

FOR QUESTIONS, CALL THE
 FLD AIRE NATIONAL
 REGION 22
 PHONE: (610) 239-8405
 EMAIL: courtney.hardin@floaire.com

MUA FAN INFORMATION - JOB#5934889

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	MCA	MOCF	WEIGHT (LBS)	SDNES
1	2000CFM	1	F1-D.250-15D	15MF-1-MDD	A1-D.250	1000	2000	0.500	2079	DDP,PREMIUM	2.000	1.4450	3	208	6.1	9.8A	15A	522	20.9

GAS FIRED MAKE-UP AIR UNIT(S)

FAN UNIT NO	TAG	INPUT BTUs	OUTPUT BTUs	TEMP RISE	REQUIRED INPUT GAS PRESSURE	GAS TYPE	BURNER EFFICIENCY(%)
1	2000CFM	197411	181618	85°F	7 IN. W.C. - 14 IN. W.C.	NATURAL	92

FAN OPTIONS

FAN UNIT NO	TAG	QTY	DESCRIPTION
1	2000CFM	1	SIZE 1 TEMPERED COMMERCIAL DOWN DISCHARGE FOR DIRECT DRIVE AHUS
		1	INLET PRESSURE GAUGE, 0-35"
		1	MANIFOLD PRESSURE GAUGE, -5 TO 15" WC
		1	SHIP LOOSE GAS STRAINER 3/4"
		1	MOTORIZED BACKDRAFT DAMPER FOR A1-D HOUSING - MEETS AMCA CLASS 1A RATING
		1	LOW FIRE START
		1	FREEZESTAT (10)
		1	VAV PACKAGE W/ MANUAL/DDC CONTROL (571 VFD INCLUDED)
		1	VFD FACTORY MOUNTED AND WIRED IN COMMERCIAL CONTROL VESTIBULE FOR TEMPERED SUPPLY FAN
		1	CONTROL PANEL ENCLOSURE HEATER - RECOMMENDED FOR WINTER DESIGN TEMPERATURES LESS THAN 0°F
		1	CONVENIENCE OUTLET (GFCI), 15 AMP - REQUIRES SEPARATE 120V CONNECTION - INCLUDES RECEPTACLE AND J-BOX
		1	2 YEAR PARTS WARRANTY

FAN ACCESSORIES

FAN UNIT NO	TAG	EXHAUST			SUPPLY			
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT
1	2000CFM						YES	

CURB ASSEMBLIES

NO	ON FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	2000CFM	63 LBS	CURB	21.000"W X 71.000"L X 16.000"H ALONG WIDTH, RIGHT INSULATED.

FAN SOUND DATA

FAN UNIT NO	TAG	MOTOR	SOUND DATA			OCTAVE BAND SOUND DATA								
			LWA	SDNES @ 5 FT	DBA @ 5 FT	DISTANCE (FT)	63 HZ	125 HZ	250 HZ	500 HZ	1 KHZ	2 KHZ	4 KHZ	8 KHZ
1	2000CFM	SUPPLY	83.3	20.8582134975065	71.8	5	78.2	86.1	83.1	80.9	76.4	74.4	74.1	69.9

