Technical Guide: RC Series RC3 Models -13.4 SEER2 Split-System Air Conditioner -Single-Phase

R-454B - 1.5 nominal ton to 5 nominal ton



York International Corporation, 5005 York Drive, Norman, OK 73069

6523454-UTG-A-0624

Supersedes: Nothing

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Description

The RC3 models are part of our successful 13.4 SEER2 Regional Minimum Efficiency product line available in the northern United States and Canada. These outdoor units are specifically designed to be matched with our residential indoor coils, furnaces, and air handlers to provide a complete system solution.

Figure 1: Installation map



Due to continuous product improvement, specifications are subject to change without notice.

Visit us on the web at www.simplygettingthejobdone.com.

Additional rating information can be found at www.ahridirectory.org.

This document is only for distribution use - it is not to be used at point of retail sale.

Certification





Assembled at a facility with an ISO 9001.2015-certified Quality Management Swatam

Warranty summary

Standard 5-year limited parts warranty.

Standard 10-year limited compressor warranty.

Extended 10-year limited parts warranty when product is registered online within 90 days of purchase for replacement or closing for new home construction.

The warranty does not apply to R-22 models, three-phase models, or internet sales.

Refer to the limited warranty certificate in the *User's Information Manual* for details.

Features

- **Small footprint** Minimum footprint for easier handling, transportation, and installation.
- **Easier installation** Independent panels provide quick access for unit setup. Installation time is reduced by easy power and control wiring access. Select indoor matches with factory-mounted TXVs are available for quicker system installation. The filter-drier is shipped loose for installation in the field. The unit is factory-charged for 15 ft refrigeration piping. The small base dimension and reduced unit clearances make for easier retrofits.
- **Accessible information** QR code on unit provides quick access to technical documents and warranty information.
- **Durable finish** The coated steel wire fan guard, coated external fasteners, and pretreated G90-equivalent galvanized steel chassis components resist corrosion and rust creep. Champagne colored powdercoat paint further protects external panels.
- **Quality coils** The high efficiency microchannel aluminum coil is manufactured using an improved material system, providing reliable performance and small unit size.
- **Rugged coil protection** Coils are protected from mechanical damage by a proven stamped steel coil guard design.
- **Protected compressor** Compressors are protected internally by a high-pressure relief valve and a temperature sensor, and externally by the system high-pressure switch.
- **Reliable operation** Ball bearing fan motors provide superior performance in extreme temperatures.
- **Environmentally friendly** CFC-free R-454B refrigerant delivers environmentally friendly performance with zero ozone depletion.
- **Top discharge** Warm air is blown up, away from the structure and any landscaping, allowing compact location on multi-unit applications.
- Low operating sound levels Developed using CFD and FEA tools, the sturdy cabinet and top design provides sound performance of 77 dBA or lower. Compatible accessories for further sound reduction are also available.
- **Better service access** Diagonal base valves with open access for low-loss fittings, single panel access to the electrical controls, swing out control box for full corner access, and removable fan guard allow easy access for unit maintenance.
- Agency listed Safety certified by CSA to UL 60335-2-40/CSA C22.2. Performance certified to ANSI/AHRI Standard 210/240 in accordance with the Unitary Small Equipment certification program.

Nomenclature

Table 1: Nomenclature for AC and HP R-454B units

Number	Category	Option	Description
1	Brand	Υ	YORK
		X	Private brand
		R	ОТС
2	Product type	С	AC
		Н	НР
3	Nominal series efficiency	3	13.4 SEER2 LGWP
		4	14.3 SEER2 LGWP
		5	15.2 SEER2 LGWP
		6	16 SEER2 LGWP
		7	17 SEER2 LGWP
		8	18 SEER2 LGWP
		9	19 SEER2 LGWP
		V	20/21 SEER2 (DOE ccHP)
		X	22/23 SEER2
		Z	24+ SEER2
4, 5	Nominal unit capacity (MBH)	18	1.5 ton
		24	2 ton
		30	2.5 ton
		36	3 ton
		42	3.5 ton
		48	4 ton
		60	5 ton
6	Refrigerant	D	TBC
		E	R-454B
7	Voltage (voltage-phase-hertz)	2	208/230-1-60
		3	208/230-3-60
		4	460-3-60
		5	575-3-60
8	Control strategy	С	Communicating
		В	Wireless (communicating)
		S	Standard (conventional)
		W	Wireless (conventional)
9	Factory option	1	Standard (no options)
		2	Hard start kit
		3	Coastal condenser coil
		4	Coastal condenser coil with hard start kit
10	Generation	1	First generation
		2	Second generation
11	Style letter (minor revision)	А	Style A
		В	Style B

Table 2: Model nomenclature example

Number	1	2	3	4, 5	6	7	8	9	10	11
Option	R	С	3	18	E	2	S	1	1	Α

Physical and electrical data

Table 3: Physical and electrical data

Outdoor unit model	RC318E2S11	RC324E2S11	RC330E2S11	RC336E2S11	RC342E2S11	RC348E2S11	RC360E2S11
Unit supply voltage			208/	230 V, 1 phase	, 60 Hz		
Normal voltage				187—252			
range¹ (V)							
Minimum circuit ampacity (A)	9.1	12.7	16.3	18.2	19.2	29.3	30.9
Maximum overcurrent device ² (A)	15	20	25	30	30	50	50
Minimum overcurrent device ³ (A)	15	15	20	20	20	30	35
Compressor type ⁴	Rotary	Rotary	Scroll	Scroll	Scroll	Scroll	Scroll
Compressor rated load	6.7	9.6	12.5	13.5	14.3	22.4	23.7
Compressor locked rotor	33.0	53.0	67.0	82.5	95.0	126.0	157.0
Crankcase heater	No	No	No	No	No	No	No
Factory external discharge muffler	No	No	No	No	No	No	No
HS kit required with TXV⁵	No	No	No	No	No	No	No
HS kit part number (S1-2SA067****)	22006	22006	10106	10106	10106	10106	10106
Fan diameter (in.)	18	18	18	18	22	24	26
Fan motor type	PSC	PSC	PSC	PSC	PSC	PSC	PSC
Fan motor rated HP	1/12	1/8	1/8	1/4	1/4	1/4	1/4
Fan motor rated load (A)	0.64	0.70	0.70	1.33	1.30	1.30	1.30
Fan motor nominal RPM	1000	1100	1100	1100	850	850	850
Fan motor nominal CFM	1900	2150	2150	2575	3275	3500	4300
Coil face area (sq. ft.)	9.74	12.47	13.84	13.84	17.31	18.70	23.33
Coil rows deep	1	1	1	1	1	1	1
Coil fins per inch	23	23	23	23	23	23	23
Liquid refrigerant piping outdoor unit (field installed)	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Vapor refrigerant piping outdoor unit (field installed) ⁶	3/4	3/4	3/4	3/4	7/8	7/8	1 1/8‡
Unit charge ⁷ (lb-oz)	2-6	2-12	2-13	2-14	2-15	3-4	3-10
Charge (oz/ft)	0.57	0.57	0.57	0.57	0.60	0.60	0.67
Operating weight (lb)	120	135	140	140	195	210	230

