



*AC model pictured above



**Base Efficiency Gas/Electric
Packaged Rooftop Unit
DBG Commercial
15-25 Nominal Tons
UP TO 12.6 IEER / 10.8 EER**



* Complete warranty details available from your local distributor or manufacturer's representative or at www.daikincomfort.com or www.daikinac.com

Our Perfect Package:

Harnessing energy-efficient performance, proven technology, and enhanced comfort for life.

Since becoming the first company in Japan to manufacture packaged air conditioning systems, in 1951, Daikin has supported comfortable indoor living based on the strengths and technologies that have led to the growth of the company becoming one of the world's largest manufacturers of HVAC products, systems and refrigerants.

Today, as a comprehensive global manufacturer of HVAC products and systems, the Daikin brand is committed to being recognized as a truly global and excellent company capable of continually creating new value for its customers. The company plans to pursue sustainable growth and foster business operations that consistently harmonize with the goals of improving indoor comfort.

The group philosophy of the company includes:

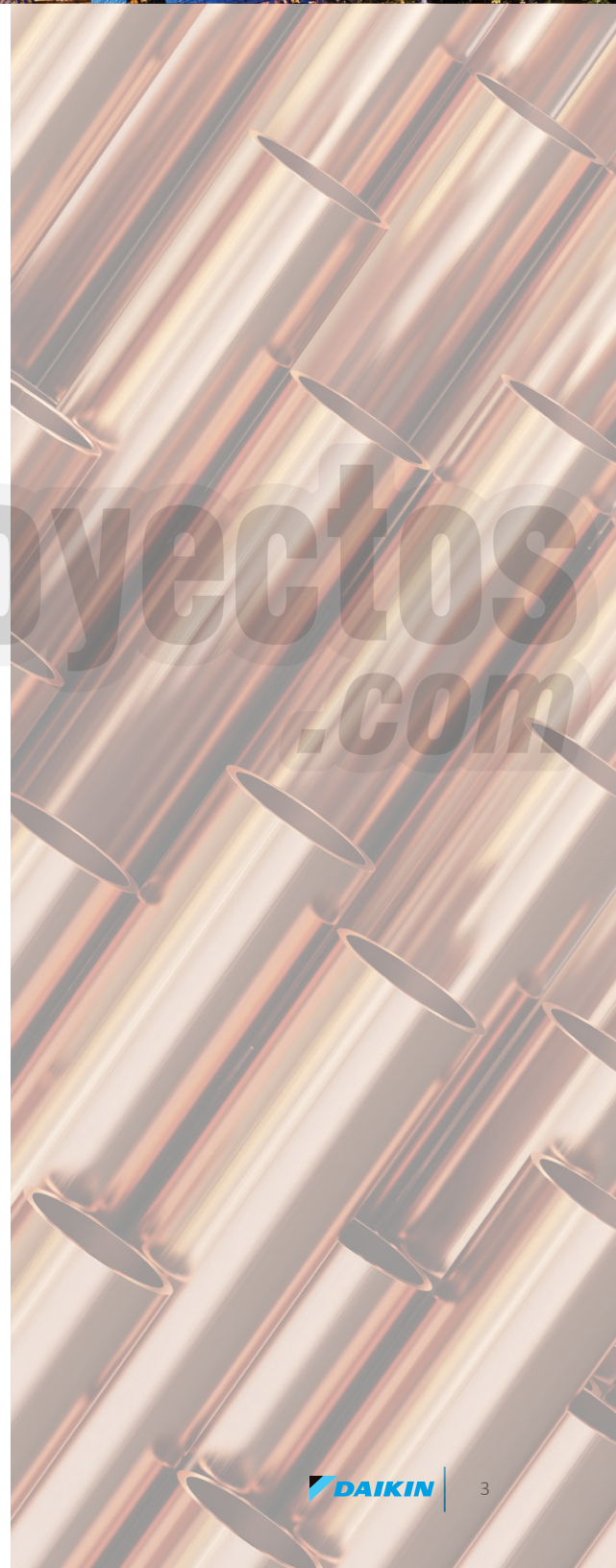
- » Creating new value continuously for customers
- » Developing world leading energy-saving technology
- » Being a flexible and dynamic organization
- » Allowing employees to be the driving force for the success of the company
- » Fostering an atmosphere of best practices, boldness, and innovation
- » Thinking and acting globally

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Nomenclature



G/E STOCKING MODELS	
New Daikin 15 – 25 Ton	
MODEL NUMBER	CODE STRING
DBG1803VH00001S	DBG1803V350CAAXXXXXXXXX
DBG1804VH00001S	DBG1804V350CAAXXXXXXXXX
DBG1807VH00001S	DBG1807V350CAAXXXXXXXXX
DBG2403VH00001S	DBG2403V400CAAXXXXXXXXX
DBG2404VH00001S	DBG2404V400CAAXXXXXXXXX
DBG2407VH00001S	DBG2407V400CAAXXXXXXXXX
DBG3003VH00001S	DBG3003V400CAAXXXXXXXXX
DBG3004VH00001S	DBG3004V400CAAXXXXXXXXX
DBG3007VH00001S	DBG3007V400CAAXXXXXXXXX

Daikin Packaged Rooftop Units (RTUs) are built to perform, with features and options that help provide low installation and operation costs, superior indoor air quality, efficient operation, and longevity.

Installation

Daikin Packaged Rooftop Units (RTUs) are designed with fast and easy installation in mind for both new construction and retrofit. Installers can benefit from our field installed options such as roof curbs for new constructions.

Cabinet Construction

Daikin packaged rooftop units are made with high quality galvanized steel with a powder-paint finish to provide higher corrosion resistance.

- » The interior surface in the indoor air section is fully insulated to prevent sweating and thermal losses, using our foil face fiberglass insulation which also omits exposed filter fibers into the air stream.
- » The full perimeter base rail is built using heavy gauge galvanized steel for a stronger structural installation. The base rails are a minimum of 3 ½" tall and include holes to allow for overhead rigging and lifting with forklifts.
- » Condenser hail guards are factory installed as a standard.

Compressor

High performance, low noise scroll compressors with stage control to match the required total load for efficient part load control.

- » Resiliently factory-mounted on rubber grommets for vibration isolation.
- » Refrigeration circuit includes both a low- and high-pressure transducer, high pressure safety switch and temperature sensors for the suction and discharge lines.
- » Unit is factory charged with environmentally friendly R-410A refrigerant.
- » Dual single-stage scroll compressors.
- » Compressor location outside the condenser section to avoid air bypass.
- » Internal overload protection included with compressor.
- » Crankcase heaters and external thermal overload protection are also provided for compressor durability.

Supply Fan

Indoor fan motors are belt-drive as standard to provide easy in the field belt and pulley adjustment for airflow control.

- » Slide out forward curb fan for easy maintenance and replacement.
- » High-static drive options for applications with high airflow/static requirements.
- » Each fan assembly is dynamically trim balanced at the factory before shipment for quick start-up and efficient operation.
- » Motor with thermal overload and phase failure protection is provided for long lasting operation.

Coils

All units use large face area outdoor coils. These coils are constructed with seamless copper tubes, mechanically bonded into aluminum plate-type fins with full drawn collars to completely cover the tubes for high operating efficiencies.

The indoor coil section is installed in a draw through configuration to provide better dehumidification.

- » Coils are factory pressure tested to ensure pressure and leak integrity.
- » Coils include a Thermal Expansion Valve per circuit, high- and low-pressure switches, service ports and high capacity filter drier.
- » Aluminum micro-channel indoor coil on 25-ton units



Features and Benefits

- » Low Ambient cooling operation down to 35°F outside air temp as standard, with option to perform down to 0°F when selected with low ambient kit.
- » 5mm Smart Coil Technology on all condenser coils for improved performance and reduced refrigerant load.

Controls and Wiring

Packaged rooftop units come equipped with a well-organized, large, easy to use, weatherproof internal control box with easy access, for a better user experience.

- » Units are factory-wired with labeled color-coded wires and complete 24-volt electromechanical controls package.
- » Units include single-point power entry as standard and also available with electric heat kits if selected.
- » Terminal blocks are provided as standard for easy installation and field power wiring.

Filtration

Unit provides a draw-through filter section as standard for better air quality and long lasting component maintenance.

- » Filters installed on the units are standard off the shelf sizes for easy replacement.
- » One size filter per unit for low maintenance cost and easy replacement.
- » 2" deep filters standard on all units with option for up to 4" on large chassis (15 tons and over).
- » Easy and fast filter service access.

Heating Section

Wide range of natural gas and electric heat selections effectively handle most comfort heating demand from morning warm-up control to full heat, all available with Daikin's Wrinkle Bend heat exchanger technology.

Gas Furnace

ETL certified heating modules provide a custom match to specific design requirement.

- » Wrinkle Bend Technology available on all Daikin gas heat exchangers. The Wrinkle Bend Technology reduces the manufacturing stress that leads to defects and pinholes in the tubes at the same time as it increases the gas turbulence to amplify the heat transfer.
- » Two-stage capability for varying heating loads requirements.
- » All 3-Phase models have a minimum 80% T.E. (Thermal Efficiency)

- » User has the flexibility to order heat exchanger tubes with 20 Gauge, G160, aluminized steel or stainless steel to meet your application needs.
- » The furnace has a tubular design with in-shot gas burner manifold and is installed downstream of the supply fan.
- » The module contains an induced draft fan that will maintain a negative pressure in the heat exchanger tubes for the removal of the flue gases to protect indoor air quality.
- » Each burner module provides flame roll-out safety protection switches and a high temperature limit switch for reliable operation.
- » Induced draft fan includes an airflow safety switch to prevent heating operation in the event of no airflow for occupant safety.
- » All burner assemblies are factory tested and adjusted prior to shipment.
- » Heating control is fully integrated into the unit's control system for quick start-up and reliable control.
- » Optional field installed LP kits are available for staged heating modules as well as high altitude kits.

Electrical

Units are completely wired and tested at the factory to provide faster commissioning and start-up.

- » Wiring complies with NEC requirements and all applicable UL standards.
- » For ease of use, wiring and electrical components are number coded and labeled according to the electrical diagram.
- » A 115 V GFI convenience outlet requiring independent power supply for the receptacle is optional.
- » An optional unit powered 20 amp 115 V convenience outlet, complete with factory mounted transformer, disconnect switch, and primary and secondary overload protection, eliminates the need to pull a separate 115 V power source.
- » Supply air fan, compressor, and condenser fan motor branch circuits have individual short circuit protection. Unit includes knockouts in the bottom of the main control panels for field wiring entrance.
- » A single-point power connection with power block is standard and a terminal board is provided for connecting low voltage control wiring.
- » For better serviceability an optional non-fused disconnect switch is mounted inside the control panel and operated by an externally mounted handle to disconnect the electrical power at the unit.



*AC model pictured above

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 on most cases.

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.
- » Independent compressor outside of the air bypass to eliminate component blockage and provide easy access.
- » Color coded and continuously marked wire to identify point-to-point component connections.
- » Condenser clean out from inside-out.
- » Easy access to gas valves and control panel.



PHYSICAL DATA COOLING			
Model	DBG1803VH00001S	DBG1804VH00001S	DBG1807VH00001S
REFRIGERATION SYSTEM			
Total, BTU/h	180,000	180,000	180,000
Sensible BTU/h	127,500	127,500	127,500
EER / IEER	10.8 / 12.6	10.8 / 12.6	10.8 / 12.6
Decibels	88	88	88
AHRI Reference #s	6502019	6502019	6502019
HEATING CAPACITY			
High Input/Output (KBTU/h)	350 / 280	350 / 280	350 / 280
Low Input/Output (KBTU/h)	262.5 / 210	262.5 / 210	262.5 / 210
Thermal Efficiency	80	80	80
Temperature Rise: High / Low (°F)	30-60 / 20-50	30-60 / 20-50	30-60 / 20-50
No. of Burners	7	7	7
EVAPORATOR MOTOR COIL			
Motor Type (Belt-Drive)	Std Static	Std Static	Std Static
Indoor Nominal CFM	5,600	5,600	5,600
Indoor Motor FLA (Cooling)	14	6.6	5.2
Horsepower - RPM (Speed: Full / Low)	5.0 - 1,775/1185	5.0 - 1,775/1185	5.0 - 1,750/1185
Metering Device	TXV	TXV	TXV
Filter Size (#)	20 x 25 x 2 (6)	20 x 25 x 2 (6)	20 x 25 x 2 (6)
Drain Size (NPT)	1"	1"	1"
R-410A Refrigerant Charge Cir #1 (oz)	186.2	186.2	186.2
R-410A Refrigerant Charge Cir #2 (oz)	170.8	170.8	170.8
Evaporator Coil Face Area (ft ²)	20	20	20
Rows Deep / Fins per Inch	4 / 16	4 / 16	4 / 16
BELT-DRIVE EVAP FAN DATA			
# of Wheels (D x W)	2 (15" x 12")	2 (15" x 12")	2 (15" x 12")
Motor Sheave	1VP60 x 1 $\frac{3}{8}$ "	1VP60 x 1 $\frac{3}{8}$ "	1VP60 x 1 $\frac{3}{8}$ "
Blower Sheave	BK110 x 1 $\frac{3}{16}$ "	BK110 x 1 $\frac{3}{16}$ "	BK110 x 1 $\frac{3}{16}$ "
Belt	BX48	BX48	BX48
CONDENSER FAN/COIL			
Quantity of Condenser Fan Motors	3	3	3
Horsepower - RPM	$\frac{1}{2}$ - 1,075	$\frac{1}{2}$ - 1,075	$\frac{1}{2}$ - 1,075
Fan Diameter / # Fan Blades	22 / 3	22 / 3	22 / 3
Outdoor Nominal CFM	9,000	9,000	9,000
Face Area (ft ²)	53.3	53.3	53.3
Rows Deep / Fins per Inch	2 / 27	2 / 27	2 / 27
COMPRESSOR			
Quantity / Type	2 / Scroll	2 / Scroll	2 / Scroll
Compressor RLA / LRA CIR. #1	25 / 164	12.2 / 100	9.0 / 78
Compressor RLA / LRA CIR. #2	25 / 164	12.2 / 100	9.0 / 78
ELECTRICAL DATA			
Voltage / Phase / Frequency	208/230-3-60	460-3-60	575-3-60
Standard Max Static	1.2	1.2	1.2
Outdoor Fan FLA / LRA	2.0 / 4.4	0.85 / 2.2	0.67 / 1.8
Total Unit Amps	68.0	32.7	24.5
Min. Circuit Ampacity ¹	76.3 / 76.3	36.6	27.4
Max. Overcurrent Protection (amps) ²	100 / 100	45	35
Entrance Power Supply	2 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "
Entrance Control Voltage	$\frac{7}{8}$ "	$\frac{7}{8}$ "	$\frac{7}{8}$ "
OPERATING WEIGHT (LBS.)			
	2083	2083	2083
SHIPPING WEIGHT (LBS.)			
Ship Weight (lbs)	2198	2198	2198

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.



PHYSICAL DATA COOLING			
Model	DBG2403VH00001S	DBG2404VH00001S	DBG2407VH00001S
REFRIGERATION SYSTEM			
Total, BTU/h	240,000	240,000	240,000
Sensible BTU/h	170,000	170,000	170,000
EER / IEER	9.8 / 11.4	9.8 / 11.4	9.8 / 11.4
Decibels	88.3	88.3	88.3
AHRI Reference #s	8813881	8813881	8813881
HEATING CAPACITY			
High Input/Output (KBTU/h)	400 / 320	400 / 320	400 / 320
Low Input/Output (KBTU/h)	300 / 240	300 / 240	300 / 240
Thermal Efficiency	80	80	80
Temperature Rise: High / Low (°F)	25-55 / 15-45	25-55 / 15-45	25-55 / 15-45
No. of Burners	8	8	8
EVAPORATOR MOTOR COIL			
Motor Type (Belt-Drive)	Std Static	Std Static	Std Static
Indoor Nominal CFM	7,000	7,000	7,000
Indoor Motor FLA (Cooling)	14	6.6	5.2
Horsepower - RPM (Speed: Full / Low)	5.0 - 1,775 / 1185	5.0 - 1,775 / 1185	5.0 - 1,750 / 1185
Metering Device	TXV	TXV	TXV
Filter Size (#)	20 x 25 x 2 (6)	20 x 25 x 2 (6)	20 x 25 x 2 (6)
Drain Size (NPT)	1"	1"	1"
R-410A Refrigerant Charge Cir #s 1 & 2 (oz)	177 & 195 ozs.	177 & 195 ozs.	177 & 195 ozs.
Face Area (ft ²)	20	20	20
Rows Deep / Fins per Inch	4 / 16	4 / 16	4 / 16
BELT-DRIVE EVAP FAN DATA			
# of Wheels (D x W)	2 (15" x 15")	2 (15" x 15")	2 (15" x 15")
Motor Sheave	1VP60 x 1 $\frac{3}{8}$ "	1VP60 x 1 $\frac{3}{8}$ "	1VP60 x 1 $\frac{3}{8}$ "
Blower Sheave	BK100 x 1 $\frac{7}{16}$ "	BK100 x 1 $\frac{7}{16}$ "	BK100 x 1 $\frac{7}{16}$ "
Belt	BX45	BX45	BX45
CONDENSER FAN/COIL			
Quantity of Condenser Fan Motors	3	3	3
Horsepower - RPM	$\frac{1}{2}$ - 1,075	$\frac{1}{2}$ - 1,075	$\frac{1}{2}$ - 1,075
Fan Diameter / # Fan Blades	22 / 3	22 / 3	22 / 3
Outdoor Nominal CFM	9,000	9,000	9,000
Face Area (ft ²)	53.3	53.3	53.3
Rows Deep / Fins per Inch	2 / 27	2 / 27	2 / 27
COMPRESSOR			
Quantity / Type	2 / Scroll	2 / Scroll	2 / Scroll
Compressor RLA / LRA ea.	34.0 / 240.0	16.0 / 140.0	12.9 / 107.6
ELECTRICAL DATA			
Voltage / Phase / Frequency	208/230-3-60	460-3-60	575-3-60
Standard Max Static	1.4	1.4	1.4
Outdoor Fan FLA / LRA	2.0 / 4.4	0.85 / 2.2	0.67 / 1.8
Total Unit Amps	88.0	41.2	33.0
Min. Circuit Ampacity ¹	96.4 / 96.4	45.2	36.3
Max. Overcurrent Protection (amps) ²	125 / 125	60	45
Entrance Power Supply	2 $\frac{1}{8}$ "	2 $\frac{1}{8}$ "	2 $\frac{1}{8}$ "
Entrance Control Voltage	$\frac{3}{8}$ "	$\frac{3}{8}$ "	$\frac{3}{8}$ "
OPERATING WEIGHT (LBS.)			
	2242	2242	2242
SHIPPING WEIGHT (LBS.)			
Ship Weight (lbs)	2357	2357	2357

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.

