



Catalog VFD-HD2000 Series Engineering Single-axis Multi-axis Variable Frequency Drive System

About Hopewind

Shenzhen Hopewind Electric Co., Ltd. (Stock Code: 603063) focuses on the research, manufacture, sales and service of renewable energy & electric drive products, with main products of MW level wind power VFD, Engineering VFD, Common VFD, PV VFD, APF active filter, SVG, Shore power and PCS. Through innovation in technology and service, Hopewind continuously creates value for customers, and has become one of the most competitive enterprises in renewable energy field. In the field of industrial drive, Hopewind independently developed HD2000 series low voltage engineering type VFD, HD8000 series medium voltage multi-level VFD and HV500 series high performance VFD base on powerful customized engineering wind power converter platform. In addition, Hopewind also have HV300 series common VFD, Oilfield dedicated HEC series VFD. The industrial drive products of Hopewind contain multiple power sections and different control modes, suitable for various industrial scenarios.

[Honors]



National Science and Technology Progress Award



Laboratory Qualification Approved by CNAS



National High-tech Enterprises

[Quality System]



ISO9001: 2015



ISO14001: 2015



ISO45001: 2018

Headquarter · Shenzhen

6 R&D and manufacturing bases: Shenzhen, Suzhou, Dongguan, Yancheng, Xi'an, Heyuan

30+ Global service bases: Deployed worldwide, and provides comprehensive services for global customers



Contents



- HD2000 Series Low Voltage Engineering Drive** 04
- Product Introduction 04
- Naming Rule 04
- Typical Applications 05
- Single-axis and Multi-axis Drive Diagram 05
- Product Features 06
- Hopelnsight 07
- Performance Advantages 08
- System Reliability 11
- HD2000 Category 12
- Application Cases 12
- Technical Specifications 13
- HCU20 Control Unit** 14
- Operation Panel** 16
- Encoder Module** 16
- Book Type MDU Communication Expansion Card** 16
- HD2000 Unit Selection** 17
- HD2000 Cabinet Selection** 25
- HD2000 Cabinet Configuration Mode** 34

HD2000 Series Low Voltage Engineering Drive

Product Introduction

HD2000 is the single-axis and multi-axis engineering drive system that independently developed by Hopewind Electric. Its modular hardware and engineering software design enables the products to apply to all kinds of complex operating conditions.

HD2000 series engineering drive includes chassis-format single-axis AC-DC-AC drive unit, DC/AC common bus multi-axis motor drive unit and cabinet type product.

The control unit HCU20 of HD2000 series engineering drive has vector control, V/F control, and servo control functions, can simultaneously drive 3 vector axis or 8 V/F axis, and allows for 8 power units directly connected in parallel.

- **Basic features:** Single-axis drive, multi-axis drive, unit, cabinet, two-quadrant operation, four-quadrant operation
- **Building block design:** Meeting the flexibility of the applications and the integrity of the system integration
- **Complete front-end rectification:** Basic rectifier, Smart rectifier and PWM rectifier
- **Voltage rating:** 400V, 690V
- **Maximum single power:** 1400kW (air-cooling), 1700kW (liquid-cooling)
- **Maximum parallel power:** 11200kW (air-cooling), 13600kW (liquid-cooling)
- **Applicable motor:** asynchronous induction motor, permanent magnet synchronous motor, synchronous reluctance motor
- **Control mode:** V/F, CLVC (closed-loop vector control), OLVC (open-loop vector control), servo control
- **Cooling method:** air-cooling (standard), liquid-cooling (L)



Naming Rule

HD2000 - 10 B 0500 4 B L -S

Series name:

HD2000: hopeDrive series low-voltage engineering drive

Topology / Function:

10: Basic rectifier (diode) 11: Basic rectifier (thyristor) 12: Smart rectifier
 13: PWM rectifier 14: LCL filter interface (excluding main contactor)
 15: LCL filter interface (including main contactor) 16: Motor drive 17: Control
 18: Centralized braking 19: Decentralized braking 21: Output inductor
 30: Input distribution 33: Basic rectifier and frequency changer

Structure type:

B: Unit products D: Cabinet products

Rated current:

0500: 500A

Voltage level:

4: 400V (380V~480V) 6: 690V (500V~690V)

Braking:

B: Built-in Braking None: Without built-in Braking

Cooling method:

L: Liquid-cooling None: Air-cooling

Drive module type:

S: Book type None: Cabinet installation type

Typical Applications



Metallurgical Industry



Drilling Rig



Lifting Equipment



Mining Machinery



Marine Equipment



Test Bench



Paper Industry



Machine Tool

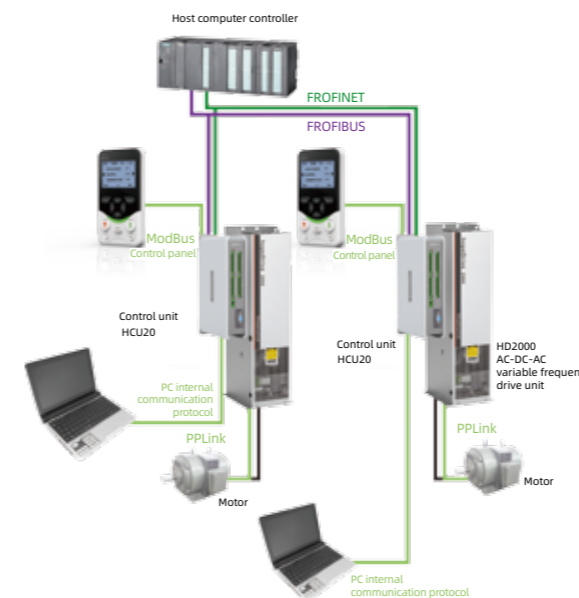


Power Supply



Rail Transit

Single-axis and Multi-axis Drive Diagram



Single-axis Drive Diagram



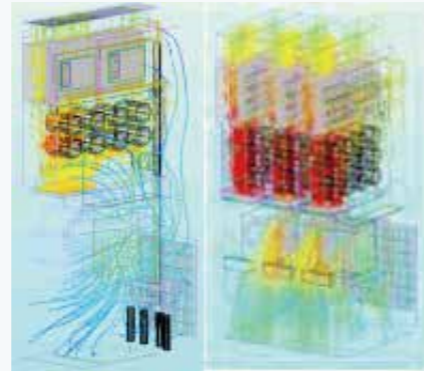
Multi-axis Drive Diagram

HD2000 Series Low Voltage Engineering Drive

Product Features

Engineering Reliability Design

- Control system, power system, high redundancy to improve the overall reliability of the product
- Long-life cooling design, extend the fan, capacitor and other vulnerable device service life
- Innovative large capacity heat radiator to enhance the load adaptability under transient impact
- Optical fiber communication between control system and power unit, improve system anti-jamming capability
- Cooling channels isolated from internal components, better for component protection, improve environmental adaptability



Easy-maintenance Modular Design

- No need special tools, simple and quick maintenance
- Modular components, all maintenance access from the front
- Intelligent fault diagnosis system, fast positioning



High-strength Anti-vibration Design

- Normal operation at IEC 60721 3M5 mechanical conditions
- Precise mechanical design to ensure strong anti-vibration performance

Customizable Communication Protocols

- Through the selection of different modules to support the specified communication protocol, can be achieved seamless connection with inherent PLC, more convenient to replace and maintain
- Support field bus: Profibus, CANopen, DeviceNet, ControlNet, Modbus RTU, Profinet IO and so on

Plenty Human-Machine Interaction Tool

- Powerful LCD keyboard panel can be configured, convenient for parameter setting and system information display on-site
- Using mobile APP to access mobile assistant (hopeScan), realize smart monitoring, fault online report, online diagnosis and etc
- Using PC to access background software (hopeInsight), realize smart wave recording, fault diagnosis and etc

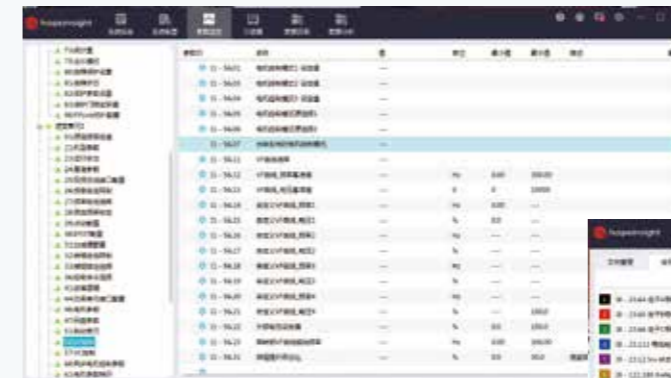
Quick Commissioning Tool (hopeInsight)

hopeInsight is a quick commissioning tool developed by Hopewind Electric for drive system, which is connected to the PC via optical fibers. The tool has plenty of commissioning functions, such as batch parameter setting, fault data download and waveform analysis, high-speed oscilloscope and lots of edit functions; the tool support both serial port and Ethernet communication, so it can maintain the VFD by serial port communication, or maintain the VFD in the main control room by Ethernet communication. The working diagram is shown below:



(hopeInsight working diagram)

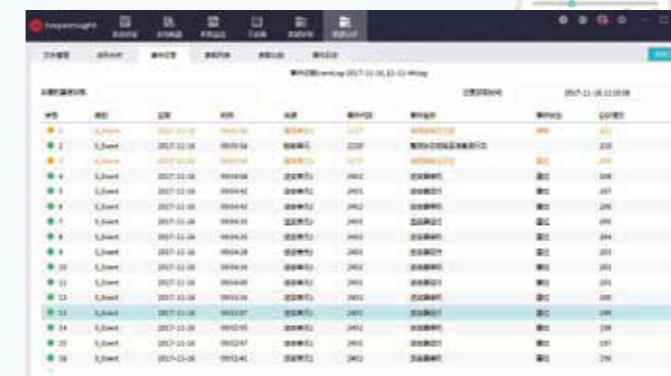
Batch parameter setting



12 channels high-speed oscilloscope, convenient tool for debuggers



Powerful fault record function, detailed event log, convenient fault diagnosis



HD2000 Series Low Voltage Engineering Drive

HD2000 Series Low Voltage Engineering Drive Performance Advantages

Four-quadrant Technique

Key technical points

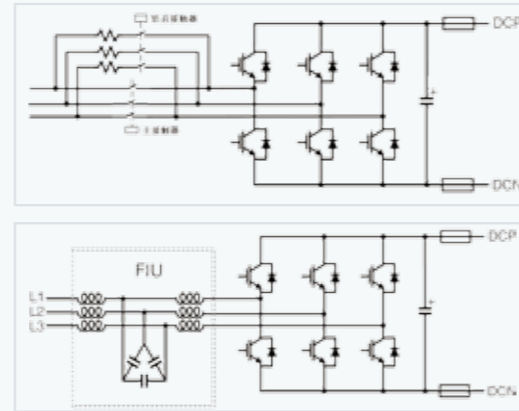
- Intelligent rectification feedback technology
- PWM controlled rectifier technology

Technical competences

- Intelligent rectification feedback technology
 - Four-quadrant operation, fast feedback response
 - Simple and reliable trigger method

PWM controlled rectifier technology

- Low grid harmonic current, high power factor, fast feedback response
- Current positive and negative sequence controlled independently, active damping hysteresis control technology, greatly improving the drive grid adaptability, especially for unbalanced grid, weak grid (harmonic, distortion)
- Controllable DC bus voltage, suit to tough power supply



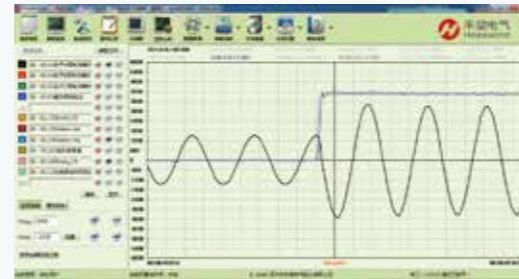
High Torque Response

Key technical points

- Suddenly add rated torque under torque control mode, and the current response time is 2ms

Technical competences

- Excitation current and torque current are highly decoupled, with high load capacity, wide speed range and excellent dynamic performance



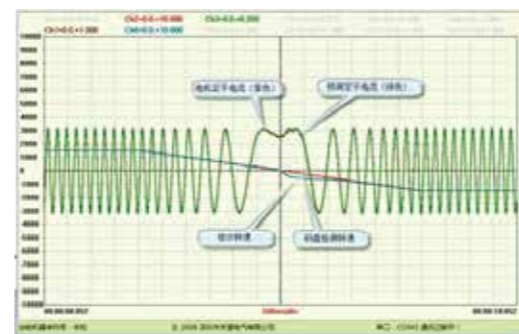
Flux Observation and Speed Estimation

Key technical points

- The full-order closed-loop flux observer is used to adaptively identify the motor speed and stator resistance based on the estimation error of the stator current and the estimation of the rotor flux linkage. The error caused by the parameter variation of the open loop and the integral drift is overcome, and the sensitivity to the parameters of the motor is reduced

Technical competences

- Accurate flux observation and speed estimation model, to ensure 150% high starting torque (0.5Hz) under OLVC (open-loop vector control) mode, and the open-loop zero speed hover function