Physical and electrical data notes

- 1. Rated in accordance with AHRI Standard 110-2012, utilization range A.
- 2. Dual element fuses or HACR circuit breaker. Maximum allowable overcurrent protection.
- 3. Dual element fuses or HACR circuit breaker. Minimum recommended overcurrent protection.
- 4. Rotary compressor models are limited to an equivalent length of refrigerant piping of 100 ft with no exceptions.

- 5. Refer to the *Hard Start Kit Accessory Installation Manual* for the hard start kit part number for each model. The hard start kit is a field-installed accessory.
- 6. For applications with non-standard vapor line sizes, see *Applications and accessories*.
- 7. The unit charge is correct for the outdoor unit, smallest matched indoor unit, and 15 ft of refrigerant tubing. For tubing lengths other than 15 ft, add or subtract the amount of refrigerant, using the difference in actual refrigeration piping length (not the equivalent length) multiplied by the per foot value.
 - ‡ The adapter fitting must be field installed for the required 1 1/8 in. refrigeration piping.

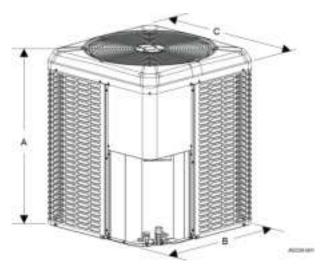
Dimensions

Table 4: Dimensions

Outdoor unit model	Installed height (in.)	Installed depth (in.)	Installed width (in.)	Refrigerant liquid service valve (in.)	Refrigerant vapor service valve (in.)
RC318E2S11	26 3/4	24	24	3/8	3/4
RC324E2S11	33 1/4	24	24	3/8	3/4
RC330E2S11	36 1/4	24	24	3/8	3/4
RC336E2S11	36 1/4	24	24	3/8	3/4
RC342E2S11	36 1/4	29 1/4	29 1/4	3/8	7/8
RC348E2S11	33 1/4	35 1/4	31 3/4	3/8	7/8
RC360E2S11	36 1/4	38	34 1/4	3/8	7/8‡

Illustration of dimensions

Figure 2: Unit dimensions



Dimensions data notes

‡ The adapter fitting must be field-installed for the required 1 1/8 in. refrigeration piping.

- All dimensions are in inches and are subject to change without notice.
- The overall height is from the bottom of the base pan to the top of the fan guard.
- The overall length and width include screw heads.

System charge table

Table 5: System charge table

Outdoor unit model	RC318E2S11	RC324E2S11	RC330E2S11	RC336E2S11	RC342E2S11	RC348E2S11	RC360E2S11
Required metering	5A1	5A1	5A1	5C1	5C1	5C1	5C1
device ^{1,2}							
Indoor coil model ^{3,4,5}		1	Add	litional charge	e (oz)	-	
CT(F,M)24B**B	6	5	_	_	_	_	_
CT(F,M)30C**C	_	6	6	_	_	_	_
CT(F,M)36C**D	_	_	13	12	_	_	_
CT(F,M)48D**F	_	_	_	_	17	12	_
CT(F,M)60C**H	_	_	_	_	_	_	23
CT(F,M,U)18A**A	4	_	_	_	_	_	_
CT(F,M,U)24A**B	6	5	_	_	_	_	_
CT(F,M,U)30B**C	_	6	6	_	_	_	_
CT(F,M,U)36B**D	_	_	13	12	_	_	_
CT(F,M,U)48C**F	_	_	_	_	17	12	_
CT(F,M,U)60C**G	_	_	_	_	_	16	19
CT(F,M,U)60D**G	_	_	_	_	_	16	19
CT(F,M,U)60D**H	_	_	_	_	_	_	23
CTF18B**A	4	_	_	_	_	_	_
CTF30A**D	_	_	13	_	_	_	_
CTF36B**E	_	_	_	14	_	_	_
CTF42C**E	_	_	_	14	14	_	_
CTM42C**E	_	_	_	14	_	_	_
JHE18B**B	6	_	_	_	_	_	_
JHE24B**C	_	6	_	_	_	_	_
JHE30B**D	_	_	13	_	_	_	_
JHE36(B,C)**D	_	_	13	12	_	_	_
JHE42C**F	_	_	_	_	17	_	_
JHE48(C,D)**G	_	_	_	_	_	16	_
JHE60(C,D)**H	_	_	_	_	_	_	23

System charge A-coil data notes

- 1. For applications requiring a TXV, use S1-1TVM*** series kit.
- 2. Use a TXV kit with these indoor units to obtain system performance.
- 3. Systems matched with furnaces or air handlers not equipped with blower-off delays may require blower time delay.
- 4. Do not use CTF, CTU, or CXF coils in horizontal applications. CTM coils can be used in horizontal, upflow, or downflow applications.
- 5. Charge adders shown above do not indicate that coils are rated for every application. See the *Performance data* tables for actual performance for specified system matches. Obtain certified system ratings from http://www.ahridirectory.org.

Charging

- 1. Check the factory unit charge listed on the unit nameplate to verify the refrigerant charge for the outdoor unit, the smallest matched indoor unit, and the 15 ft of interconnecting refrigeration piping.
- 2. Verify the indoor metering device and additional charge required for the specific matched indoor unit in the system using the *System charge* table.
- 3. Add additional charge for the amount of interconnecting refrigeration piping greater than 15 ft at the rate specified in the *Physical and electrical data* table.
- 4. For installations requiring additional charge, weigh in refrigerant for the specific matching indoor unit and actual refrigeration piping length.
- 5. After weighing in the charge adders for the matched indoor unit and refrigeration piping, verify the system operation against the temperatures and pressures in the charging chart for the outdoor unit. Locate the charging charts on the outdoor unit and in the *Service Data Application Guide* at www.simplygettingthejobdone.com. Follow the subcool or superheat charging procedure in the *Installation Manual* according to the type of indoor metering device in the system, and allow 10 min after each charge adjustment for the system operation to stabilize. Record the charge adjustment made to match the charging chart.
- 6. Permanently stamp the unit nameplate with the total system charge defined as follows: total system charge = base charge (as shipped) + charge adder for matched indoor unit + charge adder for actual refrigeration piping length + charge adjustments to match the charging chart.

