




Contactors for wind energy applications

 **Lovato**
electric
100% electricity

Three-pole contactors with AC/DC control circuit



B115-B180



B250-B400



B500-B630



B630 1000



B1250-B1600

Order code	Operating current			
	lth (AC1)			Ie (AC3) 440VAC at ≤55°C
	AC/DC coil	≤40°C	≤55°C	
	[A]	[A]	[A]	[A]
11 B115L 0000	160	150	110	110
11 B145L 0000	250	235	190	150
11 B180L 0000	275	250	200	185
11 B250L 0000	350	300	250	265
11 B310 0000	450	370	300	320
11 B400L 0000	550	430	360	420
11 B500L 0000	700	550	500	520
11 B630L 0000	800	640	540	630
11 B630 1000 0000	100	850	700	For AC1 duty only
11 B1250 2400	1250	1050	880	For AC1 duty only
11 B1600 2400	1600	1360	1120	For AC1 duty only

① The coil of the contactor can be powered indifferently in AC or DC. Complete the order code only with the digit of the coil voltage. Standard voltages are:
 - AC/DC 24 / 48 / 60 / 110-125 (indicate 110) / 220-240 (indicate 220) / 380-415 (indicate 380) / 440-480V (indicate 440).

Example: 11 B630 1000 00 110 for contactor B630 1000, three poles, without auxiliary contacts and with 110-125VAC/DC coil.

The 24VAC/DC voltage is not possible for B500-B630 1000 contactors. Other voltages available on request.

② Complete the order code with the digit of the coil voltage. For 110-125VAC (50/60Hz) indicate 110 or 220-240VAC (50/60Hz) indicate 220.

Example: 11 B1250 24 110 for contactor B1250, three poles, with 2NO+4NC auxiliary contacts and 110-125VAC 50/60Hz coil.

③ Indicate rated voltage of the mechanical latch, preceded by the letter C if in DC. Available voltages are:

- AC 50/60Hz 48 / 110-125 indicate 110 / 220-240 indicate 220 / 380-415V indicate 380

- DC 48 / 110-125 indicate 110 / 220-240V indicate 220.

Example: 11 B145L 00 110 220 for contactor B145 without auxiliary contacts, with 110-125VAC/DC coil and mechanical latch powered at 220-240VAC.

④ G495 mechanical latch cannot be mounted.

General characteristics

There has been worldwide growth in using all renewable energy sources in recent years. One of these sources is the wind which is converted into a useful form of energy by using wind turbines to produce electricity. The development of ever more reliable and safe wind turbines has been addressed by European and international standards IEC/EN 61400-1, that require only a few turbines can be disconnected from the system in presence of short-circuit or undervoltage conditions. Contactors equipped with mechanical latch are ideal for wind energy applications to ensure the connection is maintained in those conditions. The use of these contactors provide for:

- Utmost safe operation
- Total insensitivity to voltage loss or drops
- Elimination of risks for coil overheating and burning
- Energy saving.

Operational characteristics of mechanical latch

Rated control circuit voltage	AC (50/60Hz)	V	48-480
	DC	V	48-480
Power consumption	AC	VA	1500
	DC	W	1100
Minimum energising	drop-out	ms	40
	pick-up	ms	300

Operational characteristics of auxiliary contacts

Type		G350	G354
Conventional free-air thermal current Ith	A	16	
Rated insulation voltage Ui	V	690	
Terminals	Faston	1-6.35 2-2.8	
Conductor section maximum with 1 or 2 cables	flexible c/w lug	mm ²	2.5
	AWG	n°	14
IEC/EN 60947-5-1 designation	AC	A600	
	DC	P600	
Mechanical life (in millions)	cycles	5	

Reference standards

For contactors
 Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-4-1, UL508, CSA C22.2 n°14.
 For auxiliary contacts and accessories
 Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1, UL508, CSA c22.2 n° 14.

Other contactor ratings and accessories

Consult our general catalogue for full details and technical characteristics about contactors and accessories.

Main auxiliary contacts and accessories



11 G350 - 11 G354



11 G527 - 11 G529

Order code	Characteristics	Max qty per contactor
		n°

Faston terminals.
 Auxiliary contacts for side mounting.

11 G3500	2NO+1NC or 1NO+2NC reversible	40
11 G3540	1NO+1NC	40

Mechanical interlock.

11 G35500	Side by side	1
11 G356 10	One on top of other	0

Power terminal protection.

11 G3600	For contactor B115	6
11 G3610	For contactors B145-B180	6
11 G3630	For contactors B250-B310-B400	6
11 G527	For contactor B500	2
11 G529	For contactor B630	2

⑤ Only one piece can be mounted on B1250 or B1600 type.

⑥ Not suitable for B1250 and B1600.

⑦ For use with B630 1000, contact our Customer Service (Tel. +39 035 4282422; email: service@LovatoElectric.com).

⑧ To interlock two contactors B1250 or B1600, it is imperative to use two pieces of type G356 6, one fixed on the left side and the other on the right.

⑨ Provided for one pole terminal only. Example: For three-pole contactors, purchase 3 pieces for the upper terminals only or 6 pieces for all upper and lower terminals.