

# AF116 ... AF146 3-pole contactors

## 75 to 100 hp at 480 V AC

### AC / DC operated with 1 N.O. + 1 N.C. auxiliary contacts



AF146-30-11



AF146-30-11B

#### Description

AF116 ... AF140 contactors are mainly used for controlling 3-phase motors and power circuits up to 690 V AC, AF146 up to 1000 V AC. These contactors are of the block type design with 3 main poles.

- Control circuit: AC or DC operated with electronic coil interface accepting a wide control voltage range (e.g. 100...250 V AC and DC), only 4 control voltage ranges covering 24...500 V 50/60 Hz and 20...500 V DC
- can manage large control voltage variations
- reduced panel energy consumption
- very distinct closing and opening
- can withstand short voltage dips and voltage sags (SEMI F47 conditions of use on request).
- built-in surge suppression
- add-on auxiliary contact blocks for side mounting and a wide range of accessories.

#### Ordering details

IEC		UL / CSA		Rated control circuit voltage		Auxiliary contacts fitted		Catalog number	Global reference code	Weight Pkg (1 pce)
Rated operational power	operational current $\theta \leq 40^\circ\text{C}$	3-phase motor rating	General use rating	Uc min. ... Uc max.						
400 V AC-3	AC-1	hp	600 V AC	V 50/60 Hz	V DC					kg

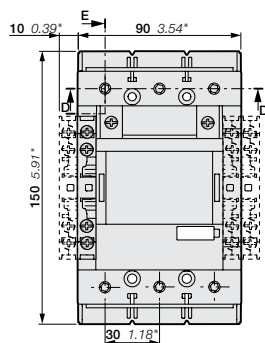
#### For connection with built-in cable clamps

Rated operational power	operational current	3-phase motor rating	General use rating	Uc min. ... Uc max. (V 50/60 Hz)	Uc min. ... Uc max. (V DC)	Auxiliary contacts fitted	Catalog number	Global reference code	Weight
55	160	75	160	24...60	20...60	1 1	AF116-30-11-11	1SFL427001R1111	1.750
				48...130	48...130	1 1	AF116-30-11-12	1SFL427001R1211	1.750
				100...250	100...250	1 1	AF116-30-11-13	1SFL427001R1311	1.750
				250...500	250...500	1 1	AF116-30-11-14	1SFL427001R1411	1.750
75	200	100	200	24...60	20...60	1 1	AF140-30-11-11	1SFL447001R1111	1.750
				48...130	48...130	1 1	AF140-30-11-12	1SFL447001R1211	1.750
				100...250	100...250	1 1	AF140-30-11-13	1SFL447001R1311	1.750
				250...500	250...500	1 1	AF140-30-11-14	1SFL447001R1411	1.750
75	225	100	200	24...60	20...60	1 1	AF146-30-11-11	1SFL467001R1111	1.750
				48...130	48...130	1 1	AF146-30-11-12	1SFL467001R1211	1.750
				100...250	100...250	1 1	AF146-30-11-13	1SFL467001R1311	1.750
				250...500	250...500	1 1	AF146-30-11-14	1SFL467001R1411	1.750

