

51ADX0085B

# SOFT STARTER, ADX... TYPE, FOR SEVERE DUTY (STARTING CURRENT 5•IE). WITH INTEGRATED BY-PASS CONTACTOR, 85A

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Product designation				Soft Starter
Product type designati  Motor type	on			ADXB Asynchronous
				three phase
Electrical features Supplies voltage				
Supplies voltage		Type of system Rated supply voltage auxiliary supply voltage (Us) Rated frequency	V Hz	Three phase 208500VAC 208240VAC 50/60
Rated starter current le	<del>2</del>		Α	85
Rated motor power	IEC ratings (T≤40°C)	230VAC	kW	22
		400VAC	kW	45
		500VAC	KW	55
	UL ratings (T≤40°C)	220-240VAC 380-415VAC	HP HP	30 50
		440-480VAC	HP	60
Number of controlled p	phases		Nr.	3
Built-in bypass				Yes
Cooling System				Forced
Programming interface Display	<del>;</del>			Backlit LCD 2x16 character
Programming with NFO	C technology			No
Optical port				No
Startup and stop settin Startup method	gs			Torque or voltage ramp with current limitation Torque ramp,
Stop method				voltage ramp, free-wheel stop
Braking method  Protections				DC dynamic with external relay
Auxiliary supply protect	tion			Voltage too low
Power supply Protection				No power, phase loss, phase sequence, frequency out of limits, minimum and maximum voltage



