



## *Now In Production*

*DECEMBER 2010*

### **HABASIT AMERICA , MIDDLETOWN, CT**

One (1) 50 ton custom new water cooled rooftop **GREEN** unit , with DX cooling coil, wrap around heat-pipe, screw compressors, **R-134A** refrigerant, hot water heating coils and Muller condensing section.

**Representative : GreenTech. 130 Research Parkway, Meriden, CT, 06450**

**Paul E. Holland ; P 203-639-9610; F 203-639-9617 ; [www.grntch.com](http://www.grntch.com)**



100% make-up air unit with DX cooling, integral face and bypass (IFB) hot water coil build to cool and heat the space to the design conditions.



Wrap around heat-pipes, screw compressors, plenum airfoil SWSI blower with premium efficiency motor and a VFD are some of the features provided.



4500 Industrial Access Road Douglasville, GA 770-489-0716 P ; 770-489-2938 F ; [www.seasons4.net](http://www.seasons4.net)





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Muller water cooled / air cooled condenser with evaporative cooling pads, microchannel heat exchanger and Ziehi-Abegg Owlet AC & EC fan systems, lowers power consumption, lowers operating costs with no water treatment chemicals required.



The unit is cased with 2" aluminum polyurethane foam insulated panels, charged with R-134a refrigerant, completely tested and shipped to the job site.



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# ENGINEERING SPECIFICATIONS

JOB NAME HABASIT AMERICA  
LOCATION MIDDLETOWN, CT  
DATE PREPARED Revised: 10/08/10  
SEASONS-4 REFERENCE # A79401  
UNIT MODEL # 3SMK26-0572-HW8.5-12EH  
UNIT DESIGNATION UNIT A  
SYSTEM VOLTAGE 460/3/60

## DESIGN DATA

TOTAL COOLING CAPACITY (BTUH)	694,784
SENSIBLE CAPACITY (BTUH)	276,688
TOTAL AIRFLOW (CFM)	12,000
OUTDOOR AIR (CFM)	12,000
ESTIMATED REFRIGERANT CHARGE (LBS. R134A)	145
MULLER CONDENSER WATER PUMP HP (110V)	0.35
WATER MAKE-UP SIZE	3/4"
WATER MAKE-UP FLOW RATE REQUIRED (GPM)	1.6
WATER DRAIN & OVERFLOW CONNECTION SIZE	1-1/4"

## COMPRESSOR SECTION

### COMPRESSOR:

TYPE	BITZER SCREW
NUMBER	2
STAGES OF CAPACITY	2(25-50%)

## AIR COOLED CONDENSER SECTION

### CONDENSER COIL:

MULLER CONDENSER MODEL NO./QTY.	SH09-DF2M / 1
DESIGN AMBIENT TEMPERATURE (FDB):	91.0/76.0

### CONDENSER FANS:

TYPE	PROPELLER
DIA/RPM	31.5/1200
QTY/HP	2/3.35

## COOLING COIL SECTION

FACE AREA (SQ-FT)	26.4
ROWS/FPI	6/10
COIL CIRCUITS (NUMBER)	2
TOTAL CAPACITY (BTUH)	694,784
SENSIBLE CAPACITY (BTUH)	276,688
ENTERING AIR TEMP (FDB/FWB)	75.2/71.7
COIL LEAVING AIR TEMP (FDB/FWB)	54.3/54.0
CONDITIONED AIR (CFM)	12,000

## SUPPLY AIR BLOWER SECTION

TYPE	AF SWSI PLENUM
NUMBER/SIZE	1/27"
AIRFLOW (CFM)	12,000
TOTAL STATIC PRESSURE (TSP) IN WC	4.75
EXTERNAL STATIC (ESP) IN WC	1.50
DESIGN FAN SPEED (RPM)	1,542
FAN BHP (INCLUDING DRIVE LOSSES)	12.5
MOTOR HP	15.0
MOTOR DRIVE	VARIABLE FREQUENCY DRIVE

## ENGINEERING SPECIFICATIONS

### FILTER SECTION

TYPE	2" ALUMINUM MESH
NUMBER/SIZE	12/20x20
TOTAL FACE AREA (SQ-FT)	33.3
FACE VELOCITY (FPM)	360

### FINAL FILTER SECTION

TYPE	2" PLEATED; MERV 7
NUMBER/SIZE	12/20x20
TOTAL FACE AREA (SQ-FT)	33.3
FACE VELOCITY (FPM)	360

### HOT WATER COIL SECTION

FACE AREA (SQ-FT)	18.8
ROWS/FPI	3/10
COIL CIRCUITS (NUMBER)	1
CAPACITY (BTUH)	845,974
ENTERING AIR TEMP (DEG F)	0.0
LEAVING AIR TEMP (DEG F)	65.7
CONDITIONED AIR (ACFM)	12,000
ENTERING WATER TEMP (DEG F)	180.0
LEAVING WATER TEMP (DEG F)	160.3
FLOWRATE (GPM)	90.0
TYPE FLUID	WATER
FLUID PRESSURE DROP (FT WATER)	8.23
SUPPLY/RETURN CONNECTION SIZE	2 5/8, 2 5/8