PHYSICAL DATA COOLING			
Model	DBG3003VH00001S	DBG3004VH00001S	DBG3007VH00001S
REFRIGERATION SYSTEM			
Total, BTU/h	290,000	290,000	290,000
Sensible BTU/h	196,000	196,000	196,000
EER / IEER	9.8 / 11.4	9.8 / 11.4	9.8 / 11.4
Decibels	92.3	92.3	92.3
AHRI Reference #s	8582014	8582014	8582014
HEATING CAPACITY			
High Input/Output (KBTU/h)	400 / 320	400 / 320	400 / 320
Low Input/Output (KBTU/h)	300 / 240	300 / 240	300 / 240
Thermal Efficiency	80	80	80
Temperature Rise: High / Low (°F)	25-55 / 15-45	25-55 / 15-45	25-55 / 15-45
No. of Burners	8	8	8
EVAPORATOR MOTOR COIL			
Motor Type (Belt-Drive)	Std Static	Std Static	Std Static
Indoor Nominal CFM	8,200	8,200	8,200
Indoor Motor FLA (Cooling)	21.0	10.1	8.2
Horsepower - RPM (Speed: Full / Low)	7.5 - 1745	7.5 - 1745	7.5 - 1745
Metering Device	TXV	TXV	TXV
Filter Size (#)	20 x 20 x 2 (8)	20 x 20 x 2 (8)	20 x 20 x 2 (8)
Drain Size (NPT)	1"	1"	1"
R-410A Refrigerant Charge Cir #s 1 & 2 (oz)	215 & 198 ozs.	215 & 198 ozs.	215 & 198 ozs.
Evaporator Coil Face Area (ft ²)	17.2	17.2	17.2
Rows Deep / Fins per Inch	2 / 15	2 / 15	2 / 15
BELT-DRIVE EVAP FAN DATA			
# of Wheels (D x W)	2 (15" x 15")	2 (15" x 15")	2 (15" x 15")
Motor Sheave	1VP68 x 1 $\frac{3}{8}$ "	1VP68 x 1 $\frac{3}{8}$ "	1VP68 x 1 $\frac{3}{8}$ "
Blower Sheave	BK110 x 1 $\frac{7}{16}$ "	BK110 x 1 $\frac{7}{16}$ "	BK110 x 1 $\frac{7}{16}$ "
Belt	BX46	BX46	BX46
CONDENSER FAN/COIL			
Quantity of Condenser Fan Motors	2	2	2
Horsepower - RPM	1 - 1145	1 - 1145	1 - 1145
Fan Diameter / # Fan Blades	30 / 2	30 / 2	30 / 2
Outdoor Nominal CFM	15,000	15,000	15,000
Face Area (ft ²)	53.3	53.3	53.3
Rows Deep / Fins per Inch	2 / 27	2 / 27	2 / 27
COMPRESSOR			
Quantity / Type	2 / Scroll	2 / Scroll	2 / Scroll
Compressor RLA / LRA CIR. #1	48.1 / 245	18.6 / 125	14.7 / 100
Compressor RLA / LRA CIR. #2	48.1 / 245	18.6 / 125	14.7 / 100
ELECTRICAL DATA			
Voltage / Phase / Frequency	208/230-3-60	460-3-60	575-3-60
Outdoor Fan FLA / LRA	4.5 / 24.1	2.1 / 12.2	1.6 / 6.5
Total Unit Amps	126.6	51.5	40.8
Min. Circuit Ampacity ¹	133 / 133	56.1	44.6
Max. Overcurrent Protection (amps) ²	175 / 175	70	50
Entrance Power Supply	2 $\frac{1}{8}$ "	2 $\frac{1}{8}$ "	2 $\frac{1}{8}$ "
Entrance Control Voltage	$\frac{7}{8}$ "	$\frac{7}{8}$ "	$\frac{7}{8}$ "
OPERATING WEIGHT (LBS.)			
	2293	2293	2293
SHIPPING WEIGHT (LBS.)			
Ship Weight (lbs)	2523	2523	2523

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.

IDB		Outdoor Ambient Temperature																																			
		65						75						85						95						105						115					
		Airflow		59	63	67	71	59		63	67	71	59		63	67	71	59		63	67	71	59		63	67	71	59		63	67	71					
		Entering Indoor Wet Bulb Temperature																																			
70	6075	MBh	176.4	182.8	200.3	-	172.3	178.6	195.6	-	168.2	174.3	191.0	-	164.1	170.1	186.3	-	155.9	161.6	177.0	-	144.4	149.7	164.0	-	140.2	145.3	159.2	-							
		S/T	0.71	0.59	0.41	-	0.74	0.62	0.43	-	0.76	0.63	0.44	-	0.78	0.65	0.45	-	0.81	0.68	0.47	-	0.82	0.68	0.47	-	0.78	0.65	0.45	-							
		ΔT	19	16	12	-	19	17	13	-	19	17	13	-	19	17	13	-	19	17	13	-	18	15	12	-	18	15	12	-							
		HI PR	234	252	266	-	262	282	298	-	298	321	339	-	340	366	386	-	382	411	434	-	422	454	480	-	418	450	475	-							
		LO PR	102	109	119	-	108	115	126	-	112	120	131	-	118	126	137	-	124	132	144	-	128	136	149	-	128	136	149	-							
		MBh	171.2	177.5	194.5	-	167.3	173.4	189.9	-	163.3	169.2	185.4	-	159.3	165.1	180.9	-	151.3	156.9	171.9	-	140.2	145.3	159.2	-											
	S/T	0.68	0.57	0.39	-	0.70	0.59	0.41	-	0.72	0.60	0.42	-	0.74	0.62	0.43	-	0.77	0.65	0.45	-	0.78	0.65	0.45	-												
	ΔT	20	17	13	-	20	17	13	-	20	17	13	-	20	17	13	-	20	17	13	-	19	16	12	-	19	16	12	-								
	HI PR	231	249	263	-	260	279	295	-	295	318	336	-	336	362	382	-	378	407	430	-	418	450	475	-												
	LO PR	101	108	118	-	107	114	124	-	111	118	129	-	117	124	136	-	122	130	142	-	127	135	147	-												
	75	6075	MBh	158.1	163.8	179.5	-	154.4	160.0	175.3	-	150.7	156.2	171.1	-	147.0	152.4	167.0	-	139.7	144.8	158.6	-	129.4	134.1	146.9	-										
			S/T	0.65	0.55	0.38	-	0.68	0.57	0.39	-	0.70	0.58	0.40	-	0.72	0.60	0.42	-	0.74	0.62	0.43	-	0.75	0.63	0.43	-										
ΔT			22	19	14	-	22	19	15	-	22	19	15	-	22	19	15	-	22	19	15	-	21	18	14	-											
HI PR			224	242	255	-	252	271	286	-	286	308	326	-	326	351	371	-	367	395	417	-	406	436	461	-											
LO PR			98	105	114	-	104	110	121	-	108	115	125	-	113	121	132	-	119	126	138	-	123	131	143	-											
MBh			179.4	184.7	199.9	214.5	175.2	180.4	195.3	209.6	171.0	176.1	190.6	204.6	166.9	171.8	186.0	199.6	158.5	163.2	176.7	189.6	146.8	151.2	163.6	175.6											
S/T		0.81	0.72	0.55	0.35	0.84	0.75	0.57	0.37	0.86	0.77	0.58	0.37	0.89	0.79	0.60	0.39	0.92	0.82	0.62	0.40	0.93	0.83	0.63	0.40												
ΔT		22	20	17	11	22	20	17	12	22	20	17	12	22	21	17	12	22	20	17	12	21	19	16	11												
HI PR		236	254	268	280	265	285	301	314	301	324	342	357	343	369	390	407	386	415	439	458	427	459	485	506												
LO PR		103	110	120	128	109	116	127	135	114	121	132	140	119	127	138	147	125	133	145	155	129	138	150	160												
75		6075	MBh	174.2	179.3	194.1	208.3	170.1	175.1	189.6	203.5	166.1	171.0	185.1	198.6	162.0	166.8	180.5	193.8	153.9	158.5	171.5	184.1	142.6	146.8	158.9	170.5										
			S/T	0.77	0.69	0.52	0.34	0.80	0.71	0.54	0.35	0.82	0.73	0.55	0.36	0.85	0.76	0.57	0.37	0.88	0.79	0.59	0.38	0.89	0.79	0.60	0.39										
	ΔT		23	21	17	12	23	21	17	12	23	21	17	12	23	21	18	12	23	21	17	12	21	20	16	11											
	HI PR		234	252	266	277	262	282	298	311	298	321	339	354	340	366	386	403	382	411	434	453	422	454	480	501											
	LO PR		102	109	119	127	108	115	126	134	112	120	131	139	118	126	137	146	124	132	144	153	128	136	149	158											
	MBh		160.7	165.5	179.1	192.3	157.0	161.6	175.0	187.8	153.3	157.8	170.8	183.3	149.5	154.0	166.6	178.8	142.0	146.3	158.3	169.9	131.6	135.5	146.6	157.4											
	S/T	0.74	0.67	0.50	0.32	0.77	0.69	0.52	0.34	0.79	0.71	0.53	0.34	0.82	0.73	0.55	0.36	0.85	0.76	0.57	0.37	0.85	0.76	0.58	0.37												
	ΔT	25	23	19	13	26	24	19	13	26	24	19	13	26	24	20	14	26	24	19	13	24	22	18	12												
	HI PR	227	244	258	269	254	274	289	302	289	311	329	343	330	355	375	391	371	399	421	439	410	441	466	486												
	LO PR	99	106	115	123	105	112	122	130	109	116	127	135	115	122	133	142	120	128	139	148	124	132	144	154												

IDB: Entering Indoor Dry Bulb Temperature
 Shaded area reflects ACCA (TVA) conditions
 High and low pressures are measured at the liquid and suction access fittings.

IDB	Airflow	Outdoor Ambient Temperature																																																			
		65						75						85						95						105						115																					
		59	63	67	71	75	79	59	63	67	71	75	79	59	63	67	71	75	79	59	63	67	71	75	79	59	63	67	71	75	79	59	63	67	71	75	79																
80	6075	MBh	182.6	186.5	193.3	213.1	178.3	182.2	194.7	208.1	174.1	177.9	190.0	203.1	169.8	173.5	185.4	198.2	161.3	164.9	176.1	188.3	149.4	152.7	163.2	174.4	182.6	186.5	193.3	213.1	178.3	182.2	194.7	208.1	174.1	177.9	190.0	203.1	169.8	173.5	185.4	198.2	161.3	164.9	176.1	188.3	149.4	152.7	163.2	174.4			
		S/T	0.89	0.83	0.68	0.51	0.92	0.86	0.70	0.52	0.94	0.88	0.72	0.54	1.00	0.91	0.74	0.56	1.00	0.95	0.77	0.58	1.00	0.95	0.78	0.58	0.89	0.83	0.68	0.51	0.92	0.86	0.70	0.52	0.94	0.88	0.72	0.54	1.00	0.91	0.74	0.56	1.00	0.95	0.77	0.58	1.00	0.95	0.78	0.58			
		ΔT	25	23	20	16	25	24	21	17	25	24	21	17	26	24	21	17	24	24	21	16	23	22	19	15	25	23	20	16	25	24	21	17	25	24	21	17	24	24	21	16	23	22	19	15							
		HI PR	238	257	271	283	268	288	304	317	304	328	346	361	347	373	394	411	390	420	443	462	431	464	490	511	431	464	490	511	238	257	271	283	268	288	304	317	304	328	346	361	347	373	394	411	390	420	443	462	431	464	490
	LO PR	104	111	121	129	110	117	128	136	115	122	133	142	120	128	140	149	126	134	147	156	131	139	152	161	131	139	152	161	104	111	121	129	110	117	128	136	115	122	133	142	120	128	140	149	126	134	147	156	131	139	152	161
	MBh	177.2	181.1	193.5	206.9	173.1	176.9	189.0	202.0	169.0	172.7	184.5	197.2	164.9	168.5	180.0	192.4	156.6	160.1	171.0	182.8	145.1	148.3	158.4	169.3	177.2	181.1	193.5	206.9	173.1	176.9	189.0	202.0	169.0	172.7	184.5	197.2	164.9	168.5	180.0	192.4	156.6	160.1	171.0	182.8	145.1	148.3	158.4	169.3				
	S/T	0.85	0.79	0.65	0.48	0.88	0.82	0.67	0.50	0.90	0.84	0.69	0.51	0.93	0.87	0.71	0.53	0.96	0.90	0.74	0.55	0.97	0.91	0.74	0.55	0.85	0.79	0.65	0.48	0.88	0.82	0.67	0.50	0.90	0.84	0.69	0.51	0.93	0.87	0.71	0.53	0.96	0.90	0.74	0.55	0.97	0.91	0.74	0.55				
	ΔT	26	24	21	17	26	25	22	17	26	25	22	17	26	25	22	17	26	25	21	17	24	23	20	16	26	24	21	17	26	25	22	17	26	25	22	17	26	25	21	17	24	23	20	16								
	HI PR	236	254	268	280	265	285	301	314	301	324	342	357	343	369	390	407	386	415	439	458	427	459	485	506	427	459	485	506	236	254	268	280	265	285	301	314	301	324	342	357	343	369	390	407	386	415	439	458	427	459	485	506
	LO PR	103	110	120	128	109	116	127	135	114	121	132	140	119	127	139	148	125	133	145	155	129	138	150	160	129	138	150	160	103	110	120	128	109	116	127	135	114	121	132	140	119	127	139	148	125	133	145	155	129	138	150	160
	MBh	163.6	167.2	178.6	190.9	159.8	163.3	174.4	186.5	156.0	159.4	170.3	182.0	152.2	155.5	166.1	177.6	144.6	147.7	157.8	168.7	133.9	136.8	146.2	156.3	163.6	167.2	178.6	190.9	159.8	163.3	174.4	186.5	156.0	159.4	170.3	182.0	152.2	155.5	166.1	177.6	144.6	147.7	157.8	168.7	133.9	136.8	146.2	156.3				
	S/T	0.82	0.76	0.62	0.47	0.85	0.79	0.65	0.48	0.87	0.81	0.66	0.49	0.89	0.84	0.68	0.51	0.93	0.87	0.71	0.53	0.94	0.88	0.71	0.53	0.82	0.76	0.62	0.47	0.85	0.79	0.65	0.48	0.87	0.81	0.66	0.49	0.89	0.84	0.68	0.51	0.93	0.87	0.71	0.53	0.94	0.88	0.71	0.53				
ΔT	28	27	24	19	29	28	24	19	29	28	24	19	29	28	24	19	29	27	24	19	27	26	22	18	28	27	24	19	29	28	24	19	29	28	24	19	29	27	24	19	27	26	22	18									
HI PR	229	246	260	271	257	277	292	305	292	315	332	346	333	358	378	395	375	403	426	444	414	445	470	490	414	445	470	490	229	246	260	271	257	277	292	305	292	315	332	346	333	358	378	395	375	403	426	444	414	445	470	490	
LO PR	100	107	116	124	106	113	123	131	110	117	128	136	116	123	134	143	121	129	141	150	125	133	146	155	125	133	146	155	100	107	116	124	106	113	123	131	110	117	128	136	116	123	134	143	121	129	141	150	125	133	146	155	
85	6075	MBh	185.8	189.3	198.3	211.6	181.4	184.9	193.7	206.6	177.1	180.5	189.1	201.7	172.8	176.1	184.5	196.8	164.2	167.3	175.2	187.0	152.1	155.0	162.3	173.2	185.8	189.3	198.3	211.6	181.4	184.9	193.7	206.6	177.1	180.5	189.1	201.7	172.8	176.1	184.5	196.8	164.2	167.3	175.2	187.0	152.1	155.0	162.3	173.2			
		S/T	0.93	0.90	0.81	0.66	0.96	0.93	0.84	0.68	0.99	0.95	0.86	0.70	1.00	0.98	0.89	0.72	1.00	1.00	0.92	0.75	1.00	1.00	0.93	0.75	0.93	0.90	0.81	0.66	0.96	0.93	0.84	0.68	0.99	0.95	0.86	0.70	1.00	0.98	0.89	0.72	1.00	1.00	0.92	0.75	1.00	1.00	0.93	0.75			
		ΔT	26	26	24	21	26	26	25	21	26	26	25	21	26	26	25	21	25	25	24	21	23	23	23	20	26	26	24	21	26	26	25	21	26	26	25	21	25	25	24	21	23	23	23	20							
		HI PR	241	259	274	285	270	291	307	320	307	331	349	364	350	377	398	415	394	424	448	467	435	468	495	516	435	468	495	516	241	259	274	285	270	291	307	320	307	331	349	364	350	377	398	415	394	424	448	467	435	468	495
	LO PR	105	112	122	130	111	119	129	138	116	123	135	143	122	129	141	150	127	136	148	158	132	140	153	163	132	140	153	163	105	112	122	130	111	119	129	138	116	123	135	143	122	129	141	150	127	136	148	158	132	140	153	163
	MBh	180.3	183.8	192.5	205.4	176.1	179.6	188.1	200.6	172.0	175.3	183.6	195.8	167.8	171.0	179.1	191.1	159.4	162.5	170.1	181.5	147.6	150.5	157.6	168.1	180.3	183.8	192.5	205.4	176.1	179.6	188.1	200.6	172.0	175.3	183.6	195.8	167.8	171.0	179.1	191.1	159.4	162.5	170.1	181.5	147.6	150.5	157.6	168.1				
	S/T	0.89	0.86	0.77	0.63	0.92	0.89	0.80	0.65	0.94	0.91	0.82	0.67	0.97	0.94	0.85	0.69	1.00	0.97	0.88	0.71	1.00	0.98	0.89	0.72	0.89	0.86	0.77	0.63	0.92	0.89	0.80	0.65	0.94	0.91	0.82	0.67	0.97	0.94	0.85	0.69	1.00	0.97	0.88	0.71	1.00	0.98	0.89	0.72				
	ΔT	27	27	25	22	28	27	26	22	28	27	26	22	28	27	26	22	27	27	25	22	25	25	24	21	27	27	25	22	28	27	26	22	28	27	26	22	27	27	25	22	25	25	24	21								
	HI PR	238	257	271	283	268	288	304	317	304	328	346	361	347	373	394	411	390	420	443	462	431	464	490	511	431	464	490	511	238	257	271	283	268	288	304	317	304	328	346	361	347	373	394	411	390	420	443	462	431	464	490	511
	LO PR	104	111	121	129	110	117	128	136	115	122	133	142	120	128	140	149	126	134	147	156	131	139	152	161	131	139	152	161	104	111	121	129	110	117	128	136	115	122	133	142	120	128	140	149	126	134	147	156	131	139	152	161
	MBh	166.5	169.7	177.7	189.6	162.6	165.7	173.6	185.2	158.7	161.8	169.4	180.8	154.8	157.8	165.3	176.4	147.1	149.9	157.0	167.5	136.3	138.9	145.5	155.2	166.5	169.7	177.7	189.6	162.6	165.7	173.6	185.2	158.7	161.8	169.4	180.8	154.8	157.8	165.3	176.4	147.1	149.9	157.0	167.5	136.3	138.9	145.5	155.2				
	S/T	0.86	0.83	0.74	0.60	0.89	0.86	0.77	0.63	0.91	0.88	0.79	0.64	0.94	0.91	0.82	0.66	0.97	0.94	0.85	0.69	0.98	0.95	0.85	0.69	0.86	0.83	0.74	0.60	0.89	0.86	0.77	0.63	0.91	0.88	0.79	0.64	0.94	0.91	0.82	0.6												

