

DL300 Series

Open Loop Vector Type General Inverter

Shenzhen Simphoenix Electric Technology Co., Ltd

Address: Building A, Huichao Industrial Park, 2nd Rd of Gushu, Xixiang,
Baoan District, Shenzhen, Guangdong, China

Tel: 86-755-26607756, 26910801

Fax: 86-755-26912599, 26919882

E-mail: business01@sunfardrive.com / business02@sunfardrive.com

Web: www.simphoenix.com



TO BE OUTSTANDING AUTOMATION PRODUCT AND SOULUTION PROVIDER

We are devoted to be remarkable automation product and solution provider



Enterprise Mission

to creat value for customers

Enterprise Vision

to be outstanding automation product and solution provider

Enterprise Spirit

Innovation and enterprising

Core Value

Integrity, win-win, pragmatic, dedication

Business Philosophy

People oriented and common progress

★ Headquarter

📍 Oversea sales network

○ Domestic sales network

5 Regions

15 Overseas sales network

35 Offices

Timely response to the customer requirements

www.simphoenix.com



Established in 2004, Shenzhen Simphoenix Electric Technology Co., Ltd. is committed to becoming an outstanding provider of automation products and solutions. The company specializes in the development, production, sales and service of industrial automation products, and the main products are servo drive, inverter, permanent magnet synchronous motor, PLC, HMI and so on.

After more than ten years of development, Simphoenix has become a well-known brand with complete product structure and strong R&D strength among domestic industrial automation brands.



DL300 Series

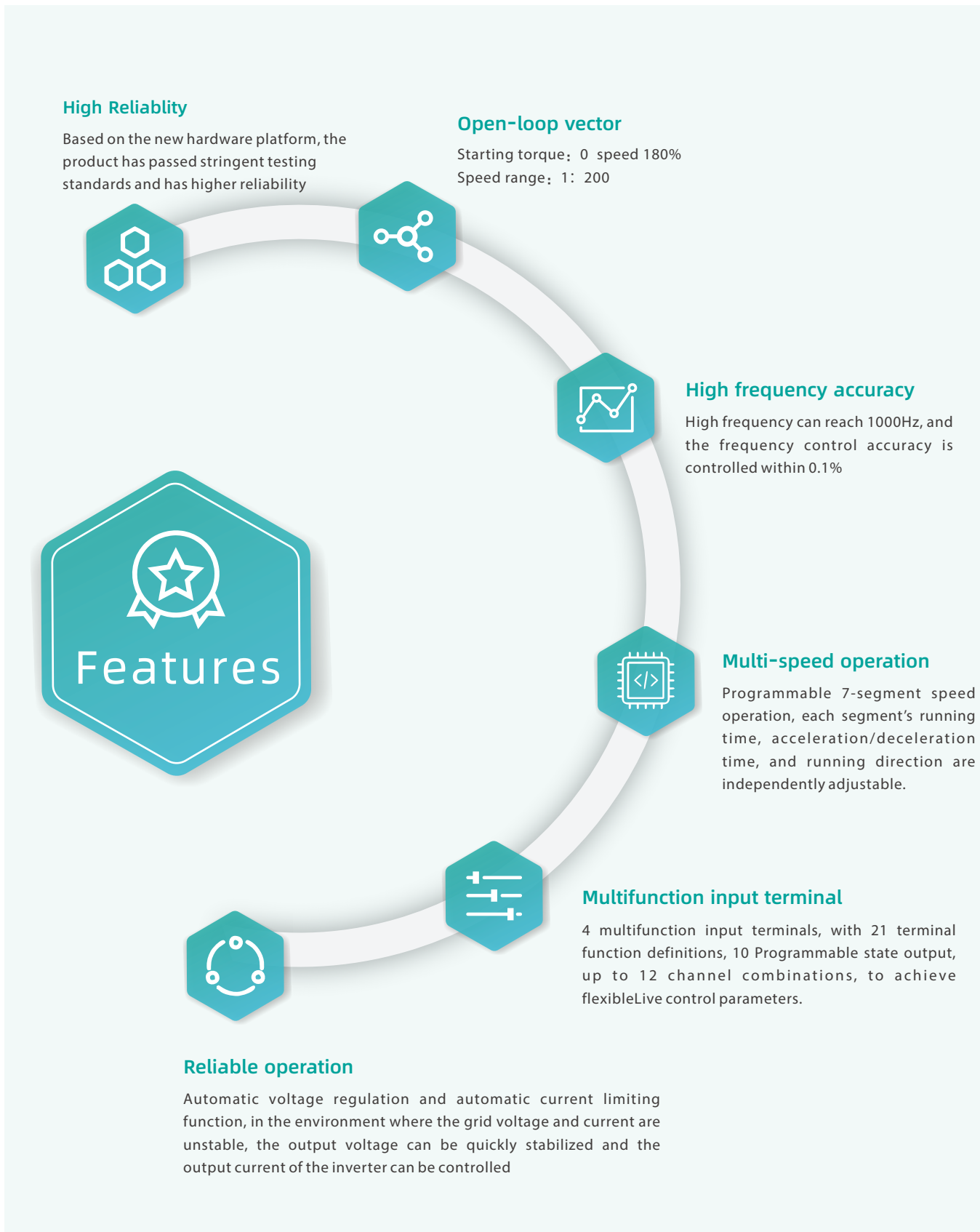
DL300 Series Open Loop Vector Type General Inverter