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Starter protection  Functions Built-in bypass Built-in display and keypad Languages View measurements Torque control Adjustable current limit Dynamic braking Kick Start function Motor overload electronic protection Motor protection against phase loss Protection against phase inversion Protection against locked rotor Protection against phase inversion Protection against locked rotor Protection against phase inversion Protection against locked rotor Protection against protection	
Starter protection  Functions Built-in bypass Built-in display and keypad Languages View measurements Torque control Adjustable current limit Dynamic braking Kick Start function Motor overload electronic protection Motor overload electronic protection Motor protection PTC input Protection against phase loss Protection against locked rotor Protection against phase inversion Protection against phase inversion Protection against phase locked rotor Protection against phase inversion Protectio	Overload at
Starter protection  Functions  Built-in bypass  Built-in display and keypad  Languages  View measurements  Torque control  Adjustable current limit  Dynamic braking  Kick Start function  Motor overload electronic protection  Motor protection PTC input  Protection against phase loss  Protection against phase inversion  Protection against phase inversion  Protection against locked rotor  Protect	starting (trip clas
Starter protection  Functions  Built-in bypass  Built-in display and keypad  Languages  View measurements  Torque control  Adjustable current limit  Dynamic braking  Kick Start function  Motor overload electronic protection  Motor overload electronic protection  Motor protection PTC input  Protection against phase inversion  Protection against phase inversion  Protection against thyristor overtemperature  Protection against low load  Programmable alarm  Digital inputs  Analog inputs  Digital outputs  Analog output  Monitoring communication  Optical port for programming	2, 10A, 10, 15,
Starter protection  Functions  Built-in bypass  Built-in display and keypad  Languages  View measurements  Torque control  Adjustable current limit  Dynamic braking  Kick Start function  Motor overload electronic protection  Motor overload electronic protection  Motor protection PTC input  Protection against phase inversion  Protection against phase inversion  Protection against thyristor overtemperature  Protection against low load  Programmable alarm  Digital inputs  Analog inputs  Digital outputs  Analog output  Monitoring communication  Optical port for programming	20, 25, 30, 35 and 40), overloa
Starter protection  Functions Built-in bypass Built-in bypass Built-in display and keypad Languages View measurements Torque control Adjustable current limit Dynamic braking Kick Start function Motor overload electronic protection Motor overload electronic protection Motor protection PTC input Protection against phase inversion Protection against phase inversion Protection against locked rotor Protection against locked rotor Protection against low load Programmable alarm Digital inputs Analog output Monitoring communication Optical port for programming	during running
Functions Built-in bypass Built-in display and keypad Languages View measurements Torque control Adjustable current limit Dynamic braking Kick Start function Motor overload electronic protection Motor protection PTC input Protection against phase loss Protection against phase inversion Protection against thyristor overtemperature Protection against thyristor overtemperature Protection against low load Programmable alarm Digital inputs Analog inputs Digital outputs Analog output Monitoring communication Optical port for programming	(trip class 2, 10A
Functions Built-in bypass Built-in display and keypad Languages View measurements Torque control Adjustable current limit Dynamic braking Kick Start function Motor overload electronic protection Motor protection PTC input Protection against phase loss Protection against phase inversion Protection against thyristor overtemperature Protection against low load Programmable alarm Digital inputs Analog inputs Analog output Monitoring communication Optical port for programming	10, 15, 20, 25
Functions Built-in bypass Built-in bypass Built-in display and keypad Languages View measurements Torque control Adjustable current limit Dynamic braking Kick Start function Motor overload electronic protection Motor overload electronic protection Motor protection PTC input Protection against phase loss Protection against phase inversion Protection against locked rotor Protection against thyristor overtemperature Protection against low load Programmable alarm Digital inputs Analog inputs Digital outputs Analog output Monitoring communication Optical port for programming	and 30), locked
Functions Built-in bypass Built-in display and keypad Languages View measurements Torque control Adjustable current limit Dynamic braking Kick Start function Motor overload electronic protection Motor protection PTC input Protection against phase loss Protection against phase inversion Protection against thyristor overtemperature Protection against thyristor overtemperature Protection against low load Programmable alarm Digital inputs Analog inputs Digital outputs Analog output Monitoring communication Optical port for programming	rotor, current
Functions Built-in bypass Built-in display and keypad Languages View measurements Torque control Adjustable current limit Dynamic braking Kick Start function Motor overload electronic protection Motor protection against phase loss Protection against phase inversion Protection against thyristor overtemperature Protection against low load Programmable alarm Digital inputs Analog inputs Digital outputs Analog output Monitoring communication Optical port for programming	asymmetry,
Functions Built-in bypass Built-in display and keypad Languages View measurements Torque control Adjustable current limit Dynamic braking Kick Start function Motor overload electronic protection Motor protection PTC input Protection against phase loss Protection against phase inversion Protection against bocked rotor Protection against by thyristor overtemperature Protection against by load Programmable alarm Digital inputs Analog inputs Digital outputs Analog output Monitoring communication Optical port for programming	minimum torque
Functions Built-in bypass Built-in display and keypad Languages View measurements Torque control Adjustable current limit Dynamic braking Kick Start function Motor overload electronic protection Motor protection PTC input Protection against phase loss Protection against phase inversion Protection against bocked rotor Protection against by thyristor overtemperature Protection against by load Programmable alarm Digital inputs Analog inputs Digital outputs Analog output Monitoring communication Optical port for programming	(dry run),
Functions Built-in bypass Built-in display and keypad Languages View measurements Torque control Adjustable current limit Dynamic braking Kick Start function Motor overload electronic protection Motor protection PTC input Protection against phase loss Protection against phase inversion Protection against thyristor overtemperature Protection against thyristor overtemperature Protection against low load Programmable alarm Digital inputs Analog inputs Digital outputs Analog output Monitoring communication Optical port for programming	overtemperature
Functions Built-in bypass Built-in display and keypad Languages View measurements Torque control Adjustable current limit Dynamic braking Kick Start function Motor overload electronic protection Motor protection PTC input Protection against phase loss Protection against phase inversion Protection against phase inversion Protection against locked rotor Protection against low load Programmable alarm Digital inputs Analog inputs Digital outputs Analog output Monitoring communication Optical port for programming	Starting too long
Functions Built-in bypass Built-in display and keypad Languages View measurements Torque control Adjustable current limit Dynamic braking Kick Start function Motor overload electronic protection Motor protection PTC input Protection against phase loss Protection against phase inversion Protection against locked rotor Protection against lov load Programmable alarm Digital inputs Analog inputs Digital outputs Analog output Monitoring communication Optical port for programming	Overcurrent, overtemperature