IDB		Outdoor Ambient Temperature																																			
		65						75						85						95						105						115					
		59	63	67	71	75	79	59	63	67	71	75	79	59	63	67	71	75	79	59	63	67	71	75	79	59	63	67	71	75	79						
Entering Indoor Wet Bulb Temperature																																					
Airflow	59	63	67	71	75	79	59	63	67	71	75	79	59	63	67	71	75	79	59	63	67	71	75	79	59	63	67	71	75	79							
70	MBh	235.2	243.8	267.1	-	229.7	238.1	260.9	-	224.2	232.4	254.6	-	218.8	226.8	248.4	-	207.8	215.4	236.0	-	192.5	199.5	218.6	-												
	S/T	0.71	0.59	0.41	-	0.74	0.62	0.43	-	0.76	0.63	0.44	-	0.78	0.65	0.45	-	0.81	0.68	0.47	-	0.82	0.68	0.47	-												
	ΔT	20	17	13	-	20	17	13	-	20	17	13	-	20	17	13	-	20	17	13	-	18	16	12	-												
	HI PR	268	289	305	-	301	324	342	-	343	369	389	-	390	420	443	-	439	472	499	-	485	522	551	-												
	LO PR	99	105	115	-	105	111	121	-	109	116	126	-	114	121	133	-	120	127	139	-	124	132	144	-												
70	MBh	228.3	236.7	259.3	-	223.0	231.2	253.3	-	217.7	225.7	247.2	-	212.4	220.1	241.2	-	201.8	209.1	229.1	-	186.9	193.7	212.3	-												
	S/T	0.68	0.57	0.39	-	0.70	0.59	0.41	-	0.72	0.60	0.42	-	0.74	0.62	0.43	-	0.77	0.65	0.45	-	0.78	0.65	0.45	-												
	ΔT	20	18	13	-	21	18	14	-	21	18	14	-	21	18	14	-	20	18	13	-	19	17	13	-												
	HI PR	266	286	302	-	298	321	339	-	339	365	385	-	386	416	439	-	435	468	494	-	480	517	546	-												
	LO PR	98	104	114	-	104	110	120	-	108	115	125	-	113	120	131	-	118	126	138	-	123	130	142	-												
5600	MBh	210.7	218.4	239.3	-	205.8	213.4	233.8	-	200.9	208.3	228.2	-	196.0	203.2	222.6	-	186.2	193.0	211.5	-	172.5	178.8	195.9	-												
	S/T	0.65	0.55	0.38	-	0.68	0.57	0.39	-	0.70	0.58	0.40	-	0.72	0.60	0.42	-	0.74	0.62	0.43	-	0.75	0.63	0.43	-												
	ΔT	23	20	15	-	23	20	15	-	23	20	15	-	23	20	15	-	23	20	15	-	21	18	14	-												
	HI PR	258	277	293	-	289	311	329	-	329	354	374	-	375	403	426	-	422	454	479	-	466	501	529	-												
	LO PR	95	101	110	-	100	107	117	-	104	111	121	-	110	117	127	-	115	122	133	-	119	126	138	-												
75	MBh	239.2	246.2	266.5	286.1	233.6	240.5	260.3	279.4	228.0	234.8	254.1	272.8	222.5	229.1	247.9	266.1	211.4	217.6	235.5	252.8	195.8	201.6	218.2	234.2												
	S/T	0.81	0.72	0.55	0.35	0.84	0.75	0.57	0.37	0.86	0.77	0.58	0.37	0.89	0.79	0.60	0.39	0.92	0.82	0.62	0.40	0.93	0.83	0.63	0.40												
	ΔT	23	21	17	12	23	21	17	12	23	21	17	12	23	21	17	12	23	21	17	12	21	20	16	11												
	HI PR	271	292	308	321	304	327	346	361	346	372	393	410	394	424	448	467	443	477	504	526	490	527	557	581												
	LO PR	100	106	116	124	106	112	123	131	110	117	128	136	115	123	134	143	121	129	140	150	125	133	145	155												
70	MBh	232.2	239.1	258.8	277.7	226.8	233.5	252.8	271.3	221.4	228.0	246.7	264.8	216.0	222.4	240.7	258.4	205.2	211.3	228.7	245.4	190.1	195.7	211.8	227.4												
	S/T	0.77	0.69	0.52	0.34	0.80	0.71	0.54	0.35	0.82	0.73	0.55	0.36	0.85	0.76	0.57	0.37	0.88	0.79	0.59	0.38	0.89	0.79	0.60	0.39												
	ΔT	24	22	18	12	24	22	18	12	24	22	18	12	24	22	18	12	24	22	18	12	22	20	17	12												
	HI PR	269	289	305	318	301	324	342	357	343	369	389	406	390	420	444	463	439	473	499	520	485	522	551	575												
	LO PR	99	105	115	122	105	111	122	129	109	116	126	135	114	122	133	141	120	127	139	148	124	132	144	153												
5600	MBh	214.3	220.7	238.8	256.3	209.3	215.5	233.3	250.4	204.4	210.4	227.7	244.4	199.4	205.3	222.2	238.5	189.4	195.0	211.1	226.5	175.4	180.6	195.5	209.8												
	S/T	0.74	0.67	0.50	0.32	0.77	0.69	0.52	0.34	0.79	0.71	0.53	0.34	0.82	0.73	0.55	0.36	0.85	0.76	0.57	0.37	0.85	0.76	0.58	0.37												
	ΔT	26	24	20	14	26	24	20	14	27	24	20	14	27	25	20	14	26	24	20	14	25	23	19	13												
	HI PR	260	280	296	309	292	315	332	346	332	358	378	394	379	407	430	449	426	458	484	505	471	506	535	558												
	LO PR	96	102	112	119	101	108	118	126	105	112	123	130	111	118	129	137	116	124	135	144	120	128	139	149												

High and low pressures are measured at the liquid and suction access fittings.

Shaded area reflects ACCA (TVA) conditions

IDB: Entering Indoor Dry Bulb Temperature

IDB		Outdoor Ambient Temperature																																			
		65						75						85						95						105						115					
		59	63	67	71	75	79	59	63	67	71	75	79	59	63	67	71	75	79	59	63	67	71	75	79	59	63	67	71	75	79						
7875		MBh	243.4	248.7	265.7	284.1	237.8	242.9	259.6	277.5	232.1	237.2	253.4	270.9	226.4	231.4	247.2	264.3	215.1	219.8	234.8	251.0	199.3	203.6	217.5	232.5											
		S/T	0.94	0.89	0.72	0.54	1.00	0.92	0.75	0.56	1.00	0.94	0.77	0.57	1.00	1.00	0.79	0.59	1.00	1.00	0.82	0.61	1.00	1.00	0.83	0.62											
		ΔT	27	26	22	18	28	26	23	18	27	26	23	18	26	27	23	18	25	26	22	18	23	24	21	17											
		HI PR	264	284	300	313	296	319	337	351	337	363	383	400	384	413	436	455	432	465	491	512	477	514	542	566											
		LO PR	102	108	118	126	108	114	125	133	112	119	130	138	117	125	136	145	123	131	143	152	127	135	148	157											
80		MBh	236.3	241.5	258.0	275.8	230.8	235.9	252.0	269.4	225.3	230.3	246.0	263.0	219.8	224.6	240.0	256.6	208.8	213.4	228.0	243.7	193.5	197.7	211.2	225.8											
		S/T	0.90	0.84	0.69	0.51	0.93	0.88	0.71	0.53	0.96	0.90	0.73	0.55	0.99	0.93	0.75	0.56	1.00	0.96	0.78	0.58	1.00	0.97	0.79	0.59											
		ΔT	28	27	23	19	28	27	24	19	28	27	24	19	29	27	24	19	27	27	23	19	25	25	22	17											
		HI PR	262	281	297	310	293	316	334	348	334	359	379	396	380	409	432	451	428	460	486	507	473	509	537	560											
		LO PR	101	107	117	125	106	113	124	132	111	118	129	137	116	124	135	144	122	130	141	151	126	134	146	156											
5600		MBh	218.1	222.9	238.1	254.6	213.1	217.7	232.6	248.6	208.0	212.5	227.1	242.7	202.9	207.3	221.5	236.8	192.8	197.0	210.4	225.0	178.6	182.5	194.9	208.4											
		S/T	0.87	0.81	0.66	0.50	0.90	0.84	0.69	0.51	0.92	0.87	0.70	0.53	0.95	0.89	0.73	0.54	0.99	0.93	0.75	0.56	1.00	0.93	0.76	0.57											
		ΔT	31	30	26	21	31	30	26	21	32	30	26	21	32	30	26	21	31	30	26	21	29	28	24	19											
		HI PR	254	273	288	301	285	306	323	337	324	348	368	384	369	397	419	437	415	446	471	492	458	493	521	543											
		LO PR	98	104	114	121	103	110	120	128	107	114	125	133	113	120	131	139	118	126	137	146	122	130	142	151											

IDB		Outdoor Ambient Temperature																																			
		65						75						85						95						105						115					
		59	63	67	71	75	79	59	63	67	71	75	79	59	63	67	71	75	79	59	63	67	71	75	79	59	63	67	71	75	79						
7875		MBh	247.7	252.5	264.4	282.1	241.9	246.6	258.3	275.5	236.2	240.7	252.1	269.0	230.4	234.8	246.0	262.4	218.9	223.1	233.7	249.3	202.7	206.7	216.4	230.9											
		S/T	0.93	0.90	0.81	0.66	0.96	0.93	0.84	0.68	0.99	0.95	0.86	0.70	1.00	0.98	0.89	0.72	1.00	1.00	0.92	0.75	1.00	1.00	0.93	0.75											
		ΔT	27	26	25	22	27	27	25	22	27	27	25	22	27	27	26	22	26	26	25	22	24	24	23	20											
		HI PR	277	298	314	328	310	334	353	368	353	380	401	419	402	433	457	477	452	487	514	536	500	538	568	592											
		LO PR	102	109	119	126	108	115	125	133	112	119	130	139	118	125	137	146	123	131	143	153	128	136	148	158											
7000		MBh	240.5	245.1	256.7	273.9	234.9	239.4	250.7	267.5	229.3	233.7	244.8	261.1	223.7	228.0	238.8	254.8	212.5	216.6	226.9	242.0	196.8	200.6	210.1	224.2											
		S/T	0.89	0.86	0.77	0.63	0.92	0.89	0.80	0.65	0.94	0.91	0.82	0.67	0.97	0.94	0.85	0.69	1.00	0.97	0.88	0.71	1.00	0.98	0.89	0.72											
		ΔT	28	28	26	23	28	28	26	23	28	28	26	23	29	28	27	23	28	28	26	23	26	26	24	21											
		HI PR	274	295	311	325	307	331	349	364	350	376	397	414	398	428	452	472	448	482	509	531	495	533	562	587											
		LO PR	101	107	117	125	107	114	124	132	111	118	129	137	117	124	135	144	122	130	142	151	126	134	147	156											
5600		MBh	221.9	226.2	236.9	252.8	216.8	221.0	231.4	246.9	211.6	215.7	225.9	241.0	206.5	210.5	220.4	235.1	196.1	199.9	209.4	223.4	181.7	185.2	194.0	206.9											
		S/T	0.86	0.83	0.74	0.60	0.89	0.86	0.77	0.63	0.91	0.88	0.79	0.64	0.94	0.91	0.82	0.66	0.97	0.94	0.85	0.69	0.98	0.95	0.85	0.69											
		ΔT	31	31	29	25	32	31	29	25	32	31	29	25	32	31	30	26	31	31	29	25	29	29	27	24											
		HI PR	266	286	302	315	298	321	339	353	339	365	385	402	386	416	439	458	435	468	494	515	480	517	546	569											
		LO PR	98	104	114	121	104	110	120	128	108	114	125	133	113	120	131	140	118	126	138	147	123	130	142	152											

High and low pressures are measured at the liquid and suction access fittings.

Shaded area reflects AHRI (TVA) conditions

IDB: Entering Indoor Dry Bulb Temperature

IDB	Airflow	Outdoor Ambient Temperature																								
		65				75				85				95				105				115				
		59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	
70	9202	MBh	284.2	294.5	322.7	-	277.6	287.7	315.2	-	271.0	280.8	307.7	-	264.3	274.0	300.2	-	251.1	260.3	285.2	-	232.6	241.1	264.2	-
		S/T	0.67	0.56	0.39	-	0.70	0.58	0.40	-	0.72	0.60	0.41	-	0.74	0.62	0.43	-	0.77	0.64	0.44	-	0.77	0.65	0.45	-
		ΔT	19	17	13	-	19	17	13	-	19	17	13	-	19	17	13	-	19	17	13	-	18	16	12	-
		kW	23.34	23.81	24.52	-	25.04	25.55	26.33	-	26.54	27.09	27.93	-	27.86	28.45	29.35	-	28.99	29.61	30.55	-	29.96	30.60	31.59	-
		HI PR	270	290	306	-	303	326	344	-	344	370	391	-	392	422	445	-	441	475	501	-	487	524	554	-
		LO PR	102	108	118	-	108	115	125	-	112	119	130	-	118	125	137	-	123	131	143	-	127	136	148	-
70	8200	MBh	275.9	286.0	313.3	-	269.5	279.3	306.0	-	263.1	272.7	298.7	-	256.7	266.0	291.5	-	243.8	252.7	276.9	-	225.9	234.1	256.5	-
		S/T	0.64	0.54	0.37	-	0.67	0.56	0.38	-	0.68	0.57	0.39	-	0.70	0.59	0.41	-	0.73	0.61	0.42	-	0.74	0.62	0.43	-
		ΔT	20	17	13	-	20	17	13	-	20	17	13	-	20	18	13	-	20	17	13	-	19	16	12	-
		kW	23.16	23.63	24.33	-	24.85	25.36	26.13	-	26.33	26.88	27.71	-	27.64	28.23	29.11	-	28.76	29.37	30.30	-	29.72	30.36	31.33	-
		HI PR	267	287	303	-	300	322	340	-	341	367	387	-	388	418	441	-	437	470	496	-	482	519	548	-
		LO PR	101	107	117	-	107	113	124	-	111	118	129	-	116	124	135	-	122	130	142	-	126	134	147	-
70	7257	MBh	262.1	271.7	297.6	-	256.0	265.3	290.7	-	249.9	259.0	283.8	-	243.8	252.7	276.9	-	231.6	240.1	263.0	-	214.6	222.4	243.7	-
		S/T	0.61	0.51	0.36	-	0.64	0.53	0.37	-	0.65	0.55	0.38	-	0.67	0.56	0.39	-	0.70	0.58	0.40	-	0.71	0.59	0.41	-
		ΔT	20	18	13	-	21	18	14	-	21	18	14	-	21	18	14	-	21	18	13	-	19	17	13	-
		kW	22.82	23.27	23.96	-	24.47	24.96	25.72	-	25.92	26.46	27.28	-	27.21	27.78	28.65	-	28.30	28.90	29.81	-	29.24	29.87	30.82	-
		HI PR	262	282	297	-	294	316	334	-	334	359	379	-	380	409	432	-	428	460	486	-	473	509	537	-
		LO PR	99	105	115	-	105	111	121	-	109	116	126	-	114	121	133	-	120	127	139	-	124	132	144	-
75	9202	MBh	289.0	297.5	322.1	345.7	282.3	290.6	314.6	337.6	275.6	283.7	307.1	329.6	268.8	276.8	299.6	321.5	255.4	262.9	284.6	305.5	236.6	243.6	263.6	283.0
		S/T	0.76	0.68	0.52	0.3	0.79	0.71	0.54	0.3	0.81	0.73	0.55	0.4	0.84	0.75	0.57	0.4	0.87	0.78	0.59	0.4	0.88	0.79	0.59	0.4
		ΔT	22	20	17	12	22	21	17	12	22	21	17	12	23	21	17	12	22	20	17	12	21	19	16	10.8
		kW	23.52	23.99	24.71	25.5	25.23	25.75	26.54	27.4	26.75	27.31	28.16	29.1	28.09	28.68	29.59	30.5	29.23	29.85	30.80	31.8	30.21	30.86	31.85	32.9
		HI PR	272	293	310	322.9	306	329	347	362.3	348	374	395	412.0	396	426	450	469.3	445	479	506	528.0	492	530	559	583.3
		LO PR	103	110	120	127.4	109	116	126	134.6	113	120	131	139.9	119	126	138	147.0	125	132	145	154.0	129	137	150	159.3
75	8200	MBh	280.6	288.9	312.7	335.6	274.1	282.2	305.4	327.8	267.5	275.4	298.1	320.0	261.0	268.7	290.9	312.2	248.0	255.3	276.3	296.6	229.7	236.5	256.0	274.7
		S/T	0.73	0.65	0.49	0.3	0.76	0.68	0.51	0.3	0.78	0.69	0.52	0.3	0.80	0.72	0.54	0.3	0.83	0.74	0.56	0.4	0.84	0.75	0.57	0.4
		ΔT	23	21	17	12	23	21	18	12	23	21	18	12	23	22	18	12	23	21	17	12	22	20	16	11.2
		kW	23.34	23.81	24.52	25.3	25.04	25.56	26.34	27.2	26.54	27.10	27.94	28.8	27.87	28.46	29.35	30.3	28.99	29.61	30.55	31.5	29.96	30.61	31.59	32.6
		HI PR	270	290	307	319.7	303	326	344	358.7	344	370	391	408.0	392	422	446	464.7	441	475	501	522.7	487	524	554	577.6
		LO PR	102	108	118	126.1	108	115	125	133.3	112	119	130	138.5	118	125	137	145.5	123	131	143	152.5	128	136	148	157.7
75	7257	MBh	266.5	274.4	297.1	318.8	260.3	268.1	290.1	311.4	254.1	261.7	283.2	304.0	248.0	255.3	276.3	296.6	235.6	242.5	262.5	281.7	218.2	224.7	243.2	261.0
		S/T	0.70	0.63	0.47	0.3	0.72	0.65	0.49	0.3	0.74	0.66	0.50	0.3	0.77	0.69	0.52	0.3	0.80	0.71	0.54	0.3	0.80	0.72	0.54	0.3
		ΔT	24	22	18	12	24	22	18	12	24	22	18	12	24	22	18	13	24	22	18	12	22	20	17	11.6
		kW	22.99	23.45	24.15	24.9	24.66	25.16	25.93	26.7	26.13	26.67	27.50	28.4	27.43	28.00	28.88	29.8	28.53	29.14	30.06	31.0	29.48	30.11	31.07	32.1
		HI PR	264	284	300	313.3	297	319	337	351.5	337	363	383	399.8	384	413	437	455.4	432	465	491	512.3	478	514	543	566.0
		LO PR	100	106	116	123.6	106	112	123	130.6	110	117	127	135.7	115	123	134	142.6	121	129	140	149.4	125	133	145	154.6

