



 PRODUCT-DETAILS

AF75-30-00 100-250V 50Hz / 100-250V 60Hz / 100-250V DC

AF75-30-00 100-250V 50Hz / 100-250V 60Hz / 100-250V DC Contactor



General Information

Extended Product Type:	AF75-30-00 100-250V 50Hz / 100-250V 60Hz / 100-250V DC
Product ID:	1SBL417001R7000
EAN:	3471522115102
Catalog Description:	AF75-30-00 100-250V 50Hz / 100-250V 60Hz / 100-250V DC Contactor
Long Description:	<p>AF75 contactors are mainly used for controlling 3-phase motors and generally for controlling power circuits up to 690 V AC and 220 V DC. The contactors can also be used for many other applications such as bypass, capacitor switching, lighting, DC power circuits... The AF... contactors are fitted with an electronic coil interface which accepts a wide control voltage range, on AC 50/60 Hz or DC supplies. The same contactor can accept various supply voltages according to the different countries where the electrical equipment will be installed, or some fluctuation in the control voltage due to the local supply or network. The AF... contactors are also fully suitable for operation in AC or DC control circuit liable to voltage interruptions or voltage dip risks. Advantages: - Wide voltage range, e.g. 100 ... 250 V AC and DC - Can manage large voltage variations - Reduced power consumption - Very distinct closing and opening - Noise free - Can withstand voltage interruptions or voltage dips in the control supply (≤ 20 ms). 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 contact blocks - Control circuit: AC or DC operated - Accessories: a wide range of accessories is available.</p>

Display Name: AF75-30-00 100-250V 50Hz / 100-250V 60Hz / 100-250V DC

Ordering

Minimum Order Quantity: 1 piece
 Customs Tariff Number: 85364900

Popular Downloads

Data Sheet, Technical Information: 1SBC100214C0202
 Instructions and Manuals: FPTC407734P0003
 CAD Dimensional Drawing: 2CDC001079B0201

Dimensions

Product Net Width: 70 mm
 Product Net Depth / Length: 108 mm
 Product Net Height: 110 mm
 Product Net Weight: 1.18 kg

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
 Number of Poles: 3P
 Standards: IEC/EN 60947-1, IEC/EN 60947-4-1, UL 508, CSA C22.2 No. 14, IEC 60077-1 (applicable parts), IEC 60077-2 (applicable parts), EN 50155 (applicable parts), TR CU 001/2011 (on request), IEC 61373, For compliance confirmation on applicable parts based on your application and combination, please consult your ABB sales representatives.
 Rated Operational Voltage: Main Circuit 690 V
 Rated Frequency (f): Control Circuit 50 / 60 Hz
 Main Circuit 50 / 60 Hz
 Conventional Free-air Thermal Current (I_{th}): acc. to IEC 60947-4-1, Open Contactors $\Theta = 40^\circ\text{C}$ 125 A
 Rated Operational Current AC-1 (I_e): (690 V) 40 °C 125 A
 (690 V) 55 °C 105 A
 (690 V) 70 °C 85 A
 Rated Operational Current AC-3 (I_e): (415 V) 55 °C 72 A
 (440 V) 55 °C 70 A
 (500 V) 55 °C 65 A
 (690 V) 55 °C 46 A
 (380 / 400 V) 55 °C 75 A
 (220 / 230 / 240 V) 55 °C 75

Rated Operational Current DC-1 (I_e):

- (110 V) 2 Poles in Series, 40 °C 120 A
- (110 V) 2 Poles in Series, 55 °C 105 A
- (110 V) 2 Poles in Series, 70 °C 85 A
- (110 V) 3 Poles in Series, 40 °C 120 A
- (110 V) 3 Poles in Series, 55 °C 105 A
- (110 V) 3 Poles in Series, 70 °C 85 A
- (220 V) 3 Poles in Series, 40 °C 120 A
- (220 V) 3 Poles in Series, 55 °C 105 A
- (220 V) 3 Poles in Series, 70 °C 85 A
- (72 V) 1-Pole, 40 °C 120 A
- (72 V) 1-Pole, 55 °C 105 A
- (72 V) 1-Pole, 70 °C 85 A
- (72 V) 2 Poles in Series, 40 °C 120 A
- (72 V) 2 Poles in Series, 55 °C 105 A
- (72 V) 2 Poles in Series, 70 °C 85 A
- (72 V) 3 Poles in Series, 40 °C 120 A
- (72 V) 3 Poles in Series, 55 °C 105 A
- (72 V) 3 Poles in Series, 70 °C 85 A

