

High-speed Centrifugal Turbine Drives and Solutions



VEICHI

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Official Website

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Stock code: 688698

About Us



VEICHI Electric (stock code: 688698) specializes in electric drive and industry control, establishing itself as a leading high-tech enterprise in the R&D, production, and sales of industrial automation products. With R&D and manufacturing facilities in Suzhou, Shenzhen, and Xi'an, along with a fully-owned subsidiary in India, VEICHI serves the global market by offering competitive, safe, and reliable products and services.

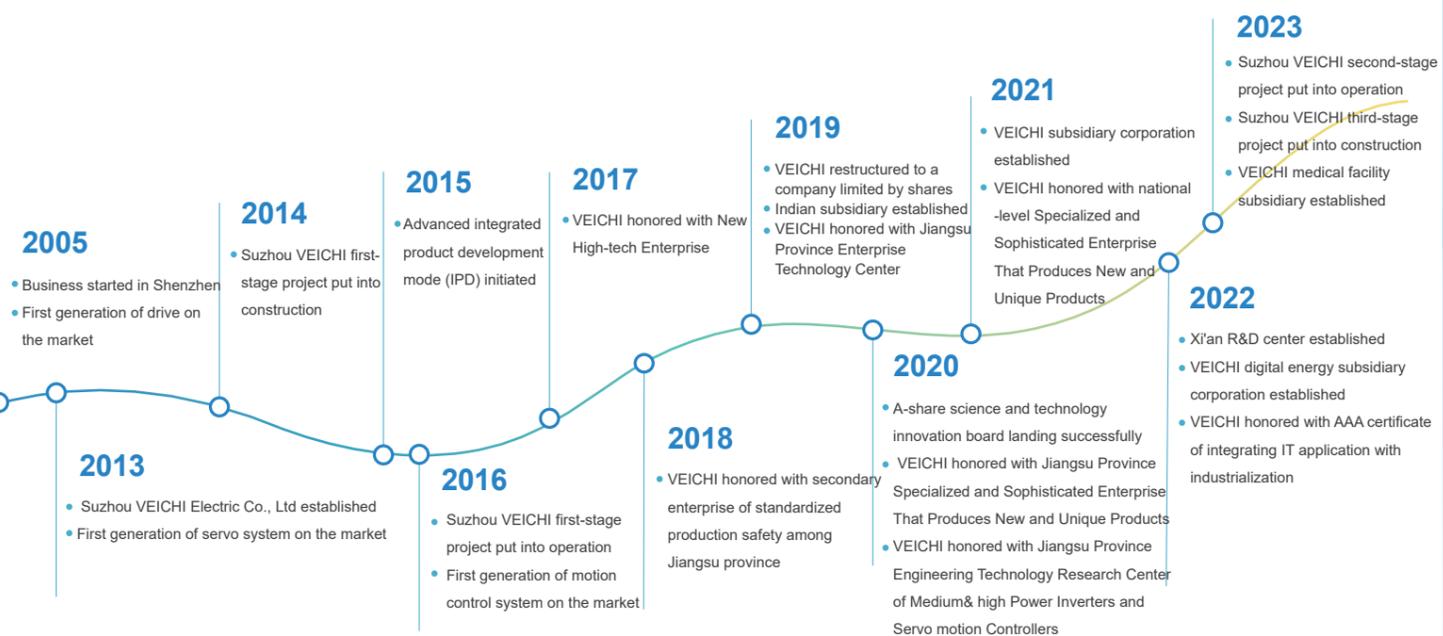
A wide range of VEICHI products and solutions tailored to various scenarios, including AC drives, servo systems, and control systems, have been acclaimed with plentiful proven applications across sectors from light to heavy industries, propelling intellectualization transformation in manufacturing. Keeping pace with development trends, VEICHI is branching into burgeoning sectors like robotics, new energy, and healthcare, introducing innovative products such as coreless motors, frameless motors, photovoltaic drives, and surgical power systems for further industrial advancement.

Abundant patented technologies with independent intellectual properties have testified VEICHI's years of dedication to independent R&D and innovation in core motor control technologies including vector control for PMSM, high-frequency pulse injection, speed tracking for start-up, high-speed field-weakening, scalar V/F and vector control, as well as silicon carbide applications, auto tuning of motor parameters, and protection functions. As of June 30, 2024, VEICHI holds 221 patents, including 51

inventions.

