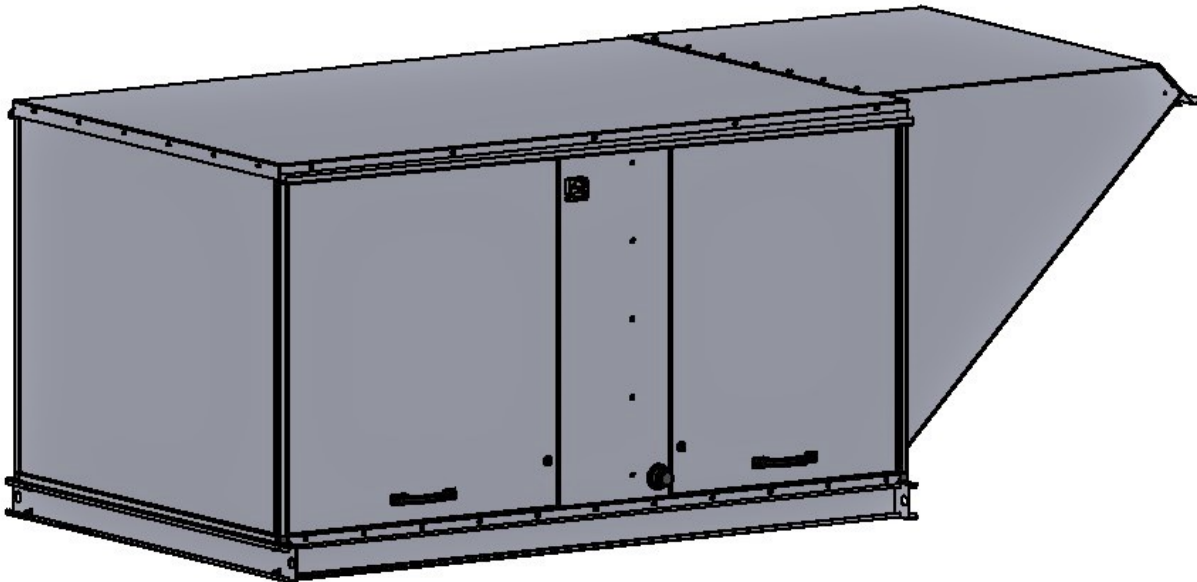


Gas-Fired Tempered Make-Up Air Unit / EVAP

Model:

T4-EVN-7800-230-3

3-Phase, 230V, 5.00 HP, Belt driven with Motorized Damper and 18" Blower. MAX 7,800 CFM





T4-HOXEVN Direct Fired EVAP (1,185 lbs.)

Supply Motor:

Model GT0013A, 5.00 HP, 230-3-60, 12.6 FLA, ODP (Open Drip Proof)

Supply Motor Pulleys:

<u>Part Type</u>	<u>Qty</u>	<u>Browning #</u>	<u>Turns Out</u>
Blower Pulley	1	MB103 x 1	
Motor Pulley	1	1VP50 x 1-1/8	3.0

Burner:

Min Output BTU: 43,000 BTU/Hr
Max Output BTU: 1,125,000 BTU/Hr
Size: 18" long
Gas Type: Natural

Supply Performance:

Volume: 7800 cfm Volume Range: 3700-7800 cfm
RPM: 758
TS: 3671 ft/min
SP: 1.83" w.g.
0.50" Ext. + 0.80" Int. + 0.53" Opt.
BHP: 4.20

Heating Schedule:

Altitude: 0'
Winter Entering Air Dry Bulb Temp: 0°F
Temp Rise: 100°F
Output BTU: 803,000
Input BTU: 873,000
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: 14 in. w.c. - 1 p.s.i.
Insurance: FM/ETL

Unit Main Input: 18.75 Amps MCA, 30 Amps MOP, 230V,
12 AWG Wire Min.
Supply Unit Voltage: 230v-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:

18" forward curved, centrifugal blower. Permanently lubricated ballbearings. Galvanized finish. 1" Shaft. 1,450 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 EVN4 CELdek Evaporative Cooler for T4 Modular Make-Up Air Heater. 54" Wide x 68" Long x 44" High. Includes intake hood with filters. For outdoor installation. Use with water softener recommended.

