

## **Holip Packaging Industry Solution**





## **Our Aspiration:**

We are engineering tomorrow.
We passionately push boundaries on results and reputation.

# **Company Profile**

Founded in 2001, Zhejiang Holip Electronic Technology Co. Ltd. ("Holip") was acquired by Danfoss in 2005 and became the member of the Danfoss Group ever since.

Established in 1933, Danfoss is a large multinational industrial manufacturing company in Denmark. As a global leader in refrigeration & air conditioning, heating & water processing and power electronics, Danfoss also sets industry standards for its reliability, excellence and innovation, and keeps striving for the best in customer satisfaction and solution in the climate & energy industry.

Holip has been devoted to frequency converters' research, design, manufacturing, marketing and service for more than a decade, meanwhile it set up Provincial Inverter R&D Center at a very early stage in China. Nowadays, Holip is one of the largest frequency converter manufacturers in China.

Our products, known as HLP series frequency converter, have been widely used in various industries such as air compressors, chemical fibers, textiles, printing and dyeing, plastics, lighting, steel, paper, chemicals, machines and cranes, etc. Holip has always been dedicated itself to providing high quality products, professional sales and efficient and reliable service. Every single converter must go through strict quality tests, such as high temperature tests and full load tests before delivery. Holip frequency converter has been listed in "National Key New Product", "National Torch Plan Projects", and honored with "Famous Brand Products of Zhejiang Province".

To fully implement business strategy of Danfoss China--2nd Home Market, Holip, as part of Danfoss China, also has made key action plans such as optimizing product performance and fastening the development of new products, improving the competences of salesforce, optimizing the structure of product cost and so on. Nowadays, Holip has become the manufacture and logistics center of Danfoss Drives Segment in the Asian-Pacific region; and the Danfoss factory in Haiyan, known as Haiyan Campus, has become the globally important factory area of Danfoss, with annual yield of 1.8 million





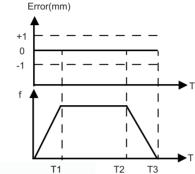
HLP-C150 series are designed for the packaging market and are widely used in food packaging, plastic packaging and other related fields.

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## **Excellent Technical Characteristics**

#### - Accurate Speed Control:

Reduce the error during the production process, ensure the customer's product quality, and greatly improve the production efficiency.



Filling Machine



Pillow Packaging Machine









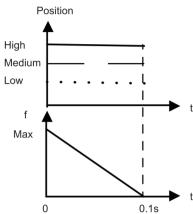
HLP-C150 has various built-in load curve macros and supports control panel extension, it is also easy to commission; it features strong overload capability, excellent braking performance and high stabilization, so as to significantly improve the production efficiency and reduce the production cost.



### **Excellent Technical Characteristics**

#### — Excellent Braking Performance:

High position rapid deceleration (maximum 60Hz, no braking resistor)



Bag Making Machine







Automatic Punching Vest Bag Making Machine

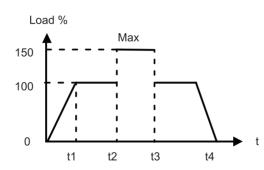




## Excellent Technical Characteristics

#### — Excellent Overload Capability:

Providing maximum overload protection at low frequency to ensure normal production.



#### Folder Gluer Machine



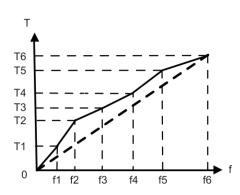




## Excellent Technical Characteristics

#### — Adjustable Output Torque:

Adjustable multi-point V/F curve is suitable for various applications.



• Paper Cup Machine





Wide Voltage Design: Working perfectly under the input voltage from 380V(-20%) to 480V(+10%).

Particularly suitable for low voltage grid.

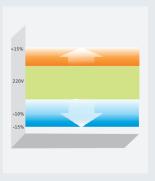
Unique Application Macro Design: suitable for multiple equipment load applications

Removable Fan Design: Cleaning the air duct easily

Independent Air Duct Design: Enhancing the protective effect; suitable for harsh environment.