### IMPORTANT DESIGN NOTES

THE COMPRESSORS SHALL BE PROVIDED WITH A VFD AND  
COMPRESSORS SHALL NOT OPERATE OVER A SPEED EQUIVALENT TO 40HZ.

THE MULLER CONDENSER SPECIFIED SHALL PROVIDE A MINIMUM CAPACITY  
OF 750,000 BTU/HR AT PEAK DESIGN LOAD.

HOT WATER COIL SHALL BE PROVIDED WITH INTEGRAL FACE  
AND BYPASS DAMPERS.

THE TOTAL CAPACITY SHOWN IS NOMINAL CAPACITY AND THE UNIT  
CANNOT PROVIDE MORE THAN 50 TONS OF COOLING CAPACITY.

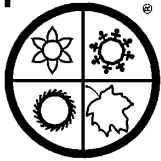
UNIT WEIGHT (LBS) 12,700

**ENGINEERING SPECIFICATIONS  
ELECTRICAL DATA**

**JOB NAME** HABASIT AMERICA  
**LOCATION** MIDDLETOWN, CT  
**DATE PREPARED** Revised: 10/08/10  
**SEASONS-4 REF NUMBER** A79401 **UNIT MODEL** 3SMK26-0572-HW8.5-12EH  
**UNIT DESIGNATION** UNIT A

<b>SYSTEM VOLTAGE</b>	460	<b>CONTROL VOLTAGE</b>	120	<b>EXT. VOLTAGE</b>	24	
<u>ITEM</u>	<u>QTY</u>	<u>HP</u>	<u>FLA</u>	<u>LRA</u>	<u>KW</u>	<u>TYPE</u>
COMPRESSOR 1	2	***	56.1	254.0	27.8	CSH6551-35Y
COND FAN	2	2	3.4	20.4	1.8	
SA FAN	1	15.0	17.7	118.0	10.0	Bald
CONTROL CIRCUIT			3.3			
CONVENIENCE OUTLET			3.3			10 Amps
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TOTALS (COOL)	5	***	143.2		69.3	
TOTALS (HEAT)	1	15.0	24.2		10.0	

M.C.A. 157 (MINIMUM CIRCUIT AMPACITY)  
M.O.P. 200 (MAXIMUM OVERLOAD PROTECTION)  
S.C.C.R. 65,000 (SHORT CIRCUIT CURRENT RATING)

