

# OXFORD

## PRODUCT CATALOGUE



#### Features:

- Power range: 15~900KW
- Adopts advanced modular design concept
- Dual-CPU control platform: DSP is responsible for current vector arithmetic while 32 bit MCU is in charge of control function
- Static and rotation motor parameter autotuning, ensure excellent vector control
- Achieve high accuracy close-loop speed control and torque control by detecting real speed and direction of motor
- Torque control: Offer multi-mode torque setting
- Constant tension control: The built in roll diameter calculation can implement direct (indirect) tension control in wind and unwind application
- Parameter copy: Functional parameters can be uploaded to LCD and downloaded to other inverters.
- CHV110 series energy saving cabinet (7.5~75KW) has built-in bypass system which ensures continuous production.
- CHV160 series is specially designed for water supply application which is able to control up to 7 pumps with circular switching and dormant control function



Option Card	Description
Serial Communication Card	Offer RS232 and RS485 dual physical communication interface, built-in MODBUS RTU and ASCII protocol.
PG Card	Permit both push-and-pull input and open circuit collector input Offer frequency division output, frequency division factor can be selected by dial switch Connect to the encoder by soft wire.
Injection Moulding Card	Collect and process signal of pressure and flow of injection moulding machine.
Tension Control Card	Wind and unwind control, compensation of moment of inertia, multiple tension setting mode automatic winding diameter calculation and display, linear speed collect and display, prevent wire broken, prevent overdrive, RS 485 port.
Water Supply Control Card	Realize functions such as constant pressure water supply, multi pumps circular switch, dormant control, timing control, prevent water hammer, water level control, RS 232 port etc.
I/O Extension Card	Offer more input/output terminals to enhance inverter external function RS 485 port is available.

#### Typical Applications:

Elevator, crane, printing machine, dying machine, paper machine, wind and unwind, high accuracy machine tool, cutting machine, steel rolling, metal, wire machine, drawbench, position control, zero speed servo control.



Serial  
Communication Card



PG Card



Injection  
Moulding Card



Water Supply  
Control Card



Tension  
Control Card



I/O  
Extension Card



LCD

### SENSORLESS VECTOR CONTROL FREQUENCY INVERTER

#### Features:

- Power range: 0.4~900KW
- Achieve excellent sensor less vector control based on DSP platform
- Static and dynamic motor parameter autotune, ensure excellent vector control
- Independent duct design
- Built-in DC reactors above 18.5 KW to improve power factor
- Wobble frequency control: offer multiple triangular wave to meet specific demand of textile industry.
- RS485 communication, Support standard Modbus RTU and ASCII protocol
- Quick / Jog Function: Offer shortcut to view and modify function parameter in common use
- Support local and remote operation panel at the same time, make commissioning more convenient
- CHE150 series high frequency inverter (1.5~75KW) is able to output 3000Hz which can be used for high speed spinning machine and machine tools.



#### Typical Applications:

Textile, printing & dyeing, chemical fibers, paper making, wire-drawing, manipulator, solid warehouse, oxygen making machine, machine tools, air-compressor, ceramic machine.

#### Features:

- Power range: 0.75~900KW
- High performance V/F control
- Speed trace function: Smoothly start the running motor
- Offer RS485 communication port which support standard Modbus RTU and ASCII protocol
- Drive larger variable torque load directly, eliminate warehouse and fasten delivery time
- Length control: implement constant length control by calculating the number of pulse
- Simple water supply control: Automatic switch of two variable frequency pumps
- We can offer 690V/1140V high performance frequency inverter (22-2800KW) which is suitable for application in oil field and coal mine.

## CHF100 SERIES

### HIGH PERFORMANCE UNIVERSAL INVERTER



#### Typical Application:

Pumps and fans, extruder, automatic production line, air conditioner, water supply, food machine, blender, packing machine, medicine machine, conveyor, blowmolding machine, oil pump, fountain.