Applications and accessories

Refer to the *Price Manual* for specific model numbers.

Table 6: Standard application limits

Standard application limits										
Maximum refrigeration piping equivalent length 80 ft										
Outdoor ambient temperature	limits	,								
Cooling operation	Maximum DB	115°F								
Minimum DB 55°F										

(i) **Note:** For low ambient and long refrigeration piping applications, see the accessories listed below.

Non-standard refrigeration piping applications: For installations with reduced diameter or long refrigeration piping, refer to the current version of the *Piping Application Guide* P/N 247077, available in the *Application Bulletins* section at www.simplygettingthejobdone.com.

OD unit anti-short cycle kit (10 Pack) (S1-2TD08700124BK): A time delay that prevents rapid compressor restarting as a result of power interruption, limit switch operation, or thermostat resetting. Not required for AC models with factory electronic controls.

Standard low ambient control kit (S1-2LA06700424): Allows the use of air conditioning at low outdoor ambient temperatures down to +20°F (-7°C). For use with all R-454B single-stage AC models.

Low pressure switch kit (S1-2PS06700524): Provides field installed low pressure (loss of charge) protection. Not required for AC models with factory electronic controls.

High ambient outdoor fan motor (S1-FHM**HT):** Class F 70°C motor to allow cooling operation up to 160°F air entering the outdoor coil. For use with all R-454B single-stage AC models containing R-454B refrigerant only.

Start assist kit (S1-2SA067**):** Provides increased compressor starting torque for areas with low supply voltage. Required for units with reciprocating compressors when applied with indoor TXV, and for all units when applied with long linesets or low ambient kits. May be factory installed on select AC units. See the *Physical and electrical data* table. Refer to the *Price Pages* or *Source 1 SmartSearch* for the correct kit for each application.

Compressor crankcase heater kit (S1-025-****):** A wrap-around electrical resistance heater that warms the compressor sump, reducing the chance of liquid slugging on startup. Required on all long lineset and low ambient applications. Refer to the *Price Pages* or *Source 1 SmartSearch* for the correct part for each application.

Anchor bracket kit (S1-1HK0601): Firmly anchors unit to pad or support structure. When correctly installed, approved for ground-mounted or roof-mounted applications.

Indoor TXV kit (S1-1TVM*):** Thermal expansion valves precisely meter refrigerant for optimum performance over a wide range of conditions. See the *System charge* table or refer to the *Price Pages* or *Source 1 Smart Search* for the TXV part number for each AC model.

Winter cover kit (S1-CCVRE*):** Custom fit winter cover protects AC outdoor unit from debris during the off-season. Remove before unit operation. Refer to the *Price Pages* or *Source 1 SmartSearch* for the correct cover for each application.

Touch-up paint (S1-5130153**):** Color matched aerosol paint for touching up unit chassis and panels. Refer to the *Price Pages* or *Source 1 SmartSearch* for the correct color for each application.

Compressor sound blanket (S1-01007xxx000): A field installed dense foam cover that provides 2 dBA sound level reduction. Refer to the *Price Pages* or *Source 1 SmartSearch* for the correct blanket for each application.

Thermostat: Compatible thermostat controls are available through accessory sourcing. For optimum performance, these outdoor units are fully compatible with our residential Hx^{TM} Touch Screen Thermostat available through Source 1. For more information, refer to the *Thermostats & Controllers* section at www.simplygettingthejobdone.com.

Sound power rating

Table 7: Sound power data - Cooling - Octave band sound power level (db re. 1-pW)

Outdoor unit	Power	Power	Power	Power	Power	Power	Power	Power	dBA	SQI
model	level 63	level 125	level 250	level 500	level 1000	level 2000	level 4000	level 8000		
	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)		
RC318E2S11	74	69	63	66	65	61	57	54	73	19.1
RC324E2S11	72	73	65	68	65	66	68	59	74	19.0
RC330E2S11	75	71	65	69	64	61	57	60	73	19.1
RC336E2S11	72	73	68	70	68	66	60	64	74	19.0
RC342E2S11	68	73	70	73	67	64	61	59	76	19.1
RC348E2S11	68	70	70	70	69	63	61	61	76	19.2
RC360E2S11	70	73	72	71	71	66	64	64	77	19.1

Mechanical specifications

Manufacture and certifications

- Units shall be assembled at a facility with an ISO 9001:2015-certified Quality Management System.
- Units shall be certified by CSA to UL 60335-2-40/CSA C22.2 and performance certified to ANSI/ AHRI Standard 210/240.
- Units shall be sound tested according to ANSI/AHRI Standard 270.
- Certified matched system ratings shall be available for download from the AHRI online directory at www.ahridirectory.org.

Unit application

- Units shall be approved for cooling operation between 55°F and 115°F without modification.
- Units shall be approved for linesets up to 80 ft equivalent length without modification.
- Units shall be approved for installation within 6 in. of a flat vertical wall without modification, according to the instructions in the technical literature.
- Units shall be designed to 77 dBA or less to minimize sound pollution.

Unit access

- Units shall have a removable fan guard that can be removed independently of the top for interior access through the top of the unit without damaging the coil.
- Units shall have two removable stamped steel coil guards for exterior coil access.
- Units shall have a separate compartment for electrical controls that can be accessed without disturbing the unit airflow.
- Units shall have a blockoff panel that can be removed to provide interior unit access through the side of the unit.
- Units shall have a removable blockoff panel and a swing away removable electrical panel that
 provides sufficient interior unit access for removing the compressor through the side of the
 unit.

