



# TQZ-LINE CONDENSING UNITS

## PRODUCT DATA & SPECIFICATIONS

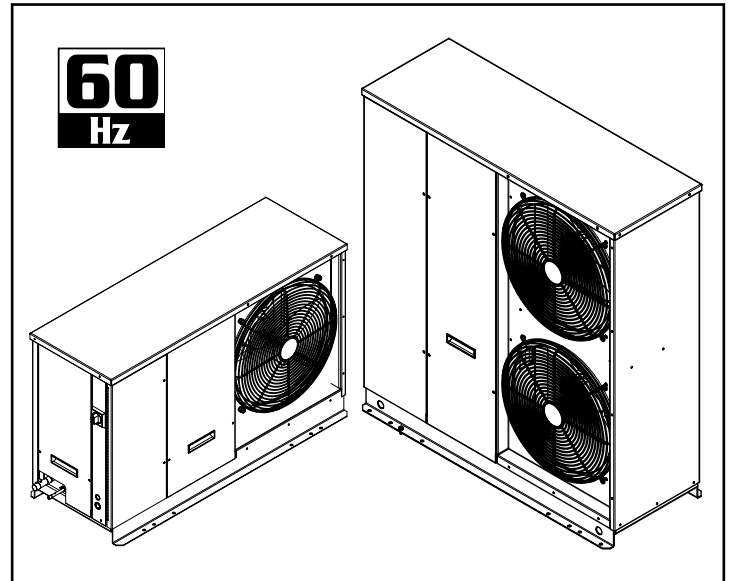


**OUTDOOR  
AIR COOLED  
SCROLL CONDENSING UNITS**

**1 TO 6 HP  
HIGH, MEDIUM AND LOW  
TEMPERATURE REFRIGERATION**

Bulletin T40-TQZ-PDS-4

1090651

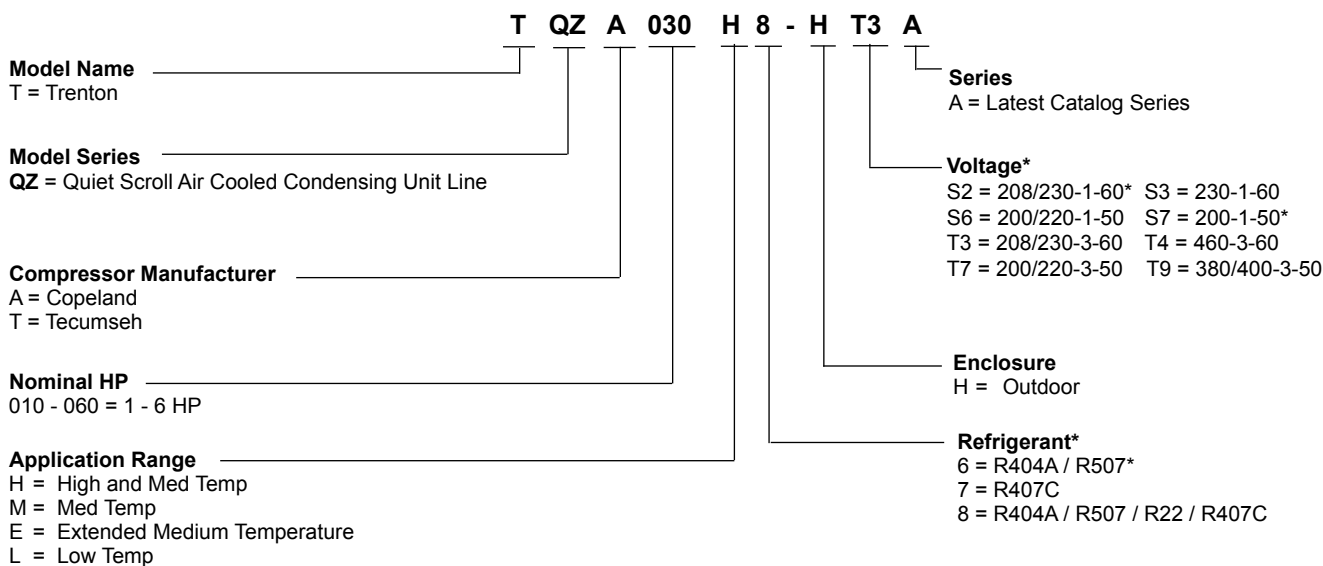


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# NOMENCLATURE



\* subject to compressor availability

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## STANDARD FEATURES

- Copeland or Tecumseh Scroll compressors
  - Heavy duty weatherproof construction
    - Painted cabinet
- High efficiency enhanced tube and fin condenser design
  - Gold Coat™ fins
- High efficiency variable speed EC motor as head pressure control
  - Receiver with fusible plug and liquid shut-off valve
    - Liquid injection (low temperature models)
- Adjustable low pressure control and fixed high pressure control
  - Crankcase heater
  - Time delay relay
- Discharge thermostat on applicable models only

## OPTIONAL ACCESSORIES

- Sealed liquid line filter drier and sight glass
  - Suction accumulator
  - Sealed suction filter
- Heated and insulated receiver - required in ambients below 10°F
  - Non-fused disconnect switch
  - Pump down toggle switch
  - Mechanical time clock
- Sound insulated compressor compartment \*
  - Wall mount kit
  - Oil separator (2 fan models only)
- QuickVac evacuation and refrigerant recovery valves

\* see sound data table on page 15

# OPTIONAL FEATURE PACKAGES

## (Factory Mounted)

### Package A:

- Standard Features (see pg. 2)

### Package B:

- Standard Features (see pg. 2)
- *Plus* Sealed Liquid Line Filter Drier & Sight Glass

### Package C:

- Standard Features (see pg. 2)
- *Plus* Sealed Liquid Line Filter Drier & Sight Glass
- *Plus* Suction Accumulator
- *Plus* Mechanical Time Clock

### Package D:

- Standard Features (see pg. 2)
- *Plus* Sealed Liquid Line Filter Drier & Sight Glass
- *Plus* Heated and Insulated Receiver  
(required in ambients below 10°F)

### Package E:

- Standard Features (see pg. 2)
- *Plus* Sealed Liquid Line Filter Drier & Sight Glass
- *Plus* Heated and Insulated Receiver  
(required in ambients below 10°F)
- *Plus* Suction Accumulator
- *Plus* Mechanical Time Clock

### Package F:

- Standard Features (see pg. 2)
- *Plus* Sealed Liquid Line Filter Drier & Sight Glass
- *Plus* Mechanical Time Clock

### Package G:

- Standard Features (see pg. 2)
- *Plus* Sealed Liquid Line Filter Drier & Sight Glass
- *Plus* Heated and Insulated Receiver  
(required in ambients below 10°F)
- *Plus* Mechanical Time Clock

### Package H:

- Standard Features (see pg. 2)
- *Plus* Sealed Liquid Line Filter Drier & Sight Glass
- *Plus* Suction Accumulator
- *Plus* Heated and Insulated Receiver  
(required in ambients below 10°F)

### Package J:

- Standard Features (see pg. 2)
- *Plus* Sealed Liquid Line Filter Drier & Sight Glass
- *Plus* Compressor Compartment Sound Insulation

### Package K:

- Standard Features (see pg. 2)
- *Plus* Sealed Liquid Line Filter Drier & Sight Glass
- *Plus* Compressor Compartment Sound Insulation
- *Plus* Mechanical Time Clock



MODEL	SATURATED SUCTION TEMP. ° F ° C	CAPACITY BTU/H (WATTS) <b>R407C</b> AMBIENT TEMPERATURE °F (°C)							
		80 (26.6)	85 (29.4)	90 (32.2)	95 (35.0)	100 (37.8)	105 (40.6)	110 (43.3)	
TQZA020H8 Compressor Model ZB15KCE	45 (7.2)	27500 (8060)	26700 (7820)	25900 (7590)	25000 (7330)	24200 (7090)	23300 (6830)	22400 (6560)	
	40 (4.4)	25200 (7390)	24400 (7150)	23700 (6950)	22900 (6710)	22100 (6480)	21300 (6240)	20400 (5980)	
	35 (1.7)	23000 (6740)	22300 (6540)	21600 (6330)	20900 (6130)	20100 (5890)	19300 (5660)	18500 (5420)	
	30 (-1.1)	20900 (6130)	20200 (5920)	19600 (5740)	18900 (5540)	18200 (5330)	17500 (5130)	16800 (4920)	
	25 (-3.9)	18900 (5540)	18300 (5360)	17700 (5190)	17100 (5010)	16500 (4840)	15800 (4630)	15100 (4430)	
	20 (-6.7)	17100 (5010)	16500 (4840)	16000 (4690)	15400 (4510)	14800 (4340)	14200 (4160)	13500 (3960)	
	15 (-9.4)	15400 (4510)	14900 (4370)	14400 (4220)	13800 (4040)	13300 (3900)	12700 (3720)	12100 (3550)	
	10 (-12.2)	13800 (4040)	13300 (3900)	12800 (3750)	12300 (3600)	11800 (3460)	11300 (3310)	10700 (3140)	
TQZA025H8 Compressor Model ZB19KCE	45 (7.2)	30100 (8820)	29200 (8560)	28200 (8260)	27200 (7970)	26100 (7650)	25000 (7330)	23900 (7000)	
	40 (4.4)	27400 (8030)	26600 (7800)	25700 (7530)	24700 (7240)	23800 (6980)	22800 (6680)	21700 (6360)	
	35 (1.7)	24800 (7270)	24100 (7060)	23200 (6800)	22400 (6560)	21500 (6300)	20600 (6040)	19700 (5770)	
	30 (-1.1)	22400 (6560)	21700 (6360)	21000 (6150)	20200 (5920)	19400 (5690)	18600 (5450)	17800 (5220)	
	25 (-3.9)	20100 (5890)	19500 (5710)	18800 (5510)	18100 (5300)	17500 (5130)	16700 (4890)	16000 (4690)	
	20 (-6.7)	18000 (5280)	17400 (5100)	16800 (4920)	16200 (4750)	15600 (4570)	15000 (4400)	14400 (4220)	
	15 (-9.4)	16000 (4690)	15500 (4540)	15000 (4400)	14400 (4220)	13900 (4070)	13400 (3930)	12800 (3750)	
	10 (-12.2)	14200 (4160)	13700 (4020)	13300 (3900)	12800 (3750)	12400 (3630)	11900 (3490)	11400 (3340)	
TQZA030H8 Compressor Model ZB21KCE	45 (7.2)	37800 (11080)	36600 (10730)	35400 (10370)	34100 (9990)	32800 (9610)	31400 (9200)	30100 (8820)	
	40 (4.4)	34600 (10140)	33500 (9820)	32400 (9500)	31200 (9140)	30000 (8790)	28800 (8440)	27500 (8060)	
	35 (1.7)	31600 (9260)	30600 (8970)	29500 (8650)	28500 (8350)	27400 (8030)	26300 (7710)	25100 (7360)	
	30 (-1.1)	28700 (8410)	27800 (8150)	26800 (7850)	25900 (7590)	24900 (7300)	23900 (7000)	22800 (6680)	
	25 (-3.9)	26000 (7620)	25200 (7390)	24300 (7120)	23400 (6860)	22500 (6590)	21600 (6330)	20700 (6070)	
	20 (-6.7)	23400 (6860)	22700 (6650)	21900 (6420)	21100 (6180)	20300 (5950)	19500 (5710)	18700 (5480)	
	15 (-9.4)	21100 (6180)	20400 (5980)	19700 (5770)	19000 (5570)	18300 (5360)	17500 (5130)	16800 (4920)	
	10 (-12.2)	18800 (5510)	18200 (5330)	17600 (5160)	17000 (4980)	16300 (4780)	15700 (4600)	15000 (4400)	
TQZA035H8 Compressor Model ZB26KCE	45 (7.2)	47100 (13800)	45800 (13420)	44400 (13010)	43100 (12630)	41600 (12190)	40100 (11750)	38500 (11280)	
	40 (4.4)	43300 (12690)	42100 (12340)	40800 (11960)	39500 (11580)	38100 (11170)	36600 (10730)	35100 (10290)	
	35 (1.7)	39500 (11580)	38400 (11250)	37200 (10900)	35900 (10520)	34600 (10140)	33200 (9730)	31800 (9320)	
	30 (-1.1)	35800 (10490)	34700 (10170)	33600 (9850)	32500 (9520)	31200 (9140)	30000 (8790)	28600 (8380)	
	25 (-3.9)	32300 (9470)	31300 (9170)	30300 (8880)	29200 (8560)	28000 (8210)	26800 (7850)	25600 (7500)	
	20 (-6.7)	29000 (8500)	28100 (8240)	27100 (7940)	26100 (7650)	25100 (7360)	24000 (7030)	22900 (6710)	
	15 (-9.4)	26100 (7650)	25200 (7390)	24400 (7150)	23500 (6890)	22500 (6590)	21500 (6300)	20500 (6010)	
	10 (-12.2)	23500 (6890)	22800 (6680)	22000 (6450)	21200 (6210)	20400 (5980)	19500 (5710)	18600 (5450)	
TQZA040H8 Compressor Model ZB30KCE	45 (7.2)	53300 (15620)	51900 (15210)	50500 (14800)	49000 (14360)	47400 (13890)	45800 (13420)	44200 (12950)	
	40 (4.4)	48600 (14240)	47300 (13860)	46000 (13480)	44600 (13070)	43100 (12630)	41700 (12220)	40200 (11780)	
	35 (1.7)	44200 (12950)	43000 (12600)	41700 (12220)	40400 (11840)	39100 (11460)	37800 (11080)	36400 (10670)	
	30 (-1.1)	40000 (11720)	38900 (11400)	37700 (11050)	36600 (10730)	35400 (10370)	34100 (9990)	32900 (9640)	
	25 (-3.9)	36100 (10580)	35100 (10290)	34000 (9960)	33000 (9670)	31900 (9350)	30700 (9000)	29600 (8670)	
	20 (-6.7)	32500 (9520)	31600 (9260)	30600 (8970)	29600 (8670)	28600 (8380)	27600 (8090)	26500 (7770)	
	15 (-9.4)	29100 (8530)	28300 (8290)	27400 (8030)	26500 (7770)	25600 (7500)	24600 (7210)	23700 (6950)	
	10 (-12.2)	26100 (7650)	25300 (7410)	24400 (7150)	23600 (6920)	22800 (6680)	21900 (6420)	21100 (6180)	
TQZA050H8 Compressor Model ZB38KCE	45 (7.2)	65700 (19250)	64100 (18790)	62300 (18260)	60400 (17700)	58500 (17140)	56400 (16530)	54300 (15910)	
	40 (4.4)	60300 (17670)	58700 (17200)	57100 (16730)	55300 (16210)	53500 (15680)	51600 (15120)	49700 (14570)	
	35 (1.7)	55100 (16150)	53600 (15710)	52100 (15270)	50500 (14800)	48800 (14300)	47000 (13770)	45200 (13250)	
	30 (-1.1)	50100 (14680)	48800 (14300)	47300 (13860)	45800 (13420)	44300 (12980)	42700 (12510)	41000 (12020)	
	25 (-3.9)	45500 (13330)	44200 (12950)	42900 (12570)	41500 (12160)	40100 (11750)	38600 (11310)	37100 (10870)	
	20 (-6.7)	41100 (12050)	39900 (11690)	38700 (11340)	37400 (10960)	36100 (10580)	34800 (10200)	33500 (9820)	
	15 (-9.4)	36900 (10810)	35900 (10520)	34800 (10200)	33600 (9850)	32500 (9520)	31300 (9170)	30100 (8820)	
	10 (-12.2)	33100 (9700)	32200 (9440)	31200 (9140)	30100 (8820)	29100 (8530)	28100 (8240)	27000 (7910)	
TQZA060H8 Compressor Model ZB45KCE	45 (7.2)	75600 (22160)	73600 (21570)	71500 (20950)	69300 (20310)	67100 (19660)	64800 (18990)	62400 (18290)	
	40 (4.4)	69100 (20250)	67300 (19720)	65400 (19170)	63400 (18580)	61300 (17970)	59200 (17350)	57000 (16700)	
	35 (1.7)	63000 (18460)	61300 (17970)	59600 (17470)	57800 (16940)	55900 (16380)	53900 (15800)	51900 (15210)	
	30 (-1.1)	57300 (16790)	55800 (16350)	54200 (15880)	52500 (15390)	50800 (14890)	49000 (14360)	47100 (13800)	
	25 (-3.9)	52000 (15240)	50600 (14830)	49100 (14390)	47600 (13950)	45900 (13450)	44300 (12980)	42600 (12480)	
	20 (-6.7)	47000 (13770)	45700 (13390)	44300 (12980)	42900 (12570)	41400 (12130)	39900 (11690)	38300 (11220)	
	15 (-9.4)	42400 (12430)	41100 (12050)	39800 (11660)	38500 (11280)	37100 (10870)	35700 (10460)	34200 (10020)	
	10 (-12.2)	38000 (11140)	36800 (10780)	35600 (10430)	34400 (10080)	33100 (9700)	31800 (9320)	30400 (8910)	

