

crydom

Control Relays
Datasheet

LPCV Series



- Linear proportional controller
- Ratings from 15A to 110A @ 240 VAC
- 0-5 V DC, 0-10 V DC, or 4-20mA input
- For use with resistive loads only

PRODUCT SELECTION

Description	15 A	25 A	40 A	75 A	110 A
0-5 VDC Control	5LPCV2415	5LPCV2425	5LPCV2440	5LPCV2475	5LPCV24110
0-10 VDC Control	10LPCV2415	10LPCV2425	10LPCV2440	10LPCV2475	10LPCV24110
4-20 mA Control	20LPCV2415	20LPCV2425	20LPCV2440	20LPCV2475	20LPCV24110

OUTPUT SPECIFICATIONS (voltage) (1)

Description	240 VAC
Operating Voltage (60Hz) [Vrms]	20-300
Transient Overvoltage [Vpk]	600
Maximum Off-State Leakage Current @ Rated Voltage [mA _{rms}]	10
Minimum Off-State dv/dt @ Maximum Rated Voltage [V/μsec]	200

OUTPUT SPECIFICATIONS (current) (1)

Description	15 A	25 A	40 A	75 A	110 A
Maximum Load Current [A _{rms}]	15	25	40	75	110
Minimum Load Current [A _{rms}]	0.10	0.10	0.10	0.15	0.20
Maximum Surge Current (16.6ms) [A _{pk}]	150	250	625	1000	1500
Maximum On-State Voltage Drop @ Rated Current [V _{pk}]	1.6	1.6	1.6	1.6	1.6
Thermal Resistance Junction to Case [R _{jc}] [°C/W]	1.48	1.02	0.63	0.31	0.28
Maximum I ² t for Fusing (8.3 msec) [A ² sec]	94	260	1620	4150	9340
Minimum Power Factor (with Maximum Load)	0.5	0.5	0.5	0.5	0.5

INPUT SPECIFICATIONS (1)

Description	5LPCV	10LPCV	20LPCV
Control Voltage Range	0-5 VDC	0-10 VDC	4-20 mA
Control Range Limits (Min/Msx)	-0.5/10 VDC	-1.0/20 VDC	-0.5/25 mA
Turn-On Threshold	0.25 VDC	0.5 VDC	4.5 mA
Nominal Input Impedance	12.7K Ohm	25 K Ohm	460 Ohm
Sync Voltage (terminal 6 and 7)	16-24 VAC	16-24 VAC	16-24 VAC

POWER SUPPLY SPECIFICATION (4)

Description	PS120	PS240
Input Voltage 50/60Hz	120 VAC	240 VAC
Output Voltage 50/60Hz (Sync Voltage)	20 VAC/100mA	20 VAC/100mA
Ambient Operating Temperature Range	-30 to 80°C	-30 to 80°C
Ambient Storage Temperature Range	-40 to 125°C	-40 to 125°C
Terminals	6-32 Screws, .25" Fastons	
Screw Torque Requirement	6-32 Screws -10 in lbs.	
Weight (typical)	8.6 oz. (245g)	



