

StockDrives | 8200 vector inverters 0.25-11kW

A universal product range that is compact and powerful. The Lenze 8200 vector offers all you need for user-friendly operation, diagnostics and communication. It comes complete with all the system components you expect: expert advice, training, support, service and much more.



- 1.8x overload torque available for 60s
- Integrated RFI filter
- CE marked with UL compliance
- Compact drive dimensions
- PTC input and integrated PID
- Ten fieldbus options
- Vector control and slip compensation for accurate speed holding
- GDC easy operating software supplied free of charge (see page 23)

Performance

- sensorless speed control by vector technology, linear or square V/f characteristic
- power range 0.25-2.2kW with single phase supply 180-264V, 0.55-11kW with three phase supply 320-550V. Also available 0.55-7.5kW three phase 180-264V on request
- output frequencies -650 to +650Hz
- 180% of rated torque available for 60 seconds, even down to 1Hz.
- wide speed setting range up to 1:50 without feedback
- excellent smooth running better than $\pm 0.1\text{Hz}$
- accurate speed holding 0.5% between 3 and 50Hz
- torque setting range up to 1:10

Features

- optional plug-in modules for keypad, fieldbus communications and I/O
- keypad with copy function to transfer inverter settings
- integrated PID process controller
- adjustable chopping frequencies to eliminate noise or optimise performance, 1, 2, 4, 8, 16 kHz
- 4 parameter sets for multi-function flexibility
- flying restart on coasting motors
- slip and mains voltage compensation
- load loss/V belt monitoring
- S ramps for smooth starts and stops
- DC braking and integrated brake transistor
- motor potentiometer

Communication

- clear keypad with plain text display, mounts directly to the drive or use as a hand-held module
- optional communication modules in upper position – RS232, RS485, lightbus, PROFIBUS DP, DeviceNet/CANopen, CANbus, INTERBUS, INTERBUS loop
- optional communication modules in lower position – RS485, PROFIBUS DP, DeviceNet/CANopen, CANbus, INTERBUS, AS-interface

*XT keypad
with clear text
display*

*Easy-fit function
modules with
pluggable
terminals*

*EMC approved
screen plates*



Installation

- enclosure is to IP20
- operation in temperatures to 40°C (also possible up to 55°C with derate of 2.5% per degree)
- installation up to 4000m above sea level with derate of 5% per 1000m above 1000m
- integral RFI filter up to 11kW meeting EN55011 class A (20m) and B with no extra parts required
- pluggable terminal connections on communication and I/O modules save build time
- easy power and motor connections, by spring clamp with plugs on smaller powers
- easy EMC-approved fixings for motor and control cables with screen plates and clamps to securely grip cable earths
- fast and safe click-in fixing of modules with potential free contacts

Motor protection

- short circuit-proof, earth-fault-proof during operation
- adjustable current limitation, overcurrent warnings and fault indications
- overvoltage undervoltage and phase failure protection
- frequency inverter overtemperature warnings and fault indications
- PTC or thermal contact input and I²t monitoring for motor protection

I/O signal handling

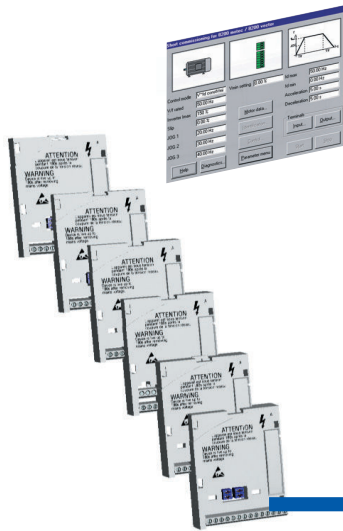
- up to 2 analog inputs and 2 analog outputs (0-10 V, 0-20 mA, 4-20 mA; resolution 10 bits)
- up to 6 isolated digital inputs with logic that can be switched
- up to 2 digital outputs and one frequency output
- up to 2 relay outputs (also for direct 240 V AC mains connection)
- evaluation option for incremental encoders

Approvals and quality

- made to VDE, DIN, EN and GL standards
- approved by UL, cUL, CE
- certified user-friendly documentation

Parameter setting/Operating software (Global Drive Control easy)

