



PRODUCT CATALOG FOR LOW VOLTAGE VFD

RYE | 日业电气

A leader of low voltage VFD

Your Trusted Partner In Intelligent Automation Solutions



Ceramic
machinery



Ceramic
machinery



Logistics



Chemical



Woodworking
machinery



Plastic
molding



Textile



Machine
tool



Mining



Food



Metal
product



Semiconductor

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Long-term sales Reliable choice

EL10 Series

Mini VFD

EL10 is a general-purpose compact VFD with high reliability design and rich hardware and software configurations, featuring compactness, ease of use and reliability, which is widely used in food and beverage, logistics, packaging, textile, woodworking machinery and other industries.



Textile



Logistics



Food



Woodworking machinery

PRODUCT FEATURES



Nuance And Dexterity

The high power density design is compact and supports DIN-rail/wall mounting with no slit, which is 50% smaller than the previous generation, saving space for cabinet and making field installation more flexible.



Wall Mounting

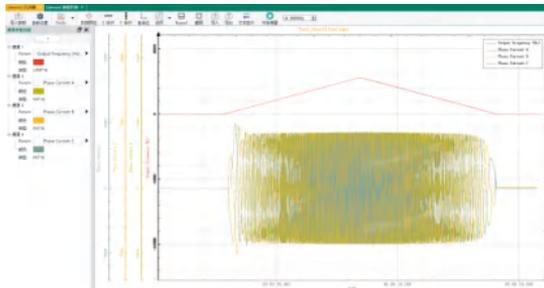


Guide Rail Mounting

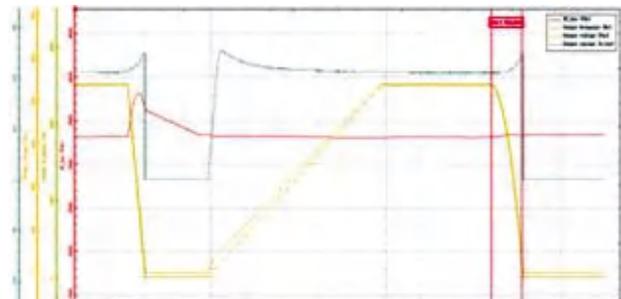


Ease Of Use

- Supports an optional external keyboard for one-click parameter download and fast copying.
- Supports monitoring software for upper-level computers, real-time fault monitoring, and operation status monitoring, easy to use for startup debugging.
- Supports network design, multi-speed operation, energy-saving operation modes, sleep mode during idle states, and other rich industry-specific features, meeting the application needs of fans, pumps, and other multi-scenario industries.



Upper Computer Software Interface



Independent Stairway Design

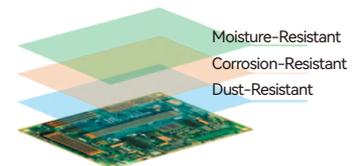


Reliability

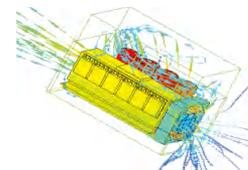
- Standard coated circuit board, optimized independent air duct design, and consideration for component cooling, which improves the product's reliability in harsh environmental conditions.
- Wide input voltage range, automatic voltage regulator output adjustment, shock suppression, stall prevention, wave-by-wave current limiting, and non-stop function are some of the special features that make it possible for the VFD to operate stably in poor grid conditions.

Comprehensive Fault Protection

Undervoltage	Overvoltage	Overcurrent	Output phase loss
IGBT over-temperature	Inverter overload	Motor overload	Line abnormality detection
PID disconnection	Parameter read error	Parameter password error	Communication abnormality
Communication timeout	DEB abnormality	Excessive slip	Input phase loss
Output phase loss	External terminal emergency stop	External terminal failure	External interruption of operation
.....			

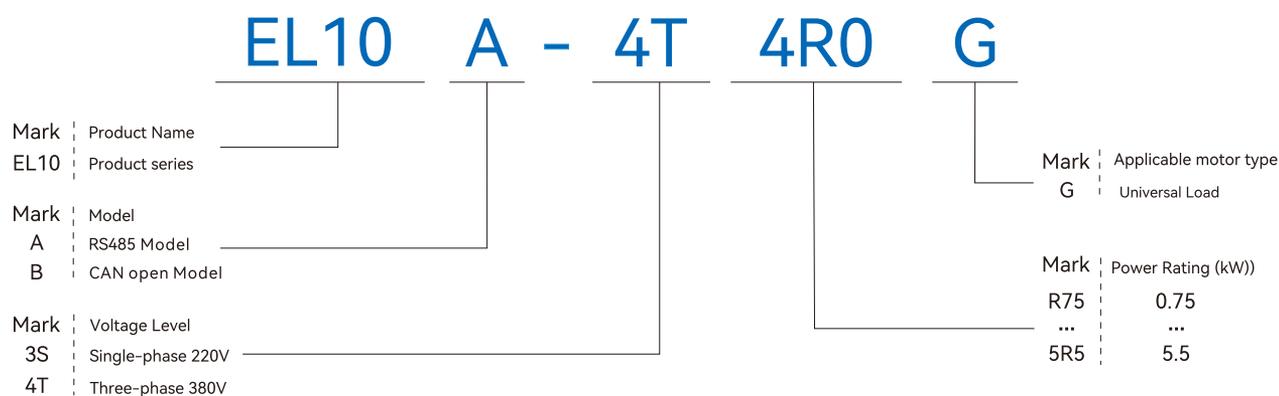


Xcellent Circuit Board Protection



Independent Air Duct Design

Product Selection



* Nameplate identification and product type

EL10 Inverter Models And Specifications

• Model EL10A(B)-3S__G

Structure Frame	Model	Input Voltage (V)	Input Current (A)	Output Current (A)	Power (kW)
C0	R40	Single-phase 220V~240V Range: ±10%	6.5	2.7	0.4
	R75		9.3	4.2	0.75
	1R5		15.7	7.5	1.5
C1	2R2		24.0	11.0	2.2

• Model EL10A(B)-4T__G

Structure Frame	Model	Input Voltage (V)	Input Current (A)	Output Current (A)	Power (kW)
C1	R75	Three-phase 380V~460V Range: ±10%	3.2	2.5	0.75
	1R5		5.0	4.2	1.5
	2R2		7.1	5.5	2.2
C2	4R0		10.0	9.0	4.0
	5R5		17.0	13.0	5.5

EL10 Inverter Technical Parameter

Project		Specification
Control Characteristic	Control Method	V/F Control
	Frequency Setting / Output Frequency Resolution	Panel control: 0.01Hz below 10Hz; 0.1Hz above 10Hz Communication control: 0.01Hz Analog setting: +0.1%of maximum frequency
	Overload Capacity	Operate at 150% of rated output current for 60 seconds and 180% for 3 seconds
	Frequency Offset	4 points can be set since 0.1~599.0Hz
	Acceleration and Deceleration Time	0.1~600 seconds (4-stage acceleration/deceleration times can be set independently)
	Stall Prevention	Set at 20~200% of the rated current of the drive according to the motor load characteristics
	DC Braking	Braking current: 0~100% of rated current, braking time: 0~60 seconds
	V/F Curve	Normal V/F curve setting, 1.5 quartile setting, 2 quartile setting

Project		Specification	
Operation Characteristics	Frequency Setting Signal	Panel Operation	Panel VR setting
		External Signal	External terminals: UP/DOWN frequency, jog operation, AV/ACI: 0~+10VDC/0~20mA Serial communication port: standard model supports RS485, Extended model supports CANopen
	Operation Setting Signal	Panel Operation	Set by RUN, STOP key
		External Signal	Mi1, MI2, MI3 two-stage three-wire control, spot operation, serial communication(RS485)
	Input Terminal Function		16 speeds (including main speed), default speed switching, acceleration/deceleration OFF command, 4-step acceleration/deceleration switching, external counter, fault reset, incremental/decremental terminal sub-frequency setting, jogging, etc.
	Output Terminal Function		The running indicator, frequency reach indicator, and zero speed indicator are displayed, counter arrival indication, fault indication, overheat warning, emergency stop, etc.
Interface	Communication/Bus		EL10A supports RS485 communication, EL10B supports CANopen.
	Analog Input		One-way AI
	Digital Input		Four-way DI
	Digital Output		One open relay output
	Digital Operation Panel		Includes six function keys, four-digit 7-segment LED display, four-digit LED status indicator, programmable frequency, display of actual output frequency, output current, parameter settings, parameter lock, and fault indication, run, stop, reset, forward/reverse can be performed.
	Background Software		Supports inverter parameter operation and virtual monitor function. Graphical monitoring of the inverter's internal status can be realized by means of a virtual monitor.
Protection Function			Undervoltage, overvoltage, overcurrent, short circuit before operation, IGBT over temperature, inverter overload, motor overload, detect line abnormality, PID disconnection, parameter reading abnormality, parameter password error, communication abnormality, communication timeout, DEB abnormal overslip, input phase loss, output phase loss, external terminal emergency stop, external terminal exception, external interrupt operation, etc.

Customized Features

Project	Specification
Acceleration And Deceleration Curves	Linear, S-curve, 1.5 power curve, 2 power curve (initial arc can be set separately) Automatic acceleration and deceleration curves
Built-in PID	Built-in PID, for process control in specific applications
Operation Command Channel	Three channels: operation panel, external terminals, communication (switchable via parameters)
Frequency Jump Function	Skip parts of the frequency band to avoid resonance points
Multi-speed Operation	Achieve 16-segment speed switching through external terminals
Automatic Voltage Adjustment	The output voltage is automatically kept constant when the grid voltage varies.
Overvoltage And Overcurrent Stall Prevention	Automatic limiting of current and voltage during operation to prevent frequently overcurrent and overvoltage trips
Rapid Current Limiting Function	Minimize overcurrent to the greatest extent, ensuring stable transition of the inverter under extreme conditions
Energy-saving Operation	Energy-saving operation and high work efficiency
Instantaneous Stop Prevention	The inverter can be operated normally for a short period of time by compensating for the voltage reduction in a certain manual manner during an instantaneous power failure.

Usage Environment

Project	Specification
Usage Location	Indoor, not exposed to direct sunlight, no dust, corrosive, flammable or oil mist, water vapors, drips or salts, etc.; Altitude up to 1000 m, above 1000 m with reduced availability.
Ambient Temperature	Environmental temperature: -10°C to +40°C (tightly side-by-side installation, upper operating temperature limit is 40°C, operation above 40°C requires reduced use, maximum use temperature is 50°C)
Storage Temperature	-20°C~+60°C
Humidity	<95% RH, no water condensation
Vibration	<5.9 m/s ² (0.6g)
Protection level	IP20
Degree of environmental pollution	2
Cooling method	Forced air cooling

▶ Product Wiring

Wiring Diagram For EL10 Rs485 Model

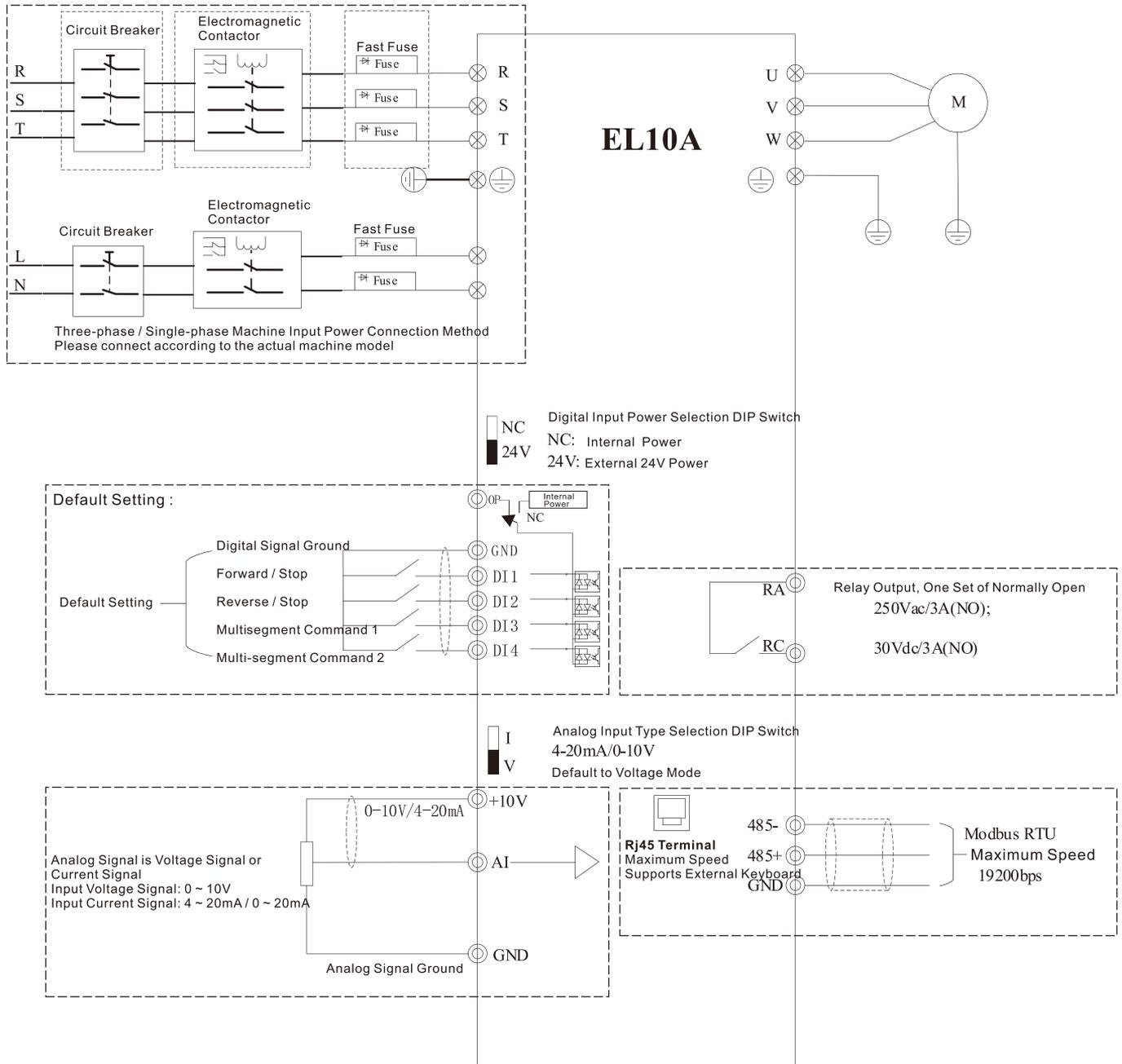


Figure: 3-phase/single-phase power in terminal wiring diagram

Wiring Diagram For EL10 CANopen Model

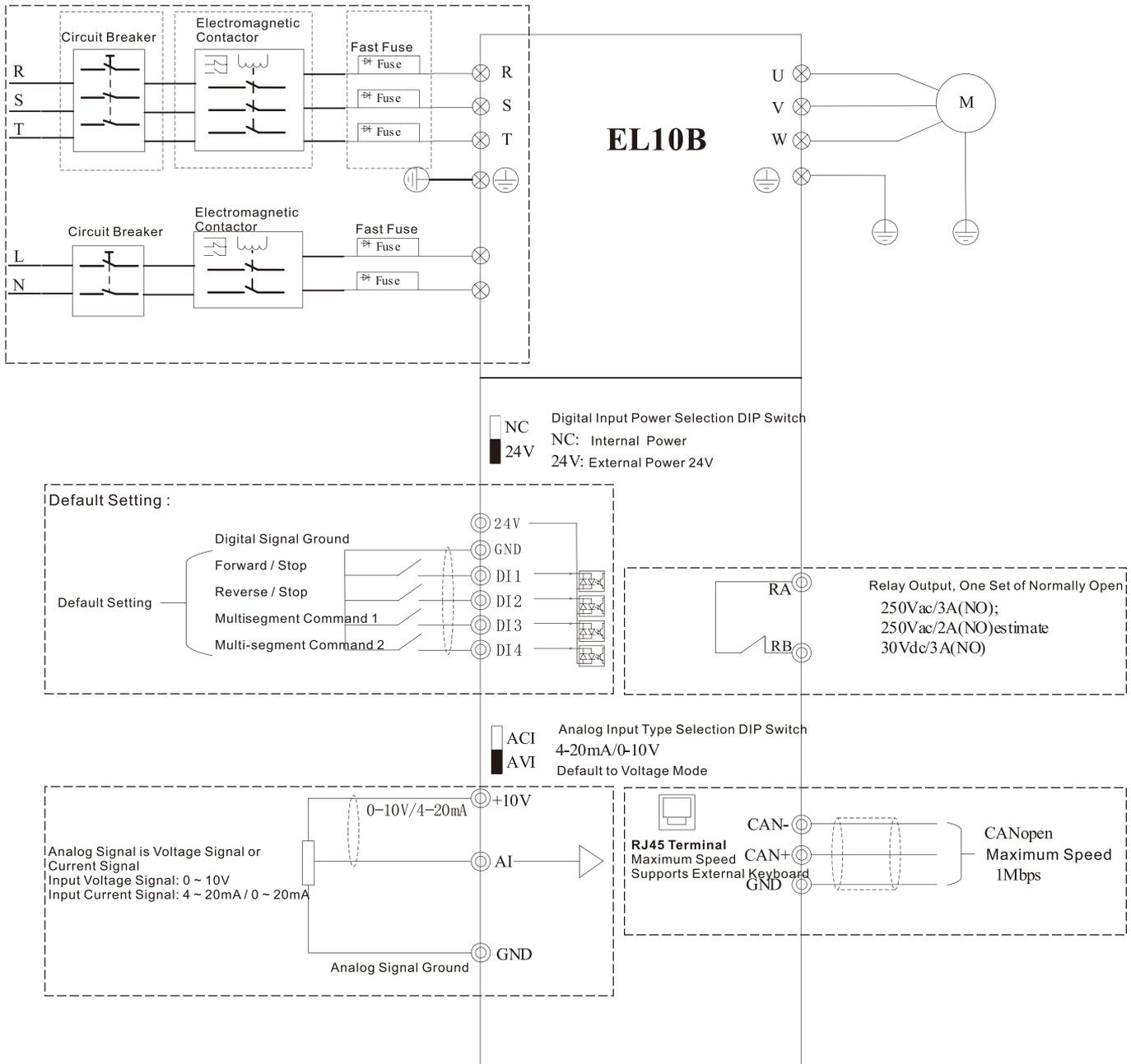
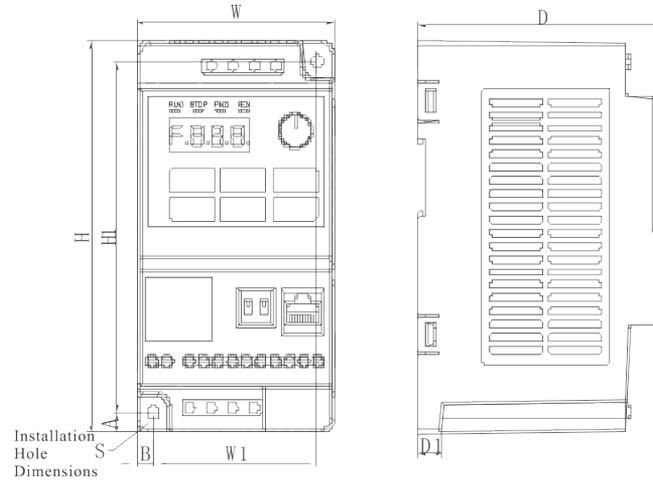


Figure: 3-phase/single-phase power in terminal wiring diagram

PRODUCT DIMENSIONS

Schematic Diagram Of Shape And Installation Dimensions



	Model	(D) mm	(W) mm	(H) mm	Mounting hole diameter (D) ϕ mm
Mounting	C0	119.5	57.5	104	4.5
	C1	129.5	59.5	105	5.5
	C2	167.5	72	116	5.5

▶ Product Applications



The Household Air Conditioner Application

Application of the household air conditioner

production line, 150 units are used for each line, mainly for driving electric rollers, fans, belts, etc.

