

Applications

Daikin Rooftop units are intended for comfort cooling applications in normal heating, ventilating, and air conditioning. Consult your local Daikin sales representative for applications involving operations at high ambient temperatures, high altitudes, non-cataloged voltages, or for job-specific unit selections that fall outside of the range of the catalog tables.

For proper operation, units should be rigged in accordance with instructions stated on the installation manual. Fire dampers, if required, must be installed in the ductwork according to local and/or state codes. No space is allowed for these dampers in the unit.

Follow factory check, test and start procedures explicitly to achieve satisfactory start-up and operation.

Most rooftop applications take advantage of the significant energy savings provided with economizer operation. When an economizer system is used, mechanical refrigeration is typically not required below an ambient temperature of 50°F.

Serviceability

Daikin packaged rooftop units are built with serviceability in mind, designed to make future maintenance and service on the unit easy and accessible.

- » Our packaged rooftop units offer a slide out blower to facilitate the access and removal of the fan.
- » Filter panels on the small chassis line offer tool-less access for easy maintenance.
- » Independent compressor outside of the air bypass to eliminate component blockage and provide easy access.
- » Labeled field connections, color coded and continuously marked wire to identify point-to-point component connections.
- » All 7.5- 12.5 ton units are designed for convertible airflow orientation to serve downflow or horizontal applications. Every unit ships prepared to convert to horizontal orientation in the field if required.
- » Condenser clean out from inside-out.
- » Easy access to gas valves and control panel.



Model	DHC0903D000001S	DHC0904D000001S	DHC0907D000001S
COOLING CAPACITY			
Total, BTU/h	90,000	90,000	90,000
IEER / EER	17.5/12.5	17.5/12.5	17.5/12.5
AHRI Reference #	216436797	216436798	216436799
EVAPORATOR MOTOR COIL			
Motor Type	DIRECT DRIVE	DIRECT DRIVE	DIRECT DRIVE
External Static Pressure (ESP)	STANDARD	STANDARD	STANDARD
Wheel Dia. X Width	Ø15.12 X 12.62	Ø15.12 X 12.62	Ø15.12 X 12.62
Indoor Nominal CFM	3000	3000	3000
RPM	300-1600	300-1600	300-1600
Indoor Horsepower	1.7	1.7	1.7
Filter Size (in)	16X25X2 (4)	16X25X2 (4)	16X25X2 (4)
Drain Size (NPT)	¾	¾	¾
R-32 Refrigerant Charge (oz.)	122.4/115	122.4/115	122.4/115
Evaporator Coil Face Area (ft²)	12.8	12.8	12.8
Rows Deep/ Fins per Inch	4/16	4/16	4/16
CONDENSER FAN/COIL			
Quantity of Condenser Fan Motors	2	2	2
RPM (High/Low stage)	1122	1050	1050
Outdoor Horsepower	1/3	1/3	1/3
Fan Diameter/ # Fan Blades	22/3	22/3	22/3
Face Area (ft²)	35.3	35.3	35.3
Rows Deep / Fins per Inch	2/28±1	2/28±1	2/28±1
COMPRESSOR (ALL SINGLE-STAGE)			
Quantity / Type / Stages	2/SCROLL/1	2/SCROLL/1	2/SCROLL/1
Compressor RLA / LRA	12.2/120	5.8/55.1	5.8/41.0
ELECTRICAL DATA			
Voltage-Phase-Frequency	208/230-3-60	460-3-60	575-3-60
Indoor Blower FLA	5.8	4	2.9
Max External Static (In. W.C.)	0.8	0.8	0.8
Outdoor Fan FLA	2	0.85	0.67
Min. Circuit Ampacity ¹	37.2/37.2	18.7	17.2
Max. Overcurrent Protection (A) ²	45/45	20	20
Power Supply Conduit Hole Dia. (in)	1.375	1.375	1.375
Low-Voltage Conduit Hole Dia. (in)	0.875	0.875	0.875
OPERATING WEIGHT (LBS.)			
Operating Weight (lbs)	1155	1155	1155
SHIPPING WEIGHT (LBS.)			
Ship Weight (lbs)	1215	1215	1215

¹ Wire size should be determined in accordance with National Electrical Codes. Extensive wire runs will require larger wire sizes.

