



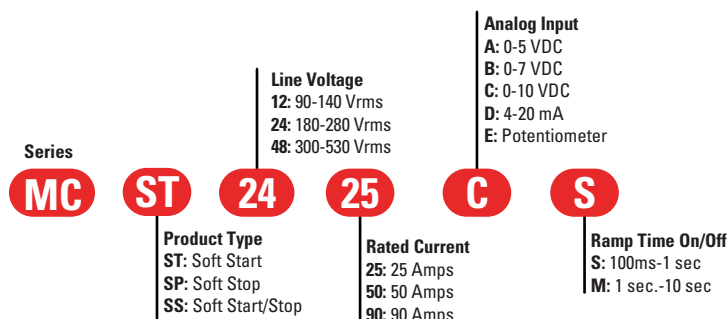
MCS Series

- 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



- Required for valid part number
- For options only and not required for valid part number

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 [Arms]	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 [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

INPUT SPECIFICATIONS ⁽¹⁾

Description	DC Control
Control Voltage Range (VDC)	8-32
Input Current Range [mA] [P1]	28-30
Nominal Input Impedance [Ohms] [P3]	30K
Control Must Operate Voltage "On" [VDC][P3]	5-32
Control Must Release Voltage "Off" [VDC][P3]	0-4
Control Input Current [mA][P3]	0-2.6
PLV Range Option A [VDC][P4]	0.5-5
PLV Range Option B [VDC][P4]	1.25-7
PLV Range Option C [VDC][P4]	2-10
PLV 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

OUTPUT STATUS FUNCTIONS

Conditions	
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)	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

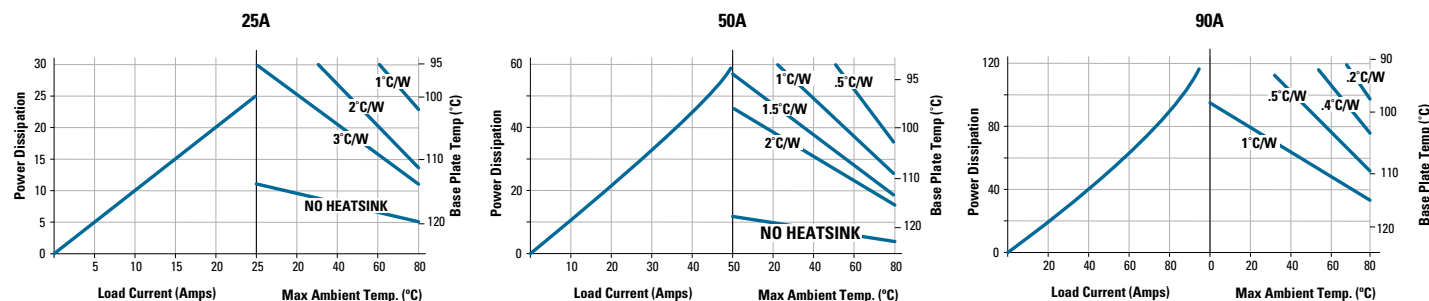
GENERAL SPECIFICATIONS

Description	Parameters
Minimum Power Factor (with Maximum Load)	0.5
Dielectric Strength, Input/Output/Base (50/60Hz)	4000 Vrms
Minimum Insulation Resistance (@ 500 VDC)	10 ⁹ Ohms
Maximum Capacitance, Input/Output	10 pF
Ambient Storage Temperature Range	-20 to 80°C
Ambient Operating 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 grease) Input Connections via Screw Type Barrier Strip