In this project, EL10 VFD is used to control the air conditioner production assembly line. EL10 inverter is compact and easy to debug.

Centralized installation is conducive to the control of the on-site operation speed. The fault protection function effectively protects the operation and maintenance of the line, ensuring high-speed and efficient production on site.



The Dispensing Machine Application

Application for dispensing machine in the woodworking industry

Advantages:

1. Precise speed regulation, precisely controlling the stirring frequency of the rubber compound.
2. It features comprehensive protection functions, supporting 30 types of fault detection including over current, over voltage, overload and phase loss.
3. It is equipped with a standard 485 interface to support rapid networking and communication with PLC, achieving multi-station collaboration and integration.



Material Cart Control System Application

Application of the material cart control system

Advantages:

1. Built-in multi-speed function, enabling quick realization of multi-speed control for the cart.
2. Wide input voltage range: 380V to 460V, automatic voltage regulation output, oscillation suppression, and no stoppage during power interruption.
3. Upper computer monitoring software for real-time fault monitoring and operation status tracking.



Comprehensive upgrade Endless pursuit of excellence

CM680 Series

High Performance Book-Type VFD

The CM680 series is a newly designed series of high-performance general-purpose VFD. It features a book-type industrial appearance design, effectively enhancing the utilization rate of installation space. The product is rich in hardware configuration and powerful in software performance, supporting multiple industrial bus communication protocols. It integrates industry-leading vector control technology and offers excellent driving performance for various types of motors. Rich industry functions and industrial macros empower the application of automated production equipment in various industries.



Textile



Machine tool



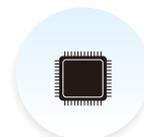
Mining



Food



Metal product

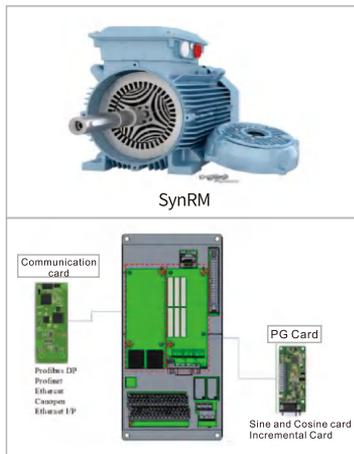


Semiconductor

PRODUCT FEATURES

Book-Type Design

- Narrow body design across the entire series:
- Easy to install and effectively saves panel space.
- Independent air duct design:
- Prevents dust from entering the inverter's interior, improving reliability.



Multi-Drive & Versatile

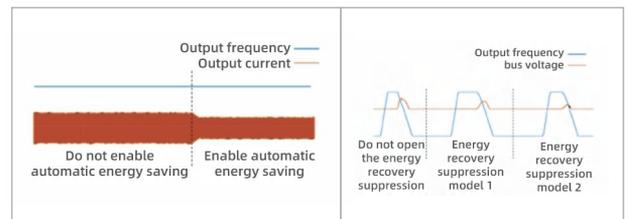
- Adapt multiple motor types:
- Built-in various high-performance control algorithms for asynchronous motors, permanent magnet synchronous motors and synchronous reluctance motors, meet customers' diverse motor drive needs.

- Adapt multiple expansion cards.
- Encoder : ABZ encoder card.
- Communication bus card : Profibus DP, CANopen, EtherCAT, Profinet, Ethernet IP.
- IO expansion card : Analog signal IO, digital IO.

Green & High-Efficiency

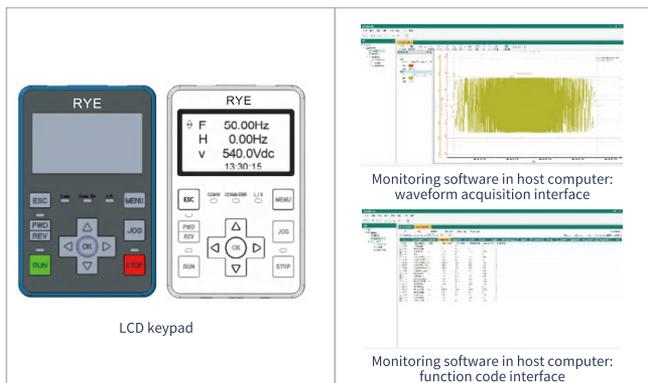
- Automatic energy saving control:
- The energy-saving algorithm outputs the optimal current to reduce system losses, and the no-load current can be reduced by 30%.

- Recovery energy suppression:
- Shorten deceleration time while ensuring safety, improve system operation efficiency.



Automatic energy saving control

Energy recovery suppression



Ease Of Use And Reliability

- Standard-configuration LCD keypad:
- Supports Chinese and English language selection, parameter menu management, support one-click upload/download of parameters.

- Host computer debugging software:
- Supports parameter reading and writing, real-time monitoring running status, multi-channel oscilloscope function, etc.
- Supports STO safe torque off function.

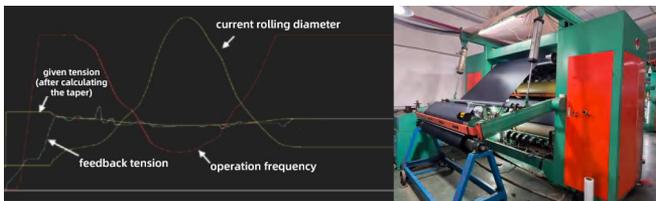
Ultra-Fast Operational

Ultra-low-speed operation:

Supports open-loop zero-speed hovering of asynchronous motors and synchronous motors, meet the application needs of the lifting industry.

Ultra-high-speed operation:

The maximum output frequency in high-speed mode for applications such as machine tool electric spindles is 2000Hz, which meets the requirements of high-speed magnetic levitation centrifuges.



The given tension value is automatically adjusted according to the roll diameter to prevent the material from wrinkling or deforming.



Tension control can be applied to various rewinder industries.

Tension Control

Diverse tension control solutions:

Supports speed and torque control modes with or without rocker feedback, achieve constant tension.

Built-in roll diameter calculation, tension dynamic compensation, tension taper calculation, PID self-adaptation and automatic roll changing, etc, maintain stable tension to improve product quality and production safety.

Position Control

Built-in position control algorithm:

Include homing and point-to-point two mode, achieve positioning function.

High-precision positioning function:

Supports communication, a pulse signal and terminal, etc, to achieve target position setting.



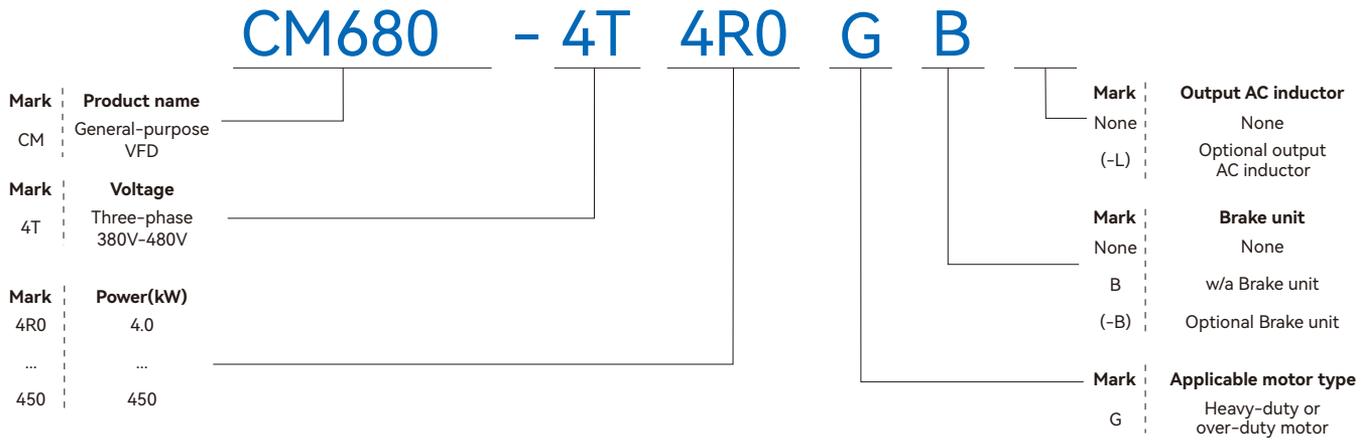
Synchronous Reluctance Motor Control

Supports synchronous reluctance motor control: SVC and VVC two control modes.

Advantages of synchronous reluctance motors:

High reliability, no demagnetization risk, low cost, high efficiency(IE4), wide speed regulation range.

CM680 Series Naming Rules



*Nameplate identification and product model

Description:

- 1.Three-phase 380V~480V,C2~C5 are not supported optional DC reactor; C6 and above are standard DC reactor.
- 2.Three-phase 380V~480V,C2~C4 are standard brake unit; C5~C7 are optional brake unit.
- 3.(-L) is an optional output AC reactor.C9 to C11 can be optionally equipped with a reactor base.

Models And Technical Parameters Of CM680 VFDs

Identification	VFD Model	Input Voltage (V)	Input Current (A)	Output Current (A)	Applicable Motor(kW)
C2	CM680-4T4R0GB	Three-phase 380V~480V Range: -15%~+10%	11.4	9.0	4.0
	CM680-4T5R5GB		16.7	13.0	5.5
	CM680-4T7R5GB		21.0	17.0	7.5
C3	CM680-4T011GB		32.0	25.0	11.0
	CM680-4T015GB		41.0	32.0	15.0
C4	CM680-4T018GB		47.0	37.0	18.5
	CM680-4T022GB		56.0	45.0	22.0
	CM680-4T030GB		72.0	60.0	30.0
C5	CM680-4T037G(B)		88.0	75.0	37.0
	CM680-4T045G(B)		110.0	90.0	45.0
C6	CM680-4T055G(B)		106.0	110.0	55.0
	CM680-4T075G(B)	139.0	152.0	75.0	
	CM680-4T093G(B)	165.0	176.0	93.0	
C7	CM680-4T110G(B)	190.0	210.0	110.0	
	CM680-4T132G(B)	230.0	253.0	132.0	
C8	CM680-4T160G	276.0	304.0	160.0	
	CM680-4T185G	314.0	340.0	185.0	
C9	CM680-4T200G	346.0	380.0	200.0	
	CM680-4T220G	380.0	426.0	220.0	
	CM680-4T250G	435.0	465.0	250.0	
C10	CM680-4T280G	478.0	520.0	280.0	
	CM680-4T315G	534.0	585.0	315.0	
	CM680-4T355G	598.0	650.0	355.0	
C11	CM680-4T400G	672.0	725.0	400.0	
	CM680-4T450G	742.0	820.0	450.0	

▶ Technical Specification

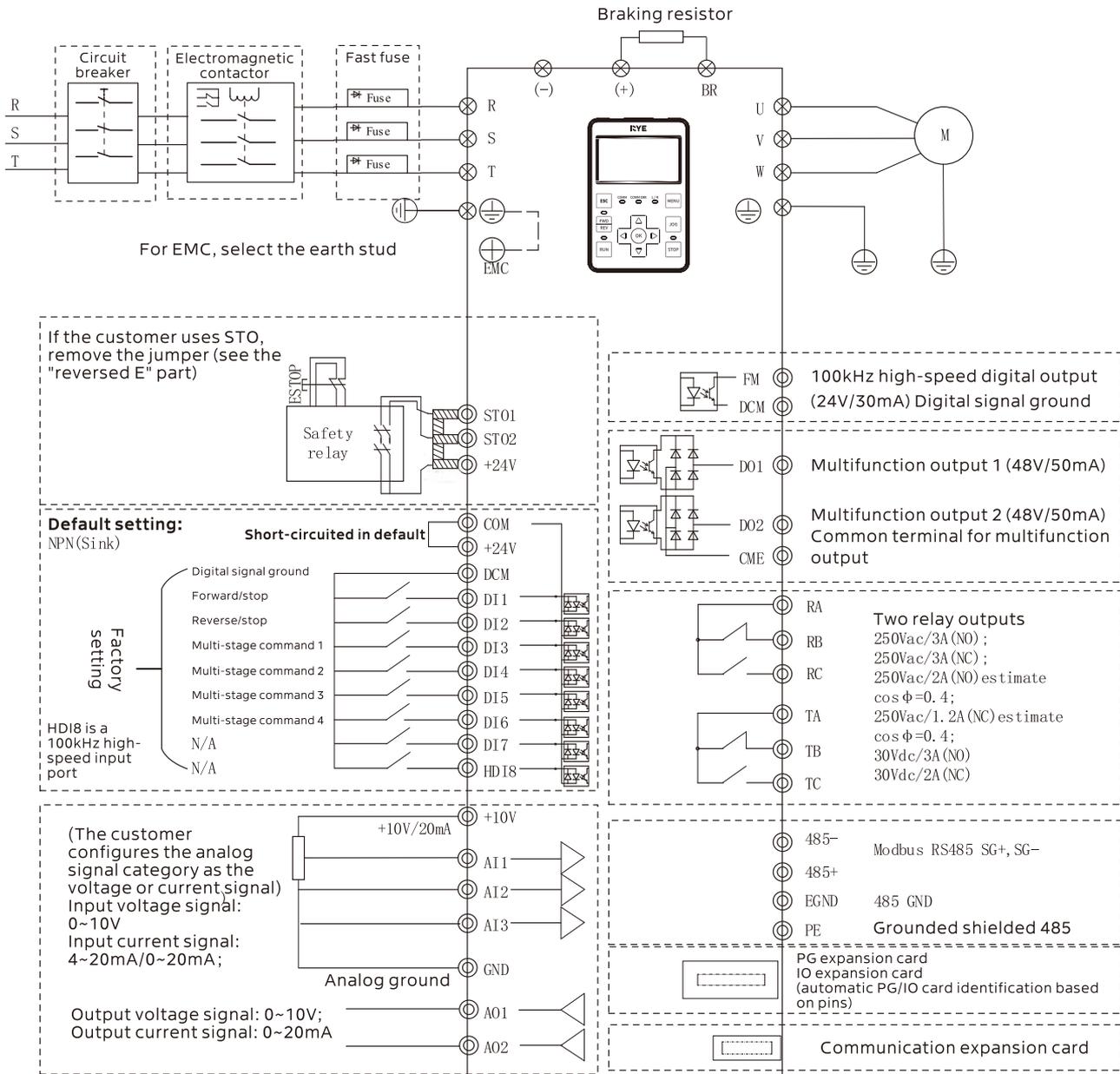
Project		Specification
Main Control Functions	Power Range	4.0kW~450kW
	Voltage Level	Three-phase 380V~480V
	Maximum Output Frequency	599.00Hz
	Carrier Frequency	7.5kW and below: 2kHz~15kHz 11kW~93kW: 2kHz~10kHz 110kW~450kW: 2kHz~6kHz Automatic carrier frequency adjustment can be done according to the load characteristics
	Input Frequency Resolution	Digital setting: 0.01Hz; Analog setting: maximum frequency × 0.025%
	Control Mode	Asynchronous motors: V/F, VVC, SVC, and FVC Permanent magnet motors: SVC, VVC, and FVC
	Starting Torque	SVC: 150% FVC: 180%
	Speed Regulationrange	SVC: 1:200 FVC: 1:1000
	Speed Stability Accuracy	SVC: ≤±0.5% FVC: ≤±0.02%
	Torque Response	Torque step response <20ms
	Torque Accuracy	SVC: ±10% FVC: ±5%
	Overload Capacity	150% of rated current(60s)
	Torque Boost	Automatic and manual torque boost modes are included
	V/F Curve	Multi-point V/F curve; liner V/F curve; square V/F curve
	Acceleration And Deceleration Curve	Linear or S-shaped acceleration/deceleration modes; Four groups of acceleration/deceleration time; Acceleration/deceleration time range: 0.00s~600.00s or 0.0s~6000.0s
	DC Braking	Start DC braking and shutdown DC braking are included (0.0s~60.0s)
	Jog Control	Jog frequency range: 0.00Hz~599.00Hz; Jog acceleration/deceleration time range: 0.00s~600.00s or 0.0s~6000.0s
	Tension Control	Four control modes are included: tension closed-loop speed mode, linear speed closed-loop speed mode, tension closed-loop torque mode, and tension open-loop torque mode
	Multi-Speed Running	Up to 16-speed running can be realized through terminals
	Built-In PID	Can easily realize closed-loop process control
Personalized Function	Peripheral Safety Self-Test	A safety test is performed on the peripherals to timely identify any problems, such as a grounding problem or a short-circuit, and improve the reliability of the system
	Common DC Bus Bar Function	A common DC bus can be shared by multiple VFDs
	JOG Key	JOG running
	Fast Current Limiting Function	A quick current limiting algorithm is embedded to reduce the probability that an overcurrent fault happens to the VFD
	Motor Parameter Identification	Automatic motor parameter identification
	Standardized Panel Extension Cable	A constant voltage output can be maintained in case of grid voltage variations
	Communication Buses	Profnet/IP, CANopen, Profibus-DP, EtherCAT, Ethernet
	Expansion Function	I/O expansion card; Multiple bus communication expansion cards; PG cards(incremental sin/cos encoder cards)
Operation	STO	Safe torque off in case of emergency
	Frequency Sources	Multiple frequency setting sources: operation panel setting, analog setting, control terminal setting, communication setting, etc.
	Auxiliary Frequency Sources	Multiple auxiliary frequency sources : operation panel setting, analog setting, control terminal setting, communication setting, etc.; auxiliary frequency fine tuning and synthesis can be flexibly realized
	Universal Terminals	Eight DI terminals (one high-speed terminal), three DO terminals (one high-speed terminal), and two relay output terminals, Three AI terminals (one supporting PT100), two AO terminals, two STO terminals, and one RS485 terminal
Display And Panel Operation	Automatic Acceleration/Deceleration	Automatic acceleration/deceleration time adjustment based on the load torque
	LCD Display	Standard: LED keyboard; Optional: LCD keyboard (Chinese/English)
Protections And Options	LCD Parameter Copying	Quick parameter copying can be accomplished on the LCD panel
	Protection Function	Motor short-circuit detection,input/output phase loss protection, overcurrent protection, overvoltage protection, undervoltage protection, overtemperature protection, overload protection, etc.
Environment	Options	Brake assembly
	Place	Indoor, free from direct sunlight, dust,corrosive gas, flammable gas, oil mist, water vapour,dripping water or salt, etc.
	Altitude	No derating is required for use below 1000m. For altitudes above 1000m, derating is 1% or 5 degree centigrade for every 100m increase. The maximum operating altitude is 2000m. Please contact the manufacturer if the altitude exceeds 2000m.
	Ambient Temperature	-10°C~50°C (C261EC61800-5-1: 2017When the ambient temperature is above 40°C, the derating rate is reduced by 2% for every 1°C increase)
	Humidity	<95%(RH), No condensation
	Vibration	<5.9m/s ² (0.6g)
	Storage Temperature	-20°C ~ +60°C
	Pollution Degree	2
Protection Degree	IP20	

