

Drive Ratings

All Digital Inputs are Sunked to Control Power Common

115V 1-Phase Input/ 3-Phase 230V Output

MODEL NO.	HP CONSTANT TORQUE	DRIVE AMPS CONSTANT TORQUE	AC INPUT CURRENT	RATED CAPACITY (KVA)	APPLIED MOTOR (kW)
L510-1P2-H1-U	.25	1.8	9.5	0.68	0.2
L510-1P5-H1-U	.50	2.6	13	1.00	0.4
L510-101-H1-U	1	4.3	19	1.65	0.75

230V 1-Phase Input/ 3-Phase Output

MODEL NO.	HP CONSTANT TORQUE	DRIVE AMPS CONSTANT TORQUE	AC INPUT CURRENT	RATED CAPACITY (KVA)	APPLIED MOTOR (kW)
L510-2P2-H1-U	.25	1.8	4.9	0.68	.2
L510-2P5-H1-U	.50	2.6	7.2	1.00	.4
L510-201-H1-U	1	4.3	11.0	1.65	.75
L510-202-H1-U	2	7.5	15.5	2.90	1.5
L510-203-H1-U	3	10.5	21	4.00	2.2

230V 3-Phase Input/ 3-Phase Output

MODEL NO.	HP CONSTANT TORQUE	DRIVE AMPS CONSTANT TORQUE	AC INPUT CURRENT	RATED CAPACITY (KVA)	APPLIED MOTOR (kW)
L510-2P5-H3-U	.50	2.6	4.0	1.00	.4
L510-201-H3-U	1	4.3	6.4	1.65	.75
L510-202-H3-U	2	7.5	9.4	2.90	1.5
L510-203-H3-U	3	10.5	12.2	4.00	2.2

460V 3-Phase Input/ 3-Phase Output

MODEL NO.	HP CONSTANT TORQUE	DRIVE AMPS CONSTANT TORQUE	AC INPUT CURRENT	RATED CAPACITY (KVA)	APPLIED MOTOR (kW)
L510-401-H3-U	1	2.3	4.2	1.7	.75
L510-402-H3-U	2	3.8	5.6	2.9	1.5
L510-403-H3-U	3	5.2	7.3	4.0V	2.2

Braking Resistors

460V 3-Phase *

AC DRIVE HP RATING	MODEL NO.	QTY	RESISTANCE OHMS - WATTS	RESISTOR DIMENSIONS (in.)	BRAKING TORQUE (%)	DUTY CYCLE (%)
1	JNBR-150W750	1	750 150	12"L x 5"W x 5"D	126	10
2	JNBR-150W400	1	400 150	12"L x 5"W x 5"D	119	10
3	JNBR-260W250	1	250 260	12"L x 5"W x 5"D	126	10

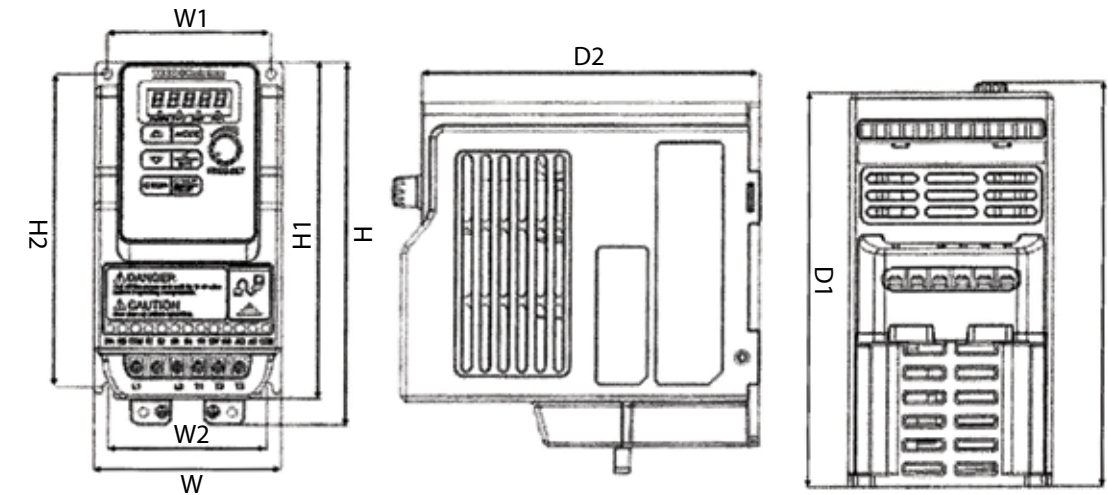
Notes:

Transistor built-in for all L510 460V ratings only (braking resistors externally mounted)

Options

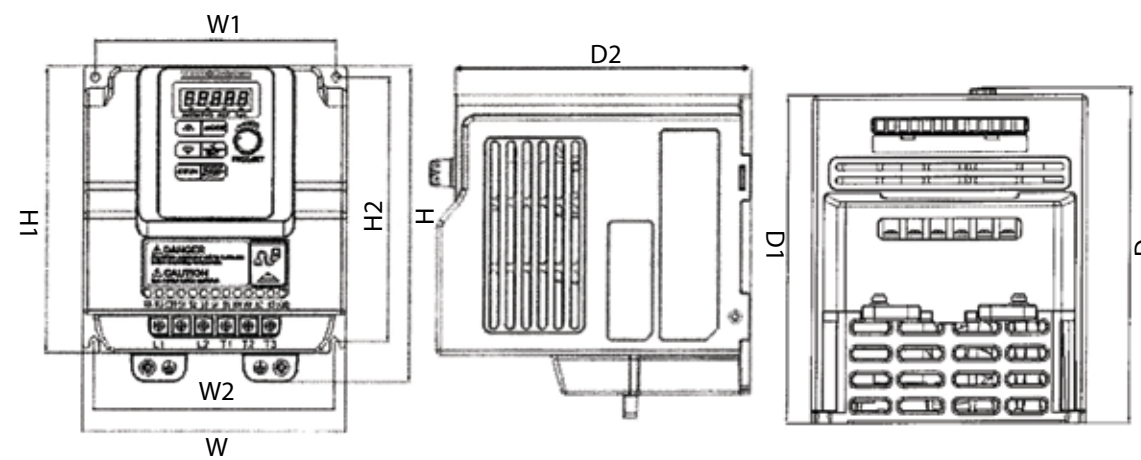
PART NUMBER	DESCRIPTION
JN5-CB-01M	Extension wire (1M)
JN5-CB-02M	Extension wire (2M)
JN5-CB-03M	Extension wire (3M)
JN5-CB-05M	Extension wire (5M)
JN5-CM-USB	USB cable to connect to PC
JN5-CU	Copy Module
JN5-DIN-L01	DIN RAIL, L510 Frame 1
DINE2-201	DIN RAIL, L510 Frame 2

Dimensional Diagrams



Units: inches (mm)

Model	W	W1	W2	H	H1	H2	D	D1	Weight
L510-1P2-H1-U	2.83 (72)	2.48 (63)	2.40 (61)	5.55 (141)	5.16 (131)	4.80 (122)	5.48 (139.2)	5.35 (136)	2.0lbs (0.9kg)
L510-1P5-H1-U									
L510-2P2-H1-U									
L510-2P5-H1-U									
L510-201-H1-U									
L510-202-H1-U									



Units: inches (mm)

Model	W	W1	W2	H	H1	H2	D	D1	Weight
L510-101-H1-U	4.65 (118)	4.25 (108)	4.25 (108)	5.67 (144)	5.16 (131)	4.76 (121)	5.80 (147.3)	5.68 (144.2)	3.52lbs (1.6kg)
L510-202-H1-U									
L510-203-H1-U									
L510-202-H3-U									
L510-203-H3-U									
L510-401-H3-U									

TECO Westinghouse

L510

L510

Advanced Micro Drive



1/4-1 hp (115V) • 1/4-3 hp (230V) • 1-3 hp (460V)

