

COOLING SOLUTIONS, AIR-COOLED UNIT, DOWNFLOW (TOP RETURN), 78KW, 3 φ, 60 HZ, DRAWING GUIDE

Sht	Component/Detail	Description
1	DRAWING GUIDE	COOLING SOLUTIONS, AIR-COOLED UNIT, DOWNFLOW (TOP RETURN), 78KW, 3 φ, 60 HZ, DRAWING GUIDE
2	GENERAL ARRANGEMENT	COOLING SOLUTIONS, AIR-COOLED UNIT, DOWNFLOW (TOP RETURN), 78KW, 3 φ, 60 HZ, GENERAL ARRANGEMENT
3	TOP VIEW (ENLARGED)	COOLING SOLUTIONS, AIR-COOLED UNIT, DOWNFLOW (TOP RETURN), 78KW, 3 φ, 60 HZ, TOP VIEW (ENLARGED)
4	BOTTOM VIEW & ANCHORING DETAIL	COOLING SOLUTIONS, AIR-COOLED UNIT, DOWNFLOW (TOP RETURN), 78KW, 3 φ, 60 HZ, BOTTOM VIEW & ANCHORING DETAIL
5	PIPING DIAGRAM	COOLING SOLUTIONS, AIR-COOLED UNIT, DOWNFLOW (TOP RETURN), 78KW, 3 φ, 60 HZ, PIPING DIAGRAM
6	PIPING & ELECTRICAL SPECIFICATIONS	COOLING SOLUTIONS, AIR-COOLED UNIT, DOWNFLOW (TOP RETURN), 78KW, 3 φ, 60 HZ, PIPING & ELECTRICAL SPECIFICATIONS

LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
EV	EVAPORATOR	PRA	REHEAT WATER COIL	RCC	CRANKCASE HEATER
EVG	HOT GAS REHEATING SOLENOID VALVE	FD	FILTER DRIER	STEV	EVAPORATING TEMPERATURE SENSOR
VR	CHECK VALVE	VRC	WATER-COOLED CONDENSER PRESSURE REGULATOR	AP	EVAPORATING TEMPERATURE SENSOR
VTG	HOT GAS THERMOSTATIC VALVE	SCWI	COLD WATER INLET TEMPERATURE SENSOR	CPCE	HOT GAS INJECTION VALVE
ET	ELECTRONIC THERMOSTATIC VALVE	LG	GAS-LIQUID MATING DEVICE	RL	LIQUID RECEIVER
SAC	HOT WATER INLET TEMPERATURE SENSOR	CA	CONDENSER		
PGR	HOT GAS REHEAT COIL	VS	SAFETY VALVE		
VP	PRESSURE VALVE	VAC	HOT WATER VALVE		

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TITLE: COOLING SOLUTIONS
UNIFLAIR DX, AIR-COOLED UNIT
DOWNFLOW (TOP AIR RETURN)
78kW, 3φ, 60Hz
DRAWING GUIDE