Functions Built-in bypass Built-in display and keypad Languages View measurements Torque control Adjustable current limit Dynamic braking Kick Start function Motor overload electronic protection Motor protection PTC input Protection against phase loss Protection against phase inversion Protection against thyristor overtemperature Protection against low load Programmable alarm Digital inputs Analog inputs Digital outputs Analog output Monitoring communication Optical port for programming	bypass failure,
Functions Built-in bypass Built-in display and keypad Languages View measurements Torque control Adjustable current limit Dynamic braking Kick Start function Motor overload electronic protection Motor protection PTC input Protection against phase loss Protection against phase inversion Protection against thyristor overtemperature Protection against thyristor overtemperature Protection against low load Programmable alarm Digital inputs Analog inputs Digital outputs Analog output Monitoring communication Optical port for programming	phase shorted,
Functions Built-in bypass Built-in display and keypad Languages View measurements Torque control Adjustable current limit Dynamic braking Kick Start function Motor overload electronic protection Motor protection PTC input Protection against phase loss Protection against phase inversion Protection against thyristor overtemperature Protection against thyristor overtemperature Protection against low load Programmable alarm Digital inputs Analog inputs Digital outputs Analog output Monitoring communication Optical port for programming	temperature
Built-in bypass Built-in display and keypad Languages View measurements Torque control Adjustable current limit Dynamic braking Kick Start function Motor overload electronic protection Motor protection PTC input Protection against phase loss Protection against locked rotor Protection against thyristor overtemperature Protection against low load Programmable alarm Digital inputs Analog output Monitoring communication Optical port for programming	sensor fault,
Built-in bypass Built-in display and keypad Languages View measurements Torque control Adjustable current limit Dynamic braking Kick Start function Motor overload electronic protection Motor protection PTC input Protection against phase loss Protection against phase inversion Protection against thyristor overtemperature Protection against locked rotor Protection against low load Programmable alarm Digital inputs Analog inputs Digital outputs Analog output Monitoring communication Optical port for programming	maintenance
Built-in bypass Built-in display and keypad Languages View measurements Torque control Adjustable current limit Dynamic braking Kick Start function Motor overload electronic protection Motor protection PTC input Protection against phase loss Protection against phase inversion Protection against locked rotor Protection against thyristor overtemperature Protection against low load Programmable alarm Digital inputs Analog inputs Digital outputs Analog output Monitoring communication Optical port for programming	request
Built-in display and keypad Languages View measurements Torque control Adjustable current limit Dynamic braking Kick Start function Motor overload electronic protection Motor protection PTC input Protection against phase loss Protection against phase inversion Protection against locked rotor Protection against thyristor overtemperature Protection against low load Programmable alarm Digital inputs Analog inputs Digital outputs Analog output Monitoring communication Optical port for programming	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Languages View measurements Torque control Adjustable current limit Dynamic braking Kick Start function Motor overload electronic protection Motor protection PTC input Protection against phase loss Protection against phase inversion Protection against locked rotor Protection against thyristor overtemperature Protection against low load Programmable alarm Digital inputs Analog inputs Digital outputs Analog output Monitoring communication Optical port for programming	Yes
View measurements Torque control Adjustable current limit Dynamic braking Kick Start function Motor overload electronic protection Motor protection PTC input Protection against phase loss Protection against phase inversion Protection against locked rotor Protection against thyristor overtemperature Protection against low load Programmable alarm Digital inputs Analog inputs Digital outputs Analog output Monitoring communication Optical port for programming	Yes
Torque control Adjustable current limit Dynamic braking Kick Start function Motor overload electronic protection Motor protection PTC input Protection against phase loss Protection against phase inversion Protection against locked rotor Protection against thyristor overtemperature Protection against low load Programmable alarm Digital inputs Analog inputs Digital outputs Analog output Monitoring communication Optical port for programming	4
Adjustable current limit  Dynamic braking  Kick Start function  Motor overload electronic protection  Motor protection PTC input  Protection against phase loss  Protection against phase inversion  Protection against locked rotor  Protection against thyristor overtemperature  Protection against low load  Programmable alarm  Digital inputs  Analog inputs  Digital outputs  Analog output  Monitoring communication  Optical port for programming	Yes
Dynamic braking Kick Start function Motor overload electronic protection Motor protection PTC input Protection against phase loss Protection against phase inversion Protection against locked rotor Protection against thyristor overtemperature Protection against low load Programmable alarm Digital inputs Analog inputs Digital outputs Analog output Monitoring communication Optical port for programming	Yes
Kick Start function  Motor overload electronic protection  Motor protection PTC input  Protection against phase loss  Protection against phase inversion  Protection against locked rotor  Protection against thyristor overtemperature  Protection against low load  Programmable alarm  Digital inputs  Analog inputs  Digital outputs  Analog output  Monitoring communication  Optical port for programming	Yes
Motor overload electronic protection  Motor protection PTC input  Protection against phase loss  Protection against phase inversion  Protection against locked rotor  Protection against thyristor overtemperature  Protection against low load  Programmable alarm  Digital inputs  Analog inputs  Digital outputs  Analog output  Monitoring communication  Optical port for programming	Yes
Motor protection PTC input Protection against phase loss Protection against phase inversion Protection against locked rotor Protection against thyristor overtemperature Protection against low load Programmable alarm Digital inputs Analog inputs Digital outputs Analog output Monitoring communication Optical port for programming	Yes
Protection against phase loss Protection against phase inversion Protection against locked rotor Protection against thyristor overtemperature Protection against low load Programmable alarm Digital inputs Analog inputs Digital outputs Analog output Monitoring communication Optical port for programming	Yes
Protection against phase inversion Protection against locked rotor Protection against thyristor overtemperature Protection against low load Programmable alarm Digital inputs Analog inputs Digital outputs Analog output Monitoring communication Optical port for programming	Yes
Protection against locked rotor Protection against thyristor overtemperature Protection against low load Programmable alarm Digital inputs Analog inputs Digital outputs Analog output Monitoring communication Optical port for programming	Yes
Protection against thyristor overtemperature Protection against low load Programmable alarm Digital inputs Analog inputs Digital outputs Analog output Monitoring communication Optical port for programming	Yes
Protection against low load Programmable alarm Digital inputs Analog inputs Digital outputs Analog output Monitoring communication Optical port for programming	Yes
Programmable alarm Digital inputs Analog inputs Digital outputs Analog output Monitoring communication Optical port for programming	Yes
Digital inputs Analog inputs Digital outputs Analog output Monitoring communication Optical port for programming	Yes Yes
Analog inputs Digital outputs Analog output Monitoring communication Optical port for programming	3
Digital outputs  Analog output  Monitoring communication  Optical port for programming	<u>3</u> 1
Analog output  Monitoring communication  Optical port for programming	4
Monitoring communication Optical port for programming	1
Optical port for programming	-
	Yes No
L V G I IL IOQ	No
Motor hour counter	Yes
Startup counter	
Clock calendar	
Remote external keypad	Yes
Input and Output	

