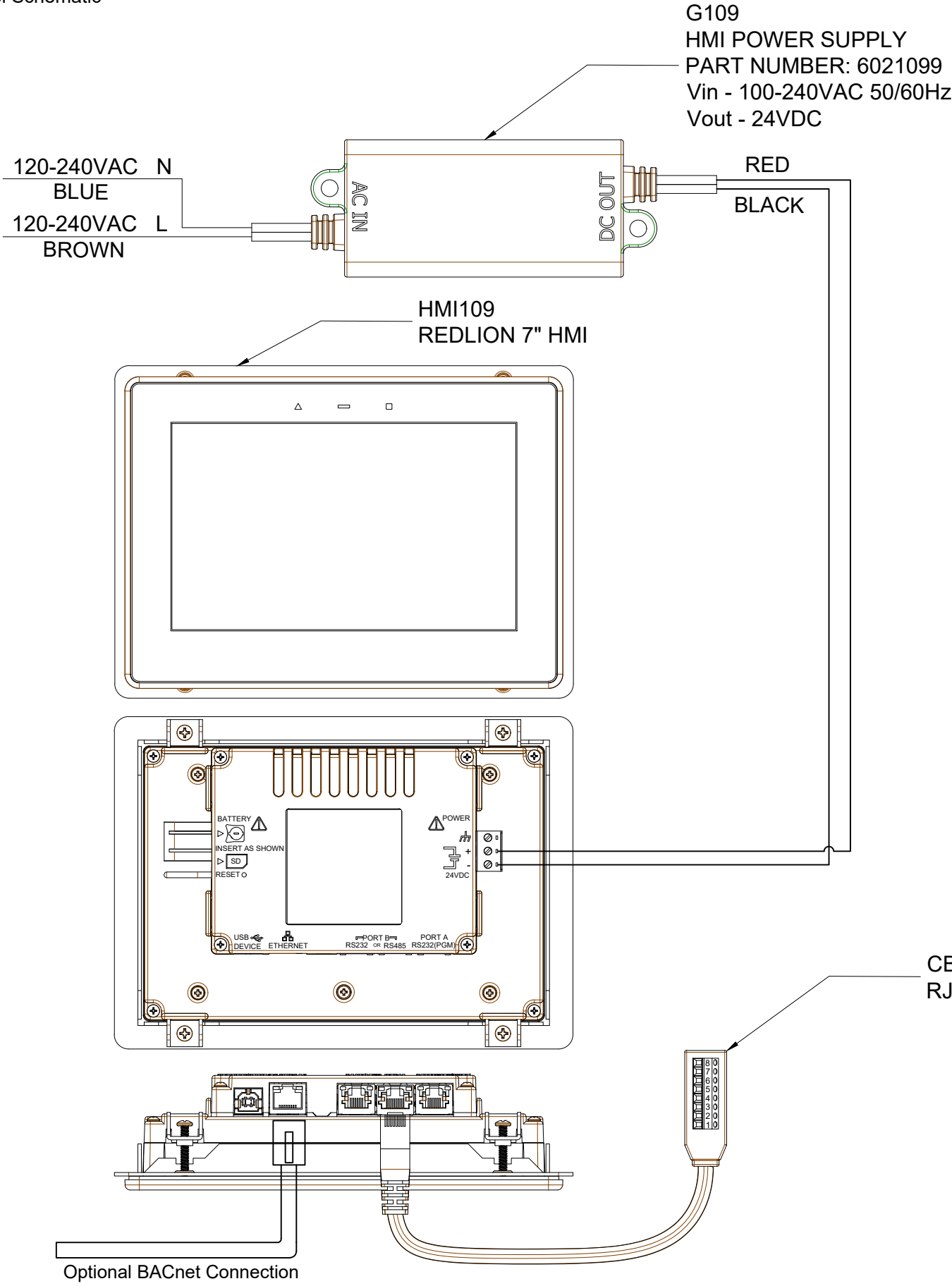


Panel Schematic



01/22/19 BOM				
TAG	DESCRIPTION	QTY	CATALOG	MFG
HMI109	7" TOUCH SCREEN	1	6015936	REDLION
G109	POWER SUPPLY, 24VDC, 8A	1	6021099	MEAN WELL
	COMPACT SPLICING TERMINAL	2	6019512	WAGO
	ENCLOSURE, 7" SCREEN	1	6021618	OKW
CBL109	RJ45 8 POSITION 6" PIGTAIL	1	6021619	CALRAD

System Information

- 24 Fans Max
- 4 Groups Max
- Timer Controls *Standard*
- Temperature Control *Optional*
- Humidity Control *Optional*
- BMS Integration *BACnet TCP/IP*
- Requires 120V Power Supply
- NEMA 4X Indoor Rated
- Password Lockout Capable
- Field Configurable

All Communication Cable by Others

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NOTES:

1) BUILDING STRUCTURE MUST BE SUFFICIENT TO SUPPORT THE FAN INSTALLATION. CONSULT A REGISTERED ARCHITECT OR PROFESSIONAL ENGINEER.