Throughout its history, VEICHI has made significant progress patiently but surely, earning numerous prestigious awards and certifications from national and provincial authoritative entities and organizations. These accolades include titles such as "The Third Batch of Specialized and Sophisticated 'Small Giant' Enterprises with Distinctive New Products," "High-tech Enterprises," "Jiangsu Provincial Engineering Technology Research Center," "Jiangsu Provincial Enterprise Technology Center," and "Jiangsu Provincial Industrial Internet Development Demonstration Enterprise (Benchmarking Factory Category)."

Looking forward, VEICHI will, by the business philosophy of "guided by market demand and driven by technological innovation", make breakthroughs in key core technologies for more refreshing products and explore more reassuring applications based on their competitive performance and quality, energizing the electrical drive and industrial control sector one more step further.



Overview

High-speed turbine drives excels in energy efficiency and maintainability, aligning perfectly with the dual-carbon policy and energy-saving equipment upgrades. VEICHI provides customized electrical and control solutions tailored to the use scenarios and mechanical characteristics of high-speed turbines, including high-speed centrifugal blowers, compressors, vacuum pumps, and chillers.

In the control layer, we can provide customized PLC solutions for blowers and compressors as well as control card solutions; in the electronic control layer, we can provide AC320 series air-cooled high-speed drives for centrifugal blowers and LC320 series water-cooled high-speed drives for systems with water cooling; in addition, we can provide specialized solutions for the special requirements of high-protection, cabinet-mounted, low-harmonic, and compact designs, to help customers achieve excellent equipment performance.



VEICHI has special drives and solutions for high-speed turbines with the features below:

01 High Frequency, High Efficiency



Max. frequency
3000Hz



High-speed chips and algorithms for system efficiency up to **≥96%**



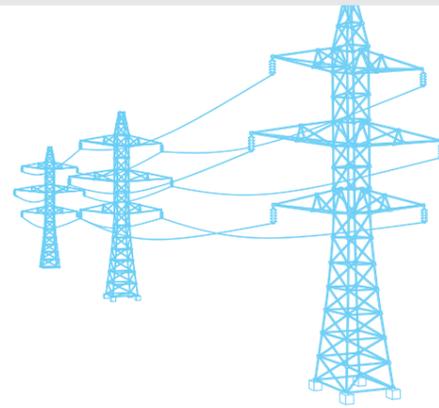
Water-cooled models support carrier frequency up to **10kHz**



High-carrier motor power: drive power as low as **1:1**

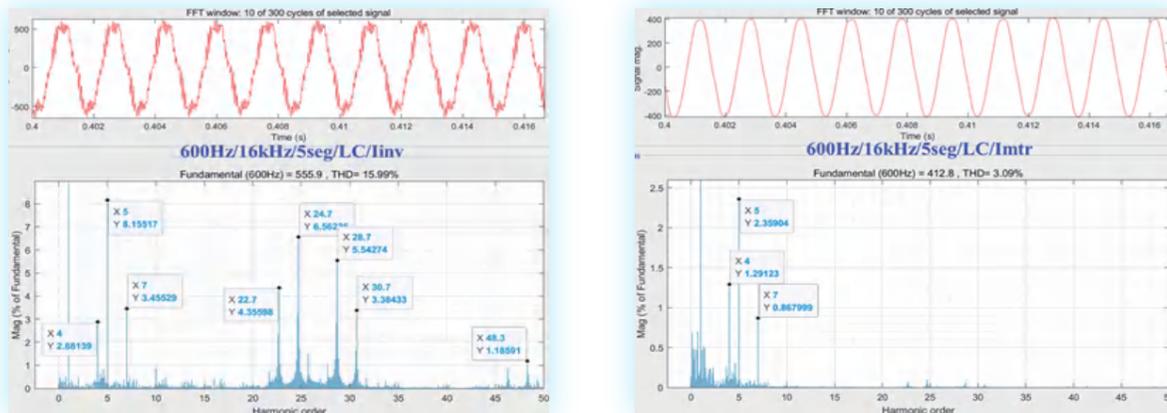
02 Strong Grid Voltage Compatibility

T3 input voltage
310VAC-480VAC
T6 input voltage
620VAC-760VAC
Enhanced adaptability to grids



