



TECO
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Specifications covered in this brochure may be subject to change without notice.



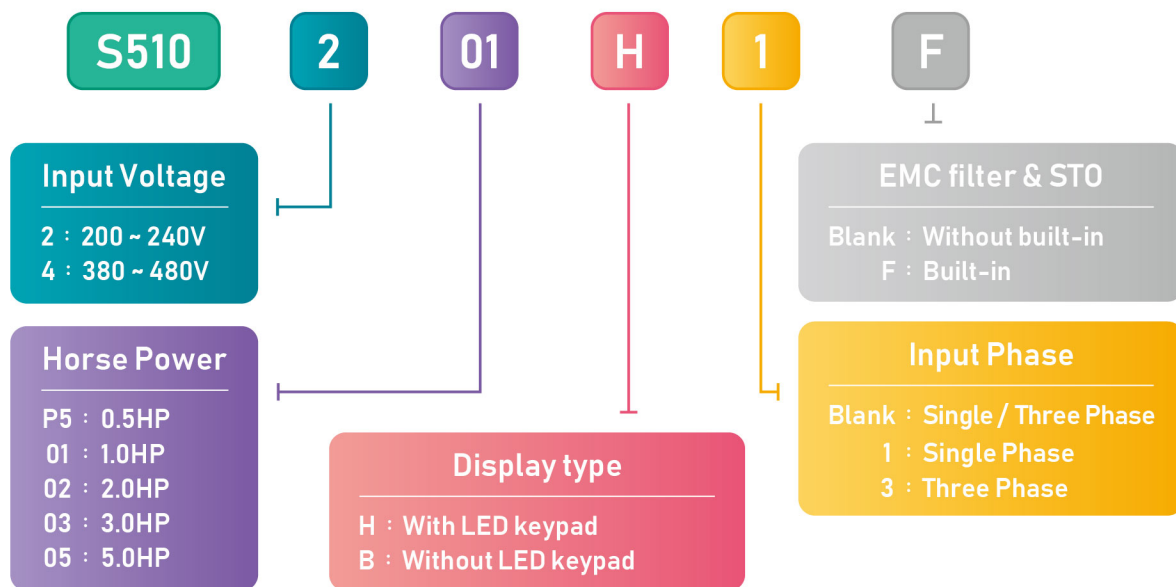
S510

Ease of Integration

- Output frequency up to 599Hz.
- Built-in Modbus RS485 communication for one to one or one to many control stations.
- Remote keypad display and keypad including speed adjustment potentiometer.
- RJ45 interface for PC and copy unit connection.
- Book type saving design for side by side installation, plus optional din-rail mounting kit.
- Built-in PID feedback control modes.
- Rapid stop terminals built-in complying with global standard.
- Earth terminals built-in heat sink to effectively provide grounding protection.
- Auto carrier frequency change to limit inverter over temperature.
- Frame 1 with fan-less design can effectively objects entry to extends product life.
- 32 bit 100M Hz CPU design provides high performance, fastest A/D conversion and torque compensation.
- Communication interface modules for Profibus / DeviceNet / Ethernet (TCP/IP) / CANopen.
- Built-in EMC filter, for interface suppression in compliance with (IEC) EN61800-3 and (IEC) 61800-5-1 standard.
- L510s connects grounding kit (option) to enhance EMC effect.
- Moto over-temperature protective function (fulfilled by PTC).
- Complying new UL standard (IEC 61800-5-1).
- Digital (NPN / PNP input) and analog input (V / I) selectable.
- Built-in STO function (SIL 2 level).
- Simple function parameter group (Group F).

Power Rating	0.4kW 0.5HP	0.75kW 1HP	1.5kW 2HP	2.2kW 3HP	3.7kW 5HP
S510	200V 1 phase				
			400V 3 phase		