2) ELECTRICAL CONTRACTOR SHALL ENSURE THAT ALL ELECTRICAL WORK MEETS LOCAL ELECTRICAL CODES.

3) GENERAL CONTRACTOR SHALL ENSURE EQUIPMENT INSTALLATION MEETS ALL APPLICABLE BUILDING CODES.

4) STANDARD MOUNT ACCOMMODATES I-BEAM INSTALLATION. FOR GLULAM/WOOD BEAM, Z-PURLIN OR TRUSS BRIDGES PLEASE NOTE ON ORDER.

5) THE VFD ENCLOSURE MUST BE INSTALLED OUTSIDE AND A SAFE DISTANCE FROM THE BLADE DIAMETER FOR SERVICE PURPOSES.

6) MULTI-FAN INSTALLATION INCLUDES ONE TOUCHSCREEN HMI KIT.

7) NOTE:
THE INSTALLATION OF HVLS FANS IN BUILDINGS EQUIPPED WITH SPRINKLERS, INCLUDING "ESFR" SPRINKLERS, SHALL COMPLY WITH THE FOLLOWING:

(A) THE HVLS FAN SHALL BE CENTERED APPROXIMATELY BETWEEN FOUR ADJACENT SPRINKLERS.

(B) THE VERTICAL CLEARANCE FROM THE HVLS FAN TO THE SPRINKLER DEFLECTOR SHALL BE A MINIMUM OF 3 FT (0.9M).

(C) ALL HVLS FANS SHALL BE INTERLOCKED TO SHUT DOWN IMMEDIATELY UPON RECEIVING A WATERFLOW SIGNAL FROM THE ALARM SYSTEM IN ACCORDANCE WITH THE REQUIREMENTS OF NFPA 72.

Firm Name and Address

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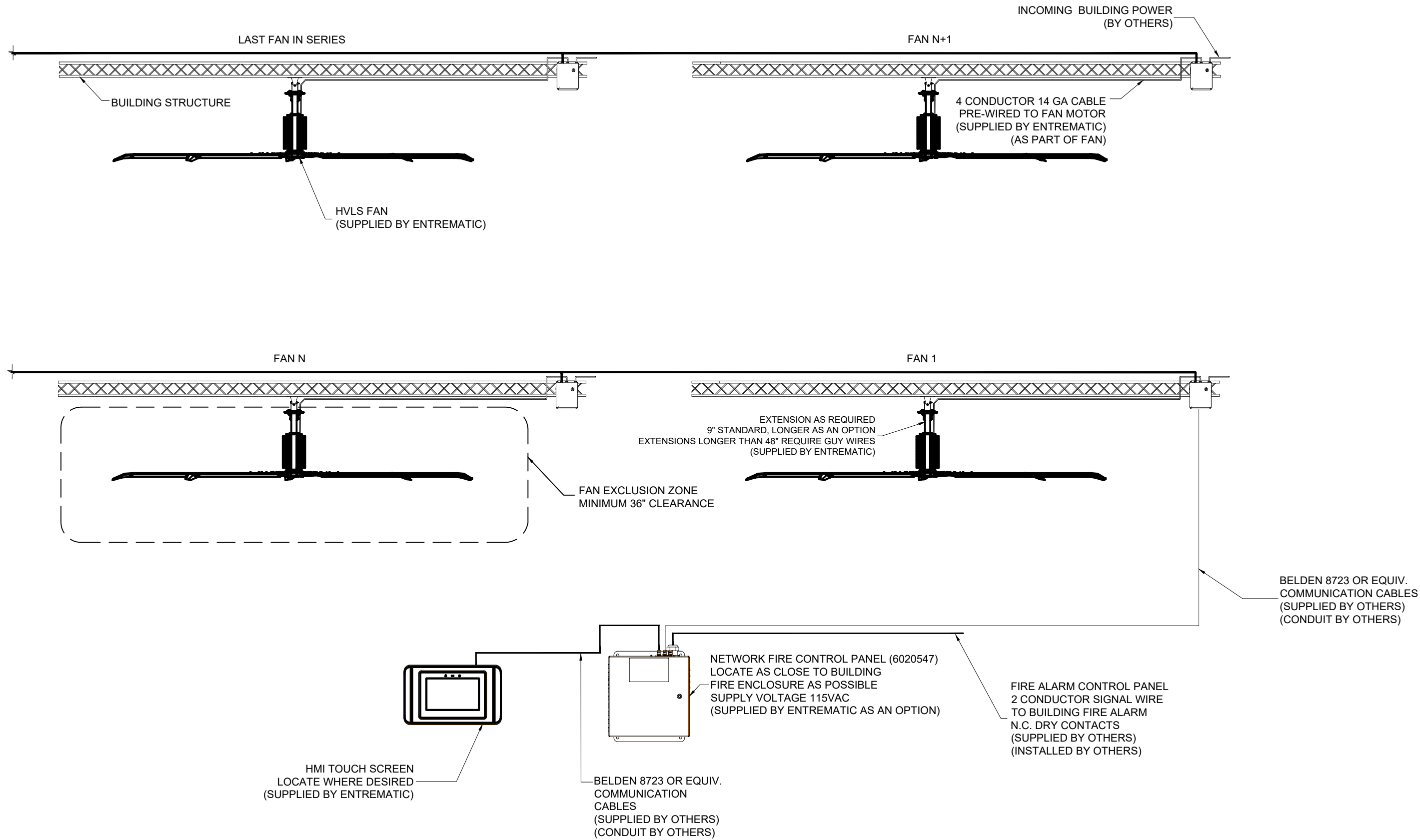
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CRE	TBD
Date:	Drawing Number:
04/06/2020	6021616S
Scale:	Sheet Number: Rev:
NTS	1 OF 10 C