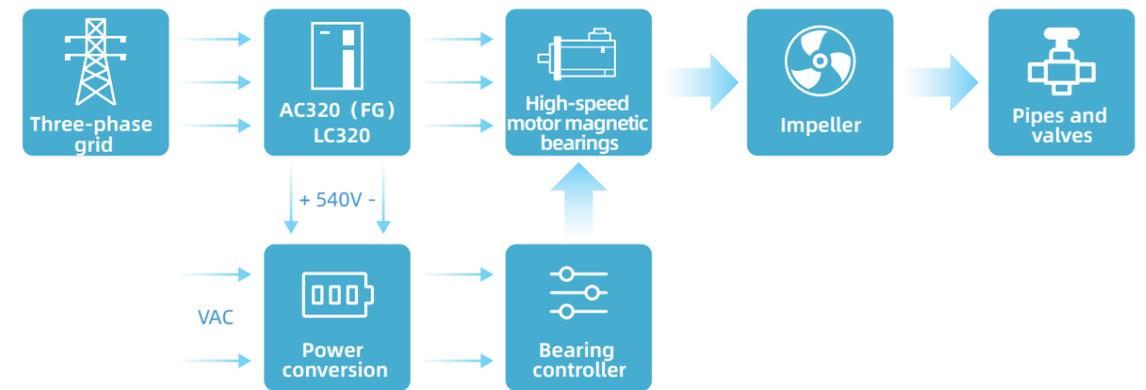
03 Long Motor Lifespan

Full control modes are compatible with sine filters, and the synchronous modulation function can suppress harmonics for long-term fatigue-free motor operation. And the rotor harmonic suppression function is also under development.



04 Reliable Self-generation on Power Outage

Motors with magnetic bearings ensure safe deceleration during power outages to reduce mechanical damage



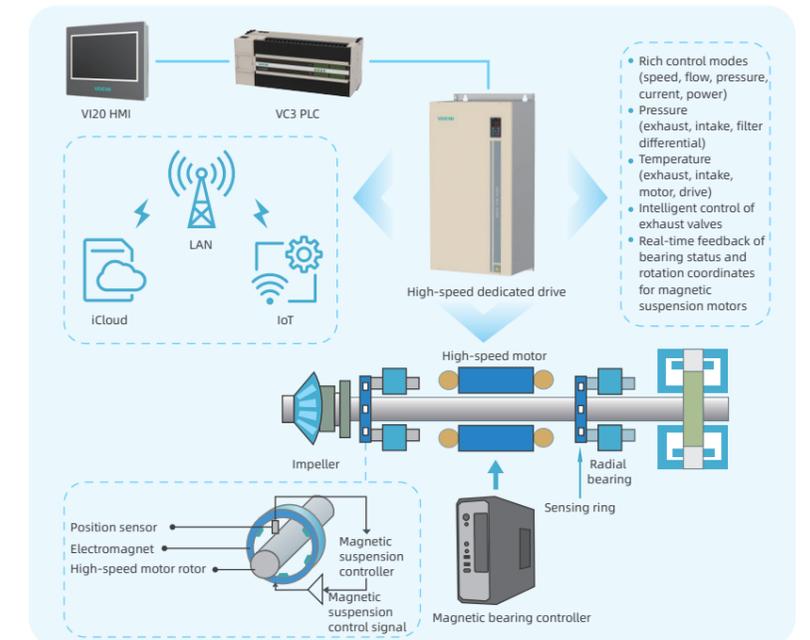
05 Expertise in Harsh Air Conditions

Corrosion-resistant coatings can withstand prolonged use in acid fog and salt fog conditions.