IDB: Entering Indoor Dry Bulb Temperature
 High and low pressures are measured at the liquid and suction access fittings.
 Design Subcooling, 16 - 19 °F @ the liquid access fitting connection ARI 95 test conditions. Design Superheat 8 - 12 °F @ the compressor suction access fitting connection.

Shaded area reflects ACCA (TVA) Rating Conditions.

kW = Total system power
 Amps: Unit amps (comp.+ evaporator + condenser fan motors)

IDB	Airflow	Outdoor Ambient Temperature																																
		65					75					85					95					105					115							
		59	63	67	71	75	59	63	67	71	75	59	63	67	71	75	59	63	67	71	75	59	63	67	71	75	59	63	67	71	75			
80	9202	MBh	294.1	300.6	321.1	343.3	287.3	293.6	313.6	335.3	280.4	286.6	306.2	327.3	273.6	279.6	298.7	319.3	259.9	265.6	283.8	303.3	240.8	246.0	262.9	281.0	259.9	265.6	283.8	303.3	240.8	246.0	262.9	281.0
		S/T	0.84	0.79	0.64	0.5	0.87	0.82	0.66	0.5	0.89	0.84	0.68	0.5	0.92	0.86	0.70	0.5	0.96	0.90	0.73	0.5	0.96	0.90	0.73	0.5	0.96	0.90	0.73	0.5	0.96	0.90	0.73	0.5
		ΔT	25	24	21	16	25	24	21	17	25	24	21	17	25	24	21	17	25	24	21	17	23	22	19	15.4	23	22	19	15.4	23	22	19	15.4
		kW	22.54	23.01	23.74	24.5	24.27	24.79	25.59	26.4	25.80	26.37	27.23	28.1	27.15	27.75	28.67	29.6	28.30	28.93	29.89	30.9	29.29	29.95	30.95	32.0	28.30	28.93	29.89	30.9	29.29	29.95	30.95	32.0
		HI PR	275	296	313	326.1	309	332	351	366.0	351	378	399	416.2	400	430	455	474.0	450	484	511	533.3	497	535	565	589.2	450	484	511	533.3	497	535	565	589.2
	LO PR	104	111	121	128.7	110	117	128	136.0	114	122	133	141.3	120	128	139	148.4	126	134	146	155.6	130	138	151	160.9	126	134	146	155.6	130	138	151	160.9	
	8200	MBh	285.6	291.8	311.8	333.3	278.9	285.0	304.5	325.5	272.3	278.2	297.3	317.8	265.6	271.4	290.0	310.0	252.4	257.9	275.5	294.5	233.8	238.9	255.2	272.8	252.4	257.9	275.5	294.5	233.8	238.9	255.2	272.8
		S/T	0.80	0.75	0.61	0.5	0.83	0.78	0.63	0.5	0.85	0.80	0.65	0.5	0.88	0.82	0.67	0.5	0.91	0.85	0.70	0.5	0.92	0.86	0.70	0.5	0.91	0.85	0.70	0.5	0.92	0.86	0.70	0.5
		ΔT	26	25	21	17	26	25	22	17	26	25	22	17	26	25	22	17	26	25	21	17	24	23	20	16.0	26	25	21	17	24	23	20	16.0
		kW	22.36	22.83	23.55	24.3	24.08	24.59	25.38	26.2	25.59	26.15	27.00	27.9	26.93	27.53	28.43	29.4	28.07	28.69	29.64	30.6	29.05	29.70	30.69	31.7	28.07	28.69	29.64	30.6	29.05	29.70	30.69	31.7
HI PR		272	293	310	322.9	306	329	347	362.3	348	374	395	412.1	396	426	450	469.4	446	479	506	528.0	492	530	559	583.4	446	479	506	528.0	492	530	559	583.4	
LO PR	103	110	120	127.4	109	116	126	134.6	113	120	131	139.9	119	126	138	147.0	125	132	145	154.0	129	137	150	159.3	125	132	145	154.0	129	137	150	159.3		
85	7257	MBh	271.3	277.2	296.2	316.6	265.0	270.8	289.3	309.2	258.7	264.3	282.4	301.9	252.4	257.9	275.5	294.5	239.7	245.0	261.7	279.8	222.1	226.9	242.4	259.2	239.7	245.0	261.7	279.8	222.1	226.9	242.4	259.2
		S/T	0.77	0.72	0.59	0.4	0.79	0.74	0.61	0.5	0.81	0.76	0.62	0.5	0.84	0.79	0.64	0.5	0.87	0.82	0.67	0.5	0.88	0.83	0.67	0.5	0.87	0.82	0.67	0.5	0.88	0.83	0.67	0.5
		ΔT	26	25	22	18	27	26	22	18	27	26	22	18	27	26	22	18	27	26	22	18	25	24	21	16.5	27	26	22	18	25	24	21	16.5
		kW	22.00	22.47	23.17	23.9	23.69	24.20	24.97	25.8	25.17	25.72	26.55	27.4	26.48	27.07	27.95	28.9	27.60	28.21	29.14	30.1	28.56	29.20	30.17	31.2	27.60	28.21	29.14	30.1	28.56	29.20	30.17	31.2
		HI PR	267	287	303	316.5	300	322	340	355.1	341	367	387	403.8	388	418	441	460.0	437	470	496	517.5	482	519	548	571.7	437	470	496	517.5	482	519	548	571.7
	LO PR	101	107	117	124.9	107	113	124	131.9	111	118	129	137.1	116	124	135	144.0	122	130	142	150.9	126	134	147	156.1	122	130	142	150.9	126	134	147	156.1	
	9202	MBh	299.3	305.1	319.5	340.9	292.3	298.0	312.1	332.9	285.3	290.9	304.6	325.0	278.4	283.8	297.2	317.1	264.5	269.6	282.3	301.2	245.0	249.7	261.5	279.0	264.5	269.6	282.3	301.2	245.0	249.7	261.5	279.0
		S/T	0.88	0.85	0.77	0.6	0.91	0.88	0.79	0.6	0.93	0.90	0.81	0.7	0.96	0.93	0.84	0.7	0.96	0.92	0.83	0.7	0.96	0.93	0.84	0.7	0.96	0.92	0.83	0.7	0.96	0.93	0.84	0.7
		ΔT	26	26	24	21	27	26	25	21	27	26	25	21	27	26	25	21	26	26	25	21	24	24	23	19.9	26	26	25	21	24	24	23	19.9
		kW	22.72	23.20	23.93	24.7	24.47	25.00	25.80	26.6	26.01	26.58	27.45	28.4	27.38	27.99	28.91	29.9	28.54	29.18	30.15	31.2	29.54	30.20	31.21	32.3	28.54	29.18	30.15	31.2	29.54	30.20	31.21	32.3
HI PR		278	299	316	329.4	312	336	354	369.6	355	382	403	420.4	404	435	459	478.8	454	489	516	538.6	502	540	571	595.1	454	489	516	538.6	502	540	571	595.1	
LO PR	105	112	122	130.0	111	118	129	137.3	115	123	134	142.7	121	129	141	149.9	127	135	148	157.1	131	140	153	162.5	127	135	148	157.1	131	140	153	162.5		
8200	MBh	290.6	296.2	310.2	330.9	283.8	289.3	303.0	323.2	277.0	282.4	295.8	315.5	270.3	275.5	288.6	307.8	256.8	261.7	274.1	292.4	237.8	242.5	253.9	270.9	256.8	261.7	274.1	292.4	237.8	242.5	253.9	270.9	
	S/T	0.84	0.81	0.73	0.6	0.87	0.84	0.76	0.6	0.89	0.86	0.78	0.6	0.92	0.89	0.80	0.7	0.96	0.92	0.83	0.7	0.96	0.93	0.84	0.7	0.96	0.92	0.83	0.7	0.96	0.93	0.84	0.7	
	ΔT	27	27	25	22	28	27	26	22	28	27	26	22	28	27	26	22	28	27	26	22	26	25	24	20.7	28	27	26	22	26	25	24	20.7	
	kW	22.54	23.01	23.74	24.5	24.27	24.79	25.59	26.4	25.80	26.37	27.23	28.1	27.15	27.75	28.67	29.6	28.30	28.93	29.89	30.9	29.29	29.95	30.95	32.0	28.30	28.93	29.89	30.9	29.29	29.95	30.95	32.0	
	HI PR	275	296	313	326.1	309	332	351	366.0	351	378	399	416.2	400	430	455	474.0	450	484	511	533.3	497	535	565	589.2	450	484	511	533.3	497	535	565	589.2	
LO PR	104	111	121	128.7	110	117	128	136.0	114	122	133	141.3	120	128	139	148.4	126	134	146	155.6	130	138	151	160.9	126	134	146	155.6	130	138	151	160.9		
7257	MBh	276.0	281.4	294.7	314.4	269.6	274.8	287.8	307.1	263.2	268.3	281.0	299.8	256.8	261.7	274.1	292.4	243.9	248.6	260.4	277.8	226.0	230.3	241.2	257.4	243.9	248.6	260.4	277.8	226.0	230.3	241.2	257.4	
	S/T	0.80	0.78	0.70	0.6	0.83	0.80	0.73	0.6	0.85	0.82	0.74	0.6	0.88	0.85	0.77	0.6	0.91	0.88	0.80	0.6	0.92	0.89	0.80	0.7	0.91	0.88	0.80	0.6	0.92	0.89	0.80	0.7	
	ΔT	28	28	26	23	28	28	26	23	28	28	26	23	29	28	27	23	28	28	26	23	26	26	25	21.3	28	28	26	23	26	26	25	21.3	
	kW	22.18	22.65	23.36	24.1	23.88	24.39	25.17	26.0	25.38	25.93	26.77	27.7	26.70	27.29	28.19	29.1	27.83	28.45	29.39	30.4	28.80	29.44	30.43	31.5	27.83	28.45	29.39	30.4	28.80	29.44	30.43	31.5	
	HI PR	270	290	306	319.6	303	326	344	358.6	344	370	391	407.9	392	422	445	464.6	441	475	501	522.6	487	524	554	577.5	441	475	501	522.6	487	524	554	577.5	
LO PR	102	108	118	126.1	108	115	125	133.3	112	119	130	138.5	118	125	137	145.5	123	131	143	152.5	127	136	148	157.7	123	131	143	152.5	127	136	148	157.7		

IDB: Entering Indoor Dry Bulb Temperature
 High and low pressures are measured at the liquid and suction access fittings.
 Design Subcooling, 16 - 19 °F @ the liquid access fitting connection ARI 95 test conditions. Design Superheat 8 - 12 °F @ the compressor suction access fitting connection.

Shaded area reflects AHRI) Rating Conditions.
 kW = Total system power
 Amps: Unit amps (comp. + evaporator + condenser fan motors)

DBG 15 Tons — Standard Two-Speed Belt-Drive at High Speed

ESP IN" H ₂ O	TURNS OPEN													
	0		1		2		3		4		5		6	
	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
0.2	---	---	---	---	---	---	0	6,827	2.6675	6,394	2.2792	5,982	1.9434	
0.4	---	---	---	---	7,079	3.2019	6,623	2.7551	6,161	2.3441	5,706	1.9787	5,271	1.6650
0.6	---	---	6,903	3.3168	6,405	2.8302	5,923	2.4063	5,434	2.0191	4,949	1.6776	---	---
0.8	6,717	3.4193	6,198	2.9169	5,668	2.4546	5,152	2.0544	---	---	---	---	---	---
1.0	5,975	2.9894	5,418	2.5110	---	---	---	---	---	---	---	---	---	---
1.2	5,147	2.5507	---	---	---	---	---	---	---	---	---	---	---	---

DBG 15 Tons — High-Static Belt-Drive – Two-Speed at High Speed

ESP IN" H ₂ O	TURNS OPEN											
	0		1		2		3		4		5	
	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
0.8	---	---	---	---	---	---	---	---	6678	4.61	6266	4.10
1.0	---	---	---	---	---	---	6600	4.90	6126	4.32	5626	3.79
1.2	---	---	6840	5.80	6540	5.25	6078	4.58	5634	4.03	5115	3.51
1.4	6739	5.99	6457	5.53	6111	4.97	5633	4.31	5054	3.70	---	---
1.6	6367	5.77	6087	5.25	5670	4.67	5036	3.98	---	---	---	---
1.8	5950	5.47	5506	4.85	5010	4.28	---	---	---	---	---	---
2.0	5394	5.06	4868	4.49	---	---	---	---	---	---	---	---
2.2	4812	4.58	---	---	---	---	---	---	---	---	---	---

DBG 20 Tons — Standard Two-Speed Belt-Drive at High Speed

ESP IN" H ₂ O	TURNS OPEN													
	0		1		2		3		4		5		6	
	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
0.2	---	---	---	---	9,359	4.9235	8,991	3.7928	8,621	3.5442	8,188	3.2694	7,826	3.0421
0.4	---	---	9,018	3.1834	8,632	4.3858	8,251	3.3897	7,867	3.1452	7,363	2.8481	6,992	2.6282
0.6	---	---	8,279	2.9618	7,879	3.8623	7,484	2.9949	7,085	2.7548	---	---	---	---
0.8	7,957	4.8180	7,513	2.7320	7,097	3.3548	---	---	---	---	---	---	---	---
1.0	7,179	4.2309	6,716	2.4930	---	---	---	---	---	---	---	---	---	---
1.2	6,368	3.6582	---	---	---	---	---	---	---	---	---	---	---	---

Notes

- Airflow table represent dry coil with filters installed; SCFM correction factor for wet coil is 4%.
- Any adjustment made to the blower should not cause the motor to draw more than the motor rated RLA. Application that exceed the above could require a larger motor. Minimum rated SCFM is 350 per ton.
- Unit factory shipped with the sheave set at 2.5 turns open.

