

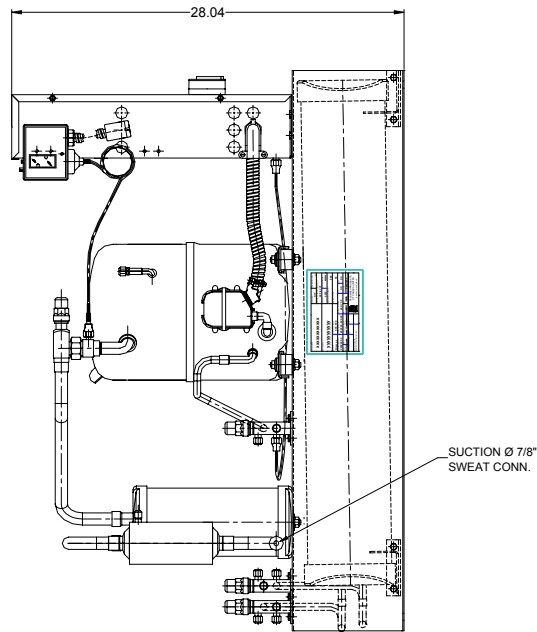
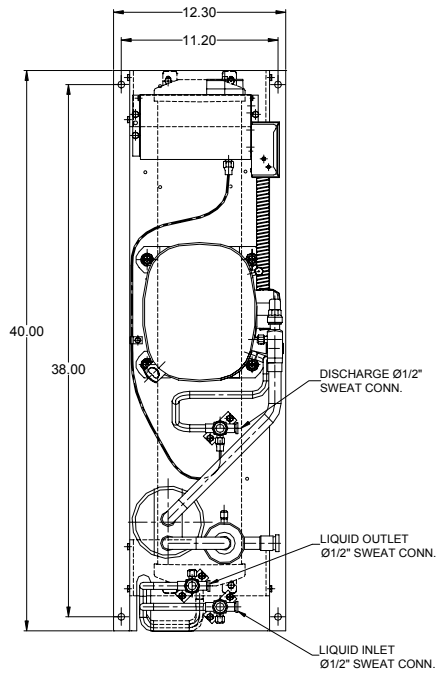
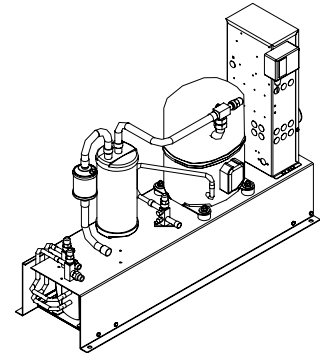


# TECUMSEH HERMETIC CONDENSING UNIT



AVA4542EXNRL  
TPC rev 01  
July 13, 2004

**Model** AVA4542EXNRL  
**BOM** 2R3127-2  
**Remote Condenser** 3 1/2 HP  
**Application** High Temp  
**Refrigerant** R 22



Model	Dimensions (inch)			Line connections		Pumpdown	Oil Ch.	Gross weight
	L	W	H	Suction	Liquid In/Out	90% @ 90°F	Oz.	Lbs.
<b>AVA4542EXNRL</b>	40.00	12.25	28.04	7/8 Sweat	1/2 Sweat	38.50	55	220

Factory charge 20 psig dry air, **MUST BE EVACUATED**

Evaporator	Condensing Temperatures													
	95°F		100°F		110°F		115°F		120°F		130°F		140°F	
°F	BTUH	Watts	BTUH	Watts	BTUH	Watts	BTUH	Watts	BTUH	Watts	BTUH	Watts	BTUH	Watts
5	19550	2404	18374	2440	16184	2505	15164	2531	14186	2550	12347	2565	10633	2538
10	22981	2548	21701	2601	19298	2698	18166	2740	17075	2776	14999	2824	13039	2830
20	30674	2798	29166	2883	26289	3046	24913	3121	23571	3190	20980	3304	18482	3377
30	39675	2984	37909	3102	34501	3332	32850	3441	31229	3544	28063	3726	24969	3868
40	50225	3094	48171	3246	44172	3544	42217	3687	40288	3824	36488	4076	32739	4287
<b>45</b>	<b>56155</b>	<b>3116</b>	<b>53947</b>	<b>3286</b>	<b>49630</b>	<b>3618</b>	<b>47513</b>	<b>3779</b>	<b>45418</b>	<b>3933</b>	<b>41279</b>	<b>4220</b>	<b>37180</b>	<b>4467</b>
50	62563	3114	60192	3302	55543	3669	53256	3847	50988	4020	46495	4342	42032	4625
55	69477	3088	66937	3292	61941	3695	59476	3891	57028	4081	52167	4439	47325	4758

