STOCK CODE: 871415

Nanjing Oulu Electric

OULU VFD CATALOG

www.china-oulu.com

ABOUT US

Nanjing Oulu Electric Co., Ltd. was established in September 2007 with a registered capital of 7112 million yuan. It is a national high-tech enterprise focusing on the research and development, production, sales and service of industrial automation and new energy power. The company established a wholly-owned subsidiary "Chnchi Electric" in Liuhe Development Zone in 2014. Oulu Electric landed on the New OTC Market on May 19, 2017. The stock code is 871415.

Oulu Electric has an experienced and innovative technology R&D team, based on industrial automation control technology that has owned intellectual property rights for many years. We provide customers with high-quality products and solutions, and form a series of supporting services such as installation, commissioning, operation and maintenance, technology upgrades, and remote data mining analysis.

We are not only based on the marketing of mid-to-high-end brands in the domestic market, but will also gradually form product sales in foreign markets. " Saving Energy Diligently & Acting Efficiently", we will focus on electric transmission energy saving and new energy business, create value for customers and employees Create opportunities, take responsibility for society, develop together with society, customers and employees, and create a better life together.

Product Contents

Oulu Electric

About us

Our Production Line

We have strict control over production management, process technology, equipment maintenance and quality control. We also have advanced manufacturing equipment, testing instruments, professional technical talents, integrated production and processing processes. We strictly follow standard operating standards to ensure the stability and accuracy of product quality.





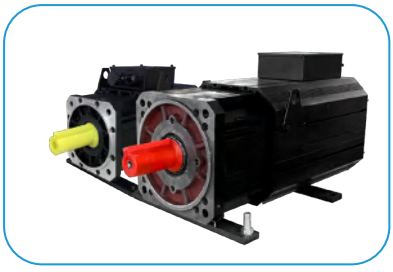

Our Products

Industrial automation products: Based on independently developed VFD, servo motor and drive system, permanent magnet synchronous motor and drive system and other products, to provide customers with complete automation drive control, electrical transmission control solutions.

New energy Business products: Based on small and medium-sized wind turbine, off-grid energy storage inverter, energy storage reverse control integrated machine, energy storage lithium battery, photovoltaic controller, wind and solar complementary control inverter integrated control system, base station integrated control system, to provide grid-connected power generation and off-grid power generation two modes of operation of small power generation system .








Our Certificate

90+ patent

High-tech enterprise ISO9001, 45001, and 14001 triple-system certification

Multiple Product certification and test report

Oulu Electric

EV510A series high performance VFD

About the product

The EV510A series high performance VFD is the upgraded version of the EV510 series. It is smaller in size, more compact in structure,better in carrying capacity, and more stable in performance than the EV510 series. At the same time, it supports the display of the external panel of the network cable.

Naming rules

EV510A - 0150G /0185P - T4

- EV510A: Product series
- 0150G /0185P: Power code
  0150/018515kW/18.5kW
  G:General type
  P:Pump or fans type
- T4: Voltage level
  S2:Single phase 220V
  T2:Three phase 220V
  T4:Three phase 380V
  T5:Three phase 480V
  T6:Three phase 690V

Rated specification

Model	Power capacity(kVA)	Input current(A)	Output current(A)	Match motor(kW)
Single phase:220V,50/60Hz				
EV510A-0004G-S2	1.0	5.4	2.3	0.4
EV510A-0007G-S2	1.5	8.2	4.0	0.75
EV510A-0015G-S2	3.0	14.0	7.0	1.5
EV510A-0022G-S2	4.0	23.0	9.6	2.2
S2/T4:Convert single phase 220V to three phase 380V,50/60Hz				
EV510A-0007G-S2/T4	1.5	8.2	2.1	0.75
EV510A-0015G-S2/T4	3.0	14.0	3.8	1.5
EV510A-0022G-S2/T4	4.0	23.0	5.1	2.2
EV510A-0037G-S2/T4	5.9	32.0	9.0	3.7
EV510A-0055G-S2/T4	8.9	45.0	13.0	5.5
EV510A-0075G-S2/T4	11.0	62.0	17.0	7.5
EV510A-0110G-S2/T4	17.0	90.0	25.0	11
EV510A-0150G-S2/T4	21.0	115.0	32.0	15
Three phase:220V,50/60Hz				
EV510A-0037G-T2	8.9	14.6	17.0	3.7
EV510A-0055G-T2	17.0	26.0	25.0	5.5
EV510A-0075G-T2	21.0	35.0	32.0	7.5
Three phase:380V,50/60Hz				
EV510A-0007G-T4	1.5	3.4	2.1	0.75
EV510A-0015G-T4	3.0	5.0	3.8	1.5
EV510A-0022G-T4	4.0	5.8	5.1	2.2
EV510A-0037G/0055P-T4	5.9	10.5	9.0	3.7
EV510A-0055G/0075P-T4	8.9	14.6	13.0	5.5
EV510A-0075G/0110P-T4	11.0	20.5	17.0	7.5
EV510A-0110G/0150P-T4	17.0	26.0	25.0	11
EV510A-0150G/0185P-T4	21.0	35.0	32.0	15
EV510A-0185G/0220P-T4	24.0	38.5	37.0	18.5
EV510A-0220G/0300P-T4	30.0	46.5	45.0	22
EV510A-0300G/0370P-T4	40.0	62.0	60.0	30
EV510A-0370G/0450P-T4	57.0	76.0	75.0	37
EV510A-0450G/0550P-T4	69.0	92.0	91.0	45
EV510A-0550G/0750P-T4	85.0	113.0	112.0	55
EV510A-0750G/0900P-T4	114.0	157.0	150.0	75
EV510A-0900G/1100P-T4	134.0	180.0	176.0	90
EV510A-1100G/1320P-T4	160.0	214.0	210.0	110
EV510A-1320G/1600P-T4	192.0	256.0	253.0	132
EV510A-1600G/1850P-T4	231.0	307.0	304.0	160
EV510A-1850G/2000P-T4	240.0	330.0	340.0	185
EV510A-2000G/2200P-T4	250.0	385.0	377.0	200
EV510A-2200G/2500P-T4	280.0	430.0	426.0	220
EV510A-2500G/2800P-T4	355.0	468.0	465.0	250
EV510A-2800G/3150P-T4	396.0	525.0	520.0	280
EV510A-3150G/3500P-T4	445.0	590.0	585.0	315
EV510A-3500G-T4	500.0	665.0	650.0	350
EV510A-4000G-T4	565.0	785.0	725.0	400
EV510A-4500G-T4	630.0	800.0	820.0	450
EV510A-5000G-T4	700.0	890.0	870.0	500
EV510A-5600G-T4	783.0	980.0	950.0	560
EV510A-6300G-T4	882.0	1180.0	1100.0	630
EV510A-7100G-T4	—	—	1250.0	—
EV510A-8000G-T4	—	—	1400.0	—
EV510A-9000G-T4	—	—	1580.0	—
EV510A-10000G-T4	—	—	1750.0	—
EV510A-12000G-T4	—	—	2100.0	—
EV 510A-14000G-T4	—	—	2320.0	—

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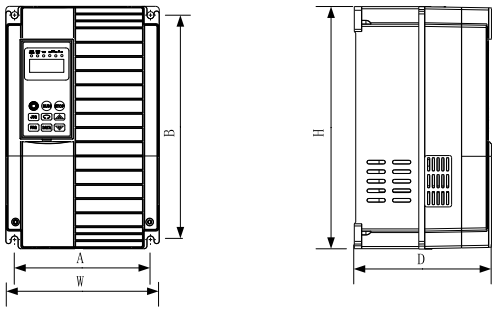
Technique Feature

Item		Specificationtem
Basic function	Highest frequency	Vector control: 0~ 500Hz; V/F control: 0~ 500Hz
	Carrier frequency	0.8kHz ~ 12kHz The carrier frequency can be automatically adjusted according to the temperature characteristics.
	Input frequency resolution	Digital setting:0.01Hz Analog setting: maximum frequency×0.025%
	Control mode	Open-loop vector(SVC) Closed-loop vector(FVC) V/F control
	Start torque	G Type:0.5Hz/150%(SVC);0Hz/180%(FVC) P Type:0.5Hz/100%
	Speed range	1：100(SVC) 1：1000(FVC)
	Speed control accuracy	±0.5%(SVC) ±0.02%(FVC)
	Torque control accuracy	±5%(FVC)
	Overload capacity	G Type:150% Rated current 60sec;180% Rated current 3sec P Type:120% Rated current 60sec;150% Rated current 3sec
	Torque boost	Automatic torque increase;Manual torque increase0.1%~30.0%
	V/F curve	Three types: linear type; multi-point type; the nth power of V/F curve (1.2 power, 1.4 power, 1.6 power, 1.8 power, 2 power)
	V/F Separation	Two types: full separation, half of separation
	ACC/DEC curve	Linear or S curve ofACC/DEC ways. Four types ofACC/DEC Time,ACC/DEC time range is 0.0~6500.0s
	DC brake	DC brake frequeney:0.00Hz~max frequency Brake time: 0.0s~36.0s, Brake action current: 0.0%~ 100.0%
	JOG control	JOG frequency range: 0,00Hz~50.00Hz. JOG speed-up/down time: 0.0s~6500.0s
	Simple PLC multi-stage speed running	Via bul-in PLC or control terminal can realze max 16 stage speed running
	Built-in PID	Can realize process control close-oop system conveniently
	Auto adjust voltage(AVR)	When grid voltage changes, can keep output voltage steadily automatically
	Overcurrent and overvoltage speed control	During running,limit current and voltage automatically,protect from tripping off frequently for overvoltage and overcurrent
	Quick current-limit function	Reduce overcurrent error on max extent, protect inverter normal running
	Torque limitation and control	"Digger" feature, inverter could limit torque automatically, prevent overcurrent tripping off;close-oop vector can realize torque control
Personalization function	Outstanding perform	Using high-perform current vector control
	Instantaneous stop notstop	During instant power-off, by motor feedbacking energy, inverter compensates voltage-drop to keep running for short time
	Timing control	Timing control function: setting time range: 0.0min-6500.0min
	Multi-motor switch	2 sets of motor parameter, can realize 2 motors switching control
	Multi-threading bus support	Support 2 fieldbus: RS485, CANIink
	Multi-encoder support	Support differential, open collector, rotary transformer
	Command source	Control panel, control terminal, communication; can be switched by several modes
	Frequency source	10 types of frequency sources: digital setting, analog voltage setting, analog current setting,pulse setting, communication setting, can be switched by several methods
	Auxiliary frequency sources	10 types of auxiliary frequency source, can realize auxiliary frequency trimming, frequency combining flexibly
Running	Input terminal	Standard: 7 digital input terminals, one of them support max 100KHz HS pulse input(apolegamy) 2 analog input terminals 2 supports 0~10V voltage input or 0~20mAcurrent input
	Outputterminal	Standard: 1 high-speed pulse output terminal (optional open collector), support 0-100kHz pulse(apolegamy) 1 digit output terminal 2 relay output terminals 2 analog output terminals,both support 0~20mAcurrent output or voltage output
Display and keypad	LEDdisplay	Can display parameter
	Press-key locking andfunction selection	Realize press-key partial or full lacking, define part press-key function range, to avoid wrong operation
	Protection function	Power-on motor short circuit test, output phase-loss protection, over-current protection, over-voltage protection,under-voltage protection, overheat protection, overload protection etc
	Optional parts	Differential PG card, open collector PG card, rotary transformer PG card
Environment	Aplication site	Indoor, without direct sunlight, no powder, corrosive gas, combustion air, oil dust, water steam, water drop or salt etc
	Altiude level	Less than 1000m
	Environment temperature	-10° C~+40° C (During 40° C-50° C, please reduce capacity to use)
	Humidity	<95%RH, no water drop condensed
Optional	Two Panel LED display	LED display; using RJ45 port to connect

