

## PRODUCT-DETAILS

# AS16-30-01-23M

## AS16-30-01-23M 110V50/60HZ Contactor



### General Information

Extended Product Type	AS16-30-01-23M
Product ID	1SBL121001M2301
EAN	3471523049239
Catalog Description	AS16-30-01-23M 110V50/60HZ Contactor
Long Description	<p>AS16 contactors are mainly used for controlling 3-phase motors and generally for controlling power circuits up to 690 V AC or 220 V DC. They are mainly used for controlling 3-phase motors, non-inductive or slightly inductive loads. The AS... series 1-stack 3-pole contactors are of the block type design. - Main poles and auxiliary contact blocks: 3 main poles, 1 built-in auxiliary contact, front-mounted add-on auxiliary contact 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 operated with laminated magnet circuit - Accessories: a wide range of accessories is available.</p>

### 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
UNSPSC	39121529

### Container Information

Package Level 1 Units	40 piece
Package Level 1 Width	293 mm
Package Level 1 Depth / Length	167 mm
Package Level 1 Height	250 mm
Package Level 1 Gross Weight	8.8 kg
Package Level 1 EAN	3471523049239
Package Level 3 Units	960 piece

## Certificates and Declarations (Document Number)

CB Certificate	CB_CN13475-M1
CCC Certificate	CCC_2007010309251577
Declaration of Conformity - CE	1SBD250014U1000
Environmental Information	1SBD250154E1000
GOST Certificate	GOST_POCCCNME77B07822.pdf
Instructions and Manuals	1SBC101020M9701
RoHS Information	1SBD251000E1001
UL Certificate	UL_20120917-E312527-1-1
UL Listing Card	UL_E312527

## Technical UL/CSA

General Use Rating UL/CSA	(600 V AC) 20 A
Horsepower Rating UL/CSA	(120 V AC) Single Phase 3/4 Hp (240 V AC) Single Phase 2 Hp (200 ... 208 V AC) Three Phase 3 Hp (220 ... 240 V AC) Three Phase 5 Hp (440 ... 480 V AC) Three Phase 10 Hp (550 ... 600 V AC) Three Phase 10 Hp
Tightening Torque UL/CSA	Auxiliary Circuit 9 in-lb Control Circuit 9 in-lb Main Circuit 9 in-lb

## Environmental

Ambient Air Temperature	Close to Contactor for Storage -60 ... +80 °C Close to Contactor Fitted with Thermal O/L Relay -25 ... +60 °C Close to Contactor without Thermal O/L Relay -40 ... +70 °C
Climatic Withstand	Category B according to IEC 60947-1 Annex Q
Maximum Operating Altitude Permissible	3000 m
Resistance to Vibrations acc. to IEC 60068-2-6	5 ... 300 Hz 3 g Closed position / 2 g Open position
Resistance to Shock acc. to IEC 60068-2-27	Closed, Shock Direction: B1 10 g Closed, Shock Direction: C1 20 g Closed, Shock Direction: C2 20 g Open, Shock Direction: B1 5 g Open, Shock Direction: C1 9 g Open, Shock Direction: C2 14 g Shock Direction: A 20 g Shock Direction: B2 15 g