PCBA 100% Coating Coverage: Class 3C3 coating resists various chemical gas better







#### Technical Specifications

Item	Description	Specifications					
	Voltage	Single/three-phase 200~240V -20%~+10%; Single phase 380~480V -20%~+10%;					
Output power  Main control functions	Frequency	48~62Hz;					
	Max. unbalance	3%;					
Output nower	Output voltage	Three-phase 0~100% input voltage;					
Output power	Output frequency	V/F: 0~400Hz;					
	Control mode	Multi-point VF;					
	Overload capability	150% 1 minute;					
	Carrier frequency	0k~16kHz;					
	Speed reference resolution	Digital: 0.001Hz, analog: 0.5‰ of the max. operating frequency;					
	Speed reference source	Operation panel, digital terminal;					
	Open loop speed control accuracy	30~4000rpm: error ±8 rpm;					
	Multi-speed	8					
	Acceleration and deceleration time	8 acceleration and deceleration time; The multi-speed can match the different acceleration and deceleration time;					
	Digital input	5 (DI3 supports PWM function);					
	Analog input	1					
	Analog output	1					
	Relay output	1 (NO, NC);					
Protection function	Missing Motor Phase Protection; Over-voltage Protection; Low-voltage Protection; Over Current Protection; Over Load Protection; Output Phase Loss Protection; Output Short Circuit Protection; Output Grounding Fault Protection; Over Heat Protection etc.						
	Enclosure	IP20;					
	Operating temperature	-10°C~40°C;					
Environment	Operating humidity	0-95% (95% non-condensation);					
	Cable length	Shielded cable: 5m, Unshielded cable: 50m;					
	Vibration	1.14g;					
	Max. altitude	1000m, derating required for altitude greater than 1000m;					

#### Description of Control Terminal

Terminal name	Description	Specification
FA-FB-FC	Relay output	<ol> <li>Resistive load: 250VAC 3A/30VDC 3A;</li> <li>Inductive load: 250VAC 0.2A/24VDC 0.1A (COSφ=0.4);</li> <li>FA-FB normally closed, FB-FC normally open;</li> </ol>
FOR, REV, DI1, DI2, DI3	Digital input terminal	1. Logic: > DC19V logic 0; < DC14V logic 1; 2. Voltage: DC 0-24V; 3. DI3 supports PWM signal (signal cycle: 0.9ms~2000.0ms);
GND	Digital, analog ground	Isolated from internal COM.
10V	10V	Max. load 10mA, with overload and short-circuit protection function;
VI	Analog input terminal	Selected by software parameters. The analog channel can be configured as a 0-20mA or 0-10V signal input channel; Voltage input: Input impedance: about $10k\Omega$ ; Current input: Input impedance $\leq 500\Omega$ ;
VO	Analog output terminal	<ol> <li>Output range: 0-10V;</li> <li>Voltage output: &gt; 500Ω;</li> <li>Current output: &lt; 500Ω;</li> </ol>
RS+, RS-	RS485 communication	Max. baud rate 38400bit/s;

#### — Model and Specification

Model	Input power	Input current (A)	Output current (A)	Rated power (kW)
HLP-C1500D7521	1x200-240V50/60Hz	11.6	4.2	0.75
HLP-C15001D521	1x200-240V50/60Hz	18.7	6.8	1.5
HLP-C15002D221	1x200-240V50/60Hz	26.4	10	2.2
HLP-C1500D7523	3x200-240V50/60Hz	6.7	4.2	0.75
HLP-C15001D523	3x200-240V50/60Hz	10.9	6.8	1.5
HLP-C15002D223	3x200-240V50/60Hz	16.6	10	2.2
HLP-C1500D7543	3x380-440V50/60Hz	3.5	2.2	0.75
HLP-C15001D543	3x380-440V50/60Hz	5.9	3.7	1.5
HLP-C15002D243	3x380-440V50/60Hz	8.5	5.3	2.2

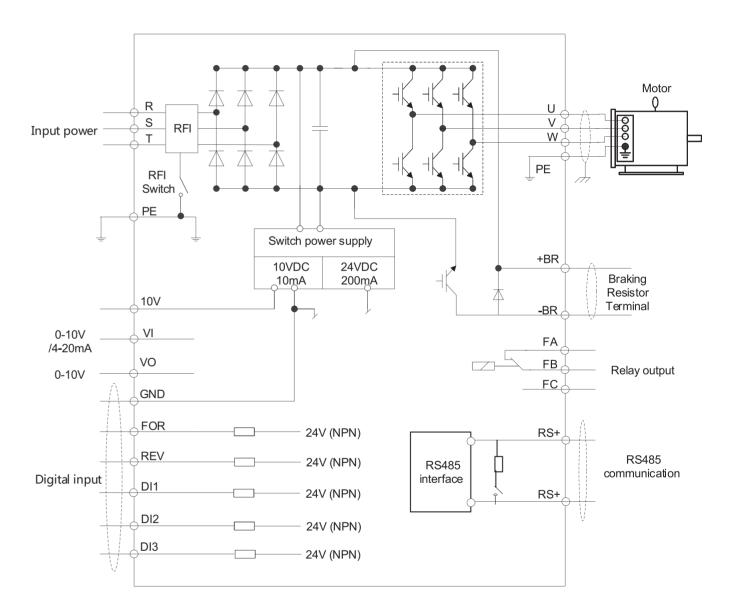


#### — Description of Product Type Code

T/C: HLP-C150 | 0D75 | 21 | P20 | X | B | X | 1 | C | X | 0 | X | XX | VXXX | 1-8 | 9-12 | 13-14 | 15-17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26-27 | 28-31