Outline Size

◆ Wall-mounted installation size



Model	Installation Size(mm)		Outline Size(mm)			Installation hole	Weight (kg) ≈
	A	B	W	H	D		
EV510A-0004G-S2	101	171	112	180	118	Φ4.6	1.3
EV510A-0007G-S2							
EV510A-0015G-S2							
EV510A-0022G-S2							
EV510A-0007G-S2/T4	101	171	112	180	138	Φ4.6	2.1
EV510A-0015G-S2/T4							
EV510A-0022G-S2/T4							
EV510A-0037G-S2/T4	135	245	150	260	153	Φ6	3.9
EV510A-0055G-S2/T4							
EV510A-0075G-S2/T4							
EV510A-0110G-S2/T4	186	306	210	330.5	188	Φ9.5	7.5
EV510A-0150G-S2/T4							
EV510A-0037G-T2	135	245	150	260	153	Φ6	3.9
EV510A-0055G-T2							
EV510A-0075G-T2	186	306	210	330.5	188	Φ9.5	7.5
EV510A-0110G-T2							
EV510A-0150G-T2	238	396	260	420	196	Φ8.5	12.5
EV510A-0007G-T4	101	171	112	180	118	Φ4.6	1.3
EV510A-0015G-T4							
EV510A-0022G-T4							
EV510A-0037G/0055P-T4	101	171	112	180	138	Φ4.6	2.1
EV510A-0055G/0075P-T4							
EV510A-0075G/0110P-T4	135	245	150	260	153	Φ6	3.9
EV510A-0110G/0150P-T4							
EV510A-0150G/0185P-T4							
EV510A-0185G/0220P-T4	186	306	210	330.5	188	Φ9.5	7.5
EV510A-0220G/0300P-T4							
EV510A-0300G/0370P-T4							
EV510A-0370G/0450P-T4	238	396	260	420	196	Φ8.5	12.5
EV510A-0450G/0550P-T4							
EV510A-0550G/0750P-T4	272	455	304	470	240	Φ9	22.9
EV510A-0750G/0900P-T4	200	614	278	630	310	Φ9	39
EV510A-0900G/1100P-T4							
EV510A-1100G/1320P-T4							
EV510A-1320G/1600P-T4	300	650	454	670	310	Φ9	67
EV510A-1600G/1850P-T4							
EV510A-1850G/2000P-T4	400	810	520	835	382	Φ13	107
EV510A-2000G/2200P-T4							
EV510A-2200G/2500P-T4							
EV510A-2500G/2800P-T4							
EV510A-2800G/3150P-T4	460 (230+230 in total)	895	720	920	382	Φ13	155
EV510A-3150G/3500P-T4							
EV510A-3500G-T4							
EV510A-4000G-T4							
EV510A-4500G-T4							

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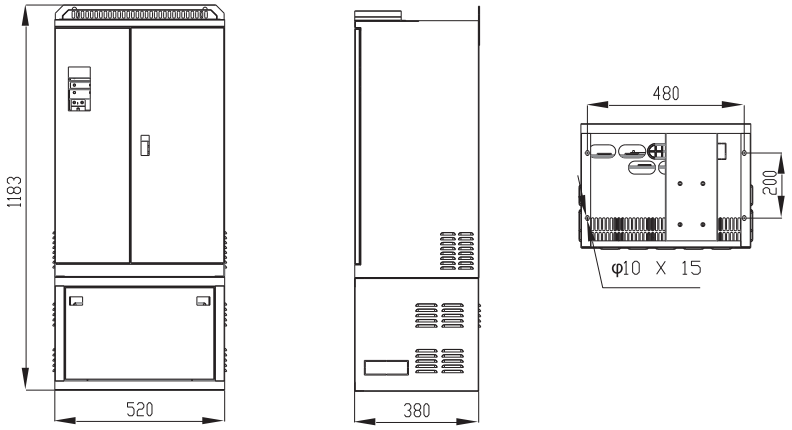
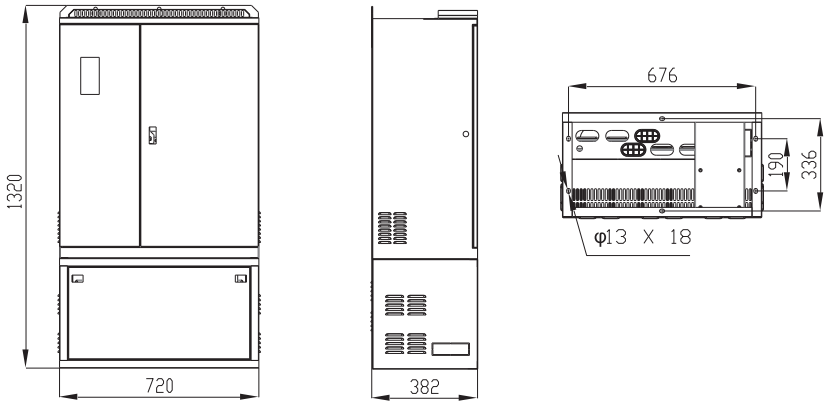
Outline Size

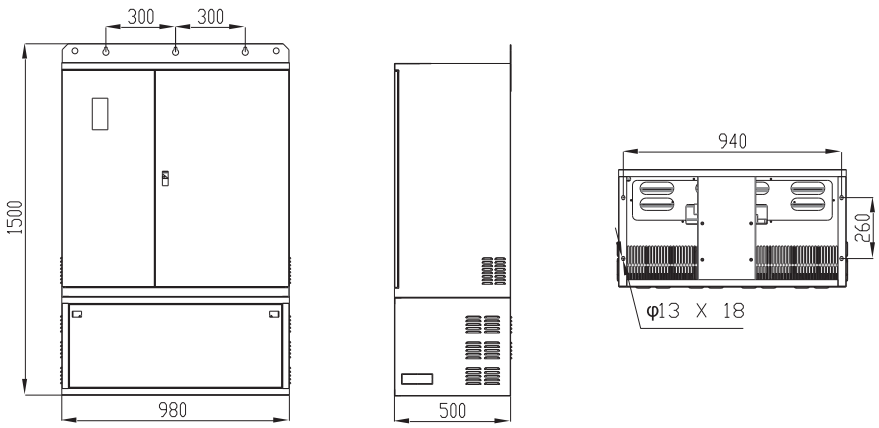
◆ Floor-mounted installation size



1850G/2000P ～ 2500G/2800P Floor-mounted installation diagram



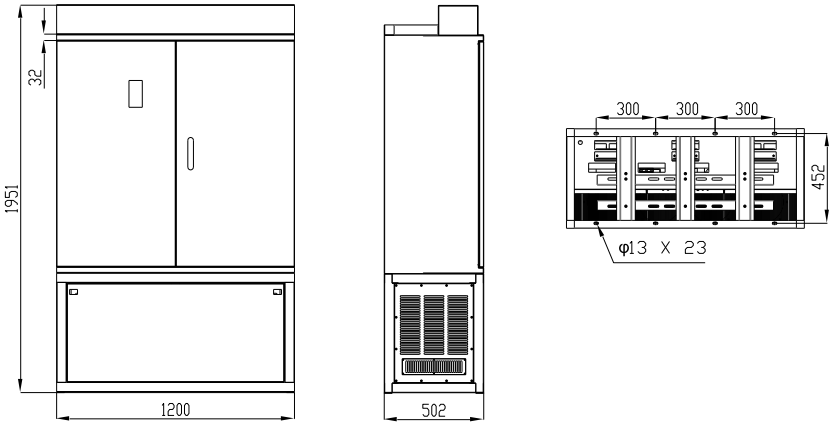
2800G/3150P ～ 4500G Floor-mounted installation diagram