Unit construction

- Units shall be shipped completely wired, piped, and assembled. Wiring pigtails shall be provided for field control wiring connections. Service valves shall be provided for field refrigerant line connections.
- Units shall be factory leak checked, run tested, and shipped with a holding charge of R-454B refrigerant.
- Unit cabinet components shall be G90 equivalent steel finished with powder-coat paint rated at a minimum of 500 h under ASTM B117 testing.
- Unit base pan shall be stamped G90 equivalent steel finished with powder-coat paint rated at a minimum of 500 h under ASTM B117 testing.
- Units shall have a single corner post opposite the electrical control box and two independently removable steel coil guard panels to optimize cabinet strength and serviceability.
- Units shall have L-shaped stamped sheet metal coil guards with punched and extruded slots for maximum panel durability and stiffness.
- Unit base valves shall be mounted diagonally on the unit base pan with service ports that provide sufficient clearance for low-loss hose fittings.
- Units shall be constructed with a high-pressure switch for system protection.
- Units shall be constructed with all badging and labels applied at the factory.

Unit components

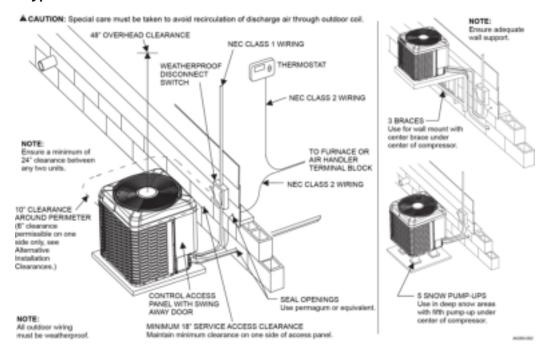
- Compressor shall be hermetic with internal electrical overload protection and internal overpressure protection.
- Compressor shall be mounted on rubber vibration isolators that do not require the removal of transportation clips or brackets.
- Outdoor fan shall be direct drive with vertical air discharge for low sound levels.
- Outdoor fan motor shall be totally enclosed with permanently lubricated ball bearings motors approved for vertical shaft applications.
- Outdoor coil shall be air cooled and have zinc-coated aluminum microchannel construction for small size and low weight.

Unit warranties

- Unit manufacturer shall provide a 10-year compressor warranty without a requirement for unit registration.
- Unit manufacturer shall provide a 5-year parts warranty without a requirement for unit registration.

Typical installation

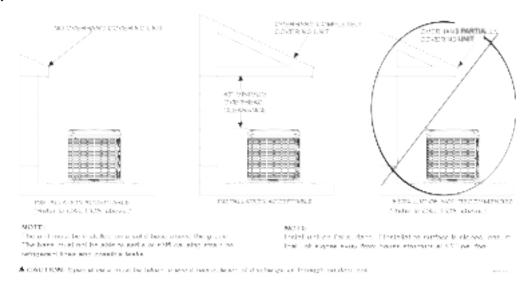
Figure 3: Typical installation



A CAUTION

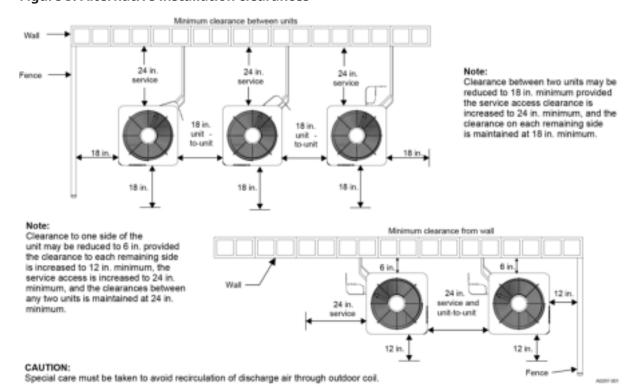
Care must be taken to prevent ice from damaging the unit. Damage may occur from ice falling onto unit from a sloped roof or from a vertical drip line due to a partial overhang.

Figure 4: Typical installation



Alternative installation clearances

Figure 5: Alternative installation clearances



Performance data - 1.5 ton

See the following tables for performance data for the RC318E2S11 unit.

Cooling performance data - 1.5 ton

Table 8: Cooling performance data - 1.5 ton

Air temperature entering	Indoor CFM	450					600					750					
outdoor unit (°F)	Indoor dry bulb	80	80	75	80	80	80	80	75	80	80	80	80	75	80	80	
	(°F)																
	Indoor wet bulb (°F)	57	62	62	67	72	57	62	62	67	72	57	62	62	67	72	
55	Total capacity	16.5	17.9	17.9	19.4	21.0	18.4	19.2	19.2	20.9	22.5	19.6	20.1	20.0	22.0	23.9	
55	Sensible capacity	16.4	14.6	12.5	12.2	9.7	18.3	17.3	14.5	14.1	11.0	19.5	19.4	16.3	15.9	12.4	
55	kW	0.99	0.97	0.97	0.95	0.92	1.03	1.02	1.02	1.00	0.98	1.07	1.07	1.07	1.05	1.03	
65	Total capacity	17.6	16.1	17.6	19.3	21.2	18.4	17.5	18.5	20.3	22.3	18.9	18.6	19.0	20.9	22.9	
65	Sensible capacity	12.5	16.1	14.6	12.5	10.4	14.0	17.5	16.6	14.0	11.3	15.2	18.5	18.2	15.2	12.1	
65	kW	1.09	1.10	1.09	1.07	1.05	1.15	1.15	1.15	1.12	1.10	1.21	1.22	1.21	1.18	1.16	
75	Total capacity	16.9	15.7	16.9	18.6	20.5	17.7	17.0	17.7	19.5	21.4	18.1	18.0	18.1	20.0	22.0	
75	Sensible capacity	12.3	15.6	14.4	12.3	10.2	13.8	17.0	16.4	13.8	11.1	15.0	17.9	17.9	15.0	11.8	
75	kW	1.22	1.22	1.22	1.21	1.18	1.28	1.28	1.27	1.26	1.25	1.34	1.34	1.34	1.32	1.31	
85	Total capacity	16.2	15.1	16.2	17.9	19.7	16.9	16.5	16.9	18.6	20.5	17.3	17.3	17.4	19.0	20.9	
85	Sensible capacity	12.0	15.1	14.1	12.0	9.9	13.4	16.4	16.1	13.5	10.8	14.7	17.3	17.3	14.7	11.5	
85	kW	1.34	1.34	1.34	1.33	1.33	1.40	1.40	1.40	1.40	1.39	1.48	1.48	1.48	1.46	1.45	
95	Total capacity	15.5	14.6	15.5	17.1	18.9	16.1	15.8	16.2	17.8	19.6	16.4	16.6	16.7	18.2	20.0	
95	Sensible capacity	11.6	14.5	13.7	11.7	9.6	13.0	15.8	15.6	13.1	10.5	14.2	16.6	16.6	14.3	11.2	
95	kW	1.48	1.46	1.48	1.48	1.49	1.55	1.55	1.55	1.55	1.55	1.62	1.62	1.62	1.62	1.62	
105	Total capacity	14.8	14.1	14.8	16.3	18.0	15.3	15.2	15.3	17.0	18.7	15.6	16.0	16.0	17.3	19.1	
105	Sensible capacity	11.3	14.0	13.4	11.4	9.3	12.7	15.2	15.1	12.8	10.2	13.9	16.0	16.0	14.0	10.9	
105	kW	1.62	1.61	1.62	1.63	1.64	1.69	1.69	1.69	1.70	1.71	1.77	1.77	1.77	1.78	1.79	
115	Total capacity	13.6	13.2	13.7	15.0	16.4	14.4	14.5	14.6	16.0	17.6	15.0	15.4	15.7	16.7	18.7	
115	Sensible capacity	10.8	13.2	12.9	10.5	8.2	12.5	14.4	14.6	12.4	9.5	14.1	15.4	15.6	14.3	11.0	
115	kW	1.78	1.77	1.78	1.80	1.81	1.85	1.85	1.85	1.87	1.89	1.92	1.93	1.93	1.94	1.96	

