

MCBC Series

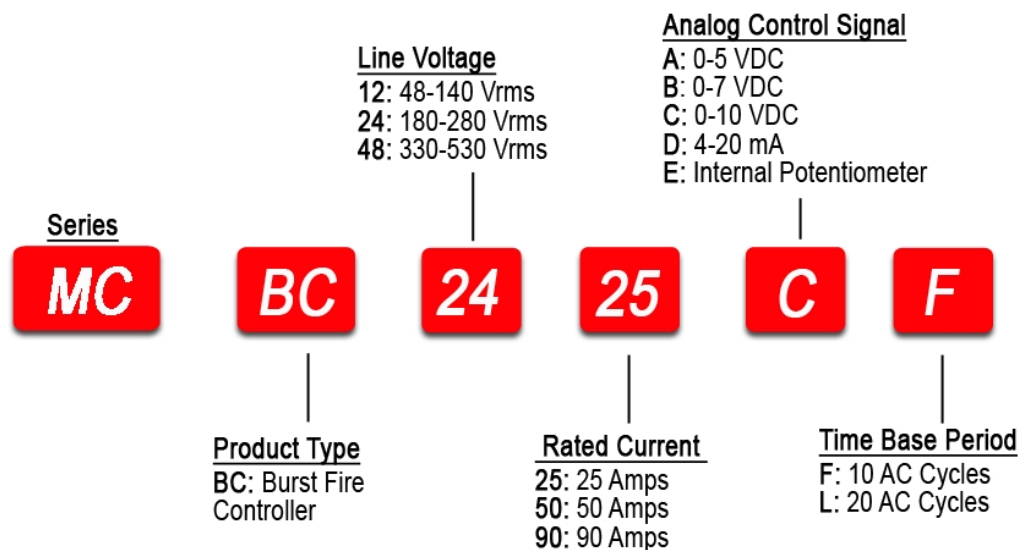


- Microprocessor based burst-fire controller / SSR
- Ratings from 25A to 90A @ 48-530 VAC
- Low-voltage, current, or potentiometer control
- Output status indicator
- Separate output enable / disable control
- Two time-base periods available

PRODUCT SELECTION

Line Voltage	25 A	50 A	90 A
40-140 VAC	MCBC1225	MCBC1250	MCBC1290
180-280 VAC	MCBC2425	MCBC2450	MCBC2490
300-530 VAC	MCBC4825	MCBC4850	MCBC4890

AVAILABLE OPTIONS



OUTPUT SPECIFICATIONS (current)

Description	25 A	50 A	90 A
Maximum Load Current (3) [Arms]	25	50	90
Minimum Load Current [mArms]	150	150	150
Maximum Surge Current (16.6ms) [Apk]	250	625	1200
Maximum On-State Voltage Drop @ Rated Current [Vpk]	1.6	1.6	1.6
Thermal Resistance Junction to Case (Rjc) [°C/W]	1.02	0.63	0.28
Maximum I ² t for Fusing (8.3 msec) [A ² sec]	260	1620	6000
Minimum Power Factor (with Maximum Load)	0.5	0.5	0.5

OUTPUT SPECIFICATIONS (voltage)

Description	120 VAC	240 VAC	480 VAC
Operating Voltage (47-63Hz) [Vrms]	48-140	180-280	300-530
Transient Overvoltage [Vpk]	400	600	1200
Maximum Off-State Leakage Current @ Rated Voltage [mArms]	5	7	12
Minimum Off-State dv/dt @ Maximum Rated Voltage [V/μsec] (2)	200	200	200

INPUT SPECIFICATIONS (1)

Description	DC Control
Control Voltage Range (VDC)	8-32
Input Current Range [mA]	28-30
Nominal Input Impedance [Ohms]	30K
Control Must Operate Voltage "On"[VDC][P3]	5-32
Control Must Release Voltage "Off" [VDC][P3]	0-4
Control Input Current [mA][P3]	0-1.25
PLV Range Option A [VDC][P4] (2)	0-5
PLV Range Option B [VDC][P4] (2)	0-7
PLV Range Option C [VDC][P4] (2)	0-10
PLV Range Option D [VDC][P4] (2)	4-20
Nominal Input Impedance Option A,B,C[ohms][P4]	20K
Nominal Input Impedance Option D [ohms][P4]	220

OUTPUT STATUS FUNCTIONS

Conditions	LED
Initial Logic Supply On	Flash Once
Load Voltage Missing / Load Open (w/control disabled)	Flash Once Intermittently
Load Voltage Missing / Load Open (w/control enabled))	Flash Twice Intermittently
Analog Input < Threshold	Off
Analog Input < Threshold < max	Varying Brightness
Analog Input > max	On, Bright

GENERAL SPECIFICATIONS

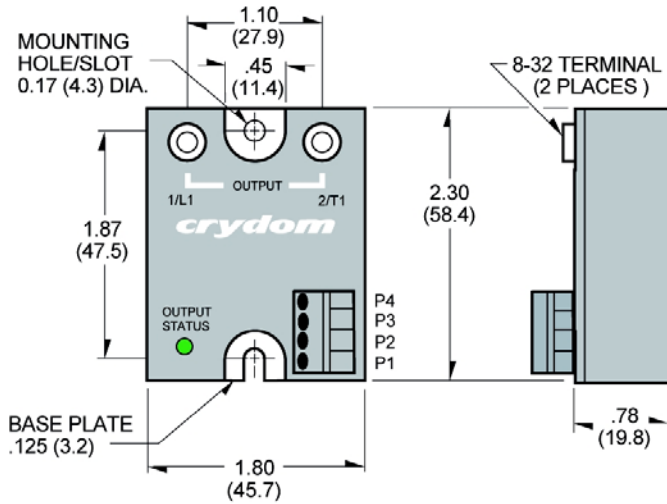
Description	Parameters
Dielectric Strength, Input/Output/Base (50/60Hz)	4000 Vrms
Minimum Insulation Resistance (@ 500 V DC)	10 ⁹ Ohm
Maximum Capacitance, Input/Output	10 pF
Ambient Operating Temperature Range	-20 to 80°C
Ambient Storage Temperature Range	-40 to 125 °C
Weight (typical)	3.0 oz (86.5g)
Encapsulation	Thermally conductive Epoxy
Terminals-Power	Screws and Saddle Clamps Furnished, Unmounted
Terminals-Control	Barrier Strip Screw Terminals
Recommended Terminal Screw Torque Range:	8-32 Screws -20 in. lbs.(Screws dry without grase)

GENERAL NOTES

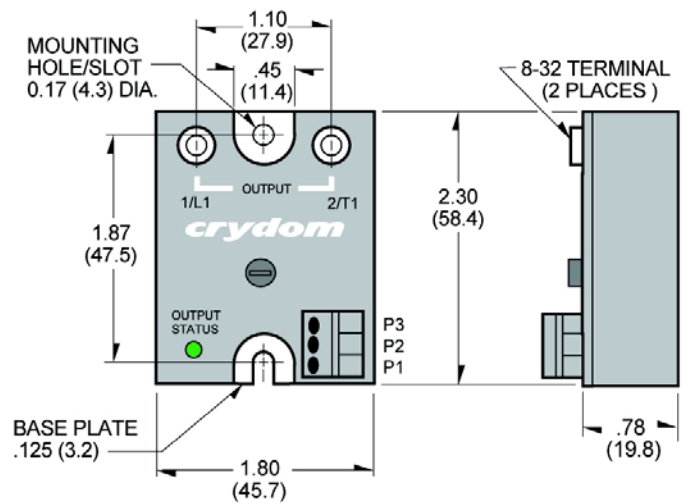
- 1) Voltages are reference to GND (Ground = 0 VDC) P2
- 2) PLVI voltage can go up to max. supply voltage without damage

MECHANICAL SPECIFICATIONS

Analog Input OPTIONS: A,B,C,D

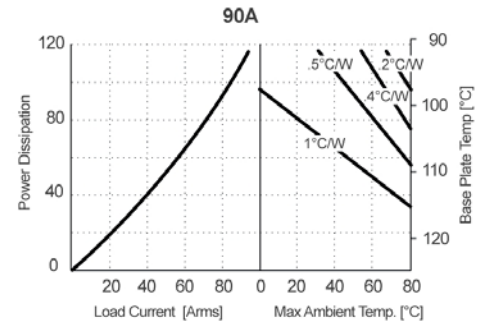
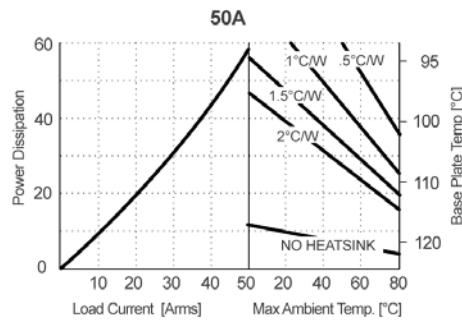
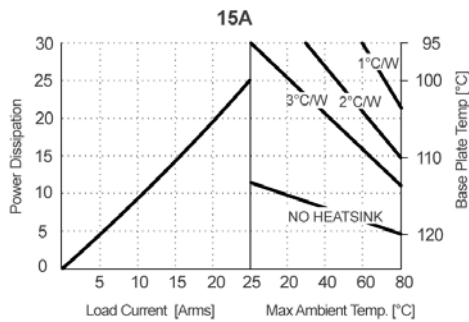


Analog Input Option: E (Internal Potentiometer)



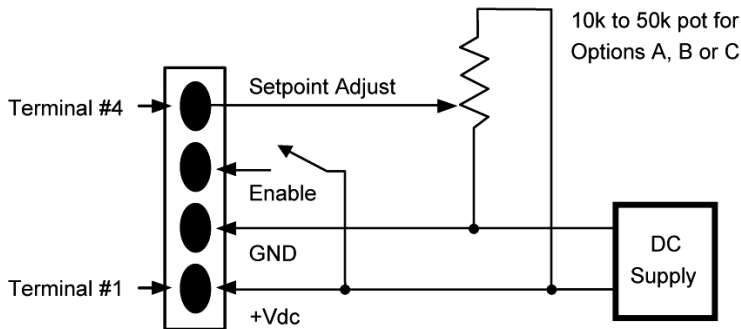
Dimensions are in inches (millimeters)

THERMAL DERATE INFORMATION

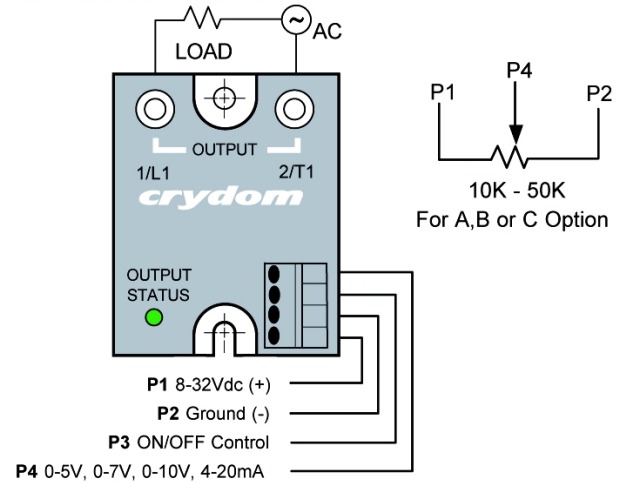


WIRING DIAGRAM

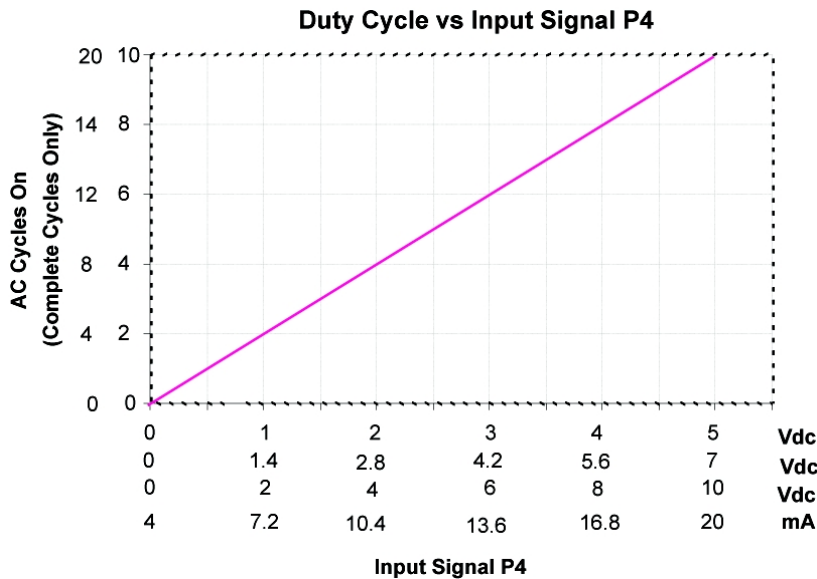
(for Options A, B or C using an external potentiometer)



Electrical Connections



OUTPUT VS ANALOG INPUT SIGNAL CURVES



AGENCY APPROVALS

UL E116949



Rev. 102308

⚠ WARNING / AVERTISSEMENT / WARNUNG / ADVERTENCIA / AVVERTENZA / AVISO

RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE

- The product's side panels may be hot, allow time for product to cool before touching.
- Follow proper mounting instructions including torque values.
- Do not allow liquids or foreign objects to enter this product.

Failure to follow this instruction can result in serious injury, or equipment damage.

RISQUE DE DOMMAGE MATERIEL ET DE SURCHAUFFE DU BOITIER

- 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.

Le non-respect de cette directive peut entraîner, des lésions corporelles graves ou des dommages matériels.

GEFAHR VON MATERIALSCHÄDEN UND GEHÄUSEERHITZUNG

- 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.

Die Nichtbeachtung dieser Anweisung kann Körperverletzung oder Materialschäden zur Folge haben.

RIESGO DE DAÑOS MATERIALES Y DE SOBRECALENTAMIENTO DE LA UNIDAD

- 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.

Si no se respetan estas precauciones pueden producirse graves lesiones, daños materiales.

RISCHIO DI DANNI MATERIALI E D'INVOLUCRO CALDO

- 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.

La mancata osservanza di questa precauzione può causare gravi rischi per l'incolumità personale o danni alle apparecchiature.

RISCO DE DANO MATERIAL E DE AQUECIMENTO

- Os painéis laterais do produto podem estar quentes; dê tempo ao produto para arrefecer antes de lhe tocar.
- Siga devidamente as instruções de montagem.
- Não permita a entrada de líquidos e de objectos estranhos no produto.

A não observância destas precauções pode provocar a morte, ferimentos graves ou danos materiais.

⚠ DANGER / PELIGRO / DANGER /GEFAHR / PERICOLO / PERIGO

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH.

- Disconnect all power before installing or working with this equipment.
- Verify all connections and replace all covers before turning on power.

Failure to follow these instructions will result in death or serious injury.

RIESGO DE DESCARGA ELECTRICA O EXPLOSION.

- 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.

El incumplimiento de estas instrucciones puede provocar la muerte o lesiones serias.

RISQUE DE DESCARGE ELECTRIQUE OU EXPLOSION

- Eteindre toutes les sources d'énergie de cet appareil avant de travailler dessus de cet appareil
- Vérifier tous connections, et remettre tous couverts en place avant de mettre sous

De non-suivi de ces instructions provoquera la mort ou des lésions sérieuses.

GEFAHR EINES ELEKTRISCHE N SCHLAGES ODER EINER EXPLOSION.

