



Now In Production

MARCH 2009

BATTERYMARCH II, QUINCY, MA

One (1) 304 ton direct replacement **GREEN** rooftop unit, 91,000 cfm with DX cooling (**R-134A** refrigerant), evaporative condensing sections and variable frequency drives.

Representative : Noble & Associates. 317 Libbey Industrial Pkwy, Suite 100, Weymouth, MA 02189

Kevin Morrison : P 781-337-1630; F 781-337-9289



Existing unit



An existing 304 tons air cooled system will be replaced with a 304 ton evaporative cooled system with R-134A refrigerant. The existing unit consists of four (4) sections: two (2) air cooled condensing sections and two (2) air handler sections. 90,000 CFM of air is supplied to a common supply air opening.



The new unit will have two (2) evaporative condensing sections with two (2) 80 ton Copeland screw compressors per section. The units are designed to match the existing curb without any field supplied refrigeration piping and fully charged with R-134A refrigerant at the factory.





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Twin plenum airfoil blowers with premium efficiency motors, variable frequency drives, Automated Logic DDC system, bell mouth type supply air openings are some of the features provided.



Kynar painted aluminum exterior panels, lights in all accessible sections are additional features. The sections are bolted and wired together for testing and then split into sections and shipped to the jobsite..



4500 Industrial Access Road Douglasville, GA 770-489-0716 P ; 770-489-2938 F ; www.seasons4.net

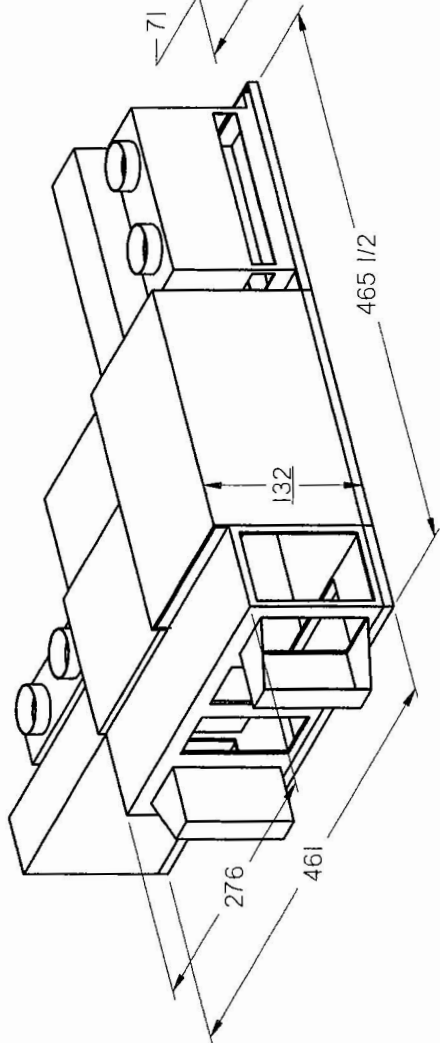
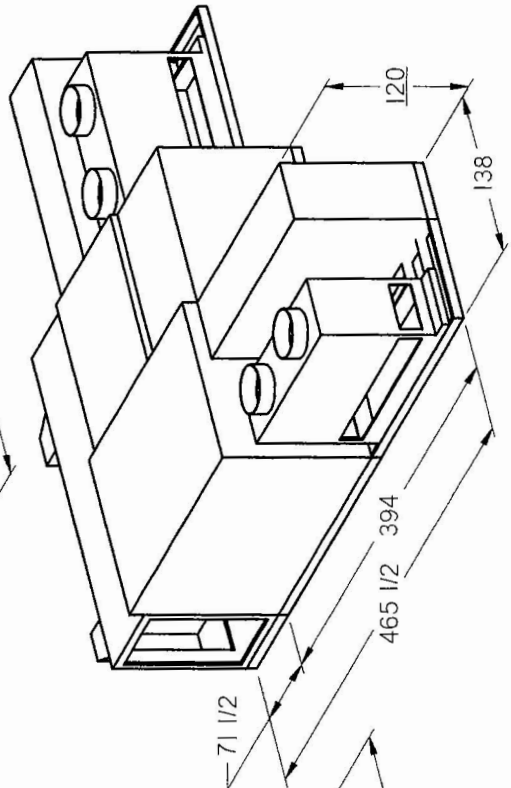
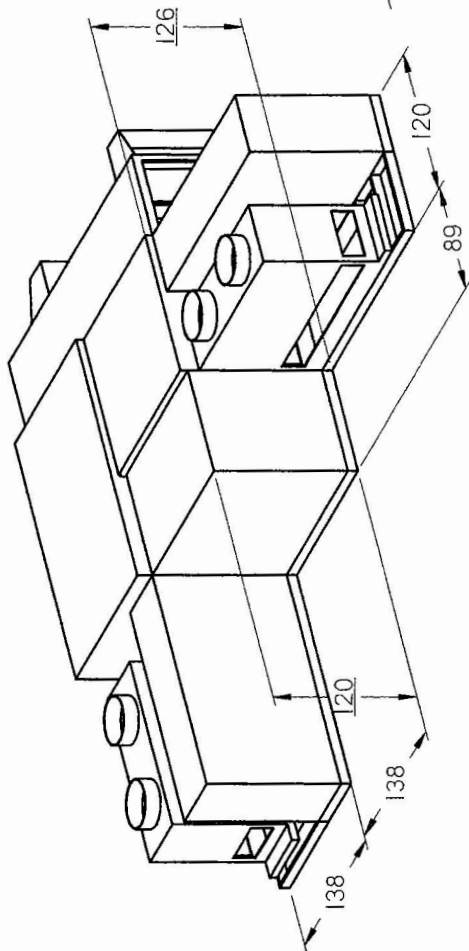
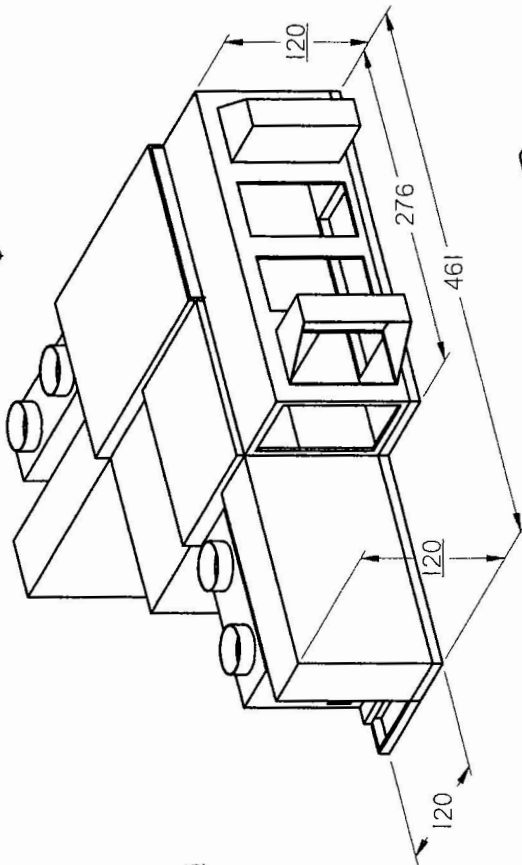
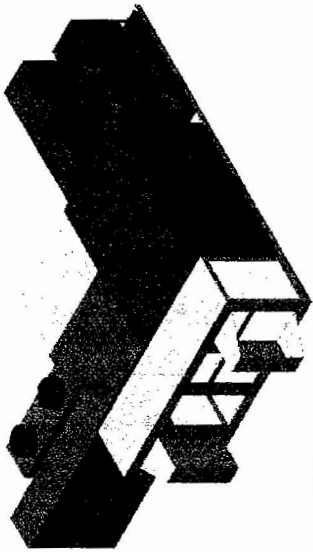


