



PRODUCT-DETAILS

ESB16-20N-01

ESB16-20N-01 Installation Contactor (NO) 16 A - 2 NO - 0 NC - 24 V - Control Circuit DC



General Information

Extended Product Type	ESB16-20N-01
Product ID	1SBE111111M0120
Catalog Description	ESB16-20N-01 Installation Contactor (NO) 16 A - 2 NO - 0 NC - 24 V - Control Circuit DC
Long Description	<p>The ESB16..N installation contactors are used to control single loads up to 16 A and can be operated by AC or DC.</p> <p>These contactors are made for use in household applications as well as in industrial environments.</p> <p>The following benefits are provided: Hum-free operation, low power consumption and integrated overvoltage protection. Various contact combinations and accessories are available.</p>

Ordering

Minimum Order Quantity	12 piece
Customs Tariff Number	85365080

Popular Downloads

EPLAN Data	9AAC404713_EPLAN
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Data Sheet, Technical Information	2CDC103051C0201
Instructions and Manuals	2CDC103043M6801
CAD Dimensional Drawing	2CDC001079B0201

Dimensions

Product Net Width	18 mm
Product Net Depth / Length	65 mm
Product Net Height	85 mm
Product Net Weight	0.14 kg
Dimension Diagram	1SBB505186D3001

Technical

Number of Main Contacts NO	2
Number of Main Contacts NC	0
Number of Auxiliary Contacts NO	0
Number of Auxiliary Contacts NC	0
Number of Poles	2P
Standards	IEC/EN 60947-1 IEC/EN 60947-4-1 UL 60947-1 UL 60947-4-1 IEC/EN 61095 IEC 60335-2-40 A2L
Rated Operational Voltage	Main Circuit 220 V DC Main Circuit 250 V AC
Rated Frequency (f)	Control Circuit DC Control Circuit 50 Hz Control Circuit 60 Hz Control Circuit 400 Hz Main Circuit DC Main Circuit 50 Hz Main Circuit 60 Hz
Rated Operational Current AC-1 (I _e)	(NO) 16 A
Rated Operational Current AC-3 (I _e)	(230 V) Single Phase, NO 6 A
Rated Operational Current AC-7a (I _e)	(NO) 16 A
Rated Operational Current AC-7b (I _e)	(230 V) Single Phase, NO 6 A
Rated Operational Power AC-1 (P _e)	(230 V) Single Phase, NO 3.7 kW
Rated Operational Power AC-3 (P _e)	(230 V) Single Phase, NO 0.9 kW
Rated Operational Power AC-7a (P _e)	(230 V) Single Phase, NO 3.7 kW
Rated Operational Power AC-7b (P _e)	(230 V) Single Phase, NO 0.9 kW
Rated Breaking Capacity AC-3	8 x I _e / AC-3

Rated Making Capacity AC-3	10 x I _e / AC-3
Rated Short-time Withstand Current Low Voltage (I _{cw})	at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 72 A
Rated Insulation Voltage (U _i)	400 V
Rated Impulse Withstand Voltage (U _{imp})	6 kV
Electrical Durability	AC-1 (NO) 150000 cycle AC-3 (NO) 150000 cycle AC-7a (NO) 150000 cycle AC-7b (NO) 150000 cycle
Maximum Electrical Switching Frequency	(AC-1) 300 cycles per hour (AC-3) 600 cycles per hour (AC-7a) 300 cycles per hour (AC-7b) 600 cycles per hour
Mechanical Durability	Nr. Operations 1000000 cycle
Coil Operating Limits	(acc. to IEC 60947-4-1) 0.85 ... 1.1 x U _c (at θ ≤ 55 °C)
Rated Control Circuit Voltage (U _c)	24 V
Coil Consumption	Average Holding Value 50 / 60 Hz 2.5 V-A Average Holding Value DC 2.5 W Average Pull-in Value 50 Hz 2.5 V-A Average Pull-in Value 60 Hz 2.5 V-A Average Pull-in Value DC 2.5 W
Power Loss	at Rated Operating Conditions AC-1 per Pole 0.9 W
Mounting on DIN Rail	TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715 TH35-7.5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715
Connecting Capacity Main Circuit	Flexible with Ferrule 1x 1 ... 6 mm ² Flexible with Ferrule 2x 1 ... 2.5 mm ² Flexible with Insulated Ferrule 1x 1 ... 6 mm ² Flexible with Insulated Ferrule 2x 1 ... 1.5 mm ² Flexible 1x 1 ... 6 mm ² Flexible 2x 1 ... 4 mm ² Rigid 1x 1 ... 10 mm ² Rigid 2x 1 ... 4 mm ²
Connecting Capacity Control Circuit	Flexible with Ferrule 1x 1 ... 2.5 mm ² Flexible with Ferrule 2x 0.75 ... 1.5 mm ² Flexible with Insulated Ferrule 1x 1 ... 2.5 mm ² Flexible with Insulated Ferrule 2x 0.75 ... 1 mm ² Flexible 1x 1 ... 2.5 mm ² Flexible 2x 1 ... 1.5 mm ² Rigid 1x 0.5 ... 4 mm ² Rigid 2x 0.75 ... 2.5 mm ²
Wire Stripping Length	Control Circuit 7 mm Main Circuit 10 mm
Degree of Protection	IP20
Recommended Screw Driver	Control Circuit Pozidriv 1 Main Circuit Pozidriv 1
Tightening Torque	Control Circuit 0.9 N·m Main Circuit 1.2 N·m
Terminal Type	Screw Terminals
Width in Number of Modular Spacings	1.0
Product Name	Installation Contactor

