

# DEZAW Technical Information

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Automation Equipment Parts

## ABOUT US

**Dezaw** focuses on the development of CNC system, servo motor and driver, stepper motor and driver, closed loop stepper motor and driver, spindle, inverter design, products and sales.

Above products are widely used in various of industrial automation fields. such as: CNC lathe machine, CNC milling machine, packing machine, drilling machine, grinding machine, gear hobbing machine, embroidery machine, bag making machine, dispenser and other machine tool numerical control transformation and supporting.

**Dezaw** upholds "customer first, credit-oriented", to create the most practical and ideal products, to serve various fields of society with the business approach of "quality products, excellent service".



ABOUT  
**DEZAW**

## VFD / Variable Frequency Drive

VFDs are used to control the speed of an electric motor by varying its input voltage. DEZAW focused on the development of working of machine motors with the help of specialized VFD according to the specific applications. DEZAW has following series of VFDs.



## DV001 / Series VFDs



**DEZAW DV001** series inverter is a new generation of adaptive vector inverter independently developed by our company. DV001 is a widely used VFD and has the compact structure, convenient and flexible installation, reasonable heat dissipation design to ensure product reliability.

**Used on application:** Wood Carving, Stone Carving, Cranes, Material Elevators, Bridge Cranes, Textile Machinery, Metal Processing, Municipal water supply, Transfer pump.

## DV201 / Series VFDs



**DEZAW DV201** series inverter is a VFD for high-frequency wooden, stone, and diamond carving spindle motors. It's a compact structure, with excellent performance and rich functions, simple and easy to use. Its frequency range from 0-1000HZ

**Used for applications:** Widely used in woodworking machinery, stone and diamond carving, machinery, plastic, and other various normal applications.

## DV202 / Series VFDs



**DEZAW DV202** VDF is a general-purpose open loop and compact drive. DV202 is a saving space, reducing step-up and wiring time all included in the series with drive size reduced up to 40% because of a compact design as it can be installed using a standard DIN Rail

**Used for applications:** Packaging machinery, simple conveyor machines, printing machinery, paper tissue machinery, disposal machinery, and food machinery.

## DV203 / Series VFDs



**DV203** series VFD is a high-performance and cost-effective product based on the main control chip with strong processing capacity and high stability hardware platform. This series VFD is a VFD for Asynchronous motor and Synchronous Motor and all other different types of load

**Used for applications:** Rolling mills load, Cement Factory, Chemical, mining, Cross Travelling, Long Travelling, Gantry Cranes, Tower Cranes, Metal Processing.

## DV30L / Series VFDs



**This Series DV30L** is a open loop elevator drive and user friendly. We developed DV30L on inverter highly specialized in lift applications. It provides versatile, flexible, and smooth operations for providing passengers a safe and comfortable ride. It supports both asynchronous and synchronous motors.

**Used for applications:** Passenger elevatory, Material elevatory, Cranes, Electronic hoists, Bridges, Cranes, and Cross Travelling.

## AES / Series VFDs



DEZGW AES series VFD specially developed for solar panel applications. DeZaw is committed to provide smart products and services to develop clean energy based on the original solarpump cfd products, which optimizes the usability and performance and extends applicable voltage levels and power range of the product. Built-in self-adaptive high accuracy maximum power point tracking (MPPT) algorithm of VSR ensures maximum water flow output.

**Used for applications:** It is mainly used for solar water pump and some other applications like Atta chaki machine.

## SERVO / Drivers



### DSD500/DSD510 SERVO DRIVE

2S series 16A-14A single phase 220V  
2T series 16A-20A single phase 220V  
4T series 8.5A-20A three phase 380V  
DSD510: 1.6A-6.0A single/three phase 220v  
Control mode: Position control, speed control  
torque control, internal speed control, internal  
position control. Etc.  
Communication protocol: 485 communication



### DSD550 SERVO DRIVE

2S series 16A-14A single phase 220V  
2T series 16A-20A single phase 220V  
4T series 8.5A-20A three phase 380V  
Control mode: Position control, speed control  
torque control, internal speed control, internal  
position control. Etc.  
Communication protocol: 485 communication

## SERVO / Motor



### Application Area

#### Quilting and Embroidery Machine

The quilting and embroidery machine, which is also known as quilting and embroidery AIQ, is a new industrial sewing equipment that integrates the quilting and embroidery function. It has integrated and optimized the quilting function of quilting machine and the embroidery function of computer embroidery machine with wide range of application, it applies to the fields such as home textiles, clothes, bags and suitcases, embroidery craft works and crystal plate decoration. It can realize circular processing of shell fabrics, seamless splicing. High output, improve the processing efficiency and reduce the labour cost.

