

## PRODUCT-DETAILS

# AS16-30-01-20

## AS16-30-01-20 24V50/60HZ Contactor

### General Information

Extended Product Type	AS16-30-01-20
Product ID	1SBL121001R2001
EAN	3471523037205
Catalog Description	AS16-30-01-20 24V50/60HZ 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</p> <p>- Accessories: a wide range of accessories is available.</p>
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### Ordering

Minimum Order Quantity	1 piece
Customs Tariff Number	85364900

### Popular Downloads

Instructions and Manuals	1SBC101020M9701
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CAD Dimensional  
Drawing

2CDC001079B0201

## Dimensions

Product Net Width	45 mm
Product Net Depth / Length	72.5 mm
Product Net Height	68 mm
Product Net Weight	0.22 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	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 $\Theta = 40\text{ °C}$ 25 A acc. to IEC 60947-5-1, $\Theta = 40\text{ °C}$ 10 A
Rated Operational Current AC-1 ( $I_e$ )	(690 V) 40 °C 24 A (690 V) 60 °C 20 A (690 V) 70 °C 16 A
Rated Operational Current AC-3 ( $I_e$ )	(415 V) 60 °C 15.5 A (440 V) 60 °C 13.6 A (500 V) 60 °C 12.5 A (690 V) 60 °C 9 A (380 / 400 V) 60 °C 15.5 A (220 / 230 / 240 V) 60 °C 15.7 A
Rated Operational Power AC-3 ( $P_e$ )	(400 V) 7.5 kW (415 V) 7.5 kW (440 V) 7.5 kW (500 V) 7.5 kW (690 V) 7.5 kW (220 / 230 / 240 V) 4 kW
Rated Operational Current AC-15 ( $I_e$ )	(500 V) NC 2 (500 V) 2 A (690 V) 2 A (24 / 127 V) 6 A (220 / 240 V) 4 A (400 / 440 V) 3 A
Rated Short-time Withstand Current Low Voltage ( $I_{cw}$ )	at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 124 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 24 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 55 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 250 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 75 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 <sub>e</sub> > 100 A) at 440 V 155 A cos phi=0.45 (cos phi=0.35 for I <sub>e</sub> > 100 A) at 690 V 90 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 <sub>g</sub> )	(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
Rated Insulation Voltage (U <sub>i</sub> )	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 <sub>imp</sub> )	Auxiliary Circuit 6 kV
Maximum Mechanical Switching Frequency	3600 cycles per hour
Rated Control Circuit Voltage (U <sub>c</sub> )	50 Hz 24 V 60 Hz 24 V
Operate Time	Between Coil De-energization and NC Contact Closing 7 ... 22 ms Between Coil De-energization and NO Contact Opening 5 ... 19 ms Between Coil Energization and NC Contact Opening 6 ... 18 ms Between Coil Energization and NO Contact Closing 9 ... 24 ms
Connecting Capacity Main 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 ... 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 IP20
Terminal Type	Screw Terminals

## 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 (200 ... 208 V AC) Three Phase 3 hp (220 ... 240 V AC) Three Phase 5 hp (240 V AC) Single Phase 2 hp (440 ... 480 V AC) Three Phase 10 hp (550 ... 600 V AC) Three Phase 10 hp
Tightening Torque	Auxiliary Circuit 9 in-lb

UL/CSA

Control Circuit 9 in-lb

Main Circuit 9 in-lb

## 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 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 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

## Certificates and Declarations (Document Number)

CB Certificate	CB_CN13475-M1
CCC Certificate	CCC_2007010309251577
CQC Certificate	CQC2007010309251577
Declaration of Conformity - CCC	2020980304001224
Declaration of Conformity - CE	1SBD250014U1000
Declaration of Conformity - UKCA	1SBD250049U1000
Environmental Information	1SBD250154E1000
GOST Certificate	GOST_POCCCNME77B07822.pdf
Instructions and Manuals	1SBC101020M9701
REACH Declaration	2CMT2021-006202
RoHS Information	2CMT2021-006277
UL Certificate	UL_20120917_E312527_1_1
UL Listing Card	UL_E312527

## Container Information

Package Level 1 Units	1 piece
Package Level 1 Width	78 mm
Package Level 1 Depth / Length	80 mm
Package Level 1 Height	48 mm
Package Level 1 Gross Weight	0.22 kg
Package Level 1 EAN	3471523037205
Package Level 2 Units	40 piece

Package Level 2 Width	250 mm
Package Level 2 Depth / Length	195 mm
Package Level 2 Height	315 mm
Package Level 2 Gross Weight	8.8 kg
Package Level 3 Units	960 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
IDEA Granular Category Code (IGCC)	4761 >> Magnet contactor, AC-switching
E-Number (Sweden)	3210515

Categories

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