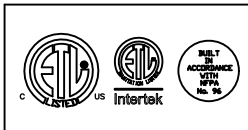
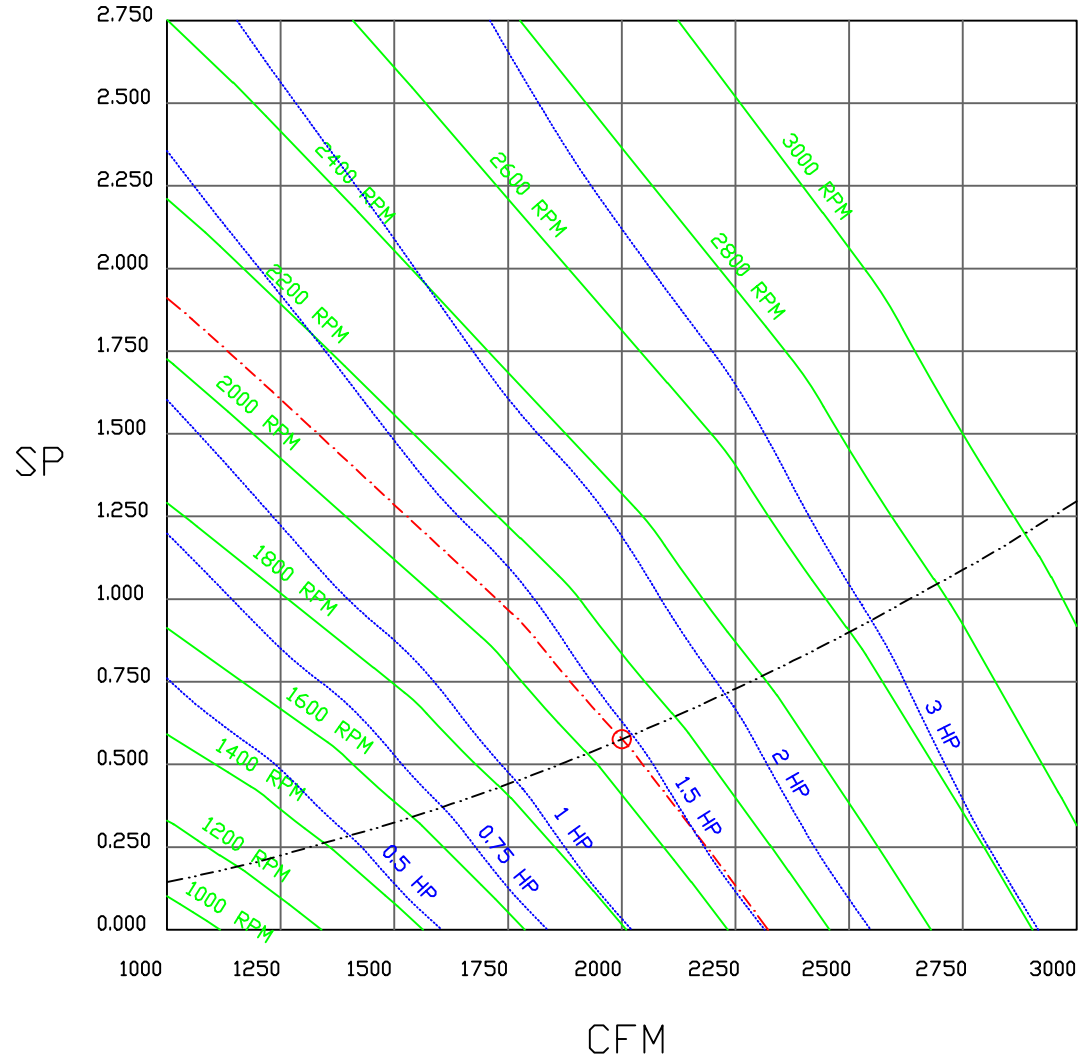


FloAire

JOB 2000cfm** Heater Stock	
LOCATION Southborough, MA,	
DATE 4/3/2023	JOB # 5934889
DWG # 1	DRAWN BY courtneyh
REV.	SCALE 3/8" = 1'-0"

FAN#1 (2000CFM) - HEATER PERFORMANCE CURVES.

