

Group: Chiller

Part Number: 331373301

Date: July 2008

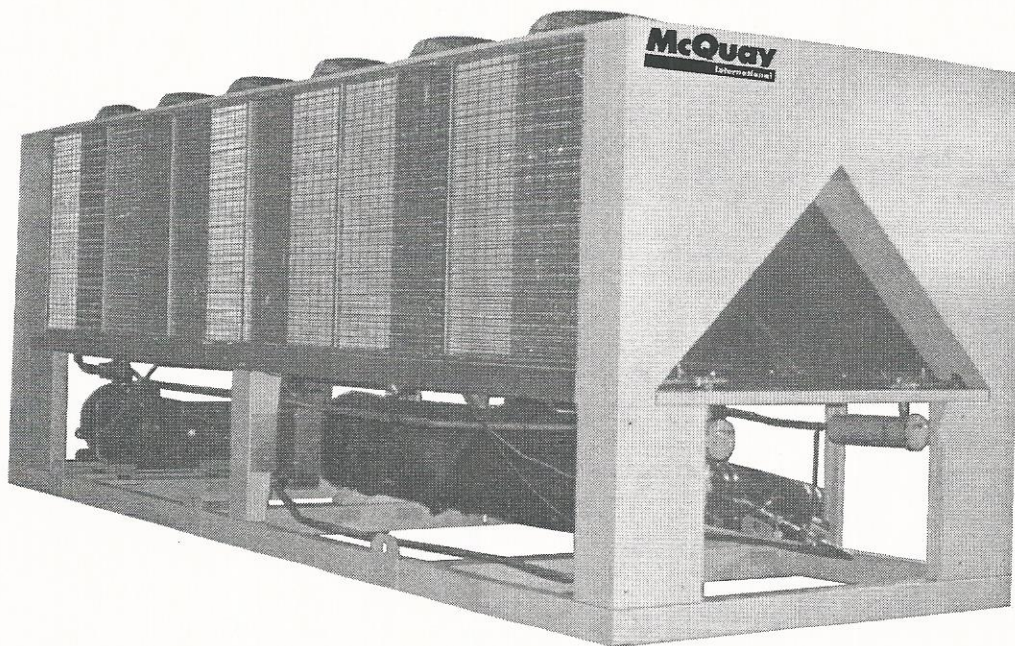
Supersedes: March 2008

Air-Cooled Screw Compressor Chiller

AGS 120CS/H - AGS 210CS/H, Packaged

AGS 120CM/B - AHS 210CM/B, Remote Evaporator

60 Hertz, R-134a



HIGH-AMBIENT OPTION

MODEL #: AGS210CH27-ER10

S/N: STNU060300123

YR: 2006

210 TONS

460-3-60

R-134A

Introduction

General Description

McQuay **GeneSys™** air-cooled water chillers are complete, self-contained automatic refrigerating units that include the latest in engineered components arranged to provide a compact and efficient unit. Each unit is completely assembled, factory wired, evacuated, charged, tested and comes complete and ready for installation. Each unit consists of two air-cooled condenser sections with integral subcooler sections, two semi-hermetic, single-screw compressors with solid-state starters, a two-circuit shell-and-tube direct expansion evaporator, and complete refrigerant piping. Each compressor has an independent refrigeration circuit. Liquid line components included are manual liquid line shutoff valves, charging ports, filter-driers, sight-glass/moisture indicators, solenoid valves and electronic expansion valves. A discharge shutoff valve is included and a compressor suction shutoff valve is optional. Other features include compressor heaters, evaporator heaters for freeze protection, automatic one-time pumpdown of each refrigerant circuit upon circuit shutdown, and an advanced fully integrated microprocessor control system.

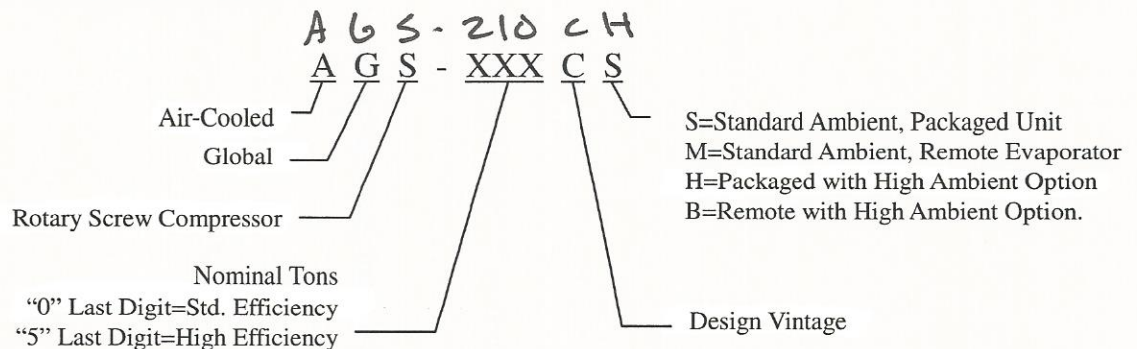
AGS units are divided between standard efficiency (model numbers ending in “0”) and high efficiency units (ending in “5”). The high efficiency units have certain larger components.