² May use fuses or HACR-type circuit breakers of the same size as noted.

Note: Always check the S&R plate for electrical data on the unit being installed.

Model	DHC1023D000001S	DHC1024D000001S	DHC1027D000001S
COOLING CAPACITY			
Total, BTU/h	102,000	102,000	102,000
IEER / EER	17.5/12.5	17.5/12.5	17.5/12.5
AHRI Reference #	216436800	216436801	216436802
EVAPORATOR MOTOR COIL			
Motor Type	DIRECT DRIVE	DIRECT DRIVE	DIRECT DRIVE
External Static Pressure (ESP)	STANDARD	STANDARD	STANDARD
Wheel Dia. X Width	Ø15.12 X 12.62	Ø15.12 X 12.62	Ø15.12 X 12.62
Indoor Nominal CFM	3025	3025	3025
RPM	300-1600	300-1600	300-1600
Indoor Horsepower	2.4	2.4	2.4
Filter Size (in)	20x25x2(2) 25x25x2(2)	20x25x2(2) 25x25x2(2)	20x25x2(2) 25x25x2(2)
Drain Size (NPT)	¾	¾	¾
R-32 Refrigerant Charge (oz.)	123/124	123/124	123/124
Evaporator Coil Face Area (ft²)	16.6	16.6	16.6
Rows Deep/ Fins per Inch	4/16	4/16	4/16
CONDENSER FAN/COIL			
Quantity of Condenser Fan Motors	2	2	2
RPM (High/Low stage)	1122	1050	1050
Outdoor Horsepower	1/3	1/3	1/3
Fan Diameter/ # Fan Blades	22/3	22/3	22/3
Face Area (ft²)	35.3	35.3	35.3
Rows Deep / Fins per Inch	2/28±1	2/28±1	2/28±1
COMPRESSOR (ALL SINGLE-STAGE)			
Quantity / Type / Stages	2/SCROLL/1	2/SCROLL/1	2/SCROLL/1
Compressor RLA / LRA	14.1/120.4	6.4/55.1	5.1/41.0
ELECTRICAL DATA			
Voltage-Phase-Frequency	208/230-3-60	460-3-60	575-3-60
Indoor Blower FLA	8	5.4	4
Max External Static (In. W.C.)	0.8	0.8	0.8
Outdoor Fan FLA	2	0.85	0.67
Min. Circuit Ampacity ¹	43.7/43.7	21.5	16.9
Max. Overcurrent Protection (A) ²	50/50	25	20
Power Supply Conduit Hole Dia. (in)	1.375	1.375	1.375
Low-Voltage Conduit Hole Dia. (in)	0.875	0.875	0.875
OPERATING WEIGHT (LBS.)			
Operating Weight (lbs)	1176	1176	1176
SHIPPING WEIGHT (LBS.)			
Ship Weight (lbs)	1234	1234	1234

¹ Wire size should be determined in accordance with National Electrical Codes. Extensive wire runs will require larger wire sizes.

² May use fuses or HACR-type circuit breakers of the same size as noted.

Note: Always check the S&R plate for electrical data on the unit being installed.