Optional Accessories

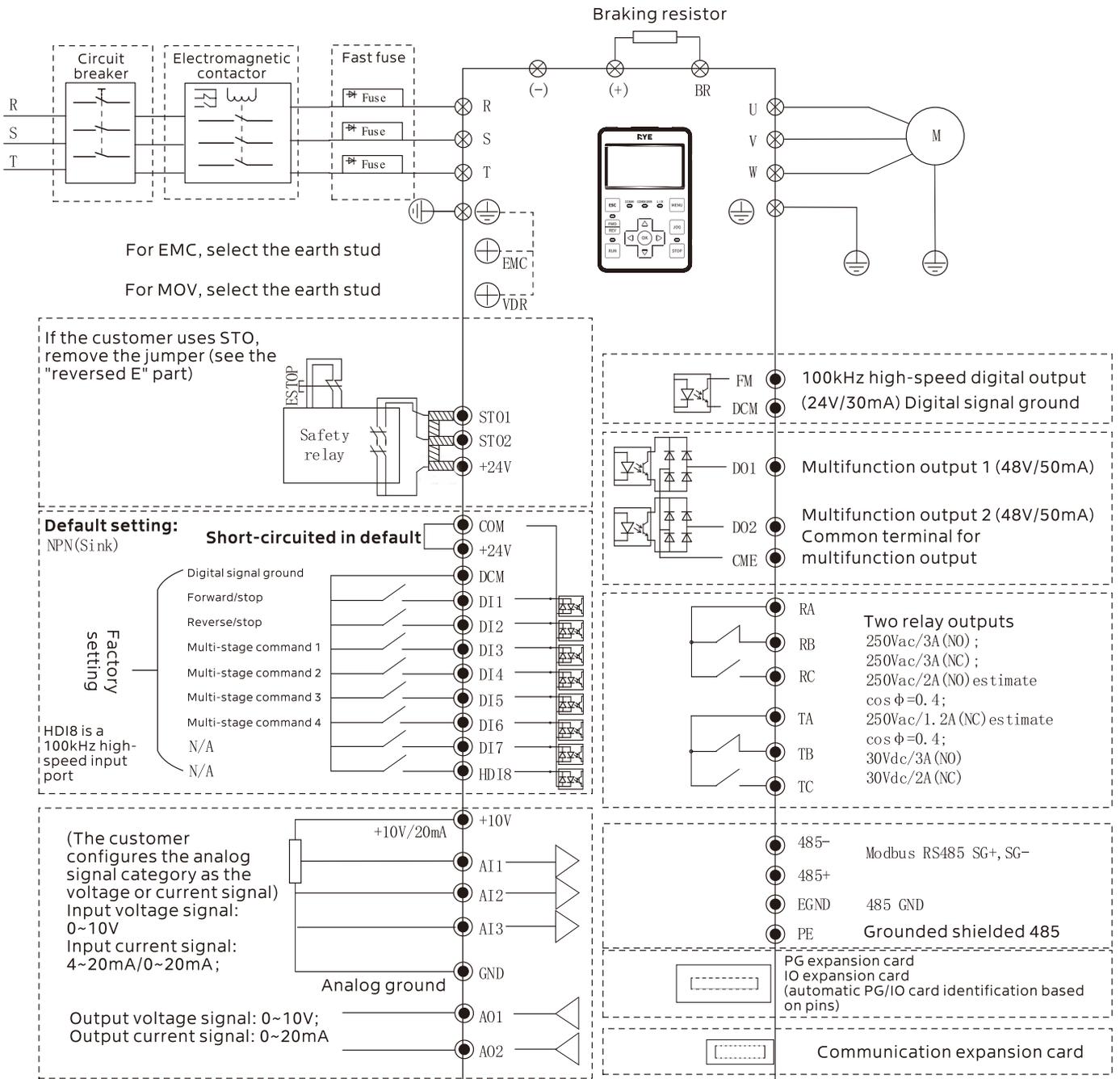
Type	Name	Model	
Keyboard	External LCD operation panel	CM680-LCD	
Encoder Card	ABZ encoder card	EMH-PG1	
	Rotary encoder card	EMH-PG2	
Communication Bus Card	CANopen	EMH-OP	
	PROFIBUS-DP	EMH-DP	
	PROFINET	EMH-PN	
	EtherNet/IP	EMH-EN	
	EtherCAT	EMH-EC	

Electrical Wiring Diagram

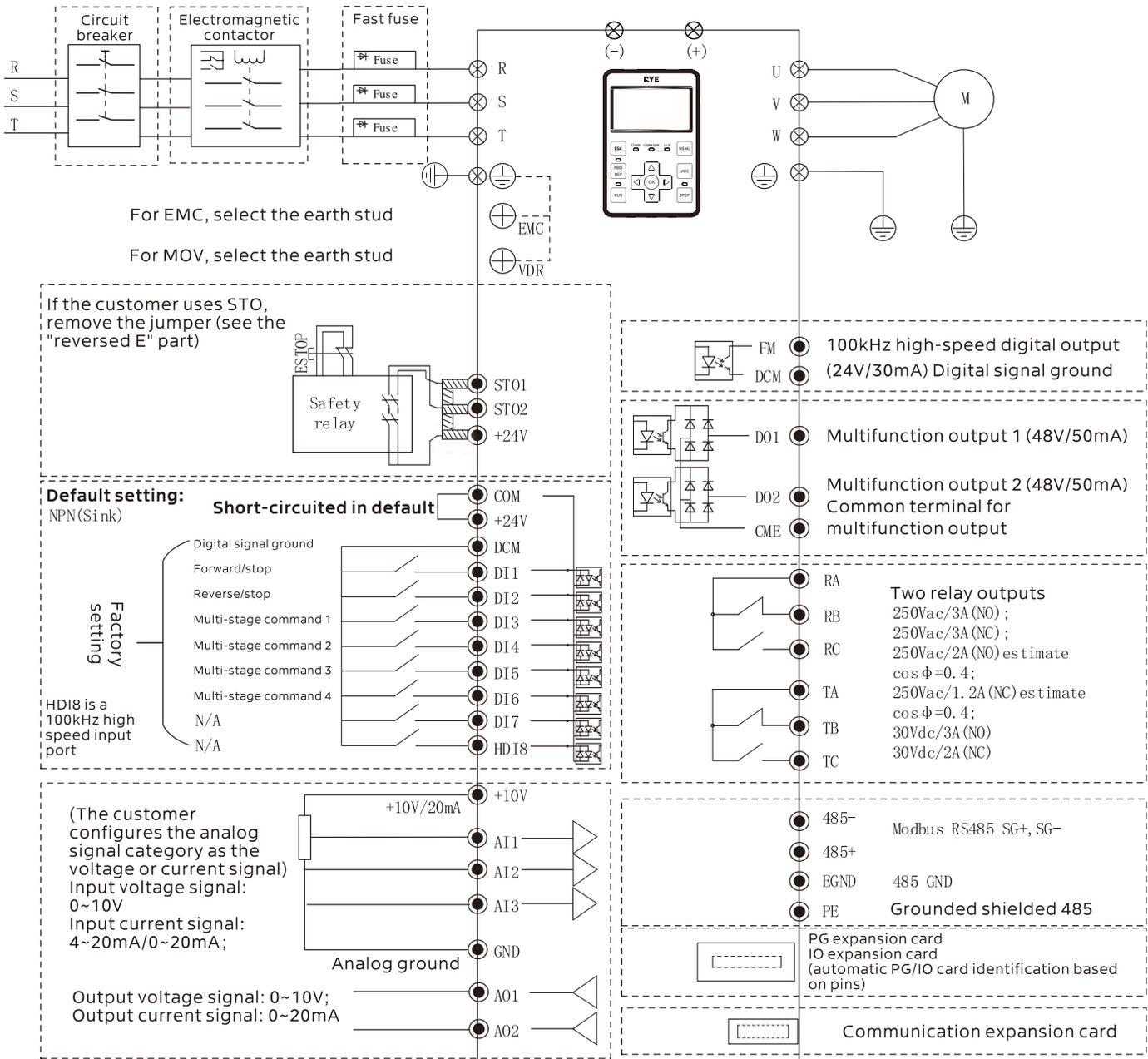
4.0kW~7.5kW Three-phase VFDs



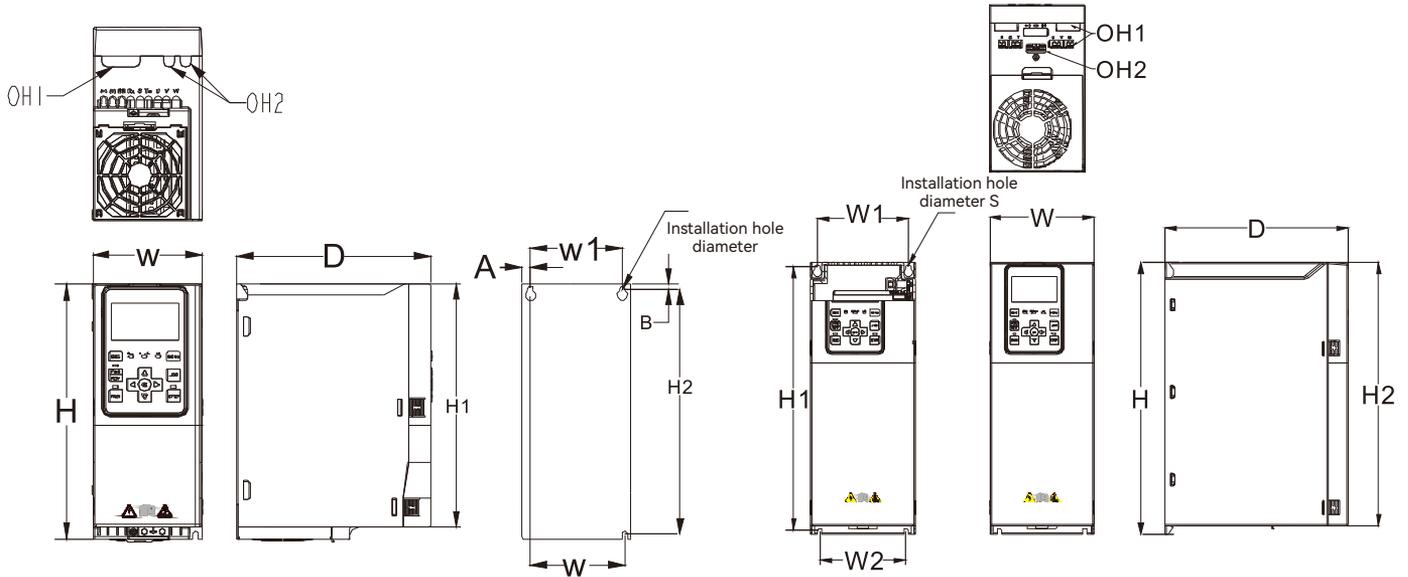
11kW~132kW Three-phase VFDs



160kW~450kW Three-phase VFDs

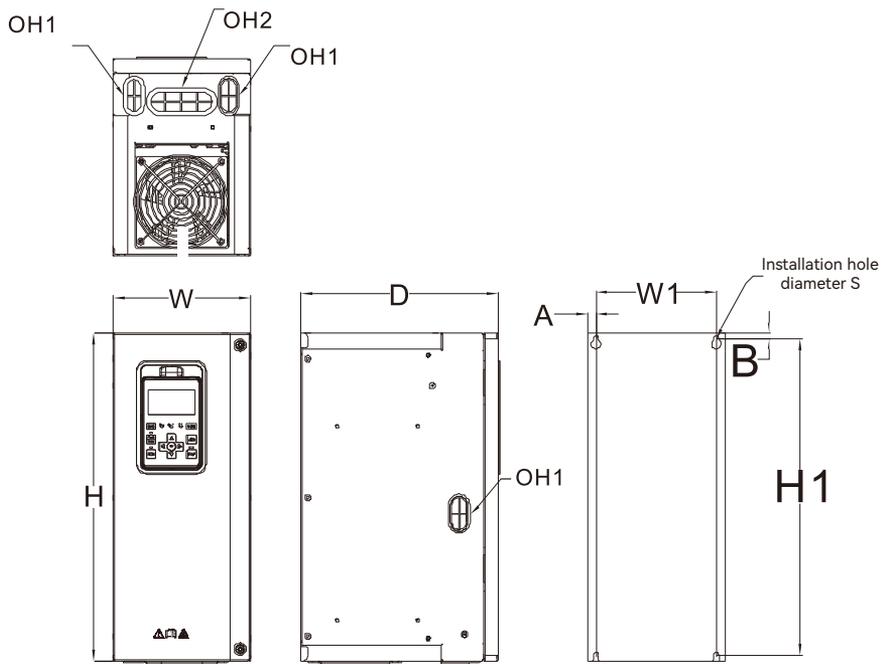


Product Size



(C2~C3) 380V (4T) Schematic Diagram Of The Plastics Shell Installation Dimensions Under 15 kW

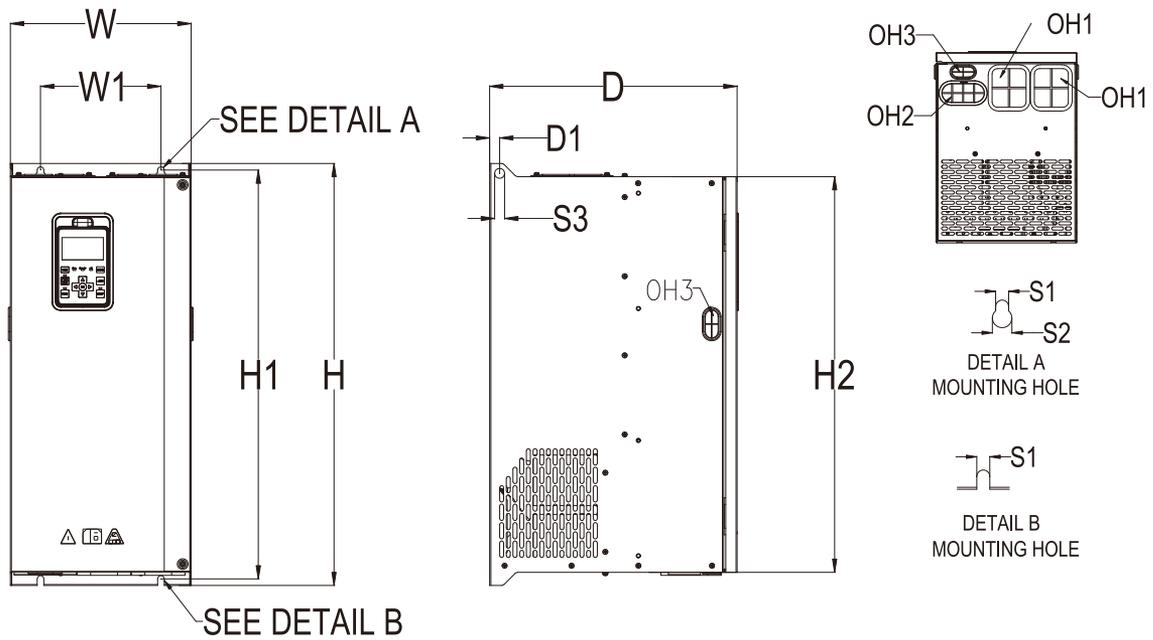
(C4) 380V (4T) Schematic Diagram Of The Plastic Shell Installation Dimensions Of 18.5~30 kW



(C5) 380V (4T) Schematic Diagram Of The Sheet Metal Chassis Installation Dimensions Of 37~45 kW

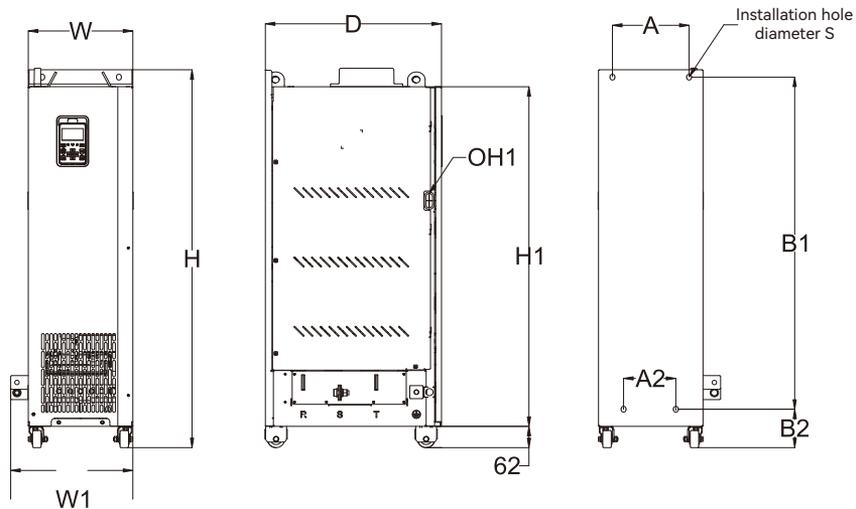
The External Dimensions And Installation Hole Position Dimensions Of CM680(C2~C5)(mm)

Structure	W	W1	W2	H	H1	H2	D	B	Installation Hole Diameter	OH1 (Wiring Hole)	OH2 (Wiring Hole)	Net Weight
C2	100	84	86	235	224	225	178	5	5	35*10	10*10	2kg
C3	118	100	102	320	307	308	200	6	6	35*10	10*10	3.5kg
C4	140	122	115	365	354	354	245	5.5	6	36*12	30*12	6kg
C5	180	158	×	430	416	×	260	7.5	7	46*23	85*30	13kg



(C6~C8)380V(4T)Schematic Diagram Of The Installation Dimensions Of 55~185kW

Structure	W	W1	H	H1	H2	D	D1	Installation Hole Diameter S1	S2	S3	OH1	OH2	OH3	Net Weight
C6	250	170	593	573	553	362	15	9	14	15	70*80	Φ30	46*23	47.5kg
C7	270	180	640	620	600	370	15	10	15	15	70*80	85*38	46*23	49.5kg
C8	290	190	780	764	730	425	17.5	9	14	15	70*80	85*38	46*23	80.5kg

