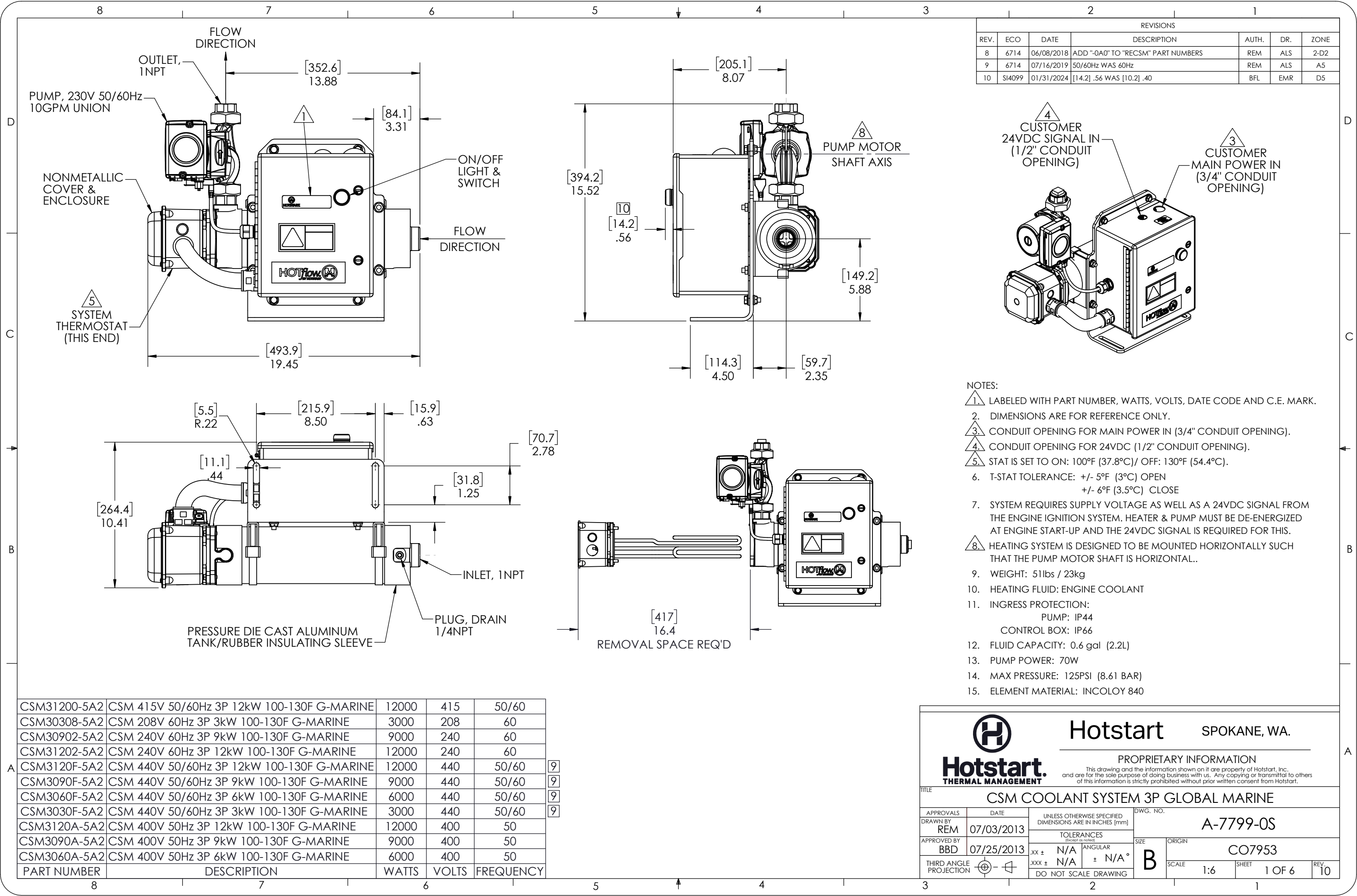
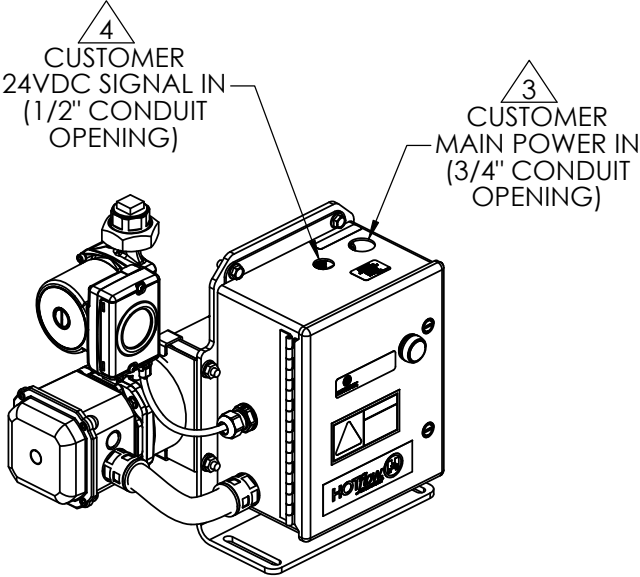




