 1 hp (200 ... 208 V AC) Three Phase 3 hp (220 ... 240 V AC) Three Phase 3 hp (240 V AC) Single Phase 2 hp (440 ... 480 V AC) Three Phase 7-1/2 hp (550 ... 600 V AC) Three Phase 10 hp
Connecting Capacity Main Circuit UL/CSA	Rigid Solid 1/2x 16-10 AWG Rigid Stranded 1/2x 16-10 AWG
Connecting Capacity Auxiliary Circuit UL/CSA	Rigid Solid 1/2x 18-14 AWG Rigid Stranded 1/2x 18-14 AWG
Connecting Capacity Control Circuit UL/CSA	Rigid Solid 1/2x 18-14 AWG Rigid Stranded 1/2x 18-14 AWG
Tightening Torque UL/CSA	Auxiliary Circuit 11 in-lb Control Circuit 11 in-lb Main Circuit 13 in-lb
Full Load Amps Motor Use	(120 V AC) Single Phase 16 A (200 ... 208 V AC) Three Phase 11 A (220 ... 240 V AC) Three Phase 9.6 A (240 V AC) Single Phase 12 A (440 ... 480 V AC) Three Phase 11 A (550 ... 600 V AC) Three Phase 11 A

Environmental

Ambient Air Temperature	Close to Contactor Fitted with Thermal O/L Relay -25 ... 60 °C Close to Contactor without Thermal O/L Relay -40 ... 70 °C Close to Contactor without Thermal O/L Relay (0.85 ... 1.1 Uc) -40 ... 60 °C Close to Contactor without Thermal O/L Relay (Uc) -40 ... 70 °C Close to Contactor for Storage -60 ... +80 °C
Climatic Withstand	Category B according to IEC 60947-1 Annex Q
Maximum Operating Altitude Permissible	Without Derating 3000 m
Resistance to Shock acc. to IEC 60068-2-27	Closed, Shock Direction: B1 25 g Open, Shock Direction: B1 5 g Shock Direction: A 30 g Shock Direction: B2 15 g Shock Direction: C1 25 g Shock Direction: C2 25 g
Resistance to Vibrations	4g Closed Position & 2g Open position 5 ... 300 Hz
Pollution Degree	3

Material Compliance

Conflict Minerals Reporting Template (CMRT)	9AKK108467A5658
REACH Declaration	2CMT2021-006202
RoHS Information	2CMT2021-006277
RoHS Status	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)

Certificates and Declarations

A2L Certificate - UL	9AKK108469A4886 9AKK108469A4887
BV Certificate	BV_2634H24898C0
CB Certificate	SE-113571
CCS Certificate	GZ23PTB00147
CQC Certificate	CQC2010010304445624
Declaration of Conformity - CCC	2020980304001253
Declaration of Conformity - CE	1SBD250024U1000
Declaration of Conformity - UKCA	1SBD250045U1000
DNV Certificate	9AKK108470A6934
RINA Certificate	9AKK108470A5006
UL Certificate	E312527-20231026

Container Information

Package Level 1 Units	box 1 piece
Package Level 1 Width	87 mm
Package Level 1 Depth / Length	79 mm
Package Level 1 Height	47 mm
Package Level 1 Gross Weight	0.322 kg
Package Level 1 EAN	3471523014121

External Classifications and Standards

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)	4755 >> Contactors

Accessories

Identifier	Description	Type	Quantity	Unit Of Measure
1SBN010140R1104	CA4-04M Auxiliary Contact Block	CA4-04M	1	piece
1SBN010146R1104	CA4-04MK Auxiliary Contact Block	CA4-04MK	1	piece
1SBN010140R1113	CA4-13M Auxiliary Contact Block	CA4-13M	1	piece
1SBN010146R1113	CA4-13MK Auxiliary Contact Block	CA4-13MK	1	piece
1SBN010140R1122	CA4-22M Auxiliary Contact Block	CA4-22M	1	piece
1SBN010146R1122	CA4-22MK Auxiliary Contact Block	CA4-22MK	1	piece
1SBN010140R1322	CA4-22U Auxiliary Contact Block	CA4-22U	1	piece
1SBN010140R1131	CA4-31M Auxiliary Contact Block	CA4-31M	1	piece
1SBN010146R1131	CA4-31MK Auxiliary Contact Block	CA4-31MK	1	piece
1SBN010140R1331	CA4-31U Auxiliary Contact Block	CA4-31U	1	piece
1SBN010140R1340	CA4-40U Auxiliary Contact Block	CA4-40U	1	piece
1SBN010151R1111	CAT4-11M Auxiliary Contact / Coil Terminal Block	CAT4-11M	1	piece
1SBN010151R1311	CAT4-11U Auxiliary Contact / Coil Terminal Block	CAT4-11U	1	piece

Categories

Low Voltage Products and Systems → Control Products → Contactors → Block Contactors → AF Contactors → AF12

