VS120, VS220, VS420, VS425, VS440, VS463 | Installation contactors

c UL us LISTED E535986

- For switching electric circuits, especially for resistave loads and 3-phase induction motors
- Number of contacts: **VS120** - 1, **VS220** - 2, **VS325**, **VS340**, **VS363** - 3, **VS420**, **VS425**, **VS440**, **VS463** - 4
- It is produced in configuration of switching and breaking contacts:
  VS120: 10, 01 **VS220**: 20, 11, 02
  VS420: 40, 31
  VS325: 30 **VS425**: 40, 31, 22, 13 04
  VS340: 30 **VS440**: 40, 31, 22, 04
  VS363: 30 **VS463**: 40, 31, 22
- Protection IP20 - on request we deliver covers that ensure protection IP40 except contactor VS420
- It is possible to connect auxiliary contacts VSK to contactors VS425, VS440, VS463

EAN code
see page 59

Technical parameters	VS120	VS220	VS420	VS325/VS425	VS340/VS440	VS363/VS463
Rated insulation voltage (Ui):	230 V	230 V	415 V	440 V	440 V	440 V
Rated thermo-current I_{th} (in AC):	20 A	20 A	20 A	25 A	40 A	63 A
Voltage range:	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Switched operation						
AC-1 for 400 V, 3 phase:	x	x	13 kW	16 kW	26 kW	40 kW
AC-1 for 230 V:	4 kW, 1 phase	4 kW, 1 phase	7.5 kW, 3 phase	9 kW, 3 phase	16 kW, 3 phase	24 kW, 3 phase
AC-3 for 400 V, 3 phase:	x	x	2.2 kW	4 kW	11 kW	15 kW
AC-3 for 230 V:	1.3 kW only NO, 1 phase	1.3 kW only NO, 1 phase	1.1 kW, 3 phase	2.2 kW, 3 phase	5.5 kW, 3 phase	8.5 kW, 3 phase
AC-7a for 400 V, 3 phase:	x	x	13 kW	16 kW	26 kW	40 kW
AC-7a for 230 V:	4 kW, 1 phase	4 kW, 1 phase	7.5 kW, 3 phase	9 kW, 3 phase	16 kW, 3 phase	24 kW, 3 phase
AC-7b for 400 V, 3 phase:	x	x	2.2 kW	4 kW	11 kW	15 kW
AC-7b for 230 V:	1.3 kW only NO, 1 phase	1.3 kW only NO, 1 phase	1.1 kW, 3 phase	2.2 kW, 3 phase	5.5 kW, 3 phase	8.5 kW, 3 phase
AC-15 for 400 V, 1 phase:	4 A	4 A	4 A	4 A	4 A	4 A
AC-15 for 230 V, 1 phase:	6 A	6 A	6 A	6 A	6 A	6 A
DC1 U_e = 24/110/220 V:	20/6/0.6 A	20/6/0.6 A	20/2/0.5 A	25/6/0.6 A	40/4/1.2 A	63/4/1.2 A
Loadability of modular contactors see page 58						
The max. number of switching for max. load:	600 switch/hr.	600switch/hr.	600 switch/hr.	600 switch/hr.	600 switch/hr.	600 switch/hr.
Electrical life in 230/400 V						
AC-1- resistive load :	200.000	200.000	200.000	200.000	100.000	100.000
AC-3-power load:	300.000	300.000	300.000	500.000	500.000	150.000
AC-5a - high-intensity discharge lamp:	100.000 by 30 µF	100.000 by 30 µF	300.000 by 36 µF	100.000 by 36 µF	100.000 by 220 µF	100.000 by 330 µF
AC-5b - incandescent lamps:	100.000 by 2 kW	100.000 by 2 kW	100.000 by 2 kW	100.000 by 2 kW	100.000 by 4 kW	100.000 by 5 kW
AC-7a - resistive household devices:	200.000	200.000	200.000	200.000	100.000	100.000
AC-7b - inductive household devices:	300.000	300.000	300.000	300.000	150.000	150.000
