



Product Catalog

Odyssey Cooling Condensing Units

R-22 Dry Charge

7½ - 20 Ton, 60 Hz





R-22 Dry Charge, 7½ - 20 Ton

General Data

Table 1. General Data — 7½ - 20 Ton

	7 ½	10	15	20
	Single Compressor TTA090A3, A4,	Single Compressor TTA120A3, A4,	Dual Compressor TTA180B3, B4,	Dual Compressor TTA240B3, B4,
Compressor				
Type	Scroll	Scroll	Scroll	Scroll
No./Tons	1/6.9	1/8.6	2/6.9	2/8.6
System Data				
No. Refrigerant Circuits	1	1	2	2
Suction Line (in.) OD	1 3/8	1 3/8	1 3/8	1 3/8
Liquid Line (in.) OD	5/8	1/2	1/2	1/2
Outdoor Coil - Type	Lanced	Lanced	Lanced	Lanced
Tube Size (in.) OD	0.375	0.375	0.375	0.375
Face Area (sq ft)	19.2	24.0	24.0	24.0
Rows/FPI	2/18	2/18	2/18	2/18
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter (in.)	1/26	1/28	2/28	2/28
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM	6530	9600	19500	19500
No. Motor/HP	1/0.5	1/1	2/1	2/1
Motor RPM	1100	1100	1100	1100
Refrigerant Charge (Field Supplied) R-22	17.6	22.5	39.0	43.8
Shipping Dimensions (HxWxD)	43.54" x 43" x 36.5"	43.49" x 53" x 40.5"	49.48" x 94.75" x 47"	49.48" x 94.75" x 47"

Accessories

Model	Description	Used With
Coil Guard		
BAYGARD058A		TTA090A
BAYGARD059A	Hail/Vandal Guard	TTA120A
BAYGARD061A		TTA180B, TTA240B
Isolators		
BAYISLT004A	Rubber Isolator Floor (blue)	TTA090A
BAYISLT005A	Rubber Isolator Floor (black)	TTA120A
BAYISTL009A	Rubber Isolator Floor (red)	TTA180B
BAYISTL010A	Rubber Isolator Floor (green)	TTA240B
BAYISLT023A	Steel Spring Isolator Floor (red)	TTA090A, TTA120A
BAYISLT024A	Steel Spring Isolator Floor (black)	TTA180B
BAYISLT025A	Steel Spring Isolator Floor (yellow)	TTA240B
Low Ambient		
BAYLOAMU01B ^{(a)(b)(c)}	On/Off Fan Control Mounted in External Enclosure (small cabinets)	TTA090A (all voltages)
BAYLOAMU02B ^{(b)(c)}	On/Off Fan Control Mounted in Unit Control Box (large cabinets)	TTA120A-TTA240B (all voltages)

(a) Kit mounts external to the outdoor unit and operates by sensing ambient and liquid line temperatures.

(b) Cycles fan on/off, (no modulating).

(c) Reliatel requires onboard EDC function to be disabled when BAYLOAM is used, remove OA sensor from terminal J8-1&2



R-22 Dry Charge, 7½ - 20 Ton

Model Number Description

T T A	1 2 0	A	3	0	0	*	*
1 2 3	4 5 6	7	8	9	10	11	12

All products are identified by a multiple-character model number that precisely identifies a particular type of unit. An explanation of the alphanumeric identification code is provided. Its use will enable the owner/operator, installing contractors, and service engineers to define the operation, specific components, and other options for any specific unit.

When ordering replacement parts or requesting service, be sure to refer to the specific model number, serial number, and DL number (if applicable) stamped on the unit nameplate.

DIGITS 1 - 3: Product Type

TTA = Split System Cooling

DIGITS 4 - 6: Nominal Gross Cooling Capacity (MBh)

090 = 7½ Tons (60 Hz)

120 = 10 Tons (60 Hz)

180 = 15 Tons (60 Hz)

240 = 20 Tons (60 Hz)

