

PS-6344 Controller Specs

Electrical (The PS-6344 is UL and UL-C listed)

Input Power	20-30 VDC. Keypad/display is powered from controller.
Input Current	500 mA maximum (control only) Certain types of power supplies employ a self protection feature called current fold back limiting. The inrush currents of the high efficiency switching regulators may cause power supplies to enter current limit mode. Power supplies with current fold back limiting should be sufficient to supply three times the steady state current of the system. Inrush current @ 30v, 40 amps max. for 600 μ s (2 keyboards)
Power Consumption:	25 W
Permanent Memory:	EEPROM (no battery required)
Accessory Power Out:	20-30 VDC, 250 mA Max (same source and voltage as input power)

Environment

Operating Temp:	0° to 55°C (32° to 131°F)
Storage Temp:	-40° to 70°C (-40° to 160°F)
Humidity:	95% maximum relative non-condensing
NEMA Rating:	Keypad/Display: NEMA 4

Physical

Overall Dimensions:	See Figure 4
Weight:	Controller: 3.5 lbs (1.6 kg). Keypad/Display: 0.5 lbs. (0.2 kg)

Mounting

Controller:	Brackets accept EN-50035 ("G" profile) or EN-50022 ("Top Hat" profile) DIN rail.
Keypad/Display:	Mounts up to 1000' from controller. Multiple keypads may be connected to one controller.

Inputs

DC Inputs:	16 sinking or sourcing DC inputs, optically isolated.
Input ON State Voltage:	10-30 VDC
Input Current:	11 mA @ 24 VDC
Program Select Response:	100 ms typical; may be longer with large numbers of setpoints.
Response of All Other Inputs:	1-2 scans

Outputs: PS-6344-24-(P16 or N16)M09

Real World Outputs:	Up to nine Slimline modules may be mounted on controller. Modules may be any mix of AC, DC, reed relay, and up to two analog. All modules optically isolated.
DC (Transistor) Outputs:	16 sinking (N16) or sourcing (P16), optically isolated. Sinking or sourcing must be specified on order.

Outputs: PS-6344-24-M17

Real World Outputs:	Up to 17 Slimline modules may be mounted on controller. Modules may be any mix of AC, DC, reed relay, and up to two analog. All modules optically isolated.
---------------------	---

Analog Output

Output Types:	4-20 mA or 0-10 VDC, proportional to RPM.
Resolution:	12 bit
Update Frequency:	10 times/sec minimum
Linearity:	\pm 0.3% of full scale @ 25°C (77°F)
Set-up:	Offset and full scale RPM are programmable.

Operation

Scan Time:	300-800 ms typical (exact time determined by programming) For higher speeds, interrupt-driven versions available—consult factory.
Position Resolution:	10 bits (1024 increments). 12 bits (4096 increments) available with "-H" option.
Speed Compensation:	Programmed in 0.1 msec steps. 16 individually compensated outputs max. Updated ten times per second. Separate leading/trailing edge compensation available with option "-L" (update time typically five times per second).
Output Timeout:	1.0 ms time base (accuracy: +1, -0 ms)
Number of Timed Outputs:	Four maximum
Multiple Programs:	48 programs
Total Pulse Memory:	1258 pulses
Pulses per Program:	512 maximum
Pulses per Output:	512 maximum
Maximum Speed:	3000 RPM

RS-232 Serial Communication

Port Types:	1 RS-282 or 1 RS-422/485—R-485 can be configured as a "Multi-Drop" network.
Baud Rates:	4800, 9600, 19.2K, 38.4K

SLIMLINE Output Module Specifications

AC Outputs

Part # EC-OAC240-3

Output Voltage:	24 VAC rms minimum 280 VAC rms maximum
Output Current:	30 mA rms minimum 3 amps rms maximum @/below 35°C (95°F). Above 35°C derate 50 mA/°C (27.8 mA/°F)
Input Voltage:	5 VDC nominal 8 VDC maximum
Turn On Time:	100 µs maximum @ 60 Hz
Turn Off Time:	8.3 ms maximum @ 60 Hz
Off State Leakage:	2 mA AC rms @ 120 VAC rms, 60 Hz
Operating Temp.	-30°C to +70°C (-22° to +158°F)

DC Output, 60 VDC

Part # EC-ODC060-3

Output Voltage:	0 to 60 VDC
Output Current:	3 amps DC @/below 35°C (95°F) Above 35°C derate 35.7 mA/°C (19.8 mA/°F)
Turn On Time:	50 µs maximum
Turn Off Time:	50 µs maximum
Off State Leakage:	1 µA DC maximum @ 24 VDC
Operating Temp.	-30°C to +70°C (-22° to +158°F)

DC Outputs, 200 VDC

Part # EC-ODC200-1 (Slimline)

Output Voltage:	0 to 200 VDC
Output Current:	1 amp DC @/below 45°C (113°F). Above 45°C derate 18 mA/°C (10 mA/°F)
Turn On:	50 µs maximum
Turn Off:	50 µs maximum
Off State Leakage:	1 µA maximum
Operating Temp.	-30°C to +70°C (-22° to +158°F)

Analog Output, 0-10 VDC

Part # EC-SANL-010V

Resolution:	12 Bits (4096 Increments)
Output Voltage:	0 to 10 VDC
Output Current:	10 mA maximum
Load Resistance:	1 K Ohm minimum
Linearity:	±0.3% full scale @ 25°C (77°F)

