LENNOX®
ENGINEERING DATA

LENNOX EPIC SERIES

GCS24

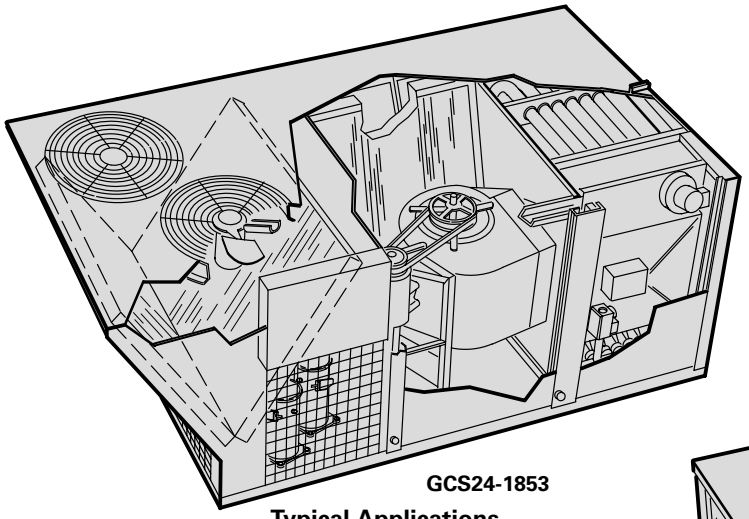
(15, 18.5, 20 and 25 Ton)
(52.8, 65.1, 70.3 to 87.9 kW)

GCS24-1853-2553-2753-3003 PACKAGED UNITS COOLING & GAS HEAT

***177,000 to 280,000 Btuh (51.9 to 82.0 kW) Cooling Capacity**
145,000 to 470,000 Btuh (42.5 to 137.7 kW) Input Heating Capacity

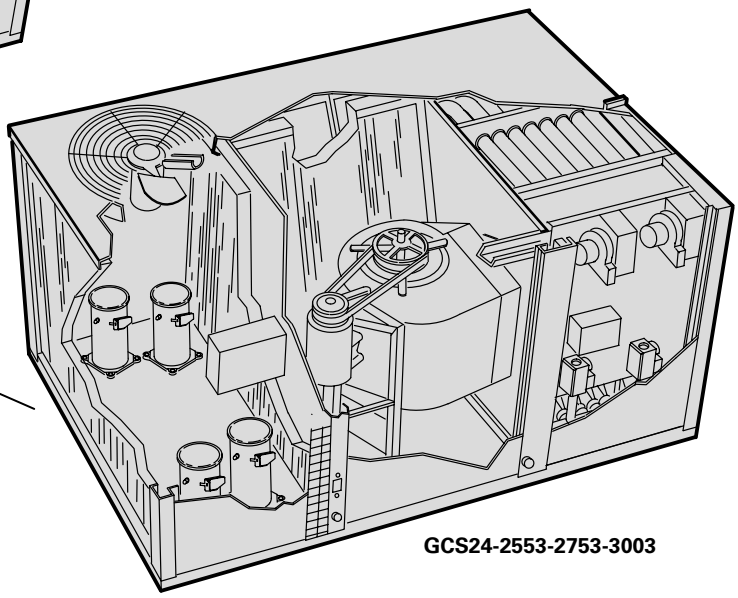
***ARI Standard Ratings**

Bulletin No. 210054
June 1994
Supersedes April 1994

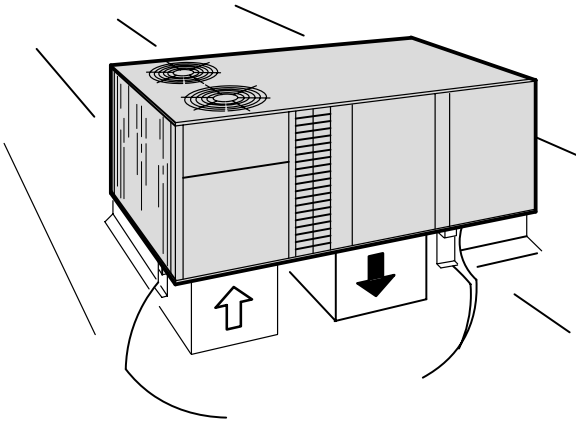


GCS24-1853

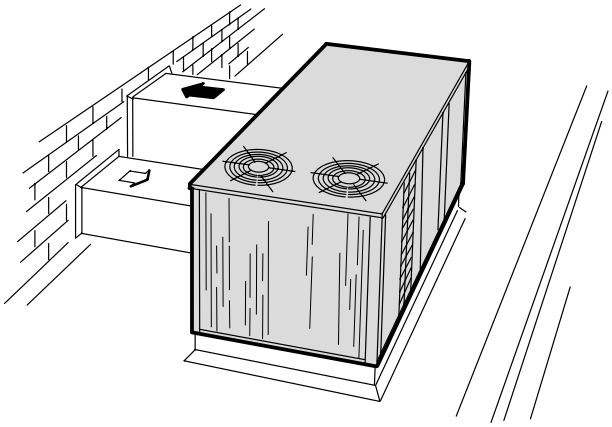
Typical Applications



GCS24-2553-2753-3003



Down-Flo Supply and Return Air Installation
With RMF16 Roof Mounting Frame.



Horizontal (Side) Supply and Return Air Installation
With RMF16 Roof Mounting Frame.

Table of Contents

♁ The maple leaf symbol in this bulletin denotes Canadian only usage where applicable

NOTE — Due to Lennox' ongoing committment to quality, Specifications, Ratings and Dimensions subject to change without notice.

FEATURES

Item	GCS24-1853	GCS24-2553	GCS24-2753	GCS24-3003
Air Flow Choice — Bottom (down-flow) or horizontal (side) supply and return air	Std.	Std.	Std.	Std.
Approvals — A.G.A./C.G.A. certified as combination heating/ cooling unit for outdoor installation, bonded for grounding to meet safety standards for servicing required by A.G.A./C.G.A. and National and Canadian Electrical Codes	Std.	Std.	Std.	Std.
ARI Standard 360-86 Certified	Std.	Std.	Std.	▲
Bottom Power Entry	Std.	Std.	Std.	Std.
Cabinet — Heavy gauge galvanized steel, fully insulated, powdered enamel paint finish, large removeable access panels, electrical inlets in cabinet base and condenser section, hinged control box with factory installed controls low voltage terminal strip, unit lifting brackets	Std.	Std.	Std.	Std.
Cabinet Panels — 2 compressor panels, 2 blower panels and 1 gas heat access panel hinged with quarter-turn latches	—	●Opt.	●Opt.	●Opt.
Coil Construction (Evaporator and Condenser) — Copper tube construction, ripple-edged enhanced aluminum fins, flared shoulder tubing connections, silver soldered construction, factory tested, evaporator coil face split with separate circuits, evaporator coil drain connection outside of unit cabinet.	Std.	Std.	Std.	Std.
Compressors — Copeland® Compliant Scroll™ type, hermetically sealed, discharge temperature thermostat (protects compressor)	Std.	Std.	Std.	—
Compressors — Bristol® Inertia™ type, hermetically sealed, overload protected	—	—	—	Std.
Compressor Crankcase Heaters	—	Std.	Std.	Std.
Condenser Coils — Slab coil construction	Std.	Std.	Std.	Std.
Condenser Fans — Low sound operating levels, PVC coated fan guard furnished	Std.	Std.	Std.	Std.
Condenser Fan Motors — Overload protected, permanently lubricated, ball bearings	Std.	Std.	Std.	Std.
Control Box — Hinged for easy access, factory installed	Std.	Std.	Std.	Std.
Corrosion Protection — Phenolic epoxy coating applied to condenser coil only (with painted base section) or to both condenser and evaporator coils (with painted condenser and evaporator base section and painted blower housings), factory applied	**Opt.	**Opt.	**Opt.	**Opt.
Disconnect — Factory installed	*Opt.	*Opt.	*Opt.	*Opt.
Filters — Disposable 2 inch (51 mm) commercial grade, filter rack will accept 1 inch (25 mm) thick filters	Std.	Std.	Std.	Std.
Filter Access — Hinged filter door with quarter turn fasteners	Std.	Std.	Std.	Std.
Low Ambient Controls — Allows unit operation down to 30°F (–1°C)	Std.	Std.	Std.	Std.
Refrigeration System — Consists of: compressors, condenser coil and direct drive fan(s), evaporator coil and belt drive blower, expansion valves, high capacity driers, thermometer wells, high pressure switches, low pressure switches, full refrigerant charge, freezestat (prevents coil freeze-up during low ambient operation), independent refrigerant circuits (allows staging)	Std.	Std.	Std.	Std.
Service Outlets (2) — Factory installed, 120v ground fault circuit interrupter (GFCI) type	*Opt.	*Opt.	*Opt.	*Opt.
Supply Air Blower — Belt drive, forward curved blades with double inlet, blower wheel statically and dynamically balanced, permanently lubricated sleeve bearings, adjustable pulley (allows speed change)	Std.	Std.	Std.	Std.
Supply Air Motor — Overload protected, equipped with ball bearings	Std.	Std.	Std.	Std.
Fan and Limit Controls — Factory installed, 90 second fan time delay, dual limit controls (primary and secondary) with fixed temperature setting	Std.	Std.	Std.	Std.
Heat Exchanger — Tubular construction, aluminized steel, life cycle tested	Std.	Std.	Std.	Std.
Heating System — Aluminized Steel inshot burners, direct spark ignition, electronic flame sensor, redundant automatic dual gas valve with manual shut-off, induced draft blower, flame rollout switch, peep hole for flame viewing	Std.	Std.	Std.	Std.
Warranty — Limited ten years heat exchanger, limited five years compressors, one year all other components, see limited warranty certificate included with unit for details	Std.	Std.	Std.	Std.

Std.= Standard with unit.
Opt.= Optional
▲Tested at conditions included in ARI Standard 360.
*Available as part of factory installed Electrical Convenience Package, see Optional Factory Installed Options tables.
**Available factory installed Corrosion Protection Package, see Optional Factory Installed Options table.
● Available factory installed Hinged Panel Package, see Optional Factory Installed Options tables.

OPTIONAL ACCESSORIES (Must Be Ordered Extra)

Item	GCS24-1853	GCS24-2553-2753	GCS24-3003
✧ **Cold Weather Kit** — Electric heater automatically controls minimum temperature in gas burner compartment when temperature is below –40°F (–40°C). C.G.A. certified to allow operation of unit down to –60°F (–50°C)	Opt.	Opt.	Opt.
Control System — Electro-mechanical Thermostat	Opt.	Opt.	Opt.
Control System — W973	Opt.	Opt.	Opt.
Control System — T7300 Thermostat	Opt.	Opt.	Opt.
Control System — W7400	Opt.	Opt.	Opt.
✧ **Control System** — T8600 and T8621 Thermostat	Opt.	Opt.	Opt.
Differential Enthalpy Control — For use with economizer dampers, solid-state return air sensor allows selection between outdoor air and return air (whichever has lowest enthalpy)	Opt.	Opt.	Opt.
Diffusers (Step-Down) — Aluminum grilles, double deflection louvers, large center grille, insulated diffuser box with flanges, hanging rings furnished, interior transition (even air flow), internally sealed (prevents recirculation), adapts to T-bar ceiling grids or plaster ceilings	RTD11-185	RTD11-275	RTD11-275
Diffusers (Flush) — Aluminum grilles, fixed blade louvers, large center grille, insulated diffuser box with flanges, hanging rings furnished, interior transition (even air flow), internally sealed (prevents recirculation), adapts to T-bar ceiling grids or plaster ceilings	FD11-185	FD11-275	FD11-275
Transitions (Supply and Return) — Used with diffusers, installs in roof mounting frame, galvanized steel construction, flanges furnished for duct connection, fully insulated	SRT16-185	SRT16-300	SRT16-300
Economizer Dampers (Down-Flow or Horizontal) — Mechanically linked recirculated air and outdoor air dampers, plug-in connections to unit, nylon bearings, stain less steel seals (outdoor dampers), 24 volt fully modulating spring return damper motor, adjustable minimum damper position switch, mixed air controller, solid-state adjustable outdoor air enthalpy control, 0 to 100% outdoor air adjustable, two cleanable polyurethane frame filters furnished, damper assembly installs in unit, outdoor air hood installs over outdoor air dampers, gravity exhaust dampers furnished, horizontal applications require Horizontal Supply and Return Air Kit	†REMD16M-185	†REMD16M-300	†REMD16M-300
Horizontal Supply and Return Air Kit — Provides duct connection to unit, flanges furnished, hardware furnished, two filler panels furnished for unused air openings, filter access panel furnished	Opt.	Opt.	Opt.
LPG/Propane Kits	Opt.	Opt.	Opt.
Outdoor Air Damper Section — Linked mechanical dampers, interchangeable unit panel furnished (down-flow applications), two-piece cabinet (control access), cleanable polyurethane frame type filter furnished, 0 to 25% (fixed) outdoor air adjustable, manual or automatic operation (kit required for automatic operation), installs on unit for down-flow applications, installs in return air duct for horizontal applications	OAD16-185	OAD16-300	OAD16-300
Outdoor Air Damper Automatic Damper Kit — 3 position damper actuator, plug-in connection	Opt.	Opt.	Opt.
Power Exhaust Fans — Install on economizer dampers in down-flow applications, provide pressure relief, interlocked to run when return air dampers are closed and supply air blowers are operating, overload protected	PED16-185	PED16-300	PED16-300
Roof Mounting Frame — Nailer strip furnished, mates to unit, U.S. National Roofing Contractors Approved, shipped knocked down	RMF16-185	RMF16-300	RMF16-300
Smoke Detector — Photoelectric type, factory installed in return air section	*Opt.	*Opt.	*Opt.
Timed-Off Control — Prevents compressor short cycling, automatic reset control holds compressor off for 5 minutes	Opt.	Opt.	Opt.

Opt.= Optional must be ordered extra. See Optional Accessories Tables for ordering information.
†Available for field installation, see Optional Accessories tables. Also available as factory installed Economizer Package, see Factory Installed Options table.
*Available factory installed Smoke Detector Package, see Factory Installed Options tables.

OPTIONAL TEMPERATURE CONTROL SYSTEMS (See Flow Charts on Pages 6 and 7)

System and Component Description	Catalog No.
ELECTRO-MECHANICAL THERMOSTAT CONTROL SYSTEM	—
Thermostat — Two stage heat & two stage cool with dual temperature levers, subbase choice	**13F06**
Subbase — Manual system switch (Off-Heat-Auto-Cool), fan switch (Auto-On)	**13F17**
Subbase — Non-switching	**13F16**
Night Setback Operation — Order components below	—
Heating Thermostat — Single stage heat	**13F12**
Subbase — Non-switching	**13F16**
Nite Kit — Required if economizer is not used, contains plug-in relay, overrides operation of day thermostat	**39G74**
Time Clock — 7 day operation, indicates day and night periods, 2 hour increments, battery back-up	**See Price Book for Selection**
Time Clock — 24 hour night setback operation, 15 minute increments, battery back-up	**See Price Book for Selection**
Warm Up Kit — Holds economizer dampers closed during night heating operation and morning warm-up	**39G77**
W973 CONTROL SYSTEM	—
Logic Panel/Discharge Sensor/Plug-in Relay — Panel controls operation of economizer and stages of heating and cooling in response to signals from thermostat, balances conditioned space thermostat demand against system output, system output measured by discharge sensor (furnished), combined demand and output signals determine economizer damper position and number of cooling or heating stages required, logic panel may be installed in unit or remotely located, W973 Plug-in Relay (furnished) adapts control system to unit	**39G76**
Thermostat — Dual setpoint, separate heating-cooling levers, locking setpoints, integral sensor	**25C52**
Subbase — Switching with system selector switch (Heat-Auto-Off-Cool), fan switch (Auto-On)	**58C93**
Transmitter — Dual setpoint, separate heating-cooling levers, locking setpoints, requires sensor	**25C51**
Subbase — Switching with system selector switch (Heat-Auto-Off-Cool), fan switch (Auto-On)	**58C93**
Sensor — Room temperature	**58C92**
Sensor — Return air temperature	**27C40**
Time Clock — 7 day operation, indicates day and night periods, 2 hour increments, battery back-up	**See Price Book for Selection**
Time Clock — 24 hour night setback operation, 15 minute increments, battery back-up	**See Price Book for Selection**
Warm Up Kit — Holds economizer dampers closed during night heating operation and morning warm-up	**39G77**
T7300 THERMOSTAT CONTROL SYSTEM	—
Thermostat — Programmable, internal or optional remote temperature sensing (sensor required), touch sensitive keyboard, automatic switching, °F or °C readout, no anticipator, droop/no droop selection, indicator LED's, hour/day programming, override capabilities, time and operational mode readout, stage status indicators, battery back-up, subbase choice	**81G59**
Subbase — Selectable staging up to two stage heat & two stage cool, manual system switch (Heat-Off-Auto-Cool), fan switch (Auto-On), indicator LED's, auxiliary relay output for economizer operation	**81G60**
Subbase — Selectable staging up to three stage heat & two stage cool, manual system switch (Auto-Cool-Off-Heat-Emergency Heat) (heat pump only), fan switch (Auto-On), indicator LED's, auxiliary relay output for economizer operation	**13H76**
Sensor — Room temperature	**58C92**
Sensor — Room temperature with 3 hour override and setpoint adjustment	**86G67**
Sensor — Return air temperature	**27C40**

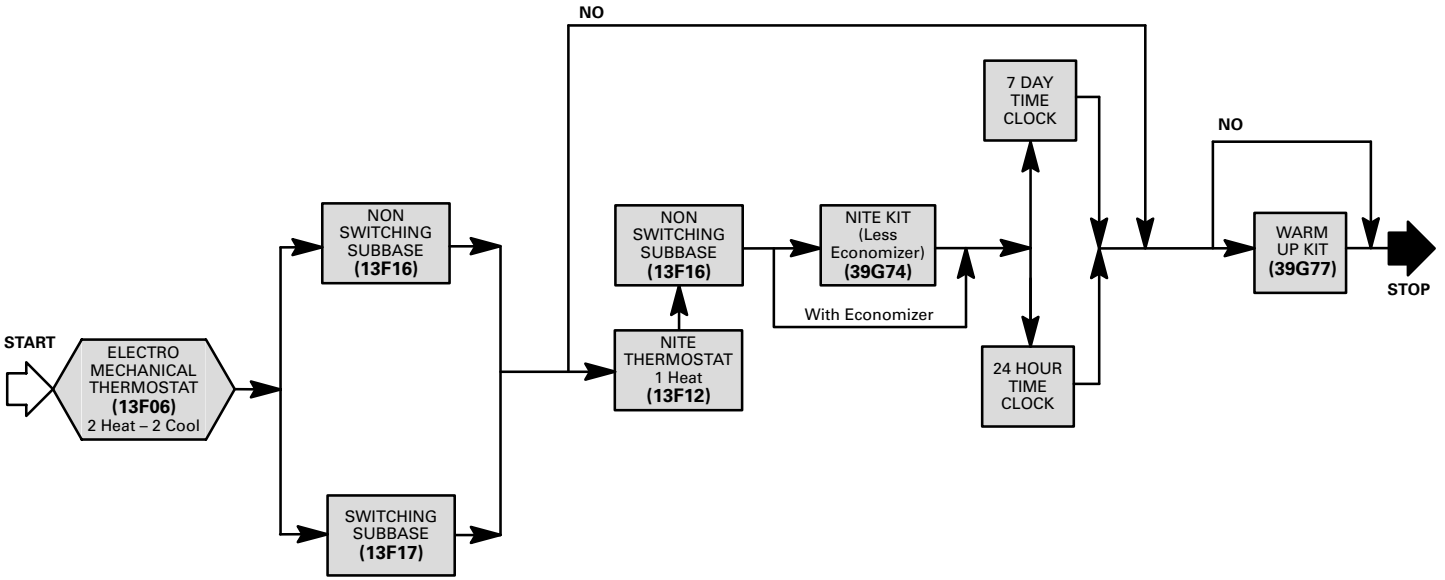
OPTIONAL TEMPERATURE CONTROL SYSTEMS (See Flow Charts on Pages 6 and 7)

System and Component Description	Catalog No.
W7400 CONTROL SYSTEM	—
Control Module/Plug-in Relay — Module controls operation of economizer and stages of heating and cooling, setpoint/space temperature sensor and time-of-day signals control unit operation, module balances space temperature signal against stages operating to determine system output, system output is measured and updated by monitoring actual space temperature deviation from setpoint and rate of change of space temperature, module may be installed in unit or remotely located, plug-in relay (furnished) provides set points for economizer and DX cooling, choice of thermostats	**74G11**
Thermostat — Room thermostat with integral sensor, touch sensitive keyboard, automatic switching, no anticipator, zero droop, indicator lights, hour/day programming, override capabilities, time readout, stage status indicators, battery back-up, wiring wallplate	**36G62 (°F) or♔36G63 (°C)**
Thermostat — Remote thermostat (sensor required), touch sensitive keyboard, automatic switching, no anticipator, zero droop, indicator lights, hour/day programming, override capabilities, time readout, stage status indicators, battery back-up, wiring wallplate	**36G64 (°F) or♔36G65 (°C)**
Sensor — Room temperature	**58C92**
Sensor — Return air temperature	**27C40**
♔ T8600 and T8621 THERMOSTAT CONTROL SYSTEMS	—
Thermostats — Built-in time delays, system switch (Heat-Off-Cool-Auto), fan switch (Auto-On), touch sensitive keyboard, LCD display (Time-Day-Status-Temperature readout in °F or °C), four different time and temperature settings per day, T8621 has switching subbase and one LED (system "On"), T8600 has wiring wall plate and two LED's (Energy Savings and system "On"), both have instant override capabilities for skipping current program, running previous program, temporarily raising or lowering temperature for current program or overriding program indefinitely, three "AAA" battery back-up, see below for additional descriptions **T8600C1055** .... **71E91** ..... 1 htg./1 clg. 5-1-1 day programming Manual changeover **T8600D1079** .... **27H31** ..... 1 htg./1 clg. 5-1-1 day programming Auto changeover **T8621A7010** .... **75E25** ..... 1 htg./1 clg. 7 day programming Auto changeover **T8621D7055** .... **27H29** ..... 2 htg./2 clg. 7 day programming Auto changeover	See left for catalog numbers
Warm Up Kit — Holds economizer dampers closed during night heating operation and morning warm-up	**39G77**

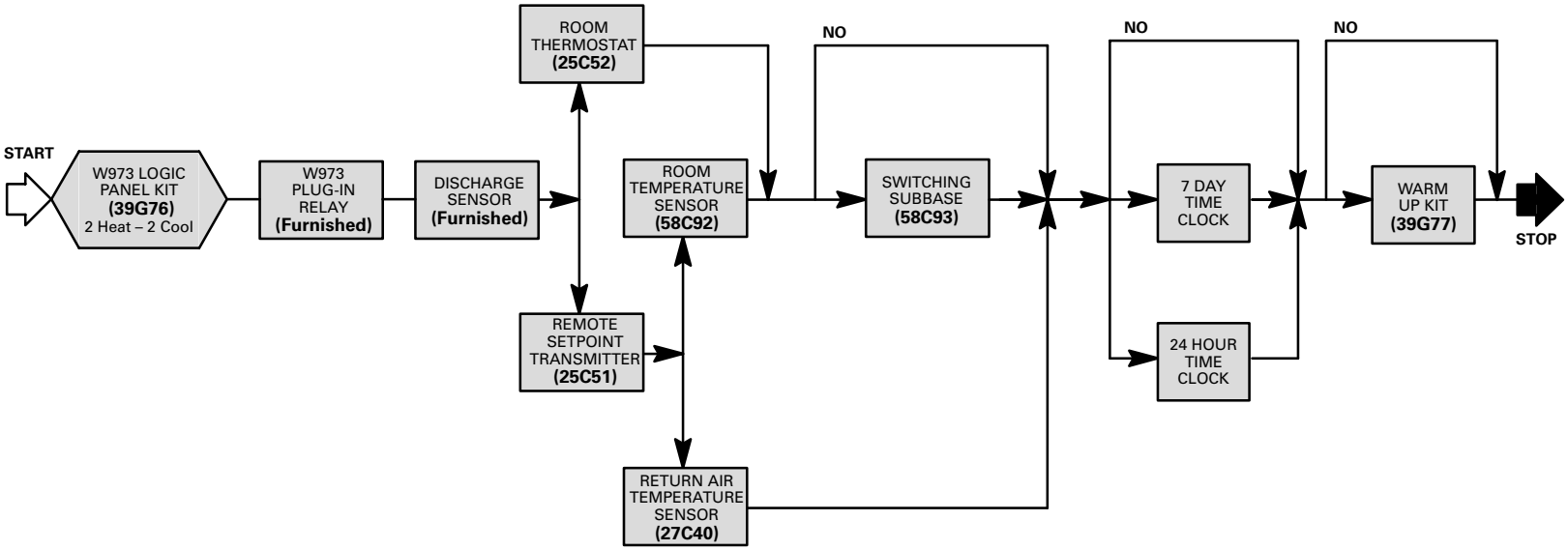
LOGIC CONTROLS PACKAGE (Factory Installed Option)