GENERAL NOTES

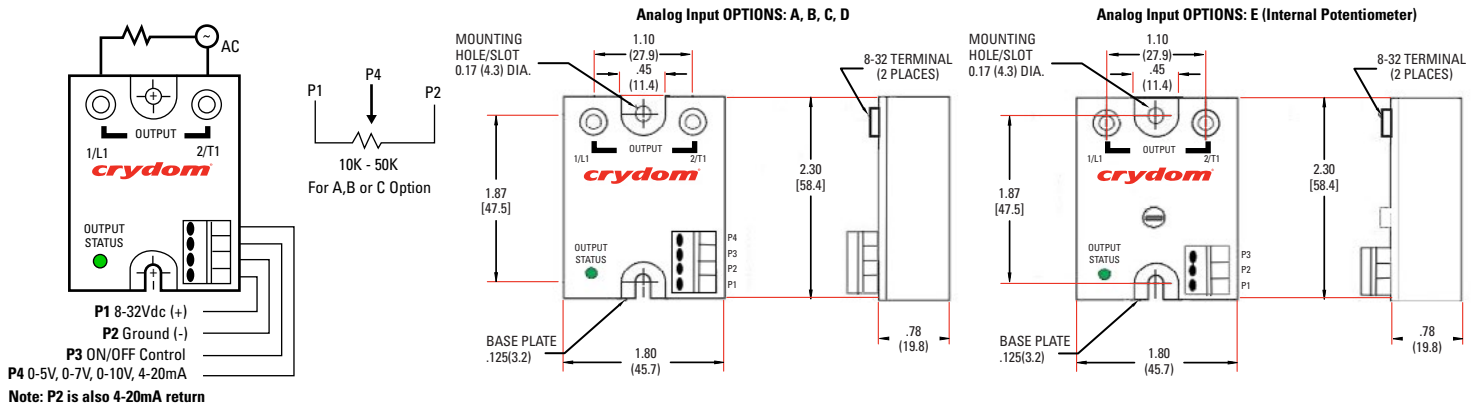
(1) Voltages are reference to GND (Ground = 0 VDC) P2

THERMAL DERATE INFORMATION

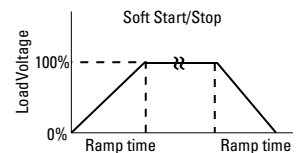
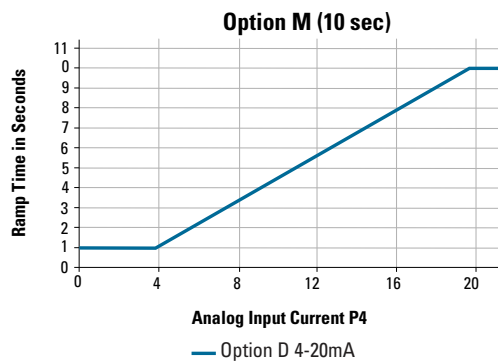
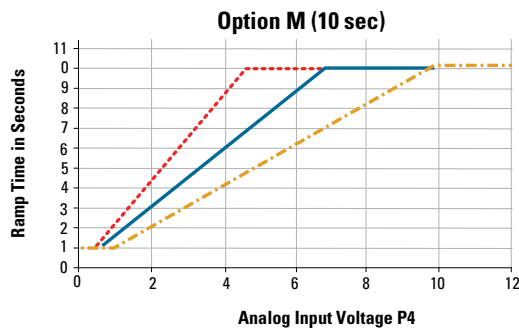
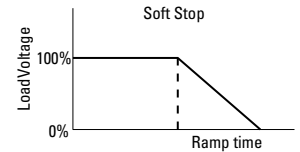
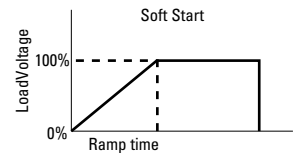
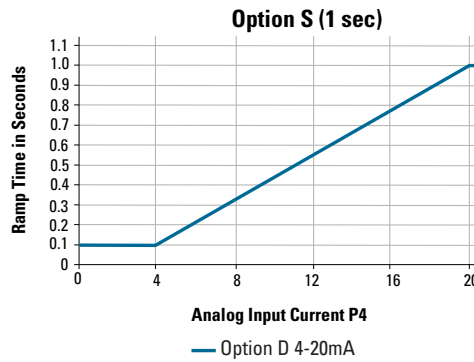
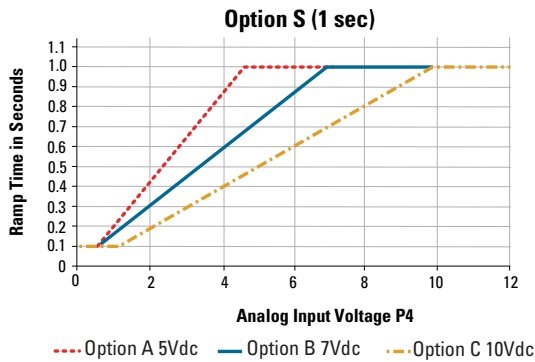


