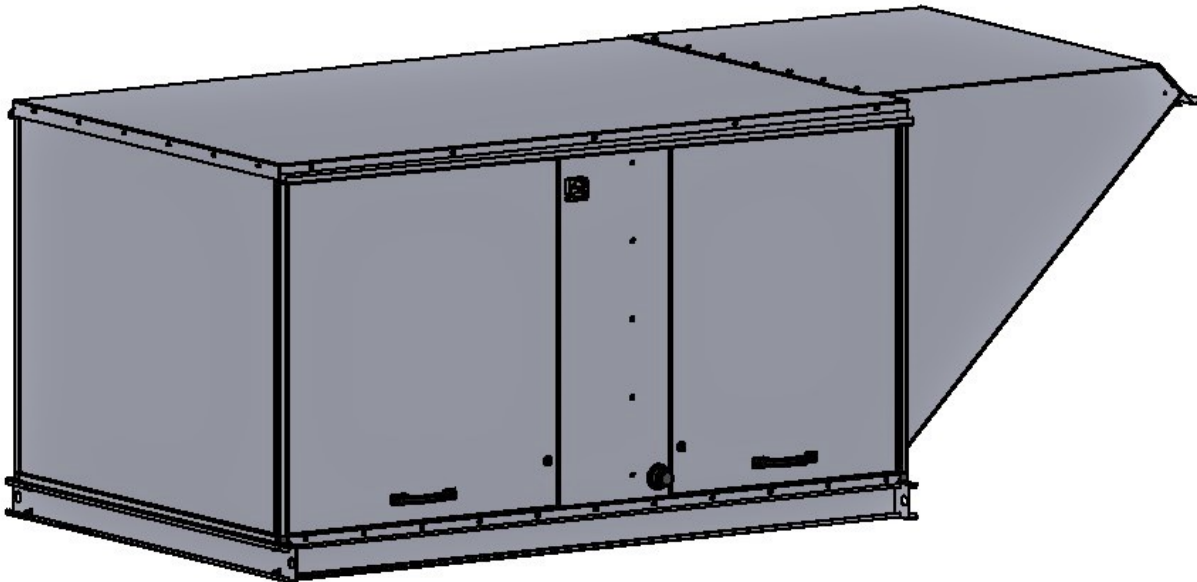


## Gas-Fired Tempered Make-Up Air Unit / EVAP

Model:

T2-EVN-3400-460-3

3-Phase, 460V, 2.00 HP, Belt driven with Motorized Damper and 12" Blower. MAX 3,400 CFM





T2-HOXEVN Direct Fired EVAP (625 lbs.)

**Supply Motor:**

Model EM3558T, 2.00 HP, 460-3-60, 2.90 FLA, TEFC (Totally Enclosed Fan Cooled)

**Supply Motor Pulleys:**

<u>Part Type</u>	<u>Qty</u>	<u>Browning #</u>	<u>Turns Out</u>
Blower Pulley	1	AK54 x 3/4	
Motor Pulley	1	1VP40 x 7/8	1.5

**Burner:**

Min Output BTU: 18,000 BTU/Hr  
Max Output BTU: 375,000 BTU/Hr  
Size: 6" long  
Gas Type: Natural

**Supply Performance:**

Volume: 3400 cfm Volume Range: 1400-3400 cfm  
RPM 1090  
TS: 3674 ft/min  
SP: 1.75" w.g.  
0.50" Ext. + 0.80" Int. + 0.45" Opt.  
BHP: 1.78

**Heating Schedule:**

Altitude: 0'  
Winter Entering Air Dry Bulb Temp: 0°F  
Temp Rise: 100°F  
Output BTU: 345,000  
Input BTU: 375,000  
BTUs BASED OFF STANDARD AIR DENSITY

**Cooling Schedule:**

Intake Entering Dry Bulb Temperature: 90°F Intake  
Entering Wet Bulb Temperature: 70°F Intake  
Entering Relative Humidity: 37%  
Intake Leaving Dry Bulb Temperature: 76°F  
Intake Leaving Wet Bulb Temperature: 70°F  
Temperature drop calculations are based on tested data.