Minimal load:	≥ 17 V, ≥ 50 mA	≥ 17 V, ≥ 50 mA	≥ 17 V, ≥ 50 mA	≥ 17 V, ≥ 50 mA	≥ 17 V, ≥ 50 mA	≥ 24 V, ≥ 100 mA
Short circuit protection with the fuse char. aM:	20 A	20 A	20 A	25 A	63 A	80 A
Coordination Type according EN 60 947-4-1:	2	2	2	2	2	2
Dielectric strenght:	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV
Contacts - max. cable size						
Solid conductor:	AWG 7 (10 mm²)	AWG 7 (10 mm²)	AWG 14 (2.5 mm²)	AWG 10 (10 mm²)	AWG 10 (25 mm²)	AWG 10 (25 mm²)
Stranded conductor:	AWG 8 (6 mm²)	AWG 8 (6 mm²)	AWG 14 (2.5 mm²)	AWG 8 (6 mm²)	AWG 4 (16 mm²)	AWG 4 (16 mm²)
Maximal torque:	1.2 Nm (10.62 lbf.in)	1.2 Nm (10.62 lbf.in)	1.2 Nm (10.62 lbf.in)	1.2 Nm (10.62 lbf.in)	3.5 Nm (30.95 lbf.in)	3.5 Nm (30.95 lbf.in)
Coil - max. cable size						
Solid conductor:	AWG 14 (2.5 mm²)	AWG 14 (2.5 mm²)	AWG 14 (2.5 mm²)	AWG 14 (2.5 mm²)	AWG 14 (2.5 mm²)	AWG 14 (2.5 mm²)
Stranded conductor:	AWG 14 (2.5 mm²)	AWG 14 (2.5 mm²)	AWG 14 (2.5 mm²)	AWG 14 (2.5 mm²)	AWG 14 (2.5 mm²)	AWG 14 (2.5 mm²)
Max. torque:	0.6 Nm (5.31 lbf.in)	0.6 Nm (5.31 lbf.in)	0.6 Nm (5.31 lbf.in)	0.6 Nm (5.31 lbf.in)	0.6 Nm (5.31 lbf.in)	0.6 Nm (5.31 lbf.in)
Operating						
Coil control voltage:	AC/DC 24 V, 120 V, 230 V	AC/DC 24 V, 48 V, 120 V, 230 V	AC 12 V, 24 V, 48 V, 120 V, 230 V	AC/DC 24 V, 48 V, 120 V, 230 V	AC/DC 24 V, 120 V, 230 V	AC/DC 24 V, 48 V, 120 V, 230 V
Coil permanent supply +/- 10 %:	2.1 VA/2.1 W	2.1 VA/2.1 W	5 VA/1.5 W	2.6 VA/2.6 W *	5 VA/5 W	5 VA/5 W
Coil gear supply +/- 10 %:	2.1 VA/2.1 W	2.1 VA/2.1 W	30 VA/25 W	2.6 VA/2.6 W *	5 VA/5 W	5 VA/5 W
Mounting side-by-side:	max. 2 contactors**	max. 2 contactors**	max. 2 contactors**	max. 2 contactors**	max. 2 contactors**	max. 2 contactors**
Operational temperature:	−5 .. +55 °C (23 .. 131 °F)					
Storing temperature:	−30 .. +80 °C (−22 .. 176 °F)					
Weight:	120 g (4.2 oz.)	130 g (4.6 oz.)	170 g (6 oz.)	213 g (7.5 oz.)	400 g (14 oz.)	400 g (14 oz.)
Dimensions:	17.5 x 85 x 60 mm (0.7″ x 3.35″ x 2.4″)	17.5 x 85 x 60 mm (0.7″ x 3.35″ x 2.4″)	35 x 62.5 x 57 mm (1.4″ x 2.7″ x 2.24″)	35 x 85 x 60 mm (1.4″ x 3.35″ x 2.4″)	53.3 x 84 x 60 mm (2.1″ x 3.31″ x 2.4″)	53.3 x 84 x 60 mm (2.1″ x 3.31″ x 2.4″)
Standards:	IEC 60947-4-1, IEC 60947-5-1, IEC 61095, EN 60947-4-1, EN 60947-5-1, EN 61095, EN 60947-1					

* 3.8 VA/3.8 W for -04 version of contacts

** Note: If several contactors are mounted close together a gap of 9 mm must be maintained between every other contactor.

*** HP rating: VS120 & VS220: 1-phase 1 HP|240 Vac, 1/3 HP|120 Vac; PD. B300, P300
VS325 & VS425: 1-phase 1 HP|240 Vac, 1/3 HP|120 Vac; 3-phase 3 HP|240 Vac, 5 HP|460 Vac; PD. B300, P300
VS340 & VS440: 1-phase 3 HP|240 Vac, 1 HP|120 Vac; 3-phase 7 HP|240 Vac, 15 HP|460 Vac; PD. B300, P300
VS363 & VS463: 1-phase 5 HP|240 Vac, 2 HP|120 Vac; 3-phase 10 HP|240 Vac, 20 HP|460 Vac; PD. B300, P300