

MCS Series

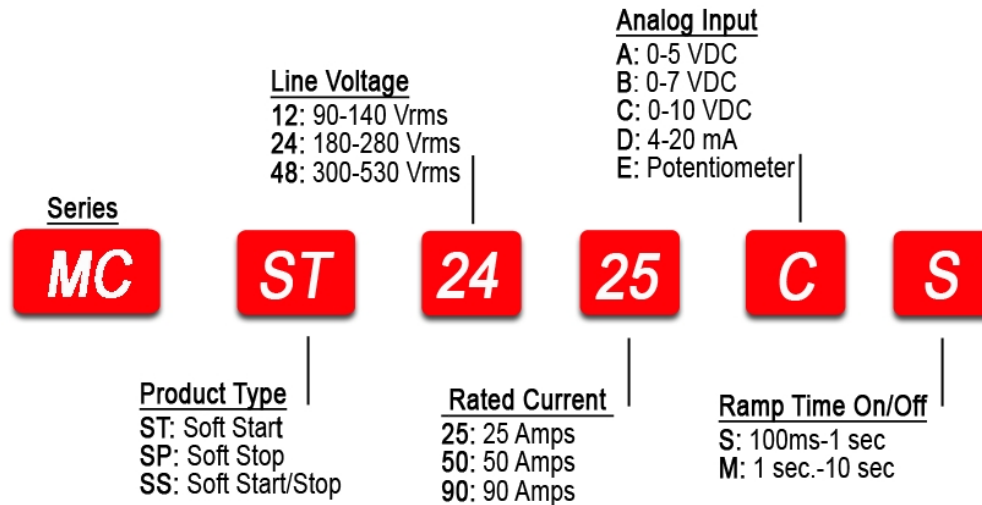


- Microprocessor based soft-start / soft-stop controller
- Ratings from 25A to 90A @ 48-530 VAC
- Low-voltage, current, or potentiometer control
- Output status indicator
- Adjustable ramp rates

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 [mArms]	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 [Arms]	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 I²t for Fusing (8.3 msec) [A²sec]	260	1620	6000



DataSheet Control Relays

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
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

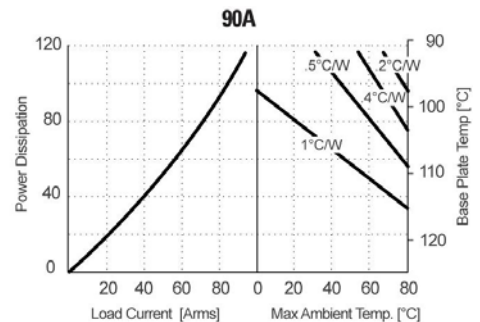
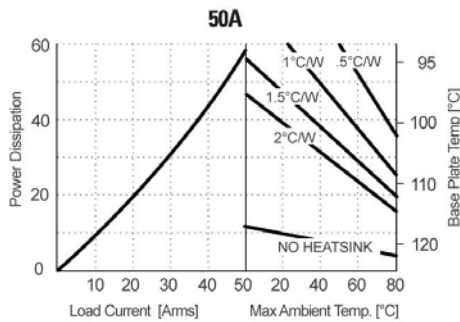
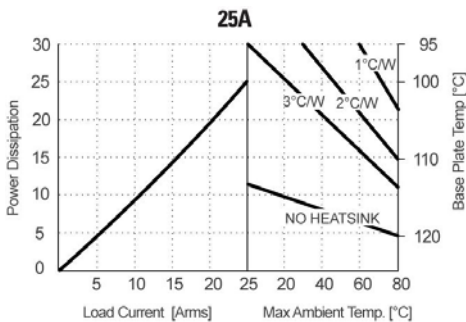
GENERAL NOTES