This is a super small ac drive with elegant appearance and excellent performance, continued the control algorithm of Simphoenix high-end inverter, support asynchronous motor VF and open-loop vector, permanent magnet synchronous motor open-loop vector control, and flexible parameter configuration. It is a vector inverter with superior performance and complete protection functions.



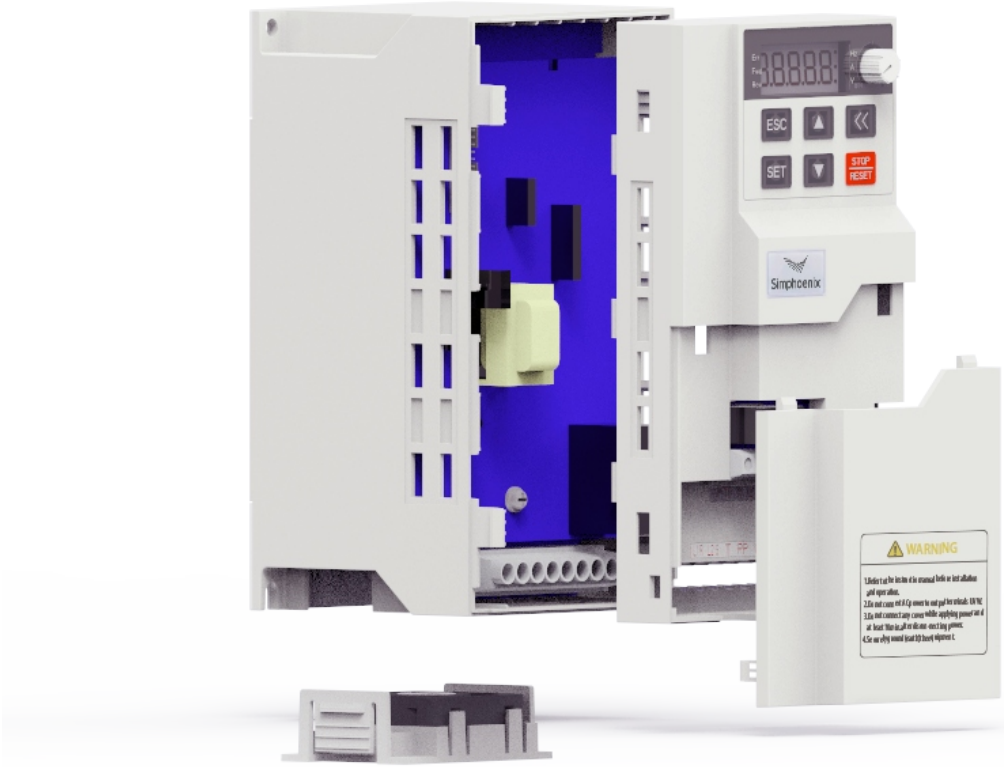
Applications

Widely applied in the food machinery, engraving machine, woodworking machine, textile and PV new enegyery.