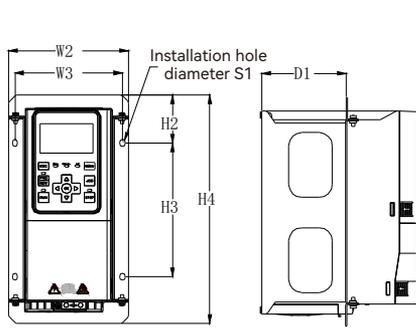


(C9~C11) 380V (4T) Schematic Diagram Of The Installation Dimensions Of 200~450kW

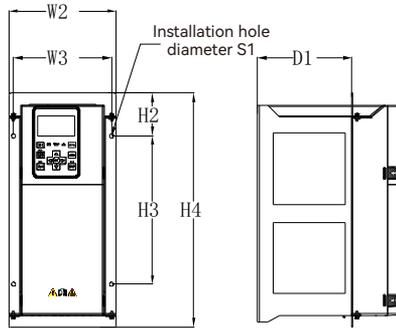
Structure	W	H	W1	D	H1	A1	B1	B2	A2	OH1	Installation Hole Diameter S	Net Weight
C9	300	1101	350	506	990	220	968	112	150	46*23	14*17	121.5kg
C10	340	1248	390	545	1135	246	1111	115	147	46*23	17*20	167.5kg
C11	340	1389	400	545	1286	246	1262	115	180	46*23	17*20	207.5kg

Product Size

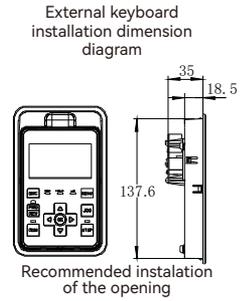
C2-C8 Through-Wall Installation Dimensions



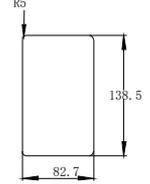
(C2-C3) The dimensions of the wall-penetrating installation holes for CM680 VFDs under 15kW



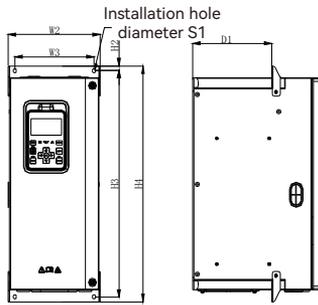
(C4) The dimensions of the wall-penetrating installation holes for CM680 VFDs 18.5~30kW



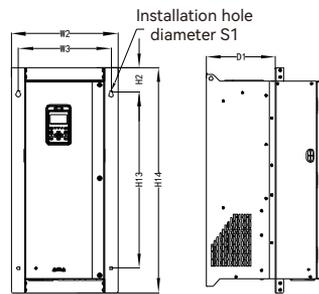
Recommended installation of the opening



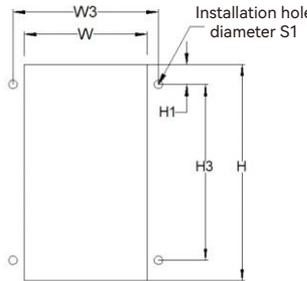
Installation dimension diagram of external keyboard with tray



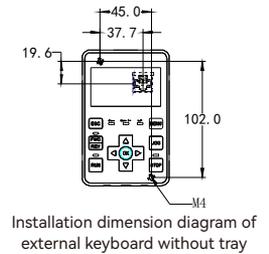
(C5) The dimensions of the wall-penetrating installation holes for CM680 VFDs 37~45kW



(C6-C8) The dimensions of the wall-penetrating installation holes for CM680 VFDs 55~185kW



Wall-penetrating installation diagram



Installation dimension diagram of external keyboard without tray

The Dimensions Of The Wall-Penetrating Installation Holes For CM680 VFDs Under 185kW

Model	Installation Hole Position			The Through-Wall Opening Size		Installation Hole Diameter S1(mm)
	W3(mm)	H1(mm)	H3(mm)	H(mm)	W(mm)	
CM680-4T4R0GB	124	41.5	155	241	108	φ5
CM680-4T5R5GB						
CM680-4T7R5GB						
CM680-4T011GB	142	43.5	240	327	126	φ6
CM680-4T015GB						
CM680-4T018GB	165	53.5	250	368	148	φ7
CM680-4T022GB						
CM680-4T030GB	160	11	458	440	185	φ7
CM680-4T037GB						
CM680-4T037G						
CM680-4T045GB	287	22	553	597	254	φ10
CM680-4T045G						
CM680-4T055GB	300	72	500	644	274	φ10
CM680-4T055G						
CM680-4T075GB	330	67	650	784	294	φ10
CM680-4T075G						
CM680-4T093GB	300	72	500	644	274	φ10
CM680-4T093G						
CM680-4T110GB	300	72	500	644	274	φ10
CM680-4T110G						
CM680-4T132GB	330	67	650	784	294	φ10
CM680-4T132G						
CM680-4T160G	330	67	650	784	294	φ10
CM680-4T185G						



Each upgraded is only aimed at approaching the perfection

CM530H Series

Enhanced Multifunction VFD

The CM530H series is a technologically upgraded general-purpose vector control VFD launched by SUNYE Electric based on the extensive market application of the CM530 and CM510 series VFDs and through in-depth market research. This series of VFDs features outstanding performance, reliability and stability, a compact structure and strong ease of use, which will bring you a better user experience.



Stone



Woodworking



Ceramic



Fan and pump



Air compressor



Machine tool



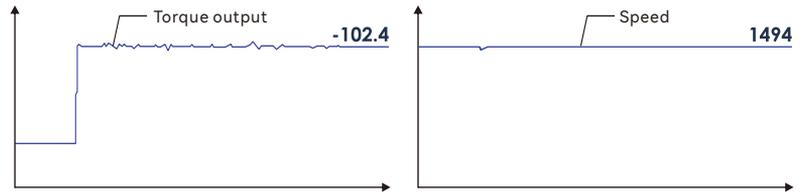
Textile

Comprehensive Features



High starting torque function

Full load motor output rated torque 102.4Nm.
 SVC control speed fluctuation measured 0.2%.
 SVC control speed stability precision measured 0.4%.

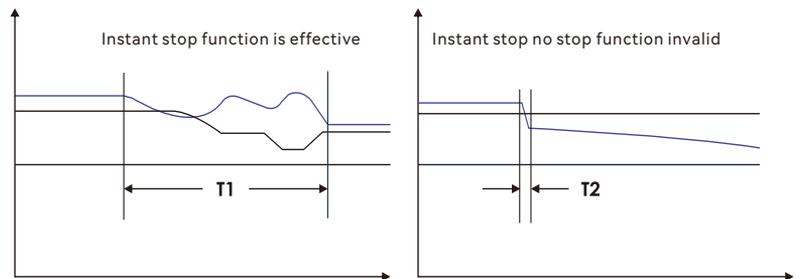


Note: Torque output, Speed graph



Instant stop function

In the event of a momentary power outage or sudden voltage drop, the inverter reduces the output speed, using the energy fed back from the load to compensate for the voltage drop, maintaining operation of the inverter for a short period of time.

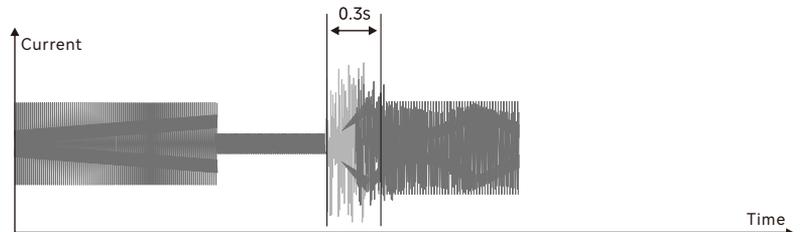


Note: Instant stop no stop function comparison graph



Speed tracking function

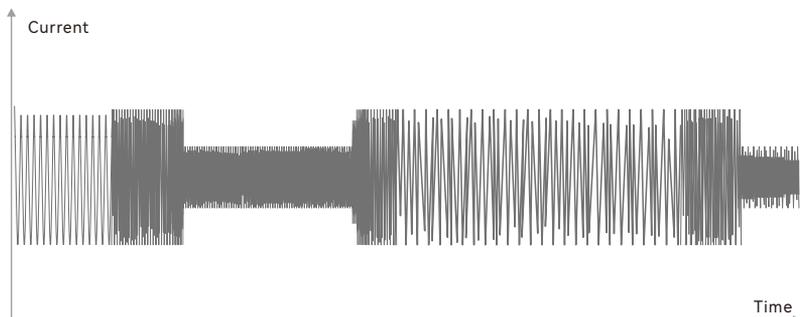
0.3S to achieve direction recognition speed tracking start. Applicable to fans, punch presses, and other occasions requiring speed tracking.



Overcurrent suppression function

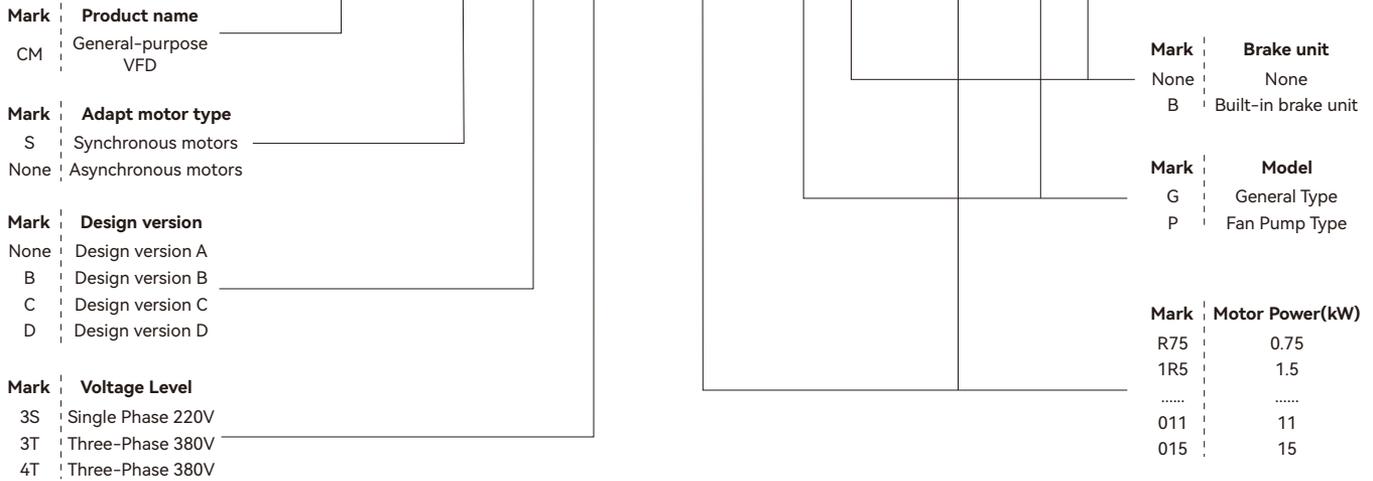
Prevents motor current from exceeding the safety threshold, thus protecting the inverter and motor equipment from damage.

Applicable to machine tools, mixers, ball mills, centrifuges, conveyors, and other occasions with load variations.



▶ Product Selection

CM530H S - B 4T 4R0 G B / 5R5 P B



CM530H Inverter Model And Technical Data

Model	Input Voltage (V)	Input Current (A)	Output Current (A)	Suitable Motor (kW)
CM530H-C3SR4G	Single-phase 220V Range: -15%~+20%	5.4	2.3	0.4
CM530H-C3SR75G		8.2	4.0	0.75
CM530H-C3S1R5G		14.0	7.0	1.5
CM530H-C3S2R2GB		23.0	9.6	2.2
CM530H-3S4R0GB		32.0	17	4.0
CM530H-3S5R5GB		45.0	25	5.5
CM530H-B4TR75GB	Three-phase 380V Range: -15%~+20%	3.4	2.1	0.75
CM530H-B4T1R5GB/2R2PB		5.0/5.8	3.8/5.1	1.5/2.2
CM530H-C4T2R2GB/4R0PB		5.8/10.5	5.1/9.0	2.2/4.0
CM530H-C4T4R0GB/5R5PB		10.5/14.6	9.0/13.0	4.0/5.5
CM530H-C4T5R5GB/7R5PB		14.6/20.5	13.0/17.0	5.5/7.5
CM530H-C4T7R5GB/9R0PB		20.5/22.0	17.0/20.0	7.5/9.0
CM530H-D4T9R0GB/011PB		22.0/26.0	20.0/25.0	9.0/11.0
CM530H-D4T011GB/015PB		26.0/35.0	25.0/32.0	11.0/15.0
CM530H-D4T015GB/018PB		35.0/38.5	32.0/37.0	15.0/18.5
CM530H-4T018GB/022PB		38.5/46.5	37.0/45.0	18.5/22.0
CM530H-4T022GB/030PB		46.5/62.0	45.0/60.0	22.0/30.0

Model	Input Voltage (V)	Input Current (A)	Output Current (A)	Suitable Motor (kW)
CM530H-4T030G/037P CM530H-4T030GB/037PB	Three-phase 380V Range: -15%~+20%	62.0/76.0	60.0/75.0	30.0/37.0
CM530H-4T037G/045P CM530H-4T037GB/045PB		76.0/92.0	75.0/90.0	37.0/45.0
CM530H-4T045GB/055PB CM530H-4T045G/055P		92.0/113.0	90.0/110.0	45.0/55.0
CM530H-4T055GB/075PB CM530H-4T055G/075P		113.0/157.0	110.0/152.0	55.0/75.0
CM530H-4T075GB/093PB CM530H-4T075G/093P		157.0/180.0	152.0/176.0	75.0/93.0
CM530H-4T093GB/110PB CM530H-4T093G/110P		180.0/214.0	176.0/210.0	93.0/110.0
CM530H-4T110G/132P		214.0/256.0	210.0/253.0	110.0/132.0
CM530H-4T132G/160P		256.0/307.0	253.0/304.0	132.0/160.0
CM530H-4T160G/185P		307.0/345.0	304.0/340.0	160.0/185.0
CM530H-4T185G/200P		345.0/385.0	340.0/380.0	185.0/200.0
CM530H-4T200G/220P		385.0/430.0	380.0/426.0	200.0/220.0
CM530H-4T220G/250P		430.0/468.0	426.0/465.0	220.0/250.0
CM530H-4T250G/280P		468.0/525.0	465.0/520.0	250.0/280.0
CM530H-4T280G/315P		525.0/590.0	520.0/585.0	280.0/315.0
CM530H-4T315G/355P		590.0/665.0	585.0/650.0	315.0/355.0
CM530H-4T355G/400P		665.0/785.0	650.0/725.0	355.0/400.0
CM530H-4T400G/450P		785.0/883.0	725.0/820.0	400.0/450.0
CM530H-4T450G/500P		883.0/920.0	820.0/900.0	450.0/500.0
CM530H-4T450G/500P		920.0/1020.0	900.0/1000.0	450.0/500.0
CM530H-4T500G/550P		1020.0/1120.0	1000.0/1100.0	500.0/550.0
CM530H-4T630G		1120.0	1100.0	630.0
CM530H-4T710G		1315.0	1250	710.0
CM530H-4T800G		1525.0	1450	800.0

Technical Specifications

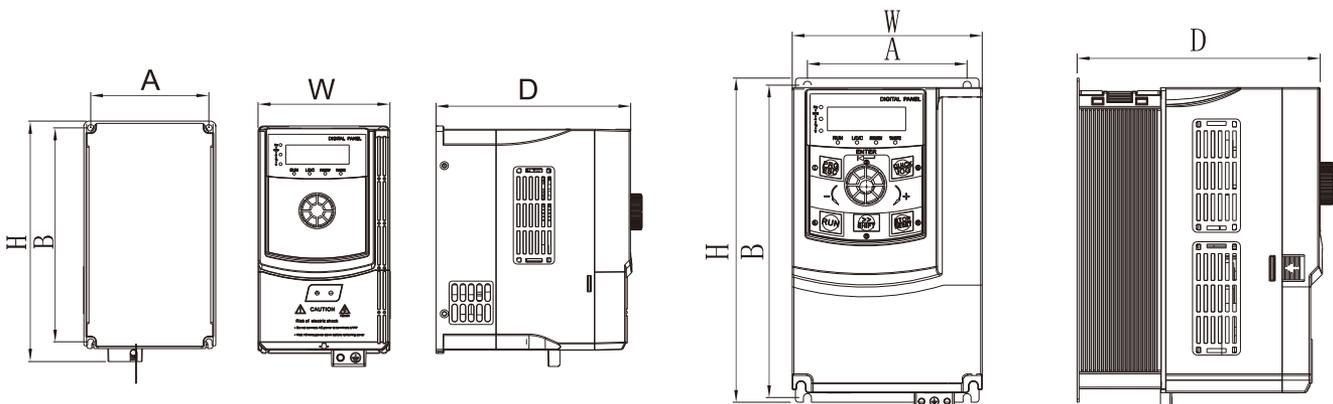
Project	Specifications	
Main Control Performance	Maximum Frequency	Vector control: 0 ~ 600Hz VF control: 0 ~ 1200Hz
	Carrier Frequency	1k ~ 11kHz; Automatically adjusts carrier frequency based on load characteristics.
	Input Frequency Resolution	Digital setting: 0.01Hz Analog setting: maximum frequency × 0.1 %
	Control Method	Open-loop vector control (SVC), V / F control
	Starting Torque	G Series: 0.5Hz / 180% (SVC) P Series: 0.5Hz / 120% (SVC)
	Speed Range	1 : 200 (SVC)
	Speed Stability (Speed Control Accuracy)	Open-loop vector control: ≤ ± 0.5% (rated synchronous speed)
	Speed Control Stability	Open-loop vector control: ≤ ± 0.3% (rated synchronous speed)
	Torque Response	≤ 40ms (SVC)
	Overload Capacity	G-type machine: 150% rated current for 60 seconds, 180% rated current for 5 seconds P-type machine: 120% rated current for 60 seconds, 150% rated current for 5 seconds
	Torque Boost	Automatic torque boost, manual torque boost 0.1% ~ 30.0%
	V/F Curve	Three methods: linear, multi-point, square V/F curve
	Acceleration/Deceleration Curve	Linear or S-curve acceleration/deceleration method; four acceleration/deceleration times; acceleration/deceleration time range 0.0 ~ 3000.0s
	DC Braking	DC braking frequency: 0.0Hz ~ maximum frequency, Braking time: 0.0 ~ 36.0 seconds, braking action current value: 0.0% ~ 100.0%
	Jog Control	Jog frequency range: 0.00Hz ~ 50.00Hz; Jog acceleration/deceleration time: 0.0 ~ 3000.00
	Simple PLC, Multi-Speed Operation	Achieve up to 16-segment speed operation via built-in PLC or control terminals
	Built-in PID	Can conveniently achieve process control and closed-loop control systems
Automatic Voltage Adjustment (AVR)	When the grid voltage changes, it can automatically maintain a constant output voltage	
Torque Limiting and Control	"Excavator" characteristics, automatically limits torque during operation to prevent frequent overcurrent tripping, closed-loop vector mode can achieve torque control.	