Control Relays

Datasheet

GENERAL SPECIFICATIONS

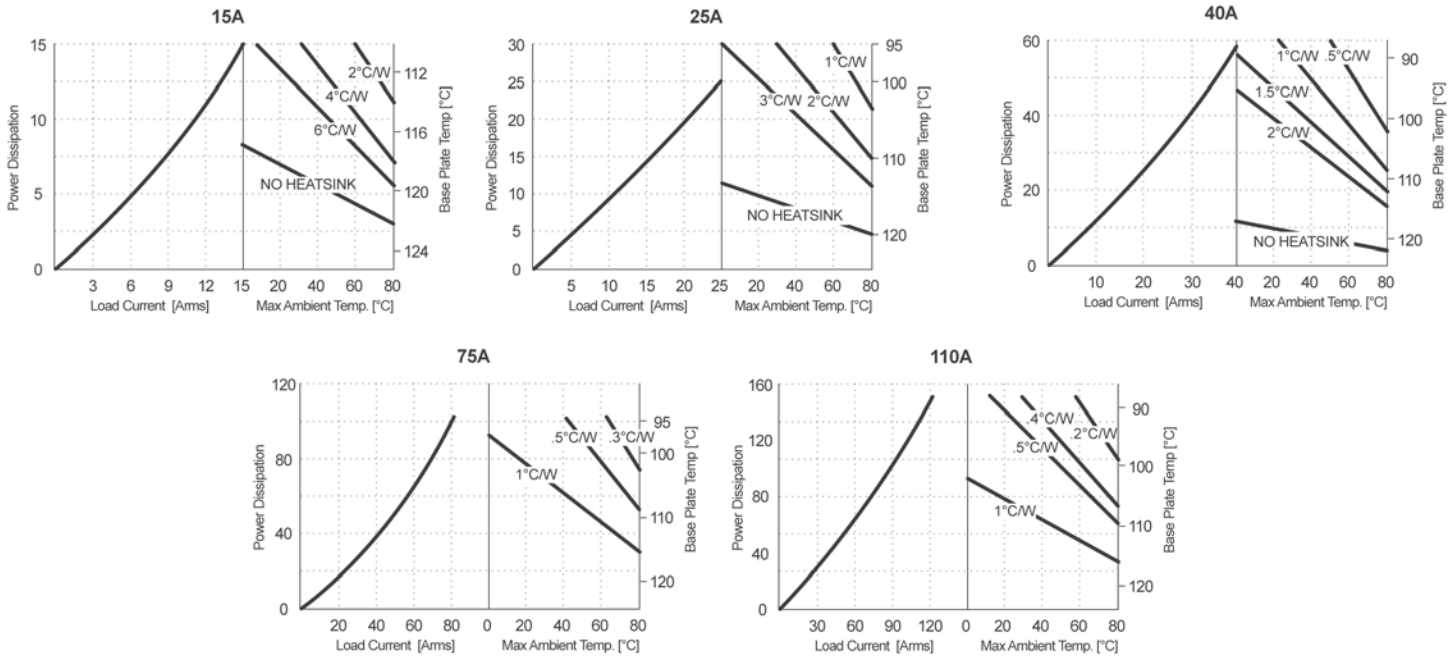
Description

Dielectric Strength, signal to load	2500 Vrms
Dielectric Strength, signal to Base	2500 Vrms
Ambient Operating Temperature Range	-30 to 80°C
Ambient Storage Temperature Range	-40 to 125°C
Weight (typical)	6.0 oz. (175g)
Encapsulation	Thermally Conductive Epoxy
Terminals	8-32 Screws, .25" Fastons
Screw Torque Requirement	8-32 and 10-32 Screws - 20in. lbs.

GENERAL NOTES

- 1) All parameters at 25°C unless otherwise specified.
- 2) Linear taper potentiometer 1-10K Ohm, ½ watt.
- 3) 50Hz models available.
- 4) 20 VAC must be in phase with load

THERMAL DERATE INFORMATION



TYPICAL APPLICATIONS

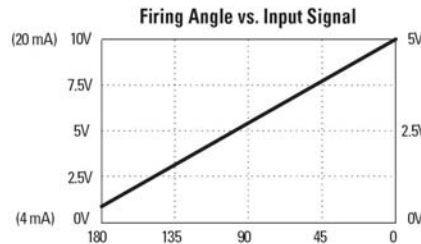
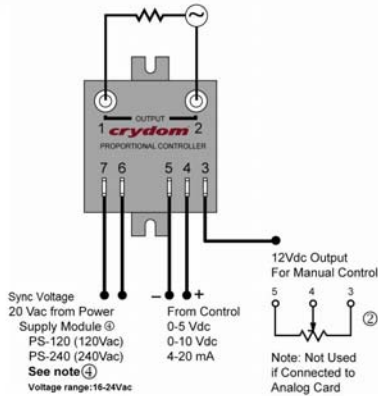
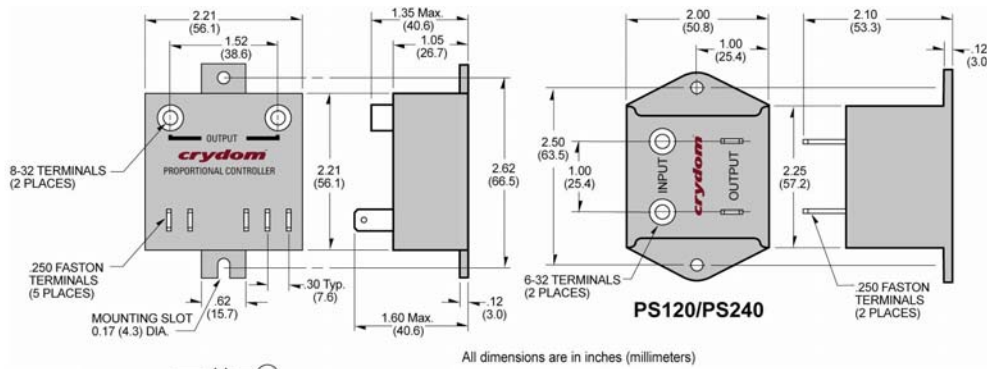
- Infrared and quartz heaters
- Resistive heating elements
- Rectified DC motors
- Industrial temperature controllers
- Thermal forming equipment
- Conveyor speed control
- Printing applications



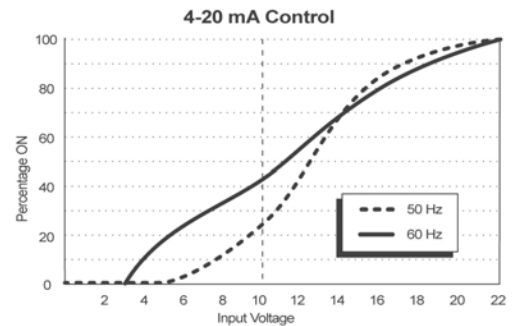
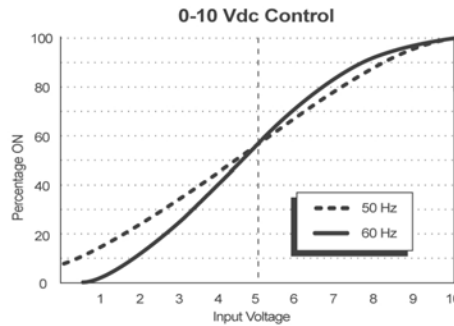
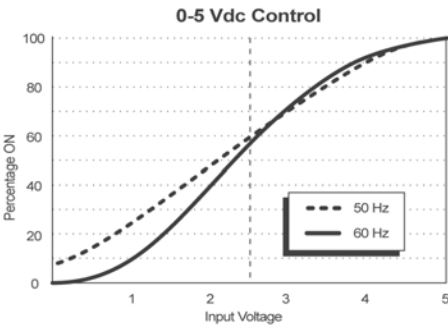
Control Relays

Datasheet

WIRING DIAGRAM



PERCENT VS INPUT VOLTAGE



AGENCY APPROVALS

Designed in accordance with the requirements of IEC 62314