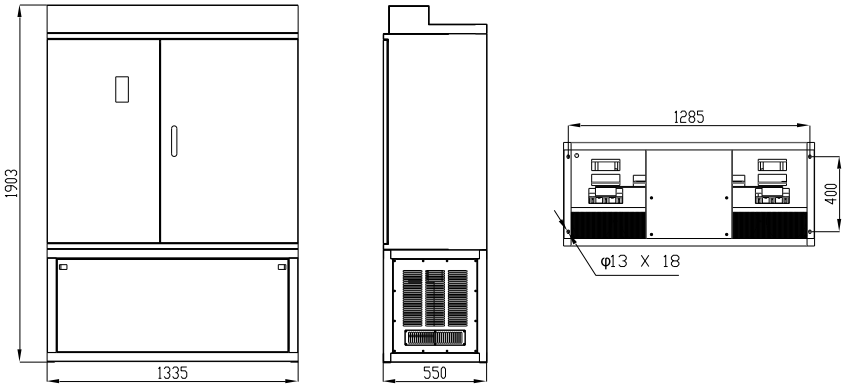
5000G ～ 6300G Floor-mounted installation diagram

Outline Size

◆ Floor-mounted installation size

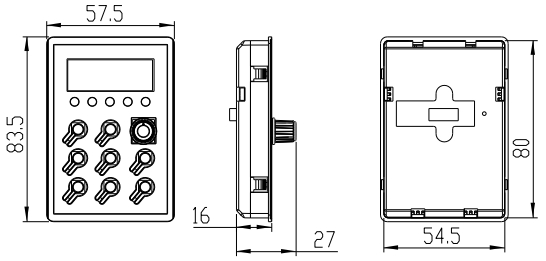


7100G ～ 8000G Floor-mounted installation diagram

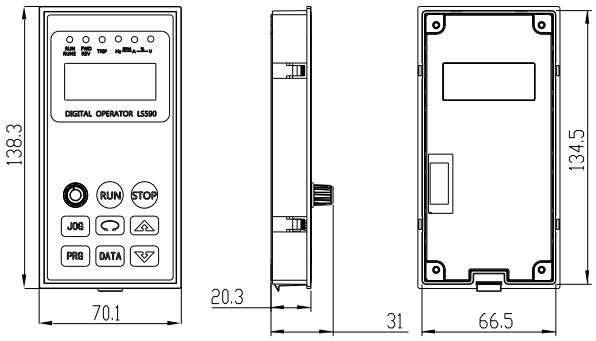


9000G ～ 14000G Floor-mounted installation diagram

Keypad Outline



Small operation panel



Large operation panel

Oulu Electric

EV210B series high performance miniature inverter (General asynchronous)

About the product

EV210B series high-performance current vector inverter is mainly used to control and adjust the speed and torque of three-phase AC asynchronous motors. It is compatible with a brand-new upper-computer debugging software and supports one-key debugging. It also supports program updating via the upper computer and software oscilloscope functions. An LCD keyboard can be optionally equipped for richer display, supporting parameter copy and restore as well as online program updating, making debugging easier and maintenance more convenient.It is applicable to textiles, papermaking, wire drawing, machine tools, packaging, food processing, fans, water pumps, and various automated production equipment.

Naming rules

EV210B - 0007G - T4

EV210B	0007G	T4
Product series	Power code 0007:0.75kW G:General type	Voltage level S2:Single phase 2220V T4:Three phase380V

Rated specification

Model	Power capacity(kVA)	Input current(A)	Output current(A)	Match motor(kW)
EV210B-0004G-S2	1.0	5.4	2.3	0.4
EV210B-0007G-S2	1.5	8.2	4.0	0.75
EV210B-0015G-S2	3.0	14.0	7.0	1.5
EV210B-0022G-S2	4.0	23.0	9.6	2.2
EV210B-0007G-T4	1.5	3.4	2.1	0.75
EV210B-0015G-T4	3.0	5.0	3.8	1.5
EV210B-0022G-T4	4.0	5.8	5.1	2.2
EV210B-0040G-T4	5.9	10.5	9.0	4.0
EV210B-0055G-T4	8.9	14.6	13.0	5.5
EV210B-0075G-T4	11.0	20.5	16.0	7.5
EV210B-0110G-T4	17.0	26.0	24.0	11
EV210B-0150G-T4	21.0	35.0	32.0	15

Technique Feature

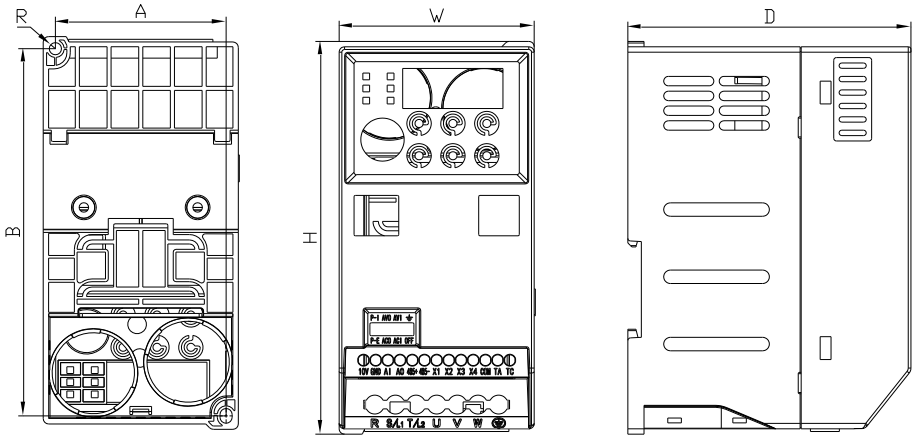
Item		Specificationtem	
Input voltage		Three-phase AC380V ±10%; Single-phase AC220V ±10%	
Input frequency		50/60Hz	
Output voltage		0 ~ Input voltage	
Output frequency		Vector control: 0 ~ 500Hz V/F control: 0 ~ 500Hz	
Overload capability		150% rated current 60s; 180% rated current 3s	
Control mode		V/F control, speed sensorless vector control (SVC)	
Control characteristics	Frequency setting resolution	Analogend input	Maximum frequency x 0.025%
		Digital setting	0.01Hz
	V/F contro	V/F curve	Three Methods: Straight Line; Multipoint type; N power type V/F curve (1.2 power, 1.4 power, 1.6 power, 1.8 power, 2 power)
		V/F separation	2 Methods: Full SeparationHalf Separation
		Torque Lift	Manual setting: 0.0 to 30.0% of rated output Automatic lifting: According to the output current and combined with the motor parameters automatically determine the lifting torque
		Automatic current limiting and voltage limiting	Whether in the process of acceleration, deceleration or stable operation, can automatically detect the stator current and voltage of the motor, according to the unique algorithm to suppress it within the allowed range, to minimize the possibility of system failure trip
	Noninductive vector control	Voltage-frequency characteristics	Automatically adjust the output voltage-frequency ratio according to the motor parameters and unique algorithm
		Torque characteristics	Starting torque: 150% rated torque at 3.0Hz (V/F control) 150% rated torque at 0.25Hz (vector control without speed sensor) Steady state accuracy of running speed: ⩽ ± 0.2% rated synchronous speed Speed fluctuation: ⩽ ± 0.5% rated synchronous speed Torque response: ⩽ 20ms (vector control without speed sensor)
		Motor parameters self-determination	Without any limitation, the parameters can be automatically detected under the static and dynamic conditions of the motor to obtain the best control effect
		Current and voltage suppression	The whole current closed-loop control, completely avoid current shock, with perfect overcurrent and overcurrent suppression function
	Undervoltage suppression in operation	Especially for users with low grid voltage and frequent fluctuations of grid voltage, the system can maintain the longest possible operating time according to the unique algorithm and residual energy distribution strategy, even in the voltage range below the allowable voltage	

Technique Feature

Item			Specificationtem	
Typical function	Multi-stage speed with swing frequency operation		16 sections programmable multi-speed control, a variety of operating modes optional. Swing frequency operation: preset frequency, adjustable center frequency, state memory and recovery after power failure	
	PID control RS485 communication		Built-in PID controller (preset frequency), standard configuration RS485 communication function	
	Frequency setting		Analog input	Dc voltage 0 ~ 10V, DC current 0 ~ 20mA (upper and lower limit optional)
			Digital input	Operation panel setting, RS485 interface setting, UP/DOWN terminal control, can also be set with analog input in a variety of combinations
	Output signal		Digital output	1 way programmable relay output (TA, TC) with up to 58 meaning choices
			Analog output	1 analog signal output, the output range is between 0 ~ 20mA or 0 ~ 10V flexible setting, can achieve the set frequency, output frequency and other physical quantity output
	Automatic voltage control operation		According to the need can choose dynamic voltage, static voltage, unstable voltage three ways to obtain the most stable operation effect	
	Add, decelerate time setting		0.0s ~ 6500.0s can be set continuously, S type, linear mode is optional	
	Braking	Energy efficient braking	Energy consumption braking starting voltage, back difference voltage and energy consumption braking rate can be adjusted continuously	
		Dc braking	Stop DC braking starting frequency: 0.00 ~ 【P0-10】 Maximum frequency Braking time: 0.0 ~ 100.0s; Braking current: 0% ~ 100% rated current	
	Low noise operation		Carrier frequency 0.5KHz ~ 16.0KHz continuous adjustable, minimize motor noise	
	Speed tracking speed restart function		It can realize the smooth restart and instantaneous stop restart function of the motor in operation	
	Counter		An internal counter for easy system integration	
	Running function		Upper and lower frequency setting, frequency jump operation, reverse operation limit, slip frequency compensation, RS485 communication, frequency increase and decrease control, fault self-recovery operation, etc	
Operationpanel display	Operating status		Output frequency, output current, output voltage, motor speed, set frequency, module temperature, PID setting, feedback amount, analog input/output, etc	
	Alarm content		There are three times of fault tripping output frequency, set frequency, output current, output voltage, DC voltage, module temperature, power-on time, running time and other 8 operating parameters record	
Environment	Ambient temperature		-10°C ~ +40°C (ambient temperature is 40°C ~ 50°C , please use the reduced rate)	
	Ambient humidity		5% to 95% RH, free of condensation	
	Surroundings		Indoor (no direct sunlight, no corrosion, flammable gas, no oil mist, dust, etc.)	
	Altitude		Derating above 1000 m is used, 10% derating for every 1000 m rise	
Structure	Class of protection		IP20	
	Cooling method		Air cooled with fan control	
Protective features			Over current, over voltage, under voltage, module failure, electronic thermal relay, overheating, short circuit, input and output phase deficiency, motor parameter tuning abnormal, internal memory failure, etc	
Installation method			Wall-mounted, cabinet type	

