

CENTRAL CHILLERS

Web: www.AdvantageEngineering.com Phone: 317-887-0729

OACS[®] SERIES

- Complete Central Chiller & Pump Tank Package
- Designed For Outdoor Installations
 - Capacity: 5 to 210 Tons
 - Fluid Temperature: 20°F to 70°F
 - Using Non-Ozone Depleting Refrigerants



OACS Series chillers are designed for outdoor installations in many climates. The fully charged air-cooled refrigerant chiller, and pump tank station are packaged in a single frame that minimizes costly field installation.

Advantage OACS Series central chillers won't let you down. Every Advantage chiller is supported by application expertise, engineering know how, and un-surpassed service support from experienced technicians.

Since 1977 Advantage has been applying, designing and servicing the best chillers available.

APPLICATIONS

OACS Series central chiller can be used on a variety of process applications that require 20°F to 70°F chilled water.









Rolls





Molds & Dies

Nozzles, Barrels & Tools Heat Exchangers Troughs & Tanks

Radiators and Air Coils Jacketed Vessels and Mixers

Lasers

• Temperature Control Units Water & Oil 30° - 500°F

• Portable Chillers Air & Water-Cooled 20° - 70°F

 Central Chillers Air & Water-Cooled Packages & Modules 20° - 70°F

- Pump Tank Stations Chilled or Tower Water 200 - 3600 gallons
- Cooling Tower Cells 45 - 540 tons
- Filters

Heat Exchangers

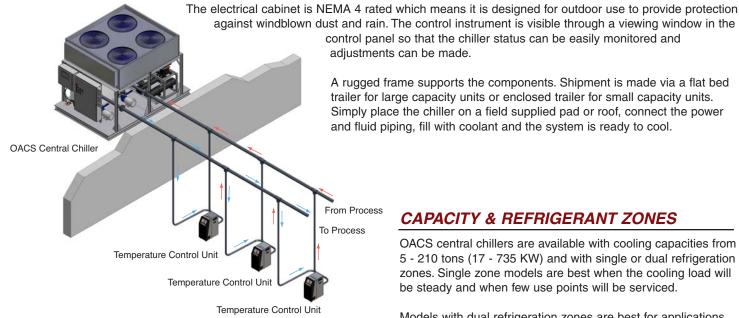
• Heat Recovery Units

WARRANTY

- 1 Year: Covering parts and labor
- 2nd Year: Complementary visit for preventive maintenance consultation

OUTDOOR DESIGN

The OACS central chiller was designed from the ground up to endure outdoor environments in nearly any climate. ADVANTAGE Engineers have selected only the highest quality components that are manufactured for outdoor installation.



COOLANT CIRCUIT

OACS central chillers include an integral reservoir and fluid pumping system. The reservoir is constructed of non-ferrous wetted surfaces, either rotationally molded polyethylene or stainless steel. The non-rusting reservoir is generously sized to support the process needs. Units with stainless steel tanks can be



equipped with a sump heater. A water glycol mixture is required when operating at setpoints below 48°F and when ambient temperatures are expected to fall below 38°F and for some high flow applications.

Coupled to the reservoir are centrifugal pumps to provide process flow. Single refrigeration zone chillers up to 50 tons typically use a single pump system that delivers the cooling fluid to process then returns it through the chiller's evaporator and into the reservoir.

Dual refrigeration zone chillers and single zone units above 50 tons typically use a two-pump system where independent pumps are included: one for process flow and a second for flow through the chiller's evaporator. A two-pump system allows for high process flows, constant flow through the chiller when the process flow varies and provides superior temperature control.

Advantage product specialists determine whether a single pump or two pump system is best for your application.

All pumps include TEFC motors designed for outdoor operation along with suction and discharge valves. Connection sizes are selected based on application specific flow and pressure requirements. Most OACS chillers can be equipped with a dedicated installed standby pump and manifold.

CAPACITY & REFRIGERANT ZONES

OACS central chillers are available with cooling capacities from 5 - 210 tons (17 - 735 KW) and with single or dual refrigeration zones. Single zone models are best when the cooling load will be steady and when few use points will be serviced.

Models with dual refrigeration zones are best for applications where the cooling load may fluctuate and where multiple fluid use points are being serviced. Dual zone units provide superior capacity control by staging refrigeration zones to match the chiller capacity to the process demand. Dual zone units also provide built in redundancy. If one refrigeration zone requires service, the second can operate providing 50% of the chiller capacity.

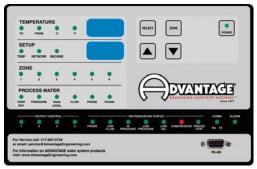


OACS-40D-MZC-2P shown

ENGINEERING DESIGN SERVICE

Advantage staffs a complete CAD based Engineering Department with experienced water system designers. Working from customer supplied facility and process information, Advantage designers analyze the entire system and select the correct component combinations to provide the most efficient output. If one of our standard systems does not fit your application requirements, then Advantage will design a custom system from a long list of available options.

CHILLER CONTROLS



Multizone Controller (MZC)



M1 Controller



M1D Controller

MULTIZONE CONTROLLER (MZC) is used on dual zone models and large capacity single zone models and is optional on smaller capacity single zone models. The control instrument consists of a main operator interface display and an intelligent zone board for each refrigeration zone and has a long history of reliable field service. The main display communicates with the zone boards to stage each refrigeration zone independently to bring the process temperature in line with the set point. If communications fails between the zone boards and the display, the zone boards assume control of their respective refrigeration zones and continue to operate.

- · Soft key controls are provided for display selection and setpoint.
- Two windows display set point and actual process temperatures in °F or °C and selectable zone evaporator in and out temperatures along with unit set up parameters.
- Status lights are provided for seven system components:
 - Probe - Low Flow - High Pressure
 - Low Oil - Compressor
- Freezestat
- Low Pressure
- Alarm status light is provided.
- A selectable refrigeration zone lead/lag mode is a standard feature.
- Modbus RTU communication is provided via the DB-9/RS-485 connector.

M1 CONTROLLER is used on single zone units.

- A window displays set point or to process temperature in °F or °C.
- · Soft key controls are provided for setpoint temperature and operating parameter selection.
- Status lights are provided for:

- Compressor On - Capacity Control

- Basic chiller diagnostics is indicated by the Refrigeration Fault light.
- The illuminated On/Off switch indicates that the chiller and coolant circuit is on or off.

M1D DIGITAL SCROLL CONTROLLER is used on single zone units with Copeland Digital scroll compressors. The M1D controller includes all the features of the standard M1 controller plus the added circuitry and control logic to operate the advanced capacity control system of the digital scroll compressor.

COMPONENTS

COMPRESSOR...

Hermetic scroll or rotary screw compressors are standard on all models. Selected for their reliability, the compressors have few moving parts; offer low torgue variation and high tolerance to liquid slugging.

CONDENSER...

Constructed of a heat transfer coil that has copper tubes and aluminum fins for full rated performance at 95°F ambient. The coil is housed in a sheet metal enclosure with fans that provide a vertical air discharge. Low ambient operation to -20°F is standard.

Typical air-cooled condenser





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Screw Compressor

Tandem Scroll Compressor Scroll Compressor

EVAPORATOR...

Brazed plate and shell & tube evaporators are used for high heat transfer rates. Each refrigerant zone is equipped with its own evaporator.





