AF750

Description

AF750 are mainly used for controlling 3-phase motors and power circuits up to 1000V AC or 850V DC.

These contactors are of the block type design with:
- 3 main poles
- control circuit: AC or DC controled with electronic coil interface accepting a wide control voltage range (e.g. 100 … 250V AC and DC)
- can manage large voltage variations
- only 4 coils to cover control voltages between 48 … 500V AC 50/60 Hz and 24V … 500V DC
- reduced panel energy consumption
- very distinced 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		Control circuit voltage Uc		Auxiliary contacts fitted		Type	Order code	Weight Pkg (1 pce)
Rated operatio-nal power 400V (kW)	Rated operatio-nal current 690V AC	3-phase motor rating 480V AC (hp)	General use rating 600V AC	50/60 Hz	V DC					
400	1050	600	900	-	24 … 60	1	1	AF750-30-11	1SFL637001R6811 (1)	15.00
400	1050	600	900	48 … 130	48 … 130	1	1	AF750-30-11	1SFL637001R6911	15.00
400	1050	600	900	100 … 250	100 … 250	1	1	AF750-30-11	1SFL637001R7011	15.00
400	1050	600	900	250 … 500	250 … 500	1	1	AF750-30-11	1SFL637001R7111	15.00

Technical data AF750

Magnet system characteristics

Coil operation limits		θ ≤ 70 °C
According to IEC 60947-4-1		0.85 ... 1.1 x Uc
Drop-out voltage in % of Uc min. level		55%
Coil consumption		
Avarage pull-in	50 Hz	850 VA
	60 Hz	850 VA
	d.c.	950 W
Avarage holding	50 Hz	12 VA / 4.5 W
	60 Hz	12 VA / 4.5 W
	d.c.	4.5 W

Operating time	
Coil supply between A1 - A2	
between coil energization and:	
N.O. and auxiliary contact closing	50 … 120 ms
N.C. and auxiliary contact opening	50 … 120 ms
between coil de-energization and:	
N.O. and auxiliary contact closing	33 … 70 ms
N.C. and auxiliary contact opening	33 … 70 ms
Control input for PLC's	
between coil energization and:	
N.O. and auxiliary contact closing	40 … 90 ms
N.C. and auxiliary contact opening	40 … 90 ms
between coil de-energization and:	
N.O. and auxiliary contact closing	10 … 30 ms
N.C. and auxiliary contact opening	10 … 30 ms

Main pole - Characteristics acc. IEC/EN standards

Rated operational voltage Ue max.	1000 V
Rated frequency limits	50 / 60 Hz
Conventional free-air thermal current Ith	1050 A
acc. to IEC 60947-4-1, open contactors, θ ≤ 40 °C	
with conductor cross-sectional area	800 mm^2

AC-1 Utilization category		
for air temperature close to contactor		
Ie / Rated operational current		
	θ ≤ 40 °C	1050 A
Ue max. ≤ 690 V, 50/60 Hz	**θ ≤ 55 °C**	875 A
	θ ≤ 70 °C	720 A
	θ ≤ 40 °C	1050 A
Ue max. ≤ 1000 V, 50/60 Hz	**θ ≤ 55 °C**	875 A
	θ ≤ 70 °C	720 A
with conductor cross-sectional area		800 mm^2

AC-3 Utilization category		
for air temperature close to contactor θ ≤ 55 °C		
Ie / Max. rated operational current		
3-phase motors	**220-230-240 V**	750 A
	380-400 V	750 A
	415 V	750 A
	440 V	750 A
	500 V	750 A
	690 V	650 A
	1000 V	300 A

Heat dissipation per pole Ie	
- AC-1	50 W
- AC-3	28 W
Max. electrical switching frequency	
- AC-1	300 cycles/h
- AC-3	300 cycles/h
- AC-2, AC-4	60 cycles/h
Mechanical durability	
- Number operating cycles	3 Millions
- Max. switching frequency	300 cycles/h
Operating altetude without derating	≤ 3000 m
Rated insulation voltage Ui	1000 V
Rated impulse voltage withstand Uimp	8 kV

Rated short time withstand current Icw	
≤ 1 s	7000 A
10 s	6400 A
30 s	4500 A
1 min	3500 A
15 min	1300 A

Air temperature Close to contactor	
- fitted with electronic O/L relay	-25 to +70 °C
- without O/L relay	-40 to +70 °C
- for storage	-40 to +70 °C

Characteristics acc. UL/CSA standards

General use rating	
600 V a.c.	900 A

3-phase motor rating	
200-208 V	250 hp
220-240 V	300 hp
440-480 V	600 hp
550-600 V	700 hp

Dimensions (in mm)