Filters:

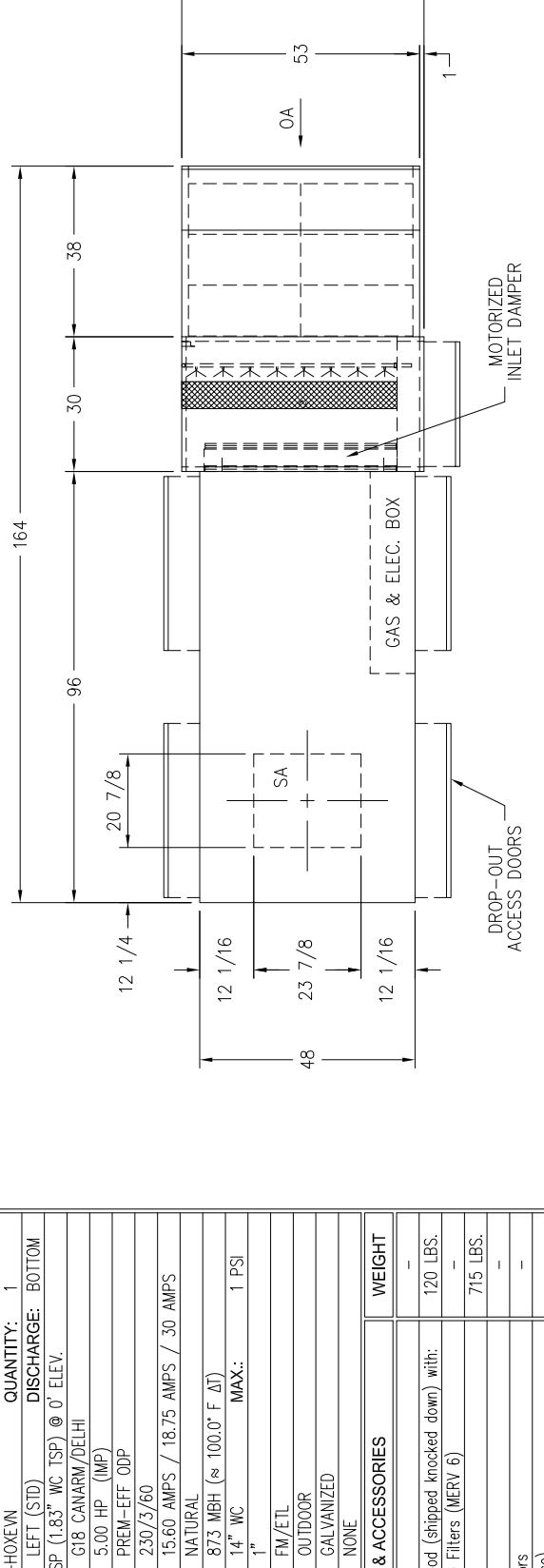
6x MV EZ Kleen Metal Mesh Filter. 16"x 25"x 2" Used for heater and supply fan intakes.

Selected Options:

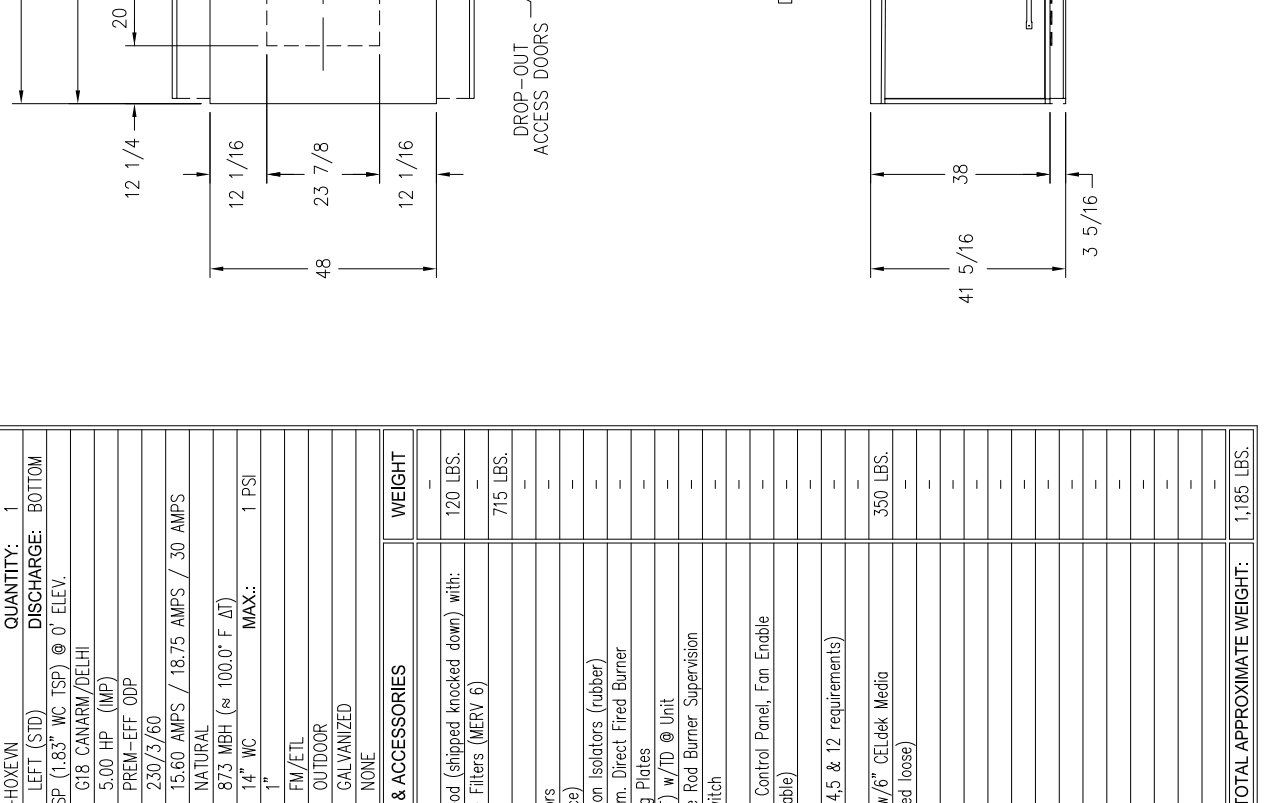
- * Motorized Inlet Damper 43"W x 36"H for EVN4/T4 Modular Heating Units w/Extended Shaft, Standard Galvanized Construction, 3/4" Rear Flange, LMX24-3-S Actuator Included (with end switch).
- * Low Fire Start. Allows the burner circuit to energize when the modulation control is in a low fire position.
- * 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.

MODEL:	T4-HOXEW	QUANTITY:	1
CONTROLS SIDE:	LEFT (STD)	DISCHARGE:	BOTTOM
	7,800 CFM @ 0.50" WC ESP (1.83" WC TSP) @ 0' ELEV.		
BLOWER SIZE:	G18 CANARM/DELHI		
MOTOR HORSEPOWER:	5.00 HP (IMF)		
MOTOR TYPE:	PREM-EFF ODP		
VOLTAGE:	230/3/60		
UNIT FLA / MCA / MOP:	15.60 AMPS / 18.75 AMPS / 30 AMPS		
GAS TYPE:	NATURAL		
HEATING CAPACITY:	873 MBH ($\approx 100.0^\circ\text{F } \Delta T$)		
GAS PRESSURE - MIN.:	14" WC	MAX.:	1 PSI
GAS LINE SIZE:	1"		
INSURANCE TYPE:	FM/ETL		
MOUNTING LOCATION:	OUTDOOR		
UNIT MATERIAL:	GALVANIZED		
PAINT COLOR:	NONE		

FEATURES & ACCESSORIES	WEIGHT
* Unit Mounting By Others	-
* EVN4 OA Filtered Inlet Hood (shipped knocked down) with: - 2" Aluminum Cleanable Filters (MERV 6)	120 LBS.
* Base Unit	715 LBS.
* Motorized Inlet Damper	-
* (4) Drop-Out Access Doors	-
* Unit Insulation (1" foil face)	-
* Internal Fan/Motor Vibration Isolators (rubber)	-
* Maxon NP-1-LE Cast Alum. Direct Fired Burner w/Stainless Steel Mixing Plates	-
* Maxitrol 14 DTC (55-90F) 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 1,2,3R,3S,4,5 & 12 requirements)	-
* Auto-Profiler System	-
* EVN4 Evaporative Cooler w/6" CELdek Media	350 LBS.
* Fill & Drain Valves (shipped loose)	-
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TOTAL APPROXIMATE WEIGHT: 1,185 LBS.	