- Programming
- Commissioning
- Diagnostics
- Oscilloscope



RFI filter
integrated

Standard functionality

- motor protection through PTC input
- freely programmable inputs/outputs
- integrated brake transistor
- PID controller
- freely programmable relay output

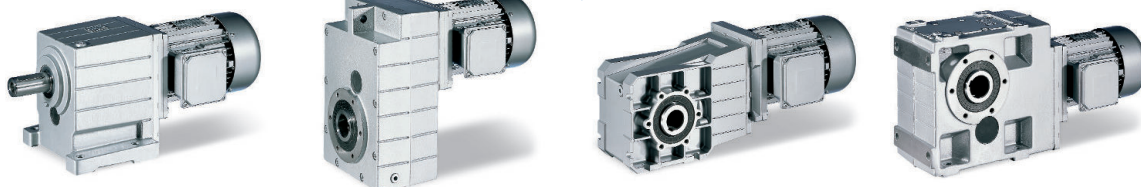
Function modules

- Standard I/O
- Application-I/O
- LECOM-B (RS485)
- INTERBUS
- PROFIBUS-DP
- System bus (CAN)
- DeviceNet/CANopen
- AS-interface

8200 vector

Communication modules

- Keypad
- LECOM-A/B (RS 232/485)
- LECOM-LI
- INTERBUS
- INTERBUS loop
- PROFIBUS-DP
- System bus (CAN)
- DeviceNet/CANopen



Ratings - with integrated RFI filter, normal operation, 180% load torque

Type	Power (kW)	Rated mains voltage	Mains current		Output current (A) ¹⁾		Mains choke type No.
			a	b	I _r	I _{max} (60 s) ²⁾	
E82EV251K2C ³⁾	0.25	1/N/PE AC 230/240V 3/PE AC 230/240V 50Hz	3.4	3.0	1.7	2.5	ELN1-0900H005
E82EV371K2C ³⁾	0.37		5.0	4.2	2.4	3.6	ELN1-0900H005
E82EV551K2C	0.55		6.0	5.6	3.0	4.5	ELN1-0500H009
E82EV751K2C	0.75		9.0	7.5	4.0	6.0	ELN1-0500H009
E82EV152K2C	1.5	DC 325V	15.0	12.5	7.0	10.5	ELN1-0250H018
E82EV222K2C ⁴⁾	2.2		-	18.0	9.5	14.2	ELN1-0250H018
E82EV551K4C	0.55	3/PE/AC 400V 50Hz	2.5	2.0	1.8	2.7	EZN3A1500H003
E82EV751K4C	0.75		3.3	2.3	2.4	3.6	EZN3A1500H003
E82EV152K4C	1.5		5.5	3.9	3.9	5.9	E82ZL22234B
E82EV222K4C	2.2		7.3	5.1	5.6	8.4	E82ZL22234B
E82EV302K4C	3.0		9.0	7.0	7.3	11.0	EZN3A0500H007
E82EV402K4C	4.0		12.3	8.8	9.5	14.2	EZN3A0300H013
E82EV552K4C	5.5		16.8	12.0	13.0	19.5	EZN3A0300H013
E82EV752K4C	7.5		21.5	15.0	16.5	24.8	ELN3-0120H017
E82EV113K4C ⁴⁾	11.0		-	21.0	23.5	35.3	ELN3-0150H024

- 1) For rated mains voltage and chopper frequency of 8kHz
- 2) Currents for periodic load change: 1 min overcurrent with I_{max} and 2 min base load with 75% I_{rx}
- 3) DC power supply not possible
- 4) Mains chokes required, see page 17

a Without mains choke

b With mains choke

**Mains chokes
see page - 17**

Ratings - with integrated filter, increased power operation, 120% overload torque - suitable for pumps & fans with square law load characteristics

