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# HD3N-L Lift Open Loop Driver

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# PART 01

## Product Features



**Ideal for Open Loop Elevator**

**Tailor-make design**

**Excellence Performance**

**Applied latest integrated  
controller technology**

**Space-saving**

**Reduce 45% in size**

**Ideal Heat Dissipation**

**Full metal framework**

**More Rigid in Structure**

**Full metal framework**

**Support OTA Function**

**Online remote software upgrade**

**Easier Control**

**Build-in keypad**



**HD3L-L Driver**



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# PART 02

## Open Loop Solution Development





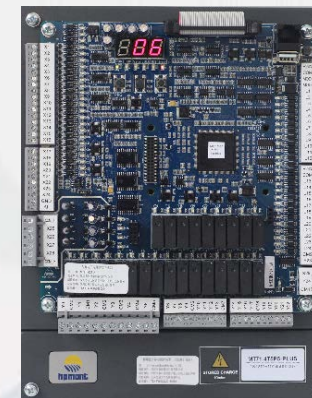
## HD3L Driver

- √ Open loop control
- √ 2 digital outputs
- √ 6 digital inputs
- √ 1 relay outputs
- √ 2 analogue inputs and outputs
- × Remote online update-OTA device



## HD3N-L Driver

- √ Open loop control
- √ 2 digital outputs
- √ 8 digital inputs
- √ 2 relay outputs
- √ 1 analogue inputs and outputs
- √ Remote online update-OTA device



## MT73-Integrated Open Loop Controller

- √ Open loop control
- √ Optional and universal keypad
- √ 25 digital inputs & 2 high voltage inputs
- √ 25 relay outputs
- √ 24 button inputs
- √ Remote online update-OTA device
- √ Turning into integrated controller



Same Points					
Terminals	I/O	Description	Terminals	I/O	Description
+10, GND	Analog power	+ 10V reference power for analog input, the maximum allowable output current is 100mA • Can be changed to + 5V through CN15 jumper selection GND is isolated from COM	SEL	Digital input common	Factory shorted with P24 When using external power to drive DI, disconnect the shorting bar between SEL and P24
AI1	Analog input 1	AI1, AI2 input voltage range 0-10V, input impedance 22kΩ	DO1	Digital output 1	DO1 open collector output, voltage range 0-30VDC, maximum current 50mA
AO1	Analog output 1	Output voltage / current signal: 0-10V / 0-20mA Programmable output	DO2, COM	Digital output 2	When DO2 can be selected as pulse frequency output, the highest frequency is 10kHz
GND	Analog ground		R1A / R1B / R1C	Relay output	Programmable output, contact capacity: 250VAC / 3A or 30VDC / 1A R1B, R1C normally closed, R1A, R1C normally open
DI1 – DI6	Digital input	DI1-DI6 input voltage range 12-30VDC	P24, COM	Digital power	+ 24V power supply for digital input, maximum allowable output current 200mA

Different Points					
HD3N-L			HD3L		
Terminals	I/O	Description	Terminals	I/O	Description
DI7	Digital input 7	DI7-DI8 input voltage range 12-30VDC	AI2	Analog input 2	AI2 input current range 0-20mA, input impedance 500Ω
DI8	Digital input 8		AO2	Analog output 2	Output voltage / current signal: 0-10V / 0-20mA
R2A / R2C	Relay output	Programmable output, contact capacity: 250VAC / 3A or 30VDC / 1A, R2A, R2C normally open			





