

Vacuum Contactors

V 630 and V 820

1SFC 280002-EN ed.1, February 1998

Supersedes 1SFC 18059-EN



ABB Control

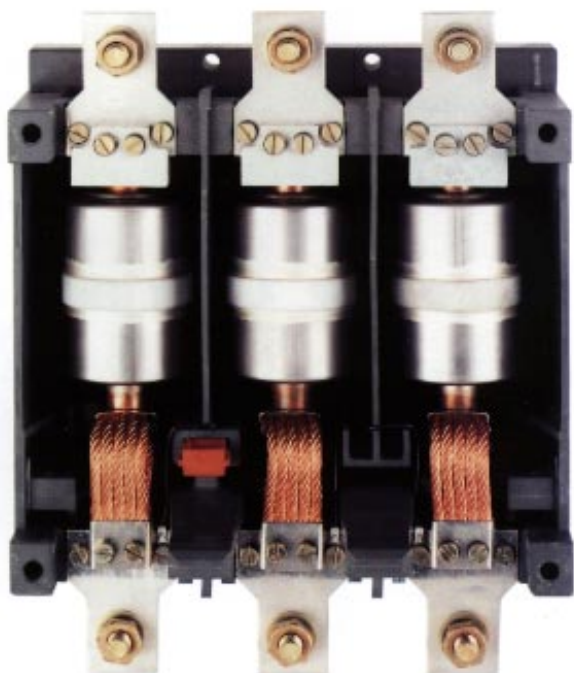


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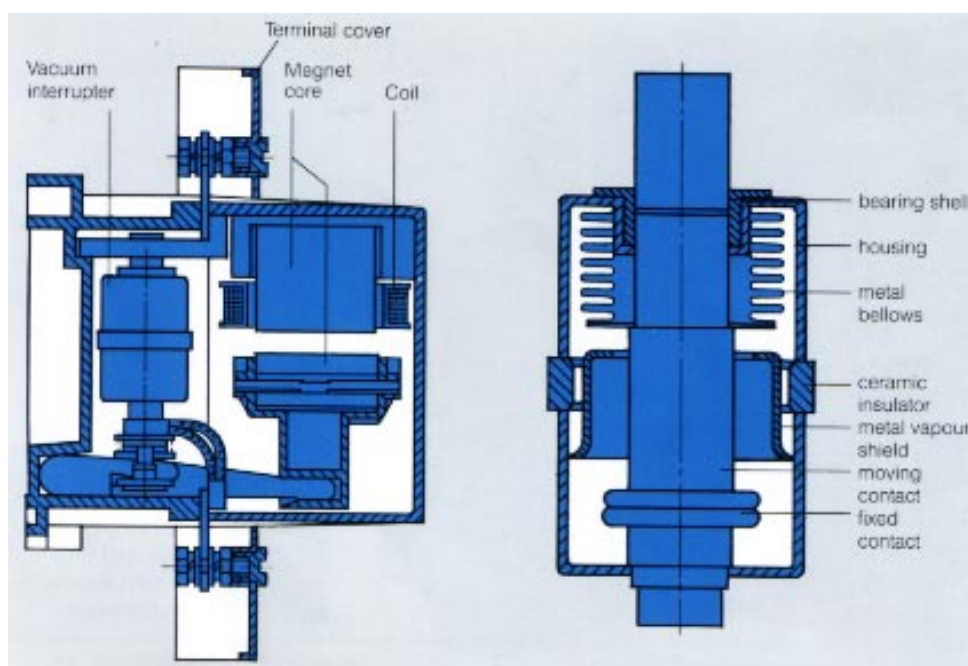
Vacuum Contactor V 630 and V 820

The vacuum contactors can be used for special applications, where the following is of importance:

- Switching without open arcs (the vacuum interrupter is totally sealed)
- Where a very long electrical endurance is needed



A section through the vacuum interrupter, totally sealed maintenance free design.



A section of the vacuum contactor from the inside.