Type	Increased rating (kW)	Rated mains voltage	Mains current (A)		Output current (A) ¹⁾		Mains choke type No.
			a	b	I _r	I _{max} (60 s) ²⁾	
E82EV251K2C ³⁾	0.37	1/N/PE AC 230/240V 3/PE AC 230/240V 50Hz	4.1	3.6	2.0	2.5	ELN1-0900H005
E82EV551K2C ⁴⁾	0.75		-	6.7	3.6	4.5	ELN1-0500H009
E82EV751K2C ⁴⁾	1.1		-	9.0	4.8	6.0	ELN1-0500H009
E82EV152K2C	2.2		18	15	8.4	10.5	ELN1-0250H018
E82EV551K4C	0.75	3/PE/AC 400V 50Hz	2.9	2.4	2.2	2.7	EZN3A1500H009
E82EV751K4C ⁴⁾	1.1		-	2.8	2.9	3.6	EZN3A1500H009
E82EV222K4C ⁴⁾	3.0		-	6.1	6.7	8.4	E82ZL22234B
E82EV302K4C	4.0		10.8	8.4	8.7	11.0	EZN3A0300H013
E82EV402K4C ⁴⁾	5.5		-	10.6	11.4	14.2	EZN3A0300H013
E82EV752K4C ⁴⁾	11.0		-	18.0	19.8	24.8	ELN3-0150H024

Accessories

	Type no
RS232 cable 5m long	EWL0020
Mounting assembly for keypad in cabinet (IP55),	E82ZBHT
Keypad extension cable 2.5m	E82ZWL025
5m	E82ZWL050
10m	E82ZWL100
Standard keypad with hand-held module (for remote use)	E82ZBB
XT keypad with hand held module	E82ZBBXC

Ordering examples

4 off 8200 inverters rated 5.5kW
4 off standard I/O modules
4 off mains choke
1 off XT keypad

Type no **E82EV552K4C**
Type no **E82ZAFSC010**
Type no **EZN3A0300H013**
Type no **EM29371BC**

10 off 8200 vector inverters rated 0.37kW,
10 off PROFIBUS communication modules,
10 off Application I/O modules,

Type no **E82EV371K2C**
Type no **EMF2133IB**
Type no **E82ZAFAC010**

Communications



Keypads

Keypads are easily demountable and can be used to upload and download programs.

XT keypad, new easy to use keypad with user-friendly menu structure and plain text display, type No. [EM29371BC](#)

Standard keypad, type no. [E82ZBC](#)

On request we can supply keypad kits for panel mounting or as a hand-held unit.



Communication modules

Plugging in to the keypad position, communication modules suit all the common fieldbuses.

RS232/485 (external 24V required), type no. [EMF2102IBCV001](#)
 RS232 PC interface, type no. [EMF2102IBCV001](#)
 RS232/485 fibre optic, type no. [EMF2102IBCV002](#)
 PROFIBUS-DP, type no. [EMF2133IB](#)
 DeviceNet/CANopen, type no. [EMF2175IB](#)
 CANbus, type no. [EMF2171IB](#)
 INTERBUS-S, type no. [EMF2111IB](#)
 INTERBUS-Loop, type no. [EMF2112IB](#)



Function modules

Plugging into the lower position, function modules allow a second fieldbus connection. Easy handling is achieved by pluggable terminal blocks (PT).

RS485 PT, type no. [E82ZAFLC010](#)
 PROFIBUS-DP PT, type no. [E82ZAFPC010](#)
 INTERBUS PT, type no. [E82ZAFIC010](#)
 CAN PT, type no. [E82ZAFCC010](#)
 CAN I/O PT, type no. [E82ZAFCC210](#)
 CAN I/O RS PT, type no. [E82ZAFCC100](#)
 AS-i PT, type no. [E82ZAFCC010](#)



I/O modules

Also plugging into the lower position, two I/O modules are available for expansion.

	Analog IN	Analog OUT	Digital IN	Digital OUT	Frequency OUT
Standard I/O	1	1	4*	1	—
Application I/O	2	2	6*	2	1

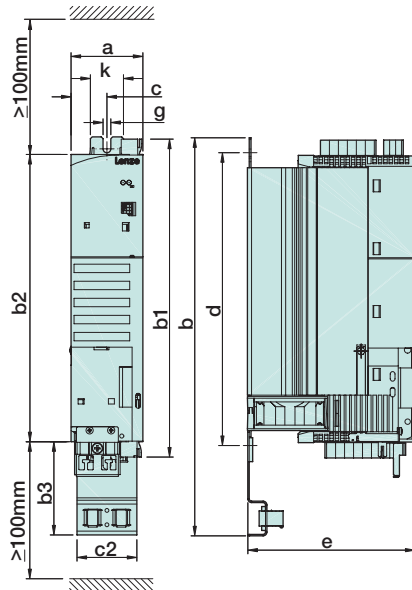
* Includes one frequency input, either single or two track.

