



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 [mArms]	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 [Arms]	15	25	40	75	110
Minimum Load Current [Arms]	0.10	0.10	0.10	0.15	0.20
Maximum Surge Current (16.6ms) [Apk]	150	250	625	1000	1500
Maximum On-State Voltage Drop @ Rated Current [Vpk]	1.6	1.6	1.6	1.6	1.6
Thermal Resistance Junction to Case (Rjc) [°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)	

GENERAL SPECIFICATIONS

Description

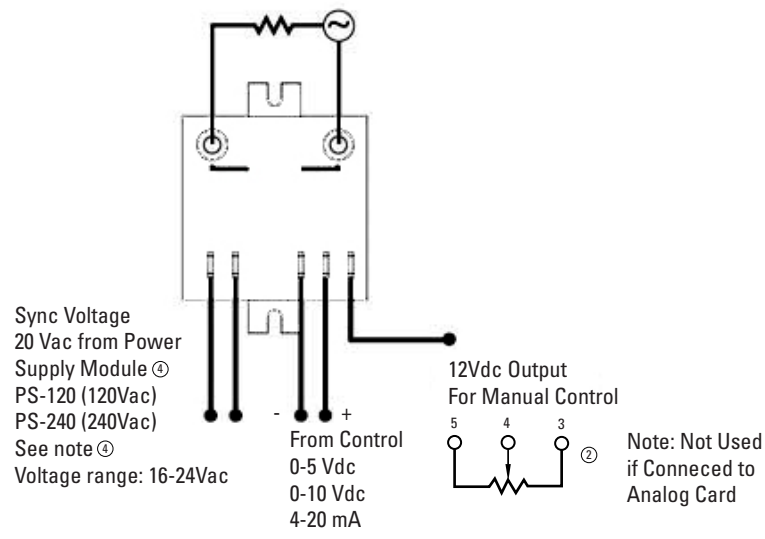
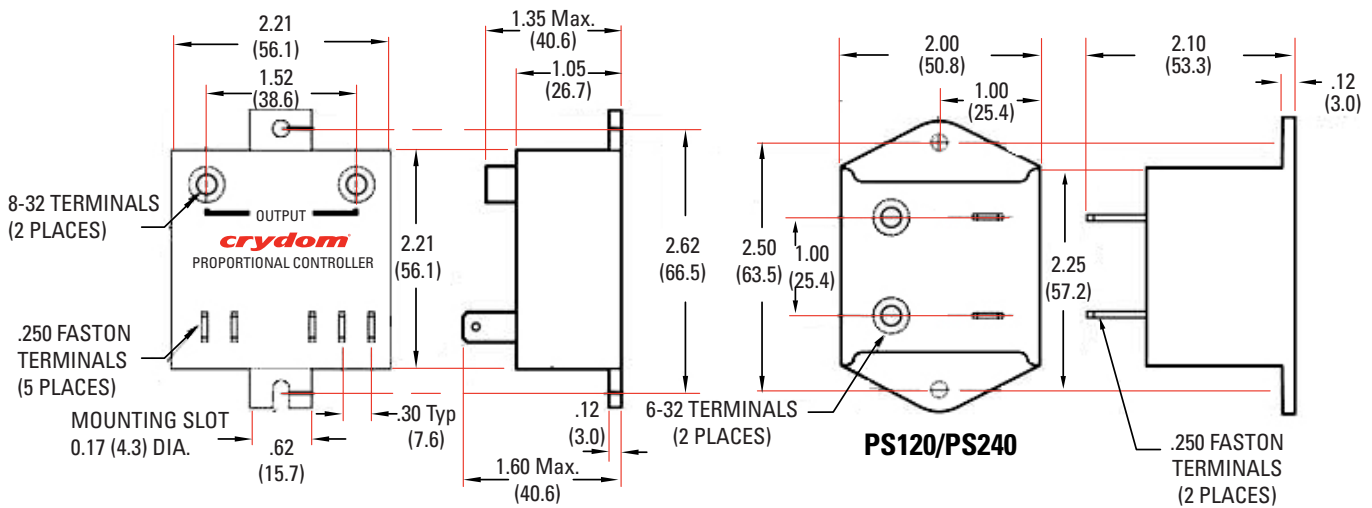
Dielectric Strength, signal to load	2500 Vrms
Dielectric Strength, signal to Base	2500 Vrms
Ambient Operating Temperature Range	-30 to 80°C
Ambient Storage Temperature Range	-40 to 125°C
Weight (typical)	6.0 oz. (175g)
Encapsulation	Themally Conductive Epoxy
Terminals	8-32 Screws, .25" Fastons
Screw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