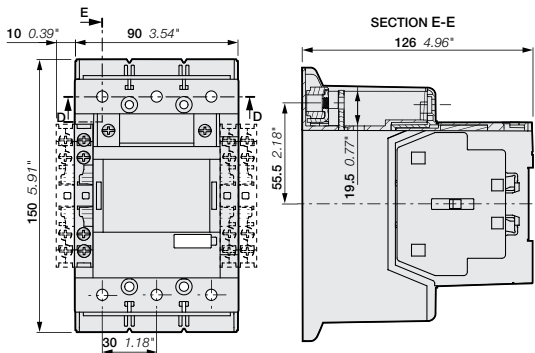
#### With bar connections

Rated operational power	operational current	3-phase motor rating	General use rating	Uc min. ... Uc max. (V 50/60 Hz)	Uc min. ... Uc max. (V DC)	Auxiliary contacts fitted	Catalog number	Global reference code	Weight
55	160	75	160	24...60	20...60	1 1	AF116-30-11B-11	1SFL427002R1111	1.500
				48...130	48...130	1 1	AF116-30-11B-12	1SFL427002R1211	1.500
				100...250	100...250	1 1	AF116-30-11B-13	1SFL427002R1311	1.500
				250...500	250...500	1 1	AF116-30-11B-14	1SFL427002R1411	1.500
75	200	100	200	24...60	20...60	1 1	AF140-30-11B-11	1SFL447002R1111	1.500
				48...130	48...130	1 1	AF140-30-11B-12	1SFL447002R1211	1.500
				100...250	100...250	1 1	AF140-30-11B-13	1SFL447002R1311	1.500
				250...500	250...500	1 1	AF140-30-11B-14	1SFL447002R1411	1.500
75	225	100	200	24...60	20...60	1 1	AF146-30-11B-11	1SFL467002R1111	1.500
				48...130	48...130	1 1	AF146-30-11B-12	1SFL467002R1211	1.500
				100...250	100...250	1 1	AF146-30-11B-13	1SFL467002R1311	1.500
				250...500	250...500	1 1	AF146-30-11B-14	1SFL467002R1411	1.500

#### Main dimensions mm, inches



AF116, AF140, AF146-30-11



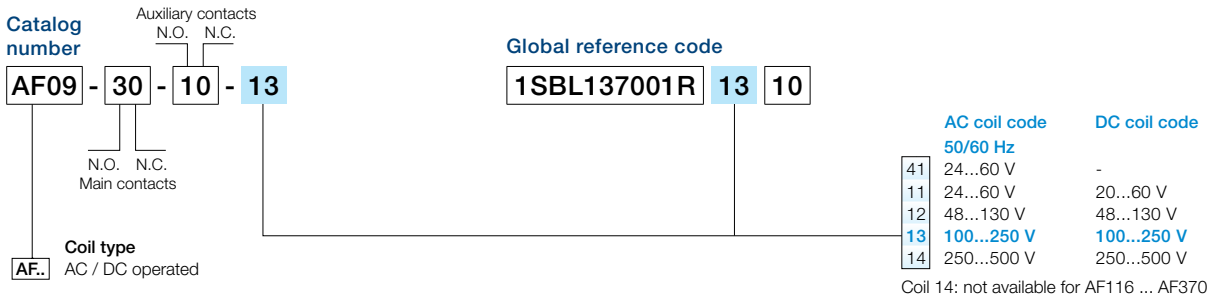
AF116, AF140, AF146-30-11B

# Voltage code table

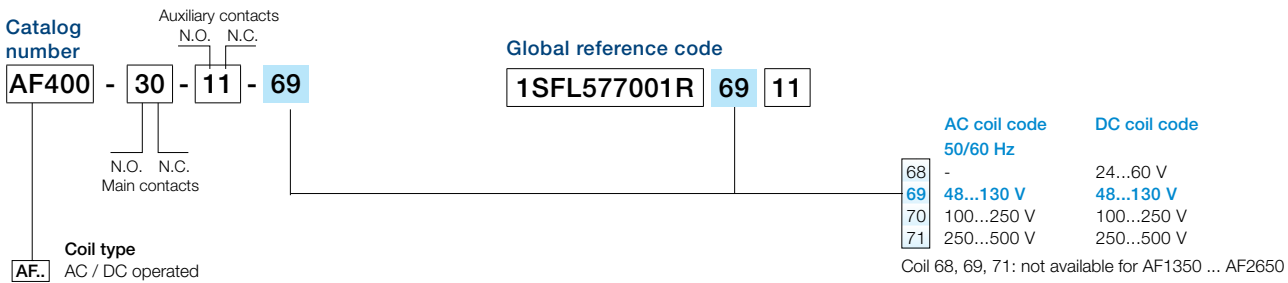
The below tables indicate the available coil voltages and corresponding digits for catalog numbers. When placing an order, please give the catalog number. Select a standard contactor from ordering detail pages. Change the coil voltage code in the catalog number according to the table below.

Example: for contactor AF400-30-11 and coil 100...250 V 50/60 Hz, the catalog number is AF400-30-11-70.