The units are optionally available with the evaporator shipped separately for remote mounting indoors.

A high ambient option is required for operation in ambient temperatures above 115°F (46°C), or 105°F (41°C) on units equipped with optional fan VFDs.

Information on the operation of the unit MicroTech II controller is in the OM AGS manual.

Nomenclature



Inspection

When the equipment is received, carefully check all items against the bill of lading to check for a complete shipment. Check all units for damage upon arrival. All shipping damage must be reported to the carrier and a claim must be filed with the carrier. Check the unit’s serial plate before unloading the unit to be sure that it agrees with the power supply available. Physical damage to unit after acceptance is not the responsibility of McQuay International.

Note: Unit shipping and operating weights are shown in the Physical Data Tables on page 26 for packaged units and page 60 for remote evaporator models.

Table 18, Physical Data, AGS 190C – AGS 210C

DATA	AGS 190C		AGS 210C	
	Ckt 1	Ckt 2	Ckt 1	Ckt 2
BASIC DATA				
Unit Cap. @ 44°F LWT, 95°F Ambient Temperature kW, (tons)	185.6 (653)		201.2 (707)	
Unit Operating Charge lbs (kg)	172 (78)	172 (78)	201 (91)	201 (91)
Cabinet Dimensions L x W x H, in. (mm)	225 x 89 x 101 5715 x 2261 x 2565		263 x 89 x 101 6680 x 2261 x 2565	
Unit Operating Weight, lbs. (kg)	11277 (5120)		11928 (5415)	
Unit Shipping Weight, lbs (kg)	10552 (4791)		11011 (4999)	
Economizer	Yes		Yes	
COMPRESSORS, SCREW, SEMI-HERMETIC				
Nominal Capacity, tons (kW)	95 (334)	95 (334)	95 (334)	95 (334)
CONDENSERS, HIGH EFFICIENCY FIN AND TUBE TYPE WITH INTEGRAL SUBCOOLER				
Pumpdown Capacity, lbs (kg)	399 (181)	399 (181)	438 (199)	438 (199)
CONDENSER FANS, DIRECT DRIVE PROPELLER TYPE				
No. of Fans -- 30 in. Fan Dia.,	10		12	
No. of Motors -- hp (kW)	10 2 (1.5)		12 2.5 (1.9)	
Fan & Motor RPM, 60Hz	1140		1140	
60 Hz Fan Tip Speed, fpm (m/s)	8950 (4224)		8950 (4224)	
60 Hz Total Unit Airflow, cfm (l/s)	108630 (51280)		130360 (61530)	
EVAPORATOR, DIRECT EXPANSION SHELL AND TUBE				
Shell Dia.-Tube Length in.(mm) - in. (mm)	19.4 x 105.1 (493 x 2670)		19.4 x 105.1 (493 x 2670)	
Evaporator R-134a Charge lbs (kg)	3.63 (1.6)	3.63 (1.6)	3.63 (1.6)	3.63 (1.6)
Water Volume, gallons (liters)	106 (401)		104 (392)	
Max. Water Pressure, psi (kPa)	152 (1048)		152 (1048)	
Max. Refrigerant Press., psi (kPa)	352 (2427)		352 (2427)	

