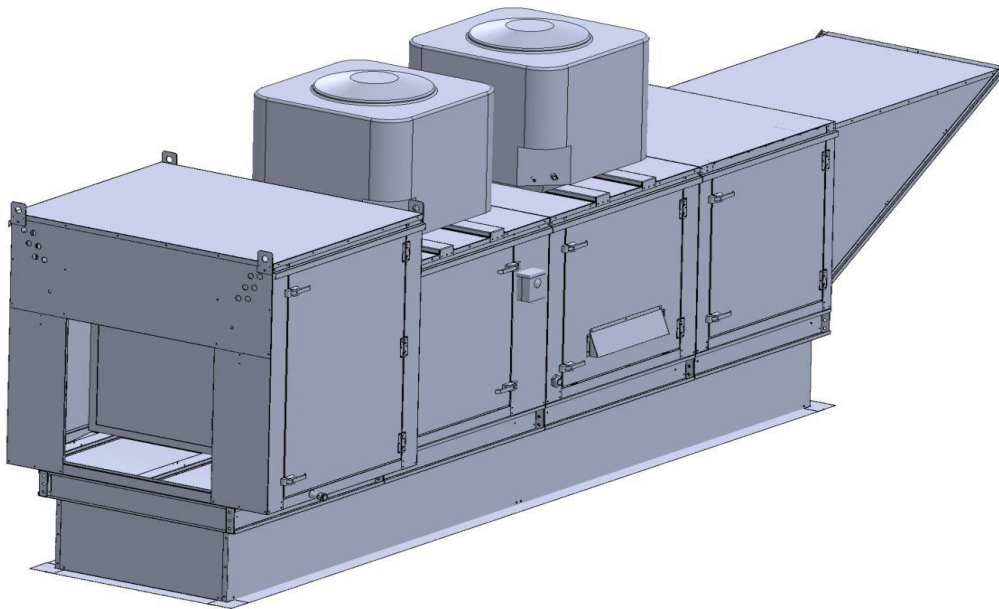


Gas-Fired Tempered Make-Up Air Unit / DX

Model:

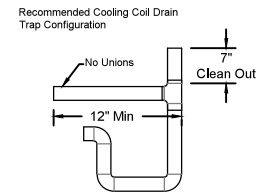
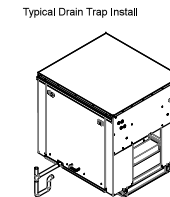
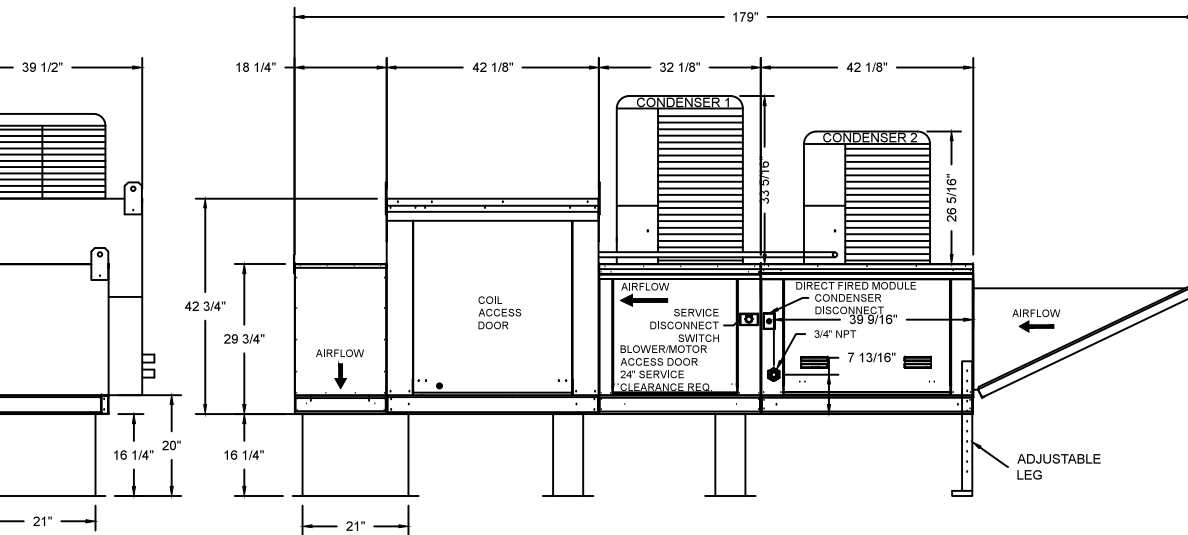
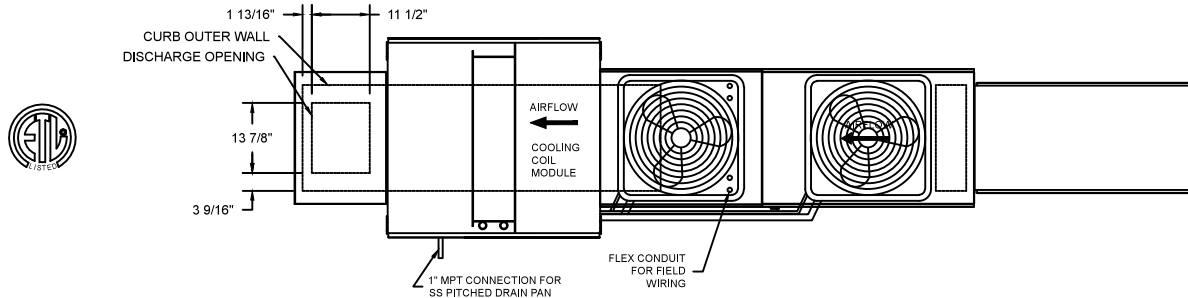
TK1-DX-3PH-FF