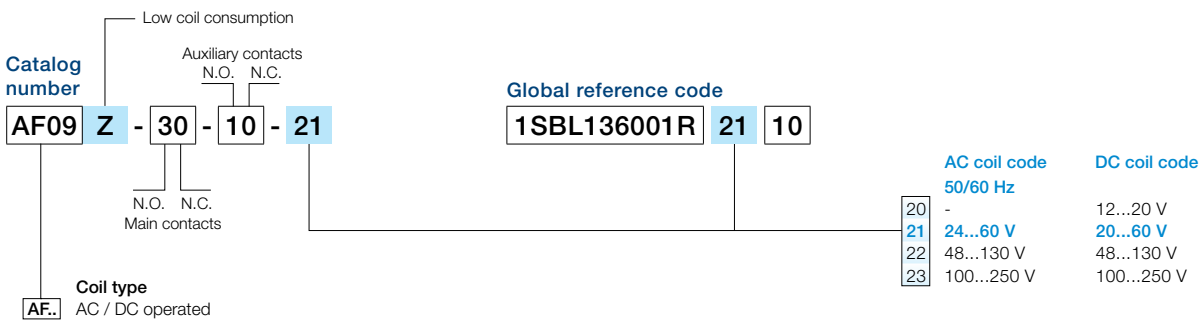
## 2 AF09 ... AF370 3-pole contactors AF09 ... AF38 4-pole contactors



## AF400 ... AF2650 3-pole contactors



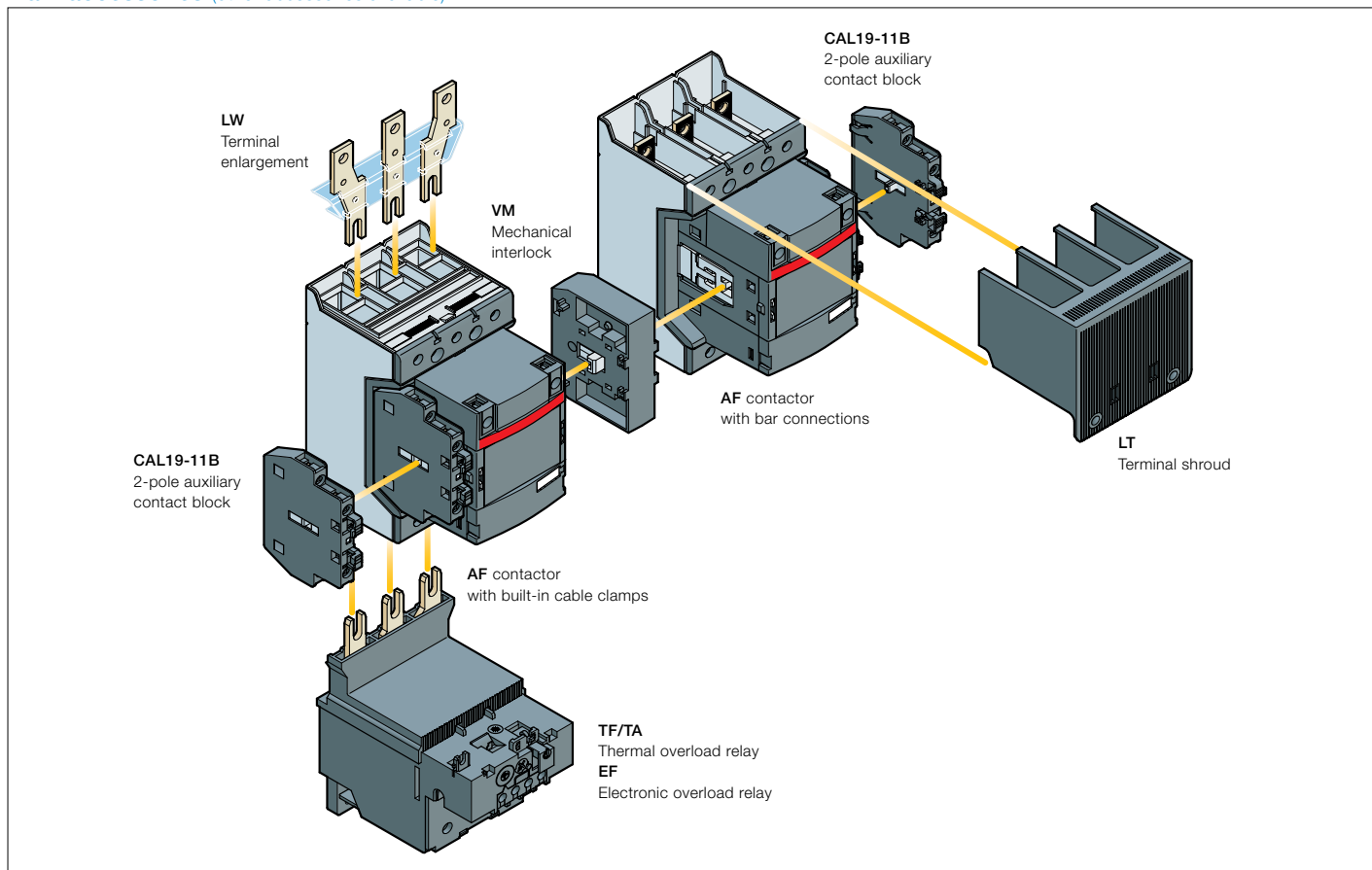
## AF09 ... AF38 3- and 4-pole contactors - low consumption