Revision	Date	Drawn By	Description
A	01/22/2019	CRE	INITIAL DRAWING
B	06/06/2019	CRE	ADDED BACNET CONNECTION
C	04/06/2020	CRE	Updated BACNET address tables

Revision	Date	Reference	Description

Industrial Fan Layout



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- 6) ALL CONDUIT BY OTHERS
- 7) NOTE:
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REVIEW DRAWING

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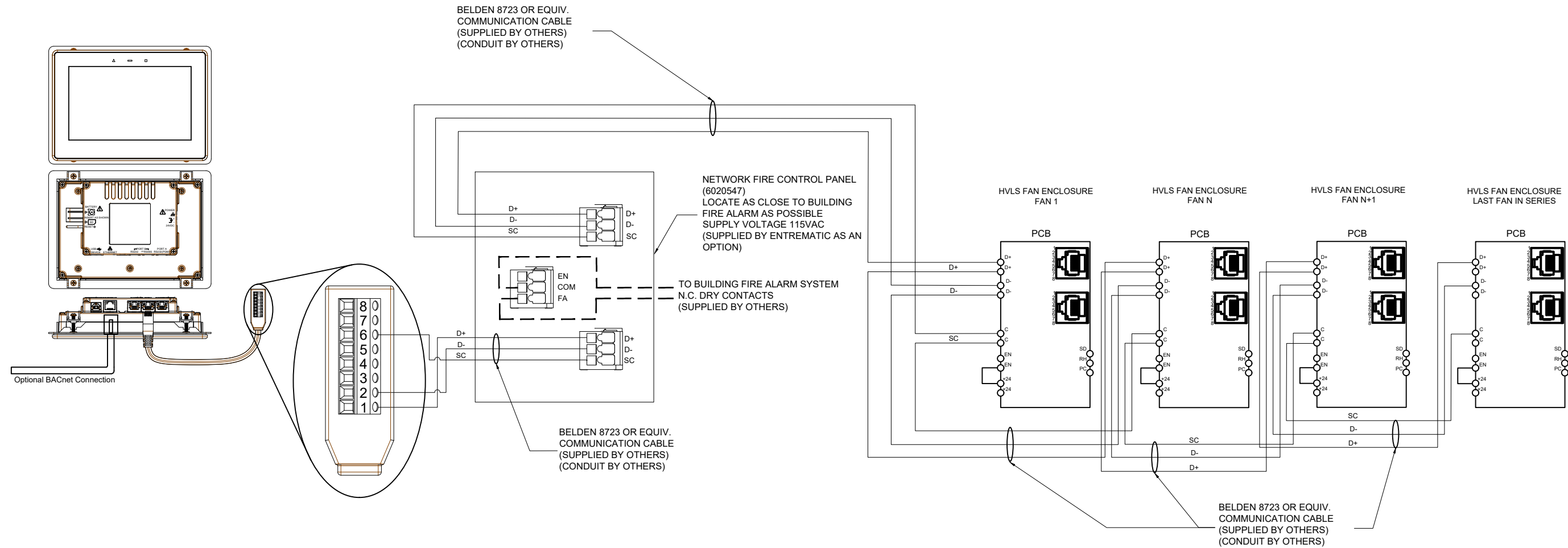
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C	04/06/2020	CRE	Updated BACNET address tables				