Component Description	Catalog No.
ETM Electronic Thermostat Module — Factory installed control monitors unit operation from different sensors factory installed in unit, has outputs for 2 stage heat/2 stage cool, automatic or continuous blower operation, economizer damper operation and night setback, features: day/occupied mode with low enthalpy (outdoor air damper open), high enthalpy (outdoor air damper closed) or night/unoccupied mode (outdoor air damper closed), ETM allows units to be "daisy chained" together (up to 31 units) to be operated from one central location with an "executive" type control processor (onsite or offsite), built-in time delays, built-in unit operating defaults, diagnostic LED's indicate various operating functions, surge suppression protects ETM against lightning or voltage spikes	Factory Installed In Unit
Return Air Sensor — Provides input to ETM module to determine heating or cooling operation and number of stages required	Factory Installed In Unit
Blower Proving Switch — Monitors blower operation, locks out unit in case of blower failure, sends signal to ETM module for alarm	Factory Installed In Unit
Dirty Filter Switch — Senses static pressure increase indicating a dirty filter condition	Factory Installed In Unit
Discharge Air Monitor — Senses leaving air temperature for monitoring unit operation	Factory Installed In Unit
Room Temperature Sensor — Provides input to ETM module to determine heating or cooling operation and number of stages required (ordered separately)	**97H53**
Night Setback Override Switch — Allows momentary override of night setback during unoccupied mode	Field Furnished

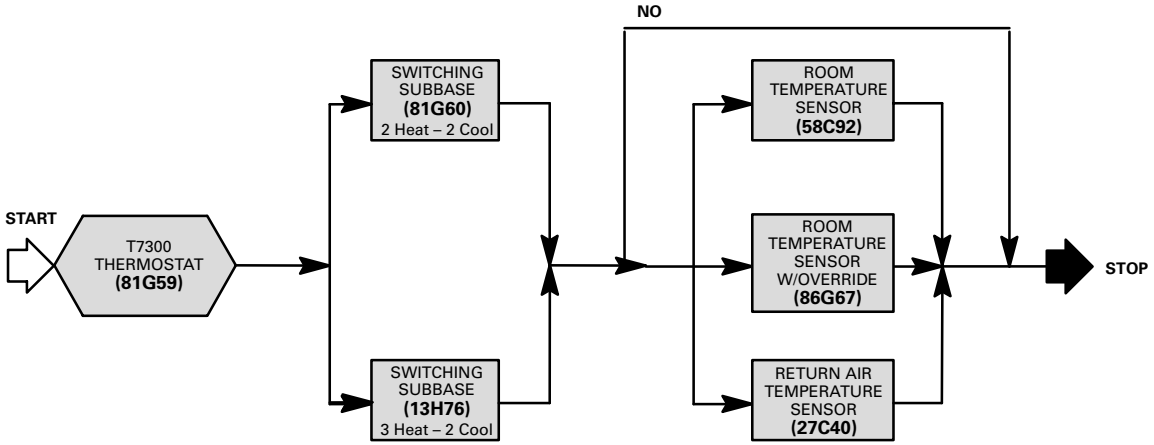
OPTIONAL ELECTRO-MECHANICAL THERMOSTAT CONTROL SYSTEM



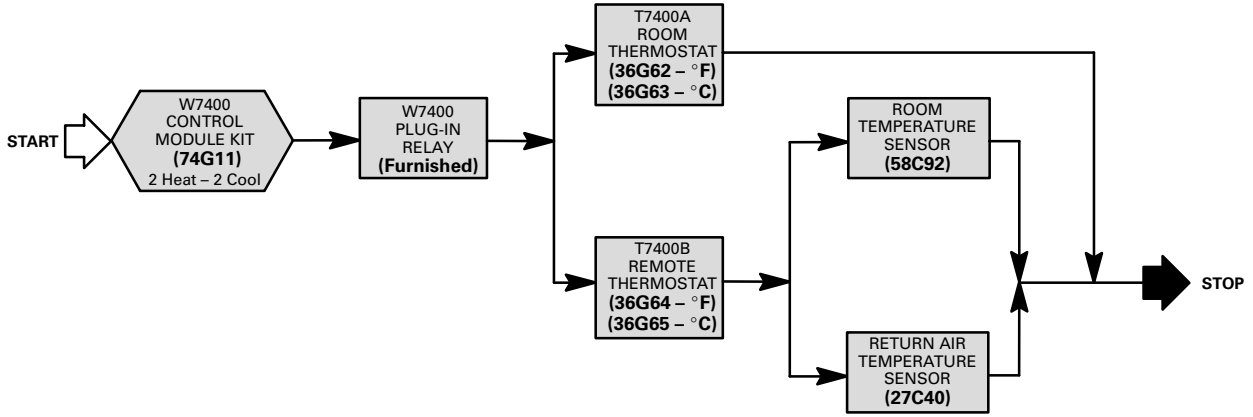
OPTIONAL W973 CONTROL SYSTEM



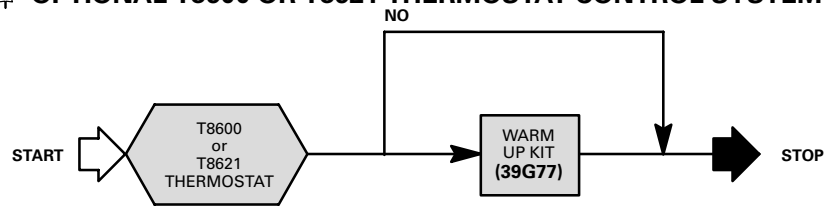
OPTIONAL T7300 CONTROL SYSTEM



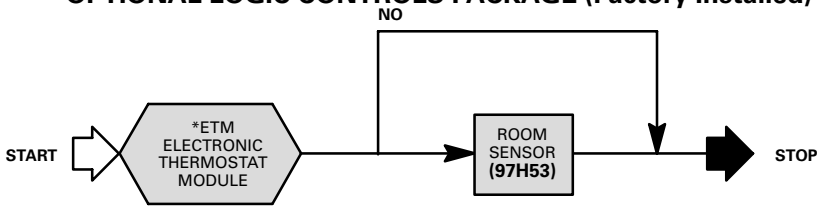
OPTIONAL W7400 CONTROL SYSTEM



OPTIONAL T8600 OR T8621 THERMOSTAT CONTROL SYSTEM



OPTIONAL LOGIC CONTROLS PACKAGE (Factory Installed)



*Includes Return Air Sensor, Blower Proving Switch, Dirty Filter Switch and Discharge Air Monitor factory installed in unit.

SPECIFICATIONS — GCS24-1853 & GCS24-2553

Model No.			GCS24-1853-235	GCS24-1853-330	GCS24-2553-235	GCS24-2553-470
Cooling Ratings	Gross Cooling Capacity — Btuh (kW)		184,000 (53.9)		224,600 (65.8)	
	*Total Cooling Capacity — Btuh (kW)		177,000 (51.9)		216,000 (63.3)	
	*Total Unit Watts		17,700		21,600	
	*EER (Btuh/Watts)		10.0		10.0	
	*†Integrated Part Load Value		10.5		10.8	
Refrigerant Charge Furnished (HCFC-22)	Circuit 1		8 lbs. 0 oz. (3.63 kg)		8 lbs. 4 oz. (3.74 kg)	
	Circuit 2		8 lbs. 0 oz. (3.63 kg)		8 lbs. 4 oz. (3.74 kg)	
	Circuit 3		8 lbs. 0 oz. (3.63 kg)		8 lbs. 4 oz. (3.74 kg)	
	Circuit 4		- - - -		8 lbs. 4 oz. (3.74 kg)	
Evaporator Blower and Drive Selection	Blower wheel nominal dia. x width — in. (mm)		18 x 18 (457 x 457)		20 x 18 (508 x 457)	
	Factory Installed **Drives	Nominal motor output — hp (W)	3 (2238)		5 (3730)	
		Max. usable motor output — hp (W)	3.45 (2574)		5.75 (4290)	
		Voltage & phase	208/230v, 460v or 575v-3ph			
		RPM range	610 — 780		660 — 840	
	Optional Factory Installed **Drives	Nominal motor horsepower (W)	5 (3730)		7.5 (5595)	
		Max. usable motor output — hp (W)	5.75 (4290)		8.6 (6415)	
		Voltage & phase	208/230v, 460v or 575v-3ph			
		RPM range	770 — 980		750 — 905	
Evaporator Coil	Net face area — sq. ft. (m^2)		16.0 (1.49)		21.0 (1.95)	
	Tube diameter — in. (mm) & No. of rows		3/8 (9.5) — 3		3/8 (9.5) — 3	
	Fins per inch (m)		13 (512)		13 (512)	
	Drain connection no. & size — in. (mm) mpt		(1) 1 (25)		(2) 1 (25)	
	Expansion device type		Thermostatic Expansion Valve			
Condenser Coil	Net face area — sq. ft. (m^2)		35.4 (3.29)		48.5 (4.51)	
	Tube diameter — in. (mm) & No. of rows		3/8 (9.5) — 2		3/8 (9.5) — 2	
	Fins per inch (m)		20 (787)		20 (787)	
Condenser Fans	Diameter — in. (mm) & No. of blades		(2) 26 (660) — 4		(2) 26 (660) — 4	
	Air volume — cfm (L/s)		13,800 (6510) total		14,000 (6605) total	
	Motor horsepower (W)		(2) 1 (746)		(2) 1 (746)	
	Motor rpm		1075		1130	
	Motor watts		2300		1900	
Sea Level Two Stage Heating Capacity (Natural Gas Only)	Input (low) — Btuh (kW)		145,000 (42.5)	205,000 (60.1)	145,000 (42.5)	290,000 (85.0)
	Output (low) — Btuh (kW)		116,000 (34.0)	159,900 (46.9)	116,000 (34.0)	232,000 (68.0)
	Input (High) — Btuh (kW)		235,000 (68.9)	330,000 (96.7)	235,000 (68.9)	470,000 (137.7)
	Output (High) — Btuh (kW)		188,000 (55.1)	264,000 (77.4)	188,000 (55.1)	376,000 (110.2)
	C.G.A. Thermal Efficiency		80%	80%	80%	80%
Sea Level Two Stage Heating Capacity (***LPG/ Propane Gas Only)	Input (low) — Btuh (kW)		164,000 (48.1)	237,000 (69.4)	164,000 (48.1)	328,000 (96.1)
	Output (low) — Btuh (kW)		131,200 (38.4)	189,600 (55.6)	131,200 (38.4)	262,400 (76.9)
	Input (High) — Btuh (kW)		235,000 (68.9)	330,000 (96.7)	235,000 (68.9)	470,000 (137.7)
	Output (High) — Btuh (kW)		188,000 (55.1)	264,000 (77.4)	188,000 (55.1)	376,000 (110.2)
	C.G.A. Thermal Efficiency		80%	80%	80%	80%
♦ High Altitude Two Stage Heating Capacity (Natural Gas Only)	Input (low) — Btuh (kW)		145,000 (42.5)	205,000 (60.1)	145,000 (42.5)	290,000 (85.0)
	Output (low) — Btuh (kW)		116,000 (34.0)	159,900 (46.9)	116,000 (34.0)	232,000 (68.0)
	Input (High) — Btuh (kW)		235,000 (68.9)	330,000 (96.7)	235,000 (68.9)	470,000 (137.7)
	Output (High) — Btuh (kW)		188,000 (55.1)	264,000 (77.4)	188,000 (55.1)	376,000 (110.2)
	C.G.A. Thermal Efficiency		80%	80%	80%	80%
♦ High Altitude Two Stage Heating Capacity (***LPG/ Propane Gas Only)	Input (low) — Btuh (kW)		164,000 (48.1)	237,000 (69.4)	164,000 (48.1)	328,000 (96.1)
	Output (low) — Btuh (kW)		131,200 (38.4)	189,600 (55.6)	131,200 (38.4)	262,400 (76.9)
	Input (High) — Btuh (kW)		235,000 (68.9)	330,000 (96.7)	235,000 (68.9)	470,000 (137.7)
	Output (High) — Btuh (kW)		188,000 (55.1)	264,000 (77.4)	188,000 (55.1)	376,000 (110.2)
	C.G.A. Thermal Efficiency		80%	80%	80%	80%
Gas Supply Connections fpt — in. (mm)		Natural	3/4 (19)	3/4 (19)	3/4 (19)	1 (25.4)
		***LPG/Propane	3/4 (19)	3/4 (19)	3/4 (19)	1 (25.4)
Recommended Gas Supply Pressure — wc. in. (kPa)		Natural	7 (1.7)		7 (1.7)	
		***LPG/Propane	11 (2.7)		11 (2.7)	
Filters (furnished)	Type of filter		Disposable, commercial grade			
	no. and size — in. (mm)		(4) 24 x 24 x 2 (610 x 610 x 51)		(6) 20 x 25 x 2 (508 x 635 x 51)	
Net weight of basic unit — lbs. (kg)			1825 (828)		2560 (1161)	2760 (1252)
Shipping weight of basic unit — lbs. (kg) (1 Package)			2065 (937)		2835 (1286)	3035 (1377)
Electrical characteristics			208/230v, 460v or 575v — 60 hertz — 3 phase			

*Rated in accordance with ARI Standard 360; 95°F (35°F) outdoor air temperature and 80°F (27°C) db/67°F (19°C) wb entering evaporator air; minimum external duct static pressure. †Integrated Part Load Value rated at 80°F (27°C) outdoor air temperature.
NOTE — ARI capacity is net and includes evaporator blower motor heat deduction. Gross capacity does not include evaporator blower motor heat deduction.
**Using total air volume and system static pressure requirements determine from blower performance tables rpm and motor output required. Maximum usable output of motors furnished by Lennox are shown. In Canada, nominal motor output is also maximum usable motor output. If motors of comparable output are used, be sure to keep within the service factor limitations outlined on the motor nameplate.
***For LPG/Propane units a field conversion kit is required and must be ordered extra. See Optional Accessories table.

SPECIFICATIONS — GCS24-2753 & GCS24-3003

Model No.			GCS24-2753-235	GCS24-2753-470	GCS24-3003-235	GCS24-3003-470
Cooling Ratings	Gross Cooling Capacity — Btuh (kW)		244,800 (71.7)		294,600 (86.3)	
	*Total Cooling Capacity — Btuh (kW)		232,000 (68.0)		▲289,000 (84.7)	
	*Total Unit Watts		24,400		▲31,100	
	*EER (Btuh/Watts)		9.5		▲9.0	
	*†Integrated Part Load Value		10.3		▲9.1	
Refrigerant Charge Furnished (HCFC-22)	Circuit 1		8 lbs. 8 oz. (3.86 kg)		10 lbs. 4 oz. (4.65 kg)	
	Circuit 2		8 lbs. 8 oz. (3.86 kg)		10 lbs. 4 oz. (4.65 kg)	
	Circuit 3		8 lbs. 8 oz. (3.86 kg)		10 lbs. 4 oz. (4.65 kg)	
	Circuit 4		8 lbs. 8 oz. (3.86 kg)		10 lbs. 4 oz. (4.65 kg)	
Evaporator Blower and Drive Selection	Blower wheel nom. dia. x width in (mm)		20 x 18 (508 x 457)			
	Factory Installed **Drives	Nominal motor output — hp (W)	5 (3730)		7.5 (5595)	
		Max. usable motor output — hp (W)	5.75 (4290)		8.6 (6415)	
		Voltage & phase	208/230v, 460v or 575v-3ph			
		RPM range	660 — 840		610 — 780	
	Optional Factory Installed **Drives	Nominal motor output — hp (W)	7.5 (5595)		10 (7460)	
		Max. usable motor output — hp (W)	8.6 (6415)		11.5 (8580)	
		Voltage & phase	208/230v, 460v or 575v-3ph			
		RPM range	750 — 905		770 — 980	
Evaporator Coil	Net face area — sq. ft. (m^2)		21.0 (1.95)			
	Tube diameter — in. (mm) & No. of rows		3/8 (9.5) — 3			
	Fins per inch (m)		13 (512)			
	Drain connection no. and size — in. (mm) mpt		(2) 1 (25.4)			
	Expansion device type		Thermostatic Expansion Valve			
Condenser Coil	Net face area — sq. ft. (m^2)		48.5 (4.51)			
	Tube diameter — in. (mm) & No. of rows		3/8 (9.5) — 2		3/8 (9.5) — 3	
	Fins per inch (m)		20 (787)		16 (630)	
Condenser Fans	Diameter — in. (mm) & No. of blades		(2) 26 (660) — 4		(2) 26 (660) — 5	
	Air volume — cfm (L/s)		14,000 (6605) total		14,500 (6845) total	
	Motor horsepower (W)		(2) 1 (746)			
	Motor rpm		1130		1130	
	Motor watts		1900		2200	
Sea Level Two Stage Heating Capacity (Natural Gas Only)	Input (low) — Btuh (kW)		145,000 (42.5)	290,000 (85.0)	145,000 (42.5)	290,000 (85.0)
	Output (low) — Btuh (kW)		116,000 (34.0)	232,000 (68.0)	116,000 (34.0)	232,000 (68.0)
	Input (High) — Btuh (kW)		235,000 (68.9)	470,000 (137.7)	235,000 (68.9)	470,000 (137.7)
	Output (High) — Btuh (kW)		188,000 (55.1)	376,000 (110.2)	188,000 (55.1)	376,000 (110.2)
	C.G.A. Thermal Efficiency		80%	80%	80%	80%
Sea Level Two Stage Heating Capacity (***LPG/ Propane Gas Only)	Input (low) — Btuh (kW)		164,000 (48.1)	328,000 (96.1)	164,000 (48.1)	328,000 (96.1)
	Output (low) — Btuh (kW)		131,200 (38.4)	262,400 (76.9)	131,200 (38.4)	262,400 (76.9)
	Input (High) — Btuh (kW)		235,000 (68.9)	470,000 (137.7)	235,000 (68.9)	470,000 (137.7)
	Output (High) — Btuh (kW)		188,000 (55.1)	376,000 (110.2)	188,000 (55.1)	376,000 (110.2)
	C.G.A. Thermal Efficiency		80%	80%	80%	80%
♦ High Altitude Two Stage Heating Capacity (Natural Gas Only)	Input (low) — Btuh (kW)		145,000 (42.5)	290,000 (85.0)	145,000 (42.5)	290,000 (85.0)
	Output (low) — Btuh (kW)		116,000 (34.0)	232,000 (68.0)	116,000 (34.0)	232,000 (68.0)
	Input (High) — Btuh (kW)		235,000 (68.9)	470,000 (137.7)	235,000 (68.9)	470,000 (137.7)
	Output (High) — Btuh (kW)		188,000 (55.1)	376,000 (110.2)	188,000 (55.1)	376,000 (110.2)
	C.G.A. Thermal Efficiency		80%	80%	80%	80%
♦ High Altitude Two Stage Heating Capacity (***LPG/ Propane Gas Only)	Input (low) — Btuh (kW)		164,000 (48.1)	328,000 (96.1)	164,000 (48.1)	328,000 (48.1)
	Output (low) — Btuh (kW)		131,200 (38.4)	262,400 (76.9)	131,200 (38.4)	262,400 (76.9)
	Input (High) — Btuh (kW)		235,000 (68.9)	470,000 (137.7)	235,000 (68.9)	470,000 (137.7)
	Output (High) — Btuh (kW)		188,000 (55.1)	376,000 (110.2)	188,000 (55.1)	376,000 (110.2)
	C.G.A. Thermal Efficiency		80%	80%	80%	80%
Gas Supply Connections fpt — in. (mm)		Natural	3/4 (19)	1 (25.4)	3/4 (19)	1 (25.4)
		***LPG/Propane	3/4 (19)	1 (25.4)	3/4 (19)	1 (25.4)
Recommended Gas Supply Pressure — wc. in. (kPa)		Natural	7 (1.7)		7 (1.7)	
		***LPG/Propane	11 (2.7)		11 (2.7)	
Filters (furnished)	Type of filter		Disposable, commercial grade			
	No. & size — in. (mm)		(6) 20 x 25 x 2 (508 x 635 x 51)			
Net weight of basic unit — lb. (kg) (1 Package)			2560 (1162)	2760 (1252)	2880 (1306)	3080 (1397)
Shipping weight of basic unit — lb. (kg) (1 Package)			2835 (1286)	3035 (1377)	3155 (1431)	3355 (1522)
Electrical characteristics			208/230v, 460v or 575v — 60 hertz — 3 phase			

*Rated in accordance with ARI Standard 360; 95°F (35°F) outdoor air temperature and 80°F (27°C) db/67°F (19°C) wb entering evaporator air; minimum external duct static pressure. †Integrated Part Load Value rated at 80°F (27°C) outdoor air temperature.

▲Testing conditions are those included in ARI Standard 360-86.

NOTE — ARI capacity is net and includes evaporator blower motor heat deduction. Gross capacity does not include evaporator blower motor heat deduction.

**Using total air volume and system static pressure requirements determine from blower performance tables rpm and motor output required. Maximum usable output of motors furnished by Lennox are shown. In Canada, nominal motor output is also maximum usable motor output. If motors of comparable output are used, be sure to keep within the service factor limitations outlined on the motor nameplate.

