

# INVERTERS SELECTION GUIDE



**Questions?  
800-279-4007**

**Constant Torque  
Power Range: .25-3 HP  
Enclosure: IP20**

HP (CT)	Input Voltage
.25-1	110V 1Φ
.25-3	230V 1Φ
.5-3	230V 3Φ
1-3	460V 3Φ

**Typical Applications:**  
Conveyors, AC Contactor Replacements, Mixers, Treadmills

# L510

**Advanced  
Micro AC Inverter**



**Constant Torque  
Power Range: .5-20 HP  
Enclosure: IP66/NEMA 4X**

HP (CT)	Input Voltage
.5-3	230V 1Φ
.5-20	230V 3Φ
1-25	460V 3Φ

**Typical Applications:**  
Food Processing, Material Handling, Dirty, and Washdown Environment Applications

	V/Hz	V/Hz
<b>Control Type</b>	Sensorless Vector	Sensorless Vector (SLV)
	Closed Loop Vector	—
	PM Motor Control	—
	Speed Range	0-599 Hz
	CT Overload Rating	150% 1 Minute Overload
<b>Standard Features</b>	Drive Display	LED Keypad
	Manual Speed Potentiometer	Built-In Speed Potentiometer
	Custom Display Setting	Custom Value Scaling
	DB Transistor	Built-In on 460V Only
	Preset Speeds	8 Preset Speeds
	EMC Filter	Optional Filter
	Auto Restart	Auto Restart
	Auto Tune	Static Tuning
	Plenum Rated	—
	Application Presets	—
<b>Inputs and Outputs</b>	Digital Inputs	5 DI
	Digital Outputs	1 DO (Form A)
	Analog Inputs	2 AI (0-10VDC/ 4-20mA)
	Analog Outputs	1 AO (0-10VDC)
	Output disable stop	BaseBlock
	Pulse Train Input	—
	Pulse Train Output	—
	RS485 Input	Built-In via RJ45
	Run Permissive	—
<b>Advanced Features</b>	PID	PID (Feedback Signal Power Not Provided)
	Sleep/ Wake	Sleep/ Wake
	Fire Mode	—
	PLC Function	—
	Auto Cycle Process	Auto Cycle
	DC Injection Braking	DC Injection Braking
	Master - Follower	—
<b>Communications</b>	Programming Software	Link Software
	Copy Function	Copy Function Via Copy Module
	Modbus RTU	Modbus RTU as Standard
	Profibus	Profibus Via Optional Gateway
	EtherNet/IP	EtherNet/IP Via Optional Gateway
	BACnet MS/TP	BACnet MS/TP as Standard
	Encoder Feedback Kit	—
DeviceNet	DeviceNet Via Optional Gateway	

25 HP  
NEMA 4, 4X

## E510 NEMA 4/ 12 AC Inverter



Serial  
Net  
Options

**Constant Torque**  
**Power Range:** .5-75 HP  
**Enclosure:** IP20/ NEMA 1

HP (CT)	Input Voltage
.5-3	230V 1Φ
.5-40	230V 3Φ
1-75	460V 3Φ

**Typical Applications:**  
Conveyors, Compressors,  
Centrifugal Applications

## E510 NEMA 1 Compact AC Inverter



**Constant Torque**  
**Power Range:** .5-75 HP  
**Enclosure:** IP20/ NEMA 1

HP (CT, VT)	Input Voltage
1-100	230V 1Φ
1-125	230V 3Φ
1-425	460V 3Φ
1-425	460V 3Φ
1-10	575/600V 3Φ
1-10	575/600V 3Φ
15-250	690V 3Φ
15-270	690V 3Φ