# AF116 ... AF370 3-pole contactors with 1 N.O. + 1 N.C. auxiliary contacts

## Accessory fitting details

### Main accessories (other accessories available)



### Main accessory fitting details

Contactor types	Main poles	Available auxiliary contacts	Side-mounted accessories		
			Auxiliary contact blocks		Mechanical interlock units (between two contactors)
			CAL19-11	CAL19-11B	
AF116 ... AF370	3	0 1 1	1 x CAL19-11	+ 2 x CAL19-11B	-
AF116 ... AF370	3	0 1 1	-	+ 2 x CAL19-11B (1)	+ VM... (2)

(1) Total number of auxiliary contact blocks for the two contactors.

(2) Interlock type, according to the contactor ratings (see "Accessories").

### Overload relays fitting details (1)

Contactor types	Thermal overload relays	Electronic overload relays
AF116 ... AF140	TF140DU (66...142 A)	EF146 (54...150 A)
AF146	-	EF146 (54...150 A)
AF190, AF205	TA200DU (66...200 A)	EF205 (63...210 A)
AF265 ... AF370	-	EF370 (115...380 A)

The addition of a thermal or electronic overload relay on the contactor does not prevent fitting of many other accessories as shown in "Main accessory fitting details" table.

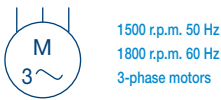
(1) Direct mounting - No kit required.

