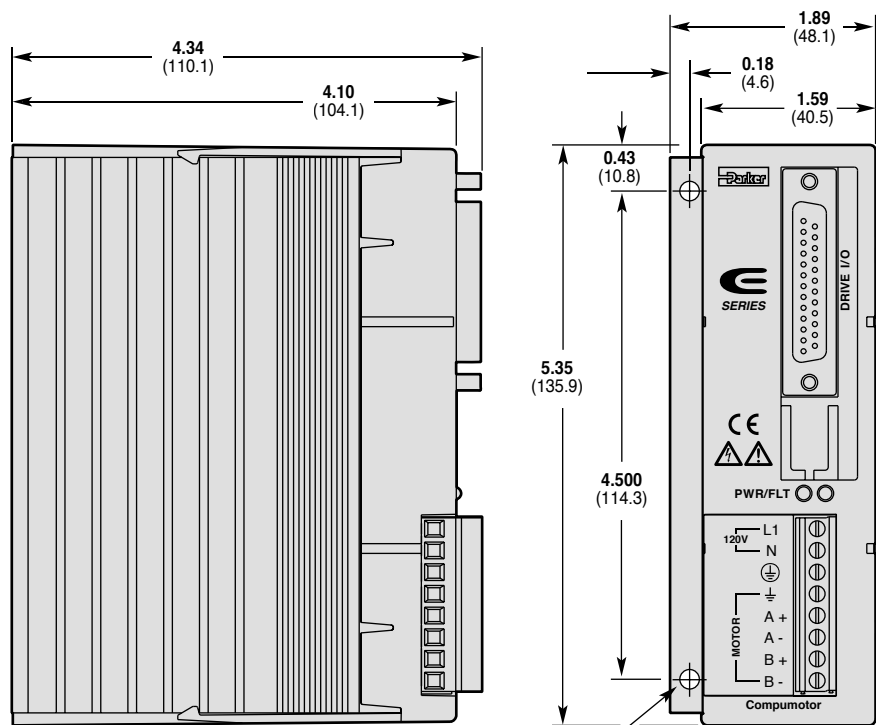


Dimensions



Dimensions in inches (mm)

2x clearance for #8 or M4 mounting screws

E
SERIES

E-AC Drive



Protective Circuits

Short Circuit Protection:

- phase-to-phase motor short
- phase-to-ground motor short

Inrush Current Protection

Drive Overtemperature Protection

- trips at 75°C (157°F) internally

Undervoltage Protection

Motor Performance Specifications

Repeatability: +/- 5 arc seconds typical;
unloaded motor, bi-directional motion

Hysteresis: less than 2 arc minutes;

unloaded motor, bi-directional motion

Motor Velocity: 50 rps maximum, regardless of resolution

Environmental Specifications

Operating Temperature: 0°C – 50°C (32°F – 122°F)

Storage Temperature: -40°C – 80°C (-40°F – 176°F)

Humidity: 0 – 95%, non-condensing

Drive Weight: 1.2 pounds (0.6 kg)

Input/Output Specifications

INPUTS All inputs are optically isolated

STEP:

minimum pulse width: 200 nanoseconds
maximum input frequency: 2MHz
minimum turn on current: 6.5mA
maximum supply current: 15mA

DIRECTION:

minimum setup time: 200 microseconds
minimum turn on current: 6.5mA
maximum supply current: 15mA

RESET:

drive is in reset while input is active (high)
minimum turn on current: 2.5mA
maximum supply current: 30mA

SHUTDOWN:

drive is in shutdown while input is active (high)
minimum turn on current: 2.5mA
maximum supply current: 30mA

FAULT OUTPUT

Optically isolated; open collector/emitter output.
Normally active (output turns off on a fault condition).
To clear fault: cycle power or reset drive.
maximum collector current: 40mA
maximum power dissipation: 40mW

E-AC DRIVE Hardware Installation Guide

is available online in PDF format:

<http://www.compumotor.com>

(part number 88-020292-01)



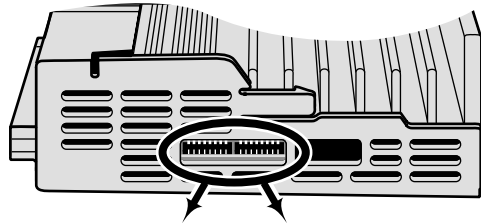
Hardware Installation Guide
available at: www.compumotor.com

Quick Reference Guide

Compumotor Division
Parker Hannifin Corporation
p/n 88-020290-01 B (effective April 9, 2002)