Performance data - 2 ton

See the following tables for performance data for the RC324E2S11 unit.

Cooling performance data - 2 ton

Table 9: Cooling performance data - 2 ton

Air temperature entering	Indoor CFM	600					800						1000					
outdoor unit (°F)	Indoor dry bulb (°F)	80	80	75	80	80	80	80	75	80	80	80	80	75	80	80		
	Indoor wet bulb (°F)	57	62	62	67	72	57	62	62	67	72	57	62	62	67	72		
55	Total capacity	21.7	23.4	23.4	25.3	27.4	24.1	24.6	24.7	26.6	28.7	25.5	25.1	25.1	27.0	29.0		
55	Sensible capacity	21.7	19.1	16.3	15.9	12.7	24.1	22.3	18.7	18.1	13.8	25.4	24.9	20.7	20.0	14.7		
55	kW	1.28	1.25	1.26	1.22	1.19	1.33	1.32	1.32	1.28	1.24	1.39	1.39	1.39	1.35	1.31		
65	Total capacity	22.6	21.1	22.7	24.8	27.3	23.6	22.8	23.6	25.9	28.5	24.2	24.1	24.1	26.6	29.2		
65	Sensible capacity	16.2	21.0	19.1	16.1	13.1	18.2	22.8	21.8	18.1	14.4	19.9	24.1	24.0	19.8	15.4		
65	kW	1.41	1.42	1.41	1.38	1.35	1.48	1.49	1.48	1.45	1.42	1.56	1.56	1.56	1.53	1.50		
75	Total capacity	21.9	20.6	21.9	24.0	26.4	22.8	22.3	22.8	25.1	27.5	23.2	23.5	23.5	25.7	28.2		
75	Sensible capacity	16.0	20.5	18.9	16.0	13.0	18.0	22.3	21.5	18.0	14.2	19.7	23.4	23.4	19.8	15.3		
75	kW	1.56	1.57	1.56	1.55	1.53	1.65	1.65	1.64	1.63	1.61	1.74	1.73	1.73	1.72	1.70		
85	Total capacity	21.0	20.0	21.0	23.1	25.4	21.8	21.6	21.9	24.0	26.4	22.1	22.7	22.7	24.6	26.9		
85	Sensible capacity	15.7	19.9	18.6	15.7	12.7	17.7	21.6	21.2	17.8	14.0	19.4	22.7	22.7	19.5	15.0		
85	kW	1.74	1.73	1.74	1.73	1.72	1.82	1.82	1.82	1.82	1.81	1.91	1.91	1.91	1.90	1.89		
95	Total capacity	20.1	19.3	20.1	22.2	24.4	20.8	20.9	20.9	23.0	25.3	21.2	21.9	21.9	23.4	25.8		
95	Sensible capacity	15.3	19.2	18.1	15.3	12.3	17.3	20.8	20.8	17.4	13.6	19.0	21.9	21.9	19.1	14.6		
95	kW	1.91	1.90	1.91	1.91	1.91	2.00	2.00	2.00	2.00	2.00	2.09	2.09	2.09	2.09	2.09		
105	Total capacity	19.0	18.3	19.0	20.9	23.0	19.6	19.8	19.8	21.6	23.8	19.9	20.8	20.8	21.9	24.2		
105	Sensible capacity	14.6	18.3	17.5	14.6	11.4	16.6	19.8	19.8	16.6	12.7	18.4	20.8	20.8	18.4	13.8		
105	kW	2.08	2.07	2.08	2.09	2.10	2.17	2.17	2.17	2.19	2.20	2.27	2.27	2.27	2.28	2.29		
115	Total capacity	18.0	17.9	17.9	19.3	20.7	18.8	19.5	19.1	20.0	21.2	19.2	20.8	20.3	20.2	20.7		
115	Sensible capacity	13.9	17.8	16.8	13.4	9.8	16.3	19.5	19.1	15.8	11.1	18.5	20.8	20.3	17.9	12.0		
115	kW	2.25	2.24	2.25	2.28	2.31	2.36	2.36	2.37	2.39	2.42	2.46	2.46	2.47	2.49	2.51		

Performance data - 2.5 ton

See the following tables for performance data for the RC330E2S11 unit.