DWG NO: TDAV3342

REV. 1

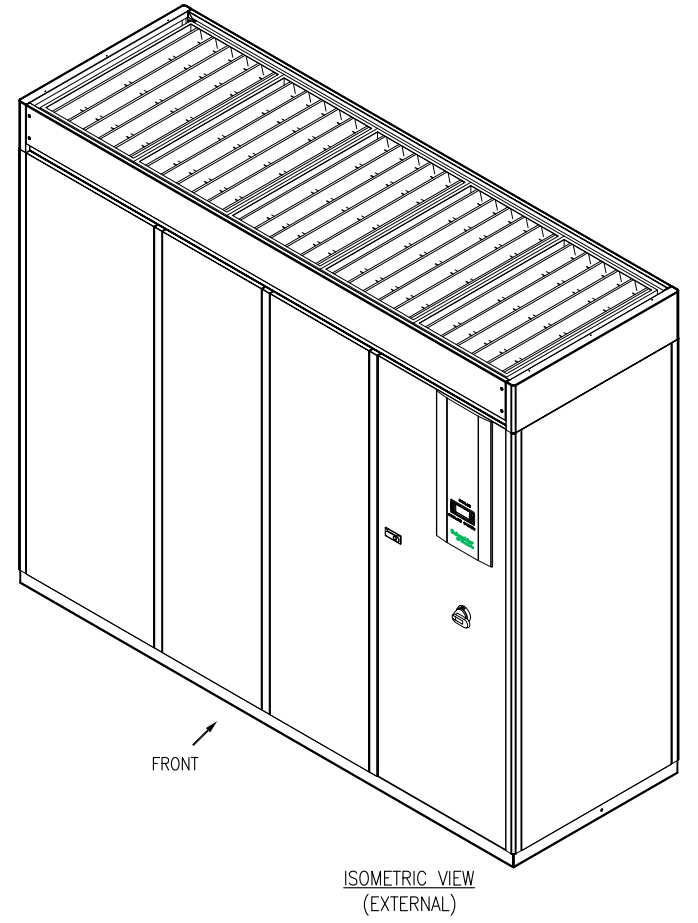
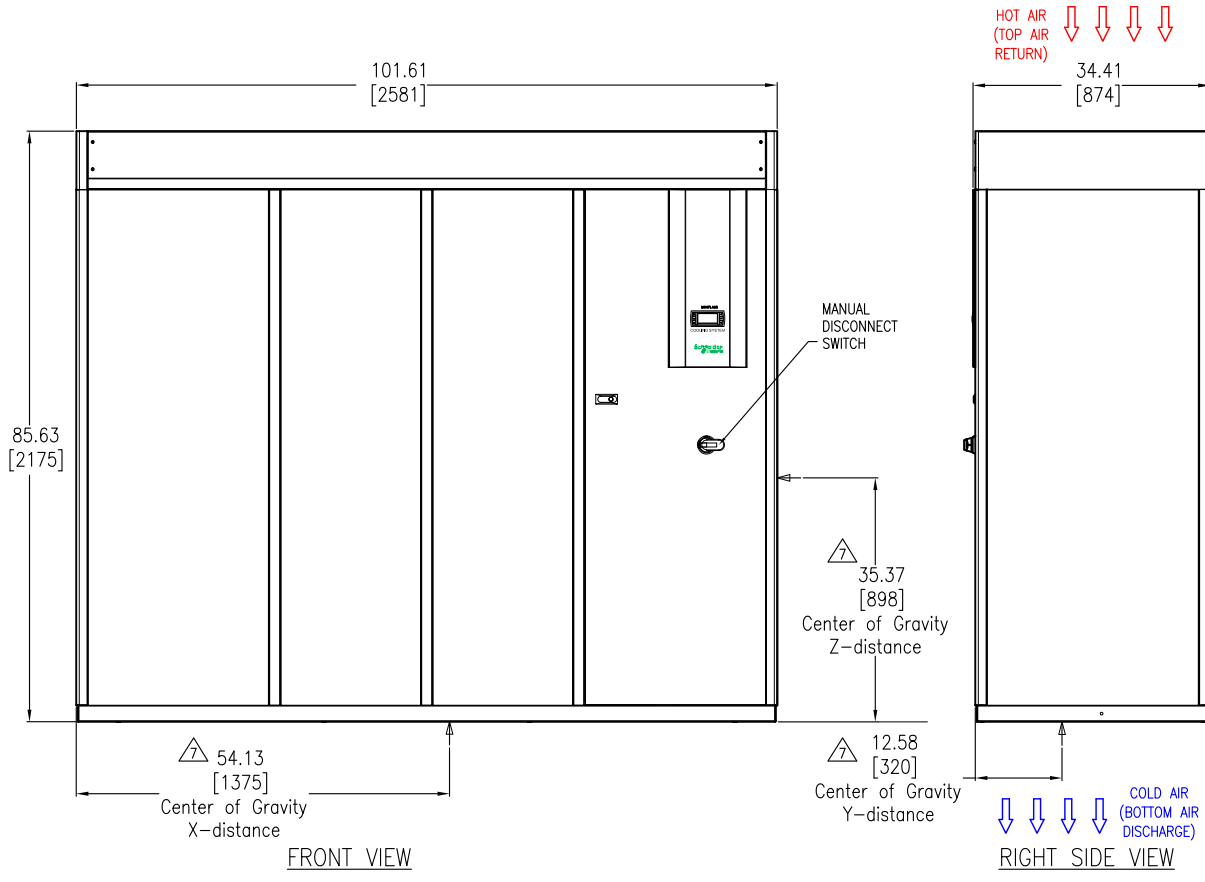
DRAWN BY: M.CRAVEN/K.NAGENDRA 17-DEC-13