# AF116 ... AF370 3-pole contactors

## Technical data

### Main pole - Utilization characteristics according to IEC

Contactor types	AC / DC operated	AF116	AF140	AF146	AF190	AF205	AF265	AF305	AF370
<b>Standards</b>		IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1							
<b>Rated operational voltage Ue max.</b>		690 V	690 V	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V
<b>Rated frequency (without derating)</b>		50 / 60 Hz							
<b>Conventional free-air thermal current Ith</b>		160 A	200 A	225 A	275 A	350 A	400 A	500 A	600 A
acc. to IEC 60947-4-1, open contactors, $\theta \leq 40^\circ\text{C}$ With conductor cross-sectional area		70 mm <sup>2</sup>	95 mm <sup>2</sup>	95 mm <sup>2</sup>	150 mm <sup>2</sup>	240 mm <sup>2</sup>	240 mm <sup>2</sup> (3)	300 mm <sup>2</sup>	2 x 185 mm <sup>2</sup> (4)
<b>AC-1 Utilization category</b>									
For air temperature close to contactor									
<b>Ie / Rated operational current AC-1</b>	$\theta \leq 40^\circ\text{C}$	160 A	200 A	225 A	275 A	350 A	400 A	500 A	600 A
Ue max. $\leq 690\text{ V}$ , 50/60 Hz	$\theta \leq 60^\circ\text{C}$	145 A	175 A	200 A	250 A	300 A	350 A	400 A	500 A
	$\theta \leq 70^\circ\text{C}$	130 A	160 A	175 A	200 A	240 A	290 A	325 A	400 A
<b>Ie / Rated operational current AC-1</b>	$\theta \leq 40^\circ\text{C}$	—	—	225 A	250 A	275 A	350 A	375 A	400 A
Ue max. $\leq 1000\text{ V}$ , 50/60 Hz	$\theta \leq 60^\circ\text{C}$	—	—	200 A	225 A	250 A	300 A	325 A	350 A
	$\theta \leq 70^\circ\text{C}$	—	—	175 A	185 A	200 A	240 A	260 A	290 A
With conductor cross-sectional area		70 mm <sup>2</sup>	95 mm <sup>2</sup>	95 mm <sup>2</sup>	150 mm <sup>2</sup>	240 mm <sup>2</sup>	240 mm <sup>2</sup> (3)	300 mm <sup>2</sup>	2 x 185 mm <sup>2</sup> (4)
<b>AC-3 Utilization category</b>									
For air temperature close to contactor $\theta \leq 60^\circ\text{C}$									
<b>Ie / Max. rated operational current AC-3 (1)</b>									
	<b>220-230-240 V</b>	116 A	140 A	146 A	190 A	205 A	265 A	305 A	370 A
	<b>380-400 V</b>	116 A	140 A	146 A	190 A	205 A	265 A	305 A	370 A
	<b>415 V</b>	116 A	140 A	146 A	190 A	205 A	265 A	305 A	370 A
	<b>440 V</b>	116 A	140 A	146 A	190 A	205 A	265 A	305 A	370 A
	<b>500 V</b>	110 A	130 A	130 A	160 A	185 A	260 A	290 A	350 A
	<b>690 V</b>	65 A	80 A	93 A	135 A	165 A	250 A	290 A	315 A
	<b>1000 V</b>	—	—	60 A	85 A	100 A	100 A	100 A	100 A
<b>Rated operational power AC-3 (1)</b>									
	<b>220-230-240 V</b>	30 kW	37 kW	45 kW	55 kW	55 kW	75 kW	90 kW	110 kW
	<b>380-400 V</b>	55 kW	75 kW	75 kW	90 kW	110 kW	132 kW	160 kW	200 kW
	<b>415 V</b>	55 kW	75 kW	75 kW	90 kW	110 kW	132 kW	160 kW	200 kW
	<b>440 V</b>	75 kW	90 kW	90 kW	110 kW	132 kW	160 kW	160 kW	200 kW
	<b>500 V</b>	75 kW	90 kW	90 kW	110 kW	132 kW	160 kW	200 kW	250 kW
	<b>690 V</b>	55 kW	75 kW	90 kW	132 kW	160 kW	200 kW	250 kW	315 kW
	<b>1000 V</b>	—	—	75 kW	110 kW	132 kW	132 kW	132 kW	132 kW
<b>Rated making capacity AC-3</b>		10 x Ie AC-3 acc. to IEC 60947-4-1							
<b>Rated breaking capacity AC-3</b>		8 x Ie AC-3 acc. to IEC 60947-4-1							
<b>Short-circuit protection device for contactors</b>									
without thermal overload relay - Motor protection excluded (2)									
Ue $\leq 500\text{ V}$ AC - gG type fuse		250 A	315 A	315 A	355 A	400 A	500 A	500 A	630 A
<b>Rated short-time withstand current Icw</b>	<b>1 s</b>	1300 A	1460 A	1460 A	1900 A	2050 A	2650 A	3050 A	3700 A
at 40 °C ambient temperature,	<b>10 s</b>	928 A	1168 A	1168 A	1520 A	1640 A	2120 A	2440 A	2960 A
in free air from a cold state	<b>30 s</b>	536 A	674 A	674 A	878 A	947 A	1224 A	1409 A	1709 A
	<b>1 min</b>	379 A	477 A	477 A	621 A	670 A	865 A	996 A	1208 A
	<b>15 min</b>	160 A	200 A	225 A	275 A	350 A	400 A	500 A	600 A
<b>Maximum breaking capacity</b>									
$\cos \varphi = 0.45$	<b>at 440 V</b>	2000 A	3000 A	3000 A	3300 A	3500 A	3800 A	4600 A	5000 A
( $\cos \varphi = 0.35$ for Ie > 100 A)	<b>at 690 V</b>	1000 A	1500 A	1500 A	2200 A	2500 A	3300 A	3800 A	4000 A
<b>Power dissipation per pole</b>									
	<b>Ie / AC-1</b>	12 W	18 W	23 W	15 W	25 W	32 W	50 W	72 W
	<b>Ie / AC-3</b>	6 W	9 W	10 W	7 W	8 W	14 W	19 W	27 W
<b>Maximum electrical switching frequency</b>									
	<b>AC-1</b>	300 cycles/h							
	<b>AC-3</b>	300 cycles/h							
	<b>AC-2, AC-4</b>	150 cycles/h							



(1) For the corresponding kW/A or hp/A values of 1500 r.p.m, 50 Hz or 1800 r.p.m, 60 Hz, 3-phase motors, see "Motor rated operational powers and currents".  
 (2) For the protection of motor starters against short circuits, see "Coordination with short-circuit protection devices".  
 (3) For currents above 275A use terminal enlargements or terminal extensions.  
 (4) For currents above 450A use terminal enlargements or terminal extensions.