Model	DHC1203D000001S	DHC1204D000001S	DHC1207D000001S
COOLING CAPACITY			
Total, BTU/h	116,000	116,000	116,000
IEER / EER	17/12.5	17/12.5	17/12.5
AHRI Reference #	216436803	216436804	216436805
EVAPORATOR MOTOR COIL			
Motor Type	DIRECT DRIVE	DIRECT DRIVE	DIRECT DRIVE
External Static Pressure (ESP)	STANDARD	STANDARD	STANDARD
Wheel Dia. X Width	Ø15.12 X 15.00	Ø15.12 X 15.00	Ø15.12 X 15.00
Indoor Nominal CFM	3500	3500	3500
RPM	300-1600	300-1600	300-1600
Indoor Horsepower	2.4	2.4	2.4
Filter Size (in)	20x25x2(2) 25x25x2(2)	20x25x2(2) 25x25x2(2)	20x25x2(2) 25x25x2(2)
Drain Size (NPT)	¾	¾	¾
R-32 Refrigerant Charge (oz.)	142/146	142/146	142/146
Evaporator Coil Face Area (ft²)	16.6	16.6	16.6
Rows Deep/ Fins per Inch	4/16	4/16	4/16
CONDENSER FAN/COIL			
Quantity of Condenser Fan Motors	2	2	2
RPM (High/Low stage)	1122	1050	1050
Outdoor Horsepower	1/3	1/3	1/3
Fan Diameter/ # Fan Blades	22/3	22/3	22/3
Face Area (ft²)	39.6	39.6	39.6
Rows Deep / Fins per Inch	2/28±1	2/28±1	2/28±1
COMPRESSOR (ALL SINGLE-STAGE)			
Quantity / Type / Stages	2/SCROLL/1	2/SCROLL/1	2/SCROLL/1
Compressor RLA / LRA	15.4/156.4	7.7/69.0	6.4/47.8
ELECTRICAL DATA			
Voltage-Phase-Frequency	208/230-3-60	460-3-60	575-3-60
Indoor Blower FLA	8	5.4	4
Max External Static (In. W.C.)	0.8	0.8	0.8
Outdoor Fan FLA	2	0.85	0.67
Min. Circuit Ampacity ¹	46.6/46.6	24.4	19.7
Max. Overcurrent Protection (A) ²	60/60	30	25
Power Supply Conduit Hole Dia. (in)	1.375	1.375	1.375
Low-Voltage Conduit Hole Dia. (in)	0.875	0.875	0.875
OPERATING WEIGHT (LBS.)			
Operating Weight (lbs)	1195	1195	1195
SHIPPING WEIGHT (LBS.)			
Ship Weight (lbs)	1252	1252	1252

¹ Wire size should be determined in accordance with National Electrical Codes. Extensive wire runs will require larger wire sizes.

² May use fuses or HACR-type circuit breakers of the same size as noted.

Note: Always check the S&R plate for electrical data on the unit being installed.

Model	DHC1503D000001S	DHC1504D000001S	DHC1507D000001S	DHC1503W000001F	DHC1504W000001F	DHC1507W000001F
COOLING CAPACITY						
Total, BTU/h	138,000	138,000	138,000	138,000	138,000	138,000
IEER / EER	16/12	16/12	16/12	16/12	16/12	16/12
AHRI Reference #	216436806	216436807	216436808	216436806	216436807	216436808
EVAPORATOR MOTOR COIL						
Motor Type	DIRECT DRIVE	DIRECT DRIVE	DIRECT DRIVE	DIRECT DRIVE	DIRECT DRIVE	DIRECT DRIVE
External Static Pressure (ESP)	STANDARD	STANDARD	STANDARD	HIGH	HIGH	HIGH
Wheel Dia. X Width	Ø15.12 X 15.00	Ø15.12 X 15.00	Ø15.12 X 15.00	Ø15.12 X 15.00	Ø15.12 X 15.00	Ø15.12 X 15.00
Indoor Nominal CFM	3800	3800	3800	3800	3800	3800
RPM	300-1600	300-1600	300-1600	300-1600	300-1600	300-1600
Indoor Horsepower	3.5	3.5	3.5	5.0	5.0	5.0
Filter Size (in)	25x25x2(4)	25x25x2(4)	25x25x2(4)	25x25x2(4)	25x25x2(4)	25x25x2(4)
Drain Size (NPT)	¾	¾	¾	¾	¾	¾
R-32 Refrigerant Charge (oz.)	148/147	148/147	148/147	148/147	148/147	148/147
Evaporator Coil Face Area (ft²)	19.1	19.1	19.1	19.1	19.1	19.1
Rows Deep/ Fins per Inch	4/16	4/16	4/16	4/16	4/16	4/16
CONDENSER FAN/COIL						
Quantity of Condenser Fan Motors	2	2	2	2	2	2
RPM (High/Low stage)	1150	1150	1150	1150	1150	1150
Outdoor Horsepower	1/3	1/3	1/3	1/3	1/3	1/3
Fan Diameter/ # Fan Blades	22/3	22/3	22/3	22/3	22/3	22/3
Face Area (ft²)	43.8	43.8	43.8	43.8	43.8	43.8
Rows Deep / Fins per Inch	2/28±1	2/28±1	2/28±1	2/28±1	2/28±1	2/28±1
COMPRESSOR (ALL SINGLE-STAGE)						
Quantity / Type / Stages	2/SCROLL/1	2/SCROLL/1	2/SCROLL/1	2/SCROLL/1	2/SCROLL/1	2/SCROLL/1
Compressor RLA / LRA	19.2/156.5	9/74.8	7.1/53.9	19.2/156.5	9/74.8	7.1/53.9
ELECTRICAL DATA						
Voltage-Phase-Frequency	208/230-3-60	460-3-60	575-3-60	208/230-3-60	460-3-60	575-3-60
Indoor Blower FLA	10.9	7.2	5	14.5	10.6	7.2
Max External Static (In. W.C.)	0.8	0.8	0.8	0.8	0.8	0.8
Outdoor Fan FLA	3.5	2	1.54	3.5	2	1.54
Min. Circuit Ampacity ¹	61.1/61.1	30.6	23.9	64.7/64.7	34.0	26.1
Max. Overcurrent Protection (A) ²	80/80	35	30	80/80	40	30
Power Supply Conduit Hole Dia. (in)	1.375	1.375	1.375	1.375	1.375	1.375
Low-Voltage Conduit Hole Dia. (in)	0.875	0.875	0.875	0.875	0.875	0.875
OPERATING WEIGHT (LBS.)						
Operating Weight (lbs)	1218	1218	1218	1218	1218	1218
SHIPPING WEIGHT (LBS.)						
Ship Weight (lbs)	1277	1277	1277	1277	1277	1277