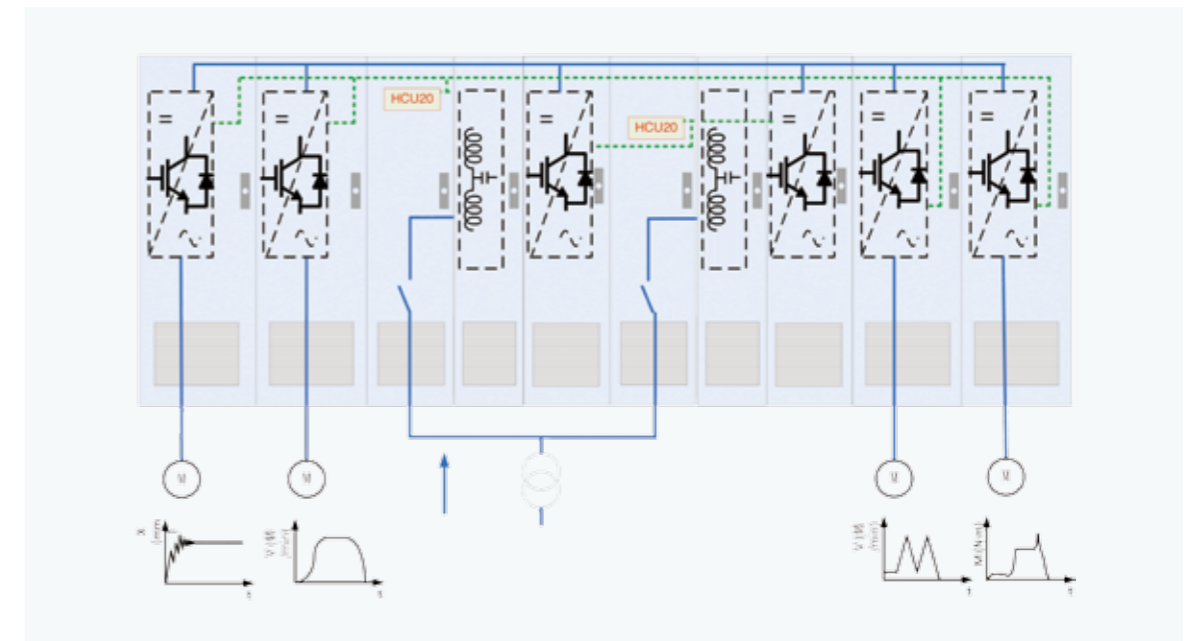
Multi-axis Compound Control

Key technical points

- Control unit HCU20 with vector, V/F, servo control function, can drive 3 vector axes or 8 V/F axes simultaneously

Technical competences

- Suitable for large-scale complex drive system which requires common-bus multi-axis compound control



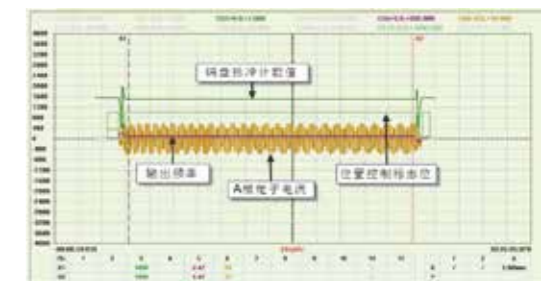
Zero-speed Hover

Key technical points

- Ultra-low speed detection, zero-speed high torque control

Technical competences

- Ultra-low speed detection through FPGA, with the function of zero-speed hovering to achieve high precision and reliability



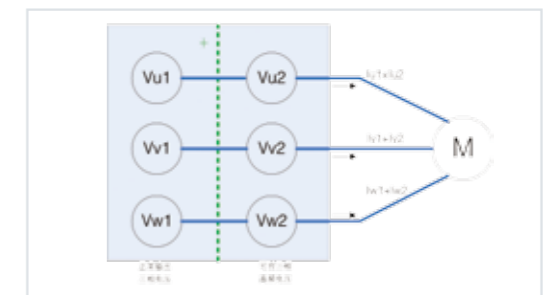
Fast Superposing-frequency Braking

Key technical points

- By superimposing the controllable high-frequency components on the output voltage, the motor itself has a reverse resistance torque, and the motor deceleration brake is quick and effective

Technical competences

- Effectively reduce the deceleration time for the motor with load, meet the special process requirements



HD2000 Series Low Voltage Engineering Drive

Performance Advantages

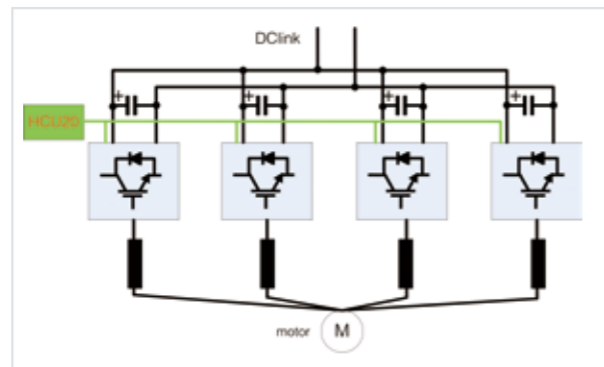
Direct Parallel Technology

Key technical points

- When the units are applied in parallel, the load current imbalance among the units can be caused by the discrepancy of the driving system or the power hardware, the control system synchronization and parallel current sharing control technology can adjust the output current of each unit in real time and realize the balanced control of the load current

Technical competences

- After one unit fails, the system can run at derating
- Centralized control decentralized execution system, optical fiber communication, better for units direct parallel
- Nanosecond-level synchronization, parallel flow technology to support multiple rectifier units and motor drive units directly connected in parallel



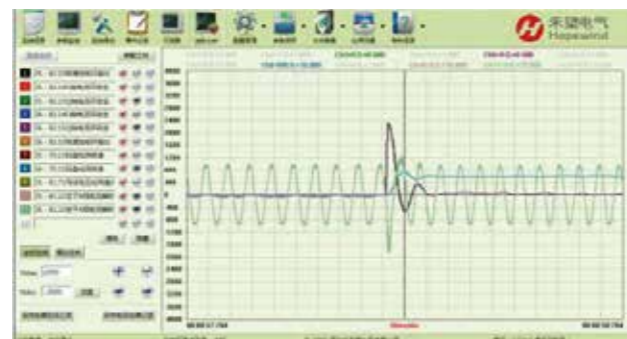
Multi-motors Synchronization and Load Balance Control

Key technical points

- Multiple motors drive the same load, the motors through bearings, gears, chains, belts, and other connection stuff to realize synchronization or proportional synchronization. By flexible parameters interconnection, it can realize master-slave control, static non-error load balancing, dynamic milliseconds load balancing and master-slave control mode free switch for special applications

Technical competences

- Multi-axis controllers and power modules separation, communication through high-speed optical fiber, good for synchronous control
- Accurate speed synchronization and load balance control with anti-torsion, anti-vibration and anti-skid
- Wireless droop control to achieve automatic speed, load balance distribution without encoder



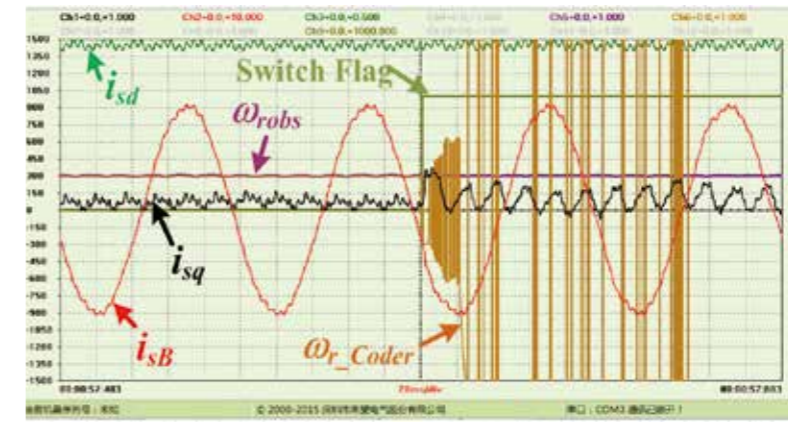
CLVC(closed-loop vector control) and OLVC(open-loop vector control) Online Automatic Switch

Key technical points

- While CLVC operation, with real-time motor speed observation by precise motor model, the controller can automatically online switch to OLVC mode when encoder fails, and after the encoder being normal, the operation mode can be switched back to CLVC mode

Technical competences

- Reduce abnormal downtime loss caused by encoder failure, meet the requirements for special applications, improve the safety for crane application with brake logic
- Stable speed at switching, and without current impact



System Reliability

Research and Development

- Control algorithm simulation platform
- Industry-leading simulation verification platform
- The most comprehensive motor test platform
- Heat, magnetic field, force finite element simulation platform
- Industry-leading high-power drive product development platform
- More than 20,000 units of MW-class VFD running stably worldwide




Standardized Production and Factory Testing

- The automatically controlled test process and traceable life cycle
- All products have to pass rated voltage full power aging tests before delivering to the customer
- The industry-leading specialized test platform to meet the different voltage levels, different rectifier modes for full load driving test, guaranteed product quality.


HD2000 Series Low Voltage Engineering Drive

HD2000 Category

HD2000 Series Low Voltage Engineering Drive							
Suitable for complex single-axis / multi-axis modular drive system							
Cooling method	AC-DC-AC VFD (Device Type)	Multiple AC-DC rectifier and DC-AC driver, suitable for multi-axis application					
	Basic rectification type	Basic rectification unit	Smart rectification unit	LCL filter interface unit + PWM rectification unit	Motor drive unit		Standard unit cabinet/ whole machine (W*H*D) (mm)
				Cabinet installation type	Book type		
Air-cooling	7.5~560kW	7.5~1500kW	7.5~1600kW	11~1600kW	7.5~1400kW	7.5~160kW	400*2200*600 / 600*2200*600 / 800*2200*600 ⁽¹⁾
Liquid-cooling	/	1500~2500kW	1200~2000kW	1200~2000kW	1000~1700kW	/	400*2200*650 / 600*2200*650



fan cooling type



liquid cooling type

Note: Standard Cabinet/The overall machine can be customized according to customer requirements

Application Cases



Industry: Metallurgy
Load: High-speed wire rod main rolling, cold-rolled line, roller, straightening machine, pickling line
Features: Strong overload, high precision, high dynamic response, low speed-drop equivalent



Industry: Harbour Cranes
Load: Quayside container crane, grab
Features: Potential energy load, constant torque starting, frequent starting, zero speed hovering



Industry: Drilling Platform
Load: Winch, turntable, mud pump, automatic drilling, top drive
Features: Multi-axis drive, multi-motor synchronous control, high reliability



Industry: Experimental Platform
Load: Synchronous motor, asynchronous motor
Features: Parallel connection, high power, superposing frequency



Industry: Mining Machinery
Load: Mine hoist, belt
Features: Low-frequency high torque, master-slave synchronization control, energy feedback



Industry: Distributed new energy power generation
Load: Wind power generator, waste heat generator, tidal generator
Features: Low input harmonic current, MPPT, customized algorithm

The technical specification of HD2000 series

Basic Rectification	Input Voltage	4: 380V~480V, 6: 500V~690V
	Input Frequency	(50Hz/60Hz) ±6%
	Output Voltage	Input Voltage*1.32 (full load condition)
	Overload Capacity	150% heavy load rated current, 60s; Max. current I _{max_DC} , 5s
	Work Efficiency	≥99%
	Protection Function	Over-heat protection, soft-start protection, interlock protection, etc.
Smart Rectification	Input Voltage	4: 380V~480V, 6: 500V~690V
	Input Frequency	47Hz~63Hz
	Output Voltage	Input Voltage*1.3 (full load condition)
	Overload Capacity	150% heavy load rated current, 60s; Max. current I _{max_DC} , 5s
	Work Efficiency	≥98.5%
	Protection Function	Over-heat protection, over-current protection, IGBT straight-connection protection, etc.
PWM Rectification	Input Voltage	4: 380V~480V, 6: 500V~690V
	Input Frequency	47Hz~63Hz
	Output Voltage	Input Voltage*1.5 (Rated operating condition)
	Overload Capacity	150% heavy load rated current, 60s; Max. current I _{max_DC} , 5s
	Work Efficiency	≥98% (Including LCL filter unit)
	Power Factor	Adjustable (factory default: 1)
	Protection Function	Over-heat protection, over-current protection, overload protection, IGBT straight-connection protection, etc.
Motor Drive	Rated Input Voltage	4: 410Vdc~780Vdc, 6: 550Vdc~1100Vdc
	Output Voltage	0 to rectifier AC input voltage
	Output Frequency	0Hz~500Hz
	Speed Range	V/F: 1:50, OLVC: 1:200, CLVC: 1:1000
	Steady Speed Precision	OLVC: 0.2%, CLVC: 0.01%
	Speed Fluctuation	OLVC: 0.2%, CLVC: 0.1%
	Starting Torque	OLVC: 150% (0.5Hz), CLVC: 200% (0Hz)
	Torque Control	V/F: not support, OLVC: support, CLVC: support
	Torque Precision	OLVC: 5%, CLVC: 5%
	Torque Response Time	OLVC: 5ms, CLVC: 5ms
	Speed Response Time	OLVC: 100ms, CLVC: 100ms
	Dynamic Speed Drop Equivalent	OLVC: 0.5%*s, CLVC: 0.3%*s
	Environmental Conditions	Temperature
Humidity		5% to 95% no condensation
Altitude		≤ 4000m (2000m~4000m derating use)
Mechanical Data	Anti-vibration Performance	Conforms to IEC 60721-3-3: 2002
	Ingress Protection	IP00/IP20/ IP40
	Security Level	Conforms to UL 508C-2004
	Cooling Method	Air-cooling, liquid-cooling

HCU20 Control Unit

Product Introduction



HCU20 control unit is the core component of VFD, as the hardware platform for the control system, providing I/O interfaces and communication interfaces for internal and external communications