Project		Specifications
Customized Functions	Power-On Peripheral Safety Self-Check	Can achieve power-on safety testing of peripheral equipment such as grounding and short circuit
	DC Bus Function	Can achieve the function of multiple inverters sharing the DC bus
	JOG Key	Programmable key: run / jog function selection
	Textile Swing Frequency Control	Multiple triangle wave frequency control functions
	Rapid Current Limiting Function	Built-in rapid current limiting algorithm, reduces the probability of overcurrent alarm in the inverter, enhances the overall anti-interference capability
	Timed Control	Timed control function: settable time range 0h ~ 65535h
	Standardized Keyboard Extension Cable	The customer can extend the keyboard using a standard network cable.
Operation	Operation Command Channel	Three channels: set by the operation panel, set by control terminals, set by serial communication port. Can be switched through various methods.
	Frequency Source	There are 10 frequency sources: digital set, analog voltage set, analog current set, pulse set, serial port set. Can be switched through various methods.
	Auxiliary Frequency Source	10 types of auxiliary frequency sources. Can flexibly achieve auxiliary frequency fine-tuning, frequency synthesis
	Input Terminals	Equipped with 7 digital input terminals, up to 9 digital input terminals (AI1, AI2 can be used as DI terminals), compatible with active PNP or NPN input methods in two modes. Analog input terminals, where AI1 can only be used for voltage input, AI2 can be used for voltage or current input. (For extended input, output terminal functions, please select the CM580 series)
	Output Terminals	1 digital output terminal (bipolar output), 2 relay output terminals, 2 analog output terminals, respectively optional 0 / 4mA ~ 20mA or 0 / 2V ~ 10V, can achieve output of physical quantities such as set frequency, output frequency, speed, etc.
Display and Keys Panel Operation	LED Display	Display parameters
	LCD Display	Optional, Chinese / English prompt operation content
	LCD Parameter Copy	Using LCD can achieve quick parameter replication
	Key Locking and Function Selection	Implement partial or full key locking, define the scope of action for some keys to prevent accidental operation
Protection and Optional Accessories	Protection Functions	Power-on motor short-circuit detection, input and output phase loss protection, overcurrent protection, overvoltage protection, undervoltage protection, overheat protection, overload protection, etc.
	Optional Accessories	LCD operation panel, braking components, etc.
Environment	Usage Environment	Indoor, not exposed to direct sunlight, free from dust, corrosive gases, flammable gases, oil mist, water vapor, dripping water, or salt, etc.
	Altitude	Below 1000 meters
	Ambient Temperature	-10 °C ~ + 50 °C (Ambient temperature between 40 °C ~ 50 °C, please use at a reduced rating)
	Humidity	Less than 95% RH, no condensation
	Vibration	Less than 5.9 m/s ² (0.6g)
	Storage Temperature	- 20°C ~ + 60°C
Product Standards	Pollution Degree	2
	Product Compliance with Safety Standards	IEC61800-5-1:2007
	Product Compliance with EMC Standards	IEC61800-3:2005

Note: Some power segments do not have hardware input phase loss detection function, please consult the manufacturer for specific models.

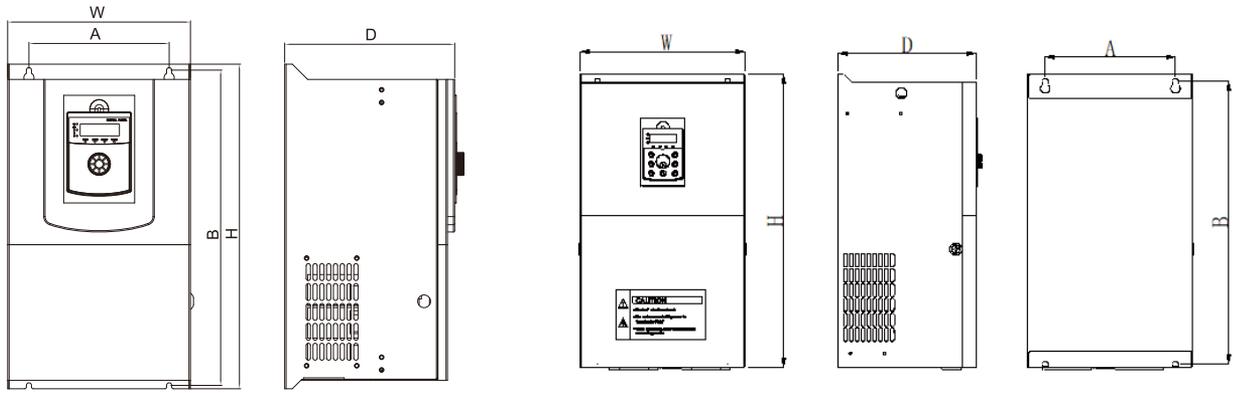
Installation Dimensions

CM530H Inverter Appearance And Mounting Hole Dimensions (mm)



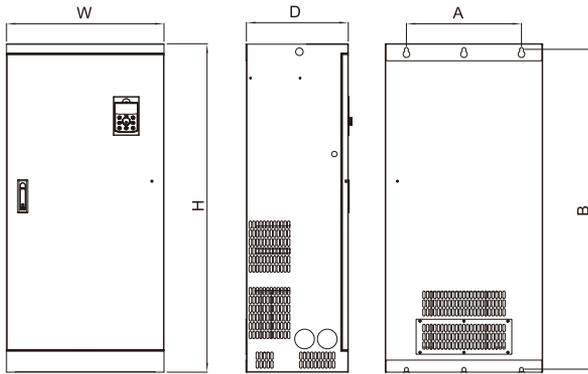
220V (3S) 2.2kW and Below Plastic Enclosure Dimensions and Installation Dimensions Schematic
380V (4T) 15kW and Below Plastic Enclosure Dimensions and Installation Dimensions Schematic

220V (3S) 4.0~5.5kW Plastic Enclosure Dimensions and Installation Dimensions Schematic

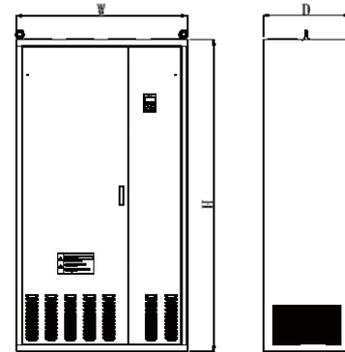


380V (4T) 18 ~ 37kW Inverter Dimensions and Installation Dimensions Schematic

380V (4T) 45 ~ 132kW Inverter Dimensions and Installation Dimensions Schematic



380V (4T) 160 ~ 400kW Inverter Dimensions and Installation Dimensions Schematic



380V (4T) 450 ~ 800kW Inverter Dimensions and Installation Dimensions Schematic

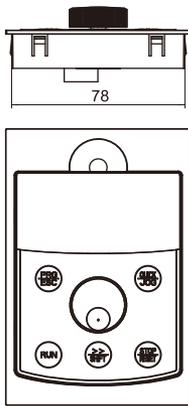
Model Description: If the product model ends with "B", it indicates that the braking unit is standard equipment. Please specify this when placing an order if required.

CM530H External Dimensions And installation Hole Dimensions

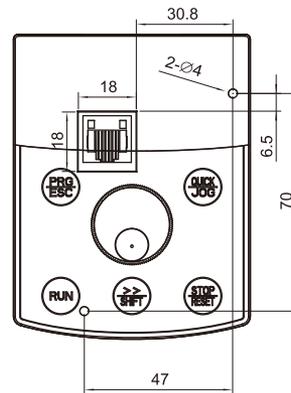
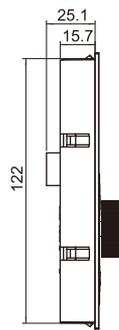
Model	Mounting holes		Wall Penetration Opening Dimensions			Installation Hole Diameter (mm)
	A(mm)	B(mm)	H(mm)	W(mm)	D(mm)	
CM530H-C3SR4G	78	162	172.5	96	141	φ4.5
CM530H-C3SR75G						
CM530H-C3S1R5G						
CM530H-C3S2R2GB	100	199	206	119	154	φ5
CM530H-3S4R0GB	120	260	268	139	155.5	φ6
CM530H-3S5R5GB						
CM530H-B4TR75GB	86	158	172.5	96	141	φ4.5
CM530H-B4T1R5GB/2R2PB						
CM530H-C4T2R2GB/4R0PB						
CM530H-C4T4R0GB/5R5PB	100	199	206	119	154	φ5
CM530H-C4T5R5GB/7R5PB	120	260	268	139	155.5	φ5
CM530H-C4T7R5GB/9R0PB						
CM530H-D4T9R0GB/011PB	150	314	324	188	188	φ6
CM530H-D4T011GB/015PB						
CM530H-D4T015GB/018PB						
CM530H-4T018GB/022PB	165	372	383	215	200	φ6
CM530H-4T022GB/030PB						
CM530H-4T030GB/037PB CM530H-4T030G/037P	200	436	449	260	209	φ7
CM530H-4T037GB/045PB CM530H-4T037G/045P						

Model	Mounting holes		Wall Penetration Opening Dimensions			Installation Hole Diameter (mm)
	A(mm)	B(mm)	H(mm)	W(mm)	D(mm)	
CM530H-4T045GB/055PB CM530H-4T045G/055P	245	531	550	310	260	φ10
CM530H-4T055GB/075PB CM530H-4T055G/075P						
CM530H-4T075GB/093PB CM530H-4T075G/093P	280	561	580	350	267	φ10
CM530H-4T093GB/110PB CM530H-4T093G/110P						
CM530H-4T110G/132P	320	695	715	430	295	φ10
CM530H-4T132G/160P						
CM530H-4T160G/185P	360	972	1000	470	318	φ12
CM530H-4T185G/200P						
CM530H-4T200G/220P	380	1060	1088	520	338	φ12
CM530H-4T220G/250P						
CM530H-4T250G/280P	440	1190	1220	650	330	φ12
CM530H-4T280G/315P						
CM530H-4T315G/355P	500	1255	1290	740	420	φ14
CM530H-4T355G/400P						
CM530H-4T400G/450P						
CM530H-4T450G/500P	-	-	1800	1060	500	-
CM530H-4T500G/550P						
CM530H-4T550G/630P						
CM530H-4T630G	-	-	2200	1200	600	-
CM530H-4T710G						
CM530H-4T800G						

External Keyboard installation Dimensions With Tray And Without Tray (mm)



External keyboard with tray installation dimensions



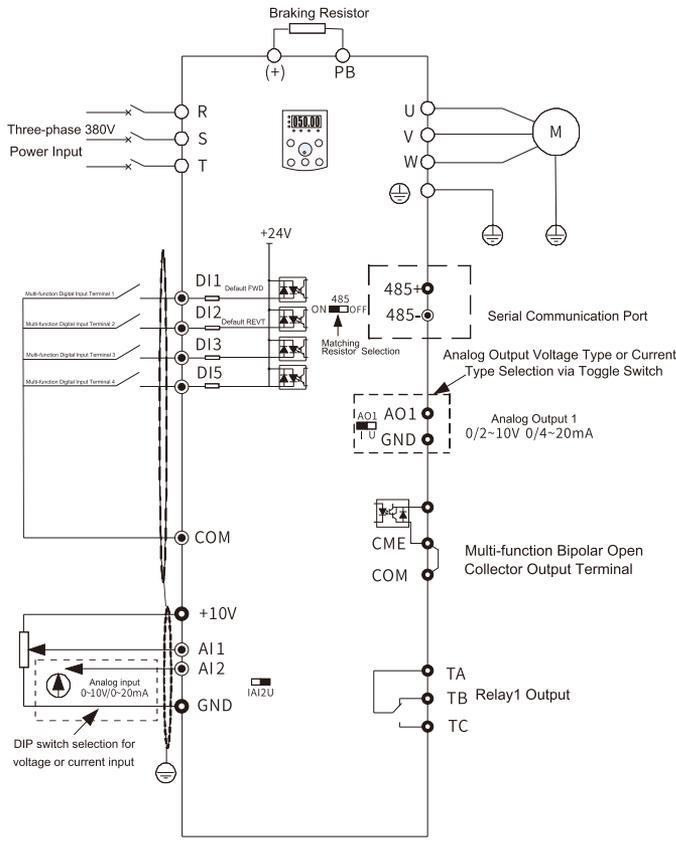
External keyboard without tray installation dimensions

CM530H Inverter Optional Accessories

For detailed functions and usage of optional accessories, refer to the relevant accessory manual. If you require any of the following optional accessories, please specify when placing your order.

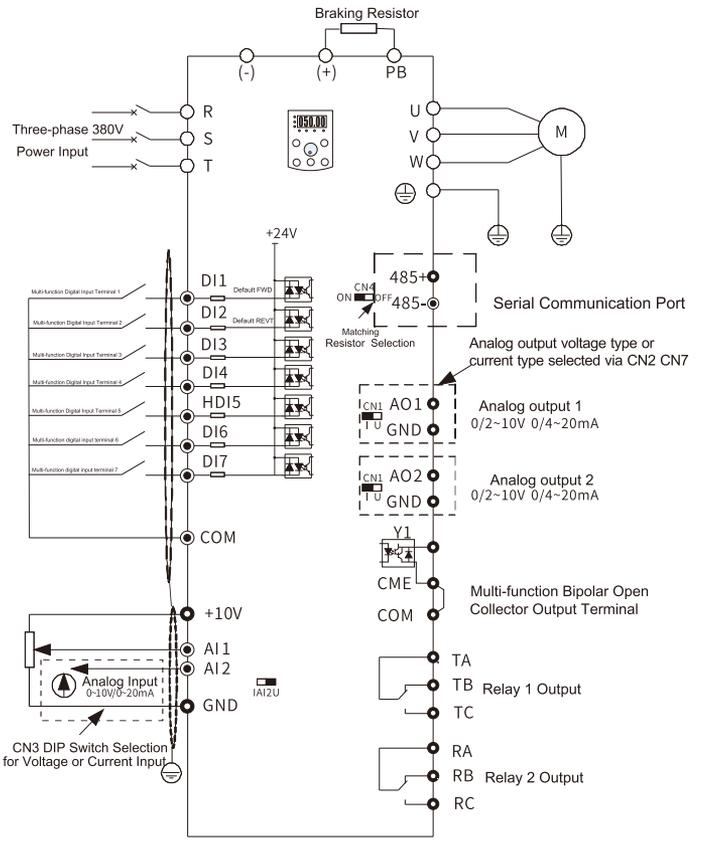
Name	Model	Function	Remarks
External LED operation panel	CM530H-LED	External LED Display and Operation Keyboard	RJ45 Interface
External LCD Operation Panel	CM530-LCD	External LCD Display and Operation Keyboard	RJ45 Interface
External LED2 Operation Panel	CM530H-LED2	External LED Dual Display Operation Keyboard	RJ45 Interface
Keyboard Bracket	CM530-1105-0 (Black)	For Use with Operation Keyboard	Optional

Wiring Diagram



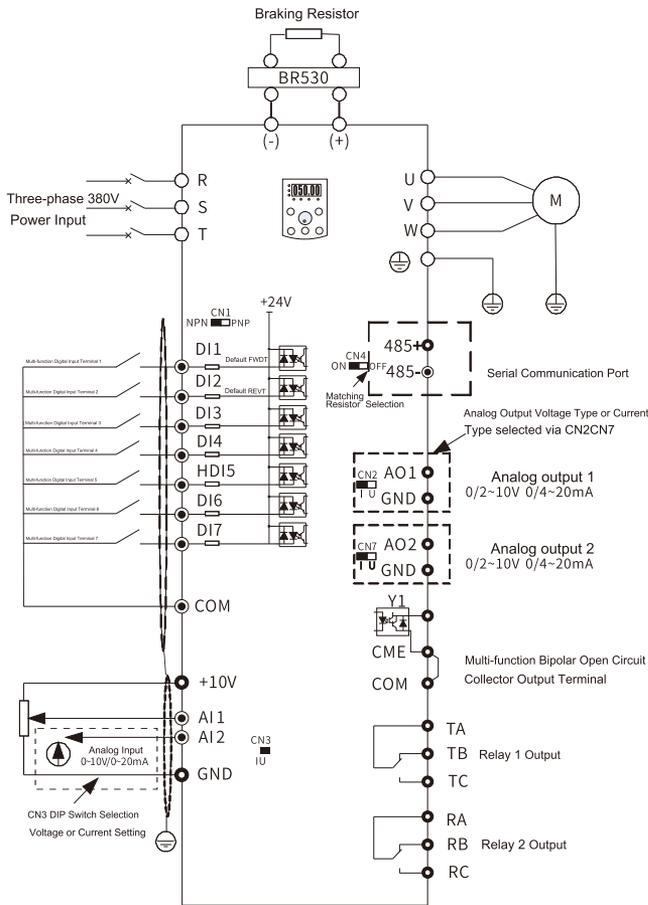
Three-phase inverter below 2.2kW

Note: This diagram applies to CM530H-0.75~2.2kW(380V)product wiring



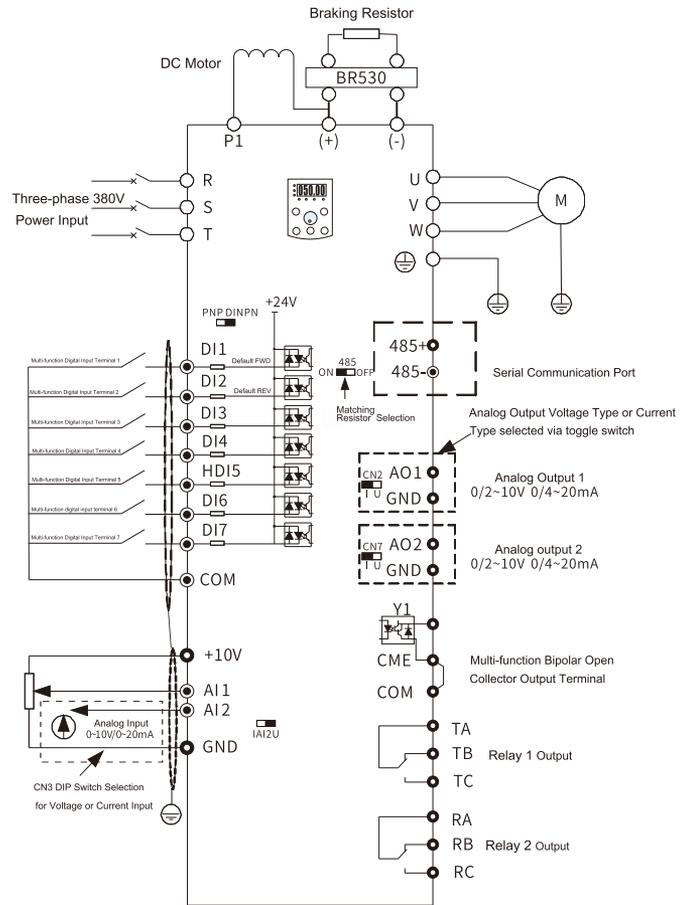
Three-phase inverter below 30kW

Note: The braking unit for the CM530H-4T series 30~93kW is an optional feature



37kW~55kW three-phase inverter

Note: CM530H-4T series 30~93kW braking unit is an optional feature



75kW and above three-phase inverter

Note: CM530H-4T series 30kW~93kW braking unit is an optional feature, if required, please specify when ordering 75kW~132kW DC reactor is an optional component, 160kW and above DC reactor is a standard configuration



Speak with strength and continuously lead the industry

CM800 Series

High Performance Vector Control VFD

The CM800 Series is a newly developed compact inverter with a small size and large functionality, featuring fast torque response, high speed stability, a wide speed control range, and high protective performance. It can be widely applied in various automated machinery and equipment scenarios, including glass, food packaging, pharmaceutical centrifuges, automated production lines, logistics equipment, ceramic equipment, spindle of machine tool, and textile machinery.



