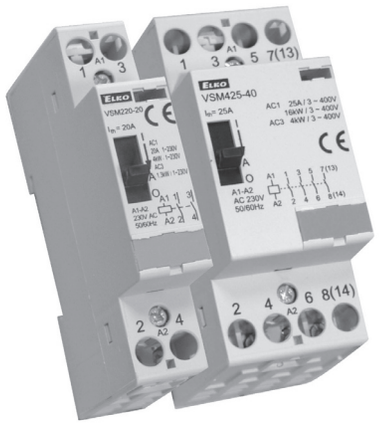
VSM220, VSM425 | Installation contactors with manual control



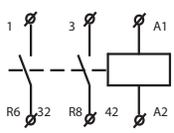
EAN code
see page 154

- Special version of installation contactors with not only basic functions but also with manual control.
- For switching accumulative appliances for heating and service water warming.
- Description of individual positions of manual control.
  - AUTO: common function as with installation contactors without manualcontrol.
  - 1: shifting from AUTO to 1: operational contacts are closed and back contacts are open until there is another impulse to a contactor coil.
  - 0: contacts are open (operational contact) or closed (stand-by contact) regardless voltage.
- Optical indicator: ON-OFF.
- It is produced in configuration of making and breaking contacts:
  VSM220: 20, 11, 02
  VSM425: 40, 31, 22, 04
- It is possible to connect auxiliary contacts VSK to contactors VSM220, VSM425.

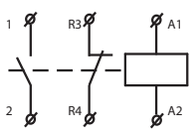
Technical parameters	**VSM220**	**VSM425**
Rated insulation voltage (Ui):	230 V	440 V
Rated thermo-current I_{th} (in AC):	20 A	25 A
Switched operation		
AC-1 for 400 V:	x	16 kW, 3 phase
AC-1 for 230 V:	4 kW, 1 phase	9 kW, 3 phase
AC-3 for 400 V:	x	4 kW, 3 phase
AC-3 for 230 V:	1.3 kW only NO, 1 phase	2.2 kW, 3 phase
AC-7a for 400 V:	x	16 kW, 3 phase
AC-7a for 230 V:	4 kW, 1 phase	9 kW, 3 phase
AC-7b for 400 V:	x	4 kW, 3 phase
AC-7b for 230 V:	1.3 kW only NO, 1 phase	2.2 kW, 3 phase
AC-15 for 400 V:	4 A	4 A
AC-15 for 230 V:	6 A	6 A
DC1 U_e = 24 V:	20 A	25 A
DC1 U_e = 110 V:	6 A	6 A
DC1 U_e = 220 V:	0.6 A	0.6 A
Loadability of modular contactors see page 153		
The max. number of switching for max. load:	600 switch/hr.	600 switch/hr.
Electrical life in 230 / 400 V		
AC-1- resistive load :	$0.2x10^6$	$0.2x10^6$
AC-3-power load:	$0.3x10^6$	$0.5x10^6$
AC-5a - high-intensity discharge lamp:	$0.1x10^6$ by 30 µF	$0.1x10^6$ by 36 µF
AC-5b - incandescent lamps :	0.1 10^6 by 1.5 kW	$0.1x10^6$ by1.5 kW
AC-7a - resistive household devices:	$0.2x10^6$	$0.2x10^6$
AC-7b - inductive household devices:	$0.3x10^6$	$0.5x10^6$
Minimal load:	≥ 17 V, ≥ 50 mA	≥ 17 V, ≥ 50 mA
Short circuit protection with the fuse char. aM:	20 A	25 A
Coordination Type according EN 60 947-4-1:	2	2
Electrical strenght:	4 kV	4 kV
Contacts - max. cable size		
Solid conductor:	AWG 7 (10 mm^2)	AWG 7 (10 mm^2)
Stranded conductor:	6 mm^2	6 mm^2
Maximal torque:	1.2 Nm	1.2 Nm
Coil - max. cable size		
Solid conductor:	AWG 10 (2.5 mm^2)	AWG 10 (2.5 mm^2)
Stranded conductor:	2.5 mm^2	2.5 mm^2
Max. torque:	0.6 Nm	0.6 Nm
Operating		
Coil control voltage:	AC 12 V, 24 V, 110 V, 230 V	AC 12 V, 24 V, 42 V, 230 V
Coil permanent supply +/- 10 %:	2.8 VA/1.2 W	5.5 VA/1.6 W
Coil gear supply +/- 10 %:	12 VA /10 W	33 VA/25 W
Mounting side-by-side:	max. 2 contactors*	max. 2 contactors*
Operational temperature:	-5 ... +55 °C (23.. 131 °F)	
Storing temperature:	-30... +80 °C (-22.. 176 °F)	
Weight:	140 g (4.9 oz.)	260 g (9.17 oz.)
Dimensions:	17.5 x 85 x 60 mm (0.7˝x 3.35˝x 2.4˝)	35 x 85 x 60 mm (1.4˝x 3.35˝x 2.4˝)
Standards:	IEC 60947-4-1, IEC 60947-5-1, IEC 61095, EN 60947-4-1, EN 61095, VDE 0660	

Connection VSM220 VSM220 - only AC supply voltage

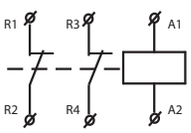
VSM220-20



VSM220-11

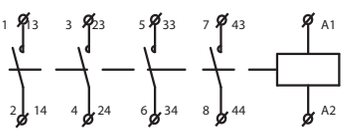


VSM220-02

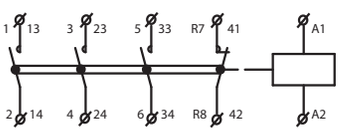


Connection VSM425 VSM425 - only AC supply voltage

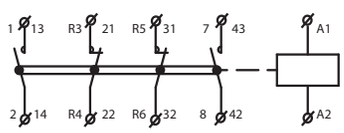
VSM425-40



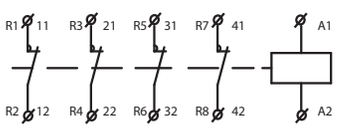
VS425-31



VSM425-22



VSM425-04



Auxiliary contacts VSK-11 and VSK-20

Datas of auxiliary contacts for VSK-11 and VSK-20 see page 151.

* Note: In case several contactors are mounted close to each other, you need to use a installation spacer between every other contactor.