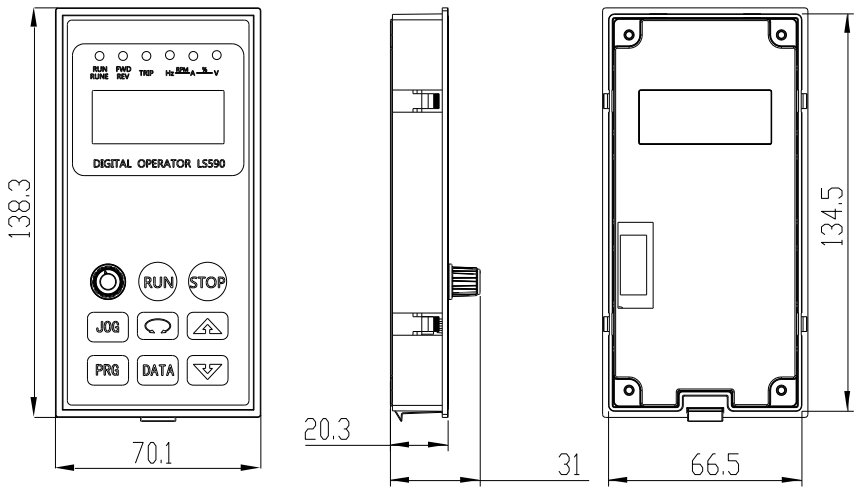
Outline size

◆ Chassis size



Voltage	Model	Power(kW)	Installation Size(mm)		Outline Size(mm)			R（mm）
			A	B	W	H	D	
Single phase 220V	EV210B-0004G-S2	0.4	63.0	136.5	72	146	105	2.3
	EV210B-0007G-S2	0.75						
	EV210B-0015G-S2	1.5						
	EV210B-0022G-S2	2.2						
Three phase 380V	EV210B-0007G-T4	0.75						
	EV210B-0015G-T4	1.5						
	EV210B-0022G-T4	2.2						
	EV210B-0040G-T4	4.0	78.0	172.5	87	183	127	2.3
	EV210B-0055G-T4	5.5						
	EV210B-0075G-T4	7.5	106.0	229.0	118	241	154	2.8
	EV210B-0110G-T4	11						
	EV210B-0150G-T4	15						

◆ External keyboard mounting dimensions



Oulu Electric

EV510E series synchronous motor driver

About the product

EV510E series synchronous motor driver is ageneral-purpose high-performance VFD,which is mainly used to control and adjust the speed and torque of three-phase AC synchronous motor.
It uses high-performance current vector control technology to realize the control of permanent magnet synchronous motor, supports a variety of PG cards, and has powerful functions. It can be used for driving textile, paper, wire drawing, machine tool, packaging,food and various automatic equipment.

Naming rules

EV510E - 0055G - T4

- EV510E: Product series
- 0055G: Power code
  - 0055:5.5kW
  - G::General type
- T4: Voltage level
  - S2:single phase 220V
  - T2:Three phase 220V
  - T4:Three phase 380V
  - T5:Three phase 480V
  - T6:Three phase 690V

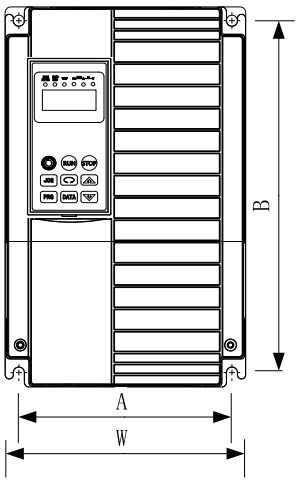
Rated specification

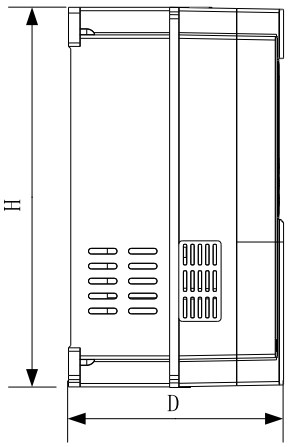
Model	Power capacity(kVA)	Input current(A)	Output current(A)	Match motor(kW)
Single phase:220V,50/60Hz				
EV510E-0004G-S2	1.0	5.4	2.3	0.4
EV510E-0007G-S2	1.5	8.2	4.0	0.75
EV510E-0015G-S2	3.0	14.0	7.0	1.5
EV510E-0022G-S2	4.0	23.0	9.6	2.2
Three phase:220V,50/60Hz				
EV510E-0037G-T2	8.9	14.6	17.0	3.7
EV510E-0055G-T2	17.0	26.0	25.0	5.5
EV510E-0075G-T2	21.0	35.0	32.0	7.5
Three phase:380V,50/60Hz				
EV510E-0007G-T4	1.5	3.4	2.1	0.75
EV510E-0015G-T4	3.0	5.0	3.8	1.5
EV510E-0022G-T4	4.0	5.8	5.1	2.2
EV510E-0037G-T4	5.9	10.5	9.0	3.7
EV510E-0055G-T4	8.9	14.6	13.0	5.5
EV510E-0075G-T4	11.0	20.5	17.0	7.5
EV510E-0110G-T4	17.0	26.0	25.0	11
EV510E-0150G-T4	21.0	35.0	32.0	15
EV510E-0185G-T4	24.0	38.5	37.0	18.5
EV510E-0220G-T4	30.0	46.5	45.0	22
EV510E-0300G-T4	40.0	62.0	60.0	30
EV510E-0370G-T4	57.0	76.0	75.0	37
EV510E-0450G-T4	69.0	92.0	91.0	45
EV510E-0550G-T4	85.0	113.0	112.0	55
EV510E-0750G-T4	114.0	157.0	150.0	75
EV510E-0900G-T4	134.0	180.0	176.0	90
EV510E-1100G-T4	160.0	214.0	210.0	110
EV510E-1320G-T4	192.0	256.0	253.0	132
EV510E-1600G-T4	231.0	307.0	304.0	160
EV510E-1850G-T4	240.0	330.0	340.0	185
EV510E-2000G-T4	250.0	385.0	377.0	200
EV510E-2200G-T4	280.0	430.0	426.0	220
EV510E-2500G-T4	355.0	468.0	465.0	250
EV510E-2800G-T4	396.0	525.0	520.0	280
EV510E-3150G-T4	445.0	590.0	585.0	315
EV510E-3500G-T4	500.0	665.0	650.0	350
EV510E-4000G-T4	565.0	785.0	725.0	400
EV510E-4500G-T4	630.0	800.0	820.0	450

Technique Feature

Item		Specificationtem
Basic function	Highest frequency	Vector control: 0~ 500Hz; V/F control: 0~ 500Hz
	Carrier frequency	0.8kHz ~ 12kHz The carrier frequency can be automatically adjusted according to the load characteristics.
	Input frequency resolution	Digital setting：0.01Hz Analog setting: maximum frequency×0.025%
	Control mode	Open-loop vector(SVC) Closed-loop vector(FVC) V/F control
	Start torque	G Type：0.5Hz/150%（SVC）；0Hz/180%（FVC）
	Speed range	1：100(SVC) 1：1000(FVC)
	Speed control accuracy	±0.5%(SVC) ±0.02%(FVC)
	Torque control accuracy	±5%(FVC)
	Overload capacity	G Type:150% Rated current 60sec;180% Rated current 3sec
	Torque boost	Automatic torque increase;Manual torque increase0.1%~30.0%
	V/F curve	Three types: linear type; multi-point type; the nth power of V/F curve (1.2 power, 1.4 power, 1.6 power, 1.8 power, 2 power)
	V/F Separation	Two types: full separation, half of separation
	ACC/DEC curve	Linear or S curve ofACC/DEC ways. Four types ofACC/DEC Time,ACC/DEC time range is 0.0~6500.0s
	DC brake	DC brake frequeney:0.00Hz~max frequency Brake time: 0.0s~36.0s, Brake action current: 0.0%~ 100.0%
	JOG control	JOG frequency range: 0,00Hz~50.00Hz. JOG speed-up/down time: 0.0s~6500.0s
	Simple PLC multi-stage speed running	Via bul-in PLC or control terminal can realze max 16 stage speed running
	Built-in PID	Can realize process control close-oop system conveniently
	Auto adjust voltage(AVR)	When grid voltage changes, can keep output voltage steadily automatically
	Overcurrent and overvoltage speed control	During running,limit current and voltage automatically,protect from tripping off frequently for overvoltage and overcurrent
	Quick current-limit function	Reduce overcurrent error on max extent, protect inverter normal running
	Torque limitation and control	"Digger" feature, inverter could limit torque automatically, prevent overcurrent tripping off;close-oop vector can realize torque control
Personalization function	Outstanding perform	Using high-perform current vector control
	Instantaneous stop not stop	During instant power-off, by motor feedbacking energy, inverter compensates voltage-drop to keep running for short time
	Timing control	Timing control function: setting time range: 0.0min-6500.0min
	Multi-motor switch	2 sets of motor parameter, can realize 2 motors switching control
	Multi-threading bus support	Support 3 fieldbus: RS485, CAN link,CAN open
	Multi-encoder support	Support differential, open collector, rotary transformer
	Command source	Control panel, control terminal, communication; can be switched by several modes
	Frequency source	10 types of frequency sources: digital setting, analog voltage setting, analog current setting,pulse setting, communication setting, can be switched by several methods
	Auxiliary frequency sources	10 types of auxiliary frequency source, can realize auxiliary frequency trimming, frequency combining flexibly
Running	Inputterminal	Standard: 7 digital input terminal, one of them support max 100KHz HS pulse input 2 analog input terminal 2 supports 0~10V voltage input or 0~20mAcurrent input
	Output terminal	Standard: 1 high-speed pulse output terminal (optional open collector), support 0-100kHz pulse 1 digit output terminals 2 relay output terminal 2 analog output terminals,both support 0~20mAcurrent output or voltage output
Display and keyboard	LED display	Can display parameter
	Press-keylocking and function selection	Realize press-key partial or full lacking, define part press-key function range, to avoid wrong operation
	Protection function	Power-on motor short circuit test, output phase-loss protection, over-current protection, over-voltage protection,under-voltage protection, overheat protection, overload protection etc
	Optional parts	Differential PG card, open collector PG card, rotary transformer PG card
Environment	Aplication site	Indoor, without direct sunlight, no powder, corrosive gas, combustion air, oil dust, water steam, water drop or salt etc
	Altiude level	Less than 1000m
	Environment temperature	-10° C~+40° C (During 40° C-50° C, please reduce capacity to use)
	Humidity	<95%RH, no water drop condensed
Optional	Two Panel LED display	LED display; using RJ45 port to connect