ENGINEER: T.PRICOLO/K.BAER 17-DEC-13

3RD
ANGLE
PROJ

PROJECT: DRAWINGS SHEET: 1 OF 6

APPROVED BY: C.CUMMISKEY 17-DEC-13



Floor Loading Data			
Model	Dimensions H x W x D Inch[mm]	Weight in lbs[kg]	Floor Loading lbs/ft2[kg / m2]
3342	85.43x101.57x34.06[2170x2580x865]	2421[1098]	101[492]

- NOTES:**
1. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES.
 2. PLEASE REFER TO PRODUCT MANUALS PRIOR TO INSTALLATION AND SITE PREPARATION WORK FOR FURTHER DETAILS..
 3. ALL DIMENSIONS ARE IN INCHES [MILLIMETERS].

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TITLE: COOLING SOLUTIONS
UNIFLAI DX, AIR-COOLED UNIT
DOWNFLOW (TOP AIR RETURN)
78kW, 3φ, 60Hz
GENERAL ARRANGEMENT

PROJECT: DRAWINGS SHEET: 2 OF 6

DWG NO: TDAV3342

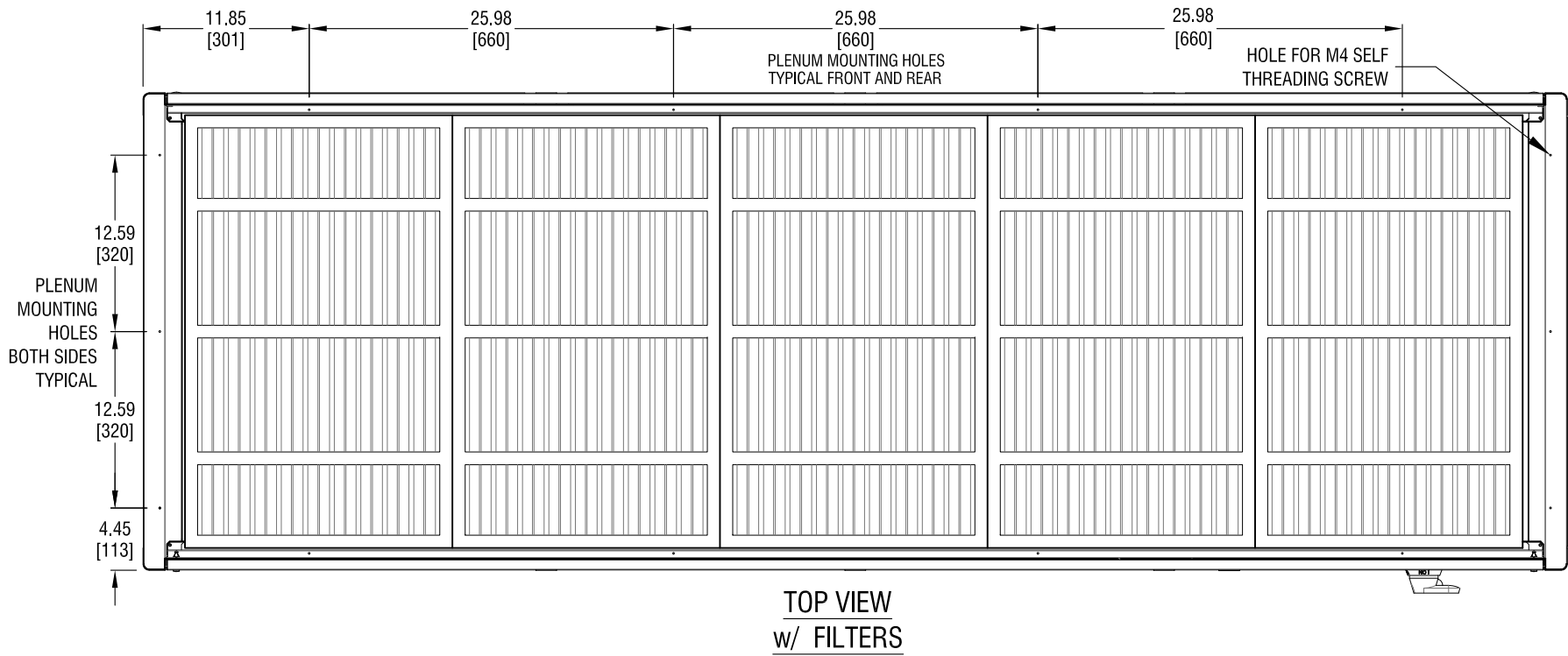
DRAWN BY: K.NAGENDRA 26-JUL-12

ENGINEER: C.COSTEA/K.BAER 26-JUL-12

