

UA Contactor

Exclusive designed for capacitor switching



Powerful features

High peak current withstanding

UA contactors were specially designed for capacitor switching. They can withstand capacitors short-time peak current during switching up to 100 times of normal capacitors operating current.

Compact design

The UA capacitors give space saving through its compact design without additional damping resistor or reactor, thus lower heat and losses.

Built-in terminal clamps

Built-in terminal clamps provides ease and speed of wiring without additional termination. This reduce cost and space for the installation.

Din-rail or screws mounting

Quick fixing on mounting rail according to IEC 715, EN 50022 and EN 50023 standard : 35 x 7.5 mm for UA 30, 35 x 15 mm for UA 30 - UA 75, 75 mm for UA 50 - UA 110. UA contactors also provides holes for screws fixing.

Three coil terminals

UA contactors have three coil terminals. A1 and A2 on top and A2 at bottom which provide flexibility in coil wiring (UA 30 has only A1 on the top and A2 at bottom).

Up to ten auxiliary contacts

A large number of auxiliary blocks, up to six front-mounted and four side-mounted auxiliary contacts, can be snapped on UA contactors without extra tools (only five auxiliary contacts can be snapped on the side of UA 30).

Quick and easy snap-on accessories

All accessories of UA contactors were designed for ease and speed of mounting.

General

When switching on 3-phase capacitors, a large transient current at high frequency (3 to 15 kHz) occurs. The peak inrush current in the case of multi-stepped bank compensation may reach up to 160 times of I_{rms} which is much larger than one in the case of the single step bank compensation (depending on two main factors i.e. the circuit inductance at the position where the capacitors are installed and the power of the operating capacitors). This duty is therefore particularly severe for the contactor switching of the final step of the bank. In general practice, the contactor should be able to withstand such high peak current or be equipped with additional peak current damping device to prevent contactor arcing.

Furthermore, operating current of a capacitors may be increased over the nominal current for approximately 1.5 times; 1.15 times due to capacitor's tolerance and 1.3 times due to harmonics. This factor has been taken into account in the selection table below so that UA contactor operating current is 1.5 times of capacitors nominal current. In general, Fuse (rated 1.5 to 1.8 IN type gl) are used for short circuit protection. Consult us for different condition of use (higher inrush current, greater rate of harmonics, etc.).

Technical specifications

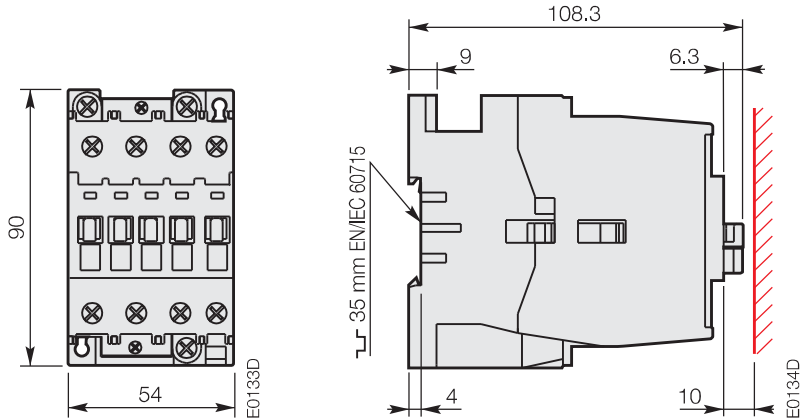
Standard	IEC 60947-1/60947-4-1 and EN 60947-1/60947-4-1
Number of main pole	3 pole
Execution	Indoor
Control voltage	220 V to 230 V (other on request)
Rated operational voltage	690 V
Rated frequency	50/60 Hz
Mechanical durability	10 millions operating cycles
Max.electrical switching frequency	240 cycle/h
Electrical durability AC-6b $U_e \leq 690\text{ V}$	For max. peak current 100 I_N of the capacitors 100,000 operating cycles
Peak current	See the selection table
Degree of protection	Main terminals : IP10 (IP20 for UA30) Coil terminals : IP20
Approvals	UL, CSA