Rated Operational Current DC-3 (I_e):

- (110 V) 2 Poles in Series, 40 °C 120 A
- (110 V) 2 Poles in Series, 55 °C 105 A
- (110 V) 2 Poles in Series, 70 °C 85 A
- (110 V) 3 Poles in Series, 40 °C 120 A
- (110 V) 3 Poles in Series, 55 °C 105 A
- (110 V) 3 Poles in Series, 70 °C 85 A
- (220 V) 3 Poles in Series, 40 °C 120 A
- (220 V) 3 Poles in Series, 55 °C 105 A
- (220 V) 3 Poles in Series, 70 °C 85 A
- (72 V) 1-Pole, 40 °C 120 A
- (72 V) 1-Pole, 55 °C 105 A
- (72 V) 1-Pole, 70 °C 85 A
- (72 V) 2 Poles in Series, 40 °C 120 A
- (72 V) 2 Poles in Series, 55 °C 105 A
- (72 V) 2 Poles in Series, 70 °C 85 A
- (72 V) 3 Poles in Series, 40 °C 120 A
- (72 V) 3 Poles in Series, 55 °C 105 A
- (72 V) 3 Poles in Series, 70 °C 85 A

Rated Operational Current DC-5 (I_e):

- (110 V) 2 Poles in Series, 40 °C 100 A
- (110 V) 2 Poles in Series, 55 °C 100 A
- (110 V) 2 Poles in Series, 70 °C 85 A
- (110 V) 3 Poles in Series, 40 °C 120 A
- (110 V) 3 Poles in Series, 55 °C 105 A
- (110 V) 3 Poles in Series, 70 °C 85 A
- (220 V) 3 Poles in Series, 40 °C 75 A
- (220 V) 3 Poles in Series, 55 °C 75 A
- (220 V) 3 Poles in Series, 70 °C 75 A
- (72 V) 1-Pole, 40 °C 75 A
- (72 V) 1-Pole, 55 °C 75 A
- (72 V) 1-Pole, 70 °C 75 A
- (72 V) 2 Poles in Series, 40 °C 120 A
- (72 V) 2 Poles in Series, 55 °C 105 A
- (72 V) 2 Poles in Series, 70 °C 85 A
- (72 V) 3 Poles in Series, 40 °C 120 A
- (72 V) 3 Poles in Series, 55 °C 105 A
- (72 V) 3 Poles in Series, 70 °C 85 A

Rated Operational Power AC-3 (P_e):

- (415 V) 40 kW
- (440 V) 40 kW
- (500 V) 45 kW
- (690 V) 40 kW
- (380 / 400 V) 37 kW
- (220 / 230 / 240 V) 22 kW