Airflow Data 20 & 25

DBG 20 Tons — High-Static Belt-Drive — Two-Speed at High Speed

ESP In" H ₂ O	TURNS OPEN											
	0		1		2		3		4		5	
	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
0.8	---	---	---	---	---	---	8936	6.53	8347	5.76	7833	5.12
1.0	---	---	---	---	8855	7.06	8250	6.12	7657	5.40	7033	4.74
1.2	8934	7.89	8550	7.25	8175	6.57	7598	5.72	7043	5.04	6394	4.38
1.4	8424	7.49	8071	6.91	7639	6.21	7041	5.38	6318	4.63	---	---
1.6	7959	7.21	7609	6.57	7088	5.84	6295	4.97	---	---	---	---
1.8	7438	6.84	6883	6.06	6263	5.36	---	---	---	---	---	---
2.0	6742	6.32	6085	5.61	---	---	---	---	---	---	---	---
2.2	6015	5.73	---	---	---	---	---	---	---	---	---	---

DBG 25 Tons — Standard Two-Speed Belt-Drive at High Speed

TURNS OPEN	0		1		2		3		4		5		6	
RPM	1051		1019		986		954		922		911		857	
ESP	SCFM	BHP	SCFM	BHP	SCFM	BHP	SCFM	BHP	SCFM	BHP	SCFM	BHP	SCFM	BHP
0.2	9,960	6.43	9,464	5.80	8,996	5.22	8,553	4.67	8,138	4.16	8,005	4.00	7,371	3.24
0.4	9,324	6.07	8,846	5.47	8,396	4.91	7,970	4.39	7,570	3.90	7,442	3.75	6,831	3.02
0.6	8,688	5.70	8,229	5.13	7,796	4.60	7,386	4.10	7,002	3.64	6,879	3.49	---	---
0.8	8,052	5.34	7,612	4.80	7,196	4.29	6,803	3.81	---	---	---	---	---	---
1	7,417	4.98	6,994	4.46	6,596	3.98	---	---	---	---	---	---	---	---
1.2	6,781	4.62	---	---	---	---	---	---	---	---	---	---	---	---

DBG 25 Tons — High-Static — Two-Speed at High Speed

TURNS OPEN	0		1		2		3		4		5		6	
RPM	1284		1242		1200		1162		1123		1085		1047	
ESP	SCFM	BHP	SCFM	BHP	SCFM	BHP	SCFM	BHP	SCFM	BHP	SCFM	BHP	SCFM	BHP
0.4	---	---	---	---	---	---	---	---	---	---	9,854	6.74	9,259	5.99
0.6	---	---	---	---	---	---	---	---	9,812	7.13	9,197	6.35	8,626	5.63
0.8	---	---	---	---	---	---	9,771	7.52	9,131	6.70	8,541	5.95	7,993	5.27
1	---	---	---	---	---	---	9,063	7.05	8,450	6.27	7,885	5.56	7,359	4.91
1.2	---	---	---	---	8,990	7.39	8,355	6.58	7,769	5.84	7,228	5.17	6,726	4.55
1.4	---	---	8,968	7.80	8,253	6.88	7,647	6.11	7,088	5.41	6,572	4.77	---	---
1.6	---	---	8,197	7.23	7,516	6.37	6,939	5.64	---	---	---	---	---	---
1.8	8,136	7.58	7,426	6.67	6,779	5.85	---	---	---	---	---	---	---	---
2	7,327	6.97	6,654	6.11	---	---	---	---	---	---	---	---	---	---
2.2	6,518	6.35	---	---	---	---	---	---	---	---	---	---	---	---

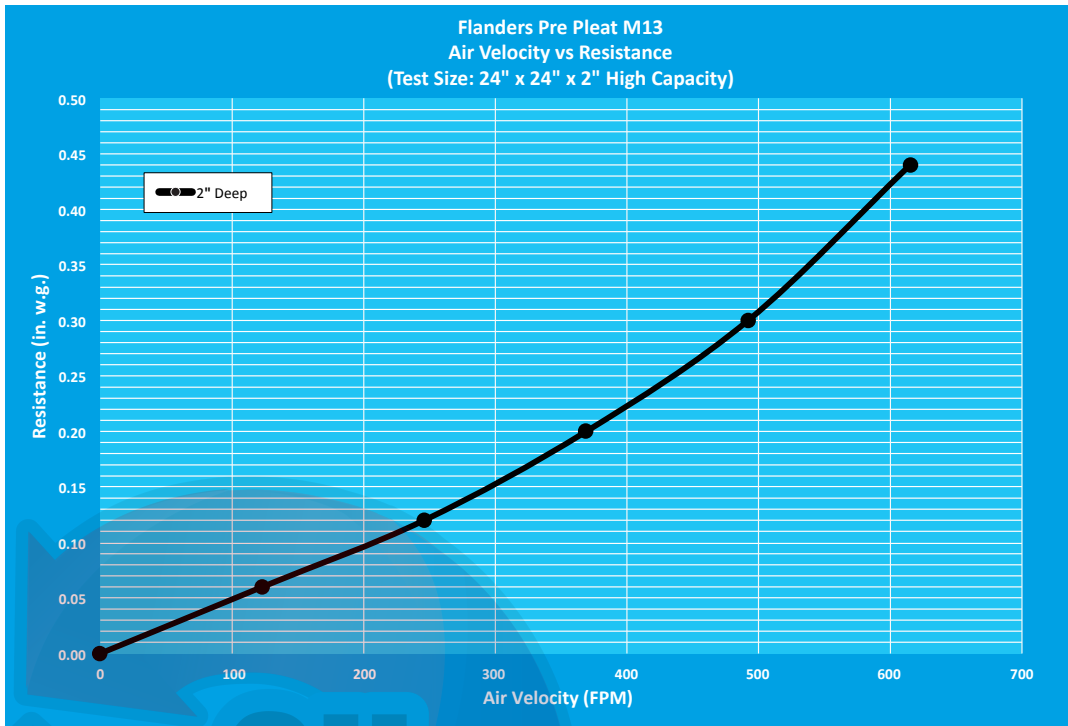
Notes

- Airflow table represent dry coil with filters installed; SCFM correction factor for wet coil is 4%.
- Any adjustment made to the blower should not cause the motor to draw more than the motor rated RLA. Application that exceed the above could require a larger motor. Minimum rated SCFM is 350 per ton.
- Unit factory shipped with the sheave set at 2.5 turns open.

AIRFLOW PRESSURE DROP OF DOWNFLOW ECONOMIZER FOR 15- TO 25-TON ROOFTOP UNITS (100% RETURN AIR)

CFM	4000	6000	8000	10000
(In. WG)	0.16	0.18	0.27	0.47

High-Efficiency MERV 13 Air Filter Option



TONNAGE:	FILTER NOMINAL SIZE:	PART NUMBER:	ORDER QTY:
15, 20	20 x 25 x 2	0160L00202	6
25	20 X 20 X 2	0160L00201	8

Crankcase Heater Selection Table

ZP/ZPS...	COMPRESSOR DIAMETER	COMPRESSOR VOLTAGE			CRANKCASE HEATER WATTS
		230V	460V	575V	
16-31	5.5"	0163R00002S	0163R00031S	0163R00032S	40
39-83	6.58/7.3"	0130L00017S	0130L00018S	0130L00019S	70
103-137	9.14"	0130L00020S	0130L00021S	0130L00022S	90

DC* TONNAGE	COMPRESSOR VOLTAGE			CRANKCASE HEATER WATTS
	230V	460V	575V	
15-20 Ton**	0130L00017S	0130L00018S	0130L00019S	70
25 Ton	0130L00020S	0130L00021S	0130L00022S	90

*Includes C,G&H models.

**If Compressor Diameter is 9.14" then use 25 Ton Crankcase heaters.

Electrical Data

15 Tons

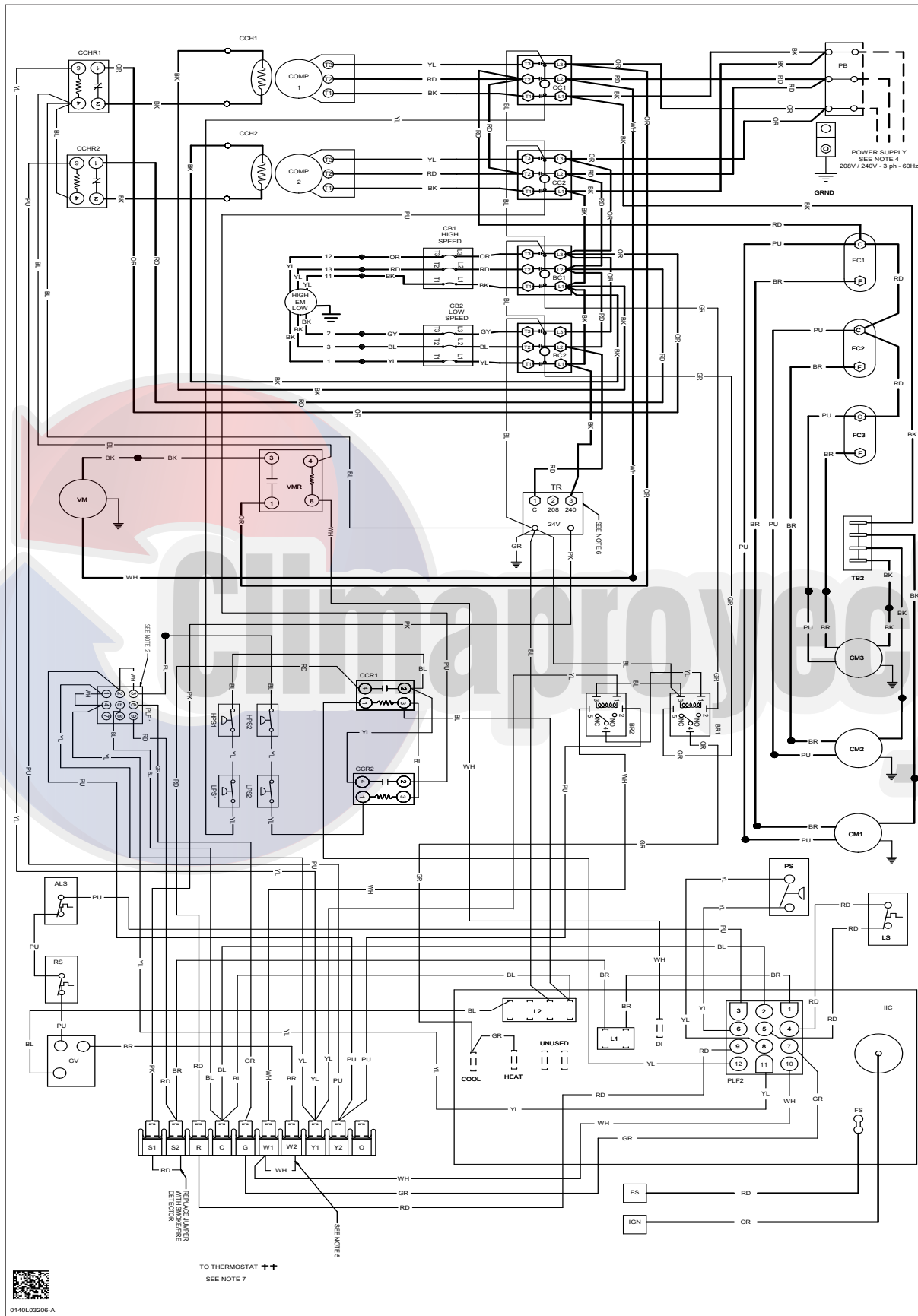
MODEL NUMBER	ELECTRICAL RATING	COMPRESSOR CIRCUIT 1		COMPRESSOR CIRCUIT 2		OUTDOOR FAN MOTOR			INDOOR FAN MOTOR			OPTIONAL POWERED CONVENIENCE OUTLET	POWER SUPPLY	
		RLA	LRA	RLA	LRA	QTY	HP	FLA	TYPE	HP	FLA	FLA	MCA	MOP
DBG1803S	208/230-3-60	25.0	164.0	25.0	164.0	3	0.33	2.0	2-speed High-Static Belt-Drive	7.50	20.3	-	82.6 / 82.6	100 / 100
												7.2 / 6.5	89.8 / 89.1	110 / 110
DBG1803V	208/230-3-60	25.0	164.0	25.0	164.0	3	0.33	2.0	2-speed Belt-Drive	5.00	14.0	-	76.3 / 76.3	100 / 100
												7.2 / 6.5	83.5 / 82.8	100 / 100
DBG1804S	460-3-60	12.2	100.0	12.2	100.0	3	0.33	0.9	2-speed High-Static Belt-Drive	7.50	9.5	-	39.5	50
												3.3	42.8	50
DBG1804V	460-3-60	12.2	100.0	12.2	100.0	3	0.33	0.9	2-speed Belt-Drive	5.00	6.6	-	36.6	45
												3.3	39.9	50
DBG1807S	575-3-60	9.0	78.0	9.0	78.0	3	0.33	0.7	2-speed High-Static Belt-Drive	7.50	7.5	-	29.8	35
												2.6	32.4	40
DBG1807V	575-3-60	9.0	78.0	9.0	78.0	3	0.33	0.7	2-speed Belt-Drive	5.00	5.2	-	27.5	35
												2.6	30.1	35

20 Tons

MODEL NUMBER	ELECTRICAL RATING	COMPRESSOR CIRCUIT 1		COMPRESSOR CIRCUIT 2		OUTDOOR FAN MOTOR			INDOOR FAN MOTOR			OPTIONAL POWERED CONVENIENCE OUTLET	POWER SUPPLY	
		RLA	LRA	RLA	LRA	QTY	HP	FLA	TYPE	HP	FLA	FLA	MCA	MOP
DBG2403S	208/230-3-60	34.0	240.0	34.0	240.0	3	0.33	2.0	2-speed High-Static Belt-Drive	7.50	20.3	-	103 / 103	125 / 125
												7.2 / 6.5	110 / 109	125 / 125
DBG2403V	208/230-3-60	34.0	240.0	34.0	240.0	3	0.33	2.0	2-speed Belt-Drive	5.00	14.0	-	96.4 / 96.4	125 / 125
												7.2 / 6.5	104 / 103	125 / 125
DBG2404S	460-3-60	16.0	140.0	16.0	140.0	3	0.33	0.9	2-speed High-Static Belt-Drive	7.50	9.5	-	48.1	60
												3.3	51.4	60
DBG2404V	460-3-60	16.0	140.0	16.0	140.0	3	0.33	0.9	2-speed Belt-Drive	5.00	6.6	-	45.2	60
												3.3	48.5	60
DBG2407S	575-3-60	12.9	107.6	12.9	107.6	3	0.33	0.7	2-speed High-Static Belt-Drive	7.50	7.5	-	38.7	50
												2.6	41.3	50
DBG2407V	575-3-60	12.9	107.6	12.9	107.6	3	0.33	0.7	2-speed Belt-Drive	5.00	5.2	-	36.4	45
												2.6	39.0	50

25 Tons

MODEL NUMBER	ELECTRICAL RATING	COMPRESSOR CIRCUIT 1		COMPRESSOR CIRCUIT 2		OUTDOOR FAN MOTOR			INDOOR FAN MOTOR			OPTIONAL POWERED CONVENIENCE OUTLET	POWER SUPPLY	
		RLA	LRA	RLA	LRA	QTY	HP	FLA	TYPE	HP	FLA	FLA	MCA	MOP
DBG3003S	208/230-3-60	48.1	245.0	48.1	245.0	2	1.00	4.2	2-speed High-Static Belt-Drive	7.50	21.0	-	138 / 138	175 / 175
												7.2 / 6.5	145 / 144	175 / 175
DBG3003V	208/230-3-60	48.1	245.0	48.1	245.0	2	1.00	4.2	2-speed Belt-Drive	7.50	21.0	-	138 / 138	175 / 175
												7.2 / 6.5	145 / 144	175 / 175
DBG3004S	460-3-60	18.6	125.0	18.6	125.0	2	1.00	2.1	2-speed High-Static Belt-Drive	7.50	10.1	-	56.1	70
												3.3	59.4	70
DBG3004V	460-3-60	18.6	125.0	18.6	125.0	2	1.00	2.1	2-speed Belt-Drive	7.50	10.1	-	56.1	70
												3.3	59.4	70
DBG3007S	575-3-60	14.7	100.0	14.7	100.0	2	1.00	1.6	2-speed High-Static Belt-Drive	7.50	8.2	-	44.6	50
												2.6	47.2	60
DBG3007V	575-3-60	14.7	100.0	14.7	100.0	2	1.00	1.6	2-speed Belt-Drive	7.50	8.2	-	44.6	50
												2.6	47.2	60

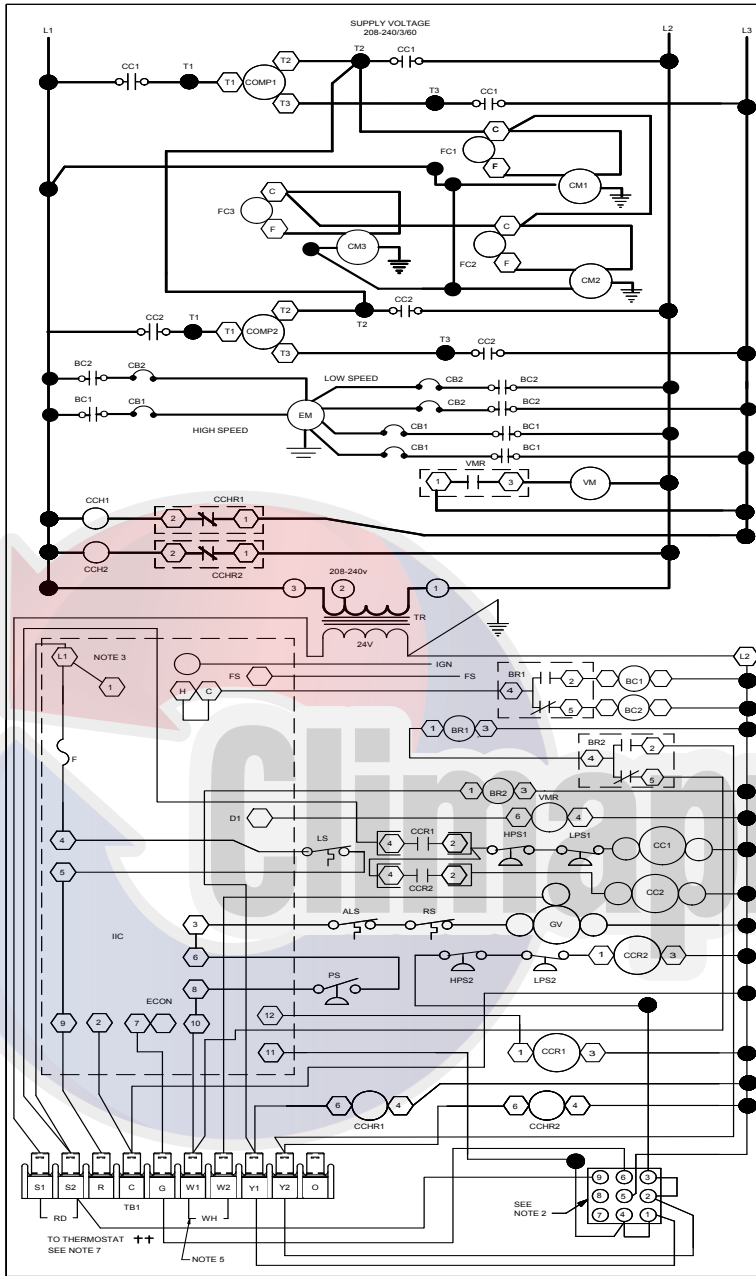


WARNING
 High Voltage: Disconnect all power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury, or death.

Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.



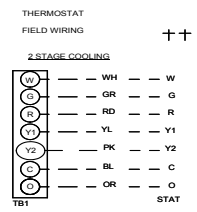
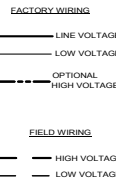
TO THERMOSTAT ++
 SEE NOTE 7



COMPONENT LEGEND

- ALS AUXILIARY LIMIT SWITCH
- BC BLOWER CONTACTOR
- BR BLOWER RELAY
- CB CIRCUIT BREAKER
- COMP COMPRESSOR
- CM CONDENSER MOTOR
- CC COMPRESSOR CONTACTOR
- COH CRANK CASE HEATER
- COHR CRANK CASE HEATER RELAY
- CCR COMPRESSOR CONTACTOR RELAY
- EM EVAPORATOR MOTOR
- F FUSE
- FC FAN CAPACITOR
- FS FLAME SENSOR
- GND EQUIPMENT GROUND
- GV GAS VALVE
- HPS HIGH PRESSURE SWITCH
- IBR INDOOR BLOWER RELAY
- IC INTEGRATED IGNITION CONTROL
- IGN IGNITOR
- LPS LOW PRESSURE SWITCH
- LS LIMIT SWITCH
- PB POWER DISTRIBUTION BLOCK
- PLF FEMALE PLUG/CONNECTOR
- PS PRESSURE SWITCH
- RS ROLLOUT SWITCH
- TB1 TERMINAL BLOCK (24V SIGNAL)
- TB2 TERMINAL BLOCK (L1)
- TR TRANSFORMER
- VM VENT MOTOR
- VMR VENT MOTOR RELAY

- NOTES**
- REPLACEMENT WIRE MUST BE THE SAME SIZE AND TYPE OF INSULATION AS ORIGINAL. (USE COPPER CONDUCTOR ONLY).
 - ACCESSORY ECONOMIZER PLUG ADJACENT TO BLOWER HOUSING IN RETURN AIR COMPARTMENT. REMOVE MALE PLUG AND ATTACH FEMALE PLUG TO THE ECONOMIZER ACCESSORY.
 - L1 AND L2 ON IIC CONTROL IS 24V INPUT.
 - USE COPPER CONDUCTORS ONLY. USE NEC CLASS 2 WIRE
 - FOR TWO STAGE OPERATION REMOVE W1 TO W2 WIRE JUMPER.
 - FOR 208V OPERATION MOVE BLACK WIRE FROM TERMINAL ① TO TERMINAL ② ON THE TRANSFORMER.



INSTALLER/SERVICEMAN

THE STATUS LIGHT ON THE FURNACE CONTROL MAY BE USED AS A GUIDE TO TROUBLESHOOTING THIS APPLIANCE. STATUS LIGHT CODES ARE AS FOLLOWS:

STATUS LIGHT	EQUIPMENT STATUS	CHECK
ON	NORMAL OPERATION	---
OFF	NO POWER OR INTERNAL CONTROL	CHECK INPUT POWER CHECK FUSE ON CONTROL REPLACE CONTROL
1 BLINK	IGNITION FAILURE	GAS FLOW GAS PRESSURE GAS VALVE
	OPEN ROLLOUT SWITCH	FLAME SENSOR FLAME ROLLOUT BAD SWITCH
2 BLINKS	OPEN AUX. LIMIT SWITCH	AUX. LIMIT OPEN
	PRESSURE SWITCH OPEN	CHECK PRESSURE SWITCH
3 BLINKS	PRESSURE SWITCH CLOSED WITHOUT INDUCER ON	CHECK PRESSURE SWITCH
	OPEN LIMIT SWITCH	MAIN LIMIT OPEN BAD SWITCH
4 BLINKS	FALSE FLAME SENSED	STICKING GAS VALVE
5 BLINKS	COMPRESSOR OUTPUT DELAY	3 MIN. COMP. ANTI-CYCLE TIMER

SEE UNIT RATING PLATE FOR TYPE AND SIZE OF OVER CURRENT PROTECTION

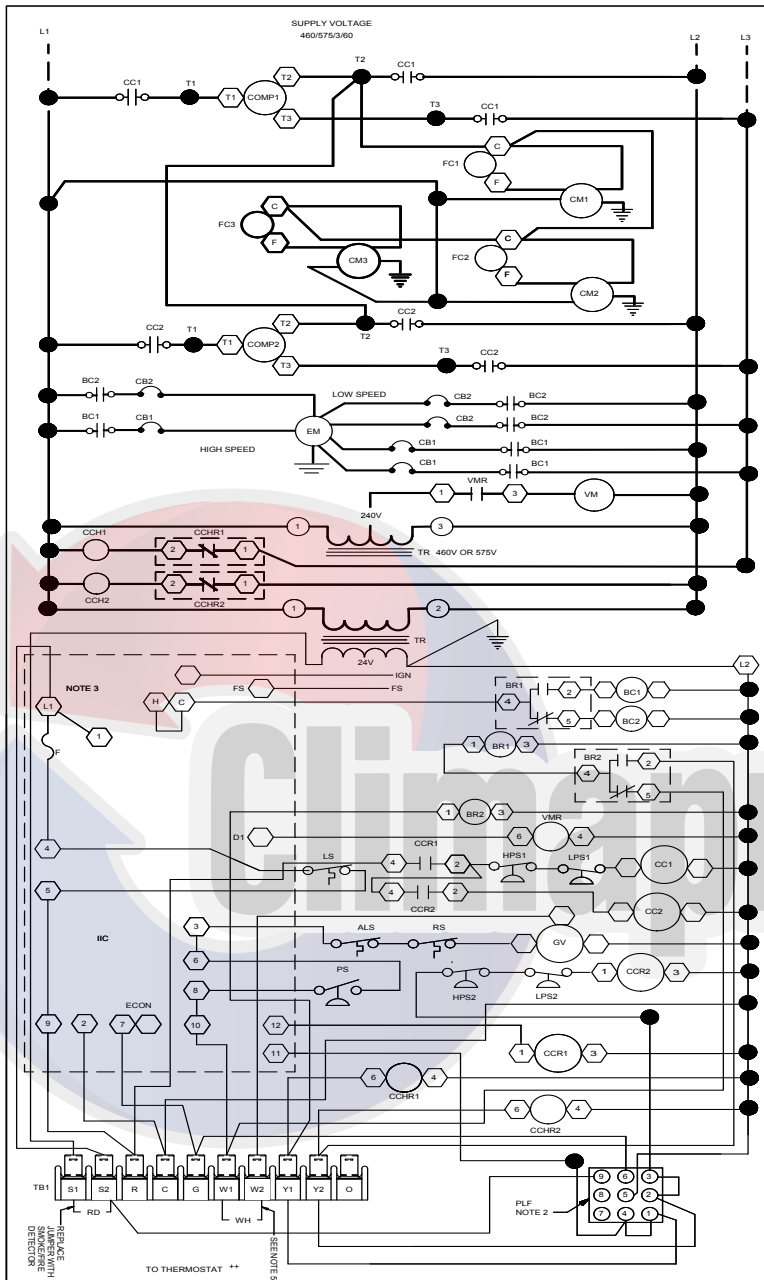
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WARNING

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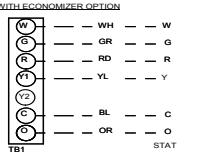
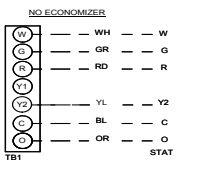
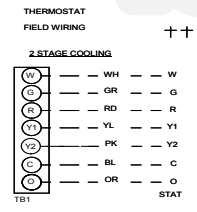
COMPONENT LEGEND

ALS	AUXILIARY LIMIT SWITCH
BC	BLOWER CONTACTOR
BR	BLOWER RELAY
COMP	COMPRESSOR
CM	CONDENSER MOTOR
CC	COMPRESSOR CONTACTOR
CCH	CRANK CASE HEATER
CCHR	CRANK CASE HEATER RELAY
CCR	COMPRESSOR CONTACTOR RELAY
EM	EVAPORATOR MOTOR
F	FUSE
FC	FAN CAPACITOR
FS	FLAME SENSOR
GND	EQUIPMENT GROUND
GV	GAS VALVE
HPS	HIGH PRESSURE SWITCH
IBR	INDOOR BLOWER RELAY
IC	INTEGRATED IGNITION CONTROL
IGN	IGNITOR
LPS	LOW PRESSURE SWITCH
LS	LIMIT SWITCH
PLF	FEMALE PLUG/CONNECTOR
PS	PRESSURE SWITCH
RS	ROLLOUT SWITCH
TB1	TERMINAL BLOCK (24V SIGNAL)
TB2	TERMINAL BLOCK (L1)
TR	TRANSFORMER
VM	VENT MOTOR
VMR	VENT MOTOR RELAY

- NOTES**
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 3. L1 AND L2 ON IIC CONTROL IS 24V INPUT.
 4. USE COPPER CONDUCTORS ONLY.
 + + USE NEC CLASS 2 WIRE.
 W1 TO W2 WIRE JUMPER.
 5. FOR TWO STAGE OPERATION REMOVE W1 TO W2 WIRE JUMPER.

FACTORY WIRING
 — LINE VOLTAGE
 — LOW VOLTAGE

FIELD WIRING
 — HIGH VOLTAGE



- WIRE CODE**
- BK BLACK
 - BL BLUE
 - BR BROWN
 - GR GREEN
 - OR ORANGE
 - PK PINK
 - PU PURPLE
 - RD RED
 - WH WHITE
 - YL YELLOW
 - YL/PK YELLOW WITH PINK STRIP
 - BL/PK BLUE WITH PINK STRIP

WARNING High Voltage: Disconnect all power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury, or death.

Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.

INSTALLER/SERVICEMAN

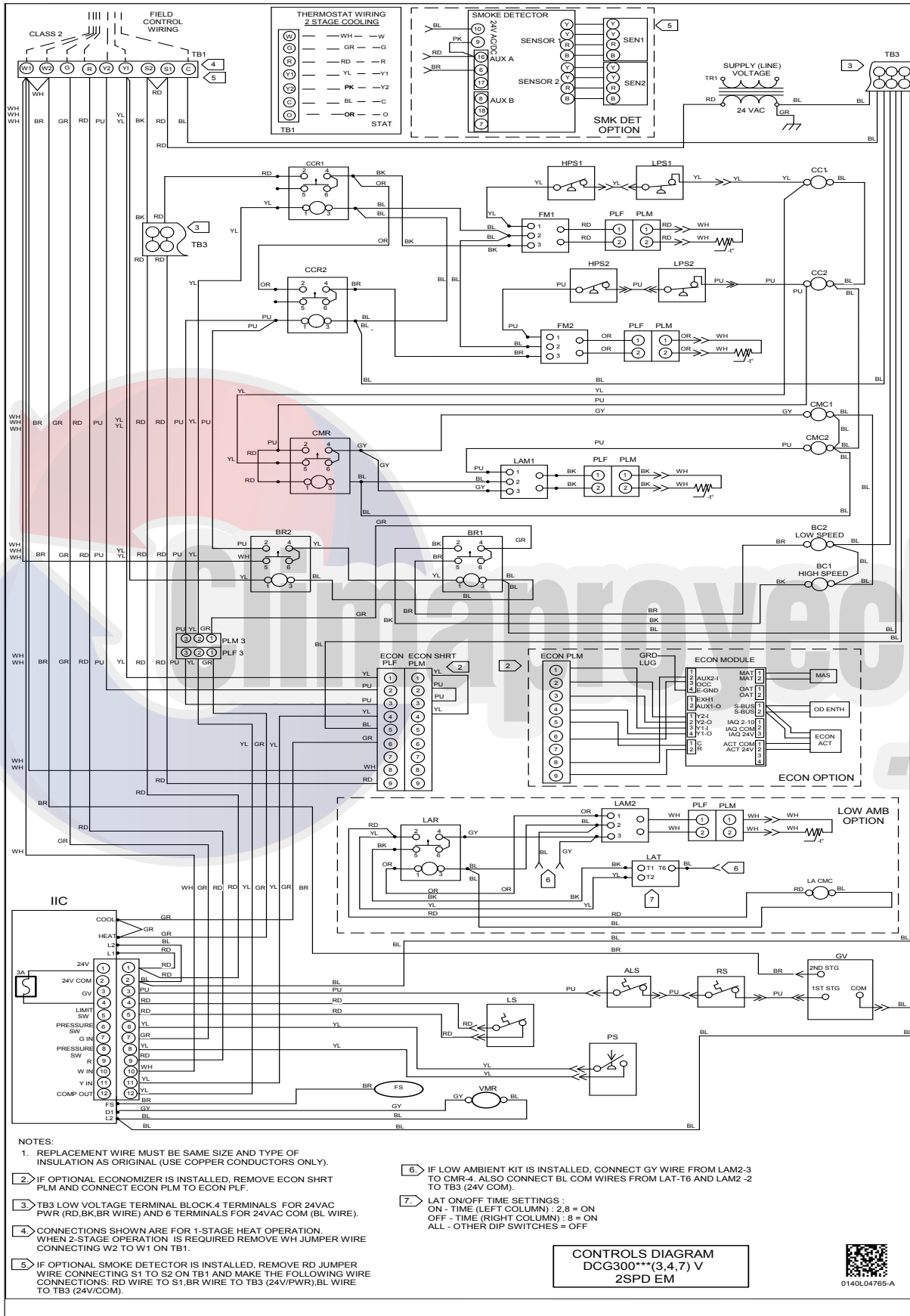
THE STATUS LIGHT ON THE FURNACE CONTROL MAY BE USED AS A GUIDE TO TROUBLESHOOTING THIS APPLIANCE. STATUS LIGHT CODES ARE AS FOLLOWS:

STATUS LIGHT	EQUIPMENT STATUS	CHECK
ON	NORMAL OPERATION	—
OFF	NO POWER OR INTERNAL CONTROL	CHECK INPUT POWER CHECK FUSE ON CONTROL REPLACE CONTROL
1 BLINK	IGNITION FAILURE OPEN ROLLOUT SWITCH OPEN AUX LIMIT SWITCH	GAS FLOW GAS PRESSURE GAS VALVE FLAME SENSOR FLAME ROLLOUT BAD SWITCH AUX. LIMIT OPEN
2 BLINKS	PRESSURE SWITCH OPEN	CHECK PRESSURE SWITCH
3 BLINKS	PRESSURE SWITCH CLOSED WITHOUT INDUCER ON	CHECK PRESSURE SWITCH
4 BLINKS	OPEN LIMIT SWITCH	MAIN LIMIT OPEN BAD SWITCH
5 BLINKS	FALSE FLAME SENSED	STICKING GAS VALVE
6 BLINKS	COMPRESSOR OUTPUT DELAY	3 MIN. COMP. ANTI-CYCLE TIMER