**NOTE:** The capacities shown above are rated at dew point. The dew point is a saturation point and is the condition (pressure and temperature) at which a gas begins to condense. Since R407C has significant glide, the saturated gas and saturated liquid temperatures are not the same. It is important that all components of a system are selected correctly

MODEL	SATURATED SUCTION TEMP. F° (C°)	CAPACITY BTU/H (WATTS) <b>R404A R507</b> AMBIENT TEMPERATURE °F (°C)								
		80 (26.6)	85 (29.4)	90 (32.2)	95 (35.0)	100 (37.8)	105 (40.6)	110 (43.3)		
TQZA010M6  Compressor Model ZB10KCE	40 (4.4)	18670 (5470)	17930 (5253)	17180 (5034)	16400 (4805)	15610 (4574)	14810 (4339)	13980 (4096)		
	35 (1.7)	17160 (5028)	16470 (4826)	15790 (4626)	15080 (4418)	14350 (4205)	13610 (3988)	12840 (3762)		
	30 (-1.1)	15730 (4609)	15110 (4427)	14470 (4240)	13830 (4052)	13160 (3856)	12470 (3654)	11770 (3449)		
	25 (-3.9)	14370 (4210)	13810 (4046)	13230 (3876)	12640 (3704)	12030 (3525)	11410 (3343)	10760 (3153)		
	20 (-6.7)	13090 (3835)	12590 (3689)	12060 (3534)	11530 (3378)	10970 (3214)	10410 (3050)	9810 (2874)		
	15 (-9.4)	11900 (3487)	11430 (3349)	10960 (3211)	10480 (3071)	9980 (2924)	9450 (2769)	8900 (2608)		
	10 (-12.2)	10770 (3156)	10360 (3035)	9930 (2909)	9490 (2781)	9040 (2649)	8560 (2508)	8060 (2362)		
	5 (-15)	9710 (2845)	9350 (2740)	8970 (2628)	8570 (2511)	8160 (2391)	7720 (2262)	7270 (2130)		
	0 (-17.8)	8740 (2561)	8400 (2461)	8060 (2362)	7700 (2256)	7330 (2148)	6930 (2030)	6510 (1907)		
	-5 (-20.6)	7810 (2288)	7520 (2203)	7210 (2113)	6890 (2019)	6540 (1916)	6180 (1811)	5800 (1699)		
TQZA011M6  Compressor Model ZB11KCE	40 (4.4)	20880 (6118)	20080 (5883)	19260 (5643)	18430 (5400)	17580 (5151)	16710 (4896)	15810 (4632)		
	35 (1.7)	19180 (5620)	18450 (5406)	17690 (5183)	16940 (4963)	16150 (4732)	15350 (4498)	14530 (4257)		
	30 (-1.1)	17580 (5151)	16910 (4955)	16220 (4752)	15520 (4547)	14810 (4339)	14070 (4123)	13300 (3897)		
	25 (-3.9)	16050 (4703)	15450 (4527)	14830 (4345)	14190 (4158)	13530 (3964)	12850 (3765)	12150 (3560)		
	20 (-6.7)	14630 (4287)	14080 (4125)	13510 (3958)	12930 (3788)	12330 (3613)	11700 (3428)	11050 (3238)		
	15 (-9.4)	13280 (3891)	12790 (3747)	12270 (3595)	11740 (3440)	11180 (3276)	10610 (3109)	10010 (2933)		
	10 (-12.2)	12020 (3522)	11570 (3390)	11100 (3252)	10620 (3112)	10100 (2959)	9570 (2804)	9010 (2640)		
	5 (-15)	10840 (3176)	10430 (3056)	10000 (2930)	9540 (2795)	9070 (2658)	8580 (2514)	8050 (2359)		
	0 (-17.8)	9710 (2845)	9350 (2740)	8950 (2622)	8540 (2502)	8100 (2373)	7630 (2236)	7140 (2092)		
	-5 (-20.6)	8670 (2540)	8330 (2441)	7960 (2332)	7570 (2218)	7160 (2098)	6720 (1969)	6250 (1831)		
TQZA015M6  Compressor Model ZB13KCE	40 (4.4)	24910 (7299)	23910 (7006)	22890 (6707)	21830 (6396)	20730 (6074)	19590 (5740)	18410 (5394)		
	35 (1.7)	22920 (6716)	22000 (6446)	21050 (6168)	20060 (5878)	19040 (5579)	17970 (5265)	16850 (4937)		
	30 (-1.1)	21030 (6162)	20180 (5913)	19300 (5655)	18380 (5385)	17420 (5104)	16410 (4808)	15360 (4500)		
	25 (-3.9)	19240 (5637)	18450 (5406)	17630 (5166)	16770 (4914)	15880 (4653)	14930 (4374)	13930 (4081)		
	20 (-6.7)	17540 (5139)	16810 (4925)	16040 (4700)	15250 (4468)	14400 (4219)	13500 (3956)	12560 (3680)		
	15 (-9.4)	15920 (4665)	15250 (4468)	14540 (4260)	13790 (4040)	12990 (3806)	12150 (3560)	11250 (3296)		
	10 (-12.2)	14390 (4216)	13770 (4035)	13100 (3838)	12390 (3630)	11630 (3408)	10840 (3176)	9980 (2924)		
	5 (-15)	12940 (3791)	12350 (3619)	11730 (3437)	11060 (3241)	10340 (3030)	9570 (2804)	8740 (2561)		
	0 (-17.8)	11560 (3387)	11000 (3223)	10420 (3053)	9780 (2866)	9080 (2660)	8340 (2444)	7530 (2206)		
	-5 (-20.6)	10240 (3000)	9710 (2845)	9150 (2681)	8530 (2499)	7860 (2303)	7140 (2092)	6350 (1861)		



