

Heating Check Chart

HEAT PUMP CHARGING INSTRUCTIONS																
For use with units using R-410A refrigerant																
FIELD OPERATING PRESSURE CHARGING TABLE FIXED RESTRICTOR (HIGH PRESSURE @ VAPOR VALVE, SUCTION PRESSURE @ SUCTION SERVICE PORT)					REQUIRED LIQUID LINE TEMPERATURE											
UNIT	INDOOR DRY BULB	OUTDOOR TEMP. °F DRY BULB/WET BULB								Liquid Pressure at Service Valve (PSIG)	Required Subcooling Temperature (°F)					
			60/57	50/47	40/38	30/28	20/18	10/9	0/-1		6	8	10	12	14	16
024	60°	HIGH	430	379	329	299	268	252	237	251	78	76	74	72	70	68
		SUCT	146	124	103	86	69	58	46	269	80	78	76	74	72	70
	70°	HIGH	461	412	364	334	304	286	268	266	82	80	78	76	74	72
		SUCT	145	124	103	87	70	58	46	274	84	82	80	78	76	74
	80°	HIGH	490	447	404	372	341	322	302	283	86	84	82	80	78	76
		SUCT	144	124	104	87	70	58	46	291	88	86	84	82	80	78
036	60°	HIGH	349	320	292	272	251	237	222	299	90	88	86	84	82	80
		SUCT	124	108	91	78	64	52	40	308	92	90	88	86	84	82
	70°	HIGH	400	363	326	306	286	271	255	317	94	92	90	88	86	84
		SUCT	134	113	91	78	65	53	41	326	96	94	92	90	88	86
	80°	HIGH	443	409	375	350	325	308	290	335	98	96	94	92	90	88
		SUCT	135	116	98	81	65	53	42	345	100	98	96	94	92	90
048	60°	HIGH	395	351	306	279	252	234	216	354	102	100	98	96	94	92
		SUCT	122	103	83	69	55	41	26	364	104	102	100	98	96	94
	70°	HIGH	436	392	348	317	285	267	250	374	106	104	102	100	98	96
		SUCT	125	106	87	71	54	41	28	384	108	106	104	102	100	98
	80°	HIGH	490	446	401	362	322	305	287	395	110	108	106	104	102	100
		SUCT	128	111	93	74	54	42	30	406	112	110	108	106	104	102
060	60°	HIGH	292	274	255	240	225	214	202	416	114	112	110	108	106	104
		SUCT	126	113	100	85	70	59	48	427	116	114	112	110	108	106
	70°	HIGH	333	312	290	274	258	245	232	439	118	116	114	112	110	108
		SUCT	132	117	101	86	71	60	49	450	120	118	116	114	112	110
	80°	HIGH	370	347	324	310	296	280	263	462	122	120	118	116	114	112
		SUCT	135	119	102	87	72	61	50	474	124	122	120	118	116	114

CAUTION


- Compressor damage may occur if system is over-charged.
- Carefully recover refrigerant from this unit before final disposal or when servicing.
- Never vent refrigerant to atmosphere. Use approved recovery equipment.
- Wear safety glasses and gloves when handling refrigerant.

OPERATION

To check system operation during Heating or Cooling cycle use the appropriate table. Table indicates whether a correct relationship exists between system operating pressure and air temperature entering indoor and outdoor units. If pressure and temperature do not match on chart, system refrigerant charge may not be correct or other system abnormalities may exist. Do not use table to adjust refrigerant charge. When charging is necessary during heating season, weigh in total charge as indicated on unit rating plate. Rating plate charge is for systems with 15 ft. of line-set. Adjust charge 0.6 oz of refrigerant per foot of 3/8" liquid connecting tubing. Remove any refrigerant remaining in system before recharging if the system has lost complete charge, evacuate and recharge by weight.

COOLING ONLY CHARGING PROCEDURE

- Only use subcooling charging method when OD ambient is greater than 70°F and less than 100°F, indoor temp is greater than 70°F and less than 80°F, and line set is less than 80 ft.
- Operate unit a minimum of 15 minutes before checking the charge.
- Measure liquid service valve pressure by attaching an accurate gauge to the service port.
- Measure the liquid line temperature by attaching an accurate thermistor type or electronic thermometer to the liquid line near the outdoor coil.
- Refer to unit rating plate for required subcooling temperature.
- Find the point where the required subcooling temperature intersects the measured liquid service valve pressure.
- To obtain the required subcooling temperature at specific liquid line pressure, add refrigerant if liquid line temperature is higher than indicated. When adding refrigerant, charge in liquid form using a flow restricting device into suction service port. Recover refrigerant if temperature is lower. Allow a tolerance of +/- 3°F.



338306-101 REV. A

Fig. 1 – PH16NA 2 - 5 Tons