PLAN VIEW



CONTROLS SIDE VIEW

PROJECT NAME:	-	MODEL:	T4-HOXEW	TAG:	-
REF. NO./JOB NO.:	-	DRAWN BY:	BMA	DATE:	08-2020
DESCRIPTION OF REVISION	-	CERTIFIED BY:	T4-EVN-7800-230-3	SCALE:	NONE

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

Submitted by:

Equipment Tag

Contractor:

Model Information

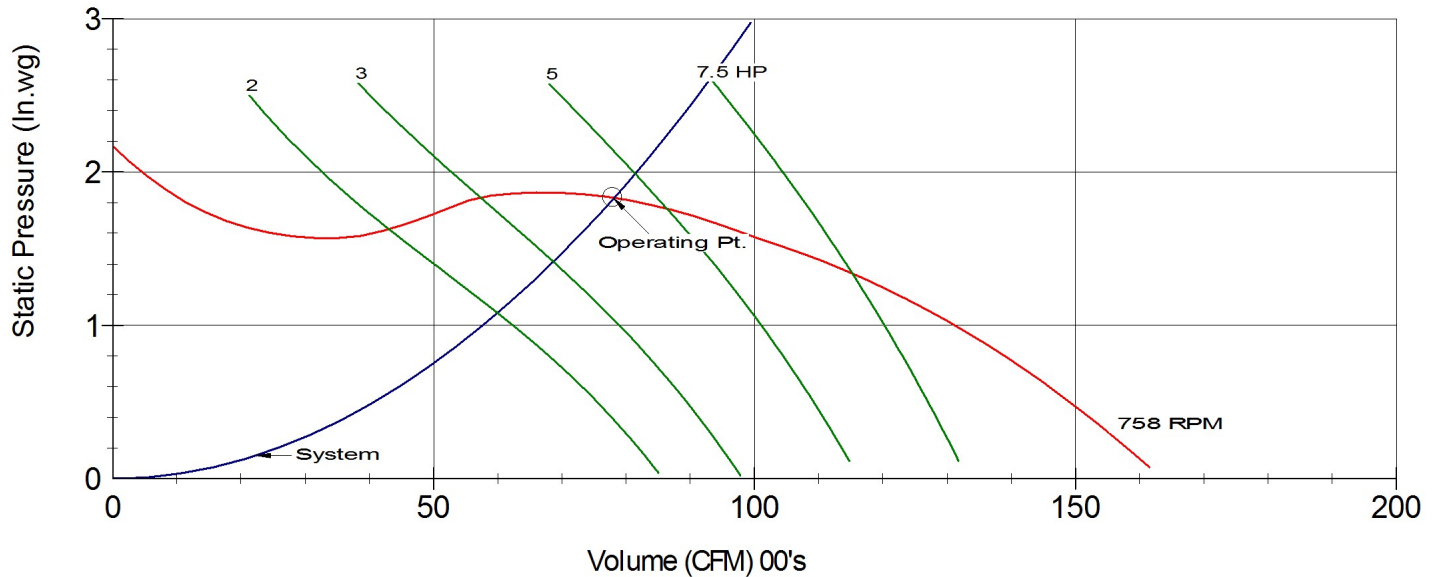
Model: G18	Part Number: 9005493	
CFM: 7800	Shaft Diameter: 1	Unit Weight: 87
SP: 1.83	Wheel Diameter: 18.5	Ship Weight: 99
RPM: 758	Tip Speed: 3671 FPM	
BHP: 4.2	Static Efficiency: 53	Elevation: 0
	Outlet Velocity: 2720 FPM	Temperature: 70