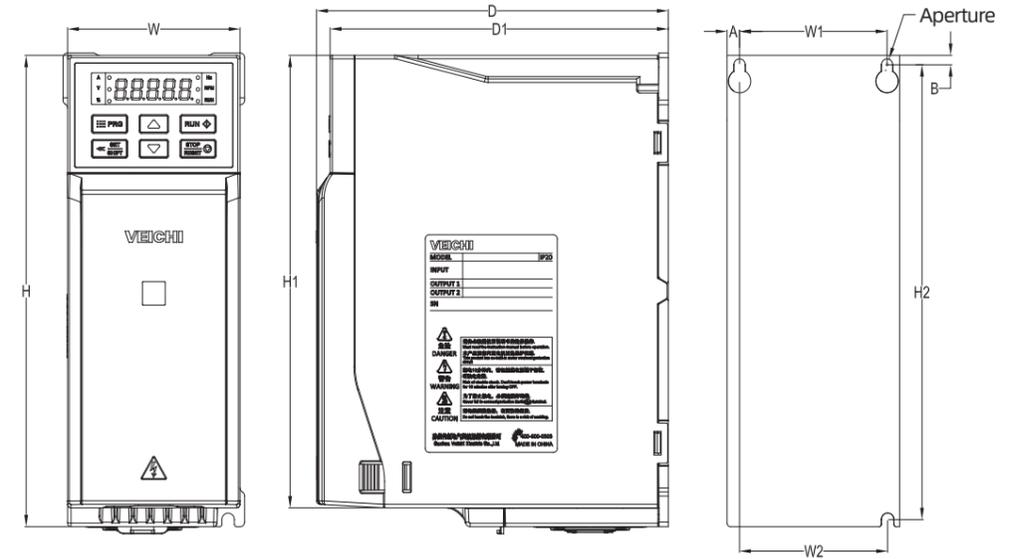
06 Comprehensive System Solutions

System solutions including drives, touch screens, IoT, PLC, and filters for high-speed centrifugal blowers and compressors are available.



07 Customizable Solutions

Custom IP54-rated models, integrated cabinet machines, and tailored silicon carbide and three-level drives for ultra-high-speed and low-harmonic applications.