3-Phase, 460V, 2.00 HP, Belt driven with Motorized Damper and 10" Blower. MAX 2500 CFM's



- TK1 DIRECT FIRED HEATER WITH DX COOLING
1. DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 10" BLOWER
 2. INTAKE HOOD WITH EZ FILTERS
 3. DOWN DISCHARGE - AIR FLOW RIGHT -> LEFT
 4. MOTORIZED BACK DRAFT DAMPER 16" X 18" FOR SIZE 1 STANDARD & MODULAR HEATER UNITS W/EXTENDED SHAFT, STANDARD GALVANIZED CONSTRUCTION, 3/4" REAR FLANGE, LOW LEAKAGE, TFB120S ACTUATOR INCLUDED
 5. LOW FIRE START, ALLOWS THE BURNER CIRCUIT TO ENERGIZE WHEN THE MODULATION CONTROL IS IN A LOW FIRE POSITION.
 6. GAS PRESSURE GAUGE, 0-35", 2.5" DIAMETER, 1/4" THREAD SIZE
 7. GAS PRESSURE GAUGE, -5 TO +15 INCHES W.C., 2.5" DIAMETER, 1/4" THREAD SIZE
 8. 5 TON, DUAL CIRCUIT (2/3) MODULAR PACKAGED COOLING OPTION FOR SIZE 1 MODULAR PACKAGED UNIT. INCLUDES CONDENSER, DX COIL, FILTER/DRYER KIT, HARD START KIT, THERMAL EXPANSION VALVE, R410A REFRIGERANT, AND REFRIGERANT PIPING.
 9. FULL CRATING FOR COMMERCIAL HEATERS FOR SHIPPING.
 10. DOWNTURN PLENUM FOR SIZE 1 COOLING COIL MODULE - REQUIRED FOR DOWN DISCHARGE COOLING COIL APPLICATIONS
 11. DX COOLING INTAKE AIR THERMOSTAT AND RELAYS MOUNTED IN UNIT - SET POINT FOR THERMOSTAT SHOULD BE 85°F.

NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE UNLESS OTHERWISE SPECIFIED. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT.