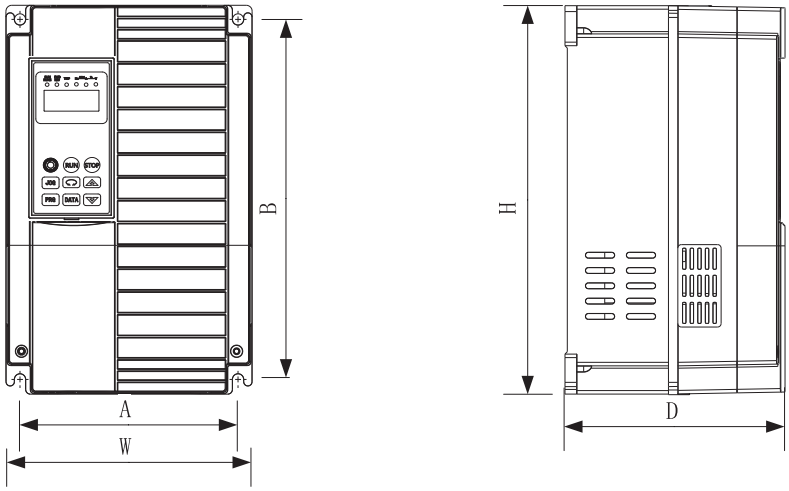
Outline size





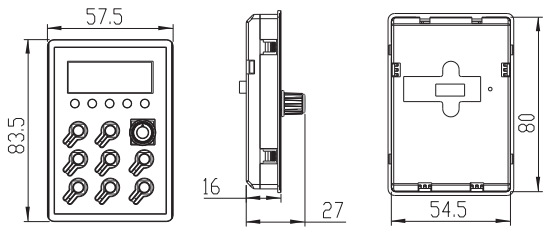
Model	Installation Size(mm)		Outline Size(mm)			Installation hole	Weight (kg) ≈
	A	B	W	H	D		
EV510E-0004G-S2	101	171	112	180	118	Φ4.6	1.3
EV510E-0007G-S2							
EV510E-0015G-S2							
EV510E-0022G-S2							
EV510E-0037G-T2	135	245	150	260	153	Φ6	3.9
EV510E-0055G-T2							
EV510E-0075G-T2	186	306	210	330.5	188	Φ9.5	7.5
EV510E-0110G-T2							
EV510E-0150G-T2	238	396	260	420	196	Φ8.5	12.5
EV510E-0007G-T4	101	171	112	180	118	Φ4.6	1.3
EV510E-0015G-T4							
EV510E-0022G-T4							
EV510E-0037G-T4	101	171	112	180	138	Φ4.6	2.1
EV510E-0055G-T4							
EV510E-0075G-T4	135	245	150	260	153	Φ6	3.9
EV510E-0110G-T4							
EV510E-0150G-T4							
EV510E-0185G-T4	186	306	210	330.5	188	Φ9.5	7.5
EV510E-0220G-T4							
EV510E-0300G-T4							
EV510E-0370G-T4	238	396	260	420	196	Φ8.5	12.5
EV510E-0450G-T4							
EV510E-0550G-T4	272	455	304	470	240	Φ9	22.9
EV510E-0750G-T4	200	614	278	630	310	Φ9	39
EV510E-0900G-T4							
EV510E-1100G-T4							
EV510E-1320G-T4	300	650	454	670	310	Φ9	67
EV510E-1600G-T4							
EV510E-1850G-T4 Wall mounting	400	810	520	835	382	ϕ13	107
EV510E-2000G-T4 Wall mounting							
EV510E-2200G-T4 Wall mounting							
EV510E-2500G-T4 Wall mounting							
EV510E-1850G-T4 Flange mounting	—	—	520	1183	382	—	—
EV510E-2000G-T4 Flange mounting							
EV510E-2200G-T4 Flange mounting							
EV510E-2500G-T4 Flange mounting							

Outline size

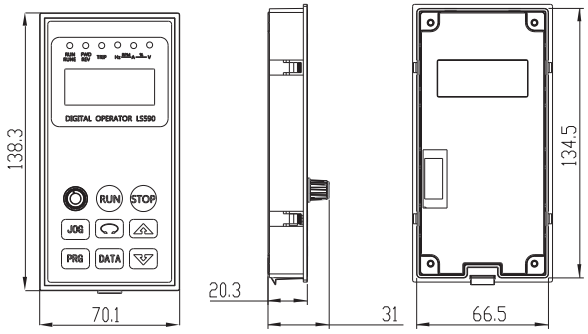


Model	Installation Size(mm)		Outline Size(mm)			Installation hole	Weight (kg) ≈
	A	B	W	H	D		
EV510E-2800G-T4 Wall mounting	460 (230+230 3 holes in total))	895	720	920	382	ϕ13	155
EV510E-3150G-T4 Wall mounting							
EV510E-3500G-T4 Wall mounting							
EV510E-4000G-T4 Wall mounting							
EV510E-4500G-T4 Wall mounting							
EV510E-2800G-T4 Flange mounting	—	—	720	1320	382	—	225
EV510E-3150G-T4 Flange mounting							
EV510E-3500G-T4 Flange mounting							
EV510E-4000G-T4 Flange mounting							
EV510E-4500G-T4 Flange mounting							

Keypad outline



Small operation pane



Large operation panel

EV510H series high performance VFD

About the product

EV510H series high-performance VFD, with small size, light weight, easy to carry and other characteristics, is a functional enhanced product.It can be used for driving textile, paper making,silk weaving, machine tool packaging, food, fan,water pump and various kinds of automatic production equipments.

Naming rules

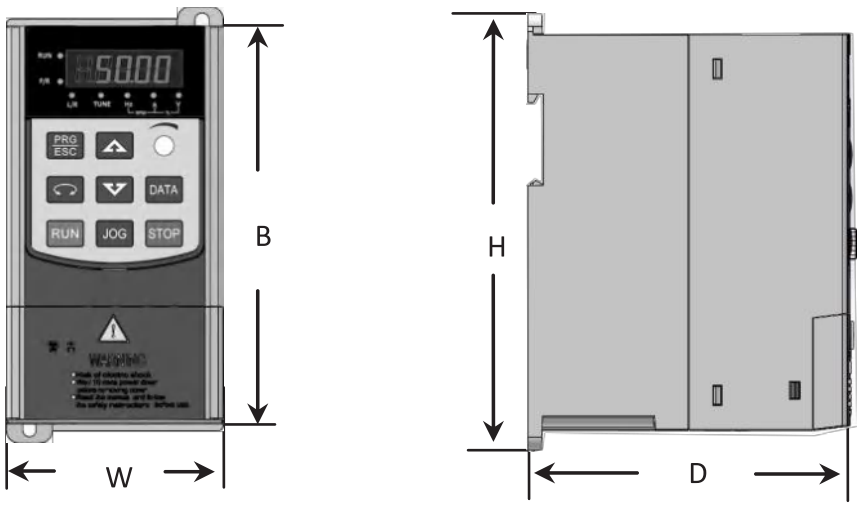
EV510H - 0037G/0055P - T4

- EV510H: Product series
- 0037G/0055P: Power code
  - 0037:3.7kW
  - 0055:5.5kW
  - G:General type
  - P:Pump or fans type
- T4: Voltage level
  - S2:Single phase 220V
  - T4:Three phase 380V

Rated specification

Model	Power capacity(kVA)	Input current(A)	Output current(A)	Match motor(kW)
Single phase:220V,50/60Hz				
EV510H-0004G-S2	1.0	5.4	2.3	0.4
EV510H-0007G-S2	1.5	8.2	4.0	0.75
EV510H-0015G-S2	3.0	14.0	7.0	1.5
EV510H-0022G-S2	4.0	23.0	9.6	2.2
Three phase:380V,50/60Hz				
EV510H-0007G-T4	1.5	3.4	2.1	0.75
EV510H-0015G-T4	3.0	5.0	3.8	1.5
EV510H-0022G-T4	4.0	5.8	5.1	2.2
EV510H-0037G/0055P-T4	5.9	10.5	9.0	3.7
EV510H-0055G/0075P-T4	8.9	14.6	13.0	5.5