## Technical

Number of Main

3

Contacts NO	
Number of Main Contacts NC	0
Number of Auxiliary Contacts NO	0
Number of Auxiliary Contacts NC	1
Standards	IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 508, CSA C22.2 N° 14
Rated Operational Voltage	Auxiliary Circuit 690 V 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 $q = 40\text{ °C } 25\text{ A}$ acc. to IEC 60947-5-1, $q = 40\text{ °C } 10\text{ A}$
Rated Operational Current AC-1 ( $I_e$ )	(690 V) $40\text{ °C } 24\text{ A}$ (690 V) $60\text{ °C } 20\text{ A}$ (690 V) $70\text{ °C } 16\text{ A}$
Rated Operational Current AC-3 ( $I_e$ )	(220 / 230 / 240 V) $60\text{ °C } 15.7\text{ A}$ (380 / 400 V) $60\text{ °C } 15.5\text{ A}$ (415 V) $60\text{ °C } 15.5\text{ A}$ (440 V) $60\text{ °C } 13.6\text{ A}$ (500 V) $60\text{ °C } 12.5\text{ A}$ (690 V) $60\text{ °C } 9\text{ A}$
Rated Operational Power AC-3 ( $P_e$ )	(220 / 230 / 240 V) $4\text{ kW}$ (400 V) $7.5\text{ kW}$ (415 V) $7.5\text{ kW}$ (440 V) $7.5\text{ kW}$ (500 V) $7.5\text{ kW}$ (690 V) $7.5\text{ kW}$
Rated Operational Current AC-15 ( $I_e$ )	(220 / 240 V) $4\text{ A}$ (24 / 127 V) $6\text{ A}$ (400 / 440 V) $3\text{ A}$ (500 V) $2\text{ A}$ (690 V) $2\text{ A}$
Rated Short-time Withstand Current ( $I_{cw}$ )	at $40\text{ °C}$ Ambient Temp, in Free Air, from a Cold State $10\text{ s } 124\text{ A}$ at $40\text{ °C}$ Ambient Temp, in Free Air, from a Cold State $15\text{ min } 24\text{ A}$ at $40\text{ °C}$ Ambient Temp, in Free Air, from a Cold State $1\text{ min } 55\text{ A}$ at $40\text{ °C}$ Ambient Temp, in Free Air, from a Cold State $1\text{ s } 250\text{ A}$ at $40\text{ °C}$ Ambient Temp, in Free Air, from a Cold State $30\text{ s } 75\text{ A}$ for $0.1\text{ s } 140\text{ A}$ for $1\text{ s } 100\text{ A}$
Maximum Breaking Capacity	$\cos\phi=0.45$ ( $\cos\phi=0.35$ for $I_e > 100\text{ A}$ ) at $440\text{ V } 155\text{ A}$ $\cos\phi=0.45$ ( $\cos\phi=0.35$ for $I_e > 100\text{ A}$ ) at $690\text{ V } 90\text{ A}$
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
Rated Operational Current DC-13 ( $I_e$ )	(110 V) $0.55\text{ A} / 60\text{ W}$ (220 V) $0.27\text{ A} / 60\text{ W}$ (125 V) $0.55\text{ A} / 69\text{ W}$ (24 V) $6\text{ A} / 144\text{ W}$ (250 V) $0.27\text{ A} / 68\text{ W}$ (48 V) $2.8\text{ A} / 134\text{ W}$ (72 V) $1\text{ A} / 72\text{ W}$
Rated Insulation Voltage ( $U_i$ )	acc. to UL/CSA 600 V acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) $690\text{ V}$ acc. to IEC 60947-5-1 and VDE 0110 (Gr. C) $690\text{ V}$
Rated Impulse Withstand Voltage ( $U_{imp}$ )	6 kV
Maximum Mechanical Switching Frequency	3600 cycles per hour
Rated Control Circuit Voltage ( $U_c$ )	50 Hz $110\text{ V}$ 60 Hz $110\text{ V}$
Operate Time	Between Coil De-energization and NC Contact Closing $7 \dots 22\text{ ms}$ Between Coil De-energization and NO Contact Opening $5 \dots 19\text{ ms}$ Between Coil Energization and NC Contact Opening $6 \dots 18\text{ ms}$

Between Coil Energization and NO Contact Closing 9 ... 24 ms	
Connecting Capacity Main 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> Flexible with Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup> Rigid 1/2x 0.75 ... 4 mm <sup>2</sup>
Connecting Capacity Auxiliary 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 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 0.75 ... 2.5 mm <sup>2</sup>
Wire Stripping Length	Auxiliary Circuit 9 mm Control Circuit 9 mm Main Circuit 9 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
Terminal Type	Screw Terminals

## Dimensions

Product Net Width	45 mm
Product Net Depth / Length	72.5 mm
Product Net Height	68 mm
Product Net Weight	0.22 kg

## Popular Downloads

Data Sheet, Technical Information	1SBC100173C0201
Instructions and Manuals	1SBC101020M9701

## Ordering

Minimum Order Quantity	40 piece
Customs Tariff Number	85364900

## Categories

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