GENERAL NOTES

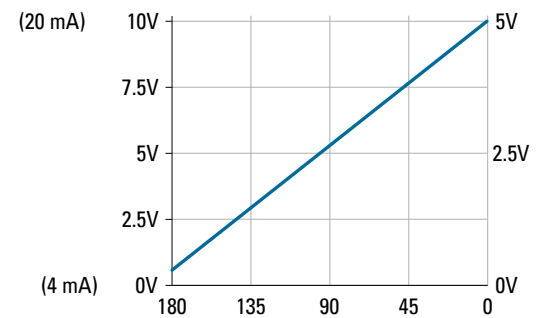
- 1) All parameters at 25°C unless otherwise specified.
- 2) Linear taper potentiometer 1-10K Ohm, ½ watt.
- 3) 50Hz models available.
- 4) 20 VAC must be in phase with load

WIRING DIAGRAM

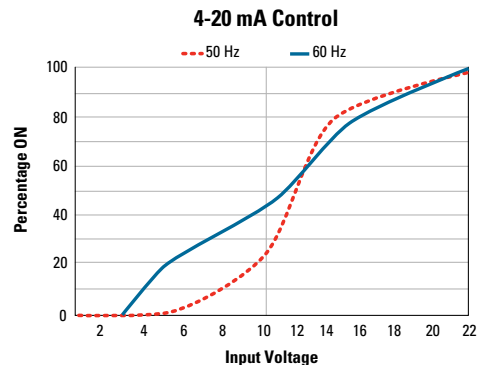
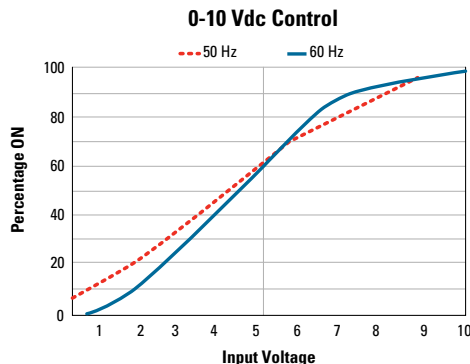
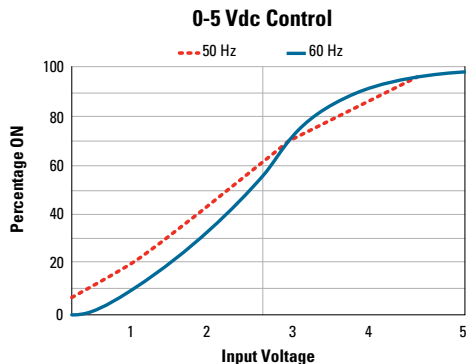
Tolerances: ±0.02 in / 0.5 mm
 All dimensions are in: inches [millimeters]



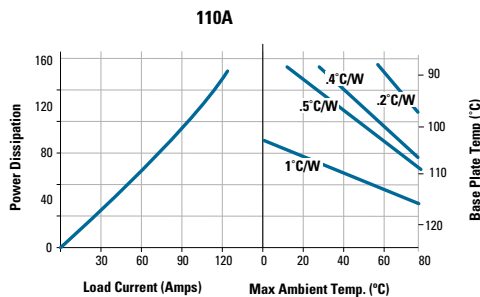
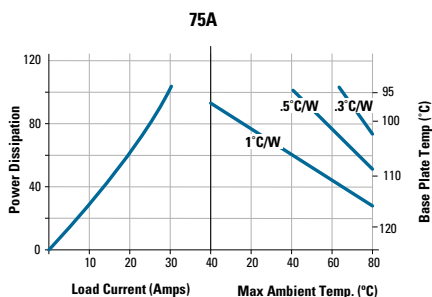
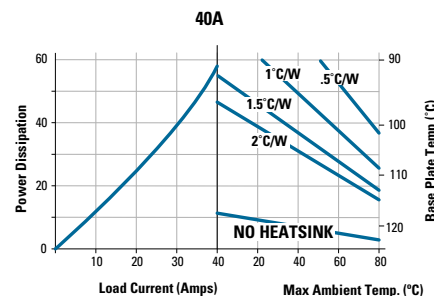
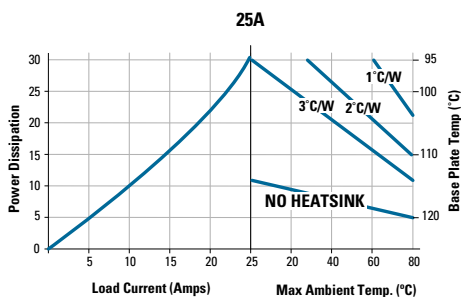
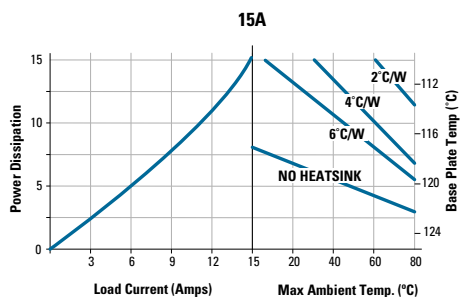
Firing Angle vs. Input Signal



