

Large Contactors

AF1250 added to the AF contactor range



Large contactors are used in many different applications and utilization categories. The AF1250 contactor has been specially designed for the requirements in different AC-1 applications, such as wind power control, drive isolation, by-pass, UPS and Generator Sets.

- The most compact 1260 A contactor for resistive loads on the market.
- Dimensions the same as AF750.
- Electronically controlled wide range coil, e.g. 100-250V ac/dc.
- Same range of accessories as the present large AF contactors.

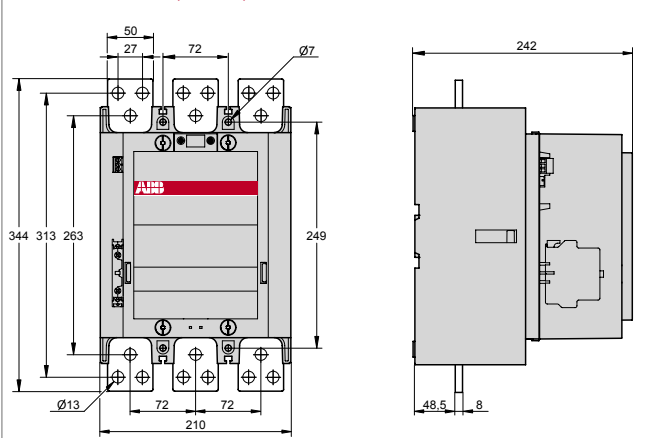
The AF1250 has the same standard features and benefits as the AF400...AF1650 contactor range, such as wide range coil insensitive to voltage variations, PLC control, possibility for low power auxiliary contacts, and a compact and modern design.

Ordering Details

IEC	cUL_{us}	Auxiliary contacts fitted	Type	Order code	Weight kg
Rated current AC-1 A	General use 600 V A		state coil voltage	state coil voltage code <input type="checkbox"/> <input type="checkbox"/>	Packing 1 piece
1260	1210	1 1 2 2	AF1250-30-11	1SFL647 001R <input type="checkbox"/> <input type="checkbox"/> 11	16.00
			AF1250-30-22	1SFL647 001R <input type="checkbox"/> <input type="checkbox"/> 22	16.00
Description accessories			Type	Order code	Weight kg
Main contact set			ZL1250	1SFN166 403R 1000	2.10
Terminal enlargement, 3pcs			LW1250	1SFN076 407R 1000	1.75

Note: For terminal shrouds, coils and mechanical interlocks use AF750 accessories

Dimensions (in mm)



Coil voltages and codes

Voltage V - 50/60Hz	Voltage V d.c.	Code <input type="checkbox"/> <input type="checkbox"/>
-	24...60	6 8
48...130	48...130	6 9
100...250	100...250	7 0
250...500	250...500	7 1



AF1250 3-pole Contactors

Technical Data

General Technical Data

Rated insulation voltage U_i according to IEC 60947-4-1	V	1000
according to UL/CSA	V	600

Rated impulse withstand voltage U_{imp}	kV	8
---	-----------	---

Standards

Devices complying with		
- International standards	IEC 60947-1 / 60947-4-1	
- European standards	EN 60947-1 / 60947-4-1	
- UL	508	

Certifications - Approvals



Air temperature close to contactor

- fitted with thermal O/L relay	°C	-25 to +70
- without thermal O/L relay	°C	-40 to +70
- for storage	°C	-40 to +70

Operating altitude	m	≤3000
---------------------------	----------	-------

Magnet System Characteristics

Rated control circuit voltage

($U_{cmin}...U_{cmax}$)		
- at 50 Hz	V	48...500
- at 60 Hz	V	48...500
- d.c.	V	24...500

Coil operating limits	$\theta \leq 70\text{ °C}$
according to IEC 60947-4-1	$0.85 \times U_{cmin}...1.1 \times U_{cmax}$

Drop-out voltage in % of U_{cmin} level	55 %
--	------

Coil consumption

Average pull-in value	50 Hz	VA	850
	60 Hz	VA	850
	d.c.z.	W	950
Average holding value	50 Hz	VA/W	12/4
	60 Hz	VA/W	12/4
	d.c.	W	4

Operating time

A1-A2		
between coil energization and:		
N.O. contact closing	ms	50...120
N.C. contact opening	ms	50...120
between coil de-energization and:		
N.O. contact opening	ms	33...70
N.C. contact closing	ms	33...70
with PLC		
between coil energization and:		
N.O. contact closing	ms	40...90
N.C. contact opening	ms	40...90
between coil de-energization and:		
N.O. contact opening	ms	10 ... 30
N.C. contact closing	ms	10 ... 30

Main Pole - Utilization Characteristics

Rated operational voltage U_e max.	V	1000
--	----------	------

Rated frequency limits	Hz	25 ... 400
-------------------------------	-----------	------------

Conventional free-air thermal current I_{th} acc. to IEC 60947-4-1, open contactors $\theta \leq 40\text{ °C}$	A	1260
with bar cross-sectional area	mm²	1000 ¹⁾

Rated operational current I_e /AC-1 for air temperature close to contactor		
$\theta \leq 40\text{ °C}$	A	1260
$\theta \leq 55\text{ °C}$	A	1040
$\theta \leq 70\text{ °C}$	A	875
with bar cross-sectional area	mm²	1000 ¹⁾

General use rating, UL		
Amp-rating 600 V	A	1210
with busbar dim.	Inch	2//3x¼ ²⁾

Max. making capacity	A	7500
-----------------------------	----------	------

Max. breaking capacity at 440V	A	6000
---------------------------------------	----------	------

Short-circuit protection	Product coordination with ABB circuit breaker. Please consult your nearest sales office for more information.
---------------------------------	---

Rated short-time withstand current I_{cw} at 40 °C ambient temp., in free air, from a cold state		
1 s	A	8000
10 s	A	7200
30 s	A	5200
1 min	A	4000
15 min	A	1500

Special breaking capacity at 1000 V $\cos \varphi = 0.2$	A	2770
--	----------	------

Heat dissipation per pole I_e /AC-1	W	80
---	----------	----

Max. electrical switching frequency - for AC-1	cycles/h	300
--	-----------------	-----

Electrical durability - for AC-1, 1260 A		
max. 440 V		200 000 operations
max. 690 V		100 000 operations
max. 1000 V		30 000 operations

Mechanical durability - number of operating cycles - max. mechanical switching frequency		
		500 000
	cycles/h	300

1) Max. connection bar width 50 mm

2) Use LW1250 terminal extension