ENGINEERING AND MANUFACTURING HVAC EQUIPMENT SINCE 1971

UNIT ISOMETRIC VIEWS

BATTERYMARCH II AH-1

QUINCY, MA



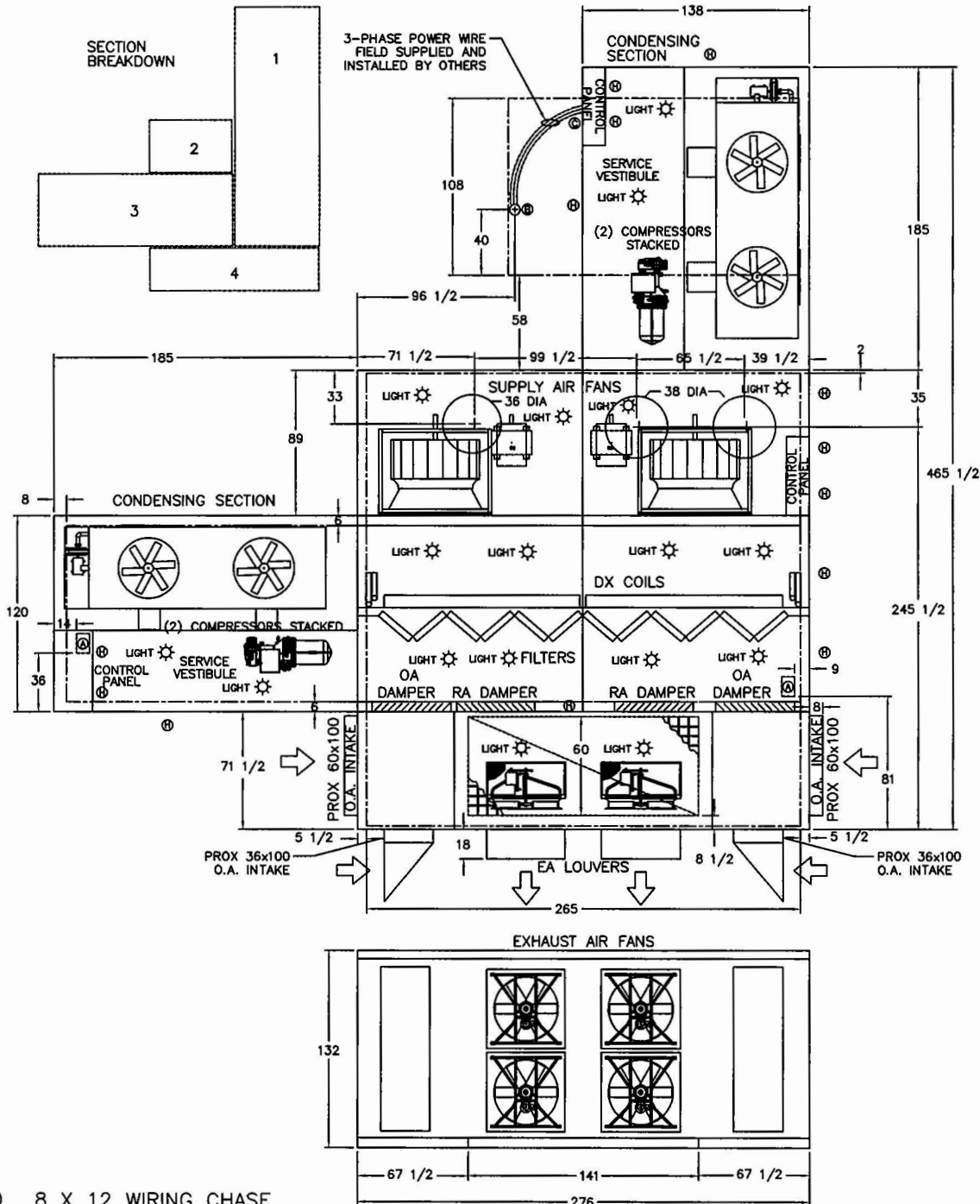
DETAILS OMITTED FOR CLARITY, DIMENSIONS ARE IN INCHES DRAWING NOT TO SCALE/ FO A361 SHV 02/04/09
4500 INDUSTRIAL ACCESS ROAD • DOUGLASVILLE, GEORGIA 30134-3949 • 770/489-0716 • FAX 770/489-2938



ENGINEERING AND MANUFACTURING HVAC EQUIPMENT SINCE 1971

DIMENSIONAL DATA

BATTERYMARCH II QUINCY MA AH-1



- (A) 8 X 12 WIRING CHASE
- (B) EXISTING 500 MCM POWER
- (C) 10" STATIONARY PANEL FOR FIELD CONNECTION
- (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

REVISED 020409 JZ
REVISED 020309 JZ
A361D01JZ 012609

ENGINEERING SPECIFICATIONS

JOB NAME	BATTERYMARCH II
LOCATION	QUINCY MA
DATE PREPARED	Revised: 03/26/09
SEASONS-4 REFERENCE #	A36101
UNIT MODEL #	6SZR39-3034-XXXXX-91SE
UNIT DESIGNATION	AH-1
SYSTEM VOLTAGE	460/3/60

