VDL200
Inverter for Elevator

High performance inverter for geared elevator



Inverter specific for elevators

- Optimized design for asynchronous motors
- High performance sensorless control alghoritm
- Close loop control by incremental encoder
- 200% overload for 10 seconds

Fast commissioning

The still autotune avoides to decouple the car from the ropes, assuring a faster commissioning.

Easy startup with wizard

The startup of the motor is easy and fast by filling the parameters requested step by step.

Easy monitoring

By the Soft Scope, the physical variables can be monitored without any external oscilloscope.

Built-in EMI filter

EMI filter integrated for EN 12015 compliance (Vers. – F).

General specifications

Control mode	Field oriented control
Power	4...22 kW
Input voltage	3x 230-400 V -15% +10%
Speed control accuracy	0.01% motor rated speed
Analog inputs	1
Digital inputs	8 + Enable
Relay outputs	4
Encoders	Digital incremental TTL
Overload	200% * 10sec
Max output frequency	300 Hz
EMI filter	Built-in (version -F)
Reduced battery consumption in emergency condition	Optional (UPS single-phase 230 V or buffer battery with external power supplier)
Markings	CE

Input data

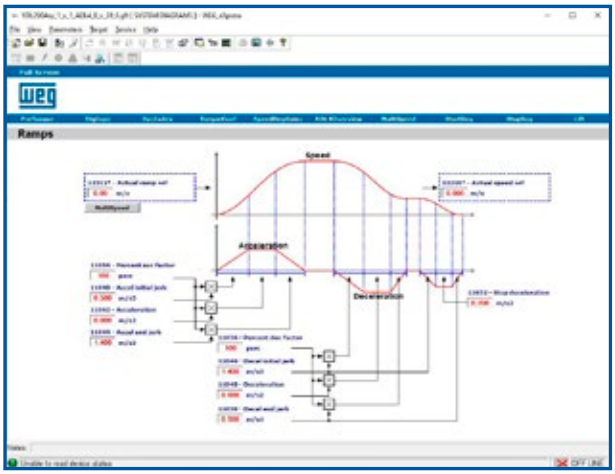
Input data			1040	1055	2075	2110	3150	3185	3220
Uln • AC input voltage		V ac	Three-phase network 230-400 V ac -15% +10%						
Fln • Input frequency		Hz	50/60 Hz, ±5%						
Overvoltage threshold		V dc	820 V dc						
Undervoltage threshold		V dc	225 V dc (@230 V ac); 391 V dc (@400 V ac)						
DC-link capacity		µF	470	680	680	1,020	1,500	2,250	2,700
In • Effective input current (@ In out)	@230 V ac	A	12	17	23	31	42	50	55
	@400 V ac	A	11	16	22	29	40	47	53
THD with DC choke @ I2n (according to EN 12015)			<35%						
No-load consumption (Energy rating): Stand-by consumption "Fan Off"		W	20	20	20	20	20	20	20

Output data

Output data			1040	1055	2075	2110	3150	3185	3220
In • Rated output current (fsw = default)		A	9	13.5	18.5	24.5	32	39	45
Pn mot (Recommended motor power, fsw = default)	@Uln = @230 V ac	kW	2	3	4	5.5	7.5	9	11
	@Uln = @400 V ac	kW	4	5.5	7.5	11	15	18.5	22
Reduction factor[1]	Kt[2]		0.95	0.95	0.95	0.95	0.95	0.95	0.95
	Kalt[3]		1.2	1.2	1.2	1.2	1.2	1.2	1.2
Overload		%	200% * 10sec with output frequency > 3 Hz 150% * 10sec with output frequency < 3 Hz						
Maximum switching frequency		kHz	10						
U2 • Maximum output voltage		V ac	0.98 x Uln (Uln = AC input voltage)						
f2 • Maximum output frequency		Hz	300						
IGBT braking unit (requires external resistor)			Standard internal with external resistor; braking torque 150% MAX						

Notes: 1) The derating factors shown in the table below are applied to the rated DC output by the user. They are not automatically implemented by the drive:
I_{DRIVE} = In x Kalt x Kt.
2) Kt: derating factor for ambient temperature of 50 °C (1% every °C above 40 °C).
3) Kalt: derating factor for installation at altitudes above 1,000 meters a.s.l. Value to be applied = 1.2% each 100 m increase above 1,000 m.

WEG-eXpress programming software

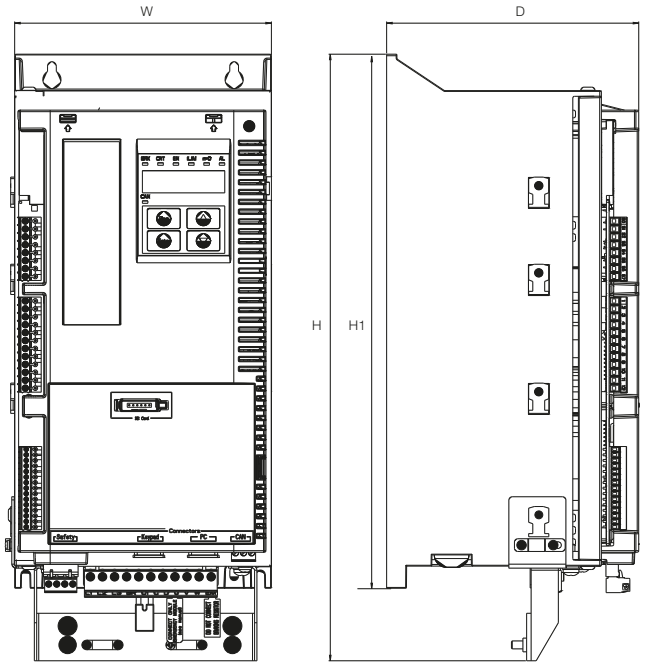




The configuration of the drive is organized in various contextual menus, where the operator through a graphical layout is guided step by step in the configuration process.

Dimensions and weight

Mechanical size		1	2	3
W	(mm)	162	162	235
H	(mm)	343	437	456
H1	(mm)	337	392	392
D	(mm)	159	159	180
Weight	(kg)	5.6	7.6	10.5



WEG Group
Gerenzano (VA) Italy
Phone: +39 02 967601
info.motion@weg.net
www.weg.net

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The values shown are subject to change without prior notice.
The information contained is reference values.