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B550 SERIES

sensorless
current vector
variable speed
drive(DELTA VFD
-M series)

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产品概述Product brief:

B550 series Sensorless Vector Micro AC Drive. The compact design is ideal for small and medium horsepower applications. The B550 series drive is designed to provide an ultra-low-noise operation, and includes several innovative technologies that reduce interference.

Main Features:

- Adjustable V/F curve and vector control
- Sine wave PWM control
- Auto torque boost & slip compensation
- 150% when starting the torque at 1.0Hz
- Output frequency 0.1 ~ 400 Hz
- 8-step speed control and 7-step preset speed process control
- Built-in PID feedback control
- Analog frequency setting: 0-10VDC, 4-20mA
- Built-in MODBUS communication, baud rate up to 38400 bps
- Ennergy saving running and AVR function
- Auto-adjustment acceleration and deceleration
- Sleeping and awake up function

Applications:

Packing machine; dumpling machine; treadmill; temperature/humidity control fan for agriculture and aquaculture; mixer for food processing; grinding machine; drilling machine; small size hydraulic lathe; coating equipment; small size milling machine; robot arm of injection machine (clamp); wood machine (two-side woodworking planer); edge bending machine, elasticizer, etc.



•Packing machines

• Coating equipment

• Edge bending machine

• Wood machine

• Escalator

Power Range:

Single phase 230V 0.5HP-3HP(0.4KW-2.2KW)
 Three phase 230V 0.5HP-7HP(0.4KW-5.5KW)
 Three phase 460V 1HP-7HP(0.75KW-5.5KW)

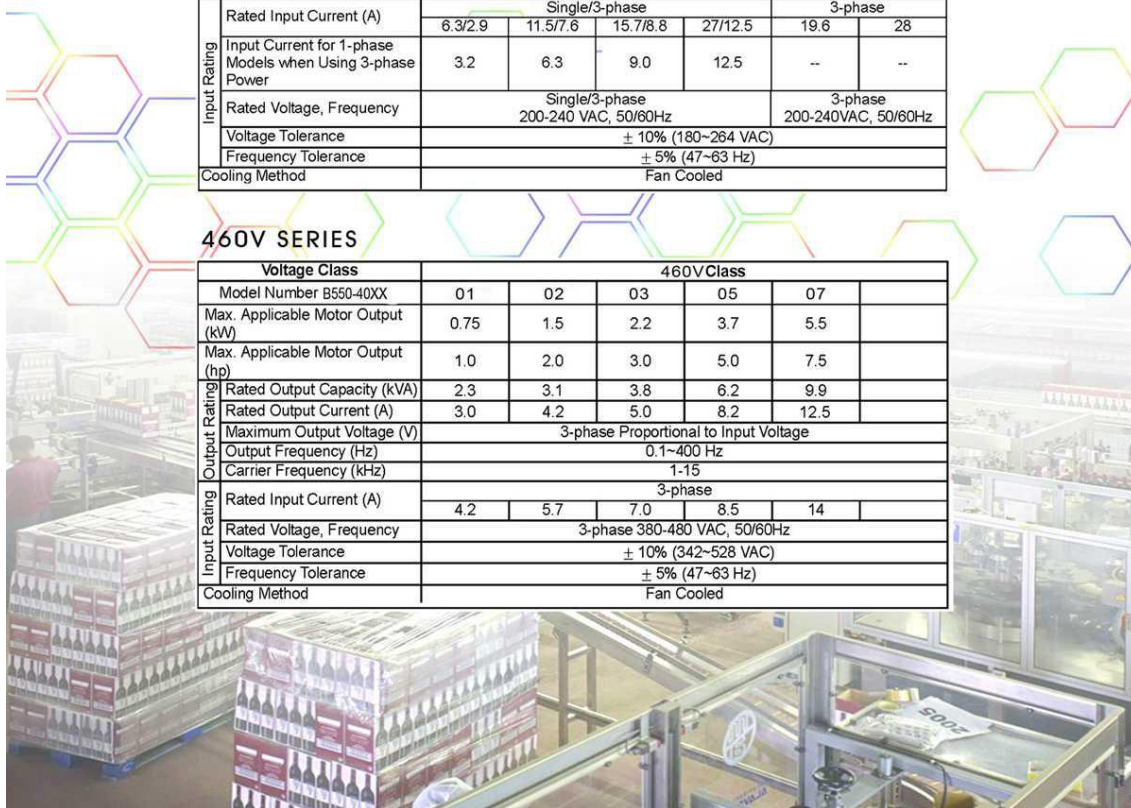
Specification:

230V SERIES

Voltage Class		230V Class					
Model Number B550-20XX		R5	01	02	03	05	07
Max. Applicable Motor Output (kW)		0.4	0.75	1.5	2.2	3.7	5.5
Max. Applicable Motor Output (hp)		0.5	1.0	2.0	3.0	5.0	7.5
Output Rating	Rated Output Capacity (kVA)	1.0	1.7	2.7	3.8	6.5	9.5
	Rated Output Current (A)	3.0	4.5	7.0	10	17	25
	Maximum Output Voltage (V)	3-Phase proportional to input voltage					
	Output Frequency (Hz)	0.1~400 Hz					
Carrier Frequency (kHz)		1-15					
Input Rating	Rated Input Current (A)	Single/3-phase				3-phase	
		6.3/2.9	11.5/7.6	15.7/8.8	27/12.5	19.6	28
	Input Current for 1-phase Models when Using 3-phase Power	3.2	6.3	9.0	12.5	--	--
	Rated Voltage, Frequency	Single/3-phase 200-240 VAC, 50/60Hz				3-phase 200-240VAC, 50/60Hz	
	Voltage Tolerance	± 10% (180~264 VAC)					
Frequency Tolerance		± 5% (47~63 Hz)					
Cooling Method		Fan Cooled					

460V SERIES

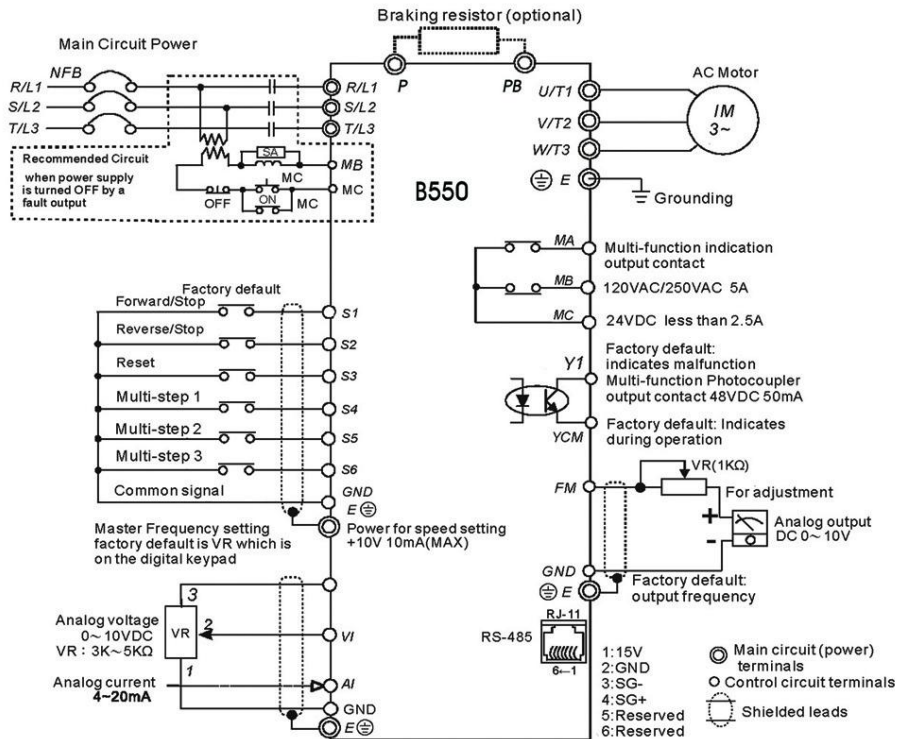
Voltage Class		460V Class					
Model Number B550-40XX		01	02	03	05	07	
Max. Applicable Motor Output (kW)		0.75	1.5	2.2	3.7	5.5	
Max. Applicable Motor Output (hp)		1.0	2.0	3.0	5.0	7.5	
Rated Output Capacity (kVA)		2.3	3.1	3.8	6.2	9.9	
Rated Output Current (A)		3.0	4.2	5.0	8.2	12.5	
Maximum Output Voltage (V)		3-phase Proportional to Input Voltage					
Output Frequency (Hz)		0.1~400 Hz					
Carrier Frequency (kHz)		1-15					
Input Rating	Rated Input Current (A)	3-phase			3-phase		
		4.2	5.7	7.0	8.5	14	
	Rated Voltage, Frequency	3-phase 380-480 VAC, 50/60Hz					
	Voltage Tolerance	± 10% (342~528 VAC)					
Frequency Tolerance		± 5% (47~63 Hz)					
Cooling Method		Fan Cooled					