***For LPG/Propane units a field conversion kit is required and must be ordered extra. See Optional Accessories table.

GCS24-1853 Thru -3003 OPTIONAL FIELD INSTALLED ACCESSORIES

Unit Model No.			GCS24-1853	GCS24-2553-2753-3003
LPG/Propane Conversion Kit			LB-81509DA **(12H31)**	LB-81509DA **(12H31)** (2 required on -470)
♢ Cold Weather Kit			**65C03**	
Roof Mounting Frame — (Net Weight)			RMF16-185 (127 lbs.) (58 kg) **(12H05)**	RMF16-300 (180 lbs.) (82 kg) **(41H04)**
Economizer Dampers with Gravity Exhaust	Model No. Net Weight		REMD16M-185 **(40H14)** (160 lbs.) (73 kg)	REMD16M-300 **(44H47)** (210 lbs.) (95 kg)
	No. & size of filters	in.	(2) 25 x 25 x 1	(3) 20 x 25 x 1
		mm	(2) 635 x 635 x 25	(3) 508 x 635 x 25
Differential Enthalpy Control			**54G44**	
Optional Power Exhaust Fans (Down-Flo Only)	Model No. (Net Weight)	208/230v	PED16-185 (60 lbs.) (27 kg) **(12H16)**	PED16-300 (91 lbs.) (41 kg) **(44H79)**
		460v	PED16-185 (60 lbs.) (27 kg) **(12H17)**	PED16-300 (91 lbs.) (41 kg) **(44H80)**
		575v	PED16-185 (60 lbs.) (27 kg) **(12H18)**	PED16-300 (91 lbs.) (41 kg) **(44H81)**
	Dia. — in.(mm) & No. of Blades		(2) 16 (406) — 5	(3) 16 (406) — 5
	Total air volume — cfm (L/s)		4200 (1980)	6300 (2975)
	Motor Horsepower (W)		(2) 1/4 (187)	(3) 1/4 (187)
	Watts input (total)		500	750
Horizontal Supply and Return Air Kit — (Net Weight)			LB-55756BD (52 lbs.) (24 kg) **(12H04)**	LB-55756BE (60 lbs.) (27 kg) **(41H23)**
Ceiling Supply and Return Air Diffusers (Net Weight)	Step-Down		RTD11-185 (392 lbs.) (178 kg) **(29G06)**	RTD11-275 (403 lbs.) (183 kg) **(29G07)**
	Flush		FD11-185 (289 lbs.) (131 kg) **(29G10)**	FD11-275 (363 lbs.) (165 kg) **(29G11)**
	Transition		SRT16-185 (75 lbs.) (34 kg) **(97H12)**	SRT16-300 (120 lbs.) (54 kg) **(97H13)**
Outdoor Air Dampers — (Net Weight) No. & size of filters — in. (mm)			OAD16-185 (120 lbs.) (54 kg) **(12H03)** (1) 25 x 27 x 1 (635 x 686 x 25)	OAD16-300 (84 lbs.) (38 kg) **(40H47)** (1) 26 x 31 x 1 (660 x 787 x 25)
Automatic OAD16 Damper Kit — (Net Weight)			**35G21** (7 lbs.) (3 kg)	
Timed-Off Control (2) LB-50709BA			**40G20**	

HIGH ALTITUDE DERATE

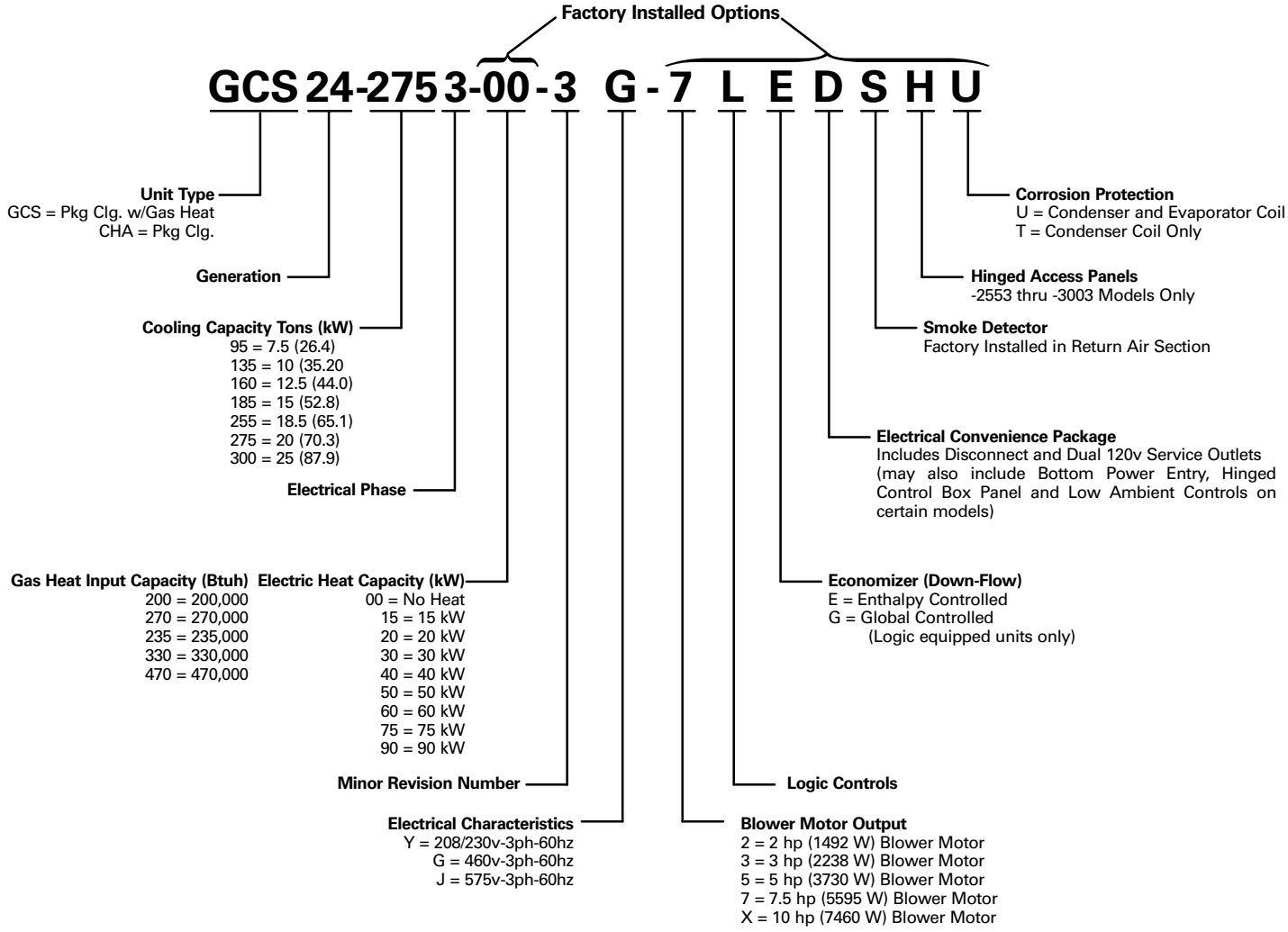
A.G.A. certified units must be derated when installed at an elevation of more than 2000 feet (610 m) above sea level. If unit is installed at an altitude higher than 2000 feet (610 m), the unit must be derated 4% for every 1000 feet (305 m) above sea level. Thus, at an altitude of 4000 feet (1210 m), the unit would require a derate of 16%.

♢C.G.A. certified units must be derated when installed at an elevation of more than 2000 feet (610 m) above sea level. If unit is installed at an altitude higher than 2000 feet (610 m), the unit must be derated 10% for elevations between 2000 feet and 4500 feet (610 m and 1370 m) above sea level.

NOTE — This is the only permissible derate for these units.

MODEL NUMBER IDENTIFICATION

NOTE — See Factory Installed Options Selection on Next Page For Complete Description Of Available Accessories.
NOTE — This example shows all possible combinations available.



FACTORY INSTALLED OPTIONS SELECTION

GCS24-1853

Packaged Unit Model No.	Voltage Selection 3 phase 60hz	Blower Motor (Select One)	Gas Heat Btuh (kW) (Select One)	Electrical Convenience Package (D)	Economizer Package (E) or (G)	Smoke Detector Package (S)	Corrosion Protection Package (T) or (U)
GCS24-1853 Basic unit includes: –Hinged Control Box – Hinged Filter Access – Bottom Power Entry – Low Ambient Controls	208/230v	3 hp (2238W) 5 hp (3730W)	235,000 (68.9) or 330,000 (96.7)	Unit Disconnect Installed and Wired. Dual 120v GFCI Service Outlets (Field Wired)	Down-Flow Economizer With Gravity Exhaust Installed and Wired **(E)** Enthalpy Controlled or **(G)** Globally Controlled	Photoelectric Smoke Detector Installed and Wired In Return Air Section	Corrosion Resistant Coating Applied To Both Condenser And Evaporator Coils With Painted Base in Condensing And Evaporator Sections And Painted Blower Housing **(U)** Or Condenser Coil Only With Painted Base Condensing Section**(T)**
	460V	3 hp (2238W) 5 hp (3730W)	235,000 (68.9) or 330,000 (96.7)				
	575v	3 hp (2238W) 5 hp (3730W)	235,000 (68.9) or 330,000 (96.7)				

GCS24-2553-2753

Packaged Unit Model No.	Voltage Selection 3 phase 60hz	Blower Motor (Select One)	Gas Heat Btuh (kW) (Select One)	Electrical Convenience Package (D)	Economizer Package (E) or (G)	Smoke Detector Package (S)	Hinged Panel Package (H)	Corrosion Protection Package (T) or (U)
GCS24-2553 **GCS24-2753** Basic unit includes: –Hinged Control Box – Hinged Filter Access – Bottom Power Entry – Low Ambient Controls	208/230v	5 hp (3730W) 7.5 hp (5595)	235,000 (68.9) or 470,000 (137.7)	Unit Disconnect Installed and Wired. Dual 120v GFCI Service Outlets (Field Wired)	Down-Flow Economizer With Gravity Exhaust Installed and Wired **(E)** Enthalpy Controlled or **(G)** Globally Controlled	Photoelectric Smoke Detector Installed and Wired In Return Air Section	Two Compressor Panels, Two Blower Panels And One Gas Heat Service Panel Hinged With Quarter Turn Latches	Corrosion Resistant Coating Applied To Both Condenser And Evaporator Coils With Painted Base in Condensing And Evaporator Sections And Painted Blower Housing **(U)** Or Condenser Coil Only With Painted Base Condensing Section**(T)**
	460V	5 hp (3730W) 7.5 hp (5595)	235,000 (68.9) or 470,000 (137.7)					
	575v	5 hp (3730W) 7.5 hp (5595)	235,000 (68.9) or 470,000 (137.7)					

GCS24-3003

Packaged Unit Model No.	Voltage Selection 3 phase 60hz	Blower Motor (Select One)	Gas Heat Btuh (kW) (Select One)	Electrical Convenience Package (D)	Economizer Package (E) or (G)	Smoke Detector Package (S)	Hinged Panel Package (H)	Corrosion Protection Package (T) or (U)
GCS24-3003 Basic unit includes: –Hinged Control Box –Hinged Filter Access –Bottom Power Entry –Low Ambient Controls	208/230v	7.5 hp (5595) 10 hp (7460)	235,000 (68.9) or 470,000 (137.7)	Unit Disconnect Installed and Wired. Dual 120v GFCI Service Outlets (Field Wired)	Down-Flow Economizer With Gravity Exhaust Installed and Wired **(E)** Enthalpy Controlled or **(G)** Globally Controlled	Photoelectric Smoke Detector Installed and Wired In Return Air Section	Two Compressor Panels, Two Blower Panels And One Gas Heat Service Panel Hinged With Quarter Turn Latches	Corrosion Resistant Coating Applied To Both Condenser And Evaporator Coils With Painted Base in Condensing And Evaporator Sections And Painted Blower Housing **(U)** Or Condenser Coil Only With Painted Base Condensing Section**(T)**
	460V	7.5 hp (5595) 10 hp (7460)	235,000 (68.9) or 470,000 (137.7)					
	575v	7.5 hp (5595) 10 hp (7460)	235,000 (68.9) or 470,000 (137.7)					

All MODELS

Packaged Unit Model No.	Logic Controls Package (L)
All Models	Controls for Logic Control System factory installed

ELECTRICAL DATA — GCS24-1853 & GCS24-2553

Model No.			GCS24-1853						GCS24-2553					
Line voltage data — 60 Hz — 3 phase			208/230v		460v		575v		208/230v		460v		575v	
Compressors (3) -1853 (4) -2553	Rated load amps each (total)		(3) 17.3 (51.9)		(3) 9.0 (27.0)		(3) 7.1 (21.3)		(4) 17.9 (71.6)		(4) 6.7 (26.8)		(4) 5.8 (23.2)	
	Locked rotor amps each (total)		(3) 123.0 (369.0)		(3) 62.0 (186.0)		(3) 50.0 (150.0)		(4) 129.0 (516.0)		(4) 52.0 (208.0)		(4) 39.6 (158.4)	
Condenser Fan Motors	Full load amps (total)		9.6		4.8		4.0		9.6		4.8		4.0	
	Locked rotor amps (total)		24.0		12.0		9.6		46.0		27.0		17.8	
Evaporator Blower Motor	Motor Output	hp	3	5	3	5	3	5	5	7-1/2	5	7-1/2	5	7-1/2
		W	2238	3730	2238	3730	2238	3730	3730	5595	3730	5595	3730	5595
	Full load amps (total)		10.6	16.7	4.8	7.6	3.9	6.1	16.7	24.2	7.6	11.0	6.1	9.0
	Locked rotor amps (total)		58.0	91.0	26.8	45.6	23.4	36.6	105.0	152.0	45.6	66.0	36.6	54.0
Optional Power Exhaust Fans	(No.) Horsepower (W)		(2) — 1/4 (187)						(3) — 1/4 (187)					
	Full load amps (total)		2.8		1.4		1.2		4.2		2.2		2.1	
	Locked rotor amps (total)		6.5		3.3		2.8		8.7		3.9		3.9	
Rec. max. fuse size (amps)	With Exhaust Fans		90	100	45	50	35	40	110	125	50	50	40	45
	Less Exhaust Fans		90	90	45	50	35	40	110	125	45	50	40	45
*Minimum Circuit Ampacity	With Exhaust Fans		80.0	86.0	41.0	44.0	33.0	35.0	107.0	116.0	43.0	48.0	37.0	41.0
	Less Exhaust Fans		77.0	83.0	39.0	42.0	31.0	34.0	98.0	107.0	40.0	46.0	33.0	37.0
Service Outlets (2) 120 volt GFCI (amp rating)			20		20		20		20		20		20	
Unit Power Factor			.84		.84		.84		.88		.88		.88	

*Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.
NOTE — Extremes of operating range are plus and minus 10 % of line voltage.

ELECTRICAL DATA — GCS24-2753 & GCS24-3003

Model No.			GCS24-2753						GCS24-3003					
Line voltage data — 60 Hz — 3 phase			208/230v		460v		575v		208/230v		460v		575v	
Compressors (4)	Rated load amps each (total)		(4) 17.3 (69.2)		(4) 9.0 (36.0)		(4) 7.1 (28.4)		(4) 21.8 (87.2)		(4) 12.2 (48.8)		(4) 9.0 (36.0)	
	Locked rotor amps each (total)		(4) 123.0 (492.0)		(4) 62.0 (248.0)		(4) 50.0 (200.0)		(4) 158.0 (632.0)		(4) 82.0 (328.0)		(4) 68 (272.0)	
Condenser Fan Motors	Full load amps (total)		9.6		4.8		4.0		9.6		4.8		4.0	
	Locked rotor amps (total)		46.0		23.0		17.8		46.0		23.0		17.8	
Evaporator Blower Motor	Motor Output	hp	5	7-1/2	5	7-1/2	5	7-1/2	7-1/2	10	7-1/2	10	7-1/2	10
		W	3730	5595	3730	5595	3730	5595	5595	7460	5595	7460	5595	7460
	Full load amps (total)		16.7	24.2	7.6	11.0	6.1	9.0	24.2	30.8	11.0	14.0	9.0	11.0
	Locked rotor amps (total)		105.0	152.0	45.6	66.0	36.6	54.0	152.0	193.0	66.0	84.0	54.0	66.0
Optional Power Exhaust Fans	(No.) Horsepower (W)		(3) — 1/4 (187)						(3) — 1/4 (187)					
	Full load amps (total)		4.2		2.2		2.1		4.2		2.2		2.1	
	Locked rotor amps (total)		8.7		3.9		3.9		8.7		3.9		4.2	
Rec. max. fuse size (amps)	With Exhaust Fans		110	125	60	60	45	50	150	150	80	80	60	60
	Less Exhaust Fans		110	125	50	60	45	50	150	150	70	80	60	60
*Minimum Circuit Ampacity	With Exhaust Fans		104.0	113.0	52.0	57.0	42.0	46.0	131.0	140.0	69.0	73.0	53.0	56.0
	Less Exhaust Fans		100.0	109.0	50.0	54.0	41.0	45.0	127.0	136.0	67.0	71.0	51.0	54.0
Service Outlets (2) 120 volt GFCI (amp rating)			20		20		20		20		20		20	
Unit Power Factor			.88		.88		.88		.89		.89		.89	

*Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.
NOTE — Extremes of operating range are plus and minus 10 % of line voltage.

W973 CONTROL SYSTEM

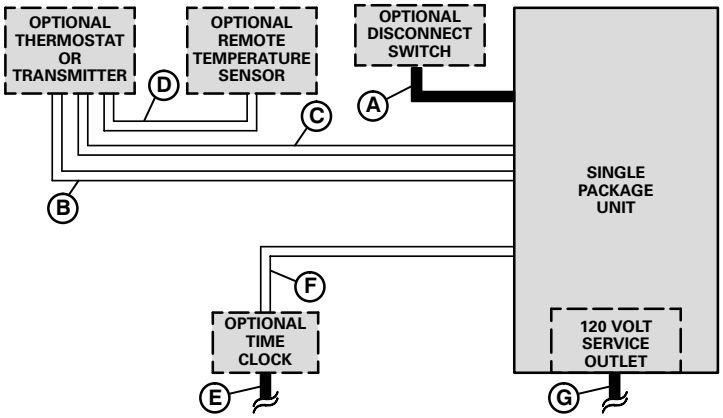
A — Three wire power (See Electrical Data Table)
B — Seven wire low voltage — DC only
— Seven wire low voltage — DC only — with switching subbase
C — Two wire low voltage — AC only — with switching subbase
D — Two wire low voltage — DC only
E — Two wire low voltage — AC only
F — Two wire low voltage — AC only
G — Two wire power (120 volt)

AC — Alternating current
DC — Direct current

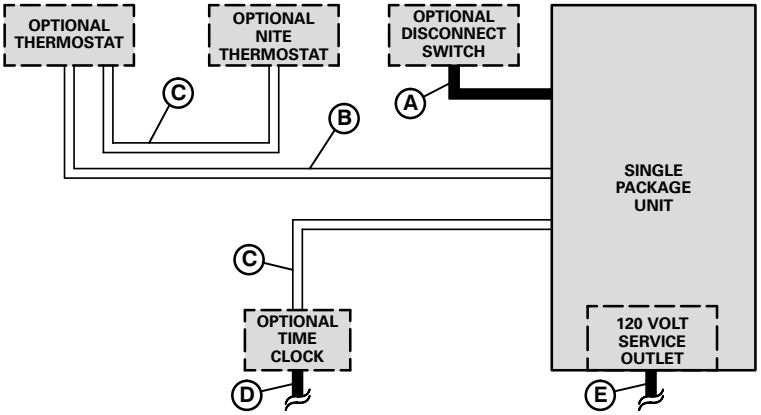
NOTE — Run separate harness for AC and DC. AC voltage interferes with DC signals.

— Field wiring not furnished —

NOTE — All wiring must conform to NEC or CEC and local electrical codes.



ELECTRO-MECHANICAL THERMOSTAT CONTROL SYSTEM



A — Three wire power (See Electrical Data Table)
B — Six wire low voltage
C — Two wire low voltage
D — Two wire low voltage
E — Two wire power (120 volt)

— Field wiring not furnished —

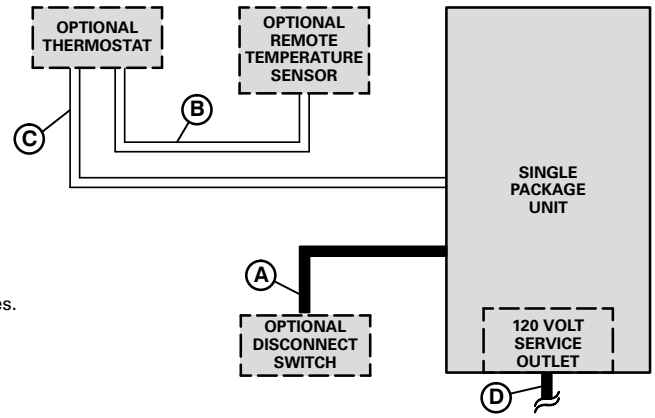
NOTE — All wiring must conform to NEC or CEC and local electrical codes.

W7400 CONTROL SYSTEM

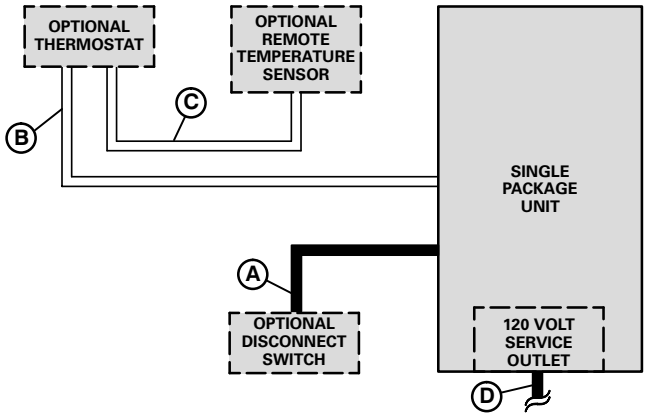
A — Three wire power (See Electrical Data Table)
B — Two wire low voltage
C — Four wire low voltage
D — Two wire power (120 volt)

— Field wiring not furnished —

NOTE — All wiring must conform to NEC or CEC and local electrical codes.



♢ T8600 OR T8621 THERMOSTAT OR T7300 THERMOSTAT CONTROL SYSTEM



A — Three wire power (See Electrical Data Table)
B — Nine wire low voltage
C — Two wire low voltage
— Seven wire low voltage (T7300 Room Sensor with override)
D — Two wire power (120 volt)

— Field wiring not furnished —

NOTE — All wiring must conform to NEC or CEC and local electrical codes.

RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

GCS24-1853 COOLING CAPACITY (With Two Compressors Only Operating)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Condenser Coil																					
			65°F (18°C)						75°F (24°C)						85°F (29°C)						95°F (35°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	2550	5400	36.3	123,900	6370	.68	.83	.97	35.3	120,600	7120	.68	.84	.98	34.3	117,000	8010	.69	.86	.99	33.2	113,300	9030	.70	.87	1.00
	3020	6400	37.3	127,300	6390	.71	.89	1.00	36.3	123,800	7150	.72	.90	1.00	35.2	120,100	8040	.74	.92	1.00	34.0	116,200	9070	.75	.93	1.00
	3490	7400	38.1	130,100	6420	.76	.94	1.00	37.1	126,600	7170	.77	.95	1.00	36.0	122,900	8070	.78	.97	1.00	34.9	119,000	9100	.80	.98	1.00
67°F (19.4°C)	2550	5400	38.6	131,600	6430	.53	.65	.79	37.5	127,900	7190	.53	.66	.80	36.3	124,000	8080	.54	.67	.82	35.1	119,900	9110	.54	.68	.84
	3020	6400	39.4	134,500	6460	.55	.69	.85	38.3	130,700	7220	.55	.70	.87	37.1	126,700	8110	.56	.71	.88	35.8	122,300	9140	.57	.73	.90
	3490	7400	40.1	136,700	6480	.57	.73	.91	38.9	132,900	7230	.58	.74	.92	37.7	128,600	8130	.58	.76	.94	36.4	124,200	9160	.59	.78	.95
71°F (21.7°C)	2550	5400	41.0	140,100	6510	.40	.51	.63	39.9	136,100	7270	.40	.52	.64	38.7	132,000	8160	.40	.52	.65	37.4	127,600	9200	.40	.53	.66
	3020	6400	41.9	142,900	6540	.40	.54	.67	40.7	138,900	7290	.41	.54	.68	39.4	134,500	8190	.41	.55	.69	38.1	129,900	9220	.41	.56	.70
	3490	7400	42.5	145,100	6560	.41	.56	.71	41.3	140,900	7310	.41	.57	.72	40.0	136,400	8210	.42	.57	.73	38.6	131,800	9240	.42	.58	.75

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

GCS24-1853 TOTAL COOLING CAPACITY (With All Compressors Operating)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Condenser Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	2550	5400	52.7	179,900	11,970	.70	.86	.99	50.3	171,700	13,610	.70	.87	1.00	48.1	164,000	14,940	.73	.90	1.00	45.2	154,200	17,040	.75	.93	1.00
	3020	6400	54.1	184,700	12,020	.74	.92	1.00	51.6	176,200	13,670	.75	.93	1.00	49.4	168,600	14,990	.78	.96	1.00	46.5	158,700	17,090	.80	.98	1.00
	3490	7400	55.4	189,000	12,060	.79	.97	1.00	52.9	180,400	13,710	.80	.98	1.00	50.7	172,900	15,040	.83	1.00	1.00	47.8	163,200	17,160	.86	1.00	1.00
67°F (19.4°C)	2550	5400	55.8	190,600	12,080	.55	.68	.83	53.3	181,800	13,730	.55	.68	.84	50.8	173,500	15,050	.56	.71	.87	47.7	162,900	17,160	.58	.73	.89
	3020	6400	57.0	194,700	12,120	.57	.72	.89	54.3	185,400	13,780	.57	.72	.90	51.8	176,900	15,090	.59	.75	.93	48.7	166,200	17,200	.60	.78	.95
	3490	7400	57.9	197,700	12,160	.59	.77	.94	55.2	188,300	13,810	.59	.77	.96	52.7	179,700	15,130	.61	.81	.98	49.5	168,900	17,230	.63	.83	.99
71°F (21.7°C)	2550	5400	59.4	202,800	12,210	.41	.53	.66	56.7	193,400	13,860	.40	.53	.66	54.1	184,700	15,180	.41	.55	.68	50.9	173,600	17,280	.42	.56	.70
	3020	6400	60.6	206,700	12,250	.41	.56	.70	57.8	197,200	13,900	.41	.56	.70	55.1	188,100	15,210	.42	.58	.73	51.7	176,600	17,330	.43	.59	.76
	3490	7400	61.4	209,600	12,280	.42	.58	.74	58.6	199,900	13,930	.42	.58	.75	55.8	190,600	15,240	.43	.60	.78	52.4	178,900	17,360	.44	.62	.81