**Supply Installation Information:**

Gas Inlet Pressure: 8 in. w.c. - 14 in. w.c.  
Insurance: FM/ETL

Unit Main Input: 5.23 Amps MCA, 8 Amps MOP, 460V,  
14 AWG Wire Min.  
Supply Unit Voltage: 460v-3ph-60hz

**Construction Features:**

Housing constructed of heavy duty G90 galvanized steel • Forward curved centrifugal blower wheel • Vibration isolation • Adjustable drive assemblies • Adjustable motor mount • Ball bearing motors • Heavy duty, pre-lubricated bearings L10 rated for 100,000 hours of operation • Static resistant belts • Service doors on both sides • Horizontal & down discharge • Large intake area ensures low pressure drop across unit • Electronic Burner Profiler System automatically adjusts for any airflow - no manual setting required! • Weatherproof safety disconnect switch • Modular design provides design flexibility • Fully insulated casing

**Blower:**

12" forward curved, centrifugal blower. Permanently lubricated ballbearings. Galvanized finish. 3/4" Shaft. 2,500 max. RPM. Used in heated and non-heated supply fans.

**Temp Control:**

Maxitrol Series 14 • 40-90°F Discharge Temp Control • Field Wired On/Off Start Command; Temperature set point dial at main panel.

**Intake:**

Size EVN2 CELdek Evaporative Cooler for T2 Modular Make-Up Air Heater. 38" Wide x 62" Long x 30" High. Includes intake hood with filters. For outdoor installation. Use with water softener recommended.

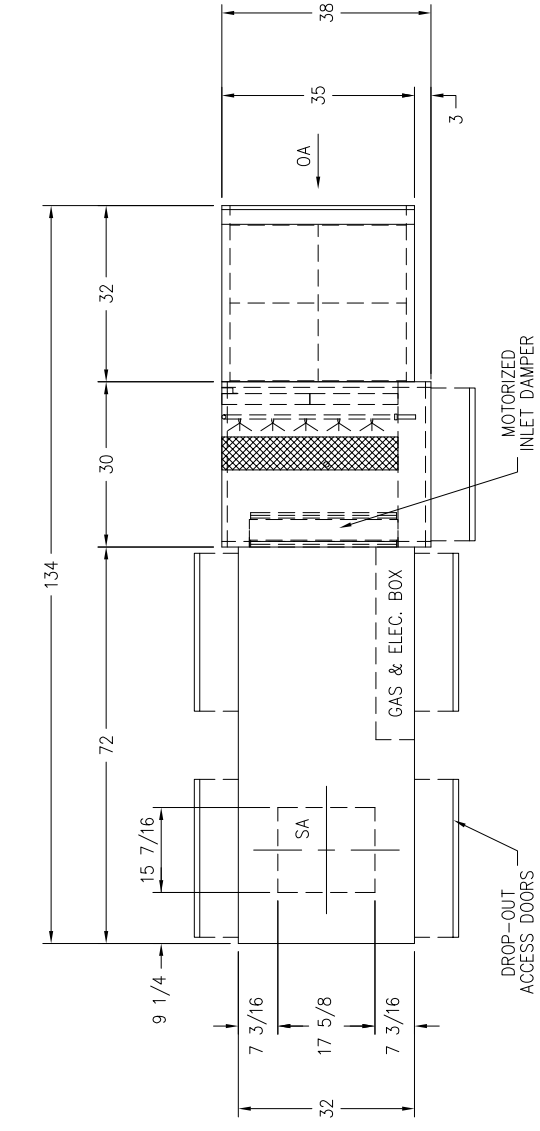
**Filters:**

4x MV EZ Kleen Metal Mesh Filter. 16"x 20"x 2" Used for heater and supply fan intakes.

