

PRODUCT-DETAILS

# AFC16-40-00-81

## AFC16-40-00-81 24V 50/60Hz Contactor



### General Information

Extended Product Type	AFC16-40-00-81
Product ID	1SBL171201R8100
EAN	3471523014671
Catalog Description	AFC16-40-00-81 24V 50/60Hz Contactor
Long Description	The AFC16-40-00-81 is a 4 poles (4 N.O) - 690 V IEC or 600V UL contactor with screw terminals, mainly controlling power circuits up to 7.5 kW / 400 V AC (AC-3) or 10 hp / 480 V AC UL and 30 A (AC-1) or 30 A UL general use. Within the AF platform, AFC contactors offer an optimized operating time for AC controlled applications with electromagnetic coil (control voltage : 24 V AC 50/60 Hz). AFC contactors have a block type design and can be easily extended with add-on auxiliary contact blocks and a wide range of additional accessories.

### Ordering

Minimum Order Quantity	1 piece
Customs Tariff Number	85364900

### Popular Downloads

Data Sheet, Technical Information	1SBC100219C0201
Instructions and Manuals	1SBC101059M6801

## Dimensions

Product Net Width	45 mm
Product Net Depth / Length	77 mm
Product Net Height	86 mm
Product Net Weight	0.309 kg

## Technical

Number of Main Contacts NO	4
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° 14
Rated Operational Voltage	Main Circuit 690 V
Rated Frequency (f)	Auxiliary Circuit 50 / 60 Hz Main Circuit 50 / 60 Hz
Conventional Free-air Thermal Current ( $I_{th}$ )	acc. to IEC 60947-4-1, Open Contactors $q = 40^\circ\text{C}$ 35 A
Rated Operational Current AC-1 ( $I_e$ )	(690 V) $40^\circ\text{C}$ 30 (690 V) $60^\circ\text{C}$ 30 A (690 V) $70^\circ\text{C}$ 26
Rated Operational Current AC-3 ( $I_e$ )	(415 V) $60^\circ\text{C}$ 18 A (440 V) $60^\circ\text{C}$ 18 A (500 V) $60^\circ\text{C}$ 15 A (690 V) $60^\circ\text{C}$ 10.5 A (380 / 400 V) $60^\circ\text{C}$ 18 A (220 / 230 / 240 V) $60^\circ\text{C}$ 18 A
Rated Operational Power AC-3 ( $P_e$ )	(400 V) 7.5 kW (415 V) 9 kW (440 V) 9 kW (500 V) 9 kW (690 V) 9 kW (380 / 400 V) 7.5 kW (220 / 230 / 240 V) 4 kW
Rated Short-time Withstand Current Low Voltage ( $I_{cw}$ )	at $40^\circ\text{C}$ Ambient Temp, in Free Air, from a Cold State 10 s 150 A at $40^\circ\text{C}$ Ambient Temp, in Free Air, from a Cold State 15 min 35 A at $40^\circ\text{C}$ Ambient Temp, in Free Air, from a Cold State 1 min 60 A at $40^\circ\text{C}$ Ambient Temp, in Free Air, from a Cold State 1 s 300 A at $40^\circ\text{C}$ Ambient Temp, in Free Air, from a Cold State 30 s 80 A for 1 s -empty- 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
Maximum Electrical Switching Frequency	(AC-1) 600 cycles per hour (AC-15) 0 cycles per hour (AC-2 / AC-4) 0 cycles per hour (AC-3) 0 cycles per hour (DC-13) 0 cycles per hour
Rated Insulation Voltage ( $U_i$ )	acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 690 V acc. to IEC 60947-5-1 and VDE 0110 (Gr. C) 690 V acc. to UL/CSA 600 V
Rated Impulse Withstand Voltage ( $U_{imp}$ )	6 kV
Maximum Mechanical Switching Frequency	3600 cycles per hour
Rated Control Circuit Voltage ( $U_c$ )	50 Hz 24 V 60 Hz 24 V
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
Connecting Capacity Main Circuit	Flexible with Ferrule 1/2x 0.75 ... 6 mm <sup>2</sup> Flexible with Insulated Ferrule 1x 0.75 ... 4 mm <sup>2</sup> Flexible with Insulated Ferrule 2x 0.75 ... 2.5 mm <sup>2</sup> Rigid 1/2x 1 ... 6 mm <sup>2</sup>
Connecting Capacity Auxiliary Circuit	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup>
Connecting Capacity Control Circuit	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm <sup>2</sup> Rigid 1/2x 1 ... 2.5 mm <sup>2</sup>
Wire Stripping Length	Control Circuit 10 mm Main Circuit 10 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

## Technical UL/CSA

General Use Rating UL/CSA	(600 V AC) 30 A
Tightening Torque UL/CSA	Control Circuit 11 in-lb Main Circuit 13 in-lb

## Environmental

Ambient Air Temperature	Close to Contactor for Storage -60 ... +80 °C Near Contactor for Operation in Free Air (0.85 ... 1.1 Uc) -40 ... 60 °C Near Contactor for Operation in Free Air (Uc) -40 ... 70 °C
Climatic Withstand	Category B according to IEC 60947-1 Annex Q
Maximum Operating Altitude Permissible	Without Derating 3000 m
Resistance to Vibrations acc. to IEC 60068-2-6	5 ... 300 Hz 4 g closed position / 2 g open position
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

## Certificates and Declarations (Document Number)

CB Certificate	CB_SE-96551M1
CQC Certificate	CQC2010010304445624
Declaration of Conformity - CCC	2020980304001253
Declaration of Conformity - CE	1SBD250025U1000
Instructions and Manuals	1SBC101059M6801
RoHS Information	1SBD251089E1000
UL Certificate	UL_20191021-E312527_7_1

## 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	0.309 kg
Package Level 1 EAN	3471523014671
Package Level 3 Units	1296 piece

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## Classifications

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Object Classification Code	Q
ETIM 6	EC000066 - Power contactor, AC switching
ETIM 7	EC000066 - Power contactor, AC switching
eClass	V11.0 : 27371003

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## Categories

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