Technical data

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V 630-30-44

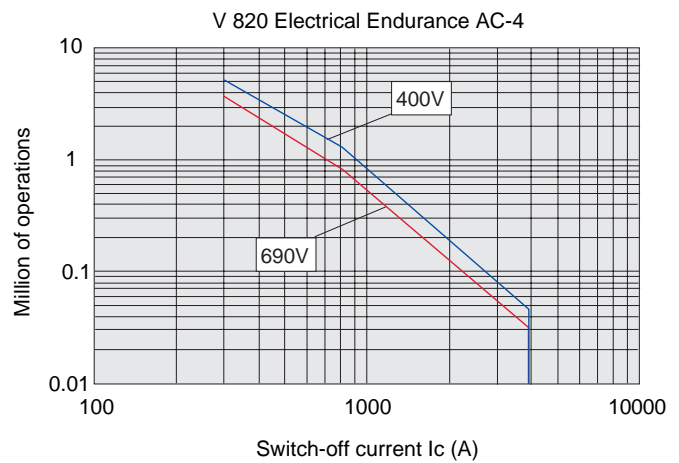
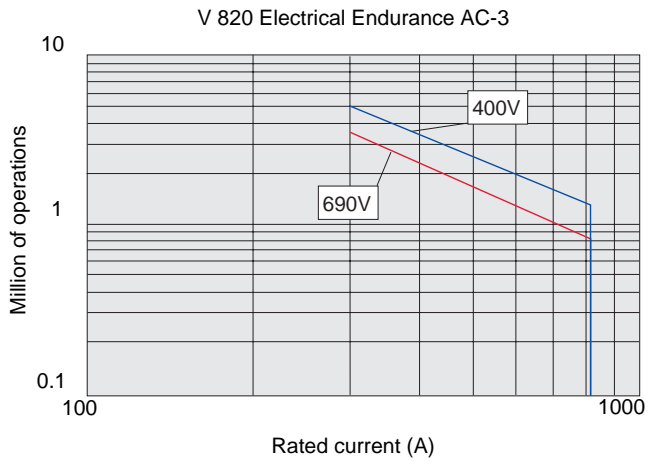
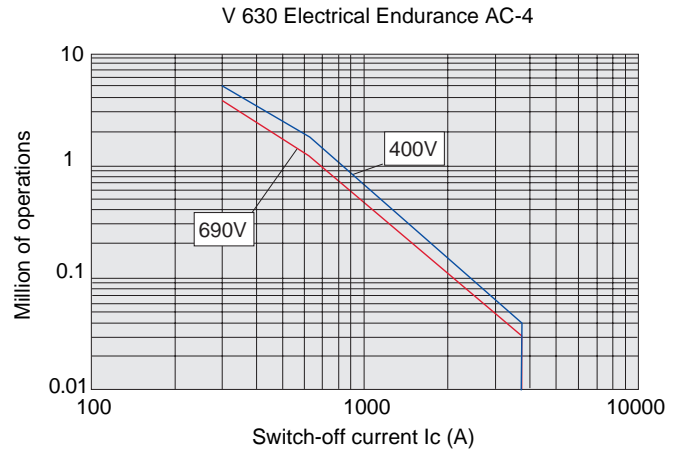
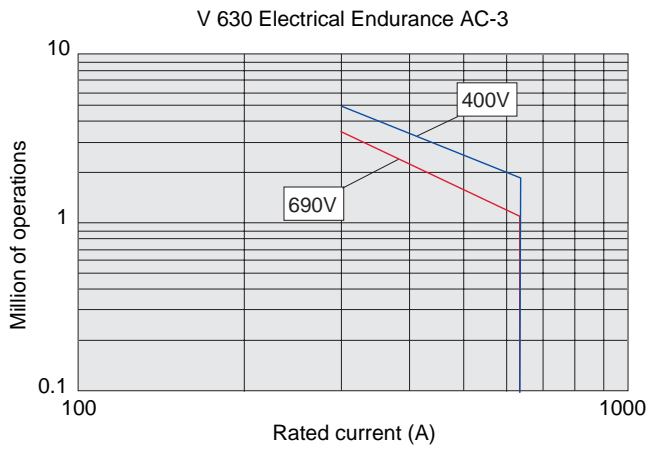
V 820-30-44

General			V 630-30-44	V 820-30-44
Standards			IEC 947-4-1, VDE 0660, NF C 63-110 BS 5424	
Mechanical endurance			5	5
Permissible ambient temperature	°C		-25...+55	-25...+55
Main poles characteristics.				
Number of main poles			3	3
Rated insulation voltage U_i	V		1000	1000
Rated operating current I_n max AC-1				
at ambient temperature	40 °C max 690 V	A	700	910
	55 °C max 690 V	A	630	850
Motor max power rating AC-2 and AC-3				
50/60 Hz, 3-phase	220-240 V	kW	200	260
	380-400 V	kW	315	450
	415 V	kW	355	470
	440 V	kW	400	500
	500 V	kW	450	600
	690 V	kW	600	750
Motor rated operating current I_e max AC-2 and AC-3				
50/60 Hz, 3-phase	up to 690 V	A	630	820
UL/CSA approved data				
Continuous ampere rating		A	630	820
Motor ratings 3-phase	200-208 V	HP	200	290
	220-240 V	HP	250	350
	440-480 V	HP	500	700
	550-600 V	HP	660	860
Conductor cross section				
	with lugs flexible cable	mm ²	2x50...240	2x50...240
	with lugs stranded cable	mm ²	2x70...240	2x70...240
	Busbar max width	mm	50	60 (Ue max 690V)
Terminal				
	screw		M 10 x 30	M 12 x 40
	torque		14...24 Nm	20...35 Nm