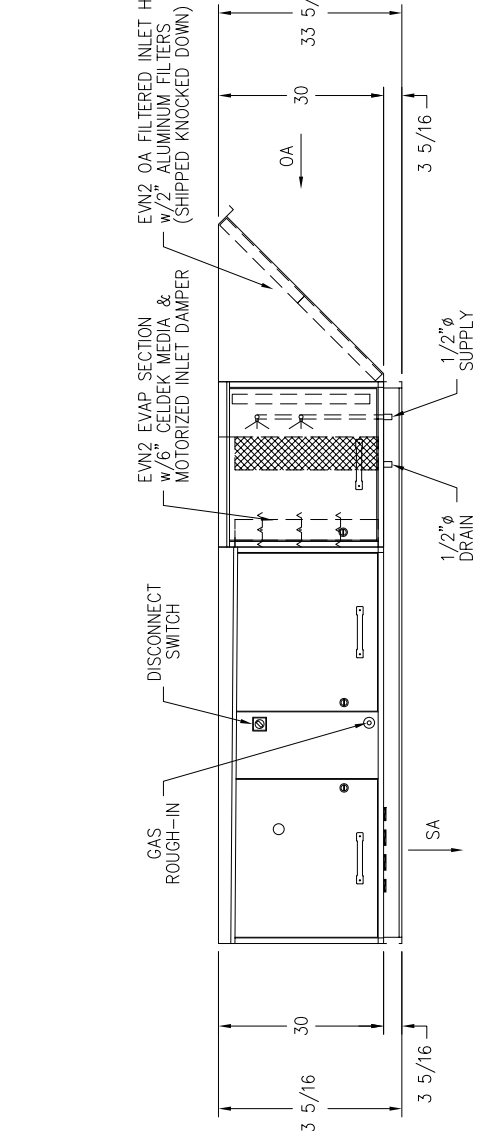
**Selected Options:**

- \* Motorized Inlet Damper 27"W x 26"H for EVN2/T2 Modular Heating Units w/Extended Shaft, Standard Galvanized Construction, 3/4" Rear Flange, LMX24-3-S Actuator Included (with end switch).
- \* Low Fire Start. Allows the burner circuit to energize when the modulation control is in a low fire position.
- \* Freeze Protection Drain Control Kit for Evaporative Coolers. Includes (2) 2-Way water solenoid valves ZONE215N-10+ZONE24 (NO & NC; shipped loose), Drain Stat, Overflow Water Sensor, and Liquid Level Controller installed upstream of 2-Way solenoid in unit, 1/2" PVC piping & fittings, and Outdoor Air Stat T6031A1136. Field wiring required by others for (2) 2-way valves. Includes 6"D CELdek evaporative media.

PERFORMANCE & SPECIFICATIONS	
MODEL:	T2-HOXEWN QUANTITY: 1
CONTROLS SIDE:	LEFT (STD) DISCHARGE: BOTTOM
	3,400 CFM @ 0.50" WC ESP (1.75" WC TSP) @ 0' ELEV.
BLOWER SIZE:	G12 CANARM/DELHI
MOTOR HORSEPOWER:	2.00 HP (00M)
MOTOR TYPE:	PREM-EFF TEFC
VOLTAGE:	460/3/60
UNIT FLA / MCA / MOP:	4.50 AMPS / 5.23 AMPS / 8 AMPS
GAS TYPE:	NATURAL
HEATING CAPACITY:	375 MBH ( $\approx 98.3^\circ\text{F } \Delta T$ )
GAS PRESSURE - MIN.: 8" WC	MAX.: 14" WC
GAS LINE SIZE:	3/4"
INSURANCE TYPE:	FM/ETL
MOUNTING LOCATION:	OUTDOOR
UNIT MATERIAL:	GALVANIZED
PAINT COLOR:	NONE
FEATURES & ACCESSORIES	
* Unit Mounting By Others	WEIGHT
* EVN2 OA Filtered Inlet Hood (shipped knocked down) with:	50 LBS.
- 2" Aluminum Cleanable Filters (MERV 6)	
* Base Unit	385 LBS.
* Motorized Inlet Damper	-
* (4) Drop-Out Access Doors	-
* Unit Insulation (1" foil face)	-
* Internal Fan/Motor Vibration Isolators (rubber)	-
* Maxon NP-1-LE Cost Alum. Direct Fired Burner	-
w/Stainless Steel Mixing Plates	-
* Maxitrol 14 DTC (55°-90°F) w/TD @ Unit	-
* Direct Spark Ign. w/Flame Rod Burner Supervision	-
* Non-Fused Disconnect Switch	-
* Mild Weather Stat	-
* EL5 Circuit - No Remote Control Panel, Fan Enable Jumper, & MWS (heat enable)	-
* Main Control Panel	-
(meets NEMA 1,2,3,3R,3S,4,5 & 12 requirements)	-
* Auto-Profiler System	190 LBS.
* EVN2 Evaporative Cooler w/6" CELdek Media	-
* Fill & Drain Valves (shipped loose)	-
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TOTAL APPROXIMATE WEIGHT:	
	625 LBS.



