



**Electric Automation**  
Automation specialists

Reference: AF75-22-00  
Code: 1SBL417501R7200

AF75-22-00 20-60V DC Contactor

Buy it at Electric Automation Network



AF75 4-pole contactors are mainly used for controlling non-inductive or slightly inductive loads (i.e. resistance furnaces...) and generally for controlling power circuits up to 690 V AC and 440 V DC. The contactors can also be used for many other applications such lighting... The AF... contactors are fitted with an electronic coil interface which accepts a wide control voltage range, on AC 50/60 Hz or DC supplies. The same contactor can accept various supply voltages according to the different countries where the electrical equipment will be installed, or some fluctuation in the control voltage due to the local supply or network. The AF... contactors are also fully suitable for operation in AC or DC control circuit liable to voltage interruptions or voltage dip risks. Advantages: - Wide voltage range, e.g. 100 ... 250 V AC and DC - Can manage large voltage variations - Reduced power consumption - Very distinct closing and opening - Noise free - Can withstand voltage interruptions or voltage dips in the control supply ( $\leq 20$  ms). The AF... series 4-pole contactors are of the block type design. - Main poles and auxiliary contact blocks: 2 N.O. + 2 N.C. main poles, front and side-mounted add-on auxiliary contact blocks - Control circuit: AC or DC operated - Accessories: a wide range of accessories is available.

#### Ordering

EAN:	3471522115423
Minimum Order Quantity:	1 piece
Customs Tariff Number:	85369085

#### Dimensions

Product Net Width:	92 mm
Product Net Depth:	119.5 mm
Product Net Height:	110 mm

Product Net Weight:	1.420 kg
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## Container Information

Package Level 1 Units:	1 piece
Package Level 1 Width:	142 mm
Package Level 1 Length:	190 mm
Package Level 1 Height:	136 mm
Package Level 1 Gross Weight:	1.42 kg
Package Level 1 EAN:	3471522115423
Package Level 2 Units:	8 piece
Package Level 3 Units:	84 piece

## Technical

Number of Main Contacts NO:	2
Number of Main Contacts NC:	2
Number of Auxiliary Contacts NO:	0
Number of Auxiliary Contacts NC:	0
Rated Operational Voltage:	Main Circuit 690 V
Conventional Free-air Thermal Current ( $I_{th}$ ):	acc. to IEC 60947-4-1, Open Contactors $\theta = 40\text{ °C}$ 125 A
Rated Operational Current AC-1 ( $I_e$ ):	(690 V) 40 °C 125 A (690 V) 55 °C 105 A (690 V) 70 °C 85 A
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 160 A
Rated Short-time Withstand Current ( $I_{cw}$ ):	at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 650 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 135 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 250 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1000 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 370 A
Maximum Breaking Capacity:	$\cos \phi = 0.45$ ( $\cos \phi = 0.35$ for $I_e > 100\text{ A}$ ) at 440 V 1300 A $\cos \phi = 0.45$ ( $\cos \phi = 0.35$ for $I_e > 100\text{ A}$ ) at 690 V 630 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 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 ( $U_{imp}$ ):	8 kV

Mechanical Durability:	10 million
Maximum Mechanical Switching Frequency:	300 cycles per hour
Rated Control Circuit Voltage (U <sub>c</sub> ):	DC Operation 20 ... 60 V
Coil Consumption:	Pull-in at Max. Rated Control Circuit Voltage 50 Hz 210 V·A Pull-in at Max. Rated Control Circuit Voltage 60 Hz 210 V·A Holding at Max. Rated Control Circuit Voltage 60 Hz 7 V·A Holding at Max. Rated Control Circuit Voltage 60 Hz 2.8 W Holding at Max. Rated Control Circuit Voltage 50 Hz 7 V·A Holding at Max. Rated Control Circuit Voltage 50 Hz 2.8 W
Operate Time:	Between Coil Energization and NO Contact Closing 30 ... 100 ms Between Coil De-energization and NO Contact Opening 30 ... 110 ms Between Coil De-energization and NC Contact Closing 35 ... 115 ms Between Coil Energization and NC Contact Opening 27 ... 95 ms
Connecting Capacity-Main Circuit:	Flexible with Cable End6 ... 16 mm <sup>2</sup> Rigid Cable6 ... 25 mm <sup>2</sup>
Connecting Capacity-Auxiliary Circuit:	Flexible with Cable End0.75 ... 2.5 mm <sup>2</sup> Rigid Cable1 ... 4 mm <sup>2</sup>
Degree of Protection:	acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP20
Connecting terminals (delivered in open position) Main poles:	M 6 (+,-) pozidriv 2 screws with 1x (13 x 10 mm) connector
Terminal Type:	Screw Terminals

## Environmental

Ambient Air Temperature:	Near Contactor for Operation in Free Air -40 ... +70 °C Close to Contactor for Storage -60 ... +80 °C
Climatic Withstand:	acc. to IEC 60068-2-30 and 60068-2-11 - UTE C 63-100 specification II
Maximum Operating Altitude Permissible:	3000 m
Resistance to Shock acc. to IEC 60068-2-27:	Shock Direction: A 20 g Closed, Shock Direction: B1 10 g Open, Shock Direction: B1 3 g Shock Direction: B2 10 g Shock Direction: C1 20 g Shock Direction: C2 20 g
RoHS Status:	No declaration needed

## Certificates and Declarations (Document Number)

CCC Certificate:	CCC_2008010304269002
CSA Certificate:	CSA_1033838_LR056745

cUL Certificate:	UL_071301E39231
Declaration of Conformity - CE:	1SBD250811C2000
GOST Certificate:	GOST_POCCFRME77B07175
RoHS Information:	1SBC101059D0201
UL Certificate:	UL_071301E39231

## Classifications

ETIM 5:	EC000066 - Magnet contactor, AC-switching
UNSPSC:	39121529