Shell & Tube

Brazed plate

STANDARD FEATURES

REFRIGERANT ZONES:

- Hermetic scroll compressors on 5-60 ton single zone units and dual zone units through 120 ton using HFC-410A refrigerant
- Rotary screw compressors on 75 125 ton single zone units and 150 210 ton dual zone units using HFC-407C refrigerant
- · Liquid line solenoid valve
- · Refrigerant sight glass with moisture indicator
- Thermostatic expansion valve
- · Brazed plate or shell & tube evaporators
- System Capacity Control
 - Hot gas by-pass (single zone units with scroll compressors)
 - Unloading (single zone units with screw compressors)
 - Compressor staging & hot gas bypass (dual zone units with scroll compressors)
 - Compressor staging & unloading (dual zone units with screw compressors)
- Digital compressor unloading (single zone units with digital scroll compressors)
- Digital compressor unloading and compressor staging (single zone or dual zone models with tandem or multiple compressors)
- Air-cooled condenser with vertical air discharge
- · Fully charged with non-ozone depleting refrigerant

PRESSURE INDICATION:

- Refrigerant low pressure (per zone)
- Refrigerant high pressure (per zone)
- · Coolant pressure

COOLANT CIRCUIT:

- Large capacity process pump:
- Evaporator pump (when included)
- Reservoir
 - Polyethylene or stainless steel (wetted surfaces) construction
 - Full insulation
 - Tank lid

ELECTRICAL:

- · Outdoor rated electrical cabinet
- · Branch circuit fusing

WARRANTY:

• 1 year on parts and labor

CHILLER CONTROLS:

- M1 (single zone units)
- Multizone (dual zone and large capacity single zone units)
- M1D (single zone units with digital scroll compressor)

¹ Features for units customized to meet specific customer needs may be different than listed above.

OTHER PRODUCTS





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TEMPERATURE CONTROLLERS • PORTABLE CHILLERS • CENTRAL CHILLERS • PUMP TANK STATIONS • TOWER SYSTEMS • FILTERS

ADVANTAGE ENGINEERING, INC. 525 East Stop 18 Road Greenwood, IN 46142 phone: 317-887-0729 fax: 317-881-1277 web site: www.AdvantageEngineering.com email: sales@AdvantageEngineering.com @2010 ADVANTAGE ENGINEERING, INC. Form #ADV-615 10/07 updated 2/10

OPTIONS

REFRIGERANT ZONES:

- Digital Scroll Compressor
- For energy saving capacity control (not available on all models)
- Condenser coils with protective coating
 For longer life in harsh environments
- Oversized condenser
- For full system capacity at ambient air temperatures above 95°F
- Staged tandem scroll compressors on single zone units
- For superior capacity staging

COOLANT CIRCUIT:

- Larger process pumps
- Standby pumps and/or manifold
- Reservoir heater (mild or stainless steel tanks only)
- No pumps or reservoir
- Basket strainer (standard on dual zone units)
- Overhead piping kit
- Low reservoir level switch (standard on dual zone units)
- · Epoxy coated mild steel reservoir construction

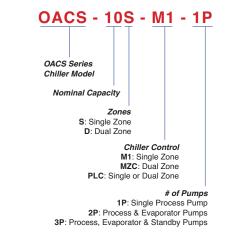
ELECTRICAL:

- · Main power disconnect
- · Line voltage & phase monitor
- UL labeled sub panel

WARRANTIES:

· Extended compressor warranty

MODEL DESIGNATOR



SPECIFICATIONS

OACS Central Liquid Chillers : 5 - 125 Tons Single Zone Units

MODEL ¹	OACS -	5S-M1-1P	7.5S-M1-1P	10S-M1-1P	15S-M1-1P	20S-M1-1P	25S-M1-1P	30S-M1-1P
COMPRESSOR	Туре	Single Scroll	Single Scroll	Single Scroll	Single Scroll	Single Scroll	Single Scroll	Single Scroll
	Tons	4.9	7.1	9.8	14.5	18.5	23.1	30
	KW	17.2	24.9	34.4	50.9	64.9	81.0	105.3
CONDENSER	# of FANS	1	1	1	2	2	3	3
CONDENCEN	Model	012	014	017	025	032	041	050
EVAPORATOR	ТҮРЕ	Brazed Plate	Brazed Plate	Brazed Plate	Brazed Plate	Brazed Plate	Brazed Plate	Brazed Plate
REFRIGERANT ³		HFC-410A	HFC-410A	HFC-410A	HFC-410A	HFC-410A	HFC-410A	HFC-410A
PROCESS PUMP	HP	2	2	2	3	3	5	5
	GPM	12	18	24	36	48	60	72
	PSI (water)	52	50	48	54	48	60	57
EVAPORATOR PUMP	HP	Optional	Optional	Optional	Optional	Optional	Optional	Optional
STANDBY PUMP ⁴		A	A	A	A	A	A	A
TANK	GALLONS	65	65	65	65	65	65	130
		PE	PE	PE	PE	PE	PE	PE
CONNECTIONS	NPT / FLANGED	1 ¹ /4" N	1 ¹ /4" N	1 ¹ /4" N	2" N	2" N	2" N	2" N
DIMENSIONS ⁶ (inches)	HEIGHT	86	86	86	86	86	86	86
	WIDTH	54	54	54	54	54	54	54
	LENGTH	78	78	78	122	122	186	186
CONTROL	STANDARD	M1	M1	M1	M1	M1	M1	M1
SYSTEM AMPERAGE ⁷	FLA (460v)	15.6	22.8	22.7	38.2	48.8	63.8	69.7
	RLA (460v)	13.5	18.3	21.4	31.6	41.3	48.7	60.7
Factory #	9266	009	109	209	309	409	509	609
MODEL	OACS -	40S-M1-1P	50S-M1-1P	60S-M1-2P	75-MZC-2P	95-MZC-2P	105S-MZC-2P	125S-MZC-2P
	OACS - Type	40S-M1-1P Tandem Scroll	50S-M1-1P Tandem Scroll	60S-M1-2P Tandem Scroll	75-MZC-2P Rotary Screw	95-MZC-2P Rotary Screw	105S-MZC-2P Rotary Screw	125S-MZC-2P Rotary Screw
COMPRESSOR								
COMPRESSOR	Туре	Tandem Scroll	Tandem Scroll	Tandem Scroll	Rotary Screw	Rotary Screw	Rotary Screw	Rotary Screw
COMPRESSOR Capacity ²	Type Tons	Tandem Scroll 36.7	Tandem Scroll 46.4	Tandem Scroll 60.7	Rotary Screw 73	Rotary Screw 94	Rotary Screw 102	Rotary Screw 123
COMPRESSOR Capacity ²	Type Tons KW	Tandem Scroll 36.7 135.1	Tandem Scroll 46.4 164.3	Tandem Scroll 60.7 209.6	Rotary Screw 73 256.7	Rotary Screw 94 330.5	Rotary Screw 102 358.7	Rotary Screw 123 432.5
COMPRESSOR CAPACITY ² CONDENSER	Type Tons KW # of FANS	Tandem Scroll 36.7 135.1 4	Tandem Scroll 46.4 164.3 4	Tandem Scroll 60.7 209.6 6	Rotary Screw 73 256.7 8	Rotary Screw 94 330.5 8	Rotary Screw 102 358.7 10	Rotary Screw 123 432.5 10
COMPRESSOR CAPACITY ² CONDENSER EVAPORATOR	Type Tons KW # of FANS MODEL	Tandem Scroll 36.7 135.1 4 056	Tandem Scroll 46.4 164.3 4 074	Tandem Scroll 60.7 209.6 6 096	Rotary Screw 73 256.7 8 118	Rotary Screw 94 330.5 8 157	Rotary Screw 102 358.7 10 167	Rotary Screw 123 432.5 10 198
COMPRESSOR CAPACITY ² CONDENSER EVAPORATOR REFRIGERANT ³	Type Tons KW # of FANS MODEL	Tandem Scroll 36.7 135.1 4 056 Brazed Plate	Tandem Scroll 46.4 164.3 4 074 Brazed Plate	Tandem Scroll 60.7 209.6 6 096 Brazed Plate	Rotary Screw 73 256.7 8 118 Shell & Tube	Rotary Screw 94 330.5 8 157 Shell & Tube	Rotary Screw 102 358.7 10 167 Shell & Tube	Rotary Screw 123 432.5 10 198 Shell & Tube
COMPRESSOR CAPACITY ² CONDENSER EVAPORATOR REFRIGERANT ³	Type Tons KW # of FANS MODEL TYPE	Tandem Scroll 36.7 135.1 4 056 Brazed Plate HFC-410A	Tandem Scroll 46.4 164.3 4 074 Brazed Plate HFC-410A	Tandem Scroll 60.7 209.6 6 096 Brazed Plate HFC-410A	Rotary Screw 73 256.7 8 118 Shell & Tube HFC-407C	Rotary Screw 94 330.5 8 157 Shell & Tube HFC-407C	Rotary Screw 102 358.7 10 167 Shell & Tube HFC-407C	Rotary Screw 123 432.5 10 198 Shell & Tube HFC-407C
COMPRESSOR CAPACITY ² CONDENSER EVAPORATOR REFRIGERANT ³	Type Tons KW # of FANS MODEL TYPE HP	Tandem Scroll 36.7 135.1 4 056 Brazed Plate HFC-410A 7.5	Tandem Scroll 46.4 164.3 4 074 Brazed Plate HFC-410A 7.5	Tandem Scroll 60.7 209.6 6 096 Brazed Plate HFC-410A 7.5	Rotary Screw 73 256.7 8 118 Shell & Tube HFC-407C 10	Rotary Screw 94 330.5 8 157 Shell & Tube HFC-407C 15	Rotary Screw 102 358.7 10 167 Shell & Tube HFC-407C 20	Rotary Screw 123 432.5 10 198 Shell & Tube HFC-407C 20
COMPRESSOR CAPACITY ² CONDENSER EVAPORATOR REFRIGERANT ³ PROCESS PUMP	Type Tons KW # of FANS MODEL TYPE HP GPM	Tandem Scroll 36.7 135.1 4 056 Brazed Plate HFC-410A 7.5 96	Tandem Scroll 46.4 164.3 4 074 Brazed Plate HFC-410A 7.5 120	Tandem Scroll 60.7 209.6 6 096 Brazed Plate HFC-410A 7.5 144	Rotary Screw 73 256.7 8 118 Shell & Tube HFC-407C 10 175	Rotary Screw 94 330.5 8 157 Shell & Tube HFC-407C 15 226	Rotary Screw 102 358.7 10 167 Shell & Tube HFC-407C 20 245	Rotary Screw 123 432.5 10 198 Shell & Tube HFC-407C 20 312
COMPRESSOR CAPACITY ² CONDENSER EVAPORATOR REFRIGERANT ³ PROCESS PUMP	Type Tons KW # of FANS MODEL TYPE HP GPM PSI (water)	Tandem Scroll 36.7 135.1 4 056 Brazed Plate HFC-410A 7.5 96 65	Tandem Scroll 46.4 164.3 4 074 Brazed Plate HFC-410A 7.5 120 63	Tandem Scroll 60.7 209.6 6 096 Brazed Plate HFC-410A 7.5 144 60	Rotary Screw 73 256.7 8 118 Shell & Tube HFC-407C 10 175 60	Rotary Screw 94 330.5 8 157 Shell & Tube HFC-407C 15 226 70	Rotary Screw 102 358.7 10 167 Shell & Tube HFC-407C 20 245 65	Rotary Screw 123 432.5 10 198 Shell & Tube HFC-407C 20 312 65
COMPRESSOR CAPACITY ² CONDENSER EVAPORATOR REFRIGERANT ³ PROCESS PUMP EVAPORATOR PUMP	Type Tons KW # of FANS MODEL TYPE HP GPM PSI (water) HP	Tandem Scroll 36.7 135.1 4 056 Brazed Plate HFC-410A 7.5 96 65 Optional	Tandem Scroll 46.4 164.3 4 074 Brazed Plate HFC-410A 7.5 120 63 Optional	Tandem Scroll 60.7 209.6 6 096 Brazed Plate HFC-410A 7.5 144 60 5	Rotary Screw 73 256.7 8 118 Shell & Tube HFC-407C 10 175 60 5	Rotary Screw 94 330.5 8 157 Shell & Tube HFC-407C 15 226 70 7.5	Rotary Screw 102 358.7 10 167 Shell & Tube HFC-407C 20 245 65 7.5	Rotary Screw 123 432.5 10 198 Shell & Tube HFC-407C 20 312 65 7.5
COMPRESSOR CAPACITY ² CONDENSER EVAPORATOR REFRIGERANT ³ PROCESS PUMP EVAPORATOR PUMP STANDBY PUMP ⁴	Type Tons KW # of FANS MODEL TYPE HP GPM PSI (water) HP	Tandem Scroll 36.7 135.1 4 056 Brazed Plate HFC-410A 7.5 96 65 Optional	Tandem Scroll 46.4 164.3 4 074 Brazed Plate HFC-410A 7.5 120 63 Optional	Tandem Scroll 60.7 209.6 6 096 Brazed Plate HFC-410A 7.5 144 60 5 144	Rotary Screw 73 256.7 8 118 Shell & Tube HFC-407C 10 175 60 5 175	Rotary Screw 94 330.5 8 157 Shell & Tube HFC-407C 15 226 70 7.5 226	Rotary Screw 102 358.7 10 167 Shell & Tube HFC-407C 20 245 65 7.5 245	Rotary Screw 123 432.5 10 198 Shell & Tube HFC-407C 20 312 65 7.5 312
COMPRESSOR CAPACITY ² CONDENSER EVAPORATOR REFRIGERANT ³ PROCESS PUMP EVAPORATOR PUMP STANDBY PUMP ⁴	Type Tons KW # of FANS MODEL TYPE HP GPM PSI (water) HP GPM	Tandem Scroll 36.7 135.1 4 056 Brazed Plate HFC-410A 7.5 96 65 Optional A	Tandem Scroll 46.4 164.3 4 074 Brazed Plate HFC-410A 7.5 120 63 Optional A	Tandem Scroll 60.7 209.6 6 096 Brazed Plate HFC-410A 7.5 144 60 5 144 A	Rotary Screw 73 256.7 8 118 Shell & Tube HFC-407C 10 175 60 5 175 A	Rotary Screw 94 330.5 8 157 Shell & Tube HFC-407C 15 226 70 7.5 226 A	Rotary Screw 102 358.7 10 167 Shell & Tube HFC-407C 20 245 65 7.5 245 A	Rotary Screw 123 432.5 10 198 Shell & Tube HFC-407C 20 312 65 7.5 312 A