PERCENT VS INPUT VOLTAGE



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

AGENCY APPROVALS

Agency Approvals

Designed in accordance with the requirements of IEC 62314

Rev. 110411

⚠ DANGER / PELIGRO / DANGER /GEFAHR / PERICOLO / 危險

<p>HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH.</p> <ul style="list-style-type: none"> • Disconnect all power before installing or working with this equipment. • Verify all connections and replace all covers before turning on power. <p>Failure to follow these instructions will result in death or serious injury.</p>	<p>RIESGO DE DESCARGA ELECTRICA O EXPLOSION.</p> <ul style="list-style-type: none"> • Desconectar todos los suministros de energia a este equipo antes de trabajar con este equipo. • Verificar todas las conexiones y colocar todas las tapas antes de energizar el equipo. <p>El incumplimiento de estas instrucciones puede provocar la muerte o lesiones serias.</p>	<p>RISQUE DE DESCARGE ELECTRIQUE OU EXPLOSION</p> <ul style="list-style-type: none"> • Eteindre toutes les sources d'énergie de cet appareil avant de travailler dessus de cet appareil • Vérifier tous connections, et remettre tous couverts en olace avant de mettre sous <p>De non-suivi de ces instructions provoquera la mort ou des lésions sérieuses sérieuses.</p>	<p>GEFAHR EINES ELEKTRISCHE N SCHLAGES ODER EINER EXPLOSION.</p> <ul style="list-style-type: none"> • Stellen Sie jeglichen Strom ab, der dieses Gerät versorgt, bevor Sie an dem Gerät Arbeiten durchführen • Vor dem Drehen auf Energie alle Anschlüsse überprüfen und alle Abdeckungen ersetzen. <p>Unterlassung dieser Anweisungen können zum Tode oder zu schweren Verletzungen führen.</p>	<p>RISCHIO DI SCOSSA ELETTRICA O DELL'ESPLOSIONE.</p> <ul style="list-style-type: none"> • Spenga tutta l'alimentazione che fornisce questa apparecchiatura prima di lavorare a questa apparecchiatura • Verificare tutti i collegamenti e sostituire tutte le coperture prima dell'accensione <p>L'omissione di queste istruzioni provocherà la morte o lesioni serie</p>	<p>存在电击、爆炸或电弧闪烁危险</p> <ul style="list-style-type: none"> • 在操作此设备之前请先关闭电源。 <p>若不遵守这些说明,可能会导致严重的人身伤害甚至死亡。</p>
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⚠ WARNING / AVERTISSEMENT / WARNUNG /ADVERTENCIA / AVVERTENZA / 警告

<p>RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE</p> <ul style="list-style-type: none"> • The product's side panels may be hot, allow the product to cool before touching. • Follow proper mounting instructions including torque values. • Do not allow liquids or foreign objects to enter this product. <p>Failure to follow these instructions can result in serious injury, or equipment damage.</p>	<p>RISQUE DE DOMMAGE MATERIEL ET DE SURCHAUFFE DU BOITIER</p> <ul style="list-style-type: none"> • Les panneaux latéraux du produit peuvent être chauds. Laisser le produit refroidir avant de le toucher. • Respecter les consignes de montage, et notamment les couples de serrage. • Ne pas laisser pénétrer de liquide ni de corps étrangers à l'intérieur du produit. <p>Le non-respect de cette directive peut entraîner, des lésions corporelles graves ou des dommages matériels.</p>	<p>GEFAHR VON MATERIALSCHÄDEN UND GEHÄUSEERHITZUNG</p> <ul style="list-style-type: none"> • Die Seitenwände können heiß sein. Lassen Sie das Produkt abkühlen, bevor Sie es berühren. • Beachten Sie die Montageanweisungen, Führen Sie keine Flüssigkeiten oder Fremdkörper in das Produkt ein. <p>Die Nichtbeachtung dieser Anweisung kann Körperverletzung oder Materialschäden zur Folge haben.</p>
<p>RIESGO DE DAÑOS MATERIALES Y DE SOBRECALENTAMIENTO DE LA UNIDAD</p> <ul style="list-style-type: none"> • Los paneles laterales del producto pueden estar calientes. Esperar que el producto se enfríe antes de tocarlo. • Respetar las instrucciones de montaje, y en particular los pares de apretado. • No dejar que penetren líquidos o cuerpos extraños en el producto. <p>Si no se respetan estas precauciones pueden producirse graves lesiones, daños materiales.</p>	<p>RISCHIO DI DANNI MATERIALI E D'INVOLUCRO CALDO</p> <ul style="list-style-type: none"> • I pannelli laterali dell'apparecchio possono scottare; lasciar quindi raffreddare il prodotto prima di toccarlo. • Seguire le istruzioni di montaggio corrette. • Non far entrare liquidi o oggetti estranei in questo apparecchio. <p>La mancata osservanza di questa precauzione può causare gravi rischi per l'incolumità personale o danni alle apparecchiature.</p>	<p>材料损坏和高温外壳的危险性</p> <ul style="list-style-type: none"> • 产品的一侧面板可能很热, 在其冷却前请不要触碰。 • 遵照正确的安装说明, 包括扭矩值。 • 请勿让液体及其他异物进入本产品。 <p>如不能正确执行这些操作说明, 极有可能造成严重人体伤害或者设备的损坏。</p>