Technical UL/CSA

Maximum Operating Voltage UL/CSA	Main Circuit 240 V AC
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General Use Rating UL/CSA	(acc. to UL 240 V) 16 A
Horsepower Rating UL/CSA	(220 ... 240 V AC) Single Phase, NO 0.75 Hp
Connecting Capacity Main Circuit UL/CSA	Solid 14-8 AWG Stranded 14-8 AWG
Connecting Capacity Control Circuit UL/CSA	Solid 16-10 AWG Stranded 16-10 AWG
Tightening Torque UL/CSA	Control Circuit 8 in-lb Main Circuit 11 in-lb
Full Load Amps Motor Use	(220 ... 240 V AC) Single Phase, NO 6.9 A

Environmental

Ambient Air Temperature	Operation -25 ... +55 °C Storage -40 ... +80 °C
Maximum Operating Altitude Permissible	2000 m
Resistance to Shock acc. to IEC 60068-2-27	11 ms Pulse 15g
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
Toxic Substances Control Act - TSCA	2CMT2023-006525
WEEE B2C / B2B	Business To Consumer
WEEE Category	5. Small Equipment (No External Dimension More Than 50 cm)

ABB EcoSolutions

ABB EcoSolutions	Yes
ABB Site Meeting Group Waste To Landfill Target	No non-hazardous waste is sent to a landfill
End Of Life Disassembling Instructions	1SBC100156C0268
Environmental Product Declaration - EPD	1SAC200416H0001

Certificates and Declarations

A2L Certificate – IEC	1SAA920000-4601
ABS Certificate	1SAA920000-0101
CB Certificate	1SAA920007-2001
CQC Certificate	CQC2018010304057353 CQC2018010304057344
Declaration of Conformity - CCC	2020980304001370 2020980304001371

Declaration of Conformity - CE	1SAD101100-3301
Declaration of Conformity - UKCA	1SAD201100-3301
DNV Certificate	1SAA920000-0306
EAC Certificate	1SAA920003-2701
NF Certificate	1SAA920002-1201
RMRS Certificate	1SAA920000-0705
UL Certificate	E191658-19960301

Container Information

Package Level 1 Units	box 12 piece
Package Level 1 Width	88 mm
Package Level 1 Depth / Length	222 mm
Package Level 1 Height	69.5 mm
Package Level 1 Gross Weight	1.68 kg
Package Level 1 EAN	3471523004726

External Classifications and Standards

Object Classification Code	Q
ETIM 7	EC001653 - Installation contactor for distribution board
ETIM 8	EC001653 - Installation contactor for distribution board
ETIM 9	EC001653 - Installation contactor for distribution board
eClass	V11.0 : 27142308
UNSPSC	39121529
IDEA Granular Category Code (IGCC)	4759 >> Installation contactor for distribution board

Accessories

Identifier	Description	Type	Quantity	Unit Of Measure
1SAE901901R1011	EH04-11N Auxiliary Contact - 0 NO - 0 NC - Auxiliary Circuit 50 Hz	EH04-11N	1	piece
1SAE901901M1011	EH04-11N Auxiliary Contact - 0 NO - 0 NC - Auxiliary Circuit 50 Hz	EH04-11N	1	piece
1SAE901901R1020	EH04-20N Auxiliary Contact - 0 NO - 0 NC - Auxiliary Circuit 50 Hz	EH04-20N	1	piece
1SAE901901M1020	EH04-20N Auxiliary Contact - 0 NO - 0 NC - Auxiliary Circuit 50 Hz	EH04-20N	1	piece

Categories

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

Low Voltage Products and Systems → Modular DIN Rail Products → Command and Signalling Devices → Installation Contactors