AC320 Series Air-cooled High-speed AC Drives

AC320 - T 3 - 132 H - L

Product Series

AC320 series

Voltage Type

T: Three-phase
S: Single-phase

Voltage Level

2: 220V
3: 380V
6: 690V

Accessory

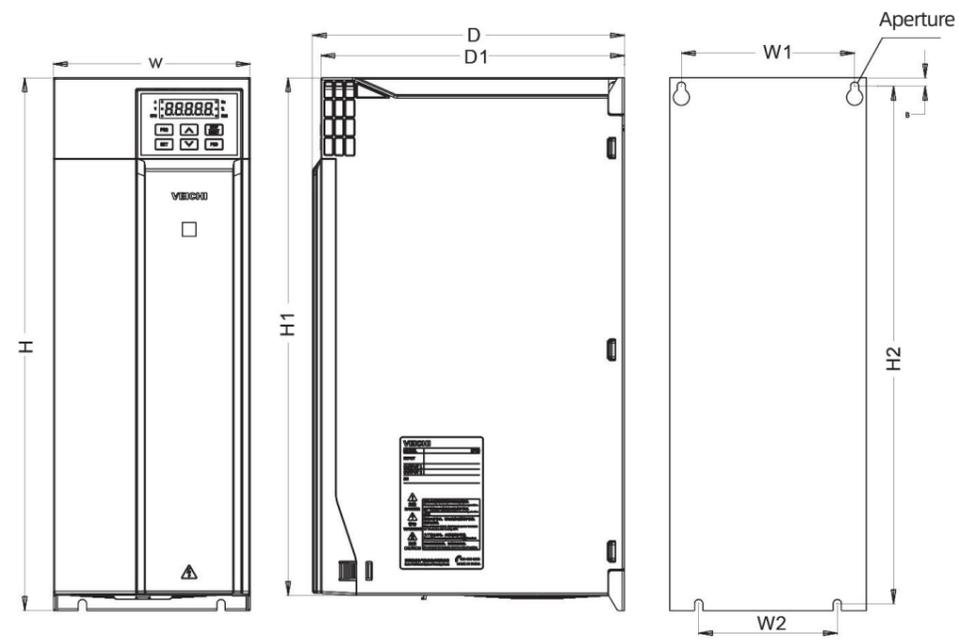
B: Brake
L: DC reactor

H: High speed

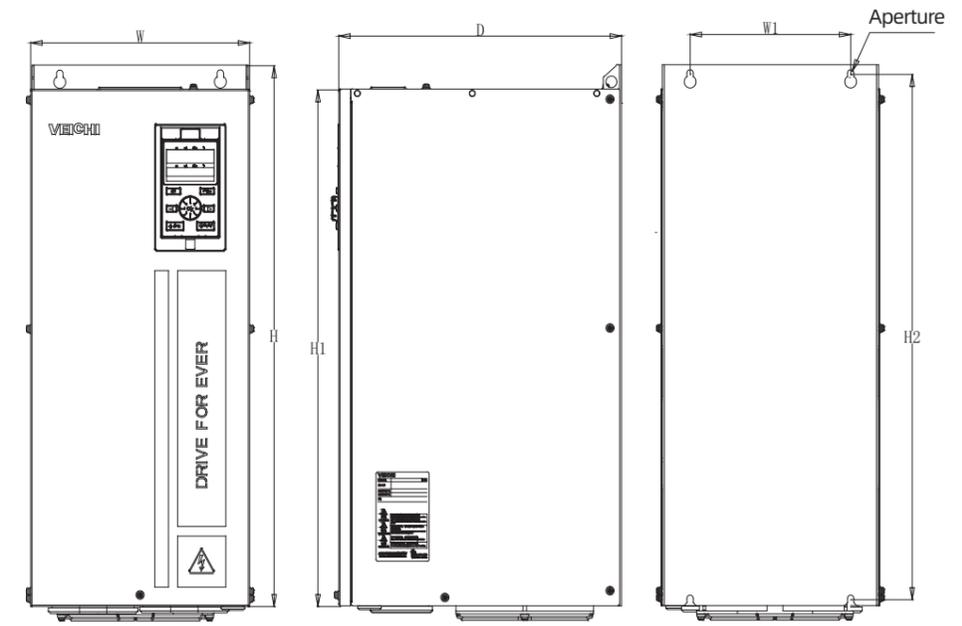
Drive Power (kW)

132: 132kW

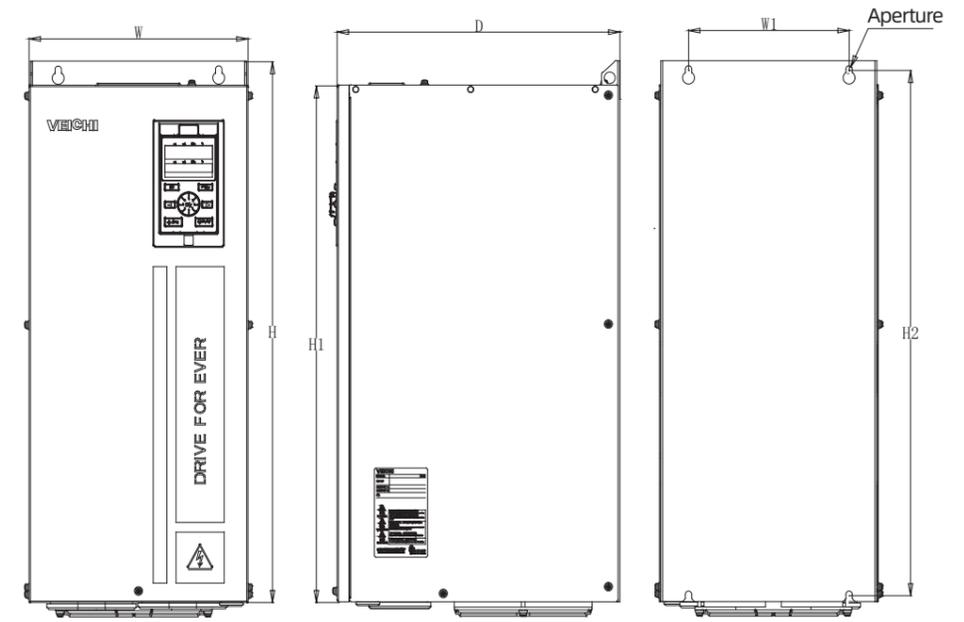
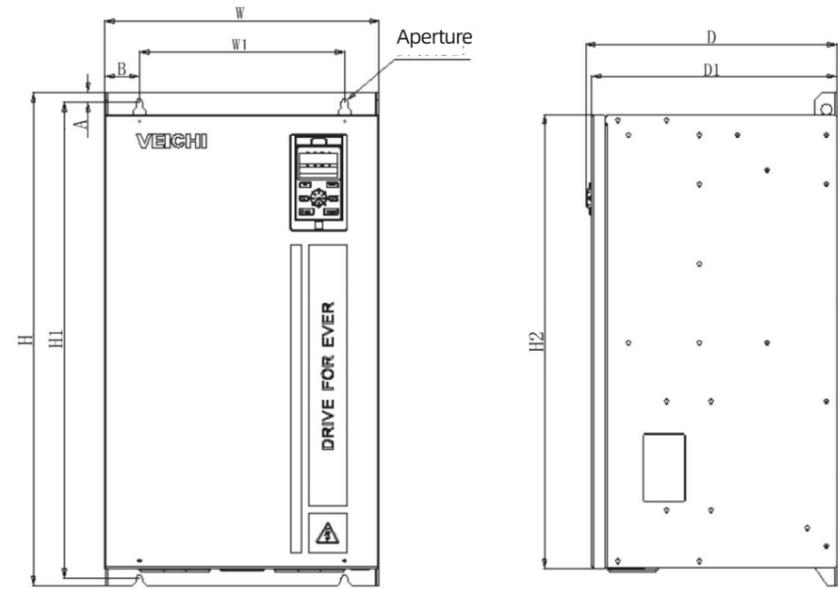
Model	Outer Dimension(mm)					Installation Dimension(mm)					Aperture
	W	H	H1	D	D1	W1	W2	H2	A	B	
AC320-T3-R75H-B	76	200	192	155	149	65	65	193	5.5	4	3-M4
AC320-T3-1R5H-B											
AC320-T3-2R2H-B											
AC320-T/S2-R75H-B											
AC320-T/S2-1R5H-B	100	242	231	155	149	84	86.5	231.5	8	5.5	3-M4
AC320-T3-004H-B											
AC320-T3-5R5H-B											
AC320-T/S2-2R2H-B											
AC320-T/S2-004H-B	116	320	307.5	175	169	98	100	307.5	9	6	3-M5
AC320-T3-7R5H-B											
AC320-T3-011H-B											
AC320-T/S2-5R5H-B											