Textile



Machine tool



Stone



Ceramic



Woodworking

▶ Elegant Design, Easy To Use

⚙️ Dual Keyboard Display

Both local and remote keyboards display simultaneously and are automatically recognized.



👤 Humanized Design Of The Control Panel

High adaptability

Default parameters meet mainstream usage scenarios.

Complete control panel functions

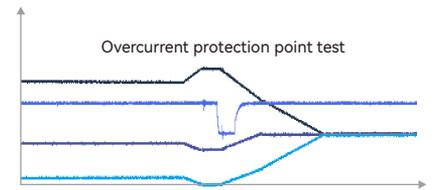
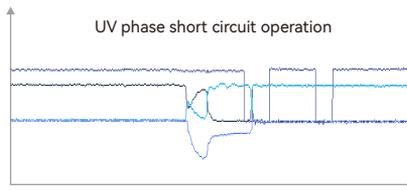
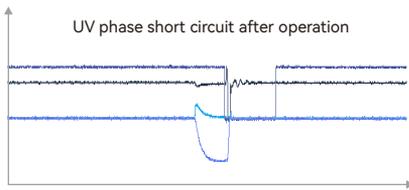
Function parameter modification, operation status monitoring, operation control (start, stop).



🛡️ Rapid Response Intelligent Protection

Short-circuit protection is immediately activated, and after the fault is cleared, the inverter resumes normal operation without any component damage.

Upper and Lower Bridge Arms $V_{ce} < 1050V$ | Response Time $< 10\mu s$

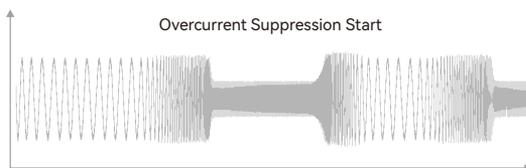


🔄 Repeated Protection

Even in the face of frequent overload, overcurrent, and other extreme challenges, the CM800 protection mechanism ensures stable operation without component damage.

📈 Excellent Overcurrent Suppression Capability

When a sudden heavy load occurs, it can achieve excavator function, reducing the impact of large current surges on the inverter and motor, while achieving maximum fault-free operation.



🌀 Software Speed Tracking

Smooth and Impact-free Start, can automatically identify the direction of rotation.



Product Selection

CM800 S - 4T 4R0 G B / 5R5 P B

Mark Product name
CM General-purpose VFD

Mark Applicable Motor Type
S Synchronous Motor
None Asynchronous Motor

Mark Voltage Level
3S Single-Phase 220V
4T Three-Phase 380V

Mark Brake unit
E None
B Built-in brake unit

Mark Applicable Motor Type
G Heavy overload model
P Light overload model

Mark Motor Power(kW)
R75 0.75
1R5 1.5
.....
011 11
015 15

CM800 Inverter Model And Technical Data

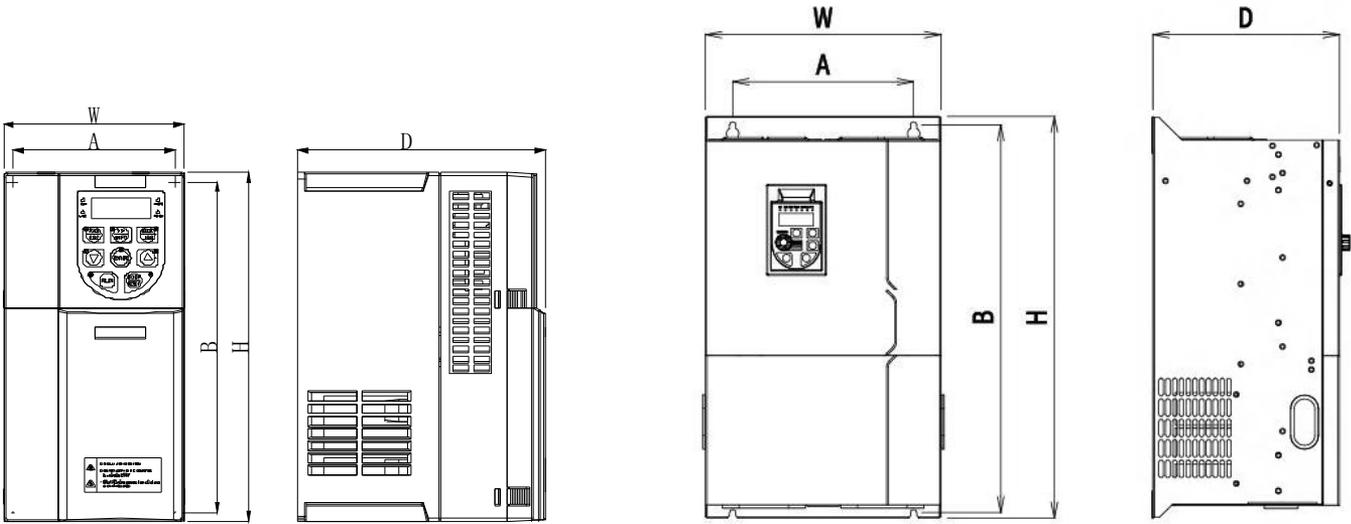
Inverter Model	Input Voltage (V)	Input Current (A)	Output Current (A)	Motor Rating (kW)
CM800-3SR4GB	Single-phase 220V Range: -15%~+20%	5.4	2.3	0.4
CM800-3SR75GB		8.2	4.0	0.75
CM800-3S1R5GB		14.0	7.0	1.5
CM800-3S2R2GB		23.0	9.6	2.2
CM800-3S4R0GB		32.0	17.0	4.0
CM800-4TR75GB/1R5PB	Three-phase 380V Range -15%~+20%	3.4/5.0	2.1/3.8	0.75
CM800-4T1R5GB/2R2PB		5.0/5.8	3.8/5.1	1.5/2.2
CM800-4T2R2GB/4R0PB		5.8/10.5	5.1/9.0	2.2/4.0
CM800-4T4R0GB/5R5PB		10.5/14.6	9.0/13.0	4.0/5.5
CM800-4T5R5GB/7R5PB		14.6/20.5	13.0/17.0	5.5/7.5
CM800-4T7R5GB/9R0PB		20.5/22.0	17.0/20.0	7.5/9.0
CM800-4T9R0GB/011PB		22.0/26.0	20.0/25.0	9.0/11.0
CM800-4T011GB/015PB		26.0/35.0	25.0/32.0	11.0/15.0
CM800-4T015GB/018PB		35.0/38.5	32.0/37.0	15.0/18.5
CM800-4T018GB/022PB		38.5/46.5	37.0/45.0	18.5/22.0
CM800-4T022GB/030PB		46.5/62.0	45.0/60.0	22.0/30.0
CM800-4T030GB/037PB		62.0/76.0	60.0/75.0	30.0/37.0
CM800-4T037G(B)/045P(B)		76.0/92.0	75.0/90.0	37.0/45.0
CM800-4T045G(B)/055P(B)		92.0/113.0	90.0/110.0	45.0/55.0
CM800-4T055G(B)/075P(B)		113.0/157.0	110.0/152.0	55.0/75.0
CM800-4T075G(B)/093P(B)		157.0/180.0	152.0/176.0	75.0/93.0
CM800-4T093G(B)/110P(B)		180.0/214.0	176.0/210.0	93.0/110.0
CM800-4T110G(B)/132P(B)		214.0/256.0	210.0/253.0	110.0/132.0
CM800-4T132G(B)/160P(B)		256.0/307.0	253.0/304.0	132.0/160.0
CM800-4T160G/185P		307.0/345.0	304.0/340.0	160.0/185.0
CM800-4T185G/200P		345.0/385.0	340.0/380.0	185.0/200.0
CM800-4T200G/220P		385.0/430.0	380.0/426.0	200.0/220.0
CM800-4T220G/250P		430.0/468.0	426.0/465.0	220.0/250.0
CM800-4T250G/280P		468.0/525.0	465.0/520.0	250.0/280.0
CM800-4T280G/315P		525.0/590.0	520.0/585.0	280.0/315.0
CM800-4T315G/355P	590.0/665.0	585.0/650.0	315.0/355.0	
CM800-4T355G/400P	665.0/785.0	650.0/725.0	355.0/400.0	
CM800-4T400G/450P	785.0/883.0	725.0/820.0	400.0/450.0	

▶ Technical Specifications

	Project	Specification
Main Control Performance	Maximum Frequency	Vector control: 0~600Hz VF control: 0~1200Hz
	Carrier Frequency	0.5kHz~16kHz; can be automatically adjusted according to load characteristics.
	Input Frequency Resolution	Digital setting: 0.01Hz Analog setting: maximum frequency × 0.1
	Control Method	Open-loop vector control (SVC), V/F control
	Starting Torque	G series: 0.5Hz/180% (SVC)
	Speed Range	1:200 (SVC)
	Speed Stability (Speed Control Accuracy)	Open-loop vector control: $\leq \pm 0.5\%$ (rated synchronous speed)
	Speed Control Stability	Open-loop vector control: $\leq \pm 0.3\%$ (rated synchronous speed)
	Torque Response	$\leq 40\text{ms}$ (SVC)
	Overload Capacity	150% rated current for 60 seconds; 180% rated current for 5 seconds
	Torque Boost	Automatic torque boost; manual torque boost 0.1%~30.0%
	V/F Curve	Three methods: linear; multi-point; square V/F curve
	Acceleration/Deceleration Curve	Linear or S-curve acceleration/deceleration; four acceleration/deceleration times; acceleration/deceleration time range 0.0s~3000.0s
	DC Braking	DC braking frequency: 0.0Hz~maximum frequency, braking time: 0.0~36.0 seconds, braking action current value: 0.0%~100.0%
	Jog Control	Jogging frequency range: 0.00Hz~50.00Hz; Jogging acceleration and deceleration time 0.0s~3000.0s
	Customized Functions	Simple PLC, Multi-Speed Operation
Built-in PID		Can conveniently implement process control closed-loop control systems
Automatic Voltage Regulation (AVR)		When the grid voltage changes, it can automatically maintain a constant output voltage
Torque Limiting and Control		"Excavator" characteristic, automatically limits torque during operation to prevent frequent overcurrent tripping; Closed-loop vector mode can achieve torque control
Power-On Peripheral Safety Self-Check		Can perform safety checks on peripheral devices upon power-up, such as grounding and short-circuit testing
Common DC Bus Function		Can achieve the function of multiple inverters sharing a common DC bus
JOG Key		Programmable keys: Forward/Reverse operation and Jog operation function selection
Operation	Textile Swing Frequency Control	Multiple triangular wave frequency control functions
	Rapid Current Limiting Function	Built-in fast current limiting algorithm, reducing the probability of overcurrent alarms and enhancing the overall interference resistance of the machine
	Timed Control	Timed control function: Settable time range 0h~65535h
	Standardized Keyboard Extension Cable	Customers can extend the keyboard using standard network cables.
Operation	Operation Command Channel	Three channels: Operation panel setting, control terminal setting, and serial communication port setting. Can be switched through multiple methods
	Frequency Source	There are 10 frequency sources: digital setting, analog voltage setting, analog current setting, pulse setting, serial port setting. Switching can be done in multiple ways
	Auxiliary Frequency Source	10 auxiliary frequency sources. Flexible implementation of auxiliary frequency fine-tuning, frequency synthesis
Display and Keyboard Operation	Terminal Configuration	Standard configuration includes 5 digital input terminals, 5 DI digital input terminals, 1 Y terminal (single-polarity output), 1 AI analog input terminal, 1 AO analog output terminal, 1 relay output terminal; one 485 interface; AI1 can be used as a DI terminal, compatible with active PNP or NPN input methods.
	LED Display	Display parameters
Protection and Optional Accessories	LCD Display	External LCD keyboards are optional for 9kW and below, local LCD keyboards are optional for 11kW and above.
	Protection Function	Power-on motor short circuit detection, input and output phase loss protection, overcurrent protection, overvoltage protection, undervoltage protection, overheat protection, overload protection, etc.
	Optional Accessories	LCD operation panel, braking components, etc.

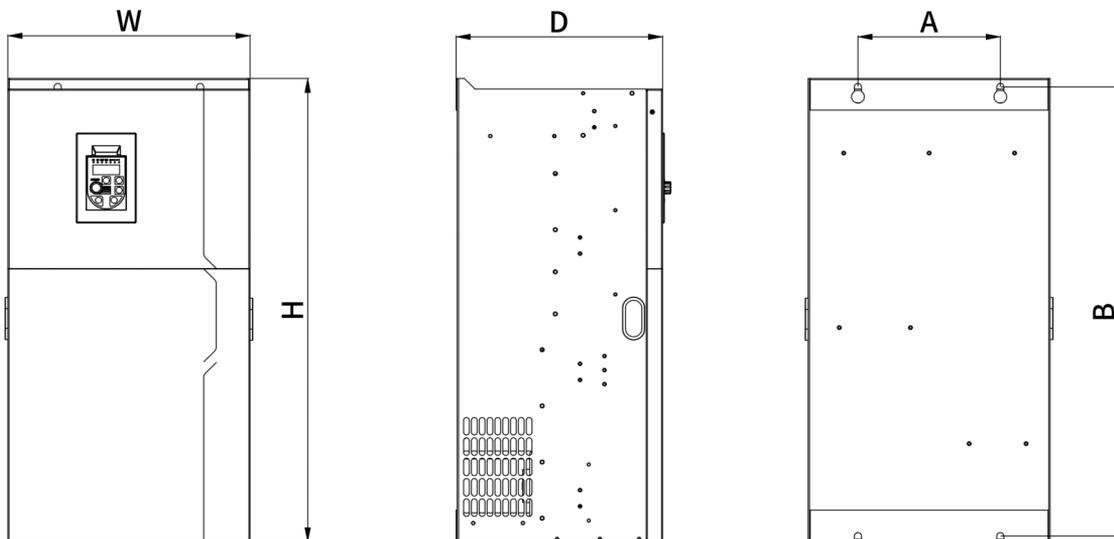
Project		Specification
Environment	Place of Use	Indoor, not exposed to direct sunlight, free from dust, corrosive gases, flammable gases, oil mist, water vapor, dripping water or salt, etc.
	Altitude	Below 1000 meters
	Ambient Temperature	-10°C to +50°C (For environmental temperatures between 40°C to 50°C, please use at reduced capacity)
	Humidity	Less than 95% RH, no condensation
	Vibration	Less than 5.9 m/s ² (0.6g)
	Storage Temperature	-20°C to +60°C
	Pollution Degree	2
Product Standards	Product Safety Standards	IEC61800-5-1:2007
	Product EMC Standards	IEC61800-3:2005

CM800 Inverter Dimensions And Installation Hole Positions (mm)

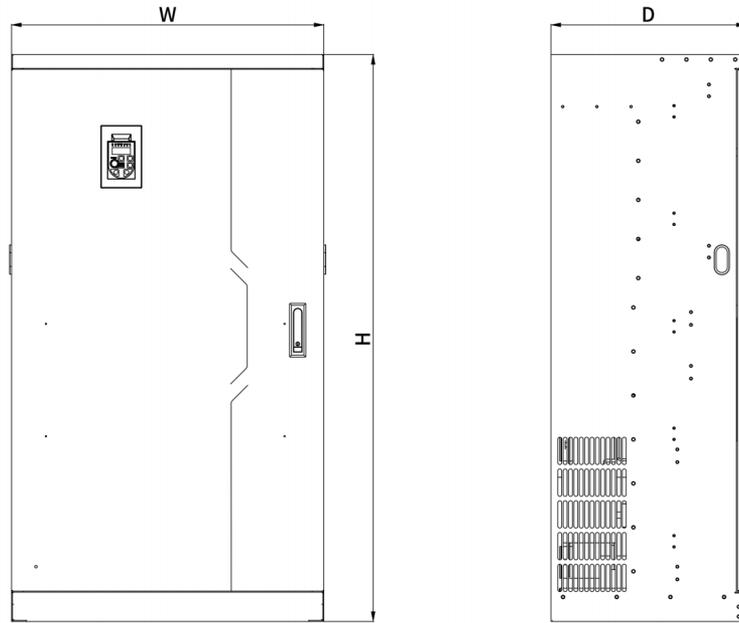


22 kW and Below VFD Plastic External and Installation Dimensions Diagram

30~45 kW VFD Sheet Metal Chassis and Installation Dimensions Diagram



380V(4T) 55 ~ 315kW VFD External and Installation Dimensions Diagram



380V(4T) 355 ~ 400kW VFD External and Installation Dimensions Diagram

Driver Model	Installation Holes		Wall Mounting Hole Dimensions			Installation Hole Diameter (mm)
	A(mm)	B(mm)	H(mm)	W(mm)	D(mm)	
CM800-3SR4GB	65	158	167	75	121	Φ4.5
CM800-3SR75GB						
CM800-3S1R5GB						
CM800-3S2R2GB	82	168	178	93	143.5	Φ5
CM800-3S4R0GB	96	201	212	107	147	Φ5.5
CM800-4TR75GB/1R5PB	65	158	167	75	121	Φ4.5
CM800-4T1R5GB/2R2PB						
CM800-4T2R2GB/4R0PB						
CM800-4T4R0GB/5R5PB	82	168	178	93	143.5	Φ5
CM800-4T5R5GB/7R5PB						
CM800-4T7R5GB/9R0PB	96	201	212	107	147	Φ5.5
CM800-4T9R0GB/011PB						
CM800-4T011GB/015PB	130	260.5	270	150	183	Φ6
CM800-4T015GB/018PB						
CM800-4T018GB/022PB	166	312	324	189	191	Φ6
CM800-4T022GB/030PB						
CM800-4T030GB/037PB						
CM800-4T037G(B)/045P(B)	200	426	449	260	207	Φ7
CM800-4T045G(B)/055P(B)						
CM800-4T055G(B)/075P(B)	180	480	500	256	268	Φ10
CM800-4T075G(B)/093P(B)	180	540	560	290	268	Φ10
CM800-4T093G(B)/110P(B)						
CM800-4T110G(B)/132P(B)	200	640	660	340	290	Φ10
CM800-4T132G(B)/160P(B)						
CM800-4T160G/185P	165*2	740	760	390	320	Φ10
CM800-4T185G/200P						
CM800-4T200G/220P	180*2	820	850	470	350	Φ12
CM800-4T220G/250P						
CM800-4T250G/280P						
CM800-4T280G/315P	200*2	950	980	580	360	Φ12
CM800-4T315G/355P						
CM800-4T355G/400P	240*2	1130	1160	640	420	-(Vertical)
CM800-4T400G/450P						

External Keyboard With Tray Installation Dimensions (mm)

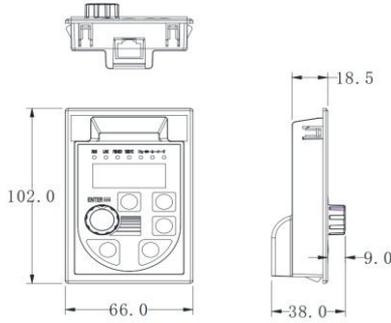


Figure 3. External Keyboard with Tray Installation Dimensions

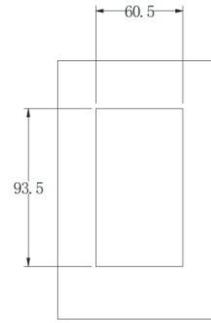


Figure 4. External Keyboard with Tray Installation Cutout Dimensions

CM800 Inverter Optional Accessories

For detailed functions and usage instructions of optional accessories, refer to the relevant accessory manuals. If you require any of the following optional accessories, please specify when placing your order.

