CEVM AND CEVT ELECTROMECHANICAL DIRECT-ON-LINE STARTER BOX

E01-CEV-FT-001

Product data sheet · Direct-on-line starter panels

Electromechanical direct-on-line starter box for 1, 2 or 3 motors, single-phase 230 V (CEVM) or three-phase 400 V (CEVT). The 1-motor box has an IP65 thermoplastic enclosure, a main isolator and two extra-low voltage inputs for a pressure switch or floats.



Technical data

Operating voltage	230 Vac ± 10%, 50/60 Hz (CEVM1, single-phase); 400 Vac ± 10%, 50/60 Hz (CEVT1, three-phase)
Number of motors	1 (CEVM1, CEVT1), 2 (CEVM2, CEVT2) or 3 (CEVM3, CEVT3)
Isolator	Main isolator with door interlock
Control	Auto-off-manual selector switch, with stable positions
Indicators	LED supply network presence light, run indicator light, overload indicator light
Switchgear	Transformer and auxiliary circuit protection fuse, motor protection fuses, contactor, thermal overload relay with internal reset, connection terminal block
Inputs	2 extra-low voltage inputs for a pressure switch or floats (minimum level and maximum level)
Protection	Overcurrent, with alarm
Enclosure	Thermoplastic, with cable glands
Protection rating	IP65
Operating temperature	-5 to +40 °C
Level probe option	OP-SONDES, 24/230 Vac probe management kit

Description

The CEVM1 or CEVT1 box provides direct-on-line starting for one motor, by means of a contactor. A main isolator cuts off the power supply. The motor is protected by fuses and a thermal overload relay; the auxiliary circuit is supplied by a transformer protected by a fuse.

Three indicator lights show supply network presence, run status and overload.

The selector switch on the front panel sets the operating mode:

- automatic: operation controlled by a pressure switch or floats connected to the extra-low voltage inputs;
- 0: off;
- manual.

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Two versions are available: CEVM for 230 V single-phase motors, CEVT for 400 V three-phase motors. Each is available for 1, 2 or 3 motors: CEVM1, CEVM2 and CEVM3, CEVT1, CEVT2 and CEVT3. Apart from the number of motors and the OP-SONDES option, the specifications above are those of the 1-motor box.

For the 2- and 3-motor boxes, the current range in the table is per motor.

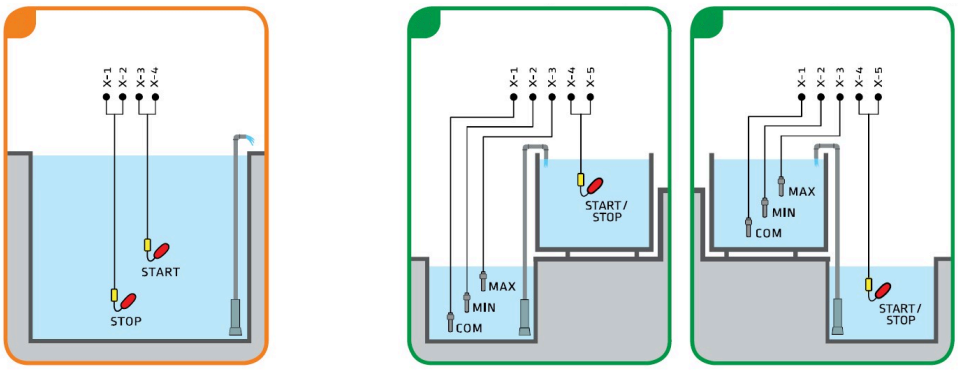
Performance

Models, power ratings and current ranges (per motor)

Code	Min. motor power (kW)	Max. motor power (kW)	Min. current (A)	Max. current (A)
CEVM1 – 1 single-phase 230 V motor				
CEVM1-4,5/6,3	0.37	0.55	4.5	6.3
CEVM1-7/10		0.75	7	10
CEVM1-9/12,5		1.1	9	12.5
CEVM1-11/16		1.5	11	16
CEVM1-14/20		2.2	14	20
CEVM2 – 2 single-phase 230 V motors				
CEVM2-4,5/6,3	0.37	0.55	4.5	6.3
CEVM2-7/10		0.75	7	10
CEVM2-9/12,5		1.1	9	12.5
CEVM2-11/16		1.5	11	16
CEVM2-14/20		2.2	14	20
CEVM3 – 3 single-phase 230 V motors				
CEVM3-4,5/6,3	0.37	0.55	4.5	6.3
CEVM3-7/10		0.75	7	10
CEVM3-9/12,5		1.1	9	12.5
CEVM3-11/16		1.5	11	16
CEVM3-14/20		2.2	14	20
CEVT1 – 1 three-phase 400 V motor				
CEVT1-0,9/1,25			0.9	1.25
CEVT1-1,1/1,6			1.1	1.6
CEVT1-1,4/2		0.37	1.4	2
CEVT1-1,8/2,5		0.55	1.8	2.5
CEVT1-2,2/3,2		0.75	2.2	3.2
CEVT1-2,8/4		1.1	2.8	4
CEVT1-4,5/6,3		1.5	4.5	6.3
CEVT1-5,5/8	1.8	2.2	5.5	8
CEVT1-7/10	3	3.7	7	10
CEVT1-9/12,5		4	9	12.5
CEVT1-11/16		5.5	11	16
CEVT1-14/20		7.5	14	20