- 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.

Unterlassung dieser Anweisungen können zum Tode oder zu schweren Verletzungen führen.

RISCHIO DI SCOSSA ELETTRICA O DELL'ESPLOSIONE.

- Spenga tutta l'alimentazione e che fornisce questa apparecchiatura prima del lavorare a questa apparecchiatura
- Verificare tutti i collegamenti e sostituire tutte le coperture prima della rotazione sull'alimentazione

L'omissione di seguire queste istruzioni provocherà la morte o di lesioni serie

RISCO DE DESCARGA ELÉTRICA OU EXPLOÇÃO

- Desconectar o equipamento de toda a energia antes de instalar ou trabalhar com este equipamento
- Verificar todas as conexões e recolocar todas as tampas antes de religar o equipamento

O não cumprimento destas instruções pode levar a morte ou lesões sérias.

ANNEX - ENVIROMENTAL INFORMATION

The environmental information disclosed in this annex including the EIP Pollution logo are in compliance with People's Republic of China Electronic Industry Standard SJ/T11364 – 2006, Marking for Control of Pollution Caused by Electronic Information Products.

Part Name	Toxic or hazardous Substance and Elements					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr (VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Semiconductor die	X	O	O	O	O	O
Solder	X	O	O	O	O	O

此附件所标示的包括电子信息产品污染图标的环境信息
符合中华人民共和国电子行业标准 **SJ/T11364 - 2006**,
电子信息产品污染控制标识要求



部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
半导体芯片	X	O	O	O	O	O
焊接点	X	O	O	O	O	O

MCS Series

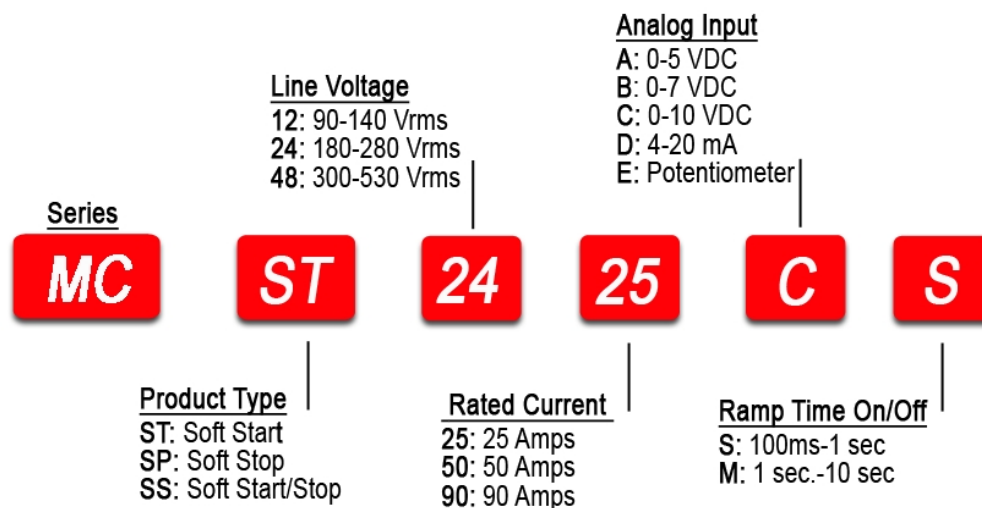


- Microprocessor based soft-start / soft-stop controller
- Ratings from 25A to 90A @ 48-530 VAC
- Low-voltage, current, or potentiometer control
- Output status indicator
- Adjustable ramp rates

PRODUCT SELECTION

Line Voltage	25 A	50 A	90 A
120 Vrms	MCST1225	MCST1250	MCST1290
240 Vrms	MCST2425	MCST2450	MCST2490
480 Vrms	MCST4825	MCST4850	MCST4890

AVAILABLE OPTIONS



OUTPUT SPECIFICATIONS (voltage)

Description	120 VAC	240 VAC	480 VAC
Operating Voltage (47-63Hz) [Vrms]	48-140	180-280	300-530
Transient Overvoltage [Vpk]	400	600	1200
Maximum Off-State Leakage Current @ Rated Voltage [mA _{rms}]	5	7	12
Minimum Off-State dv/dt @ Maximum Rated Voltage [V/μsec]	200	200	200

OUTPUT SPECIFICATIONS (current)

Description	25 A	50 A	90 A
Maximum Load Current [A _{rms}]	25	50	90
Minimum Load Current [mA _{rms}]	150	150	150
Maximum Surge Current (16.6ms) [A _{pk}]	250	625	1200
Maximum On-State Voltage Drop @ Rated Current [V _{pk}]	1.6	1.6	1.6
Thermal Resistance Junction to Case (R _{jc}) [°C/W]	1.02	0.63	0.28
Maximum I ² t for Fusing (8.3 msec) [A ² sec]	260	1620	6000

INPUT SPECIFICATIONS (1)

Description	DC Control
Control Voltage Range (VDC)	8-32
Input Current Range [mA]	28-30
Nominal Input Impedance [Ohms]	30K
Control Must Operate Voltage "On" [VDC][P3]	5-32
Control Must Release Voltage "Off" [VDC][P3]	0-4
Input Current [mA][P3]	0-2.6
Analog Range Option A [VDC][P4]	0.5-5
Analog Range Option B [VDC][P4]	1.25-7
Analog Range Option C [VDC][P4]	2-10
Analog Range Option D [VDC][P4]	4-20
Nominal Input Impedance Option A,B,C[ohms][P4]	20K
Nominal Input Impedance Option D [ohms][P4]	220

GENERAL SPECIFICATIONS

Description	Parameters
Minimum Power Factor (with Maximum Load)	0.5
Dielectric Strength, Input/Output/Base (50/60Hz)	4000 Vrms
Minimum Insulation Resistance (@ 500 V DC)	10 ⁹ Ohm
Maximum Capacitance, Input/Output	10 pF
Ambient Operating Temperature Range	-20 to 80°C
Ambient Storage Temperature Range	-40 to 125 °C
Weight (typical)	3.0 oz (86.5g)
Encapsulation	Thermally conductive Epoxy
Terminals-Power	Screws and Saddle Clamps Furnished, Unmounted
Terminals-Control	Barrier Strip Screw Terminals
Recommended Terminal Screw Torque Range:	8-32 Screws -20 in. lbs.(Screws dry without grase) Input Connections via Screw Type Barrier Strip

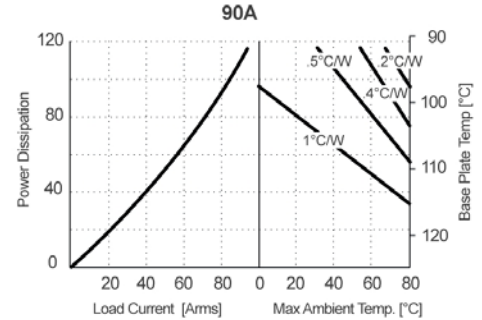
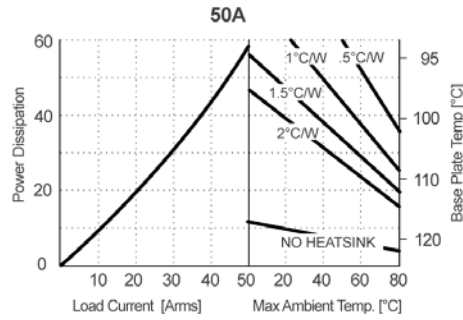
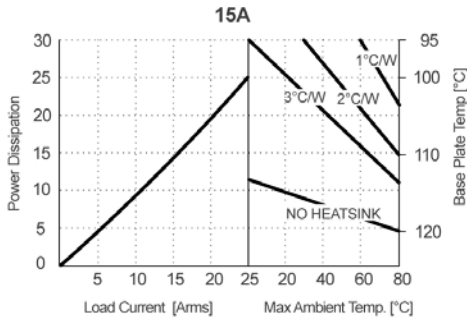
GENERAL NOTES

1) Voltages are reference to GND (Ground = 0 VDC) P2

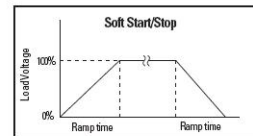
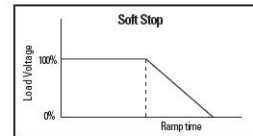
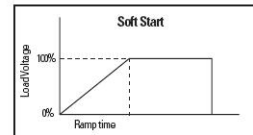
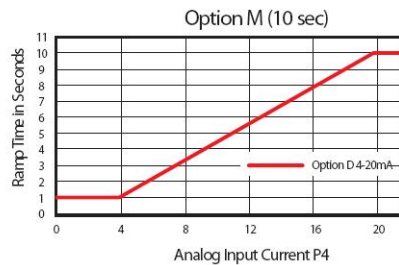
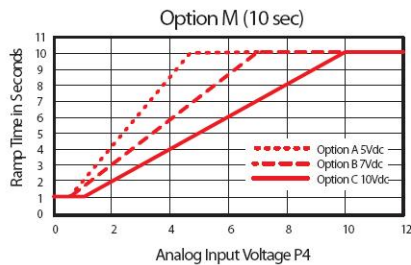
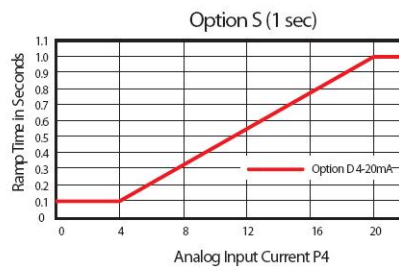
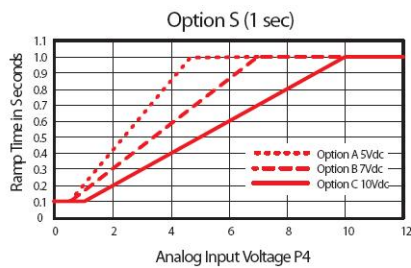
OUTPUT STATUS FUNCTIONS

Conditions	LED Status
Initial Logic Supply On	Flash Once
Load Voltage Missing / Load Open (w/control P3 disabled)	Flash Once Intermittently
Load Voltage Missing / Load Open (w/control P3 enabled))	Off
Ramp Time (Soft Start upon P3 Enabled)	Off to Bright
Ramp Time (Soft Start upon P3 Disabled)	Bright to Off
Output ON (Normally Steady Operation)	On

THERMAL DERATE INFORMATION



RAMP TIME IN SECONDS



AGENCY APPROVALS

UL E116949



Rev. 102408

For Contact information visit our web site.

www.crydom.com

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Specifications subject to change without notice.



WARNING / AVERTISSEMENT / WARNUNG / ADVERTENCIA / AVVERTENZA / AVISO

RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE

- The product's side panels may be hot, allow time for product to cool before touching.
- Follow proper mounting instructions including torque values.
- Do not allow liquids or foreign objects to enter this product.

Failure to follow this instruction can result in serious injury, or equipment damage.

RISQUE DE DOMMAGE MATERIEL ET DE SURCHAUFFE DU BOITIER

- 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.

Le non-respect de cette directive peut entraîner, des lésions corporelles graves ou des dommages matériels.

GEFAHR VON MATERIALSCHÄDEN UND GEHÄUSEERHITZUNG

- 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.

Die Nichtbeachtung dieser Anweisung kann Körperverletzung oder Materialschäden zur Folge haben.

RIESGO DE DAÑOS MATERIALES Y DE SOBRECALENTAMIENTO DE LA UNIDAD

- 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.

Si no se respetan estas precauciones pueden producirse graves lesiones, daños materiales.

RISCHIO DI DANNI MATERIALI E D'INVOLUCRO CALDO

- 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.

La mancata osservanza di questa precauzione può causare gravi rischi per l'incolumità personale o danni alle apparecchiature.

RISCO DE DANO MATERIAL E DE AQUECIMENTO

- Os painéis laterais do produto podem estar quentes; dê tempo ao produto para arrefecer antes de lhe tocar.
- Siga devidamente as instruções de montagem.
- Não permita a entrada de líquidos e de objectos estranhos no produto.

A não observância destas precauções pode provocar a morte, ferimentos graves ou danos materiais.



DANGER / PELIGRO / DANGER /GEFAHR / PERICOLO / PERIGO

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH.

- Disconnect all power before installing or working with this equipment.
- Verify all connections and replace all covers before turning on power.

Failure to follow these instructions will result in death or serious injury.

RIESGO DE DESCARGA ELECTRICA O EXPLOSION.

- 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.

El incumplimiento de estas instrucciones puede provocar la muerte o lesiones serias.

RISQUE DE DESCARGE ELECTRIQUE OU EXPLOSION

- Eteindre toutes les sources d'énergie de cet appareil avant de travailler dessus de cet appareil
- Vérifier tous connections, et remettre tous couverts en place avant de mettre sous

De non-suivi de ces instructions provoquera la mort ou des lésions sérieuses.

GEFAHR EINES ELEKTRISCHE N SCHLAGES ODER EINER EXPLOSION.

- 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.

Unterlassung dieser Anweisungen können zum Tode oder zu schweren Verletzungen führen.

RISCHIO DI SCOSSA ELETTRICA O DELL'ESPLOSIONE.

- Spenga tutta l'alimentazione e che fornisce questa apparecchiatura prima del lavorare a questa apparecchiatura
- Verificare tutti i collegamenti e sostituire tutte le coperture prima della rotazione sull'alimentazione

L'omissione di seguire queste istruzioni provocherà la morte o di lesioni serie

RISCO DE DESCARGA ELÉTRICA OU EXPLOÇÃO

- Desconectar o equipamento de toda a energia antes de instalar ou trabalhar com este equipamento
- Verificar todas as conexões e recolocar todas as tampas antes de religar o equipamento

O não cumprimento destas instruções pode levar a morte ou lesões sérias.

CONTACTS

ANNEX - ENVIROMENTAL INFORMATION

The environmental information disclosed in this annex including the EIP Pollution logo are in compliance with People's Republic of China Electronic Industry Standard SJ/T11364 – 2006, Marking for Control of Pollution Caused by Electronic Information Products.