Model description

HCU20 - DP - 1 - 6

Controller series name:

HCU20

Field bus type:

CA: CANopen CN: ControlNet DN: DeviceNet
DP: Profibus MR: Modbus RTU PN: Profinet IO

Interface matching plate type:

1: AIO simulation value input/output

Fiber interface numbers:

6:6 fiber interfaces

Main Function

Number	Function Category	Function Description
1	Communication Function	Communication with rectification unit or motor drive unit
2		Communication with host computer
3		Communication with PC
4		Communication with control panel
5		Communication with expansion module
6	Digital Interface	External digital input, or digital output to external
7	Analog Interface	External analog input, or analog output to external
8	Control	Control rectification unit, motor drive unit and interface unit

Structure Size

Maximum Dimensions (W*H*D)(mm)	56*280*174
Weight (kg)	≤2
Ingress Protection	IP20

Technical Parameter

Type	Number	Specification	Remark
Digital Input	10	Optocoupler isolation: 5V Input voltage range: 0V ~ 30V Input current (typical): 10mA @ 24VDC Input high level: 15V ~ 30V Input low level: 0V ~ 5V Input delay (typical): 300μs	X1
Digital Input/output	8	Used as DI: Channel 2 supports fast pulse input. Input voltage range: 0V ~ 30V Input current (typical): 10mA @ 24VDC Input high level: 15V ~ 30V Input low level: 0V ~ 5V Input delay (typical): 5μs Input frequency (fast): 1Hz ~ 100kHz Used as DO: Channel 1 is the fast pulse output interface. Output high: 22V ~ 24V Load capacity: 500mA (The sum of all DO load current cannot exceed2A) Output delay (typical): 100μs (normal), 5μs (fast) Output frequency (fast): 0.1kHz ~ 100kHz	X2 The inputs and outputs are configured via software
Relays	3	Contact Type: Form C Contact load capacity: 2A Contact voltage: 250VAC or 30VDC Mechanical life: 100,000 times	X12 Supported when the interface board type is 1
Analog Output	2	Voltage type: Output voltage: -12.5 V ~ + 12.5V Load capacity: 10mA Resolution: 12bit Accuracy: 1% Others: Overcurrent protection (20mA) Current: Output current: -25mA ~ 25mA Load capacity: 500Ω Resolution: 12bit Accuracy: 1%	X11 Supported when the interface board type is 1 The inputs type and outputs type are configured via software
Analog Input	2	Voltage type: Input voltage: -12.5 V ~ + 12.5V Input impedance: 14kΩ Resolution: 12bit Accuracy: 1% Current type: Input current: -25mA ~ + 25mA Input impedance: 100Ω Resolution: 12bit Accuracy: 1% Other: Short circuit protection	
Reference Voltage Output	1	Output voltage: -10V and + 10V Load capacity: 10mA Accuracy: 1% Other: Short circuit protection (20mA)	Supported when the interface board type is 1
Field Communication Bus	1	External interface type: Field Bus (Profibus, CANopen, ControlNet, DeviceNet, Modbus RTU) and Industrial Ethernet (Profinet IO) (built-in, and only support one in the same time) External baud rate: meet the selected communication protocol specification Internal interface type: SCI Internal baud rate: less than 625kbps	X3 By selecting different modules to support the specified communication protocols
PP Link Optical Fiber Interface	6~12	Interface type: PPLink Communication medium: plastic optical fiber Baud rate: 10Mbps Communication distance: 50m	X21~X26 Can be used in master-slave control: connect directly when one master to one slave, connect with fiber relay module when one master to multi-slave; or be used to connect power module or expansion module.
Keyboard Interface	1	Connect an external keyboard via the RS485/RS422 interface. Interface Type: RS485/RS422 Baud rate: less than 250kbps Communication distance: 50m	X28 Using RS485 to connect keyboard, using RS422 to connect the WIFI of keyboard, also can be used to communicate with background (Ethernet to serial port adapter is required)
Background Debug Interface	1	External interface type: Ethernet External baud rate: 10 / 100Mbps Internal interface type: SCI Internal baud rate: 9600 bps to 921600 bps (Can be dynamically switched) Communication distance: 50m	X27
Input Power	1	Input voltage: 24VDC (-15% ~ + 20%) Input current: less than 1A Safety requirements: SELV	X4
Storage Card Update Interface	1	Support standard SD card Capacity: Max 4G Rate: Class 10	X29
CAN Master-slave / 485 synchronization	2	Interface type: CAN/485 Baud rate: less than 1Mbps/16Mbps Communication distance: 40m(1Mbps)/1200m Default matched resistance: 24Ω (can be switch to 360Ω in background)	X30, X31 Isolated communication; can use CAN Master-slave and 485 synchronization in the same time

Note: Interface module and encoder module can be sold with control unit set.

Operation Panel

Product Introduction

HIC200-OP-10 is an intelligent operation panel developed by Hopewind Electric for the high-performance drive products. The panel interface is user-friendly with rich information. According to the different configuration, it is divided into WiFi type and non-WiFi type. Both of the two types are convenient for high-performance single/multi-drive system parameter monitoring and commissioning.



Encoder Module

Encoder module is mainly used to detect motor speed and temperature.

A variety of encoder modules are available, to be used with HD2000 units for specific applications.

Selection

Application Type	Cabinet Installation Type Unit				Book Type Unit
Model	HIC200-EIM10	HIC200-EIM20	HIC200-EIM30	HIC200-EIM40	HVPG-ABZ
Rotary Transformer	Supported	-	-	-	-
Incremental Encoder sin/cos (1 Vpp) With / Without Reference Signal	-	Supported	-	-	-
Incremental Encoder TTL/HTL	-	-	Supported	-	Supported
Absolute Value Encoder EnDat2.1	-	Supported	-	-	-
Absolute Value Encoder EnDat2.2	-	-	-	Supported	-
Absolute Value Encoder SSI	-	Supported	Supported	-	-
Temperature Signal Converter	Supported	Supported	Supported	-	-
Maximum Dimensions (W*H*D) (mm)	34*188*118 (wall-mounted installation)				62*77*32.1 (Plug-in installation)

Book Type MDU Communication Expansion Card

HD2000 book type MDU communication expansion card is used to realize the main station control, monitoring and diagnosis the unit.

Structure Size

Application Type	Book Type Unit				
Model	HVCOM-DP	HVCOM-PN	HVCOM-CA	HVCOM-CN	HVCOM-DN
Bus Type	PROFIBUS DP	PROFINET IO	CANopen	ControlNet	DeviceNet
Dimensions (W*H*D) (mm)	62*77*30 (Plug-in installation)				

HD2000 Unit Selection

HD2000 series device type engineering drive unit products including single-drive AC-DC-AC VFD unit and multi-drive AC-DC rectification with DC-AC drive unit.

Device type engineering drive unit requires corresponding distribution protection device, user must integrate them before using.

Unit Frame Weight

Frame Type	Weight (kg)	Frame Type	Weight (kg)	Frame Type	Weight (kg)
3U	6.7	F5	29.5	IU	362
4U	9	F6	53	JU	452
5U	29.5	DU	100	KU	582
6U	53	EU	187	LU	117
7U	37	FU	109	NU	55
F3	6.7	GU	168	OU	160
F4	9	HU	289	PU	260

Note: This weight is net weight, the weight of optional components (such as assistant transformer) are not included; please refer to the physical for actual parameters.

Two-quadrant Variable Frequency Drive Unit (VFU)

Model	Rated		Light Load		Heavy Load		Frame Type	Dimensions W*H*D (mm)
	Current (A)	Power (kW)	Current (A)	Power (kW)	Current (A)	Power (kW)		
UN: Three-phase AC 400V (380V~480V)								
HD2000-33B00174B	17	7.5	16	7.5	15	5.5	F3	132*393*258
HD2000-33B00254B	25	11	24	11	22	7.5		
HD2000-33B00324B	32	15	31	15	28	11		
HD2000-33B00384B	38	18.5	37	18.5	34	15	F4	132*441*298
HD2000-33B00464B	46	22	45	22	41	18.5		
HD2000-33B00604B	60	30	58	30	53	22	F5	240*501*334
HD2000-33B00754(B)	75	37	73	37	67	30		
HD2000-33B00914(B)	91	45	88	45	81	37	F6	295*593*386
HD2000-33B01254(B)	125	55	121	55	111	45		
HD2000-33B01564(B)	156	75	151	75	139	55		
HD2000-33B01804(B)	180	90	175	90	160	75	FU	325*1400*405
HD2000-33B02104(B)	210	110	204	110	187	90		
HD2000-33B02604(B)	260	132	252	132	231	110	GU	325*1530*543
HD2000-33B03104(B)	310	160	301	160	276	132		
HD2000-33B03804(B)	380	200	369	200	338	160	HU	502*1487*545
HD2000-33B04904(B)	490	250	475	250	436	200		
HD2000-33B06054(B)	605	315	587	315	538	250	HU	502*1487*545
HD2000-33B07454(B)	745	400	723	400	663	315		
HD2000-33B08404(B)	840	450	815	450	748	400		
UN: Three-phase AC 690V (500V~690V)								
HD2000-33B00636(B)	63	55	61	55	56	45	F6	295*593*386
HD2000-33B00866(B)	86	75	83	75	77	55		
HD2000-33B01016(B)	101	90	97	90	89	75	FU	325*1400*405
HD2000-33B01206(B)	120	110	116	110	107	90		
HD2000-33B01506(B)	150	132	146	132	134	110	GU	325*1530*543
HD2000-33B01756(B)	175	160	170	160	156	132		
HD2000-33B02156(B)	215	200	209	200	191	160	HU	502*1487*545
HD2000-33B02606(B)	260	250	252	250	231	200		
HD2000-33B03306(B)	330	315	320	315	294	250	HU	502*1487*545
HD2000-33B04106(B)	410	400	398	400	365	315		
HD2000-33B04656(B)	465	450	451	450	414	400		
HD2000-33B05756(B)	575	560	558	560	512	450		

Note: (1) The products of F3, F4 Frame have built-in braking unit.

(2) The model ends with (B) means the braking unit is optional for this model. For example, the HD2000-33B00754B model has built-in braking unit, the HD2000-33B00754 model hasn't built-in braking unit.

HD2000 Unit Selection

Basic rectification unit (BRU) performs two-quadrant rectification to grid voltage, hasn't power feedback function; the braking unit and braking resistor are required to consume the braking energy generated in the device; the inline inductor is also required in input side.

Smart rectification unit (SRU) performs four-quadrant rectification to grid voltage, has power feedback function; bus voltage cannot be controlled, it is determined by input grid voltage and load; the inline inductor is required in input side.

PWM rectification unit (PRU) performs four-quadrant rectification to grid voltage, has power feedback function; DC bus voltage can be controlled; the LCL filter interface unit (FIU) is required in input side.

Unit	Basic rectification unit (BRU)	Smart rectification unit (SRU)	PWM rectification unit (PRU)
Power Feedback	Not supported	Supported	Supported
Bus Voltage	Not controllable	Not controllable	Controllable (Sine wave)
Power Factor	Low	Low	High (factory default: $\cos\Phi=1$, editable)
Harmonic	High	High	Low

Multi-drive Basic Rectification Unit (BRU)

Model	Rated Power (kW)	AC		DC			Frame Type	Dimensions W*H*D (mm)
		Rated Current I_N (A)	Max Current I_{max} (A)	Rated Current $I_{N,DC}$ (A)	Heavy Load Current $I_{h,DC}$ (A)	Max Current $I_{max,DC}$ (A)		
UN: Three-phase AC 400V (380V~480V)								
HD2000-11B01624	90	162	244	193	151	290	DU	310*1260*405
HD2000-11B01984	110	198	298	236	184	354		
HD2000-11B02384	132	238	357	283	221	425		
HD2000-11B02894	160	289	433	343	268	515		
HD2000-11B03614	200	361	541	429	335	644		
HD2000-11B04514	250	451	677	536	418	804		
HD2000-11B07224	400	722	1083	858	669	1287	EU	310*1640*543
HD2000-11B10104	560	1010	1516	1201	937	1802		
HD2000-11B12814	710	1281	1922	1523	1188	2285		
HD2000-10B16244 ⁽¹⁾	900	1624	2436	1931	1506	2896		
UN: Three-phase AC 690V (500V~690V)								
HD2000-11B00946	90	94	141	112	87	168	DU	310*1260*405
HD2000-11B01156	110	115	173	137	107	205		
HD2000-11B01386	132	138	207	164	128	246		
HD2000-11B01676	160	167	251	199	155	298		
HD2000-11B02096	200	209	314	249	194	373		
HD2000-11B02616	250	261	392	311	243	466		
HD2000-11B03716	355	371	557	441	344	662		
HD2000-11B05866	560	586	879	696	543	1045		
HD2000-11B09416	900	941	1412	1119	873	1679		
HD2000-11B11516	1100	1151	1726	1368	1067	2052		
HD2000-10B15696 ⁽²⁾	1500	1569	2353	1865	1455	2798	EU	310*1640*543
Liquid-cooling type - UN: Three-phase AC 690V (500V~690V)								
HD2000-10B15696L ⁽²⁾	1500	1569	2353	1865	1455	2798	OU	332*894*588
HD2000-10B20916L ⁽²⁾	2000	2091	3137	2486	1939	3729		
HD2000-10B23246L ⁽²⁾	2500	2324	3486	2763	2155	4145		

Note: (1) 400V, 900kW basic rectification unit using diode rectifier, need for external soft start and bypass contactor.
 (2) 690V, 1500kW and higher power basic rectification units using diode rectifier, need for external soft start and bypass contactor.