COMPRESSOR CAPACITY ² CONDENSER EVAPORATOR REFRIGERANT ³ PROCESS PUMP EVAPORATOR PUMP STANDBY PUMP ⁴ TANK	Type Tons KW # of FANS MODEL TYPE HP GPM PSI (water) HP GPM GALLONS	Tandem Scroll 36.7 135.1 4 056 Brazed Plate HFC-410A 7.5 96 65 Optional - A 130	Tandem Scroll 46.4 164.3 4 074 Brazed Plate HFC-410A 7.5 120 63 Optional A 130	Tandem Scroll 60.7 209.6 6 096 Brazed Plate HFC-410A 7.5 144 60 5 144 A 350	Rotary Screw 73 256.7 8 118 Shell & Tube HFC-407C 10 175 60 5 175 A 350	Rotary Screw 94 330.5 8 157 Shell & Tube HFC-407C 15 226 70 7.5 226 A 350	Rotary Screw 102 358.7 10 167 Shell & Tube HFC-407C 20 245 65 7.5 245 A 350	Rotary Screw 123 432.5 10 198 Shell & Tube HFC-407C 20 312 65 7.5 312 A 900
COMPRESSOR CAPACITY ² CONDENSER EVAPORATOR REFRIGERANT ³ PROCESS PUMP EVAPORATOR PUMP STANDBY PUMP ⁴ TANK CONNECTIONS	Type Tons KW # of FANS MODEL TYPE HP GPM PSI (water) HP GPM GPM GALLONS CONSTRUCTION ⁵	Tandem Scroll 36.7 135.1 4 056 Brazed Plate HFC-410A 7.5 96 65 Optional - A 130 PE	Tandem Scroll 46.4 164.3 4 074 Brazed Plate HFC-410A 7.5 120 63 Optional A 130 PE	Tandem Scroll 60.7 209.6 6 096 Brazed Plate HFC-410A 7.5 144 60 5 144 A 350 SS	Rotary Screw 73 256.7 8 118 Shell & Tube HFC-407C 10 175 60 5 175 A 350 SS	Rotary Screw 94 330.5 8 157 Shell & Tube HFC-407C 15 226 70 7.5 226 A 350 SS	Rotary Screw 102 358.7 10 167 Shell & Tube HFC-407C 20 245 65 7.5 245 A 350 SS	Rotary Screw 123 432.5 10 198 Shell & Tube HFC-407C 20 312 65 7.5 312 A 900 SS
COMPRESSOR CAPACITY ² CONDENSER EVAPORATOR REFRIGERANT ³ PROCESS PUMP EVAPORATOR PUMP STANDBY PUMP ⁴ TANK CONNECTIONS	Type Tons KW # of FANS MODEL TYPE HP GPM PSI (water) HP GPM GALLONS CONSTRUCTION ⁵ NPT / FLANGED	Tandem Scroll 36.7 135.1 4 056 Brazed Plate HFC-410A 7.5 96 65 Optional A 130 PE 2" N	Tandem Scroll 46.4 164.3 4 074 Brazed Plate HFC-410A 7.5 120 63 Optional A 130 PE 3" F	Tandem Scroll 60.7 209.6 6 096 Brazed Plate HFC-410A 7.5 144 60 5 144 A 350 SS 3" F	Rotary Screw 73 256.7 8 118 Shell & Tube HFC-407C 10 175 60 5 175 A 350 SS 4" F	Rotary Screw 94 330.5 8 157 Shell & Tube HFC-407C 15 226 70 7.5 226 A 350 SS 4" F	Rotary Screw 102 358.7 10 167 Shell & Tube HFC-407C 20 245 65 7.5 245 A 350 SS 4" F	Rotary Screw 123 432.5 10 198 Shell & Tube HFC-407C 20 312 65 7.5 312 A 900 SS 4" F
COMPRESSOR CAPACITY ² CONDENSER EVAPORATOR REFRIGERANT ³ PROCESS PUMP EVAPORATOR PUMP STANDBY PUMP ⁴ TANK CONNECTIONS	Type Tons KW # of FANS MODEL TYPE HP GPM PSI (water) HP GPM GALLONS CONSTRUCTION ⁵ NPT / FLANGED HEIGHT	Tandem Scroll 36.7 135.1 4 056 Brazed Plate HFC-410A 7.5 96 65 Optional A 130 PE 2" N 86	Tandem Scroll 46.4 164.3 4 074 Brazed Plate HFC-410A 7.5 120 63 Optional A 130 PE 3" F 86	Tandem Scroll 60.7 209.6 6 096 Brazed Plate HFC-410A 7.5 144 60 5 144 A 350 SS 3" F 99	Rotary Screw 73 256.7 8 118 Shell & Tube HFC-407C 10 175 60 5 175 A 350 SS 4" F 99	Rotary Screw 94 330.5 8 157 Shell & Tube HFC-407C 15 226 70 7.5 226 A 350 SS 4" F 99	Rotary Screw 102 358.7 10 167 Shell & Tube HFC-407C 20 245 65 7.5 245 A 350 SS 4" F 99	Rotary Screw 123 432.5 10 198 Shell & Tube HFC-407C 20 312 65 7.5 312 A 900 SS 4" F 99
COMPRESSOR CAPACITY ² CONDENSER EVAPORATOR REFRIGERANT ³ PROCESS PUMP EVAPORATOR PUMP STANDBY PUMP ⁴ TANK CONNECTIONS DIMENSIONS ⁶ (inches)	Type Tons KW # of FANS MODEL TYPE HP GPM PSI (water) HP GPM GPM GALLONS CONSTRUCTION ⁵ NPT / FLANGED HEIGHT WIDTH	Tandem Scroll 36.7 135.1 4 056 Brazed Plate HFC-410A 7.5 96 65 Optional A 130 PE 2" N 86 54	Tandem Scroll 46.4 164.3 4 074 Brazed Plate HFC-410A 7.5 120 63 Optional A 130 PE 3" F 86 90	Tandem Scroll 60.7 209.6 6 096 Brazed Plate HFC-410A 7.5 144 60 5 144 A 350 SS 3" F 99 90	Rotary Screw 73 256.7 8 118 Shell & Tube HFC-407C 10 175 60 5 175 A 350 SS 4" F 99 90	Rotary Screw 94 330.5 8 157 Shell & Tube HFC-407C 15 226 70 7.5 226 A 350 SS 4" F 99 90	Rotary Screw 102 358.7 10 167 Shell & Tube HFC-407C 20 245 65 7.5 245 A 350 SS 4" F 99 90	Rotary Screw 123 432.5 10 198 Shell & Tube HFC-407C 20 312 65 7.5 312 A 900 SS 4" F 99 90
COMPRESSOR CAPACITY ² CONDENSER EVAPORATOR REFRIGERANT ³ PROCESS PUMP EVAPORATOR PUMP STANDBY PUMP ⁴ TANK CONNECTIONS DIMENSIONS ⁶ (inches) CONTROL	Type Tons KW # of FANS MODEL TYPE HP GPM PSI (water) HP GPM GALLONS CONSTRUCTION ⁵ NPT / FLANGED HEIGHT WIDTH LENGTH	Tandem Scroll 36.7 135.1 4 056 Brazed Plate HFC-410A 7.5 96 65 Optional A 130 PE 2" N 86 54 186	Tandem Scroll 46.4 164.3 4 074 Brazed Plate HFC-410A 7.5 120 63 Optional A 130 PE 3" F 86 90 122	Tandem Scroll 60.7 209.6 6 096 Brazed Plate HFC-410A 7.5 144 60 5 144 A 350 SS 3" F 99 90 186	Rotary Screw 73 256.7 8 118 Shell & Tube HFC-407C 10 175 60 5 175 A 350 SS 4" F 99 90 240	Rotary Screw 94 330.5 8 157 Shell & Tube HFC-407C 15 226 70 7.5 226 A 350 SS 4" F 99 90 240	Rotary Screw 102 358.7 10 167 Shell & Tube HFC-407C 20 245 65 7.5 245 A 350 SS 4" F 99 90 300	Rotary Screw 123 432.5 10 198 Shell & Tube HFC-407C 20 312 65 7.5 312 A 900 SS 4" F 99 90 300
COMPRESSOR CAPACITY ² CONDENSER EVAPORATOR REFRIGERANT ³ PROCESS PUMP EVAPORATOR PUMP STANDBY PUMP ⁴ TANK CONNECTIONS DIMENSIONS ⁶ (inches) CONTROL	Type Tons KW # of FANS MODEL TYPE HP GPM PSI (water) HP GPM GPM GPM CONSTRUCTION ⁵ NPT / FLANGED HEIGHT WIDTH LENGTH STANDARD	Tandem Scroll 36.7 135.1 4 056 Brazed Plate HFC-410A 7.5 96 65 Optional A 130 PE 2" N 86 54 186 M1	Tandem Scroll 46.4 164.3 4 074 Brazed Plate HFC-410A 7.5 120 63 Optional A 130 PE 3" F 86 90 122 M1	Tandem Scroll 60.7 209.6 6 096 Brazed Plate HFC-410A 7.5 144 60 5 144 A 350 SS 3" F 99 90 186 M1	Rotary Screw 73 256.7 8 118 Shell & Tube HFC-407C 10 175 60 5 175 A 350 SS 4" F 99 90 240 MZC	Rotary Screw 94 330.5 8 157 Shell & Tube HFC-407C 15 226 70 7.5 226 A 350 SS 4" F 99 90 240 MZC	Rotary Screw 102 358.7 10 167 Shell & Tube HFC-407C 20 245 65 7.5 245 A 350 SS 4" F 99 90 300 MZC	Rotary Screw 123 432.5 10 198 Shell & Tube HFC-407C 20 312 65 7.5 312 A 900 SS 4" F 99 90 300 MZC
MODEL ³ COMPRESSOR CAPACITY ² CONDENSER EVAPORATOR REFRIGERANT ³ PROCESS PUMP EVAPORATOR PUMP ⁴ TANK CONNECTIONS DIMENSIONS ⁶ (inches) CONTROL SYSTEM AMPERAGE ⁷ FACTORY #	Type Tons KW # of FANS MODEL TYPE HP GPM PSI (water) HP GPM GPM GPM CONSTRUCTION ⁵ NPT / FLANGED HEIGHT WIDTH LENGTH STANDARD FLA (460v)	Tandem Scroll 36.7 135.1 4 056 Brazed Plate HFC-410A 7.5 96 65 Optional A 130 PE 2" N 86 54 186 M1 87.5	Tandem Scroll 46.4 164.3 4 074 Brazed Plate HFC-410A 7.5 120 63 Optional A 130 PE 3" F 86 90 122 M1 109.2	Tandem Scroll 60.7 209.6 6 096 Brazed Plate HFC-410A 7.5 144 60 5 144 A 350 SS 3" F 99 90 186 M1 157.2	Rotary Screw 73 256.7 8 118 Shell & Tube HFC-407C 10 175 60 5 175 A 350 SS 4" F 99 90 240 MZC 214	Rotary Screw 94 330.5 8 157 Shell & Tube HFC-407C 15 226 70 7.5 226 A 350 SS 4" F 99 90 240 MZC 242	Rotary Screw 102 358.7 10 167 Shell & Tube HFC-407C 20 245 65 7.5 245 A 350 SS 4" F 99 90 300 MZC 291	Rotary Screw 123 432.5 10 198 Shell & Tube HFC-407C 20 312 65 7.5 312 A 900 SS 4" F 99 90 300 MZC 321