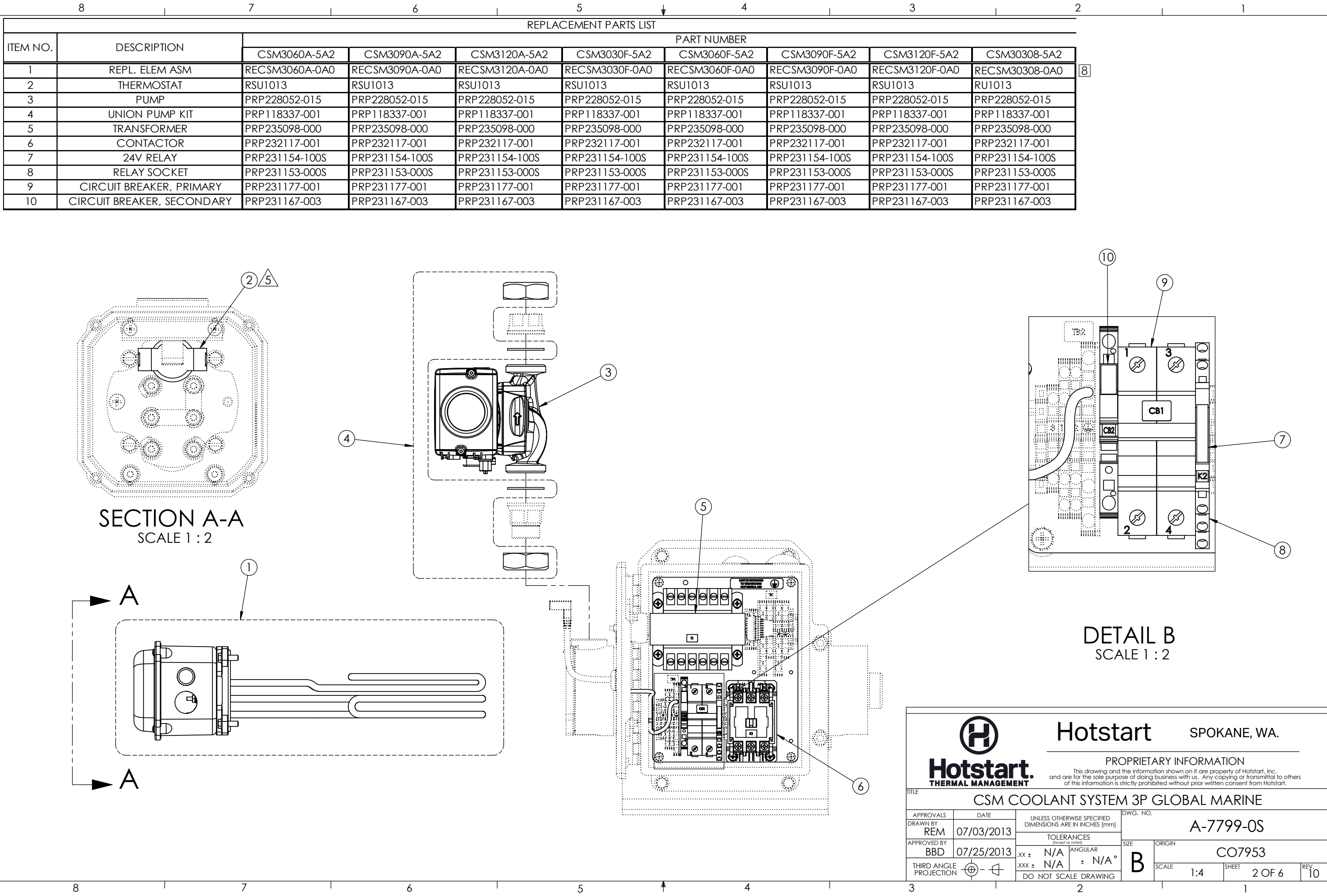
REVISIONS						
REV.	ECO	DATE	DESCRIPTION	AUTH.	DR.	ZONE
8	6714	06/08/2018	ADD "-0A0" TO "RECSM" PART NUMBERS	REM	ALS	2-D2
9	6714	07/16/2019	50/60Hz WAS 60Hz	REM	ALS	A5
10	SI4099	01/31/2024	[14.2] .56 WAS [10.2] .40	BFL	EMR	D5



