

506/507/508

Up to 2 Hp

The 506, 507 and 508 series drives break new ground in value for money DC motor control. Available in 3, 6 or 12A armature ratings, the feature packed minimum footprint design is ideal for speed or torque control of permanent magnet or shunt wound DC motors from single-phase supplies.



INPUTS/OUTPUTS

Analog Inputs - 5; Speed Setpoint / Auxiliary Setpoint / Torque or Current Limit / Zero Speed Threshold (+10V); Tachometer Feedback (200 VDC max.)

Digital Inputs - 1; Start-Run (+10V)

Digital Outputs - 2; Healthy / Zero Speed Interlock (16V 50mA)

Reference Supplies - 1; +10 VDC

LED Diagnostics - Power On, Health

Potentiometer Adjustments

Maximum speed / Minimum speed / Current limit / Acceleration ramp (1-15 seconds) / Deceleration ramp (1-15 seconds) / IR compensation / Speed stability

Switch Adjustments

Armature Current Calibration / Armature Voltage Calibration / Tachometer Feedback / Supply Voltage Select

TORQUE OR SPEED CONTROL

IP20 PROTECTED COVERS

DIN RAIL MOUNTING

SWITCH SELECTABLE 110 OR 230 VAC SUPPLY

SWITCH SELECTABLE TACHOMETER OR ARMATURE VOLTAGE FEEDBACK

512C Non-Regen

Up to 7.5 Hp

Isolated control circuitry, a host of user facilities and extremely linear control loop make the 512C ideal for single motor or multi-drive low power applications. Designed for use on single phase supplies, the 512C is suitable for controlling permanent magnet or wound field dc motors in speed or torque control.



INPUTS/OUTPUTS

Analog Inputs - 4; Speed Setpoint / Auxiliary Setpoint / Torque or Current Limit (+10V); Tachometer Feedback (+350 VDC max.)

Analog Outputs - 4; Speed / Ramp Setpoint / Total Setpoint (+10 VDC); Armature Current (+5 VDC)

Digital Inputs - 2; Start-Run (+10 to +24 VDC) / Stall Override (+10 VDC)

Digital Outputs - 2; Health / Zero Speed (24V) 50mA

Reference Supplies - 2; -10 VDC / +10 VDC

LED Diagnostics - Power On, Stall Trip, Overcurrent Trip
Extremely linear control loops

Potentiometer Adjustments

Maximum speed / Minimum speed / Current limit / Acceleration ramp (0-40 seconds) / Deceleration ramp (0-40 seconds) IR compensation / Speed stability / Zero speed offset

Switch Adjustments

Armature Current Calibration / Armature Voltage Calibration / Tachometer Feedback / At Zero Speed/Setpoint / Current Meter Output / Supply Voltage Select - Jumpers

TORQUE OR SPEED CONTROL

FULLY ISOLATED CONTROL CIRCUITS

MULTI INPUT SPEED AND CURRENT SETPOINTS

EXTREMELY LINEAR CONTROL LOOPS

514C Regen

Up to 7.5 Hp

The regenerative 514C DC drive offers full four-quadrant control of dc motors from single-phase supplies. As such it is ideal for applications involving overhauling loads or where rapid and accurate deceleration is required. Together with the non-regenerative 512C, they offer the perfect solution for lower power single motor and multi-drive applications.



INPUTS/OUTPUTS

Analog Inputs - 6; Speed Setpoint / Positive Trim Setpoint / Negative Trim Setpoint / Current Demand ($\pm 10V$); Current Limit ($\pm 7.5VDC$); Tachometer Feedback ($\pm 350VDC$ max.)