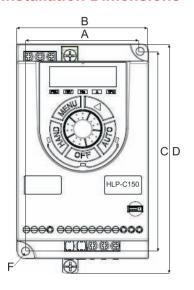
No.	Markup	Description
1-8	HLP-C150	Model
9-12	0D75	0.75kW
	21	Single phase 220V
13-14	23	Three-phase 220V
	43	Three-phase 380V
15-17	P20	IP class: IP20
40	×	Without AC reactor
18	А	With AC reactor
40	X	Without brake unit
19	В	With brake unit
00	×	Without DC reactor
20 D		With DC reactor
21	1	Operation panel with LED display and potentiometer
22	С	With coating
23	×	Reserved
0.4	0	Domestic
24	1	Abroad
25-27	XXX	Reserved
28-31	VXXX	It indicates the software version number, e.g. V235 indicates that the version number is V2.35

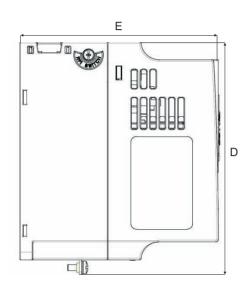
#### Wiring Diagram





#### External and Installation Dimensions

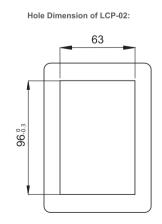


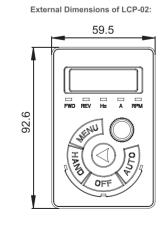


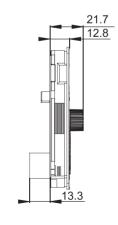
Model	А	В	С	D	Е	F
HLP-C150 series	mm	mm	mm	mm	mm	mm
nlp-C150 series	74	85	130	140	127	5

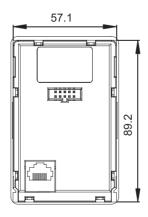
#### External and Installation Dimensions of LCP

External and Installation Dimensions of LCP-02 (unit: mm);



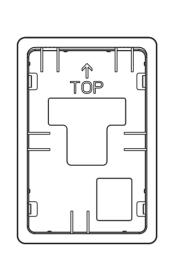


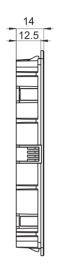


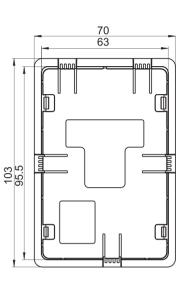


#### External and Installation Dimensions of LCP

Cradle of LCP-02:



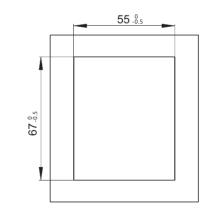


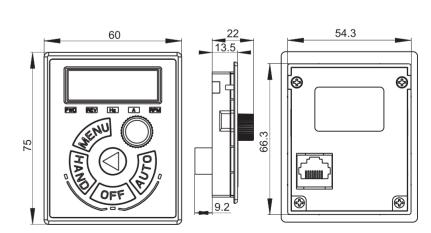


#### External and Installation Dimensions of LCP-03

Hole Dimension of LCP-03:

External Dimensions of LCP-03







#### — Options

	Model: Cradle-01 Function: Used for mounting LCP-02 on the control cabinet Order number: 133B4264
	Model: Network Cable Function: Connect LCP to the drive when mounting LCP on control cabinet. Remark: Not offered self-purchasing Order number: none
HOLIP	Model: Copy Card-01 Function: Used for copying parameters. Order number: 133B5806
	Model: LCP-02 Function: Used to modify parameters, monitor status and control the drive. The standard length of extension cable is 15 meters when mounting LCP-02 on control cabinet. Order number: 133B4045
A CONTRACTOR OF THE CONTRACTOR	Model: LCP-03 Function: Used to modify parameters, monitor status and control the drive. LCP-03 has the same installation dimensions with HLP-A series control panel (OP-AB01) 15m. Order number: 133B5808




Zhejiang Holip Electronic Technology Co., Ltd.

Address: Room 15A03-2,14F,North Tower,Yefeng Modern Center,No.161 Shaoxing Road,

Hangzhou, China 310004

Tel: +86 571 2889 1071 Fax: +86 571 2889 1072 Website: www.holip.com



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Holip reserves the right to change parameters without prior notice. Version 2018–01 2018/04/04



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