- Notes:
- 1) 1" diameter PVC Pipe only
 - 2) Use only low profile couplings
 - 3) Add clean out as shown

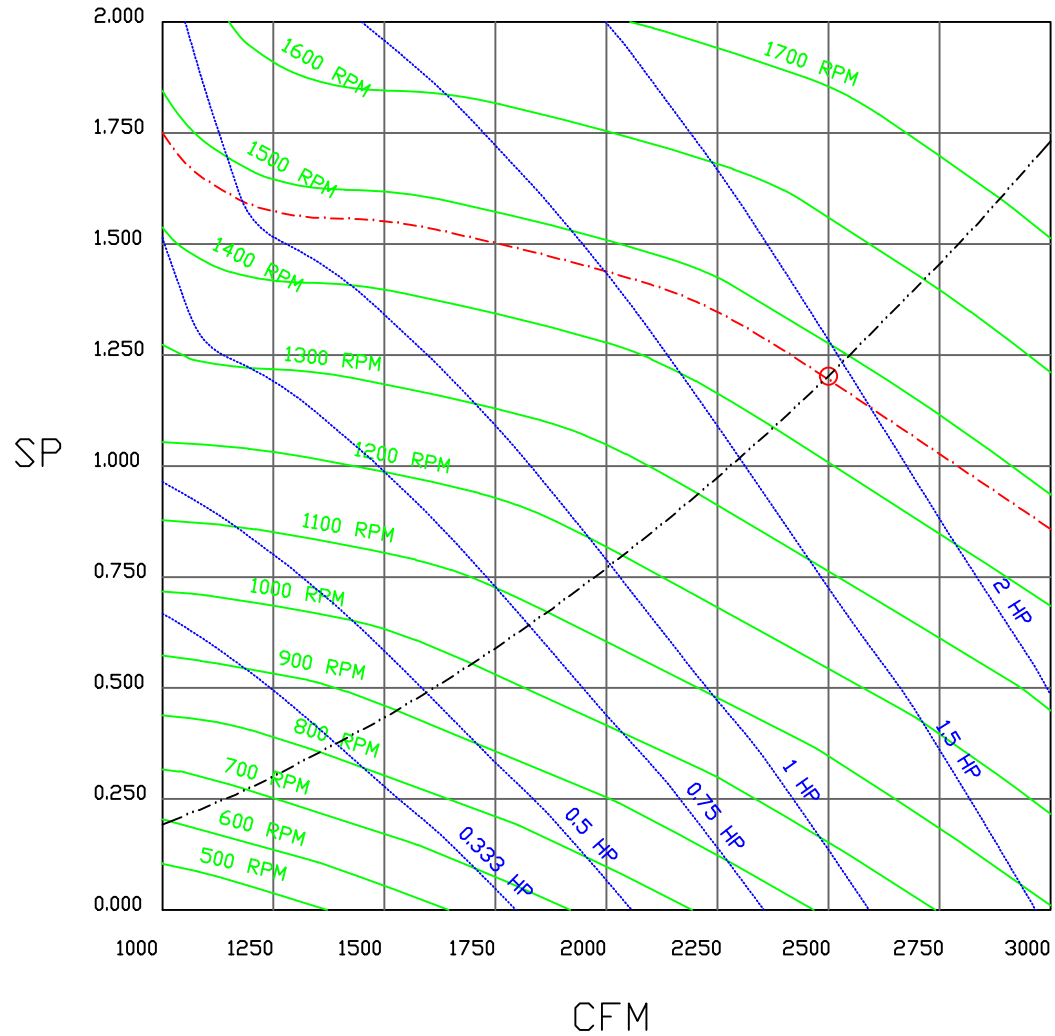


naks NORTH AMERICAN
KITCHEN SOLUTIONS
INCORPORATED

JOB	
LOCATION	
DATE	8/31/18
DWG #	JOB #
REV.	DRAWN BY
SCALE 3/8" = 1'-0"	

(MPU 2500 2HP/3PH-460V) - HEATER PERFORMANCE CURVES.

2500 CFM, 1.202 SP @ 1470 RPM and 1.872 BHP at 0 feet and 100 deg F
 * Please note that these curves were adjusted for job specific temperature and altitude.