Outline size

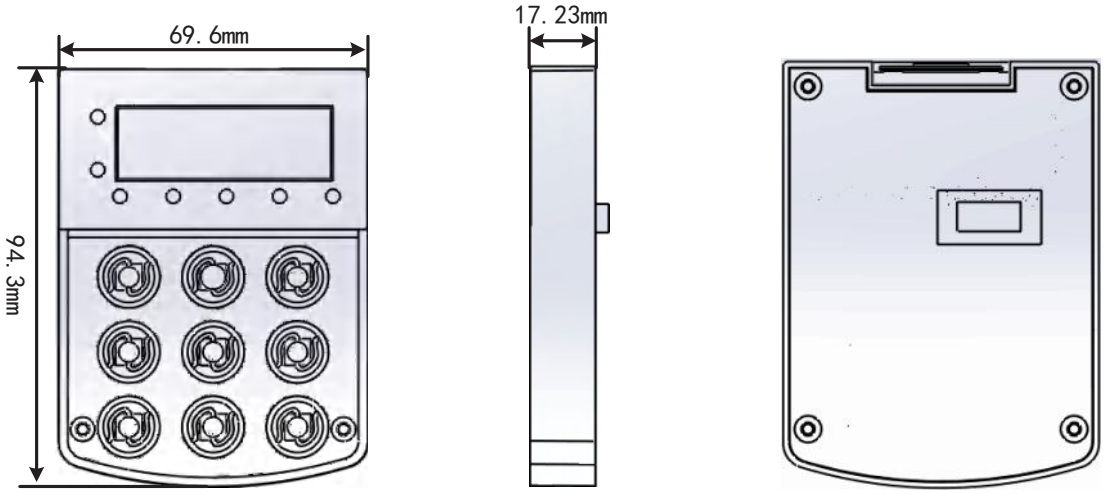


Model	Outlinesize (mm)				Installation hole
	B	W	H	D	
EV510H-0004G-S2	155	84	170	127	Φ5.7
EV510H-0007G-S2					
EV510H-0015G-S2					
EV510H-0022G-S2					
EV510H-0007G-T4					
EV510H-0015G-T4					
EV510H-0022G-T4					
EV510H-0037G/0055P-T4	183	91	193	142	Φ4.7
EV510H-0055G/0075P-T4					

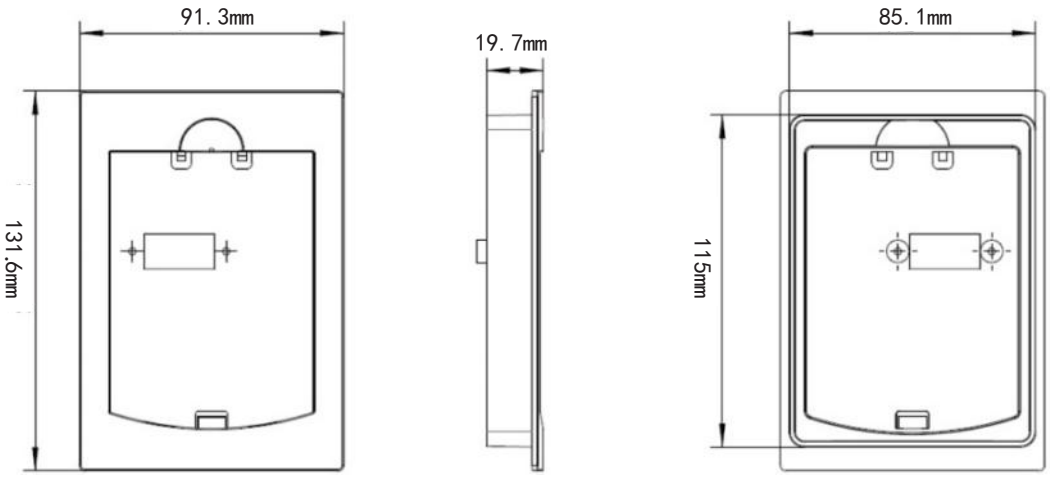
Technique Feature

Item		Specificationtem
Basic function	Highest frequency	Vector control: 0~ 500Hz; V/F control: 0~ 500Hz
	Carrier frequency	0.8kHz ～ 12kHz The carrier frequency can be automatically adjusted according to the temperature characteristics.
	Input frequency resolution	Digital setting:0.01Hz Analog setting: maximum frequency×0.025%
	Control mode	Open-loop vector(SVC) V/F control
	Start torque	G Type:0.5Hz/150%(SVC); P Type:0.5Hz/100%
	Speed range	1：100(SVC)
	Speed control accuracy	±0.5%(SVC)
	Overload capacity	G Type:150% Rated current 60sec;180% Rated current 3sec P Type:120% Rated current 60sec;150% Rated current 3sec
	Torque boost	Automatic torque increase;Manual torque increase0.1%~30.0%
	V/F curve	Three types: linear type; multi-point type; the nth power of V/F curve (1.2 power, 1.4 power, 1.6 power, 1.8 power, 2 power)
	ACC/DEC curve	Linear or S curve ofACC/DEC ways. Four types ofACC/DEC Time,ACC/DEC time range is 0.0~6500.0s
	DC brake	DC brake frequeney:0.00Hz~max frequency Brake time: 0.0s~36.0s, Brake action current: 0.0%~ 100.0%
	JOG control	JOG frequency range: 0,00Hz~50.00Hz. JOG speed-up/down time: 0.0s~6500.0s
	Simple PLCmulti-stage speed running	Via bul-in PLC or control terminal can realze max 16 stage speed running
	Built-in PID	Can realize process control close-oop system conveniently
	Auto adjust voltage(AVR)	When grid voltage changes, can keep output voltage steadily automatically
	Overcurrent and overvoltage speed control	During running,limit current and voltage automatically,protect from tripping off frequently for overvoltage and overcurrent
	Quick current-limit function	Reduce overcurrent error on max extent, protect inverter normal running
	Torque limitation and control	"Digger" feature, inverter could limit torque automatically, prevent overcurrent tripping off;close-oop vector can realize torque control
Personalization function	Outstanding perform	Using high-perform current vector control
	Instantaneous stop not stop	During instant power-off, by motor feedbacking energy, inverter compensates voltage-drop to keep running for short time
	Timing control	Timing control function: setting time range: 0.0min-6500.0min
	Command source	Control panel, control terminal, communication; can be switched by several modes
	Frequencysource/Auxiliary frequency sources	Digital setting, analog voltage setting, analog current setting, pulse setting,communication setting, can be switched by several methods
Running	Input terminal	5 digital input terminal, one of them support max 100KHz HS pulse input(apolegamy), 2 analog input terminal; AI2 supports 0~10V voltage input ;Ai1 support 0~10V voltage input or 0~20mAcurrent input
	Output terminal	1 high-speed pulse output terminal (optional open collector), support 0-100kHz pulse(apolegamy) 1 relay output terminal 1 analog output terminal,support 0~20m Acurrent output
Display and keypad	LED display	Can display parameter
	Press-key locking and function selection	Realize press-key partial or full lacking, define part press-key function range, to avoid wrong operation
	Protection function	Power-on motor short circuit test, output phase-loss protection, over-current protection, over-voltage protection,under-voltage protection, overheat protection, overload protection etc
Environment	Aplication site	Indoor, without direct sunlight, no powder, corrosive gas, combustion air, oil dust, water steam, water drop or salt etc
	Altiude level	Less than 1000m,Derating above 1000m,Rated output current decreases by 1% every 100m
	Environment temperature	-10° C~+40° C (During 40° C-50° C, please reduce capacity to use)
	Humidity	<95%RH, no water drop condensed

Panel tray size



Outline size



CM210 series crane-specific VFD

About the product

The CM210 series high-performance current vector VFD is mainly used to control and regulate the speed and torque of three-phase asynchronous motors. It is suitable for single-girder cranes, double-girder bridge cranes, gantry cranes, beam lifters, and other lifting equipment used in metallurgy, ports, and related industries.

Naming rules

CM210 - 0150G - T4 / QZ / ** — PN: With PROFINET interface; Blank: Without PROFINET interface

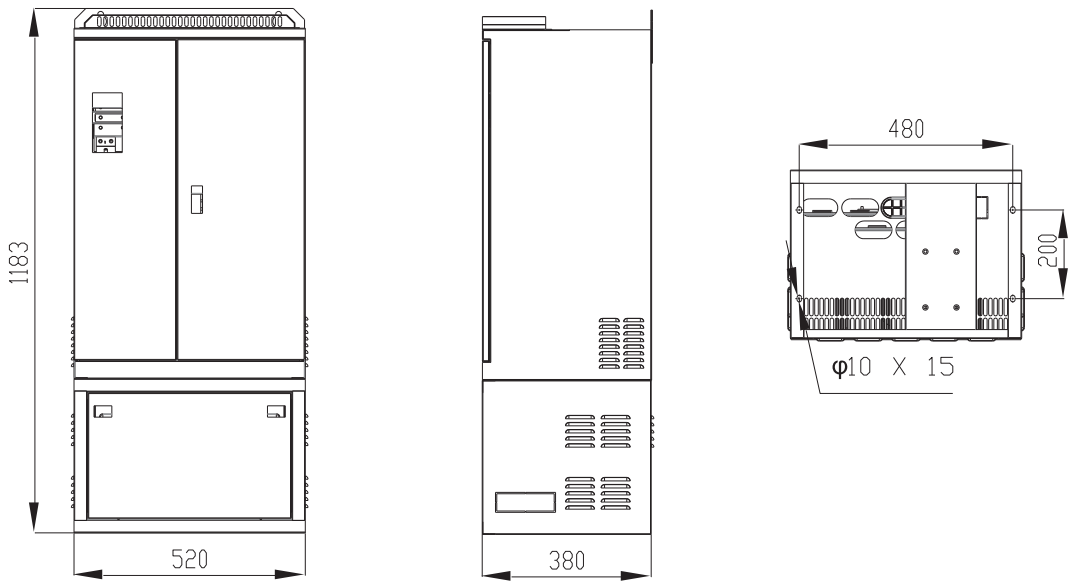
- CM210: Product series
- 0150G: Power code; 0150:15kW; G:General type
- T4: Voltage leve; T4:Three phase 380V
- QZ: Crane-specific