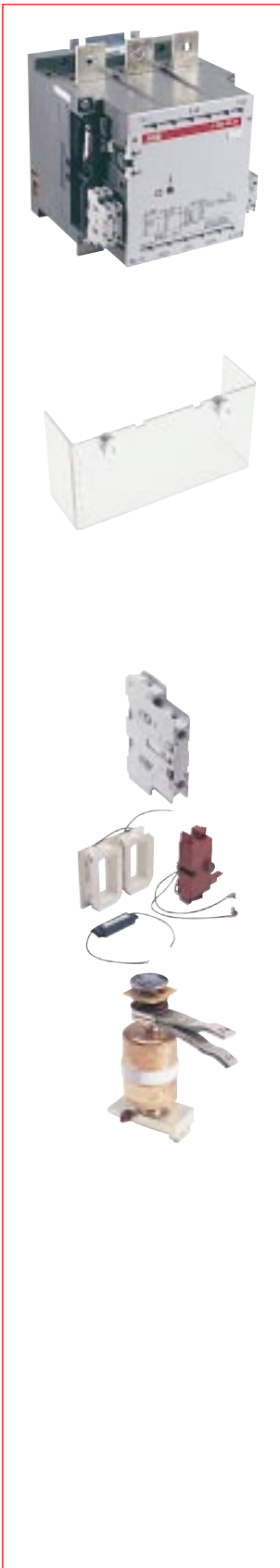
Magnet System

Coil consumption				
	Pull-in 50/60 Hz	VA	lower 1200	600
			upper 1850	950
	Holding 50/60 Hz	VA/W	lower 13.5/6.3	12.9/5.5
			upper 49/7.4	30.6/9.5
Coil operating limits			0,8...1.1 x Ue	0,8...1.1 x Ue
Drop out voltage			0.4 - 0.55	0.4 - 0.55
Operating time				
	closing	ms	70-120	80-120
	opening	ms	70-100	70-80

Electrical Endurance curves



Ordering details



3-pole AC-operated contactors

AC-1	AC-3	Motor output AC-3		Aux. contacts		Type	Order code		Weight	
max. <40 °C A	max. <55 °C A	380- 400 V kW	660- 690 V kW	NO	NC	Supplement for coil voltage see table	□□	Supplement for coil voltage see table	□□	Pack. 1 pc.
700	630	315	600	4	4	V630-30-44-	□□	1SFL 68 10 01 R	□□ 44	15
910	820	450	750	4	4	V820-30-44-	□□	1SFL 69 10 01 R	□□ 44	19

Accessories

	Type	For Contactor	Order code	Qty./Pack.	Weight kg
Shrouds for terminal	LT 630-V	V 630	1SFN 12 68 01 R 1000	2	0.17
Shrouds for terminal	LT 820-V	V 820	1SFN 12 69 01 R 1000	2	0.17
Thermal overload relays	T 900DU/T 900 SU see our catalogue FCRTL 0058 95GB				

Spare parts

Auxiliary contact block

First block next to the contactor 1 NO + 1 NC	CAL 17-11A	V 630/820	1SFN 01 68 20 R 1011	1	0.042
Second block on out side of first 1 NO + 1 NC	CAL 17-11B	V 630/820	1SFN 01 68 20 R 1111	1	0.042

Coils

For suffix see table below	ZV 630	V 630	1SFN 15 68 10 R □□06	1	0.65
For suffix see table below	ZV 820	V 820	1SFN 15 69 10 R □□06	1	0.65