General Specifications

Control Characteristics	Control System		SPWM (Sinusoidal Pulse Width Modulation) control (V/F or sensorless vector control)
	Freq. Setting Resolution		0.1Hz
	Output Frequency Resolution		0.1Hz
	Torque Characteristics		Including the auto-torque, auto-slip compensation; starting torque can be 150% at 5.0Hz
	Overload Endurance		150% of rated current for 1 minute
	Skip Frequency		Three zones, settings range 0.1-400Hz
	Accel/Decel Time		0.1 to 600 seconds (4 Independent settings for Accel/Decel Time)
	Stall Prevention Level		20 to 200%, Setting of Rated Current
	DC Injection Braking		Operation frequency 0-60Hz, output 0-100% rated current Start time 0-5 seconds, stop time 0-25 seconds
	Braking Torque		Approx. 20% (up to 125% possible with option braking resistor or braking unit externally mounted, 1-15HP braking transistor built-in)
Operating Characteristics	V/F Pattern		Adjustable V/F pattern
	Frequency Setting	Keypad	Setting by ▲ ▼
		External Signal	Potentiometer-5K Ω /0.5W, 0 to +10VDC, 4 to 20mA RS-485 interface; Multi-Function Inputs 0 to 5 (7 steps, Jog, up/down)
	Operation Setting Signal	Keypad	Set by RUN, STOP
		External Signal	M0 to M5 can be combined to offer various modes of operation, RS-485 serial interface (MODBUS).
	Multi-Function Input Signal		Multi-step selection 0 to 7, Jog, accel/decel inhibit, first to forth accel/decel switches, counter, PLC operation, external Base Block (NC, NO), auxiliary motor control is invalid, selections, driver reset, UP/DOWN key settings, sink/source selection
	Multi-Function Output Indication		AC drive operating, frequency attained, non-zero, base block, fault indication, local/remote indication, PLC operation indication, auxiliary motor output, driver is ready, overheat alarm, emergency stop
	Analog Output Signal		Analog frequency/current signal output.
	Alarm Output Contact		1 Form C contact or open collector output
	Operation Functions		AVR, S-Curve, over-voltage, over-current stall prevention, fault records, adjustable carrier frequency, DC braking, momentary power loss restart, auto tuning, frequency limits, parameter Lock/Reset, vector control, counter, PID Control, PLC, MODBUS communication, reverse inhibition, abnormal reset, abnormal re-start, digital frequency output, sleep/revival function, 1st/2nd frequency source selections.
Environmental Conditions	Protection Functions		Self-testing, over voltage, over current, under voltage, overload, overheating, external fault, electronic thermal, ground fault.
	Display Keypads		6-key, 4-digit, 7-segment LED, 4 status LEDs, master frequency, output frequency, output current, custom units, parameter values for setup, review and faults, RUN, STOP, RESET, FWD/REV
	Built-in Braking Chip		Built-in for all models
	Protection Level		IP20
	Pollution Degree		2
	Installation Location		Altitude 1,000 m or lower, keep from corrosive gasses, liquid and dust
	Ambient Temperature		-10°C to 40°C (-10°C to 50°C without blind plate) Non-Condensing and not frozen
	Storage/Transportation Temperature		-20°C to 60°C
	Ambient Humidity		Below 90% RH (non-condensing)
	Vibration		9.80665m/s ² (1G) less than 20Hz, 5.88m/s ² (0.6G) at 20 to 50Hz
Approvals		CE	

standard connection diagram

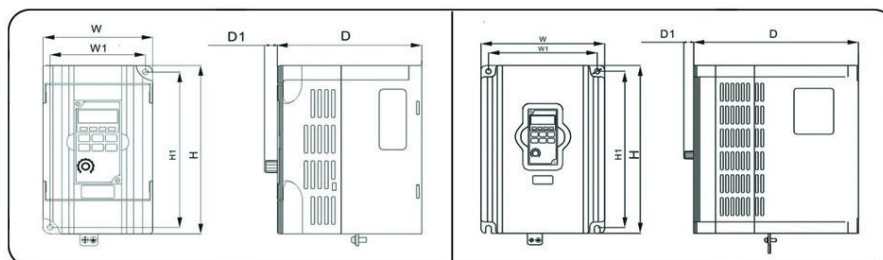


NOTE: Do not plug a Modem or telephone line to the RS-485 communication port, permanent damage may result. Terminal 1 & 2 are the power sources for the optional copy keypad and should not be used while using RS-485 communication.

* If it is single phase model, please select any of the two input power terminals in main circuit power.

* Single phase model can be input 3-phase power.

B550series系列外形尺寸图 B550 series exterior dimension:



Dimension:

(unit:mm)

Fig	Model	W	W1	H	H1	D	D1	Fan cooled
A	B550-20R5	85	74	141.5	130.5	113	10.5	YES
	B550-2T0R5							
	B550-2001							
	B550-2T001							
	B550-2002							
A	B550-2T002	100	89	151	140	106.5	10.5	
	B550-4001							
	B550-4002							
	B550-2T003							
	B550-4003							
B	B550-2003	125	110	220	205	166.5	10.5	
	B550-2005							
	B550-2T005							
	B550-4005							
	B550-4007							
	B550-4010							
	B550-2T007							