Analog Output, 4-20 mA

Part # EC-SANL-420M

Resolution:	12 Bits (4096 Increments)
Output Current:	4 to 20 mA DC
Load Resistance:	450 Ohm maximum
Linearity:	±0.3% full scale @ 25°C (77°F)

Reed Relay

Part # EC-ORR000-0

Output Type:	N/O Reed Relay Contacts
Contact Rating:	10 VA maximum (DC resistive load)
Output Voltage:	0 to 24 VDC 0 to 120 VAC rms
Output Current:	100 mA AC maximum (resistive load only)
Turn On Time:	500 µs
Turn Off Time:	500 µs
Mechanical Life:	50 million cycles
Operating Temp:	0° to +70°C (32° to +158°F)

Transistor Output Specifications

Sinking Transistor Output	Part # PS-9011-2803	Output Type:	Current Sinking (NPN)
		Output Voltage:	5 to 30 VDC
		Output Current:	50 milliamp cont. max (each output)
Sourcing Transistor Output	Part # PS-9011-2580	Output Type:	Current Sourcing (PNP)
		Output Voltage:	5 to 30 VDC
		Output Current:	50 milliamp cont. max (each output)

Factory Defaults

Analog Outputs	
Quantity:	0
Offset:	0
High RPM:	2000
Communications	
Type:	RS-485
Baud Rate:	9600
Default Program:	1
Enable Codes	
Operator:	1
Setup:	2
Master:	3
Enable Options:	ON for all functions
Group Qty	1
Increasing Direction:	CCW (For both resolver 1 and 2)
Input ANDing:	OFF
Keyboard Quantity:	1
Master/Slave	Master
Motion ANDing:	OFF
Motion Detection:	Lo 10 RPM, Hi 3000 RPM both levels
Offset:	0
Output Enable ANDing:	OFF
Per Channel Enable:	All channels ON
Program Select Mode:	BIN (Binary)
Rate:	1X, RPM
Rate Display Mode:	RPM-POS
RPM Update:	1/S
Scale Factor:	300 (For both resolver 1 and 2)
Speed Comp:	All channels 0
Toggle RPM:	20 RPM

PLuS 6344 Setpoint Record

Date: _____

PLuS Program #: _____

Description: _____

CHN	Group	Mode	On	Off	ANDed With...		Timed Output	Speed Comp	Comments (multiple pulses, etc.)
					Output Enable	Motion Level #			
1	_____	_____	_____	_____	_____	_____	_____	_____	_____
2	_____	_____	_____	_____	_____	_____	_____	_____	_____
3	_____	_____	_____	_____	_____	_____	_____	_____	_____
4	_____	_____	_____	_____	_____	_____	_____	_____	_____
5	_____	_____	_____	_____	_____	_____	_____	_____	_____
6	_____	_____	_____	_____	_____	_____	_____	_____	_____
7	_____	_____	_____	_____	_____	_____	_____	_____	_____
8	_____	_____	_____	_____	_____	_____	_____	_____	_____
9	_____	_____	_____	_____	_____	_____	_____	_____	_____
10	_____	_____	_____	_____	_____	_____	_____	_____	_____
11	_____	_____	_____	_____	_____	_____	_____	_____	_____
12	_____	_____	_____	_____	_____	_____	_____	_____	_____
13	_____	_____	_____	_____	_____	_____	_____	_____	_____
14	_____	_____	_____	_____	_____	_____	_____	_____	_____
15	_____	_____	_____	_____	_____	_____	_____	_____	_____
16	_____	_____	_____	_____	_____	_____	_____	_____	_____
17	_____	_____	_____	_____	_____	_____	_____	_____	_____
18	_____	_____	_____	_____	_____	_____	_____	_____	_____
19	_____	_____	_____	_____	_____	_____	_____	_____	_____
20	_____	_____	_____	_____	_____	_____	_____	_____	_____
21	_____	_____	_____	_____	_____	_____	_____	_____	_____
22	_____	_____	_____	_____	_____	_____	_____	_____	_____
23	_____	_____	_____	_____	_____	_____	_____	_____	_____
24	_____	_____	_____	_____	_____	_____	_____	_____	_____
25	_____	_____	_____	_____	_____	_____	_____	_____	_____
91	_____	_____	_____	_____	_____	_____	_____	_____	_____
92	_____	_____	_____	_____	_____	_____	_____	_____	_____
93	_____	_____	_____	_____	_____	_____	_____	_____	_____
94	_____	_____	_____	_____	_____	_____	_____	_____	_____
95	_____	_____	_____	_____	_____	_____	_____	_____	_____
96	_____	_____	_____	_____	_____	_____	_____	_____	_____

Analog Outputs

Output Channel #: _____ ★ 4-20mA ★ 0-10 VDC Offset: _____ High RPM: _____
 Output Channel #: _____ ★ 4-20mA ★ 0-10 VDC Offset: _____ High RPM: _____

Global Settings

Motion Detection Levels

L1: _____ RPM
 L2: _____ RPM

Group Offsets

Group #1 Offset/Preset: _____ Group #4 Offset/Preset: _____
 Group #2 Offset/Preset: _____ Group #5 Offset/Preset: _____
 Group #3 Offset/Preset: _____ Group #6 Offset/Preset: _____

Electro Cam Corp.

800-228-5487 (U.S.A. and Canada) • Web Site: www.electrocam.com • email: ecam@electrocam.com

PRINTED IN U.S.A

251 5/00