**PLAN VIEW**



**CONTROLS SIDE VIEW**

REV.	DATE	BY	DESCRIPTION OF REVISION	PROJECT NAME:	MODEL:	TAG:
-	-	-	-	-	T2-HOXEWN	-
-	-	-	-	REF. NO./JOB NO.:	BMA	SCALE: NONE
-	-	-	-	DRAWN BY:	08-2020	DRAWING NO.: T2-EVN-3400-460-3
-	-	-	-	CERTIFIED BY:		



Project No:  
Project Name:  
Location:  
Engineer:  
Architect:  
Reference:

Submitted by:

**Equipment Tag**

Contractor:

**Model Information**

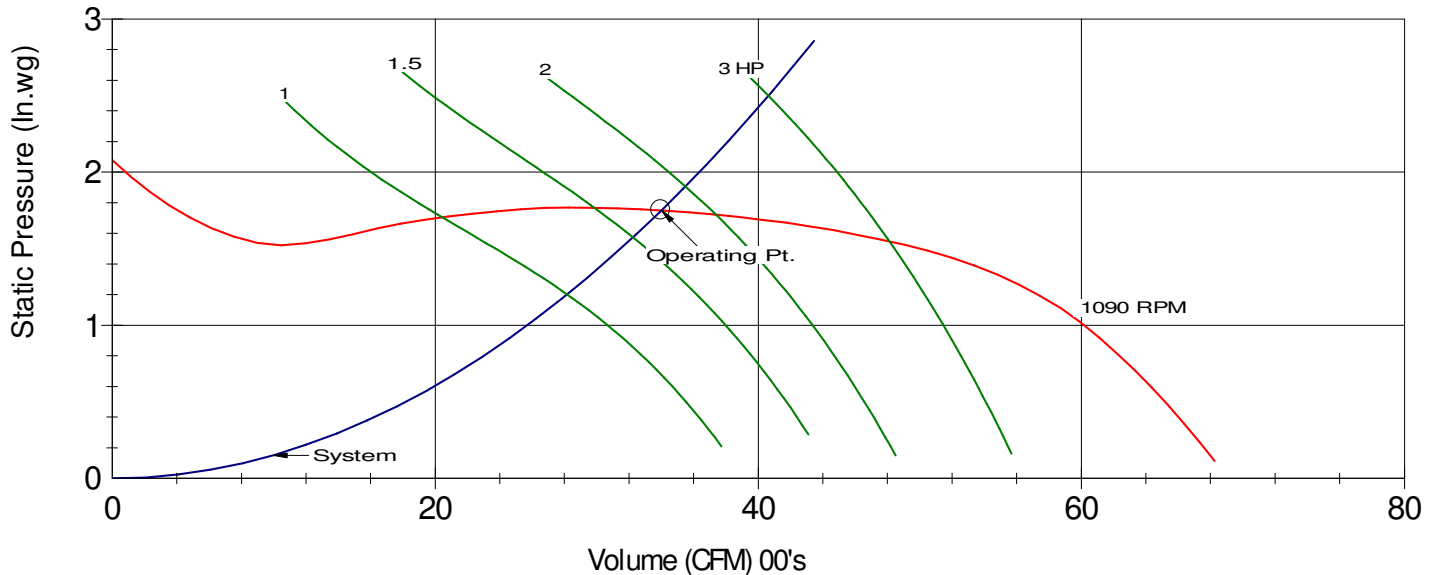
Model: G12	Part Number: 9005464	
CFM: 3400	Shaft Diameter: 0.75	Unit Weight: 48
SP: 1.75	Wheel Diameter: 12.875	Ship Weight: 52
RPM: 1090	Tip Speed: 3674 FPM	
BHP: 1.78	Static Efficiency: 53	Elevation: 0
	Outlet Velocity: 2332 FPM	Temperature: 70

