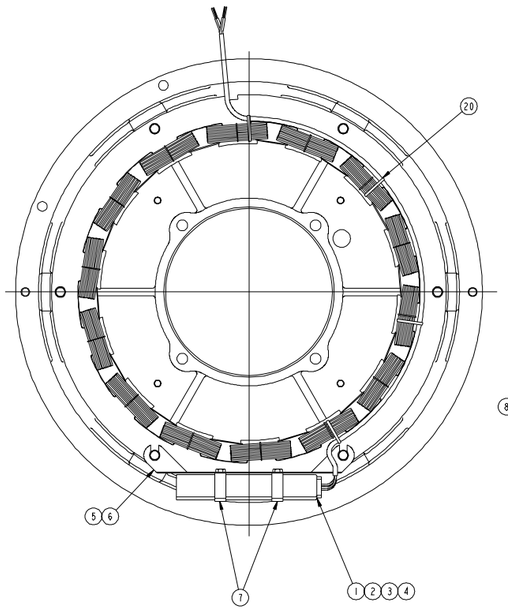
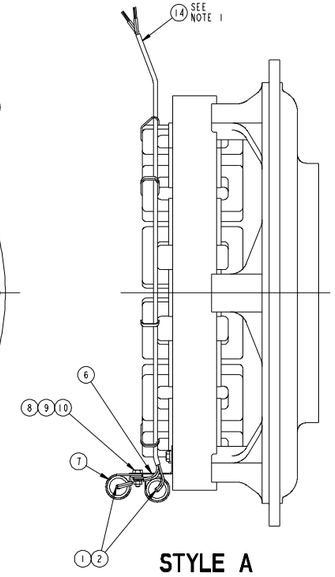
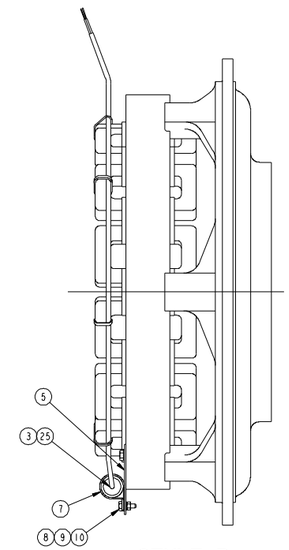
0179_2285	E	Pro/ENGINEER	METRIC DWG

REL NO	LTR	NO	REVISION	ZONE	BY	CHKR	APPROVED	DATE
FRD16190	S	1	REVISED & REDRAWN WAS REVISIO	-	JJJ	BB	BB	04-30-03
FRD17335	T	1	CHG -09,-10 ITEM 21 WAS 0508-1151	-	JJJ	BB	BB	07-17-03
FRD24983	U	1	REMOVE ITEM 4 0333_0438_06	2A	LA	BG	HLS	12-19-05
		2	REMOVE FROM -04 ITEM 7 0332_3024_14	2A	LA	BG	HLS	12-19-05
		3	REMOVE FROM -04 ITEM 8 0850_2005	2A	LA	BG	HLS	12-19-05
		4	REMOVE FROM -04 ITEM 9 0860_2006	2A	LA	BG	HLS	12-19-05
		5	REMOVE FROM -04 ITEM 10 0800_2008	2A	LA	BG	HLS	12-19-05
		6	REMOVE FROM -04 ITEM 14 0898_1254_25	2A	LA	BG	HLS	12-19-05
		7	REMOVE FROM -04 ITEM 20 0332_1389	2A	LA	BG	HLS	12-19-05
		8	ADD TO 04 ITEM 25 0179_4708	2B	LA	BG	HLS	12-19-05
FRD30152	V	1	0856-0021 WAS 0850-2004, QTY 2	2A	GWH	BG	GROSS	12-28-06





STYLE A



STYLE B

NOTES:

1. WHEN INSTALLING DUAL HEATERS (STYLE A), CONNECT ONE LEAD WIRE FROM ONE HEATER TO ONE LEAD WIRE OF OTHER HEATER. TWIST THE ENDS OF THE LEADS TOGETHER. REPEAT FOR OTHER TWO LEADS. SLIDE BOTH SETS OF LEADS THRU SLEEVING (ITEM 14). CONNECT EACH SET OF LEADS TO TERMINAL BLOCK.

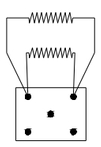
2. INSTALL TERMINAL BOX (ITEM 17) TO GENERATOR TERMINAL BOX USING HOLES PROVIDED OR DRILL MOUNTING HOLE PATTERN IN DESIRED LOCATION.

3. CONNECT CABLE ASSY (ITEM 23) TO OTHER SIDE OF TERMINAL BLOCK AND GROUND.

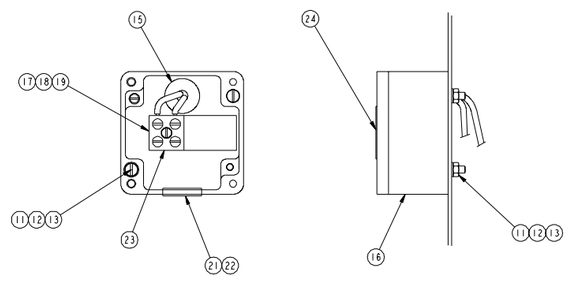
-THIS IS A CONTROLLED PRODUCT-
FER (NON PROCEDURE) FMI-1002
TO ENSURE CONFIDENCE, DO NOT REPRODUCE OR THE CODEX.
PROPRIETARY, CONFIDENTIAL & SECRET
☒CUM ☒MK ☐HI ☐MHI ☐MWC
☐OTHER _____ ☐OTHER _____
PRO/ENG DESIGN CONTROL PWA 02-05 CONTROL FACILITIES ☐
CHANGES, DEVIATIONS OR SUBSTITUTIONS OF MATERIAL, PROCESS OR SPECIFICATIONS MUST BE APPROVED BY THE FOLLOWING DESIGN CONTROL FACILITIES
DESIGN CONTROL FACILITY FRIBLEY
DESIGN CONTROL FACILITY _____