Model	Outer Dimension(mm)					Installation Dimension(mm)				Aperture
	W	H	H1	D	D1	W1	W2	H2	B	
AC320-T3-015H-B	142	383	372	225	219	125	100	372	6	4-M5
AC320-T3-018H-B										
AC320-T3-022H-B										
AC320-T/S2-7R5H-B										
AC320-T/S2-011H-B										
AC320-T3-030H	172	430	/	225	219	150	150	416.5	7.5	4-M5
AC320-T3-037H										
AC320-T/S2-015H										
AC320-T2-018H										
AC320-T2-022H										



Model	Outer Dimension(mm)				Installation Dimension(mm)		Aperture
	W	H	H1	D	W1	H2	
AC320-T3-045H	240	560	520	310	176	544	4-M6
AC320-T3-055H							
AC320-T3-075H							
AC320-T2-030H							
AC320-T2-037H							
AC320-T2-045H	270	638	580	350	195	615	4-M8
AC320-T2-055H							
AC320-T3-090H							
AC320-T3-110H	270	638	580	350	195	615	4-M8



Model	Outer Dimension(mm)				Installation Dimension(mm)		Aperture	
	W	H	H2	D	D1	W1		H1
AC320-T3-132H	375	670	616.5	343	335	280	647	4-M8
AC320-T3-160H-L	240	820	766.5	358	350	325	797	4-M8
AC320-T3-185H-L								
AC320-T3-200H-L								
AC320-T3-220H-L								
AC320-T3-250H-L	270	1080	1001.5	408	400	400	1046	4-M16
AC320-T3-280H-L	630	1220	1186	423	415	450	1186	4-M16
AC320-T3-315H-L								
AC320-T3-355H-L								
AC320-T3-400H-L								
AC320-T3-450H-L	460	1400	1293	553	545	300	1363	4-M16
AC320-T3-500H-L								
AC320-T3-560H-L								

Model	Outer Dimension(mm)				Installation Dimension(mm)		Aperture
	W	H	H1	D	W1	H2	
AC320-T6-090H	270	638	580	350	195	615	4-M8
AC320-T6-110H							
AC320-T6-132H	350	738	680	405	220	715	4-M8
AC320-T6-160H-L							
AC320-T6-185H-L							
AC320-T6-200H-L							
AC320-T6-220H-L	360	940	850	480	200	910	4-M16
AC320-T6-250H-L							
AC320-T6-280H-L							
AC320-T6-315H-L							
AC320-T6-355H-L	400	1250	1140	545	240	1213	4-M16
AC320-T6-400H-L							
AC320-T6-450H-L							
AC320-T6-500H-L							
AC320-T6-560H-L	460	1400	1293	545	300	1363	4-M16