DIGIT 7: Major Development Sequence

A = Single Circuit, R-22

B = Dual Circuit, R-22

DIGIT 8: Electrical Characteristics

3 = 208-230/60/3

4 = 460/60/3

DIGITS 9 - 10: Factory Installed Options

00 = Packed Stock

DIGITS 11: Minor Design Sequence

* = Current Design Sequence

DIGITS 12: Service Digit

* = Current Design Sequence¹

¹ * = sequential alpha character

Electrical Data

Table 2. Electrical Characteristics — Compressor and Condenser Fan Motors

Tons	Unit Model No.	Compressor Motor					Condenser Fan Motor				
		No.	Volts	Phase	Amps		No.	Volts	Phase	Amps	
					RLA	LRA				FLA	LRA
					(Ea.)	(Ea.)				(Ea.)	(Ea.)
7½	TTA090A3	1	208-230	3	22.4	164	1	208-230	1	3.1	8.1
	TTA090A4	1	460	3	10.9	100	1	460	1	1.6	3.8
10	TTA120A3	1	208-230	3	30.1	225	1	208-230	1	5	14.4
	TTA120A4	1	460	3	15.5	114	1	460	1	2.5	5.8
15	TTA180B3	2	208-230	3	22.4	164	2	208-230	2	5	14.4
	TTA180B4	2	460	3	10.9	100	2	460	2	2.5	5.8
20	TTA240B3	2	208-230	3	30.1	225	2	208-230	2	5	14.4
	TTA240B4	2	460	3	15.5	114	2	460	2	2.5	5.8

Note: Electrical characteristics reflect nameplate values and are calculated in accordance with cULus and ARI specifications.

Table 3. Unit Wiring — Condensing Units

Tons	Unit Model Number	Unit Operating Voltage Range	Minimum Circuit Ampacity	Maximum Fuse or HACR Circuit Breaker Size ^(a)
7½	TTA090A3	187-253	31.1	45
	TTA090A4	414-506	15.2	25
10	TTA120A3	187-253	42.6	60
	TTA120A4	414-506	21.9	30
15	TTA180B3	187-253	60.4	80
	TTA180B4	414-506	29.5	40
20	TTA240B3	187-253	77.7	100
	TTA240B4	414-506	39.9	50

(a) HACR type circuit breaker per NEC.



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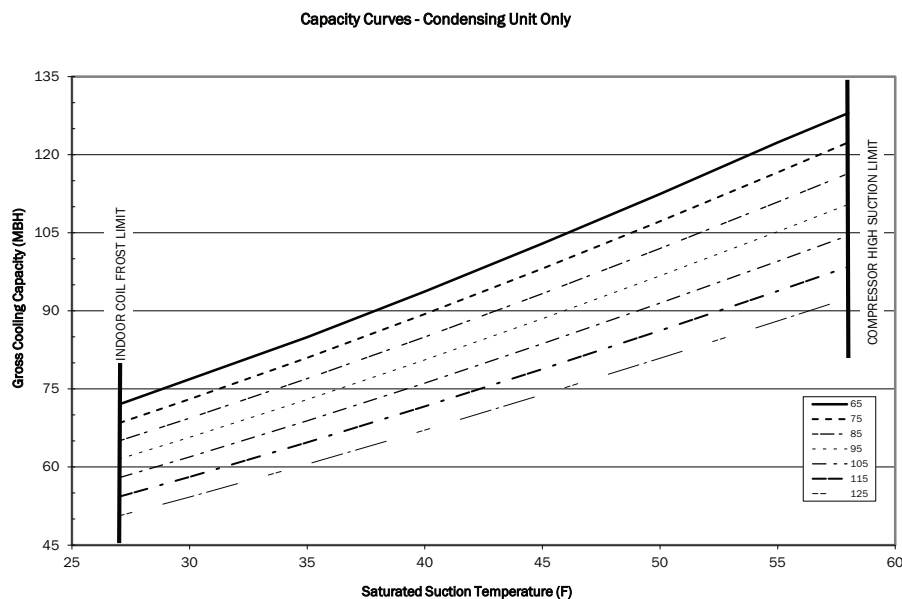
Performance Data

Table 4. Gross Cooling Capacities (MBH) 7.5 Tons TTA090A Condensing Unit Only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	161.3	172.4	178.7	185.3	192.4	199.8
	Capacity (Btuh/1000)	76.9	84.9	93.7	102.9	112.5	122.3
	Unit Power (kW)	4.9	5.0	5.2	5.3	5.5	5.7
75	Head Press (psig)	190.9	197.1	203.6	210.4	217.7	225.4
	Capacity (Btuh/1000)	73.0	81.0	89.4	98.1	107.2	116.6
	Unit Power (kW)	5.3	5.5	5.7	5.8	6.0	6.2
85	Head Press (psig)	217.8	224.3	231.1	238.3	246.0	254.0
	Capacity (Btuh/1000)	69.4	77.0	85.0	93.3	102.0	110.9
	Unit Power (kW)	5.9	6.0	6.2	6.4	6.6	6.8
95	Head Press (psig)	247.6	254.3	261.5	269.0	276.9	285.2
	Capacity (Btuh/1000)	65.7	73.0	80.6	88.5	96.7	105.2
	Unit Power (kW)	6.4	6.6	6.8	7.0	7.2	7.4
105	Head Press (psig)	280.1	287.1	294.6	302.4	310.6	319.1
	Capacity (Btuh/1000)	61.9	68.9	76.1	83.7	91.5	99.5
	Unit Power (kW)	7.1	7.3	7.5	7.7	7.9	8.1
115	Head Press (psig)	315.3	322.7	330.5	338.6	347.1	355.9
	Capacity (Btuh/1000)	58.1	64.7	71.6	78.8	86.2	93.8
	Unit Power (kW)	7.8	7.9	8.1	8.3	8.6	8.8
125	Head Press (psig)	353.4	361.2	369.3	377.7	386.4	395.4
	Capacity (Btuh/1000)	54.2	60.5	67.1	73.9	80.9	88.1
	Unit Power (kW)	8.5	8.7	8.9	9.1	9.3	9.5