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- 2) RECOMENDED COMMUNICATION CALBE BELDEN 8723 OR EQUIVALENT.
- 3) ALL CONDUIT BY OTHERS.
- 4) OPTIONAL NETWORK INSTALLATION INCLUDES ONE TOUCHSCREEN HMI KIT.

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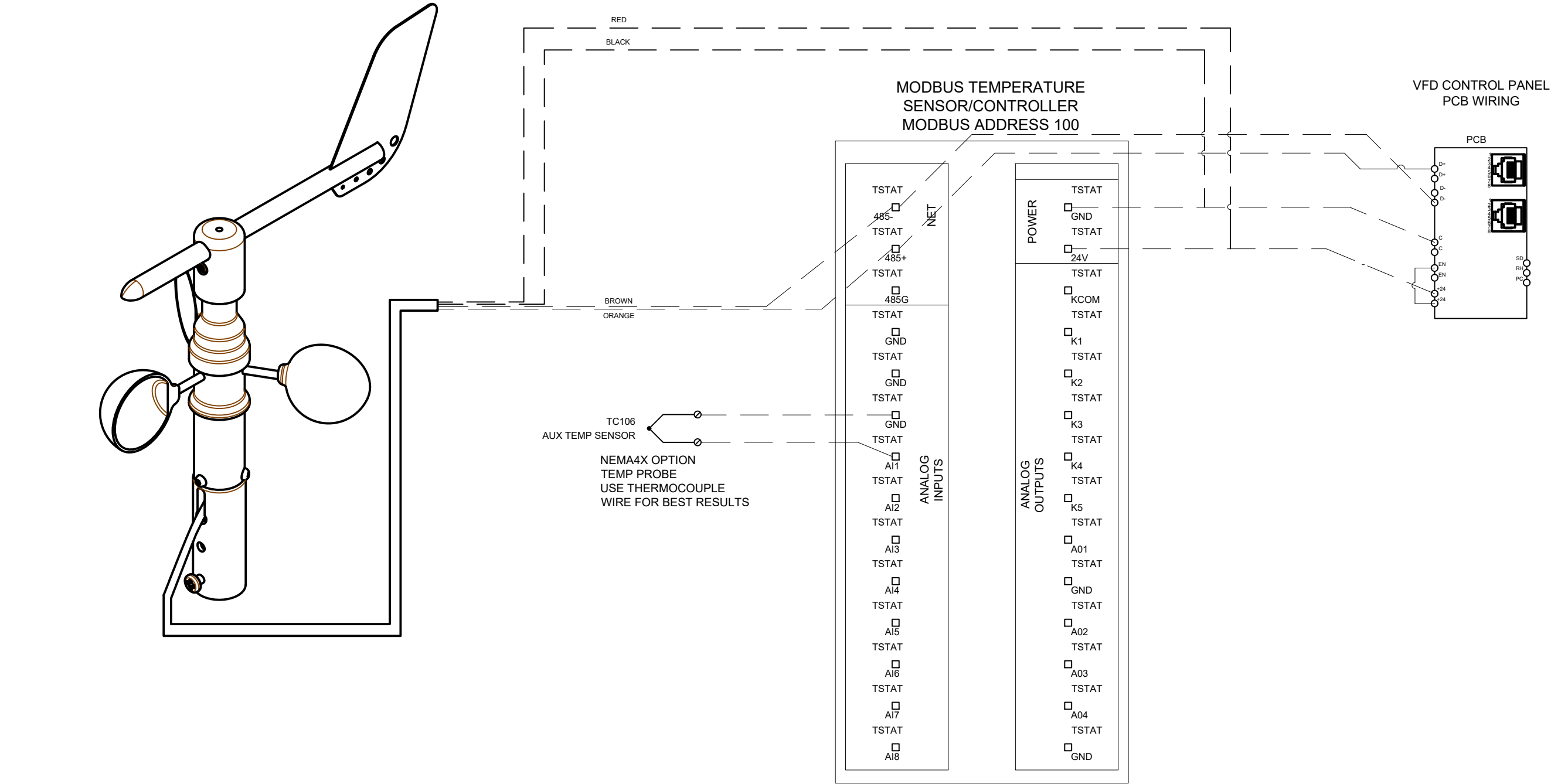
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		Rev:	C