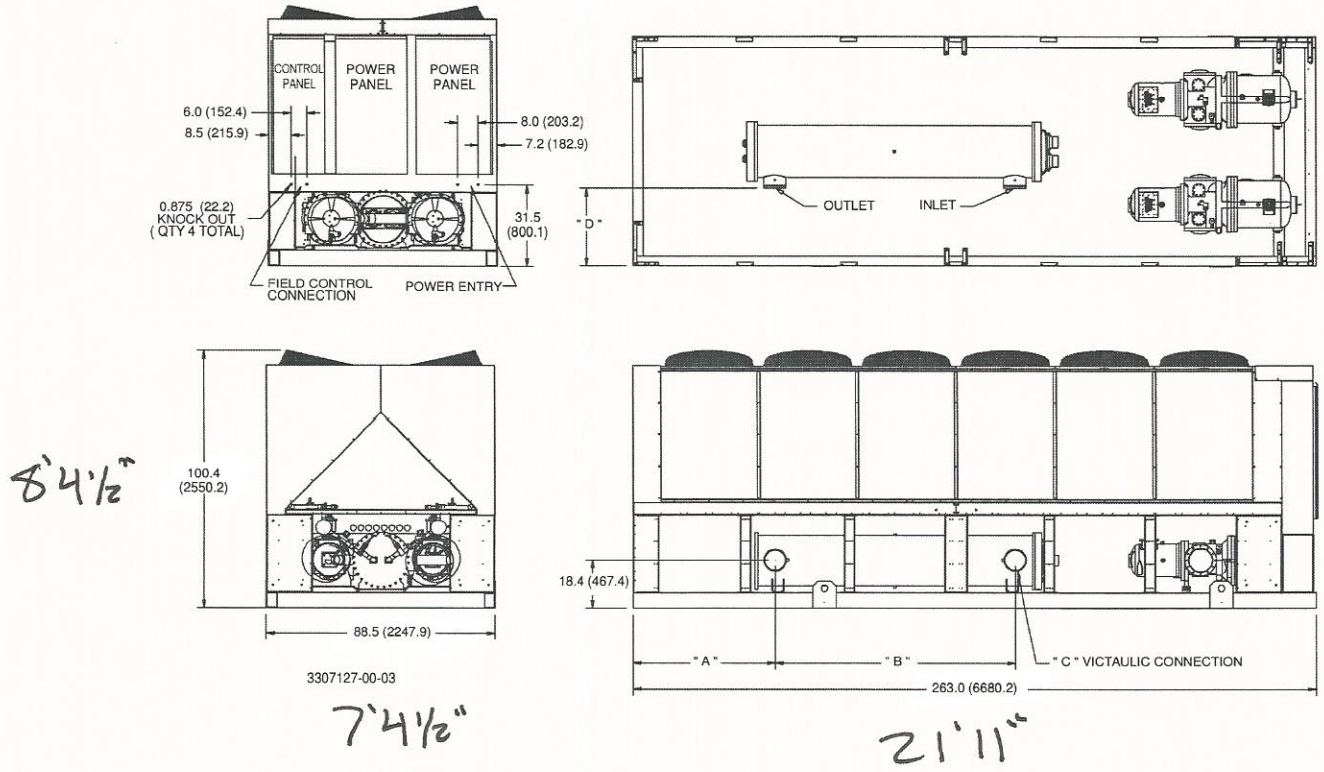
Physical Data, High Efficiency

Table 19, Physical Data, AGS 125C – AGS 145C

DATA	AGS MODEL NUMBER					
	125C		135C		145C	
	Ckt 1	Ckt 2	Ckt 1	Ckt 2	Ckt 1	Ckt 2
BASIC DATA						
Unit Cap. @ 44°F LWT, 95°F Ambient Temperature kW, (tons)	121.6 (428)		130.9 (460)		143.0 (503)	
Unit Operating Charge lbs (kg)	159 (72)	159 (72)	159 (72)	159 (72)	159 (72)	159 (72)
Cabinet Dimensions L x W x H, in. (mm)	225 x 89 x 101 5715 x 2261 x 2565		225 x 89 x 101 5715 x 2261 x 2565		225 x 89 x 101 5715 x 2261 x 2565	
Unit Operating Weight, lbs. (kg)	10930 (4962)		10930 (4962)		10485 (4760)	
Unit Shipping Weight, lbs (kg)	10205 (4633)		10205 (4633)		9942 (4514)	
Economizer	No		No		No	
COMPRESSORS, SCREW, SEMI-HERMETIC						
Nominal Capacity, tons (kW)	60 (211)	60 (211)	60 (211)	70 (246)	70 (246)	70 (246)
CONDENSERS, HIGH EFFICIENCY FIN AND TUBE TYPE WITH INTEGRAL SUBCOOLER						
Pumpdown Capacity, lbs (kg)	399 (181)	399 (181)	399 (181)	399 (181)	399 (181)	399 (181)
CONDENSER FANS, DIRECT DRIVE PROPELLER TYPE						
No. of Fans – 30 in. Fan Dia.,	10, 30 (762)		10, 30 (762)		10, 30 (762)	
No. of Motors -- hp (kW)	10 2 (1.5)		10 2 (1.5)		10 2 (1.5)	
Fan & Motor RPM, 60Hz	1140		1140		1140	
60 Hz Fan Tip Speed, fpm (m/s)	8950 (4224)		8950 (4224)		8950 (4224)	
60 Hz Total Unit Airflow, cfm (l/s)	108630 (51280)		108630 (51280)		108630 (51280)	
EVAPORATOR, DIRECT EXPANSION SHELL AND TUBE						
Shell Dia.-Tube Length in.(mm) - in. (mm)	19.4 x 82.4 (493 x 2093)		19.4 x 82.4 (493 x 2093)		19.4 x 105.1 (493 x 2670)	
Evaporator R-134a Charge lbs (kg)	2.53 (1.1)	2.53 (1.1)	2.53 (1.1)	2.53 (1.1)	2.44 (1.1)	2.44 (1.1)
Water Volume, gallons (liters)	83 (314)		83 (314)		62 (236)	
Max. Water Pressure, psi (kPa)	152 (1048)		152 (1048)		152 (1048)	
Max. Refrigerant Press., psi (kPa)	352 (2427)		352 (2427)		352 (2427)	

Figure 22 , Dimensions, AGS 165CS/H –210CS/H

Note: See page 13 for lifting locations, mounting locations, weights and mounting loads.



UNIT SIZE	Dimensions In (mm)			
	" A "	" B "	" C "	" D "
AGS165C	54.9 (1394.5)	92.9 (2359.7)	8 (203.2)	30.1 (764.5)
AGS175C	54.9 (1394.5)	92.9 (2359.7)	8 (203.2)	30.1 (764.5)
AGS195C	54.9 (1394.5)	92.9 (2359.7)	8 (203.2)	30.1 (764.5)
AGS210C	54.9 (1394.5)	92.9 (2359.7)	8 (203.2)	30.1 (764.5)