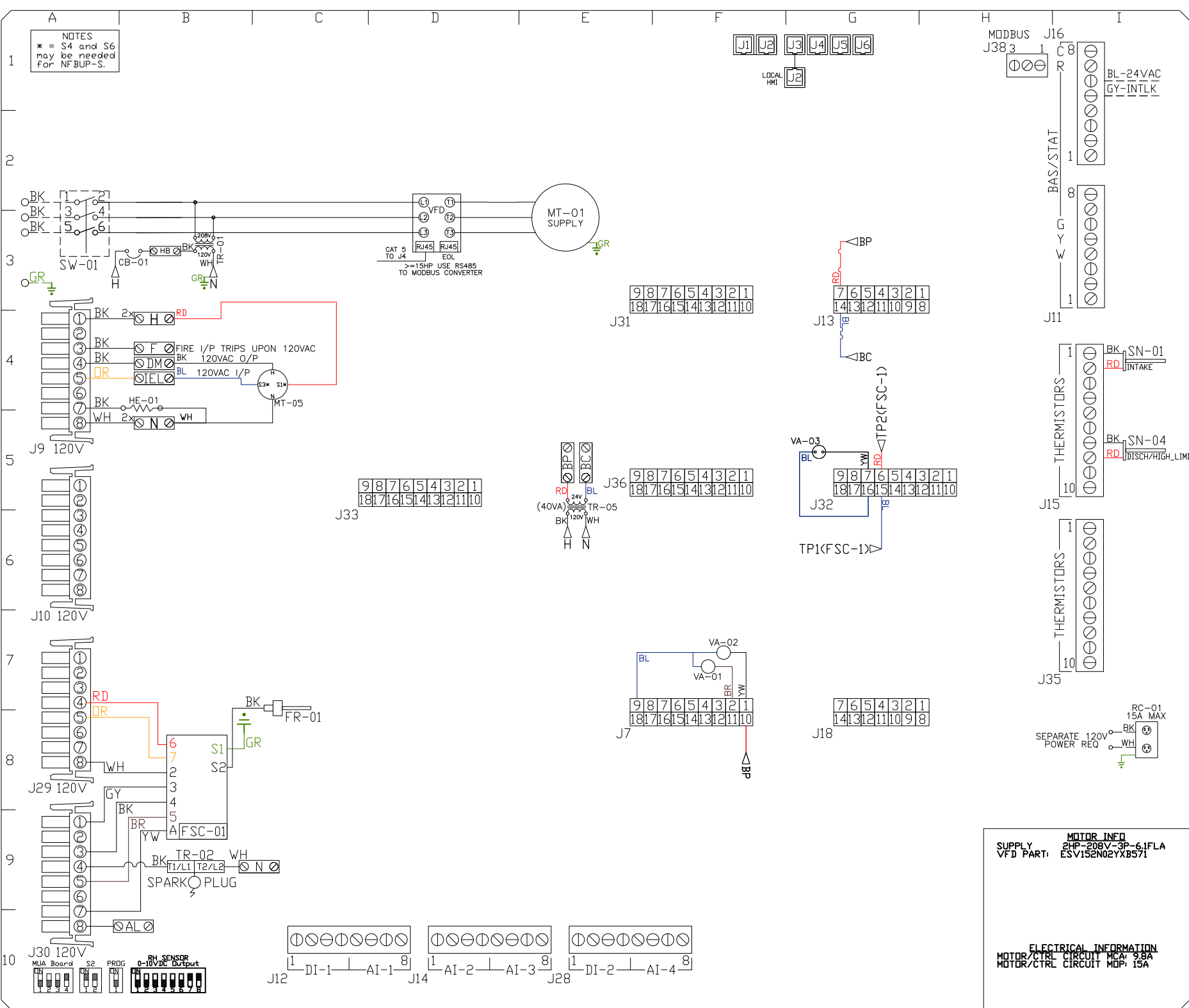
2000 CFM, 0.576 SP @ 2079 RPM AND 1.445 BHP AT 0 FEET AND 75 DEG F.
 * PLEASE NOTE THAT THESE CURVES WERE ADJUSTED FOR JOB SPECIFIC TEMPERATURE AND ALTITUDE.



FloAire

JOB 2000cfm** Heater Stock	
LOCATION Southborough, MA,	
DATE 4/3/2023	JOB # 5934889
DWG # 3	DRAWN BY courtneyh
REV.	SCALE 3/8" = 1'-0"

NOTES
 * = S4 and S6 may be needed for NF-BUP-S.



COMPONENT LIST

LABEL	DESCRIPTION
CB-01	CIRCUIT_BREAKER
FR-01	EVD/ECM-ACU+S1.1-MP
FSC-01	FIREYE_FLAME_SAFETY
HE-01	CABINET_HEATER
MT-01	SUPPLY_MOTOR
MT-05	INTAKE_DAMPER_MTR
RC-01	CONV_OUTLET
SN-XX	TEMP_SENSOR 14/15/16/17
SW-01	DISCONNECT_SWITCH
TR-01	CTRL_TRANSFMR
TR-02	IGNITION_TRANSFMR
TR-05	BOARD_POWER_TRFMR
VA-01	PILOT_GAS_VALVE
VA-02	MAIN_GAS_VALVE
VA-03	MOD_GAS_VALVE

LEGEND
 --- FIELD WIRING
 --- FACTORY WIRING

BK- BLACK YW- YELLOW
 BL- BLUE GR- GREY
 BR- BROWN PR- PURPLE
 DR- DRAVNE RD- RED
 WH- WHITE GR- GREEN
 DR/BL- DR/BL STRIPE
 BL/RD- BL/RD STRIPE
 RD/GN- RD/GN STRIPE
 WH/BL- WH/BL STRIPE

MOTOR INFO
 SUPPLY 2HP-208V-3P-6.1FLA
 VFD PART: ESV152N02YXB571

ELECTRICAL INFORMATION
 MOTOR/CTRL CIRCUIT MCA: 9.8A
 MOTOR/CTRL CIRCUIT MDP: 15A

JOB NAME
 2000cfm** Heate...

