



HIGH DEMANDING

ADL550

THE ULTIMATE INVERTER FOR LIFTS

UNIQUE IN **SAFETY** AND
FLEXIBILITY



PRODUCT RANGE

3 ph 400 V - from 4 to 45 kW | 3ph 200 V - from 5.5 to 22 kW | 1ph 200 V - from 1.1 to 5.5 kW



MOTOR CONTROL

Geared and Gearless motors | OL - SSC and Vector SLS | CL - universal encoder



EMERGENCY OPERATION

Single phase UPS | DC batteries 48-96 V (-UB or -EMS version)



COMMUNICATION

Parallel IO | Modbus TCP | CANopen | CANopen LIFT DS417 | DCP3 / DCP4



FULL SAFETY

STO SIL3 | Safe Brake Test | Safe Brake Control SIL3 (with EBC500)



ADVANCED FEATURES

Stand-by function | Elevator Position Control (EPC) | Peripheral encoder management



COMPLIANCES

EN81-20 | EN81-50 | ASME 17.5 | CSA B44.1



MORE
INFO



ADL550 - The Ultimate Inverter for Lifts

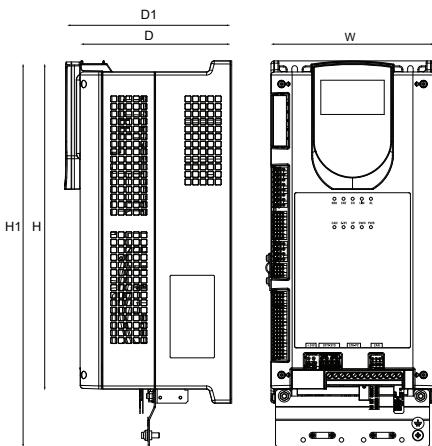
Unique in Safety and Flexibility



GENERAL SPECIFICATIONS	
Control Mode	SSC (Scalar control OL and CL) Asyn SLS (Sensorless FOC) Asyn FOC - Syn FOC (Field Oriented Control CL)
Power	1.1 ... 45 kW
Elevator / Motor type	Asynchronous, Synchronous
Analog / Digital inputs	8 DI + Enable, 4 relay outputs
Universal Multi-Encoder	SinCos, EnDat, SSI, BiSS, Digital incremental and sinusoidal interface (TTL / HTL)
Advanced Functions	Safety functions, System stand-by management, Position Control, Direct Arrival (EPC), DCP3 and DCP4 protocol (with optional card EXP-DCP-ADL500)
Communication port	Modbus TCP, CAN (Standard CANopen and CANopen DS417), USB and Wi-Fi, Serial Communication (with option card)
DC choke	Integrated above 22 kW
EMI Filter	Integrated (in the ADL500...-F version)
Emergency operation	Based on drive version: UPS (1x230 Vac), UPS or battery with aux PW supply (UB version), direct 48-96 Vdc battery supply (EMS version)
Protection class	IP20
Operating temperature	Size 1/2/3 50°C (without derating)
	Size 4 45°C (without derating) 50°C (with derating)
Normative compliances	EN 81-20, EN 81-50, EN 50581:2012
Safety	Phase Contactless (STO SIL3), Brake Contactless (with EBC500 Electronic Safe Brake Control SIL3)
Markings *	

* To verify based on model

DIMENSION AND WEIGHT



MECHANICAL SIZE		1	2	3	4
W	[mm]	162	162	235.8	268
H	[mm]	340	390	392	612
H1	[mm]	386.5	436.5	434.5	682
D	[mm]	151	151	179.1	281
D1	[mm]	166	166	194.4	295.6
Weight	[kg]	5.5	7	10	32

INPUT DATA			ADL550-____-4								1040	1055	1075	2110	2150	3185	3220	4300	4370	4450	
			ADL550-____-2T								2055		2075	3110	4150	4185	4220				
			ADL550-____-2M				1011	1015	2022	2030	3040	3055									
ULN - AC Input voltage			Vac		Three-phase 230 - 400 - 480 Vac -15% +10% (-4 models) three-phase 200 - 230 Vac ±10% (-2T models) single-phase 200 Vac ±10% - 230 Vac -15% +10% (-2M models)																
FLN - Input frequency			Hz		50/60 Hz, ±5% (-4); 50/60 Hz, ±2% (-2T and -2M)																
Overvoltage threshold			Vdc		820 Vdc (-4); 500 Vdc (-2T); 410 Vdc (-2M)																
Undervoltage threshold			Vdc		@ 480 Vac = 470 Vdc; @ 460 Vac = 450 Vdc; @ 400 Vac = 391 Vdc; @ 230 Vac = 225 Vdc; @ 200 Vac = 196 Vdc																
IN Effective input current (@ IN OUT)	-4	@ 230 Vac	A	-	-	-	-	12	17	23	31	42	50	55	55	72	89				
		@ 400 Vac	A	-	-	-	-	11	16	22	29	40	47	53	55	72	89				
		@ 480 Vac	A	-	-	-	-	10	15	20	26	37	45	50	49	65	81				
	-2T	@ 230 Vac	A	-	-	-	-	-	31	42	55	55	72	89	-	-	-				
	-2M	@ 230 Vac	A	16	18	24	31	35	50	-	-	-	-	-	-	-	-	-			