Code	Min. motor power (kW)	Max. motor power (kW)	Min. current (A)	Max. current (A)
CEVT2 – 2 three-phase 400 V motors				
CEVT2-0,9/1,25			0.9	1.25
CEVT2-1,1/1,6			1.1	1.6
CEVT2-1,4/2		0.37	1.4	2
CEVT2-1,8/2,5		0.55	1.8	2.5
CEVT2-2,2/3,2		0.75	2.2	3.2
CEVT2-2,8/4		1.1	2.8	4
CEVT2-4,5/6,3		1.5	4.5	6.3
CEVT2-5,5/8	1.8	2.2	5.5	8
CEVT2-7/10	3	3.7	7	10
CEVT2-9/12,5		4	9	12.5
CEVT2-11/16		5.5	11	16
CEVT2-14/20		7.5	14	20
CEVT3 – 3 three-phase 400 V motors				
CEVT3-0,9/1,25			0.9	1.25
CEVT3-1,1/1,6			1.1	1.6
CEVT3-1,4/2		0.37	1.4	2
CEVT3-1,8/2,5		0.55	1.8	2.5
CEVT3-2,2/3,2		0.75	2.2	3.2
CEVT3-2,8/4		1.1	2.8	4
CEVT3-4,5/6,3		1.5	4.5	6.3
CEVT3-5,5/8	1.8	2.2	5.5	8
CEVT3-7/10	3	3.7	7	10
CEVT3-9/12,5		4	9	12.5
CEVT3-11/16		5.5	11	16
CEVT3-14/20		7.5	14	20

Installation



Connection examples: standard box (1) and boxes with options (2, 3)

1. General use, standard box: STOP float on terminals X-1 and X-2, START float on terminals X-3 and X-4.
2. Clean water, emptying, box with options: COM, MIN and MAX level probes on terminals X-1, X-2 and X-3, START/STOP float on terminals X-4 and X-5.
3. Clean water, filling, box with options: same terminals; the START/STOP float and the level probes are placed the opposite way round to diagram 2.

In the diagrams, the float is shown in yellow and red, the level probes in grey.

The level probes in diagrams 2 and 3 are connected using the OP-SONDES option, a 24/230 Vac probe management kit.

Related documents : E01-CDI-FT-001, E02-ADP-FT-001, E02-AET-FT-001

Product codes : CEVM1-4,5/6,3, CEVM1-7/10, CEVM1-9/12,5, CEVM1-11/16, CEVM1-14/20, CEVM2-4,5/6,3, CEVM2-7/10, CEVM2-9/12,5, CEVM2-11/16, CEVM2-14/20, CEVM3-4,5/6,3, CEVM3-7/10, CEVM3-9/12,5, CEVM3-11/16, CEVM3-14/20, CEVT1-0,9/1,25, CEVT1-1,1/1,6, CEVT1-1,4/2, CEVT1-1,8/2,5, CEVT1-2,2/3,2, CEVT1-2,8/4, CEVT1-4,5/6,3, CEVT1-5,5/8, CEVT1-7/10, CEVT1-9/12,5, CEVT1-11/16, CEVT1-14/20, CEVT2-0,9/1,25, CEVT2-1,1/1,6, CEVT2-1,4/2, CEVT2-1,8/2,5, CEVT2-2,2/3,2, CEVT2-2,8/4, CEVT2-4,5/6,3, CEVT2-5,5/8, CEVT2-7/10, CEVT2-9/12,5, CEVT2-11/16, CEVT2-14/20, CEVT3-0,9/1,25, CEVT3-1,1/1,6, CEVT3-1,4/2, CEVT3-1,8/2,5, CEVT3-2,2/3,2, CEVT3-2,8/4, CEVT3-4,5/6,3, CEVT3-5,5/8, CEVT3-7/10, CEVT3-9/12,5, CEVT3-11/16, CEVT3-14/20