Industrial Fan Optional Hardware Field Wiring



LEGEND

— PANEL WIRING

— FIELD WIRING (BY OTHERS)

— PC BOARD TRACES

NOTE:
TERMINALS WILL ACCEPT
STRANDED WIRE ONLY

WIRE COLOR/GAUGE (NFPA)
(unless otherwise specified)

208-600VAC: #14, BLK

120VAC: #16, RED

24VAC: #16, RED/BLK

NEUTRAL: #16, WHT

GROUND: GRN

24VDC: #12, BLU

24V COM (0VDC): #12, BLU/WHT

12VAC/VDC: #12, VIO

12V COM: #12, VIO/WHT

DRY (UNPOWERED): #18, YLW

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Date:	04/06/2020	Drawing Number:	6021616S
Scale:	NTS	Sheet Number:	6 OF 10
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Fan	BACnet Address	Register Description	Expected Data	Result/Status	Notes	
Temp1	AO1001	Forward Start SP	> 0	Temperature SP to Start in Forward	Scaled by 10, so write 800 to get a value of 80	
	AO1002	Reverse Start SP	> 0	Temperature SP to Start in Reverse	Scaled by 10, so write 300 to get a value of 30	
	AO1003	Forward increment SP	> 0	Temperature FWD Inc	Scaled by 10, so write 300 to get a value of 30	
	AO1004	Reverse increment SP	> 0	Temperature REV Inc	Scaled by 10, so write 300 to get a value of 30	
	AI1001	Scaled Temperature	##	Temperature FB		
	AI1011	Temperature/Humidity Sensor LOC	0 1	Good communication No communication	0 = False 1 = True	
Temp2	AO1005	Forward Start SP	> 0	Temperature SP to Start in Forward	Scaled by 10, so write 800 to get a value of 80	
	AO1006	Reverse Start SP	> 0	Temperature SP to Start in Reverse	Scaled by 10, so write 300 to get a value of 30	
	AO1007	Forward increment SP	> 0	Temperature FWD Inc	Scaled by 10, so write 300 to get a value of 30	
	AO1008	Reverse increment SP	> 0	Temperature REV Inc	Scaled by 10, so write 300 to get a value of 30	
	AI1002	Scaled Temperature	##	Temperature FB		
	AI1012	Temperature/Humidity Sensor LOC	0 1	Good communication No communication	0 = False 1 = True	
Temp3	AO1009	Forward Start SP	> 0	Temperature SP to Start in Forward	Scaled by 10, so write 800 to get a value of 80	
	AO1010	Reverse Start SP	> 0	Temperature SP to Start in Reverse	Scaled by 10, so write 300 to get a value of 30	
	AO1011	Forward increment SP	> 0	Temperature FWD Inc	Scaled by 10, so write 300 to get a value of 30	
	AO1012	Reverse increment SP	> 0	Temperature REV Inc	Scaled by 10, so write 300 to get a value of 30	
	AI1003	Scaled Temperature	##	Temperature FB		
	AI1013	Temperature/Humidity Sensor LOC	0 1	Good communication No communication	0 = False 1 = True	
Temp4	AO1013	Forward Start SP	> 0	Temperature SP to Start in Forward	Scaled by 10, so write 800 to get a value of 80	
	AO1014	Reverse Start SP	> 0	Temperature SP to Start in Reverse	Scaled by 10, so write 300 to get a value of 30	
	AO1015	Forward increment SP	> 0	Temperature FWD Inc	Scaled by 10, so write 300 to get a value of 30	
	AO1016	Reverse increment SP	> 0	Temperature REV Inc	Scaled by 10, so write 300 to get a value of 30	
	AI1004	Scaled Temperature	##	Temperature FB		
	AI1014	Temperature/Humidity Sensor LOC	0 1	Good communication No communication	0 = False 1 = True	
	Humid1	AO1017	Forward Start SP	> 0	Humidity SP to Start in Forward	Scaled by 10, so write 800 to get a value of 80
		AO1018	Reverse Start SP	> 0	Humidity SP to Start in Reverse	Scaled by 10, so write 300 to get a value of 30
		AO1019	Forward increment SP	> 0	Humidity FWD Inc	Scaled by 10, so write 300 to get a value of 30
		AO1020	Reverse increment SP	> 0	Humidity REV Inc	Scaled by 10, so write 300 to get a value of 30
AI1005		Humidity	##	Humidity FB		
Humid2	AO1021	Forward Start SP	> 0	Humidity SP to Start in Forward	Scaled by 10, so write 800 to get a value of 80	
	AO1022	Reverse Start SP	> 0	Humidity SP to Start in Reverse	Scaled by 10, so write 300 to get a value of 30	
	AO1023	Forward increment SP	> 0	Humidity FWD Inc	Scaled by 10, so write 300 to get a value of 30	
	AO1024	Reverse increment SP	> 0	Humidity REV Inc	Scaled by 10, so write 300 to get a value of 30	
	AI1006	Humidity	##	Humidity FB		
Humid3	AO1025	Forward Start SP	> 0	Humidity SP to Start in Forward	Scaled by 10, so write 800 to get a value of 80	
	AO1026	Reverse Start SP	> 0	Humidity SP to Start in Reverse	Scaled by 10, so write 300 to get a value of 30	
	AO1027	Forward increment SP	> 0	Humidity FWD Inc	Scaled by 10, so write 300 to get a value of 30	
	AO1028	Reverse increment SP	> 0	Humidity REV Inc	Scaled by 10, so write 300 to get a value of 30	
	AI1007	Humidity	##	Humidity FB		
Humid4	AO1029	Forward Start SP	> 0	Humidity SP to Start in Forward	Scaled by 10, so write 800 to get a value of 80	
	AO1030	Reverse Start SP	> 0	Humidity SP to Start in Reverse	Scaled by 10, so write 300 to get a value of 30	
	AO1031	Forward increment SP	> 0	Humidity FWD Inc	Scaled by 10, so write 300 to get a value of 30	
	AO1032	Reverse increment SP	> 0	Humidity REV Inc	Scaled by 10, so write 300 to get a value of 30	
	AI1008	Humidity	##	Humidity FB		
Wind	AO1033	Wind Set Point	5-15	Set Point to shut off fans	5-15 MPH	
	AO1034	Time	1-20	Seconds before shut off	Time above set point before shutoff	
	AO1035	Restart Time	>60	Seconds before restart	Time below set point before restart	
	AI1009	Scaled Wind Speed	##	Wind Speed	Displayed in the selected units	
	AI1010	Direction	##	Wind Direction		
	AI1015	Wind Sensor LOC	0 1	Good communication No communication	0 = False 1 = True	
Fire Control Panel	AI1016	Fire Alarm Contact	0	Fire Alarm Activated	0 = False	
			1	No Fire Alarm	1 = True	
	AI1017	Fire Alarm Panel LOC	0	Good communication	0 = False	
			1	No communication	1 = True	