- NOTES:
1. LABELED WITH PART NUMBER, WATTS, VOLTS, DATE CODE AND C.E. MARK.
 2. DIMENSIONS ARE FOR REFERENCE ONLY.
 3. CONDUIT OPENING FOR MAIN POWER IN (3/4" CONDUIT OPENING).
 4. CONDUIT OPENING FOR 24VDC (1/2" CONDUIT OPENING).
 5. STAT IS SET TO ON: 100°F (37.8°C) / OFF: 130°F (54.4°C).
 6. T-STAT TOLERANCE: +/- 5°F (3°C) OPEN
+/- 6°F (3.5°C) CLOSE
 7. SYSTEM REQUIRES SUPPLY VOLTAGE AS WELL AS A 24VDC SIGNAL FROM THE ENGINE IGNITION SYSTEM. HEATER & PUMP MUST BE DE-ENERGIZED AT ENGINE START-UP AND THE 24VDC SIGNAL IS REQUIRED FOR THIS.
 8. HEATING SYSTEM IS DESIGNED TO BE MOUNTED HORIZONTALLY SUCH THAT THE PUMP MOTOR SHAFT IS HORIZONTAL..
 9. WEIGHT: 51lbs / 23kg
 10. HEATING FLUID: ENGINE COOLANT
 11. INGRESS PROTECTION:
PUMP: IP44
CONTROL BOX: IP66
 12. FLUID CAPACITY: 0.6 gal (2.2L)
 13. PUMP POWER: 70W
 14. MAX PRESSURE: 125PSI (8.61 BAR)
 15. ELEMENT MATERIAL: INCOLOY 840

CSM31200-5A2	CSM 415V 50/60Hz 3P 12kW 100-130F G-MARINE	12000	415	50/60
CSM30308-5A2	CSM 208V 60Hz 3P 3kW 100-130F G-MARINE	3000	208	60
CSM30902-5A2	CSM 240V 60Hz 3P 9kW 100-130F G-MARINE	9000	240	60
CSM31202-5A2	CSM 240V 60Hz 3P 12kW 100-130F G-MARINE	12000	240	60
CSM3120F-5A2	CSM 440V 50/60Hz 3P 12kW 100-130F G-MARINE	12000	440	50/60
CSM3090F-5A2	CSM 440V 50/60Hz 3P 9kW 100-130F G-MARINE	9000	440	50/60
CSM3060F-5A2	CSM 440V 50/60Hz 3P 6kW 100-130F G-MARINE	6000	440	50/60
CSM3030F-5A2	CSM 440V 50/60Hz 3P 3kW 100-130F G-MARINE	3000	440	50/60
CSM3120A-5A2	CSM 400V 50Hz 3P 12kW 100-130F G-MARINE	12000	400	50
CSM3090A-5A2	CSM 400V 50Hz 3P 9kW 100-130F G-MARINE	9000	400	50
CSM3060A-5A2	CSM 400V 50Hz 3P 6kW 100-130F G-MARINE	6000	400	50
PART NUMBER	DESCRIPTION	WATTS	VOLTS	FREQUENCY

		Hotstart		SPOKANE, WA.	
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TITLE CSM COOLANT SYSTEM 3P GLOBAL MARINE					
APPROVALS		DATE		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES [mm]	
DRAWN BY REM		07/03/2013		TOLERANCES (except as noted)	
APPROVED BY BBD		07/25/2013		XXX ± N/A ANGULAR ± N/A°	
THIRD ANGLE PROJECTION 		DO NOT SCALE DRAWING		DWG. NO. A-7799-0S	
				SIZE B	ORIGIN CO7953
				SCALE 1:6	SHEET 1 OF 6
				REV. 10	



