

PRODUCT-DETAILS

# AF09-40-00-41

# AF09-40-00-41 24-60V50/60HZ Contactor



General Information	
Extended Product Type	AF09-40-00-41
Product ID	1SBL137201R4100
EAN	3471523115002
Catalog Description	AF09-40-00-41 24-60V50/60HZ Contactor
Long Description	The AF09-40-00-41 is a 4 pole - 690 V IEC or 600 UL contactor with screw terminals, controlling motors up to 4 kW / 400 V AC (AC-3) and switching power circuits up to 25 A (AC-1) or 25 A UL general use. Thanks to the AF technology, the contactor has a wide control voltage range (24-60 V 50/60 Hz), 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

Ordering	
Minimum Order Quantity	1 piece
Customs Tariff Number	85364900

contact blocks and an additional wide range of accessories.

Popular Downloads	
Instructions and Manuals	1SBC101027M6801
Dimension Diagram	DNV_TAE00001AF-4

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Dimensions	
Product Net Width	45 mm
Product Net Depth /	77 mm
Length Product Net Height	86 mm
Product Net Weight	0.27 kg
Technical	
Number of Main Contacts NO	4
Number of Main Contacts NC	0
Number of Auxiliary Contacts NO	C
Number of Auxiliary Contacts NC	C
Standards	IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 508, CSA C22.2 N <sup>o</sup>
Rated Operational Voltage	Main Circuit 690 V
Rated Frequency (f)	Main Circuit 50 / 60 Hz
Conventional Free-air Thermal Current (I <sub>th</sub> )	acc. to IEC 60947-4-1, Open Contactors $q = 40 ^{\circ}\text{C}$ 35 A
Rated Operational Current AC-1 (I <sub>e</sub> )	(690 V) 40 °C 25 A (690 V) 60 °C 25 A (690 V) 70 °C 22 A
Rated Operational Current AC-3 (I <sub>e</sub> )	(415 V) 60 °C 9 A (440 V) 60 °C 9 A (500 V) 60 °C 9 A (690 V) 60 °C 7 A (380 / 400 V) 60 °C 9 A (220 / 230 / 240 V) 60 °C 9 A
Rated Operational Power AC-3 (P <sub>e</sub> )	(400 V) 4 kW (415 V) 4 kW (440 V) 4 kW (500 V) 5.5 kW (690 V) 5.5 kW (380 / 400 V) 4 kW (220 / 230 / 240 V) 2.2 kW
Rated Short-time	at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 150 A
Withstand Current Low Voltage (I <sub>cw</sub> )	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 1 s -empty- A
Maximum Breaking Capacity	cos phi=0.45 (cos phi=0.35 for le > 100 A) at 440 V 250 A cos phi=0.45 (cos phi=0.35 for le > 100 A) at 690 V 106 A
Maximum Electrical Switching Frequency	(AC-1) 600 cycles per hour
Rated Insulation Voltage (U <sub>i</sub> )	acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 690 V acc. to UL/CSA 600 V
Rated Impulse Withstand Voltage (U <sub>imp</sub> )	6 kV
, Maximum Mechanical Switching Frequency	3600 cycles per hour
Rated Control Circuit Voltage (U <sub>c</sub> )	50 Hz 24 60 V 60 Hz 24 60 V DC Operation
Operate Time	Between Coil De-energization and NC Contact Closing 13 98 ms Between Coil De-energization and NO Contact Opening 11 95 ms Between Coil Energization and NC Contact Opening 38 90 ms Between Coil Energization and NO Contact Closing 40 95 ms
Mounting on DIN Rail	TH35-7 5 (35 x 7 5 mm Mounting Rail) acc to IFC 60715

TU25 15 (25	v 15 mm Mai	inting Pail) ac	c +o IEC 60715

Mounting by Screws (not supplied)	2 x M4 screws placed diagonally
Connecting Capacity	Flexible with Ferrule 1/2x 0.75 6 mm²
Main Circuit	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 mm²
Connecting Capacity	Flexible with Ferrule 1/2x 0.75 2.5 mm <sup>2</sup>
Control Circuit	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 mm²
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) 25 A
Tightening Torque	Control Circuit 11 in·lb
UL/CSA	Main Circuit 13 in·lb

#### **Environmental**

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Ambient Air	Close to Contactor for Storage -60 +80 °C
Temperature	Near Contactor for Operation in Free Air -40 70 $^{\circ}$ 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	$5 \dots 300 \text{ Hz 4} \text{ g closed position / 2} \text{ g open position}$
Resistance to Shock acc.	Closed, Shock Direction: B1 25 g
to IEC 60068-2-27	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
RoHS Status	Following EU Directive 2011/65/EU

### Certificates and Declarations (Document Number)

ABS Certificate	ABS_20-2060694-PDA
BV Certificate	BV_2634H24898B0
CB Certificate	CB_SE-108879
CCC Certificate	CCC_2010010304445624
CQC Certificate	CQC2010010304445624 CQC2020010304298240
Declaration of	2020980304001253
Conformity - CCC	2020980304001082
Declaration of Conformity - CE	1SBD250001U1000
Declaration of Conformity - UKCA	1SBD250032U1000
EAC Certificate	EAC_RU_FRME77B03447
Environmental Information	1SBD250147E1000
GL Certificate	DNV-GL_TAE00001AF-3
GOST Certificate	GOST_POCCFR.ME77.B07175.pdf
Instructions and Manuals	1SBC101027M6801

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KC Certificate	KC_HW02016-15007C
LR Certificate	LRS_1300087E1
RINA Certificate	RINA_ELE240318XG
RMRS Certificate	RMRS_1802705280
RoHS Information	1SBD250001U1000
UL Certificate	UL_20171228-E319322_3_1
UL Listing Card	UL_E319322

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	0.27 kg
Package Level 1 EAN	3471523115002
Package Level 2 Units	box 27 piece
Package Level 2 Width	250 mm
Package Level 2 Depth / Length	300 mm
Package Level 2 Height	315 mm
Package Level 2 Gross Weight	14.58 kg
Package Level 3 Units	1296 piece

Classifications	
Object Classification Code	Q
ETIM 4	EC000066 - Magnet contactor, AC-switching
ETIM 5	EC000066 - Magnet contactor, AC-switching
ETIM 6	EC000066 - Power contactor, AC switching
ETIM 7	EC000066 - Power contactor, AC switching
ETIM 8	EC000066 - Power contactor, AC switching
eClass	V11.0 : 27371003
UNSPSC	39121529

#### Categories

 $\textbf{Low Voltage Products and Systems} \rightarrow \textbf{Control Products} \rightarrow \textbf{Contactors} \rightarrow \textbf{Block Contactors}$ 

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