Cooling performance data - 2.5 ton

Table 10: Cooling performance data - 2.5 ton

Air temperature entering	Indoor CFM	800					1000					1200					
outdoor unit (°F)	Indoor dry bulb (°F)	80	80	75	80	80	80	80	75	80	80	80	80	75	80	80	
	Indoor wet bulb (°F)	57	62	62	67	72	57	62	62	67	72	57	62	62	67	72	
55	Total capacity	26.8	28.9	28.8	31.4	34.2	28.5	29.5	29.5	31.9	34.2	29.7	29.8	29.8	32.1	34.0	
55	Sensible capacity	26.6	24.2	20.5	19.8	15.9	28.3	26.6	22.1	21.1	15.8	29.5	28.4	23.5	22.2	15.8	
55	kW	1.57	1.55	1.56	1.54	1.52	1.64	1.62	1.63	1.61	1.61	1.71	1.70	1.70	1.69	1.69	
65	Total capacity	27.9	25.7	27.9	30.5	33.3	28.7	27.5	28.8	31.4	34.2	29.3	28.6	29.3	32.1	34.8	
65	Sensible capacity	19.6	25.5	23.3	19.5	15.7	21.3	27.3	25.5	21.2	16.7	22.7	28.5	27.5	22.6	17.5	
65	kW	1.72	1.72	1.72	1.73	1.74	1.81	1.81	1.81	1.82	1.83	1.90	1.90	1.90	1.91	1.92	
75	Total capacity	27.3	25.4	27.3	29.8	32.6	28.1	27.0	28.1	30.8	33.5	28.6	28.2	28.5	31.3	34.0	
75	Sensible capacity	19.6	25.2	23.2	19.5	15.7	21.3	26.8	25.5	21.2	16.7	22.7	28.0	27.4	22.6	17.5	
75	kW	1.93	1.92	1.93	1.94	1.95	2.02	2.02	2.02	2.03	2.05	2.11	2.11	2.11	2.13	2.14	
85	Total capacity	26.5	24.9	26.5	29.0	31.8	27.2	26.4	27.2	29.9	32.6	27.7	27.5	27.5	30.4	33.1	
85	Sensible capacity	19.4	24.7	23.0	19.4	15.6	21.1	26.2	25.3	21.1	16.6	22.5	27.3	27.3	22.5	17.4	
85	kW	2.15	2.14	2.15	2.16	2.18	2.24	2.24	2.24	2.26	2.28	2.34	2.33	2.33	2.35	2.37	
95	Total capacity	25.5	24.2	25.5	27.9	30.7	26.2	25.6	26.1	28.8	31.5	26.6	26.6	26.6	29.2	32.0	
95	Sensible capacity	19.1	24.0	22.6	18.9	15.2	20.8	25.5	24.8	20.7	16.3	22.3	26.5	26.5	22.2	17.1	
95	kW	2.38	2.37	2.38	2.40	2.42	2.48	2.47	2.48	2.50	2.52	2.57	2.57	2.57	2.59	2.61	
105	Total capacity	23.9	23.1	23.8	26.3	28.9	24.5	24.4	24.4	27.0	29.6	24.8	25.3	25.3	27.4	30.0	
105	Sensible capacity	18.4	22.9	21.9	18.3	14.4	20.2	24.2	24.2	20.1	15.5	21.7	25.2	25.2	21.7	16.4	
105	kW	2.64	2.63	2.63	2.66	2.69	2.73	2.73	2.73	2.76	2.78	2.82	2.83	2.83	2.85	2.89	
115	Total capacity	22.1	21.9	22.1	24.3	26.6	22.7	23.2	23.1	25.0	27.5	23.1	24.2	24.2	25.6	28.0	
115	Sensible capacity	17.7	21.8	21.6	17.4	13.2	19.8	23.1	23.0	19.3	14.5	21.4	24.0	24.0	21.2	15.5	
115	kW	2.95	2.96	2.95	2.97	2.99	3.04	3.05	3.05	3.07	3.10	3.13	3.13	3.14	3.17	3.22	

Performance data - 3 ton

See the following tables for performance data for the RC336E2S11 unit.

Cooling performance data - 3 ton

Table 11: Cooling performance data - 3 ton

Air temperature entering	Indoor CFM	1000					1200					1400					
outdoor unit (°F)	Indoor dry bulb (°F)	80	80	75	80	80	80	80	75	80	80	80	80	75	80	80	
	Indoor wet bulb (°F)	57	62	62	67	72	57	62	62	67	72	57	62	62	67	72	
55	Total capacity	32.9	35.3	35.2	38.4	41.1	34.6	36.3	36.3	39.7	42.4	35.8	37.0	37.1	40.6	43.4	
55	Sensible capacity	32.5	29.8	25.3	24.7	19.6	34.1	32.6	27.2	26.6	20.7	35.3	34.9	28.9	28.1	21.7	
55	kW	1.94	1.95	1.95	1.95	1.96	2.03	2.04	2.04	2.04	2.05	2.12	2.13	2.14	2.14	2.15	
65	Total capacity	34.5	32.3	34.6	37.6	40.9	35.4	33.9	35.3	38.5	41.7	35.9	35.1	35.8	39.1	42.4	
65	Sensible capacity	24.8	31.8	29.2	24.7	20.2	26.5	33.4	31.7	26.3	21.2	28.0	34.6	33.7	27.8	22.0	
65	kW	2.22	2.23	2.22	2.20	2.17	2.30	2.30	2.30	2.28	2.27	2.38	2.38	2.38	2.37	2.35	
75	Total capacity	33.2	31.4	33.2	36.2	39.5	34.0	32.9	33.9	37.0	40.3	34.5	34.1	34.4	37.6	40.8	
75	Sensible capacity	24.4	31.0	28.9	24.3	19.7	26.1	32.5	31.3	26.0	20.8	27.6	33.7	33.3	27.6	21.6	
75	kW	2.41	2.42	2.41	2.41	2.40	2.50	2.50	2.50	2.49	2.48	2.59	2.58	2.58	2.58	2.57	
85	Total capacity	31.7	30.3	31.7	34.7	37.9	32.4	31.8	32.3	35.5	38.6	32.9	32.9	32.9	36.0	39.0	
85	Sensible capacity	23.8	29.9	28.4	23.8	19.2	25.6	31.4	30.8	25.5	20.2	27.2	32.4	32.5	27.1	21.1	
85	kW	2.63	2.63	2.63	2.63	2.63	2.73	2.73	2.73	2.73	2.72	2.82	2.81	2.81	2.81	2.81	
95	Total capacity	30.3	29.2	30.3	33.3	36.4	31.0	30.6	30.9	34.0	37.0	31.3	31.6	31.7	34.4	37.3	
95	Sensible capacity	23.1	28.8	27.8	23.1	18.6	24.9	30.2	29.8	24.9	19.5	26.5	31.2	31.2	26.4	20.4	
95	kW	2.93	2.93	2.93	2.94	2.94	3.02	3.02	3.02	3.02	3.03	3.11	3.11	3.11	3.11	3.12	
105	Total capacity	28.7	27.9	28.7	31.6	34.5	29.3	29.2	29.3	32.2	35.0	29.7	30.2	30.2	32.5	35.4	
105	Sensible capacity	22.4	27.5	26.9	22.4	17.9	24.2	28.8	28.9	24.0	18.8	25.7	29.8	29.8	25.6	19.7	
105	kW	3.29	3.29	3.29	3.30	3.31	3.38	3.38	3.38	3.39	3.40	3.47	3.47	3.47	3.48	3.49	
115	Total capacity	26.6	26.6	26.6	29.1	31.1	27.3	27.8	27.9	30.1	32.5	27.7	28.6	29.0	30.9	33.7	
115	Sensible capacity	22.1	26.2	26.2	21.2	15.6	24.0	27.4	27.5	23.2	17.2	25.5	28.2	28.6	25.0	18.6	
115	kW	3.73	3.74	3.74	3.76	3.78	3.80	3.80	3.81	3.83	3.86	3.87	3.86	3.88	3.90	3.94	

Performance data - 3.5 ton

See the following tables for performance data for the RC342E2S11 unit.

