

PRODUCT-DETAILS

AF300B-30-11-72

AF300B-30-11 20-60V DC Contactor



General Information

Extended Product Type	AF300B-30-11-72
Product ID	1SFL557063R7211
EAN	7320500258484
Catalog Description	AF300B-30-11 20-60V DC Contactor
Long Description	A 3-phase Contactor suitable for Rail way applications application. Operated with a wide voltage control voltage range 20-60 V, DC

Ordering

Minimum Order Quantity	1 piece
Customs Tariff Number	85364900
Replacement Product ID (NEW)	1SFL587063R1122

Popular Downloads

Data Sheet, Technical Information	1SBC100192C0206
Instructions and Manuals	1SFC380003-89
Dimension Diagram	53540930-2

Dimensions

Product Net Width	140 mm
Product Net Depth / Length	180.5 mm
Product Net Height	227 mm
Product Net Weight	5.5 kg

Technical

Number of Main Contacts NO	3
Number of Main Contacts NC	0
Number of Auxiliary Contacts NO	1
Number of Auxiliary Contacts NC	1
Standards	IEC/EN 60947-1, IEC/EN 60947-4-1, UL 60947-4-1, CSA C22.2 No. 60947-4-1, IEC 60077-1 (applicable parts), IEC 60077-2 (applicable parts), EN 50155 (applicable parts), TR CU 001/2011, IEC 61373, For compliance confirmation on applicable parts based on your application and combination, please consult your ABB sales representatives.
Rated Operational Voltage	Main Circuit 690 V
Conventional Free-air Thermal Current (I_{th})	acc. to IEC 60947-4-1, Open Contactors q = 40 °C 500 A
Rated Operational Current AC-1 (I_e)	(690 V) 40 °C 500 (690 V) 55 °C 400 (690 V) 70 °C 325
Rated Operational Current AC-3 (I_e)	(415 V) 55 °C 300 A (440 V) 55 °C 280 A (500 V) 55 °C 280 A (690 V) 55 °C 280 A (380 / 400 V) 55 °C 305 A (220 / 230 / 240 V) 55 °C 305
Rated Operational Power AC-3 (P_e)	(415 V) 160 kW (440 V) 160 kW (500 V) 200 kW (690 V) 250 kW (380 / 400 V) 160 kW (220 / 230 / 240 V) 90 kW
Rated Breaking Capacity AC-3 acc. to IEC 60947-4-1	8 x I_e AC-3
Rated Making Capacity AC-3 acc. to IEC 60947-4-1	10 x I_e AC-3
Short-Circuit Protective Devices	gG Type Fuses 500 A
Rated Short-time Withstand Current (I_{cw})	at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 2400 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 500 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 1100 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 3500 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 1500 A
Maximum Breaking Capacity	cos phi=0.45 (cos phi=0.35 for $I_e > 100$ A) at 440 V 3000 A cos phi=0.45 (cos phi=0.35 for $I_e > 100$ A) at 690 V 2500 A
Maximum Electrical Switching Frequency	(AC-1) 300 cycles per hour (AC-2 / AC-4) 150 cycles per hour (AC-3) 300 cycles per hour