Note: Performance data calculated at 15°F subcooling and 15°F superheat and does not include capacity loss due to refrigerant lines.

Figure 1. TTA090A Capacity Curve



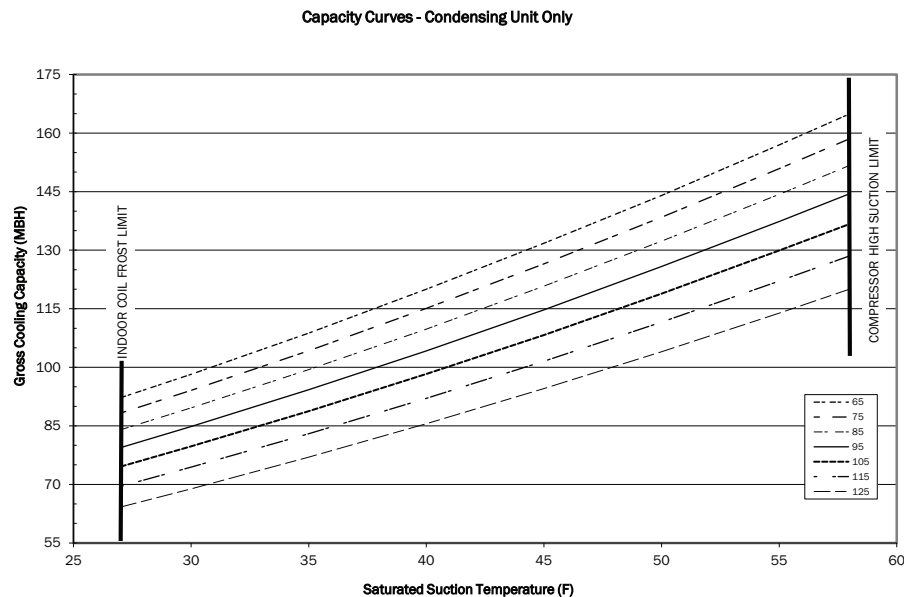
R-22 Dry Charge, 7½ - 20 Ton

Table 5. Gross Cooling Capacities (MBH) 10 Tons TTA120A Condensing Unit Only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	161.5	166.6	172.0	177.9	184.0	190.6
	Capacity (Btuh/1000)	98.2	108.8	120.0	131.8	144.0	157.0
	Unit Power (kW)	7.1	7.3	7.5	7.8	8.0	8.2
75	Head Press (psig)	185.0	190.2	195.9	201.8	208.2	215.0
	Capacity (Btuh/1000)	94.1	104.2	115.1	126.5	138.4	150.9
	Unit Power (kW)	7.6	7.8	8.0	8.2	8.5	8.7
85	Head Press (psig)	210.8	216.2	222.0	228.3	234.9	241.9
	Capacity (Btuh/1000)	89.6	99.4	109.8	120.8	132.3	144.3
	Unit Power (kW)	8.2	8.4	8.6	8.8	9.1	9.3
95	Head Press (psig)	239.3	245.0	251.0	257.4	264.2	271.4
	Capacity (Btuh/1000)	84.8	94.2	104.2	114.7	125.8	137.3
	Unit Power (kW)	8.9	9.1	9.3	9.5	9.7	10.0
105	Head Press (psig)	270.5	276.4	282.6	289.2	296.2	303.6
	Capacity (Btuh/1000)	79.7	88.8	98.3	108.3	118.9	129.9
	Unit Power (kW)	9.6	9.9	10.1	10.3	10.5	10.7
115	Head Press (psig)	304.3	310.4	316.8	323.6	330.7	338.3
	Capacity (Btuh/1000)	74.4	83.0	92.1	101.6	111.6	122.1
	Unit Power (kW)	10.5	10.7	10.9	11.1	11.4	11.6
125	Head Press (psig)	340.9	347.2	353.8	360.7	368.0	375.7
	Capacity (Btuh/1000)	68.9	77.0	85.6	94.6	104.0	113.9
	Unit Power (kW)	11.4	11.6	11.9	12.1	12.3	12.5

Note: Performance data calculated at 15°F subcooling and 15°F superheat and does not include capacity loss due to refrigerant lines.

