



## Soft starters ADX series

Planet-SWITCH

Planet-DIN

Planet-LOGIC

 **Lovato**

**electric**

100% electricity

## Soft starter ADX series



51 ADX...B

## Remote keypad



51 ADX TAST

## Remote control Software



51 ADX SW

## Accessories



51 C4



4PX1

Order code	Rated starter current I <sub>e</sub>	Rated motor power (380/415V)	Wt
	[A]	[kW]	[kg]
With integrated by-pass contactor.			
51 ADX 0017B	17	7.5	7.900
51 ADX 0030B	30	15	8.000
51 ADX 0045B	45	22	8.300
51 ADX 0060B	60	30	14.900
51 ADX 0075B	75	37	14.900
51 ADX 0085B	85	45	14.900
51 ADX 0110B	110	55	15.700
51 ADX 0125B	125	59	15.700
51 ADX 0142B	142	75	34.000
51 ADX 0190B	190	90	37.000
51 ADX 0245B	245	132	37.000
Predisposed for external by-pass contactor.			
51 ADX 0310	310	160	50.000
51 ADX 0365	365	200	50.000
51 ADX 0470	470	250	90.000
51 ADX 0568	568	315	90.000
51 ADX 0640	640	355	110.000
51 ADX 0820	820	440	170.000
51 ADX 1200	1200	630	185.000

Order code	Description	Qty per pkg	Wt
		n°	[kg]
51 ADX TAST	Remote keypad 96x96mm, 2x16 backlit LCD, 208-240VAC supply c/w 3m long connecting cable	1	0.350
31 PA 96X96	Protective cover (IP54) for remote keypad	1	0.077
51 ADX SW	PC-ADX remote control software complete with a set of connecting cables for communications via RS232 port, normal or GSM modem	1	0.550
51 C2	PC ↔ ADX connecting cable, 1.8 meters long	1	0.090
51 C3	PC ↔ GSM modem connection cable, 1.8 meters long <sup>①</sup>	1	0.210
51 C4	PC ↔ RS232/RS485 converter drive connection cable 1.8 meters long	1	0.147
51 C5	ADX ↔ Modem connection cable, 1.8 meters long <sup>②</sup>	1	0.111
51 C6	ADX ↔ RS232/RS485 converter drive connection cable 1.8 meters long	1	0.102
51 C7	ADX ↔ GSM modem "FUNK-ANLAGEN" <sup>①</sup> connection cable, 1.8 meters long	1	0.101
51 C8	ADX ↔ remote keypad connection cable, 3 meters long	1	0.081
4 PX1	RS232/RS485 converter drive, galvanically isolated, 220-240VAC or 110-120VAC <sup>③</sup>	1	0.600

- ① "FUNK-ANLAGEN" GSM modem, model n° FALCOM A2-1 or FALCOM A2D-1, compatible with LOVATO ELECTRIC remote control software.  
 ② "3Com-U.S. Robotics" 56k FAXMODEM modem, model n°5630, complete with PC connecting cable, compatible with LOVATO ELECTRIC remote control software.  
 ③ RS232/RS485 opto-isolated converter drive, 38,400 Baud-rate maximum, automatic or manual TRANSMIT line supervision, 220...240VAC ±10% supply (110-120VAC supply obtainable by modifying device jumpers).

### General characteristics

Reduced voltage soft starter with torque control and maximum starting current limit. It is used for the progressive starting and stopping of asynchronous three-phase squirrel-cage motors.

The integrated by-pass contactor, ADX...B types only, drastically limits dissipation, as a result equipment for electric panel cooling ventilation can be eliminated and the enclosure size can be reduced as well.

### CONTROL

During starting: Torque control acceleration, current limit control and booster.

During stopping: Torque control deceleration, dynamic braking and free-wheel.

In emergency conditions: Starting without protections, direct-on-line starting using integrated by-pass contactor.

Remote control: PC supervision by connection with RS232/RS485 converter, modem or GSM modem.

Automatic call function (Autocall) in case of alarm conditions by sending a message to a cellular phone (SMS-Short Message Service) and/or to a mailbox. Property ASCII and Modbus® RTU communication protocols.

### KEYPAD OPERATIONS

- Liquid-crystal backlit 2-line 16-character display
- Multilanguage capability (Italian, English, French, Spanish)
- Basic, advanced and function programming menus
- Keypad stop and start
- Motor and mains parameter readings:
  - line voltage values (L-L)
  - phase current
  - active and apparent power values per phase
  - power factor per phase
  - kWh
- Time sequential events log
- Clock calendar with backup battery.

### PARTICULAR FUNCTIONS

Digital inputs and programmable relay outputs. Analog input (0 ...10V, 0 ... 20V or 4 ... 20mA) for ramp acceleration and/or deceleration, motor starting and stopping control thresholds, programmable relay enable and disable control thresholds. Analog output (0 ...10V, 0 ... 20V or 4 ... 20mA) for current, torque, motor thermal status and power factor readings.

### PROTECTIONS

- Motor: Dual thermal protection class (one during starting phase and the other during running) or by PTC sensor, locked rotor, current asymmetry, minimum torque and starting time too long
- Auxiliary voltage: Voltage value too low
- Power voltage: Phase failure, phase sequence and frequency out of limits
- Control inputs and analog output: Static 24VDC short-circuit protection with automatic resetting.
- Starter: Overcurrent, high temperature, SCR and by-pass contactor malfunction.

### Operational characteristics

- Input voltage: 208-500VAC ±10% for ADX...B<sup>④</sup> 208-415VAC ±10% for ADX...<sup>⑤</sup>
- Mains frequency: 50-60Hz ±5%
- Auxiliary voltage: 208-240VAC ±10%
- Auxiliary consumption: 20VA
- Rated starter current I<sub>e</sub>: 17-245A for ADX...B 310-1200A for ADX...
- Motor current: 0.5-1 I<sub>e</sub>
- Overload current: 105% I<sub>e</sub> continuous for ADX...B 115% I<sub>e</sub> continuous for ADX...
- Maximum altitude: 1000m (higher with derating)
- Pollution degree: 3
- Mounting position: on vertical plane ±15°.

### Reference standards

Compliant to standards: IEC/EN 60068-2-61, IEC/EN 60947-4-2.

④ 208-575VAC ±10% on request.

⑤ Voltages on request: higher than 415V to 690V maximum.

The products illustrated in this documentation are subject to be revised or improved at any moment.

Catalogue descriptions and details do not have any contractual value. The products should be installed and used by qualified personnel and in compliance with the regulations in force for electrical systems in order to avoid damages and safety hazards.