**Typical Applications:**  
Crushers, Extruders

V/Hz	V/Hz	V/Hz
Sensorless Vector (SLV)	Sensorless Vector (SLV)	Sensorless Vector (SLV)
—	—	—
—	Permanent Magnet Sensorless Vector (PMSLV)	Permanent Magnet Sensorless Vector (PMSLV)
0-599 Hz	0-599 Hz	0-599 Hz
150% 1 Minute Overload	150% 1 Minute Overload	150% 1 Minute Overload
LED Keypad	LED Keypad	LED Keypad
Built-In on select models	Built-In Speed Potentiometer	Built-In Speed Potentiometer
Custom Value Scaling	Custom Value Scaling	Custom Value Scaling
Built-In	Built-In up to 30 HP (230V) and 40 HP (460V)	YES (up to 25 HP)
16 Preset Speeds	16 Preset Speeds	16 Preset Speeds
Built-In on select models	Optional Filter	Optional Filter
Auto Restart	Auto Restart	Auto Restart
Static Tuning	Static or Dynamic Tuning	Static or Dynamic Tuning
—	Plenum Rated	Plenum Rated
—	—	Pump Applications
6 DI	6 DI	6 DI
DO (1 Form C / 1 Form A)	2 DO (1 Form C / 1 Form A)	2 DO (1 Form C / 1 Form A)
2 AI (0-10VDC / 4-20mA)	2 AI (0-10VDC / 4-20mA)	2 AI (0-10VDC / 4-20mA)
1 AO (0-10VDC)	1 AO (0-10VDC)	1 AO (0-10VDC)
BaseBlock	BaseBlock	BaseBlock
1 PI	1 PI	1 PI
—	—	—
Built-In via RJ45	Built-In via RJ45 or Terminal	Built-In via RJ45 or Terminal
Run Permissive Input	Run Permissive Input	Run Permissive Input
PID	PID	PID
Sleep/ Wake	Sleep/ Wake	Sleep/ Wake
Fire Mode	Fire Mode	Fire Mode
Simple PLC	Simple PLC	Simple PLC
Auto Cycle	Auto Cycle	Auto Cycle
DC Injection Braking	DC Injection Braking	DC Injection Braking
—	—	—
Link Software	Link Software	Link Software
Copy Function Via Copy Module	Copy Function Via Copy Module or LCD Optional Keypad	Copy Function Via Copy Module or LCD Optional Keypad
Modbus RTU as Standard	Modbus RTU as Standard	Modbus RTU as Standard
Profibus Via Optional Gateway	Profibus Optional	Profibus Optional
EtherNet/IP Via Optional Gateway	EtherNet/IP Optional	EtherNet/IP Optional
—	BACnet MS/TP as Standard	BACnet MS/TP as Standard
—	—	Encoder Feedback
DeviceNet Via Optional Gateway	DeviceNet Optional	DeviceNet Optional

**Torque**  
**Power Range:** 1-400 HP  
**SEE BELOW**

**Input Voltage**

**Enclosure**

200V 3Φ	NEMA 1 (1-40 HP) IP20 (50-100 HP)
400V 3Φ	NEMA 1 (1-75 HP) IP20 (100-425 HP)
600V 3Φ	NEMA 1
690V 3Φ	NEMA 1 (1-60 HP) IP20 (75-270 HP)

**Applications:**  
 Machine Tooling, Compressors

# A510

## Heavy Duty AC Inverter



**Variable Torque**  
**Power Range:** 1-800 HP  
**Enclosure:** SEE BELOW

**HP (VT)**    **Input Voltage**

1-150	230V 3Φ
1-800	460V 3Φ

**Enclosure**

NEMA 1 (1-50 HP) IP20 (60-150 HP)
NEMA 1 (1-75 HP) IP20 (100-800 HP)