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

GCS24-2553 COOLING CAPACITY (With Two Compressors Only Operating)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Condenser Coil																					
			65°F (18°C)						75°F (24°C)						85°F (29°C)						95°F (35°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	2830	6000	32.8	111,900	5900	.65	.77	.89	31.8	108,700	6630	.65	.78	.90	30.8	105,100	7490	.66	.79	.92	29.7	101,400	8460	.67	.81	94
	3540	7500	34.3	116,900	5940	.69	.83	.97	33.2	113,300	6690	.70	.85	.98	31.9	109,600	7570	.71	.86	.99	30.9	105,600	8530	.72	.88	1.00
	4245	9000	35.3	120,500	5980	.73	.90	1.00	34.3	116,900	6730	.75	.91	1.00	33.1	113,000	7610	.76	.93	1.00	31.9	109,000	8590	.77	.94	1.00
67°F (19.4°C)	2830	6000	34.9	119,100	5980	.52	.62	.73	33.9	115,600	6730	.52	.63	.75	32.8	111,900	7590	.52	.63	.76	31.6	108,000	8570	.53	.64	.77
	3540	7500	36.2	123,600	6050	.54	.66	.79	35.1	119,900	6800	.55	.67	.81	34.0	115,900	7650	.55	.68	.83	32.7	111,700	8630	.56	.69	.84
	4245	9000	37.2	126,800	6070	.57	.71	.86	36.0	122,900	6840	.57	.72	.87	34.8	118,700	7690	.58	.73	.90	33.5	114,500	8680	.59	.75	.92
71°F (21.7°C)	2830	6000	37.2	127,000	6080	.40	.50	.60	36.1	123,300	6840	.40	.51	.61	34.9	119,200	7700	.40	.51	.61	33.7	115,100	8690	.40	.51	.62
	3540	7500	38.5	131,400	6150	.41	.52	.64	37.4	127,600	6900	.41	.53	.65	36.1	123,200	7780	.41	.54	.66	34.8	118,700	8760	.41	.54	.67
	4245	9000	39.4	134,500	6180	.41	.55	.69	38.2	130,300	6940	.42	.56	.70	36.9	125,900	7820	.42	.57	.71	35.5	121,300	8800	.42	.58	.73

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

GCS24-2553 TOTAL COOLING CAPACITY (With All Compressors Operating)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Condenser Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	2830	6000	64.2	219,000	15,370	.70	.86	.98	61.9	211,300	17,360	.71	.87	.99	59.5	203,200	19,610	.72	.89	.99	57.1	194,900	22,120	.74	.91	1.00
	3540	7500	66.7	227,600	15,520	.77	.93	1.00	64.4	219,700	17,520	.78	.95	1.00	62.0	211,500	19,750	.80	.97	1.00	59.5	203,100	22,290	.82	.98	1.00
	4245	9000	69.0	235,400	15,650	.82	.99	1.00	66.7	227,500	17,670	.84	.99	1.00	64.2	219,200	19,930	.86	1.00	1.00	61.8	210,900	22,460	.88	1.00	1.00
67°F (19.4°C)	2830	6000	67.9	231,900	15,580	.55	.67	.82	65.5	223,400	17,570	.55	.69	.83	62.9	214,700	19,830	.56	.70	.85	60.2	205,600	22,340	.57	.71	.87
	3540	7500	70.0	238,900	15,710	.58	.74	.90	67.4	230,100	17,700	.59	.75	.92	64.8	221,100	19,950	.60	.77	.94	62.0	211,700	22,480	.61	.79	.96
	4245	9000	71.5	244,100	15,790	.62	.80	.97	68.9	235,100	17,790	.63	.82	.98	66.2	225,900	20,060	.64	.84	.99	63.3	216,200	22,570	.65	.86	.99
71°F (21.7°C)	2830	6000	72.3	246,400	15,830	.41	.53	.66	69.6	237,600	17,840	.41	.54	.67	67.0	228,500	20,100	.41	.55	.68	64.1	218,800	22,630	.41	.56	.69
	3540	7500	74.1	253,000	15,970	.42	.59	.71	71.5	243,900	17,970	.42	.58	.73	68.6	234,200	20,240	.43	.59	.75	65.7	224,100	22,760	.43	.60	.77
	4245	9000	75.4	257,500	16,050	.43	.61	.78	72.6	247,900	18,060	.44	.62	.80	69.7	238,000	20,330	.44	.63	.82	66.7	227,700	22,850	.45	.64	.84

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

GCS24-2753 COOLING CAPACITY (With Two Compressors Only Operating)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Condenser Coil																					
			65°F (18°C)						75°F (24°C)						85°F (29°C)						95°F (35°C)			
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	3305	7000	36.3	124,000	6700	.67	.79	.91	35.2	120,300	7530	.67	.80	.92	34.1	116,500	8500	.68	.81	.93	32.9	112,300	9640	.69	.83	.95
	4010	8500	37.6	128,400	6760	.70	.84	.97	36.5	124,600	7600	.71	.85	.98	35.3	120,600	8570	.72	.88	.99	34.0	116,100	9720	.74	.89	1.00
	4720	10,000	38.6	131,900	6820	.74	.90	1.00	37.5	128,000	7650	.75	.91	1.00	36.3	123,800	8630	.77	.93	1.00	35.0	119,300	9780	.78	.94	1.00
67°F (19.4°C)	3305	7000	38.6	131,700	6820	.53	.64	.75	37.4	127,800	7640	.53	.65	.76	36.2	123,600	8630	.53	.65	.78	34.8	119,100	9760	.54	.66	.79
	4010	8500	39.8	135,700	6880	.55	.67	.81	38.6	131,600	7710	.55	.68	.82	37.3	127,200	8700	.56	.69	.84	35.9	122,500	9840	.56	.71	.85
	4720	10,000	40.6	138,700	6920	.57	.71	.87	39.4	134,400	7760	.57	.72	.88	38.1	129,900	8760	.58	.75	.90	36.6	124,900	9900	.59	.76	.92
71°F (21.7°C)	3305	7000	41.1	140,200	6940	.40	.51	.61	39.8	136,000	7790	.40	.51	.62	38.6	131,600	8780	.40	.52	.63	37.2	126,800	9950	.41	.52	.64
	4010	8500	42.2	144,100	7020	.41	.53	.65	40.9	139,700	7860	.41	.53	.66	39.6	135,100	8860	.41	.54	.67	38.1	129,900	10,020	.41	.55	.68
	4720	10,000	43.0	146,900	7060	.42	.55	.69	41.7	142,400	7910	.42	.56	.70	40.3	137,500	8910	.42	.57	.72	38.7	132,200	10,080	.43	.58	.74

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

GCS24-2753 TOTAL COOLING CAPACITY (With All Compressors Operating)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Condenser Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)			
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	3305	7000	70.6	241,100	17,550	.72	.88	.99	68.0	232,100	19,900	.74	.89	.99	65.1	222,300	22,570	.75	.92	1.00	62.0	211,500	25,620	.78	.94	1.00
	4010	8500	73.0	249,100	17,720	.78	.94	1.00	70.3	240,000	20,070	.79	.96	1.00	67.4	230,200	22,790	.81	.98	1.00	64.3	219,500	25,870	.84	.99	1.00
	4720	10,000	75.1	256,300	17,870	.83	.98	1.00	72.5	247,400	20,260	.85	.99	1.00	70.0	237,500	23,000	.87	.99	1.00	66.4	226,600	26,120	.90	1.00	1.00
67°F (19.4°C)	3305	7000	74.5	254,300	17,840	.56	.70	.84	71.7	244,600	20,190	.57	.71	.86	68.6	234,000	22,880	.58	.73	.88	65.1	222,200	25,960	.59	.75	.91
	4010	8500	76.4	260,600	17,980	.59	.76	.92	73.4	250,600	20,340	.60	.77	.93	70.2	239,500	23,040	.62	.79	.96	66.7	227,600	26,120	.63	.82	.98
	4720	10,000	77.8	265,400	18,070	.63	.81	.97	74.7	255,100	20,450	.64	.83	.98	71.5	243,900	23,190	.65	.85	.99	67.9	231,800	26,250	.67	.88	1.00
71°F (21.7°C)	3305	7000	79.0	269,600	18,180	.42	.55	.68	76.0	259,500	20,560	.42	.56	.69	72.7	248,200	23,290	.42	.57	.71	69.1	235,800	26,410	.43	.57	.72
	4010	8500	80.6	275,200	18,330	.43	.58	.73	77.6	264,800	20,720	.43	.59	.75	74.2	253,200	23,460	.44	.60	.77	70.5	240,500	26,570	.44	.62	.79
	4720	10,000	81.9	279,500	18,420	.44	.62	.79	78.7	268,600	20,820	.45	.63	.81	75.2	256,700	23,570	.45	.64	.83	71.4	243,600	26,690	.46	.66	.86

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

GCS24-3003 COOLING CAPACITY (With Two Compressors Only Operating)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Condenser Coil																					
			65°F (18°C)						75°F (24°C)						85°F (29°C)						95°F (35°C)			
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	4010	8500	44.9	153,100	9690	.63	.77	.90	43.1	147,100	10,390	.63	.78	.92	41.3	141,000	11,130	.65	.80	.94	39.5	134,700	11,880	.66	.82	.96
	4720	10,000	46.2	157,700	9790	.66	.82	.95	44.4	151,400	10,510	.67	.84	.97	42.5	145,100	11,270	.69	.86	.99	40.7	138,800	12,050	.71	.88	1.00
	5425	11,500	47.3	161,300	9860	.70	.86	1.00	45.4	154,900	10,600	.71	.89	1.00	43.6	148,700	11,390	.73	.92	1.00	41.7	142,400	12,200	.75	.94	1.00
67°F (19.4°C)	4010	8500	47.6	162,400	9880	.50	.61	.72	45.7	155,900	10,620	.51	.61	.74	43.8	149,600	11,420	.51	.62	.76	41.9	143,000	12,230	.51	.63	.78
	4720	10,000	48.7	166,300	9940	.51	.63	.78	46.9	159,900	10,720	.52	.64	.80	44.9	153,200	11,550	.52	.66	.82	43.0	146,700	12,370	.53	.68	.84
	5425	11,500	49.8	169,600	10,010	.53	.67	.83	47.7	162,800	10,800	.54	.68	.85	45.7	156,100	11,630	.55	.71	.88	43.8	149,400	12,490	.56	.72	.90
71°F (21.7°C)	4010	8500	50.5	172,500	10,050	.38	.48	.58	48.6	165,900	10,880	.38	.49	.59	46.7	159,400	11,740	.38	.49	.60	44.7	152,600	12,420	.39	.50	.61
	4720	10,000	51.7	176,300	10,110	.39	.50	.61	49.8	169,800	10,960	.39	.51	.62	47.7	162,900	11,850	.39	.51	.63	45.7	156,000	12,740	.39	.52	.65
	5425	11,500	52.5	179,300	10,150	.40	.52	.65	50.5	172,500	11,020	.40	.52	.66	48.5	165,600	11,940	.40	.53	.68	46.4	158,500	12,850	.40	.54	.70

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

GCS24-3003 TOTAL COOLING CAPACITY (With All Compressors Operating)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Condenser Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)			
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	4010	8500	85.5	291,700	23,130	.70	.88	.99	81.7	278,900	24,680	.72	.90	1.00	77.9	265,900	26,200	.74	.93	1.00	73.9	252,300	27,650	.76	.96	1.00
	4720	10,000	87.9	300,000	23,460	.75	.94	1.00	84.1	287,200	25,070	.77	.96	1.00	80.4	274,400	26,660	.80	.98	1.00	76.5	261,200	28,220	.83	.99	1.00
	5425	11,500	90.1	307,600	23,760	.81	.98	1.00	86.6	295,400	25,450	.83	.99	1.00	82.8	282,600	27,110	.86	1.00	1.00	78.8	268,900	28,710	.89	1.00	1.00
67°F (19.4°C)	4010	8500	90.0	307,000	23,710	.54	.68	.84	86.0	293,400	25,360	.55	.69	.86	81.9	279,500	26,930	.56	.71	.89	77.4	264,300	28,420	.57	.73	.92
	4720	10,000	91.8	313,400	23,950	.57	.72	.91	87.7	299,400	25,630	.58	.74	.93	83.5	285,100	27,250	.59	.77	.96	79.1	269,800	28,760	.60	.80	.98
	5425	11,500	93.3	318,400	24,150	.59	.78	.96	89.2	304,600	25,850	.61	.80	.98	84.9	289,900	27,500	.62	.83	1.00	80.5	274,700	29,060	.64	.87	1.00
71°F (21.7°C)	4010	8500	95.4	325,700	24,400	.40	.53	.66	91.3	311,600	26,160	.40	.54	.67	87.0	296,800	27,850	.40	.55	.69	82.3	281,000	29,450	.41	.56	.71
	4720	10,000	97.0	331,100	24,620	.41	.55	.70	93.2	317,000	26,390	.41	.57	.72	88.4	301,600	28,110	.42	.58	.74	83.7	285,500	29,730	.42	.60	.78
	5425	11,500	98.4	335,700	24,750	.42	.58	.75	94.1	321,000	26,580	.42	.60	.78	89.5	305,500	28,320	.43	.61	.81	84.7	289,000	29,950	.43	.63	.84

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

GCS24-1853-235 BLOWER PERFORMANCE

Air Volume cfm (L/s)	STATIC PRESSURE EXTERNAL TO UNIT — Inches Water Gauge (Pa)									
	.20 (50)	.40 (75)	.50 (125)	.70 (175)	.80 (200)	.90 (225)	1.00 (250)	1.10 (275)	1.30 (325)	1.50 (375)
	RPM BHP (kW)	RPM BHP (kW)	RPM BHP (kW)	RPM BHP (kW)	RPM BHP (kW)	RPM BHP (kW)	RPM BHP (kW)	RPM BHP (kW)	RPM BHP (kW)	RPM BHP (kW)
5000 (2360)	520 1.50 (1.12)	580 1.75 (1.31)	610 1.80 (1.34)	670 2.30 (1.72)	690 2.45 (1.83)	715 2.65 (1.98)	745 2.75 (2.05)	770 2.95 (2.20)	820 3.15 (2.35)	865 3.45 (2.57)
5200 (2455)	540 1.60 (1.19)	590 1.90 (1.42)	620 2.00 (1.49)	680 2.45 (1.83)	705 2.60 (1.94)	725 2.75 (2.05)	755 2.90 (2.16)	780 3.20 (2.39)	830 3.35 (2.50)	875 3.55 (2.65)
5400 (2550)	550 1.70 (1.27)	605 2.00 (1.49)	635 2.25 (1.68)	690 2.65 (1.98)	710 2.75 (2.05)	735 2.85 (2.13)	760 3.05 (2.28)	790 3.30 (2.46)	840 3.50 (2.61)	885 3.75 (2.80)
5600 (2645)	565 1.80 (1.34)	615 2.25 (1.68)	645 2.30 (1.72)	700 2.85 (2.13)	720 2.90 (2.16)	745 3.10 (2.31)	770 3.20 (2.39)	800 3.40 (2.54)	850 3.65 (2.72)	890 3.95 (2.95)
5800 (2735)	580 2.10 (1.57)	625 2.40 (1.79)	660 260 (1.94)	710 3.00 (2.24)	730 3.10 (2.31)	760 3.25 (2.42)	780 3.40 (2.54)	810 3.55 (2.65)	855 3.75 (2.80)	900 4.05 (3.02)
6000 (2830)	600 2.30 (1.72)	650 2.65 (1.98)	670 2.80 (2.09)	720 3.20 (2.39)	745 3.35 (2.50)	770 3.45 (2.57)	795 3.60 (2.69)	820 3.75 (2.80)	870 4.05 (3.02)	910 4.25 (3.17)
6200 (2925)	610 2.45 (1.83)	660 2.85 (2.13)	685 3.05 (2.28)	730 3.40 (2.54)	755 3.50 (2.61)	780 3.65 (2.72)	805 3.85 (2.87)	830 3.95 (2.95)	875 4.30 (3.21)	915 4.75 (3.54)
6400 (3020)	625 2.70 (2.01)	675 3.15 (2.35)	695 3.30 (2.46)	740 3.60 (2.69)	765 3.70 (2.76)	790 3.95 (2.95)	815 4.00 (2.98)	840 4.15 (3.10)	885 4.45 (3.32)	930 4.90 (3.66)
6600 (3115)	640 2.95 (2.20)	690 3.45 (2.57)	705 3.55 (2.65)	755 3.75 (2.80)	775 3.95 (2.95)	805 4.10 (3.06)	825 4.25 (3.17)	850 4.40 (3.28)	895 4.70 (3.51)	935 5.10 (3.80)
6800 (3210)	655 3.10 (2.31)	700 3.65 (2.72)	720 3.75 (2.80)	765 4.00 (2.98)	790 4.20 (3.13)	815 4.35 (3.25)	835 4.45 (3.32)	860 4.65 (3.47)	905 4.95 (3.69)	945 5.35 (3.99)
7000 (3305)	670 3.50 (2.61)	710 3.85 (2.87)	730 4.00 (2.98)	780 4.35 (3.25)	800 4.45 (3.32)	825 4.65 (3.47)	845 4.75 (3.54)	870 4.95 (3.69)	910 5.25 (3.92)	---- ----
7200 (3400)	685 3.60 (2.69)	735 3.90 (2.91)	755 4.15 (3.10)	790 4.60 (3.43)	815 4.75 (3.54)	835 4.90 (3.66)	860 5.10 (3.80)	880 5.25 (3.92)	925 5.65 (4.21)	---- ----
7400 (3490)	700 3.80 (2.83)	750 4.15 (3.10)	760 4.35 (3.25)	805 4.65 (3.47)	825 4.85 (3.62)	850 5.00 (3.73)	875 5.25 (3.92)	890 5.60 (4.18)	---- ----	---- ----
7600 (3585)	710 4.00 (2.98)	760 4.30 (3.21)	770 4.45 (3.32)	815 4.80 (3.58)	835 5.00 (3.73)	850 5.25 (3.92)	880 5.50 (4.10)	---- ----	---- ----	---- ----

NOTE — All data is measured external to the unit with dry coil and with the air filters in place. See Page 21 for Accessory Air Resistance data.

NOTE — Data in shaded area denotes optional 5 hp (3730 W) drive kit.

NOTE — In Canada, nominal motor output is also maximum usable motor output.

BLOWER DATA

GCS24-1853-330 BLOWER PERFORMANCE

Air Volume cfm (L/s)	STATIC PRESSURE EXTERNAL TO UNIT — Inches Water Gauge (Pa)									
	.20 (50)	.40 (75)	.50 (125)	.70 (175)	.80 (200)	.90 (225)	1.00 (250)	1.10 (275)	1.30 (325)	1.50 (375)
	RPM BHP (kW)	RPM BHP (kW)	RPM BHP (kW)	RPM BHP (kW)	RPM BHP (kW)	RPM BHP (kW)	RPM BHP (kW)	RPM BHP (kW)	RPM BHP (kW)	RPM BHP (kW)
5200 (2455)	580 1.75 (1.31)	620 1.95 (1.45)	650 2.10 (1.57)	705 2.55 (1.90)	725 2.70 (2.01)	750 2.85 (2.13)	775 3.00 (2.24)	795 3.30 (2.46)	840 3.45 (2.57)	880 3.65 (2.72)
5400 (2550)	590 1.90 (1.42)	640 2.15 (1.60)	665 2.35 (1.75)	715 2.75 (2.05)	740 2.85 (2.13)	765 2.95 (2.20)	785 3.10 (2.31)	810 3.35 (2.50)	850 3.55 (2.65)	890 3.80 (2.83)
5600 (2645)	605 2.00 (1.49)	655 2.35 (1.75)	680 2.45 (1.83)	730 2.90 (2.16)	755 2.95 (2.20)	775 3.15 (2.35)	759 3.25 (2.42)	815 3.45 (2.57)	860 3.70 (2.76)	900 4.00 (2.98)
5800 (2735)	615 2.20 (1.64)	670 2.50 (1.87)	700 2.70 (2.01)	740 3.10 (2.31)	765 3.15 (2.35)	785 3.30 (2.46)	810 3.50 (2.61)	830 3.60 (2.69)	870 3.80 (2.83)	910 4.10 (3.06)
6000 (2830)	630 2.35 (1.75)	690 2.70 (2.01)	710 2.85 (2.13)	755 3.25 (2.42)	775 3.40 (2.54)	795 3.60 (2.69)	820 3.65 (2.72)	840 3.80 (2.83)	880 4.10 (3.06)	920 4.30 (3.21)
6200 (2925)	650 2.55 (1.90)	705 2.95 (2.20)	725 3.15 (2.35)	770 3.50 (2.61)	790 3.55 (2.65)	810 3.75 (2.80)	830 3.90 (2.91)	850 4.00 (2.98)	890 4.35 (3.25)	930 4.80 (3.58)
6400 (3020)	670 2.75 (2.05)	720 3.25 (2.42)	740 3.40 (2.54)	780 3.65 (2.72)	800 3.75 (2.80)	820 4.00 (2.98)	845 4.10 (3.06)	865 4.20 (3.13)	900 4.50 (3.36)	940 4.95 (3.69)
6600 (3115)	690 3.15 (2.35)	730 3.55 (2.65)	755 3.65 (2.72)	795 3.85 (2.87)	810 4.05 (3.02)	835 4.15 (3.10)	855 4.30 (3.21)	875 4.45 (3.32)	910 4.75 (3.54)	950 5.15 (3.84)
6800 (3210)	705 3.20 (2.39)	750 3.75 (2.80)	770 3.85 (2.87)	805 4.10 (3.06)	825 4.30 (3.21)	845 4.45 (3.32)	865 4.55 (3.39)	885 4.70 (3.51)	925 5.05 (3.77)	965 5.45 (4.07)
7000 (3305)	720 3.60 (2.69)	760 3.95 (2.95)	780 4.00 (2.98)	820 4.45 (3.32)	840 4.55 (3.39)	860 4.75 (3.54)	880 4.95 (3.69)	895 5.05 (3.77)	935 5.35 (3.99)	---- ----
7200 (3400)	740 3.85 (2.87)	775 4.10 (3.05)	795 4.20 (3.13)	830 4.65 (3.47)	850 4.80 (3.58)	870 4.95 (3.69)	890 5.05 (3.77)	905 5.35 (3.99)	945 5.70 (4.25)	---- ----
7400 (3490)	755 3.95 (2.95)	790 4.25 (3.17)	810 4.45 (3.32)	845 4.75 (3.54)	865 4.90 (3.66)	885 5.15 (3.84)	900 5.35 (3.99)	930 5.65 (4.21)	---- ----	---- ----
7600 (3585)	765 4.20 (3.13)	800 4.40 (3.28)	815 4.65 (3.47)	850 4.90 (3.66)	870 5.15 (3.84)	890 5.40 (4.03)	905 5.60 (4.18)	---- ----	---- ----	---- ----

NOTE — All data is measured external to the unit with dry coil and with the air filters in place. See Page 21 for Accessory Air Resistance data.
NOTE — Data in shaded area denotes optional 5 hp (3730 W) drive kit.

NOTE — In Canada, nominal motor output is also maximum usable motor output.