Catalog No. Identification



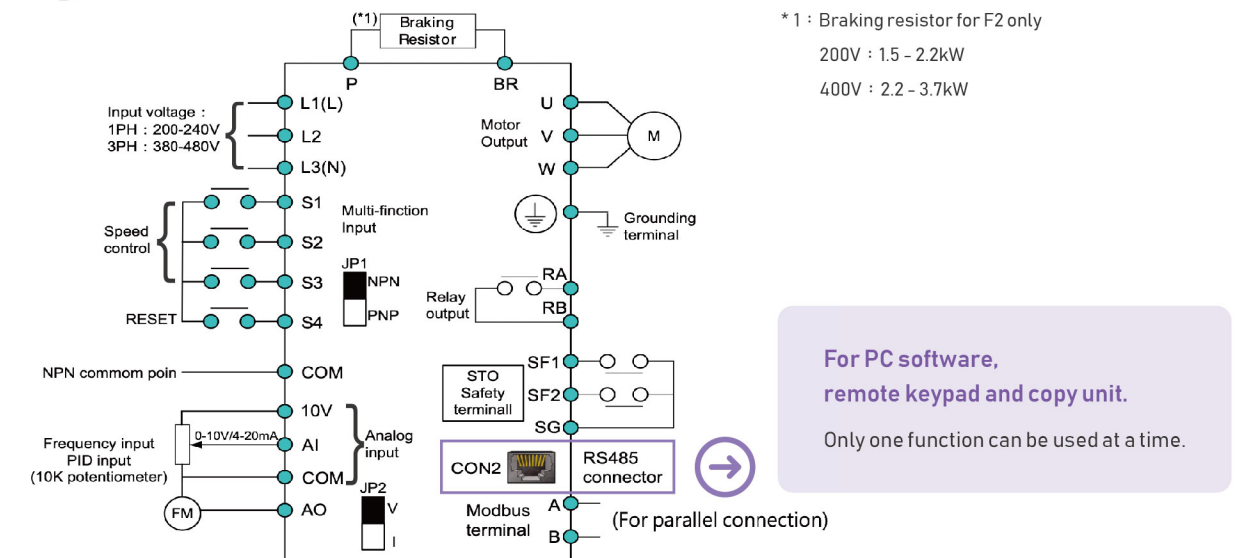
Basic Specifications 400V Class : Single phase

Model : S510-□□□-B1F / H1F	401	402	403	404
Horse power (HP)	1	2	3	5
Suitable motor capacity (kW)	0.75	1.5	2.2	3.7
Rated output current (A)	2.3	3.8	5.2	8.8
Rated capacity (kVA)	1.7	2.9	4.0	7.0
Input voltage range (V)	Single Phase : 380 ~ 480V (+10% - 15%), 50 / 60HZ			
Output voltage range (V)	Three phase 0 ~ 480V			
Input current (A)	3.3	4.5	7.3	12.5
Weight (kg)	1.2	1.2	1.6	1.6
Allowable momentary power loss time (s)	2.0	2.0	1.5	1.5
Enclosure	IP20			

Basic Specifications 200V Class : Single phase

Model : S510-□□□-B1F / H1F	2P5	201	202	203
Horse power (HP)	0.5	1	2	3
Suitable motor capacity (kW)	0.4	0.75	1.5	2.2
Rated output current (A)	2.6	4.3	7.5	10.5
Rated capacity (kVA)	1.00	1.65	2.90	4.00
Input voltage range (V)	Single Phase : 200 ~ 240V (+10% - 15%), 50 / 60HZ			
Output voltage range (V)	Three phase 0 ~ 240V			
Input current (A)	4.8	7.6	13.7	16.4
Weight (kg)	1.1	1.1	1.4	1.4
Allowable momentary power loss time (s)	1.0	1.0	2.0	2.0
Enclosure	IP20			