Multi-drive Smart Rectification Unit (SRU)

Model	Rated Power (kW)	AC		DC			Frame Type	Dimensions W*H*D (mm)
		Rated Current I_N (A)	Max Current I_{max} (A)	Rated Current $I_{N,DC}$ (A)	Heavy Load Current $I_{h,DC}$ (A)	Max Current $I_{max,DC}$ (A)		
UN: Three-phase AC 400V (380V~480V)								
HD2000-12B00144	7.5	14	21	16	14	24	3U	132*393*258
HD2000-12B00204	11	20	30	24	21	36		
HD2000-12B00274	15	27	41	33	29	49		
HD2000-12B00344	18.5	34	51	40	36	60		
HD2000-12B00404	22	40	60	48	42	72	4U	132*441*298
HD2000-12B00554	30	55	82	65	58	98		
HD2000-12B00674	37	67	101	80	71	120	5U	140*500*335
HD2000-12B00824	45	82	123	98	87	146		
HD2000-12B01004	55	100	150	119	106	179	6U	165*592*385
HD2000-12B01374	75	137	205	163	145	244		
HD2000-12B01654	90	165	246	195	174	293		
HD2000-12B02004	110	200	301	238	212	358		
HD2000-12B02414	132	241	361	286	255	429	FU	325*1400*405
HD2000-12B02924	160	292	437	347	309	520		
HD2000-12B03644	200	364	547	433	386	650	GU	325*1530*543
HD2000-12B04564	250	456	683	542	482	813		
HD2000-12B06474	355	647	970	769	685	1154		
HD2000-12B09114	500	911	1367	1083	964	1625		
HD2000-12B11484	630	1148	1722	1365	1215	2048	IU	707*1487*545
HD2000-12B14584	800	1458	2187	1734	1543	2600		
UN: Three-phase AC 690V (500V~690V)								
HD2000-12B00586	55	58	87	69	61	104	6U	165*592*385
HD2000-12B00796	75	79	119	94	84	141		
HD2000-12B00966	90	96	143	113	101	170		
HD2000-12B01166	110	116	174	138	123	207	FU	325*1400*405
HD2000-12B01396	132	139	209	166	148	249		
HD2000-12B01696	160	169	254	201	179	301		
HD2000-12B02116	200	211	317	251	224	377		
HD2000-12B02646	250	264	396	314	280	471	GU	325*1530*543
HD2000-12B03336	315	333	499	396	352	594		
HD2000-12B04756	450	475	713	565	503	848		
HD2000-12B07506	710	750	1125	892	794	1338		
HD2000-12B10576	1000	1057	1585	1256	1118	1884	IU	707*1487*545
HD2000-12B14796	1400	1479	2219	1759	1565	2638		
HD2000-12B16906	1600	1690	2535	2009	1788	3014		
Liquid-cooling type - UN: Three-phase AC 690V (500V~690V)								
HD2000-12B12686L	1200	1268	1902	1507	1342	2261	PU	548*920*590
HD2000-12B14796L	1400	1479	2219	1759	1565	2638		
HD2000-12B16906L	1600	1690	2535	2009	1788	3014		
HD2000-12B21136L	2000	2113	3170	2512	2236	3769		

HD2000 Unit Selection

Multi-drive PWM Rectification Unit (PRU)

Model	Rated Power (kW)	AC		DC			Frame Type	Dimensions W*H*D (mm)
		Rated Current I _N (A)	Max Current I _{max} (A)	Rated Current I _{N,DC} (A)	Heavy Load Current I _{h,DC} (A)	Max Current I _{max,DC} (A)		
UN: Three-phase AC 400V (380V~480V)								
HD2000-13B00184	11	18	26	20	18	30	3U	132*393*258
HD2000-13B00244	15	24	36	27	24	40		
HD2000-13B00304	18.5	30	45	33	30	50		
HD2000-13B00354	22	35	53	40	35	59	4U	132*441*298
HD2000-13B00484	30	48	72	54	48	81		
HD2000-13B00594	37	59	89	66	59	100	5U	140*500*335
HD2000-13B00724	45	72	108	81	72	121		
HD2000-13B00884	55	88	132	99	88	148	6U	165*592*385
HD2000-13B01204	75	120	180	135	120	202		
HD2000-13B01454	90	145	217	162	144	242		
HD2000-13B01774	110	177	265	198	176	296	FU	325*1400*405
HD2000-13B02124	132	212	318	237	211	356		
HD2000-13B02574	160	257	385	287	256	431		
HD2000-13B03774	235	377	565	422	376	633	GU	325*1530*543
HD2000-13B04814	300	481	722	539	480	808		
HD2000-13B06094	380	609	914	683	607	1024	HU	502*1487*545
HD2000-13B07224	450	722	1083	808	719	1212		
HD2000-13B08024	500	802	1203	898	799	1347		
HD2000-13B10104	630	1010	1516	1132	1007	1697	IU	707*1487*545
HD2000-13B12834	800	1283	1925	1437	1279	2156		
HD2000-13B14434	900	1443	2165	1617	1439	2425		

Multi-drive PWM Rectification Unit (PRU)

Model	Rated Power (kW)	AC		DC			Frame Type	Dimensions W*H*D (mm)
		Rated Current I _N (A)	Max Current I _{max} (A)	Rated Current I _{N,DC} (A)	Heavy Load Current I _{h,DC} (A)	Max Current I _{max,DC} (A)		
UN: Three-phase AC 690V (500V~690V)								
HD2000-13B00706	75	70	105	78	70	117	6U	165*592*385
HD2000-13B00856	90	85	126	94	83	141		
HD2000-13B01036	110	103	153	115	102	172		
HD2000-13B01236	132	123	184	137	122	206	FU	325*1400*405
HD2000-13B01496	160	149	223	167	148	250		
HD2000-13B01866	200	186	279	208	185	312	GU	325*1530*543
HD2000-13B02326	250	232	349	260	232	390		
HD2000-13B02936	315	293	439	328	292	492		
HD2000-13B03726	400	372	558	417	371	625		

Multi-drive PWM Rectification Unit (PRU)

Model	Rated Power (kW)	AC		DC			Frame Type	Dimensions W*H*D (mm)
		Rated Current I _N (A)	Max Current I _{max} (A)	Rated Current I _{N,DC} (A)	Heavy Load Current I _{h,DC} (A)	Max Current I _{max,DC} (A)		
UN: Three-phase AC 690V (500V~690V)								
HD2000-13B00706	75	70	105	78	70	117	6U	165*592*385
HD2000-13B00856	90	85	126	94	83	141		
HD2000-13B01036	110	103	153	115	102	172		
HD2000-13B01236	132	123	184	137	122	206	FU	325*1400*405
HD2000-13B01496	160	149	223	167	148	250		
HD2000-13B01866	200	186	279	208	185	312	GU	325*1530*543
HD2000-13B02326	250	232	349	260	232	390		
HD2000-13B02936	315	293	439	328	292	492		
HD2000-13B03726	400	372	558	417	371	625	HU	502*1487*545
HD2000-13B04656	500	465	697	521	463	781		
HD2000-13B05756	560	575	862	644	573	966		
HD2000-13B07446	800	744	1116	833	741	1250	IU	707*1487*545
HD2000-13B10236	1100	1023	1534	1145	1019	1718		
HD2000-13B13026	1400	1302	1952	1458	1297	2187		
HD2000-13B14886	1600	1488	2231	1667	1484	2501		
Liquid-cooling type-UN: Three-phase AC 690V (500V~690V)								
HD2000-13B11166L	1200	1116	1674	1250	1112	1874	PU	548*920*590
HD2000-13B13026L	1400	1302	1952	1458	1297	2187		
HD2000-13B14886L	1600	1488	2231	1667	1484	2501		
HD2000-13B18596L	2000	1859	2789	2083	1854	3124		

Multi-drive LCL Filter Interface Unit (FIU)

Model	AC		Corresponding Rectification Unit Model	Frame Type	Dimensions W*H*D (mm)
	Rated Current I _N (A)	Max Current I _{max} (A)			
UN: Three-phase AC 400V (380V~480V)					
HD2000-15B02124	212	318	HD2000-13B02124	FU	325*1400*405
HD2000-15B02574	257	386	HD2000-13B02574		
HD2000-15B03774	377	566	HD2000-13B03774	GU	325*1530*543
HD2000-15B04814	481	722	HD2000-13B04814		
HD2000-14B06094 ⁽¹⁾	609	914	HD2000-13B06094	JU	505*1575*544
HD2000-14B07224 ⁽¹⁾	722	1083	HD2000-13B07224		
HD2000-14B08024 ⁽¹⁾	802	1203	HD2000-13B08024	KU	505*1750*544
HD2000-14B10104 ⁽¹⁾	1010	1515	HD2000-13B10104		
HD2000-14B12834 ⁽¹⁾	1283	1925	HD2000-13B12834		
HD2000-14B14434 ⁽¹⁾	1443	2165	HD2000-13B14434		

HD2000 Unit Selection

Multi-drive LCL Filter Interface Unit (FIU)

Model	AC		Corresponding Rectification Unit Model	Frame Type	Dimensions W*H*D (mm)
	Rated Current I _N (A)	Max Current I _{max} (A)			
UN: Three-phase AC 690V (500V~690V)					
HD2000-15B00706	70	105	HD2000-13B00706	-	-
HD2000-15B00846	84	126	HD2000-13B00846	-	-
HD2000-15B01026	102	153	HD2000-13B01026	FU	325*1400*405
HD2000-15B01236	123	184	HD2000-13B01236		
HD2000-15B01496	149	223	HD2000-13B01496		
HD2000-15B01866	186	279	HD2000-13B01866		
HD2000-15B02326	232	349	HD2000-13B02326	GU	325*1530*543
HD2000-15B02936	293	439	HD2000-13B02936		
HD2000-15B03726	372	558	HD2000-13B03726		
HD2000-14B04656 ⁽¹⁾	465	697	HD2000-13B04656	JU	505*1575*544
HD2000-14B05756 ⁽¹⁾	575	862	HD2000-13B05756		
HD2000-14B07446 ⁽¹⁾	744	1116	HD2000-13B07446	KU	505*1750*544
HD2000-14B10236 ⁽¹⁾	1023	1534	HD2000-13B10236		
HD2000-14B13026 ⁽¹⁾	1302	1952	HD2000-13B13026		
HD2000-14B14886 ⁽¹⁾	1488	2231	HD2000-13B14886		

Note: 1. (1) Marked LCL filter interface units need to be equipped with external bypass contactor.
2. Liquid-cooling LCL FIU is customized product; please consult the manufacturer if you want to buy it.

Cabinet installation type MDU is controlled by independent HCU20 control unit, HCU20 control unit and HIC200-OP-10 operation panel should be chosen when purchase.

Book type MDU is controlled by built-in controller. The controller and keyboard have built-in before leaving the factory, no need to purchase separately.

Cabinet Installation Type Motor Drive Unit (MDU)

Model	Rated		Light Load		Heavy Load		Frame Type	Dimensions W*H*D (mm)
	Current (A)	Power (kW)	Current (A)	Power (kW)	Current (A)	Power (kW)		
UN: Three-phase AC 400V (380V~480V)/DC circuit voltage 510V~720V								
HD2000-16B00174B	17	7.5	16	7.5	15	5.5	3U	132*393*258
HD2000-16B00254B	25	11	24	11	22	7.5		
HD2000-16B00324B	32	15	31	15	28	11		
HD2000-16B00384B	38	18.5	37	18.5	34	15		
HD2000-16B00464B	46	22	45	22	41	18.5	4U	132*441*298
HD2000-16B00604B	60	30	58	30	53	22		
HD2000-16B00754(B)	75	37	73	37	67	30	5U	140*500*335
HD2000-16B00914(B)	91	45	88	45	81	37		
HD2000-16B01254(B)	125	55	121	55	111	45	6U	165*592*385
HD2000-16B01564(B)	156	75	151	75	139	55		
HD2000-16B01804(B)	180	90	175	90	160	75		
HD2000-16B02104	210	110	204	110	187	90	FU	325*1400*405
HD2000-16B02604	260	132	252	132	231	110		
HD2000-16B03104	310	160	301	160	276	132		
HD2000-16B03804	380	200	369	200	338	160	GU	325*1530*543
HD2000-16B04904	490	250	475	250	436	200		
HD2000-16B06054	605	315	587	315	538	250	HU	502*1487*545
HD2000-16B07454	745	400	723	400	663	315		
HD2000-16B08404	840	450	815	450	748	400		
HD2000-16B09854	985	560	955	560	877	450		
HD2000-16B12604	1260	710	1222	710	1121	560	IU	707*1487*545
HD2000-16B14054	1405	800	1363	800	1250	710		

Multi-drive Motor Drive Unit (MDU)

Model	Rated		Light Load		Heavy Load		Frame Type	Dimensions W*H*D (mm)
	Current (A)	Power (kW)	Current (A)	Power (kW)	Current (A)	Power (kW)		
UN: Three-phase AC 690V (500V~690V), DC circuit voltage 675V~1050V								
HD2000-16B00636(B)	63	55	61	55	56	45	6U	165*592*385
HD2000-16B00866(B)	86	75	83	75	77	55		
HD2000-16B01016(B)	101	90	97	90	89	75		
HD2000-16B01206	120	110	116	110	107	90	FU	325*1400*405
HD2000-16B01506	150	132	146	132	134	110		
HD2000-16B01756	175	160	170	160	156	132	GU	325*1530*543
HD2000-16B02156	215	200	209	200	191	160		
HD2000-16B02606	260	250	252	250	231	200		
HD2000-16B03306	330	315	320	315	294	250		
HD2000-16B04106	410	400	398	400	365	315	HU	502*1487*545
HD2000-16B04656	465	450	451	450	414	400		
HD2000-16B05756	575	560	558	560	512	450		
HD2000-16B07356	735	710	713	710	654	630	IU	707*1487*545
HD2000-16B08106	810	800	786	800	721	710		
HD2000-16B09106	910	900	883	900	810	800		
HD2000-16B10256	1025	1000	994	1000	912	900		
HD2000-16B12706	1270	1200	1232	1200	1130	1000		
HD2000-16B14826	1482	1400	1438	1400	1319	1200		
Liquid-cooling type - UN: Three-phase AC 690V (500V~690V)								
HD2000-16B08106L	810	800	786	800	721	710	PU	548*920*590
HD2000-16B10256L	1025	1000	994	1000	912	900		
HD2000-16B12706L	1270	1200	1232	1200	1130	1000		
HD2000-16B14826L	1482	1400	1438	1400	1319	1200		
HD2000-16B17996L	1799	1700	1745	1700	1601	1400		

Note: 400V/30kW and lower power MDUs have built-in braking unit, (B) means the braking unit is optional, other models need to option braking units of suitable capacitance and number according to actual needs on site.