#### Cutting Machine

The cutting machine can continuously cut large numbers of non-metal rolled materials of the same specification through the cutting die. It applies to the industries such as upper of shoes, insole, football, volley ball, tennis, abrasive paper and medicine.

#### Auto Winding machine of edge band.

As the auxiliary machine for the production equipment of plastic edge band the auto winding machine of edge band can collect and coil the product edge bands based on the set length and transfer them to the next process. It mainly applies to the industry of woodworking. Such as door sheet and furniture.

## Stepper / Drivers



Stepper Drivers are specifically designed to drive stepper motors, which are capable of continuous rotation with precise position control. Our stepper motor driver's offer adjustable current control and multiple step resolutions. We offer a diverse range of popular stepper drivers such as:

DM556

DM860

2D68MM

2HSS86H

## Stepper / Motor



Stepper Motors are capable of highly precise and reliable operations without the use of position detectors. Motor operation is controlled directly through pulse signals. These are available in

NEMA17

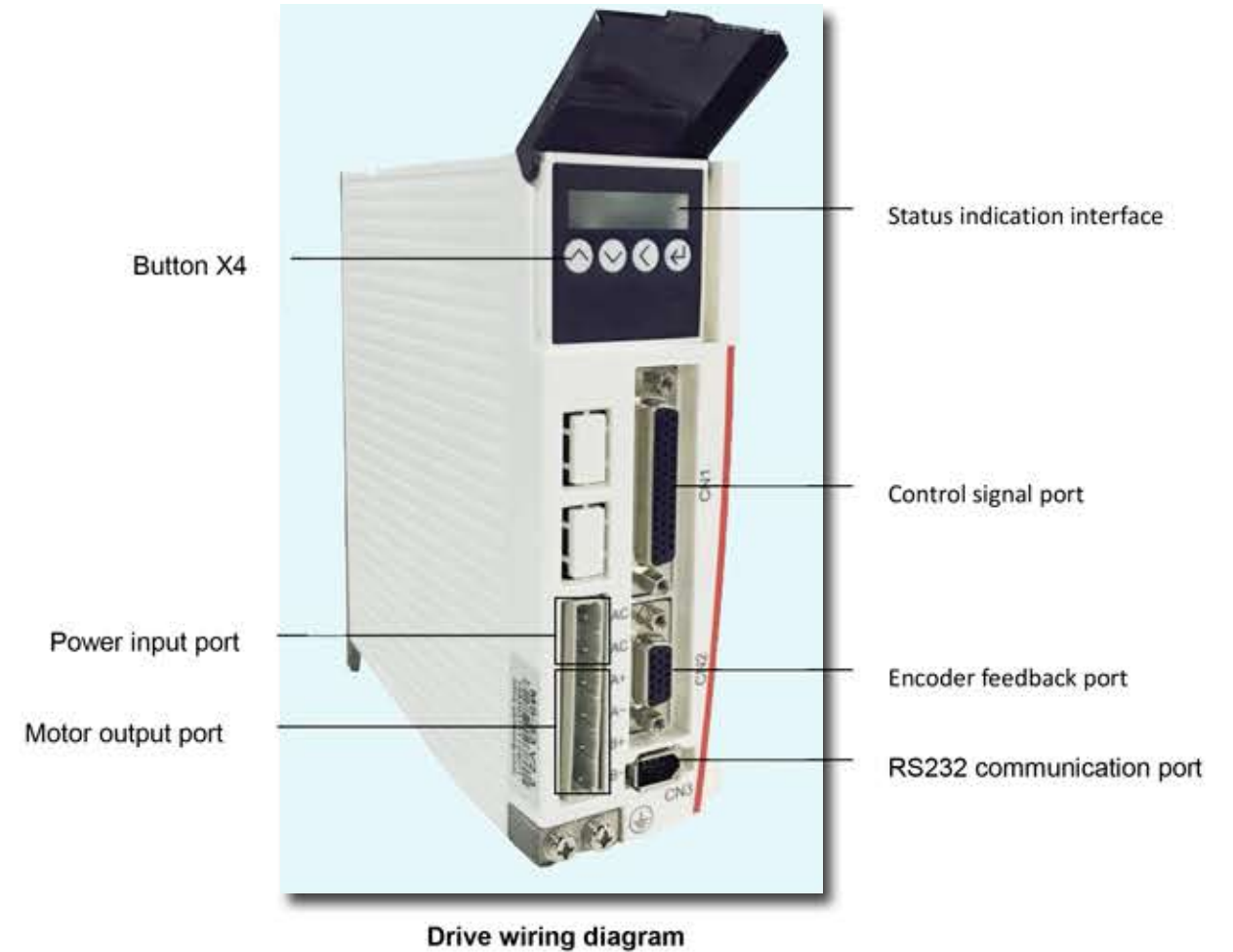
NEMA23

NEMA34

NEMA42

NEMA24

## EASY SERVO / Driver



### 4.2 Port definition

#### 4.2.1 Power input port and motor output port

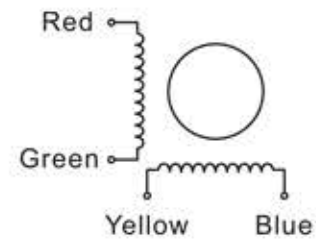
No.	Symbol	Name	Definition
1	AC	Power input port	Connect 30V ~ 80V AC
2	AC		
3	A+	Motor power port	Connect motor red line
4	A-		Connect motor blue line
5	B+		Connect motor green line
6	B-		Connect motor black line



## EASY SERVO / Motor



### Wire Diagram



### Product indicators

Closed loop stepper motor has the advantage of high precision, high output torque, low noise, superior dynamic performance and other characteristics and advantages. Hybrid servo motor are widely applied in woodworking machinery, 3D printer, automation equipment of medical instrument, laboratory, packing machine and electronics, and other occasions which need accurate linear positioning.