Part Name	Toxic or hazardous Substance and Elements					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr (VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Semiconductor die	X	O	O	O	O	O
Solder	X	O	O	O	O	O

此附件所标示的包括电子信息产品污染图标的环境信息
符合中华人民共和国电子行业标准 **SJ/T11364 - 2006**,
电子信息产品污染控制标识要求



部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
半导体芯片	X	O	O	O	O	O
焊接点	X	O	O	O	O	O

PCV Series



- Proportional controller
- Ratings from 15A to 90A @ 240 VAC
- 2-7 V DC or 2-10 V DC analog input range

PRODUCT SELECTION

Description	15 A	25 A	50 A	75 A	90 A
2-7 VDC Control	7PCV2415	7PCV2425			
2-10 VDC Control	10PCV2415	10PCV2425	10PCV2450	10PCV2475	10PCV2490

OUTPUT SPECIFICATIONS (1)

Description					
Operating Voltage (47-63Hz) [Vrms]	100-240	100-240	100-240	100-240	100-240
Transient Overvoltage [Vpk]	600	600	600	600	600
Maximum Off-State Leakage Current @ Rated Voltage [mA _{rms}]	10	10	10	10	10
Minimum Off-State dv/dt @ Maximum Rated Voltage [V/μsec] (2)	200	200	200	200	200
Maximum Load Current (3) [A _{rms}]	15	25	50	75	90
Minimum Load Current [A _{rms}]	0.15	0.15	0.15	0.15	0.15
Maximum Surge Current (16.6ms) [A _{pk}]	150	250	625	1000	1200
Maximum On-State Voltage Drop @ Rated Current [V _{pk}]	1.6	1.6	1.6	1.6	1.6
Maximum I ² t for Fusing (8.3 msec) [A ² sec]	94	260	1620	4150	6000
Minimum Power Factor (with Maximum Load)	0.5	0.5	0.5	0.5	0.5

INPUT SPECIFICATIONS (1)

Description		
Control Voltage Range	2-7 VDC	2-10 VDC
Typical Input Current @ 5 VDC	4 mA	4 mA

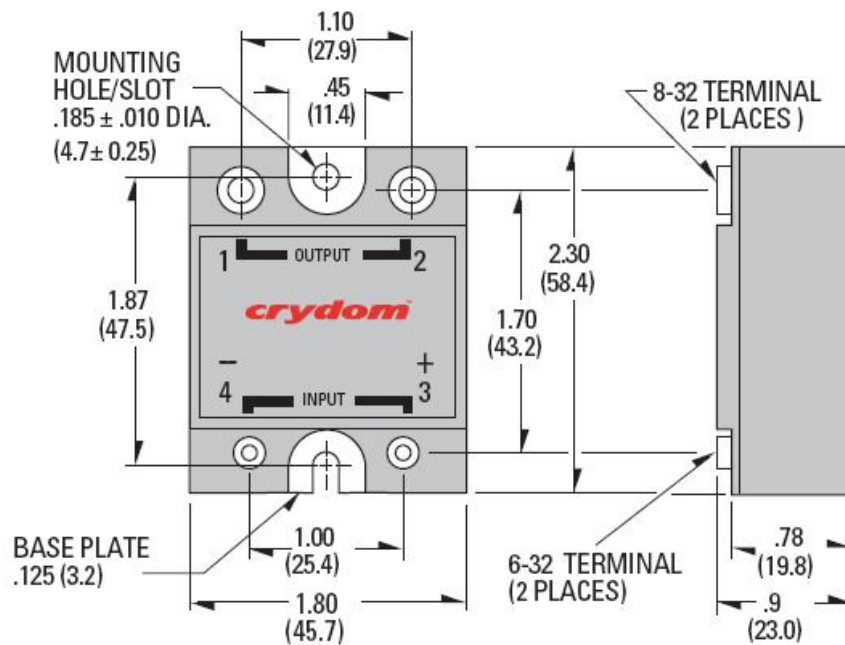
GENERAL SPECIFICATIONS

Description	Parameters
Dielectric Strength, Signal to Load (50/60Hz)	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)	3.5 oz. (100g)
Encapsulation	Thermally Conductive Epoxy
Terminals	Screws and Saddle clamps Furnished, Unmounted

GENERAL NOTES

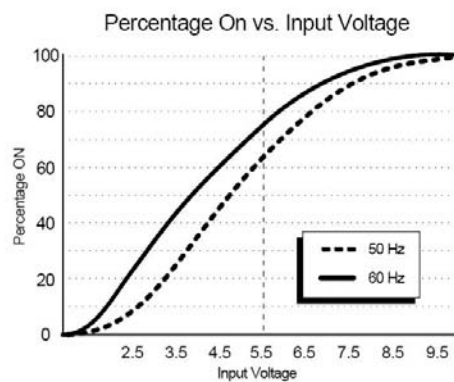
1) All parameters at 25°C unless otherwise specified.

MECHANICAL SPECIFICATIONS

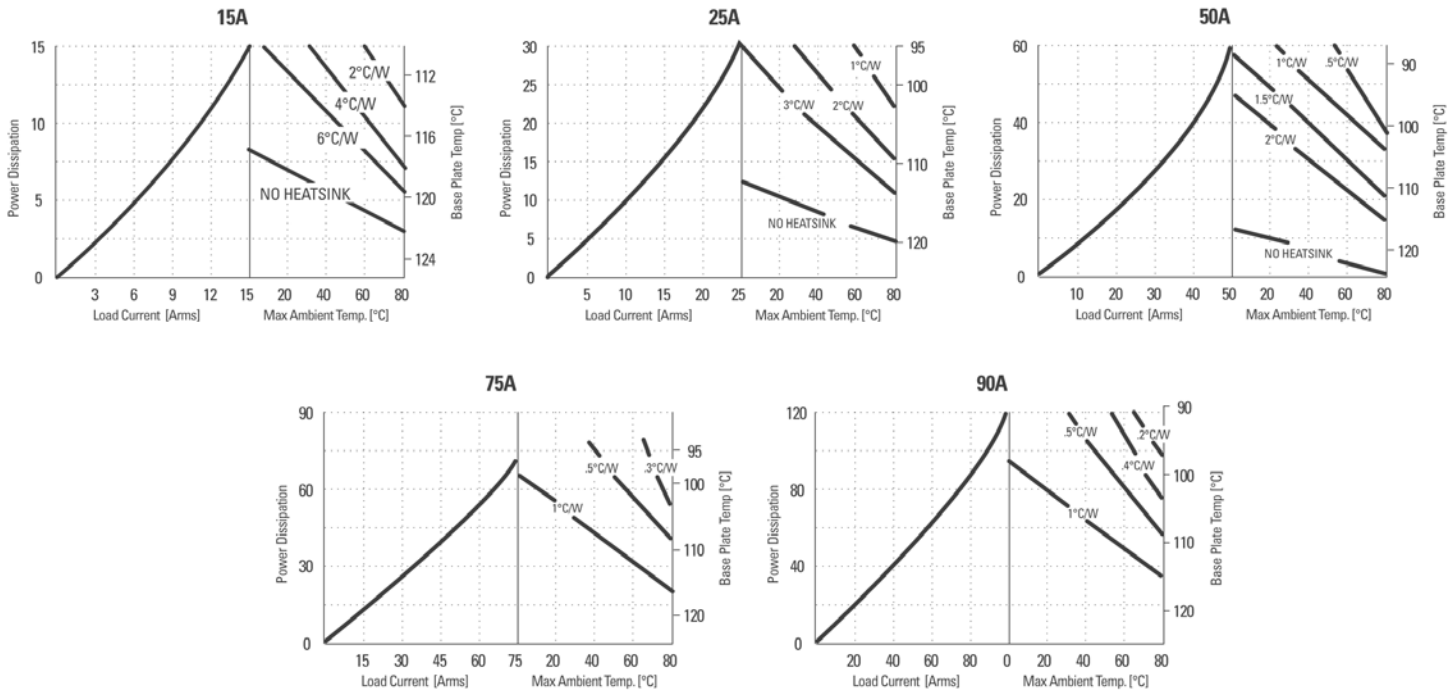


All dimensions are in inches (millimeters)

WIRING DIAGRAM



THERMAL DERATE INFORMATION



TYPICAL APPLICATIONS

- Industrial temperature controllers
- Light dimming
- Vibratory feeders
- Resistive heating elements
- Rectified DC motors
- Conveyor speed control

UNSUITABLE APPLICATIONS

The PCV is not suitable for some load applications including, but not limited to the following:

- AC motor control
- Three Phase motors
- Transformers requiring pure sine wave input
- Zero crossing applications

Please contact Crydom's application Engineering department for additional Information and specific application questions.

AGENCY APPROVALS



Rev. 121108



WARNING / AVERTISSEMENT / WARNUNG / ADVERTENCIA / AVVERTENZA / AVISO

RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE

- The product's side panels may be hot, allow time for product to cool before touching.
- Follow proper mounting instructions including torque values.
- Do not allow liquids or foreign objects to enter this product.

Failure to follow this instruction can result in serious injury, or equipment damage.

RISQUE DE DOMMAGE MATERIEL ET DE SURCHAUFFE DU BOITIER

- 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.

Le non-respect de cette directive peut entraîner, des lésions corporelles graves ou des dommages matériels.

GEFAHR VON MATERIALSCHÄDEN UND GEHÄUSEERHITZUNG

- 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.

Die Nichtbeachtung dieser Anweisung kann Körperverletzung oder Materialschäden zur Folge haben.

RIESGO DE DAÑOS MATERIALES Y DE SOBRECALENTAMIENTO DE LA UNIDAD

- 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.

Si no se respetan estas precauciones pueden producirse graves lesiones, daños materiales.

RISCHIO DI DANNI MATERIALI E D'INVOLUCRO CALDO

- 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.

La mancata osservanza di questa precauzione può causare gravi rischi per l'incolumità personale o danni alle apparecchiature.

RISCO DE DANO MATERIAL E DE AQUECIMENTO

- Os painéis laterais do produto podem estar quentes; dê tempo ao produto para arrefecer antes de lhe tocar.
- Siga devidamente as instruções de montagem.
- Não permita a entrada de líquidos e de objectos estranhos no produto.

A não observância destas precauções pode provocar a morte, ferimentos graves ou danos materiais.



WARNING / AVERTISSEMENT / WARNUNG / ADVERTENCIA / AVVERTENZA / AVISO

RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE

- The product's side panels may be hot, allow time for product to cool before touching.
- Follow proper mounting instructions including torque values.
- Do not allow liquids or foreign objects to enter this product.

Failure to follow this instruction can result in serious injury, or equipment damage.

RISQUE DE DOMMAGE MATERIEL ET DE SURCHAUFFE DU BOITIER

- 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.

Le non-respect de cette directive peut entraîner, des lésions corporelles graves ou des dommages matériels.

GEFAHR VON MATERIALSCHÄDEN UND GEHÄUSEERHITZUNG

- 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.

Die Nichtbeachtung dieser Anweisung kann Körperverletzung oder Materialschäden zur Folge haben.

RIESGO DE DAÑOS MATERIALES Y DE SOBRECALENTAMIENTO DE LA UNIDAD

- 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.

Si no se respetan estas precauciones pueden producirse graves lesiones, daños materiales.

RISCHIO DI DANNI MATERIALI E D'INVOLUCRO CALDO

- 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.

La mancata osservanza di questa precauzione può causare gravi rischi per l'incolumità personale o danni alle apparecchiature.

RISCO DE DANO MATERIAL E DE AQUECIMENTO

- Os painéis laterais do produto podem estar quentes; dê tempo ao produto para arrefecer antes de lhe tocar.
- Siga devidamente as instruções de montagem.
- Não permita a entrada de líquidos e de objectos estranhos no produto.

A não observância destas precauções pode provocar a morte, ferimentos graves ou danos materiais.

ANNEX - ENVIROMENTAL INFORMATION

The environmental information disclosed in this annex including the EIP Pollution logo are in compliance with People's Republic of China Electronic Industry Standard SJ/T11364 – 2006, Marking for Control of Pollution Caused by Electronic Information Products.

Part Name	Toxic or hazardous Substance and Elements					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr (VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Semiconductor die	X	O	O	O	O	O
Solder	X	O	O	O	O	O

此附件所标示的包括电子信息产品污染图标的环境信息
符合中华人民共和国电子行业标准 **SJ/T11364 - 2006**,
电子信息产品污染控制标识要求



部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
半导体芯片	X	O	O	O	O	O
焊接点	X	O	O	O	O	O

SST Series



- Soft-start modules
- 120/240 V AC models
- 3.5-10 V DC control range
- Used with Series 1 random-fire solid-state relays

PRODUCT SELECTION

Description	10 A	25 A	50 A	75 A	90 A
120 Vrms Line Voltage	10SST120	25SST120	40SST120		
240 Vrms Line Voltage	10SST240	25SST240	50SST240	75SST240	90SST240

OUTPUT SPECIFICATIONS (voltage) (1)

Description	120 VAC	240 VAC
Operating Voltage (47-63Hz) [Vrms]	90-140	180-280
Transient Overvoltage [Vpk]	400	600
Maximum Off-State Leakage Current @ Rated Voltage [mA _{rms}]	10	10
Minimum Off-State dv/dt @ Maximum Rated Voltage [V/μsec] (2)	500	500

OUTPUT SPECIFICATIONS (current) (1)

Description	10 A	25 A	50 A	75 A	90 A
Maximum Load Current (3) [A _{rms}]	10	25	50	75	90
Minimum Load Current (3) [A _{rms}]	0.04	0.04	0.04	0.04	0.04
Maximum Surge Current (16.6ms) [A _{pk}]	120	250	625	1000	1200
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]	60	260	1620	4150	6000
Minimum Power Factor (with Maximum Load)	0.5	0.5	0.5	0.5	0.5

CONTROL MODULE INPUT SPECIFICATIONS (1)

Description	DC Control
Control Voltage Range	3.5-10 VDC
Maximum Off-State Voltage	1.0 VDC
Typical Input Current	1.6 mA @ 5 VDC
Nominal Turn-On Delay time @ 60Hz	150 msec
Nominal Swell (Ramp) Time @ 60Hz	180 msec
Maximum Reset Time	0.1 msec
Maximum Turn-Off Time [msec]	1/2 Cycle

CONTROL MODULE OUTPUT SPECIFICATIONS (1)

Description	DC Control
Maximum Off-State Operating Voltage	36 VDC
Maximum Load Current	3 mADC
Maximum Turn-On Voltage@ 3mA	0.5 VDC
Maximum Off-State Leakage@ 10 VDC	1.0 μADC

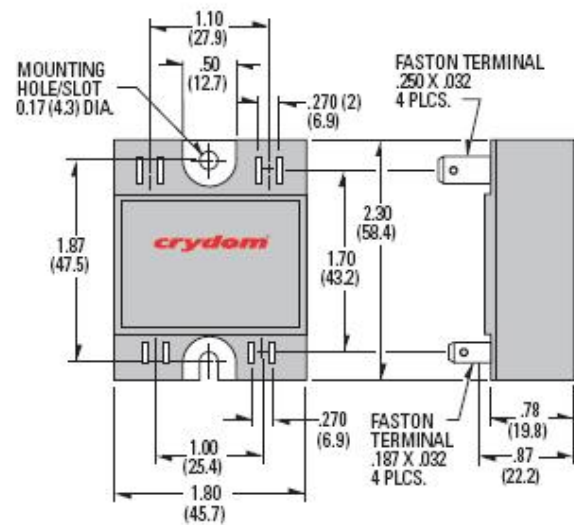
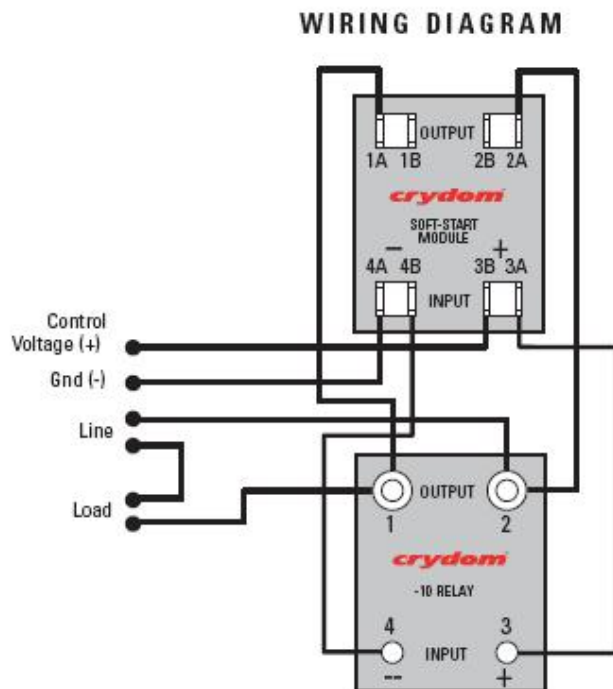
GENERAL SPECIFICATIONS

Description	Parameters
Dielectric Strength, signal to load	4000 Vrms
Dielectric Strength, signal to Base	4000 Vrms
Ambient Operating Temperature Range	-30 to 80 °C
Ambient Storage Temperature Range	-40 to 125 °C
Weight (typical)	3.0 oz. (43g)
Encapsulation	Thermally Conductive Epoxy

GENERAL NOTES

- 1) All parameters at 25°C unless otherwise specified.
- 2) Off-State dv/dt test method per EIA/NARM standard RS-443, paragraph 13.11.1
- 3) Heat sinking required (Relay Only).