Book type Motor Drive Unit (MDU)

Model	Rated		Light Load		Heavy Load		Frame Type	Dimensions W*H*D (mm)
	Current (A)	Power (kW)	Current (A)	Power (kW)	Current (A)	Power (kW)		
UN: Three-phase AC 400V (380V~480V), DC circuit voltage 510V~720V								
HD2000-16B00174B-S	17	7.5	16	7.5	15	5.5	3U	132*393*258
HD2000-16B00254B-S	25	11	24	11	22	7.5		
HD2000-16B00324B-S	32	15	31	15	28	11		
HD2000-16B00384B-S	38	18.5	37	18.5	34	15		
HD2000-16B00464B-S	46	22	45	22	41	18.5	4U	132*441*298
HD2000-16B00604B-S	60	30	58	30	53	22		
HD2000-16B00754(B)	75	37	73	37	67	30	5U	140*500*335
HD2000-16B00914(B)	91	45	88	45	81	37		
HD2000-16B01254(B)	125	55	121	55	111	45	6U	165*592*385
HD2000-16B01564(B)	156	75	151	75	139	55		
HD2000-16B01804(B)	180	90	175	90	160	75		
HD2000-16B02104-S	210	110	204	110	187	90	FU	325*1400*405
HD2000-16B02604-S	260	132	252	132	231	110		
HD2000-16B03104-S	310	160	301	160	276	132		
HD2000-16B03804-S	380	200	369	200	338	160	GU	325*1530*543
HD2000-16B04904-S	490	250	475	250	436	200		
HD2000-16B06054-S	605	315	587	315	538	250	HU	502*1487*545
HD2000-16B07454-S	745	400	723	400	663	315		
HD2000-16B08404-S	840	450	815	450	748	400		
HD2000-16B09854-S	985	560	955	560	877	450		
HD2000-16B12604-S	1260	710	1222	710	1121	560	IU	707*1487*545
HD2000-16B14054-S	1405	800	1363	800	1250	710		
UN: Three-phase AC 690V (500V~690V), DC circuit voltage 675~1050V								
HD2000-16B00636-S	63	55	61	55	56	45	6U	165*592*385
HD2000-16B00866-S	86	75	83	75	77	55		
HD2000-16B01016-S	101	90	97	90	89	75		
HD2000-16B01206-S	120	110	116	110	107	90	FU	325*1400*405
HD2000-16B01506-S	150	132	146	132	134	110		
HD2000-16B01756-S	175	160	170	160	156	132	GU	325*1530*543
HD2000-16B02156-S	215	200	209	200	191	160		
HD2000-16B02606-S	260	250	252	250	231	200		
HD2000-16B03306-S	330	315	320	315	294	250		
HD2000-16B04106-S	410	400	398	400	365	315	HU	502*1487*545
HD2000-16B04656-S	465	450	451	450	414	400		
HD2000-16B05756-S	575	560	558	560	512	450		
HD2000-16B07356-S	735	710	713	710	654	630	IU	707*1487*545
HD2000-16B08106-S	810	800	786	800	721	710		
HD2000-16B09106-S	910	900	883	900	810	800		
HD2000-16B10256-S	1025	1000	994	1000	912	900		
HD2000-16B12706-S	1270	1200	1232	1200	1130	1000		
HD2000-16B14826-S	1482	1400	1438	1400	1319	1200		

Note: B after number of model means this model has built-in braking unit, other models can option braking unit according to actual needs. To option braking unit, just add B to the end of model number.

HD2000 Unit Selection

Power Brake Unit -- Centralized Type

Model	Rated Power P _{DB} (kW)	Peak Power P ₁₅ (kW)	Min Brake Resistance (Ω)	Brake Starting Voltage (V)	Brake Stopping Voltage (V)	Frame Type	Dimensions W*H*D (mm)
AC input voltage (380V~480V)							
HD2000-18B06504	200(480V) 151(380V)	730(480V) 552(380V)	0.82	774(480V) 673(380V)	735(480V) 639(380V)	LU	310*1300*543
HD2000-18B12004	370(480V) 280(380V)	1380(480V) 1043(380V)	0.43	774(480V) 673(380V)	735(480V) 639(380V)		
AC input voltage (500V~600V)							
HD2000-18B05806	220(600V) 166(500V)	830(600V) 628(500V)	1.13	967(600V) 841(500V)	919(600V) 799(500V)	LU	310*1300*543
HD2000-18B11006	420(600V) 318(500V)	1580(600V) 1195(500V)	0.59	967(600V) 841(500V)	919(600V) 799(500V)		
AC input voltage (660V~690V)							
HD2000-18B05206	240(690V) 205(660V)	920(690V) 785(660V)	1.46	1158(690V) 1070(660V)	1100(690V) 1017(660V)	LU	310*1300*543
HD2000-18B10006	460(690V) 393(660V)	1700(690V) 1451(660V)	0.79	1158(690V) 1070(660V)	1100(690V) 1017(660V)		
Liquid-cooling type-AC input voltage (500V~600V)							
HD2000-18B05806L	220	830	1.13	967	919	NU	172*761*587
	166	628		841	799		
HD2000-18B11006L	420	1580	0.59	967	919		
	318	1195		841	799		
Liquid-cooling type-AC input voltage (660V~690V)							
HD2000-18B05206L	240	920	1.46	1158	1100	NU	172*761*587
	205	785		1070	1017		
HD2000-18B10006L	460	1700	0.79	1158	1100		
	393	1451		1070	1017		

Note: Higher braking power can be obtained by parallel units.

Power Brake Unit -- Decentralized Type

Model	Rated Power P _{DB} (kW)	Peak Power P ₁₅ (kW)	Min Brake Resistance(Ω)	Brake Starting Voltage (V)	Brake Stopping Voltage (V)	Frame Type	Dimensions W*H*D (mm)
AC input voltage (380V~480V)							
HD2000-19B01614	25(480V) 19(380V)	125(480V) 95(380V)	4.8	774(480V) 673(380V)	735(480V) 639(380V)	BU	107*130*330
HD2000-19B03234	50(480V) 38(380V)	250(480V) 189(380V)	2.4	774(480V) 673(380V)	735(480V) 639(380V)		
AC input voltage (500V~600V)							
HD2000-19B01296	25(600V) 19(500V)	125(600V) 95(500V)	7.5	967(600V) 841(500V)	919(600V) 799(500V)	BU	107*130*330
HD2000-19B02596	50(600V) 38(500V)	250(600V) 189(500V)	3.7	967(600V) 841(500V)	919(600V) 799(500V)		
Liquid-cooling type - AC input voltage (660V~690V)							
HD2000-19B01086	25(690V) 21(660V)	125(690V) 107(660V)	10.7	1158(690V) 1070(660V)	1100(690V) 1017(660V)	BU	107*130*330
HD2000-19B02166	50(690V) 43(660V)	250(690V) 213(660V)	5.4	1158(690V) 1070(660V)	1100(690V) 1017(660V)		

Note: Higher braking power can be obtained by parallel units. Up to three distributed braking units can be connected in parallel.

HD2000 Cabinet Selection

HD2000 series engineering drive cabinet including single-drive VFD cabinet and multi-drive VFD cabinet.

The single-drive VFD cabinet is consists of inline control cabinet and variable frequency drive cabinet, as a standard whole machine product. The multi-drive VFD cabinet is consists of inline control cabinet, rectification cabinet and motor drive cabinet, can be configured according to actual needs. The inline control cabinet will be changed according to different rectification method. Single-drive VFD cabinet and configured multi-drive VFD cabinet are standard product set, can be used directly by user.

Two-quadrant Single-drive Variable Frequency Drive Cabinet (VFC)

Model	Rated		Light Load		Heavy Load		Frame Type	Dimensions W*H*D (mm)
	Current (A)	Power (kW)	Current (A)	Power (kW)	Current (A)	Power (kW)		
UN: Three-phase AC 400V (380V~480V)								
HD2000-33D01564 +HD2000-30D01004+L123	156	75	151	75	139	55	FU	800*2200*600
HD2000-33D01804 +HD2000-30D02504+L100	180	90	175	90	160	75		
HD2000-33D02104 +HD2000-30D02504+L101	210	110	204	110	187	90		
HD2000-33D02604 +HD2000-30D02504+L102	260	132	252	132	231	110		
HD2000-33D03104 +HD2000-30D04004+L103	310	160	301	160	276	132	GU	
HD2000-33D03804 +HD2000-30D04004+L104	380	200	369	200	338	160		
HD2000-33D04904 +HD2000-30D06304+L105	490	250	475	250	436	200	HU	1000*2200*600
HD2000-33D06054 +HD2000-30D12504+L130	605	315	587	315	538	250		
HD2000-33D07454 +HD2000-30D12504+L106	745	400	723	400	663	315		
HD2000-33D08404 +HD2000-30D12504+L132	840	450	815	450	748	400		
UN: Three-phase AC 690V (500V~690V)								
HD2000-33D00866 +HD2000-30D00806+L126	86	75	83	75	77	55	FU	800*2200*600
HD2000-33D01006 +HD2000-30D01006+L110	100	90	97	90	89	75		
HD2000-33D01206 +HD2000-30D01606+L111	120	110	116	110	107	90		
HD2000-33D01506 +HD2000-30D01606+L112	150	132	146	132	134	110		
HD2000-33D01756 +HD2000-30D01606+L113	175	160	170	160	156	132	GU	
HD2000-33D02156 +HD2000-30D02506+L114	215	200	209	200	191	160		
HD2000-33D02606 +HD2000-30D04006+L115	260	250	252	250	231	200		
HD2000-33D03306 +HD2000-30D04006+L116	330	315	320	315	294	250		
HD2000-33D04106 +HD2000-30D06306+L135	410	400	398	400	365	315	HU	1000*2200*600
HD2000-33D04656 +HD2000-30D06306+L136	465	450	451	450	414	400		
HD2000-33D05756 +HD2000-30D06306+L117	575	560	558	560	512	450		

Note:1. the single-drive VFD cabinet use isolation switch as standard configuration. If users want to use the breaker, please remark it when order.
2. Add B after the model number of the VFD cabinet if you want to option braking unit, for example, HD2000-33D00866B+HD2000-30D00806+L126.

HD2000 Cabinet Selection

Multi-drive Inline Control Cabinet (ICC) - for BRC

Model	Rated Current (A)	Frame Type	Dimensions W*H*D (mm)	Corresponding BRC
UN: Three-phase AC 400V (380V~480V)				
HD2000-30D02504+L100	250	AC	400*2200*600	HD2000-11D01624
HD2000-30D02504+L101	250			HD2000-11D01984
HD2000-30D02504+L102	250			HD2000-11D02384
HD2000-30D04004+L103	400			HD2000-11D02894
HD2000-30D04004+L104	400			HD2000-11D03614
HD2000-30D06304+L105	630			HD2000-11D04514
HD2000-30D12504+L106	1250	BC	600*2200*600	HD2000-11D07224
HD2000-30D12504+L107	1250			HD2000-11D10104
HD2000-30D12504+L108	1250			HD2000-11D12814
HD2000-30D16004+L109	1600			HD2000-10D16244
UN: Three-phase AC 690V (500V~690V)				
HD2000-30D01606+L110	160	AC	400*2200*600	HD2000-11D00946
HD2000-30D01606+L111	160			HD2000-11D01156
HD2000-30D01606+L112	160			HD2000-11D01386
HD2000-30D01606+L113	160			HD2000-11D01676
HD2000-30D02506+L114	250			HD2000-11D02096
HD2000-30D04006+L115	400			HD2000-11D02616
HD2000-30D04006+L116	400			HD2000-11D03716
HD2000-30D06306+L117	630			HD2000-11D05866
HD2000-30D12506+L118	1250			HD2000-11D09416
HD2000-30D12506+L119	1250			HD2000-11D11516
HD2000-30D16006+L120	1600	HD2000-10D15696		
Liquid-cooling type-UN: Three-phase AC 690V (500V~690V)				
HD2000-30D16006L+L130	1600	IC	600*2200*650	HD2000-10D15696L
HD2000-30D25006L+L131	2500			HD2000-10D20916L
HD2000-30D25006L+L132	2500			HD2000-10D23246L

Note: ICC use isolation switch as standard configuration.