Sound Data

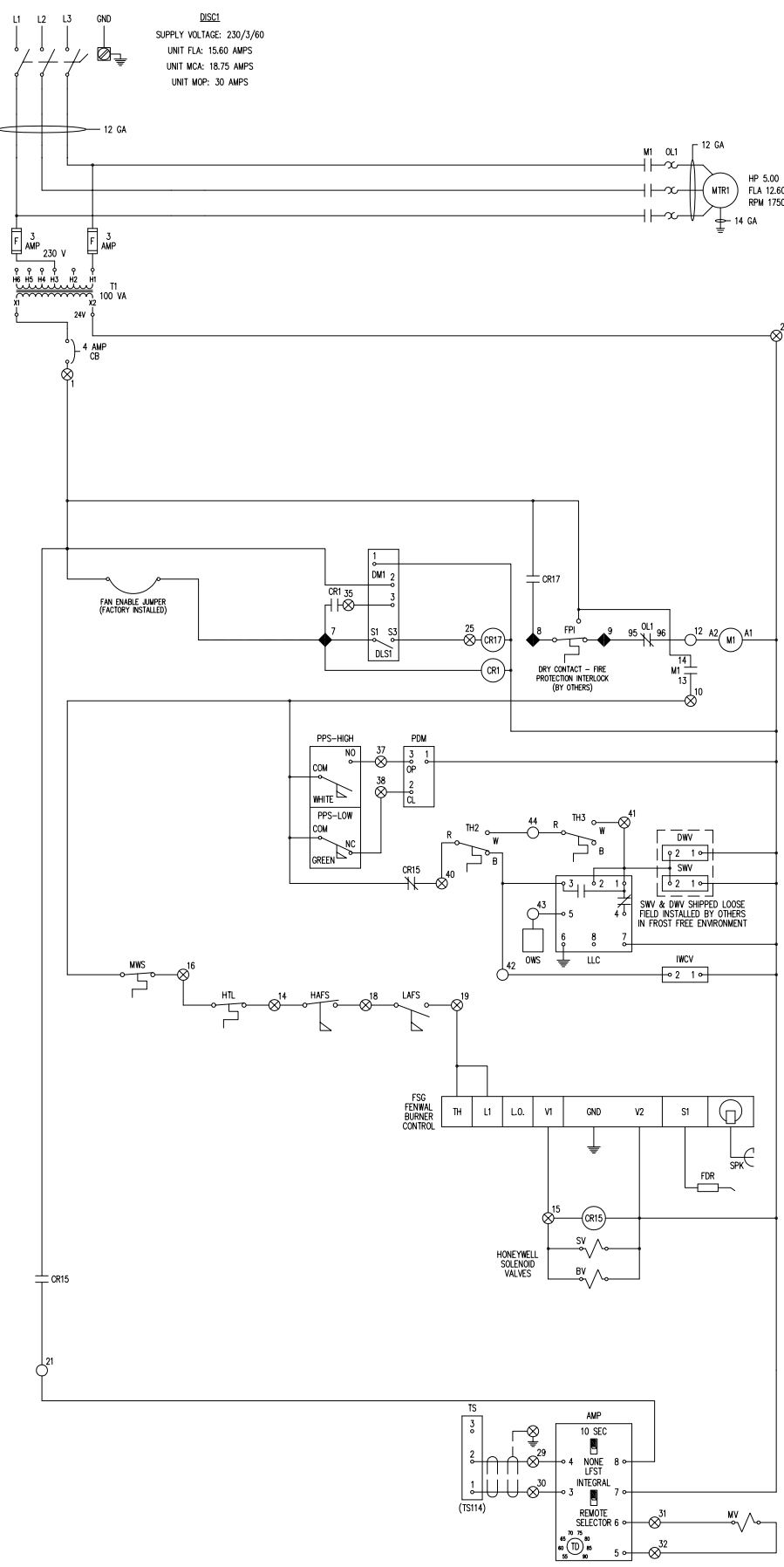
	63	125	250	500	1000	2000	4000	8000	(Hz)	LwA: 82
Sound Power Level @ Frequency, re: 10 ⁻¹² Watts	87	86	82	79	76	72	68	66	(dB)	SONES: 19.1
	Ducted inlet <u>or</u> ducted outlet dBA @5 ft. 71					Ducted inlet <u>and</u> ducted outlet dBA @5 ft. 51				

Performance Curve

DELHI Model G18
CFM=7800 SP=1.83 BHP=4.2 S. Eff=53% RPM=758



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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 (N.O.)

SUPPLY WATER VALVE (N.C.)

LIQUID LEVEL CONTROLLER (LLC)

OVERFLOW WATER SENSOR (OWS)

MILD WEATHER STAT

INTERNAL WATER CONTROL VALVE (N.C.)