WIRING DIAGRAM

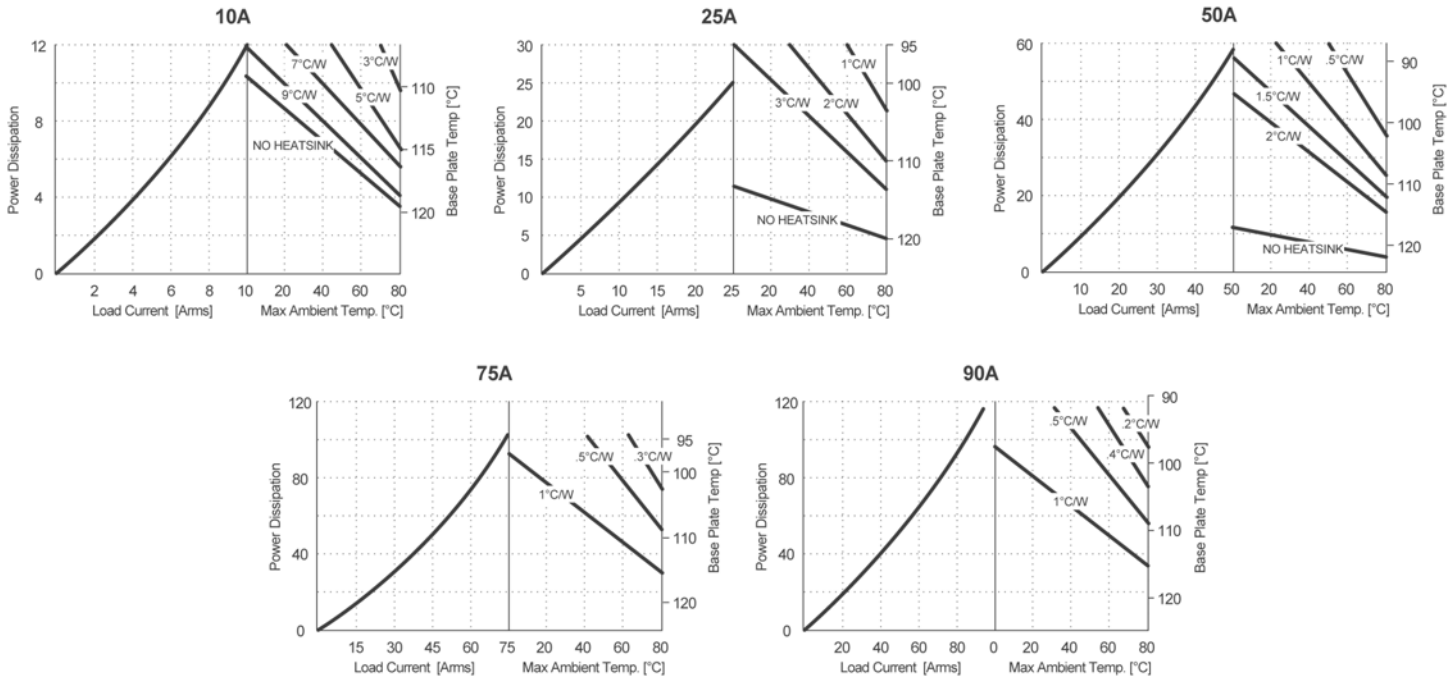


All dimensions are in inches (millimeters)

NOTES

1. Following pins may be interchanged: 1A & 1B, 2A & 2B, 3A & 3B.
2. Pin 4A & 4B may not be interchanged
3. The line and load may be interchanged.

THERMAL DERATE INFORMATION



AGENCY APPROVALS

UL E116949



Rev. 102408



WARNING / AVERTISSEMENT / WARNUNG / ADVERTENCIA / AVVERTENZA / AVISO

RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE

- The product's side panels may be hot, allow time for product to cool before touching.
- Follow proper mounting instructions including torque values.
- Do not allow liquids or foreign objects to enter this product.

Failure to follow this instruction can result in serious injury, or equipment damage.

RISQUE DE DOMMAGE MATERIEL ET DE SURCHAUFFE DU BOITIER

- 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.

Le non-respect de cette directive peut entraîner, des lésions corporelles graves ou des dommages matériels.

GEFAHR VON MATERIALSCHÄDEN UND GEHÄUSEERHITZUNG

- 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.

Die Nichtbeachtung dieser Anweisung kann Körperverletzung oder Materialschäden zur Folge haben.

RIESGO DE DAÑOS MATERIALES Y DE SOBRECALENTAMIENTO DE LA UNIDAD

- 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.

Si no se respetan estas precauciones pueden producirse graves lesiones, daños materiales.

RISCHIO DI DANNI MATERIALI E D'INVOLUCRO CALDO

- 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.

La mancata osservanza di questa precauzione può causare gravi rischi per l'incolumità personale o danni alle apparecchiature.

RISCO DE DANO MATERIAL E DE AQUECIMENTO

- Os painéis laterais do produto podem estar quentes; dê tempo ao produto para arrefecer antes de lhe tocar.
- Siga devidamente as instruções de montagem.
- Não permita a entrada de líquidos e de objectos estranhos no produto.

A não observância destas precauções pode provocar a morte, ferimentos graves ou danos materiais.



DANGER / PELIGRO / DANGER /GEFAHR / PERICOLO / PERIGO

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH.

- Disconnect all power before installing or working with this equipment.
- Verify all connections and replace all covers before turning on power.

Failure to follow these instructions will result in death or serious injury.

RIESGO DE DESCARGA ELECTRICA O EXPLOSION.

- 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.

El incumplimiento de estas instrucciones puede provocar la muerte o lesiones serias.

RISQUE DE DESCARGE ELECTRIQUE OU EXPLOSION

- Eteindre toutes les sources d'énergie de cet appareil avant de travailler dessus de cet appareil
- Vérifier tous connections, et remettre tous couverts en place avant de mettre sous

De non-suivi de ces instructions provoquera la mort ou des lésions sérieuses.

GEFAHR EINES ELEKTRISCHE N SCHLAGES ODER EINER EXPLOSION.

- 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.

Unterlassung dieser Anweisungen können zum Tode oder zu schweren Verletzungen führen.

RISCHIO DI SCOSSA ELETTRICA O DELL'ESPLOSIONE.

- Spenga tutta l'alimentazione e che fornisce questa apparecchiatura prima del lavorare a questa apparecchiatura
- Verificare tutti i collegamenti e sostituire tutte le coperture prima della rotazione sull'alimentazione

L'omissione di seguire queste istruzioni provocherà la morte o di lesioni serie

RISCO DE DESCARGA ELÉTRICA OU EXPLOÇÃO

- Desconectar o equipamento de toda a energia antes de instalar ou trabalhar com este equipamento
- Verificar todas as conexões e recolocar todas as tampas antes de religar o equipamento

O não cumprimento destas instruções pode levar a morte ou lesões sérias.

ANNEX - ENVIROMENTAL INFORMATION

The environmental information disclosed in this annex including the EIP Pollution logo are in compliance with People's Republic of China Electronic Industry Standard SJ/T11364 – 2006, Marking for Control of Pollution Caused by Electronic Information Products.

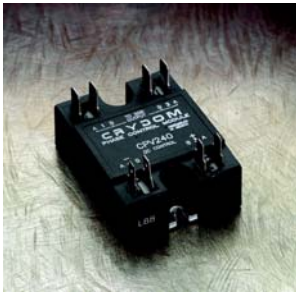
Part Name	Toxic or hazardous Substance and Elements					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr (VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Semiconductor die	X	O	O	O	O	O
Solder	X	O	O	O	O	O

此附件所标示的包括电子信息产品污染图标的环境信息
符合中华人民共和国电子行业标准 **SJ/T11364 - 2006**,
电子信息产品污染控制标识要求



部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
半导体芯片	X	O	O	O	O	O
焊接点	X	O	O	O	O	O

CPV Series



- Phase control modules
- 120/240 VAC models
- 0-5 V DC phase control
- Used with Series 1 random-fire solid-state relays

PRODUCT SELECTION

Description	10 A	25 A	50 A	75 A	90 A
120 VAC	10CPV120	25CPV120	50CPV120	75CPV120	90CPV120
240 VAC	10CPV240	25CPV240	50CPV240	75CPV240	90CPV240

OUTPUT SPECIFICATIONS (voltage) (1)

Description	120 VAC	240 VAC
Operating Voltage (47-63Hz) [Vrms]	90-140 VAC	180-280 VAC
Transient Overvoltage [Vpk]	400	600
Maximum Off-State Leakage Current @ Rated Voltage [mA _{rms}]	10	10
Minimum Off-State dv/dt @ Maximum Rated Voltage [V/μsec] (2)	500	500

OUTPUT SPECIFICATIONS (current) (1)

Description	10 A	25 A	50 A	75 A	90 A
Maximum Load Current (3) [A _{rms}]	10	25	75	50	90
Minimum Load Current [A _{rms}]	0.04	0.04	0.04	0.04	0.04
Maximum Surge Current (16.6ms) [A _{pk}]	120	250	625	1000	1200
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	0.31	0.63	0.28
Maximum I ² t for Fusing (8.3 msec) [A ² sec]	60	260	4150	1620	6000
Minimum Power Factor (with Maximum Load)	0.5	0.5	0.5	0.5	0.5

CONTROL MODULE INPUT SPECIFICATIONS (1)

Description	DC Control
Control Voltage Range	0-5 VDC
Minimum Turn-Off Voltage	1.0 VDC
Typical Supply Current	1.6 mA @ 5 VDC
Nominal Control Input Impedance	1500 Ohm
Maximum Turn-On Time [msec]	0.02
Maximum Turn-Off Time [msec]	1/2 Cycle

CONTROL MODULE OUTPUT SPECIFICATIONS (Terminal 4B - Input to Relay) (1)

Description	DC Control
Maximum Off-State Operating Voltage	36 VDC
Maximum Load Current (Sink)	3.0 mA
Maximum On-State Voltage @ 3 mA	0.5 VDC
Max. Off State Leakage @ 10 VDC	1.0 μADC

GENERAL SPECIFICATIONS

Description	Parameters
Dielectric Strength, signal to load	4000 Vrms
Dielectric Strength, signal to Base	4000 Vrms
Ambient Operating Temperature Range	-30 to 80°C
Ambient Storage Temperature Range	-40 to 125°C
Weight (typical)	3.0 oz. (43g)
Encapsulation	Thermally Conductive Epoxy

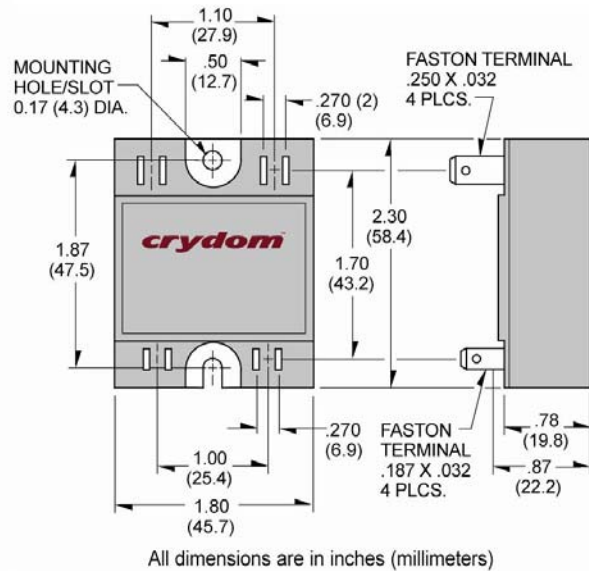
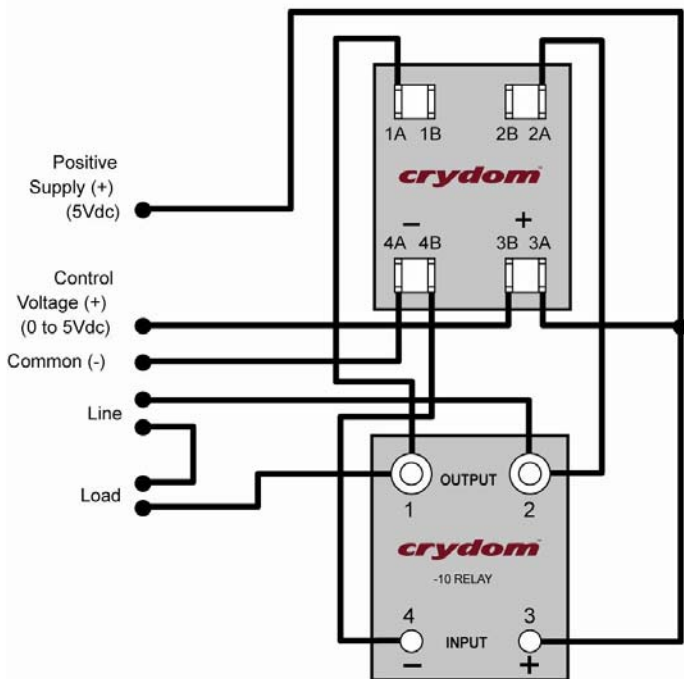
GENERAL NOTES

- 1) All parameters at 25°C unless otherwise specified.
- 2) Off-State dv/dt test method per EIA/NARM standard RS-443, paragraph 13.11.1
- 3) Heat sinking required (relay only), see derating curves.

AVAILABLE OPTIONS

- CPV120 Control Module Only (120 Vac Line)
CPV240 Control Module Only (240 Vac Line)

WIRING DIAGRAM



AGENCY APPROVAL



Rev. 102208



WARNING / AVERTISSEMENT / WARNUNG / ADVERTENCIA / AVVERTENZA / AVISO

RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE

- The product's side panels may be hot, allow time for product to cool before touching.
- Follow proper mounting instructions including torque values.
- Do not allow liquids or foreign objects to enter this product.

Failure to follow this instruction can result in serious injury, or equipment damage.

RISQUE DE DOMMAGE MATERIEL ET DE SURCHAUFFE DU BOITIER

- 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.

Le non-respect de cette directive peut entraîner, des lésions corporelles graves ou des dommages matériels.

GEFAHR VON MATERIALSCHÄDEN UND GEHÄUSEERHITZUNG

- 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.

Die Nichtbeachtung dieser Anweisung kann Körperverletzung oder Materialschäden zur Folge haben.

RIESGO DE DAÑOS MATERIALES Y DE SOBRECALENTAMIENTO DE LA UNIDAD

- 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.

Si no se respetan estas precauciones pueden producirse graves lesiones, daños materiales.

RISCHIO DI DANNI MATERIALI E D'INVOLUCRO CALDO

- 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.

La mancata osservanza di questa precauzione può causare gravi rischi per l'incolumità personale o danni alle apparecchiature.