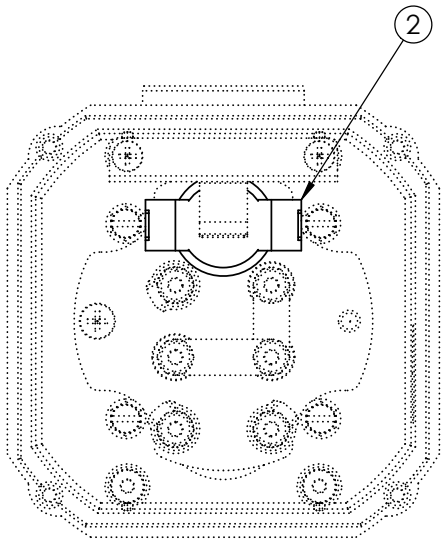


Hotstart
THERMAL MANAGEMENT

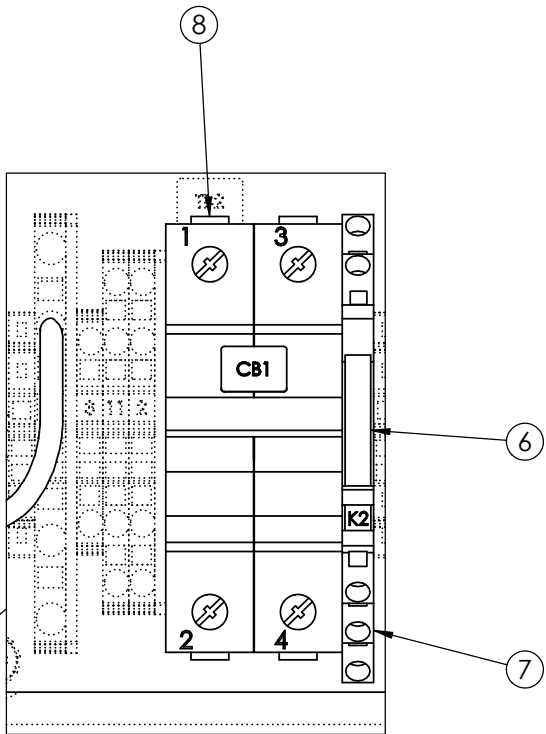
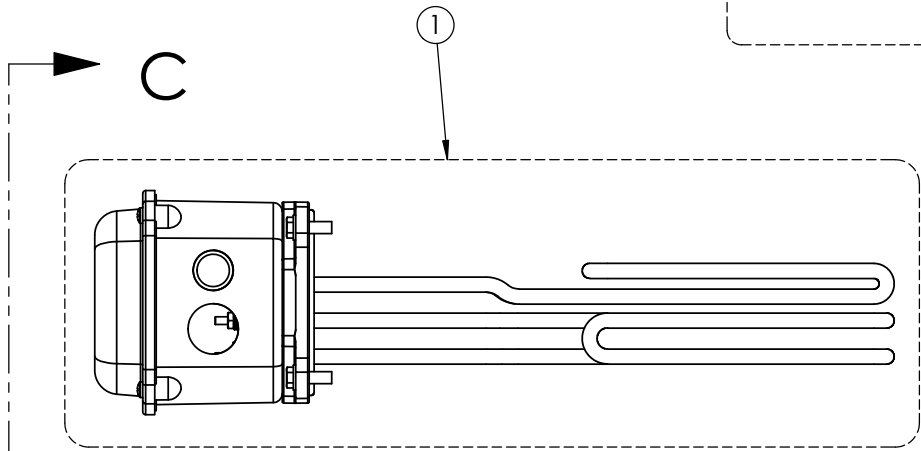
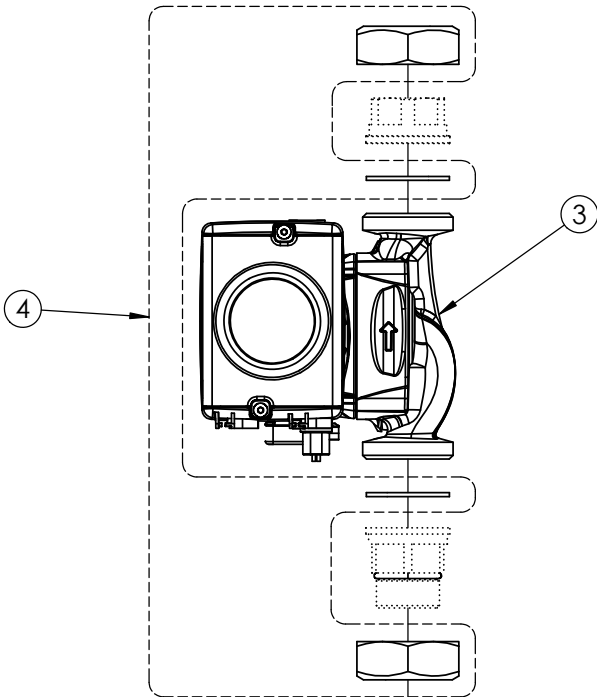
Hotstart SPOKANE, WA.
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APPROVALS DRAWN BY REM	DATE 07/03/2013	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES [mm]	DWG. NO. A-7799-0S
APPROVED BY BBD	07/25/2013	TOLERANCES (except as noted) XX ± N/A ANGULAR ± N/A° XXX ± N/A DO NOT SCALE DRAWING	SIZE B ORIGIN CO7953
THIRD ANGLE PROJECTION			SCALE 1:4 SHEET 2 OF 6 REV. 10