### Specifications

Model	Step Angle	Current	Resistance	Inductance	Holding Torque	Length
57HSM2N-D25	1.8°	4.2A	0.5±10%Ω	1.8±20% $mH$	2.0N.m	76mm
60HSM3N-D25	1.8°	5.0A	0.45±10%Ω	1.8±20% $mH$	3.0N.m	88mm
86HSM4N-BC38	1.8°	6.0A	0.45±10%Ω	3.7±20% $mH$	4.5N.m	82mm
86HSM8N-BC38	1.8°	6.0A	0.44±10%Ω	3.7±20% $mH$	8.0N.m	118mm
86HSM12N-BC38	1.8°	6.0A	0.45±10%Ω	5.2±20% $mH$	12.0N.m	156mm

## PLC / Programmable Logic Controller



32bit High performance CPU

Multi-layer encryption protection

Fast Instruction Execution

Easy to Install and Program

Small Installation Size

External Clock Chip

Large Storage Capacity

Easy to Download and Debug

## HMI / Software summary



Based on Android 4.0.3; more user-friendly; richer in content; bringing better user experience; having more functions; more stable; supporting Android gesture dragging and zooming and special effects (transparent, left-right, top-bottom, diagonal, fade-in, fade-out, etc); efficient security mechanism to protect your development efforts.

## CNC System

### / DZ990 (999) TDb/TDc



#### Features:

- 2-4 Axis economic type lathe and turning CNC system
- 800\*600 8 Inch real color LCD displayer
- Support electric Turret & Binary code turret
- 2ms interpolation cycle, precision of 0.1um
- Max rapid speed 30m/min, feed speed is 15m/min
- G71 command supports the cycle cutting of groove shape outline
- Supports the programming of macro command in sentence type and the calling of macro program with parameter
- Support programming in metric system/inch system, with function of auto tool-setting, etc.
- With USB interface, it support file operation flash dis, system configuration and software upgrade
- One channel for hardwheel, supporting external MPG
- Common input in 24 points/common output in 24 points
- Tdc series support absolute encode servo motor.