Notes

1. Since product innovation and improvement is our constant goal, all features and specifications are subject to change

without notice or liability. Selection of certain optional features may change listed specifications.

2. Tons of capacity at 12,000 Btu/hr/ton @ 50°F LWT @ 115°F condensing temperature. +/- 5% as reserved by compressor manufacturer

3. This is a non-ozone depleting refrigerant.

4. A = standby pump is available for this model. N/A = Standby pump is not available for this unit.

5. PE = polyethylene reservoirs. SS = stainless steel reservoir.

6. Dimensions are approximate and may change based on options and features selected. Do not use for construction.

7. FLA: full load amps with standard pumps and condenser. RLA: run load amps with standard pumps and condenser.

Optional standby pumps, larger pumps or alternate condensers may change this rating. Do not use for construction.

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ADVANTAGE PRODUCTS: TEMPERATURE CONTROLLERS • PORTABLE CHILLERS • CENTRAL CHILLERS • PUMP TANK STATIONS • TOWER SYSTEMS • FILTERS

ADVANTAGE ENGINEERING, INC. 525 East Stop 18 Road Greenwood, IN 46142 phone: 317-887-0729 fax: 317-881-1277 web site: www.AdvantageEngineering.com email: sales@AdvantageEngineering.com @2010 ADVANTAGE ENGINEERING, INC. Form #ADV-687 update 3/26/10 Since PRODUCT INNOVATION AND IMPROVEMENT IS OUR CONSTANT GOAL, ALL FEATURES AND SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE OR LIABILITY.