Name	Model	Function	Remarks
External LED Operation Panel	CM800-LED	External LED display and operation keyboard	RJ45 Interface
Extension Cable	CM-CAB	Standard 8-core network cable, can connect to CM800-LED	Available in 1 meter, 3 meters, 5 meters, 10 meters 4 specifications

For additional function module expansions (such as I/O cards, PG cards, communication bus cards, etc.), please select the CM530H-PLUS series inverter and specify the required function module card when ordering.

Wiring Diagram

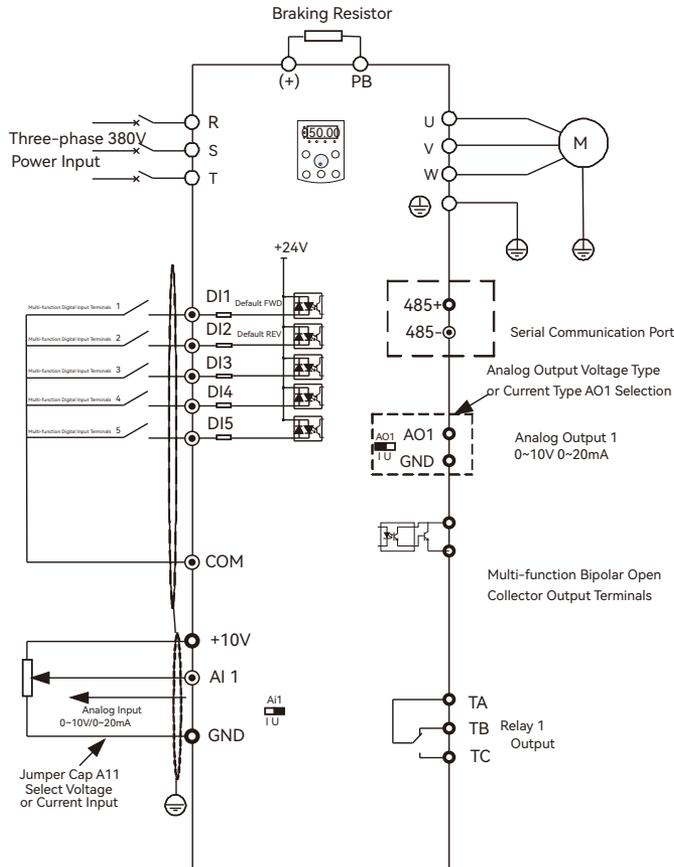


Fig. 5. Three-phase (380V) Inverter 9.0kW

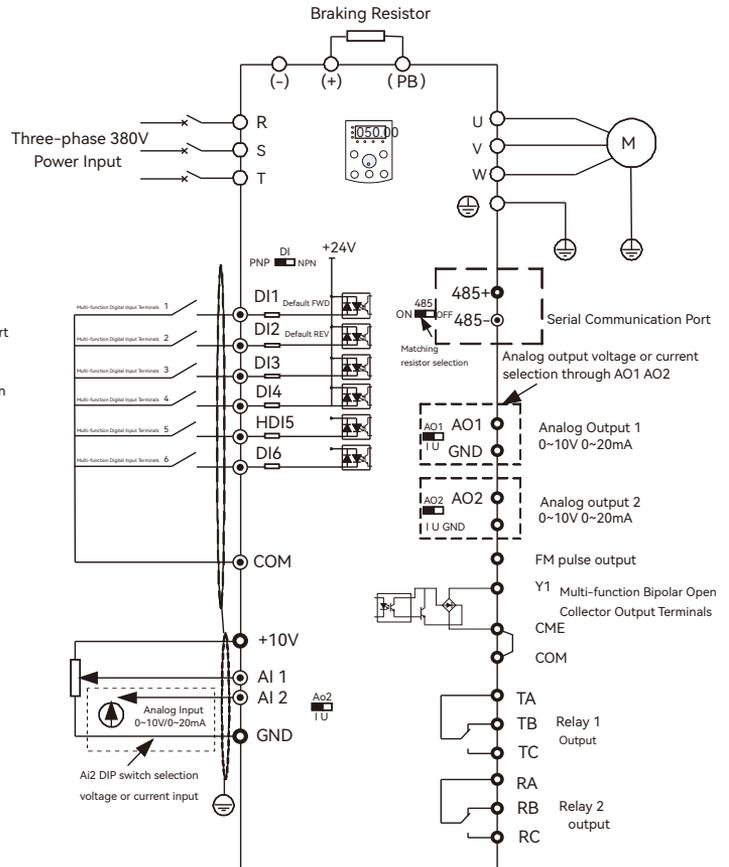


Figure 6. Three-phase Inverter (380V) 11kW and above (General Type)



Never stop because we believe in better

ES Series

Hydraulic Servo Drive

The ES series hydraulic servo drive is a new generation specifically developed for driving permanent magnet servo motors (PMSM), capable of achieving high-performance vector control of permanent magnet synchronous motors.

The control of process action characteristics in hydraulic systems (injection molding machines, hydraulic presses, etc.), such as pressure response speed and pressure holding accuracy, has been optimized. It features multiple real-time fault protection functions, as well as background software monitoring and communication bus functions.

The combination functions are rich, the performance is stable, and it is easy to achieve parallel operation of multiple pumps in a single machine and combined flow and split flow control.



Injection molding machines



Hydraulic press



Die-casting machines



Profile extruders



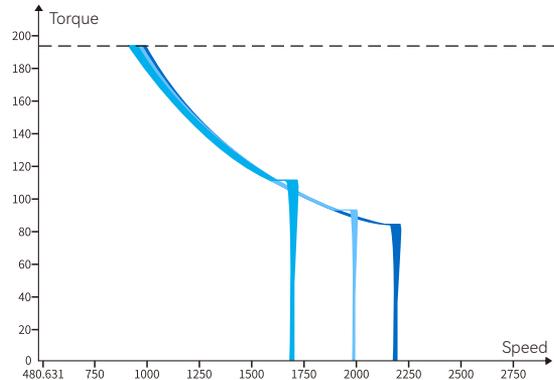
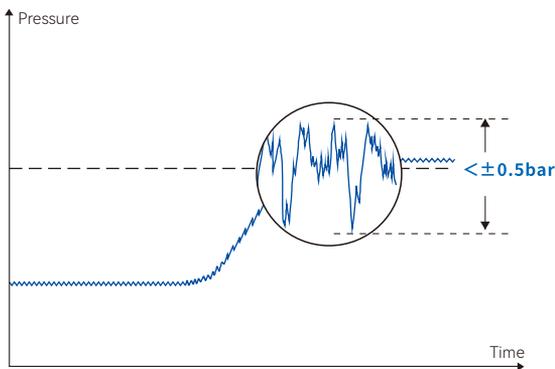
Shearing and bending machines



Servo hydraulic stations

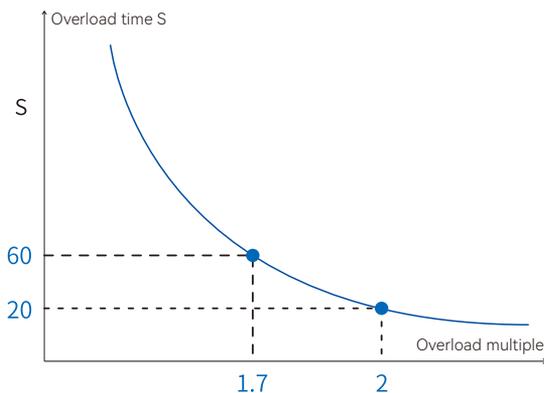
Software

- ◆ Optimize pressure holding control performance, pressure fluctuation is less than $\pm 0.5\text{bar}$.
- ◆ Optimize pressure feedback time, the maximum pressure feedback time is less than 50ms.
- ◆ Optimize pressure overshoot suppression algorithm, 140Kg pressure overshoot is less than 0.5Kg, 175Kg pressure overshoot is less than 0.75Kg.
- ◆ Optimize MTPA algorithm, greater torque per unit current, higher motor efficiency.
- ◆ Optimized the weak magnetic control algorithm, with full speed and full voltage up to 2.0 times overload.



Hardware

- ◆ The 30kW and above are built-in DC reactor(ES300), effectively improve the power factor of the drive, suppress higher harmonics, reduce external interference.
- ◆ The 110kW and less are built -in brake unit, improve customer convenience.
- ◆ All IGBT inverter modules are made of first-class brand products, with higher reliability.
- ◆ The rectifier bridge has sufficient specifications to ensure the energy supply on the inverter side.
- ◆ The total capacitance value of the capacitor is higher, which effectively reduces the voltage ripple and increases the service life of the capacitor.
- ◆ The whole machine has a stronger overload capacity, supporting 1.7 times 60s overload, 2.0 times 20s overload(ES300), supporting 1.5 times 60s overload(ES100).
- ◆ Supports motor temperature KTY/PTC detection and is integrated into the encoder line.



Flexible switching



DI multiple speed



Long service life

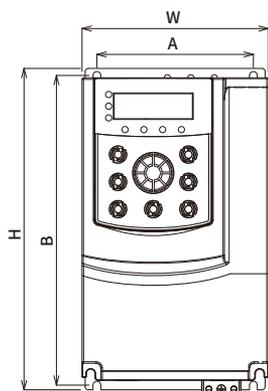


Reduce voltage ripple

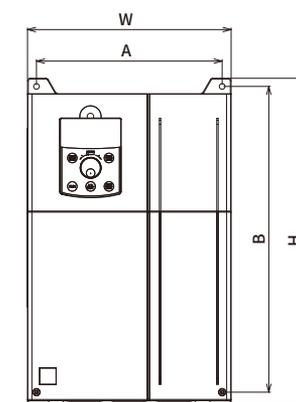
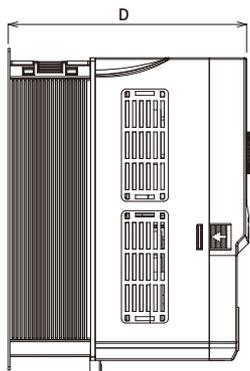
Product Selection

ES100 Series

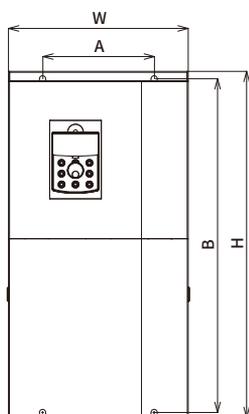
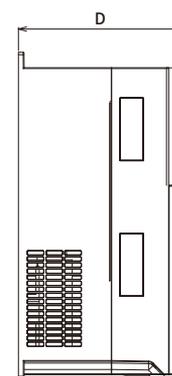
Model	Input Voltage (V)	Input Current (A)	Output Current (A)	Adapt Motor (kW)	Dimension (mm) H*W*D
ES100-4T011B	Three-phase 380V Range:-15%~+20%	26.0	25.0	11.0	324*188*188
ES100-4T015B		35.0	32.0	15.0	
ES100-4T018B		38.5	37.0	18.5	
ES100-4T022B		46.5	45.0	22.0	350*200*180
ES100-4T030B		62.0	60.0	30.0	
ES100-4T037B		76.0	75.0	37.0	402*250*207
ES100-4T045B		92.0	90.0	45.0	500*256*268
ES100-4T055B		113.0	110.0	55.0	
ES100-4T075B		157.0	152.0	75.0	560*290*268
ES100-4T093B		180.0	176.0	93.0	
ES100-4T110B		157.0	152.0	75.0	660*340*290
ES100-4T132		180.0	176.0	93.0	
ES100-4T160		307.0	304.0	160	760*390*320
ES100-4T185		345.0	340.0	185	
ES100-4T200		385.0	380.0	200	850*470*350
ES100-4T220		430.0	426.0	220	
ES100-4T250		468.0	465.0	250	850*470*350
ES100-4T280		525.0	520.0	280	
ES100-4T315		590.0	585.0	315	980*530*360
ES100-4T355		665.0	650.0	355	
ES100-4T400	785.0	725.0	400		
ES100-4T450	883.0	820.0	450	1160*640*400	



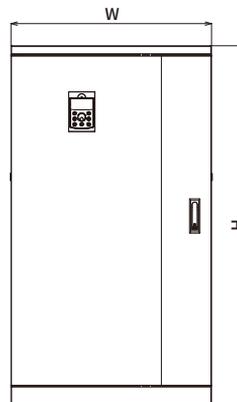
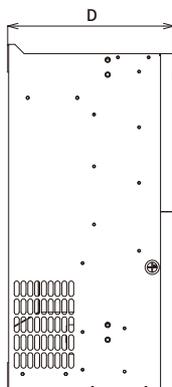
11~18kW plastic chassis schematic diagram of overall dimensions and installation dimensions



22~37kW sheet metal chassis schematic diagram of overall dimensions and installation dimensions



45~132kW VFD schematic diagram of overall dimensions and installation dimensions



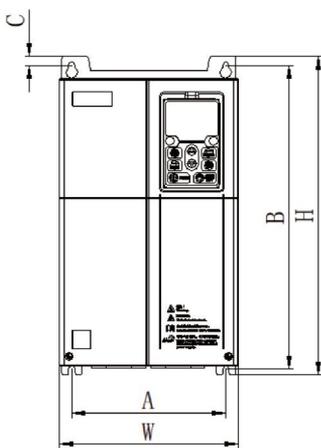
160~450kW VFD schematic diagram of overall dimensions and installation dimensions



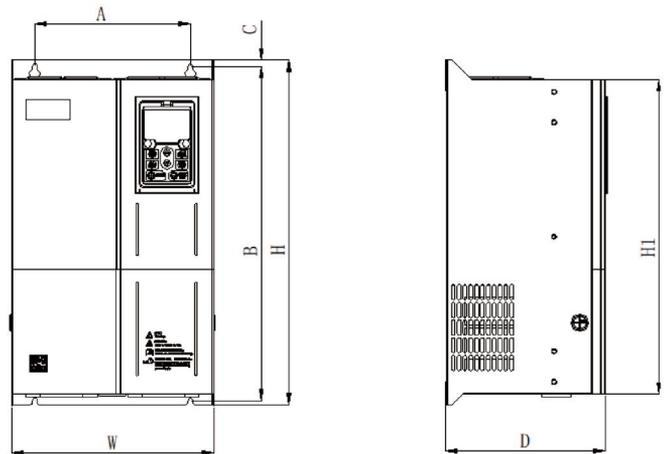
ES300 Series

Model	Input Voltage (V)	Input Current (A)	Output Current (A)	Adapt Motor (kW)	Dimension (mm) H*W*D
ES300-4T011B	Three-phase 380V Range:-15%~+20%	26.0	25.0	11.0	170*345*175
ES300-4T015B		35.0	32.0	15.0	
ES300-4T018B		38.5	37.0	18.5	200*360*180
ES300-4T022B		46.5	45.0	22.0	
ES300-4T030B(-T)		62.0	60.0	30.0	260*410*205
ES300-4T037B(-T)		76.0	75.0	37.0	
ES300-4T045B-T		92.0	90.0	45.0	310*550*265
ES300-4T055B-T		113.0	110.0	55.0	
ES300-4T075B-T		157.0	152.0	75.0	350*660*285
ES300-4T093B-T		180.0	176.0	93.0	
ES300-4T110B-T		214.0	210.0	110.0	430*715*298
ES300-4T0132-T		256.0	253.0	132.0	

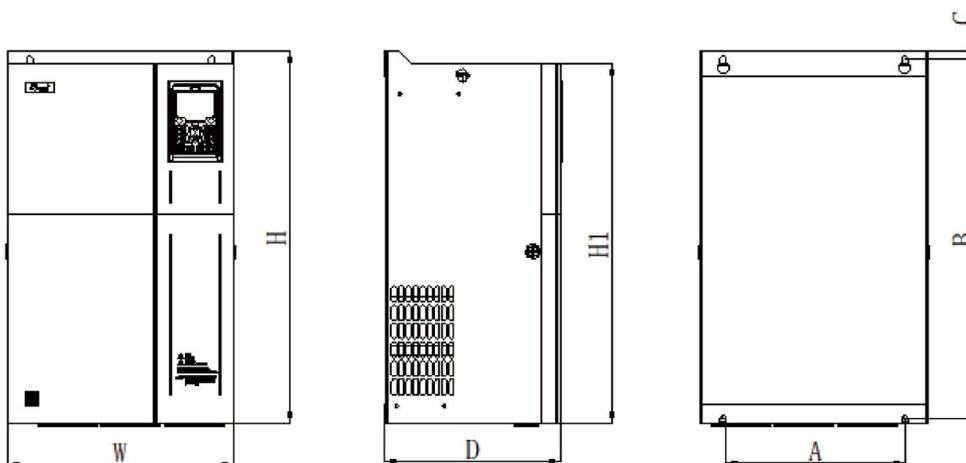
*160kW and above are accept customize.