**Sound Data**

	63	125	250	500	1000	2000	4000	8000	(Hz)	LwA: 86
Sound Power Level @ Frequency, re: 10 <sup>-12</sup> Watts	89	92	87	83	77	77	74	71	(dB)	SONES: 25.7
	Ducted inlet <u>or</u> ducted outlet dBA @5 ft. 75					Ducted inlet <u>and</u> ducted outlet dBA @5 ft. 55				

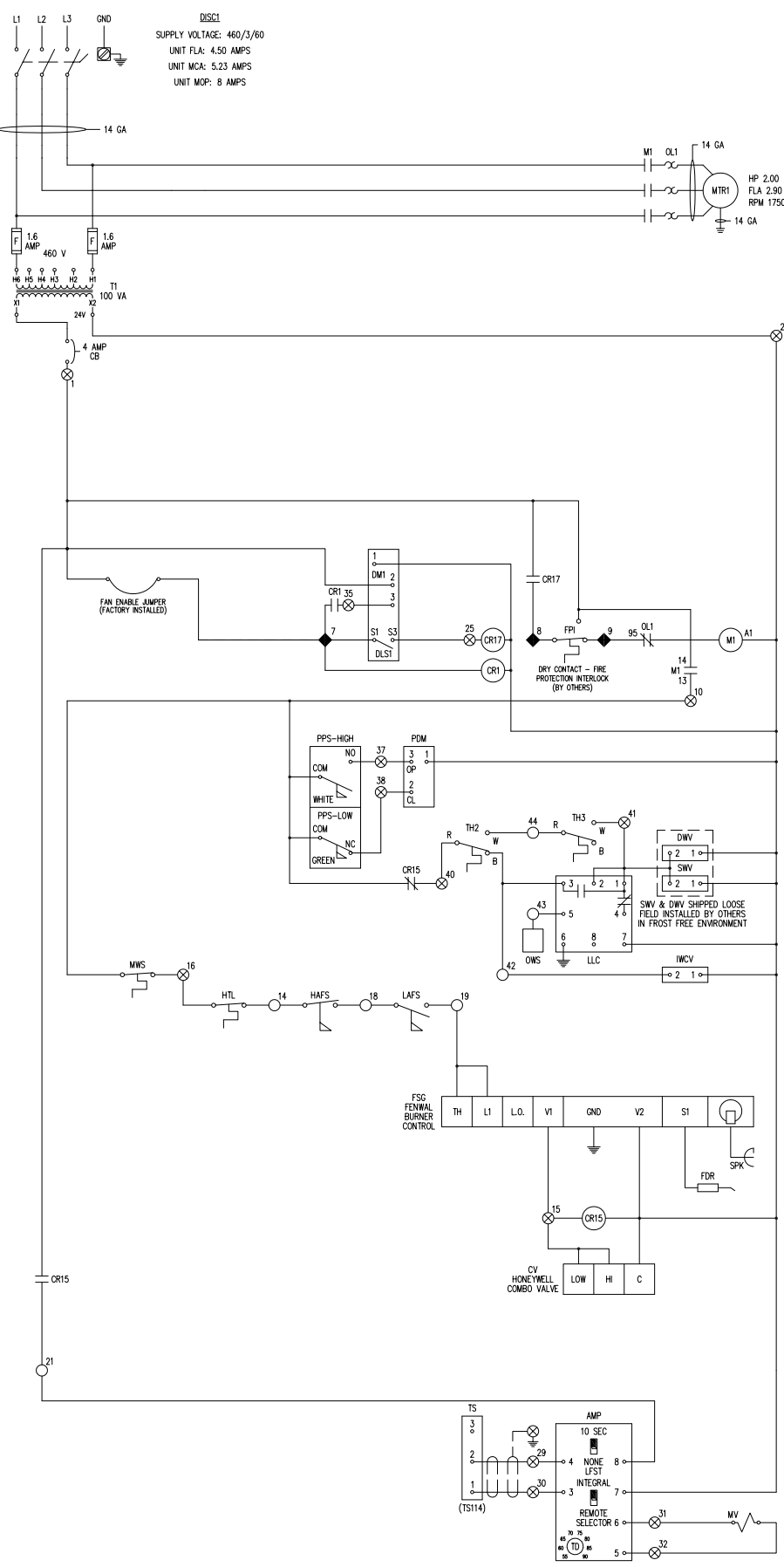
**Performance Curve**

DELHI Model G12  
CFM=3400 SP=1.75 BHP=1.78 S. Eff=53% RPM=1090



Performance shown is for installation Type B: Free inlet, Ducted outlet. Power rating bhp does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories).  
v: 13.0.35

