

## DLB1 Series

### High Performance Vector Control General Purpose Inverters



1 Phase 220VAC (-15%~+10%): 0.4~1.5KW  
3 Phase 380VAC (-15%~+10%): 0.75~450KW  
3Phase 660VAC (-15%~+10%): 0.75~450KW



#### Features:

- Servo-standard DSP & IGBT, high quality components;
- V/F control, sensorless vector control & closed-loop vector control all in one!
- Auto-tuning for precise motor control;
- Random V/F curves & AVR (automatic voltage regulation);
- PID control;
- PLC function for multi-speed control, up to 16 speeds;
- 4 groups of acceleration/deceleration times;
- Automatic torque boost & slip compensation;
- Multiple communication cards available: Profibus-DP, CANOpen, Modbus etc.
- Multiple feedback devices supported: Optical encoders, resolvers etc.

# DORNA

Industrial drives chosen by experts.

DORNA Technology Co., Ltd was established in 2006. We are strategically located in Jiashan, Zhejiang, which is the heart of Long River Delta and only one hour's drive to Shanghai's Pudong Airport (PVG).

The production base covers an area of more than 50 acres and the registered capital of the Company is RMB 50 million.

DORNA has a strong work force of over 300 employees consisting of highly educated management teams and skilled workers. DORNA possess numerous independent intellectual property rights and specialize in the research & development, production, sales and service of AC variable frequency drives (inverters), AC servo systems (servo drives & servo motors), stepper drives & motors and rotary encoders.



Our products have been widely used in CNC machine tools, textile machines, packaging machines, printing machines, food-making and pharmaceutical equipment, carving machines, spring machines, plastic machines, manipulators & robots etc.



DORNA will make persistent efforts to create more innovations and offer better products and services for clients. Meanwhile, we are looking forward to cooperate with business partners globally.

The following content is for reference only and subject to change without notification. Please contact with our oversea Business Division for latest information.

## Product features (continued)

### Safety first

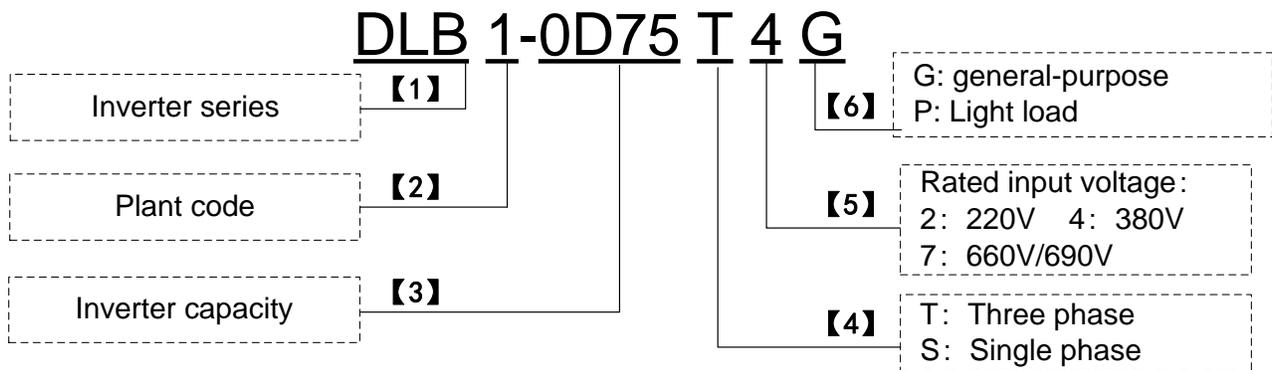
DORNA DL series inverters have comprehensive protection functions such as motor short-circuit detection at power-on, input/output phase loss protection, overcurrent protection, overvoltage protection, under voltage protection, overheat protection and overload protection etc.



### Robust and reliable product design

- PCBs have conformal coating to further increase resilience to harsh environmental conditions;
- A well-designed air flow system cools the drive more effectively and protects internal components;
- Wide supply voltage tolerance keeps drive operation smooth in areas where supplies are variable;
- Trip avoidance features take intelligent action instead of tripping out critical processes;
- High overload capability - 180 % for 3s or 150 % for 60s.