APPROVED BY: C.CUMMISKEY 26-JUL-12

REV: 0

3RD ANGLE PROJ



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TITLE: COOLING SOLUTIONS
UNIFLAI DX, AIR-COOLED UNIT
DOWNFLOW (TOP AIR RETURN)
78kW, 3φ, 60Hz
TOP VIEW (ENLARGED)

DWG NO: TDAV3342

REV: 0

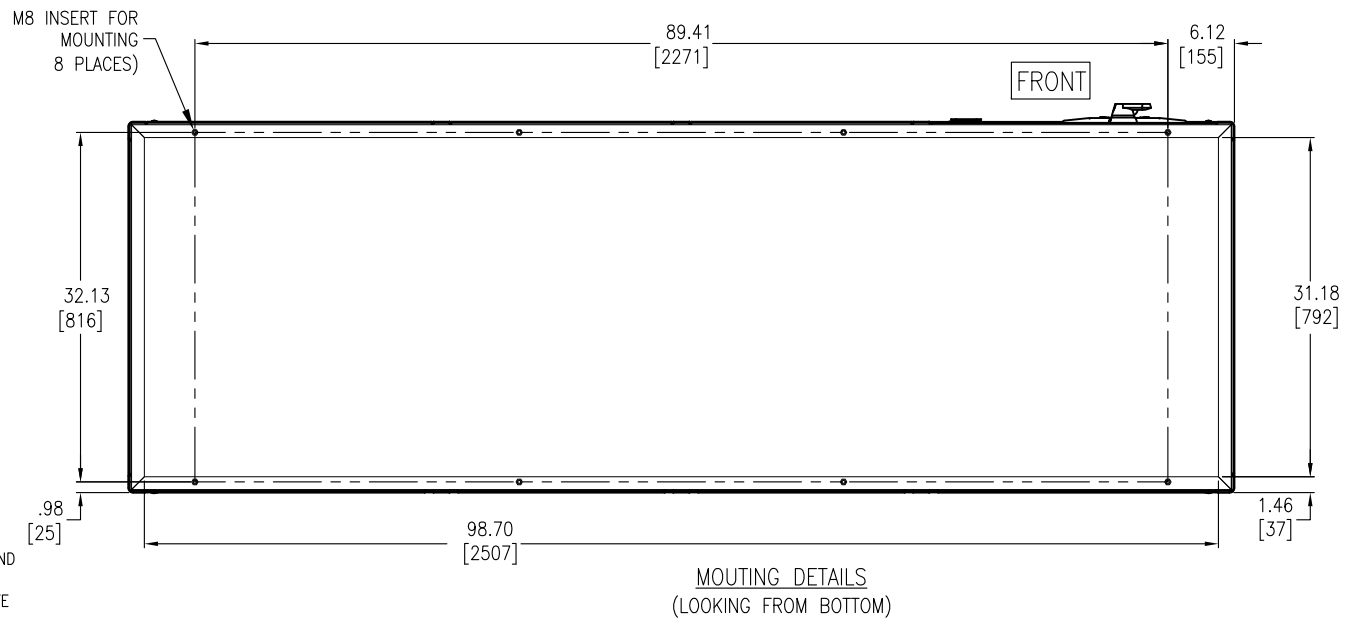
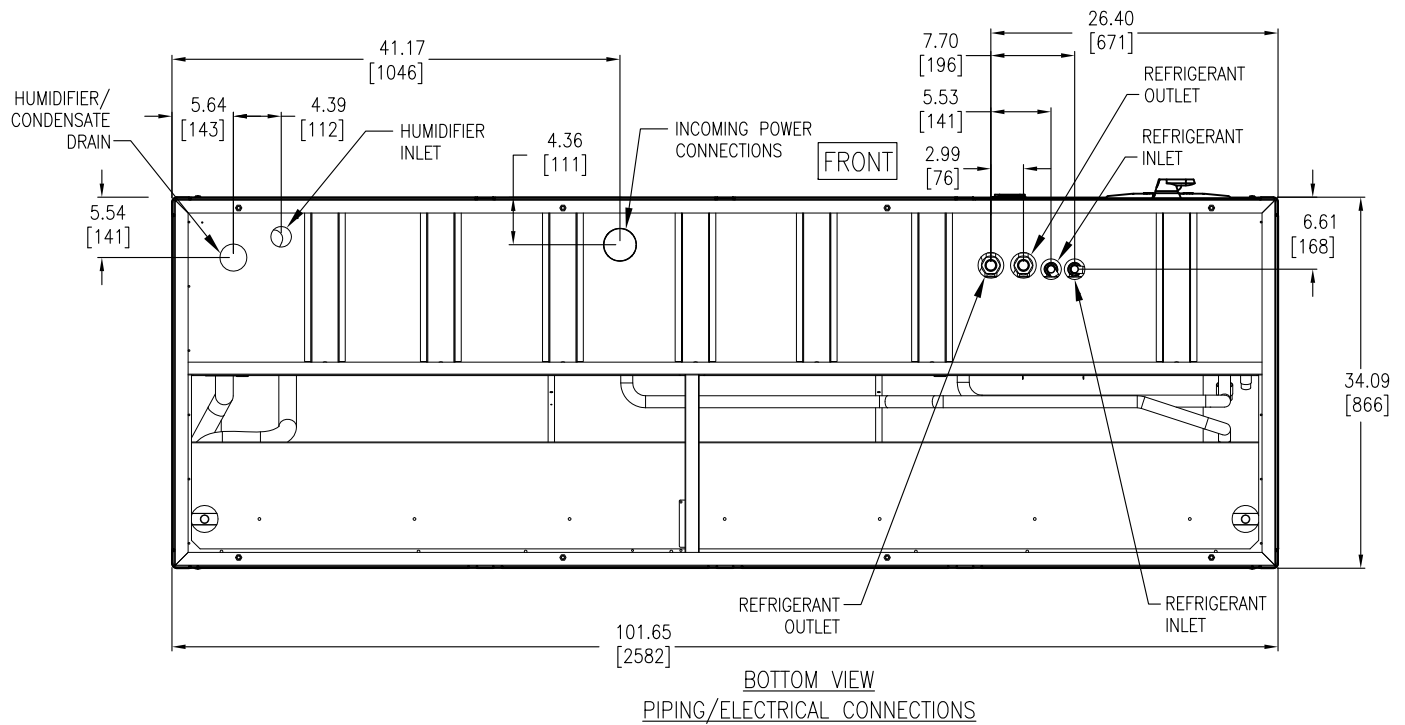
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APPROVED BY: C.CUMMISKEY 17-DEC-13