Features & Highlights

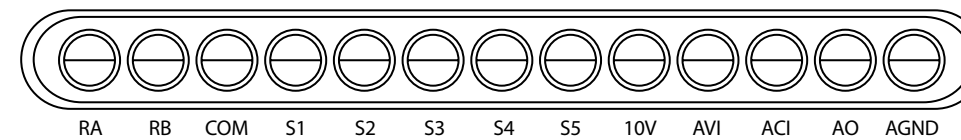
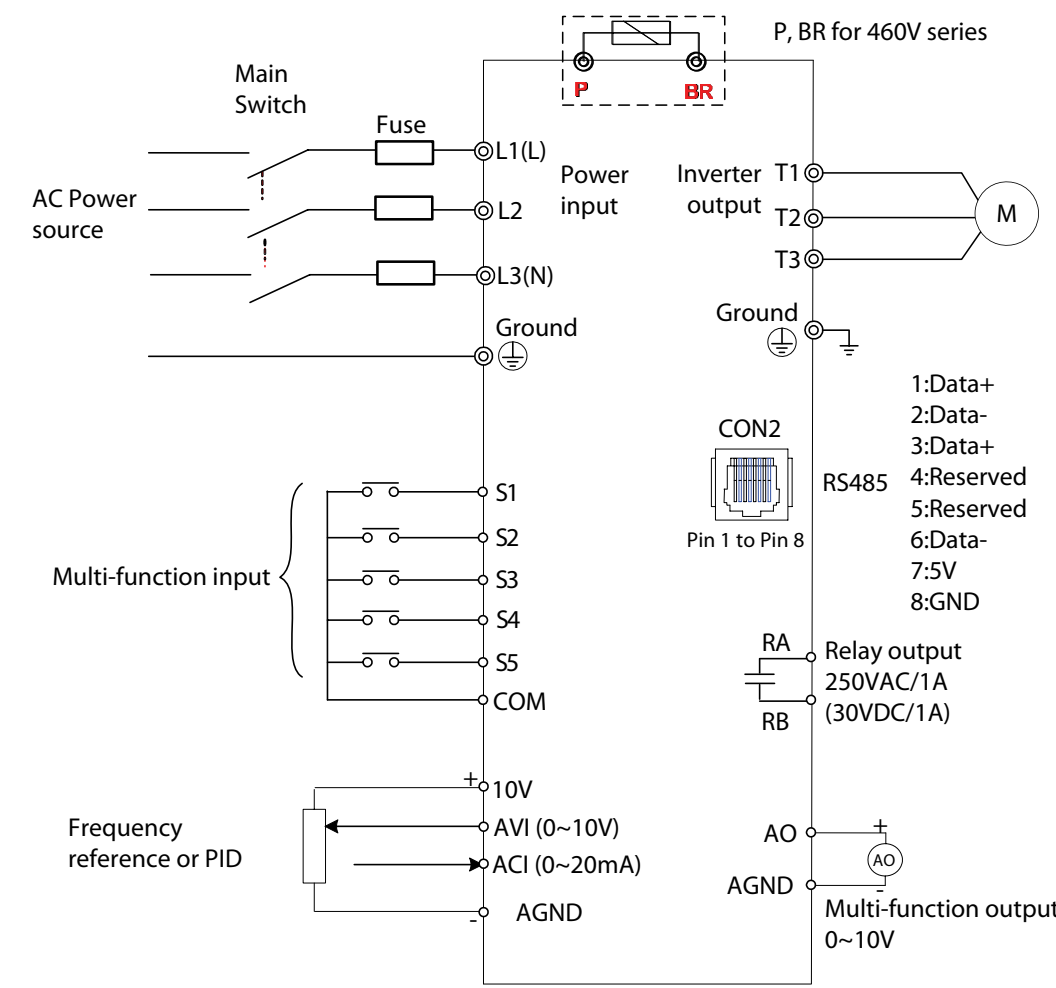
- effective drive solution with wide range of programming capabilities
- Control Methods Available:
 - V/F mode or Sensorless Vector Operation
- Parameters grouped by function
- Range:
 - 115V, 1Ø (0.25 to 1 HP)
 - 230V, 1Ø (0.25 to 3 HP)
 - 230V, 3Ø (0.5 to 3 HP)
 - 460V, 3Ø (1 to 3 HP)
- Process Control Loop
 - Sleep Mode
 - 0-10VDC or 4-20mA Feedback
 - Loss of feedback or tracking detection
- Modbus or BACnet Protocols (RJ45 Interface)
- Digital Operator's keypad
 - Scalable Display
 - Programming parameters
 - Diagnostics monitoring
- Speed Pot
- Digital Analog Inputs - Outputs have extremely fast (~4 msec) update time

CONTROL FEATURES	
	<ul style="list-style-type: none"> • 1-16kHz carrier frequency (adjustable) • Acceleration/ deceleration ramps with S curves • Sensorless Vector mode • DC injection braking
Input Voltage Range	100-120VAC +10%, -15% 200-240VAC +10%, -15% 380-480VAC +10%, -15%