Cooling performance data - 3.5 ton

Table 12: Cooling performance data - 3.5 ton

Air temperature entering	Indoor CFM	1200					1400					1600					
outdoor unit (°F)	Indoor dry bulb (°F)	80	80	75	80	80	80	80	75	80	80	80	80	75	80	80	
	Indoor wet bulb (°F)	57	62	62	67	72	57	62	62	67	72	57	62	62	67	72	
55	Total capacity	41.3	42.8	42.8	44.2	45.3	43.1	43.8	43.8	45.6	46.1	44.6	44.3	44.4	46.7	46.7	
55	Sensible capacity	42.6	37.9	32.4	30.3	22.5	44.5	40.5	34.3	32.4	23.4	46.1	42.9	35.8	34.1	24.3	
55	kW	2.24	2.21	2.22	2.17	2.16	2.32	2.30	2.30	2.27	2.25	2.41	2.39	2.40	2.38	2.35	
65	Total capacity	39.9	37.5	40.0	43.9	47.9	40.9	39.2	40.9	44.8	48.8	41.5	40.5	41.3	45.4	49.4	
65	Sensible capacity	30.4	38.7	36.0	30.4	24.7	32.3	40.4	38.7	32.2	25.8	33.9	41.8	41.0	33.8	26.7	
65	kW	2.58	2.60	2.58	2.54	2.49	2.68	2.69	2.67	2.63	2.57	2.77	2.77	2.76	2.72	2.67	
75	Total capacity	38.7	36.6	38.8	42.6	46.5	39.6	38.2	39.5	43.4	47.3	40.2	39.5	39.9	43.9	47.8	
75	Sensible capacity	30.0	37.8	35.9	30.1	24.2	32.0	39.5	38.4	31.9	25.3	33.7	40.8	40.4	33.5	26.2	
75	kW	2.88	2.89	2.87	2.83	2.78	2.97	2.98	2.97	2.93	2.87	3.06	3.07	3.06	3.01	2.96	
85	Total capacity	37.3	35.5	37.2	41.0	44.8	38.1	37.1	37.7	41.7	45.4	38.6	38.3	38.4	42.2	45.9	
85	Sensible capacity	29.4	36.6	35.2	29.4	23.6	31.4	38.3	37.6	31.3	24.6	33.2	39.6	39.6	33.0	25.6	
85	kW	3.16	3.17	3.15	3.12	3.08	3.26	3.27	3.26	3.21	3.16	3.35	3.35	3.35	3.31	3.26	
95	Total capacity	35.7	34.3	35.7	39.3	43.0	36.4	35.8	36.1	40.0	43.7	36.7	36.8	36.9	40.4	44.1	
95	Sensible capacity	28.6	35.4	34.4	28.6	22.9	30.6	36.9	36.5	30.5	23.9	32.3	38.0	38.1	32.3	24.9	
95	kW	3.50	3.50	3.49	3.47	3.43	3.60	3.60	3.60	3.56	3.51	3.69	3.69	3.69	3.65	3.61	
105	Total capacity	33.8	32.9	33.6	37.3	40.9	34.4	34.2	34.3	37.8	41.4	34.7	35.3	35.3	38.2	41.7	
105	Sensible capacity	28.0	33.9	33.3	27.9	22.1	30.0	35.3	35.4	29.8	23.1	31.6	36.5	36.5	31.5	24.1	
105	kW	3.84	3.84	3.84	3.82	3.79	3.94	3.94	3.94	3.92	3.88	4.03	4.03	4.03	4.01	3.97	
115	Total capacity	32.3	32.3	31.9	34.7	36.6	33.1	34.0	33.4	35.7	38.0	33.6	35.3	34.7	36.4	39.1	
115	Sensible capacity	27.6	33.4	32.7	27.0	20.1	30.2	35.1	34.5	29.2	21.6	32.1	36.4	35.8	31.1	22.7	
115	kW	4.20	4.18	4.21	4.21	4.23	4.30	4.29	4.31	4.31	4.32	4.41	4.40	4.42	4.42	4.42	

Performance data - 4 ton

See the following tables for performance data for the RC348E2S11 unit.