SPECIFICATIONS OACS Central Liquid Chillers : 20 - 210 Tons Dual Zone Units

MODEL	OACS -	20D-MZC-2P	30D-MZC-2P	40D-MZC-2P	50D-MZC-2P	60D-MZC-2P		
COMPRESSOR	Туре	Scroll	Scroll	Scroll	Scroll	Scroll		
# OF ZONES		2	2	2	2	2		
	Tons	19.6	29	37	46.2	60		
	KW	68.8	101.8	129.8	162.1	210.5		
CONDENSER	# of FANS	2	4	4	6	6		
	MODEL	(2)017	(2)025	(2)032	(2)041	(2)050		
EVAPORATOR	TYPE	Brazed Plate	Brazed Plate	Brazed Plate	Brazed Plate	Brazed Plate		
REFRIGERANT ³		HFC-410A	HFC-410A	HFC-410A	HFC-410A	HFC-410A		
PROCESS PUMP	HP	3	5	7.5	7.5	7.5		
	GPM	48	72	96	120	144		
	PSI (water)	48	57	65	63	60		
EVAPORATOR PUMP	HP	2	2	3	3	5		
	GPM	48	72	96	120	144		
STANDBY PUMP ⁴		A	A	A	A	A		
TANK	GALLONS	130	130	130	130	350		
		PE	PE	PE	PE	SS		
CONNECTIONS	NPT / FLANGED	2" N	2" N	2" N	3" N	3" N		
DIMENSIONS ⁶ (inches)	HEIGHT	99	99	99	99	99		
	WIDTH	96	96	96	96	96		
	LENGTH	78	132	132	186	186		
CONTROL	STANDARD	MZC	MZC	MZC	MZC	MZC		
	EL 4 (400)	57.0	93.0	116.2	140.6	161.4		
SYSTEM AMPERAGE ⁷	FLA (460V)							
SYSTEM AMPERAGE ⁷	FLA (460v) RLA (460v)	47.2	82.6	101.2	110.4	143.4		
SYSTEM AMPERAGE ⁷	PLA (460v) RLA (460v) 926		82.6 8109	101.2 8209	110.4 8309	143.4 8409		
	RLA (460v)	47.2						
	RLA (460v)	47.2					210D-MZC-2P	
FACTORY #	RLA (460v) 926	47.2 8009	8109	8209	8309	8409	210D-MZC-2P Rotary Screw	
FACTORY #	RLA (460v) 926 OACS -	47.2 8009 80D-MZC-2P	8109 100D-MZC-2P	8209 120D-MZC-2P	8309 150D-MZC-2P	8409 190D-MZC-2P		
FACTORY # MODEL ¹ COMPRESSOR	RLA (460v) 926 OACS -	47.2 8009 80D-MZC-2P Tandem Scroll	8109 100D-MZC-2P Tandem Scroll	8209 120D-MZC-2P Tandem Scroll	8309 150D-MZC-2P Rotary Screw	8409 190D-MZC-2P Rotary Screw	Rotary Screw	
FACTORY # MODEL ¹ COMPRESSOR # OF ZONES	RLA (460v) 926 OACS - Type	47.2 8009 80D-MZC-2P Tandem Scroll 2	8109 100D-MZC-2P Tandem Scroll 2	8209 120D-MZC-2P Tandem Scroll 2	8309 150D-MZC-2P Rotary Screw 2	8409 190D-MZC-2P Rotary Screw 2	Rotary Screw 2	
FACTORY # MODEL ¹ COMPRESSOR # OF ZONES	RLA (460v) 926 OACS - Type Tons	47.2 8009 80D-MZC-2P Tandem Scroll 2 73.4	8109 100D-MZC-2P Tandem Scroll 2 93.7	8209 120D-MZC-2P Tandem Scroll 2 119.5	8309 150D-MZC-2P Rotary Screw 2 146	8409 190D-MZC-2P Rotary Screw 2 188	Rotary Screw 2 204	
FACTORY # MODEL ¹ COMPRESSOR # OF ZONES CAPACITY ²	RLA (460v) 926 OACS - Type Tons KW	47.2 8009 80D-MZC-2P Tandem Scroll 2 73.4 257.6	8109 100D-MZC-2P Tandem Scroll 2 93.7 328.7	8209 120D-MZC-2P Tandem Scroll 2 119.5 419.3	8309 150D-MZC-2P Rotary Screw 2 146 513.4	8409 190D-MZC-2P Rotary Screw 2 188 661.1	Rotary Screw 2 204 717.4	
FACTORY # MODEL ¹ COMPRESSOR # OF ZONES CAPACITY ²	RLA (460v) 926 OACS - Type Tons KW # of FANS K	47.2 8009 80D-MZC-2P Tandem Scroll 2 73.4 257.6 8	8109 100D-MZC-2P Tandem Scroll 2 93.7 328.7 8	8209 120D-MZC-2P Tandem Scroll 2 119.5 419.3 10	8309 150D-MZC-2P Rotary Screw 2 146 513.4 14	8409 190D-MZC-2P Rotary Screw 2 188 661.1 14	Rotary Screw 2 204 717.4 14	
FACTORY # MODEL ¹ COMPRESSOR # OF ZONES CAPACITY ² CONDENSER	RLA (460v) 926 OACS - Type Tons KW # of FANS MODEL	47.2 8009 80D-MZC-2P Tandem Scroll 2 73.4 257.6 8 (2)064	8109 100D-MZC-2P Tandem Scroll 2 93.7 328.7 8 (2)079	8209 120D-MZC-2P Tandem Scroll 2 119.5 419.3 10 (2)095	8309 150D-MZC-2P Rotary Screw 2 146 513.4 14 (2)115	8409 190D-MZC-2P Rotary Screw 2 188 661.1 14 (2)135	Rotary Screw 2 204 717.4 14 (2)135	
FACTORY # MODEL ¹ COMPRESSOR # OF ZONES CAPACITY ² CONDENSER EVAPORATOR	RLA (460v) 926 OACS - Type Tons KW # of FANS MODEL	47.2 8009 80D-MZC-2P Tandem Scroll 2 73.4 257.6 8 (2)064 Brazed Plate	8109 100D-MZC-2P Tandem Scroll 2 93.7 328.7 8 (2)079 Brazed Plate	8209 120D-MZC-2P Tandem Scroll 2 119.5 419.3 10 (2)095 Brazed Plate	8309 150D-MZC-2P Rotary Screw 2 146 513.4 14 (2)115 Shell & Tube	8409 190D-MZC-2P Rotary Screw 2 188 661.1 14 (2)135 Shell & Tube	Rotary Screw 2 204 717.4 14 (2)135 Shell & Tube	
FACTORY # MODEL ¹ COMPRESSOR # OF ZONES CAPACITY ² CONDENSER EVAPORATOR REFRIGERANT ³	RLA (460v) 926 OACS - Type Tons KW # of FANS MODEL TYPE	47.2 8009 80D-MZC-2P Tandem Scroll 2 73.4 257.6 8 (2)064 Brazed Plate HFC-410A	8109 100D-MZC-2P Tandem Scroll 2 93.7 328.7 8 (2)079 Brazed Plate HFC-410A	8209 120D-MZC-2P Tandem Scroll 2 119.5 419.3 10 (2)095 Brazed Plate HFC-410A	8309 150D-MZC-2P Rotary Screw 2 146 513.4 14 (2)115 Shell & Tube HFC-407C	8409 190D-MZC-2P Rotary Screw 2 188 661.1 14 (2)135 Shell & Tube HFC-407C	Rotary Screw 2 204 717.4 14 (2)135 Shell & Tube HFC-407C	
FACTORY # MODEL ¹ COMPRESSOR # OF ZONES CAPACITY ² CONDENSER EVAPORATOR REFRIGERANT ³	RLA (460v) 926 OACS - Type Tons KW # of FANS MODEL TYPE HP	47.2 8009 80D-MZC-2P Tandem Scroll 2 73.4 257.6 8 (2)064 Brazed Plate HFC-410A 10	8109 100D-MZC-2P Tandem Scroll 2 93.7 328.7 8 (2)079 Brazed Plate HFC-410A 15	8209 120D-MZC-2P Tandem Scroll 2 119.5 419.3 10 (2)095 Brazed Plate HFC-410A 20	8309 150D-MZC-2P Rotary Screw 2 146 513.4 14 (2)115 Shell & Tube HFC-407C 25	8409 190D-MZC-2P Rotary Screw 2 188 661.1 14 (2)135 Shell & Tube HFC-407C 30	Rotary Screw 2 204 717.4 14 (2)135 Shell & Tube HFC-407C 30	
FACTORY # MODEL ¹ COMPRESSOR # OF ZONES CAPACITY ² CONDENSER EVAPORATOR REFRIGERANT ³	RLA (460v) 926 OACS - Type Tons KW # of FANS MODEL TYPE HP GPM	47.2 8009 80D-MZC-2P Tandem Scroll 2 73.4 257.6 8 (2)064 Brazed Plate HFC-410A 10 192	8109 100D-MZC-2P Tandem Scroll 2 93.7 328.7 8 (2)079 Brazed Plate HFC-410A 15 240	8209 120D-MZC-2P Tandem Scroll 2 119.5 419.3 10 (2)095 Brazed Plate HFC-410A 20 288	8309 150D-MZC-2P Rotary Screw 2 146 513.4 14 (2)115 Shell & Tube HFC-407C 25 350	8409 190D-MZC-2P Rotary Screw 2 188 661.1 14 (2)135 Shell & Tube HFC-407C 30 451	Rotary Screw 2 204 717.4 14 (2)135 Shell & Tube HFC-407C 30 490	
FACTORY # MODEL ¹ COMPRESSOR # OF ZONES CAPACITY ² CONDENSER EVAPORATOR REFRIGERANT ³ PROCESS PUMP	RLA (460v) 926 OACS - Type Tons KW # of FANS MODEL TYPE HP GPM PSI (water)	47.2 8009 80D-MZC-2P Tandem Scroll 2 73.4 257.6 8 (2)064 Brazed Plate HFC-410A 10 192 60	8109 100D-MZC-2P Tandem Scroll 2 93.7 328.7 8 (2)079 Brazed Plate HFC-410A 15 240 70	8209 120D-MZC-2P Tandem Scroll 2 119.5 419.3 10 (2)095 Brazed Plate HFC-410A 20 288 69	8309 150D-MZC-2P Rotary Screw 2 146 513.4 14 (2)115 Shell & Tube HFC-407C 25 350 60	8409 190D-MZC-2P Rotary Screw 2 188 661.1 14 (2)135 Shell & Tube HFC-407C 30 451 60	Rotary Screw 2 204 717.4 14 (2)135 Shell & Tube HFC-407C 30 490 60	
FACTORY # MODEL ¹ COMPRESSOR # OF ZONES CAPACITY ² CONDENSER EVAPORATOR REFRIGERANT ³ PROCESS PUMP	RLA (460v) 926 OACS - Type Tons KW # of FANS MODEL TYPE HP GPM PSI (water) HP	47.2 8009 80D-MZC-2P Tandem Scroll 2 73.4 257.6 8 (2)064 Brazed Plate HFC-410A 10 192 60 5	8109 100D-MZC-2P Tandem Scroll 2 93.7 328.7 8 (2)079 Brazed Plate HFC-410A 15 240 70 7.5	8209 120D-MZC-2P Tandem Scroll 2 119.5 419.3 10 (2)095 Brazed Plate HFC-410A 20 288 69 7.5	8309 150D-MZC-2P Rotary Screw 2 146 513.4 14 (2)115 Shell & Tube HFC-407C 25 350 60 10	8409 190D-MZC-2P Rotary Screw 2 188 661.1 14 (2)135 Shell & Tube HFC-407C 30 451 60 15	Rotary Screw 2 204 717.4 14 (2)135 Shell & Tube HFC-407C 30 490 60 15	
FACTORY # MODEL ¹ COMPRESSOR # OF ZONES CAPACITY ² CONDENSER EVAPORATOR REFRIGERANT ³ PROCESS PUMP EVAPORATOR PUMP	RLA (460v) 926 OACS - Type Tons KW # of FANS MODEL TYPE HP GPM PSI (water) HP	47.2 8009 80D-MZC-2P Tandem Scroll 2 73.4 257.6 8 (2)064 Brazed Plate HFC-410A 10 192 60 5 192	8109 100D-MZC-2P Tandem Scroll 2 93.7 328.7 8 (2)079 Brazed Plate HFC-410A 15 240 70 7.5 240	8209 120D-MZC-2P Tandem Scroll 2 119.5 419.3 10 (2)095 Brazed Plate HFC-410A 20 288 69 7.5 288	8309 150D-MZC-2P Rotary Screw 2 146 513.4 14 (2)115 Shell & Tube HFC-407C 25 350 60 10 350	8409 190D-MZC-2P Rotary Screw 2 188 661.1 14 (2)135 Shell & Tube HFC-407C 30 451 60 15 451	Rotary Screw 2 204 717.4 14 (2)135 Shell & Tube HFC-407C 30 490 60 15 490	