MODEL	SATURATED SUCTION TEMP. F° (C°)	CAPACITY BTU/H (WATTS) R404A R507 AMBIENT TEMPERATURE °F (°C)								
		80 (26.6)	85 (29.4)	90 (32.2)	95 (35.0)	100 (37.8)	105 (40.6)	110 (43.3)		
TQZT010M6 Compressor Model VSA9490Z	40 (4.4)	18100 (5300)	17400 (5100)	16700 (4890)	16000 (4690)	15200 (4450)	14500 (4250)	13800 (4040)		
	35 (1.7)	16600 (4860)	16000 (4690)	15300 (4480)	14600 (4280)	14000 (4100)	13300 (3900)	12600 (3690)		
	30 (-1.1)	15200 (4450)	14600 (4280)	14000 (4100)	13400 (3930)	12800 (3750)	12200 (3580)	11500 (3370)		
	25 (-3.9)	13900 (4070)	13400 (3930)	12800 (3750)	12200 (3580)	11700 (3430)	11100 (3250)	10500 (3080)		
	20 (-6.7)	12700 (3720)	12200 (3580)	11700 (3430)	11200 (3280)	10600 (3110)	10100 (2960)	9600 (2810)		
	15 (-9.4)	11500 (3370)	11000 (3220)	10600 (3110)	10100 (2960)	9670 (2830)	9210 (2700)	8730 (2560)		
	10 (-12.2)	10400 (3050)	10000 (2930)	9600 (2810)	9190 (2690)	8780 (2570)	8360 (2450)	7930 (2320)		
	5 (-15)	9350 (2740)	9000 (2640)	8650 (2540)	8300 (2430)	7940 (2330)	7560 (2220)	7170 (2100)		
	0 (-17.8)	8360 (2450)	8070 (2370)	7770 (2280)	7470 (2190)	7150 (2100)	6810 (2000)	6480 (1900)		
TQZT011M6 Compressor Model VSA9510Z	40 (4.4)	20200 (5920)	19400 (5690)	18500 (5420)	17700 (5190)	16900 (4950)	16100 (4720)	15300 (4480)		
	35 (1.7)	18700 (5480)	17900 (5250)	17100 (5010)	16300 (4780)	15500 (4540)	14800 (4340)	14000 (4100)		
	30 (-1.1)	17300 (5070)	16500 (4840)	15800 (4630)	15000 (4400)	14300 (4190)	13600 (3990)	12900 (3780)		
	25 (-3.9)	15900 (4660)	15200 (4450)	14500 (4250)	13800 (4040)	13100 (3840)	12500 (3660)	11800 (3460)		
	20 (-6.7)	14600 (4280)	14000 (4100)	13300 (3900)	12700 (3720)	12000 (3520)	11400 (3340)	10800 (3170)		
	15 (-9.4)	13300 (3900)	12700 (3720)	12100 (3550)	11600 (3400)	11000 (3220)	10400 (3050)	9890 (2900)		
	10 (-12.2)	12000 (3520)	11500 (3370)	11000 (3220)	10500 (3080)	9960 (2920)	9470 (2780)	8980 (2630)		
	5 (-15)	10600 (3110)	10200 (2990)	9790 (2870)	9350 (2740)	8910 (2610)	8490 (2490)	8070 (2370)		
	0 (-17.8)	9230 (2710)	8880 (2600)	8540 (2500)	8190 (2400)	7840 (2300)	7490 (2200)	7140 (2090)		
TQZT015M6 Compressor Model VSA9512Z	40 (4.4)	23400 (6860)	22500 (6590)	21600 (6330)	20700 (6070)	19800 (5800)	18800 (5510)	17800 (5220)		
	35 (1.7)	21500 (6300)	20700 (6070)	19900 (5830)	19100 (5600)	18200 (5330)	17400 (5100)	16500 (4840)		
	30 (-1.1)	19700 (5770)	19000 (5570)	18300 (5360)	17500 (5130)	16800 (4920)	16000 (4690)	15200 (4450)		
	25 (-3.9)	18000 (5280)	17400 (5100)	16700 (4890)	16000 (4690)	15400 (4510)	14600 (4280)	13900 (4070)		
	20 (-6.7)	16400 (4810)	15800 (4630)	15200 (4450)	14600 (4280)	14000 (4100)	13400 (3930)	12700 (3720)		
	15 (-9.4)	14900 (4370)	14400 (4220)	13900 (4070)	13300 (3900)	12800 (3750)	12200 (3580)	11600 (3400)		
	10 (-12.2)	13500 (3960)	13000 (3810)	12600 (3690)	12100 (3550)	11600 (3400)	11100 (3250)	10600 (3110)		
	5 (-15)	12200 (3580)	11800 (3460)	11400 (3340)	11000 (3220)	10500 (3080)	10000 (2930)	9560 (2800)		
	0 (-17.8)	11000 (3220)	10700 (3140)	10300 (3020)	9900 (2900)	9490 (2780)	9060 (2660)	8630 (2530)		
TQZT020M6 Compressor Model VSA9514Z	40 (4.4)	27700 (8120)	26800 (7850)	25900 (7590)	25100 (7360)	24200 (7090)	23300 (6830)	22500 (6590)		
	35 (1.7)	25300 (7410)	24500 (7180)	23700 (6950)	22800 (6680)	22000 (6450)	21200 (6210)	20400 (5980)		
	30 (-1.1)	23100 (6770)	22300 (6540)	21600 (6330)	20800 (6100)	20000 (5860)	19200 (5630)	18500 (5420)		
	25 (-3.9)	21100 (6180)	20300 (5950)	19600 (5740)	18900 (5540)	18200 (5330)	17400 (5100)	16700 (4890)		
	20 (-6.7)	19200 (5630)	18500 (5420)	17800 (5220)	17100 (5010)	16500 (4840)	15800 (4630)	15100 (4430)		
	15 (-9.4)	17400 (5100)	16800 (4920)	16200 (4750)	15500 (4540)	14900 (4370)	14300 (4190)	13600 (3990)		
	10 (-12.2)	15800 (4630)	15200 (4450)	14700 (4310)	14100 (4130)	13500 (3960)	12900 (3780)	12300 (3600)		
	5 (-15)	14300 (4190)	13800 (4040)	13300 (3900)	12800 (3750)	12300 (3600)	11700 (3430)	11200 (3280)		
	0 (-17.8)	13000 (3810)	12500 (3660)	12100 (3550)	11600 (3400)	11100 (3250)	10600 (3110)	10100 (2960)		
TQZT025M6 Compressor Model VSA9517Z	40 (4.4)	32100 (9410)	31000 (9090)	29800 (8730)	28600 (8380)	27400 (8030)	26100 (7650)	24800 (7270)		
	35 (1.7)	29600 (8670)	28500 (8350)	27500 (8060)	26400 (7740)	25200 (7390)	24100 (7060)	22900 (6710)		
	30 (-1.1)	27300 (8000)	26300 (7710)	25300 (7410)	24300 (7120)	23200 (6800)	22100 (6480)	21000 (6150)		
	25 (-3.9)	25100 (7360)	24200 (7090)	23300 (6830)	22300 (6540)	21400 (6270)	20400 (5980)	19300 (5660)		
	20 (-6.7)	23100 (6770)	22200 (6510)	21400 (6270)	20500 (6010)	19600 (5740)	18700 (5480)	17800 (5220)		
	15 (-9.4)	21100 (6180)	20400 (5980)	19600 (5740)	18800 (5510)	18000 (5280)	17200 (5040)	16300 (4780)		
	10 (-12.2)	19300 (5660)	18600 (5450)	17900 (5250)	17200 (5040)	16500 (4840)	15700 (4600)	14900 (4370)		
	5 (-15)	17600 (5160)	16900 (4950)	16300 (4780)	15700 (4600)	15000 (4400)	14300 (4190)	13600 (3990)		
	0 (-17.8)	15900 (4660)	15300 (4480)	14800 (4340)	14200 (4160)	13600 (3990)	13000 (3810)	12400 (3630)		
TQZT030M6 Compressor Model VSA9512Z	40 (4.4)	37500 (10990)	36100 (10580)	34700 (10170)	33200 (9730)	31700 (9290)	30100 (8820)	28500 (8350)		
	35 (1.7)	34800 (10200)	33600 (9850)	32300 (9470)	30900 (9060)	29500 (8650)	28100 (8240)	26600 (7800)		
	30 (-1.1)	32200 (9440)	31100 (9110)	29900 (8760)	28700 (8410)	27400 (8030)	26100 (7650)	24800 (7270)		
	25 (-3.9)	29700 (8700)	28700 (8410)	27700 (8120)	26600 (7800)	25400 (7440)	24200 (7090)	23000 (6740)		
	20 (-6.7)	27300 (8000)	26400 (7740)	25500 (7470)	24500 (7180)	23500 (6890)	22400 (6560)	21200 (6210)		
	15 (-9.4)	25000 (7330)	24200 (7090)	23400 (6860)	22500 (6590)	21600 (6330)	20600 (6040)	19600 (5740)		
	10 (-12.2)	22900 (6710)	22200 (6510)	21400 (6270)	20600 (6040)	19800 (5800)	18900 (5540)	17900 (5250)		
	5 (-15)	20800 (6100)	20200 (5920)	19500 (5710)	18800 (5510)	18000 (5280)	17200 (5040)	16300 (4780)		
	0 (-17.8)	18800 (5510)	18200 (5330)	17700 (5190)	17000 (4980)	16300 (4780)	15600 (4570)	14800 (4340)		

table continues on next page >>>



MODEL	SATURATED SUCTION TEMP. F° (C°)	CAPACITY BTU/H (WATTS) R404A R507								AMBIENT TEMPERATURE °F (°C)	
		80 (26.6)	85 (29.4)	90 (32.2)	95 (35.0)	100 (37.8)	105 (40.6)	110 (43.3)			
TQZT035M6 Compressor Model VSA9524Z	40 (4.4)	44700 (13100)	43000 (12600)	41300 (12100)	39500 (11580)	37800 (11080)	36100 (10580)	34300 (10050)			
	35 (1.7)	41600 (12190)	40000 (11720)	38400 (11250)	36800 (10780)	35100 (10290)	33500 (9820)	31900 (9350)			
	30 (-1.1)	38500 (11280)	37000 (10840)	35500 (10400)	34000 (9960)	32500 (9520)	31000 (9090)	29500 (8650)			
	25 (-3.9)	35400 (10370)	34000 (9960)	32700 (9580)	31300 (9170)	29900 (8760)	28500 (8350)	27100 (7940)			
	20 (-6.7)	32400 (9500)	31200 (9140)	29900 (8760)	28600 (8380)	27400 (8030)	26100 (7650)	24800 (7270)			
	15 (-9.4)	29500 (8650)	28400 (8320)	27200 (7970)	26100 (7650)	24900 (7300)	23800 (6980)	22600 (6620)			
	10 (-12.2)	26700 (7820)	25700 (7530)	24700 (7240)	23700 (6950)	22600 (6620)	21600 (6330)	20600 (6040)			
	5 (-15)	24100 (7060)	23200 (6800)	22300 (6540)	21400 (6270)	20500 (6010)	19600 (5740)	18600 (5450)			
0 (-17.8)	21600 (6330)	20800 (6100)	20100 (5890)	19300 (5660)	18500 (5420)	17700 (5190)	16900 (4950)				
TQZT040M6 Compressor Model VSA9528Z	40 (4.4)	53800 (15770)	51700 (15150)	49600 (14540)	47500 (13920)	45300 (13280)	43200 (12660)	41000 (12020)			
	35 (1.7)	50000 (14650)	48000 (14070)	46100 (13510)	44100 (12920)	42100 (12340)	40000 (11720)	38000 (11140)			
	30 (-1.1)	46400 (13600)	44600 (13070)	42700 (12510)	40800 (11960)	39000 (11430)	37100 (10870)	35200 (10320)			
	25 (-3.9)	42900 (12570)	41200 (12070)	39500 (11580)	37800 (11080)	36000 (10550)	34300 (10050)	32500 (9520)			
	20 (-6.7)	39600 (11610)	38000 (11140)	36400 (10670)	34800 (10200)	33200 (9730)	31600 (9260)	30000 (8790)			
	15 (-9.4)	36300 (10640)	34900 (10230)	33400 (9790)	32000 (9380)	30500 (8940)	29100 (8530)	27600 (8090)			
	10 (-12.2)	33200 (9730)	31900 (9350)	30600 (8970)	29200 (8560)	27900 (8180)	26600 (7800)	25200 (7390)			
	5 (-15)	30100 (8820)	28900 (8470)	27700 (8120)	26600 (7800)	25400 (7440)	24200 (7090)	23000 (6740)			
0 (-17.8)	27000 (7910)	26000 (7620)	25000 (7330)	23900 (7000)	22900 (6710)	21800 (6390)	20700 (6070)				
TQZT050M6 Compressor Model VSA9536Z	40 (4.4)	64900 (19020)	62400 (18290)	59900 (17550)	57400 (16820)	54900 (16090)	52300 (15330)	49800 (14590)			
	35 (1.7)	60400 (17700)	58100 (17030)	55700 (16320)	53300 (15620)	51000 (14950)	48600 (14240)	46200 (13540)			
	30 (-1.1)	56000 (16410)	53800 (15770)	51600 (15120)	49400 (14480)	47200 (13830)	45000 (13190)	42700 (12510)			
	25 (-3.9)	51800 (15180)	49800 (14590)	47700 (13980)	45700 (13390)	43600 (12780)	41500 (12160)	39400 (11550)			
	20 (-6.7)	47700 (13980)	45800 (13420)	43900 (12870)	42000 (12310)	40100 (11750)	38200 (11200)	36200 (10610)			
	15 (-9.4)	43800 (12840)	42000 (12310)	40300 (11810)	38600 (11310)	36800 (10780)	35000 (10260)	33200 (9730)			
	10 (-12.2)	39900 (11690)	38400 (11250)	36800 (10780)	35200 (10320)	33600 (9850)	32000 (9380)	30400 (8910)			
	5 (-15)	36200 (10610)	34800 (10200)	33500 (9820)	32000 (9380)	30600 (8970)	29200 (8560)	27700 (8120)			
0 (-17.8)	32700 (9580)	31500 (9230)	30200 (8850)	29000 (8500)	27700 (8120)	26400 (7740)	25100 (7360)				
TQZT060M6 Compressor Model VSA9544Z	40 (4.4)	78400 (22980)	75300 (22070)	72100 (21130)	68900 (20190)	65600 (19230)	62300 (18260)	58900 (17260)			
	35 (1.7)	72700 (21310)	69900 (20490)	67000 (19640)	64100 (18790)	61100 (17910)	58000 (17000)	54900 (16090)			
	30 (-1.1)	67200 (19690)	64700 (18960)	62100 (18200)	59400 (17410)	56700 (16620)	53900 (15800)	51100 (14980)			
	25 (-3.9)	62000 (18170)	59700 (17500)	57300 (16790)	54900 (16090)	52400 (15360)	49900 (14620)	47300 (13860)			
	20 (-6.7)	57000 (16700)	54900 (16090)	52800 (15470)	50600 (14830)	48400 (14180)	46100 (13510)	43700 (12810)			
	15 (-9.4)	52300 (15330)	50400 (14770)	48500 (14210)	46500 (13630)	44400 (13010)	42300 (12400)	40200 (11780)			
	10 (-12.2)	47900 (14040)	46100 (13510)	44400 (13010)	42500 (12460)	40700 (11930)	38700 (11340)	36800 (10780)			
	5 (-15)	43700 (12810)	42100 (12340)	40400 (11840)	38700 (11340)	37000 (10840)	35300 (10350)	33500 (9820)			
0 (-17.8)	39800 (11660)	38300 (11220)	36700 (10760)	35100 (10290)	33500 (9820)	31900 (9350)	30200 (8850)				