Rated Operational Power AC-6b (P_e):	(230 / 240 V) 40 °C, 50 / 60 Hz 28 kvar (230 / 240 V) 55 °C, 50 / 60 Hz 28 kvar (230 / 240 V) 70 °C, 50 / 60 Hz 24.5 kvar (400 / 415 V) 40 °C, 50 / 60 Hz 48 kvar (400 / 415 V) 70 °C, 50 / 60 Hz 41 kvar (400 / 415 V) 55 °C, 50 / 60 Hz 48 kvar (440 V) 40 °C, 50 / 60 Hz 52 kvar (440 V) 55 °C, 50 / 60 Hz 52 kvar (440 V) 70 °C, 50 / 60 Hz 45 kvar (500 / 550 V), 40 °C, 50 / 60 Hz 60 kvar (500 / 550 V) 55 °C, 50 / 60 Hz 60 kvar (500 / 550 V) 70 °C, 50 / 60 Hz 51 kvar (690 V) 40 °C, 50 / 60 Hz 82 kvar (690 V) 55 °C, 50 / 60 Hz 82 kvar (690 V) 70 °C, 50 / 60 Hz 70 kvar
Short-Circuit Protective Devices:	gG Type Fuses 160 A
Rated Short-time Withstand Current Low Voltage (I_{cw}):	at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 650 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 135 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 370 A
Maximum Breaking Capacity:	cos phi=0.45 (cos phi=0.35 for I _e > 100 A) at 440 V 1300 A cos phi=0.45 (cos phi=0.35 for I _e > 100 A) at 690 V 630 A
Rated Insulation Voltage (U_i):	acc. to IEC 60947-4-1 1000 V acc. to UL/CSA 600 V
Rated Impulse Withstand Voltage (U_{imp}):	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:	10 million
Maximum Mechanical Switching Frequency:	300 cycles per hour
Rated Control Circuit Voltage (U_c):	50 Hz 100 ... 250 V 60 Hz 100 ... 250 V DC Operation 100 ... 250 V
Coil Consumption:	Holding at Max. Rated Control Circuit Voltage 50 Hz 7 V·A Holding at Max. Rated Control Circuit Voltage 50 Hz 2.8 W Holding at Max. Rated Control Circuit Voltage 60 Hz 7 V·A Holding at Max. Rated Control Circuit Voltage 60 Hz 2.8 W Pull-in at Max. Rated Control Circuit Voltage 50 Hz 210 V·A Pull-in at Max. Rated Control Circuit Voltage 60 Hz 210 V·A
Power Loss:	at Rated Operating Conditions per Pole 2 W at Rated Operating Conditions AC-1 per Pole 7 W at Rated Operating Conditions AC-3 per Pole 2 W
Operate Time:	Between Coil De-energization and NC Contact Closing 35 ... 115 ms Between Coil De-energization and NO Contact Opening 30 ... 110 ms Between Coil Energization and NO Contact Closing 30 ... 100 ms
Mounting on DIN Rail:	TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715 TH75-25 (75 x 25 mm Mounting Rail) acc. to IEC 60715
Mounting by Screws (not supplied) :	2 x M6 Screws Placed Diagonally
Connecting Capacity Main Circuit:	Flexible with Cable End 6 ... 16 mm ² Rigid Cable 6 ... 25 mm ²
Connecting Capacity Auxiliary Circuit:	Flexible with Cable End 0.75 ... 2.5 mm ² Rigid Cable 1 ... 4 mm ²
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 IP10
Terminal Type:	Screw Terminals
Product Name:	Block Contactor

Technical UL/CSA

NEMA Size:	3
Continuous Current Rating NEMA:	90 A
Horsepower Rating NEMA:	(200 V AC) Three Phase 25 Hp (230 V AC) Three Phase 30 Hp (460 V AC) Three Phase 50 Hp (575 V AC) Three Phase 50 Hp
Maximum Operating Voltage UL/CSA:	Main Circuit 600 V
General Use Rating UL/CSA:	(600 V AC) 105 A
Horsepower Rating UL/CSA:	(120 V AC) Single Phase 7-1/2 hp (200 ... 208 V AC) Three Phase 25 hp (220 ... 240 V AC) Three Phase 30 hp (240 V AC) Single Phase 15 hp (440 ... 480 V AC) Three Phase 60 hp (550 ... 600 V AC) Three Phase 75 hp
Full Load Amps Motor Use:	(120 V AC) Single Phase 80 A (200 ... 208 V AC) Three Phase 78.2 A (220 ... 240 V AC) Three Phase 80 A (240 V AC) Single Phase 68 A (440 ... 480 V AC) Three Phase 77 A (550 ... 600 V AC) Three Phase 77 A

