

Now In Production

JULY 2008

OptiSolar, McClellan, CA

Nine (9) Custom new single-zone units with 135 tons of DX cooling, air cooled condensing sections and direct drive supply air blowers. Ambient design 102 deg F, total unit EER 11.5

Representative : El Systems/Tempco, 555 Twin Dolphin Plaza S 630, Redwood City, CA 94065
Brain Mazur / Wais Jalali ; P 650-596-1700 ; F 650-596-1701

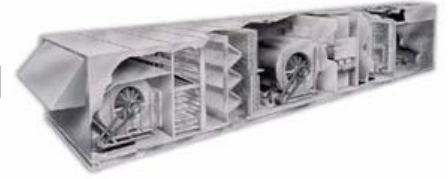
OptiSolar manufactures **photovoltaic (PV)** modules and products power from their own **large-scale solar farms**. OptiSolar engineers are require reliability, performance, and efficiency; and Seasons-4 is the manufacturer of their choice.



Units consist of formed, welded and coated galvanized steel base, HCFC- free R-410A refrigerant, six (6) scroll compressors piped independently to 6 intertwined DX coils. Isolation dampers and walking grating are provided on supply and return air openings.



Direct drive supply air blowers with shaft grounding kits, premium efficiency motors, 2" spring isolators with Zone-4 seismic tie downs, and direct drive propeller exhaust fans are some of the requirements of the project.



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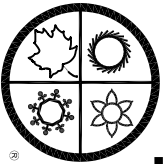
Representative : EI Systems/Tempco, 555 Twin Dolphin Plaza S 630, Redwood City, CA 94065
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Painted interior liner, 12" cartridge filters, filter rack for future HEPA filters, magnehelic filter gauges with sun shields, photoelectric supply and return smoke detectors and ABB variable frequency drives on supply and exhaust fan motors are some of features provided for the units.



Separate high voltage and low voltage conditioned control panels are required. Kynar painted aluminum exterior panels with single handle, multiple latches doors are additional features. The units are build in two sections to be rigged with a helicopter.



SEASONS 4

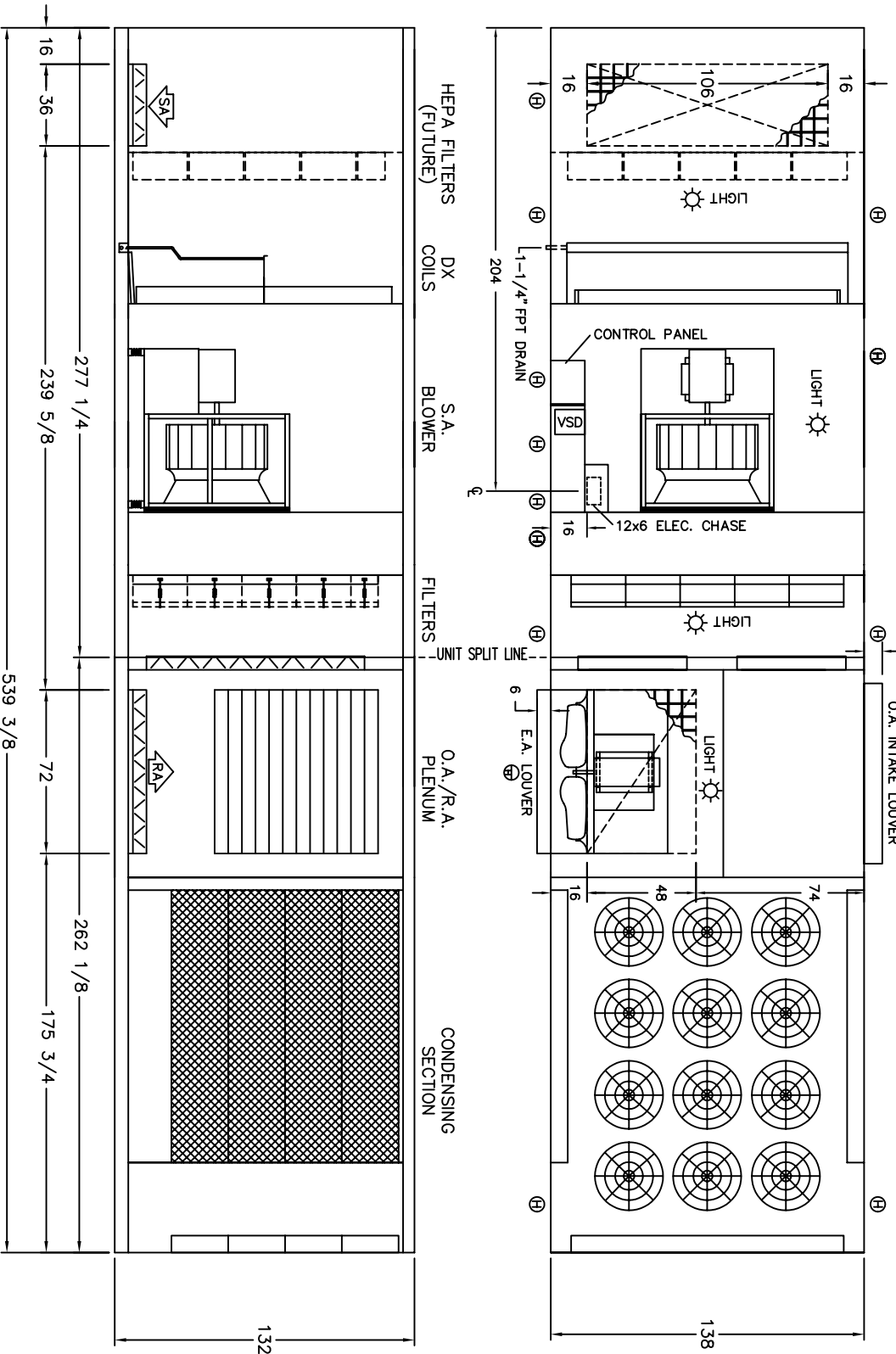
ENGINEERING AND MANUFACTURING HVAC EQUIPMENT SINCE 1971