BLOWER DATA — GCS24-2553-235, GCS24-2753-235, & GCS24-3003-235

Air Volume cfm (L/s)	STATIC PRESSURE EXTERNAL TO UNIT — Inches Water Gauge (Pa)																													
	.30 (75)		.40 (100)		.50 (125)		.60 (150)		.70 (175)		.80 (200)		.90 (225)		1.00 (250)		1.10 (275)		1.20 (300)		1.30 (325)		1.40 (350)		1.50 (375)		1.60 (400)		1.70 (425)		1.80 (450)		1.90 (470)		2.00 (495)	
	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)
6000 (2830)	445	1.45 (1.08)	470	1.60 (1.19)	490	1.70 (1.27)	515	1.85 (1.38)	540	2.05 (1.53)	560	2.15 (1.60)	585	2.35 (1.75)	605	2.50 (1.87)	625	2.65 (1.98)	645	2.80 (2.08)	665	2.95 (2.20)	685	3.15 (2.35)	700	3.25 (2.42)	720	3.45 (2.57)	735	3.55 (2.65)	755	3.75 (2.80)	770	3.90 (2.91)	785	4.05 (3.02)
6250 (2950)	455	1.55 (1.16)	480	1.75 (1.31)	500	1.85 (1.38)	525	2.05 (1.53)	550	2.20 (1.64)	570	2.35 (1.75)	595	2.55 (1.90)	615	2.70 (2.01)	635	2.85 (2.13)	655	3.05 (2.28)	670	3.15 (2.35)	690	3.35 (2.50)	710	3.50 (2.61)	725	3.65 (2.72)	745	3.85 (2.87)	760	4.00 (2.98)	775	4.10 (3.05)	790	4.25 (3.17)
6500 (3070)	465	1.70 (1.27)	490	1.90 (1.42)	510	2.00 (1.49)	535	2.20 (1.64)	560	2.40 (1.79)	580	2.55 (1.90)	600	2.70 (2.01)	620	2.85 (2.13)	640	3.05 (2.28)	660	3.20 (2.39)	680	3.40 (2.54)	700	3.60 (2.69)	715	3.70 (2.76)	735	3.90 (2.91)	750	4.05 (3.02)	765	4.20 (3.13)	780	4.35 (3.25)	800	4.60 (3.43)
6750 (3185)	475	1.85 (1.38)	500	2.05 (1.53)	520	2.20 (1.64)	545	2.40 (1.79)	570	2.60 (1.94)	590	2.75 (2.05)	610	2.90 (2.16)	630	3.10 (2.31)	650	3.25 (2.42)	670	3.45 (2.57)	685	3.60 (2.69)	705	3.80 (2.83)	725	4.00 (2.98)	740	4.15 (3.10)	755	4.30 (3.21)	775	4.50 (3.36)	790	4.65 (3.47)	805	4.85 (3.62)
7000 (3305)	485	2.00 (1.49)	510	2.20 (4.84)	530	2.35 (1.75)	555	2.55 (1.90)	575	2.75 (2.05)	600	2.95 (2.20)	620	3.15 (2.35)	640	3.30 (2.46)	660	3.50 (2.61)	675	3.65 (2.72)	695	3.85 (2.87)	715	4.05 (3.02)	730	4.20 (3.13)	750	4.45 (3.32)	765	4.60 (3.43)	780	4.75 (3.54)	795	4.95 (3.69)	810	5.10 (3.80)
7250 (3420)	495	2.20 (1.64)	520	2.40 (1.79)	545	2.60 (1.94)	565	2.75 (2.05)	585	2.95 (2.20)	610	3.15 (2.35)	630	3.35 (2.50)	650	3.55 (2.65)	665	3.70 (2.76)	685	3.90 (2.91)	705	4.10 (3.06)	720	4.30 (3.21)	740	4.50 (3.36)	755	4.65 (3.47)	770	4.85 (3.62)	790	5.05 (3.77)	805	5.25 (3.92)	820	5.45 (4.07)
7500 (3540)	505	2.35 (1.75)	530	2.55 (1.90)	555	2.80 (2.09)	575	2.95 (2.20)	600	3.20 (2.39)	620	3.40 (2.54)	640	3.60 (2.69)	655	3.75 (2.80)	675	3.95 (2.95)	695	4.20 (3.13)	710	4.35 (3.25)	730	4.55 (3.39)	745	4.75 (3.54)	765	5.00 (3.73)	780	5.15 (3.84)	795	5.35 (3.99)	810	5.55 (4.14)	825	5.70 (4.25)
7750 (3655)	520	2.60 (1.94)	545	2.80 (2.09)	565	3.00 (2.24)	585	3.20 (2.39)	610	3.45 (2.57)	630	3.65 (2.72)	650	3.85 (2.87)	665	4.00 (2.98)	685	4.25 (3.17)	705	4.45 (3.32)	720	4.65 (3.47)	740	4.85 (3.62)	755	5.05 (3.77)	770	5.25 (3.92)	785	5.40 (4.03)	805	5.70 (4.25)	820	5.85 (4.36)	835	6.05 (4.51)
8000 (3775)	530	2.80 (2.09)	555	3.00 (2.24)	575	3.20 (2.39)	600	3.45 (2.57)	620	3.70 (2.76)	640	3.90 (2.91)	660	4.10 (3.06)	675	4.30 (3.21)	695	4.50 (3.36)	710	4.70 (3.51)	730	4.95 (3.69)	745	5.10 (3.80)	765	5.35 (3.99)	780	5.55 (4.14)	795	5.75 (4.29)	810	5.95 (4.44)	825	6.15 (4.59)	840	6.35 (4.74)
8250 (3895)	545	3.05 (2.28)	565	3.25 (2.42)	590	3.50 (2.61)	610	3.70 (2.76)	630	3.95 (2.95)	650	4.15 (3.10)	665	4.35 (3.25)	685	4.55 (3.39)	705	4.80 (3.58)	720	5.00 (3.73)	740	5.25 (3.92)	755	5.45 (4.07)	770	5.65 (4.21)	790	5.90 (4.40)	805	6.10 (4.55)	820	6.30 (4.70)	835	6.55 (4.89)	850	6.75 (5.04)
8500 (4010)	555	3.25 (2.42)	580	3.50 (2.61)	600	3.75 (2.80)	620	3.95 (2.95)	640	4.20 (3.13)	660	4.45 (3.32)	675	4.60 (3.43)	695	4.85 (3.62)	715	5.10 (3.80)	730	5.30 (3.95)	750	5.55 (4.14)	765	5.75 (4.29)	780	6.00 (4.48)	795	6.20 (4.63)	810	6.40 (4.77)	825	6.60 (4.92)	840	6.85 (5.11)	855	7.05 (5.26)
8750 (4130)	570	3.55 (2.65)	590	3.75 (2.80)	610	4.00 (2.98)	630	4.20 (3.13)	650	4.45 (3.32)	670	4.70 (3.51)	690	4.95 (3.69)	705	5.15 (3.84)	725	5.40 (4.03)	740	5.65 (4.21)	755	5.85 (4.36)	775	6.10 (4.55)	790	6.35 (4.38)	805	6.55 (4.89)	820	6.75 (5.04)	835	7.00 (5.22)	850	7.25 (5.41)	865	7.45 (5.56)
9000 (4245)	580	3.75 (2.80)	605	4.05 (3.02)	625	4.30 (3.21)	645	4.55 (3.39)	660	4.75 (3.54)	680	5.00 (3.73)	700	5.25 (3.92)	715	5.45 (4.07)	735	5.75 (4.29)	750	5.95 (4.44)	765	6.20 (4.63)	785	6.45 (4.81)	800	6.70 (5.00)	815	6.95 (5.18)	830	7.15 (5.33)	845	7.40 (5.52)	860	7.65 (5.70)	875	7.90 (5.89)
9250 (4365)	595	4.10 (3.06)	615	4.35 (3.25)	635	4.60 (3.43)	655	4.85 (3.62)	675	5.10 (3.80)	690	5.30 (3.95)	710	5.60 (4.18)	725	5.80 (4.33)	745	6.10 (4.55)	760	6.30 (4.70)	775	6.55 (4.89)	790	6.75 (5.04)	810	7.10 (5.30)	825	7.30 (5.45)	840	7.55 (5.63)	855	7.80 (5.81)	865	7.95 (5.93)	880	8.25 (6.15)
9500 (4485)	605	4.35 (3.25)	625	4.60 (3.43)	645	4.85 (3.62)	665	5.15 (3.84)	685	5.40 (4.03)	700	5.65 (4.21)	720	5.90 (4.40)	735	6.15 (4.59)	755	6.45 (4.81)	770	6.65 (4.96)	785	6.90 (5.15)	800	7.15 (5.33)	815	7.40 (5.52)	830	7.65 (5.70)	845	7.90 (5.89)	860	8.15 (6.07)	875	8.40 (6.26)	890	8.65 (6.45)
9750 (4600)	620	4.70 (3.51)	640	4.95 (3.69)	660	5.25 (3.92)	675	5.45 (4.07)	695	5.75 (4.29)	715	6.05 (4.51)	730	6.25 (4.66)	745	6.50 (4.85)	765	6.80 (5.07)	780	7.05 (5.26)	795	7.30 (5.45)	810	7.55 (5.63)	825	7.80 (5.81)	840	8.05 (6.00)	855	8.30 (6.19)	870	8.60 (6.41)	885	8.85 (6.60)	900	9.10 (6.78)
10,000 (4720)	630	5.00 (3.73)	650	5.25 (3.92)	670	5.55 (4.14)	690	5.85 (4.36)	705	6.05 (4.51)	725	6.40 (4.77)	740	6.60 (4.92)	760	6.95 (5.18)	775	7.20 (5.37)	790	7.45 (5.56)	805	7.70 (5.74)	820	7.95 (5.93)	835	8.20 (6.11)	850	8.50 (6.34)	865	8.75 (6.52)	880	9.00 (6.71)	895	9.30 (6.93)	910	9.60 (7.16)
10,250 (4835)	640	5.30 (3.95)	660	5.60 (4.17)	680	6.00 (4,47)	705	6.20 (4.62)	720	6.50 (4.84)	740	6.80 (5.07)	755	7.15 (5.33)	770	7.35 (5.48)	785	7.70 (5.74)	805	7.85 (5.85)	820	8.20 (6.11)		8.35 (6.22)	850	8.80 (6.56)	860	9.00 (6.71)	875	9.30 (6.93)	895	9.60 (7.16)	905	9.80 (7.31)	920	10.10 (7.53)
10,500 (4955)	655	5.75 (4.28)	680	6.20 (4.62)	700	6.40 (4.77)	715	6.65 (4.96)	730	6.90 (5.14)	750	7.30 (5.44)	765	7.60 (5.66)	780	7.90 (5.89)	800	8.20 (6.11)	810	8.35 (6.22)	835	8.85 (6.60)	845	9.00 (6.71)	860	9.25 (6.90)	875	9.80 (7.31)	890	9.90 (7.38)	905	10.15 (7.57)	950	10.50 (7.83)	930	10.75 (8.01)
10,750 (5075)	680	6.30 (4.69)	700	6.70 (4.99)	710	6.80 (5.07)	735	7.30 (5.44)	750	7.65 (5.70)	760	7.75 (5.78)	775	8.05 (6.00)	795	8.50 (6.34)	810	8.70 (6.49)	825	9.00 (6.71)	845	9.35 (6.97)	855	9.60 (7.16)	875	9.95 (7.42)	885	10.20 (7.60)	900	10.50 (7.83)	915	10.80 (8.05)	930	11.20 (8.35)	940	11.50 (8.57)
11,000 (5190)	700	6.90 (5.14)	715	7.15 (5.33)	730	7.70 (5.74)	745	7.80 (5.81)	760	8.10 (6.04)	775	8.35 (6.22)	790	8.65 (6.45)	805	8.95 (6.67)	825	9.25 (6.90)	840	9.60 (7.16)	855	9.85 (7.34)	865	10.25 (7.64)	885	10.50 (7.83)	895	10.80 (8.09)	910	11.10 (8.28)	925	11.50 (8.57)	----		----	
11,250 (5310)	710	7.75 (5.78)	730	7.65 (5.70)	745	8.10 (6.04)	755	8.30 (6.19)	770	8.50 (6.34)	785	8.80 (6.56)	805	9.20 (6.86)	820	9.45 (6.30)	840	10.00 (7.46)	850	10.10 (7.53)	865	10.40 (7.75)	880	10.70 (7.98)	895	11.15 (8.31)	910	11.45 (8.54)	----		----		----		----	
11,500 (5425)	730	8.10 (6.04)	745	8.40 (6.26)	755	8.55 (6.37)	775	8.80 (6.56)	785	9.00 (6.71)	805	9.50 (7.08)	820	9.80 (7.31)	840	10.30 (7.68)	850	10.45 (7.79)	860	10.60 (7.90)	875	11.00 (8.20)	890	11.45 (8.50)	----		----		----		----		----		----	
11,750 (5545)	745	8.60 (6.41)	755	8.80 (6.56)	770	9.00 (6.71)	785	9.25 (6.90)	800	9.70 (7.23)	815	10.00 (7.46)	840	10.50 (7.80)	850	10.75 (8.01)	860	10.90 (8.13)	875	11.35 (8.46)	----		----		----		----		----		----		----		----	
12,000 (5665)	755	9.05 (6.75)	775	9.35 (6.97)	785	9.65 (7.19)	800	10.00 (7.46)	810	10.15 (7.57)	830	10.70 (7.98)	850	11.05 (8.24)	860	11.30 (8.42)	875	11.50 (8.57)	----		----		----		----		----		----		----		----		----	
12,250 (5780)	775	9.70 (7.23)	790	10.05 (7.49)	800	10.30 (7.68)	810	10.50 (7.83)	830	10.85 (8.09)	845	11.30 (8.42)	860	11.50 (8.57)	----		----		----		----		----		----		----		----		----		----		----	
12,500 (5900)	790	10.40 (7.75)	800	10.55 (7.87)	810	11.00 (8.20)	840	11.00 (8.20)	850	11.50 (8.57)	----		----		----		----		----		----		----		----		----		----		----		----		----	

NOTE — All data is measured external to the unit with dry coil and air filters in place. See Page 21 for Accessory Air Resistance data.
NOTE — Maximum air volume for GCS24-2553 and GCS24-2753 is 10,000 cfm (4720 L/s). Maximum air volume for GCS24-3003 is 12,500 cfm (5900 L/s).
Light shaded area denotes optional 7-1/2 hp (5595W) drive kit for GCS24-2553 and GCS24-2753 units. Dark shaded area denotes optional 10 hp (7460W) drive kit for GCS24-3003 unit.
NOTE — In Canada, nominal motor output is also maximum usable motor output.

BLOWER DATA — GCS24-2553-470, GCS24-2753-470 & GCS24-3003-470

Air Volume cfm (L/s)	STATIC PRESSURE EXTERNAL TO UNIT — Inches Water Gauge (Pa)																													
	.30 (75)		.40 (100)		.50 (125)		.60 (150)		.70 (175)		.80 (200)		.90 (225)		1.00 (250)		1.10 (275)		1.20 (300)		1.30 (325)		1.40 (350)		1.50 (375)		1.60 (400)		1.70 (425)		1.80 (450)		1.90 (470)		2.00 (495)	
	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)
6000 (2830)	450	1.50 (1.12)	470	1.60 (1.19)	495	1.75 (1.31)	520	1.90 (1.42)	545	2.10 (1.57)	570	2.25 (1.68)	590	2.45 (1.83)	615	2.65 (1.98)	635	2.80 (2.09)	655	3.00 (2.24)	675	3.20 (2.39)	695	3.45 (2.57)	715	3.65 (2.72)	730	3.85 (2.87)	750	4.05 (3.02)	765	4.25 (3.17)	785	4.55 (3.39)	800	4.75 (3.54)
6250 (2950)	460	1.60 (1.19)	480	1.75 (1.31)	505	1.90 (1.42)	530	2.05 (1.53)	555	2.25 (1.68)	580	2.45 (1.83)	600	2.60 (1.94)	620	2.80 (2.08)	640	3.00 (2.24)	660	3.15 (2.35)	680	3.40 (2.54)	700	3.60 (2.69)	720	3.85 (2.87)	740	4.05 (3.02)	755	4.25 (3.17)	775	4.50 (3.36)	790	4.70 (3.51)	805	4.95 (3.69)
6500 (3070)	470	1.75 (1.31)	495	1.90 (1.42)	515	2.05 (1.53)	540	2.25 (1.68)	565	2.45 (1.83)	585	2.60 (1.94)	610	2.80 (2.09)	630	3.00 (2.24)	650	3.20 (2.39)	670	3.40 (2.54)	690	3.60 (2.69)	710	3.85 (2.87)	725	4.00 (2.98)	745	4.25 (3.17)	760	4.45 (3.32)	780	4.70 (3.51)	795	4.90 (3.66)	815	5.20 (3.88)
6750 (3185)	480	1.90 (1.42)	505	2.10 (1.57)	525	2.25 (1.68)	550	2.40 (1.79)	575	2.60 (1.94)	595	2.80 (2.09)	615	3.00 (2.24)	640	3.20 (2.39)	660	3.40 (2.54)	675	3.55 (2.65)	695	3.80 (2.83)	715	4.05 (3.02)	735	4.25 (3.17)	750	4.45 (3.32)	770	4.70 (3.51)	785	4.90 (3.66)	805	5.20 (3.88)	820	5.45 (4.07)
7000 (3305)	490	2.10 (1.57)	515	2.25 (1.68)	540	2.45 (1.83)	560	2.60 (1.94)	585	2.85 (2.13)	605	3.00 (2.24)	625	3.20 (2.39)	645	3.40 (2.54)	665	3.60 (2.69)	685	3.80 (2.83)	705	4.05 (3.02)	725	4.30 (3.21)	740	4.45 (3.32)	760	4.75 (3.54)	775	4.95 (3.69)	790	5.15 (3.84)	810	5.45 (4.07)	825	5.65 (4.21)
7250 (3420)	500	2.25 (1.68)	525	2.45 (1.83)	550	2.65 (1.98)	570	2.80 (2.09)	595	3.05 (2.28)	615	3.25 (2.42)	635	3.40 (2.54)	655	3.65 (2.72)	675	3.85 (2.87)	695	4.05 (3.02)	710	4.25 (3.17)	730	4.50 (3.36)	750	4.75 (3.54)	765	4.95 (3.69)	785	5.20 (3.88)	800	5.45 (4.07)	815	5.65 (4.21)	830	5.90 (4.40)
7500 (3540)	515	2.50 (1.87)	540	2.70 (2.01)	560	2.85 (2.13)	580	3.05 (2.28)	605	3.25 (2.42)	625	3.45 (2.57)	645	3.65 (2.72)	665	3.90 (2.91)	685	4.10 (3.06)	705	4.35 (3.25)	720	4.50 (3.36)	740	4.75 (3.54)	755	4.95 (3.69)	775	5.25 (3.92)	790	5.45 (4.07)	805	5.70 (4.25)	825	6.00 (4.48)	840	6.20 (4.63)
7750 (3655)	525	2.70 (2.01)	550	2.90 (2.16)	570	3.10 (2.31)	595	3.30 (2.46)	615	3.50 (2.61)	635	3.70 (2.76)	655	3.90 (2.91)	675	4.15 (3.10)	695	4.35 (3.25)	710	4.55 (3.39)	730	4.80 (3.58)	745	5.00 (3.73)	765	5.25 (3.92)	780	5.50 (4.10)	800	5.75 (4.29)	815	6.00 (4.48)	830	6.25 (4.66)	845	6.50 (4.85)
8000 (3775)	540	2.95 (2.20)	560	3.10 (2.31)	585	3.35 (2.50)	605	3.55 (2.65)	625	3.75 (2.80)	645	3.95 (2.95)	665	4.20 (3.13)	685	4.40 (3.28)	700	4.60 (3.43)	720	4.85 (3.62)	740	5.10 (3.80)	755	5.30 (3.95)	770	5.50 (4.10)	790	5.80 (4.33)	805	6.05 (4.51)	820	6.25 (4.66)	835	6.50 (4.85)	855	6.85 (5.11)
8250 (3895)	550	3.15 (2.35)	575	3.40 (2.54)	595	3.60 (2.69)	615	3.80 (2.83)	635	4.00 (2.98)	655	4.25 (3.17)	675	4.45 (3.32)	695	4.70 (3.51)	710	4.90 (3.66)	730	5.15 (3.84)	745	5.35 (3.99)	765	5.60 (4.18)	780	5.85 (4.36)	795	6.05 (4.51)	815	6.35 (4.74)	830	6.60 (4.92)	845	6.85 (5.11)	860	7.10 (5.30)
8500 (4010)	565	3.45 (2.57)	585	3.65 (2.72)	605	3.85 (2.87)	625	4.05 (3.02)	645	4.30 (3.21)	665	4.50 (3.36)	685	4.75 (3.54)	705	5.00 (3.73)	720	5.20 (3.88)	740	5.45 (4.07)	755	5.65 (4.21)	775	5.95 (4.44)	790	6.15 (4.59)	805	6.40 (4.77)	820	6.65 (4.96)	835	6.90 (5.15)	855	7.20 (5.37)	870	7.50 (5.60)
8750 (4130)	575	3.70 (2.76)	600	3.95 (2.95)	620	4.15 (3.10)	640	4.40 (3.28)	660	4.60 (3.43)	675	4.80 (3.58)	695	5.05 (3.77)	715	5.30 (3.95)	730	5.50 (4.10)	750	5.80 (4.33)	765	6.00 (4.48)	780	6.20 (4.63)	800	6.55 (4.89)	815	6.75 (5.04)	830	7.00 (5.22)	845	7.25 (5.41)	860	7.50 (5.60)	870	7.80 (5.81)
9000 (4245)	590	4.00 (2.98)	610	4.25 (3.17)	630	4.45 (3.32)	650	4.70 (3.51)	670	4.90 (3.66)	690	5.15 (3.84)	705	5.35 (3.99)	725	5.65 (4.21)	740	5.85 (4.36)	760	6.10 (4.55)	775	6.35 (4.74)	790	6.60 (4.92)	805	6.80 (5.07)	825	7.15 (5.33)	840	7.40 (5.52)	855	8.05 (6.00)	870	7.90 (5.89)	885	8.20 (6.11)
9250 (4365)	605	4.35 (3.25)	625	4.55 (3.39)	645	4.80 (3.58)	660	5.00 (3.73)	680	5.25 (3.92)	700	5.50 (4.10)	715	5.70 (4.25)	735	5.95 (4.44)	750	6.20 (4.63)	770	6.50 (4.85)	785	6.70 (5.00)	800	6.95 (5.18)	815	7.20 (5.37)	830	7.45 (5.56)	850	7.80 (5.81)	865	8.05 (6.00)	880	8.35 (6.22)	890	8.50 (6.34)
9500 (4485)	615	4.65 (3.47)	635	4.85 (3.62)	655	5.10 (3.80)	675	5.35 (3.99)	690	5.55 (4.14)	710	5.80 (4.33)	725	6.05 (4.51)	745	6.30 (4.70)	760	6.55 (4.89)	780	6.85 (5.11)	795	7.10 (5.30)	810	7.35 (5.48)	825	7.60 (5.66)	840	7.85 (5.85)	855	8.10 (6.04)	870	8.40 (6.26)	885	8.65 (6.45)	900	8.95 (6.67)
9750 (4600)	630	5.00 (3.73)	650	5.25 (3.92)	665	5.45 (4.07)	685	5.70 (4.25)	705	5.95 (4.44)	720	6.15 (4.59)	740	6.45 (4.81)	755	6.70 (5.00)	770	6.90 (5.15)	790	7.25 (5.41)	805	7.50 (5.60)	820	7.75 (5.78)	835	8.00 (5.96)	850	8.25 (6.15)	865	8.55 (6.37)	880	8.80 (6.56)	895	9.10 (6.78)	910	9.40 (7.01)
10,000 (4720)	640	5.30 (3.95)	660	5.55 (4.14))	680	5.85 (4.36)	700	6.10 (4.55)	715	6.30 (4.70)	730	6.55 (4.89)	750	6.85 (5.11)	765	7.05 (5.26)	780	7.30 (5.45)	800	7.65 (5.70)	815	7.90 (5.89)	830	8.15 (6.07)	845	8.40 (6.26)	860	8.70 (6.49)	875	8.95 (6.67)	890	9.25 (6.90)	905	9.55 (7.12)	920	9.85 (7.34)
10,250 (4835)	655	5.70 (4.25)	675	5.95 (4.43)	690	6.20 (4.62)	710	6.45 (4.81)	725	6.70 (4.99)	745	7.00 (5.22)	760	7.20 (5.37)	775	7.45 (5.55)	795	7.80 (5.81)	810	8.05 (6.00)	825	8.30 (6.19)	840	8.55 (6.37)	855	8.85 (6.60)	870	9.15 (6.82)	885	9.40 (7.01)	900	9.70 (7.23)	915	10.05 (7.49)	925	10.25 (7.64)
10,500 (4955)	670	6.10 (4.55)	685	6.35 (4.73)	705	6.60 (4.92)	720	6.85 (5.11)	740	7.15 (5.33)	755	7.40 (5.52)	770	7.60 (5.66)	790	7.95 (5.93)	805	8.20 (6.11)	820	8.45 (6.30)	835	8.75 (6.52)	850	9.00 (6.71)	865	9.30 (6.93)	880	9.50 (7.80)	895	9.90 (7.38)	910	10.20 (7.60)	920	10.40 (7.75)	935	10.75 (8.01)
10,750 (5075)	680	6.50 (4.84)	700	6.75 (5.03)	715	7.00 (5.22)	735	7.30 (5.44)	750	7.55 (5.63)	765	7.80 (5.81)	785	8.10 (6.04)	800	8.40 (6.26)	815	8.65 (6.45)	830	(8.90 (6.63)	845	9.20 (6.86)	860	9.50 (7.08)	875	9.75 (7.27)	890	10.05 (7.49)	905	10.40 (7.75)	920	10.70 (7.98)	930	10.90 (8.13)	945	11.25 (8.39)
11,000 (5190)	695	6.95 (5.18)	715	7.25 (5.40)	730	7.45 (5.55)	745	7.70 (5.74)	765	8.05 (6.00)	780	8.30 (6.19)	795	8.55 (6.37)	810	8.80 (6.56)	825	9.10 (6.78)	840	9.35 (6.97)	855	9.65 (7.19)	870	9.95 (7.42)	885	10.25 (7.64)	900	10.55 (7.87)	915	10.90 (8.13)	930	11.20 (8.35)	940	11.45 (8.54)	-	- - -
11,250 (5310)	710	7.40 (5.52)	725	7.65 (5.70)	745	7.95 (5.93)	760	8.20 (6.11)	775	8.45 (6.30)	790	8.75 (6.52)	805	9.00 (6.71)	820	9.30 (6.93)	835	9.65 (7.19)	855	9.95 (7.42)	865	10.15 (7.57)	880	10.45 (7.79)	895	10.75 (8.01)	910	11.10 (8.28)	925	11.40 (8.50)	-	- - -	-	- - -	-	- - -
11,500 (5425)	720	7.80 (5.81)	740	8.15 (6.07)	755	8.40 (6.26)	770	8.65 (6.45)	790	9.00 (6.71)	805	9.30 (6.93)	820	9.55 (7.12)	835	9.85 (7.34)	850	10.15 (7.57)	865	10.45 (7.79)	880	10.75 (8.01)	890	10.95 (8.16)	905	11.30 (8.42)	-	- - -	-	- - -	-	- - -	-	- - -	-	- - -
11,750 (5545)	735	8.35 (6.22)	750	8.60 (6.41)	770	8.95 (6.67)	785	9.20 (6.86)	800	9.45 (7.04)	815	9.75 (7.25)	830	10.05 (7.49)	845	10.35 (7.72)	860	10.65 (7.94)	875	10.95 (8.16)	890	11.25 (8.39)	-	- - -	-	- - -	-	- - -	-	- - -	-	- - -	-	- - -	-	- - -
12,000 (5665)	750	8.85 (6.60)	765	9.10 (6.78)	780	9.40 (7.01)	795	9.65 (7.19)	810	9.95 (7.42)	830	10.35 (7.72)	845	10.65 (7.94)	855	10.85 (8.09)	870	11.15 (8.31)	885	11.50 (8.57)	-	- - -	-	- - -	-	- - -	-	- - -	-	- - -	-	- - -	-	- - -	-	- - -
12,250 (5780)	765	9.40 (7.01)	780	9.70 (7.23)	795	9.95 (7.42)	810	10.25 (7.64)	825	10.55 (7.87)	840	10.85 (8.09)	855	11.15 (8.31)	870	11.50 (8.57)	-	- - -	-	- - -	-	- - -	-	- - -	-	- - -	-	- - -	-	- - -	-	- - -	-	- - -	-	- - -
12,500 (5900)	775	9.90 (7.39)	790	10.20 (7.61)	810	10.55 (7.87)	825	10.85 (8.09)	840	11.20 (6.27)	850	11.40 (8.50)	-	- - -	-	- - -	-	- - -	-	- - -	-	- - -	-	- - -	-	- - -	-	- - -	-	- - -	-	- - -	-	- - -	-	- - -

NOTE — All data is measured external to the unit with dry coil and air filters in place. See Page 21 for Accessory Air Resistance data.
NOTE — Maximum air volume for GCS24-2553 and GCS24-2753 is 10,000 cfm (4720 L/s). Maximum air volume for GCS24-3003 is 12,500 cfm (5900 L/s).
Light shaded area denotes optional 7-1/2 hp (5595W) drive kit for GCS24-2553 and GCS24-2753 units. Dark shaded area denotes optional 10 hp (7460W) drive kit for GCS24-3003 unit.
NOTE — In Canada, nominal motor output is also maximum usable motor output.