3RD
ANGLE
PROJ

PROJECT: DRAWINGS SHEET: 3 OF 6



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3. ALL DIMENSIONS ARE IN INCHES [MILLIMETERS].
4. SOME STRUCTURAL DETAILS HAVE BEEN OMITTED FOR THE PURPOSE OF CLARITY.
5. A FLEXIBLE SEAL AT LEAST 0.2" THICK SHOULD BE FITTED BETWEEN THE RAISED FLOOR PANELS AND THE MOUNTING FRAME, WHICH SHOULD ALSO BE ISOLATED FROM THE METALLIC FLOOR STRUCTURE

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TITLE: COOLING SOLUTIONS
UNIFLAI DX, AIR-COOLED UNIT
DOWNFLOW (TOP AIR RETURN)
78kW, 3φ, 60Hz
BOTTOM VIEW & ANCHORING DETAILS

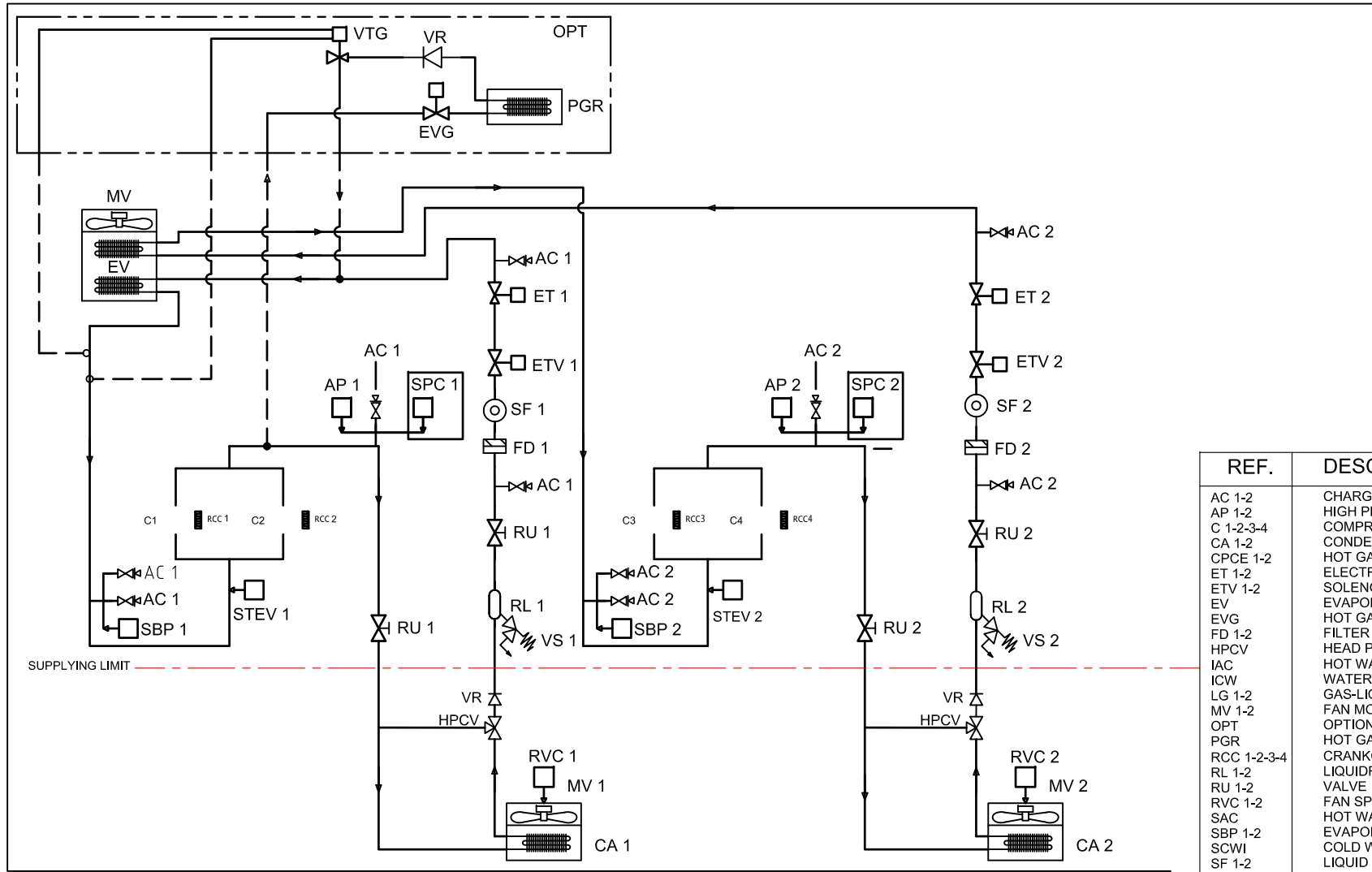
PROJECT: DRAWINGS **SHEET:** 4 OF 6

DWG NO: TDAV3342

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ENGINEER: C.COSTEA/K.BAER	26-JUL-12
APPROVED BY: C.CUMMISKEY	26-JUL-12

REV: 0

3RD ANGLE PROJ



REF.	DESCRIPTION
AC 1-2	CHARGE CONNECTION
AP 1-2	HIGH PRESSURE PRESSOSTAT
C 1-2-3-4	COMPRESSOR
CA 1-2	CONDENSER
CPCE 1-2	HOT GAS INJECTION VALVE
ET 1-2	ELECTRONIC THERMOSTATIC VALVE
ETV 1-2	SOLENOID VALVES
EV	EVAPORATOR
EVG	HOT GAS REHEATING SOLENOID VALVE
FD 1-2	FILTER DRIER
HPCV	HEAD PRESSURE CONTROL VALVE
IAC	HOT WATER INLET
ICW	WATER INLET
LG 1-2	GAS-LIQUID MITING DEVICE
MV 1-2	FAN MOTOR
OPT	OPTIONAL
PGR	HOT GAS REHEAT COIL
RCC 1-2-3-4	CRANKCASE HEATER
RL 1-2	LIQUIDRECEIVER
RU 1-2	VALVE
RVC 1-2	FAN SPEED CONTROLLER
SAC	HOT WATER INLET TEMPERATURE SENSOR
SBP 1-2	EVAPOR. COMPR. PROBE
SCWI	COLD WATER INLET TEMPERATURE SENSOR
SF 1-2	LIQUID INDICATOR
SPC 1-2	CONDENSING PRESSION SENSOR
STEV 1-2	EVAPORATING TEMPERATURE SENSOR
UAC	HOT WATER OUTLET
UCW	WATER OUTLET
VAC	HOT WATER VALVE
VAF	WATER VALVE
VR	CHECK VALVE
VS 1-2	SAFETY VALVE
VTG	HOT GAS THERMOSTATIC VALVE