FACTORY # MODEL ¹ COMPRESSOR # OF ZONES CAPACITY ² CONDENSER EVAPORATOR REFRIGERANT ³ PROCESS PUMP EVAPORATOR PUMP STANDBY PUMP ⁴	RLA (460v) 926 OACS - Type Tons KW # of FANS MODEL TYPE HP GPM PSI (water) HP GPM	47.2 8009 80D-MZC-2P Tandem Scroll 2 73.4 257.6 8 (2)064 Brazed Plate HFC-410A 10 192 60 5 192 A	8109 100D-MZC-2P Tandem Scroll 2 93.7 328.7 8 (2)079 Brazed Plate HFC-410A 15 240 70 7.5 240 A	8209 120D-MZC-2P Tandem Scroll 2 119.5 419.3 10 (2)095 Brazed Plate HFC-410A 20 288 69 7.5 288 A	8309 150D-MZC-2P Rotary Screw 2 146 513.4 14 (2)115 Shell & Tube HFC-407C 25 350 60 10 350 A	8409 190D-MZC-2P Rotary Screw 2 188 661.1 14 (2)135 Shell & Tube HFC-407C 30 451 60 15 451 A	Rotary Screw 2 204 717.4 14 (2)135 Shell & Tube HFC-407C 30 490 60 15 490 A	
FACTORY # MODEL ¹ COMPRESSOR # OF ZONES CAPACITY ² CONDENSER EVAPORATOR REFRIGERANT ³ PROCESS PUMP EVAPORATOR PUMP STANDBY PUMP ⁴	RLA (460v) 926 OACS - Type Tons KW # of FANS MODEL TYPE HP GPM PSI (water) HP GPM GALLONS	47.2 8009 80D-MZC-2P Tandem Scroll 2 73.4 257.6 8 (2)064 Brazed Plate HFC-410A 10 192 60 5 5 192 A 350	8109 100D-MZC-2P Tandem Scroll 2 93.7 328.7 8 (2)079 Brazed Plate HFC-410A 15 240 70 7.5 240 A 350	8209 120D-MZC-2P Tandem Scroll 2 119.5 419.3 10 (2)095 Brazed Plate HFC-410A 20 288 69 7.5 288 A 350	8309 150D-MZC-2P Rotary Screw 2 146 513.4 14 (2)115 Shell & Tube HFC-407C 25 350 60 10 350 A 900	8409 190D-MZC-2P Rotary Screw 2 188 661.1 14 (2)135 Shell & Tube HFC-407C 30 451 60 15 451 A 900	Rotary Screw 2 204 717.4 14 (2)135 Shell & Tube HFC-407C 30 490 60 15 490 A 900	
FACTORY # MODEL ¹ COMPRESSOR # OF ZONES CAPACITY ² CONDENSER EVAPORATOR REFRIGERANT ³ PROCESS PUMP EVAPORATOR PUMP STANDBY PUMP ⁴ TANK	RLA (460v) 926 OACS - Type Tons KW # of FANS MODEL TYPE HP GPM PSI (water) HP GPM GALLONS CONSTRUCTION ⁵	47.2 8009 80D-MZC-2P Tandem Scroll 2 73.4 257.6 8 (2)064 Brazed Plate HFC-410A 10 192 60 5 5 192 A 350 SS	8109 100D-MZC-2P Tandem Scroll 2 93.7 328.7 8 (2)079 Brazed Plate HFC-410A 15 240 70 7.5 240 A 350 SS	8209 120D-MZC-2P Tandem Scroll 2 119.5 419.3 10 (2)095 Brazed Plate HFC-410A 20 288 69 7.5 288 A 350 SS	8309 150D-MZC-2P Rotary Screw 2 146 513.4 14 (2)115 Shell & Tube HFC-407C 25 350 60 10 350 A 900 SS	8409 190D-MZC-2P Rotary Screw 2 188 661.1 14 (2)135 Shell & Tube HFC-407C 30 451 60 15 451 A 900 SS	Rotary Screw 2 204 717.4 14 (2)135 Shell & Tube HFC-407C 30 490 60 15 490 A 900 SS	
FACTORY # MODEL ¹ COMPRESSOR # OF ZONES CAPACITY ² CONDENSER EVAPORATOR REFRIGERANT ³ PROCESS PUMP EVAPORATOR PUMP STANDBY PUMP ⁴ TANK CONTROL	RLA (460v) 926 OACS - Type Tons KW # of FANS MODEL TYPE HP GPM PSI (water) HP GPM PSI (water) HP GPM NDT / FLANGED	47.2 8009 80D-MZC-2P Tandem Scroll 2 73.4 257.6 8 (2)064 Brazed Plate HFC-410A 10 192 60 5 192 A 350 SS 4" F	8109 100D-MZC-2P Tandem Scroll 2 93.7 328.7 8 (2)079 Brazed Plate HFC-410A 15 240 70 7.5 240 A 350 SS 4" F	8209 120D-MZC-2P Tandem Scroll 2 119.5 419.3 10 (2)095 Brazed Plate HFC-410A 20 288 69 7.5 288 A 350 SS 4" F	8309 150D-MZC-2P Rotary Screw 2 146 513.4 14 (2)115 Shell & Tube HFC-407C 25 350 60 10 350 A 900 SS 6" F	8409 190D-MZC-2P Rotary Screw 2 188 661.1 14 (2)135 Shell & Tube HFC-407C 30 451 60 15 451 A 900 SS 6" F	Rotary Screw 2 204 717.4 14 (2)135 Shell & Tube HFC-407C 30 490 60 15 490 A 900 SS 6" F	
FACTORY # MODEL ¹ COMPRESSOR # OF ZONES CAPACITY ² CONDENSER EVAPORATOR REFRIGERANT ³ PROCESS PUMP EVAPORATOR PUMP STANDBY PUMP ⁴ TANK CONTROL	RLA (460v) 926 OACS - Type Tons KW # of FANS MODEL TYPE HP GPM PSI (water) HP GPM PSI (water) HP GPM PSI (water) HP GPM STALLONS CONSTRUCTION ⁵ NPT / FLANGED STANDARD	47.2 8009 80D-MZC-2P Tandem Scroll 2 73.4 257.6 8 (2)064 Brazed Plate HFC-410A 10 192 60 5 5 192 A 350 SS 4" F MZC	8109 100D-MZC-2P Tandem Scroll 2 93.7 328.7 8 (2)079 Brazed Plate HFC-410A 15 240 70 7.5 240 A 350 SS 4" F MZC	8209 120D-MZC-2P Tandem Scroll 2 119.5 419.3 10 (2)095 Brazed Plate HFC-410A 20 288 69 7.5 288 A 350 SS 4" F MZC	8309 150D-MZC-2P Rotary Screw 2 146 513.4 14 (2)115 Shell & Tube HFC-407C 25 350 60 10 350 A 900 SS 6" F MZC	8409 190D-MZC-2P Rotary Screw 2 188 661.1 14 (2)135 Shell & Tube HFC-407C 30 451 60 15 451 A 900 SS 6" F MZC	Rotary Screw 2 204 717.4 14 (2)135 Shell & Tube HFC-407C 30 490 60 15 490 A 900 SS 6" F MZC	
FACTORY # MODEL ¹ COMPRESSOR # OF ZONES CAPACITY ² CONDENSER EVAPORATOR REFRIGERANT ³ PROCESS PUMP EVAPORATOR PUMP STANDBY PUMP ⁴ TANK CONTROL	RLA (460v) 926 OACS - Type Tons KW # of FANS MODEL TYPE HP GPM PSI (water) HP GPM GALLONS CONSTRUCTION ⁵ NPT / FLANGED STANDARD HEIGHT WIDTH	47.2 8009 80D-MZC-2P Tandem Scroll 2 73.4 257.6 8 (2)064 Brazed Plate HFC-410A 10 192 60 5 5 192 A 350 SS 4" F MZC 99	8109 100D-MZC-2P Tandem Scroll 2 93.7 328.7 8 (2)079 Brazed Plate HFC-410A 15 240 70 7.5 240 A 350 SS 4" F MZC 99	8209 120D-MZC-2P Tandem Scroll 2 119.5 419.3 10 (2)095 Brazed Plate HFC-410A 20 288 69 7.5 288 A 350 SS 4" F MZC 99	8309 150D-MZC-2P Rotary Screw 2 146 513.4 14 (2)115 Shell & Tube HFC-407C 25 350 60 10 350 A 900 SS 6" F MZC 99	8409 190D-MZC-2P Rotary Screw 2 188 661.1 14 (2)135 Shell & Tube HFC-407C 30 451 60 15 451 A 900 SS 6" F MZC 99	Rotary Screw 2 204 717.4 14 (2)135 Shell & Tube HFC-407C 30 490 60 15 490 A 900 SS 6" F MZC 99	
FACTORY # MODEL ¹ COMPRESSOR # OF ZONES CAPACITY ² CONDENSER EVAPORATOR REFRIGERANT ³ PROCESS PUMP EVAPORATOR PUMP ⁴ TANK CONTROL DIMENSIONS ⁶ (nches)	RLA (460v) 926 OACS - Type Tons KW # of FANS MODEL TYPE HP GPM PSI (water) HP GPM GALLONS CONSTRUCTION ⁵ NPT / FLANGED STANDARD HEIGHT WIDTH	47.2 8009 80D-MZC-2P Tandem Scroll 2 73.4 257.6 8 (2)064 Brazed Plate HFC-410A 10 192 60 5 5 192 A 350 SS 4" F MZC 99 96	8109 100D-MZC-2P Tandem Scroll 2 93.7 328.7 8 (2)079 Brazed Plate HFC-410A 15 240 70 7.5 240 A 350 SS 4" F MZC 99 96	8209 120D-MZC-2P Tandem Scroll 2 119.5 419.3 10 (2)095 Brazed Plate HFC-410A 20 288 69 7.5 288 A 350 SS 4" F MZC 99 96	8309 150D-MZC-2P Rotary Screw 2 146 513.4 14 (2)115 Shell & Tube HFC-407C 25 350 60 10 350 A 900 SS 6" F MZC 99 96	8409 190D-MZC-2P Rotary Screw 2 188 661.1 14 (2)135 Shell & Tube HFC-407C 30 451 60 15 451 A 900 SS 6" F MZC 99 96	Rotary Screw 2 204 717.4 14 (2)135 Shell & Tube HFC-407C 30 490 60 15 490 60 SS 6" F MZC 99 96	
FACTORY # MODEL ¹ COMPRESSOR # OF ZONES CAPACITY ² CONDENSER EVAPORATOR REFRIGERANT ³ PROCESS PUMP EVAPORATOR PUMP ⁴ TANK CONTROL DIMENSIONS ⁶ (nches)	RLA (460v) 926 OACS - Type Tons KW # of FANS MODEL TYPE HP GPM PSI (water) HP GPM GPM GPM STANDARD NPT / FLANGED STANDARD HEIGHT WIDTH LENGTH	47.2 8009 80D-MZC-2P Tandem Scroll 2 73.4 257.6 8 (2)064 Brazed Plate HFC-410A 10 192 60 5 5 192 A 350 SS 4" F MZC 99 99 96 240	8109 100D-MZC-2P Tandem Scroll 2 93.7 328.7 8 (2)079 Brazed Plate HFC-410A 15 240 70 7.5 240 A 350 SS 4" F MZC 99 96 240	8209 120D-MZC-2P Tandem Scroll 2 119.5 419.3 10 (2)095 Brazed Plate HFC-410A 20 288 69 7.5 288 A 350 SS 4" F MZC 99 96 296	8309 150D-MZC-2P Rotary Screw 2 146 513.4 14 (2)115 Shell & Tube HFC-407C 25 350 60 10 350 A 900 SS 6" F MZC 99 96 360	8409 190D-MZC-2P Rotary Screw 2 188 661.1 14 (2)135 Shell & Tube HFC-407C 30 451 60 15 451 A 900 SS 6" F MZC 99 96 408	Rotary Screw 2 204 717.4 14 (2)135 Shell & Tube HFC-407C 30 490 60 15 490 60 15 490 SS 6" F MZC 99 96 408	