### / DZ990MDb/MDc

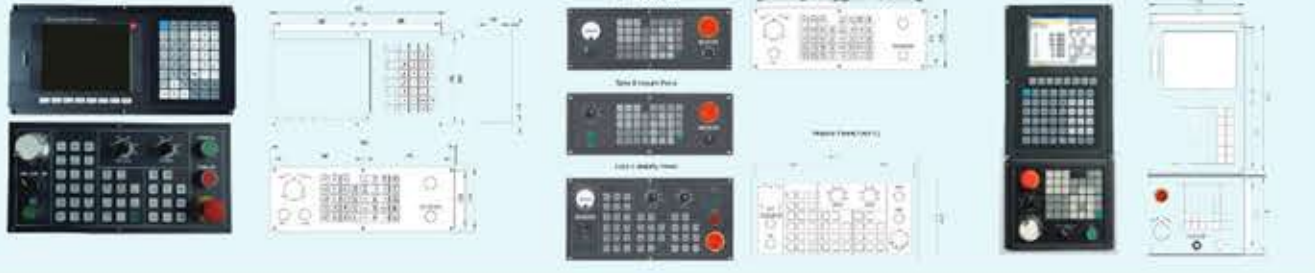


#### Features:

- 3-4 Axis economic type milling cnc system
- 800\*600 8 inch real color LCD display
- Support electric turret & Binary code turret
- 2ms interpolation cycle, precision of 0.1um
- Max rapid speed 30m/min, feed speed is 15m/min
- Upto 10000 short lines pre-reading capacity, powerful pre-processing function
- Supports the programming of macro command in sentence type and the calling of macro program with parameter
- Support programming in metric system/inch system increase/absolute program
- With USB interface, it support file operation flask disk, system configuration and software upgrade.
- One channel for hardwheel, supporting external MPG
- Common input in 24 points/common output in 24 points
- Mdc series support absolute encoder servo motor.

# CNC System

/ DZ1000TDb/TDc(-v)



## Features:

2-5 Axis economic type milling cnc system  
Support electric turret & Binary code turret  
Max rapid speed 30m/min, feed speed is 15m/min

Supports the programming of macro command in sentence type and the calling of macro program with parameter

With USB interface, it support file operation flask disk, system configuration and software upgrade.

Common input in 24 points/common output in 24 points

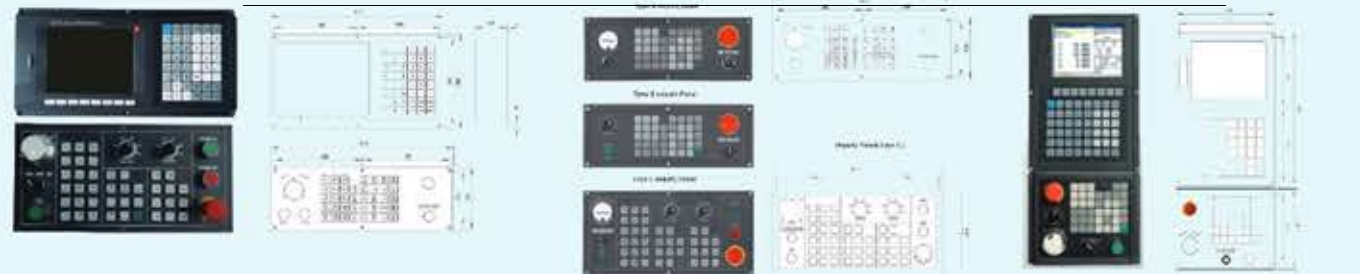
800\*600 8 inch real color LCD display  
2ms interpolation cycle, precision of 0.1um  
Upto 10000 short lines pre-reading capacity, powerful pre-processing function

Support programming in metric system/inch system in crease/absolute program

One channel for hardwheel, supporting external MPG

Mdc series support absolute encoder servo motor.

/ DZ1000MDb/MDc



## Features:

3-5 Axis economic type milling cnc system  
Support electric turret & Binary code turret  
Max rapid speed 30m/min, feed speed is 15m/min

Supports the programming of macro command in sentence type and the calling of macro program with parameter

With USB interface, it support file operation flask disk, system configuration and software upgrade.