RISCO DE DANO MATERIAL E DE AQUECIMENTO

- Os painéis laterais do produto podem estar quentes; dê tempo ao produto para arrefecer antes de lhe tocar.
- Siga devidamente as instruções de montagem.
- Não permita a entrada de líquidos e de objectos estranhos no produto.

A não observância destas precauções pode provocar a morte, ferimentos graves ou danos materiais.



DANGER / PELIGRO / DANGER /GEFAHR / PERICOLO / PERIGO

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH.

- Disconnect all power before installing or working with this equipment.
- Verify all connections and replace all covers before turning on power.

Failure to follow these instructions will result in death or serious injury.

RIESGO DE DESCARGA ELECTRICA O EXPLOSION.

- 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.

El incumplimiento de estas instrucciones puede provocar la muerte o lesiones serias.

RISQUE DE DESCARGE ELECTRIQUE OU EXPLOSION

- Eteindre toutes les sources d'énergie de cet appareil avant de travailler dessus de cet appareil
- Vérifier tous connections, et remettre tous couverts en place avant de mettre sous

De non-suivi de ces instructions provoquera la mort ou des lésions sérieuses.

GEFAHR EINES ELEKTRISCHE N SCHLAGES ODER EINER EXPLOSION.

- 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.

Unterlassung dieser Anweisungen können zum Tode oder zu schweren Verletzungen führen.

RISCHIO DI SCOSSA ELETTRICA O DELL'ESPLOSIONE.

- Spenga tutta l'alimentazione e che fornisce questa apparecchiatura prima del lavorare a questa apparecchiatura
- Verificare tutti i collegamenti e sostituire tutte le coperture prima della rotazione sull'alimentazione

L'omissione di seguire queste istruzioni provocherà la morte o di lesioni serie

RISCO DE DESCARGA ELÉTRICA OU EXPLOÇÃO

- Desconectar o equipamento de toda a energia antes de instalar ou trabalhar com este equipamento
- Verificar todas as conexões e recolocar todas as tampas antes de religar o equipamento

O não cumprimento destas instruções pode levar a morte ou lesões sérias.

ANNEX - ENVIROMENTAL INFORMATION

The environmental information disclosed in this annex including the EIP Pollution logo are in compliance with People's Republic of China Electronic Industry Standard SJ/T11364 – 2006, Marking for Control of Pollution Caused by Electronic Information Products.

Part Name	Toxic or hazardous Substance and Elements					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr (VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Semiconductor die	X	O	O	O	O	O
Solder	X	O	O	O	O	O

此附件所标示的包括电子信息产品污染图标的环境信息
符合中华人民共和国电子行业标准 **SJ/T11364 - 2006**,
电子信息产品污染控制标识要求



部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
半导体芯片	X	O	O	O	O	O
焊接点	X	O	O	O	O	O

LPCV Series



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

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 VDC 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]	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 VDC
Nominal Input Impedance	12.7K Ohm	25 K Ohm	460 Ohm

POWER SUPPLY SPECIFICATION (4)

Description	PS120	PS240
Input Voltage 50/60Hz	120 VAC	240 VAC
Output Voltage 50/60Hz	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

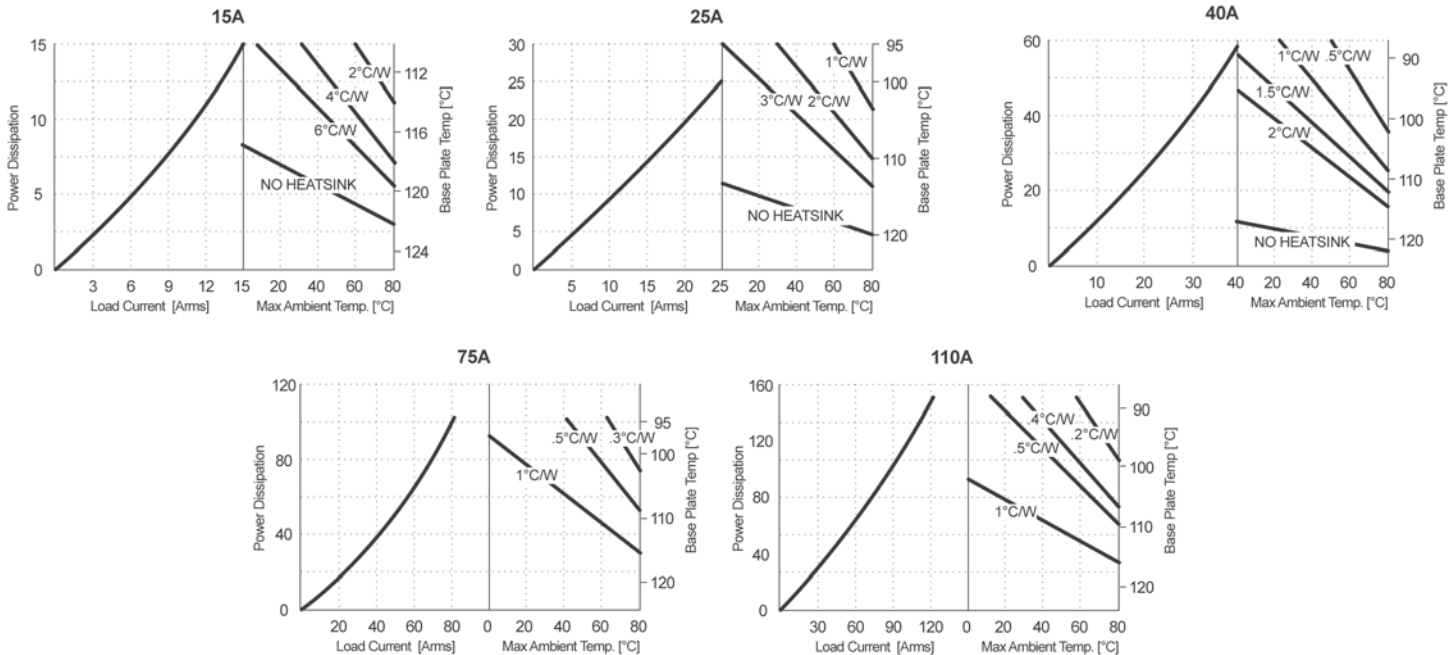
Description

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	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



WARNING / AVERTISSEMENT / WARNUNG / ADVERTENCIA / AVVERTENZA / AVISO

RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE

- The product's side panels may be hot, allow time for product to cool before touching.
- Follow proper mounting instructions including torque values.
- Do not allow liquids or foreign objects to enter this product.

Failure to follow this instruction can result in serious injury, or equipment damage.

RISQUE DE DOMMAGE MATERIEL ET DE SURCHAUFFE DU BOITIER

- 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.

Le non-respect de cette directive peut entraîner, des lésions corporelles graves ou des dommages matériels.

GEFAHR VON MATERIALSCHÄDEN UND GEHÄUSEERHITZUNG

- 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.

Die Nichtbeachtung dieser Anweisung kann Körperverletzung oder Materialschäden zur Folge haben.

RIESGO DE DAÑOS MATERIALES Y DE SOBRECALENTAMIENTO DE LA UNIDAD

- 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.

Si no se respetan estas precauciones pueden producirse graves lesiones, daños materiales.

RISCHIO DI DANNI MATERIALI E D'INVOLUCRO CALDO

- 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.

La mancata osservanza di questa precauzione può causare gravi rischi per l'incolumità personale o danni alle apparecchiature.

RISCO DE DANO MATERIAL E DE AQUECIMENTO

- Os painéis laterais do produto podem estar quentes; dê tempo ao produto para arrefecer antes de lhe tocar.
- Siga devidamente as instruções de montagem.
- Não permita a entrada de líquidos e de objectos estranhos no produto.

A não observância destas precauções pode provocar a morte, ferimentos graves ou danos materiais.



DANGER / PELIGRO / DANGER /GEFAHR / PERICOLO / PERIGO

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH.

- Disconnect all power before installing or working with this equipment.
- Verify all connections and replace all covers before turning on power.

Failure to follow these instructions will result in death or serious injury.

RIESGO DE DESCARGA ELECTRICA O EXPLOSION.

- 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.

El incumplimiento de estas instrucciones puede provocar la muerte o lesiones serias.

RISQUE DE DESCARGE ELECTRIQUE OU EXPLOSION

- Eteindre toutes les sources d'énergie de cet appareil avant de travailler dessus de cet appareil
- Vérifier tous connections, et remettre tous couverts en place avant de mettre sous

De non-suivi de ces instructions provoquera la mort ou des lésions sérieuses.

GEFAHR EINES ELEKTRISCHE N SCHLAGES ODER EINER EXPLOSION.

- Stellen Sie jeglichen Strom ab, der dieses Gerät versorgt, bevor Sie an dem Gerät Arbeiten durchführen
- Vor der Inbetriebnahme alle Anschlüsse überprüfen und alle Gehäuseteile montieren.

Unterlassung dieser Anweisungen können zum Tode oder zu schweren Verletzungen führen.

RISCHIO DI SCOSSA ELETTRICA O DELL'ESPLOSIONE.

- Spenga tutta l'alimentazione e che fornisce questa apparecchiatura prima del lavorare a questa apparecchiatura
- Verificare tutti i collegamenti e sostituire tutte le coperture prima della rotazione sull'alimentazione

L'omissione di seguire queste istruzioni provocherà la morte o di lesioni serie

RISCO DE DESCARGA ELÉTRICA OU EXPLOÇÃO

- Desconectar o equipamento de toda a energia antes de instalar ou trabalhar com este equipamento
- Verificar todas as conexões e recolocar todas as tampas antes de religar o equipamento

O não cumprimento destas instruções pode levar a morte ou lesões sérias.

ANNEX - ENVIROMENTAL INFORMATION

The environmental information disclosed in this annex including the EIP Pollution logo are in compliance with People's Republic of China Electronic Industry Standard SJ/T11364 – 2006, Marking for Control of Pollution Caused by Electronic Information Products.

Part Name	Toxic or hazardous Substance and Elements					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr (VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Semiconductor die	X	O	O	O	O	O
Solder	X	O	O	O	O	O

此附件所标示的包括电子信息产品污染图标的环境信息
符合中华人民共和国电子行业标准 **SJ/T11364 - 2006**,
电子信息产品污染控制标识要求



部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
半导体芯片	X	O	O	O	O	O
焊接点	X	O	O	O	O	O

MCTC Series

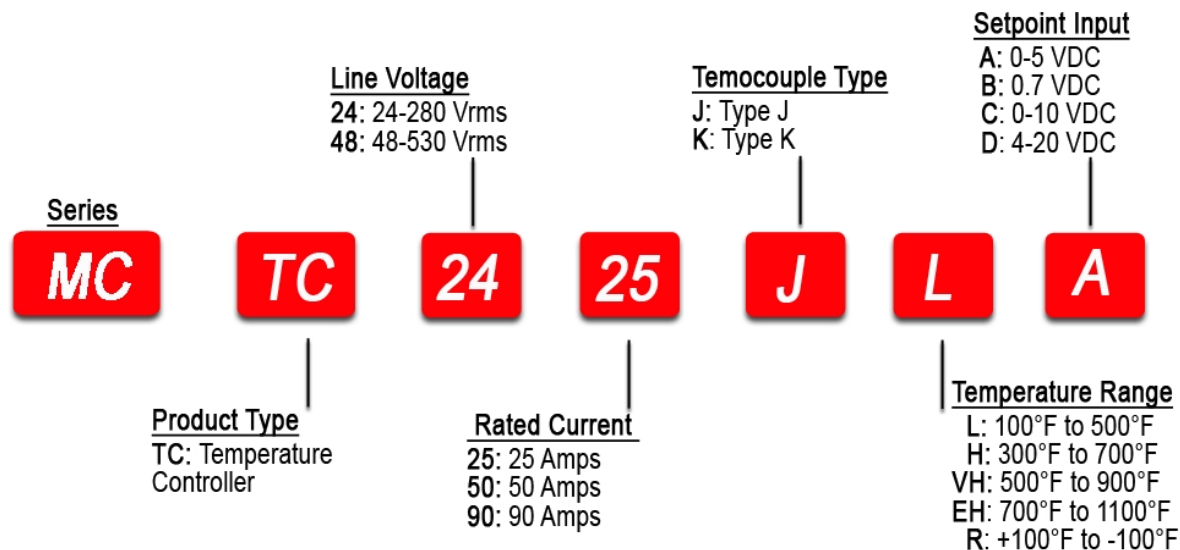


- Microprocessor based temperature controller / SSR
- Ratings from 25A to 90A @ 48-530 VAC
- Direct J or K thermocouple input
- Voltage or current controlled setpoint
- Separate output enable / disable control
- Open thermocouple protection
- LED status indicators

PRODUCT SELECTION

Description	25 A	50 A	90 A
280 VAC	MCTC2425	MCTC2450	MCTC2490
480 VAC	MCTC4825	MCTC4850	MCTC4890

AVAILABLE OPTIONS



OUTPUT SPECIFICATIONS (voltage)

Description	240 VAC	480 VAC
Operating Voltage (47-63Hz) [Vrms]	24-280	48-530
Transient Overvoltage [Vpk]	600	1200
Maximum Off-State Leakage Current @ Rated Voltage [mArms]	7	12
Minimum Off-State dv/dt @ Maximum Rated Voltage [V/μsec]	200	200

OUTPUT SPECIFICATIONS (current)

Description	25 A	50 A	90 A
Maximum Load Current [Arms]	25	50	90
Minimum Load Current [mArms]	150	150	150
Maximum Surge Current (16.6ms) [Apk]	250	625	1200
Maximum On-State Voltage Drop @ Rated Current [Vpk]	1.6	1.6	1.6
Thermal Resistance Junction to Case (Rjc) [°C/W]	1.02	0.63	0.28
Maximum I ² t for Fusing (8.3 msec) [A ² sec]	260	1620	6000
Minimum Power Factor (with Maximum Load)	0.5	0.5	0.5

INPUT SPECIFICATIONS (1)

Description	DC Control
Control Voltage Range (VDC)	8-32
Input Current Range [mA]	28-30
Nominal Input Impedance [Ohms]	30K
Control Must Operate Voltage "On" [VDC][P3]	5-32
Control Must Release Voltage "Off" [VDC][P3]	0-4
Control Input Current [mA][P3]	0-1.25
PLVI Range Option A [VDC][P4] (2)	0.8-5
PLVI Range Option B [VDC][P4] (2)	1-7
PLVI Range Option C [VDC][P4] (2)	2-10
PLVI Range Option D [VDC][P4] (2)	4-20
Nominal Input Impedance Option A,B,C[ohms][P4]	20K
Nominal Input Impedance Option D [ohms][P4]	220

GENERAL SPECIFICATIONS

Description	Parameters
Dielectric Strength, Input/Output/Base (50/60Hz)	4000 Vrms
Minimum Insulation Resistance (@ 500 V DC)	10 ⁹ Ohm
Maximum Capacitance, Input/Output	10 pF
Ambient Operating Temperature Range	-20 to 80°C
Ambient Storage Temperature Range	-40 to 125 °C
Weight (typical)	3.0 oz (86.5g)
Encapsulation	Thermally conductive Epoxy
Terminals-Power	Screws and Saddle Clamps Furnished, Unmounted
Terminals-Control	Barrier Strip Screw Terminals
Recommended Terminal Screw Torque Range:	8-32 Screws -20 in. lbs.(Screws dry without grase)