Figure 2. TTA120A Capacity Curve





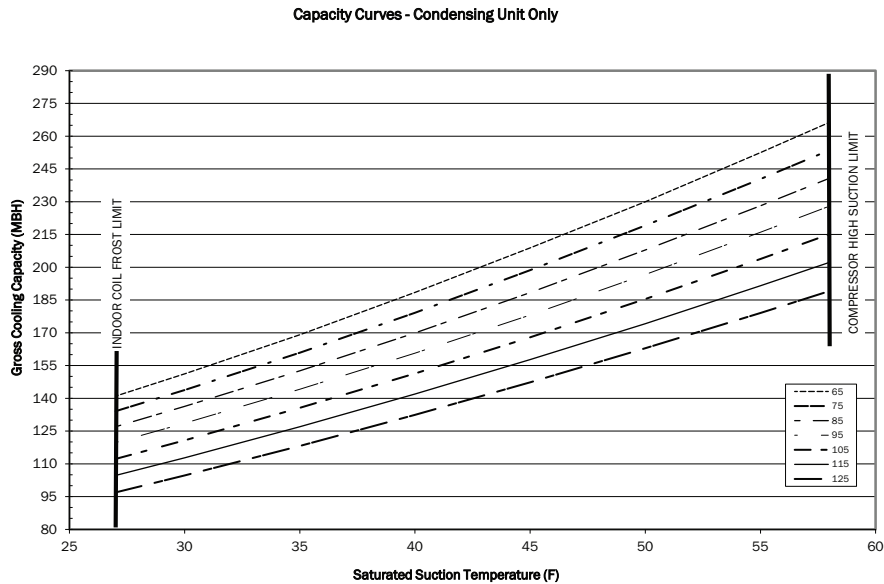
R-22 Dry Charge, 7½ - 20 Ton

Table 6. Gross Cooling Capacities (MBH) 15 Tons TTA180B Condensing Unit Only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	147.1	151.0	155.3	159.8	164.5	169.6
	Capacity (Btuh/1000)	151.2	169.1	188.5	208.9	230.0	252.5
	Unit Power (kW)	10.1	10.3	10.5	10.7	10.9	11.1
75	Head Press (psig)	169.9	174.0	178.3	182.9	187.8	192.9
	Capacity (Btuh/1000)	143.8	160.9	179.2	198.7	219.1	240.4
	Unit Power (kW)	10.9	11.1	11.4	11.6	11.9	12.1
85	Head Press (psig)	195.2	199.4	203.8	208.5	213.5	218.7
	Capacity (Btuh/1000)	136.3	152.6	169.9	188.4	207.9	228.2
	Unit Power (kW)	11.9	12.1	12.4	12.6	12.9	13.2
95	Head Press (psig)	223.1	227.5	232.0	236.9	242.0	247.4
	Capacity (Btuh/1000)	128.6	144.2	160.7	178.1	196.7	216.0
	Unit Power (kW)	12.9	13.2	13.5	13.7	14.1	14.4
105	Head Press (psig)	253.8	258.3	263.1	268.1	273.3	278.9
	Capacity (Btuh/1000)	120.7	135.6	151.4	167.9	185.4	203.8
	Unit Power (kW)	14.1	14.4	14.7	15.0	15.3	15.6
115	Head Press (psig)	287.3	292.0	296.9	302.0	307.4	313.1
	Capacity (Btuh/1000)	112.8	127.0	141.9	157.7	174.2	191.5
	Unit Power (kW)	15.4	15.7	15.9	16.2	16.6	16.9
125	Head Press (psig)	323.7	328.6	333.6	338.9	344.4	350.1
	Capacity (Btuh/1000)	104.7	118.2	132.4	147.3	162.9	179.1
	Unit Power (kW)	16.8	17.0	17.3	17.6	17.9	18.3

Note: Performance data calculated at 15°F subcooling and 15°F superheat and does not include capacity loss due to refrigerant lines.