**CAPACITY DATA - R404A R507**  
**LOW TEMPERATURE**

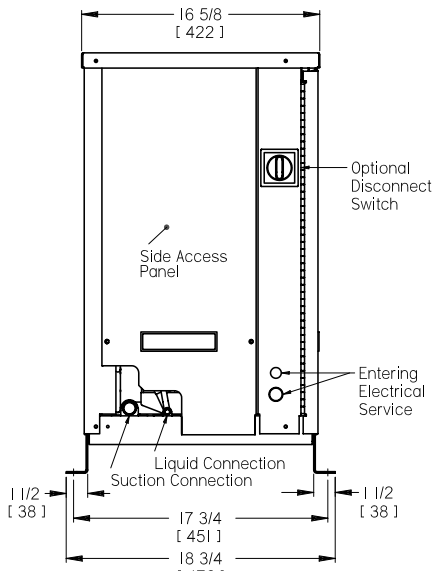
MODEL	SATURATED SUCTION TEMP. F° (C°)	CAPACITY BTU/H (WATTS) R404A R507 AMBIENT TEMPERATURE °F (°C)							
		80 (26.6)	85 (29.4)	90 (32.2)	95 (35.0)	100 (37.8)	105 (40.6)	110 (43.3)	
TQZT020L6 Compressor Model VSBG475Z	0 (-17.8)	13400 (3930)	12900 (3780)	12400 (3630)	11900 (3490)	11400 (3340)	10900 (3190)	10400 (3050)	
	-5 (-20.6)	12100 (3550)	11700 (3430)	11300 (3310)	10800 (3170)	10400 (3050)	9900 (2900)	9420 (2760)	
	-10 (-23.3)	10900 (3190)	10500 (3080)	10100 (2960)	9750 (2860)	9350 (2740)	8940 (2620)	8510 (2490)	
	-15 (-26.1)	9800 (2870)	9450 (2770)	9100 (2670)	8760 (2570)	8400 (2460)	8030 (2350)	7650 (2240)	
	-20 (-28.9)	8750 (2560)	8440 (2470)	8140 (2390)	7830 (2290)	7520 (2200)	7190 (2110)	6860 (2010)	
	-25 (-31.7)	7780 (2280)	7520 (2200)	7250 (2120)	6970 (2040)	6700 (1960)	6420 (1880)	6130 (1800)	
	-30 (-34.4)	6890 (2020)	6660 (1950)	6420 (1880)	6180 (1810)	5940 (1740)	5700 (1670)	5450 (1600)	
	-35 (-37.2)	6060 (1780)	5860 (1720)	5660 (1660)	5460 (1600)	5250 (1540)	5040 (1480)	4830 (1420)	
	-40 (-40.0)	5300 (1550)	5130 (1500)	4960 (1450)	4790 (1400)	4610 (1350)	4430 (1300)	4250 (1250)	
TQZT025L6 Compressor Model VSBG494Z	0 (-17.8)	15500 (4540)	15000 (4400)	14500 (4250)	13900 (4070)	13400 (3930)	12800 (3750)	12200 (3580)	
	-5 (-20.6)	14000 (4100)	13600 (3990)	13100 (3840)	12600 (3690)	12100 (3550)	11600 (3400)	11000 (3220)	
	-10 (-23.3)	12600 (3690)	12200 (3580)	11800 (3460)	11300 (3310)	10900 (3190)	10400 (3050)	9950 (2920)	
	-15 (-26.1)	11300 (3310)	11000 (3220)	10600 (3110)	10200 (2990)	9800 (2870)	9390 (2750)	8960 (2630)	
	-20 (-28.9)	10100 (2960)	9800 (2870)	9460 (2770)	9120 (2670)	8780 (2570)	8420 (2470)	8040 (2360)	
	-25 (-31.7)	9010 (2640)	8730 (2560)	8430 (2470)	8140 (2390)	7830 (2290)	7530 (2210)	7200 (2110)	
	-30 (-34.4)	7990 (2340)	7740 (2270)	7490 (2200)	7230 (2120)	6970 (2040)	6710 (1970)	6430 (1880)	
	-35 (-37.2)	7050 (2070)	6830 (2000)	6600 (1930)	6390 (1870)	6170 (1810)	5940 (1740)	5710 (1670)	
	-40 (-40.0)	6170 (1810)	5990 (1760)	5800 (1700)	5620 (1650)	5430 (1590)	5240 (1540)	5040 (1480)	
TQZT030L6 Compressor Model VSBG511Z	0 (-17.8)	18600 (5450)	17900 (5250)	17200 (5040)	16500 (4840)	15800 (4630)	15100 (4430)	14300 (4190)	
	-5 (-20.6)	16800 (4920)	16200 (4750)	15600 (4570)	15000 (4400)	14300 (4190)	13700 (4020)	13000 (3810)	
	-10 (-23.3)	15100 (4430)	14600 (4280)	14100 (4130)	13500 (3960)	13000 (3810)	12400 (3630)	11700 (3430)	
	-15 (-26.1)	13600 (3990)	13100 (3840)	12700 (3720)	12200 (3580)	11700 (3430)	11100 (3250)	10600 (3110)	
	-20 (-28.9)	12100 (3550)	11700 (3430)	11300 (3310)	10900 (3190)	10500 (3080)	10000 (2930)	9510 (2790)	
	-25 (-31.7)	10800 (3170)	10400 (3050)	10100 (2960)	9730 (2850)	9360 (2740)	8950 (2620)	8530 (2500)	
	-30 (-34.4)	9520 (2790)	9250 (2710)	8960 (2630)	8650 (2540)	8340 (2440)	7990 (2340)	7620 (2230)	
	-35 (-37.2)	8390 (2460)	8160 (2390)	7930 (2320)	7680 (2250)	7400 (2170)	7110 (2080)	6800 (1990)	
	-40 (-40.0)	7350 (2150)	7170 (2100)	6980 (2050)	6770 (1980)	6550 (1920)	6310 (1850)	6060 (1780)	
TQZT035L6 Compressor Model VSBG513Z	0 (-17.8)	20500 (6010)	19700 (5770)	19000 (5570)	18200 (5330)	17400 (5100)	16600 (4860)	15700 (4600)	
	-5 (-20.6)	18700 (5480)	18000 (5280)	17300 (5070)	16600 (4860)	15900 (4660)	15200 (4450)	14400 (4220)	
	-10 (-23.3)	16900 (4950)	16300 (4780)	15700 (4600)	15100 (4430)	14400 (4220)	13800 (4040)	13100 (3840)	
	-15 (-26.1)	15200 (4450)	14700 (4310)	14100 (4130)	13600 (3990)	13000 (3810)	12400 (3630)	11800 (3460)	
	-20 (-28.9)	13600 (3990)	13100 (3840)	12700 (3720)	12200 (3580)	11700 (3430)	11200 (3280)	10600 (3110)	
	-25 (-31.7)	12100 (3550)	11700 (3430)	11300 (3310)	10900 (3190)	10400 (3050)	9960 (2920)	9490 (2780)	
	-30 (-34.4)	10800 (3170)	10400 (3050)	10000 (2930)	9670 (2830)	9280 (2720)	8880 (2600)	8460 (2480)	
	-35 (-37.2)	9620 (2820)	9280 (2720)	8950 (2620)	8610 (2520)	8260 (2420)	7920 (2320)	7550 (2210)	
	-40 (-40.0)	8610 (2520)	8310 (2440)	8000 (2340)	7710 (2260)	7400 (2170)	7100 (2080)	6770 (1980)	
TQZT045L6 Compressor Model VSAG514Z	0 (-17.8)	25500 (7470)	24700 (7240)	23900 (7000)	23000 (6740)	22100 (6480)	21200 (6210)	20200 (5920)	
	-5 (-20.6)	23200 (6800)	22500 (6590)	21700 (6360)	20900 (6130)	20100 (5890)	19200 (5630)	18300 (5360)	
	-10 (-23.3)	21000 (6150)	20400 (5980)	19700 (5770)	18900 (5540)	18200 (5330)	17400 (5100)	16500 (4840)	
	-15 (-26.1)	18900 (5540)	18300 (5360)	17700 (5190)	17100 (5010)	16400 (4810)	15600 (4570)	14900 (4370)	
	-20 (-28.9)	16900 (4950)	16400 (4810)	15800 (4630)	15300 (4480)	14600 (4280)	14000 (4100)	13300 (3900)	
	-25 (-31.7)	15000 (4400)	14600 (4280)	14100 (4130)	13600 (3990)	13000 (3810)	12400 (3630)	11800 (3460)	
	-30 (-34.4)	13200 (3870)	12800 (3750)	12400 (3630)	12000 (3520)	11500 (3370)	11000 (3220)	10500 (3080)	
	-35 (-37.2)	11500 (3370)	11200 (3280)	10900 (3190)	10500 (3080)	10100 (2960)	9680 (2840)	9200 (2700)	
	-40 (-40.0)	9910 (2900)	9700 (2840)	9450 (2770)	9160 (2680)	8830 (2590)	8460 (2480)	8050 (2360)	
TQZT055L6 Compressor Model VSAG518Z	0 (-17.8)	31500 (9230)	30300 (8880)	29100 (8530)	27900 (8180)	26700 (7820)	25500 (7470)	24200 (7090)	
	-5 (-20.6)	28300 (8290)	27200 (7970)	26200 (7680)	25100 (7360)	24100 (7060)	23000 (6740)	21900 (6420)	
	-10 (-23.3)	25300 (7410)	24400 (7150)	23500 (6890)	22600 (6620)	21600 (6330)	20700 (6070)	19700 (5770)	
	-15 (-26.1)	22500 (6590)	21700 (6360)	21000 (6150)	20200 (5920)	19400 (5690)	18500 (5420)	17700 (5190)	
	-20 (-28.9)	20000 (5860)	19300 (5660)	18600 (5450)	18000 (5280)	17300 (5070)	16600 (4860)	15900 (4660)	
	-25 (-31.7)	17600 (5160)	17000 (4980)	16500 (4840)	15900 (4660)	15400 (4510)	14800 (4340)	14200 (4160)	
	-30 (-34.4)	15300 (4480)	14900 (4370)	14500 (4250)	14000 (4100)	13600 (3990)	13100 (3840)	12700 (3720)	
	-35 (-37.2)	13300 (3900)	12900 (3780)	12600 (3690)	12300 (3600)	12000 (3520)	11600 (3400)	11200 (3280)	
	-40 (-40.0)	11400 (3340)	11200 (3280)	10900 (3190)	10700 (3140)	10500 (3080)	10200 (2990)	9950 (2920)	
TQZT060L6 Compressor Model VSAG523Z	0 (-17.8)	41200 (12070)	39800 (11660)	38400 (11250)	36800 (10780)	35200 (10320)	33500 (9820)	31800 (9320)	
	-5 (-20.6)	37500 (10990)	36200 (10610)	34900 (10230)	33500 (9820)	32000 (9380)	30500 (8940)	28800 (8440)	
	-10 (-23.3)	33900 (9940)	32800 (9610)	31600 (9260)	30300 (8880)	29000 (8500)	27500 (8060)	26000 (7620)	
	-15 (-26.1)	30500 (8940)	29500 (8650)	28400 (8320)	27300 (8000)	26100 (7650)	24700 (7240)	23300 (6830)	
	-20 (-28.9)	27200 (7970)	26300 (7710)	25400 (7440)	24400 (7150)	23300 (6830)	22100 (6480)	20800 (6100)	
	-25 (-31.7)	24100 (7060)	23400 (6860)	22600 (6620)	21700 (6360)	20700 (6070)	19600 (5740)	18500 (5420)	
	-30 (-34.4)	21200 (6210)	20600 (6040)	20000 (5860)	19200 (5630)	18300 (5360)	17400 (5100)	16400 (4810)	
	-35 (-37.2)	18600 (5450)	18100 (5300)	17600 (5160)	16900 (4950)	16200 (4750)	15400 (4510)	14500 (4250)	
	-40 (-40.0)	16200 (4750)	15900 (4660)	15500 (4540)	15000 (4400)	14400 (4220)	13700 (4020)	12900 (3780)	