# AF116 ... AF370 3-pole contactors

## Technical data

### Main pole - Utilization characteristics according to UL / NEMA / CSA

Contactor types	AC / DC operated	AF116	AF140	AF146	AF190	AF205	AF265	AF305	AF370
<b>Standards</b>		UL 60947-1 / 60947-4-1A and CSA 60947-1 / 60947-4-1A							
<b>Maximum operational voltage</b>		600V							
<b>NEMA size</b>		—	4	—	—	—	5	—	—
<b>NEMA continuous amp rating</b>	<b>Thermal current</b>	—	135 A	—	—	—	270 A	—	—
<b>NEMA maximum horse power ratings</b>									
<b>1-phase, 60 Hz</b>									
	115 V AC	—	—	—	—	—	—	—	—
	230 V AC	—	—	—	—	—	—	—	—
<b>NEMA maximum horse power ratings</b>									
<b>3-phase, 60 Hz</b>									
	200 V AC	—	40 hp	—	—	—	75 hp	—	—
	230 V AC	—	50hp	—	—	—	100 hp	—	—
	460 V AC	—	100 hp	—	—	—	200 hp	—	—
	575 V AC	—	100 hp	—	—	—	200 hp	—	—
<b>UL / CSA general use rating</b>									
600 V AC		160 A	200 A	200 A	230 A	250 A	300 A	350 A	400 A
600 V AC (w/ LX.. terminal extensions)		160 A	200 A	200 A	250 A	300 A	350 A	400 A	520 A
With conductor cross-sectional area		AWG 2/0	AWG 3/0	AWG 3/0	MCM 250	MCM 350 (2)	MCM 500	2//AWG 3/0	2//MCM 300
<b>UL / CSA maximum 1-phase motor rating</b>									
<b>Full load current</b>									
	120 V AC	—	—	—	—	—	—	—	—
	240 V AC	—	—	—	—	—	—	—	—
<b>Horse power rating</b>									
	120 V AC	—	—	—	—	—	—	—	—
	240 V AC	—	—	—	—	—	—	—	—
<b>UL / CSA maximum 3-phase motor rating</b>									
<b>Full load current (1)</b>									
	200-208 V AC	92 A	120 A	120 A	150 A	177 A	221 A	285 A	359 A
	220-240 V AC	104 A	130 A	130 A	154 A	192 A	248 A	312 A	360 A
	440-480 V AC	96 A	124 A	124 A	156 A	180 A	240 A	302 A	361 A
	550-600 V AC	99 A	125 A	125 A	144 A	192 A	242 A	289 A	336 A
<b>Horse power rating (1)</b>									
	200-208 V AC	30 hp	40 hp	40 hp	50 hp	60 hp	75 hp	100 hp	125 hp
	220-240 V AC	40 hp	50 hp	50 hp	60 hp	75 hp	100 hp	125 hp	150 hp
	440-480 V AC	75 hp	100 hp	100 hp	125 hp	150 hp	200 hp	250 hp	300 hp
	550-600 V AC	100 hp	125 hp	125 hp	150 hp	200 hp	250 hp	300 hp	350 hp
<b>Short-circuit protection device for contactors</b>									
without thermal overload relay - Motor protection excluded									
<b>High fault current</b>		100 kA							
<b>Fuse rating</b>		225 A	250 A	250 A	450 A	400 A	500 A	600 A	800 A
<b>Fuse type, 600 V</b>		J							
<b>Maximum electrical switching frequency</b>									
<b>For general use</b>		300 cycles/h							
<b>For motor use</b>		300 cycles/h							

(1) For the corresponding kW/A or hp/A values of 1500 r.p.m, 50 Hz or 1800 r.p.m, 60 Hz, 3-phase motors, see "Motor rated operational powers and currents".

(2) For conductor cross-sectional area above MCM 300 use terminal enlargements LW205.

### General technical data

Contactor types	AC / DC operated	AF116	AF140	AF146	AF190	AF205	AF265	AF305	AF370
<b>Rated insulation voltage Ui</b>		1000 V							
acc. to IEC 60947-4-1		600 V							
acc. to UL / CSA		600 V							
<b>Rated impulse withstand voltage Uimp.</b>		8 kV							
<b>Electromagnetic compatibility</b>		AF contactors comply with IEC 60947-1 / EN 60947-1 - Environment A							
<b>Ambient air temperature close to contactor</b>									
<b>Operation</b>									
Fitted with thermal overload relay		-25 to +55 °C							
Without thermal overload relay		-40 to +70 °C							
<b>Storage</b>		-40 to +70 °C							
<b>Maximum operating altitude (without derating)</b>		3000 m							
<b>Mechanical durability</b>									
<b>Number of operating cycles</b>		5 million operating cycles							
<b>Maximum switching frequency</b>		300 cycles/h							