DIMENSIONAL DATA

OPTI SOLAR
MCCELLAN, CA
03-HVAC-ACU-01C TO 03-HVAC-ACU-09C

SECTION WT. = 13,850 LBS.

SECTION WT. = 14,200 LBS.



- Ⓜ HINGED ACCESS DOOR
- Ⓝ STATIONARY ACCESS PANEL
- Ⓛ LIFT-OFF ACCESS DOOR

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

4500 INDUSTRIAL ACCESS ROAD • DOUGLASVILLE, GEORGIA 30134-3949 • 770/489-0716 • FAX 770/489-2938

REVISION 6:	07/25/2008	CCB
REVISION 5:	07/14/2008	SPP
REVISION 4:	06/30/2008	SPP
REVISION 3:	06/27/2008	SPP
REVISION 2:	06/17/2008	SPP
05/20/2008	CCB	A167D01SP

ENGINEERING SPECIFICATIONS

JOB NAME OPTI SOLAR
LOCATION MCCLELLAN, CA
DATE PREPARED Revised: 07/29/08
SEASONS-4 REFERENCE # A167-01
UNIT MODEL # 3SST45-1356-XXXXX-45SE
UNIT DESIGNATION 03-HVAC-ACU-01C TO 03-HVAC-ACU-09C
SYSTEM VOLTAGE 460/3/60

DESIGN DATA

TOTAL COOLING CAPACITY (BTUH):	1,626,066
SENSIBLE CAPACITY (BTUH):	1,308,149
TOTAL AIRFLOW (CFM)	44,500
OUTDOOR AIR (CFM)	10,000 - 44,500
ESTIMATED REFRIGERANT CHARGE (LBS. R410A)	575
E.E.R @ DESIGN CONDITIONS (AS SHIPPED)	9.5
E.E.R @ ARI 360 CONDITIONS	11.5

COMPRESSOR SECTION

COMPRESSOR:

TYPE	COPELAND SCROLL
NUMBER	6
STAGES OF CAPACITY	6

AIR COOLED CONDENSER SECTION

CONDENSER COIL:

COIL FACE AREA/ROWS/FPI	275.0/6/11
DESIGN AMBIENT TEMPERATURE (FDB):	102.0

CONDENSER FANS:

TYPE	PROPELLER
DIA/RPM	30/1,140
QTY/HP	12/1.0

COOLING COIL SECTION

FACE AREA (SQ-FT)	90.6
ROWS/FPI	6/9
COIL CIRCUITS (NUMBER)	6
TOTAL CAPACITY (BTUH)	1,626,066
SENSIBLE CAPACITY (BTUH)	1,308,149
ENTERING AIR TEMP (FDB/FWB)	85.0/67.5
COIL LEAVING AIR TEMP (FDB/FWB)	58.3/55.8
CONDITIONED AIR (CFM)	44,500

SUPPLY AIR BLOWER SECTION

TYPE	AF SWSI PLENUM
NUMBER/SIZE	1/44.5"
AIRFLOW (CFM)	44,500
TOTAL STATIC PRESSURE (TSP) IN WC	5.08
EXTERNAL STATIC (ESP) IN WC	2.50
DESIGN FAN SPEED (RPM)	1,078
FAN BHP (INCLUDING DRIVE LOSSES)	50.8
MOTOR HP	75.0
MOTOR DRIVE	DIRECT DRIVE

ENGINEERING SPECIFICATIONS

EXHAUST AIR FAN SECTION

TYPE	PROPELLER
NUMBER/SIZE	1/48"
AIRFLOW (CFM)	34,500
TOTAL STATIC PRESSURE (TSP) IN WC	1.35
EXTERNAL STATIC (ESP) IN WC	1.00
DESIGN FAN SPEED (RPM)	1,080
FAN BHP (INCLUDING DRIVE LOSSES)	16.3
MOTOR HP	20.0
MOTOR DRIVE	DIRECT DRIVE

PRE-FILTER SECTION

TYPE	2" PLEATED
NUMBER/SIZE	20/24x24, 5/12x24
TOTAL FACE AREA (SQ-FT)	90.0
FACE VELOCITY (FPM)	494
AIR PRESSURE DROP	0.25" CLEAN / 0.50" (DIRTY)

CARTRIDGE FILTER SECTION

TYPE	12" CARTRIDGE (95% EFFICIENCY)
NUMBER/SIZE	20/24x24, 5/12x24
TOTAL FACE AREA (SQ-FT)	90.0
FACE VELOCITY (FPM)	494
AIR PRESSURE DROP	0.58" (CLEAN) / 1.0" (DIRTY)

HEPA FILTER SECTION (FUTURE)

TYPE	12" HEPA (HIGH CAPACITY)
NUMBER/SIZE	20/24x24, 5/12x24
TOTAL FACE AREA (SQ-FT)	90.0
FACE VELOCITY (FPM)	494
AIR PRESSURE DROP	1.4"

UNIT SPLIT WEIGHT SECTION

SECTION 1 (CONDENSER, COMPRESSOR & ECONOMIZER SECTION)	14,200
SECTION 2 (SA FAN, FILTERS & DX-COIL SECTION)	13,850

UNIT WEIGHT (LBS)	29,950
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ENGINEERING SPECIFICATIONS

ELECTRICAL DATA

JOB NAME OPTI SOLAR
LOCATION MCCLELLAN, CA
DATE PREPARED Revised: 07/29/08

SEASONS-4 REF NUMBER A167-01 **UNIT MODEL** 3SST45-1356-XXXXX-45SE

UNIT DESIGNATION 03-HVAC-ACU-01C TO 03-HVAC-ACU-09C

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	6	***	33.9	225.0	18.7	ZP235KCE
COND FAN(1)	12	1.0	2.0	12.0	1.0	
SA FAN	1	75.0	85.0	522.0	39.9	Bald
EXH FAN	1	20.0	23.5	160.8	13.1	Bald
CONTROL CKT			3.3			
CONVENIENCE OUTLET			3.3			10 Amps
TOTALS (COOL)	20	***	342.4		177.1	
TOTALS (HEAT)	2	95.0	115.0		52.9	

M.C.A. (MINIMUM CIRCUIT AMPACITY)

M.O.P. (MAXIMUM OVERLOAD PROTECTION)

S.C.C.R. (SHORT CIRCUIT CURRENT RATING)