LC320 Series Water-cooled High-frequency Drives

LC320 - T 3 - 132 N - L

Product Series

Water-cooled drive

Voltage Type

T: Three-phase

Voltage Level

3: 380V
6: 690V

Accessory

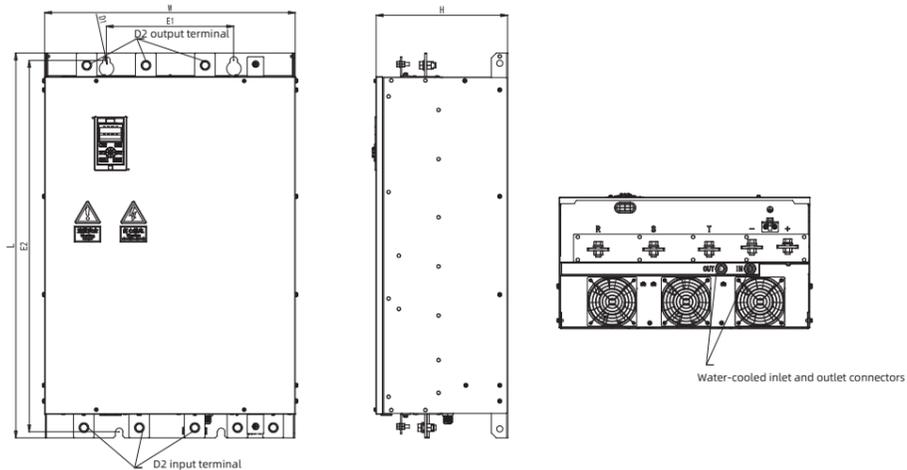
L: DC reactor

Protection Level

N: IP00
O: IP54

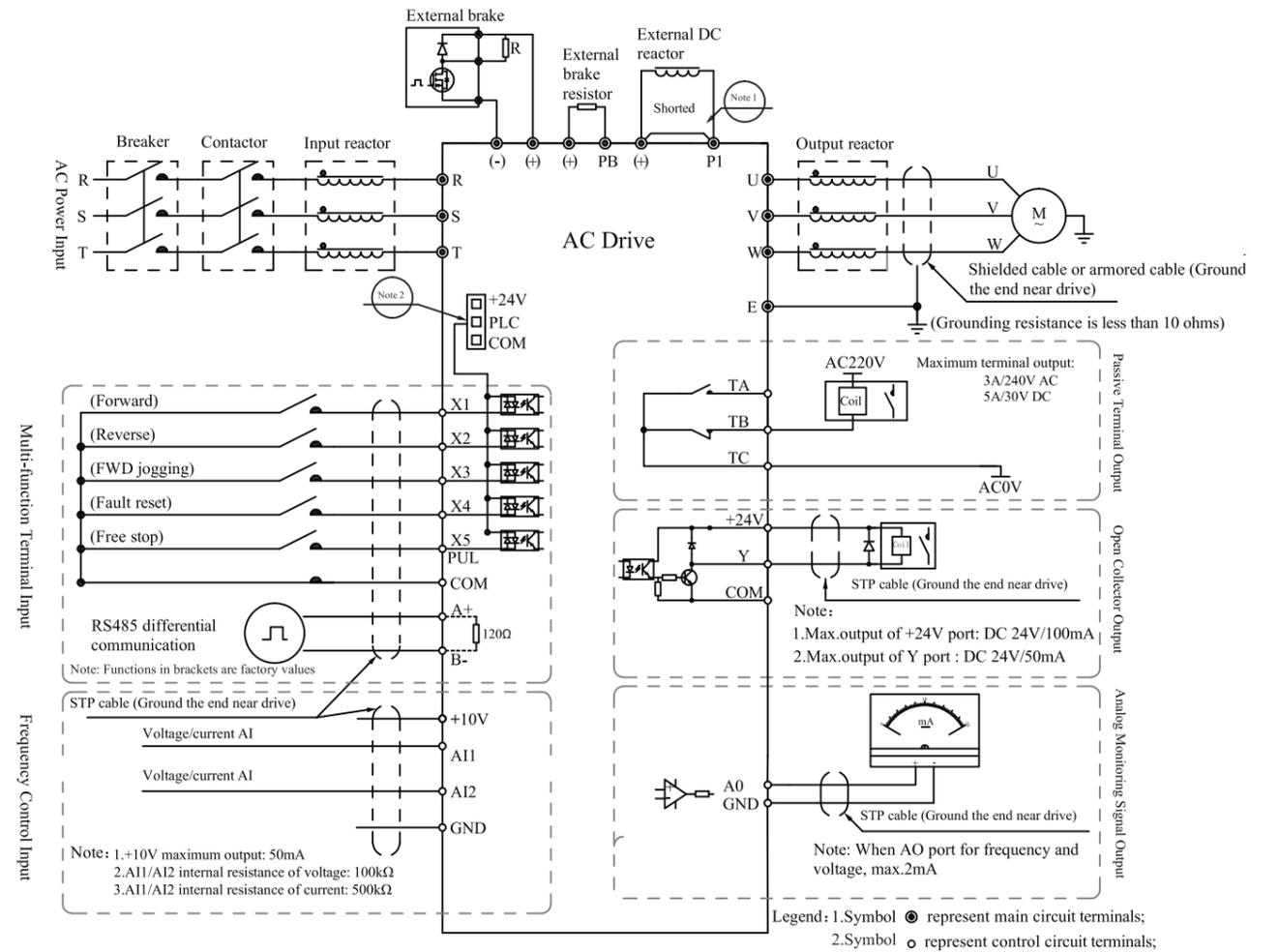
Motor Power (kW)