OUTPUT DATA			ADL550-____-4								1040	1055	1075	2110	2150	3185	3220	4300	4370	4450	
			ADL550-____-2T								2055		3075	3110	4150	4185	4220				
			ADL550-____-2M				1011	1015	2022	2030	3040	3055									
In - Rated output current (fsw = default)	-4	@ 230-400 Vac	A	-	-	-	-	9	13.5	18.5	24.5	32	39	45	60	75	90				
		@ 460 Vac	A	-	-	-	-	8.1	12.2	16.7	22	28.8	35.1	40.5	54	67.5	81				
	-2T	@ 200-230 Vac	A	-	-	-	-	-	24.5	32	45	60	75	90	-	-	-				
	-2M	@ 200-230 Vac	A	6	6.8	9.6	13	15	22	-	-	-	-	-	-	-	-				
Pn mot (Recommended motor power, fsw = default)	-4	@ 230 Vac	kW	-	-	-	-	2	3	4	5.5	7.5	9	11	15	18.5	22				
		@ 400 Vac	kW	-	-	-	-	4	5.5	7.5	11	15	18.5	22	30	37	45				
		@ 460 Vac	Hp	-	-	-	-	5	7.5	10	15	20	25	30	40	50	60				
	-2T	@ 200-230 Vac	kW	-	-	-	-	-	5.5	7.5	11	15	18.5	22	-	-	-				
		@ 200-230 Vac	Hp	-	-	-	-	-	7.5	10	15	20	25	30	-	-	-				
	-2M	@ 230 Vac	kW	1.1	1.5	2.2	3	4	5.5	-	-	-	-	-	-	-	-				
Reduction factor	Kt ^[1]	-4		-	-	-	-	1	1	1	1	1	1	1	0.95	0.95	0.95				
		-2T		-	-	-	-	-	1	1	1	0.95	0.95	0.95	-	-	-				
		-2M		1	1	1	1	1	1	-	-	-	-	-	-	-	-				
	KALT ^[2]			1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2				
Overload			%		183% x 10 s / 200% x 2 s @ 0 Hz																
Switching frequency			kHz		10																
U2 - Maximum output voltage			Vac		0.98 x Uln (Uln = AC input voltage)																
f2 - Maximum output frequency			Hz		300																
IGBT braking unit					Standard internal (requires external resistor); braking torque 150% MAX																

Notes

[1] Kt (ADL550 size 1, 2, 3): no derating.
Kt (ADL550 size 4): derating factor for ambient temperature of 50°C (1% every °C above 45°C).
[2] 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.
E.g.: altitude 2,000 m, Kalt = 1.2% x 10 = 12% derating; In derated = (100 - 12) % = 88 % In

Tools for operators



WEG Liftouch APP

The WEG Liftouch app is used to interface locally via Wi-Fi or Ethernet. The intuitive and responsive interface makes user experience simple and smart.



WEG DriveLabs

The WEG DriveLabs configurator software is a Windows based professional interface enabling advanced drive control including datalogger and Digital Oscilloscope tools.



Ethernet
Modbus TCP

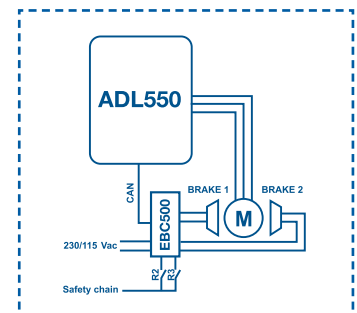
EBC500

Electronic Brake Control

Up to 2 brakes from 105 to 207 Vdc
Safe Brake Control SIL3 certified



ZERO CONTACTORS



Integrated Safety circuit STO SIL 3
+ Safe Brake Control SIL 3