Performance @ 60 Hz, SuperHeat 20°F, --- SubCooling 15°F

Parts/Specifications

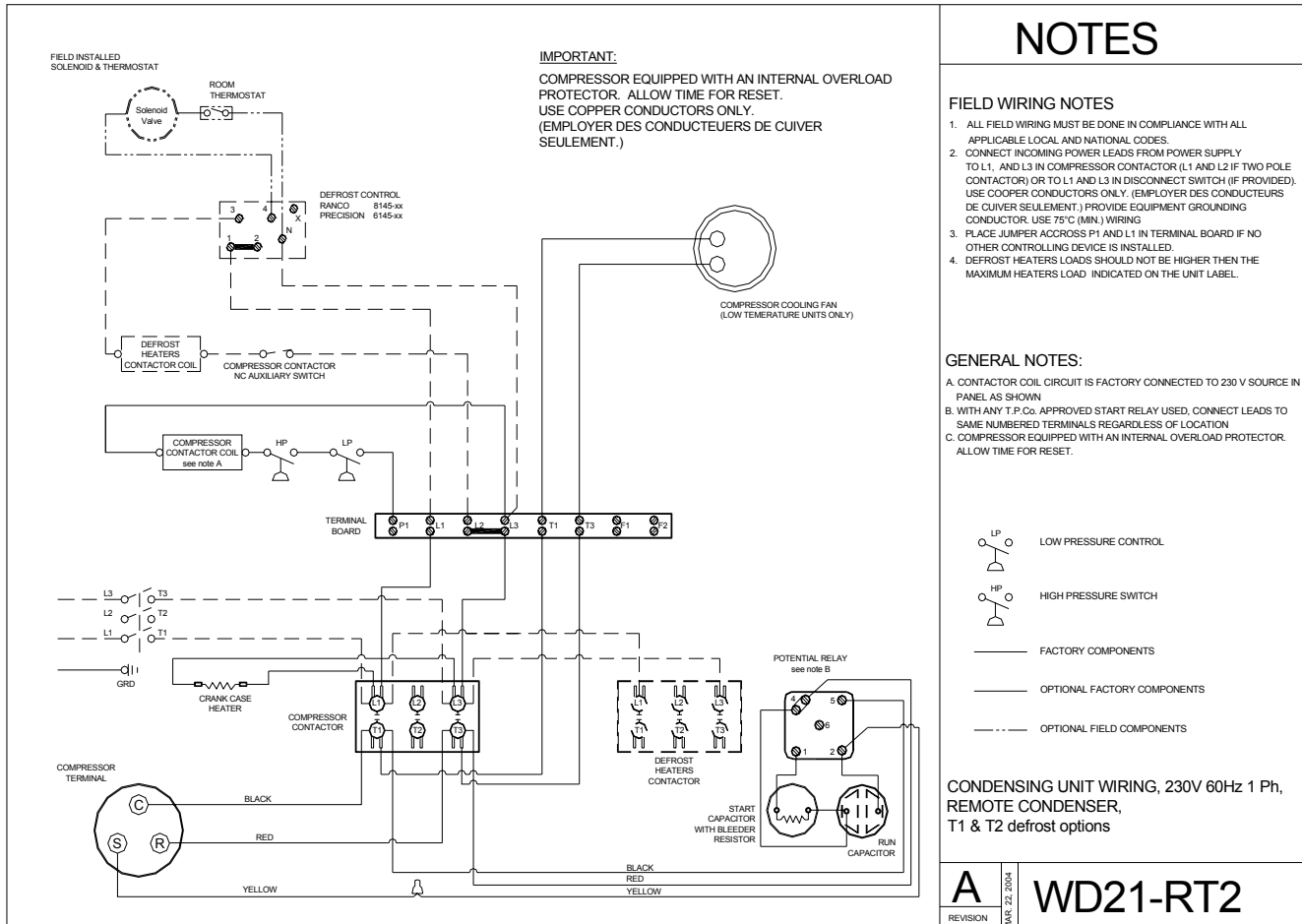
STANDARD		OPTIONAL	
Unit BOM	2R3127-2	Fan Motor	
Unit MODEL	AVA4542EXNRL	Fan Motor RLA	
		Fan Blade	
Refrigeration RANGE	+20F TO +55F		
Design Pressure Low	150	High Pressure switch	84095-1
Design Pressure High	450	Low Pressure Control	84026-D
Volts - HZ - Ph	208-230-60-1	Dual Pressure Control	
Voltage Range	253 - 197		
Min. Circuit Ampacity	26.6	Receiver	51083
Max. Fuse Size	50	Accumulator	TK00042000
		Receiver In Valve	56566
Compressor MODEL	AVA5542EXN	Receiver Out Valve	56566
Compressor BOM	AV144ET-001-A2	Discharge Valve	56566
Compressor LRA	108	Suction Valve	31529-1
Compressor RLA	21.2	Suction Filter (7/8)	70822-5S
OverLoad	Internal	CrankCase Heater	90699
Relay	820ARR3H46		
Run Capacitor	85PR440F28		
Run Capacitor Rating	40MFD 440V(M)VDE		
Start Capacitor	85PS330D16		
Start Capacitor Rating	130-156 MFD 330V		
Contactors	91014		
Unit Drawing	DGU1920-4R		
Wiring no Fan controls	WD21-RT2		