## Specifications overview of CHV CHE CHF series

Feature	Description		
	CHV	CHE	CHF
<b>Input &amp; Output</b>			
Input Voltage	3AC 220V/380V/415V/ 440V/690V/1140V ±15%	1AC 220V ± 15% 3AC 220V/380V/415V/440 ± 15%	
Input Frequency	47-63Hz		
Power Factor	0.92		
Efficiency	>98% (at rate power)		
<b>Control Function</b>			
Control Mode	Sensorless vector control (SVC) Vector control with PG (VC) V/F control	Sensorless vector control (SVC) V/F control	V/F control
Overload Capacity	150% In for 60s 180% In for 10s	CT: 150% In for 60s 180% In for 10s VT: 120% In for 60s 150% In for 10s	CT: 150% In for 60s 180% In for 10s VT: 120% In for 60s 150% In for 10s
Output Frequency	0~600Hz Resolution: 0.01Hz (Digital) Maximum frequency × 0.1% (Analogue)		
Starting Torque	150% Mn at 0.5Hz (SVC) 180% Mn at 0Hz (VC)	150% Mn at 0.5Hz (SVC)	
Carrier Frequency	1.0~16.0KHz	0.5~15.0KHz	
Speed Adjusting Range	1:100 (SVC) 1:1000 (VC)	1:100 (SVC)	
Speed Accuracy	±0.5% maximum speed (SVC) ±0.02% maximum speed (VC)	±0.5% maximum speed (SVC)	±1.0% maximum speed
No. of Multi-steps speed	16	8	16
Simple PLC	Standard	N/A	Standard
Traverse Control	Standard		
Length Control	Standard	N/A	Standard
Tension Control	Optional	N/A	N/A
<b>I/O Termind Features</b>			
Input	DI: 6 (1HDI), I/O card:4 AI: 2 <sup>①</sup> I/O card:4	DI: 4 AI: 2 <sup>①</sup>	DI: 6 (1HDI) AI: 2 <sup>①</sup>
Output	HDD:1 DO:1, I/O card:1 RD:2, I/O card:1 AO:1, I/O card:1 <sup>③</sup>	DO:1 RO:1 AO:1 <sup>③</sup>	DO or HDD: 1 RO: 2 <sup>②</sup> AO: 1 <sup>③</sup>
LCD panel	Optional <sup>④</sup>	Optional <sup>④</sup>	N/A
<b>Environment Limit</b>			
Ambient Temperature	Operation: -10~+40°C Transportation & Storage: -30~+60°C		
Relative Humidity	<95%, no condensation allowed		
Altitude	0~1000m without derating, 1000~4000m with derating		
Cooling Method	Dry clean air		

