

# AF09Z-30-10-21



AF09Z-30-10-21 24-60V50/60HZ 20-60VDC Contactor

## General Information

Extended Product Type	AF09Z-30-10-21
Product ID	1SBL136001R2110
EAN	3471523113213
Catalog Description	AF09Z-30-10-21 24-60V50/60HZ 20-60VDC Contactor
Long Description	<p>AF09Z contactors are used for controlling power circuits up to 690 V AC and 220 V DC. They are mainly used for controlling 3-phase motors, non-inductive or slightly inductive loads. AF..Z contactors include an electronic coil interface accepting a wide control voltage <math>U_c \text{ min. } \dots U_c \text{ max.}</math> Only four coils cover control voltages between 24...250 V 50/60 Hz or 12...250 V DC. AF..Z contactors can manage large control voltage variations. One coil can be used for different control voltages used worldwide without any coil change. AF..Z contactors allow direct control by PLC-output <math>\geq 24 \text{ V DC } 500 \text{ mA}</math> and obtain a reduced holding coil consumption. AF..Z contactors withstand short voltage dips and voltage sags (SEMI F47-0706 compliance) between 24...250 V 50/60 Hz AF..Z contactors have built-in surge protection and do not require additional surge suppressors The AF... 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 and side-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 or DC operated - Accessories: a wide range of accessories is available.</p>

## Ordering

Minimum Order Quantity	1 piece
Customs Tariff Number	85364900

## Popular Downloads

Data Sheet, Technical Information	1SBC101401D0201
Instructions and Manuals	1SBC101027M6801

## Dimensions

Product Net Width	45 mm
Product Net Depth / Length	77 mm
Product Net Height	86 mm
Product Net Weight	0.31 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	0
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 $q = 40\text{ °C}$ 35 A acc. to IEC 60947-5-1, $q = 40\text{ °C}$ 16 A
Rated Operational Current AC-1 ( $I_e$ )	(690 V) $40\text{ °C}$ 25 A (690 V) $60\text{ °C}$ 25 A (690 V) $70\text{ °C}$ 22 A
Rated Operational Current AC-3 ( $I_e$ )	(220 / 230 / 240 V) $60\text{ °C}$ 9 A (380 / 400 V) $60\text{ °C}$ 9 A (415 V) $60\text{ °C}$ 9 A (440 V) $60\text{ °C}$ 9 A (500 V) $60\text{ °C}$ 9.5 A (690 V) $60\text{ °C}$ 7 A
Rated Operational Power AC-3 ( $P_e$ )	(220 / 230 / 240 V) 2.2 kW (380 / 400 V) 4 kW (400 V) 4 kW (415 V) 4 kW (440 V) 4 kW (500 V) 5.5 kW (690 V) 5.5 kW
Rated Operational Current AC-15 ( $I_e$ )	(220 / 240 V) 4 A (24 / 127 V) 6 A (400 / 440 V) 3 A (500 V) 2 A (690 V) 2 A
Rated Short-time Withstand Current ( $I_{cw}$ )	at $40\text{ °C}$ Ambient Temp, in Free Air, from a Cold State 10 s 150 A at $40\text{ °C}$ Ambient Temp, in Free Air, from a Cold State 15 min 35 A at $40\text{ °C}$ Ambient Temp, in Free Air, from a Cold State 1 min 60 A at $40\text{ °C}$ Ambient Temp, in Free Air, from a Cold State 1 s 300 A at $40\text{ °C}$ Ambient Temp, in Free Air, from a Cold State 30 s 80 A for 0.1 s 140 A for 1 s 100 A
Maximum Breaking Capacity	$\cos\phi=0.45$ ( $\cos\phi=0.35$ for $I_e > 100\text{ A}$ ) at 440 V 250 A $\cos\phi=0.45$ ( $\cos\phi=0.35$ for $I_e > 100\text{ A}$ ) at 690 V 106 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 A / 60 W (220 V) 0.27 A / 60 W (400 V) 0.15 A / 60 W (500 V) 0.13 A / 65 W (600 V) 0.1 A / 60 W (125 V) 0.55 A / 69 W (24 V) 6 A / 144 W (250 V) 0.27 A / 68 W (48 V) 2.8 A / 134 W (72 V) 1 A / 72 W
Rated Insulation Voltage ( $U_i$ )	acc. to UL/CSA 600 V acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 690 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 24 ... 60 V 60 Hz 24 ... 60 V DC Operation 20 ... 60 V
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