11~22kW plastic chassis schematic diagram of overall dimensions and installation dimensions

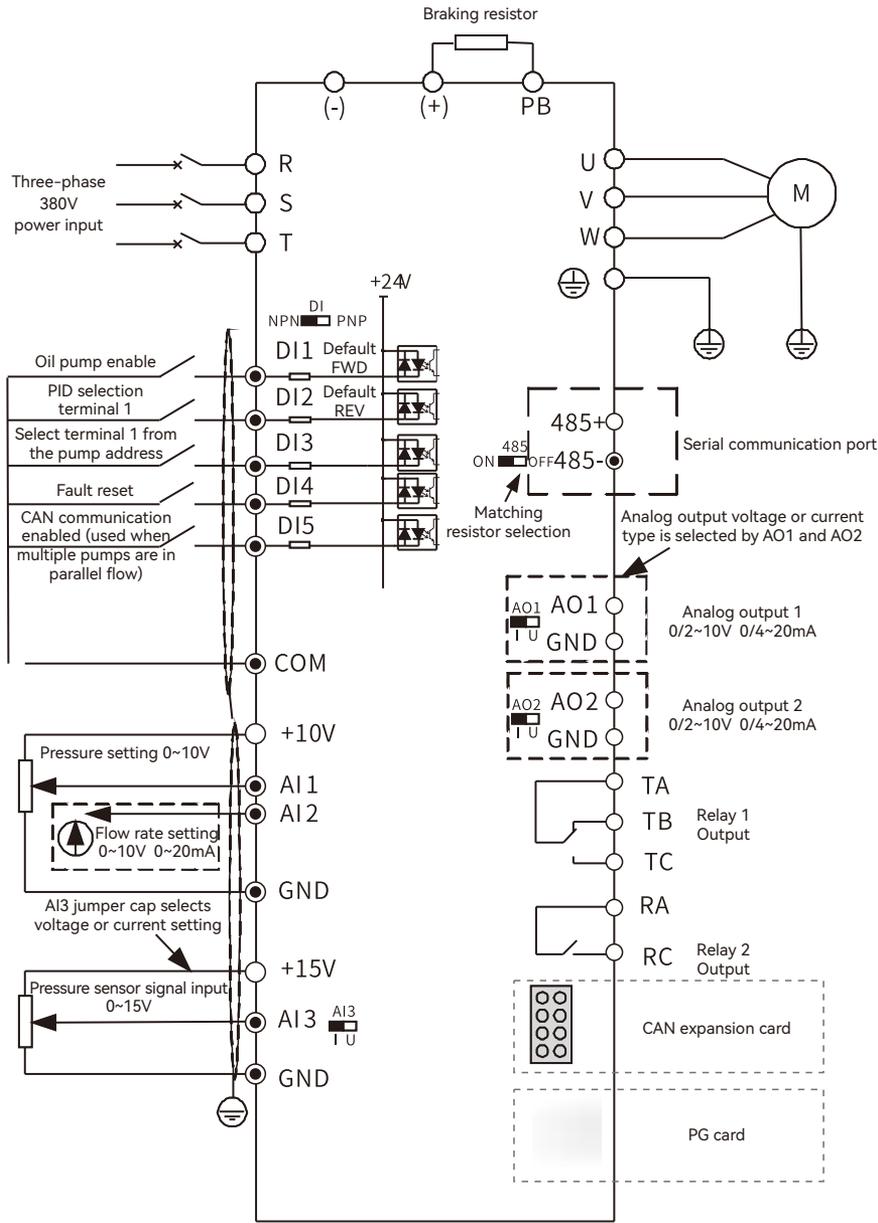


30~37kW sheet metal chassis schematic diagram of overall dimensions and installation dimensions



45~132kW VFD schematic diagram of overall dimensions and installation dimensions

Wiring Diagram



Wiring diagram

J17 Terminal Is Resolver Wiring Port, PG6 Card Control Terminals And Wiring

Pin Number	Pin Definition	Function Explanation	Terminal Layout on DB9
1	EXC+	Resolver transformer excitation +	
2	EXC-	Resolver transformer excitation -	
3	SIN+	Resolver transformer feedback SIN +	
4	SIN-	Resolver transformer feedback SIN -	
5	COS+	Resolver transformer feedback COS +	
6	KTY+	KTY resistor +	
7	PTC+	PTC resistor +	
8	KTY/PTC-	KTY/PTC resistor -	
9	COS-	Resolver transformer feedback COS -	
Metal casing	Ground	Connect to shield layer	



Your expectations Our driving force for evolution

MH600 Series

High Protection VFD

MH600 series VFD is a high protection VFD developed for harsh environment applications, such as steel, petroleum, chemical, fan, water pump, breeding and other special fields. The structure adopts split sealing design, and the circuit board is sprayed with professional-grade three-proof paint to provide multiple protections. The whole machine is resistant to oxidation, salt spray, mildew, heat and moisture, and corrosion, protection level is IP54, adopts all kinds of harsh environment applications. It also has a built-in temperature detection and alarm function, which is safe and effective, and effectively extends the service life of the VFD



Steel



Petroleum



Chemical



Fan



Pump



Breeding

► Technical Feature

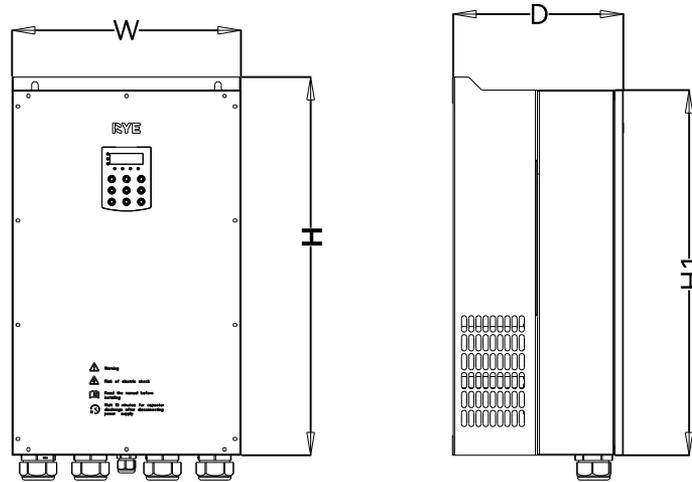
Unique ingenuity, comprehensive protection

- ◆ Strong environmental adaptability, anti-salt spray, oil pollution, strong corrosion resistance, meeting IP54 protection level.
- ◆ The structure adopts split sealing design, and the circuit board is sprayed with professional-grade three-proof paint to provide multiple protections.
- ◆ Built-in temperature detection and alarm function, which is safe and effective, and effectively extends the service life of the inverter.

Stable performance, high efficiency and energy saving

- ◆ It adopts high-performance speed-free vector control algorithm, with stable operation and outstanding performance, achieving high-speed and stable drive.
- ◆ The low carrier ratio algorithm uses a low carrier frequency and low inverter loss, which not only saves power but also extends the service life of the equipment.
- ◆ It adopts high-performance MTPA algorithm to provide current utilization ratio, when the input power is unstable, the motor can be guaranteed to output the highest speed to improve efficiency.
- ◆ Built-in settable current limiting function to ensure normal operation of the equipment.

► Product Selection



Model	Input Current (A)	Output Current (A)	Structure Dimensions(mm)				Installation Dimension (mm)
			W	H	H1	D	
MH600-C4T1R5GB/2R2PB	5.0/5.8	3.8/5.1	128	210	210	168	Ø 6.5
MH600-C4T2R2GB/4R0PB	5.8/10.5	5.1/9.0					
MH600-C4T4R0GB/5R5PB	10.5/14.6	9.0/13.0					
MH600-C4T5R5GB/7R5PB	14.6/20.5	13.0/17.0	149	270	270	169	Ø 6.5
MH600-C4T7R5GB/9R0PB	20.5/22.0	17.0/20.0					
MH600-4T9R0GB/011PB	22.0/26.0	20.0/25.0	190	317	304	182	Ø 6.5
MH600-4T011GB/015PB	26.0/35.0	25.0/32.0					
MH600-4T015GB/018PB	35.0/38.5	32.0/37.0					
MH600-4T018GB/022PB	38.5/46.5	37.0/45.0	215	383	355	192	Ø 6.5
MH600-4T022GB/030PB	46.5/62.0	45.0/60.0					
MH600-4T030G(B)	62.0	60.0	260	448	410	210	Ø 7
MH600-4T037G(B)	76.0	75.0					
MH600-4T045G(B)	92.0	90.0	310	550	535	260	Ø 10
MH600-4T055G(B)	113.0	110.0					
MH600-4T075G(B)	157.0	152.0	350	580	560	260	Ø 10
MH600-4T093G(B)	180.0	176.0					
MH600-4T110G(B)	214.0	210.0					
MH600-4T132G	256.0	253.0	430	715	695	295	Ø 10
MH600-4T160G	307.0	304.0					



More than once stunning but always leading

BR Series

Energy Consumption Braking Unit

When the VFD controls the motor to decelerate quickly or the motor overspeeds due to mechanical inertia, the feedback energy generated by the motor may cause an overvoltage fault. The brake unit can prevent such faults from occurring and ensure the stable operation of the VFD. Its working mode is intermittent and it cannot work under high current for a long time. The resistance value and power of the brake resistor and the specifications and models of the brake unit must be reasonably selected.



Steel



Petroleum



Chemical



Fan



Pump

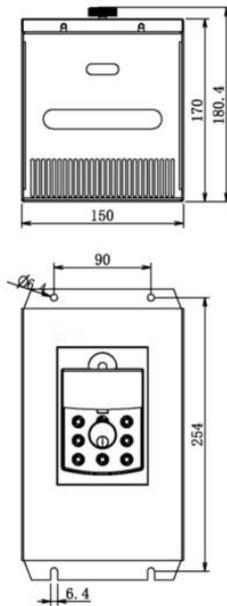


Breeding

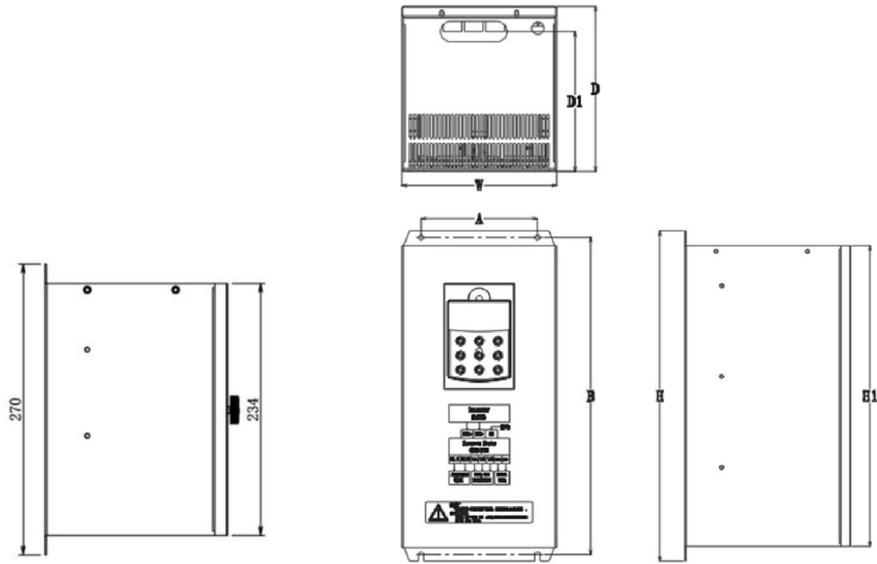
PRODUCT SELECTION

◆ Universal dynamic braking unit, used in conjunction with the VFD in situations where dynamic braking is required

Brake Unit Model	Minimum Allowable Resistance(Ω)	Peak Current (A)	Maximum Adaptable Inverter Power(kW)	Structure Dimensions(mm)					Installation Dimension(mm)
				A	B	H	W	D	
BR530E-4T075	10	110	75	90	270	270	150	180.4	$\varnothing 6.4$
BR530E-4T132	6.8	110	132	90	270	270	150	180.4	$\varnothing 6.4$
BR530E-4T200	3.4	310	200	140	400	400	186	200	$\varnothing 6.4$
BR530E-4T315	2.3	310	315	140	400	400	186	200	$\varnothing 6.4$
BR530E-4T450	1.5	470	450	140	400	400	186	200	$\varnothing 6.4$
BR530E-4T630	1.0	700	630	140	400	400	186	200	$\varnothing 6.4$

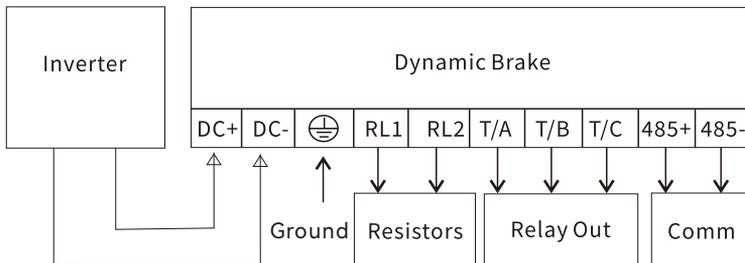


75~132kW brake unit

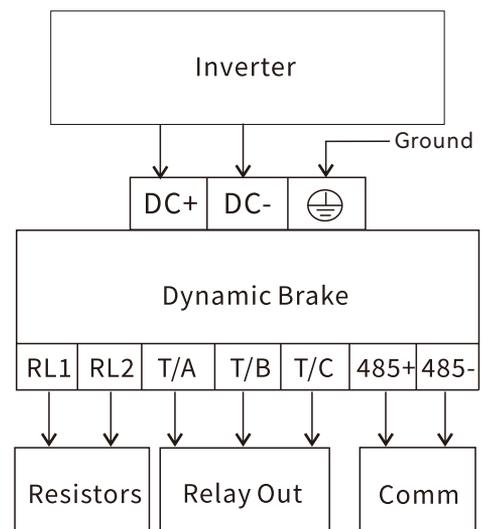


200kW and above brake unit

▶ Braking Unit Wiring Diagram



BR530E-4T132 and below braking unit wiring diagram



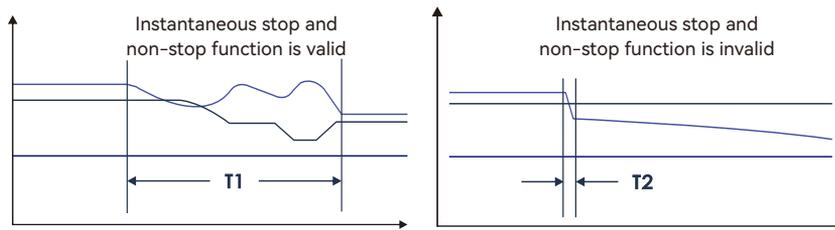
CUSTOMIZATION / CAPABILITIES

Precisely Matching Your Industrial Needs

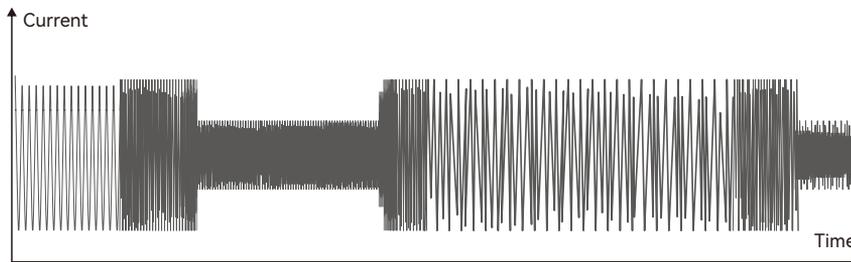
Our dedicated inverter R&D team masters core technologies such as vector control, intelligent algorithms, and modular design. Our products support multiple voltage levels, wide-band speed regulation, and various communication protocols. Through simulation testing, environmental validation, and continuous optimization, we ensure stable operation under extreme operating conditions. We are committed to providing customers with energy-efficient, precise control inverter.

▶ Professional Vector Control Algorithm

(sensorless vector control algorithm, V/F control, synchronous motor control algorithm)



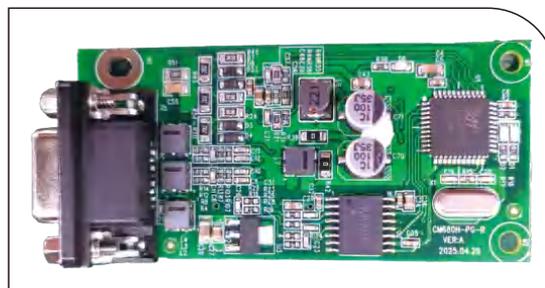
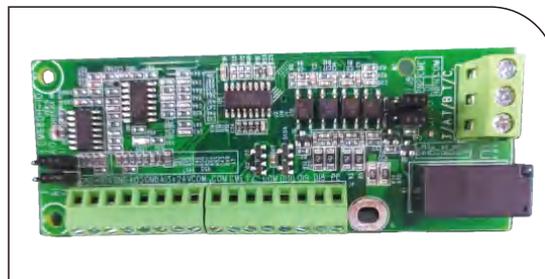
Note: Comparison chart of instant stop and non-stop functions



Sudden loading and unloading measured current waveform

▶ Rich Engineering Communication Protocols

(Modbus, CANopen, PROFIBUS, PROFINET, EtherCAT, Ethernet/IP, etc)



▶ Comprehensive Testing And Verification Capabilities

(test specifications, simulation, high-power test platform, motor-to-motor platform, environmental test chamber, EMC laboratory, etc.)



▶ Deep Collaborative Development (timely response, rapid delivery)



▶ Non-Standard Product Examples

Leveraging advanced technology, we can precisely adapt to special voltages, complex control logic, and stable operation in harsh environments, improving energy efficiency and reliability. Let the inverter no longer be a limitation, but the efficient engine of your production line!



Customized electromagnetic mixer development and application solutions



Customized turbine blower development and application solutions



Customized tempered glass development and application solutions

COMPANY / PROFILE

Standing at the forefront of the industry
Leading the rapid development of China's inverter technology

48000² Total area	10800² Production lines & workshops	500 million yuan Annual output value
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Founded in 2002, Changsha Sunye Electric Co., Ltd. is a national high-tech enterprise integrating the R&D, production, and sales of inverters, industrial all-in-one machines, servo drives, and new energy products. The company purchased 30 acres of land in the Changsha National High-Tech Development Zone to build its own industrial park, with a total construction area of approximately 48,000 square meters and an average annual output value of 500 million yuan. The company uses the Changsha Sunye Industrial Park as its R&D and production base, and utilizes its various offices as a hub to provide high-quality, integrated services to customers worldwide.

Honors

Sunye Electric products have passed the testing and certification of global authoritative organizations and obtained multiple software copyright and intellectual property certificates such as IOS9001, CE, and RoHS.



First recognized as a high-tech enterprise in 2015



Provincial-level enterprise technology center in 2022



National-level "Little Giant" Enterprise



ISO9001 quality system certification



CE certification



Over 100 patents

Development History



Journey Beyond

In 2025, A Universe of Renewal, Unveiling a New Chapter.

2025

Partner

In 2020, Midea Industrial Technology Group invested in Sunye, providing comprehensive empowerment for brand upgrading.



2020



Integration

In 2016 Merged with Hiconics(300048) Integrated in Technology, Capital, Supply Chain, and Standardization.

2016

Pioneer

In 2014 Changsha Sunye Electric Relocates to High-Tech Zone Xincheng Road No.669.



2014



Honor

In 2010, Awarded the Title of "Top Ten Domestic Brands in Low-Voltage Inverters". In the same year Changsha Sunye Electric Co., Ltd. Established.

2010

Setting Sail

In 2002 Shenzhen Sunye Electric Co., Ltd. Established



2002

QUALITY / SERVICE



THE FIRST CHOICE

Quality

10,800 square meters of fully automated production line, first-class domestic and foreign production and testing equipment, adopting a lean production system, to create excellent quality and provide customers with a more excellent user experience.

Automated production line



Automated testing platform



Service

Before Sale

Technology promotion
On-site production
Solution development
Energy-saving assessment

On Sale

Customized design
Design liaison
Installation and commissioning
On-site training

After Sale

Regular maintenance
follow-up visits
Timely repairs
a full range of accessories



3-level

Response Mechanism

After-sales and R&D expert teams work together to ensure timely troubleshooting
Full-time follow-up on any issues
Resolve issues promptly



13

Nationwide Service Network

Covering most customer areas
24/7 dedicated hotline service
Remote + On-site after-sales service



30

Regional Managers

Dedicated personnel for specific areas
Troubleshooting + technical troubleshooting
Efficient and precise service

Your Trusted Partner In Intelligent Automation Solutions



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