Selection table

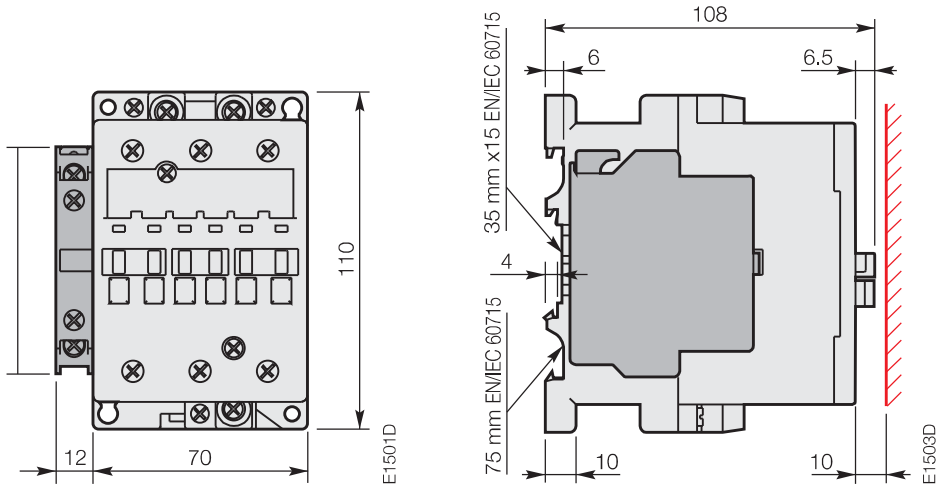
	Power in kvar (based on 55°C)					Max. permissible peak current (kA)	
	230-240 V	400-415 V	440 V	500-550 V	690 V	$U_e \leq 500\text{ V}$	$U_e > 500\text{ V}$
UA 30-30-11	16	27.5	30	34	45	3.5	3.1
UA 50-30-11	20	33	36	40	55	5	4.5
UA 63-30-11	25	43	48	50	70	6.5	5.8
UA 75-30-11	30	50	53	62	75	7.5	6.75
UA 95-30-11	35	65	65	70	80	9.3	8
UA 110-30-11	40	70	75	80	90	10.5	9

Dimensions

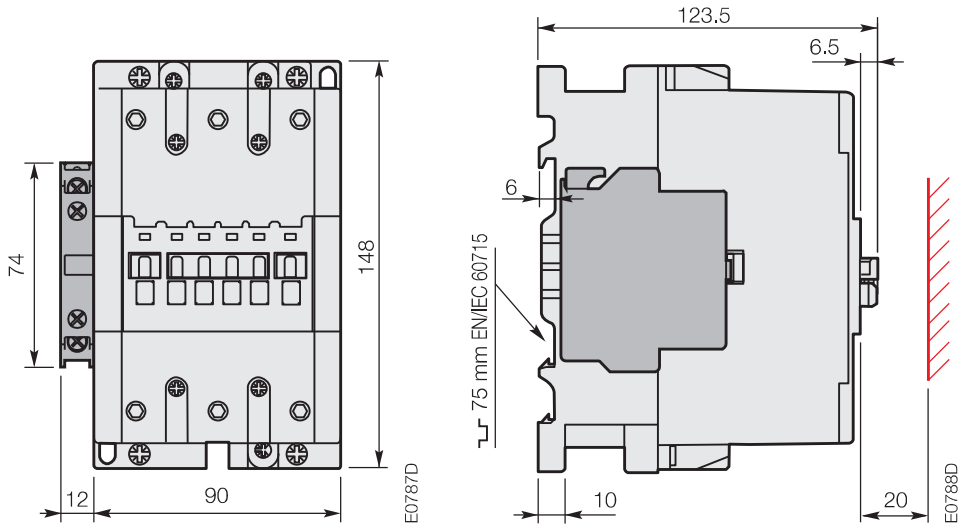
- 01
UA 30
- 02
UA 50,
UA 63, UA 75
- 03
UA 95, UA 110



01



02



03