SEE UNIT RATINGS PLATE FOR TYPE AND SIZE OF OVER CURRENT PROTECTION

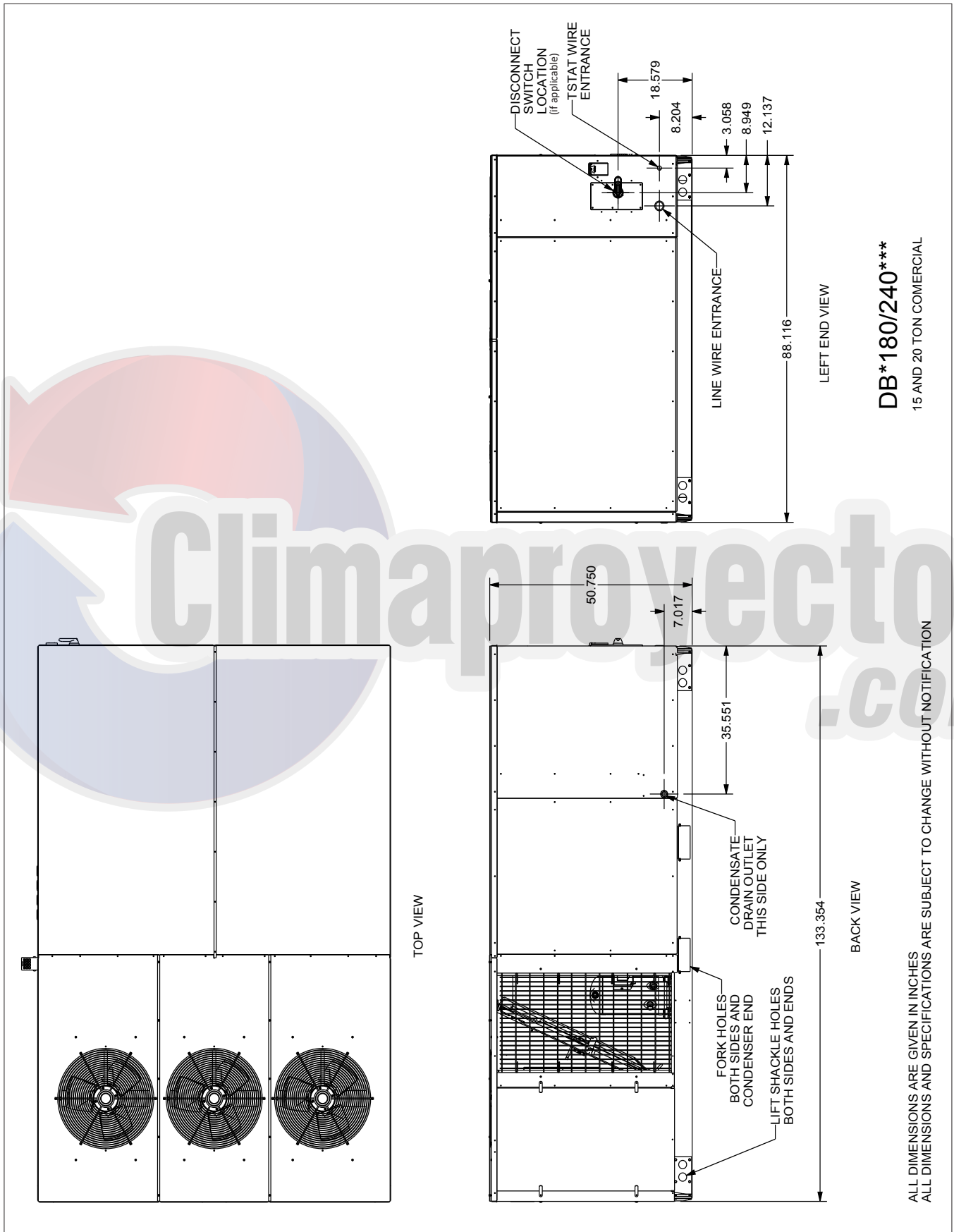


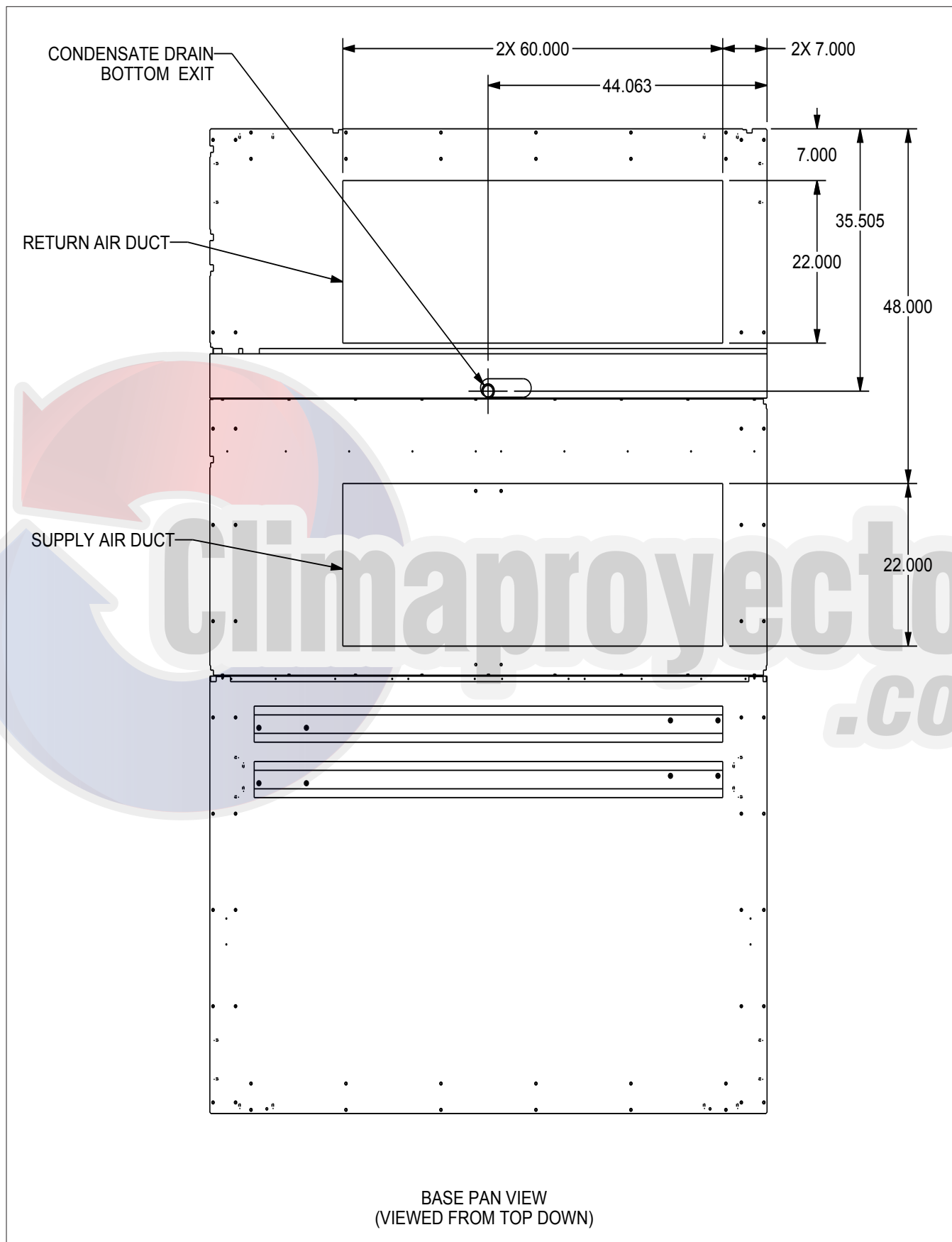
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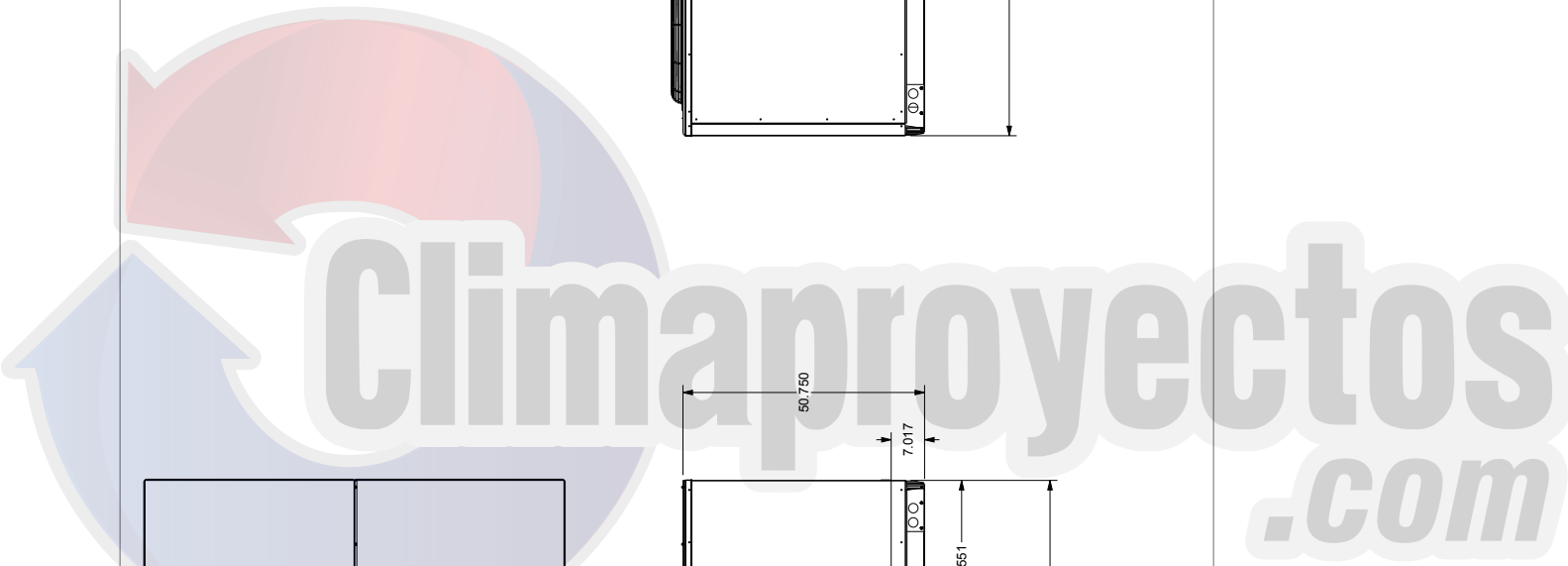
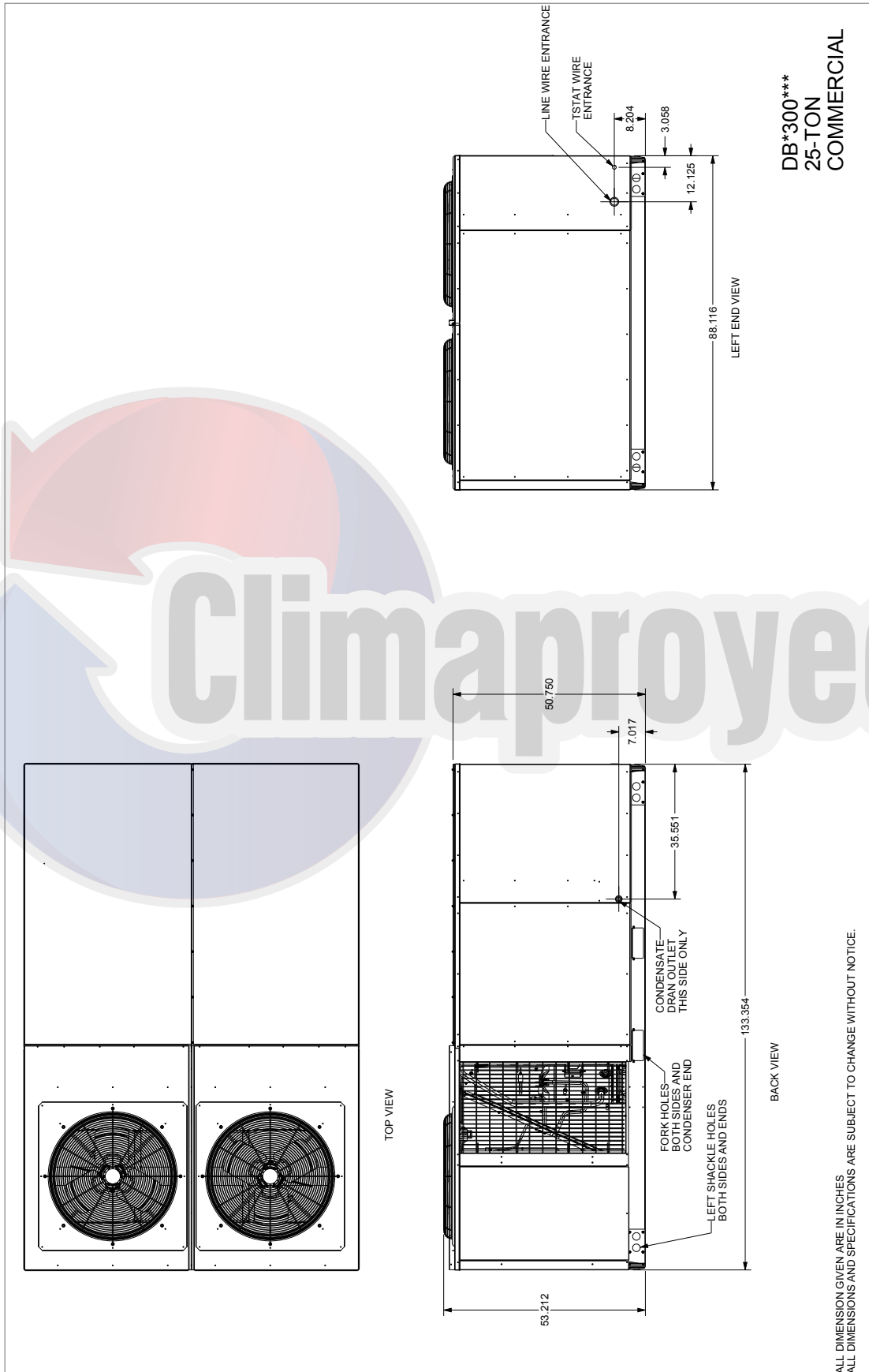


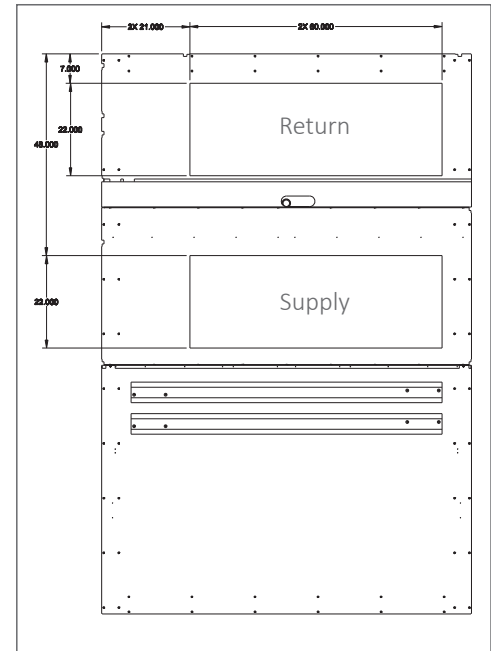
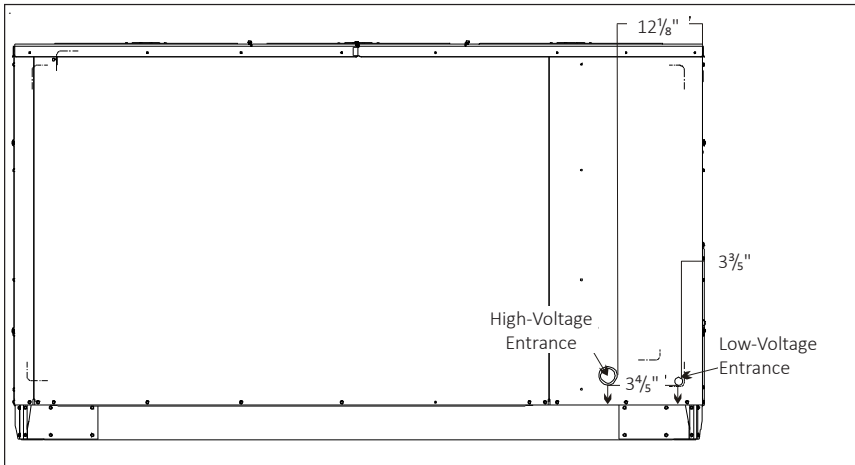
WARNING
High Voltage: Disconnect all power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury, or death.

Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.

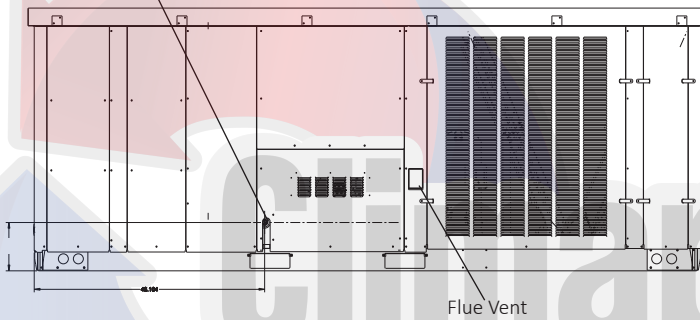








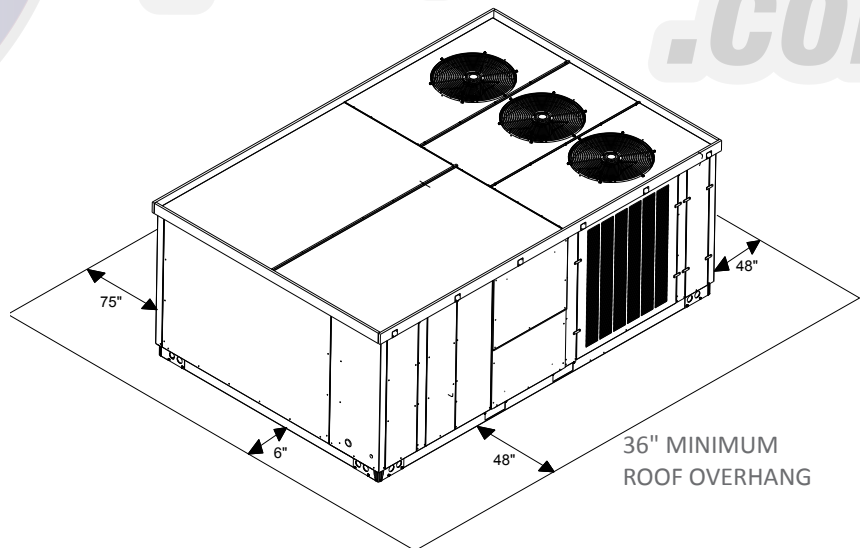
Gas Inlet Location (3/4" NPT)



Unit Clearances

Service Clearance

Allow for recommended service clearances as shown in the image to the right. In situations that have multiple units, a 36" minimum clearance is required between the condenser coils. A clearance of 48" is recommended on all sides of the unit to allow service access and to ensure proper ventilation and condenser airflow. The top of the unit should be unobstructed. Provide a roof walkway along the sides of the unit for service and access to controls and components. Contact your Daikin sales representative for service requirements less than those recommended.



Installation

Unit Location

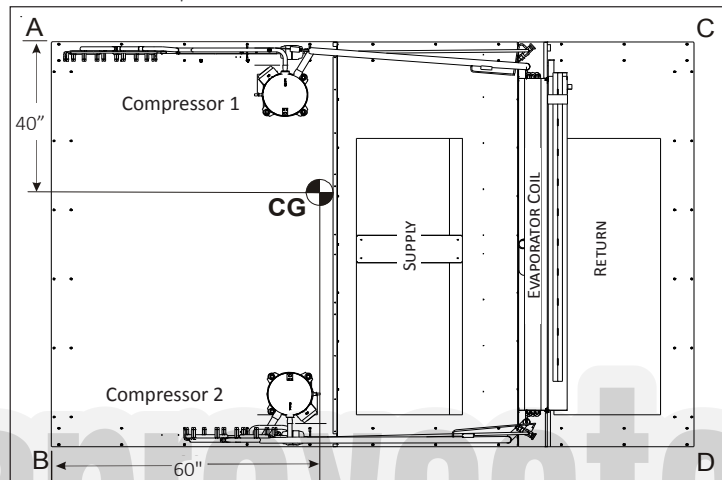
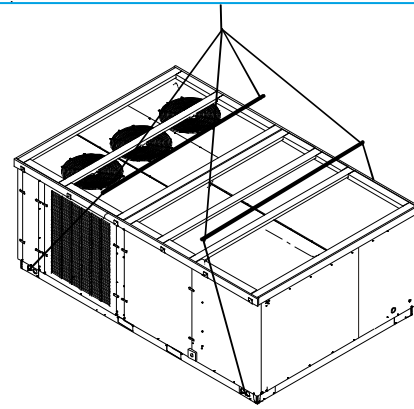
The structural engineer must verify that the roof has adequate support and ability to minimize deflection. Take extreme caution when using on a wooden roof structure. Unit condenser coils should be in a location that avoids any heated exhaust air. Allow sufficient space around the unit for maintenance/service clearance. Consult your Daikin sales representative if available clearances do not meet minimum recommendations.