Rated specification

Model	Power capacity(kVA)	Input current(A)	Output current(A)	Match motor(kW)
CM210-0007G-T4/QZ	1.5	3.4	2.1	0.75
CM210-0015G-T4/QZ	3.0	5.0	3.8	1.5
CM210-0022G-T4/QZ	4.0	5.8	5.1	2.2
CM210-0037G-T4/QZ	5.9	10.5	9.0	7
CM210-0055G-T4/QZ	8.9	14.6	13.0	5.5
CM210-0075G-T4/QZ	11.0	20.5	17.0	7.5
CM210-0110G-T4/QZ	17.0	26.0	25.0	11
CM210-0150G-T4/QZ	21.0	35.0	32.0	15
CM210-0185G-T4/QZ	24.0	38.5	37.0	18.5
CM210-0220G-T4/QZ	30.0	46.5	45.0	22
CM210-0300G-T4/QZ	40.0	62.0	60.0	30
CM210-0370G-T4/QZ	57.0	76.0	75.0	37
CM210-0450G-T4/QZ	69.0	92.0	91.0	45
CM210-0550G-T4/QZ	85.0	113.0	112.0	55
CM210-0750G-T4/QZ	114.0	157.0	150.0	75
CM210-0900G-T4/QZ	134.0	180.0	176.0	90
CM210-1100G-T4/QZ	160.0	214.0	210.0	110
CM210-1320G-T4/QZ	192.0	256.0	253.0	132
CM210-1600G-T4/QZ	231.0	307.0	304.0	160
CM210-1850G-T4/QZ	240.0	330.0	340.0	185
CM210-2000G-T4/QZ	250.0	385.0	377.0	200

Outline size

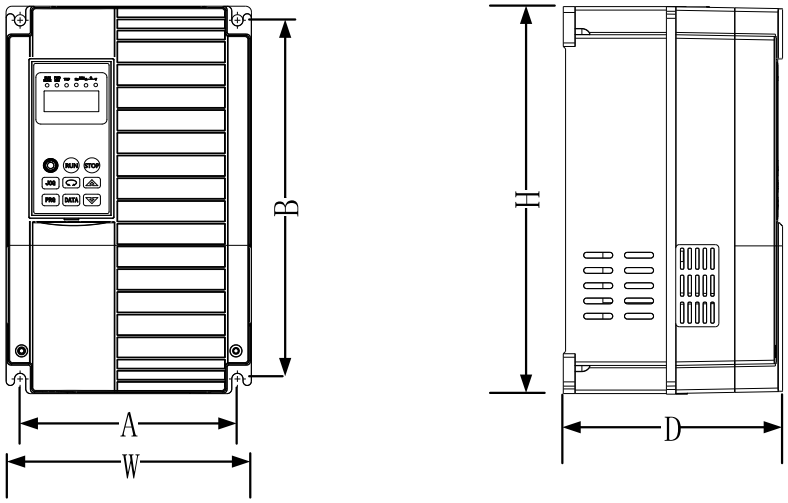
◆ Floor-mounted installation size



1850G ～ 2000G Floor-mounted display with intent

Outline size

◆ Wall-mounted installation size



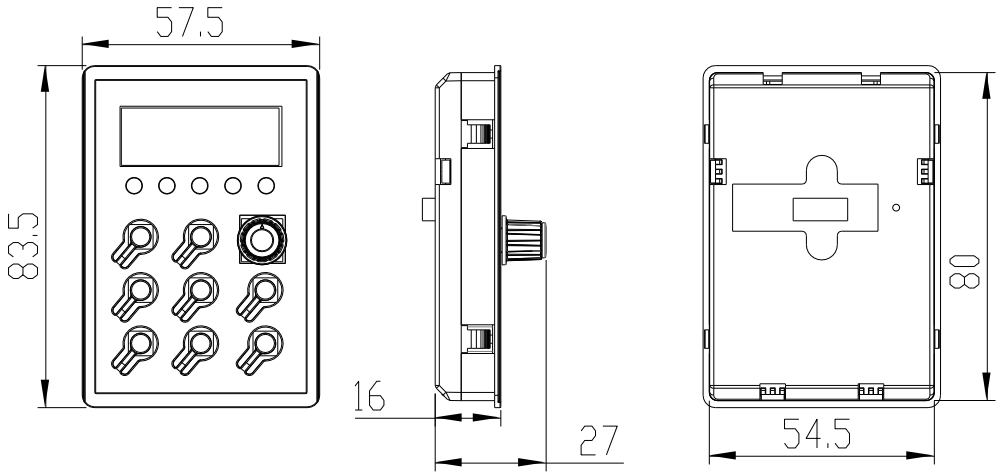
Model	Installation Size(mm)		Outline Size(mm)			Installation hole	Weight (kg) ≈
	A	B	W	H	D		
CM210-0007G-T4/QZ	101	171	112	180	118	ϕ4.6	1.3
CM210-0015G-T4/QZ							
CM210-0022G-T4/QZ							
CM210-0037G-T4/QZ	101	171	112	180	138	ϕ4.6	2.1
CM210-0055G-T4/QZ	135	245	150	260	153	ϕ6	3.9
CM210-0075G-T4/QZ							
CM210-0110G-T4/QZ							
CM210-0150G-T4/QZ							
CM210-0185G-T4/QZ	186	306	210	330.5	188	ϕ9.5	7.5
CM210-0220G-T4/QZ							
CM210-0300G-T4/QZ							
CM210-0370G-T4/QZ	238	396	260	420	196	ϕ8.5	12.5
CM210-0450G-T4/QZ							
CM210-0550G-T4/QZ	272	455	304	470	240	ϕ9	22.9
CM210-0750G-T4/QZ	200	614	278	630	310	ϕ9	39
CM210-0900G-T4/QZ							
CM210-1100G-T4/QZ							
CM210-1320G-T4/QZ	300	650	454	670	310	ϕ9	67
CM210-1600G-T4/QZ							
CM210-1850G-T4/QZ	400	810	520	835	382	ϕ13	107
CM210-2000G-T4/QZ							