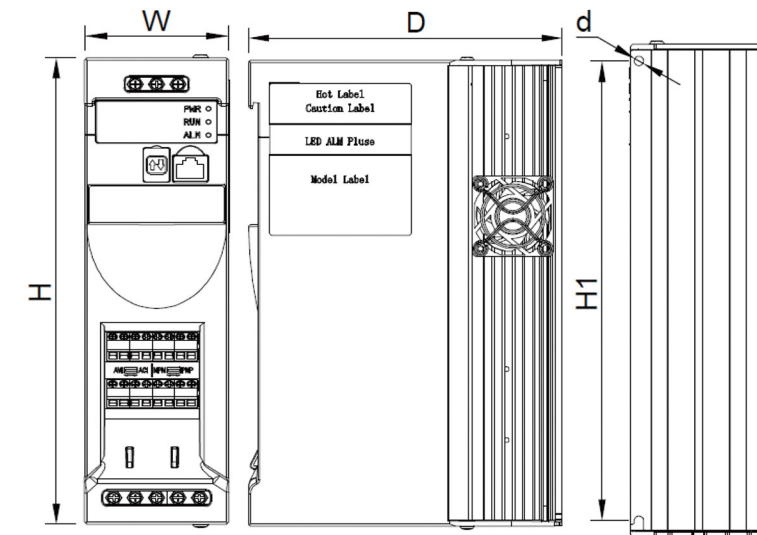
Wiring Diagram



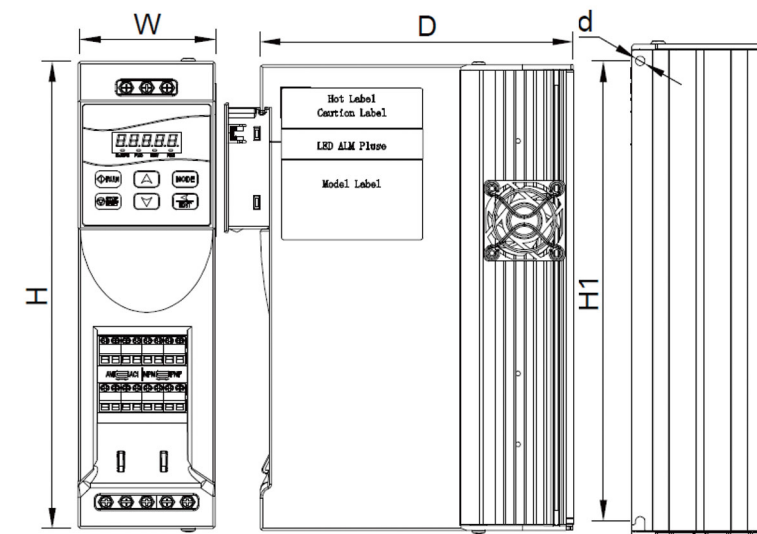
General Specifications

Item		S510
Control Mode		V / F Control
Frequency	Range	0.01 ~ 599.00Hz
	Speed accuracy (100% torque)	3%
	Starting Torque	V / F : 3Hz / 100%
	Setting resolution	Digital input : 0.01Hz Analog input : 0.015Hz / 60Hz
	Frequency setting	Keypad : Set directly with ▲ ▼ keys or the VR (Potentiometer) on the keypad External Input Terminals : AVI (0/2 ~ 10V), ACI(0/4 ~ 20mA) analog input Multifunction input up / down function (Group3) Setting frequency by Communication method
Frequency limit	Remote control : Set directly with ▲ ▼ keys of remote keypad Lower and upper frequency limits, 3-skip frequency settings	
Run	Operation set	Keypad run, stop button External Terminals : Multi - operation-mode 2 / 3 wire selection Jog operation Run signal by communication method Remote control : Set directly with run, stop button of remote keypad
	Main Controls	
Main Controls	V / F curve setting	6 fixed curve and one customized curve
	Carrier frequency	1 ~ 16kHz (default 5kHz)
	Acceleration and deceleration control	2 off Acc / dec time parameters, 4 off S curve parameters
	Multifunction input	19 functions (refer to description on group3) 5 points, Frame1 / 2 : NPN & PNP by separate models Frame 3 / 4 : NPN & PNP switchable
	Multifunction output	16 functions (refer to description on group3)
	Multifunction analog output	5 functions (refer to description on group4), 1 point (0 ~ 10V)
Main features	Overload Detection, 8 Preset speeds, Auto-run, Acc / Dec Switch, Main / Alt run Command select, Main / Alt Frequency Command select, PID control, torque boost, V / F start Frequency, Fault reset	
Display	LED	Display : parameter / parameter value / frequency / line speed / DC voltage / output voltage / output current / PID feedback / input and output terminal status / Heat sink temperature / Program Version / Fault Log
	LED Status Indicator	For run / stop / forward and reverse
Protective Functions	Overload Protection	Integrated motor and Inverter overload protection (150% rated current for 60sec, every 10 minutes)
	Over voltage	100V / 200V : Over 410V, 400V : Over 820V
	Under voltage	100V / 200V : Under 190V, 400V : Under 380V
	Momentary Power Loss Restart	Inverter auto-restart after a momentary power loss
	Stall Prevention	Stall prevention for Acceleration / Deceleration / and continuous Run
	Short-circuit output terminal	Electronic Circuit Protection
	Grounding Fault	Electronic Circuit Protection
	Additional protective functions	Heatsink over temperature protection, Auto carrier frequency reduction with temperature rise, fault output, reverse prohibit, Number of auto restart attempts, Parameter lock, over voltage protection(OVP), motor PTC over-temperature protection
International Certification		CE / UL / cUL / RCM
Communication		RS485 (Modbus) built in, with one to one or one to many control Built-in BacNet communication Profibus, DeviceNet, CANopen, TCP / IP by gateways
Environment	Operating temperature	-10 ~ 50°C (with fan), -10 ~ 40°C (without fan)
	Storage temperature	-20 ~ 60°C
	Humidity	Under 95%RH (no condensation)
	Vibration	Frequency : 10Hz - 150Hz - 10Hz Amplitude(0.3mm) : 10Hz ≤ f ≤ 57Hz Acceleration(2G) : 57Hz ≤ f ≤ 150Hz (According to IEC60068-2-6 standard)
	EMC Compliance	EN61800-3, First Environment (Use of the optional grounding kit is recommended to achieve compliance.)
	LVD Compliance	EN 61800-5-1
	Electrical Safety	UL61800-5-1
Protection level	IP20	

Dimension (unit : mm)



Model	Dimension					Weight (Kg)
	W	H	D	H1	d	
S510-2P5-B1F	64	190	140	175	M4	1.1
S510-201-B1F						1.4
S510-401-B3F						1.2
S510-402-B3F	64	230	155	215		1.6
S510-202-B1F						1.2
S510-203-B1F						1.2
S510-403-B3F	1.6					
S510-405-B3F	1.6					



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S510-201-H1F						1.4
S510-401-H3F						1.2
S510-402-H3F	64	230	155	215		1.6
S510-202-H1F						1.2
S510-203-H1F						1.2
S510-403-H3F	1.6					
S510-405-H3F	1.6					