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PROPRIETARY

PLEASE NOTE

DISCONNECT SWITCH

SUPPLY FAN MOTOR OVERLOAD RELAY

SUPPLY FAN MOTOR

CONTROL TRANSFORMER

CIRCUIT BREAKER

INLET DAMPER MOTOR

FAN ENABLE JUMPER

DAMPER LIMIT SWITCH

SUPPLY FAN MOTOR CONTACTOR

DAMPER RELAY

UNIT ENABLE RELAY

PROFILE PRESSURE SWITCH (HIGH)

PROFILE DAMPER MOTOR

OUTDOOR AIR STAT (TH3)

DRAIN STAT (TH2)

PROFILE PRESSURE SWITCH (LOW)

DRAIN WATER VALVE (D.W.V.)

SUPPLY WATER VALVE (S.W.V.)

LIQUID LEVEL CONTROLLER (LLC)

OVERFLOW WATER SENSOR (O.W.S.)

MILD WEATHER STAT

INTERNAL WATER CONTROL VALVE (I.W.C.V.)

HIGH TEMPERATURE LIMIT SWITCH

HIGH AIR FLOW SWITCH

LOW AIR FLOW SWITCH

FLAME SAFEGUARD CONTROL

SPARK IGNITOR

FLAME DETECTION ROD

BURNER ON RELAY

DIRECT IGNITION COMB. GAS VALVE

TEMPERATURE CONTROL AMPLIFIER

DISCHARGE TEMPERATURE SENSOR

MODULATING GAS VALVE

TEMPERATURE DIAL

ALL FIELD WIRING SHALL BE THWN, THHN OR MTW WIRE TYPE (OR SHIELDED CABLE WHERE NOTED ON SCHEMATIC) RATED FOR 75° C AND LABELED OR IDENTIFIED AT EACH END FOR EACH CONNECTION BEING MADE. WIRING SHALL BE INSTALLED PER NEC AND LOCAL CODE REQUIREMENTS

ALL CONTROL WIRING SHALL BE AS FOLLOWS:

GAUGE	MAX. DISTANCE
18	50'
16	75'
14	150'
12	250'

\* DO NOT RUN LINE VOLTAGE WIRES WITH CONTROL WIRES \*

LEGEND

SYMBOL	DEFINED AS
	(GND) EARTH GROUND GALV. ZINC, MAGNESIUM ROD
	WIRE NUMBERS
	TERMINALS IN CONTROL PANEL
	TERMINALS IN REMOTE PANEL
	REMOTE PANEL WIRING
	FIELD WIRING BETWEEN TERMINALS IN REMOTE PANEL & TERMINALS IN UNIT CONTROL PANEL
	SHIELDED CABLE
	FIELD INSTALLED & WIRED
	FIELD CONNECTION

UNIT SET POINTS

DEVICE	RECOMMENDED SETTING:
HAFS / LAFS	1.00" / 0.40" WC
HTL	130° F
MWS	65° F
PPS-HIGH	CLOSES ABOVE 0.75" WC
PPS-LOW	CLOSES BELOW 0.60" WC
TH2	65° F (ADJUSTABLE)
TH3	75° F (ADJUSTABLE)
-	-
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REVISIONS