			JOB	
			LOCATION	
			DATE 8/27/2018	JOB #
			DWG #	DRAWN BY
			REV.	SCALE 3/8" = 1'-0"

Modular Package Unit Wiring

JOB NAKS DIRECT FIRED MPU

DRAWING NUMBER

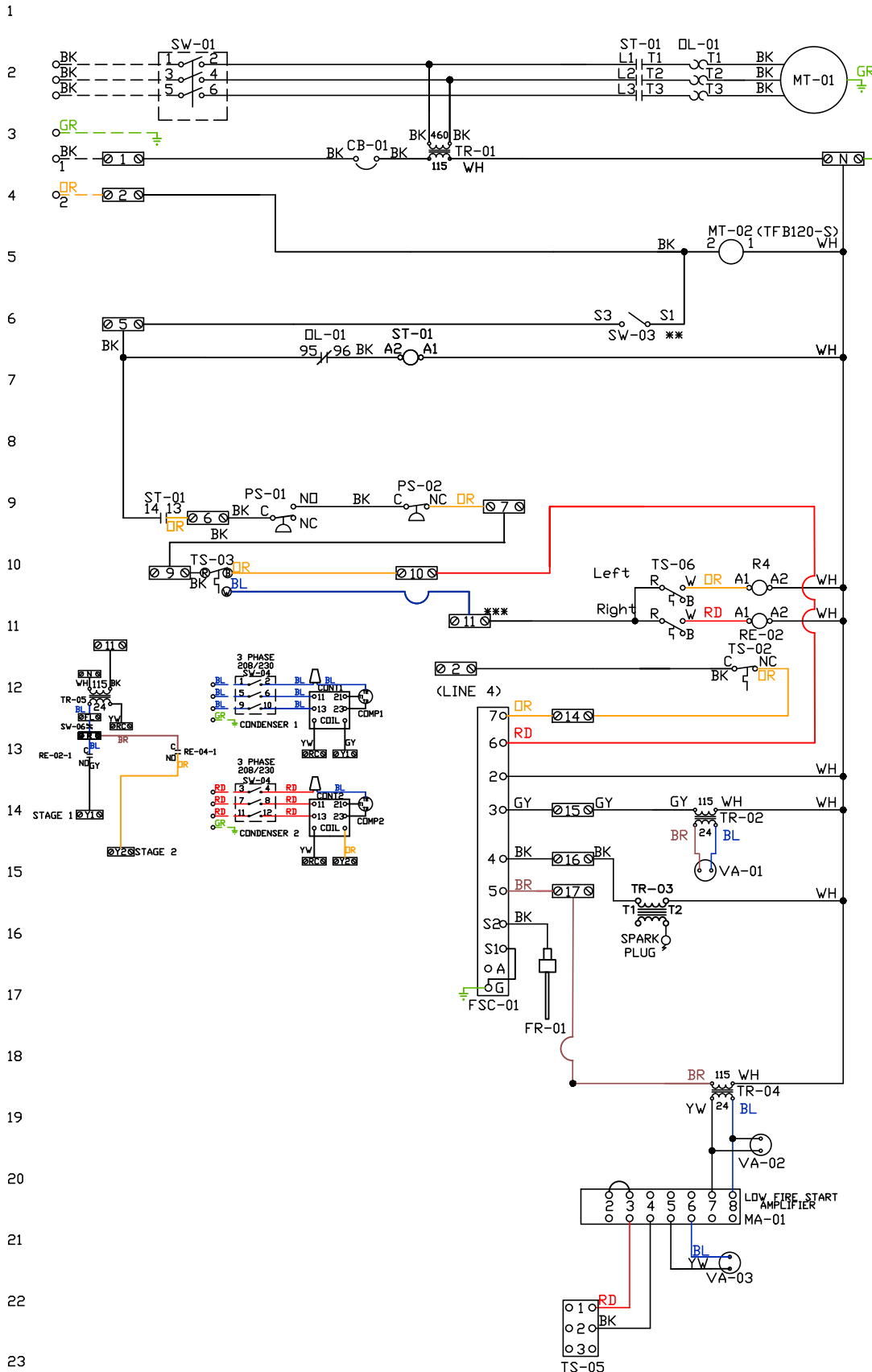
SHIP DATE

MODEL TK 1-4 Series

ATTENTION ELECTRICIAN!
 DROP FOR DISCONNECT CONNECTION
 IS FACTORY SUPPLIED
 CONNECT POWER TO THE DROP

Installed Options
 Field Wired Single Switch Control
 Motorized Back Draft Damper