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# PART 03

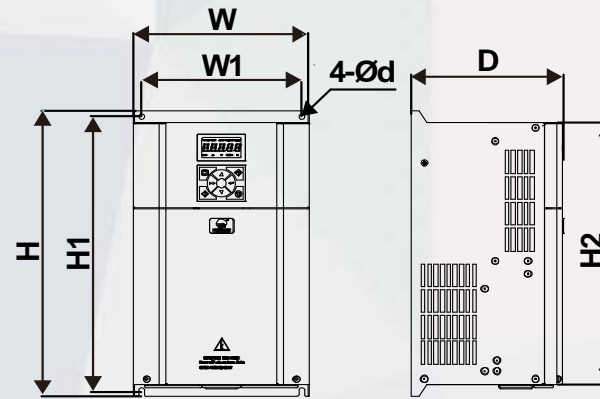
## Product Introduction



## 1. Power

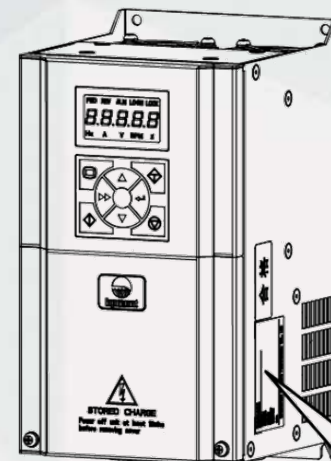
Model	Motor (kW)	Rated Capacity (kVA)	Rated Input Current (A)	Rated Output Current (A)	Size
HD3N-4T7P5-L	7.5	11	19	17	Frame3
HD3N-4T011-L	11	16	28	25	Frame3
HD3N-4T015-L	15	21	35	32	Frame4
HD3N-4T018-L	18.5	24	39	37	Frame4
HD3N-4T022-L	22	30	47	45	Frame5


## 2. Dimension



Size	Dimension (mm)			Mounting Size (mm)				GW (kg)
	W	H	D	W1	H1	H2	d	
Frame3	140	260	155	122	248	235	6	5.4
Frame4	180	298	175	160	284	270	6	8.3
Frame5	220	375	190	200	360	345	7	13

## 3. Nameplate



Product model	MODEL:	HD3N-4T7P5-L
Motor power	POWER:	7.5kW
Input specification	INPUT:	3PH 380-460V 19A 50/60Hz
Output specification	OUTPUT:	11kVA 0-460V 17A 0-100Hz
Software version	Version:	1.00
Serial number		



## 4. Technical Data

Electrical	
Input voltage	Three-phase: 380-460V, 50 / 60Hz Fluctuation does not exceed $\pm 10\%$ , imbalance rate $< 3\%$
Input frequency	50 / 60Hz $\pm 5\%$
Output voltage	0V-input voltage
Output frequency	0 - 100.00Hz
Performance	
Overload capacity	150% rated output current for 2 minutes; 180% rated output current for 10 seconds
Control method	V / f control; Open loop vector control (SVC)
Run command setting mode	Operation panel setting, external terminal setting, communication port setting
Speed setting method	Digital setting, communication setting
Speed setting resolution	Digital setting: 0.01Hz
Speed control accuracy	SVC: $\pm 0.2\%$
Speed control range	SVC: 1:100
Torque control response	SVC: $< 200\text{ms}$
Starting torque	SVC: 100% rated torque / 0.5Hz
Torque control accuracy	$\pm 5\%$

## 4. Technical Data

Characteristic Functions	
Parameter upload and download function	Can realize parameter upload to the operation panel backup function (requires external operation panel)
Programmable input and output interface	Input terminal function can be edited, output terminal function can be edited
Protocol	Standard Modbus communication protocol
Protection Functions	
Power-on safety self-test	Power on to conduct security checks on peripheral devices to eliminate potential safety hazards
Overspeed protection	Elevator overspeed protection function to ensure safe operation
Speed deviation protection	With speed deviation detection and protection function, eliminate hidden safety hazards
Input and output phase loss protection	Input and output phase loss automatic detection and alarm function
Temperature detection of traction machine	Real-time detection of traction machine temperature to eliminate safety hazards
Output short circuit protection	Output short-circuit effective protection function
Output short-circuit protection	Effective protection function of output phase short circuit
Input / Output	
Digital input	DI1 - DI8
Digital output	DO1, DO2
Analog input	AI
Analog output	AO
Relay output	R1A / R1B / R1C, R2A / R2C    Contact capacity: 250VAC / 3A or 30VDC / 1A
SCI communication	A / B interface, RJ45





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# PART 04

## Product Market





HD3N-L is specially designed for customers to promote products easily and with increase business competition. Cost and performance is the best now.

With the spirit of never-giving up and continuous improvement, our R&D enhanced HD3N-L performance, it has good leveling and running quality and its market will definitely be better than our current market.





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