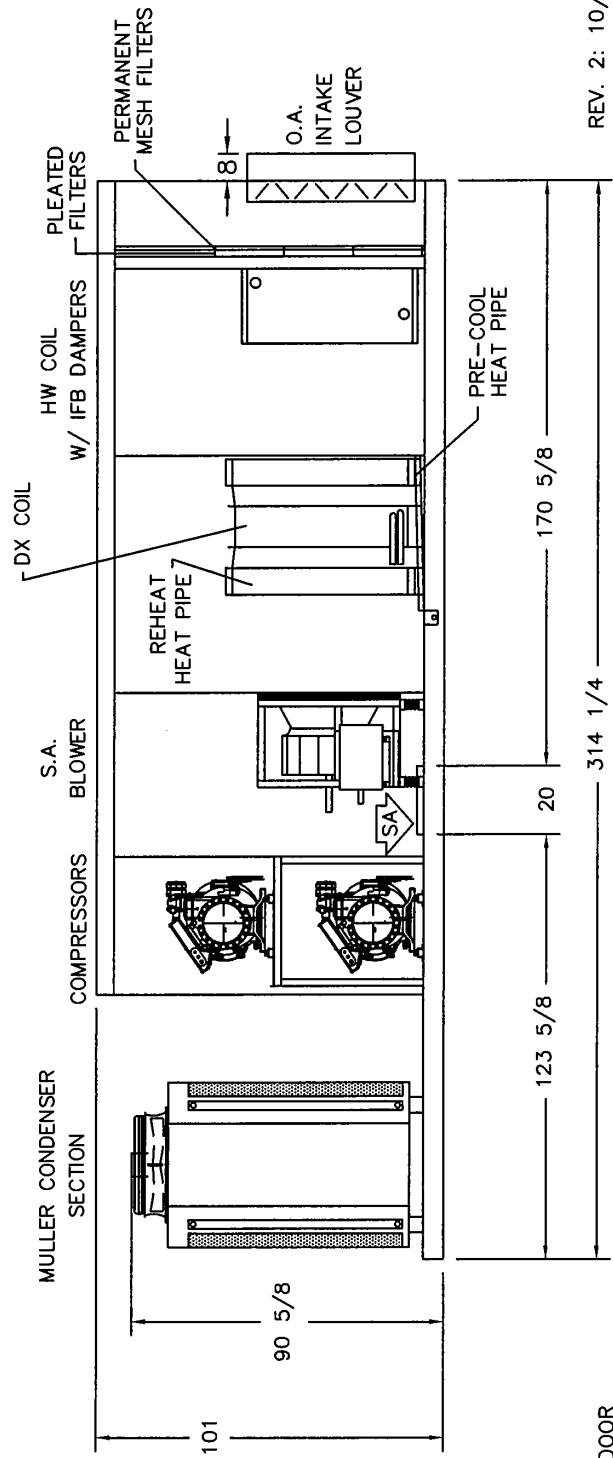
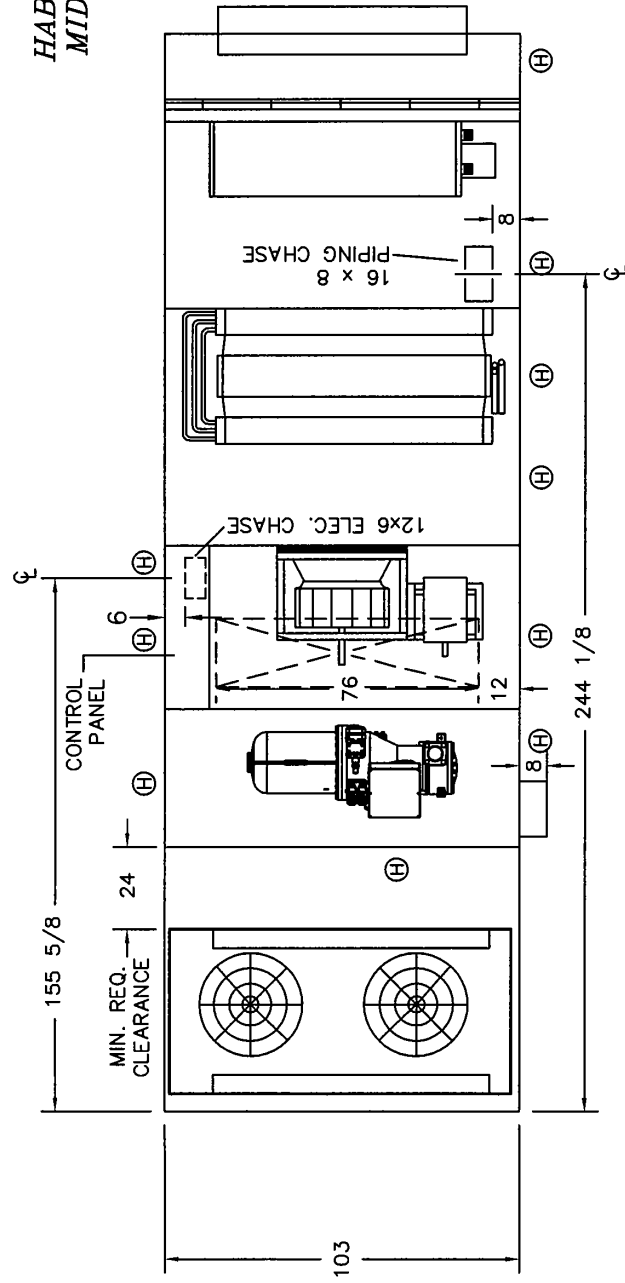


SEASONS 4

ENGINEERING AND MANUFACTURING HVAC EQUIPMENT SINCE 1971

# DIMENSIONAL DATA

HABASIT AMERICA  
MIDDLETOWN, CT  
UNIT-A



- (H) HINGED ACCESS DOOR
- (S) SCREW-ON ACCESS DOOR
- (L) LIFT-OFF ACCESS DOOR

NOTE: O.A./E.A. LOUVERS, FURNACE VENT CAPS, ETC. MAY REQUIRE FIELD INSTALLATION

REV. 2: 10/08/2010 SPP  
REV. 1: 10/06/2010 SPP  
10/05/2010 SPP A794D01SP

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