TABULATION

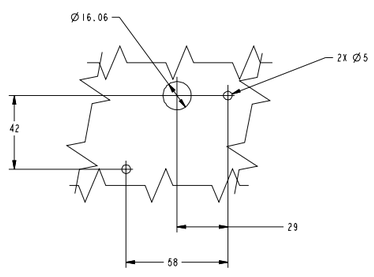
PART NO.	CURRENT_ER	HEATER STYLE	VOLTAGE RANGE	ALT USED ON	STATUS
0179-2285-01	FRD30152	A	110-125	HC4	RELEASED
0179-2285-02	FRD30152	A	220-260	HC4	RELEASED
0179-2285-03	FRD30152	B	110-125	HC5,HC6,HC7	RELEASED
0179-2285-04	FRD30152	B	220-260	HC5,HC6,HC7	RELEASED
0179-2285-05	FRD3063	B	110-125	HC6	OBSOLETE
0179-2285-06	FRD3063	B	220-260	HC6	OBSOLETE
0179-2285-07	FRD3063	B	110-125	HC7	OBSOLETE
0179-2285-08	FRD3063	B	220-260	HC7	OBSOLETE
0179-2285-09	FRD30152	A	110-125	HC4	RELEASED
0179-2285-10	FRD30152	B	110-125	HC5,HC6,HC7	RELEASED



SCHEMATIC FOR
DUAL HEATER
CONNECTION (NOTE 1)



ITEM 16 WITHOUT
COVER AND GASKET
SCALE 1:1 (NOTE 2)



TERMINAL BOX (ITEM 16)
MOUNTING HOLE PATTERN
SCALE 1:1 (NOTE 2)

U8	-	-								1	-	-	-	25	0179-4708		HEATER INSTL
	1	1								1	1	1	1	24	0098-7281		LABEL-HEATER WARNING
	1	1								-	-	-	-	23	0335-0173-04		CABLE ASSY
	-	-								1	1	1	1	22	0517-0021		PLUG-DOT BUTTON
	1	1								-	-	-	-	21	0331-0027		CONNECTOR-ROMEX (1/2" KO)
U7	4	4								-	4	4	4	20	0332-1389		TIE-CABLE
	1	1								1	1	1	1	19	0822-3047		SCREW-PAN HD (M3 X 20)
	1	1								1	1	1	1	18	0850-2003		WASHER-LK (M3)
	1	1								1	1	1	1	17	0332-3023		TERMINAL BLOCK
	1	1								1	1	1	1	16	0330-0142		TERMINAL BOX-HEATER
	1	1								1	1	1	1	15	0508-0228		GROMMET
U6	1	1								-	1	1	1	14	0898-1254-25		SLEEVING-CL200 INSUL
	2	2								2	2	2	2	13	0860-2005		NUT-HMS (M4)
V1	2	2		OBSOLETE						2	2	2	2	12	0856-0021		WASHER-EIT (M4)
	2	2								2	2	2	2	11	0822-3015		SCREW-PAN HD (M4 X 16)
U5	2	2								-	2	2	2	10	0800-2008		SCREW-HHC (M5 X 16)
U4	2	2								-	2	2	2	9	0860-2006		NUT-HMS (M5)
U3	2	2								-	2	2	2	8	0850-2005		WASHER-LK (M5)
U2	2	4								-	2	4	4	7	0332-3024-14		CLAMP-LOOP
	-	1								-	-	1	1	6	0232-3850		BRACKET-HTR MTG
	1	-								1	1	-	-	5	0232-3849		BRACKET-HTR MTG
U1														4			
	1	-								-	1	-	-	3	0333-0438-05		CARTRIDGE-HEATER
	-	-								-	-	2	-	2	0333-0438-04		CARTRIDGE-HEATER
	-	2								-	-	-	2	1	0333-0438-03		CARTRIDGE-HEATER
	QTY -10	QTY -09	QTY -08	QTY -07	QTY -06	QTY -05	QTY -04	QTY -03	QTY -02	QTY -01	ITEM	PART NO		DESCRIPTION OR MATERIAL		REQ

TOLERANCE UNLESS OTHERWISE SPECIFIED

	MM	INS
.X ±	1.0	0.0
.XX ±	0.25	0.01
.XXX ±	0.08	0.003
ANG	±0.5°	±30'

	MM	INS
.X ±	1.0	0.0
.XX ±	0.25	0.01
.XXX ±	0.08	0.003
ANG	±0.5°	±30'

	MM	INS
.X ±	1.0	0.0
.XX ±	0.25	0.01
.XXX ±	0.08	0.003
ANG	±0.5°	±30'

DO NOT SCALE PRINT

ANG TOLS ± 1.0°

DRAWN TO SCALE 1/1

	NAME	DATE
DR	JJOHNSON	04-30-03
CHK	F.DEMEITRELES	04-30-03
APPROVED	B.BRADY	04-30-03

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FINAL FINISH AND DIM PER ITEM 1 ____ HC4 THRU HC7

CUMMINS POWER GENERATION
FORD POWER AND GE
MINNEAPOLIS, MINNESOTA, USA

SIZE A | SITE CODE PGA | TITLE HEATER_INSTL . | DWG NO 0179_2285 | SHEET 1 OF 1 | REV E