¹ Wire size should be determined in accordance with National Electrical Codes. Extensive wire runs will require larger wire sizes.

² May use fuses or HACR-type circuit breakers of the same size as noted.

Note: Always check the S&R plate for electrical data on the unit being installed.

Coil Dimensions

Model	Tons	Indoor			Outdoor		
		Fin height in.	Fin length in.	Area (Ft^2)	Fin height in.	Fin length in.	Area (Ft^2)
DHC	7.5	34.6	53.1	12.8	47.9	53.1	35.3
	8.5	45.0	53.1	16.6	47.9	53.1	35.3
	10	45.0	53.1	16.6	47.9	59.6	39.6
	12.5	52.0	53.1	19.1	52.9	59.6	43.8

AHRI Ratings

MODEL	CAPACITY	EER	IEER
DHC090	90,000	12.5	17.5
DHC102	102,000	12.5	17.5
DHC120	116,000	12.5	17
DHC150	138,000	12	16

Sound Data

Model	OUTDOOR SOUND (dB) AT 60 Hz								
	A-Weighted	63	125	250	500	1000	2000	4000	8000
090	81.3	-	67.7	69.8	74.3	76.1	74.7	68.4	60.0
102	81.2	-	70.3	70.6	75.1	76.4	74.4	69.1	60.1
120	81.3	-	68.2	71.6	73.7	76.0	75.8	70.5	60.7
150	85.0	-	75.8	76.4	78.5	78.2	77.7	74.7	70.4

