

## Product No: AF400301171

### ABB CONTACTOR 600A AC1 400A AC3 3P 3NO 250-500VACDC COIL AF400301171

#### FEATURES

- Add-on auxiliary contact.
- Built-in surge suppression.
- Reduced panel energy consumption.
- Very distinct closing and opening.
- Can withstand short voltage dips and voltage sags.
- Can be used in 1000V applications.
- For connection with built-in cable clamps.
- Panel mounting.



#### General Information

Brand	ABB
Product Type	AF Contactors

#### Technical Attributes

No. of Auxiliary Contacts	1 NO + 1 NC
Cable Sections - Auxiliary Circuit	Flexible with Ferrule 1x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 2x 0.75 ... 2.5 mm <sup>2</sup> Flexible 1x0.75 ... 2.5 mm <sup>2</sup> Solid 2 x 1 ... 4 mm <sup>2</sup> Stranded 2 x 1 ... 4 mm <sup>2</sup>
Cable Sections - Main Circuit	Bar 47 mm <sup>2</sup> Rigid Al-Cable 240 mm <sup>2</sup> Rigid Cu-Cable 240 mm <sup>2</sup>
Clamp Type	Main Circuit: Bars
Coil Consumption	Holding at Max. Rated Control Circuit Voltage 50 Hz 12 V·A Holding at Max. Rated Control Circuit Voltage 60 Hz 12 V·A Holding at Max. Rated Control Circuit Voltage DC 7.5 V·A Pull-in at Max. Rated Control Circuit Voltage 50 Hz 950 V·A Pull-in at Max. Rated Control Circuit Voltage 60 Hz 950 V·A

Pull-in at Max. Rated Control Circuit Voltage DC  
885 V·A

Conventional Free-Air Thermal Current - I <sub>th</sub> (A)	acc. to IEC 60947-4-1, Open Contactors $\Theta = 40\text{ °C}$ 600 A
Maximum Breaking Capacity	cos phi=0.45 (cos phi=0.35 for I <sub>e</sub> > 100 A) at 440 V 4000 A cos phi=0.45 (cos phi=0.35 for I <sub>e</sub> > 100 A) at 690 V 3500 A
Maximum Electrical Switching Frequency	(AC-1) 300 cycles per hour (AC-2 / AC-4) 60 cycles per hour (AC-3) 300 cycles per hour
Maximum Mechanical Switching Frequency	300 cycles per hour
Mechanical Durability	3 million
No. of Main Contacts	3 NO
No. of Poles	3
Operate Time	Between Coil De-energization and NC Contact Closing 45 ... 55 ms Between Coil De-energization and NO Contact Opening 48 ... 58 ms Between Coil Energization and NC Contact Opening 45 ... 115 ms Between Coil Energization and NO Contact Closing 50 ... 120 ms
Rated Breaking Capacity AC-3	8 x I <sub>e</sub> AC-3
Rated Control Voltage	50 Hz 250 ... 500 V 60 Hz 250 ... 500 V DC Operation 250 ... 500 V
Rated Frequency (Hz)	50 / 60
Rated Impulse Withstand Voltage (kV)	8
Rated Insulation Voltage	acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 1000 V acc. to UL/CSA 600 V
Rated Making Capacity AC-3	10 x I <sub>e</sub> AC-3
Rated Operational Current AC-1 (A)	(1000 V) 40 °C 600 A (1000 V) 55 °C 500 A (1000 V) 70 °C 400 A (690 V) 40 °C 600 A (690 V) 55 °C 500 A (690 V) 70 °C 400 A
Rated Operational Current AC-3 (A)	(415 V) 55 °C 400 A (440 V) 55 °C 400 A (500 V) 55 °C 400 A

(690 V) 55 °C 350 A  
 (1000 V) 55 °C 155 A  
 (380 / 400 V) 55 °C 400 A  
 (220 / 230 / 240 V) 55 °C 400 A

Rated Operational Power AC-3 (kW)	(415 V) 220 kW (440 V) 220 kW (500 V) 250 kW (690 V) 315 kW (1000 V) 220 kW (380 / 400 V) 200 kW (220 / 230 / 240 V) 110 kW
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Rated Operational Voltage AC (V)	Main Circuit 1000 V
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Rated Short-time Withstand Current Low Voltage - I <sub>cw</sub> (A)	at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 4400 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 840 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 2500 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 4600 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 3100 A
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Short-Circuit Protective Devices	gG Type Fuses 630 A
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### Dimensions

Dimensions (mm)	278 * 186 * 216 [H*W*D]
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### Protection & Standards

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
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