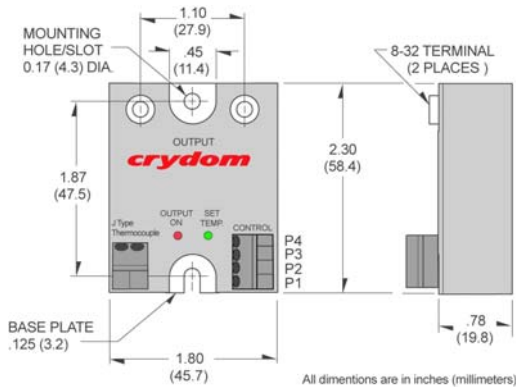
OUTPUT STATUS FUNCTIONS

Description	GREEN LED (setpoint)	RED LED (output)
Initial Logic Supply On	Flash Once	Flash Once
Operating (to 85 % of set point)	Off	On
Approaching Setpoint	Off	Variable Flashing
At Setpoint (± 5%)	On	Slow Flashing
Over Setpoint (>5%) (3)	Flashing	Off
Short-Cycle Timing ("R" suffix only)	Flash 2x Intermittently	Off
Open Thermocouple	Flash 3x Intermittently	Off

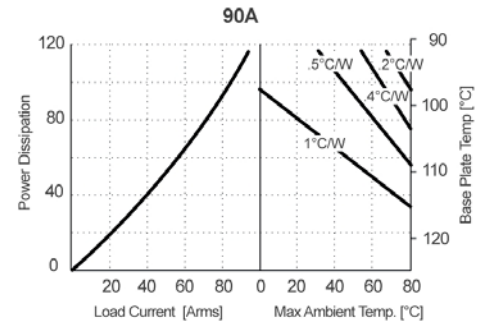
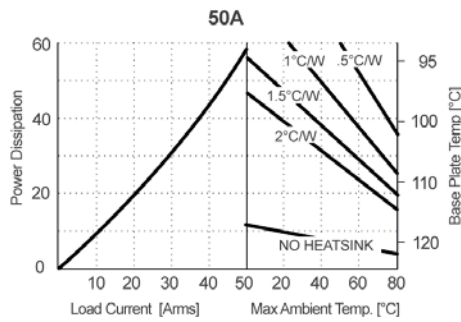
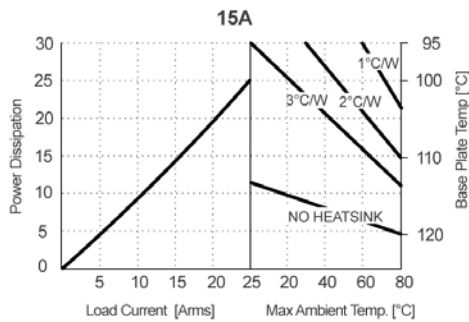
GENERAL NOTES

- 1) Voltages are reference to GND (Ground = 0 VDC) P2
- 2) PLVI voltage can go up to max. supply voltage without damage.
- 3) Below Setpoint for "R" suffix

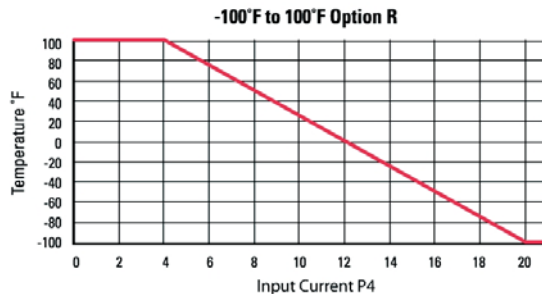
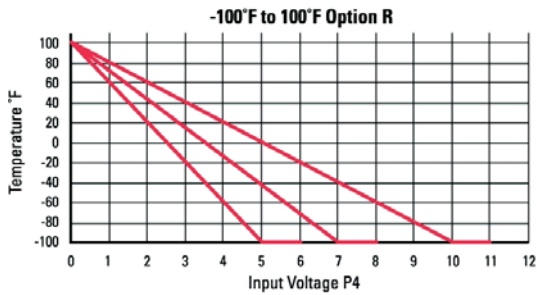
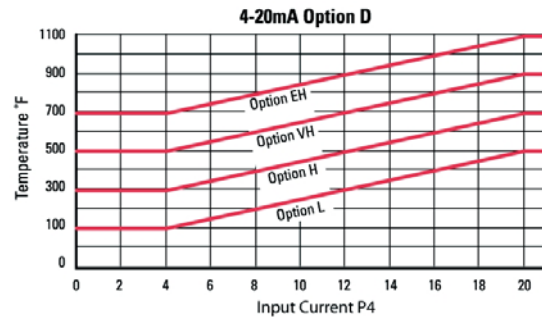
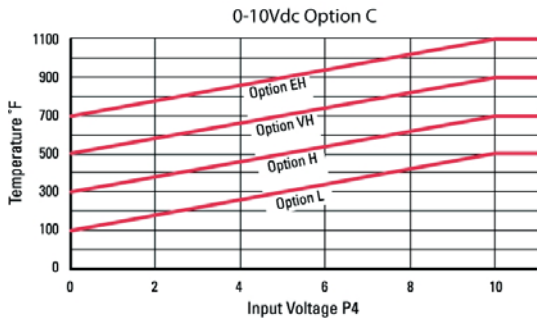
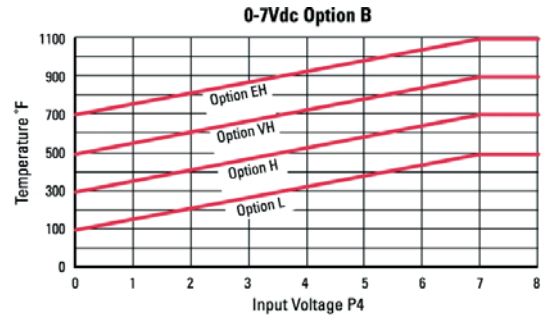
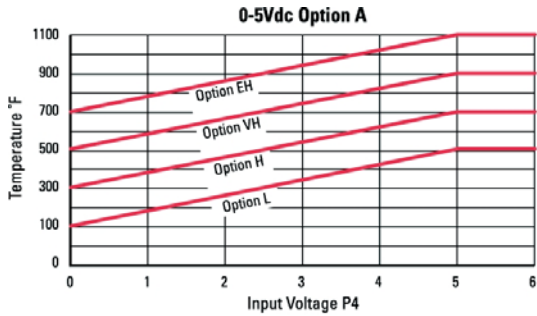
MECHANICAL SPECIFICATIONS



THERMAL DERATE INFORMATION



TEMPERATURE VS SETPOINT INPUT P4



AGENCY APPROVALS

UL E116949



Rev. 103108



WARNING / AVERTISSEMENT / WARNUNG / ADVERTENCIA / AVVERTENZA / AVISO

RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE

- The product's side panels may be hot, allow time for product to cool before touching.
- Follow proper mounting instructions including torque values.
- Do not allow liquids or foreign objects to enter this product.

Failure to follow this instruction can result in serious injury, or equipment damage.

RISQUE DE DOMMAGE MATERIEL ET DE SURCHAUFFE DU BOITIER

- 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.

Le non-respect de cette directive peut entraîner, des lésions corporelles graves ou des dommages matériels.

GEFAHR VON MATERIALSCHÄDEN UND GEHÄUSEERHITZUNG

- 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.

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RIESGO DE DAÑOS MATERIALES Y DE SOBRECALENTAMIENTO DE LA UNIDAD

- 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.

Si no se respetan estas precauciones pueden producirse graves lesiones, daños materiales.

RISCHIO DI DANNI MATERIALI E D'INVOLUCRO CALDO

- 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.

La mancata osservanza di questa precauzione può causare gravi rischi per l'incolumità personale o danni alle apparecchiature.

RISCO DE DANO MATERIAL E DE AQUECIMENTO

- Os painéis laterais do produto podem estar quentes; dê tempo ao produto para arrefecer antes de lhe tocar.
- Siga devidamente as instruções de montagem.
- Não permita a entrada de líquidos e de objectos estranhos no produto.

A não observância destas precauções pode provocar a morte, ferimentos graves ou danos materiais.



DANGER / PELIGRO / DANGER /GEFAHR / PERICOLO / PERIGO

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH.

- Disconnect all power before installing or working with this equipment.
- Verify all connections and replace all covers before turning on power.

Failure to follow these instructions will result in death or serious injury.

RIESGO DE DESCARGA ELECTRICA O EXPLOSION.

- 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.

El incumplimiento de estas instrucciones puede provocar la muerte o lesiones serias.

RISQUE DE DESCARGE ELECTRIQUE OU EXPLOSION

- Eteindre toutes les sources d'énergie de cet appareil avant de travailler dessus de cet appareil
- Vérifier tous connections, et remettre tous couverts en place avant de mettre sous

De non-suivi de ces instructions provoquera la mort ou des lésions sérieuses.

GEFAHR EINES ELEKTRISCHE N SCHLAGES ODER EINER EXPLOSION.

- 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.

Unterlassung dieser Anweisungen können zum Tode oder zu schweren Verletzungen führen.

RISCHIO DI SCOSSA ELETTRICA O DELL'ESPLOSIONE.

- Spenga tutta l'alimentazione e che fornisce questa apparecchiatura prima del lavorare a questa apparecchiatura
- Verificare tutti i collegamenti e sostituire tutte le coperture prima della rotazione sull'alimentazione

L'omissione di seguire queste istruzioni provocherà la morte o di lesioni serie

RISCO DE DESCARGA ELÉTRICA OU EXPLOÇÃO

- Desconectar o equipamento de toda a energia antes de instalar ou trabalhar com este equipamento
- Verificar todas as conexões e recolocar todas as tampas antes de religar o equipamento

O não cumprimento destas instruções pode levar a morte ou lesões sérias.

ANNEX - ENVIROMENTAL INFORMATION

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Part Name	Toxic or hazardous Substance and Elements					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr (VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Semiconductor die	X	O	O	O	O	O
Solder	X	O	O	O	O	O

此附件所标示的包括电子信息产品污染图标的环境信息
符合中华人民共和国电子行业标准 **SJ/T11364 - 2006**,
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部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
半导体芯片	X	O	O	O	O	O
焊接点	X	O	O	O	O	O

MCPC Series

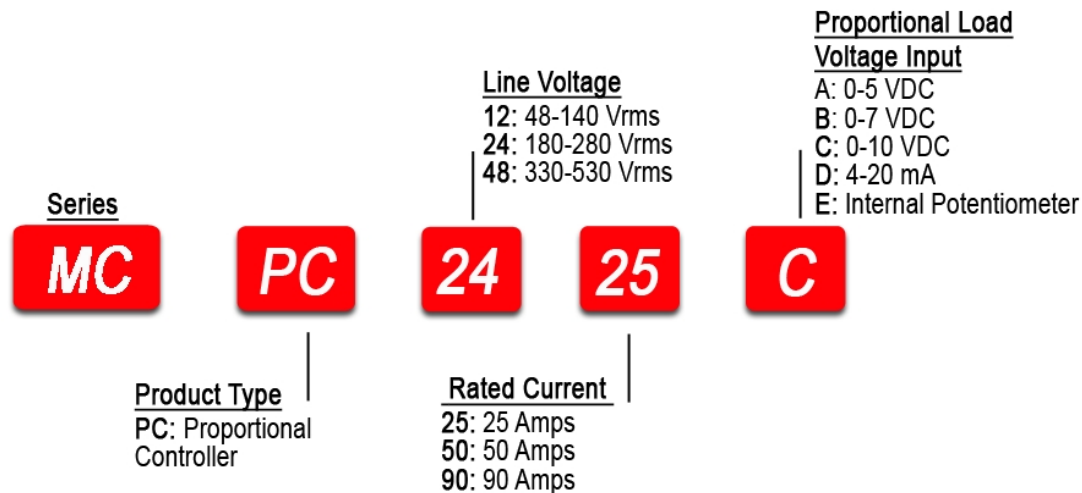


- Microprocessor based burst-fire controller / SSR
- Ratings from 25A to 90A @ 48-530 VAC
- Low-voltage, current, or potentiometer control
- Output status indicator
- Separate output enable / disable control
- Two time-base periods available

PRODUCT SELECTION

Description	25 A	50 A	90 A
40-140 VAC	MCPC1225	MCPC1250	MCPC1290
180-280 VAC	MCPC2425	MCPC2450	MCPC2490
330-530 VAC	MCPC4825	MCPC4850	MCPC4890

AVAILABLE OPTIONS



OUTPUT SPECIFICATIONS (voltage)

Description	120 VAC	240 VAC	480 VAC
Operating Voltage (47-63Hz) [Vrms]	48-140	180-280	300-530
Transient Overvoltage [Vpk]	400	600	1200
Maximum Off-State Leakage Current @ Rated Voltage [mA _{rms}]	5	7	12
Minimum Off-State dv/dt @ Maximum Rated Voltage [V/μsec] (2)	200	200	200
Minimum Power Factor (with Maximum Load)	0.5	0.5	0.5

OUTPUT SPECIFICATIONS (current)

Description	25A	50A	90A
Maximum Load Current (3) [A _{rms}]	25	50	90
Minimum Load Current [mA _{rms}]	150	150	150
Maximum Surge Current (16.6ms) [A _{pk}]	250	625	1200
Maximum On-State Voltage Drop @ Rated Current [V _{pk}]	1.6	1.6	1.6
Thermal Resistance Junction to Case [R _{jc}] [°C/W]	1.02	0.63	0.28
Maximum I ² t for Fusing (8.3 msec) [A ² sec]	260	1620	6000

INPUT SPECIFICATIONS (1)

Description	DC Control
Control Voltage Range (VDC)	8-32
Input Current Range [mA]	28-30
Nominal Input Impedance [Ohms]	30K
Control Must Operate Voltage "On"[VDC][P3]	5-32
Control Must Release Voltage "Off" [VDC][P3]	0-4
Control Input Current [mA][P3]	0-1.25
PLVI Range Option A [VDC][P4] (2)	0.8-5
PLVI Range Option B [VDC][P4] (2)	1-7
PLVI Range Option C [VDC][P4] (2)	2-10
PLVI Range Option D [VDC][P4] (2)	4-20
Nominal Input Impedance Option A,B,C[ohms][P4]	20K
Nominal Input Impedance Option D [ohms][P4]	220

OUTPUT STATUS FUNCTIONS

Conditions	LED
Initial Logic Supply On	Flash Once
Load Voltage Missing / Load Open (w/control disabled)	Flash Once Intermittently
Load Voltage Missing / Load Open (w/control enabled))	Flash Twice Intermittently
Analog Input < Threshold	Off
Analog Input < Threshold < max	Varying Brightness
Analog Input > max	On, Bright

GENERAL SPECIFICATIONS

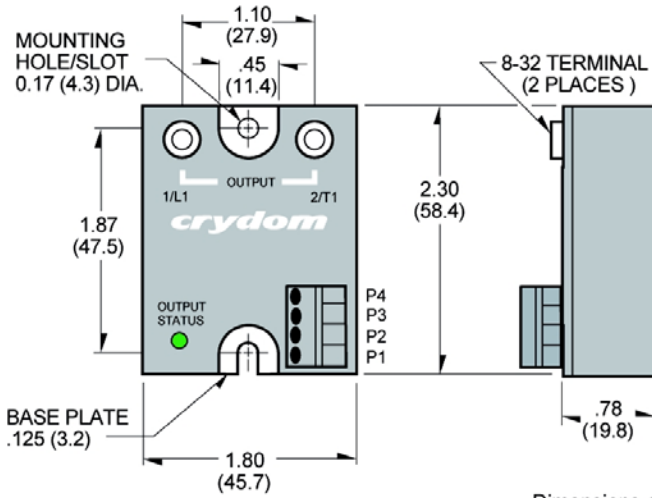
Description	Parameters
Dielectric Strength, Input/Output/Base (50/60Hz)	4000 Vrms
Minimum Insulation Resistance (@ 500 V DC)	10 ⁹ Ohm
Maximum Capacitance, Input/Output	10 pF
Ambient Operating Temperature Range	-20 to 80°C
Ambient Storage Temperature Range	-40 to 125 °C
Weight (typical)	3.0 oz (86.5g)
Encapsulation	Thermally conductive Epoxy
Terminals-Power	Screws and Saddle Clamps Furnished, Unmounted
Terminals-Control	Barrier Strip Screw Terminals
Recommended Terminal Screw Torque Range:	8-32 Screws -20 in. lbs.(Screws dry without grase)