Common input in 56 points/common output in 32 points

800\*600 8 inch real color LCD display  
2ms interpolation cycle, precision of 0.1um  
Upto 10000 short lines pre-reading capacity, powerful pre-processing function

Support programming in metric system/inch system in crease/absolute program

One channel for hardwheel, supporting external MPG

Mdc series support absolute encoder servo motor.

# AC SERVO SPINDLE MOTOR

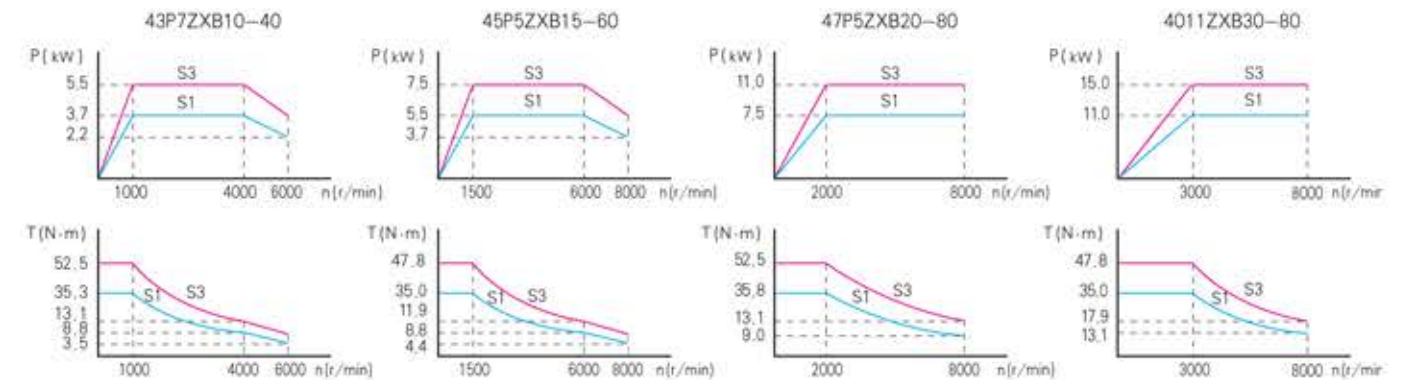


## Electricity parameter

Voltage class:400V connecting method:Y Fan power:75W Fan voltage:380V

Motor model	Rated power (Kw)	Rated current (A)	Rated torque (N.m)	Rated voltage (V)	Pole number (P)	Rated frequency (Hz)	Rated rotate speed (r/min)	Constant power Highest rotate speed (r/min)	Highest rotate speed (r/min)	Rotational inertia (kg.m2)
43P7ZXB10-XXXP	3.7	7.8/8.8/9.9	35.3	380/345/305	4	35.7	1000	2000/3000/4000	6000	0.0186
45P5ZXB15-XXXP	5.5	11.2/12.3/14.0	35.0	380/350/305	4	52.3	1500	3000/4500/6000	8000	0.0186
47P5ZXB20-XXXP	7.5	15.0/16.6/18.8	35.8	380/345/305	4	69.0	2000	4000/6000/8000	8000	0.0186
4011ZXB30-XXXP	11	21.4/23.2	35.0	380/350	4	102.5	3000	6000/8000	8000	0.0186