DRAWING TITLE
 MUA BOARD

DESCRIPTION OF OPERATION
 (DETAILS TO FOLLOW)

JOB NO
 5934889

DRAWN BY
 AUTO

TYPE
 FACTORY

DATE
 4/3/2023

DWG
 HW5934889-1

VFD Wiring

JOB 5934889 - 2000cfm** Heater Stock

DRAWING NUMBER VFD5934889-1

SHIP DATE 4/3/2023

MODEL F1-D.250-15D

Installed Options

Component Identification

SMV 571 SERIES VARIABLE FREQUENCY DRIVE

TERMINAL	FUNCTION
1	Digital Input<Start/Stop>
11	Internal 12VDC Supply for External Devices
2	Analog Common
30	Analog Output: Configurable with P150..P155
5	RJ45
6	To J4 on IBT Board
7	RJ45
	EDL RESISTOR
8	PE
	Ground Terminal
9	L1
	3 Phase Input or Single Phase Input
	L2
	3 Phase Input or Single Phase Input
	L3 (N)
	3 Phase Input (Neutral for 120v)
10	U
	3 Phase AC Motor
	V
	3 Phase AC Motor
	W
	3 Phase AC Motor

SUPPLY DRIVE PARAMETER SETTINGS*

- EPM PROGRAM: IBT 571
- P100 (Start Source) = 01 (Terminal Strip)
- P102 = Minimum Frequency (Hz)
- P103 = Maximum Frequency (Hz)
- P150 (TB-30 Output) = 1
- P194 (Password) = 225
- P410 (Modbus Address) = 21

All external control wires to motor speed control should be 16-20 AWG shielded multiconductor cables and must not be run in the same conduit or raceway with any high power wiring. Ground Shielded Cable at the drive chassis ONLY.

PG. 11 OF THE DRIVE MANUAL DESCRIBES THE PROPER INSTALLATION PROCEDURE

PG. 19 OF THE DRIVE MANUAL DESCRIBES THE PROGRAMMING PROCEDURE OF THE DRIVE

PG. 23 OF THE DRIVE MANUAL DESCRIBES THE PARAMETER SETTINGS OF THE DRIVE

*NOTE: THE DEFAULT PASSWORD FROM THE FACTORY REQUIRED TO PROGRAM THE DRIVE IS '225'.

- Adjust manually on all drives
- P107 - 00 (if 120 or 208 VAC) or 01 (if 230, 480 or 575 VAC)
- P108 Motor FLA x 100 / Drive Output Rating
- P165 (Base Speed) = 100 (Settable) ONLY
- P166 (Base Frequency) = 50 (Settable) ONLY
- P167 (Base Frequency) = Calculated Per Fan
- P121 For Large HP >15HP set it to 9

IT MAY BE REQUIRED TO FULLY POWER DOWN THE DRIVE AND TURN BACK ON IN ORDER TO INITIATE NEW PARAMETER SETTINGS.

Min. and Max. Frequency Settings override all other Preset speeds/Parameters.

GENERAL NOTES

- NOTES
- - - DENOTES FIELD WIRING
 - DENOTES INTERNAL WIRING
- WIRE COLOR
- BK - BLACK
 - BL - BLUE
 - BR - BROWN
 - RD - RED
 - YV - YELLOW
 - GR - GREEN
 - GY - GRAY
 - PR - PURPLE
 - PK - PINK
 - WH - WHITE