Structure

- High space utilization and high power integration density
- Small size and thin thickness to meet the needs of compact installation of equipment
- Independent air duct blowing design to reduce the impact of dust and particles on internal devices



Naming rule

DL300-4 T 0015 G

Model	
DL300 series open-loop vector type general inverter	
Voltage class	
4	AC-380V
2	AC-220V
power phase	
T	three phase
S	single phase

load type	
G	heavy load
P	light load

adaptor power (kW)	
0011	1.1
0015	1.5
...	...
...	...
0150	15.0

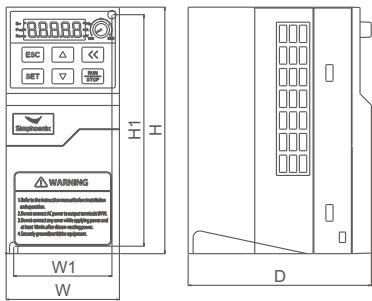
Specifications

Input	Rated voltage and frequency	Three phase (4T#) 380V 50/60Hz	Single phase (2S#) 220V 50/60Hz
	Allowable voltage range	380 ~ 415V±10%	220V±10%
Output	Voltage	0~Input voltage	
	Frequency	Low frequency mode: 0.0~300Hz High frequency mode: 0.0~1000Hz	
	Loading capacity	General load mode: 110% -- long time; 150% -- 1min; 180% -- 2 sec Steady light load: 105% -- long time; 120% -- 1min; 150% -- 2 sec	
Control characteristics	Control method	VF control	Open loop vector control
	Starting torque	0 speed 180%	0 speed 180%
	Adjusting range	1:100	1:200
	Frequency setting resolution	Analog input	0.1% of maximum output frequency
		Digital setting	Low frequency mode: 0.01Hz, High frequency mode: 0.1Hz
	Frequency Accuracy	Analog input	0.1% of maximum output frequency
		Digital setting	Within 0.1% of the setting output frequency
	V/F curve (voltage frequency characteristic)	Multi-node V/F curve can be set arbitrarily, built-in power reduction curve of multiple groups of fans and pumps	
	Torque boost	Manual setting: 0.0 to 20.0% of rated output	
	Automatic current limit and pressure limit	No matter in the process of acceleration, deceleration or steady-state operation, the motor stator current and voltage are automatically detected, and they are suppressed within the allowable range according to a unique algorithm	
	Undervoltage suppression during operation	Especially for users with low grid voltage and frequent grid voltage fluctuations, the system can maintain the longest possible running time according to the unique algorithm and residual energy distribution strategy	
	Carrier features	Carrier 2.0~8.0Khz, can be related to temperature, load, fundamental frequency, and variable carrier operation (noise smoothing)	
	Start/stop characteristics	DC pre-excitation, DC braking at stop, action time and action current can be set	
Typical functions	Meagnetic flux brak	By increasing the magnetic flux of the motor (0~100% can be set)	
	Multispeed control	7-stage programmable multi-stage speed control, 5 operating modes are optional	
	Optional built-in PID controller	Integrated optimized PID controller for simple closed-loop control	
	RS485communication and linkage control	MODBUS	
	Frequency setting	Analog input	DC voltage 0~10V, DC current 0~20mA (optional)
		Digital input	Operation panel setting, potentiometer setting, RS485 interface setting, UP/DW terminal control, and various combination settings with analog input
	Output signal	Relay and OC output	1 channel OC output and 1 channel relay normally open output (TA/TC), up to 16 options
		Analog output	1 channel 0~10V voltage signal, the upper and lower limits can be set separately
	Automatic voltage regulation operation	Three methods: dynamic voltage regulation, static voltage regulation, and unregulated voltage to obtain the most stable operation effect.	
Display	panel display	Running statue	Output frequency, output current, output voltage, motor speed, set frequency, module temperature, analog input and output, etc.
		Alarming	The latest 5 fault records, the output frequency, output current, output voltage, DC voltage, module temperature and other 8 operating parameters records when the latest fault trips
	protection/alarm function		
	Overcurrent, overvoltage, undervoltage, overheating, short circuit, output phase loss, internal memory failure, etc.		
Environment	Temperature	Working environment temperature: -10°C to +45°C (no freezing) (45℃ ~ 50℃ derating use)	
	Installation environment	Indoor vertical installation, free from direct sunlight, no corrosive, flammable gas, no oil mist, dust, dripping water or salt	
	Altitude	0~1000m, the load will be derated by 10% for every 1000m increase	
	Cooling method	Forced air cooling	
	Installation	Wall-mounted	
	pollution level	2	
	Vibration	< 6m/s²	
	Humidity	Below 90%(no frost)	
	Protection level	IP20	