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

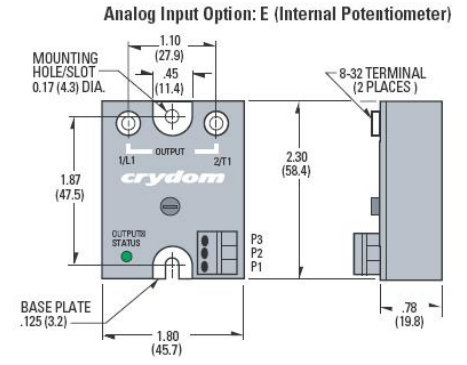
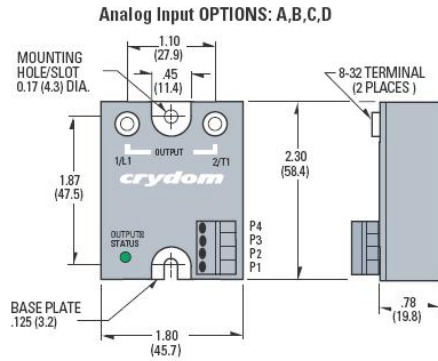
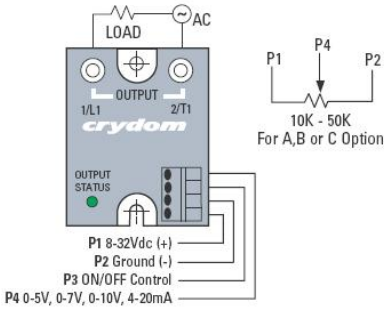
THERMAL DERATE INFORMATION





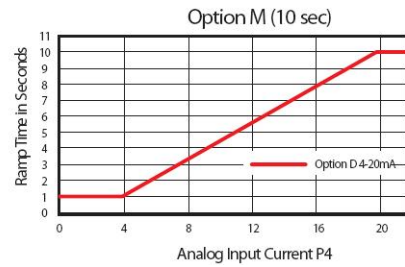
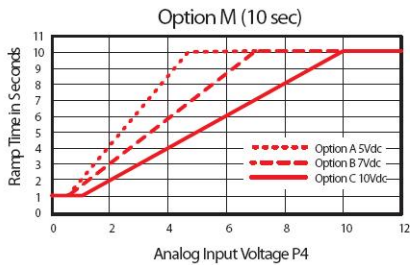
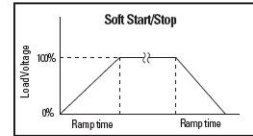
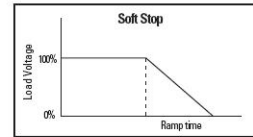
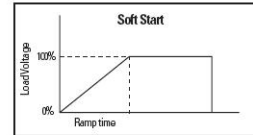
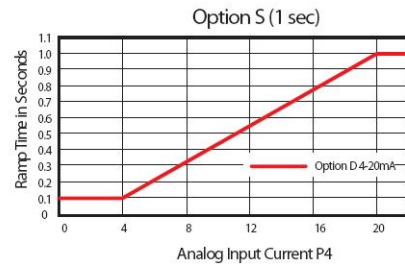
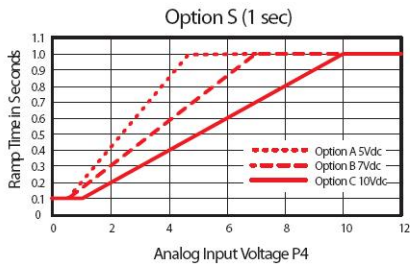
DataSheet Control Relays

MECHANICAL SPECIFICATIONS



Dimensions are in inches (millimeters)

RAMP TIME IN SECONDS



AGENCY APPROVALS

UL E116949



Rev. 082710

MCSS1225EM; MCSS1250EM; MCSS1290EM; MCSS2425EM; MCSS2450EM; MCSS2490EM;
MCSS4825EM; MCSS4850EM; MCSS4890EM; MCSS1225BM; MCSS1250BM; MCSS1290BM;
MCSS2425BM; MCSS2450BM; MCSS2490BM; MCSS4825BM; MCSS4850BM; MCSS4890BM;
MCSS1225CS; MCSS1250CS; MCSS1290CS; MCSS2425CS; MCSS2450CS; MCSS2490CS;
MCSS4825CS; MCSS4850CS; MCSS4890CS; MCSS1225AS; MCSS1250AS; MCSS1290AS;
MCSS2425AS; MCSS2450AS; MCSS2490AS; MCSS4825AS; MCSS4850AS; MCSS4890AS;
MCSS1225BS; MCSS1250BS; MCSS1290BS; MCSS2425BS; MCSS2450BS; MCSS2490BS;
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