132:132kW



Model	Outer Dimension (mm)			Installation Dimension (mm)				
	L	W	H	E1	E2	D1	D2	C
LC320-T3-090N-L	790	420	332	240	760	M8	Ø13	G1/2
LC320-T3-110N-L								
LC320-T3-132N-L								
LC320-T3-160N-L								
LC320-T3-185N-L								
LC320-T3-200N-L								
LC320-T3-220N-L	940	610	322	310	907	M16	Ø18	G1/2
LC320-T3-250N-L								
LC320-T3-280N-L								
LC320-T3-315N-L								
LC320-T3-355N-L								
LC320-T3-400N-L								

Wiring Diagram



Note:

- Models T3-22kW and below have built-in brakes, which need to be connected with braking resistors as required; For models without built-in brake units, add an external brake unit as required.
- Terminals (X1~X5/PUL) support NPN or PNP transistor signal input, and its bias voltage can be selected to the drive power supply (+24V terminal) or external power supply (PLC terminal).

SiC AC Drive for Customization



Specifications	GEN-2 Hydrogen Cell Compressor Drive
Rated power	30kW
Output frequency	0.0~3000.0Hz
Input voltage	450VDC~750VDC
Rated output current	60A
Carrier frequency	50.0kHz
Efficiency	>97%
Control mode	SVC
Dimension	284*275*84
Protection level	IP67
Cooling method	Water-cooled



Specifications	EV Main Drive
Rated power	75kW
Output frequency	0.0~3000.0Hz
Input voltage	750VDC~900VDC
Rated output current	150A
Carrier frequency	50.0kHz
Overload capacity	200%, 20s
Efficiency	≥97%
Control mode	FVC: Resolver
Dimension	285*313*107
Protection level	IP67
Cooling method	Water-cooled

Manufacturing and Quality Control

Smart manufacturing with whole-process automation

- > On intelligent manufacturing ,the smart factory yields an annual capacity of 600,000 sets;
- > Fully automatic SMT production line, automatic coating line, assembly line, testing line, packaging line, high temperature aging room and advanced production equipment are established;
- > Enterprise production is implemented with target management and is operated in strict accordance with the production process and management methods, which greatly improves the production efficiency.
- > Complete supply chain system meets the large volume of one-time delivery.

Inheriting the spirit of craftsmanship, detail-oriented and striving for better

- > Insist on the quality policy and concept of quality first.
- > Procurement, design, manufacturing and other aspects all implemented in strict accordance with the requirements of the ISO9001 quality management system.
- > Talents create high quality, the production line core positions are occupied by 100% college degrees and above.
- > Each product has a unique product code, which can be used in the product traceability system to ensure quality can be controlled and traced.

Service and Support