ELECTRICAL INFORMATION
MOTOR/CTRL CIRCUIT MCA: 9.8A
MOTOR/CTRL CIRCUIT MDP: 15A

SUPPLY MOTOR_INED
VFD PART: 2HP-208V-3P-6.1FLA
ESV15EN02YXBS71

Installation Wiring

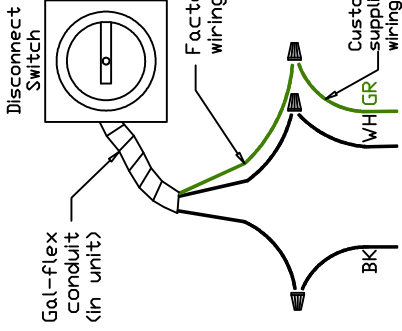
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SHIP DATE 4/3/2023

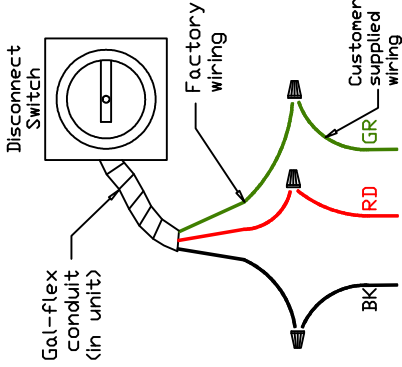
MODEL F1-D.250-15D

JOB 5934889 - 2000cfm** Heater Stock

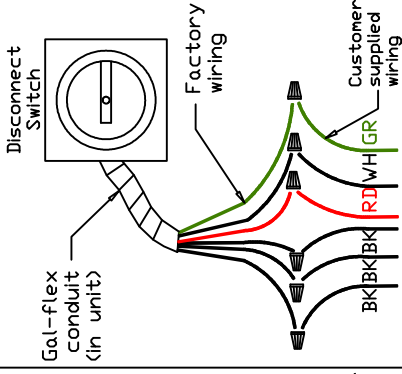
120 V 1 PH.



240 V 1 PH.



208/460/600 V 3 PH.



Field Wired Switch

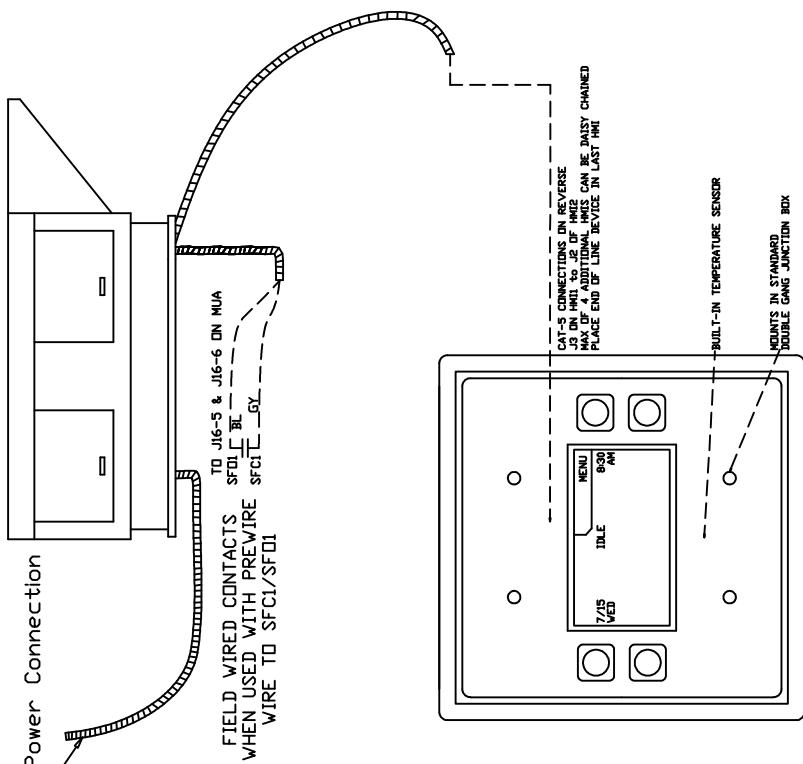
Installed Options

STANDING POWER
RD & WH Wire (115V, 1 PHASE)



SEPARATE CIRCUIT REQUIRED
FOR SERVICE RECEPTACLE
(15amp)

See above details.



NOTES

- WIRE COLOR
- BK - BLACK
 - BL - BLUE
 - BR - BROWN
 - OR - ORANGE
 - RD - RED
 - WH - WHITE
 - YW - YELLOW
 - GR - GREEN
 - GY - GRAY
 - PR - PURPLE
 - PK - PINK