Discharge Temp. Control
 Cooling Thermostat and Relay



Label	Component Identification Description	Location
CB-01	Circuit breaker (2amp)	[3]
FR-01	Flame rod	[16]
FSC-01	Fireye FSC	[11-14]
MA-01	Modulating amplifier	[19]
MT-01	Supply motor	[2]
MT-02	Damper motor	[5]
DL-01	Supply motor overload	[2][7]
PS-01	Low AirFlow Switch	[9]
PS-02	High AirFlow Switch	[9]
RE-02	Stage 1 Heat/Cool Relay	[11][13]
RE-04	Stage 2 Cooling Relay	[11][13]
ST-01	Supply motor contactor	[2][7][9]
SW-01	Main disconnect switch	[2]
SW-03	Damper end limit switch	[4]
SW-04	40 Amp Rotary Disconnect	[12-14]
SW-06	Overflow Switch	[12-13]
TR-01	Power transformer(200v)	[12]
TR-02	Power transformer(20va)	[12]
TR-03	Ignition transformer	[14]
TR-04	Power transformer(20va)	[17]
TR-05	Cond Transformer(40va)	[12]
TS-02	High temp limit switch	[10]
TS-03	Intake Air Sensor	[10]
TS-05	Discharge Air Sensor	[21]
TS-06	Cooling Thermostat	[16]
VA-01	Pilot gas valve	[13]
VA-02	Main gas valve	[18]
VA-03	Modulating gas valve	[20]

SUPPLY	MOTOR INFO
CONTACTOR: 100-K05D10	2HP-460V-3P-2.6FLA
OVERLOAD: 193-KB32	

ELECTRICAL INFORMATION
 MOTOR/CTRL CIRCUIT MCA: 3.8A
 MOTOR/CTRL CIRCUIT MOP: 15A
 COND1 MCA = 11.2A COND1 MOP = 20A
 COND2 MCA = 11.2A COND2 MOP = 20A

NOTES
 --- DENOTES FIELD WIRING
 ——— DENOTES INTERNAL WIRING

** TERMINALS S4 AND S6 USED ON NF & AF SERIES ACTUATORS
 *** TERMINAL 11 PROVIDES COOLING CONNECTION

WIRE COLOR	SOCKET STYLE
BK-BLACK	ND 4 3
BL-BLUE	NC 2 1
BR - BROWN	CDL 8 7
DR - ORANGE	CDM 6 5
GY - GRAY	
GR - GREEN	
WH - WHITE	
PR - PURPLE	
RD - RED	
WH - WHITE	
PK - PINK	

Installation Wiring

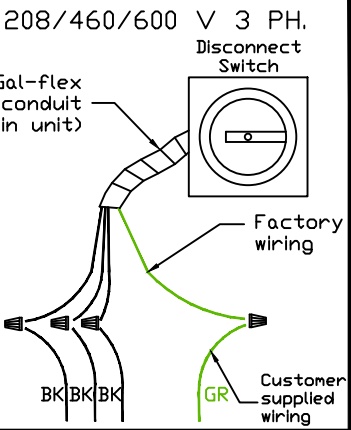
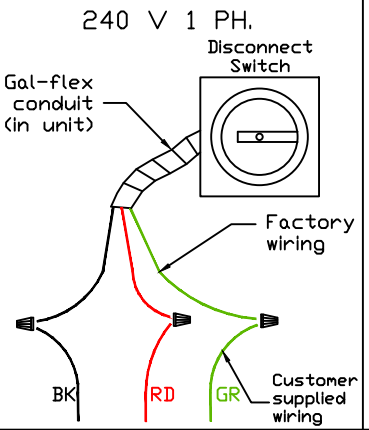
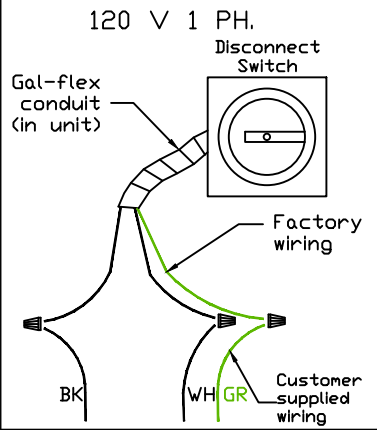
JOB NAKS Direct Fired MPU