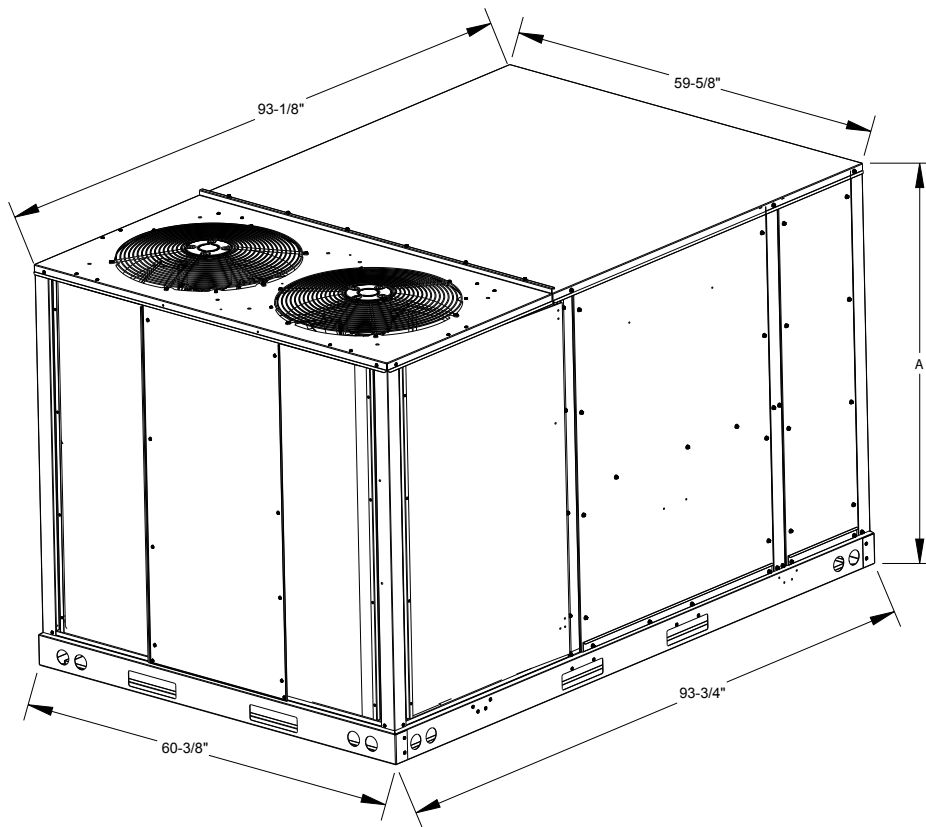
db - decibel

Notes:

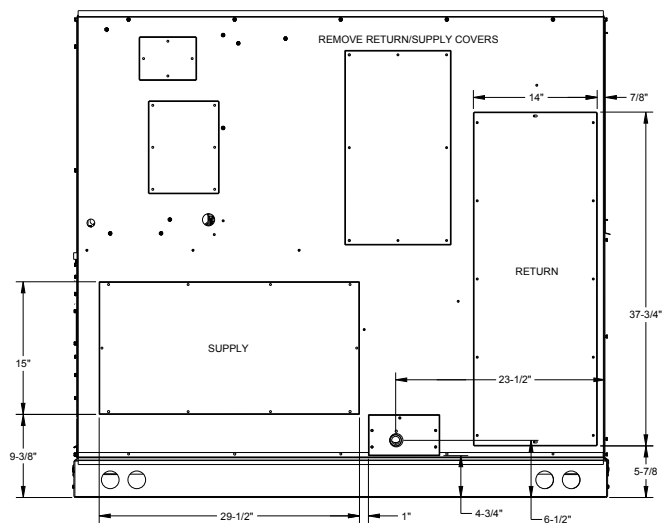
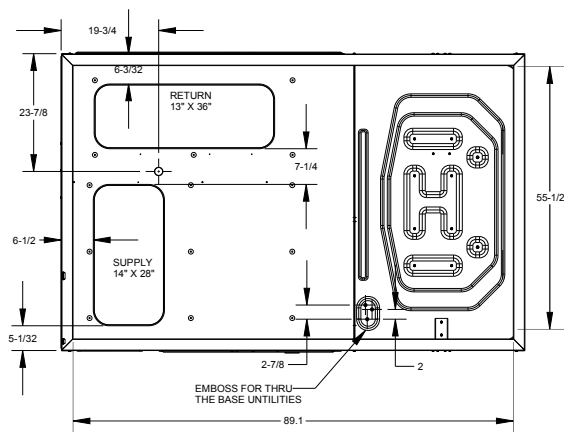
¹ Outdoor sound data is measured in accordance with AHRI standard 230.

² Measurements are expressed in terms of sound power. Do not compare these values to sound pressure values because sound pressure depends on specific environment factors which normally do not match individual applications. Sound power values are independent of the environment and therefore more accurate.

³ A-weighted sound ratings filter out high and very low frequencies, to better approximate the response of "average" human ear. A-weighted measurements for Daikin units are taken in accordance with AHRI standard 230.



Model Size	DIM "A"
DHC090	54 ³ / ₅
DHC102	54 ³ / ₅
DHC120	54 ³ / ₅
DHC150	54 ⁴ / ₅



Light Commercial Base Rails