HIGH TEMPERATURE LIMIT SWITCH

HIGH AIR FLOW SWITCH

LOW AIR FLOW SWITCH

FLAME SAFEGUARD CONTROL

SPARK IGNITOR

FLAME DETECTION ROD

BURNER ON RELAY

SAFETY GAS VALVE

BLOCKING 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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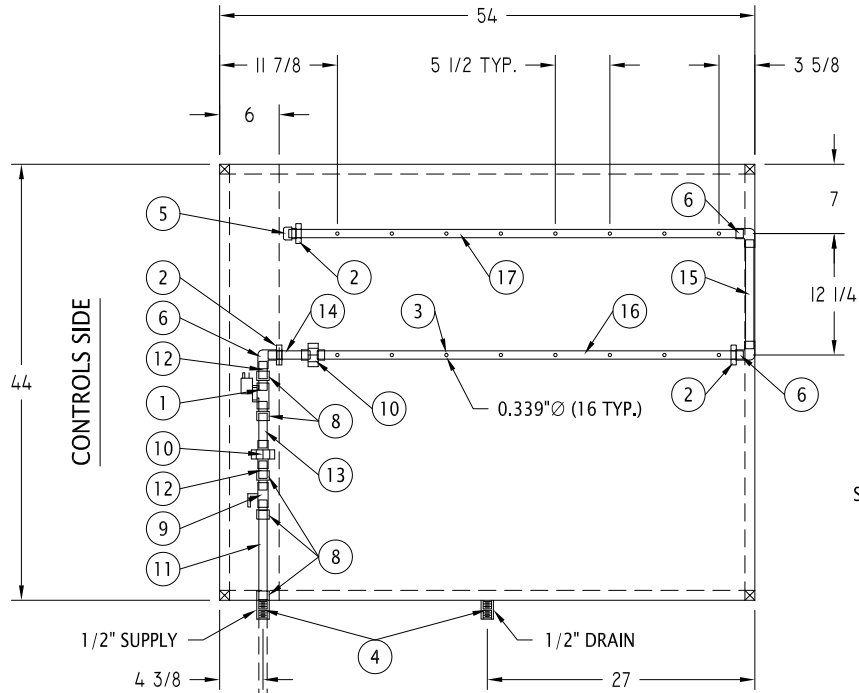


PROJECT INFORMATION

PROJECT NAME:	-
MODEL NO.:	T4-HOXEWN
SERIAL NO.:	-
TAG:	-
DATE:	08-2020
SCALE:	NONE
DRAWN BY:	BMA
DRAWING NO.:	T4-EVN-7800-230-3