DESIGN DATA

TOTAL COOLING CAPACITY (BTUH)	3,641,889
TOTAL AIRFLOW (CFM)	91,024
OUTDOOR AIR (CFM)	9,104 - 91,024
ESTIMATED REFRIGERANT CHARGE (LBS. R134A)	1310
EVAPORATIVE CONDENSER SUPPLY WATER SIZE	3/4"
EVAPORATIVE CONDENSER DRAIN SIZE	2-1/2"

COMPRESSOR SECTION

COMPRESSOR:

TYPE	COPELAND SCREW
NUMBER	4
STAGES OF CAPACITY	MODULATING

EVAPORATIVE CONDENSER

FANS (NUMBER/HP)	4/5
AIRFLOW (CFM)	30,400
PUMPS (NUMBER/HP)	2/1.5

COOLING COIL SECTION 1

FACE AREA (SQ-FT)	166.7
ROWS/FPI	6/8
COIL CIRCUITS (NUMBER)	4
TOTAL CAPACITY (BTUH)	3,641,889
SENSIBLE CAPACITY (BTUH)	2,418,118
ENTERING AIR TEMP (FDB/FWB)	81.0/67.2
COIL LEAVING AIR TEMP (FDB/FWB)	56.8/54.2
CONDITIONED AIR (CFM)	91,024

SUPPLY AIR BLOWER SECTION

TYPE	AF SWSI PLENUM
NUMBER/SIZE	2/54"
AIRFLOW (CFM)	91,024
TOTAL STATIC PRESSURE (TSP) IN WC	5.11
EXTERNAL STATIC (ESP) IN WC	2.64
DESIGN FAN SPEED (RPM)	785
FAN BHP (INCLUDING DRIVE LOSSES)	2 @ 49.98
MOTOR HP	2 @ 60
MOTOR DRIVE	FIXED SHEAVE

EXHAUST AIR FAN SECTION

ENGINEERING SPECIFICATIONS

TYPE	PROPELLER
NUMBER/SIZE	4/36"
AIRFLOW (CFM)	81,920
TOTAL STATIC PRESSURE (TSP) IN WC	0.45
EXTERNAL STATIC (ESP) IN WC	0.20
DESIGN FAN SPEED (RPM)	1,155
FAN BHP (INCLUDING DRIVE LOSSES)	4 @ 4.84
MOTOR HP	4 @ 5
MOTOR DRIVE	ADJUSTABLE SHEAVE

FILTER SECTION

TYPE	4" PLEATED
NUMBER/SIZE	60/24x20
TOTAL FACE AREA (SQ-FT)	200.0
FACE VELOCITY (FPM)	455

UNIT WEIGHT SUMMARY

REFRIGERATION SECTION WITH BLOWER (SECTION 1)	22,900
REFRIGERATION SECTION WITHOUT BLOWER (SECTION 3)	16,670
BLOWER SECTION (SECTION 2)	5,295
EXHAUST FAN SECTION (SECTION 4)	4,705
WATER ADDER FOR EACH CONDENSER	2,670
UNIT TOTAL WITHOUT WATER	49,570
UNIT TOTAL WITH WATER	54,910

ENGINEERING SPECIFICATIONS

ELECTRICAL DATA

JOB NAME BATTERYMARCH II

LOCATION QUINCY MA

DATE PREPARED Revised: 03/26/09

SEASONS-4 REF NUMBER A36101 **UNIT MODEL** 6SZR39-3034-XXXXX-91SE

UNIT DESIGNATION AH-1

SYSTEM VOLTAGE 460 **CONTROL VOLTAGE** 120 **EXT. VOLTAGE** 24

<u>ITEM</u>	<u>QTY</u>	<u>HP</u>	<u>FLA</u>	<u>LRA</u>	<u>KW</u>	<u>TYPE</u>
COMPRESSOR 1	4	***	137.0	632.0	53.8	SCA2-800E
EVAP COND FAN	4	5.0	6.8	46.0	4.5	
EVAP COND PUMP	2	1.5	2.6	20.0	1.5	
SA FAN	2	60.0	68.0	470.0	39.2	Bald
EXH FAN	4	5.0	6.4	51.0	1.7	Bald
CONTROL CIRCUIT			2.2			
CONVENIENCE OUTLET			3.3			10 Amps
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TOTALS (COOL)	16	***	747.4		321.6	
TOTALS (HEAT)	6	140.0	167.0		85.3	

M.C.A. 782 (MINIMUM CIRCUIT AMPACITY)

M.O.P. 900 (MAXIMUM OVERLOAD PROTECTION)

S.C.C.R. 65,000 (SHORT CIRCUIT CURRENT RATING)