REV.	DATE	REV. BY
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
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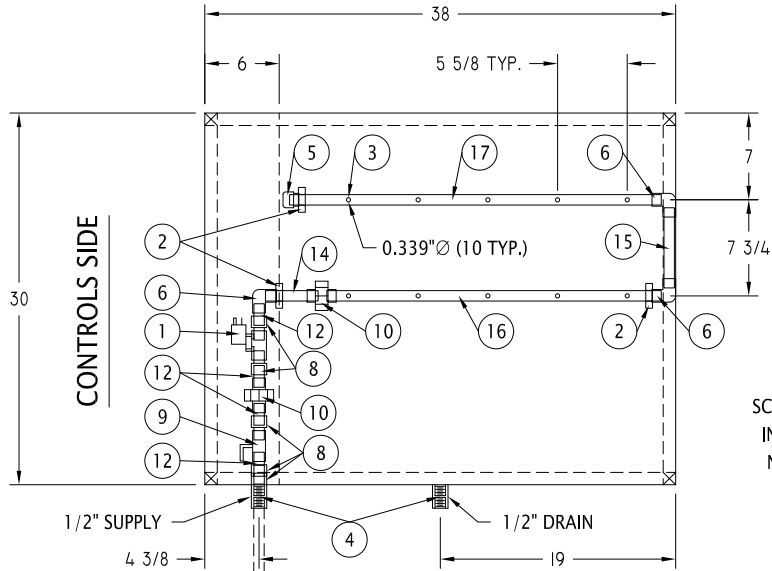


PROJECT INFORMATION

PROJECT NAME:	-
MODEL NO.:	T2-HOXEWN
SERIAL NO.:	-
TAG:	-
DATE:	06-2020
SCALE:	NONE
DRAWN BY:	BMA
DRAWING NO.:	T2-EVN-3400-460-3

# EVN2 w/F&D VALVES (LH) – EVAP. PIPING SCHEMATIC

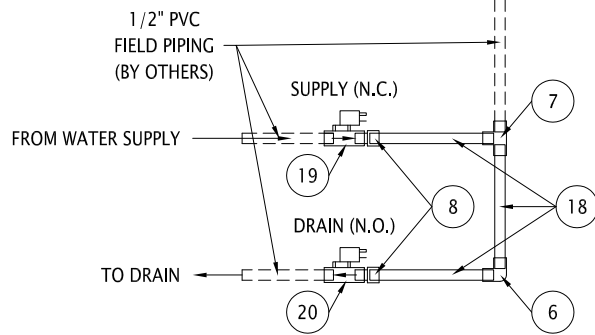
PLEASE NOTE  
LEFT HAND (LH)  
CONTROLS



PLEASE NOTE  
SCHEMATIC LAYOUT IS LOOKING  
INTO THE UNIT FROM THE OA.  
NOZZLE LOCATIONS ARE ON  
THE OPPOSITE SIDE.