### Model Identifications



#### 【1】 Inverter series

Mark	Specification
DLM	M series
DLB	B series

#### 【2】 Plant code

Mark	Specification
1	General purpose

#### 【3】 Inverter capacity

Mark	Specification
0D40	400W
0D75	750W
01D5	1.5KW
02D2	2.2KW

#### 【4】 Power phase

Mark	Specification
S	Single phase
T	Three phase

#### 【5】 Input voltage

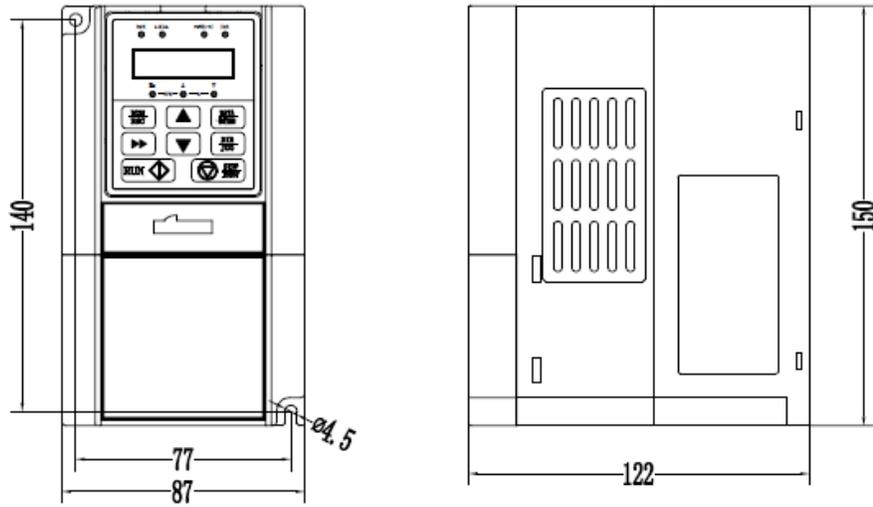
Mark	Specification
2	220V
4	380V

#### 【6】 Inverter type

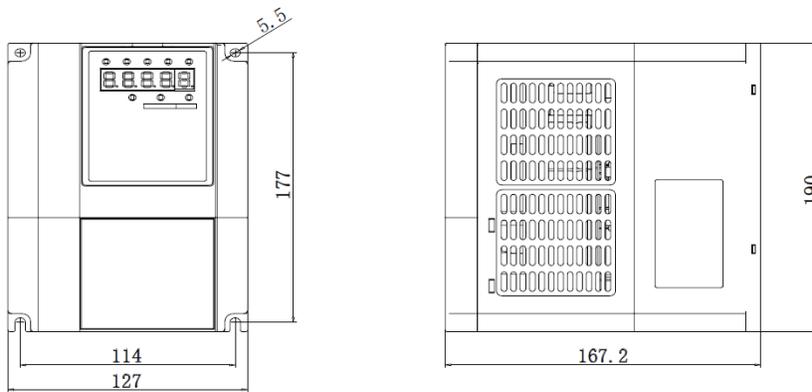
Mark	Specification
G	General-purpose
P	Light load