Multi-drive Inline Control Cabinet (ICC) - for SRC

Model	Rated Current (A)	Frame Type	Dimensions W*H*D (mm)	Corresponding SRC
UN: Three-phase AC 400V (380V~480V)				
HD2000-30D02504+L200	250	AC	400*2200*600	HD2000-12D01644
HD2000-30D02504+L201	250			HD2000-12D02004
HD2000-30D02504+L202	250			HD2000-12D02414
HD2000-30D04004+L203	400			HD2000-12D02924
HD2000-30D04004+L204	400			HD2000-12D03644
HD2000-30D06304+L205	630			HD2000-12D04564
HD2000-30D12504+L206	1250	BC	600*2200*600	HD2000-12D06474
HD2000-30D12504+L207	1250			HD2000-12D09114
HD2000-30D12504+L208	1250			HD2000-12D11484
HD2000-30D16004+L209	1600			HD2000-12D14584
UN: Three-phase AC 690V (500V~690V)				

Multi-drive Inline Control Cabinet (ICC) - for SRC

Model	Rated Current (A)	Frame Type	Dimensions W*H*D (mm)	Corresponding SRC	Corresponding FIC		
HD2000-30D01606+L210	160	AC	400*2200*600	HD2000-12D00956			
HD2000-30D01606+L211	160			HD2000-12D01166			
HD2000-30D01606+L212	160			HD2000-12D01396			
HD2000-30D01606+L213	160			HD2000-12D01696			
HD2000-30D02506+L214	250			HD2000-12D02116			
HD2000-30D04006+L215	400			HD2000-12D02646			
HD2000-30D04006+L216	400			HD2000-12D03336			
HD2000-30D06306+L217	630			HD2000-12D04756			
HD2000-30D12506+L218	1250			BC	600*2200*600	HD2000-12D07506	
HD2000-30D12506+L219	1250					HD2000-12D10576	
HD2000-30D16006+L220	1600	HD2000-12D14796					
HD2000-30D20006+L221	2000	HD2000-12D16906					
Liquid-cooling type-UN: Three-phase AC 690V (500V~690V)							
HD2000-30D16006L+L230	1600	IC	600*2200*650	HD2000-12D12686L			
HD2000-30D16006L+L231	1600			HD2000-12D14796L			
HD2000-30D20006L+L232	2000			HD2000-12D16906L			
HD2000-30D25006L+L233	2500			HD2000-12D21136L			

Note: Input control cabinet(ICC) equipped with isolation breaker.

Multi-drive Inline Control Cabinet (ICC) - for PRC

Model	Rated Current (A)	Frame Type	Dimensions W*H*D (mm)	Corresponding SRC	Corresponding FIC
UN: Three-phase AC 400V (380V~480V)					
HD2000-30D02504+L300	250	AC	400*2200*600	HD2000-13D01444	HD2000-15D01444
HD2000-30D02504+L301	250			HD2000-13D01764	HD2000-15D01764
HD2000-30D02504+L302	250			HD2000-13D02124	HD2000-15D02124
HD2000-30D04004+L303	400			HD2000-13D02574	HD2000-15D02574
HD2000-30D04004+L304	400			HD2000-13D03774	HD2000-15D03774
HD2000-30D06304+L305	630			HD2000-13D04814	HD2000-15D04814
HD2000-30D06304+L306	630			HD2000-13D06094	HD2000-14D06094
HD2000-30D12504+L307	1250			HD2000-13D07224	HD2000-14D07224
HD2000-30D12504+L308	1250			HD2000-13D08224	HD2000-14D08024
HD2000-30D12504+L309	1250			HD2000-13D10104	HD2000-14D10104
HD2000-30D16004+L310	1600	HD2000-13D12834	HD2000-14D12834		
HD2000-30D16004+L311	1600	HD2000-13D14434	HD2000-14D14434		

Note: Input control cabinet(ICC) equipped with isolation breaker.

HD2000 Cabinet Selection

Multi-drive Inline Control Cabinet (ICC) - for PRC

Model	Rated Current (A)	Frame Type	Dimensions W*H*D (mm)	Corresponding BRC	Corresponding FIC
UN: Three-phase AC 690V (500V~690V)					
HD2000-30D01606+L312	160	AC	400*2200*600	HD2000-13D00846	HD2000-15D00846
HD2000-30D01606+L313	160			HD2000-13D01026	HD2000-15D01026
HD2000-30D01606+L314	160			HD2000-13D01236	HD2000-15D01236
HD2000-30D01606+L315	160			HD2000-13D01496	HD2000-15D01496
HD2000-30D02506+L316	250			HD2000-13D01866	HD2000-15D01866
HD2000-30D04006+L317	400			HD2000-13D02326	HD2000-15D02326
HD2000-30D04006+L318	400			HD2000-13D02936	HD2000-15D02936
HD2000-30D04006+L319	400			HD2000-13D03726	HD2000-15D03726
HD2000-30D06306+L320	630			HD2000-13D04656	HD2000-15D04656
HD2000-30D06306+L321	630			HD2000-13D05756	HD2000-15D05756
HD2000-30D12506+L322	1250	BC	600*2200*600	HD2000-13D07446	HD2000-14D07446
HD2000-30D12506+L323	1250			HD2000-13D10236	HD2000-14D10236
HD2000-30D16006+L324	1600			HD2000-13D13026	HD2000-14D13026
HD2000-30D16006+L325	1600			HD2000-13D14886	HD2000-14D14886
Liquid-cooling type-UN: Three-phase AC 690V (500V~690V)					
HD2000-30D12506L+L330	1250	IC	600*2200*650	HD2000-13D11166L	HD2000-14D11166L
HD2000-30D16006L+L331	1600			HD2000-13D13026L	HD2000-14D13026L
HD2000-30D16006L+L332	1600			HD2000-13D14886L	HD2000-14D14886L
HD2000-30D20006L+L333	2000			HD2000-13D18596L	HD2000-14D18596L

Note: Input control cabinet(ICC) equipped with isolation breaker.

Multi-drive Basic Rectification Cabinet (BRC)

Model	Rated Power (kW)	AC		DC			Frame Type	Dimensions W*H*D (mm)		
		Rated Current _N (A)	Max Current I _{max} (A)	Rated Current _{N,DC} (A)	Heavy Load Current _{h,DC} (A)	Max Current _{max,DC} (A)				
UN: Three-phase AC 400V (380V~480V)										
HD2000-11D01624	90	162	244	193	151	290	AC	400*2200*600		
HD2000-11D01984	110	198	298	236	184	354				
HD2000-11D02384	132	238	357	283	221	425				
HD2000-11D02894	160	289	433	343	268	515				
HD2000-11D03614	200	361	541	429	335	644				
HD2000-11D04514	250	451	677	536	418	804				
HD2000-11D07224	400	722	1083	858	669	1287				
HD2000-11D10104	560	1010	1516	1201	937	1802				
HD2000-11D12814	710	1281	1922	1523	1188	2285				
HD2000-10D16244 ⁽¹⁾	900	1624	2436	1931	1506	2896				
UN: Three-phase AC 690V (500V~690V)										
HD2000-11D00946	90	94	141	112	87	168	AC	400*2200*600		
HD2000-11D01156	110	115	173	137	107	205				
HD2000-11D01386	132	138	207	164	128	246				
HD2000-11D01676	160	167	251	199	155	298				
HD2000-11D02096	200	209	314	249	194	373				
HD2000-11D02616	250	261	392	311	243	466				
HD2000-11D03716	355	371	557	441	344	662				
HD2000-11D05866	560	586	879	696	543	1045				
HD2000-11D09416	900	941	1412	1119	873	1679				
HD2000-11D11516	1100	1151	1726	1368	1067	2052				
HD2000-10D15696 ⁽²⁾	1500	1569	2353	1865	1455	2798				
Liquid-cooling type-UN: Three-phase AC 690V (500V~690V)										
HD2000-10D15696L ⁽²⁾	1500	1569	2353	1865	1455	2798			HC	400*2200*650
HD2000-10D20916L ⁽²⁾	2000	2091	3137	2486	1939	3729				
HD2000-10D23246L ⁽²⁾	2500	2324	3486	2763	2155	4145				

Note: (1) 400V, 900kW basic rectification unit using diode rectifier.
(2) 690V, 1500kW and higher power basic rectification units using diode rectifier.

Multi-drive Smart Rectification Cabinet (SRC)

Model	Rated Power (kW)	AC		DC			Frame Type	Dimensions W*H*D (mm)
		Rated Current _N (A)	Max Current I _{max} (A)	Rated Current _{N,DC} (A)	Heavy Load Current _{h,DC} (A)	Max Current _{max,DC} (A)		
UN: Three-phase 400V (380V~480V)								
HD2000-12D01644	90	164	246	195	174	293	AC	400*2200*600
HD2000-12D02004	110	200	301	238	212	358		
HD2000-12D02414	132	241	361	286	255	429		
HD2000-12D02924	160	292	437	347	309	520		
HD2000-12D03644	200	364	547	433	386	650		
HD2000-12D04564	250	456	683	542	482	813		
HD2000-12D06474	355	647	970	769	685	1154		
HD2000-12D09114	500	911	1367	1083	964	1625	BC	600*2200*600
HD2000-12D11484	630	1148	1722	1365	1215	2048	CC	800*2200*600
HD2000-12D14584	800	1458	2187	1734	1543	2600		
UN: Three-phase 690V (500V~690V)								
HD2000-12D00956	90	95	143	113	101	170	AC	400*2200*600
HD2000-12D01166	110	116	174	138	123	207		
HD2000-12D01396	132	139	209	166	148	249		
HD2000-12D01696	160	169	254	201	179	301		
HD2000-12D02116	200	211	317	251	224	377		
HD2000-12D02646	250	264	396	314	280	471		
HD2000-12D03336	315	333	499	396	352	594		
HD2000-12D04756	450	475	713	565	503	848		
HD2000-12D07506	710	750	1125	892	794	1338	BC	600*2200*600
HD2000-12D10576	1000	1057	1585	1256	1118	1884	CC	800*2200*600
HD2000-12D14796	1400	1479	2219	1759	1565	2638		
HD2000-12D16906	1600	1690	2535	2009	1788	3014		
Liquid-cooling type-UN: Three-phase 690V (500V~690V)								
HD2000-12D12686L	1200	1268	1902	1507	1342	2261	IC	600*2200*650
HD2000-12D14796L	1400	1479	2219	1759	1565	2638		
HD2000-12D16906L	1600	1690	2535	2009	1788	3014		
HD2000-12D21136L	2000	2113	3170	2512	2236	3769		

Multi-drive PWM Rectification Cabinet (PRC)

Model	Rated Power (kW)	AC		DC			Frame Type	Dimensions W*H*D (mm)
		Rated Current _N (A)	Max Current I _{max} (A)	Rated Current _{N,DC} (A)	Heavy Load Current _{h,DC} (A)	Max Current _{max,DC} (A)		
UN: Three-phase 400V (380V~480V)								
HD2000-13D01444	90	144	217	162	144	242	AC	400*2200*600
HD2000-13D01764	110	176	265	198	176	296		
HD2000-13D02124	132	212	318	237	211	356		
HD2000-13D02574	160	257	385	287	256	431		
HD2000-13D03774	235	377	565	422	376	633		
HD2000-13D04814	300	481	722	539	480	808	BC	600*2200*600
HD2000-13D06094	380	609	914	683	607	1024		
HD2000-13D07224	450	722	1083	808	719	1212		
HD2000-13D08024	500	802	1203	898	799	1347		
HD2000-13D10104	630	1010	1516	1132	1007	1697	CC	800*2200*600
HD2000-13D12834	800	1283	1925	1437	1279	2156		
HD2000-13D14434	900	1443	2165	1617	1439	2425		

HD2000 Cabinet Selection

Multi-drive PWM Rectification Cabinet (PRC)

Model	Rated Power (kW)	AC		DC			Frame Type	Dimensions W*H*D (mm)
		Rated Current I _N (A)	Max Current I _{max} (A)	Rated Current I _{N,DC} (A)	Heavy Load Current I _{h,DC} (A)	Max Current I _{max,DC} (A)		
UN: Three-phase AC 690V (500V~690V)								
HD2000-13D00846	90	84	126	94	83	141	AC	400*2200*600
HD2000-13D01026	110	102	153	115	102	172		
HD2000-13D01236	132	123	184	137	122	206		
HD2000-13D01496	160	149	223	167	148	250		
HD2000-13D01866	200	186	279	208	185	312		
HD2000-13D02326	250	232	349	260	232	390		
HD2000-13D02936	315	293	439	328	292	492		
HD2000-13D03726	400	372	558	417	371	625		
HD2000-13D04656	500	465	697	521	463	781		
HD2000-13D05756	560	575	862	644	573	966		
HD2000-13D07446	800	744	1116	833	741	1250	BC	600*2200*600
HD2000-13D10236	1100	1023	1534	1145	1019	1718		
HD2000-13D13026	1400	1302	1952	1458	1297	2187		
HD2000-13D14886	1600	1488	2231	1667	1484	2501	CC	800*2200*600
Liquid-cooling type-UN: Three-phase AC 690V (500V~690V)								
HD2000-13D11166L	1200	1116	1674	1250	1112	1874	IC	600*2200*650
HD2000-13D13026L	1400	1302	1952	1458	1297	2187		
HD2000-13D14886L	1600	1488	2231	1667	1484	2501		
HD2000-13D18596L	2000	1859	2789	2083	1854	3124		

Multi-drive LCL Filter Interface Cabinet (FIC)