BLOWER DATA

ACCESSORY AIR RESISTANCE

Unit Model No.	Air Volume		Total Resistance — inches water gauge (Pa)					
			Wet Evaporator Coil	REMD16M Down-flo Economizer	RTD11 Step-Down Diffuser			FD11 Flush Diffuser
	cfm	L/s			2 Ends Open	1 Side 2 Ends Open	All Ends & Sides Open	
GCS24-1853	5000	2360	.07 (17)	.11 (27)	.51 (127)	.44 (109)	.39 (97)	.27 (67)
	5200	2455	.08 (20)	.12 (30)	.56 (139)	.48 (119)	.42 (104)	.30 (75)
	5400	2550	.09 (22)	.13 (32)	.61 (152)	.52 (129)	.45 (112)	.33 (82)
	5600	2645	.10 (25)	.14 (35)	.66 (164)	.56 (139)	.48 (119)	.36 (90)
	5800	2735	.11 (27)	.15 (37)	.71 (177)	.59 (147)	.51 (127)	.39 (97)
	6000	2830	.12 (30)	.16 (40)	.76 (189)	.63 (157)	.55 (137)	.42 (104)
	6200	2925	.13 (32)	.17 (42)	.80 (199)	.68 (169)	.59 (147)	.46 (114)
	6400	3020	.14 (35)	.18 (45)	.86 (214)	.72 (179)	.63 (157)	.50 (124)
	6600	3115	.15 (37)	.20 (50)	.92 (229)	.77 (191)	.67 (167)	.54 (134)
	6800	3210	.16 (40)	.22 (55)	.99 (246)	.83 (206)	.72 (174)	.58 (144)
	7000	3305	.17 (42)	.23 (57)	1.03 (256)	.87 (216)	.76 (189)	.62 (154)
	7200	3400	.18 (45)	.24 (60)	1.09 (271)	.92 (229)	.80 (199)	.66 (164)
	7400	3490	.19 (47)	.25 (62)	1.15 (286)	.97 (241)	.84 (209)	.70 (174)
	7600	3585	.20 (50)	.26 (65)	1.20 (301)	1.02 (254)	.88 (219)	.74 (184)
GCS24-2553 GCS24-2753 GCS24-3003	6000	2830	.06 (15)	.01 (2)	.36 (90)	.31 (77)	.27 (67)	.29 (72)
	6500	3065	.07 (17)	.02 (5)	.42 (104)	.36 (90)	.31 (77)	.34 (85)
	7000	3305	.08 (20)	.02 (5)	.49 (122)	.41 (102)	.36 (90)	.40 (99)
	7500	3540	.09 (22)	.04 (10)	.51 (127)	.46 (114)	.41 (102)	.45 (112)
	8000	3775	.10 (25)	.06 (15)	.59 (147)	.49 (122)	.43 (107)	.50 (124)
	8500	4010	.11 (27)	.08 (20)	.69 (172)	.58 (144)	.50 (124)	.57 (142)
	9000	4245	.12 (30)	.10 (25)	.79 (196)	.67 (167)	.58 (144)	.66 (164)
	9500	4485	.13 (32)	.12 (30)	.89 (221)	.75 (186)	.65 (162)	.74 (184)
	10,000	4720	.15 (37)	.14 (35)	1.00 (249)	.84 (209)	.73 (182)	.81 (201)

PED16-185 & -300 POWER EXHAUST FANS PERFORMANCE

Model No.	Air Volume Exhausted		Return Air System Static Pressure Inches Water Gauge (Pa)
	cfm	L/s	
PED16-185	4200	1980	0 (0)
	3800	1795	.05 (12)
	3500	1650	.10 (25)
	3200	1510	.15 (37)
	2700	1275	.20 (50)
	2200	1040	.25 (62)
PED16-300	6300	2970	0 (0)
	5750	2715	.05 (12)
	5200	2455	.10 (25)
	4625	2180	.15 (37)
	4050	1910	.20 (50)

CEILING DIFFUSER AIR THROW DATA

Model No.	Air Volume		*Effective Throw Range			
			RTD11 Step-Down		FD11 Flush	
	cfm	L/s	ft.	m	ft.	m
GCS24-1853	6000	2830	45 – 55	14 – 17	48 – 55	15 – 17
	6750	3190	47 – 56	14 – 17	50 – 58	15 – 18
	7500	3540	49 – 58	15 – 18	55 – 66	17 – 20
GCS24-2553 GCS24-2753 GCS24-3003	8000	3775	39 – 44	12 – 13	53 – 62	16 – 19
	9000	4245	47 – 56	14 – 17	55 – 64	17 – 20
	10,000	4720	49 – 58	15 – 18	57 – 67	17 – 20

*Throw is the horizontal or vertical distance an airstream travels on leaving the outlet or diffuser before the maximum velocity is reduced to 50 ft. (15 m) per minute. Four sides open.

GUIDE SPECIFICATIONS

Prepared for the guidance of architects, consulting engineers and mechanical contractors.

General — *Furnish and install a single package air to air DX mechanical cooling system and gas fired heating system, complete with automatic controls. The single package unit shall be a standard product of a firm regularly engaged in the manufacture of heating-cooling equipment. The manufacturer shall have parts and service available throughout the U.S. and Canada.*

The installed weight shall not be more than . . . . . lbs. (kg). Entire unit shall have a width of not more than . . . . . inches (mm), a depth of not more than . . . . . inches (mm) and an overall height of not more than . . . . . inches (mm). The equipment shall be shipped completely factory assembled, precharged, piped and wired internally ready for field connections. In addition, manufacturer shall test operate system at the factory before shipment.

Air Distribution — *Equipment shall be capable of bottom or side (horizontal) handling of conditioned air. All air distribution ducts shall be fiberglass or . . . . . ga. galvanized steel insulated with . . . . . inch (mm) thick . . . . . lb./ft.^{2} (kg/m^2) density fiberglass or equivalent.*

Approvals — *All electrical components shall have U.L. and C.S.A. Listing. All wiring shall be in compliance with NEC and CEC.*

Equipment Warranty — *Heat exchangers have a limited warranty for a full ten years. Compressors have a limited warranty for a full five years. All other components have a limited warranty for one year. Refer to the Lennox Equipment Limited Warranty certificate included with the unit for details.*

Cooling System — *The total certified cooling capacity shall not be less than . . . . . Btuh (kW) with an evaporator air volume of . . . . . cfm (L/s), an entering wet bulb air temperature of . . . . . ° F (° C), an entering dry bulb air temperature of . . . . . ° F (° C) and a condenser entering temperature of . . . . . ° F (° C). The compressor power input shall not exceed . . . . . kw at these conditions.*

The coils shall be non-ferrous construction with aluminum fins mechanically bonded to durable copper tubes. Coils shall be pressure leak tested. Coil face area shall be not less than . . . . . sq. ft. (m^2) (evaporator) and . . . . . sq. ft. (m^2) (condenser). Condenser coils shall be slab coil construction.

Multiple compressors shall be resiliently mounted, have overload protection and crankcase heaters. The refrigeration system shall have suction and liquid line service gauge ports and service valves, high pressure switches, low pressure switches, thermometer wells, driers, freezestat, and full refrigerant charge. Controls shall consist of low ambient controls (all models) and cycle controls (GCS24-1853). Optional controls shall consist of timed-off controls (GCS24-2553, -2753, -3003). GCS24-1853, -2553, -2753 shall be rated in accordance with ARI Standard 360-86. GCS24-3003 shall be tested at conditions included in ARI Standard 360-86.

Heating System — *The heating capacity output shall be . . . . . Btuh (kW) with a gas input of . . . . . Btuh (kW).*

Tubular heat exchanger and inshot type gas burners shall be constructed of aluminized steel. Controls shall consist of direct spark ignition, electronic flame sensor controls, flame rollout switch, limit controls and automatic redundant dual gas valve with staging control and centrifugal switch on induced draft blower. Unit shall be available for use with LPG/propane as an option. Complete service access shall be provided for controls and wiring. Shall be A.G.A./C.G.A. design certified for outdoor installation.

Cabinet — *Shall be galvanized steel with a powdered enamel paint finish electrostatically bonded to the metal. Cabinet panels where conditioned air is handled shall be fully insulated to prevent sweating and minimize sound. Openings shall be provided for power connection entry. Shall have peep hole with cover for flame viewing of burners. Evaporator coil condensate drain extended outside cabinet shall be provided. Lifting brackets shall be provided for rigging. Bottom power entry shall be furnished. Control box panel shall be hinged for easy access.*

Service Access — *All components, wiring and inspection areas shall be completely accessible through removable panels.*

Supply Air Blowers — *Centrifugal supply air blower shall have permanently lubricated sleeve bearings and adjustable belt drive. Motor mount base shall permit ease of motor changeover and belt tension adjustment. Blower wheel shall be statically and dynamically balanced. Blower shall be capable of delivering . . . . . cfm (L/s) at an external static pressure of . . . . . inches water gauge (Pa) requiring . . . . . bhp (W) and . . . . . rpm.*

Condenser Fans — *Direct drive propeller type condenser fans shall discharge vertically and be direct driven by a . . . . . hp (W) motor. Fan motor shall have ball bearings and be permanently lubricated and inherently protected. Fans shall have a safety guard.*

Air Filters — *Disposable filters furnished shall have not less than . . . . . .sq. ft. (m^2) of free area.*

OPTIONAL ACCESSORIES

Roof Mounting Frame — *Furnish and install a steel roof mounting frame for bottom discharge and return air duct connection. It shall mate to the bottom perimeter of the equipment. When flashed into the roof it shall make a unit mounting curb and provide weatherproof duct connection and entry into the conditioned area. Flashing shall be the responsibility of a roofing contractor. RMF16 frame shall be approved by U.S. National Roofing Contractors Association.*

Economizer Damper Section — *Furnish and install complete with recirculated air dampers, outside air dampers, air filters, damper actuator and controls. Low leakage dampers shall ride in nylon bearings. The economizer section shall provide for the introduction of 100% outdoor air for minimum ventilation and free cooling. Integrated economizer cycle shall allow compressors to cycle for dehumidification and additional cooling, as needed, with 100% outdoor air intake. Damper actuator shall be 24 volt, fully modulating spring return. Controls shall include fixed 55° F (13° C) mixed air controller, damper actuator, adjustable minimum position switch and solid-state adjustable outdoor air enthalpy control. Cabinet shall be galvanized steel with a powdered enamel paint finish electrostatically bonded to the metal. Control option shall consist of differential enthalpy control (return air sensor). Economizer shall be available for factory or field installation.*

Gravity Exhaust Dampers — *Pressure operated dampers shall be furnished with economizer damper assembly. Neoprene coated fiberglass dampers shall prevent blow-back and outdoor air infiltration during off cycle.*

Outdoor Air Damper Section — *Optional outdoor dampers shall be available to provide outdoor air requirements of up to 25%. Shall be available for manual or automatic operation. Damper section field installs external to the unit. Shall be equipped with filter for extra air filtering and bird screen protection.*

Horizontal Supply & Return Air Kit — *Optional kit shall provide necessary cabinet parts to field convert unit for side (horizontal) supply and return air duct connections.*

Ceiling Diffusers — *Furnish and install a (flush or step-down) optional combination ceiling supply and return air diffuser. It shall be capable of not less than . . . . . ft. (m) radius of effective throw. Supply and return transitions shall be available, for field installation in the roof mounting frame, to provide duct connection to the diffuser.*

Control Systems — *Shall provide a selection of thermostats and related controls to automatically operate the mechanical equipment through the heating or cooling and ventilating cycles as required.*

Disconnect Package — *Furnish and factory install package that includes unit disconnect and dual 120 volt GFCI type service outlets.*

Smoke Detector Package — *Furnish and factory install photoelectric type smoke detector in return air section.*

Corrosion Protection Package — *Furnish and factory apply phenolic epoxy coating to condenser and evaporator coils with painted condensing and evaporator base sections and painted blower housings or apply only to condenser coil with painted condensing section base.*

Logics Controls Panel — *Furnish and factory install a selection of controls to automatically operate the mechanical equipment through the heating or cooling and ventilating cycles as required.*

Hinged Panel Package — *Furnish and factory install package that includes hinged panels for two compressor section panels, two blower section panels and one gas heat access panel with quarter turn handles.*

UNIT DIMENSIONS — inches (mm)

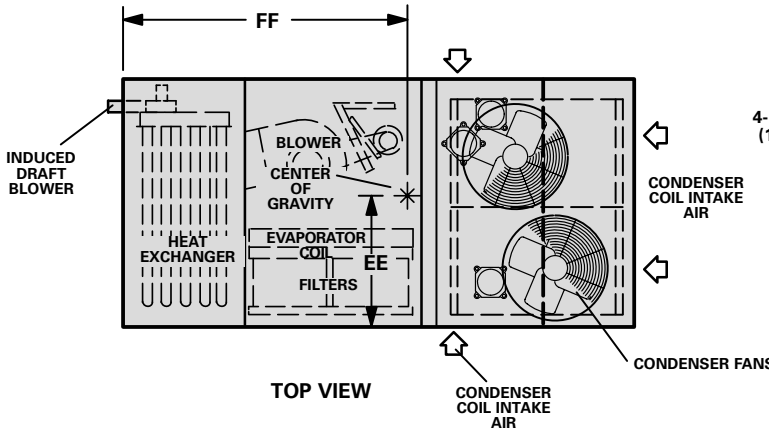
GCS24-1853 BASIC UNIT

CORNER WEIGHTS AT BASE — lbs. (kg)

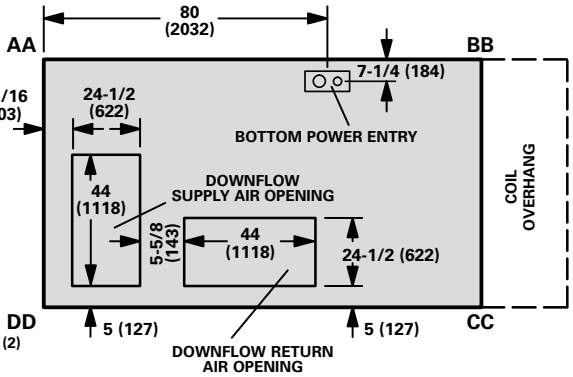
Model No.	AA		BB		CC		DD	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg
GCS24-1853	410	186	610	277	481	218	324	147

CENTER OF GRAVITY — in. (mm)

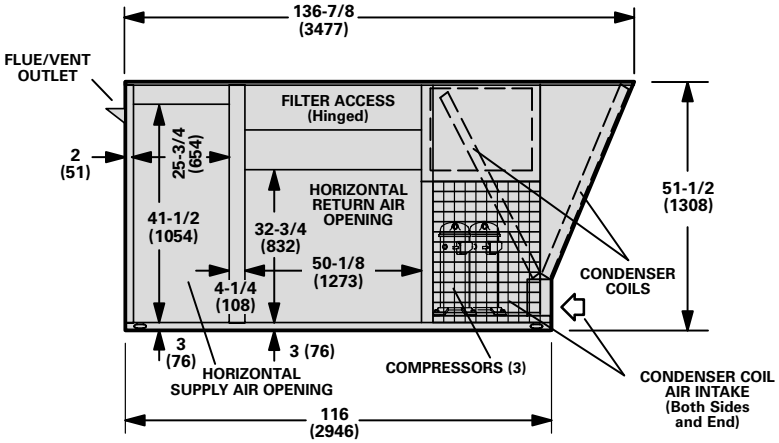
Model No.	EE		FF	
	in.	mm	in.	mm
GCS24-1853	38	965	69-3/8	1762



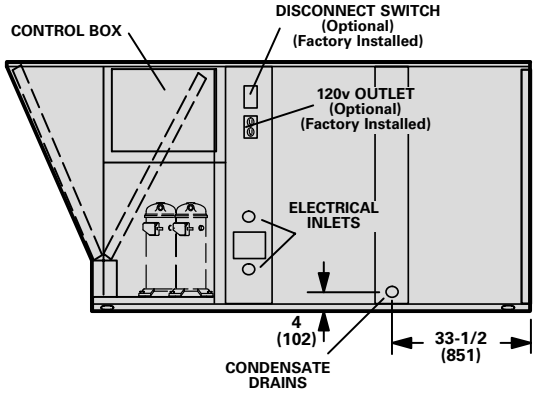
TOP VIEW



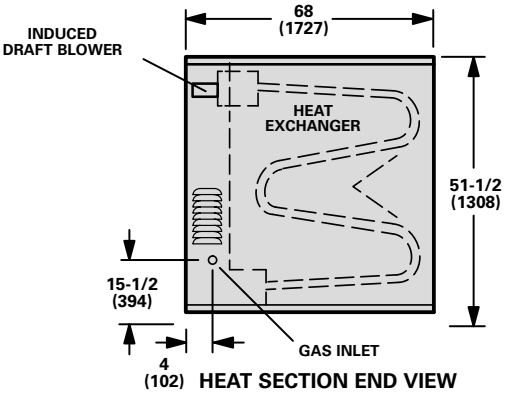
TOP VIEW BASE SECTION



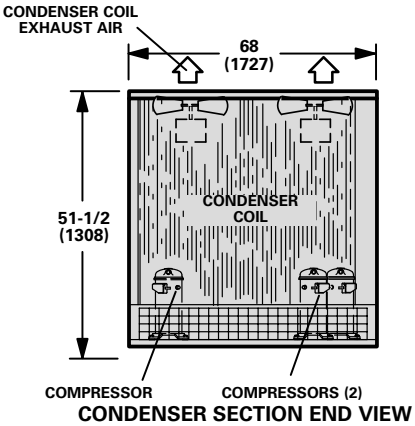
BACK VIEW
WITH HORIZONTAL SUPPLY & RETURN AIR OPENING



FRONT VIEW



HEAT SECTION END VIEW



CONDENSER SECTION END VIEW

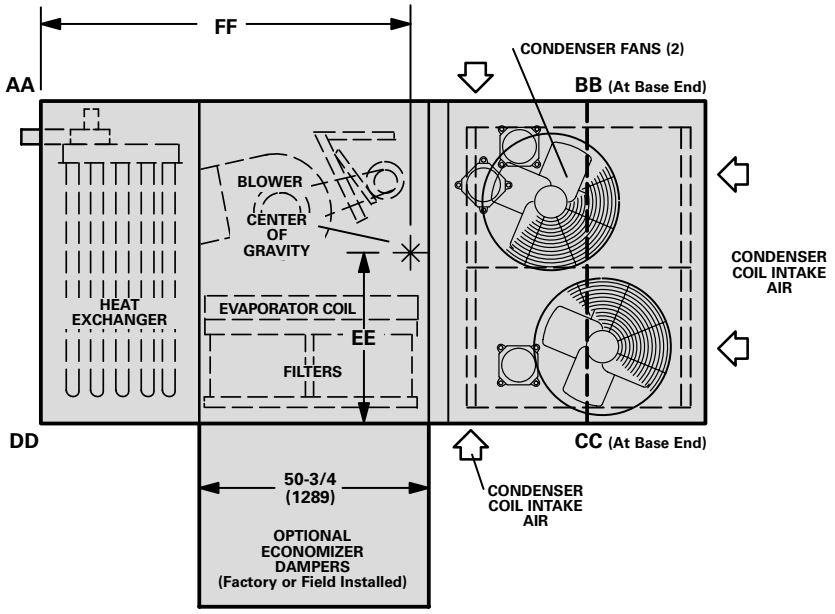
GCS24-1853 UNIT
WITH REMD16M ECONOMIZER DAMPER SECTION AND RMF16 ROOF MOUNTING FRAME
(DOWN-FLOW APPLICATION)

CORNER WEIGHTS AT BASE — lbs. (kg)

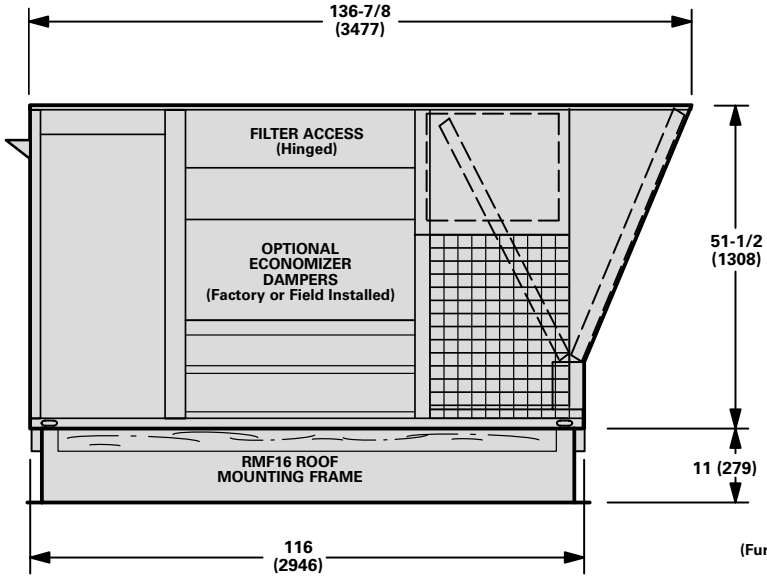
Model Number	AA		BB		CC		DD	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg
GCS24-1853	440	200	610	277	575	261	414	188