**Typical Applications:**  
 Blowers, Irrigation,  
 Wastewater

# F510

## Fan & Pump AC Inverter



V/Hz	V/Hz
Sensorless Vector (SLV), Sensorless Vector 2 (SLV2)	Sensorless Vector (SLV)
V/Hz+PG, Sensor Vector (SV)	—
Sensorless Vector (PMSLV), Permanent Magnet Sensor Vector (PMSV)	Permanent Magnet Sensorless Vector (PMSLV)
0-599 Hz	0-400 Hz
150% 1 Minute Overload	120% 1 Minute Overload
LCD Keypad	LCD Keypad
—	—
Custom Value Scaling	Custom Value Scaling
40 HP@230V, to 40 HP@460V, 575V all models, up to 40 HP@690V)	Built-In up to 30 HP (230V) and 40 HP (460V)
16 Preset Speeds	16 Preset Speeds
Optional Filter	Optional Filter
Auto Restart	Auto Restart
Static or Dynamic Tuning	Static or Dynamic Tuning
Plenum Rated	Plenum Rated
Conveyor, Exhaust Fan, HVAC, Compressor, Hoist, Crane	Pump, Exhaust Fan, HVAC, Compressor
8 DI	6 DI
Frame 1- Form C / 2 TTL; Frames 2-7, Form C &A / 1 TTL	3 DO (1 Form C / 2 Form A)
2 AI (0-10VDC / 4-20mA)	2 AI (0-10VDC / 4-20mA)
2 AO (0-10VDC / 4-20mA)	2 AO (0-10VDC / 4-20mA)
BaseBlock	BaseBlock
1 PI	1 PI
1 PO	1 PO
Built-In via RJ45 or Terminal	Built-In via RJ45 or Terminal
Run Permissive Input	Run Permissive Input
PID	PID
Sleep/ Wake	Sleep/ Wake
Fire Mode	Fire Mode
Simple PLC	Simple PLC
Auto Cycle	Auto Cycle
DC Injection Braking	DC Injection Braking
—	Master - Follower
Link Software	Link Software
Copy Function as Standard	Copy Function as Standard
Modbus RTU as Standard	Modbus RTU as Standard
Profibus Via Optional Gateway	Profibus Via Optional Gateway
EtherNet/IP Via Optional	EtherNet/IP Via Optional Gateway
—	BACnet MS/TP as Standard
Kit Via Optional Line Driver, Open Collector, Synchronous Line Driver	—
DeviceNet Via Optional Gateway	DeviceNet Via Optional

# PACKAGING SOLUTIONS

## HVAC Packages

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TECO-Westinghouse offers a complete line of packaged inverters, including bypass packages for fan and pump applications.

### Features

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- Packages up to 1000 HP available
- Available in multiple disconnect options
- Two or three contactor and soft start bypass
- Wide range of harmonic filters available to meet IEEE 519-1992
- NEMA 1, NEMA 12, NEMA 3R standard options
- NEMA 4 & 4X available (custom order)
- Duplex - multiplex packages available
- Packages designed to customer specifications

### Typical Applications

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- Fans
- Chillers
- Refrigeration
- Compressors
- Air handlers
- Pumps



## Industrial Packages

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TECO-Westinghouse also offers packaged inverters to suit robust industrial applications.

### Features

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- Packages up to 1000 HP
- Available in multiple disconnect options
- NEMA 1, NEMA 12, NEMA 3R standard options
- NEMA 4 & 4X available (custom order)
- Special designs to meet tight spacing requirements

### Typical Applications

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- Conveyors
- Compressors
- Mixers
- Stamping/ punch presses



## Motor & Inverter Packages

Additional discounts available when purchasing a matching motor and inverter as a set.

### Features

- Premium efficient motor and inverter combination packages
- Packages developed for both constant or variable torque applications
- Motors – 900 through 3600RPM; 230, 460V
  - Rolled Steel and Cast Iron ODP: 143T through 5009B
  - Max-E1® type AEHE, AEHH8N through 800 HP
- Inverters – 230VAC: 1-125 HP; 460VAC: 1-800 HP
  - EQ7 or A510 inverters for constant torque applications
  - EQ7 or F510 inverters for variable torque applications
- 5 year warranty valid on all combination packages



### Inverter Support

Telephone: 800-279-4007

E-mail: [sales@tecowestinghouse.com](mailto:sales@tecowestinghouse.com)

### Motor Support

Telephone: 800-USE-TECO (873-8326)

E-mail: [orders@tecowestinghouse.com](mailto:orders@tecowestinghouse.com)



[www.tecowestinghouse.com](http://www.tecowestinghouse.com)