

## Product No: AF09Z300121

ABB CONTACTOR 25A AC19A AC3 3P 3NO 24-60VAC20-60VDC COIL DIRECT PLC CONNECT > 500MA AF09Z300121



### General Information

Brand	ABB
Product Type	AF Contactors

### Technical Attributes

Cable Sections - Auxiliary Circuit	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm <sup>2</sup> Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm <sup>2</sup> Rigid Solid 1/2x 1 ... 2.5 mm <sup>2</sup> Rigid Stranded 1/2x 1 ... 2.5 mm <sup>2</sup>
Cable Sections - Control Circuit	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm <sup>2</sup> Rigid Solid 1/2x 1 ... 2.5 mm <sup>2</sup> Rigid Stranded 1/2x 1 ... 2.5 mm <sup>2</sup>
Cable Sections - Main Circuit	Flexible with Ferrule 1/2x 0.75 ... 6 mm <sup>2</sup> Flexible with Insulated Ferrule 1x 0.75 ... 4 mm <sup>2</sup> Flexible with Insulated Ferrule 2x 0.75 ... 2.5 mm <sup>2</sup> Rigid Solid 1/2x 1 ... 4 mm <sup>2</sup> Rigid Stranded 1/2x 1 ... 6 mm <sup>2</sup>
Clamp Type	Screw Terminals
Conventional Free-Air Thermal Current - I <sub>th</sub> (A)	acc. to IEC 60947-4-1, Open Contactors $\theta = 40\text{ }^{\circ}\text{C}$ 35 A acc. to IEC 60947-5-1, $\theta = 40\text{ }^{\circ}\text{C}$ 16 A
DIN Rail Mounting	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
Maximum Breaking Capacity	cos phi=0.45 (cos phi=0.35 for I <sub>e</sub> > 100 A) at 440 V 250 A

cos phi=0.45 (cos phi=0.35 for I<sub>e</sub> > 100 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
Maximum Mechanical Switching Frequency	3600 cycles per hour
No. of Auxiliary Contacts	1 NC
No. of Main Contacts	3 NO
No. of Poles	3
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
Rated Control Voltage	50 Hz 24 ... 60 V 60 Hz 24 ... 60 V DC Operation 20 ... 60 V
Rated Frequency (Hz)	50 / 60
Rated Impulse Withstand Voltage (kV)	6
Rated Insulation Voltage	acc. to IEC 60947-4-1 690 V acc. to IEC 60947-5-1 690 V acc. to UL/CSA 600 V
Rated Operational Current AC-1 (A)	(690 V) 40 °C 25 A (690 V) 60 °C 25 A (690 V) 70 °C 22 A
Rated Operational Current AC-3 (A)	(415 V) 60 °C 9 A (440 V) 60 °C 9 A (500 V) 60 °C 9.5 A (690 V) 60 °C 7 A (380 / 400 V) 60 °C 9 A (220 / 230 / 240 V) 60 °C 9 A
Rated Operational Power AC-3 (kW)	(400 V) 4 kW (415 V) 4 kW (440 V) 4 kW (500 V) 5.5 kW (690 V) 5.5 kW (380 / 400 V) 4 kW (220 / 230 / 240 V) 2.2 kW
Rated Operational Voltage AC (V)	Auxiliary Circuit 690 V Main Circuit 690 V

State 10 s 150 A  
 at 40 °C Ambient Temp, in Free Air, from a Cold State  
 State 15 min 35 A  
 at 40 °C Ambient Temp, in Free Air, from a Cold State  
 State 1 min 60 A  
 at 40 °C Ambient Temp, in Free Air, from a Cold State  
 State 1 s 300 A  
 at 40 °C Ambient Temp, in Free Air, from a Cold State  
 State 30 s 80 A, for 0.1 s 140 A, for 1 s 100 A

Wire Stripping Length (mm)	10
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### Dimensions

Dimensions (mm)	86 * 45 * 77 [H*W*D]
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### Protection & Standards

Degree of Protection	acc. to IEC 60529, IEC 60947-1, EN 60529 Auxiliary Terminals IP20 acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP20 acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP20
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Standards	IEC/EN 60947-1, IEC/EN 60947-4-1, UL 60947-4-1, CSA C22.2 No. 60947-4-1
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