CENTER OF GRAVITY — inches (mm)

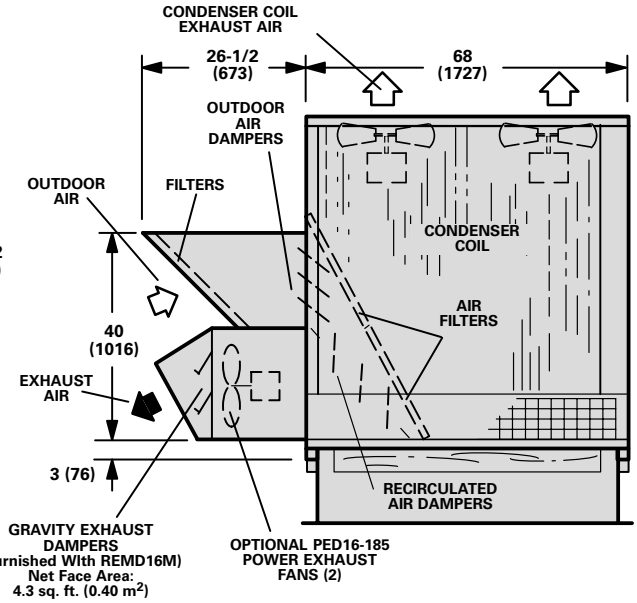
Model Number	EE		FF	
	inch	mm	inch	mm
GCS24-1853	35	889	67-7/16	1637



TOP VIEW



BACK VIEW
WITH HORIZONTAL SUPPLY & RETURN AIR OPENING



CONDENSER SECTION END VIEW

ACCESSORY DIMENSIONS — inches (mm)

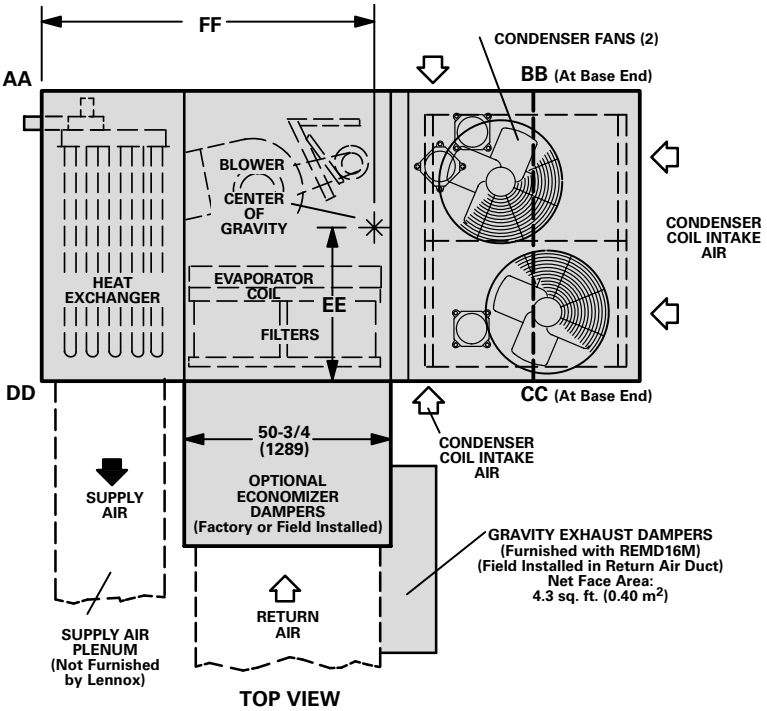
GCS24-1853 UNIT
WITH REMD16M ECONOMIZER DAMPER SECTION
(HORIZONTAL APPLICATION)

CORNER WEIGHTS AT BASE — lbs. (kg)

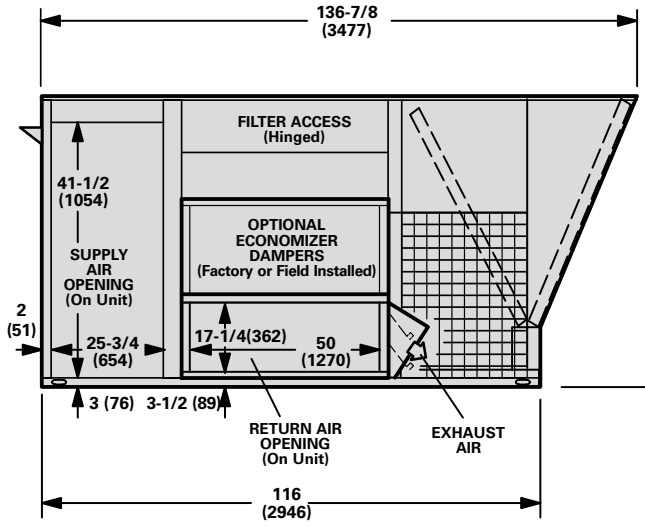
Model Number	AA		BB		CC		DD	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg
GCS24-1853	408	185	571	259	587	266	420	191

CENTER OF GRAVITY — inches (mm)

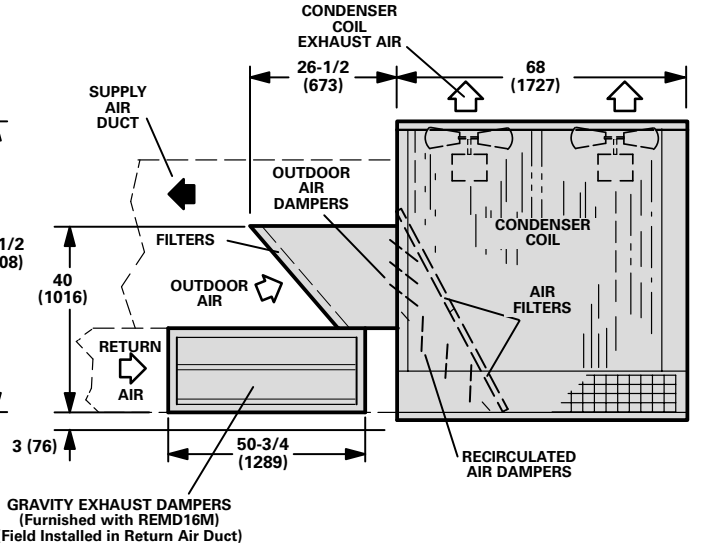
Model Number	EE		FF	
	inch	mm	inch	mm
GCS24-1853	33-1/2	851	67-5/8	1718



TOP VIEW



BACK VIEW
WITH HORIZONTAL SUPPLY & RETURN AIR OPENING



CONDENSER SECTION END VIEW

UNIT DIMENSIONS — inches (mm)

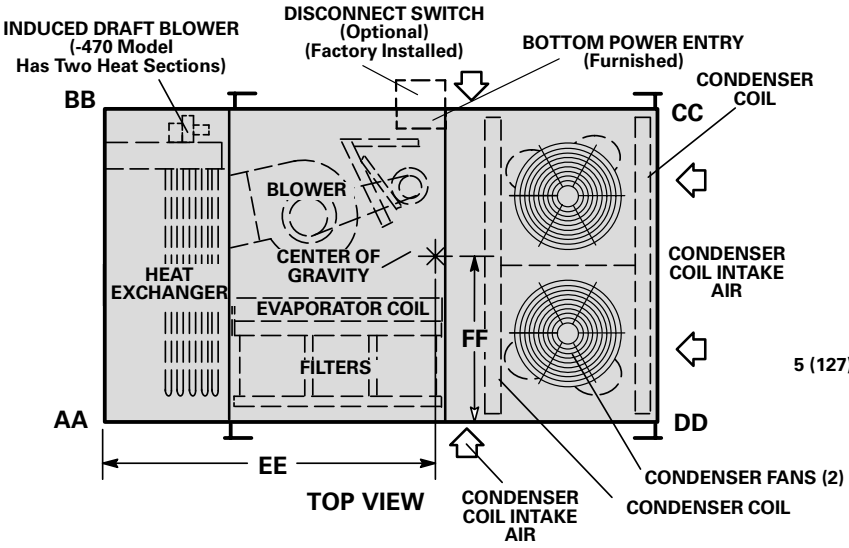
GCS24-2553, -2753 & -3003 (GCS24-3003-235 Size Shown)

CORNER WEIGHTS — lbs. (kg)

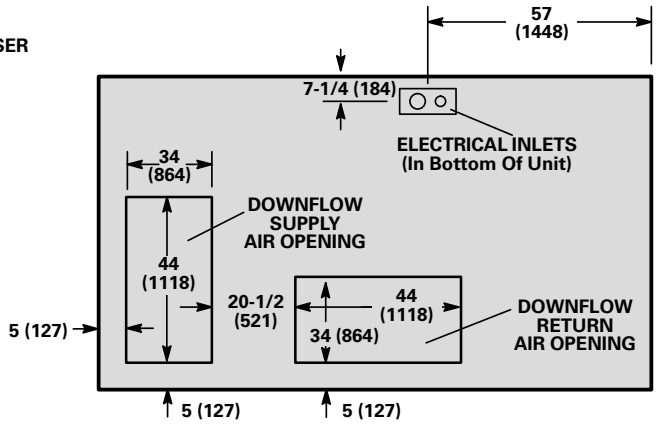
Model Number	AA		BB		CC		DD	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg
GCS24-2553/2753-235	516	234	623	283	777	353	644	292
GCS24-2553/2753-470	556	252	672	305	838	380	694	315
GCS24-3003-235	484	220	567	257	987	448	842	382
GCS24-3003-470	517	236	606	275	1056	479	901	409

CENTER OF GRAVITY — inches (mm)

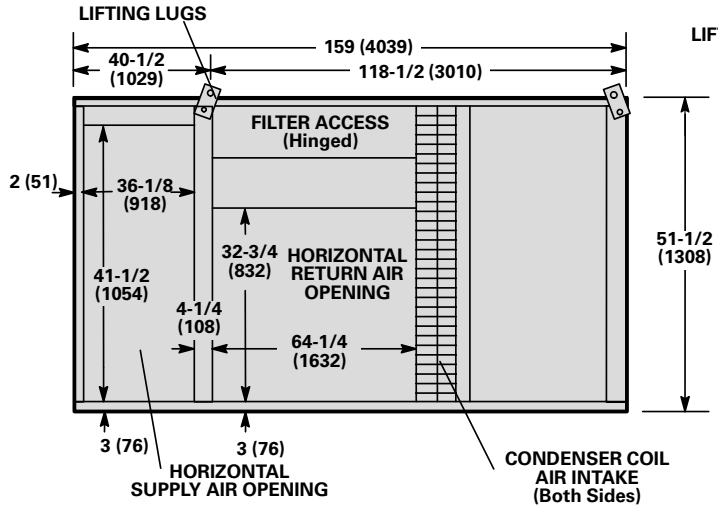
Model Number	EE		FF	
	inch	mm	inch	mm
GCS24-2553 GCS24-2753	88-1/4	2242	46-1/2	1181
GCS24-3003-235 GCS24-3003-470	101	2565	45-7/8	1165



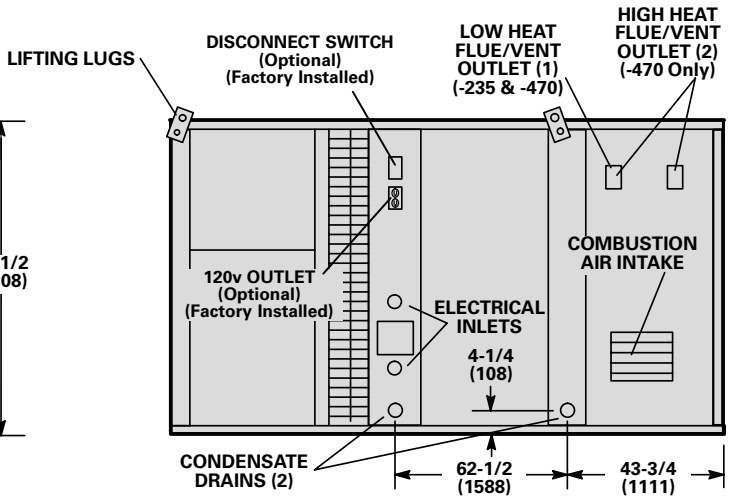
TOP VIEW



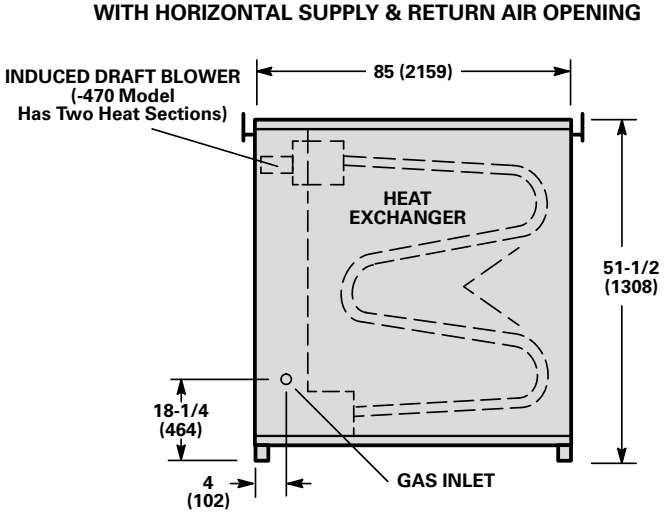
TOP VIEW BASE SECTION



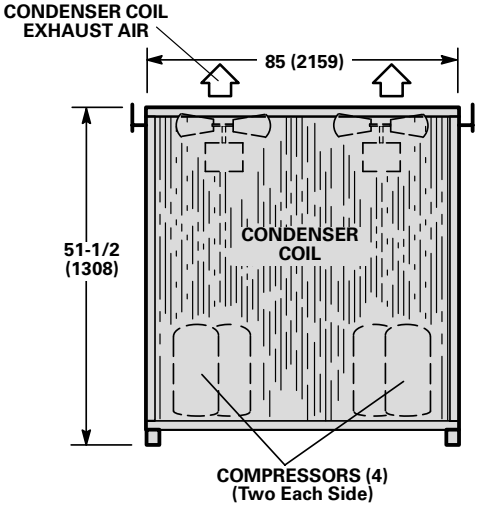
BACK VIEW
WITH HORIZONTAL SUPPLY & RETURN AIR OPENING



FRONT VIEW



HEAT SECTION END VIEW



CONDENSER SECTION END VIEW

ACCESSORY DIMENSIONS — inches (mm)

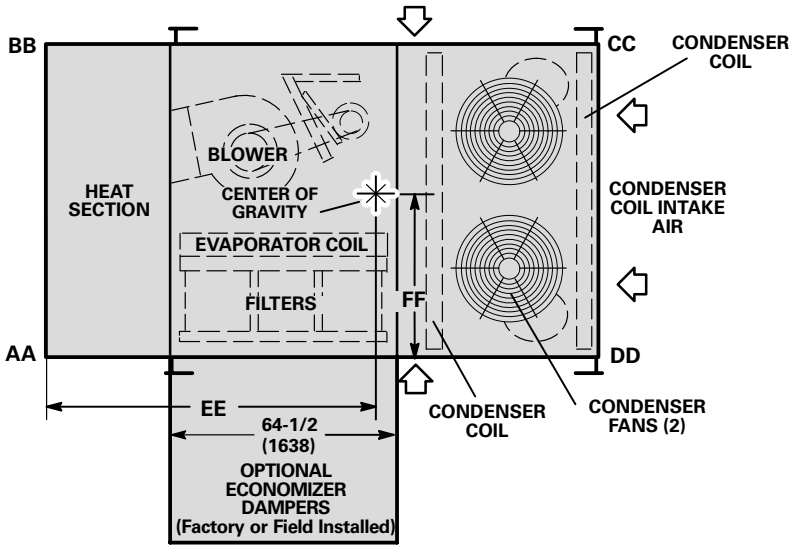
GCS24-2553, 2753 & 3003 UNIT (GCS24-3003-235 Size Shown)
WITH REMD16M ECONOMIZER DAMPER SECTION AND RMF16 ROOF MOUNTING FRAME
(DOWN-FLOW APPLICATION)

CORNER WEIGHTS — lbs. (kg)

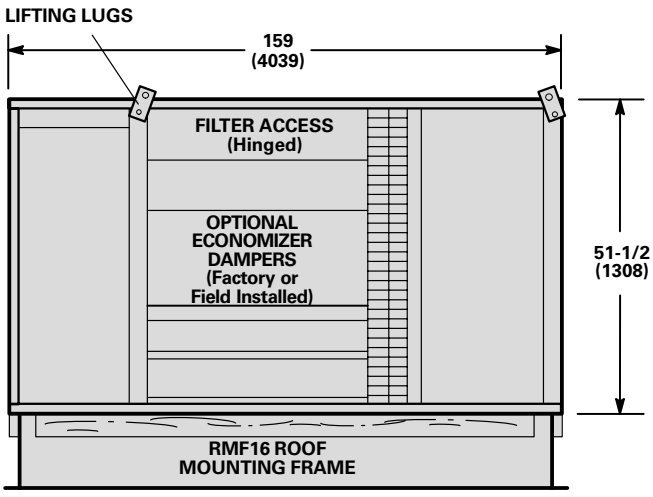
Model Number	AA		BB		CC		DD	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg
GCS24-2553/2753-235	682	310	665	302	792	360	812	369
GCS24-3003-235	737	335	701	318	835	379	878	399
GCS24-3003-235	648	294	616	280	977	444	1028	467
GCS24-3003-470	688	312	664	297	1037	471	1091	495

CENTER OF GRAVITY — inches (mm)

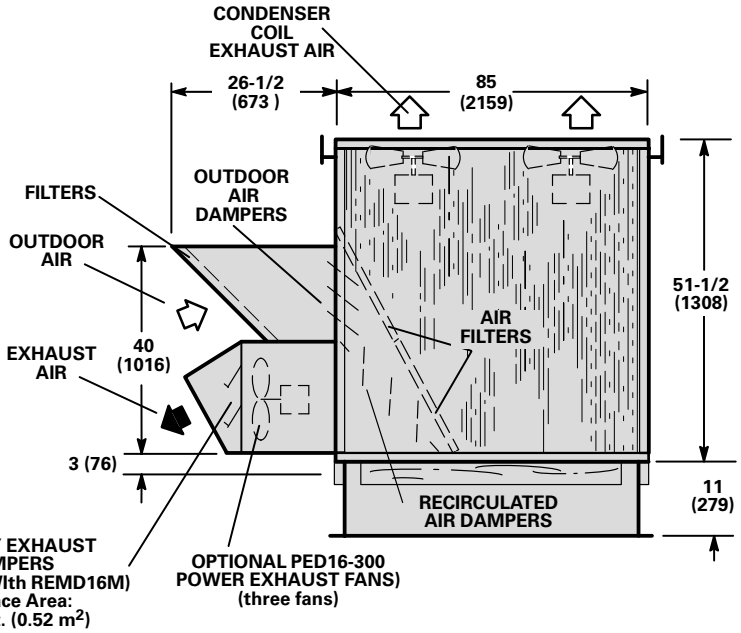
Model Number	EE		FF	
	inch	mm	inch	mm
GCS24-2553 GCS24-2753	86 1/2	2197	42	1067
GCS24-3003 GCS24-3003	97-1/2	2477	41-1/2	1054



TOP VIEW



BACK VIEW



CONDENSER SECTION END VIEW

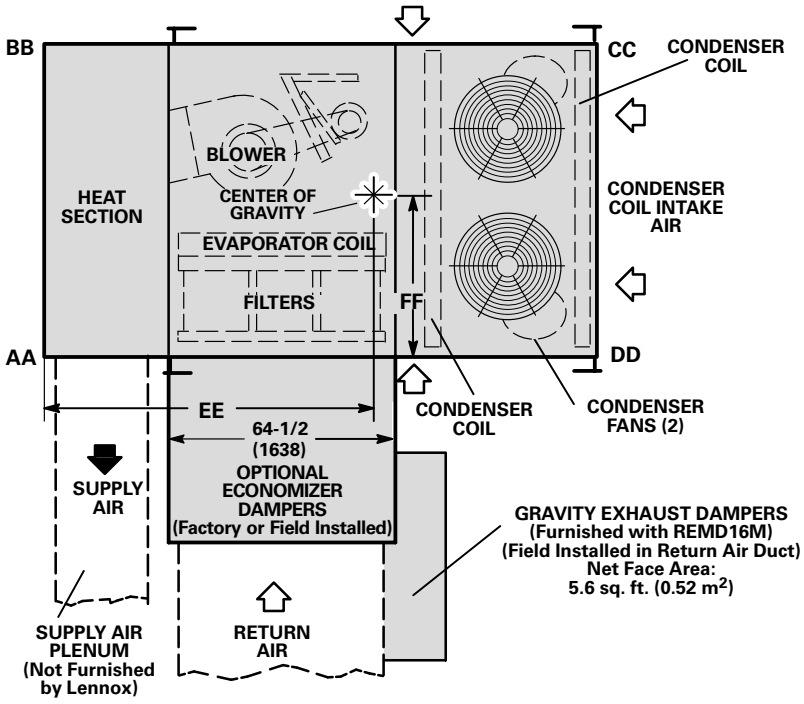
GCS24-2553, 2753 & 3003 UNIT (GCS24-3003-235 Size Shown) WITH REMD16M ECONOMIZER DAMPER SECTION (HORIZONTAL APPLICATION)

CORNER WEIGHTS — lbs. (kg)

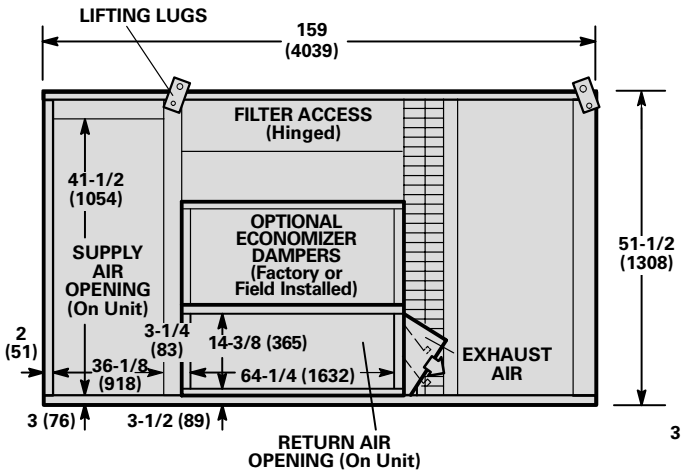
Model Number	AA		BB		CC		DD	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg
GCS24-2553/2753-235	640	291	624	283	743	337	763	346
GCS24-2553/2753-470	686	311	669	304	797	362	818	371
GCS24-3003-235	613	278	582	264	924	419	972	441
GCS24-3003-470	652	296	620	281	983	446	1035	470

CENTER OF GRAVITY — inches (mm)

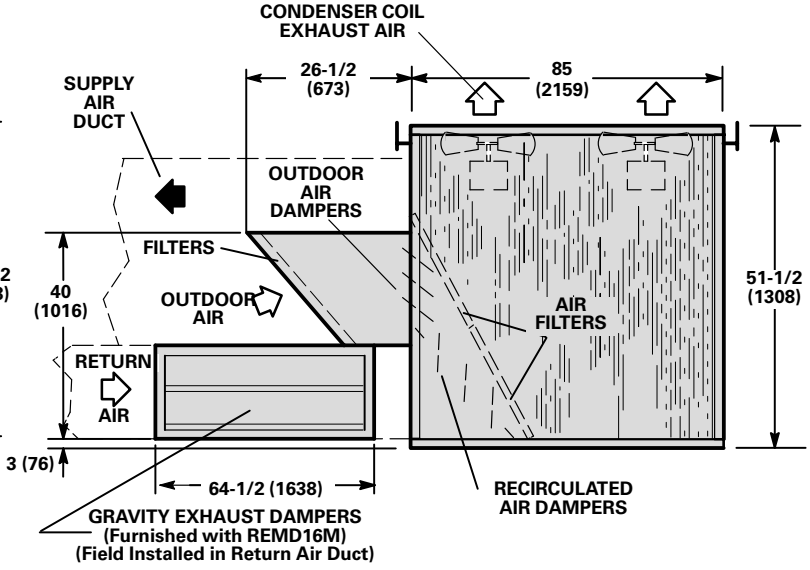
Model Number	EE		FF	
	inch	mm	inch	mm
GCS24-2553 GCS24-2753	86 1/2	2197	42	1067
GCS24-3003-235 GCS24-3003-470	97-1/2	2477	41-1/2	1054