Rated Operational Current DC-1 (I_e)	(110 V) 2 Poles in Series, 40 °C 450 A (220 V) 3 Poles in Series, 40 °C 450 A
Rated Operational Current DC-3 (I_e)	(110 V) 2 Poles in Series, 40 °C 450 A (220 V) 3 Poles in Series, 40 °C 450 A
Rated Operational Current DC-5 (I_e)	(110 V) 2 Poles in Series, 40 °C 450 A (220 V) 3 Poles in Series, 40 °C 450 A
Rated Insulation Voltage (U_i)	acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 1000 V acc. to UL/CSA 600 V
Rated Impulse Withstand Voltage (U_{imp})	Main Circuit 8 kV
Mechanical Durability	5 million
Maximum Mechanical Switching Frequency	300 cycles per hour
Coil Operating Limits	(acc. to IEC 60947-4-1) 0.85 x U_c Min. ... 1.1 x U_c Max. (at $\theta \leq 70^\circ\text{C}$)
Rated Control Circuit Voltage (U_c)	DC Operation 20 ... 60 V
Coil Consumption	Holding at Max. Rated Control Circuit Voltage 50 Hz 10 V·A Holding at Max. Rated Control Circuit Voltage 60 Hz 10 V·A Holding at Max. Rated Control Circuit Voltage DC 2 W Pull-in at Max. Rated Control Circuit Voltage 50 Hz 470 V·A Pull-in at Max. Rated Control Circuit Voltage 60 Hz 470 V·A Pull-in at Max. Rated Control Circuit Voltage DC 520 W
Operate Time	Between Coil De-energization and NC Contact Closing 40 ... 50 ms Between Coil De-energization and NO Contact Opening 43 ... 53 ms Between Coil Energization and NC Contact Opening 45 ... 85 ms Between Coil Energization and NO Contact Closing 50 ... 90 ms
Connecting Capacity Main Circuit	Bar 32 mm ² Rigid Al-Cable 2 x 95 ... 120 mm ² Rigid Cu-Cable 16 ... 240 mm ²
Connecting Capacity Auxiliary Circuit	Flexible with Ferrule 2x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm ² Flexible 1x0.75 ... 2.5 mm ² Solid 2 x 1 ... 4 mm ² Stranded 1 x 1 ... 4 mm ²
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 IP00
Connecting Terminals (delivered in open position) Main Poles	Flat type c/w screws and bolts
Terminal Type	Main Circuit: Bars

Technical UL/CSA

Maximum Operating Voltage UL/CSA	Main Circuit 600 V
General Use Rating UL/CSA	(600 V AC) 400 A
Horsepower Rating UL/CSA	(200 V AC) Three Phase 100 hp (208 V AC) Three Phase 100 hp (220 ... 240 V AC) Three Phase 100 hp (440 ... 480 V AC) Three Phase 250 hp (550 ... 600 V AC) Three Phase 300 hp

Environmental

Ambient Air Temperature	Close to Contactor Fitted with Thermal O/L Relay (0.85 ... 1.1 U_c) -25 ... +50 °C
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Close to Contactor without Thermal O/L Relay (0.85 ... 1.1 Uc) -40 ... +70 °C
Close to Contactor for Storage -40 ... +70 °C

Maximum Operating Altitude Permissible	3000 m
Resistance to Shock acc. to IEC 60068-2-27	Shock Direction: A 5 K40 Shock Direction: B1 5 K40 Shock Direction: B2 5 K40 Shock Direction: C1 5 K40 Shock Direction: C2 5 K40
RoHS Status	Following EU Directive 2011/65/EU

Certificates and Declarations (Document Number)

BV Certificate	13409/C0 BV
CB Certificate	SE-69480
CCC Certificate	2020980304001554
CQC Certificate	CQC2007010304256681
Declaration of Conformity - CCC	2020980304001554
Declaration of Conformity - CE	2CMT2015-005436
EAC Certificate	9AKK107046A8618
Environmental Information	1SFC101008D0201
GL Certificate	GL_20262-04HH
Instructions and Manuals	1SFC380003-89
LOVAG Certificate	SE-0115200
LR Certificate	LR_04-00015-E1
RINA Certificate	ELE060313XG/002
RMRS Certificate	RMRS_12-03683-315
RoHS Information	2CMT2015-005436

Container Information

Package Level 1 Units	box 1 piece
Package Level 1 Width	203 mm
Package Level 1 Depth / Length	245 mm
Package Level 1 Height	188 mm
Package Level 1 Gross Weight	6.2 kg
Package Level 1 EAN	7320500258484

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
eClass	V11.0 : 27371003

UNSPSC	39121529
IDEA Granular Category Code (IGCC)	4755 >> Contactors

Categories

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