Environmental

Ambient Air Temperature:	Close to Contactor Fitted with Thermal O/L Relay -25 ... 55 °C Close to Contactor without Thermal O/L Relay -40 ... 70 °C Close to Contactor for Storage -60 ... +80 °C
Maximum Operating Altitude Permissible:	Without Derating 3000 m
Resistance to Shock acc. to IEC 60068-2-27:	Closed, Shock Direction: B1 10 g Open, Shock Direction: B1 5 g Shock Direction: A 20 g Shock Direction: B2 15 g Shock Direction: C1 20 g Shock Direction: C2 20 g
Shock and Vibration Withstand acc. to IEC 61373:	Category 1, Class B
Pollution Degree:	3

Material Compliance

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
SCIP:	c2e2b0b2-dfe7-4e80-857a-cddbc07c2719 China

Simplified SCIP:	064c1527-2f11-40ad-b582-26c55dbdb8ed Denmark 1cfcf483-4379-40e1-8c45-2f351d664817 Sweden 1d7c4aa3-dbad-4928-8831-7d21c02cc8b4 Germany 1f1c0caf-337d-451c-9f74-d662bdce7d6f Greece 2689fb5f-5465-4bc8-bcfe-0de65d3fa23c Czechia 2cb900ed-c3d9-4c61-a9df-500fd90def4e Poland 3c097717-0345-42a3-81e7-56640a11fc3c Bulgaria 53e580d7-1b64-4964-a373-85a179da3e66 Estonia 63b5849a-b4e7-4060-afa2-f9422f855dc2 Norway 680e89b3-5651-4fdb-bf5f-a9e73459e10d Belgium 691c7aa9-0a57-4485-be17-e7e8d4e90495 Spain 70a3e930-0ac5-4273-a530-43a8e42db271 Hungary 70def6ee-1a69-42dd-80df-833e539473c2 Germany 887d56d3-7b38-4aa6-9132-89e9f94b726b Germany 9aeb8362-fccf-4608-a98a-bd3c9beef45b Germany 9c3302ae-a674-4814-9ecb-1d6d6d434cf0 Germany a1df132-4d45-4a3a-a7c9-6eb1eb583668 Poland b09ece7d-e98c-449a-b874-c36056d6cd8f France b61f74dc-59c7-4204-af5e-a1e2996787fd Hungary bd306bfc-f1e4-40d9-8371-7c04a5a2b4c1 Finland c1839a5e-99fd-4271-8e36-a3d2cec5bd0a Portugal e007195c-1c12-4f40-8547-422421d80619 France e8543c06-47ec-4696-96e8-0ff46b15133c Poland ec698302-3c93-42d8-baae-4e5796a2b28a Netherlands eec1aa07-407c-4ff0-803e-785d0fb0a15b Croatia f41e3ab5-8072-435c-8693-30a396df9cf7 Belgium fca37b45-d506-4177-997d-68977a0c5e3f Sweden
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WEEE B2C / B2B:	Business To Business
WEEE Category:	5. Small Equipment (No External Dimension More Than 50 cm)

ABB EcoSolutions

Environmental Product Declaration - EPD: No declaration needed

Certificates and Declarations

CB Certificate:	CB_CN45489
CCC Certificate:	CCC_2018010304134049 CCC_2010010304402983
CQC Certificate:	CQC2018010304134049 CQC2010010304402983
Declaration of Conformity - CCC:	2020980304001624 2020980304001225
Declaration of Conformity - CE:	1SBD250803U1000
Declaration of Conformity - UKCA:	1SBD250820U1000
KC Certificate:	KC_HW02032-21002B
RMRS Certificate:	RMRS_1802704280
UL Certificate:	UL-US-L312527-1101-21215991-6 UL-CA-2139468-4
UL Listing Card:	UL_E312527

Container Information

Package Level 1 Units:	box 1 piece
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Package Level 1 Width:	140 mm
Package Level 1 Depth / Length:	146 mm
Package Level 1 Height:	96 mm
Package Level 1 Gross Weight:	1.18 kg
Package Level 1 EAN:	3471522115102

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
E-Number (Finland):	3709154
E-Number (Sweden):	3228259

Categories

Products > Low Voltage Products and Systems > Control Products > Contactors > Block Contactors > AF Contactors > AF75