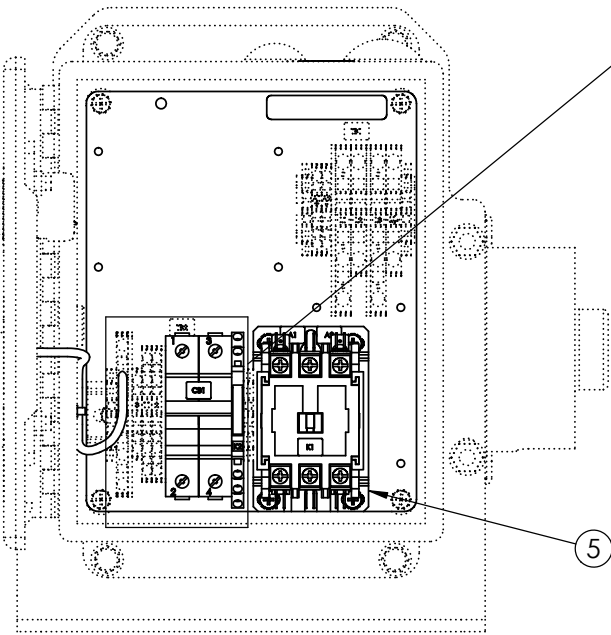
REPLACEMENT PARTS LIST			
ITEM NO.	DESCRIPTION	PART NUMBER	
		CSM30902-5A2	CSM31202-5A2
1	REPL. ELEM ASM	RECSM30902-0A0	RECSM31202-0A0
2	THERMOSTAT	RSU1013	RSU1013
3	PUMP	PRP228052-015	PRP228052-015
4	UNION PUMP KIT	PRP118337-001	PRP118337-001
5	CONTACTOR	PRP232117-001	PRP232117-001
6	24V RELAY	PRP231154-100S	PRP231154-100S
7	RELAY SOCKET	PRP231153-000S	PRP231153-000S
8	CIRCUIT BREAKER, PRIMARY	PRP231177-001	PRP231177-001