**WITH STANDARD EC FAN MOTOR**

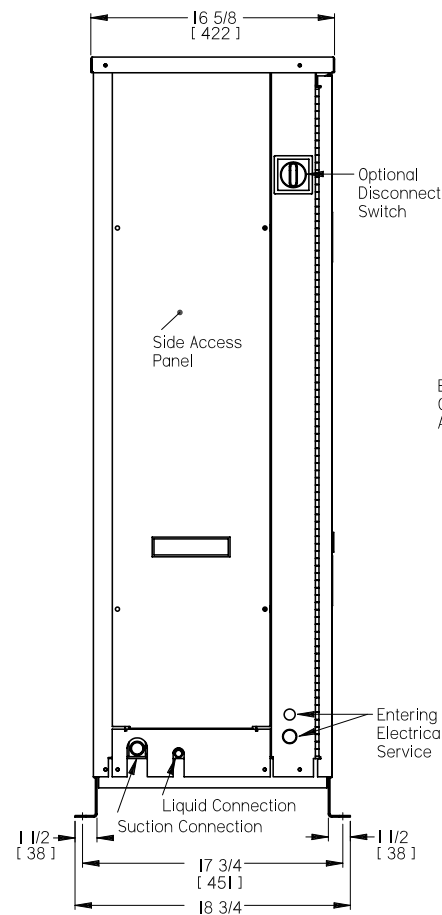
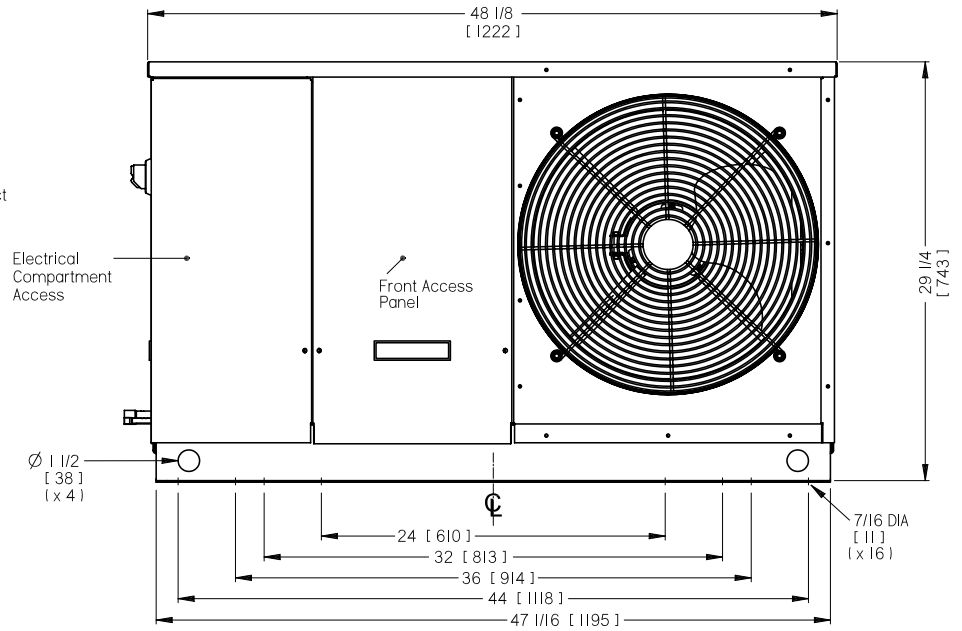
CONDENSING UNIT MODEL	COMPRESSOR MODEL NO.	POWER SUPPLY	COMPRESSOR		WITH STANDARD EC CONDENSER FAN MOTOR			UNIT		
			RLA	LRA	QTY	WATTS	FLA	MCA	MOP	
TQZA010M6-H S2	ZB10KCE-PFV	208-230/1/60	10.0	41	1	165	1.7	14.2	20	
TQZA011M6-H S2	ZB11KCE-PFV	208-230/1/60	10.0	45	1	165	1.7	14.2	20	
TQZA015M6-H S2	ZB13KCE-PFV	208-230/1/60	12.9	54	1	165	1.7	17.8	30	
TQZA020H8-H	S2	ZB15KCE-PFV	208-230/1/60	15.7	61	1	165	1.7	21.3	35
	T3	ZB15KCE-TF5	208-230/3/60	8.9	55	1	165	1.7	12.8	20
	T4	ZB15KCE-TFD	460/3/60	5.0	27	1	165	0.9	7.2	15
TQZA025H8-H	S2	ZB19KCE-PFV	208-230/1/60	17.9	73	1	165	1.7	24.1	40
	T3	ZB19KCE-TF5	208-230/3/60	10.0	63	1	165	1.7	14.2	20
	T4	ZB19KCE-TFD	460/3/60	5.0	31	1	165	0.9	7.2	15
TQZA030H8-H	S2	ZB21KCE-PFV	208-230/1/60	20.7	95	1	165	1.7	27.6	45
	T3	ZB21KCE-TF5	208-230/3/60	12.1	77	1	165	1.7	16.8	25
	T4	ZB21KCE-TFD	460/3/60	7.4	39	1	165	0.9	10.2	15
TQZA035H8-H	S2	ZB26KCE-PFV	208-230/1/60	23.6	127	2	330	3.4	32.9	50
	T3	ZB26KCE-TF5	208-230/3/60	13.9	88	2	330	3.4	20.8	30
	T4	ZB26KCE-TFD	460/3/60	7.1	44	2	330	1.8	10.7	15
TQZA040H8-H	S2	ZB30KCE-PFV	208-230/1/60	26.8	132	2	330	3.4	36.9	60
	T3	ZB30KCE-TF5	208-230/3/60	15.7	115	2	330	3.4	23.0	35
	T4	ZB30KCE-TFD	460/3/60	7.5	47.5	2	330	1.8	11.2	15
TQZA050H8-H	S2	ZB38KCE-PFV	208-230/1/60	31.1	175	2	330	3.4	42.3	70
	T3	ZB38KCE-TF5	208-230/3/60	22.1	115	2	330	3.4	31.0	50
	T4	ZB38KCE-TFD	460/3/60	9.6	63	2	330	1.8	13.8	20
TQZA060H8-H	T3	ZB45KCE-TF5	208-230/3/60	22.5	156	2	330	3.4	31.5	50
	T4	ZB45KCE-TFD	460/3/60	11.5	70	2	330	1.8	16.2	25
TQZA020L6-H	S2	ZF06K4E-PFV	208-230/1/60	13.6	61	1	165	1.7	18.7	30
	T3	ZF06K4E-TF5	208-230/3/60	9.3	55	1	165	1.7	13.3	20
	T4	ZF06K4E-TFD	460/3/60	4.3	27	1	165	0.9	6.3	15
TQZA025L6-H	S2	ZF08K4E-PFV	208-230/1/60	16.4	73	1	165	1.7	22.2	35
	T3	ZF08K4E-TF5	208-230/3/60	9.7	63	1	165	1.7	13.8	20
	T4	ZF08K4E-TFD	460/3/60	5.0	31	1	165	0.9	7.2	15
TQZA030L6-H	S2	ZF09K4E-PFV	208-230/1/60	16.4	88	1	165	1.7	22.2	35
	T3	ZF09K4E-TF5	208-230/3/60	9.6	77	1	165	1.7	13.7	20
	T4	ZF09K4E-TFD	460/3/60	5.7	39	1	165	0.9	8.0	15
TQZA035L6-H	S2	ZF11K4E-PFV	208-230/1/60	20.7	109	1	165	1.7	27.6	45
	T3	ZF11K4E-TF5	208-230/3/60	12.1	88	1	165	1.7	16.8	25
	T4	ZF11K4E-TFD	460/3/60	7.1	44	1	165	0.9	9.8	15
TQZA045L6-H	S2	ZF13K4E-PFV	208-230/1/60	26.8	129	2	330	3.4	36.9	60
	T3	ZF13K4E-TF5	208-230/3/60	15.0	99	2	330	3.4	22.2	35
	T4	ZF13K4E-TFD	460/3/60	8.2	49.5	2	330	1.8	12.1	20
TQZA055L6-H	S2	ZF15K4E-PFV	208-230/1/60	31.8	169	2	330	3.4	43.2	70
	T3	ZF15K4E-TF5	208-230/3/60	21.4	123	2	330	3.4	30.2	50
	T4	ZF15K4E-TFD	460/3/60	9.6	62	2	330	1.8	13.8	20
TQZA060L6-H	T3	ZF18K4E-TF5	208-230/3/60	23.9	156	2	330	3.4	33.3	50
	T4	ZF18K4E-TFD	460/3/60	9.3	70	2	330	1.8	13.4	20

**WITH STANDARD EC FAN MOTOR**

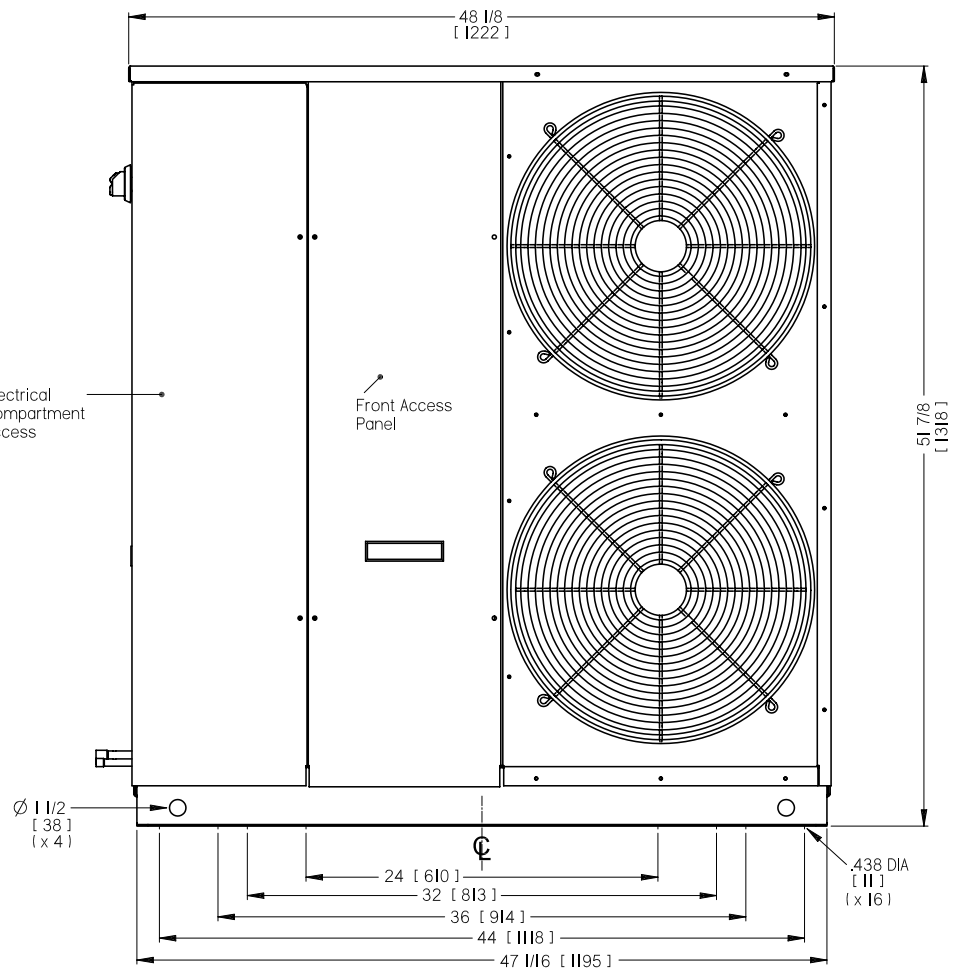
CONDENSING UNIT MODEL	COMPRESSOR MODEL NO.	POWER SUPPLY	COMPRESSOR		WITH STANDARD EC CONDENSER FAN MOTOR			UNIT		
			RLA	LRA	QTY	WATTS	FLA	MCA	MOP	
TQZT010M6-H	S2A	VSA9490ZNA	208-230/1/60	11.7	50.7	1	165	1.7	16.3	25
	T3A	VSA9490ZXT	208-230/3/60	6.6	40.5	1	165	1.7	10.0	15
TQZT011M6-H	S2A	VSA9510ZNA	208-230/1/60	13.4	65.9	1	165	1.7	18.5	30
	T3A	VSA9510ZXT	208-230/3/60	7.9	40.5	1	165	1.7	11.6	15
TQZT015M6-H	S2A	VSA9512ZNA	208-230/1/60	13.3	65.9	1	165	1.7	18.3	30
	T3A	VSA9512ZXT	208-230/3/60	8.6	48.5	1	165	1.7	12.5	20
TQZT020M6-H	S2A	VSA9514ZNA	208-230/1/60	15.6	83	1	165	1.7	21.2	35
	T3A	VSA9514ZXT	208-230/3/60	9.9	48.5	1	165	1.7	14.1	20
	T4A	VSA9514ZXG	460/3/60	4.5	25	1	165	0.9	6.5	15
TQZT025M6-H	S2A	VSA9517ZNA	208-230/1/60	20.5	83	1	165	1.7	27.3	45
	T3A	VSA9517ZXT	208-230/3/60	11.7	77.5	1	165	1.7	16.3	25
	T4A	VSA9517ZXG	460/3/60	5.0	33.7	1	165	0.9	7.2	15
TQZT030M6-H	S2A	VSA9512ZNA	208-230/1/60	20.9	101.6	1	165	1.7	27.8	45
	T3A	VSA9521ZXT	208-230/3/60	12.4	80	1	165	1.7	17.2	25
	T4A	VSA9512ZXG	460/3/60	6.6	38	1	165	0.9	9.2	15
TQZT035M6-H	T3A	VSA9524ZXT	208-230/3/60	15.2	80	2	330	3.4	22.4	35
	T4A	VSA9524ZXG	460/3/60	6.7	40.8	2	330	1.8	10.2	15
TQZT040M6-H	T3A	VSA9528ZXT	208-230/3/60	16.8	96	2	330	3.4	24.4	40
	T4A	VSA9528ZXG	460/3/60	10.7	47.5	2	330	1.8	15.2	25
TQZT050M6-H	T3A	VSA9536ZXT	208-230/3/60	21.1	153	2	330	3.4	29.8	50
	T4A	VSA9536ZXG	460/3/60	11.0	72.9	2	330	1.8	15.6	25
TQZT060M6-H	T3A	VSA9544ZXT	208-230/3/60	TBA	TBA	2	300	3.4	TBA	45
	T4A	VSA9544ZXG	460/3/60	15.0	80.4	2	330	1.8	20.6	35
TQZT020L6-H	S2A	VSBG475ZNA	208-230/1/60	11.9	69.8	1	165	1.7	16.6	25
	T3A	VSAG475ZXT	208-230/3/60	8.7	77.5	1	165	1.7	12.6	20
TQZT025L6-H	S2A	VSBG494ZNA	208-230/1/60	14.4	71.9	1	165	1.7	19.7	30
	T3A	VSAG494ZXT	208-230/3/60	11.1	80.0	1	165	1.7	15.6	25
	T4A	VSBG494ZXG	460/3/60	3.2	29.5	1	165	0.9	4.9	15
TQZT030L6-H	S2A	VSBG511ZNA	208-230/1/60	15.5	83.6	1	165	1.7	21.1	35
	T3A	VSAG511ZXT	208-230/3/60	10.7	80.0	1	165	1.7	15.1	25
	T4A	VSAG511ZXG	460/3/60	5.0	40.8	1	165	0.9	7.2	15
TQZT035L6-H	S2A	VSBG513ZNA	208-230/1/60	TBA	TBA	1	165	1.7	TBA	TBA
	T3A	VSAG513ZXT	208-230/3/60	11.1	80.0	1	165	1.7	15.6	25
TQZT045L6-H	T3A	VSAG514ZXT	208-230/3/60	14.1	96.0	2	330	3.4	21.0	35
	T4A	VSAG514ZXG	460/3/60	6.1	48.3	2	330	1.8	9.4	15
TQZT055L6-H	T3A	VSAG518ZXT	208-230/3/60	18.3	153.0	2	330	3.4	26.3	40
	T4A	VSAG518ZXG	460/3/60	8.8	73.0	2	330	1.8	12.8	20
TQZT060L6-H	T3A	VSAG523ZXT	208-230/3/60	19.9	156	2	330	3.4	28.3	45
	T4A	VSAG523ZXG	460/3/60	10.4	80.4	2	330	1.8	14.8	25



Note: Dimensions in [ ] are in mm.