ROOF LINE

ROOF LINE



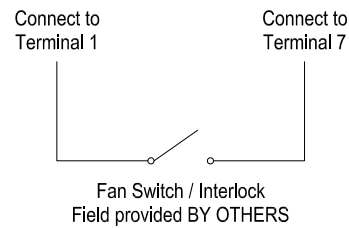
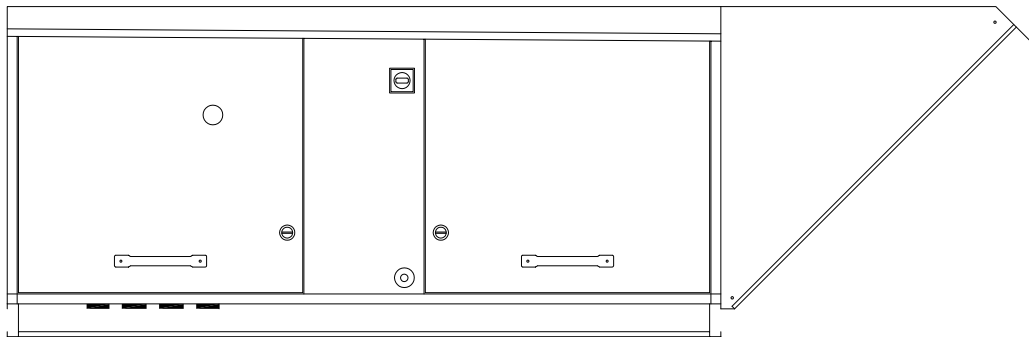
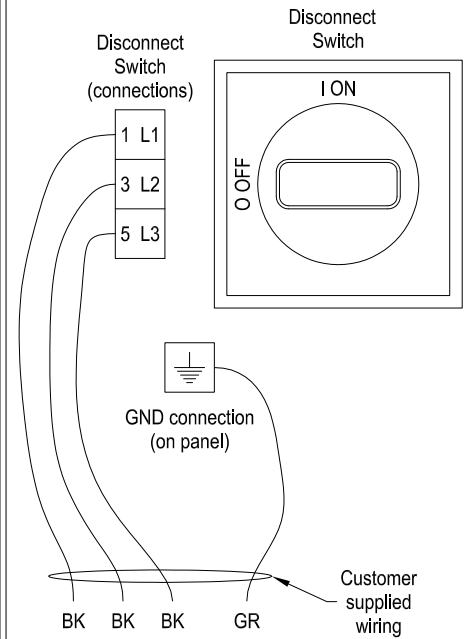
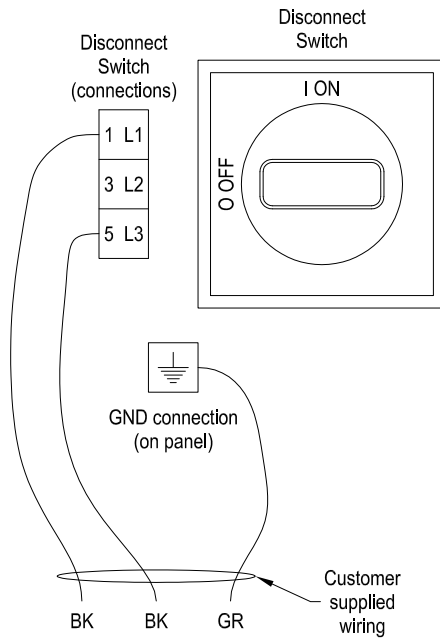
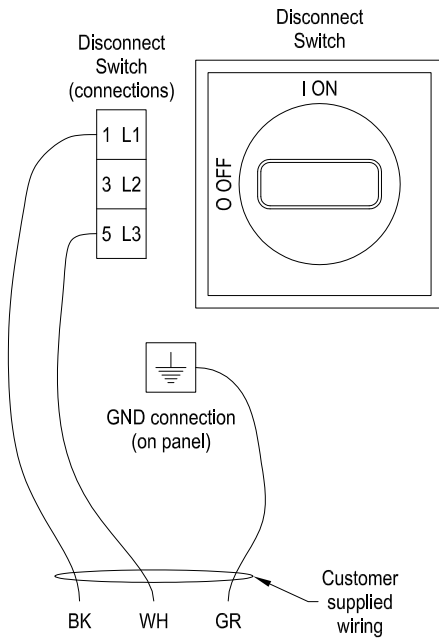
PLEASE NOTE  
SUPPLY & DRAIN WATER VALVES SHIPPED LOOSE  
INSTALL IN A FROST FREE ENVIRONMENT

ITEM	QTY.	DESCRIPTION OF PART
1	1	INTERNAL WATER CONTROL VALVE (N.C.)
2	3	1/2" PIPE GROMMET
3	10	WATER NOZZLE 115° w/FILTER
4	2	1/2" 304SS COUPLING (welded on)
5	1	1/2" PVC CAP
6	4	1/2" PVC ELBOW
7	1	1/2" PVC TEE
8	7	1/2" PVC MALE ADAPTER
9	1	1/2" PVC SHUT OFF COCK
10	2	1/2" PVC UNION – SCH 40
-	-	-
12	4	1/2" PVC PIPE x 1-1/2"
-	-	-
14	1	1/2" PVC PIPE x 4-1/4"
15	1	1/2" PVC PIPE x 6-1/2"
16	1	1/2" PVC PIPE x 27" (with holes)
17	1	1/2" PVC PIPE x 29-7/8" (with holes)
18	3	1/2" PVC PIPE x 10"
19	1	SUPPLY WATER VALVE (N.C.) – SHIPPED LOOSE & INSTALLED BY OTHERS
20	1	DRAIN WATER VALVE (N.O.) – SHIPPED LOOSE & INSTALLED BY OTHERS

115-1-60

208/230-1-60

208/230/460/575-3-60



PROJECT NAME: NAKS T1-T5 DIRECT FIRED MUA INSTALLATION WIRING

REF. NO./JOB NO.: -

MODEL: T1-T5

TAG: -

DRAWN BY: -

DATE: 06-2020

SCALE: NONE

CERTIFIED BY:

DRAWING NO.:

T1-T5\_INSTALL