

Representative Image

Alternate Catalog No. AF38ZB-22-00-21
Catalog No. 1SBL296561R2100

Description: AF38ZB-22-00-21 24-60V50/60HZ 20-60VDC Contactor

UPC No 3471523125117

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AF38ZB 4-pole contactors comply with the latest railway rolling stock standards and allow installation in passengers or driver cabins for trains frequently operating tunnels or undergrounds. They are mainly used for controlling non-inductive or slightly inductive loads and generally for controlling power circuits up to 690 V AC and 440 V DC. Improve the compactness of the installations thanks to reduced dimension and side-by-side mounting requiring less 15% width (without spacing) from -40 °C up to +70 °C. Meet all main rollling stocks standards: IEC 60947-4-1, IEC 60947-5-1, IEC 60077-1/-2 and applicable parts of EN 50155 standards, shocks and vibration withstand conforming to IEC 61373 cat. 1, class B. Reach the highest levels in fire and smoke behaviour with compliance to European standard EN 45545-2 (HL2, HL3 hazard levels) in group mounting. Reduce train energy with lighter devices and requiring 68% less coil energy consumption in operation. Electronic coil interface handling large DC voltage fluctuation voltage, including several Uc DC control voltages used for battery supply and accepting sinusoïdal AC 50/60 Hz control supplies included inside Ucmin.... Ucmax voltage range. Max permitted AC 50/60 Hz control voltage must not be exceeded (see technical data). Wide range of auxiliary contact blocks for front and side mounting.

Descriptors

Category	AF Contactors
Block Contactor Type	4-Pole Contactor

Specifications

Product Type	AF
General Use Rating UL/CSA	(600 V AC) 55 A
Object Classification Code	Q
Terminal Type	Screw Terminals
Rated Control Circuit Voltage	50 Hz /60 Hz 24 ... 60 V DC Operation 20 ... 60 V
Number of Main Contacts NO	2
Number of Main Contacts NC	2
Climatic Withstand	Category B according to IEC 60947-1 Annex Q
Number of Auxiliary Contacts NO	0
RoHS Status	Following EU Directive 2011/65/EU
Reference Ambient Air Temperature	Close to Contactor for Storage -60 ... +80 °C Near Contactor for Operation in Free Air -40 ... +70 °C
Rated Operational Voltage	Main Circuit 690 V
Number of Auxiliary Contacts NC	0
Maximum Operating Altitude Permissible	3000 m
Rated Operational Current AC-1	(690 V) 40 °C 55 A (690 V) 60 °C 45 A (690 V) 70 °C 37 A
Rated Operational Power AC-3	(220 / 230 / 240 V) 5.5 KWT (415 V) 11 KWT (440 V) 11 KWT (500 V) 11 KWT (690 V) 9 KWT (400 V) 11 KWT
Conventional Free-air Thermal Current	acc. to IEC 60947-4-1, Open Contactors q = 40 °C 55 A
Rated Frequency	Main Circuit 50Hz Main Circuit 60 Hz

by ABB

Specifications

Rated Short-time Withstand Current	at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 300 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 55 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 150 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 450 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 225 A for 1 s - A
Rated Operational Current AC-3	(220 / 230 / 240 V) 60 °C 23.2 A (380 / 400 V) 60 °C 22 A (415 V) 60 °C 21.2 A (440 V) 60 °C 20 A (500 V) 60 °C 17.6 A (690 V) 60 °C 10.5 A
Maximum Electrical Switching Frequency	AC-1 600 cycles per hour
Rated Insulation Voltage	acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 690 V
Maximum Mechanical Switching Frequency	3600 cycles per hour
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
Secondary Rated Impulse Withstand Voltage	6 kV
Connecting Capacity Main Circuit	Rigid 1/2x 1.5 ... 16 m² Flexible with Ferrule 1/2x 1.5 ... 16 m² Flexible with Insulated Ferrule 1x 1.5 ... 16 m²/2x 1.5 ... 16 m²
Connecting Capacity Control Circuit	Flexible with Ferrule 1/2x 0.75 ... 2.5 m² Flexible with Insulated Ferrule 1x 0.75 ... 2.5 m²/2x 0.75 ... 1.5 m² Rigid 1/2x 1 ... 2.5 m²
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
Wire Stripping Length	Control Circuit 10 mm Main Circuit 12 mm

Classifications

ETIM 4	EC000066 - Magnet contactor, AC-switching
ETIM 6.0	EC000066 - Power contactor, AC switching
ETIM 7	EC000066 - Power contactor, AC switching
ETIM 5.0	EC000066 - Magnet contactor, AC-switching

Dimensions

Product Net Weight	0.41 kg
Product Net Depth / Length	101 mm
Product Net Width	45 mm
Product Net Height	86 mm

Package Information

Package Level 1 Width	87 mm
Package Level 1 Height	47 mm
Package Level 1 Depth / Length	103 mm
Package Level 1 EAN	3471523125117
Package Level 1 Units	box 1 piece
Package Level 2 Height	315 mm
Package Level 1 Gross Weight	0.41 kg
Package Level 2 Units	18 piece
Package Level 3 Units	864 piece
Package Level 2 Depth / Length	300 mm

Package Information

Package Level 2 Gross Weight	14.76 kg

Ordering

Minimum Order Quantity	1
Customs Tariff Number	85364900