Note: Dimensions in [ ] are in mm.



CONDENSING UNIT MODEL	UNIT CONNECTIONS				RECEIVER CAPACITY 90% FULL *		APPROX. SHIPPING WEIGHT	
	SUCTION (OD)		LIQUID (OD)		Lbs.	Kgs	Lbs.	Kgs
	Inches	mm	Inches	mm				
TQZA010M6	5/8	16	3/8	10	11	5.0	300	136
TQZA011M6	5/8	16	3/8	10	11	5.0	305	139
TQZA015M6	7/8	22	3/8	10	14	6.4	305	139
TQZA020H8 *	7/8	22	3/8	10	14	6.4	325	148
TQZA025H8 *	7/8	22	1/2	13	19.5	8.9	325	148
TQZA030H8 *	7/8	22	1/2	13	19.5	8.9	325	148
TQZA035H8 *	7/8	22	1/2	13	21.5	9.8	490	223
TQZA040H8 *	1 1/8	29	1/2	13	21.5	9.8	515	234
TQZA050H8 *	1 1/8	29	1/2	13	21.5	9.8	515	234
TQZA060H8 *	1 1/8	29	1/2	13	30.0	13.6	520	236
TQZA020L6	7/8	22	3/8	10	11.0	5.0	320	145
TQZA025L6	7/8	22	3/8	10	14.0	6.4	325	148
TQZA030L6	7/8	22	3/8	10	14.0	6.4	325	148
TQZA035L6	7/8	22	1/2	13	19.5	8.9	325	148
TQZA045L6	1 1/8	29	1/2	13	21.5	9.8	490	223
TQZA055L6	1 1/8	29	1/2	13	21.5	9.8	500	227
TQZA060L6	1 1/8	29	1/2	13	21.5	9.8	510	232

**\* NOTE ON ALTERNATE REFRIGERANTS:**

\* PUBLISHED RECEIVER CAPACITY IS BASED ON **R404A** ON MODELS USING "8" AS REFRIGERANT CODE.  
FOR ALERNATE REFRIGERANTS, MULTIPLY **R404A** VALUE BY THE APPROPRIATE VALUE BELOW:

<b>R407C</b>	<b>R22</b>	<b>R507</b>
1.10	1.15	1.00

CONDENSING UNIT MODEL	UNIT CONNECTIONS				RECEIVER CAPACITY 90% FULL		APPROX. SHIPPING WEIGHT	
	SUCTION (OD)		LIQUID (OD)		Lbs.	Kgs	Lbs.	Kgs
	Inches	mm	Inches	mm				
TQZT010M6	5/8	16	3/8	10	11	5.0	325	148
TQZT011M6	5/8	16	3/8	10	11	5.0	325	148
TQZT015M6	7/8	22	3/8	10	14	6.4	325	148
TQZT020M6	7/8	22	3/8	10	14	6.4	325	148
TQZT025M6	7/8	22	1/2	13	19.5	8.9	325	148
TQZT030M6	7/8	22	1/2	13	19.5	8.9	325	148
TQZT035M6	7/8	22	1/2	13	21.5	9.8	490	223
TQZT040M6	1 1/8	29	1/2	13	21.5	9.8	515	234
TQZT050M6	1 1/8	29	1/2	13	21.5	9.8	515	234
TQZT060M6	1 1/8	29	1/2	13	30.0	13.6	520	236
TQZT020L6	7/8	22	3/8	10	11.0	5.0	320	145
TQZT025L6	7/8	22	3/8	10	14.0	6.4	325	148
TQZT030L6	7/8	22	3/8	10	14.0	6.4	325	148
TQZT035L6	7/8	22	1/2	13	19.5	8.9	325	148
TQZT045L6	1 1/8	29	1/2	13	21.5	9.8	490	223
TQZT055L6	1 1/8	29	1/2	13	21.5	9.8	500	227
TQZT060L6	1 1/8	29	1/2	13	21.5	9.8	510	232

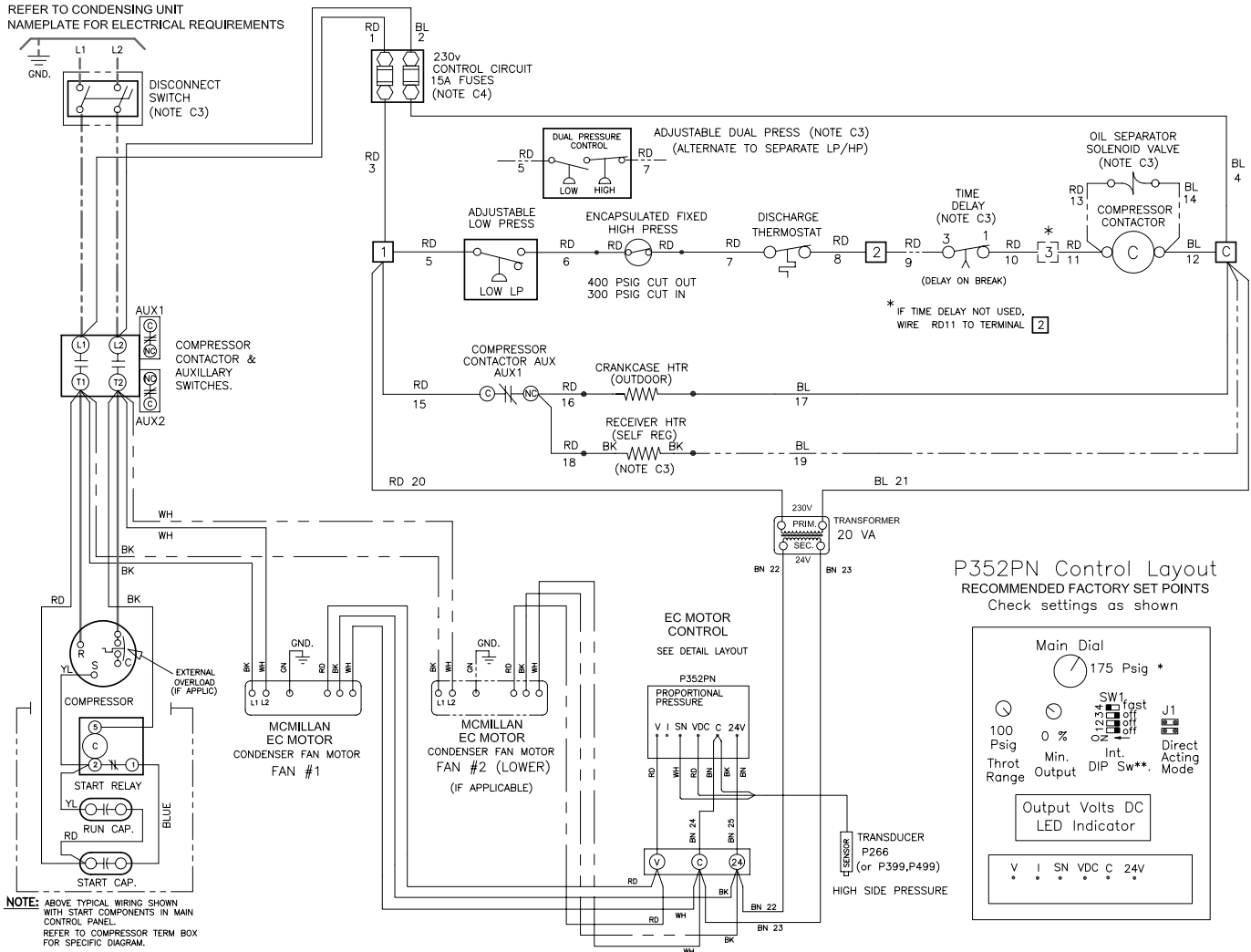
COPELAND CONDENSING UNIT MODEL	TECUMSEH CONDENSING UNIT MODEL	dBA @ 10 ft. with Sound Insulated Compressor Compartment	dBA @ 10 ft. <i>without</i> Sound Insulated Compressor Compartment
TQZA010M6	TQZT010M6	55	58
TQZA011M6	TQZT011M6	56	59
TQZA015M6	TQZT015M6	58	61
TQZA020H8	TQZT020M6	55	58
TQZA025H8	TQZT025M6	55	58
TQZA030H8	TQZT030M6	57	60
TQZA035H8	TQZT035M6	57	59
TQZA040H8	TQZT040M6	58	60
TQZA050H8	TQZT050M6	59	61
TQZA060H8	TQZT060M6	59	61
TQZA020L6	TQZT020L6	53	56
TQZA025L6	TQZT025L6	54	57
TQZA030L6	TQZT030L6	55	58
TQZA035L6	TQZT035L6	55	58
TQZA045L6	TQZT045L6	59	61
TQZA055L6	TQZT055L6	59	61
TQZA060L6	TQZT060L6	59	61

- Data is typical of “free field” conditions. Factors such as reflecting wall, background noise and installation may have significant influence on data
- Testing performed according to AHRI Standard 270
- For more accurate ratings refer to AHRI Standard 275 for correction factors due to reflecting planes
- Data is for 100% fan speed. Further sound reductions of approx. 4-6 dBA can be expected at ambients below 70°F

## CONDENSING UNIT WIRING DIAGRAM

- 208/230V-1-60 or 200/220V-1-50 Hz.
- INHERENT LINE BREAK MOTOR PROTECTION
- WITH McMill. EC COND FAN MOTOR & P352 JOHNSON CONTROLLER

REFER TO CONDENSING UNIT NAMEPLATE FOR ELECTRICAL REQUIREMENTS



**NOTE:** ABOVE TYPICAL WIRING SHOWN WITH START COMPONENTS IN MAIN CONTROL PANEL. REFER TO COMPRESSOR TERM BOX FOR SPECIFIC DIAGRAM.

### P352PN Operation Notes

Do not re-adjust 0% output or Direct Acting Mode jumpers  
Output DC signal varies directly with PSIG (0 to 10V DC)

\* Main Dial - Sets Fan for lowest speed PSIG set point.  
Highest speed will be lowest set point plus throttle range  
e.g. 175+100= 275 psig (approx 111F cond temp R404A)  
Providing the ambient temp. is low, fan will maintain the desired set point  
e.g. 175 psig set point (approx. 80F Cond Temp R404A)

\*\*DIP Sw. set for Proportional / Integration Mode Fast Mode

Refer to P352 instruction sheet for further details.