# AF116 ... AF370 3-pole contactors

## Technical data

### Magnet system characteristics

Contactor types	AC / DC operated	AF116	AF140	AF146	AF190	AF205	AF265	AF305	AF370
Coil operating limits	AC supply	At $\theta \leq 70^\circ\text{C}$ $0.85 \times U_c \text{ min} \dots 1.1 \times U_c \text{ max}$							
acc. to IEC 60947-4-1	DC supply	At $\theta \leq 70^\circ\text{C}$ $0.80 \times U_c \text{ min} \dots 1.1 \times U_c \text{ max}$							
<b>Rated control circuit voltage <math>U_c</math></b>									
<b>Coil consumption</b>									
<b>AC control voltage 50/60 Hz</b>									
24...60 V AC	Average pull-in value	225 VA			165 VA		475 VA		
	Average holding value	5.5 VA			6 VA		8.5 VA		
48...130 V AC	Average pull-in value	170 VA			175 VA		340 VA		
	Average holding value	4 VA			4 VA		17 VA		
100...250 V AC	Average pull-in value	130 VA			220 VA		385 VA		
	Average holding value	6 VA			7 VA		17.5 VA		
250...500 V AC	Average pull-in value	200 VA			200 VA		400 VA		
	Average holding value	18 VA			18 VA		20 VA		
<b>DC control voltage</b>									
20...60 V DC	Average pull-in value	210 W			205 W		400 W		
	Average holding value	2.5 W			2.5 W		3 W		
48...130 V DC	Average pull-in value	130 W			130 W		360 W		
	Average holding value	2.5 W			2.5 W		2.5 W		
100...250 V DC	Average pull-in value	135 W			190 W		410 W		
	Average holding value	3 W			2.5 W		4.5 W		
250...500 V DC	Average pull-in value	180 W			160 W		270 W		
	Average holding value	3.5 W			3.5 W		4 W		
<b>Drop-out voltage</b>		55 % of $U_c \text{ min}$							
<b>Operating time</b>									
<b>Coil supply between A1 - A2</b>									
Between coil energization and:	N.O. contact closing	20...55 ms			25...60 ms		30...60 ms		
Between coil de-energization and:	N.O. contact opening	40...70 ms			45...80 ms		45...80 ms		

### Mounting characteristics and conditions for use

Contactor types	AC / DC operated	AF116	AF140	AF146	AF190	AF205	AF265	AF305	AF370
<b>Mounting positions</b>									
Max. add-on N.O. or N.C. auxiliary contacts: see accessory fitting details for 3-pole contactor AF116 ... AF370									
<b>Mounting distances</b>									
The contactors can be assembled side by side									
<b>Fixing</b>									
On rail acc. to IEC 60715, EN 60715									
By screws (not supplied)									
4 x M5									