Figure 3. TTA180B Capacity Curve



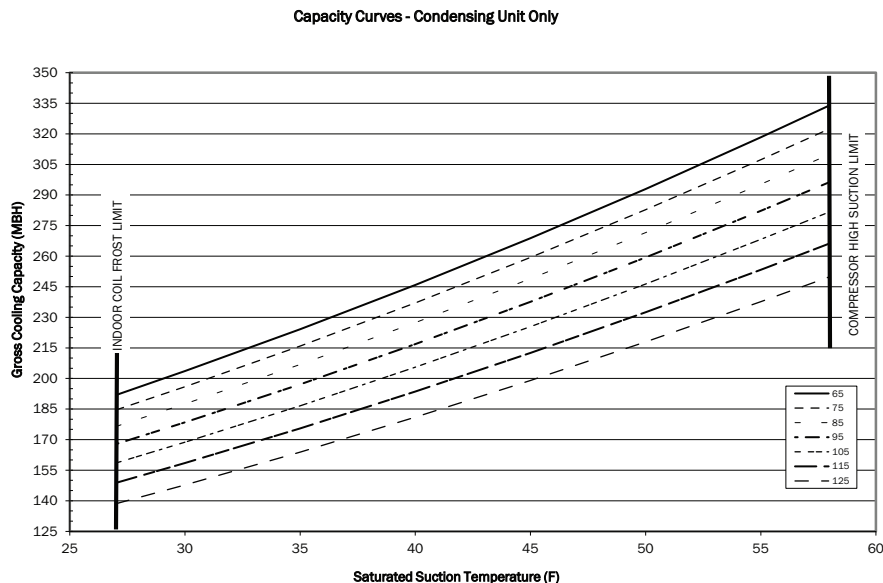
R-22 Dry Charge, 7½ - 20 Ton

Table 7. Gross Cooling Capacities (MBH) 20 Tons TTA240B Condensing Unit Only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	161.1	166.0	171.2	176.7	182.6	188.8
	Capacity (Btuh/1000)	203.6	224.1	245.9	268.8	293.0	318.3
	Unit Power (kW)	14.2	14.6	15.1	15.5	16.0	16.5
75	Head Press (psig)	185.1	190.2	195.6	201.4	207.4	213.8
	Capacity (Btuh/1000)	196.0	215.9	237.1	259.4	282.8	307.3
	Unit Power (kW)	15.3	15.7	16.1	16.5	17.0	17.5
85	Head Press (psig)	211.4	216.8	222.5	228.5	234.9	241.6
	Capacity (Btuh/1000)	187.5	206.9	227.3	248.9	271.6	295.3
	Unit Power (kW)	16.5	16.9	17.3	17.7	18.2	18.7
95	Head Press (psig)	240.6	246.2	252.1	258.4	265.0	271.9
	Capacity (Btuh/1000)	178.5	197.1	216.8	237.6	259.4	282.2
	Unit Power (kW)	17.9	18.3	18.7	19.1	19.6	20.0
105	Head Press (psig)	272.3	278.2	284.4	290.9	297.7	304.9
	Capacity (Btuh/1000)	168.7	186.6	205.5	225.4	246.3	268.2
	Unit Power (kW)	19.5	19.9	20.3	20.7	21.1	21.6
115	Head Press (psig)	306.8	312.9	319.3	326.0	333.1	340.4
	Capacity (Btuh/1000)	158.5	175.5	193.5	212.5	232.5	253.3
	Unit Power (kW)	21.2	21.6	22.0	22.4	22.9	23.3
125	Head Press (psig)	344.0	350.3	356.9	363.9	371.1	378.7
	Capacity (Btuh/1000)	147.8	163.9	181.0	199.0	217.9	237.7
	Unit Power (kW)	23.1	23.5	23.9	24.4	24.8	25.2

Note: Performance data calculated at 15°F subcooling and 15°F superheat and does not include capacity loss due to refrigerant lines.

