51ADX0640

SOFT STARTER, ADX... TYPE, FOR SEVERE DUTY (STARTING CURRENT 5•IE).
PREDISPOSED FOR EXTERNAL BY-PASS CONTACTOR, 640A

Lovato electric
ENERGY AND AUTOMATION

Product designation			Soft Starter
Product type designation			ADX
Motor type			Asynchronous three phase

Electrical features

Supplies voltage			
	Type of system		Three phase
	Rated supply voltage	V	208…415VAC
	auxiliary supply voltage (Us)		208…240VAC
	Rated frequency	Hz	50/60
Rated starter current Ie		A	640
Rated motor power			
	IEC ratings (T≤40°C)		
	230VAC	kW	200
	400VAC	kW	355
	500VAC	KW	440
	UL ratings (T≤40°C)		
	220-240VAC	HP	250
	380-415VAC	HP	400
	440-480VAC	HP	500
Number of controlled phases		Nr.	3
Built-in bypass			No, predisposed for external bypass contactor
Cooling System			Forced

Programming interface

Display	Backlit LCD 2x16 character
Programming with NFC technology	No
Optical port	No

Startup and stop settings

Startup method	Torque or voltage ramp with current limitation
Stop method	Torque ramp, voltage ramp, free-wheel stop
Braking method	DC dynamic with external relay

Protections

Auxiliary supply protection	Voltage too low

Power supply Protection	No power, phase loss, phase sequence, frequency out of limits, minimum and maximum voltage
Motor protection	Overload at starting (trip class 2, 10A, 10, 15, 20, 25, 30, 35 and 40), overload during running (trip class 2, 10A, 10, 15, 20, 25 and 30), locked rotor, current asymmetry, minimum torque (dry run), overtemperature , starting too long
Starter protection	Overcurrent, overtemperature, bypass failure, phase shorted, temperature sensor fault, maintenance request

Functions	
Built-in bypass	3
Built-in display and keypad	No
Languages	Yes
View measurements	4
Torque control	Yes
Adjustable current limit	Yes
Dynamic braking	Yes
Kick Start function	Yes
Motor overload electronic protection	Yes
Motor protection PTC input	Yes
Protection against phase loss	Yes
Protection against phase inversion	Yes
Protection against locked rotor	Yes
Protection against thyristor overtemperature	Yes
Protection against low load	Yes
Programmable alarm	Yes
Digital inputs	Yes
Analog inputs	Yes
Digital outputs	Yes
Analog output	Yes
Monitoring communication	Yes
Optical port for programming	RS323
Event log	No
Motor hour counter	Yes

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Startup counter			Yes
Clock calendar			Yes
Remote external keypad			Yes
Plug-in version			Optional

Input and Output

Digital inputs

	Number of digital input	Nr.	3 (2 digital inputs + 1 digital/analog input)
	Digital input type		24VDC (no need for external feeder)
	Digital input functions		1 input for start, 1 input programmable (stop, free-wheel stopping, external alarm, motor preheat, local control, alarms inhibit, manual resetting of motor thermal protection, keypad lock, second motor), 1 input programmable multifunction (OFF, free-wheel stopping, external alarm, motor preheat, local control, alarms inhibit, manual resetting of motor thermal protection, keypad lock, second motor, cascade starting, 0-10V ramp, 2-10V ramp, 0-10V start-stop, PT100 start-stop, PTC protection)

Analog inputs

	Number of analog input	Nr.	1 (digital/analog)
	Analog input type		0-10VDC (0-20mA with external resistor 500Ω)

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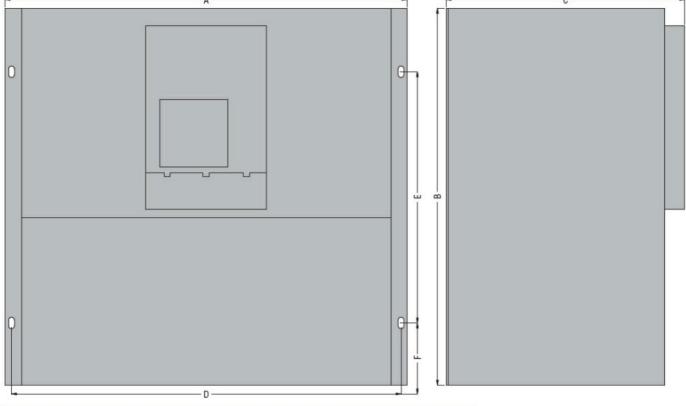
	Analog input functions		Motor protection via PTC probes, acceleration and/or deceleration ramp via analog input, analog input thresholds for motor starting and stopping, analog input thresholds for programmable relay enable and disable, PT100 input thresholds for motor starting and stopping and PT100 input thresholds for programmable relay enable and disable

Digital outputs

	Number of digital output	Nr.	4
	Digital output arrangement		3 x 1 NO (SPST) + 1 C/O (SPDT) Ratings: 5A 250VAC AC1, 2A 250VAC AC15
	Digital output functions		C/O output for global alarm, 3 x 1NO outputs programmable (OFF, motor powered, up to speed, braking, current limit, service required, cascade starting, programmable input thresholds, alarm Axx)

Analog outputs

	Number of analog output	Nr.	1
	Analog output type		0...20mA, 4...20mA (0...10V with external resistor 500Ω)
	Analog output functions		Current, torque, motor thermal status, power factor and active power

Ambient conditions

Temperature

	Operating temperature		
		min	°C	-10

	max	°C	+55°C (with current derating >45°C of 1.5%/°C)
Storage temperature			
	min	°C	-30
	max	°C	+70
Max altitude		m	1000 without derating (over 1000mt with current derating of 0.5%/100m)
Relative humidity		%	95% without condensation or dripping
Pollution degree			3

Housing

Mounting		Screw-fixing
IP degree of protection		IP00
Dimensions (W x H x D)	mm	790 x 650 x 430
Weight	Kg	106

Dimensions

TYPE	A	B	C	D	E	F
ADX 0310	640 (25.20")	600 (23.62")	380 (14.96")	620 (24.41")	400 (15.75")	100 (3.94")
ADX 0365	640 (25.20")	600 (23.62")	380 (14.96")	620 (24.41")	400 (15.75")	100 (3.94")
ADX 0470	790 (31.10")	650 (25.59")	430 (16.93")	770 (30.31")	450 (17.72")	100 (3.94")
ADX 0568	790 (31.10")	650 (25.59")	430 (16.93")	770 (30.31")	450 (17.72")	100 (3.94")
ADX 0640	790 (31.10")	650 (25.59")	430 (16.93")	770 (30.31")	450 (17.72")	100 (3.94")
ADX 0820	910 (35.83")	950 (37.40")	442 (17.40")	830 (32.68")	920 (36.22")	❶
ADX 1200	910 (35.83")	950 (37.40")	442 (17.40")	830 (32.68")	920 (36.22")	❶

❶ Consult Customer Service; see contact details on inside front cover.

Certifications and compliance

Compliance

IEC/EN 60947-1	
IEC/EN 60947-4-2	

Certificates

EAC

ETIM classification

ETIM 8.0   EC000640 - Soft starter