DRAWING NUMBER

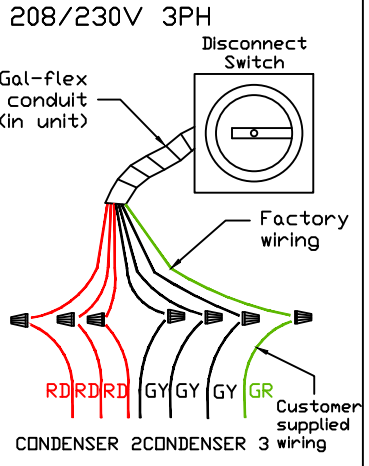
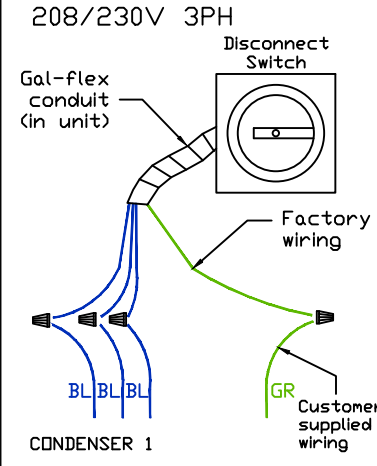
SHIP DATE

MODEL TK 1-4 Series

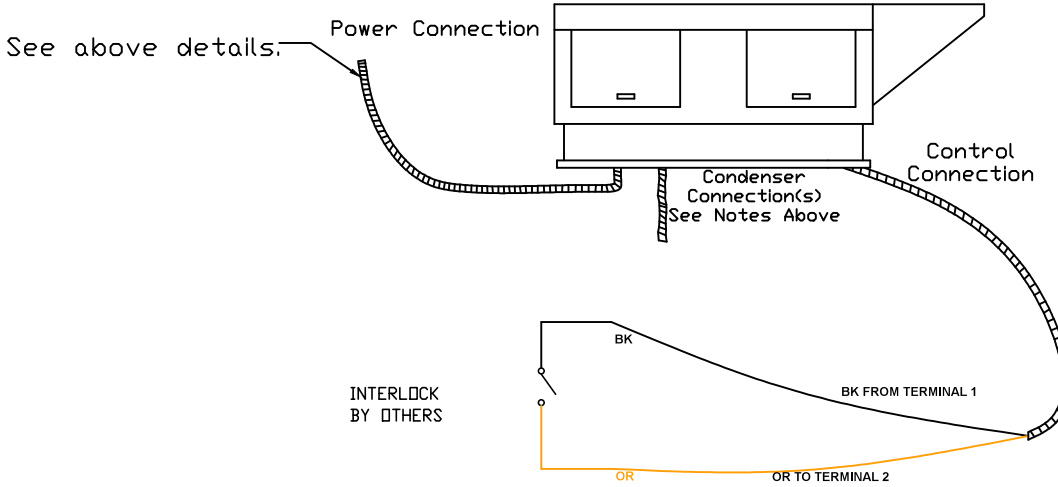
Installed Options



Field Wired On/Off Switch



DO NOT CONNECT CONDENSER POWER DROPS TO KITCHEN CONTROL PACKAGE STARTERS OR VFDS



NOTES

WIRE COLOR

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