## Product outline & dimensions (mm)

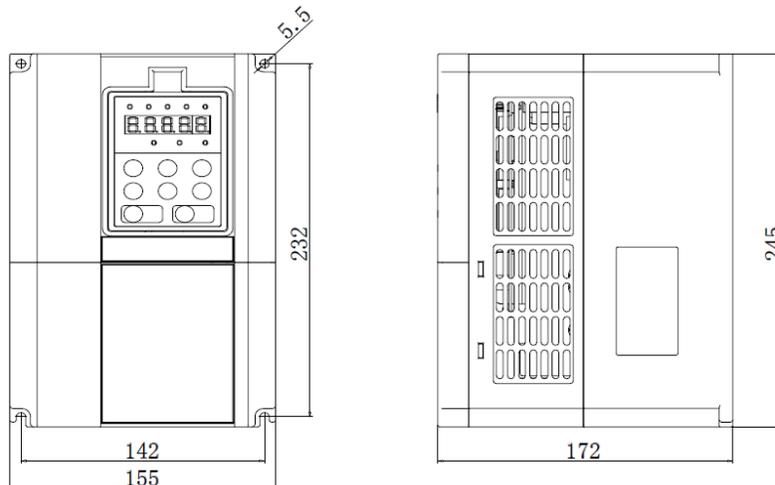
- 0.4KW ~ 1.5KW



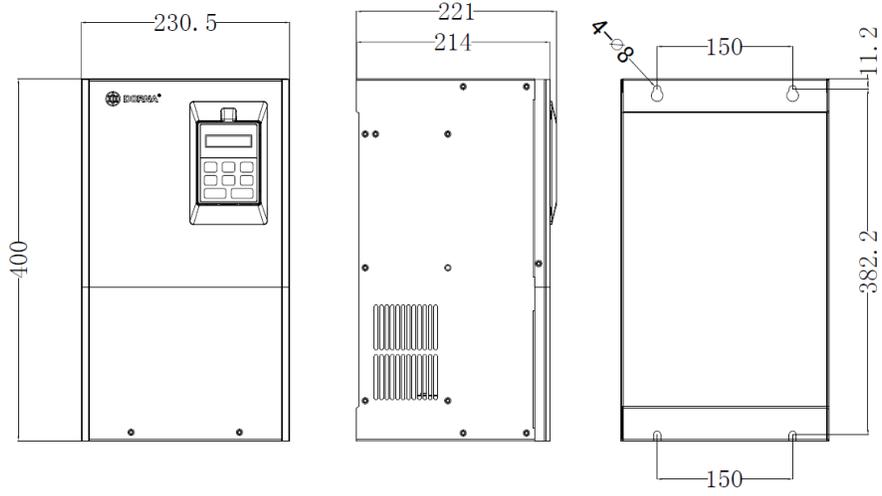
- 2.2KW ~ 3.7KW



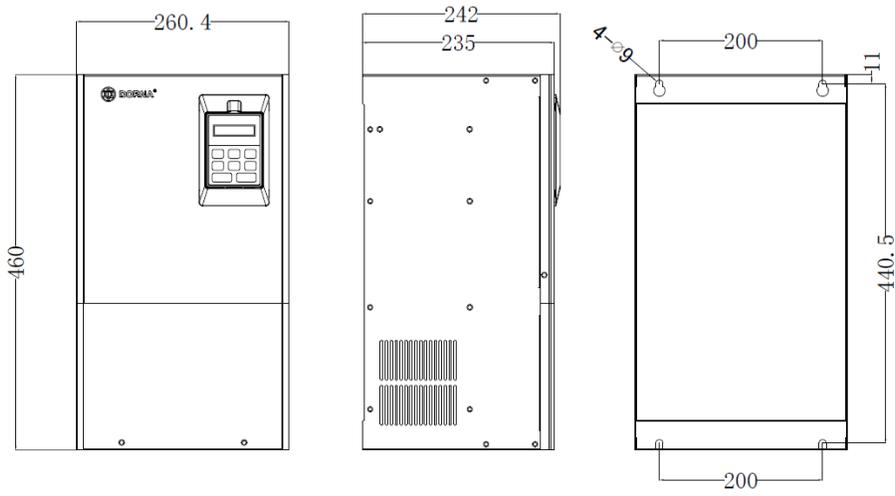
- 5.5KW ~ 7.5KW



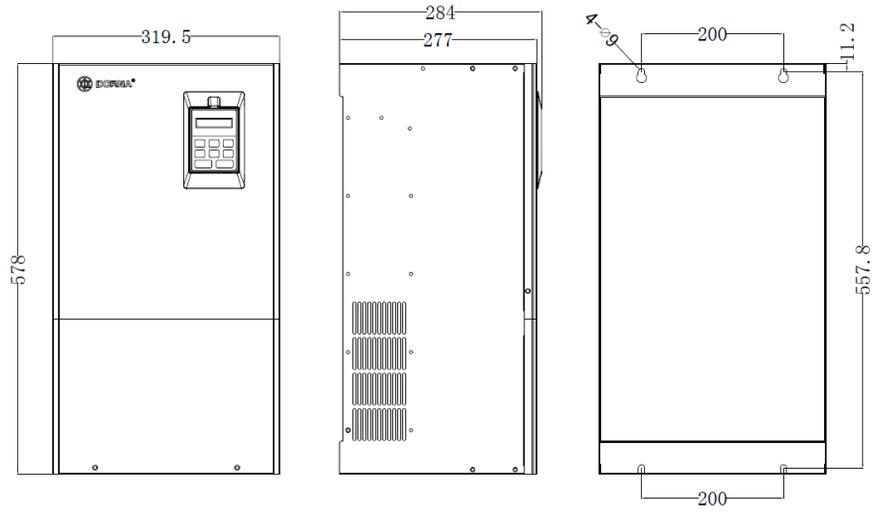
- 11KW ~ 18.5KW



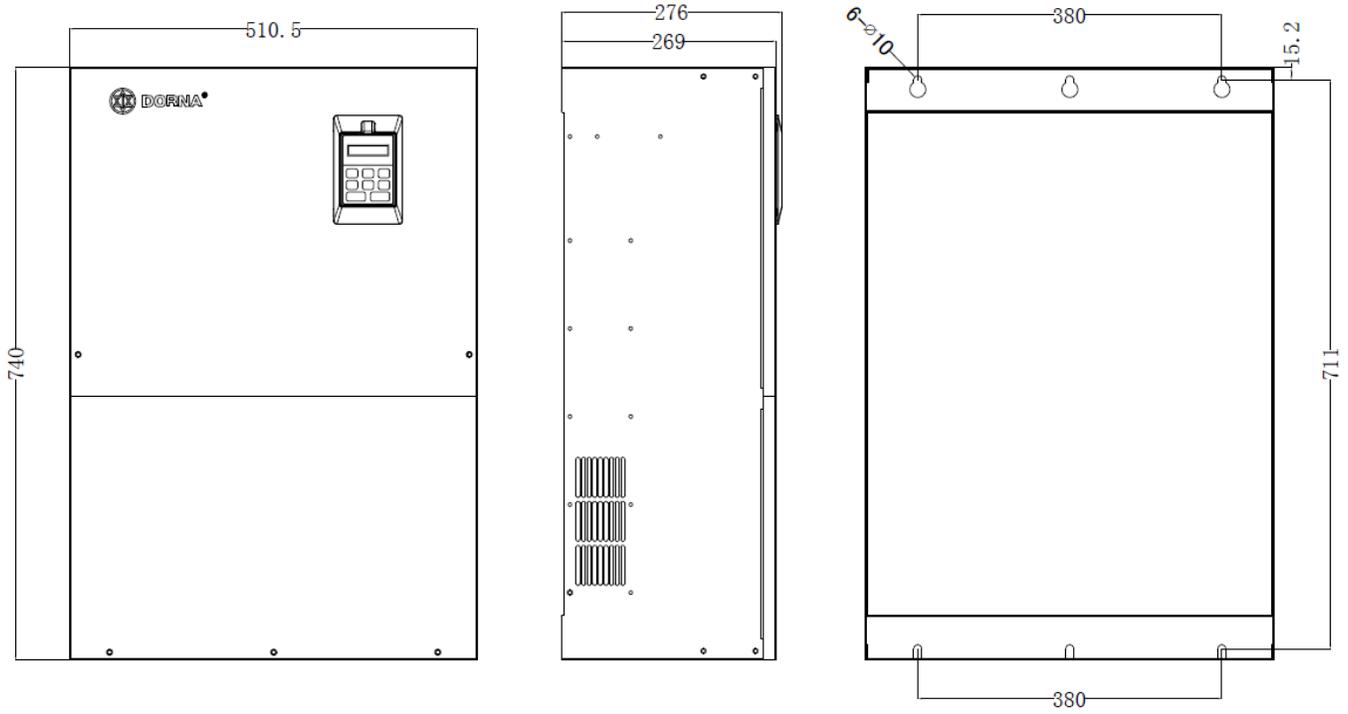
- 22KW ~ 30KW



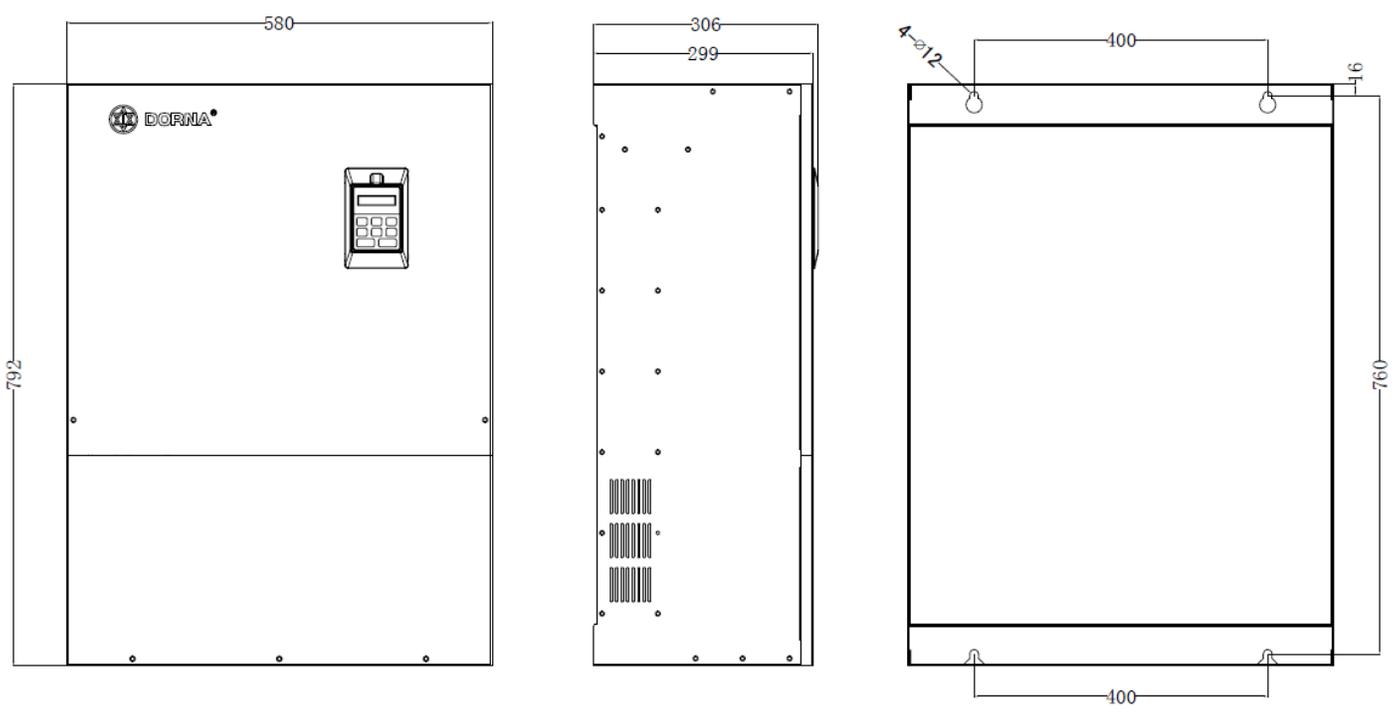
- 37KW ~ 55KW



- 75KW ~ 110KW



- 132KW ~ 160KW



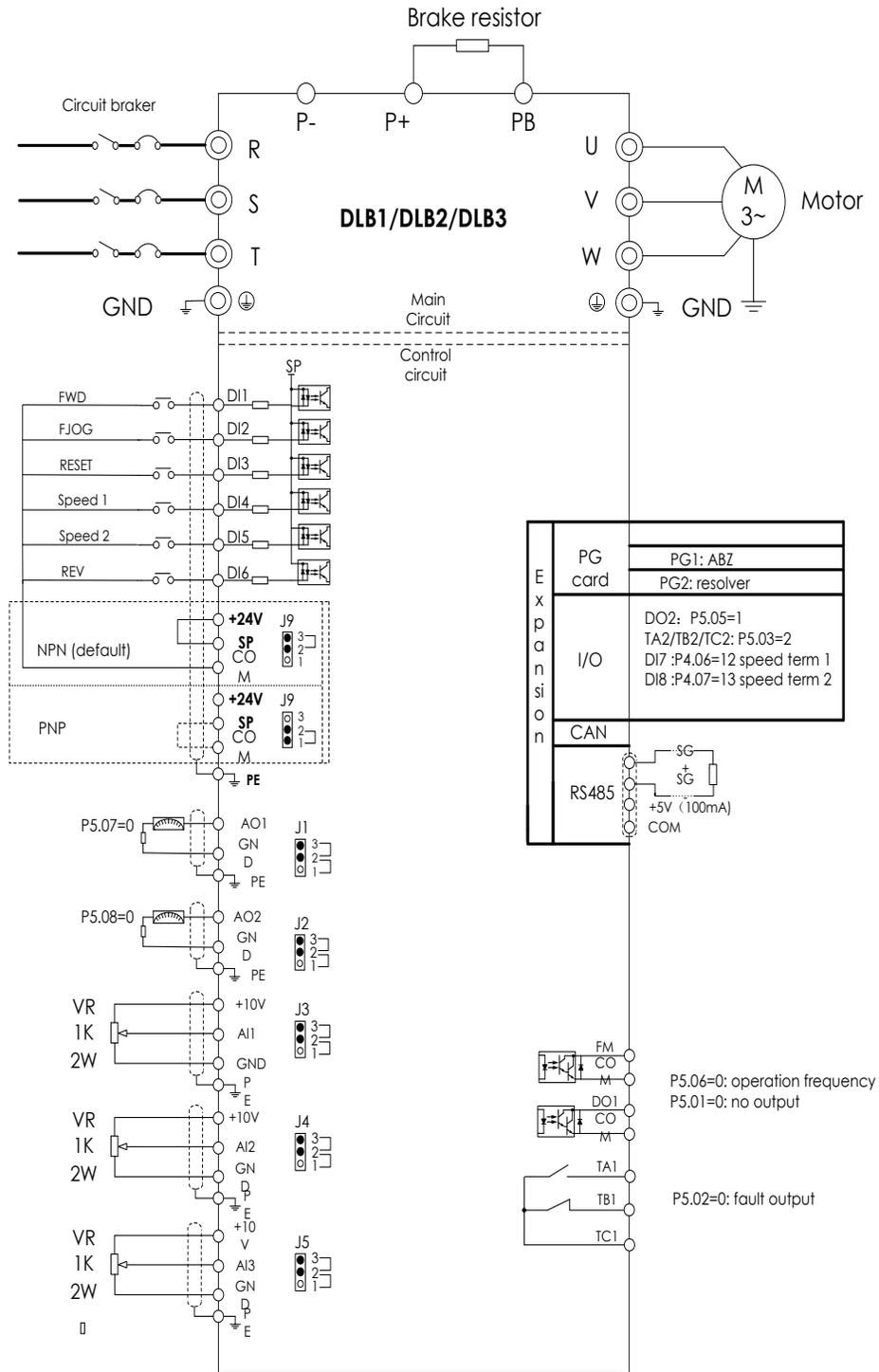
## Standard ratings

Inverter model	Rated output power (kW)	Rated input current (A)	Rated output current (A)
<b>1 Phase 220VAC (-15%~+10%): 50/60Hz</b>			