BOM INDEX DESCRIPTION

2Rxxxx- 2TnDS

- T1 Defrost timer option
- T2 Defrost timer & Defrost Heaters Contactor
- D Disconnect
- S Solenoid liquid Valve (supplied loose)

**WARNING:** Installer must validate that tubing is sized in such a manner to insure adequate oil return. Oil level may require adjustment for long pipe runs.



NOTES

FIELD WIRING NOTES

- ALL FIELD WIRING MUST BE DONE IN COMPLIANCE WITH ALL APPLICABLE LOCAL AND NATIONAL CODES.
- CONNECT INCOMING POWER LEADS FROM POWER SUPPLY TO L1, AND L3 IN COMPRESSOR CONTACTOR (L1 AND L2 IF TWO POLE CONTACTOR) OR TO L1 AND L3 IN DISCONNECT SWITCH (IF PROVIDED). USE COPPER CONDUCTORS ONLY. (EMPLOYER DES CONDUCTEURS DE CUIVRE SEULEMENT.) PROVIDE EQUIPMENT GROUNDING CONDUCTOR. USE 75°C (MIN.) WIRING.
- PLACE JUMPER ACROSS P1 AND L1 IN TERMINAL BOARD IF NO OTHER CONTROLLING DEVICE IS INSTALLED.
- DEFROST HEATERS LOADS SHOULD NOT BE HIGHER THEN THE MAXIMUM HEATERS LOAD INDICATED ON THE UNIT LABEL.

GENERAL NOTES:

- CONTACTOR COIL CIRCUIT IS FACTORY CONNECTED TO 230V SOURCE IN PANEL AS SHOWN
- WITH ANY T.P.Co. APPROVED START RELAY USED, CONNECT LEADS TO SAME NUMBERED TERMINALS REGARDLESS OF LOCATION
- COMPRESSOR EQUIPPED WITH AN INTERNAL OVERLOAD PROTECTOR. ALLOW TIME FOR RESET.

LP LOW PRESSURE CONTROL

HP HIGH PRESSURE SWITCH

FACTORY COMPONENTS

OPTIONAL FACTORY COMPONENTS

OPTIONAL FIELD COMPONENTS

CONDENSING UNIT WIRING, 230V 60Hz 1 Ph, REMOTE CONDENSER, T1 & T2 defrost options

**A** REVISION  
DATE: 22, 2004  
**WD21-RT2**