Technique Feature

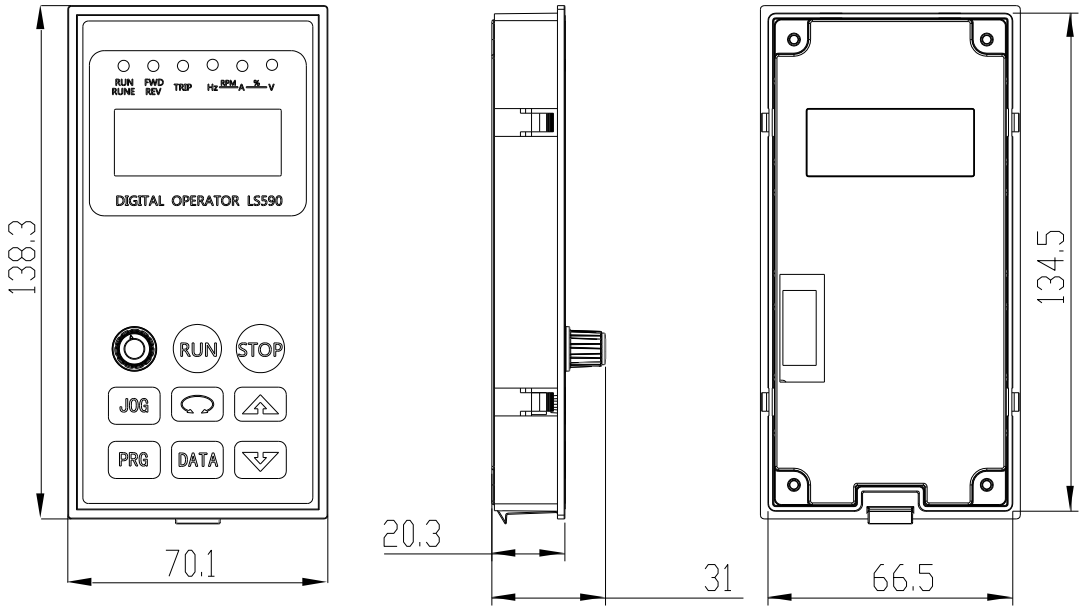
Item		Specificationtem
Basic function	Highest frequency	Vector control: 0~ 500Hz; V/F control: 0~ 500Hz
	Carrier frequency	0.8kHz ～ 12kHz The carrier frequency can be automatically adjusted according to the temperature characteristics
	Input frequency resolution	Digital setting：0.01Hz Analog setting: maximum frequency×0.025%
	Control mode	Open-loop vector(SVC) Closed-loop vector(FVC) V/F control
	Start torque	0.5Hz/150%(SVC)；0Hz/180%(FVC)
	Speed range	1：100(SVC) 1：1000(FVC)
	Speed control accuracy	±0.5%(SVC)；±0.02%(FVC)
	Torque control accuracy	±5%(FVC)
	Overload capacity	G Type:150% Rated current 60sec;180% Rated current 3sec
	Torque boost	Automatic torque increase;Manual torque increase0.1%~30.0%
	V/F curve	Three types: linear type; multi-point type; the nth power of V/F curve (1.2 power, 1.4 power, 1.6 power, 1.8 power, 2 power)
	V/F Separation	Two types: full separation, half of separation
	ACC/DEC curve	Linear or S curve ofACC/DEC ways. Four types ofACC/DEC Time,ACC/DEC time range is 0.0~6500.0s
	DC brake	DC brake frequeney:0.00Hz~max frequency Brake time: 0.0s~36.0s, Brake action current: 0.0%~ 100.0%
	JOG control	JOG frequency range: 0,00Hz~50.00Hz. JOG speed-up/down time: 0.0s~6500.0s
	Simple PLC multi-stage speed running	Via bul-in PLC or control terminal can realze max 16 stage speed running
	Built-in PID	Can realize process control close-oop system conveniently
	Auto adjust voltage(AVR)	When grid voltage changes, can keep output voltage steadily automatically
	Overcurrent and overvoltage speed control	During running,limit current and voltage automatically,protect from tripping off frequently for overvoltage and overcurrent
	Quick current-limit function	Reduce overcurrent error on max extent, protect inverter normal running
	Torque limitation and control	"Digger" feature, inverter could limit torque automatically, prevent overcurrent tripping off;close-oop vector can realize torque control
Personalization function	Outstanding perform	Using high-perform current vector control
	Instantaneous stop not stop	During instant power-off, by motor feedbacking energy, inverter compensates voltage-drop to keep running for short time
	Timing control	Timing control function: setting time range: 0.0min-6500.0min
	Multi-motor switch	2 sets of motor parameter, can realize 2 motors switching control
	Multi-threading bus support	Support 2 fieldbus: RS485, CAN link,CAN open(Requires an external expansion card)
	Multi-encoder support	Support differential, open collector, rotary transformer
	Command source	Control panel, control terminal, communication; can be switched by several modes
	Frequency source	Digital input, analog voltage input, analog current input, pulse input, serial port input. Switchable through multiple methods
	Auxiliary frequency sources	10 types of auxiliary frequency source, can realize auxiliary frequency trimming, frequency combining flexibly
Running	Input terminal	Standard: 6 digital input terminals Supports 0~10V voltage input or 0~20mA current input
	Output terminal	Standard: 2 relay output terminals
Display and keypad	LED display	Can display parameter
	Press-key locking andfunction selection	Realize press-key partial or full lacking, define part press-key function range, to avoid wrong operation
	Protection function	Power-on motor short circuit test, output phase-loss protection, over-current protection, over-voltage protection, under-voltage protection, overheat protection, overload protection etc
	Optional parts	Differential PG card, open collector PG card, rotary transformer PG card
Environment	Aplication site	Indoor, without direct sunlight, no powder, corrosive gas, combustion air, oil dust, water steam, water drop or salt etc
	Altiude level	Less than 1000m
	Environment temperature	-10° C~+40° C (During 40° C-50° C, please reduce capacity to use)
	Humidity	<95%RH, no water drop condensed
Optional	Two Panel LED display	LED display; using RJ45 port to connect

Keypad outline

◆ Dimensions of small operation panel（≤ 15kW）



◆ Dimensions of large operation panel（≥ 18.5kW）



Oulu Electric

LS590 series servo driver

About the product

LS590 series servo driver is a servo driver specially developed for driving permanent magnet servo motor (PMSM) to realize high-performance vector control of permanent magnet synchronous motor. It is mainly used in plastic molding, pipe extrusion, shoe making,rubber, metal die casting and other industries.

Naming rules

LS590 - 0150G - T4

- LS590: Product series
- 0150G: Power code 0150G:15kW
- T4: Three phase AC380V

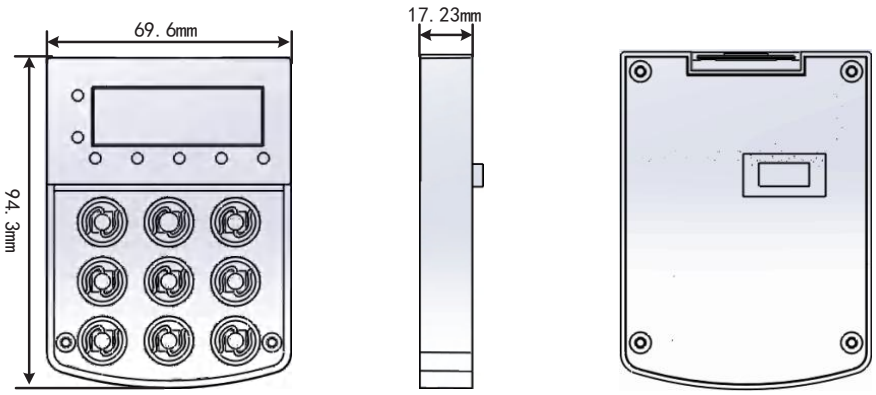
Rated specification

Model LS590-*****-**		0075G	0110G	0150G	0185G	0220G	0300G	0370G	0450G	0550G	0750G
Rated power(kW)		7.5	11	15	18.5	22	30	37	45	55	75
Output current(A)		17	25	32	37	45	60	75	91	112	150
Maximum holding current(A) Continuous 60S		25.5	37.5	48.0	55.5	67.5	90.0	112.5	136.5	168.0	225.0
Power input	Rated voltage and frequency	three phase 350,380,400,420,50/60Hz									
	Allowed voltage range	±15%									
	Allowed frequency range	±5%									
Braking resistance (matching)	kW	1	1.5	1.5	2.5	2.5	3	4	5	6	8
	Ω	⩾ 65	⩾ 43	⩾ 32	⩾ 22	⩾ 22	⩾ 16	⩾ 16	⩾ 16	⩾ 16	⩾ 12
Resolver sign cable (according to model)		ZF28-****stands for cable length,unit: cm. For example, ZF80-400 means cable length of 4 meters.									
Pressure sensor (necessary)		Can choose a variety of pressure sensors,the measurement range matches parametersA3-03,pressure sensor range, recommended Danforss 060G3557.									
Breaker		50	50	60	75	100	100	150	150	200	300
Contactor		30	30	50	50	50	80	100	100	160	250

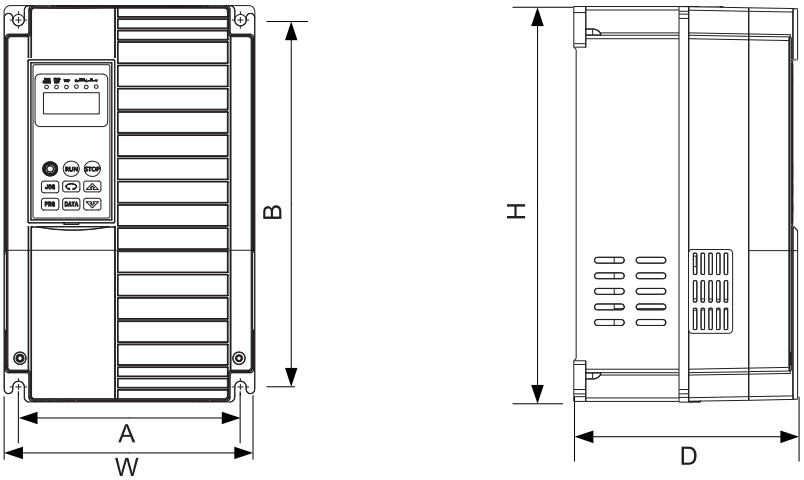
Technique Feature

Item		Specificationtem
Basic function	Highest frequency	300Hz
	Carrier frequency	1kHz ～ 8kHz；Automatically adjust carrier frequency according to load characteristics
	Input frequency resolution	Digital setting:0.01Hz　　Analog setting: maximum frequency×0.1%
	Control mode	Closed-loop vector(VC)　　V/F control
	Start torque	0Hz/180%（VC）
	Speed range	1:1000 （VC）
	Speed control accuracy	±0.02%（VC）
	Torque control accuracy	±5%（VC）
	Overload capacity	150% Rated current 60sec;180% Rated current 3sec
	Auto adjust voltage(AVR)	When grid voltage changes, can keep output voltage steadily automatically
Protection function	Protection function	Power-on motor short circuit test, output phase-loss protection, over-current protection, over-voltage protection, under-voltage protection, overheat protection, overload protection etc
Environment	Aplication site	Indoor, without direct sunlight, no powder, corrosive gas, combustion air, oil dust, water steam,water drop or salt etc
	Altiude level	Less than 1000m
	Environment temperature	-10° C~+40° C (During 40° C-50° C, please reduce capacity to use)
	Humidity	<95%RH, no water drop condensed
	Vibrate	Less than 5.9m/s2(0.6g)
	Storage temperature	－ 20°C～＋ 60°C
	Protection grade	IP20

Keypad outline



Outline size



Model	Installation Size(mm)		Outline Size(mm)			Installation hole	Weight (kg) ≈
	A	B	W	H	D		
LS590-0075G-T4	186	306	210	330.5	188	Φ9.5	7.5
LS590-0110G-T4							
LS590-0150G-T4							
LS590-0185G-T4							
LS590-0220G-T4							
LS590-0300G-T4							
LS590-0370G-T4	238	396	260	420	196	Φ8.5	12.5
LS590-0450G-T4							
LS590-0550G-T4	272	455	304	470	240	Φ9	22.9
LS590-0750G-T4	200	614	278	630	310	Φ9	39

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Nanjing Oulu Electric Corp., Ltd.

Add:95th Xingangwan Road, Luhe Development Zone, Nanjing, Jiangsu ,China

Tel : (+86)25-57506668 57506669

Fax: (+86)25-57506728

Web: www.china-oulu.com