EVN4 w/F&D VALVES (LH) – EVAP. PIPING SCHEMATIC

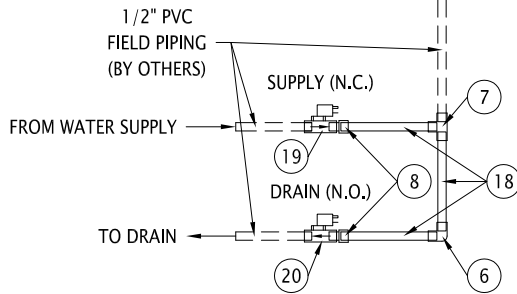
PLEASE NOTE
LEFT HAND (LH)
CONTROLS



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

ROOF LINE

ROOF LINE



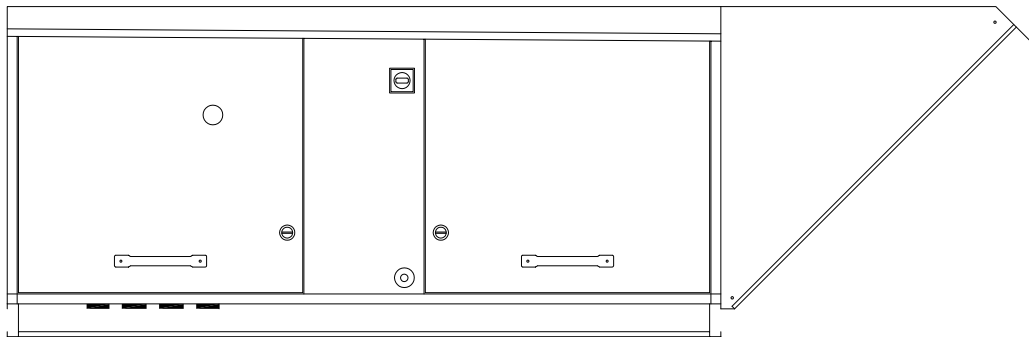
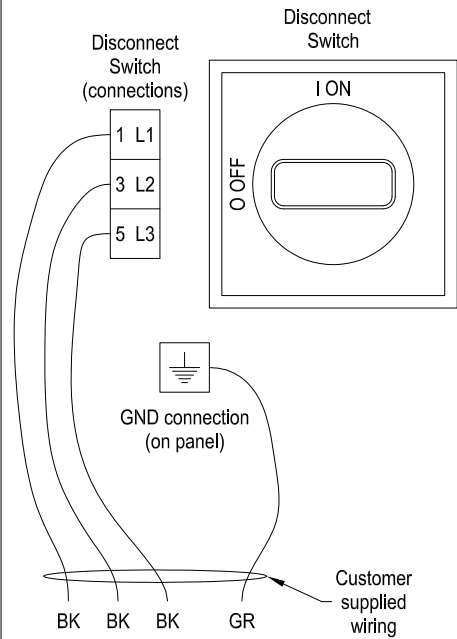
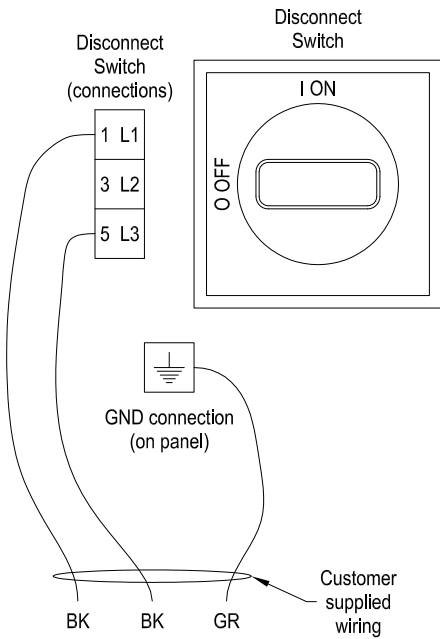
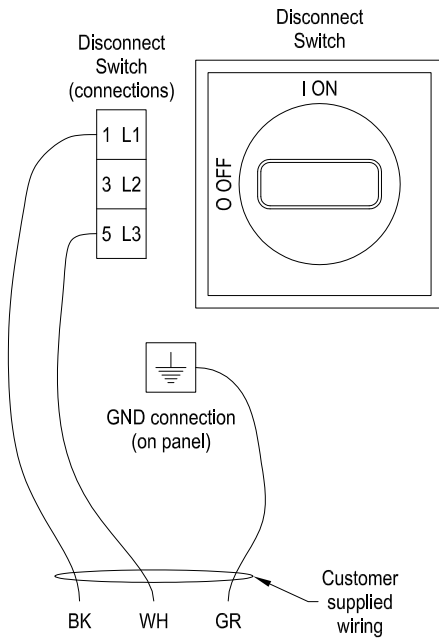
PLEASE NOTE
SUPPLY & DRAIN WATER VALVES SHIPPED LOOSE
INSTALL IN A FROST FREE ENVIRONMENT

ITEM	QTY.	DESCRIPTION OF PART
1	1	INTERNAL WATER CONTROL VALVE (N.C.)
2	3	1/2" PIPE GROMMET
3	16	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
11	1	1/2" PVC PIPE x 9"
12	2	1/2" PVC PIPE x 1-1/2"
13	1	1/2" PVC PIPE x 3-1/2"
14	1	1/2" PVC PIPE x 4-1/4"
15	1	1/2" PVC PIPE x 11"
16	1	1/2" PVC PIPE x 43" (with holes)
17	1	1/2" PVC PIPE x 45-7/8" (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

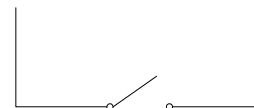


Power Connection
(see above for details)

Control Connection
(see below for details)

Connect to
Terminal 1

Connect to
Terminal 7



Fan Switch / Interlock
Field provided BY OTHERS



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