SECTION C-C
SCALE 1 : 2



DETAIL D
SCALE 1 : 2





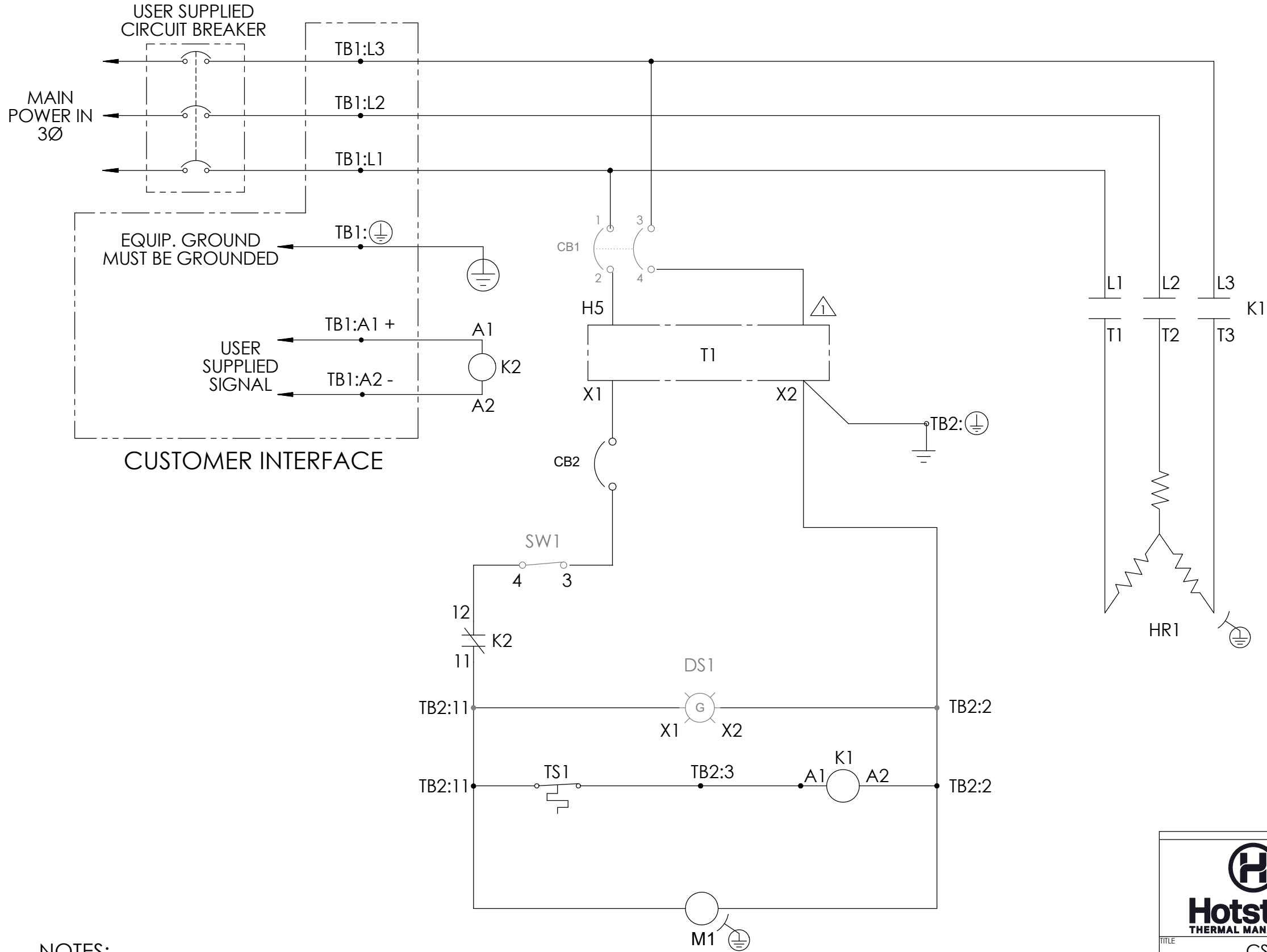
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TITLE		CSM COOLANT SYSTEM 3P GLOBAL MARINE	
APPROVALS	DATE	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES [mm]	DWG. NO.
DRAWN BY REM	07/03/2013	TOLERANCES (Except as noted)	A-7799-0S
APPROVED BY BBD	07/25/2013	XX ± N/A ANGULAR .XXX ± N/A ± N/A°	SIZE B
THIRD ANGLE PROJECTION		DO NOT SCALE DRAWING	ORIGIN CO7953
		SCALE 1:4	SHEET 3 OF 6
		REV. 10	



REF ID	DESCRIPTION
DS1	LIGHT
CB1	PRIMARY TRANSFORMER CIRCUIT BREAKER
CB2	SECONDARY TRANSFORMER CIRCUIT BREAKER
HR1	HEATER
K1	CONTACTOR
K2	DC REMOTE RELAY
M1	MOTOR
SW1	SWITCH
T1	TRANSFORMER
TB1	TERMINAL BLOCK
TB2	TERMINAL BLOCK
TS1	TEMPERATURE SENSOR

NOTES:

1. SEE DETAIL A FOR CONNECTION POINT

3P WIRING SCHEMATIC



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THERMAL MANAGEMENT

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SPOKANE, WA.