GENERAL NOTES

- 1) Voltages are reference to GND (Ground = 0 VDC) P2
- 2) PLVI voltage can go up to max. supply voltage without damage

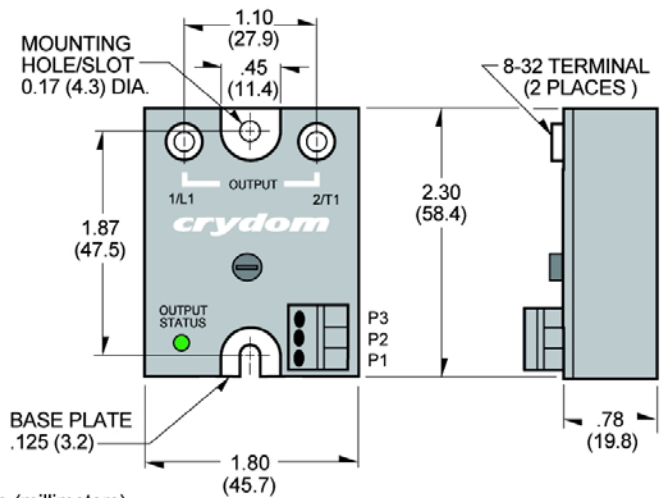
MECHANICAL SPECIFICATIONS

Analog Input OPTIONS: A,B,C,D

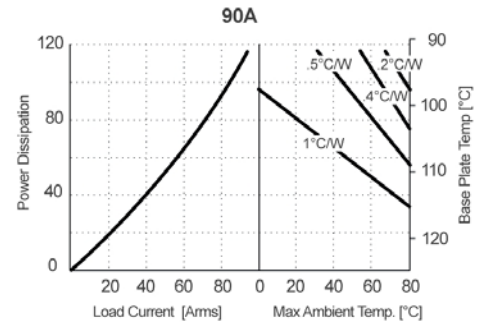
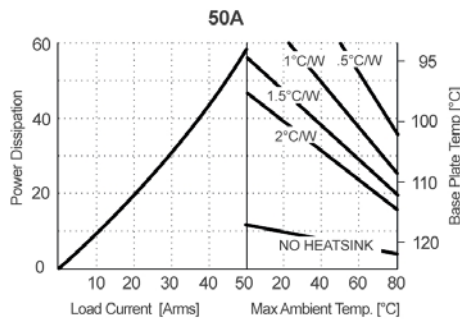
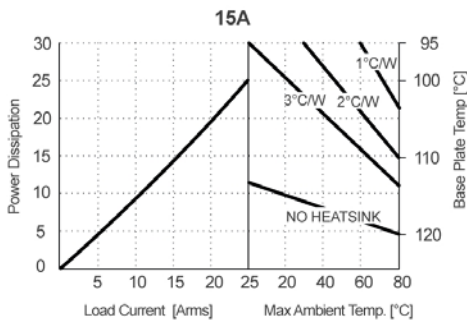


Dimensions are in inches (millimeters)

Analog Input Option: E (Internal Potentiometer)

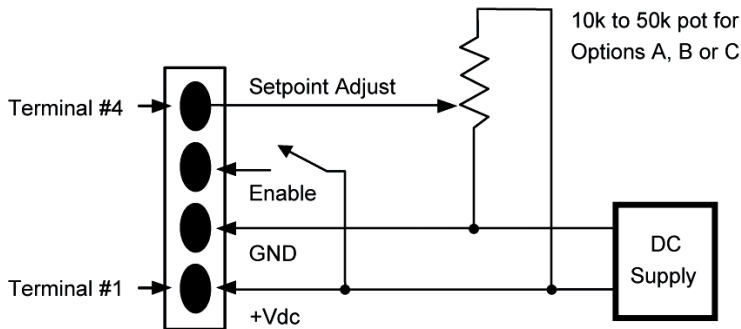


THERMAL DERATE INFORMATION

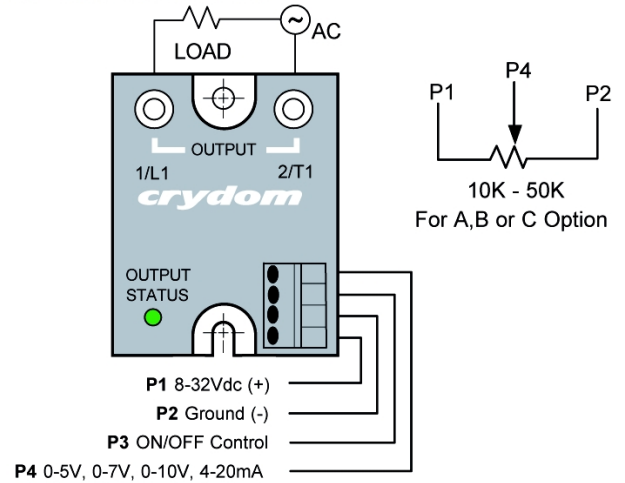


WIRING DIAGRAM

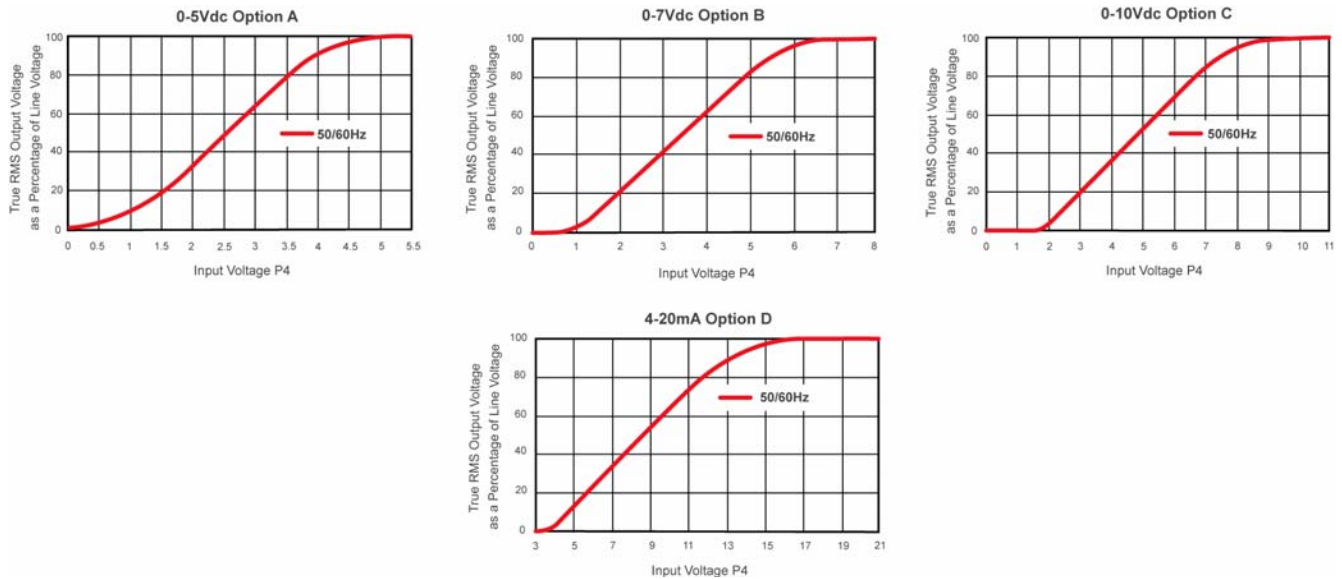
(for Options A, B or C using an external potentiometer)



Electrical Connections



OUTPUT VS ANALOG INPUT SIGNAL CURVES



AGENCY APPROVALS

UL E116949



Rev. 102208

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RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE

- The product's side panels may be hot, allow time for product to cool before touching.
- Follow proper mounting instructions including torque values.
- Do not allow liquids or foreign objects to enter this product.

Failure to follow this instruction can result in serious injury, or equipment damage.

RISQUE DE DOMMAGE MATERIEL ET DE SURCHAUFFE DU BOITIER

- 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.

Le non-respect de cette directive peut entraîner, des lésions corporelles graves ou des dommages matériels.

GEFAHR VON MATERIALSCHÄDEN UND GEHÄUSEERHITZUNG

- 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.

Die Nichtbeachtung dieser Anweisung kann Körperverletzung oder Materialschäden zur Folge haben.

RIESGO DE DAÑOS MATERIALES Y DE SOBRECALENTAMIENTO DE LA UNIDAD

- 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.

Si no se respetan estas precauciones pueden producirse graves lesiones, daños materiales.

RISCHIO DI DANNI MATERIALI E D'INVOLUCRO CALDO

- 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.

La mancata osservanza di questa precauzione può causare gravi rischi per l'incolumità personale o danni alle apparecchiature.

RISCO DE DANO MATERIAL E DE AQUECIMENTO

- Os painéis laterais do produto podem estar quentes; dê tempo ao produto para arrefecer antes de lhe tocar.
- Siga devidamente as instruções de montagem.
- Não permita a entrada de líquidos e de objectos estranhos no produto.

A não observância destas precauções pode provocar a morte, ferimentos graves ou danos materiais.



DANGER / PELIGRO / DANGER /GEFAHR / PERICOLO / PERIGO

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH.

- Disconnect all power before installing or working with this equipment.
- Verify all connections and replace all covers before turning on power.

Failure to follow these instructions will result in death or serious injury.

RIESGO DE DESCARGA ELECTRICA O EXPLOSION.

- 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.

El incumplimiento de estas instrucciones puede provocar la muerte o lesiones serias.

RISQUE DE DESCARGE ELECTRIQUE OU EXPLOSION

- Eteindre toutes les sources d'énergie de cet appareil avant de travailler dessus de cet appareil
- Vérifier tous connections, et remettre tous couverts en place avant de mettre sous

De non-suivi de ces instructions provoquera la mort ou des lésions sérieuses.

GEFAHR EINES ELEKTRISCHE N SCHLAGES ODER EINER EXPLOSION.

- 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.

Unterlassung dieser Anweisungen können zum Tode oder zu schweren Verletzungen führen.

RISCHIO DI SCOSSA ELETTRICA O DELL'ESPLOSIONE.

- Spenga tutta l'alimentazione e che fornisce questa apparecchiatura prima del lavorare a questa apparecchiatura
- Verificare tutti i collegamenti e sostituire tutte le coperture prima della rotazione sull'alimentazione

L'omissione di seguire queste istruzioni provocherà la morte o di lesioni serie

RISCO DE DESCARGA ELÉTRICA OU EXPLOÇÃO

- Desconectar o equipamento de toda a energia antes de instalar ou trabalhar com este equipamento
- Verificar todas as conexões e recolocar todas as tampas antes de religar o equipamento

O não cumprimento destas instruções pode levar a morte ou lesões sérias.

ANNEX - ENVIROMENTAL INFORMATION

The environmental information disclosed in this annex including the EIP Pollution logo are in compliance with People's Republic of China Electronic Industry Standard SJ/T11364 – 2006, Marking for Control of Pollution Caused by Electronic Information Products.

Part Name	Toxic or hazardous Substance and Elements					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr (VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Semiconductor die	X	O	O	O	O	O
Solder	X	O	O	O	O	O

此附件所标示的包括电子信息产品污染图标的环境信息
符合中华人民共和国电子行业标准 **SJ/T11364 - 2006**,
电子信息产品污染控制标识要求



部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
半导体芯片	X	O	O	O	O	O
焊接点	X	O	O	O	O	O

RPC Series



- Proportional controller
- Ratings from 15A to 40A @ 480 VAC
- 500k or 1M Ohm potentiometer control

PRODUCT SELECTION

Description	15 A	25 A	40 A
120 VAC	RPC1215	RPC1225	RPC1240
240 VAC	RPC2415	RPC2425	RPC2440
480 VAC	RPC4815	RPC4825	RPC4840

OUTPUT SPECIFICATIONS (voltage) (1)

Description	120 VAC	240 VAC	480 VAC
Operating Voltage (47-63Hz) [Vrms]	90-130	200-240	400-480
Transient Overvoltage [Vpk]	400	600	1200
Maximum Off-State Leakage Current @ Rated Voltage [mA _{rms}]	10	7	3
Minimum Off-State dv/dt @ Maximum Rated Voltage [V/μsec] (2)	5000	500	500
Snubber (Internal)	yes	yes	no

OUTPUT SPECIFICATIONS (current) (1)

Description	15 A	25 A	40 A
Maximum Load Current [Arms] (3)	15	25	40
Minimum Load Current [mA _{rms}]	70	80	90
Maximum Surge Current (16.6ms) [A _{pk}]	150	250	625
Maximum On-State Voltage Drop @ Rated Current [V _{pk}]	1.6	1.6	1.6
Thermal Resistance Junction to Case [R _{jc}] [°C/W]	1.48	1.02	0.63
Maximum I ² t for Fusing (8.3 msec) [A ² sec]	94	260	1620

INPUT SPECIFICATIONS (1)

Description	120 VAC	240 VAC	480 VAC
Variable Resistor Size (4)	150K (1W)	1M (1/2W)	1M (1/2W)

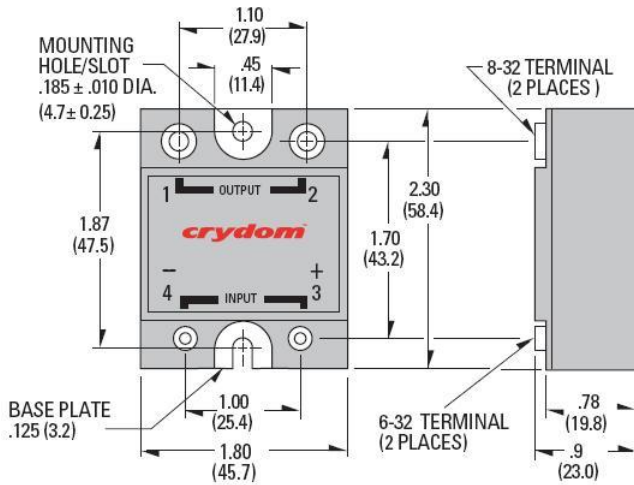
GENERAL SPECIFICATIONS

Description	
Minimum Power Factor (with Maximum Load)	0.6
Dielectric Strength, Input/Output/Base (50/60Hz)	2500 Vrms
Ambient Operating Temperature Range	-30 to 80 °C
Ambient Storage Temperature Range	-40 to 125 °C
Weight (typical)	3.2 oz (90g)
Encapsulation	Thermally conductive Epoxy
Terminals	Screws and saddle Clamps Furnished, Unmounted
Recommended Terminal Screw Torque Range:	6-32 Screws -10 in lbs. 8-32 and 10-32 Screws -20 in. lbs. (Screws dry without grease)

GENERAL NOTES

- 1) All parameters at 25°C unless otherwise specified.
- 2) Off-State dv/dt test method per EIA/NARM standard RS-443
- 3) Heat sinking required, see derating curves.
- 4) Potentiometer should be line voltage rated.