MECHANICAL SPECIFICATIONS

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



RAMP TIME IN SECONDS



AGENCY APPROVALS

Agency Approvals

UL E116949



Rev. 050311

⚠ DANGER / PELIGRO / DANGER /GEFAHR / PERICOLO / 危险

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 ELEKTRISCHEN 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. - Spenda 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 L'omissione di queste istruzioni provocherà la morte o lesioni serie	存在电击、爆炸或电弧闪烁危险 在操作此设备之前请先关闭电源。 若不遵守这些说明，可能会导致严重的人身伤害甚至死亡。
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⚠ WARNING / AVERTISSEMENT / WARNUNG /ADVERTENCIA / AVVERTENZA / 警告

RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE - 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. Failure to follow these instructions 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.	材料损坏和高温外壳的危险性 - 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。 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。

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

附件 – 环保信息

此附件所标示的包括电子信息产品污染图标的环保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



Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Sensata:

MCST2425CM	MCST2425ES	MCST1225ES	MCST1250CM	MCST1250ES	MCST4825CM	MCST4825ES
MCSP1225AM	MCSP1225AS	MCSP1225BM	MCSP1225BS	MCSP1225CM	MCSP1225DM	MCSP1225DS
MCSP1225EM	MCSP1225ES	MCSP1250AM	MCSP1250BM	MCSP1250BS	MCSP1250CM	MCSP1250DM
MCSP1250DS	MCSP1250EM	MCSP1250ES	MCSP1290AM	MCSP1290BS	MCSP1290CS	MCSP1290DM
MCSP1290DS	MCSP1290ES	MCSP2425AM	MCSP2425AS	MCSP2425BM	MCSP2425BS	MCSP2425CM
MCSP2425CS	MCSP2425DS	MCSP2425EM	MCSP2425ES	MCSP2450AM	MCSP2450AS	MCSP2450BS
MCSP2450CM	MCSP2450DM	MCSP2450DS	MCSP2450EM	MCSP2450ES	MCSP2490AM	MCSP2490AS
MCSP2490BM	MCSP2490BS	MCSP2490CS	MCSP2490DM	MCSP2490ES	MCSP4825AS	MCSP4825BM
MCSP4825BS	MCSP4825DM	MCSP4825EM	MCSP4850AM	MCSP4850AS	MCSP4850BS	MCSP4850CM
MCSP4850DM	MCSP4850DS	MCSP4850EM	MCSP4850ES	MCSP4890AM	MCSP4890AS	MCSP4890BM
MCSP4890BS	MCSP4890CM	MCSP4890CS	MCSP4890DM	MCSP4890DS	MCSP4890EM	MCSP4890ES
MCSS1225AM	MCSS1225AS	MCSS1225BM	MCSS1225BS	MCSS1225CM	MCSS1225CS	MCSS1225EM
MCSS1225ES	MCSS1250AS	MCSS1250BM	MCSS1250BS	MCSS1250CS	MCSS1250DS	MCSS1250EM
MCSS1250ES	MCSS1290BM	MCSS1290CM	MCSS1290CS	MCSS1290DM	MCSS1290EM	MCSS1290ES
MCSS2425AM	MCSS2425AS					