# AF116 ... AF370 3-pole contactors

## Technical data

### Connecting characteristics

Contactor types	AC / DC operated	AF116	AF140	AF146	AF190	AF205	AF265	AF305	AF370
<b>Main terminals</b>									
Flat type									
<b>Connection capacity (min. ... max.)</b>									
<b>Main conductors (poles)</b>									
	Cu cable - Stranded	1 x	10...95 mm <sup>2</sup>		6...150 mm <sup>2</sup>		16...300 mm <sup>2</sup>		
	Clamp type		LD... included (1)		1SDA066917R1		1SDA055016R1		
	Tightening torque		8 Nm		14 Nm		25 Nm		
	Cu cable - Stranded	2 x	10...95 mm <sup>2</sup>		50...120 mm <sup>2</sup>		70...185 mm <sup>2</sup>		
	Clamp type		LD... included (1)		1SFN074709R1000, LZ185-2C/120		1SCA022194R0890, OZXB4		
	Tightening torque		8 Nm		16 Nm		22 Nm		
	Al cable - Stranded	1 x	-		95...185 mm <sup>2</sup>		185...240 mm <sup>2</sup>		
	Clamp type		-		1SDA054988R1		1SDA055020R1		
	Tightening torque		-		31 Nm		43 Nm		
	Cu cable - Flexible	1 x	10...70 mm <sup>2</sup>		6...120 mm <sup>2</sup>		16...240 mm <sup>2</sup>		
	Clamp type		LD... included (1)		1SDA066917R1		1SDA055016R1		
	Tightening torque		8 Nm		14 Nm		25 Nm		
	Cu cable - Flexible	2 x	10...70 mm <sup>2</sup>		50...95 mm <sup>2</sup>		70...185 mm <sup>2</sup>		
	Clamp type		LD... included (1)		1SFN074709R1000, LZ185-2C/120		1SCA022194R0890, OZXB4		
	Tightening torque		8 Nm		16 Nm		22 Nm		
	Lugs	W ≤	22 mm (.866 in)		24 mm (.945 in)		32 mm (1.260 in)		
		Ø >	6 mm (.236 in)		8 mm (.315 in)		10 mm (.394 in)		
	Socket type		LL... included		LL... included		LL... included		
	Tightening torque		9 Nm / 80 lb.in		18 Nm / 160 lb.in		28 Nm / 248 lb.in		
Connection capacity acc. to UL / CSA		1 x	AWG 6...3/0		6...300 MCM		4...400 MCM		
	Clamp type		LD... included (1)		ATK185 (2)		ATK300 (2)		
	Tightening torque		8 Nm / 71 lb.in		34 Nm / 301 lb.in		42 Nm / 372 lb.in		
Connection capacity acc. to UL / CSA		2 x	AWG 6...3/0		-		4...500 MCM		
	Clamp type		LD... included (1)		-		ATK300/2 (2)		
	Tightening torque		8 Nm / 71 lb.in		-		42 Nm / 372 lb.in		
<b>Auxiliary conductors</b>									
(coil terminals)									
	Solid / stranded	1 x	1...4 mm <sup>2</sup>						
	Flexible	2 x	1...4 mm <sup>2</sup>						
	Flexible	1 x	0.75...2.5 mm <sup>2</sup>						
	Flexible	2 x	0.75...2.5 mm <sup>2</sup>						
	Flexible with non insulated ferrule	1 x	0.75...2.5 mm <sup>2</sup>						
	Flexible	2 x	0.75...2.5 mm <sup>2</sup>						
	Flexible with insulated ferrule	1 x	0.75...2.5 mm <sup>2</sup>						
	Flexible	2 x	0.75...2.5 mm <sup>2</sup>						
	Lugs	L <	8 mm						
		L >	3.5 mm						
Connection capacity acc. to UL / CSA		1 or 2 x	AWG 18...14						
	Stripping length		9 mm						
	Tightening torque		1.00 Nm / 9 lb.in						
<b>Degree of protection</b>									
acc. to IEC 60947-1 / EN 60947-1 and IEC 60529 / EN 60529									
Main terminals			IP00						
Coil terminals			IP20						
<b>Screw terminals</b>									
Main terminals			M6		M8		M10		
	Screwdriver type		Screws and bolts						
Coil terminals (delivered in open position)			M3.5						
	Screwdriver type		Flat Ø 5.5 mm / Pozidriv 2						

(1) LD... not included for AF116 ... AF146-30...B.

(2) Available in North America only.

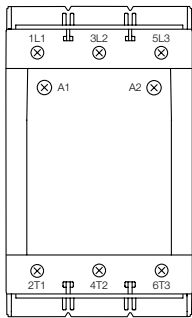
# AF116 ... AF370 3-pole contactors

## Terminal marking and positioning

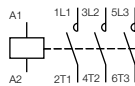
### AF116 ... AF370 contactors - AC / DC operated

Standard devices without addition of auxiliary contacts

2

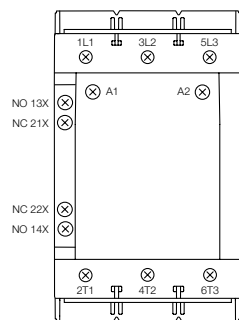


AF116 ... AF370-30-00

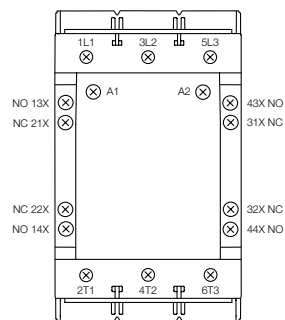


AF116 ... AF370-30-00

Standard devices with factory mounted auxiliary contacts



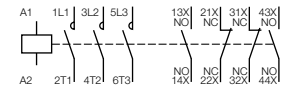
AF116 ... AF370-30-11



AF116 ... AF370-30-22



AF116 ... AF370-30-11



AF116 ... AF370-30-22