### NOTES

- C1. USE COPPER CONDUCTORS ONLY
- C2. USE 75°C WIRE (OR HIGHER)
- C3. OPTIONAL COMPONENT
- C4. ALL FUSES TO BE CLASS CC OR J AND VOLTAGE RATED EQUAL (OR HIGHER) THAN OPERATING VOLTAGE

#### CONDUCTORS/WIRING

- FACTORY WIRING
- - - OPTIONAL WIRING
- - - WIRING BY OTHERS

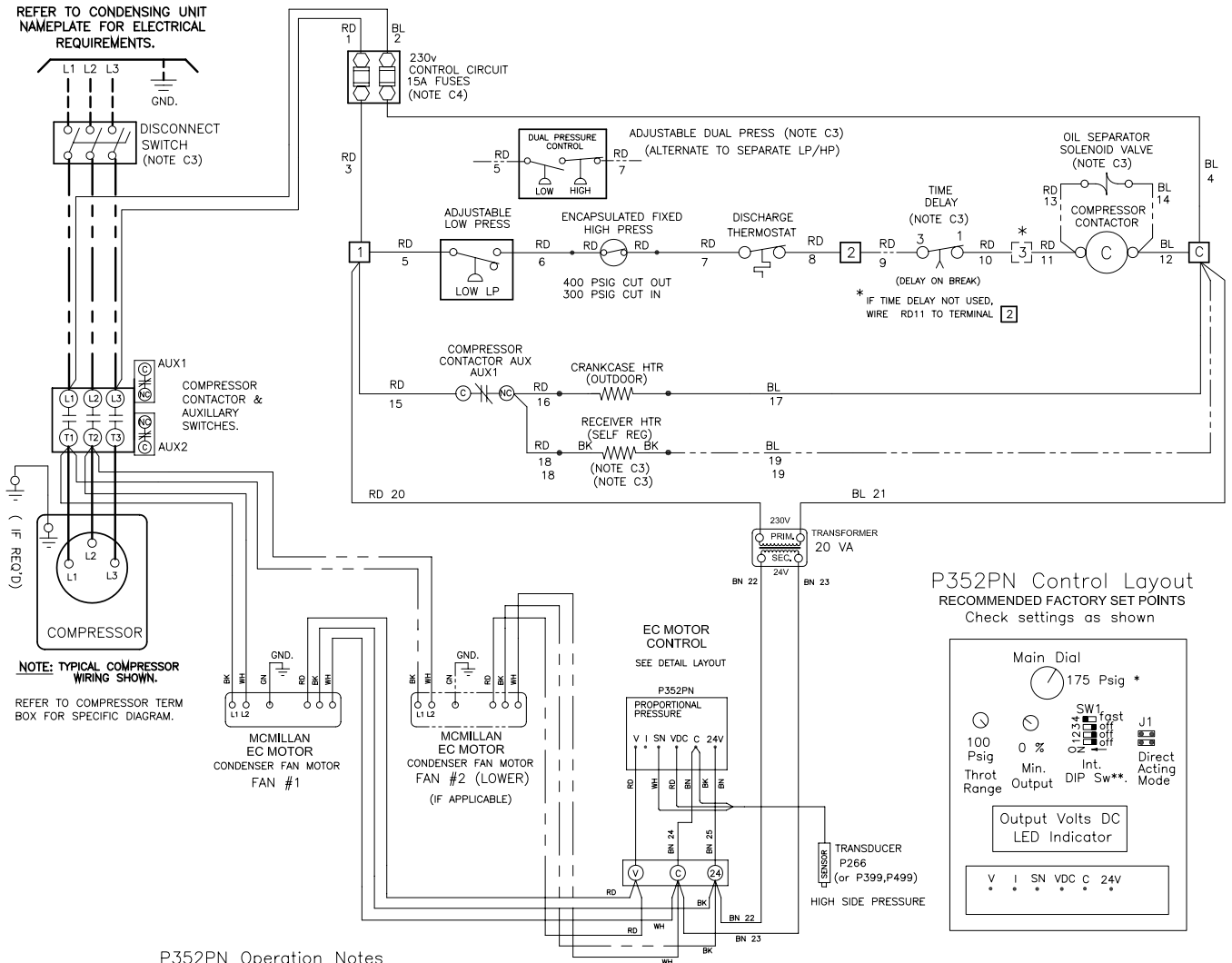
ALL FIELD WIRING MUST BE DONE IN COMPLIANCE WITH ALL APPLICABLE LOCAL AND NATIONAL CODES.

REVISIONS			DIAGRAM NUMBER
DATE	BY	LTR	S2Q1DW2
NOV23/10	BM	A	

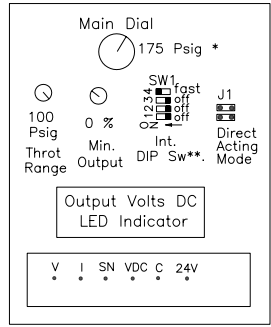


## CONDENSING UNIT WIRING DIAGRAM

- 208-230V-3-60, or 200/220V-3-50 Hz
- INHERENT LINE BREAK MOTOR PROTECTION
- WITH McMill. EC COND FAN MOTOR & P352 JOHNSON CONTROLLER



### P352PN Control Layout RECOMMENDED FACTORY SET POINTS Check settings as shown



**NOTE: TYPICAL COMPRESSOR WIRING SHOWN.**  
REFER TO COMPRESSOR TERM BOX FOR SPECIFIC DIAGRAM.

### P352PN Operation Notes

Do not re-adjust 0% output or Direct Acting Mode jumpers  
Output DC signal varies directly with PSIG (0 to 10V DC)

\* Main Dial -Sets Fan for lowest speed PSIG set point.  
Highest speed will be lowest set point plus throttle range  
e.g. 175+100= 275 psig (approx 111F cond temp R404A )  
Providing the ambient temp. is low, fan will maintain the desired set point  
e.g. 175 psig set point (approx. 80F Cond Temp R404A)

\*\*DIP Sw. set for Proportional / Integration Mode  
Fast Mode

Refer to P352 instruction sheet for further details.

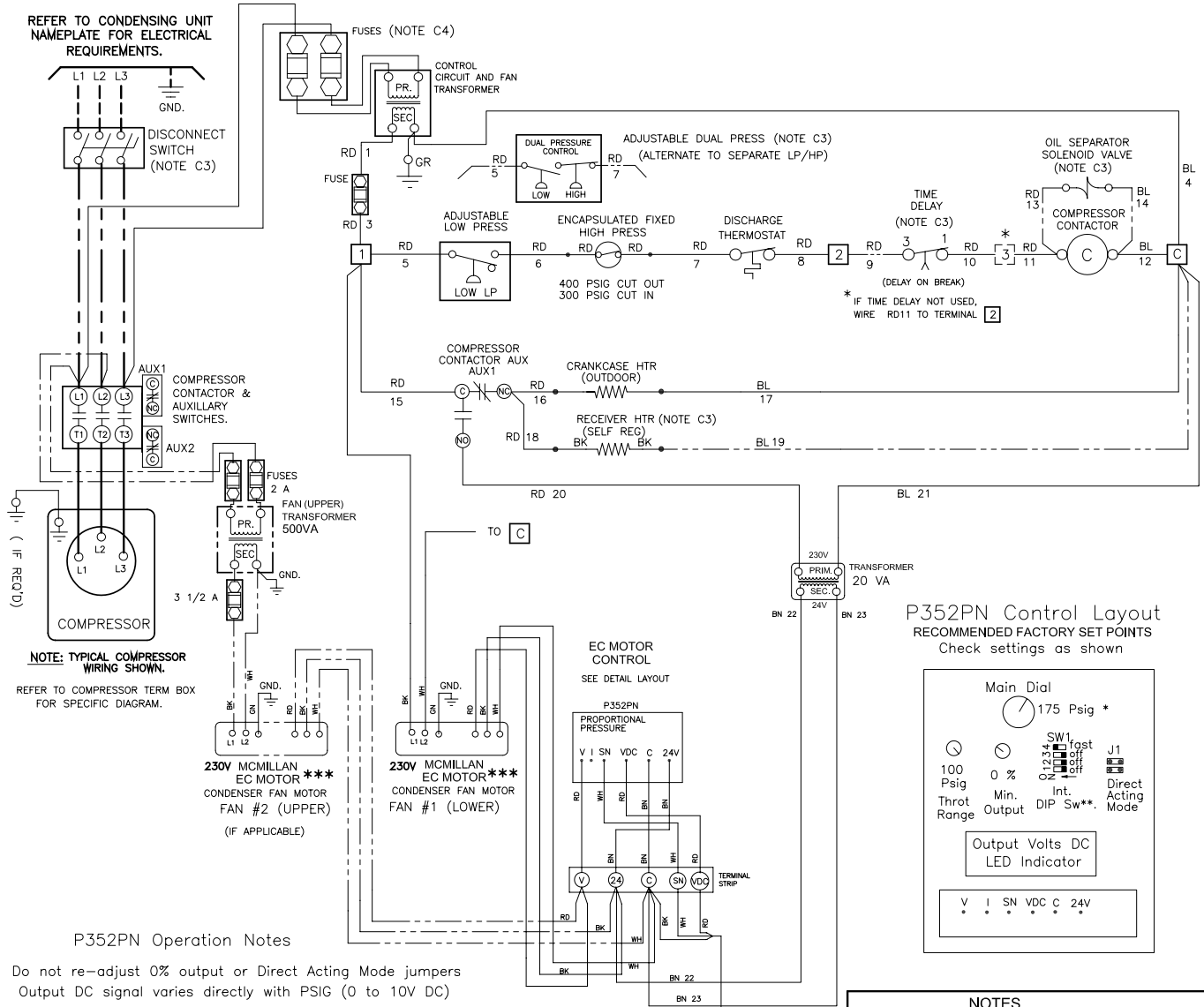
### NOTES

- C1. USE COPPER CONDUCTORS ONLY
  - C2. USE 75°C WIRE (OR HIGHER)
  - C3. OPTIONAL COMPONENT
  - C4. ALL FUSES TO BE CLASS CC OR J AND VOLTAGE RATED EQUAL (OR HIGHER) THAN OPERATING VOLTAGE
- CONDUCTORS/WIRING**  
 ——— FACTORY WIRING  
 - - - - - OPTIONAL WIRING  
 - - - - - WIRING BY OTHERS
- ALL FIELD WIRING MUST BE DONE IN COMPLIANCE WITH ALL APPLICABLE LOCAL AND NATIONAL CODES.

REVISIONS			DIAGRAM NUMBER
DATE	BY	LTR	
NOV25/10	BM	A	T3Q1DW2

### CONDENSING UNIT WIRING DIAGRAM

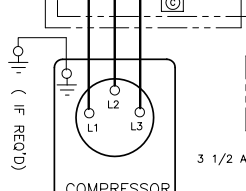
- 460V-3-60, or 380/400V-3-50 Hz
- INHERENT LINE BREAK MOTOR PROTECTION /DISCH THERMOSTAT
- WITH McMill. EC COND FAN MOTOR & P352 JOHNSON CONTROLLER



REFER TO CONDENSING UNIT NAMEPLATE FOR ELECTRICAL REQUIREMENTS.

DISCONNECT SWITCH (NOTE C3)

COMPRESSOR CONTACTOR & AUXILIARY SWITCHES.

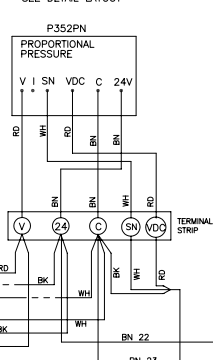


NOTE: TYPICAL COMPRESSOR WIRING SHOWN. REFER TO COMPRESSOR TERM BOX FOR SPECIFIC DIAGRAM.

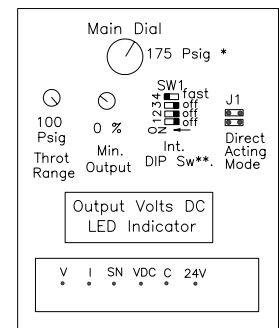
230V MCMILLAN EC MOTOR \*\*\*  
CONDENSER FAN MOTOR FAN #2 (UPPER)  
(IF APPLICABLE)

230V MCMILLAN EC MOTOR \*\*\*  
CONDENSER FAN MOTOR FAN #1 (LOWER)

EC MOTOR CONTROL  
SEE DETAIL LAYOUT



### P352PN Control Layout RECOMMENDED FACTORY SET POINTS Check settings as shown



### P352PN Operation Notes

Do not re-adjust 0% output or Direct Acting Mode jumpers  
Output DC signal varies directly with PSIG (0 to 10V DC)

\* Main Dial -Sets Fan for lowest speed PSIG set point.  
Highest speed will be lowest set point plus throttle range  
e.g. 175+100= 275 psig (approx 111F cond temp R404A )  
Providing the ambient temp. is low, fan will maintain the desired set point  
e.g. 175 psig set point (approx. 80F Cond Temp R404A)

\*\*DIP Sw. set for Proportional / Integration Mode Fast Mode

Refer to P352 instruction sheet for further details.

\*\*\*  
CONDENSER FANS ARE POWERED AT ALL TIMES. DURING OFF-CYCLE COMPRESSOR AUX CONTACT DE-ENERGIZES SIGNAL POWER (0V) AND STOPS MOTOR(S)

- ### NOTES
- C1. USE COPPER CONDUCTORS ONLY
  - C2. USE 75°C WIRE (OR HIGHER)
  - C3. OPTIONAL COMPONENT
  - C4. ALL FUSES TO BE CLASS CC OR J AND VOLTAGE RATED EQUAL (OR HIGHER) THAN OPERATING VOLTAGE
- CONDUCTORS/WIRING  
 ————— FACTORY WIRING  
 - - - - - OPTIONAL WIRING  
 - - - - - WIRING BY OTHERS
- ALL FIELD WIRING MUST BE DONE IN COMPLIANCE WITH ALL APPLICABLE LOCAL AND NATIONAL CODES.

REVISIONS			DIAGRAM NUMBER	
DATE	BY	LTR	T4Q1DW2	
FEB15/11		C		
DEC8/10	BM	A		

**EC Motors - Features and Benefits**

Air cooled condensing units utilizing electrically commutated motor (EC motor) technology offer many benefits; Improved Efficiency, Reduced Sound Levels, Speed Control, Simplicity and Reliability.

**Efficiency**

EC motors are more energy efficient than conventional AC (PSC and shaded pole) motors. Unlike AC motors that see efficiency decrease as the motor speed is decreased, an EC motor efficiency remains consistent throughout its range of operation.

**Head Pressure Control**

EC motors make it easier to maintain stable head pressures when motor speeds are varied according to operating conditions. When compared to a conventional flooded valve system, EC motors do a much better job maintaining stable head pressures. System performance is further enhanced with consistent liquid temperatures that ensure optimized operation of the nozzle and TX valve in the evaporator. In colder ambients, special consideration should be given to the use of heated and insulated receivers and wind guard protection on the condenser.