Cooling performance data - 4 ton

Table 13: Cooling performance data - 4 ton

Air temperature entering	Indoor CFM	1350					1550					1750					
outdoor unit (°F)	Indoor dry bulb (°F)	80	80	75	80	80	80	80	75	80	80	80	80	75	80	80	
	Indoor wet bulb (°F)	57	62	62	67	72	57	62	62	67	72	57	62	62	67	72	
55	Total capacity	45.7	48.0	47.8	51.0	54.1	47.3	49.0	48.8	52.3	55.2	48.6	49.7	49.5	53.0	56.0	
55	Sensible capacity	46.2	41.0	34.6	33.1	25.1	47.9	43.7	36.5	35.2	26.6	49.3	46.1	38.2	37.1	28.0	
55	kW	2.69	2.70	2.70	2.71	2.72	2.78	2.79	2.79	2.80	2.82	2.87	2.88	2.88	2.90	2.91	
65	Total capacity	46.2	43.5	46.5	50.5	54.7	47.2	45.3	47.3	51.4	55.7	47.8	46.6	47.9	52.1	56.4	
65	Sensible capacity	33.8	44.1	40.2	33.6	26.8	35.7	45.9	42.9	35.4	27.9	37.3	47.2	45.1	37.0	28.8	
65	kW	2.97	2.97	2.97	2.98	2.99	3.06	3.06	3.06	3.07	3.08	3.15	3.15	3.15	3.16	3.17	
75	Total capacity	45.4	43.0	45.6	49.7	53.9	46.3	44.7	46.3	50.5	54.7	46.8	46.0	46.9	51.1	55.4	
75	Sensible capacity	33.8	43.5	40.3	33.6	26.8	35.6	45.2	42.7	35.3	27.9	37.4	46.6	45.1	37.1	28.9	
75	kW	3.29	3.28	3.29	3.30	3.31	3.38	3.37	3.38	3.39	3.40	3.47	3.47	3.47	3.48	3.49	
85	Total capacity	44.3	42.1	44.2	48.3	52.6	45.0	43.6	45.0	49.2	53.4	45.4	44.9	45.4	49.7	53.9	
85	Sensible capacity	33.5	42.6	39.9	33.3	26.5	35.3	44.2	42.3	35.1	27.6	36.9	45.5	44.5	36.8	28.6	
85	kW	3.65	3.64	3.64	3.66	3.67	3.74	3.73	3.73	3.75	3.76	3.83	3.82	3.83	3.84	3.85	
95	Total capacity	42.3	40.5	42.3	46.3	50.5	43.0	42.0	43.0	47.0	51.2	43.5	43.2	43.4	47.7	51.8	
95	Sensible capacity	32.5	41.0	38.8	32.3	25.6	34.2	42.6	41.3	34.1	26.7	35.9	43.8	43.5	35.8	27.7	
95	kW	4.07	4.07	4.07	4.09	4.10	4.16	4.16	4.16	4.18	4.19	4.25	4.25	4.25	4.27	4.28	
105	Total capacity	40.1	38.8	40.0	43.9	47.9	40.6	40.2	40.4	44.6	48.6	41.0	41.3	41.4	45.0	49.0	
105	Sensible capacity	31.6	39.3	37.9	31.4	24.7	33.4	40.7	40.3	33.2	25.8	35.1	41.9	41.9	35.0	26.8	
105	kW	4.57	4.57	4.57	4.59	4.61	4.67	4.67	4.67	4.68	4.71	4.76	4.77	4.77	4.78	4.80	
115	Total capacity	37.0	36.0	36.9	40.8	44.9	37.7	37.2	37.8	41.7	46.0	38.0	38.2	39.0	42.4	46.7	
115	Sensible capacity	29.8	36.4	35.9	29.8	23.0	32.0	37.7	38.3	32.3	25.0	33.9	38.7	39.5	34.8	26.8	
115	kW	5.23	5.26	5.23	5.22	5.20	5.30	5.32	5.31	5.30	5.29	5.40	5.39	5.40	5.37	5.37	

Performance data - 5 ton

See the following tables for performance data for the RC360E2S11 unit.

Cooling performance data - 5 ton

Table 14: Cooling performance data - 5 ton

Air temperature entering	Indoor CFM	1525					1725					1925					
outdoor unit (°F)	Indoor dry bulb (°F)	80	80	75	80	80	80	80	75	80	80	80	80	75	80	80	
	Indoor wet bulb (°F)	57	62	62	67	72	57	62	62	67	72	57	62	62	67	72	
55	Total capacity	50.9	55.5	55.1	59.9	64.5	53.0	56.5	56.1	60.5	64.2	54.5	57.1	56.6	60.2	63.6	
55	Sensible capacity	51.1	45.3	38.7	38.3	31.2	53.2	47.6	40.3	39.7	31.4	54.7	49.7	41.7	40.7	31.3	
55	kW	3.25	3.26	3.27	3.28	3.29	3.34	3.36	3.36	3.37	3.39	3.43	3.44	3.45	3.46	3.48	
65	Total capacity	54.0	50.3	54.3	59.0	64.0	55.0	52.0	55.4	60.1	65.1	55.8	53.4	56.2	61.0	65.9	
65	Sensible capacity	38.5	50.5	45.2	38.4	31.4	40.1	52.2	47.5	40.0	32.4	41.6	53.6	49.6	41.4	33.2	
65	kW	3.57	3.55	3.56	3.58	3.58	3.66	3.64	3.65	3.67	3.67	3.76	3.75	3.75	3.77	3.77	
75	Total capacity	53.4	49.8	53.6	58.4	63.5	54.4	51.5	54.7	59.5	64.5	55.2	52.9	55.4	60.3	65.4	
75	Sensible capacity	38.5	50.0	45.2	38.4	31.5	40.1	51.7	47.5	40.1	32.5	41.7	53.1	49.7	41.6	33.4	
75	kW	3.92	3.91	3.92	3.94	3.95	4.02	4.00	4.01	4.03	4.04	4.12	4.10	4.11	4.13	4.14	
85	Total capacity	52.2	49.0	52.4	57.3	62.3	53.2	50.6	53.4	58.2	63.3	54.0	52.0	54.0	59.0	64.1	
85	Sensible capacity	38.1	49.2	44.8	38.2	31.2	39.8	50.8	47.2	39.8	32.2	41.4	52.2	49.4	41.3	33.1	
85	kW	4.35	4.33	4.35	4.36	4.38	4.44	4.43	4.44	4.46	4.47	4.55	4.53	4.54	4.56	4.57	
95	Total capacity	50.2	47.5	50.4	55.2	60.1	51.1	49.0	51.2	56.0	61.0	51.8	50.3	51.9	56.7	61.7	
95	Sensible capacity	37.2	47.6	44.0	37.3	30.3	38.9	49.2	46.4	38.9	31.3	40.5	50.5	48.5	40.4	32.2	
95	kW	4.86	4.84	4.85	4.89	4.90	4.96	4.94	4.96	4.98	4.99	5.05	5.04	5.05	5.07	5.08	
105	Total capacity	47.3	45.6	47.5	51.9	56.6	48.0	47.1	48.1	52.6	57.5	48.5	48.3	48.7	53.2	58.0	
105	Sensible capacity	36.4	45.8	43.3	36.4	29.1	38.2	47.3	45.9	38.2	30.2	39.8	48.5	48.0	39.8	31.2	
105	kW	5.42	5.40	5.42	5.45	5.47	5.52	5.50	5.51	5.54	5.56	5.61	5.60	5.60	5.63	5.66	
115	Total capacity	43.9	42.8	44.1	47.9	52.3	44.6	44.1	44.7	48.6	53.2	45.1	45.2	45.7	49.2	53.7	
115	Sensible capacity	34.8	43.0	41.7	34.8	27.3	36.7	44.3	44.4	36.9	28.8	38.7	45.4	45.9	39.0	30.1	
115	kW	6.12	6.09	6.09	6.11	6.09	6.21	6.17	6.17	6.21	6.23	6.29	6.23	6.26	6.32	6.44	