DLB1-0D40S2G	0.4	5.9	2.5
DLB1-0D75S2G	0.75	8.3	4
DLB1-01D5S2G	1.5	14.1	7
DLB1-02D2S2G	2.2	24.2	10
<b>3 Phase 380VAC (-15%~+10%): 0.75~450KW: 50/60Hz</b>			
DLB1-0D75T4G	0.75	4.3	2.5
DLB1-01D5T4G	1.5	5.2	3.7
DLB1-02D2T4G	2.2	6.0	5
DLB1-0004T4G	4.0	10.5	8.5
DLB1-05D5T4G	5.5	15.5	13
DLB1-07D5T4G	7.5	20.5	16
DLB1-0011T4G	11	27.6	25
DLB1-0015T4G	15	37.1	32
DLB1-0018T4G	18	41.9	38
DLB1-0022T4G	22	49.3	45
DLB1-0030T4G	30	65.7	60
DLB1-0037T4G	37	80.6	75
DLB1-0045T4G	45	96.4	90
DLB1-0055T4G	55	117.6	110
DLB1-0075T4G	75	166.4	150
DLB1-0090T4G	90	184.3	170
DLB1-0110T4G	110	226.8	210
DLB1-0132T4G	132	268.1	250
DLB1-0160T4G	160	321.1	300