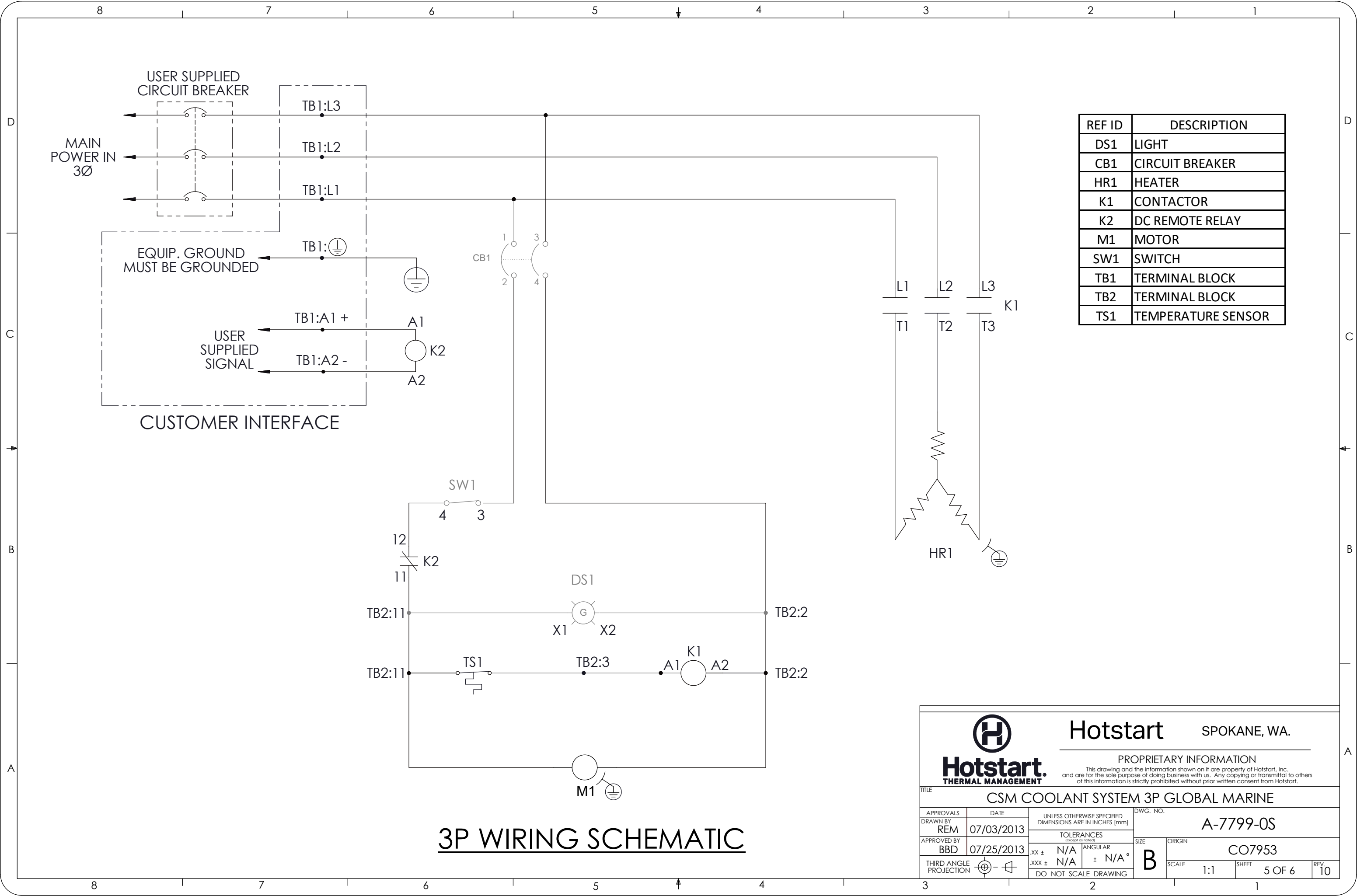
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TITLE

CSM COOLANT SYSTEM 3P GLOBAL MARINE

APPROVALS		DATE		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES [mm]		DWG. NO.		
DRAWN BY		07/03/2013		TOLERANCES (except as noted)		A-7799-0S		
APPROVED BY		07/25/2013		ANGULAR		SIZE	ORIGIN	
BBD				xx ± N/A	± N/A°	B	CO7953	
THIRD ANGLE PROJECTION				DO NOT SCALE DRAWING			SCALE	SHEET
						1:1	4 OF 6	REV. 10



REF ID	DESCRIPTION
DS1	LIGHT
CB1	CIRCUIT BREAKER
HR1	HEATER
K1	CONTACTOR
K2	DC REMOTE RELAY
M1	MOTOR
SW1	SWITCH
TB1	TERMINAL BLOCK
TB2	TERMINAL BLOCK
TS1	TEMPERATURE SENSOR