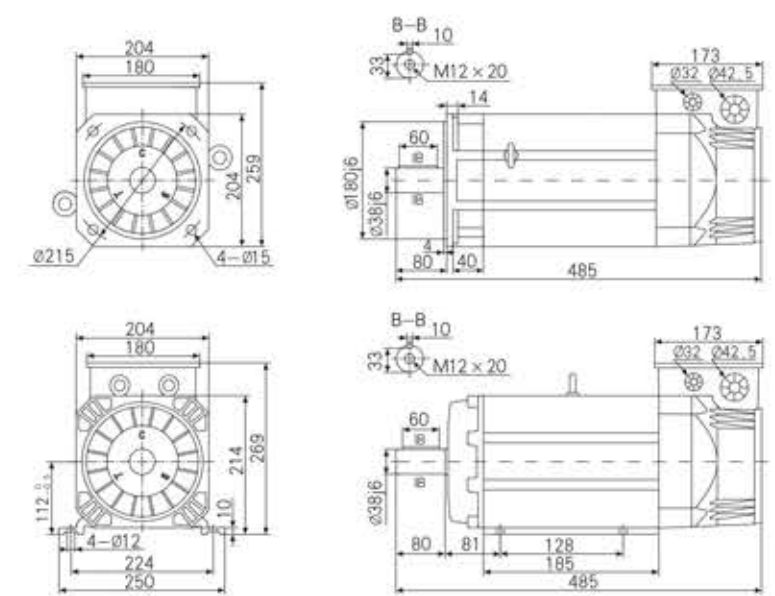
## Characteristic curve



## Performance index

Name	Index
Encoder (Can choose)	CE9-1024 (incremental)
	CE9-2500 (incremental)
	CE9-17B (absolute value)
	RZ12-1024 (rotating transformer)
	SC-2048 (Sin-Cos)
Shaft extension structure	G:oprical axis J:key slot
Installation method	B3 B5 B35
Weight/gross weight	59(66)kg
Protection class	IP55
Insulation class	F class
Rated temperature rise	90 K
Vibration class	S
Noise	<= 70Db
Temperature	-15~45°C
Environment humidity	<=95%RH

## Shape and installation size



# AC SERVO SPINDLE MOTOR

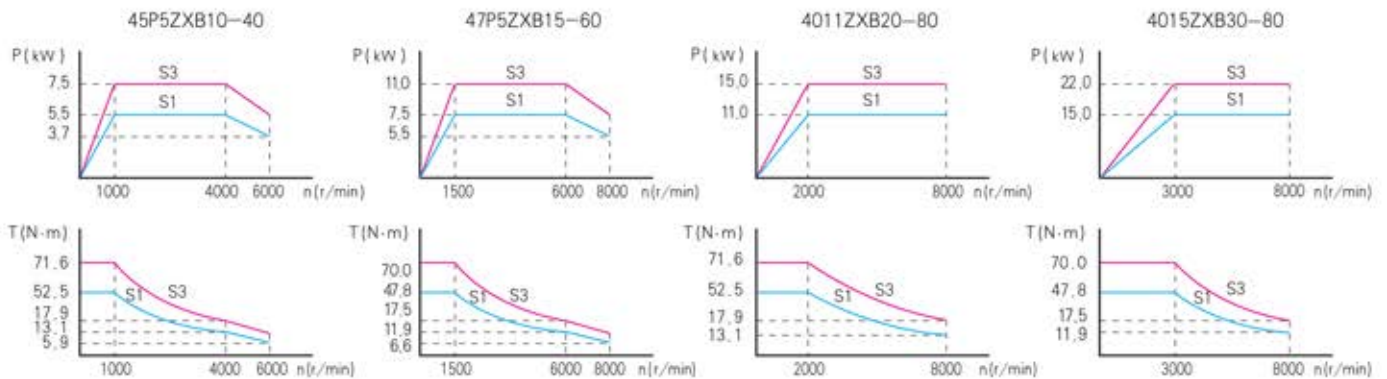


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Motor model	Rated power (Kw)	Rated current (A)	Rated torque (N.m)	Rated voltage (V)	Pole number (P)	Rated frequency (Hz)	Rated rotate speed (r/min)	Constant power Highest rotate speed (r/min)	Highest rotate speed (r/min)	Rotational inertia (kg.m <sup>2</sup> )
45P5ZXB15-XXXP	5.5	11.6/13.0/14.2	52.5	380/340/310	4	35.7	1000	2000/3000/4000	6000	0.0233
47P5ZXB15-XXXP	7.5	15.2/16.0/18.2	47.8	380/360/315	4	52.3	1500	3000/4500/6000	8000	0.0233
4011ZXB20-XXXP	11	22.0/23.8/25.9	52.5	380/360/315	4	69.0	2000	4000/6000/8000	8000	0.0233
4015ZXB30-XXXP	15	29.0/31.9	47.8	380/350	4	102.1	3000	6000/8000	8000	0.0233

## Characteristic curve



## Performance index

Name	Index
Encoder (Can choose)	CE9-1024 (incremental)
	CE9-2500 (incremental)
	CE9-17B (absolute value)
	RZ12-1024 (rotating transformer)
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Environment humidity	<=95%RH

## Shape and installation size