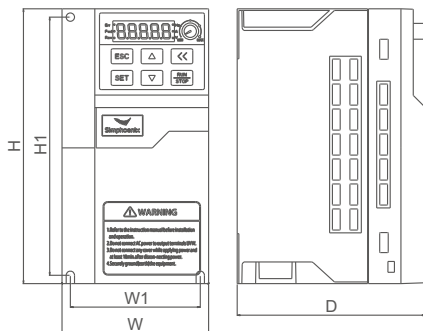
Model

Model	General load mode			Steady light load		
	Rated capacity (kVA)	Output current (A)	Suitable motor (kW)	Rated capacity (kVA)	Output current (A)	Suitable motor (kW)
DL300-2S0007	1.9	5.0	0.75	---	---	---
DL300-2S0015	2.9	7.5	1.5	---	---	---
DL300-2S0022	3.8	10.0	2.2	---	---	---
DL300-2S0030	5.3	14.0	3.0	---	---	---
DL300-2S0040	6.3	16.5	4.0	---	---	---
DL300-4T0011G/4T0015P	2.0	3.0	1.1	2.4	3.7	1.5
DL300-4T0015G/4T0022P	2.4	3.7	1.5	3.6	5.5	2.2
DL300-4T0022G/4T0040P	3.6	5.5	2.2	6.3	9.5	4.0
DL300-4T0040G/4T0055P	6.3	9.5	4.0	8.6	13.0	5.5
DL300-4T0055G/4T0075P	8.6	13.0	5.5	11.2	17.0	7.5
DL300-4T0075G/4T0110P	11.2	17.0	7.5	16.5	25	11
DL300-4T0110G/4T0150P	16.5	25	11	21.7	33	15
DL300-4T0150G/4T0185P	21.7	33	15	25.7	37	18.5

Dimensions



Class I
DL300-4T0011G/4T0015P~
DL300-4T0015G/4T0022P
DL300-2S007~2S0015



Class II, III and IV
DL300-4T0022G/4T0040P~
DL300-4T0150G/4T0185P
DL300-2S0022~2S0040

Model (Three phase 380V)	Model (Single phase 220V)	W1 (mm)	W (mm)	H1 (mm)	H (mm)	D (mm)	Screw specification
DL300-4T0011G/4T0015P	DL300-2S0007	59	68	139	148	110	M4
DL300-4T0015G/4T0022P	DL300-2S0015						
DL300-4T0022G/4T0040P	DL300-2S0022	78	88	155	165	113	M4
DL300-4T0040G/4T0055P	DL300-2S0030						
DL300-4T0055G/4T0075P	DL300-2S0040	99	109	199	209	135	M4
DL300-4T0075G/4T0110P	---						
DL300-4T0110G/4T0150P	---	134	146	235	249	155	M5
DL300-4T0150G/4T0185P	---						

Wiring diagram