TOP VIEW



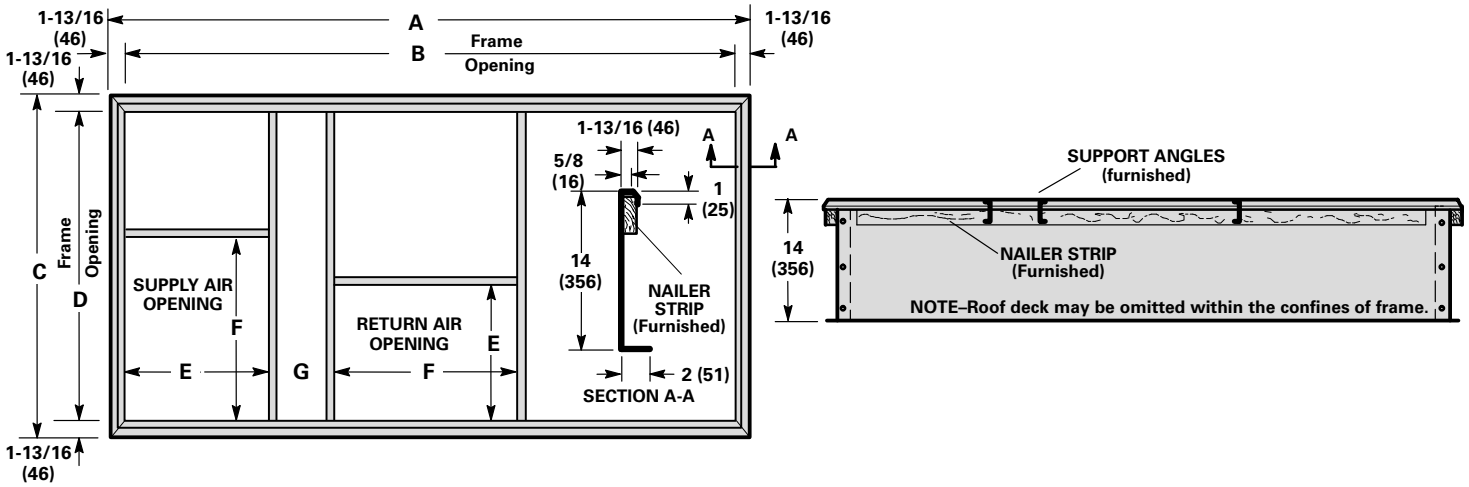
BACK VIEW



CONDENSER SECTION END VIEW

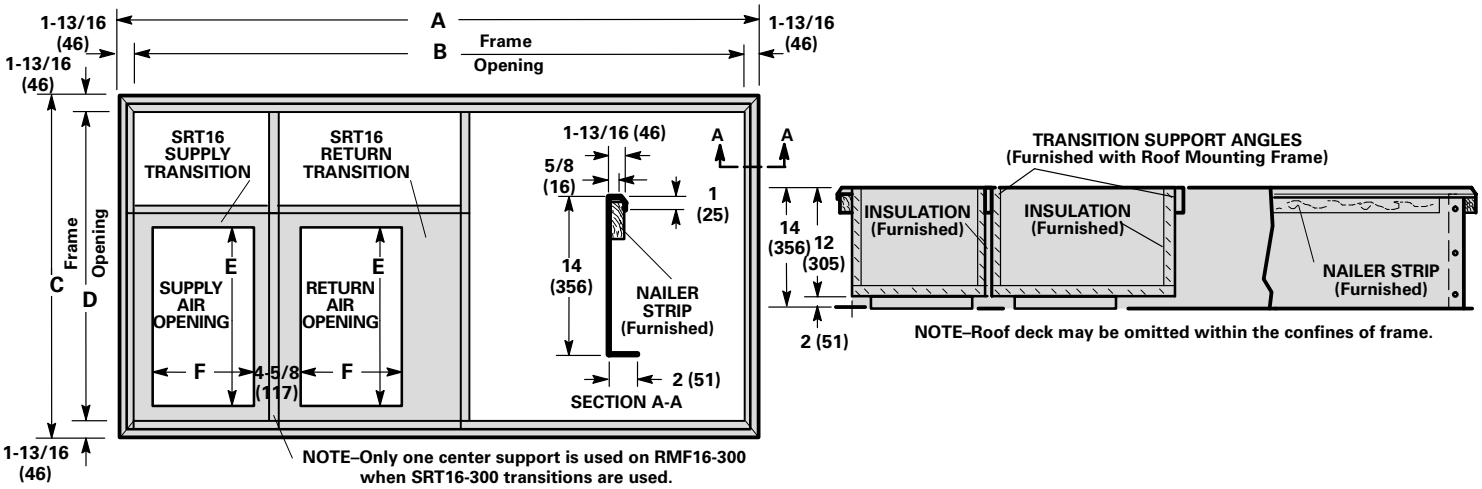
ACCESSORY DIMENSIONS (inches)

RMF16-185 & -300 ROOF MOUNTING FRAME WITH DOUBLE DUCT OPENING



Model No.	A		B		C		D		E		F		G	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
RMF16-185	111-3/4	2838	108-1/8	2746	63-7/8	1622	60-1/4	1530	26	660	45-1/2	1156	4-3/8	111
RMF16-300	156-5/16	3970	152-11/16	3878	80-7/8	2054	77-1/4	1962	36	914	46	1168	18	457

RMF16-185 & -300 ROOF MOUNTING FRAMES WITH SRT16 SUPPLY AND RETURN AIR TRANSITIONS FOR FD11 & RTD11 CEILING DIFFUSERS



Model No.	A		B		C		D		E		F	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
RMF16-185	111-3/4	2838	108-1/8	2746	63-7/8	1622	60-1/4	1530	36	914	18	457
RMF16-300	156-5/16	3970	152-11/16	3878	80-7/8	2054	77-1/4	1962	48	1219	24	610

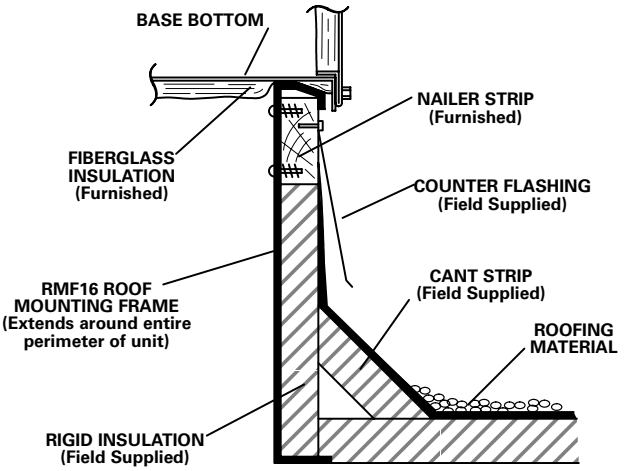
ROOF MOUNTING FRAME SPECIFICATIONS

Roof Mounting frame is rigid enough to be spanned over its entire length or cantilevered if supported on both sides of center of gravity.

Roof Mounting Frame	RMF16-185 & -300
*Moment of inertia (I) (in.^{4}) (cm^4)	42 (1748)
*Section modulus $\frac{I}{C}$ (in.^{3})(cm^3)	5.8 (95)
Maximum weight. (lb/ft) (kg/m) of length	5.5 (8.2)
Design strength (psi) (kPa)	20,000 (137,900)

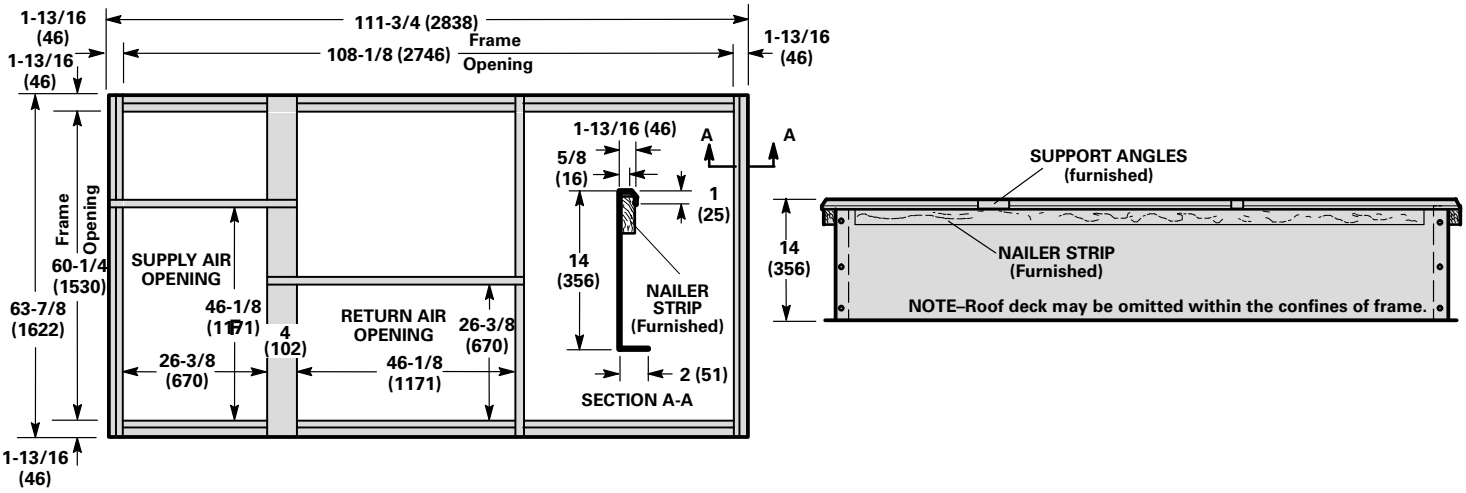
*Includes both sides of frame.

TYPICAL FLASHING DETAIL FOR RMF16 ROOF MOUNTING FRAME

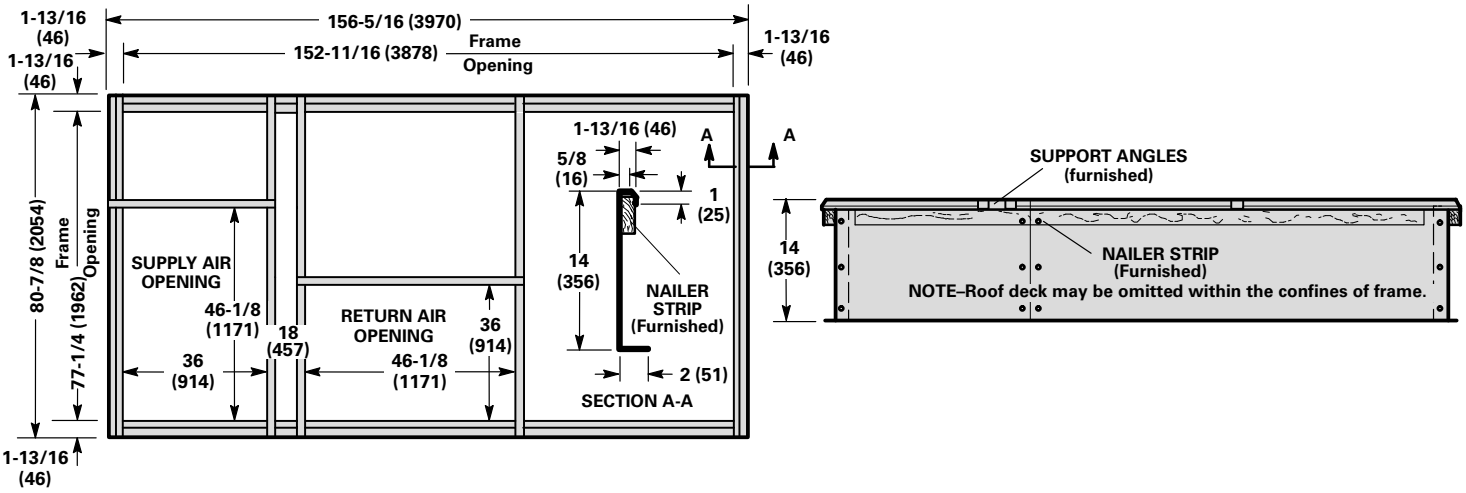


ACCESSORY DIMENSIONS — inches (mm) Canada Only

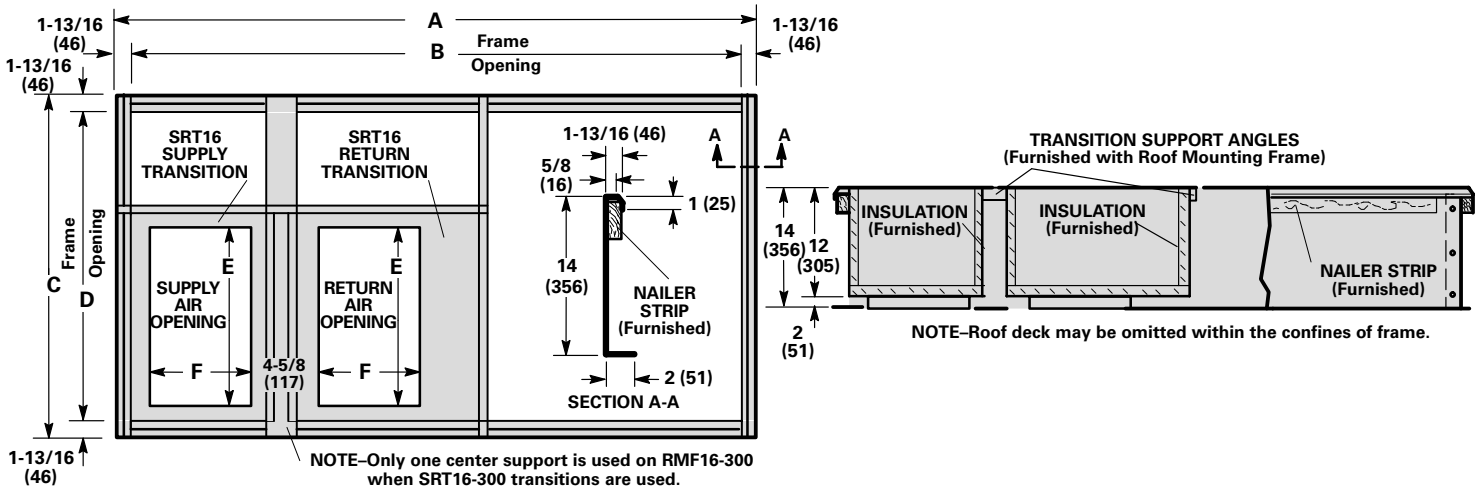
RMF16-185 SERIES ROOF MOUNTING FRAME WITH DOUBLE DUCT OPENING



RMF16-300 SERIES ROOF MOUNTING FRAME WITH DOUBLE DUCT OPENING



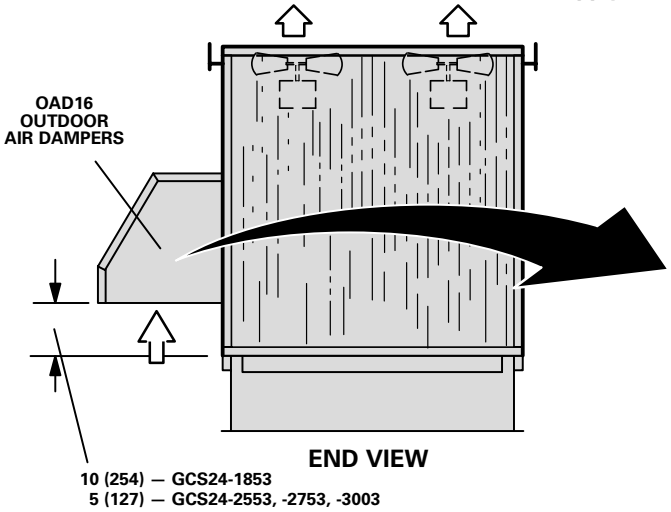
RMF16-185 & -300 ROOF MOUNTING FRAMES WITH SRT16 SUPPLY AND RETURN AIR TRANSITIONS FOR FD11 & RTD11 CEILING DIFFUSERS



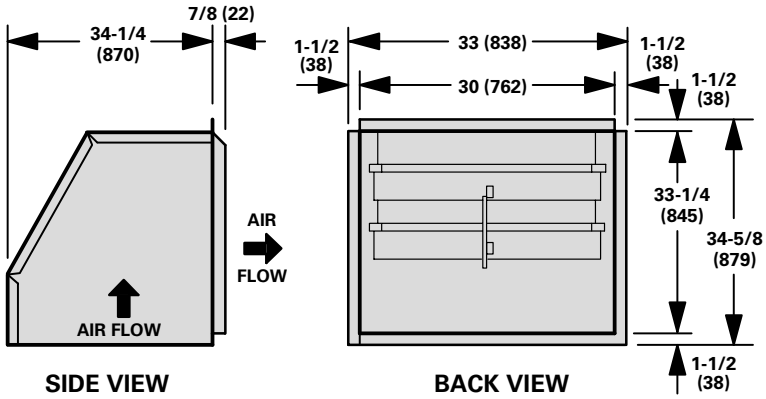
Model No.	A		B		C		D		E		F	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
RMF16-185	111-3/4	2838	108-1/8	2746	63-7/8	1622	60-1/4	1530	36	914	18	457
RMF16-300	156-5/16	3970	152-11/16	3878	80-7/8	2054	77-1/4	1962	48	1219	24	610

GCS24 UNIT WITH OAD16 OUTDOOR AIR DAMPER SECTION
DOWN-FLO SUPPLY AND RETURN AIR

NOTE — For Horizontal (Side) Supply And Return Air OAD16 Field Installs on Return Air Duct

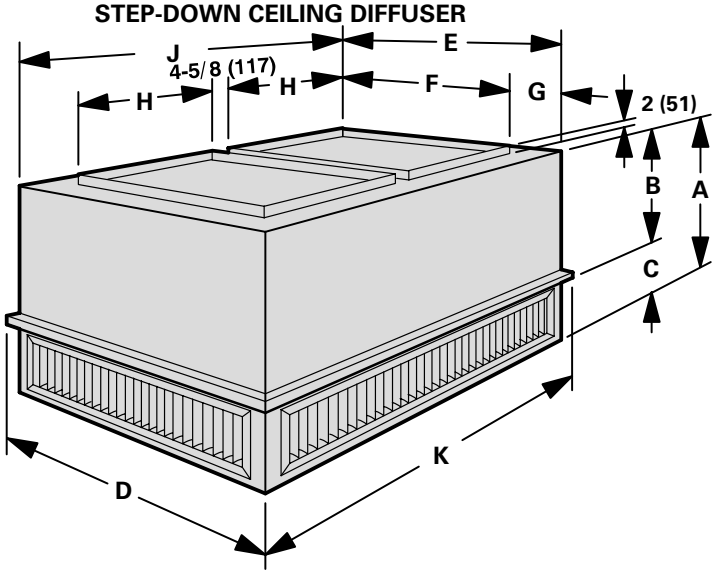


OAD16-185 & -300 OUTDOOR AIR DAMPER SECTION

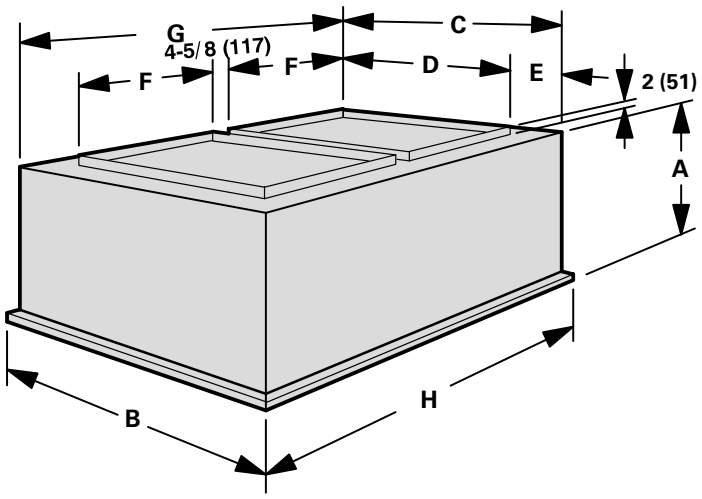


COMBINATION CEILING SUPPLY AND RETURN DIFFUSERS

RTD11-185 & RTD11-275
STEP-DOWN CEILING DIFFUSER



FD11-185 & FD11-275
FLUSH CEILING DIFFUSER



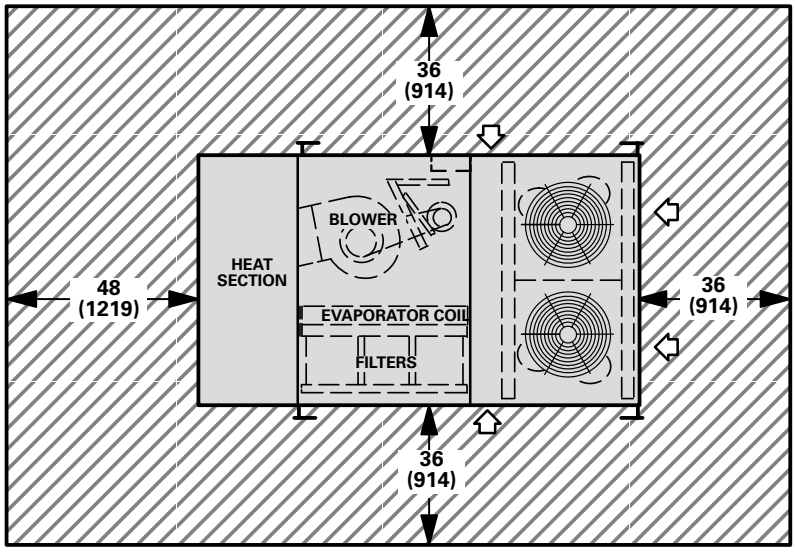
Model Number	A		B		C		D		E	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
RTD11-185	34	864	23-7/8	606	10-1/8	257	47-5/8	1210	45-5/8	1159
RTD11-275	40	1016	28-7/8	225	11-1/8	283	59-5/8	1514	57-7/8	1470

Model Number	A		B		C		D	
	in.	mm	in.	mm	in.	mm	in.	mm
FD11-185	30-1/8	613	47-5/8	1210	45-5/8	1159	36	914
FD11-275	36-1/8	918	59-5/8	1514	57-5/8	1464	48	1219

Model Number	F		G		H		J		K	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
RTD11-185	36	914	4-13/16	122	18	457	45-5/8	1159	47-5/8	1210
RTD11-275	48	1219	4-13/16	122	24	610	57-5/8	1464	59-5/8	1521

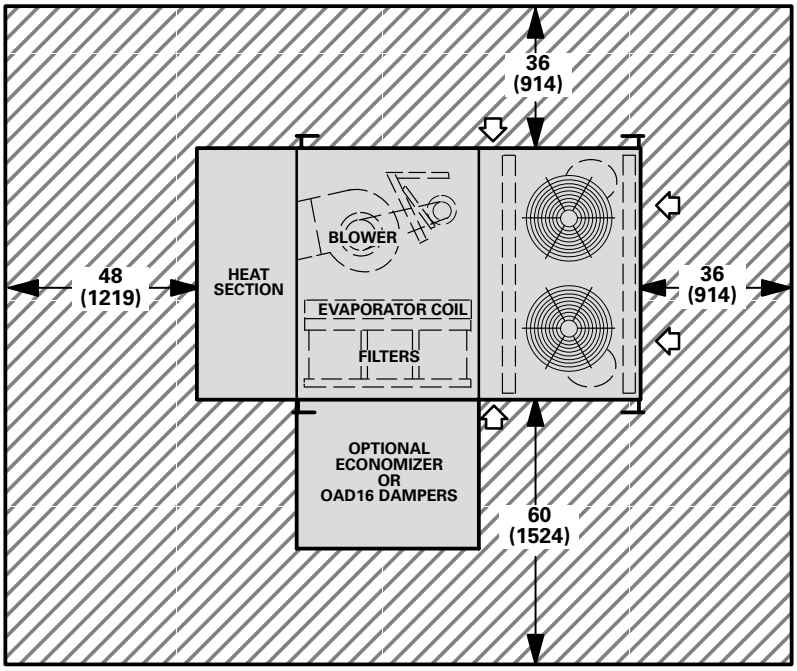
Model Number	E		F		G		H	
	in.	mm	in.	mm	in.	mm	in.	mm
FD11-185	4-13/16	122	18	457	45-5/8	1159	47-5/8	1210
FD11-275	4-13/16	122	24	610	57-5/8	1464	59-5/8	1521

GCS24 BASIC UNIT



NOTE — Top Clearance Unobstructed.

GCS24 UNIT WITH REMD16M ECONOMIZER DAMPER SECTION OR OAD16 OUTDOOR AIR DAMPER



NOTE — Top Clearance Unobstructed.