Analog Outputs - 5; Ramp Setpoint / Total Setpoint / Speed / Current Demand ($\pm 10V$); Current Output ($\pm 5V$)

Digital Inputs - 3; Start-Run / Enable (24 VDC) / Stall Override (+10VDC)

Digital Outputs - 2; Health / Zero Speed (24 VDC 50mA)

LED Diagnostics - Power On, Stall Trip, Overcurrent Trip, PLL Lock, Current Limit

Reference Supplies - 3; -10VDC / +10VDC / 24 VDC

Thermistor - 1

Potentiometer Adjustments

Maximum Speed / Current Limit / Acceleration Ramp (0-40 seconds) / Deceleration Ramp (0-40 seconds) / IR Compensation / Speed Loop Gain - Proportional / Speed Loop Gain - Integral / Current Gain - Proportional / Current Gain - Integral / Zero Speed Offset / Zero Speed Threshold

Switch Adjustments

Armature Current Calibration / Armature Voltage Calibration / Tachometer Feedback / At Zero Speed/Setpoint / Current / Meter Output / Ramp Isolate / Standstill Logic / Current Demand / Overcurrent Trip / Setpoint Comparator / Supply Voltage Select - Jumpers

FOUR QUADRANT REGENERATIVE CONTROL

TORQUE OR SPEED CONTROL

MANY SYSTEM FEATURES

EXTREMELY LINEAR CONTROL LOOPS

5570 DIAGNOSTIC COMPATIBLE

110-460V Single Phase Controller

Type	Nominal Output Power KW/Hp			Output	
	120V Supply	230V Supply	460V Supply	Current A	Field VDC
506/03/240	0.2/0.2	0.25/0.3	—	3	100/200
507/06/240	0.25/0.3	0.75/1	—	6	
508/12/240	0.75/1	1.5/2	—	12	
512C/040/000	0.2/0.25	0.3/0.5	1.1/0.75	4	
512C/080/000	0.3/0.5	0.7/1	2.2/1.5	8	
512C/160/000	0.75/1	2.2/3	4.5/5	16	
512C/320/000	1.5/2	3.7/5	9/7.5	32	
514C/040/000	0.2/0.25	0.3/0.5	1.1/0.75	4	
514C/080/000	0.3/0.5	0.7/1	2.2/1.5	8	
514C/160/000	0.75/1	2.2/3	4.5/5	16	
514C/320/000	1.5/2	3.7/5	9/7.5	32	

TECHNICAL SPECIFICATION

506/507/508

Power Supply - Main supply; 110-240 VAC $\pm 10\%$; Single-phase 50-60 Hz ± 5 Hz

512C/514C

Power Supply - Main supply; 110-480 VAC $\pm 10\%$; Single-phase 50-60 Hz ± 5 Hz

Auxiliary supply; 110-120, 220-240, or 380-415 (512C only) VAC $\pm 10\%$ user selectable.

All Drives

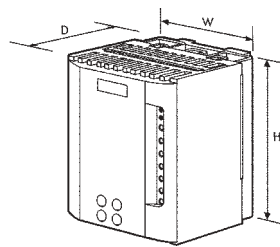
Field Supply - 0.9 X Main Supply voltage; 2A for 506/507/508 and 3A for 512C/514C maximum

Ambient - 0-45°C (32-113°F), up to 1000m (3280 ft) ASL without derating

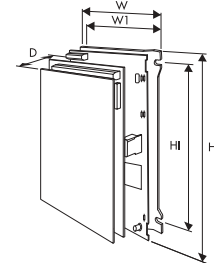
Overload - 150% for 60 seconds

Dimensions

Type	Size			Mounting		Weight Kg/Lbs
	H	W	D	H1	W1	
506 and 507 508	140/5.5	104/4.1	79/3.1 89/3.5	140/5.5	50/2.0	0.6/1.3 0.7/1.5
512C (4 and 8 A)	240/9.4	160/6.2	90/3.3	210/8.21	48/5.8	1.5/3.3
512C (16A)			1.6/3.5			
512C (32A)			1.6/3.5			
514C (4 and 8 A)			1.6/3.5			
514C (16 and 32 A)			130/4.8			3/6.6



506/507/508



512C/514C

STANDARDS

The 506/507/508, 512C and 514C series meets European and North American standards when installed in accordance with relevant product manual.