DLB1-0187T4G	187	368.0	340
DLB1-0200T4G	200	406.6	380
DLB1-0220T4G	220	442.7	415
DLB1-0250T4G	250	503.0	470
DLB1-0280T4G	280	555.9	520
DLB1-0315T4G	315	650.7	600
DLB1-0355T4G	355	754.5	650
DLB1-0400T4G	400	797.6	725
<b>3 Phase 460VAC (-15%~+10%): 0.75~450KW: 50/60Hz</b>			
DLB1-0D75T5G	0.75	4.1	2.5
DLB1-01D5T5G	1.5	4.9	3.7
DLB1-02D2T5G	2.2	5.7	5
DLB1-0004T5G	4.0	9.4	8
DLB1-05D5T5G	5.5	12.5	11
DLB1-07D5T5G	7.5	18.3	15
DLB1-0011T5G	11	23.1	22

DLB1-0015T5G	15	29.8	27
DLB1-0018T5G	18	35.7	34
DLB1-0022T5G	22	41.7	40
DLB1-0030T5G	30	57.4	55
DLB1-0037T5G	37	66.5	65
DLB1-0045T5G	45	81.7	80
DLB1-0055T5G	55	101.9	100
DLB1-0075T5G	75	137.4	130
DLB1-0090T5G	93	151.8	147
DLB1-0110T5G	110	185.3	180
DLB1-0132T5G	132	220.7	216
DLB1-0160T5G	160	264.2	259
DLB1-0187T5G	187	309.4	300
DLB1-0200T5G	200	334.4	328
DLB1-0220T5G	220	363.9	358
DLB1-0250T5G	250	407.9	400
DLB1-0280T5G	280	457.4	449
DLB1-0315T5G	315	533.2	516
DLB1-0355T5G	355	623.3	570
DLB1-0400T5G	400	706.9	650

# Basic wiring diagrams

0.4KW ~ 18.5KW





Display and panel	LED display	Displays parameters.
	Key lock	It can lock the keys partially or completely and define the function range of some keys so as to prevent mis-function.
	Protection function	Motor short-circuit detection at power-on, input/output phase loss protection, overcurrent protection, overvoltage protection, undervoltage protection, overheat protection and overload protection
	Optional parts	PG card, brake unit, RS485 card, CAN card, Profibus-DP card
Environment	Location	Indoor, free from direct sunlight, dust, corrosive gas, combustible gas, oil smoke, vapour, drip or salt.
	Altitude	Lower than 1000m.
	Ambient temperature	-10°C to +40°C (de-rated if the ambient temperature is between 40°C and 50°C)
	Humidity	Less than 95%RH, without condensing
	Vibration	Less than 5.9m/s <sup>2</sup> (0.6g).
	Storage temperature	- 20°C~ + 60°C.