Where code considerations, such as the NEC, require extended clearances, these take precedence.

Provisions for forks have been included in the unit base frame. No other fork locations are approved.

- » Unit must be lifted by the four lifting holes located at the base frame corners.
- » Lifting cables should be attached to the unit with shackles.
- » The distance between the crane hook and the top of the unit must not be less than 60".
- » Two spreader bars must span over the unit to prevent damage to the cabinet by the lift cables. Spreader bars must be of sufficient length so that cables do not come in contact with the unit during transport. Remove wood struts mounted beneath unit base frame before setting unit on roof curb. These struts are intended to protect unit base frame from fork lift damage. To remove the struts, extract the sheet metal retainers and pull the struts through the base of the unit. Refer to rigging label on the unit.

Important: If using bottom discharge with roof curb, duct-work should be attached to the curb prior to installing the unit. Refer to the Roof Curb Installation Instructions for proper curb installation. Curbing must be installed in compliance with the National Roofing Contractors Association Manual. Lower unit carefully onto roof mounting curb. While rigging the unit, the center of gravity will cause the condenser end to be lower than the supply air end. Bring condenser end of unit into alignment with the curb. With condenser end of the unit resting on curb member and using curb as a fulcrum, lower opposite end of the unit until entire unit is seated on the curb. When a rectangular cantilever curb is used, take care to center the unit. Check for proper alignment and orientation of supply and return openings with duct.



CORNER & CENTER-OF-GRAVITY LOCATIONS

Roof Curb Installation

The roof curb is field-assembled and must be installed level (within 1/16" per foot side to side). A sub-base must be constructed by the contractor in applications involving pitched roofs. Gaskets are furnished and must be installed between the unit and curb. For proper installation, follow NRCA guidelines. In applications requiring post and rail installation, an I-beam securely mounted on multiple posts should support the unit on each side. In addition, the insulation on the underside of the unit should be protected from the elements. Applications in geographic areas subjected to seismic or hurricane conditions must meet code requirements for fastening the unit to the curb and the curb to the building structure. For further and more detailed information please refer to our Daikin Light Commercial Packaged unit IOD.

Weights

15-TON UNITS	WEIGHTS (LBS.)
Weight A	582
Weight B	475
Weight C	565
Weight D	461
Shipping Weight	2198
Operating Weight	2083

20-TON UNITS	WEIGHTS (LBS.)
Weight A	645
Weight B	527
Weight C	589
Weight D	481
Shipping Weight	2357
Operating Weight	2242

25-TON UNITS	WEIGHTS (LBS.)
Weight A	627
Weight B	525
Weight C	604
Weight D	521
Shipping Weight	2513
Operating Weight	2283

Note: These weights are calculated without installed accessories.

Accessories

Daikin Master Item #	Description	Fits Model Sizes	Field-Installed	Factory-Installed	Operating Weight (lbs)
Curb					
14CURB180300	14" Roof Curb	15-25 tons	√		285
18CURB180300	18" Roof Curb	15-25 tons	√		315
24CURB180300	24" Roof Curb	15-25 tons	√		360
GHRC-180300	Hurricane Restraint Clips	15-25 tons	√		2
Downflow Economizer & Power Exhaust¹					
SDNECNJ180300B	Low-Leak Downflow Economizer w/ Enthalpy Sensor	15-25 tons	√	√	281
SPE1803002	Downflow Power Exhaust 208/230v	15-25 tons	√		98
SPE1803004	Downflow Power Exhaust 460v	15-25 tons	√		98
SPE1803007	Downflow Power Exhaust 575v	15-25 tons	√		98
Horizontal Economizer & Power Exhaust¹					
SHZECNJ180300B	Low-Leak Internal Horizontal Economizer w/ Enthalpy Sensor	15-25 tons	√		416
SHPE1803002	Horizontal Power Exhaust 208/230v	15-25 tons	√		200
SHPE1803004	Horizontal Power Exhaust 460v	15-25 tons	√		200
SHPE1803007	Horizontal Power Exhaust 575v	15-25 tons	√		200
Downflow Accessories					
S25FD180300	25% Manual Fresh Air Damper	15-25 tons	√		34
S25MFD180300	25% Motorized Fresh Air Damper	15-25 tons	√		42
S50MFD180300	50% Motorized Fresh Air Damper	15-25 tons	√		42
DNBBS180300	Burglar Bar Sleeves with Supply and Return	15-25 tons	√		60
Horizontal Accessories					
SBRD180300	Barometric Relief	15-25 tons	√		40
HZCURB180300EDR	Horizontal Curb End Discharge Roofed In	15-25 tons	√		950
HZCURB180300NSR	Horizontal Curb Non-Service Side Discharge Roofed In	15-25 tons	√		950
HZCURB180300SSR	Horizontal Curb Service Side Discharge Roofed In	15-25 tons	√		950
HZCURB180300EDS	Horizontal Curb End Discharge Slab Mount	15-25 tons	√		850
HZCURB180300NSS	Horizontal Curb Non-Service Side Discharge Slab Mount	15-25 tons	√		850
HZCURB180300SSS	Horizontal Curb Service Side Discharge Slab Mount	15-25 tons	√		850
SHZE25FD180300	Horizontal Fresh Air Damper 25%	15-25 tons	√		75
SHZRETPNL180300	Horizontal Return Panel	15-25 tons	√		50
Concentrics					
CDK300-530	Concentric Duct Kit Step-down Diffuser	25-tons	√		244
CDK180	Concentric Duct Kit	15 tons	√		158
CDK240	Concentric Duct Kit	20 tons	√		197
CDK300	Concentric Duct Kit Flush Mount Diffuser	25 tons	√		244
High-Static Kits					
	High-Static, factory-installed, 230V	15 ton		√	50
	High-Static, factory-installed, 460V	15 ton		√	50
	High-Static, factory-installed, 575V	15 ton		√	50
	High-Static, factory-installed, 230V	20 ton		√	50

Accessories

Daikin Master Item #	Description	Fits Model Sizes	Field-Installed	Factory-Installed	Operating Weight (lbs)
	High-Static, factory-installed, 460V	20 ton		√	50
	High-Static, factory-installed, 575V	20 ton		√	50
	High-Static, factory-installed, 25 ton, all voltages	25 ton		√	8
High-Efficiency Filters					
0160L00202	High-Efficiency MERV 13 Air Filter Nom. Size: 20x25x2; (Order Qty 6)	15, 20 tons	√		9
0160L00201	High-Efficiency MERV 13 Air Filter Nom. Size: 20x20x2; (Order Qty 8)	25 tons	√		11
Thermostats					
250803400	AppStat™ RTU 2H/2C Econ	15-25 tons	√		1
DT4272C	Comm Touch Digital Stat w/ Wi-Fi 4h/2c	15-25 tons	√		1
DT4273C	Comm Touch Digital Stat w/ Wi-Fi and Humidity Control 4h/2c	15-25 tons	√		1
Sensors					
C7232B1022	CO ₂ Sensor (Duct Mtd)	15-25 tons	√		1
C7400S1000	Differential Enthalpy Sensor	15-25 tons	√		1
D4120	Smoke Detector- Duct Mounted	15-25 tons	√		1
D4120W	Smoke Detector- Watertight	15-25 tons	√		1
TSTATGAC-WS	Remote indoor sensor	15-25 tons	√		1
Misc Accessories					
	Convenience Outlet: Powered 208/230v, 460v	15-25 tons		√	42
	Convenience Outlet: Powered 575v	15-25 tons		√	42
	Convenience Outlet: Non Powered	15-25 tons		√	2
	Disconnect Switch (non-fused)	15-25 tons		√	5
LAKT23	Low-Ambient Kit, 208-230V - non-DDC	15-20 tons	√	√	32
LAKT24	Low-Ambient Kit, 460V - non-DDC	15-20 tons	√	√	32
LAKT25	Low-Ambient Kit, 575V - non-DDC	15-20 tons	√	√	32
LAKT05	Low-Ambient Kit (all voltages) - non-DDC	25 tons	√	√	2
LPKT180300A	LP Conversion Kit	15-25 tons	√		1
3PMNDK01	Phase Monitor - non-DDC	15-25 tons	√	√	2
	Smoke Detector (supply and/or return air)	15-25 tons		√	11
	Hinged Panels	15-25 tons		√	34
FSK02A	Freeze Stat Kit ²	25 tons	√		1
HA036300	High-Altitude Kit	15-25 tons	√		1
LPKT180300A	LP Conversion Kit	15-25 tons	√		1
220-GX-03	Flue Extension Kit	15-25 tons	√		5

¹ Use Economizer & Power Exhaust listed within Low-Leak section

² FSK02A is standard on 2-speed, V, models.

Note: Where multiple variations are available, the heaviest combination is listed.

Factory Installed Options

- » **High-Static Kit:** Allows for operation in higher static applications.
- » **Non-Powered Convenience Outlet:** A 120V, 15A, GFCI outlet can be installed in the unit making it easier for technicians to service other units once an electrician runs power to the outlet. Outlet shall be factory-installed and internally mounted with easily accessible 115-v female receptacle. Transformer not included for this option. Outlet shall include a field-installed “While-in-use” cover.
- » **Powered Convenience Outlet:** A 120V, 15A, GFCI outlet can be powered with a step-transformer built into the unit. For use when the unit is not running. When a factory-installed powered convenience outlet is installed in the equipment, the unit MCA (Min. Circuit Ampacity) will increase by 7.5A for 208/230V units; increase by 3.75A for 460V units; and by 3A for 575V units. The MOP (Max. Overcurrent Protection) device must be sized accordingly. Outlet shall be powered from main line power to the rooftop unit. Outlet shall include a field-installed “While-in-use” cover.
- » **Stainless-Steel Heat Exchanger (Gas/Electric units only):** A tubular heat exchanger made of 409-type stainless steel can be installed in the unit.
- » **Return Air and/or Supply Air Smoke Detectors:** Return air and/or supply air smoke detectors can be installed in the unit. To safely identify the presence of smoke inside the air conditioning system and shutdown the blower to prevent the smoke to disperse into different zones.
- » **Disconnect Switch (non-fused):** A disconnect switch can be installed in the unit with factory wiring complete from the switch to the unit. Please note that for air conditioner and heat pump units, the appropriate electric heat kit must be ordered along with the disconnect switch (non-fused) to be factory-installed. For models with a powered convenience outlet option and a disconnect switch (non-fused) option, the power to the powered convenience outlet will be shut off when the disconnect switch (non-fused) is in the off position. National Electric Code (NEC) and UL approved non-fused switch shall provide unit power shutoff. The switch shall be accessible from outside of the unit and provide local shutdown and lockout capability.
- » **Hinged Access Panels:** Allows access to unit’s major components. Combined with latches for easy access to control box, compressor, filters and blower motor.
- » **Through-the-base electrical connection:** Allows an easy and fast field installation through the unit base pan.
- » **Electromechanical Controls:** Basic controls that include terminal block for unit connectivity to T-Stat.

Field Installed Options

- » **Power Exhaust:** Power exhaust shall be used in conjunction with an integrated economizer. This accessory exhausts return air and may be used in either downflow or horizontal (duct-mounted) applications. Horizontal power exhaust is mounted in return ductwork. Power exhaust shall be controlled by economizer controller operation. Exhaust fans shall be energized when dampers open past the 0-100% adjustable setpoint on the economizer control. (Damper to be field installed, all wiring and accessory set up is factory installed)
- » **Manual Fresh Air Damper:** Manual damper package shall consist of damper, air inlet screen, and rain hood which can be preset to admit up to 30% outdoor air for year round ventilation.
- » **Motorized Fresh Air Damper:** A two-position damper with rain hood and screen provides 30% outside air when the indoor fan starts and closes when the indoor fan shuts down. Consist of actuator, damper, air inlet screen, and rain hood. Damper shall close upon indoor (evaporator) fan shutoff and/or loss of power. The damper actuator shall plug into the rooftop unit’s wiring harness plug. No hard wiring shall be required.
- » **Horizontal Economizer:** Fully modulating between 0 and 100%, contain seals that meet ASHRAE 90.1 requirements. Includes motor and dampers, minimum position settings, preset linkage, wiring harness with plug, mixed air temperature sensor, and enthalpy control. An optional duct-mounted barometric relief damper is available. An optional return enthalpy sensor is available to provide comparative or differential enthalpy control. Damper blades shall be galvanized steel with composite gears. Plastic or composite blades on intake or return shall not be acceptable. Standard leak rate shall be equipped with dampers not to exceed 2% leakage at 1 in. wg pressure differential. Low Leak design meets California Title 24 section 140.4 and ASHRAE 90.1 requirements for 4 cfm per sq. ft. on the outside air dampers and 10 cfm per sq. ft. on the return dampers. Shall be designed to close damper(s) during loss-of-power situations with spring return built into motor. Economizer controller shall accept a 2-10 Vdc CO₂ sensor input for IAQ/DCV control. In this mode, dampers shall modulate the outdoor air damper to provide ventilation based on the sensor input.
- » Economizer controller shall be Honeywell® JADE® W7220 that provides:
 - 2-line LCD interface screen for setup, configuration and troubleshooting.
 - On-board Fault Detection and Diagnostics (FDD) that senses and alerts when the economizer is not operating properly, per California Title 24.
 - Sensor failure loss of communication identification
 - Automatic sensor detection
 - Capabilities for use with multiple-speed indoor fan systems
 - Utilize digital sensors: Dry bulb and Enthalpy
 - Economizer controller shall provide indications when in free cooling mode, in the DCV mode, or the exhaust fan contact is closed.

- » **High Altitude Kit (Gas/Electric units):** Can be used in gas/electric units operating at higher altitudes.
- » **Barometric relief (only when economizer is installed):** Allows air pressure relief inside the building to maintain a constant interior pressure.
- » **LP Conversion Kit (Gas/Electric units):** Allows gas/electric package units to use propane fuel.
- » **Roof curbs:** Full perimeter roof curb with exhaust capability providing separate air streams for energy recovery from the exhaust air without supply air contamination. Two different heights 14" and 24", allows proper installation and structure stability. Formed galvanized steel with wood nailer strip and shall be capable of supporting entire unit weight.
- » **Concentric duct kits:** designed to provide a single-point air distribution system with the added benefit of having directional air control.
- » **Restraint mounting clips:** Allows for installation reinforcement for Hurricane and/or seismic events.
- » **Flue extension (Gas/Electric units):** Allows the exhaust gas produced by the heat exchanger to be redirected.
- » **Burglar Bar Sleeves:** Designed to prevent the access thru the return or supply ducting inside the unit.
- » **Downflow square to round adapter 18":** Installed into a recessed portion of the roof curb, the concentric duct adaptor changes the orientation of the ductwork from square to round for applications utilizing that type of ducting system.
- » **Side discharge concentric diffuser system:** The Concentric diffuser system is an all in one supply and return duct free arrangement for RTU systems. This system comes with two separate duct connections, one for a supply and another for a return.
- » **Remote indoor sensor:** Remote sensor to monitor the temperature on zones away from the main thermostat.
- » **Drain pan overflow switch:** Allows the controls to detect and send an alarm when there is an overflow on the drain pan.
- » **Filtration:** MERV13 filters available for high air filtration requirements.
- » **Freeze stat:** Temperature sensing device that monitors the heat exchange to prevent the coil from freezing.

Factory and Field Installed Options

- » **Downflow Economizer:** Fully modulating between 0 and 100%, contain seals that meet ASHRAE 90.1 requirements. Includes motor and dampers, minimum position settings, a preset linkage, a wiring harness with plug, a mixed air temperature sensor, enthalpy control, and a barometric relief damper. An optional return enthalpy sensor is available to provide comparative or differential enthalpy control. Damper blades shall be galvanized steel with composite gears. Plastic or composite blades on intake or return shall not be acceptable. Standard leak rate shall be equipped with dampers not to exceed 2% leakage at 1 in. wg pressure differential. Low Leak design meets California Title 24 section 140.4 and ASHRAE 90.1 requirements for 4 cfm per sq. ft. on the outside air dampers and 10 cfm per sq. ft. on the return dampers. Shall be designed to close damper(s) during loss-of-power situations with spring return built into motor. Economizer controller shall accept a 2-10 Vdc CO₂ sensor input for IAQ/DCV control. In this mode, dampers shall modulate the outdoor air damper to provide ventilation based on the sensor input.
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 - Sensor failure loss of communication identification
 - Automatic sensor detection
 - Capabilities for use with multiple-speed indoor fan systems
 - Utilize digital sensors: Dry bulb and Enthalpy
 - Economizer controller shall provide indications when in free cooling mode, in the DCV mode, or the exhaust fan contact is closed.
- » **Low Ambient Control:** Allows cooling operation to 0°F outdoor ambient temperature for 7-1/2 - 20 ton units and to 35°F outdoor ambient temperature for 3 - 6 ton units. For 25 ton units, cooling operation is extended from 24°F ambient temperature to 0°F outside air temperature.
- » **Phase Monitor:** Phase monitor (3-Phase only). Phase monitor shall provide protection for motors and compressors against problems caused by phase loss, phase reversal and phase unbalance. Phase monitor is equipped with an LED that provides an ON or FAULT indicator.