Digital inputs





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3 (2 digital inputs Number of digital input Nr. + 1 digital/analog

input)

Digital input type 24VDC (no need for external feeder)

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

Digital input functions (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)

0-10VDC (0-20mA with external resistor

500Ω)

Analog input type





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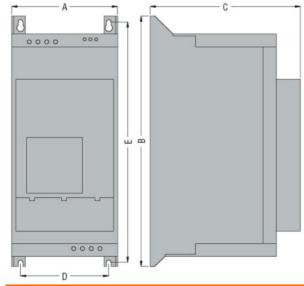
Digital outputs	Analog input function	ons	Motor protection via PTC probes, acceleration and/or deceleration ramp via analog input, analog input thresholds for motor starting and stopping, analog input thresholds for programmable relay enable and disable, PT100 input thresholds for motor starting and stopping and PT100 input thresholds for programmable relay enable and disable
_ ·g ·	Number of digital out	tput Nr.	4 3 x 1 NO (SPST)
	Digital output arrangem	nent	+ 1 C/O (SPDT) Ratings: 5A 250VAC AC1, 2A 250VAC AC15 C/O output for global alarm, 3 x
	Digital output function	ons	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 out	tput Nr.	1
	Analog output t	ype	020mA, 420mA $(010$ V with external resistor $500\Omega$ )
Ambient conditions	Analog output function	ons	Current, torque, motor thermal status, power factor and active power
Temperature			
-	perating temperature	min °C	-10





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	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			IP20
Dimensions (W x H x D)		mm	157 x 534 x 250
Weight		Kg	14.4
Dimensions			



TYPE	A	В	С	D	E
ADX 0017B	157 (6.18")	372 (14.64")	223 (8.78")	131 (5.16")	357 (14.05")
ADX 0030B	157 (6.18")	372 (14.64")	223 (8.78")	131 (5.16")	357 (14.05")
ADX 0045B	157 (6.18")	372 (14.64")	223 (8.78")	131 (5.16")	357 (14.05")
ADX 0060B	157 (6.18")	534 (21.02")	250 (9.84")	132 (5.20")	517 (20.35")
ADX 0075B	157 (6.18")	534 (21.02")	250 (9.84")	132 (5.20")	517 (20.35")
ADX 0085B	157 (6.18")	534 (21.02")	250 (9.84")	132 (5.20")	517 (20.35")
ADX 0110B	157 (6.18")	584 (22.99")	250 (9.84")	132 (5.20")	567 (22.32")
ADX 0125B	157 (6.18")	584 (22.99")	250 (9.84")	132 (5.20")	567 (22.32")

### Certifications and compliance

Compliance

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

Certificates

EAC

#### ETIM classification

ETIM 8.0

EC000640 - Soft starter