Standard I/O PT, type no. [E82ZAFSC010](#)
 Application I/O PT, type no. [E82ZAFAC010](#)

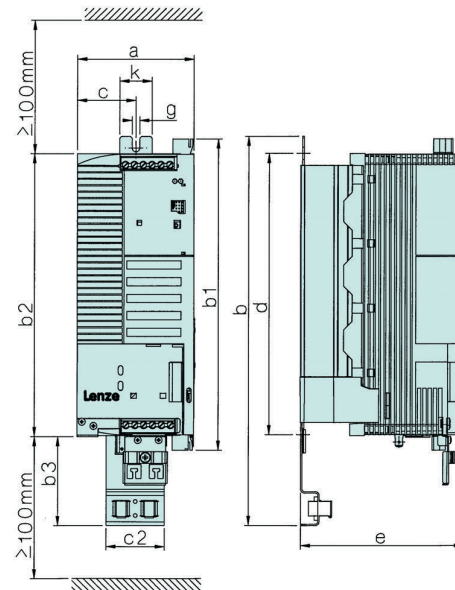
Many applications are solved with the standard I/O. This combination allows the following functions in default setting.

- 0-50Hz adjustable frequency range
- single analogue input (0...5/10V, 4-20mA)
- 0-10V analogue output – speed reference
- on/off control, reversal and dc braking
- three jog speeds (20, 30, 40Hz, adjustable)

0.25-2.2kW

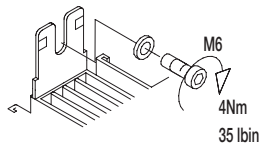


3.0-11kW

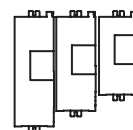


Powers kW	a	b			b1	b2	b3	c	c1	c2	d			e	g	k	Weight kg
		B	C	D							B	C	D				
0.25/0.37	60	213	243	263	148	120	78	30	63	50	130-140	120-170	100-200	140	6.5	28	0.8
0.55/0.75	60	273	303	323	208	180	78	30	63	50	190-200	180-230	170-260	140	6.5	28	1.2
1.5/2.2 ¹⁾	60	333 359 ¹⁾	363	—	268	240	78	30	63	50	250-260 280-295 ¹⁾	240-290	—	140 162 ¹⁾	6.5	28	1.6
3.0/4.0/5.5	100	333	—	—	268	240	78	50	103	50	255	—	—	140	6.5	28	2.9
7.5/11.0 ¹⁾	125	333 359 ¹⁾	—	—	268	240	78	62.5	128	50	255 280-295 ¹⁾	—	—	140 162 ¹⁾	6.5	28	3.6

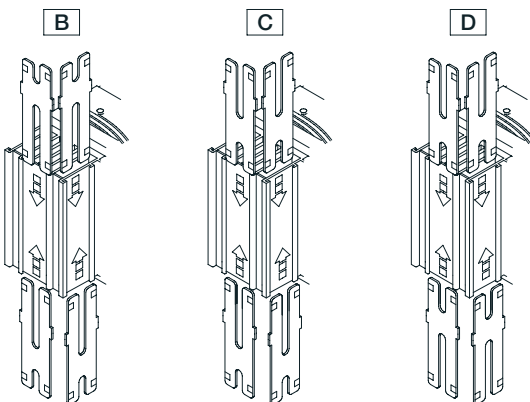
¹⁾ Side mounting only possible with swivel holder, details on request.



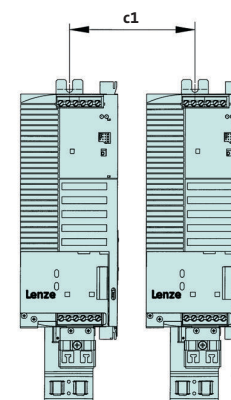
Alternative centres are possible by turning the mounting brackets. Side fixing is also possible.



Different sizes can be mounted side by side provided smaller units are mounted to the right.



Rear or side fixing with mounting brackets.



DIN rail mounting clips for inverters up to 2.2kW are available on request.