DATA	DECIMAL VALUE	PANEL INDICATION	DESCRIPTION
H10	16	E.OC1	OVERCURRENT TRIP DURING ACCELERATION
H11	17	E.OC2	OVERCURRENT TRIP DURING CONSTANT SPEED
H12	18	E.OC3	OVERCURRENT TRIP DURING DECELERATION OR STOP
H20	32	E.OV1	REGENERATIVE OVERVOLTAGE TRIP DURING ACCELERATION
H21	33	E.OV2	REGENERATIVE OVERVOLTAGE TRIP DURING CONSTANT SPEED
H22	34	E.OV3	REGENERATIVE OVERVOLTAGE TRIP DURING DECELERATION OR STOP
H30	48	E.THT	INVERTER OVERLOAD TRIP (ELECTRONIC THERMAL RELAY FUNCTION)
H31	49	E.THM	MOTOR OVERLOAD TRIP (ELECTRONIC THERMAL RELAY FUNCTION)
H40	64	E.FIN	FIN OVERHEAT
H52	82	E.ILF	INPUT PHASE LOSS
H60	96	E.OLT	STALL PREVENTION

DATA	DESCRIPTION
0	NO ALARM/FAN OK
1	SHORT CIRCUIT
2	CURRENT LIMIT
3	CURRENT LIMIT TRIP
4	UNDER VOLTAGE TRIP
6	OVER VOLTAGE TRIP
8	STOP MODE
9	FLASH ERROR
13	WATCHDOG ERROR
22	COMMUNICATION WATCHDOG ERROR

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