Figure 4. TTA240B Capacity Curve



R-22 Dry Charge, 7½ - 20 Ton

Dimensional Data

Figure 5. 7½ Ton Condensing Unit, Single Compressor

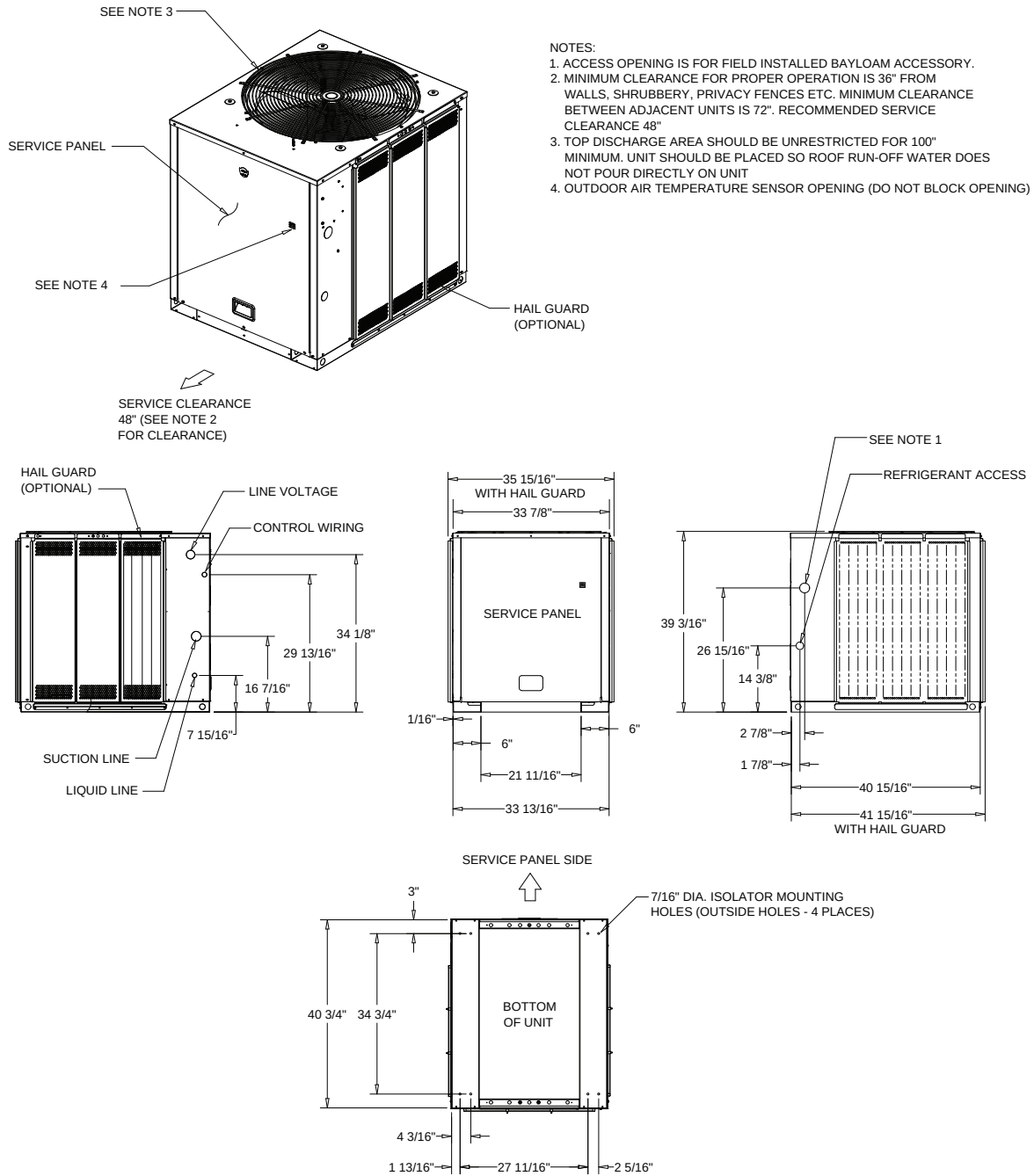
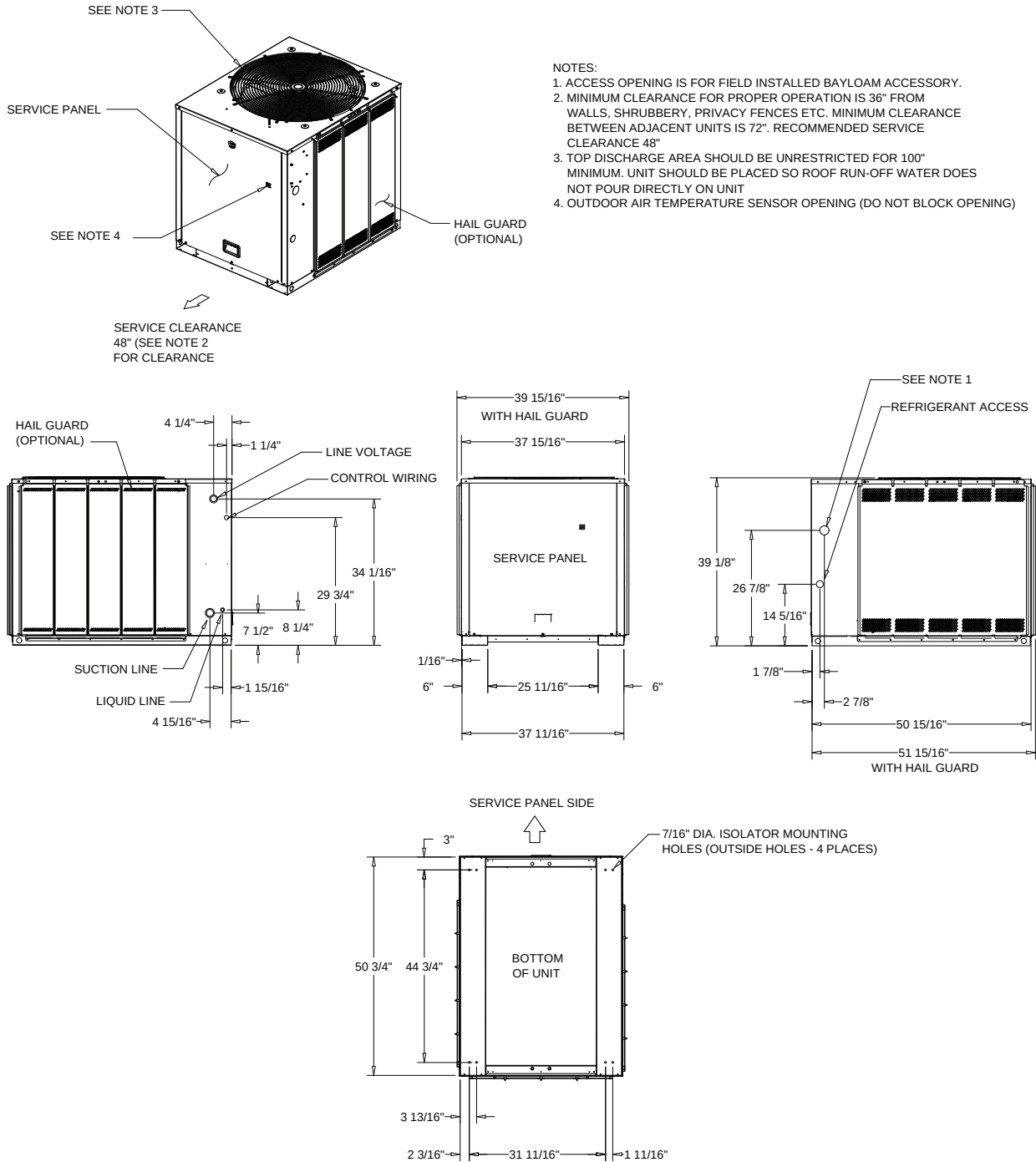
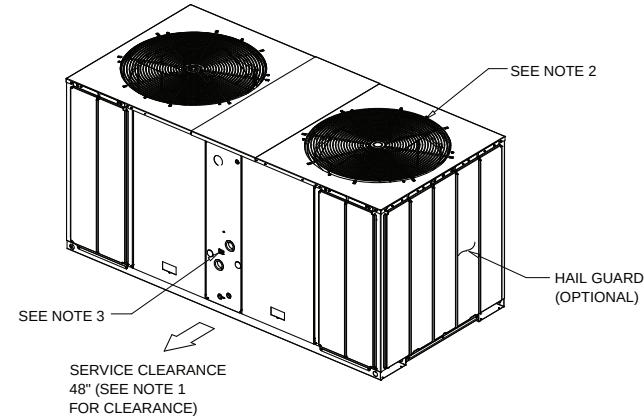