Notes
1. Since product innovation and improvement is our constant goal, all features and specifications are subject to change without notice or liability.
Selection of certain optional features may change listed specifications. 2. Tons of capacity at 12,000 Btu/hr/ton @ 50°F LWT @ 115°F
condensing temperature. +/- 5% as reserved by compressor manufacturer. 3. This is a non-zorne depleting refrigerant. 4. A = standby pump is
available for this model. N/A = Standby pump is not available for this unit. 5. PE = polyethylene reservoirs. SS = stainless steel reservoir.
6. Dimensions are approximate and may change based on options and features selected. Do not use for construction. 7. FLA: full load amps with standard pumps and condenser. RLA: run load amps with standard pumps and condenser. Optional standby pumps, larger pumps or alternate condensers may change this rating. Do not use for construction.



ADVANTAGE PRODUCTS: TEMPERATURE CONTROLLERS • PORTABLE CHILLERS • CENTRAL CHILLERS • PUMP TANK STATIONS • TOWER SYSTEMS • FILTERS

ADVANTAGE ENGINEERING, INC. 525 East Stop 18 Road Greenwood, IN 46142 phone: 317-887-0729 fax: 317-881-1277 web site: www.AdvantageEngineering.com email: sales @ AdvantageEngineering.com @2010 ADVANTAGE ENGINEERING, INC. Form #ADV-687 update 3/26/10 SINCE PRODUCT INNOVATION AND IMPROVEMENT IS OUR CONSTANT GOAL, ALL FEATURES AND SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE OR LIABILITY.