Model	AC		Corresponding Rectification Unit Model	Frame Type	Dimensions W*H*D (mm)
	Rated Current I _N (A)	Max Current I _{max} (A)			
UN: Three-phase AC 400V (380V~480V)					
HD2000-15D01444	144	216	HD2000-13D01444	AC	400*2200*600
HD2000-15D01764	176	264	HD2000-13D01764		
HD2000-15D02124	212	318	HD2000-13D02124		
HD2000-15D02574	257	386	HD2000-13D02574		
HD2000-15D03774	377	566	HD2000-13D03774		
HD2000-15D04814	481	722	HD2000-13D04814		
HD2000-14D06094 ⁽¹⁾	609	914	HD2000-13D06094		
HD2000-14D07224 ⁽¹⁾	722	1083	HD2000-13D07224		
HD2000-14D08024 ⁽¹⁾	802	1203	HD2000-13D08024		
HD2000-14D10104 ⁽¹⁾	1010	1515	HD2000-13D10104		
HD2000-14D12834 ⁽¹⁾	1283	1925	HD2000-13D12834	BC	600*2200*600
HD2000-14D14434 ⁽¹⁾	1443	2165	HD2000-13D14434		
UN: Three-phase AC 690V (500V~690V)					
HD2000-15D00846	84	126	HD2000-13D00846	AC	400*2200*600
HD2000-15D01026	102	153	HD2000-13D01026		
HD2000-15D01236	123	184	HD2000-13D01236		
HD2000-15D01496	149	223	HD2000-13D01496		
HD2000-15D01866	186	279	HD2000-13D01866		
HD2000-15D02326	232	349	HD2000-13D02326		
HD2000-15D02936	293	439	HD2000-13D02936		
HD2000-15D03726	372	558	HD2000-13D03726		
HD2000-14D04656 ⁽¹⁾	465	697	HD2000-13D04656		
HD2000-14D05756 ⁽¹⁾	575	862	HD2000-13D05756		
HD2000-14D07446 ⁽¹⁾	744	1116	HD2000-13D07446	BC	600*2200*600
HD2000-14D10236 ⁽¹⁾	1023	1534	HD2000-13D10236		
HD2000-14D13026 ⁽¹⁾	1302	1952	HD2000-13D13026		
HD2000-14D14886 ⁽¹⁾	1488	2231	HD2000-13D14886		

Note: 1. (1) Marked LCL filter interface units need to be equipped with external bypass contactor.
2. Liquid-cooling LCL FIU is customized product; please consult the manufacturer if you want to buy it.

Cabinet Installation Type Motor Drive Cabinet (MDC)

Model	Rated		Light Load		Heavy Load		Frame Type	Dimensions W*H*D (mm)		
	Current (A)	Power (kW)	Current (A)	Power (kW)	Current (A)	Power (kW)				
UN: Three-phase AC 400V (380V~480V), DC circuit voltage 510V~720V										
HD2000-16D01564(B)	156	75	151	75	139	55	AC	400*2200*600		
HD2000-16D01804(B)	180	90	175	90	160	75				
HD2000-16D02104	210	110	204	110	187	90				
HD2000-16D02604	260	132	252	132	231	110				
HD2000-16D03104	310	160	301	160	276	132				
HD2000-16D03804	380	200	369	200	338	160				
HD2000-16D04904	490	250	475	250	436	200				
HD2000-16D06054	605	315	587	315	538	250				
HD2000-16D07454	745	400	723	400	663	315				
HD2000-16D08404	840	450	815	450	748	400				
HD2000-16D09854	985	560	955	560	877	450	BC	600*2200*600		
HD2000-16D12604	1260	710	1222	710	1121	560				
HD2000-16D14054	1405	800	1363	800	1250	710	CC	800*2200*600		
UN: Three-phase AC 690V (500V~690V), DC circuit voltage 675V~1050V										
HD2000-16D00866(B)	86	75	83	75	77	55	AC	400*2200*600		
HD2000-16D01006(B)	100	90	97	90	89	75				
HD2000-16D01206	120	110	116	110	107	90				
HD2000-16D01506	150	132	146	132	134	110				
HD2000-16D01756	175	160	170	160	156	132				
HD2000-16D02156	215	200	209	200	191	160				
HD2000-16D02606	260	250	252	250	231	200				
HD2000-16D03306	330	315	320	315	294	250				
HD2000-16D04106	410	400	398	400	365	315				
HD2000-16D04656	465	450	451	450	414	400				
HD2000-16D05756	575	560	558	560	512	450	BC	600*2200*600		
HD2000-16D07356	735	710	713	710	654	630				
HD2000-16D08106	810	800	786	800	721	710	CC	800*2200*600		
HD2000-16D09106	910	900	883	900	810	800				
HD2000-16D10256	1025	1000	994	1000	912	900				
HD2000-16D12706	1270	1200	1232	1200	1130	1000				
HD2000-16D14826	1482	1400	1438	1400	1319	1200				
Liquid-cooling type-UN: Three-phase 690V (500V~690V)										
HD2000-16D08106L	810	800	786	800	721	710			IC	600*2200*650
HD2000-16D10256L	1025	1000	994	1000	912	900				
HD2000-16D12706L	1270	1200	1232	1200	1130	1000				
HD2000-16D14826L	1480	1400	1438	1400	1319	1200				
HD2000-16D17996L	1799	1700	1745	1700	1601	1400				
HD2000-16D17996L	1799	1700	1745	1700	1601	1400				

Note: If you want to purchase book type MDC, just add "-s" after the corresponding model of cabinet installation type MDC.

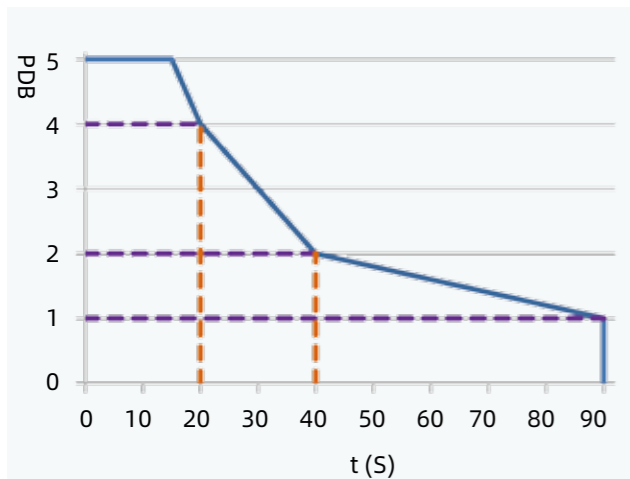
HD2000 Cabinet Selection

Output Filter Cabinet (OFC)

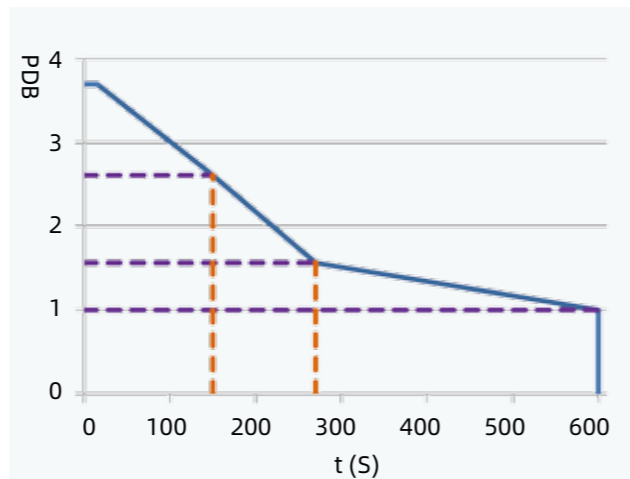
Model	Current (A)	Frame Type	Dimensions W*H*D (mm)	Corresponding MDC		
UN: Three-phase AC 400V (380V~480V)						
HD2000-21D01464	146	AC	400*2200*600	HD2000-16D01464		
HD2000-21D01764	176			HD2000-16D01764		
HD2000-21D02104	210			HD2000-16D02104		
HD2000-21D02604	260			HD2000-16D02604		
HD2000-21D03104	310			HD2000-16D03104		
HD2000-21D03804	380			HD2000-16D03804		
HD2000-21D04904	490			HD2000-16D04904		
HD2000-21D06054	605			HD2000-16D06054		
HD2000-21D07454	745			HD2000-16D07454		
HD2000-21D08404	840			BC	600*2200*600	HD2000-16D08404
HD2000-21D09854	985	HD2000-16D09854				
HD2000-21D12604	1260	HD2000-16D12604				
HD2000-21D14054	1405	HD2000-16D14054				
UN: Three-phase AC 690V (500V~690V)						
HD2000-21D00856	85	AC	400*2200*600	HD2000-16D00856		
HD2000-21D01006	100			HD2000-16D01006		
HD2000-21D01206	120			HD2000-16D01206		
HD2000-21D01506	150			HD2000-16D01506		
HD2000-21D01756	175			HD2000-16D01756		
HD2000-21D02156	215			HD2000-16D02156		
HD2000-21D02606	260			HD2000-16D02606		
HD2000-21D03306	330			HD2000-16D03306		
HD2000-21D04106	410			HD2000-16D04106		
HD2000-21D04656	465			HD2000-16D04656		
HD2000-21D05756	575			HD2000-16D05756		
HD2000-21D07356	735			BC	600*2200*600	HD2000-16D07356
HD2000-21D08106	810					HD2000-16D08106
HD2000-21D09106	910					HD2000-16D09106
HD2000-21D10256	1025					HD2000-16D10256
HD2000-21D12706	1270	HD2000-16D12706				
HD2000-21D14826	1482			HD2000-16D14826		

Note: 1. OFC is using for the parallel or the du /dt inhibition when drive with long cable of MDC.
2. The inductor of liquid-cooling type unit is customized product; please consult the manufacturer if you want to buy it.

Overload Capacity



Performance of Brake Unit - Decentralized Type



Performance of Brake Unit - Centralized Type

Centralized Power Brake Cabinet (PBC)

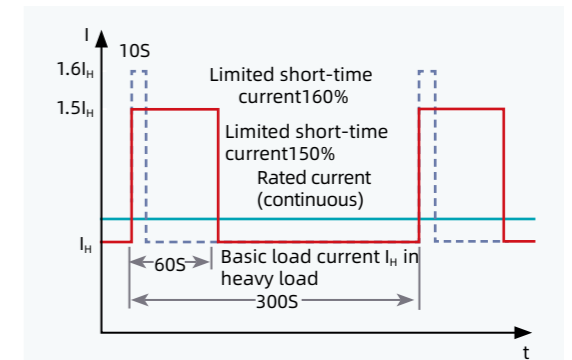
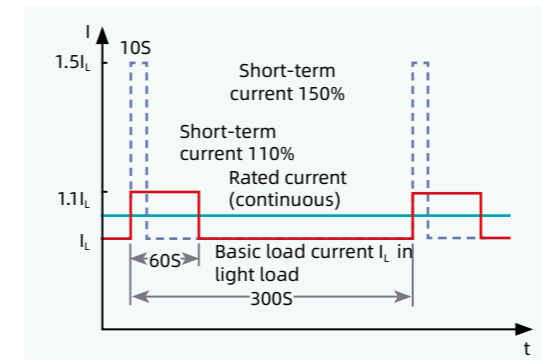
Model	Rated Power P_{OB} (kW)	Peak Power P_{15} (kW)	Min Brake Resistance(Ω)	Brake Starting Voltage (V)	Brake Stopping Voltage (V)	Frame Type	Dimensions W*H*D (mm)
AC input voltage (380V~480V)							
HD2000-18D06504	200(480V) 151(380V)	730(480V) 552(380V)	0.82	774(480V) 673(380V)	735(480V) 639(380V)	AC	400*2200*600
HD2000-18D12004	370(480V) 280(380V)	1380(480V) 1043(380V)	0.43	774(480V) 673(380V)	735(480V) 639(380V)		
AC input voltage (500V~600V)							
HD2000-18D05806	220(600V) 166(500V)	830(600V) 628(500V)	1.13	967(600V) 841(500V)	919(600V) 799(500V)	AC	400*2200*600
HD2000-18D11006	420(600V) 318(500V)	1580(600V) 1195(500V)	0.59	967(600V) 841(500V)	919(600V) 799(500V)		
AC input voltage (660V~690V)							
HD2000-18D05206	240(690V) 205(660V)	920(690V) 785(660V)	1.46	1158(690V) 1070(660V)	1100(690V) 1017(660V)	AC	400*2200*600
HD2000-18D10006	460(690V) 393(660V)	1700(690V) 1451(660V)	0.79	1158(690V) 1070(660V)	1100(690V) 1017(660V)		
Liquid-cooling type-AC input voltage (500V~600V)							
HD2000-18D05806L	220(600V) 166(500V)	830(600V) 628(500V)	1.13	967(600V) 841(500V)	919(600V) 799(500V)	HC	400*2200*650
HD2000-18D11606L	220(600V)*2 166(500V)*2	830(600V)*2 628(500V)*2	1.13*2			IC	600*2200*650
HD2000-18D17406L	220(600V)*3 166(500V)*3	830(600V)*3 628(500V)*3	1.13*3	967(600V) 841(500V)	919(600V) 799(500V)	HC	400*2200*650
HD2000-18D11006L	420(600V) 318(500V)	1580(600V) 1195(500V)	0.59			IC	600*2200*650
HD2000-18D22006L	420(600V)*2 318(500V)*2	1580(600V)*2 1195(500V)*2	0.59*2	967(600V) 841(500V)	919(600V) 799(500V)	HC	400*2200*650
HD2000-18D33006L	420(600V)*3 318(500V)*3	1580(600V)*3 1195(500V)*3	0.59*3			IC	600*2200*650
Liquid-cooling type-AC input voltage (660V~690V)							
HD2000-18D05206L	240(690V) 205(660V)	920(690V) 785(660V)	1.46	1158(690V) 1070(660V)	1100(690V) 1017(660V)	HC	400*2200*650
HD2000-18D10406L	240(690V)*2 205(660V)*2	920(690V)*2 785(660V)*2	1.46*2			IC	600*2200*650
HD2000-18D15606L	240(690V)*3 205(660V)*3	920(690V)*3 785(660V)*3	1.46*3	1158(690V) 1070(660V)	1100(690V) 1017(660V)	HC	400*2200*650
HD2000-18D10006L	460(690V) 393(660V)	1700(690V) 1451(660V)	0.79			IC	600*2200*650
HD2000-18D20006L	460(690V)*2 393(660V)*2	1700(690V)*2 1451(660V)*2	0.79*2	1158(690V) 1070(660V)	1100(690V) 1017(660V)	HC	400*2200*650
HD2000-18D30006L	460(690V)*3 393(660V)*3	1700(690V)*3 1451(660V)*3	0.79*3			IC	600*2200*650

Note: The liquid-cooling type PBC HD2000-18D1040L has two independent 240kW brake unit (240*2) inside, so it need to configure two independent brake resistor (resistance not lower than 1.46 Ω). Other models should configure brake resistor by analogy.