Note: ① AI: 0~10V or 0~20mA

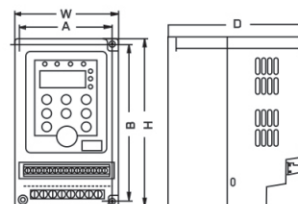
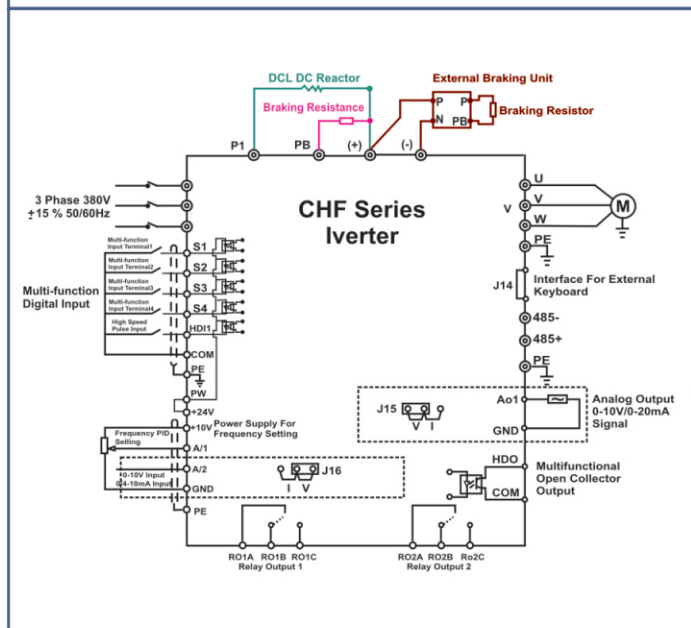
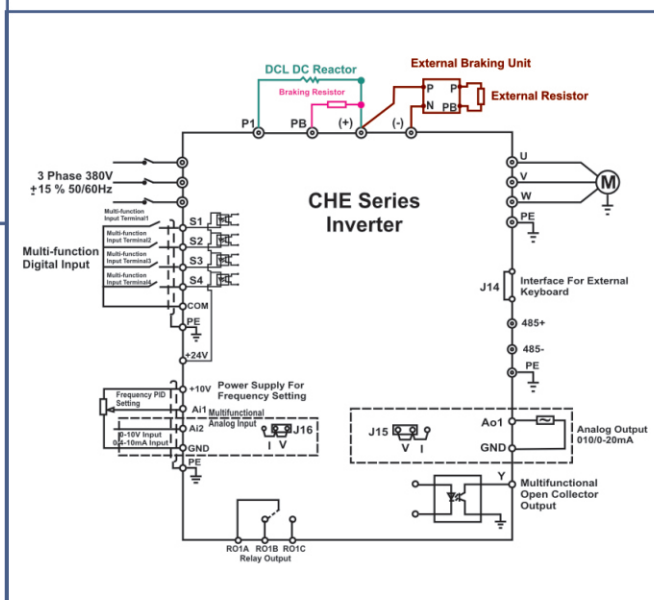
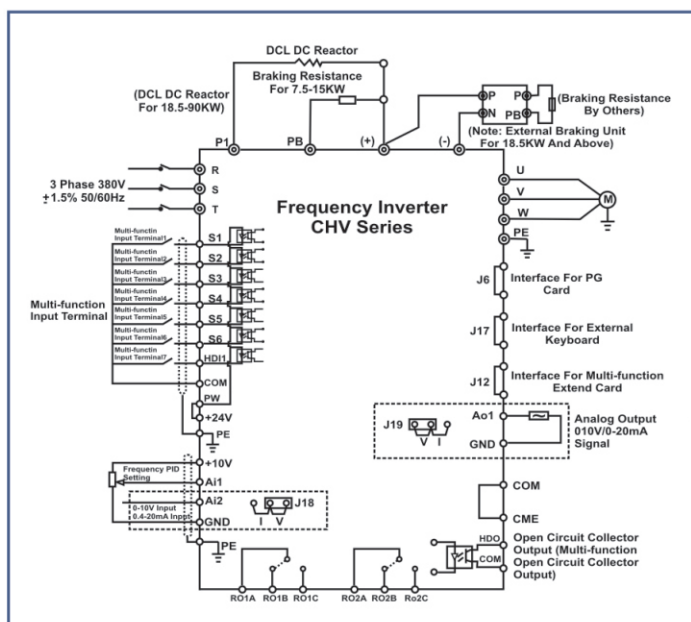
② CHF series inverter of 2.2kw and below only has 1 relay output(RO)

③ AO: 0/4~20mA or 0/2~10V

④ LCD used for CHV series is not able to support CHE series, vice versa.

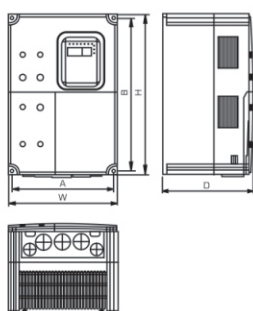
⑤ AC input/output reactor and EMC filter are optional. For inverter larger than 350KW, paralld system is available which has output reactor inside.

## WIRING DIAGRAM



1AC 220V 0.4~0.75KW(Size A)

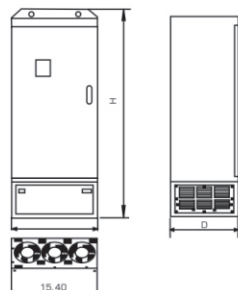
## Dimension



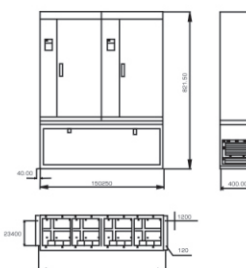
15KW and below (Size B~D)



18.5KW~110 (Size E~G)



132KW~315W (Size H~I)



350KW~630KW (Size J)