**Reduced Refrigerant Charge**

System charges can be reduced by 30 – 40% by utilizing variable speed EC motors to control head pressures. The elimination of the head pressure control valve also eliminates the need for extra refrigerant required to flood the condenser. In colder ambients, special consideration should be given to the use of insulated receivers and wind guard protection on the condenser.

**Reduced Energy Consumption**

When a system's head pressure is controlled using a flooded head pressure control valve, the condenser fan motor runs at 100% fan speed all of the time. When head pressure is controlled using an EC motor and the motor speed is varied according to operating conditions, this results in lower energy consumption of the motor. There are also potential energy savings available from the compressor by running with lower head pressure setting controlled by a simple EC motor controller. The amount of energy to be saved depends on; ambient conditions, system operation conditions and head pressure set point.

**Sound**

As EC motor speeds vary for different operating conditions they also offer reduced sound levels when compared to conventional motor running full speed. Sound levels are reduced on cooler days and in evenings.

**Simplicity and Reliability**

The installation and control of EC motors is very simple compared to other methods of speed control used on conventional AC motors. Lower running operating temperatures and smooth transitional speed changes make EC motors durable and reliable.

### Variable Speed EC Condenser Fan Motors

ECM fan/motor combinations using DC motors with integral AC to DC conversion allow direct connection to the AC mains with all the energy saving and control benefits of a DC motor. Ideally, with multiple motors on the condenser, all should simultaneously slow down /speed up together. This provides for maximum energy savings and smoothest head pressure control.



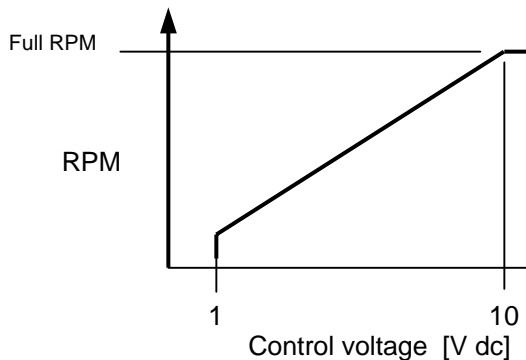
#### **Important Warnings:**

(Please read before handling motors)

1. When connecting the unit to the power supply, dangerous voltages occur. Due to motor capacitor discharge time, do not open the motor within 5 minutes after disconnection of all phases.
2. With a Control voltage fed in or a set speed value being saved, the motor will restart automatically after a power failure.
3. Dangerous external voltages can be present at the motor terminals even when the unit is turned off.
4. The Electronics housing can get hot.
5. The cycling on and off of EC motors should be controlled by the DC control voltage (i.e. 0V DC will turn motor off). Excessive cycling of the motor by line voltage contactors may cause stress on the motors and reduce the motor life.

### Speed Adjustment Characteristics

The EC motor varies its speed linearly based on a 1-10V input signal. At 10 VDC, the motor runs at full speed. At 0 to approx. 1 VDC, the motor turns off. A chart of the speed control curve is shown below. The motor can be controlled at any speed below its nominal RPM.



### Control Signal

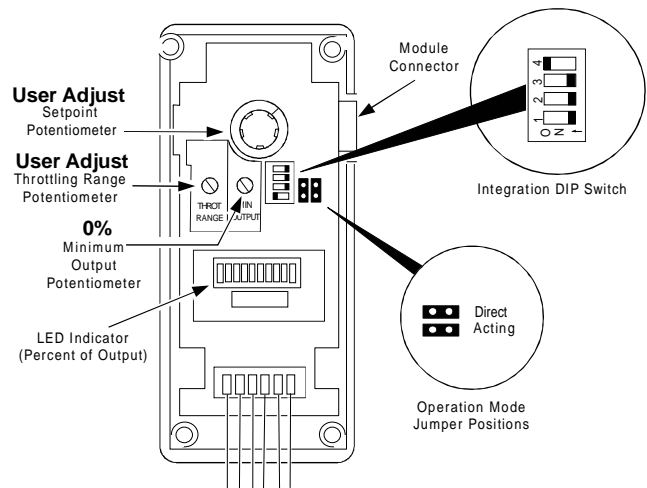
The input control signal is supplied by an external control signal from a factory installed proportional pressure control. Units with factory installed proportional pressure controls are adjusted with initial factory settings. These may require further adjustments to suit local field conditions.

### Proportional Pressure Control (Factory Installed)

Units equipped with factory installed P352 controls use a proportional/integral pressure controller to vary and maintain the motor speed at the desired head pressure. The controller has two main user adjustable features:

- Head Pressure Set point
- Throttling range

Leave the minimum Output setting at 0% and Jumpers should be set for Direct Acting (do not re-adjust)



### Head Pressure Set Point

The head pressure set point potentiometer is adjustable from 90-250 psig. This maintains a minimum condensing temp at the corresponding pressure set point. Typical R404A set points are from 170-200 psig. (i.e. 78°F - 89°F Condensing Temperature).

Note: Very low set points may cause the fan motors to run full speed continually even if the condenser is properly sized. The fans will turn off if the system pressure falls below the desired set point.

### Minimum Output

The minimum output potentiometer controls the minimum signal sent to the motor and is factory set at 0%. It is adjustable between 0 and 60% of the output range. If this is adjusted to 50%, the motors will not start running until 5V is applied to the motor. The motor will start running at 50% of full speed. To maximize sound reduction and energy savings and to provide the most stable control, it is recommended this setting be left at 0%.

### Throttling range

The throttling range potentiometer controls how far the system pressure deviates from the control set point to generate a 100% output signal from the control and is adjustable from 10 -100 psig. The throttling range determines how quickly the motor will reach full speed when detecting a change in head pressure. For example, if the set point is 190 psig and the throttling range is 50 psig, when the system pressure is below 190 psig, the fans will be off. When the system pressure reaches 240 psig (190+50) the fans will be at full speed. To make the fans ramp more slowly the throttling range should be increased. To maximize sound reduction and energy efficiency and to provide for the most stable control, it is recommended this setting be left at 100 psig.

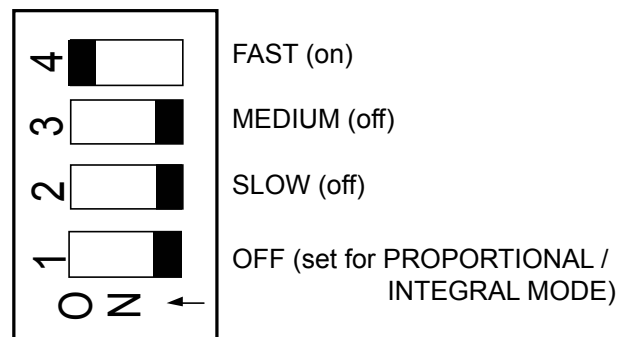
### Reverse acting or direct acting mode of operation

The reverse acting/direct acting jumper is used to ensure the controller responds correctly to the desired head pressure. In Direct Acting (DA) mode, the motor speed increases as the pressure rises above desired set point. For proper condenser operation, this jumper MUST be in

Direct Acting (DA) mode. Failure to ensure J1 jumper is in direct acting mode will cause the system to trip on high head pressure.

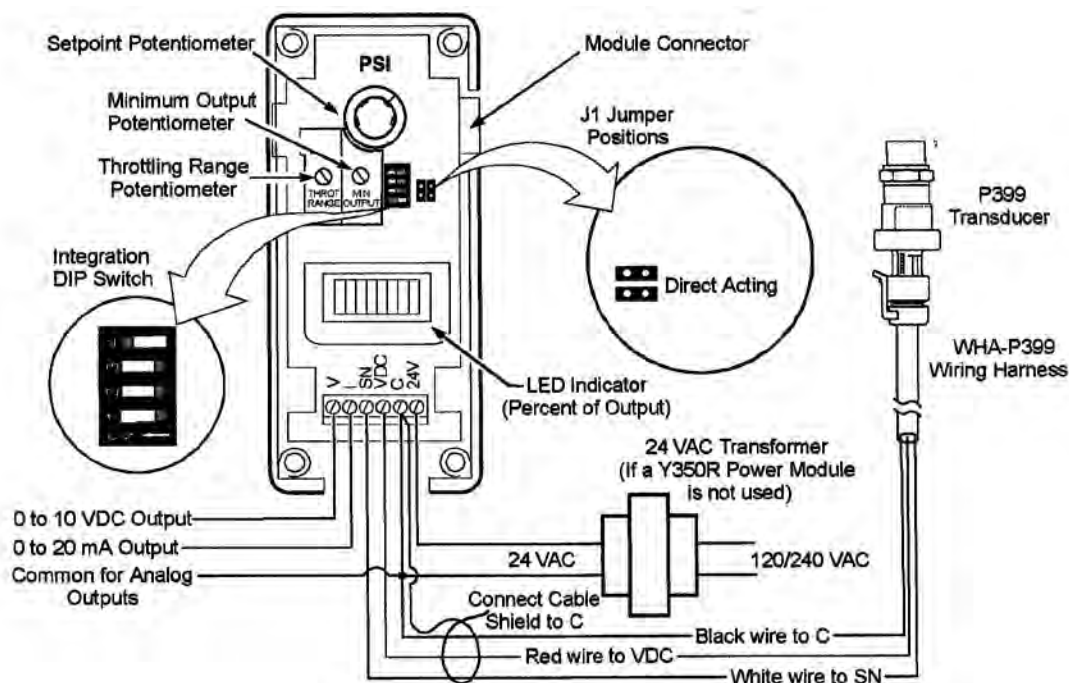
### Integration constant

The integration constant switch provides ability to change controller from a proportional only control to a proportional plus integral control. To provide the most responsive system and to maintain a stable head pressure, it is recommended the integration setting be left on "fast" with the Mode switch set to OFF (Proportional AND Integral activated)



### Transducer Wiring

The P352PN controls use a P266 (P399, or P499) pressure transducer to generate a 0.5 to 4.5 VDC input signal. The transducer is wired to the terminal block at the bottom of the control as shown in the diagram below.



Interior View and Typical Wiring of P352PN Control

PART DESCRIPTION	MODELS	PART NUMBER
<b>EC Fan Motor</b> - 1/3 HP	ALL	1089880
<b>Transformer</b> ( <i>req'd for EC Motor on 460V models</i> )	460V Models	1086000-0207
<b>Fan Blade</b>	ALL	1090668
<b>Motor Mount</b>	ALL	1089899
<b>Fan Guard</b>	ALL	1089892
<b>Pressure Control</b> , P352PN-3C, Fan Motor Speed Control	ALL	1087946
<b>Transformer</b> , 24V, for pressure control	ALL	170110
<b>Pressure Transducer</b>	ALL	1073355
<b>Wall Mounting Kit</b>	ALL	1089895

## FINISHED GOODS WARRANTY

The terms and conditions as described below in the General Warranty Policy cover all products manufactured by National Refrigeration.

### GENERAL WARRANTY POLICY

Subject to the terms and conditions hereof, the Company warrants all Products, including Service Parts, manufactured by the Company to be free of defects in material or workmanship, under normal use and application for a period of one (1) year from the original date of installation, or eighteen (18) months from the date of shipment from the Company, whichever occurs first. Any replacement part(s) so supplied will be warranted for the balance of the product's original warranty. The part(s) to be replaced must be made available in exchange for the replacement part(s) and reasonable proof of the original installation date of the product must be presented in order to establish the effective date of the warranty, failing which, the effective date will be based upon the date of manufacture plus thirty (30) days. Any labour, material, refrigerant, transportation, freight or other charges incurred in connection with the performance of this warranty will be the responsibility of the owner at the current rates and prices then in effect. This warranty may be transferred to a subsequent owner of the product.

### THIS WARRANTY DOES NOT COVER

(a) Damages caused by accident, abuse, negligence, misuse, riot, fire, flood, or Acts of God (b) damages caused by operating the product in a corrosive atmosphere (c) damages caused by any unauthorized alteration or repair of the system affecting the product's reliability or performance (d) damages caused by improper matching or application of the product or the product's components (e) damages caused by failing to provide routine and proper maintenance or service to the product (f) expenses incurred for the erecting, disconnecting, or dismantling the product (g) parts used in connection with normal maintenance, such as filters or belts (h) products no longer at the site of the original installation (i) products installed or operated other than in accordance with the printed instructions, with the local installation or building codes and with good trade practices (j) products lost or stolen.

**No one is authorized to change this WARRANTY** or to create for or on behalf of the Company any other obligation or liability in connection with the Product(s). There is no other representation, warranty or condition in any respect, expressed or implied, made by or binding upon the Company other than the above or as provided by provincial or state law and which cannot be limited or excluded by such law, nor will we be liable in any way for incidental, consequential, or special damages however caused.

The provisions of this additional written warranty are in addition to and not a modification of or subtraction from the statutory warranties and other rights and remedies provided by Federal, Provincial or State laws.

## PROJECT INFORMATION

System	
Model Number	Date of Start-Up
Serial Number	Service Contractor
Refrigerant	Phone
Electrical Supply	Fax

# “AS BUILT” SERVICE PARTS LIST

# Service Parts List Label To Be Attached HERE



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