Figure 6. 10 Ton Condensing Unit, Single Compressor



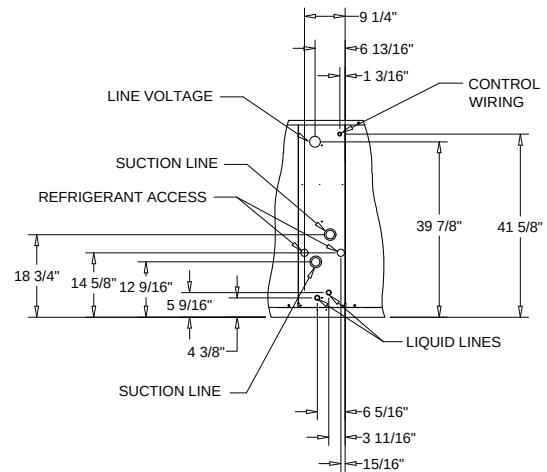
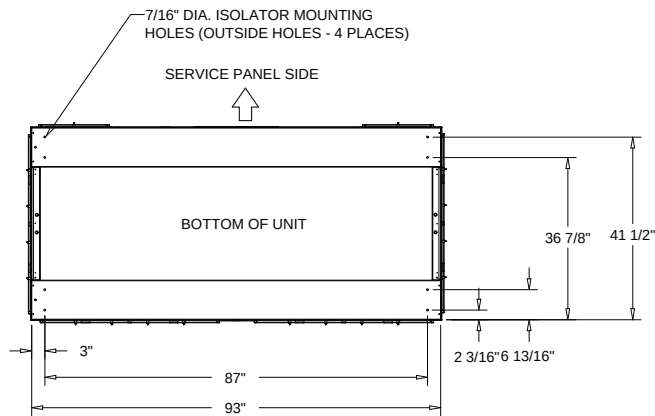
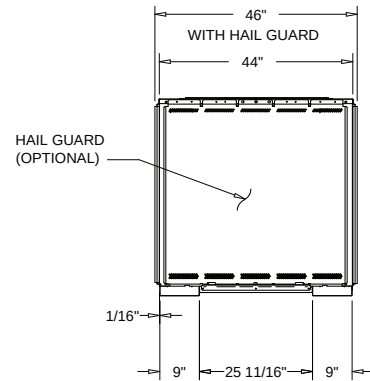
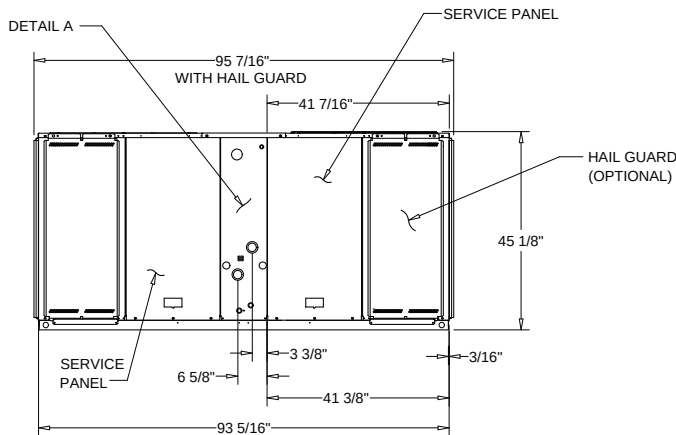
R-22 Dry Charge, 7½ - 20 Ton

Figure 7. 15-20 Ton Condensing Unit, Dual Compressor



NOTES:

1. MINIMUM CLEARANCE FOR PROPER OPERATION IS 36" FROM WALLS, SHRUBBERY, PRIVACY FENCES ETC. MINIMUM CLEARANCE BETWEEN ADJACENT UNITS IS 72". RECOMMENDED SERVICE CLEARANCE 48"
2. TOP DISCHARGE AREA SHOULD BE UNRESTRICTED FOR 100" MINIMUM. UNIT SHOULD BE PLACED SO ROOF RUN-OFF WATER DOES NOT POUR DIRECTLY ON UNIT
3. OUTDOOR AIR TEMPERATURE SENSOR OPENING (DO NOT BLOCK OPENING)



FRONT DETAIL A

DIMENSIONAL DETAIL

Weights

Table 8. TTA Unit and Corner Weights — lbs (60 Hz)

Tons	Model	Ship Max (lbs)	Net Max (lbs)	Corner Weights			
				1	2	3	4
7½	TTA090A	363	298	84	89	44	81
10	TTA120A	467	395	133	103	70	89
15	TTA180B	850	723	207	204	151	161
20	TTA240B	970	837	262	240	164	171

Figure 8. TTA090A, 120A

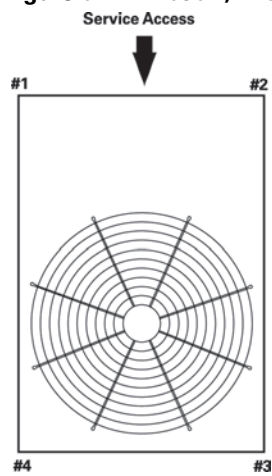
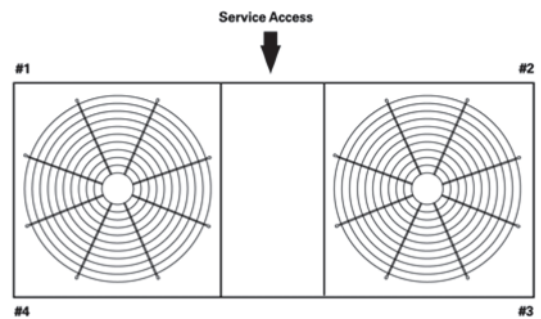


Figure 9. TTA180B, 240B





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SS-PRC037-EN 30 Jul 2012
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