Overload Capacity

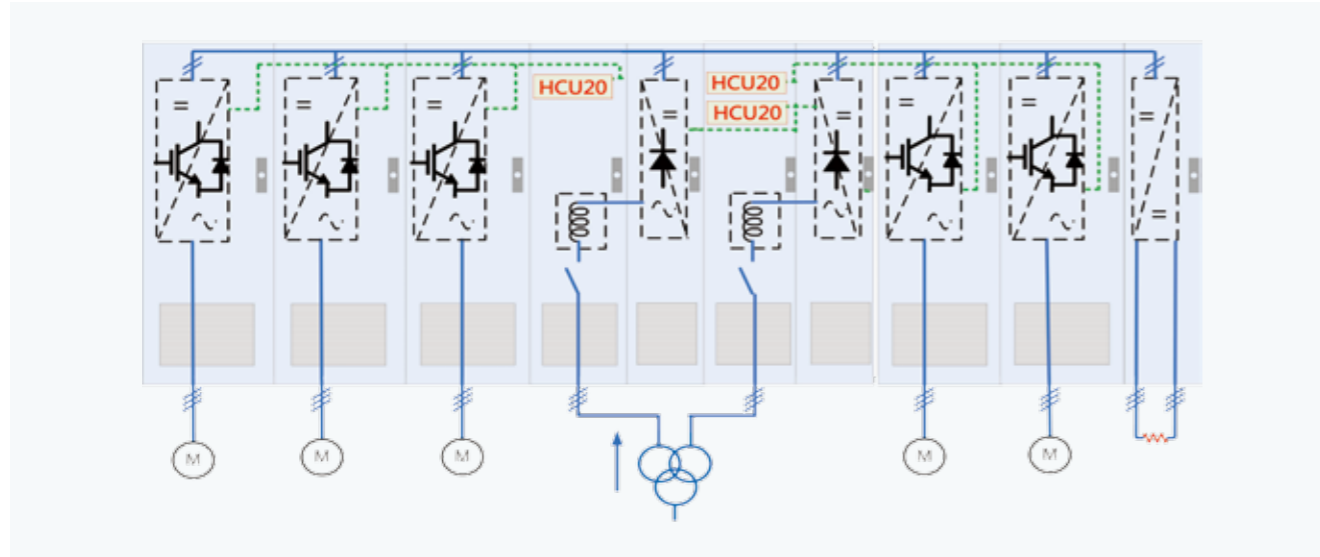
The basic load current (I_L) in light load mode is maintained for a period of 60s with a 110% duty cycle or for a period of 10s with a 150% duty cycle.

The basic load current (I_H) in heavy load mode is maintained for a period of 60s with a 150% duty cycle or for a period of 10s with a 160% duty cycle.



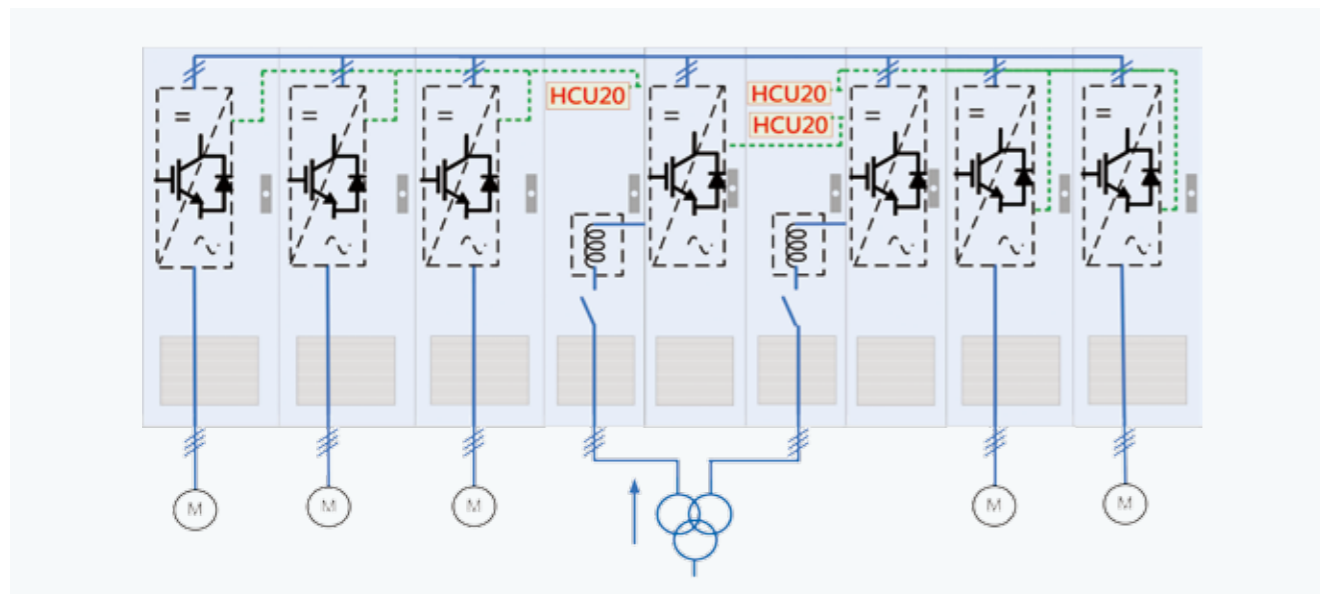
HD2000 Cabinet Configuration Mode

Basic Rectifier Cabinet Parallel Common-bus Drive System



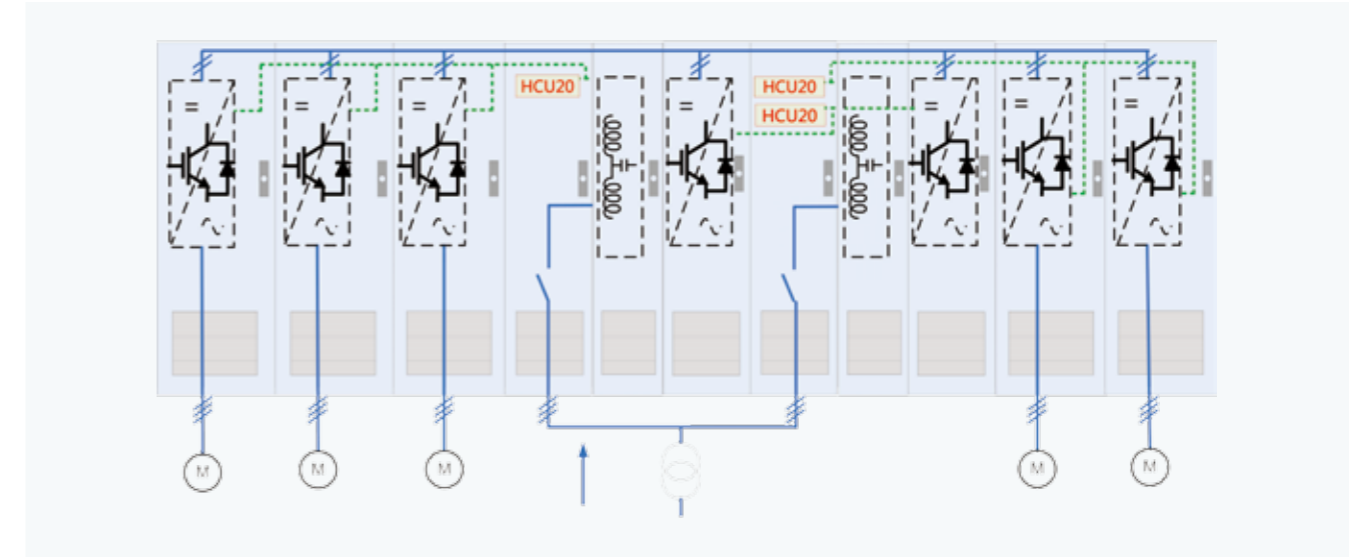
In this configuration mode, each basic rectifier cabinet is configured with an independent inline control cabinet, and the rectifier cabinets are connected in parallel to form a common DC bus, and the power brake cabinets are connected to the common bus. Multi-axis control unit HCU20 are respectively arranged in the inline control cabinet, and can be configured as 6-pulse or 12-pulse rectification according to different secondary winding of power supply transformer and inline method.

Smart Rectifier Cabinet Parallel Common-bus Drive System



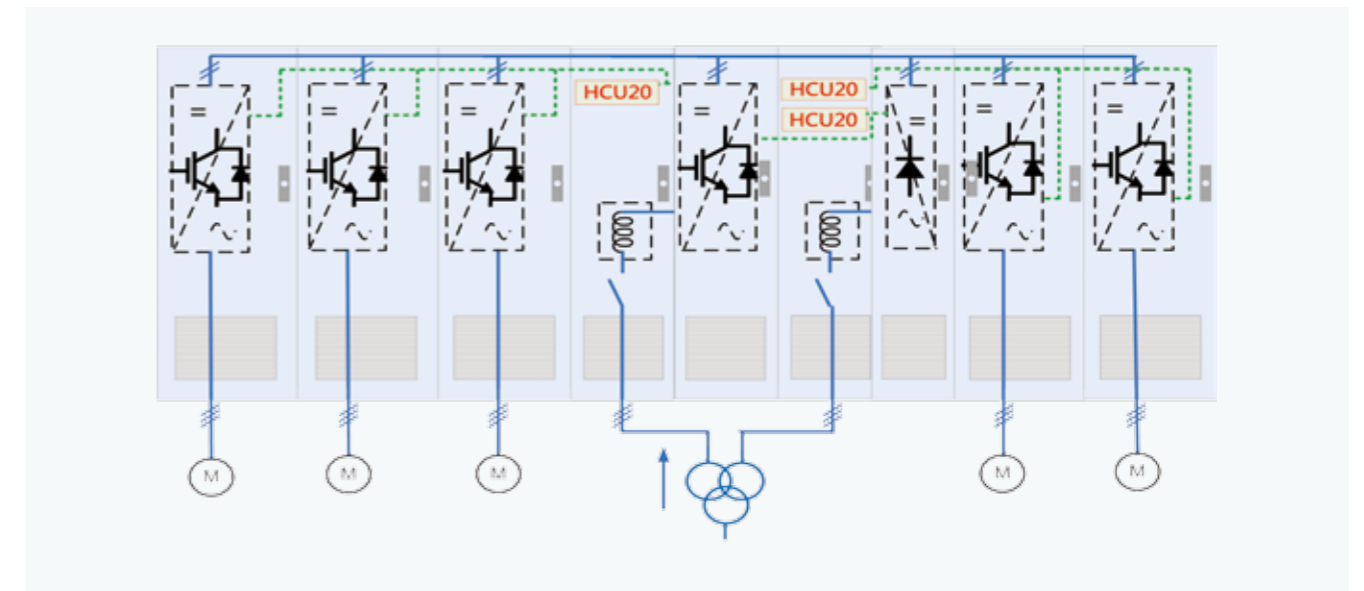
In this configuration mode, each smart rectifier feedback cabinet is equipped with independent inline control cabinet, and the rectifier feedback cabinets are connected in parallel to form a common DC bus. Multi-axis control unit HCU20 are respectively arranged in the inline control cabinet, and can be configured as 6-pulse or 12-pulse rectification according to different secondary winding of power supply transformer and inline method.

PWM Rectifier Feedback Cabinet Parallel Common-bus Drive System



In this configuration mode, each PWM rectifier feedback cabinet is equipped with independent LCL filter interface cabinet and inline control cabinet, and the rectifier feedback cabinets are connected in parallel to form a common DC bus. Multi-axis control unit HCU20 are respectively arranged in the inline control cabinet.

Hybrid Rectifier Cabinet Parallel Common-bus Drive System



In this configuration mode, the basic rectifier cabinet and smart rectifier feedback cabinet have been used mixed, in general, the capacity of the smart rectifier feedback units does not exceed the 1/3 capacity of the basic rectifier cabinets, and the capacity of the basic rectifier cabinet is to meet the requirement of the capacity of the common-bus motor drive units. Each rectifier cabinet is equipped with independent inline control cabinet, and rectifier cabinets are connected in parallel to form a common DC bus. The energy is fed back to the grid through smart rectifier feedback cabinets. The multi-axis control unit HCU20 are respectively arranged in the inline control cabinet.

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If there is any change in product size and parameters, they shall be subject to the latest actual product