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TITLE: COOLING SOLUTIONS
UNIFLAIR DX, AIR-COOLED UNIT
DOWNFLOW (TOP AIR RETURN)
78kW, 3φ, 60Hz
PIPING DIAGRAM-SCHMATIC

PROJECT: DRAWINGS SHEET: 5 OF 6

DWG NO: TDAV3342 REV. 1

DRAWN BY: M.CRAVEN/K.NAGENDRA 17-DEC-13 3RD ANGLE PROJ

ENGINEER: T.PRICOLO/K.BAER 17-DEC-13

APPROVED BY: C.CUMMISKEY 17-DEC-13

Environmental Limits for use

The environmental conditions for the use of air conditioners fall within the following values:

Air

- maximum inlet air temperature: 95°F [35°C]
- minimum inlet air temperature: 64°F [17.8°C]
- maximum inlet relative humidity: 70%
- minimum inlet relative humidity: 30%

PIPE CONNECTION SIZES

Model Number	CONNECTION	SIZE
3342	Refrigerant Inlet	1/2 inch cu Nominal
	Refrigerant Outlet	3/4 inch cu Nominal
	Humidifier Supply line	3/4 inch NPT Male
	Condensate Drain line (ID hose connection)	1-1/4 inch with humidifier 1 inch without humidifier



Direct Expansion, 60Hz with Condensate Pump

Reheat Option		Electric Reheat			None			Electric Reheat			None		
Humidifier Option		Humidifier			Humidifier			None			None		
Model	Voltage	FLA	MCA	MOP	FLA	MCA	MOP	FLA	MCA	MOP	FLA	MCA	MOP
3342	208	139.9	162.3	175	139.9	162.3	175	122.8	145.1	150	122.8	145.1	150
	230	138.1	160.5	175	138.1	160.5	175	123.6	149.4	150	122.6	145.0	150
	460	65.4	79.7	90	65.4	79.7	90	60.1	74.2	80	57.7	71.9	80
	575	51.6	58.1	60	51.6	58.1	60	47.7	55.0	60	45.4	51.0	60

Direct Expansion, 60Hz without Condensate Pump

Reheat Option		Electric Reheat			None			Electric Reheat			None		
Humidifier Option		Humidifier			Humidifier			None			None		
Model	Voltage	FLA	MCA	MOP	FLA	MCA	MOP	FLA	MCA	MOP	FLA	MCA	MOP
3342	208	137.6	160.0	175	137.6	160.0	175	120.5	142.8	150	120.5	142.8	150
	230	135.8	158.2	175	135.8	158.2	175	121.3	147.1	150	120.3	142.7	150
	460	64.2	78.5	90	64.2	78.5	90	58.9	73.0	80	56.5	70.7	80
	575	50.6	58.1	60	50.6	58.1	60	46.7	55.0	60	44.4	51.0	60

FLA - FULL LOAD AMPS

MCA - MINIMUM CIRCUIT AMPACITY

MOP - MAXIMUM OVERLOAD PROTECTOR

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- △ 3. ALL REFRIGERANT PIPING JOINTS MUST BE MADE BY BRAZING ONLY.

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UNIFLAI DX, AIR-COOLED UNIT
DOWNFLOW (TOP AIR RETURN)
78kW, 3φ, 60Hz
PIPING & ELECTRICAL SPECIFICATION
PROJECT: DRAWINGS SHEET: 6 OF 6

DWG NO: TDAV3342
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ENGINEER: T.PRICOLO/K.BAER 11-NOV-14
APPROVED BY: C.CUMMISKEY 11-NOV-14

REV: 2
3RD ANGLE PROJ