## External and Installation Dimension

Size	Capacity (KW)	A (mm)	B (mm)	H (mm)	W (mm)	D (mm)	Installation Hole (mm)
		Installation Dimension		External Dimension			
A	0.4-0.75G	75.7	130.7	140	85	112	4
B	1.5-2.2G	110.4	170.2	180	120	140	5
C	4-5.5G	147.5	237.5	250	160	175	5
D	7.5-15G	206	305.5	320	220	180	6
E	18.5-30G	176	454.5	467	290	215	6.5
F	37-55G	230	564.5	577	375	270	7
G	75-110G	320	738.5	755	460	330	9
H	132-185G	270	1233	1275	490	391	13
I	200-315G	500	1324	1358	750	402	12.5
J	350-630G	-	-	1822	1505	400	12

## Selection Guide (CH-100 Series)

Rated Power (KW)	Rated Power (HP) ①	Model No.	Rated Output Current (A)	Model No.	Rated Output Current (A)	Model No.	Rated Output Current (A)	Model No.	Rated Output Current (A)
		1AC 220V		3AC 220V		3AC 380V/415V		3AC 690V	
0.4	0.5	CH_100-0R4G-S2	2.3						
0.75	1	CH_100-0R7G-S2	4.5	CH_100-0R7G-2	4.5	CH_100-0R7G-4	2.5		
1.5	2	CH_100-1R5G-S2	7	CH_100-1R5G-2	7	CH_100-1R5G-4	3.7		
2.2	3	CH_100-2R2G-S2	10	CH_100-2R2G-2	10	CH_100-2R2G-4	5		
4/5.5	5/7.5			CH_100-004G-2	16	CH_100-004G/5R5P-4	9/13		
5.5/7.5	7.5/10			CH_100-5R5G-2	20	CH_100-5R5G/7R5P-4	13/17		
7.5/11	10/15			CH_100-7R5G-2	30	CH_100-7R5G/011P-4	17/25		
11/15	15/20			CH_100-011G-2	42	CH_100-011G/015P-4	25/32		
15/18.5	20/25			CH_100-015G-2	55	CH_100-015G/018P-4	32/37		
18.5/22	25/30			CH_100-018G-2	70	CH_100-018G/022P-4	37/45		
22/30	30/40			CH_100-022G-2	80	CH_100-022G/030P-4	45/60	CHV100-022G/030P-6	28/35
30/37	40/50			CH_100-030G-2	110	CH_100-030G/037P-4	60/75	CHV100-030G/037P-6	35/45
37/45	50/60			CH_100-037G-2	130	CH_100-037G/045P-4	75/90	CHV100-037G/045P-6	45/52
45/55	60/75			CH_100-045G-2	160	CH_100-045G/055P-4	90/110	CHV100-045G/055P-6	52/63
55/75	75/100					CH_100-055G/075P-4	110/150	CHV100-055G/075P-6	63/86
75/90	100/122					CH_100-075G/090P-4	150/176	CHV100-075G/090P-6	86/98
90/110	122/150					CH_100-090G/110P-4	176/210	CHV100-090G/110P-6	98/121
110/132	150/175					CH_100-110G/132P-4	210/250	CHV100-110G/132P-6	121/150
132/160	175/220					CH_100-132G/160P-4	250/300	CHV100-132G/160P-6	150/175
160/185	220/252					CH_100-160G/185P-4	300/340	CHV100-160G/185P-6	175/198
185/200	252/270					CH_100-185G/200P-4	340/380	CHV100-185G/200P-6	198/218
200/220	270/300					CH_100-200G/220P-4	380/415	CHV100-200G/220P-6	218/240
220/250	300/330					CH_100-220G/250P-4	415/470	CHV100-220G/250P-6	240/270
250/280	330/370					CH_100-250G/280P-4	470/520	CHV100-250G/280P-6	270/320
280/315	370/420					CH_100-280G/315P-4	520/600	CHV100-280G/315P-6	320/350
315/350	420/476					CH_100-315G/350P-4	600/640	CHV100-315G/350P-6	350/380
350	476					CH_100-350G-4	640	CHV100-350G-6	380
400	530					CH_100-400G-4	690	CHV100-400G-6	430
500	665					CH_100-500G-4	860	CHV100-500G-6	540
560	762					CH_100-560G-4	950	CHV100-560G-6	600
630	857					CH_100-630G-4	1100	CHV100-630G-6	680

Note: ① Only apply for CHE and CHF series.

② Model No. "CH\_" represents "CHV", "CHE", "CHF" series.

③ G:Constant torque application P:Variable torque application



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