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THERMAL MANAGEMENT

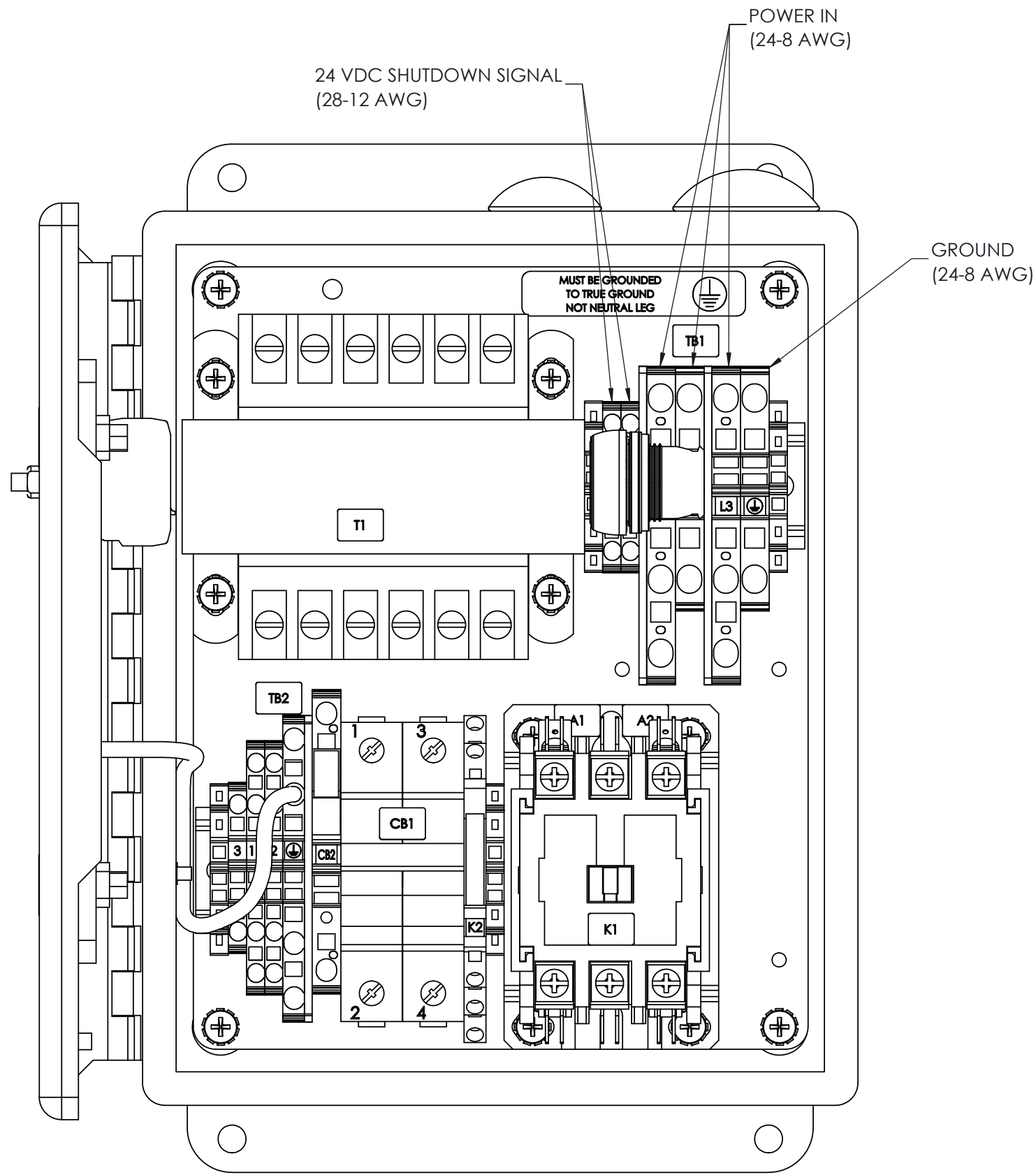
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TITLE
CSM COOLANT SYSTEM 3P GLOBAL MARINE

APPROVALS	DATE	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES [mm]	DWG. NO. A-7799-0S								
DRAWN BY REM	07/03/2013										
APPROVED BY BBD	07/25/2013	TOLERANCES (except as noted)	SIZE B								
THIRD ANGLE PROJECTION		<table><tr><td>.XX ±</td><td>N/A</td><td>ANGULAR</td><td>± N/A°</td></tr><tr><td>.XXX ±</td><td>N/A</td><td colspan="2"></td></tr></table>	.XX ±	N/A	ANGULAR	± N/A°	.XXX ±	N/A			ORIGIN CO7953
.XX ±	N/A	ANGULAR	± N/A°								
.XXX ±	N/A										
DO NOT SCALE DRAWING			SCALE 1:1								
			SHEET 5 OF 6								
			REV. 10								

3P WIRING SCHEMATIC



CUSTOMER WIRING LOCATIONS

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TITLE CSM COOLANT SYSTEM 3P GLOBAL MARINE			
APPROVALS DRAWN BY REM	DATE 07/03/2013	DWG. NO. A-7799-0S	
APPROVED BY BBD	DATE 07/25/2013	SIZE B	
THIRD ANGLE PROJECTION 	TOLERANCES (Except as noted) XX ± N/A ANGULAR ± N/A° XXX ± N/A DO NOT SCALE DRAWING		ORIGIN CO7953 SCALE 1:8 SHEET 6 OF 6 REV. 10