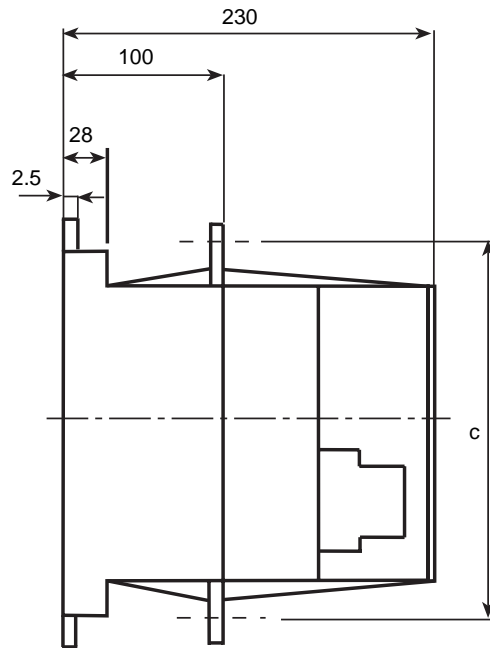
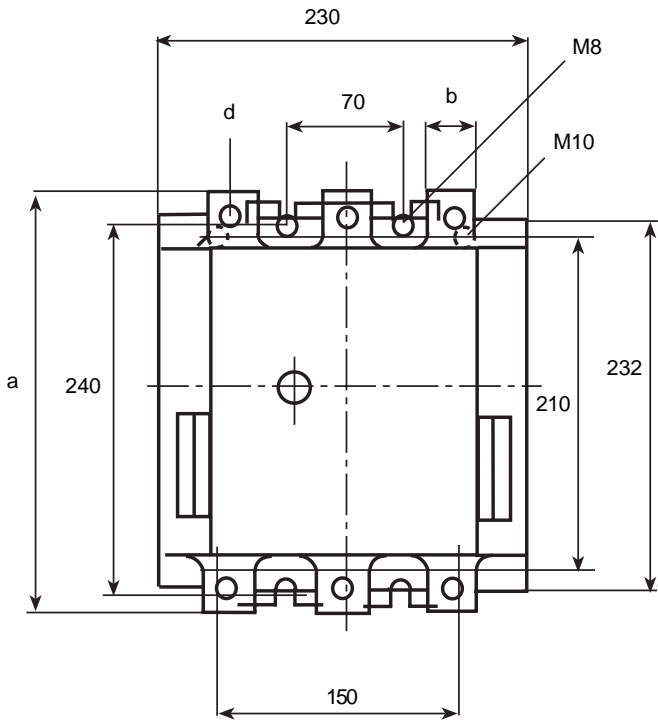
Vacuum bottles

ZLV 630	V 630	1SFN 16 68 03 R 1000	1set	3.2
ZLV 820	V 820	1SFN 16 69 03 R 1000	1set	3.2

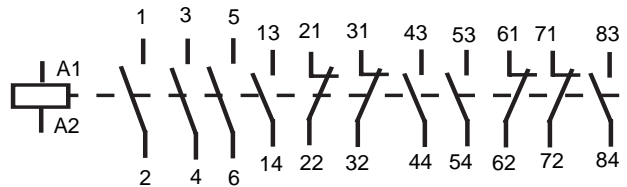
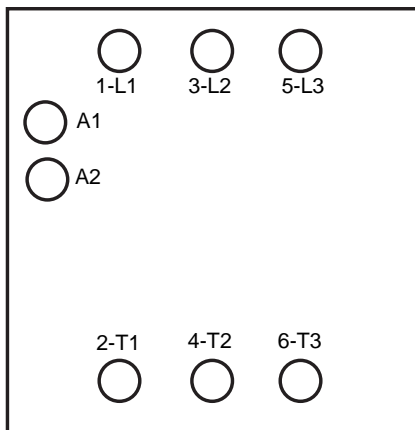
Order code supplement for AC coils

Coil voltage	Code
50/60 Hz	□□
110-132 V	84
200-240 V	80
230-276 V	88
380-460 V	85
500-600 V	90

Dimension drawings









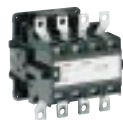
	a	b	c	d
V 630-30-11	276	30 x 5	245	M10
V 820-30-11	296	40 x 6	255	M12



Large Contactors standard applications



Power Rating AC3, 400V		75kW	90kW	110kW	140kW	160kW	200kW	280kW	370kW	400kW
Types	3P	EH145	EH175	EH210	EH260	EH300	EH370	EH550	EH700	EH800
Order code										
(Voltage in clear text)		EH145-30-11	EH175-30-11	EH210-30-11	EH260-30-11	EH300-30-11	EH370-30-11	EH550-30-11	EH700-30-11	EH-800-30-11
Rated current AC-3,										
400V	A	145	185	210	260	305	400	550	700	750
415V	A	145	185	210	260	300	400	550	700	720
690V	A	120	170	210	220	280	370	550	700	720
Rated current AC-1, 40°C	A	230	260	300	400	445	550	800	1000	1000
Thermal O/L relays		T 200 DU 100...135 110...150 130...175 150...200			T 450 DU 165...235 220...310 285...400				T 900 DU 355...500 465...650 610...850	
Auxiliary contacts		Side mounting, 1 NO + 1 NC, CAL 16-11 B								
Timers		Electronic : separate mounting								
Interlocks		Mech./elec. VH 145	Mechanical / electrical VH 300			Mechanical VH 550 (on a plate)		Mechanical VH 800 (on a plate)		
Surge suppressors			24...48V~ 110...415V~	RC-EH 250/48 RC-EH 250/415			48...110V~ 220...600V~	RC-EH 800/110 RC-EH 800/600		



Rated current AC-1, 40°C		200 A	250 A	300 A	350 A	550 A	800 A
Types	4P	EK110	EK150	EK175	EK210	EK370	EK550
Order code							
(Voltage in clear text)		EK110-40-11	EK150-40-11	EK175-40-11	EK210-40-11	EK370-40-11	EK550-40-1



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