MECHANICAL SPECIFICATIONS



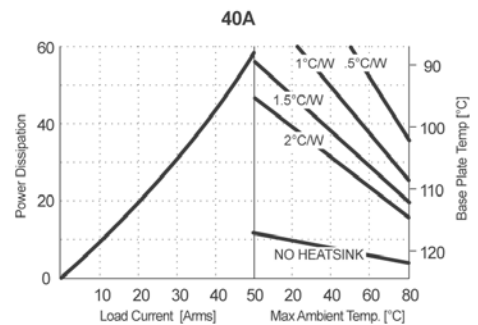
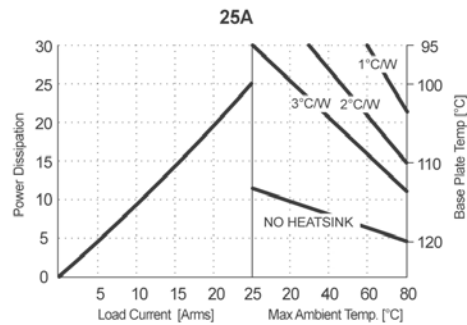
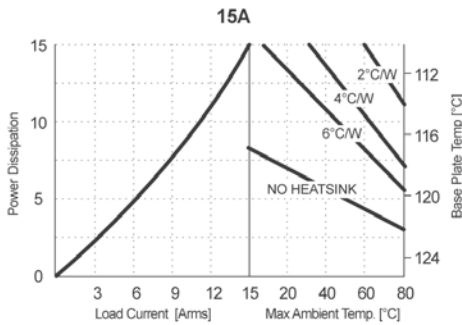
All dimensions are in inches (millimeters)

WIRING DIAGRAM

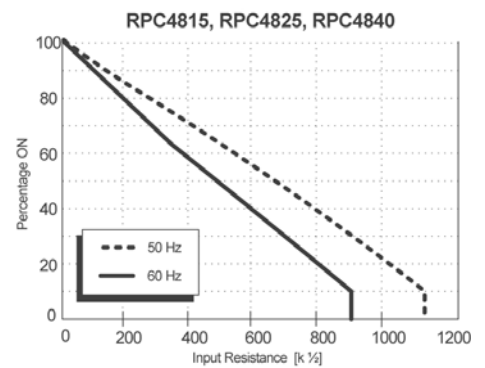
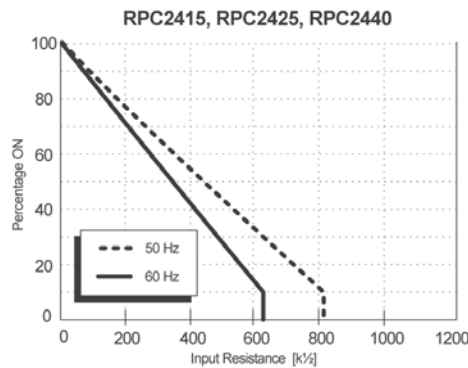
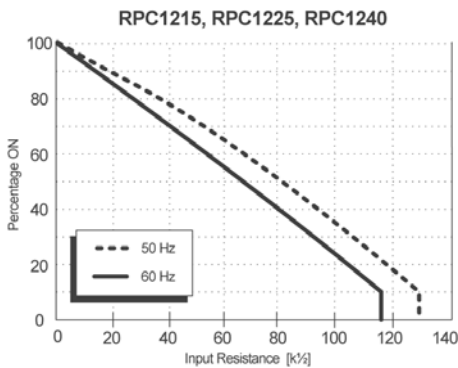


All terminals are at Line Voltage Potential.

THERMAL DERATE INFORMATION



PERCENTAGE ON VS INPUT RESISTANCE



AGENCY APPROVALS



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WARNING / AVERTISSEMENT / WARNUNG / ADVERTENCIA / AVVERTENZA / AVISO

RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE

- The product's side panels may be hot, allow time for product to cool before touching.
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- Do not allow liquids or foreign objects to enter this product.

Failure to follow this instruction can result in serious injury, or equipment damage.

RISQUE DE DOMMAGE MATERIEL ET DE SURCHAUFFE DU BOITIER

- 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.

Le non-respect de cette directive peut entraîner, des lésions corporelles graves ou des dommages matériels.

GEFAHR VON MATERIALSCHÄDEN UND GEHÄUSEERHITZUNG

- 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.

Die Nichtbeachtung dieser Anweisung kann Körperverletzung oder Materialschäden zur Folge haben.

RIESGO DE DAÑOS MATERIALES Y DE SOBRECALENTAMIENTO DE LA UNIDAD

- 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.

Si no se respetan estas precauciones pueden producirse graves lesiones, daños materiales.

RISCHIO DI DANNI MATERIALI E D'INVOLUCRO CALDO

- 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.

La mancata osservanza di questa precauzione può causare gravi rischi per l'incolumità personale o danni alle apparecchiature.

RISCO DE DANO MATERIAL E DE AQUECIMENTO

- Os painéis laterais do produto podem estar quentes; dê tempo ao produto para arrefecer antes de lhe tocar.
- Siga devidamente as instruções de montagem.
- Não permita a entrada de líquidos e de objectos estranhos no produto.

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DANGER / PELIGRO / DANGER /GEFAHR / PERICOLO / PERIGO

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH.

- Disconnect all power before installing or working with this equipment.
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RIESGO DE DESCARGA ELECTRICA O EXPLOSION.

- 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.

El incumplimiento de estas instrucciones puede provocar la muerte o lesiones serias.

RISQUE DE DESCARGE ELECTRIQUE OU EXPLOSION

- Eteindre toutes les sources d'énergie de cet appareil avant de travailler dessus de cet appareil
- Vérifier tous connections, et remettre tous couverts en place avant de mettre sous

De non-suivi de ces instructions provoquera la mort ou des lésions sérieuses.

GEFAHR EINES ELEKTRISCHE N SCHLAGES ODER EINER EXPLOSION.

- 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.

Unterlassung dieser Anweisungen können zum Tode oder zu schweren Verletzungen führen.

RISCHIO DI SCOSSA ELETTRICA O DELL'ESPLOSIONE.

- Spenga tutta l'alimentazione e che fornisce questa apparecchiatura prima del lavorare a questa apparecchiatura
- Verificare tutti i collegamenti e sostituire tutte le coperture prima della rotazione sull'alimentazione

L'omissione di seguire queste istruzioni provocherà la morte o di lesioni serie

RISCO DE DESCARGA ELÉCTRICA OU EXPLOÇÃO

- Desconectar o equipamento de toda a energia antes de instalar ou trabalhar com este equipamento
- Verificar todas as conexões e recolocar todas as tampas antes de religar o equipamento

O não cumprimento destas instruções pode levar a morte ou lesões sérias.

ANNEX - ENVIROMENTAL INFORMATION

The environmental information disclosed in this annex including the EIP Pollution logo are in compliance with People's Republic of China Electronic Industry Standard SJ/T11364 – 2006, Marking for Control of Pollution Caused by Electronic Information Products.

Part Name	Toxic or hazardous Substance and Elements					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr (VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Semiconductor die	X	O	O	O	O	O
Solder	X	O	O	O	O	O

此附件所标示的包括电子信息产品污染图标的环境信息
符合中华人民共和国电子行业标准 **SJ/T11364 - 2006**,
电子信息产品污染控制标识要求



部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
半导体芯片	X	O	O	O	O	O
焊接点	X	O	O	O	O	O

DSD / DLD Series



- Time-delay solid-state relays
- Ratings from 10A to 50A @ 240 VAC
- External time adjustment
- DC control
- Zero-crossing (resistive loads) output
- Ideal for compressor applications

PRODUCT SELECTION

Description	10 A	25 A	50 A
3.5-15 VDC Control	DSD2410	DSD2425	DSD2450
3.5-15 VDC Control	DLD2410	DLD2425	DLD2450

OUTPUT SPECIFICATIONS (voltage) (1)

Description	
Operating Voltage (47-63Hz) [Vrms]	48-280
Transient Overvoltage [Vpk]	600
Maximum Off-State Leakage Current @ Rated Voltage [mArms]	10
Minimum Off-State dv/dt @ Maximum Rated Voltage [V/μsec] (2)	500

OUTPUT SPECIFICATIONS (current) (1)

Description	10 A	25 A	50 A
Maximum Load Current (3) [Arms]	10	25	50
Minimum Load Current (3) [Arms]	0.04	0.04	0.04
Maximum Surge Current (16.6ms) [Apk]	120	250	625
Maximum On-State Voltage Drop @ Rated Current [Vpk]	1.6	1.6	1.6
Thermal Resistance Junction to Case (Rjc) [°C/W]	1.48	1.02	0.63
Maximum I ² t for Fusing (8.3 msec) [A ² sec]	60	260	1620
Minimum Power Factor (with Maximum Load)	0.5	0.5	0.5

INPUT SPECIFICATIONS (1)

Description	DC Control
Control Voltage Range	3.5-15 VDC
Maximum Turn-On Voltage	3.5 VDC
Maximum Turn-Off Voltage	1.0 VDC
Typical Input Current	3.4 mA @ 5 Vdc, 11.4 mA @ 15 Vdc
Nominal Input Impedance	1500 Ohm
Maximum Turn-On Time [msec] (4)	Adjustable, See Table
Maximum Turn-Off Time [msec]	1/2 Cycle
Maximum Reset Time [μsec] (5)	100

TYPICAL TURN-ON DELAY

Resistor	Time DSD	Time DLD
0 (Short)	.10 sec	1.6 sec
10K	.19 sec	3.1 sec
100K	.94 sec	15 sec
470K	4.0 sec	64 sec
1.0M (4)	8.3 sec	133 sec

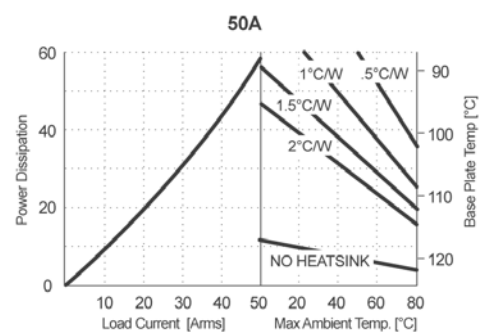
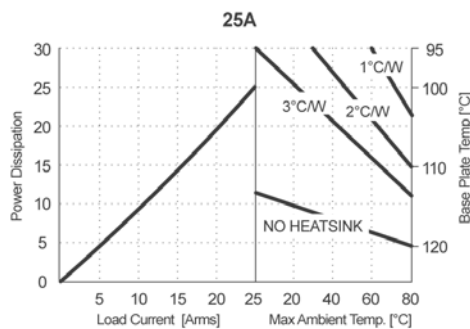
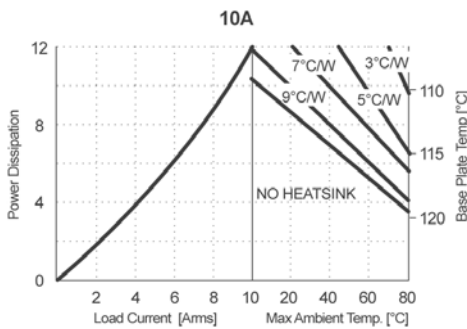
GENERAL SPECIFICATIONS

Description	Parameters
Dielectric Strength, Input/Output/Base (50/60Hz)	4000 Vrms
Minimum Insulation Resistance (@ 500 V DC)	10^{10} Ohm
Ambient Operating Temperature Range	-30 to 80°C
Ambient Storage Temperature Range	-40 to 125°C
Weight (typical)	3.0 oz. (43g)
Encapsulation	Themally Conductive Epoxy
Terminals	Screws and saddle Clamps Furnished, Unmounted

GENERAL NOTES

- 1) All parameters at 25°C unless otherwise specified.
- 2) Off-State dv/dt test method per EIA/NARM standard RS-443, paragraph 13.11.1
- 3) Heat sinking required, see derating curves.
- 4) Timing Resistor may be as high as 10M Ohm with performance dependent on resistor quality
- 5) Before and after time-out.

THERMAL DERATE INFORMATION



AGENCY APPROVALS

UL E116949



Rev. 102708



WARNING / AVERTISSEMENT / WARNUNG / ADVERTENCIA / AVVERTENZA / AVISO

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RISCHIO DI DANNI MATERIALI E D'INVOLUCRO CALDO

- 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.

La mancata osservanza di questa precauzione può causare gravi rischi per l'incolumità personale o danni alle apparecchiature.

RISCO DE DANO MATERIAL E DE AQUECIMENTO

- Os painéis laterais do produto podem estar quentes; dê tempo ao produto para arrefecer antes de lhe tocar.
- Siga devidamente as instruções de montagem.
- Não permita a entrada de líquidos e de objectos estranhos no produto.

A não observância destas precauções pode provocar a morte, ferimentos graves ou danos materiais.



DANGER / PELIGRO / DANGER /GEFAHR / PERICOLO / PERIGO

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH.

- Disconnect all power before installing or working with this equipment.
- Verify all connections and replace all covers before turning on power.

Failure to follow these instructions will result in death or serious injury.

RIESGO DE DESCARGA ELECTRICA O EXPLOSION.

- 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.

El incumplimiento de estas instrucciones puede provocar la muerte o lesiones serias.

RISQUE DE DESCARGE ELECTRIQUE OU EXPLOSION

- Eteindre toutes les sources d'énergie de cet appareil avant de travailler dessus de cet appareil
- Vérifier tous connections, et remettre tous couverts en place avant de mettre sous

De non-suivi de ces instructions provoquera la mort ou des lésions sérieuses.

GEFAHR EINES ELEKTRISCHE N SCHLAGES ODER EINER EXPLOSION.

- 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.

Unterlassung dieser Anweisungen können zum Tode oder zu schweren Verletzungen führen.

RISCHIO DI SCOSSA ELETTRICA O DELL'ESPLOSIONE.

- Spenga tutta l'alimentazione e che fornisce questa apparecchiatura prima del lavorare a questa apparecchiatura
- Verificare tutti i collegamenti e sostituire tutte le coperture prima della rotazione sull'alimentazione

L'omissione di seguire queste istruzioni provocherà la morte o di lesioni serie

RISCO DE DESCARGA ELÉTRICA OU EXPLOÇÃO

- Desconectar o equipamento de toda a energia antes de instalar ou trabalhar com este equipamento
- Verificar todas as conexões e recolocar todas as tampas antes de religar o equipamento

O não cumprimento destas instruções pode levar a morte ou lesões sérias.

ANNEX - ENVIROMENTAL INFORMATION

The environmental information disclosed in this annex including the EIP Pollution logo are in compliance with People's Republic of China Electronic Industry Standard SJ/T11364 – 2006, Marking for Control of Pollution Caused by Electronic Information Products.

Part Name	Toxic or hazardous Substance and Elements					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr (VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Semiconductor die	X	O	O	O	O	O
Solder	X	O	O	O	O	O

此附件所标示的包括电子信息产品污染图标的环境信息
符合中华人民共和国电子行业标准 **SJ/T11364 - 2006**,
电子信息产品污染控制标识要求



部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
半导体芯片	X	O	O	O	O	O
焊接点	X	O	O	O	O	O