

DL100 Series



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SERVO DRIVE | VFD | PMSM | PLC | HMI

Low-power General-purpose Inverter



CE SGS RoHS

Introduction

Product Structure

Product Feature

High reliability

Based on new hardware platform, high reliability with stringent test

High frequency accuracy

The high frequency can reach 600.00Hz, and the frequency control accuracy is controlled within 0.1% to achieve high-precision control system requirements

Multi-function input terminal

4 multi-function input terminals, up to 12 channel combinations, to achieve flexible control parameters

Multi-protection

Multiple protection functions and fault checking mechanisms are convenient for later maintenance while ensuring long-term reliable operation of the inverter

DL100 series low power general-purpose inverter

DL100 series is a small general-purpose inverter developed based on a new software and hardware platform to meet more market needs. It has the characteristics of small size, simple operation, complete protection functions, stable and reliable operation, and can be flexibly applied to various process sites.

Intuitive real-time monitoring

support the monitoring of nearly hundreds of parameters such as power, running time, input/output current and voltage, fault record in real time.

Multi-speed operation

Programmable 7-segment speed operation, each segment's running time, acceleration/deceleration time, and running direction are independently adjustable

Communication protocol

Equipped with RS485 communication interface, standard MODBUS protocol can easily realize real-time communication with PLC, industrial computer and other equipment, and has the function of linkage and synchronization control

Powerful self-adaptive capacity

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Supports adaptive control technology, automatic voltage stabilization and current limiting functions, stable operation even in an environment with unstable grid voltage and current

Application

Food machinery, engraving machines, machine tool applications, textile industry, packaging and transportation, centrifuges, etc.

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- High space utilization and high power integration density
- Small size and thin thickness, meeting the needs of compact installation
- Independent air duct design to reduce the influence of dust and particles on internal components

Power phase number	
Т	three phase
S	single phase

Specifications

input	rated voltage and freq.		three phase(4T#)380V50/60Hz	single phase (2S#) 220V50/60Hz		
p at	allowable voltage range		380~415V±10%	220V±10%		
	v oltage		0~input voltage			
output frequency overload capacity			0.00~600Hz			
		pacity	110%long time; 150%1 min; 180%2 sec			
	control met	:hod	VF control			
	freq. analog input		0.1% of maximum output frequency			
	setting resolution	digital setting	0.01Hz			
cha	freq.	analog input	Within 0.1% of the maximum output frequency			
ntrol nracti	accuracy	digital setting	Within 0.1% of the set output frequency			
erist	V/F curve (voltage freq characteristic)		The reference frequency is arbitrarily set at 5 \sim 600Hz, and the multi-node V/F curve is arbitrarily set			
ics	torque boost		Manual setting: 0.0 \sim 20.0% of rated output;			
	Automatic current limit and pressure limit		Whether in the process of acceleration, deceleration or steady state operation, it automatically detects the stator current and voltage of the motor, and suppresses it within the allowable range according to a unique algorithm			
	Undervoltage suppression during operation		Especially for users with low grid voltage and frequent fluctuations in grid voltage, the system can maintain the longest possible operating time according to the unique algorithm and residual energy distribution strategy even if the voltage is lower than the allowable voltage range			
	Multi-speed	control	7-segment programmable multi-speed control, 5 operating modes optional			
	Optional built-in PID controller		The internal integrated and optimized PID controller can realize simple closed-loop control.			
	Rs485communication and linkage control		MODBUS protocol			
-	6	analog input	DC voltage 0 ~ 10V, DC current 0 ~ 20mA (o	ptioanl)		
ypical unction	setting	digital input	Operation panel setting, potentiometer setting, RS485 interface setting, UP/DW terminal control, can also be combined with analog input for multiple settings			
	output signal	relay and OC output	1 OC output and 1 relay normally open output (TA/TC), up to 16 meaning options			
		analog output	1 channel $0 \sim 10V$ voltage signal, upper and lower limits can be set separately			
	Automatic voltage regulation operation		Three modes of dynamic voltage regulation, static voltage regulation and unregulated voltage can be selected according to needs to obtain the most stable operation effect			
	Acceleration and deceleration time setting		0.01~600 Sec can be set continuously			
	running fun	oction	Upper and lower limit frequency setting, reverse running limit, RS485 communication, frequency increase and decrease control, etc.			
<u>a</u> .		running status	Output frequency, output current, output voltage input and output, etc.	ge, motor speed, set frequency, module temperature, analog		
splay	operation panel display	alarming	The last 4 fault records, the output frequency, or DC voltage, module temperature and other 5 op	utput current, output voltage, verating parameter records at the time of the last fault trip		
protection/alarm function		inction	Overcurrent, overvoltage, undervoltage, overheating, short circuit, internal memory failure, etc.			
temperature		ire	Working environment temperature: -10°C to +45°C (no freezing) (45° C ~ 50°C derating use)			
	environment		Indoor vertical installation, free from direct sunlight, no corrosive, flammable gas, no oil mist, dust, dripping water or salt, etc			
	altitude		0~1000m, the load will be derated by 10% for every 1000m increase			
envir	cooling method		Forced air cooling (2S0004 natural cooling, no fan)			
onm	installiation		Wall-mounted (2S0004 must be installed vertically on the wall)			
lent	pollution level		2			
	vibration		< 6m/s ²			
	humidity		below 90%(no frost)			
	protection level		IP20			

Model table

model No.	rated capacity (kVA)
DL100-2S0004(B)	1.1
DL100-2S0007(B)	1.9
DL100-2S0015(B)	2.9
DL100-2S0022(B)	3.8
DL100-2S0030(B)	5.3
DL100-2S0040(B)	6.3
DL100-4T0007(B)	1.6
DL100-4T0015(B)	3.0
DL100-4T0022(B)	3.6
DL100-4T0040(B)	6.3
DL100-4T0055(B)	8.6
DL100-4T0075(B)	11.2

Installation dimensions

Class I and II DL100-2S0004(B)~DL100-2S0015(B) DL100-4T0007(B)~ DL100-4T0015(B)

Model No. (three phase 380V)	Model No. (single phase 380V)	W1 (mm)	W (mm)	H1 (mm)	H (mm)	D (mm)	screw specification
	DL100-250004(B)	59	68	139	148	110	M4
DL100-4T0007(B)	DL100-2S0007(B)						
DL100-4T0015(B)	DL100-2S0015(B)						
DL100-4T0022(B)	DL100-2S0022(B)	70	0.0	155	165	112	MA
DL100-4T0040(B)	DL100-2S0030(B)	78	88	155	105	113	1014
DL100-4T0055(B)	DL100-2S0040(B)	00	109	199	209	135	M4
DL100-4T0075(B)		99					

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DL100-2S0022(B)~ DL100-2S0040(B)
DL100-4T0022(B)~ DL100-4T0075(B)

rated output current(A	adapted motor(kW
3.0	0.4
5.0	0.75
7.5	1.5
10.0	2.2
14.0	3.0
16.5	4.0
2.5	0.75
4.5	1.5
5.5	2.2
9.5	4.0
13	5.5
17	7.5

System wiring diagram

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