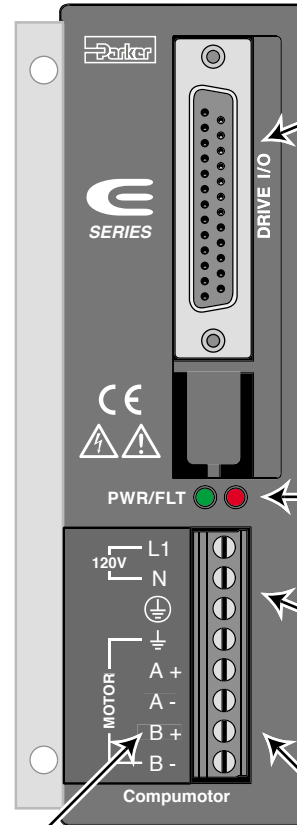
DIP Switch Settings



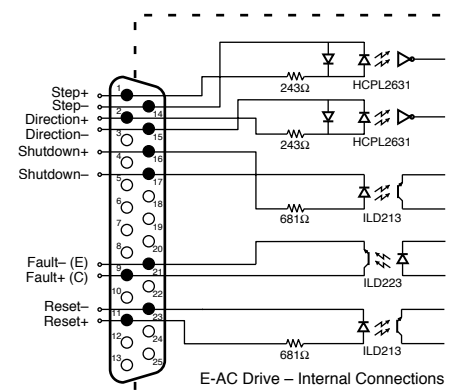
Default Position:
Drive ships from factory with all DIP switches in the OFF position.



E-AC Drive

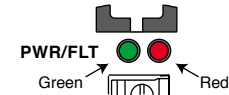


25 Pin DRIVE/O Connector



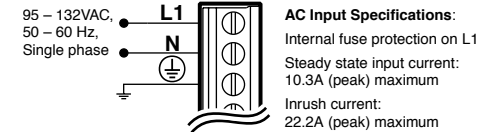
Input/Output Specifications – see back cover

LEDs



LED Color:
Green Red
Off Off No AC power applied
On Off AC power applied
On On Fault Condition:
• drive overtemperature; or
• short circuit detected

AC Input Connections



Auto Test		Resolution		Waveform		Auto Standby	
1	Disabled off	2	off	6	off	8	off
	Enabled on	3	off	7	on		on
1 rps for 2 revs in each direction until disabled							
Resolution							
25,000	off	off	off	off			
50,800	on	off	off	off			
50,000	off	on	off	off			
36,000	on	on	off	off			
25,600	off	off	on	off			
25,400	on	off	on	off			
21,600	off	on	on	off			
20,000	on	on	on	off			
18,000	off	off	off	on			
12,800	on	on	off	on			
10,000	off	on	off	on			
5,000	on	on	on	on			
2,000	off	off	on	on			
1,000	on	on	on	on			
400	off	on	on	on			
200	on	on	on	on			
200 & 400 not affected by waveform settings							
Waveform							
	Pure sine	off	on				
	-4% 3 rd harmonic	off	off				
	-6% 3 rd harmonic	on	off				
	-8% 3 rd harmonic	on	on				
Auto Standby							
	Full Current						off
	50% Current Reduction						on

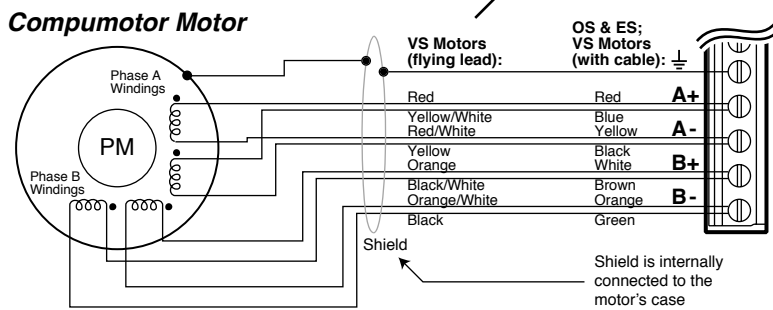
Current		Gain	
4	off	1	off
5	off	2	on
6	off	3	on
7	off		
8	off		
1 rps for 2 revs in each direction until disabled			
Current			
	off	0.02	
	off	0.13	
	off	0.24	
	off	0.35	
	off	0.46	
	off	0.58	
	off	0.69	
	off	0.80	
	off	0.91	
	off	1.03	VS12BS, VS13BS
	off	1.14	
	off	1.25	
	off	1.36	
	off	1.48	
	off	1.59	
	off	1.70	OS2HBS, ES21BS
	off	1.82	OS21BS
	on	1.93	VS12BP, VS13BP
	on	2.04	VS22BS, VS23BS, ES22BS
	on	2.15	
	on	2.27	VS21BS
	on	2.38	OS22BS
	on	2.49	
	on	2.60	ES23BS
	on	2.72	ES31BS
	on	2.83	
	on	2.94	
	on	3.05	VS31BS
	on	3.16	VS32BS
	on	3.28	VS2xBP, VS3xBP
	on	3.39	OS2HBP, OS21BP, OS22BP
	on	3.50	ES2xBP, ES32BS, ES33BS
Gain			
	off	< 32 mH (all VS, OS, ES motors)	
	on	32 – 64 mH	
	off	> 64 mH	Select a setting based on motor inductance (in mH).
	on	> 64 mH	

Remove power before changing DIP switches

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Motor Output Connections – Parallel



Motor Output Connections – Series

Compumotor Motor