PROTECTION FEATURES	
Overload	Up to 150%, 1 minute
Stall Prevention	On acceleration, deceleration and constant speed
Overcurrent	Instantaneous above 200%
DC BUS Overvoltage	115/ 230V input: >410VDC 460V input: >810VDC
DC BUS Undervoltage	115/ 230V input: <190 VDC 460V input: <380 VDC
Other protection	Ground Fault, Phase Loss, Overtemperature, Loss of PID Feedback External fault setting

ENVIRONMENTAL FEATURES	
Operating Temperature	14-122°F (-10-50°C)
Storage Temperature	-4-122°F (-20-50°C)
Humidity	95% RH or less (non-condensing)
Shock	20 HP or less; 1g (32.2 ft/sec ²) 20-25 HP; 0.6g (19.3 ft/sec ²)
Certification	Complies with IEC 60018-2-78, UL, cUL, CE, & RoHS

Wiring Diagram



TERMINAL SYMBOLS	TM1 FUNCTION DESCRIPTION
L1(L)	Main power input, L1(L)/L2/L3(N)
L2	
L3(N)	Single Phase L1(L)/L3(N)
P*	Externally connected braking resistor
BR*	
T1	
T2	Inverter output, connect to U, V, W terminals of motor
T3	
⊕	Ground Terminal
RA/ RB	Relay output terminal, Specification: 250VAC/1A(30VDC/1A)
COM	S1-S5 (Common-NPN Type)
S1, S2, S3, S4, S5	Multi-function input terminals
10V	Built-in power for external speed potentiometer
AVI	Analog voltage input, Specification: 0-10VDC/ 2-10V
ACI	Analog current input, Specification: 0/4-20mA
AO	Multi-function analog output terminal. Maximum output 10VDC/1mA
AGND	Analog ground terminal

*P, BR for 460V series

I/O FEATURES	
Digital Inputs	<ul style="list-style-type: none"> • Qty 5 configurable • Over 18 available selections • Assign as normally open or normally closed • 24V Power supply power (internal)
Digital Output	<ul style="list-style-type: none"> • Qty 1 relay output with over 15 available selections • Assign as normally open or normally closed
Analog Inputs	<ul style="list-style-type: none"> • Qty 2 analog input channels - 1 at 0-10VDC - 1 at 4-20mA • Adjustable gain and bias on each channel
Analog Output	<ul style="list-style-type: none"> • 0-10VDC • 5 available configurations - Output Frequency - Set Frequency - Output Current - Output Voltage - DC Bus Voltage • Adjustable gain and bias

SPECIFICATIONS	
Control Mode	V/Hz, Sensorless Vector (SLV)
Frequency Range	0-599Hz
Frequency Accuracy	Digital Input: .01Hz Analog input: 0.1%
Starting Torque	150%/1Hz (SLV)
Overload Tolerance Rated Output Current	150%/1minute
Frequency Settings	<ul style="list-style-type: none"> • Frequency setting with ^, v keys • Potentiometer on keypad • External input terminals - AV1 (0-10V) - AC1 (0/4-20ma) • Multifunction Input (Up/Down)
Acceleration Settings	<ul style="list-style-type: none"> • Two sets of acceleration and deceleration times - Jog acceleration - deceleration settings • (0-3600 sec)
Voltage/Frequency Characteristics	<ul style="list-style-type: none"> • Qty 6 preset V/Hz patterns plus user settable V/F pattern • Adjustable voltage (torque) boost

A compact and dynamic drive that is well-suited for these applications:

MACHINES/EQUIPMENT	INDUSTRIES
<ul style="list-style-type: none"> • Fans • Pumps • Mixers • Treadmills • AC contactor replacement 	<ul style="list-style-type: none"> • Food and Beverages • HVAC • Machine Tools • Packaging

Keypad



TECO-Westinghouse Motor Company offers an extensive line of Variable Speed Drives and Soft Starters for your motor control applications.

We also offer a wide variety of motors that are matched with the Drives and Soft Starters including Vertical Hollow Shaft, Rolled Steel, and NEMA Premium Efficient motors.



From "in stock" controls to engineered systems, we can provide you the right control solution including an extensive line of TECO-Westinghouse AC Motors.