

FACILITY PLANNING DATA	
ELECTRICAL INPUT	1 PH, 100-120 VAC/200-240 VAC-50/60Hz
POWER CONNECTION TYPE	HARDWIRED
FULL LOAD AMPS(FLA)	16.5-13.8* / 8.0-6.7**
MINIMUM CIRCUIT AMPACITY (MCA)	20.3* / 9.3**
MAXIMUM OVERCURRENT PROTECTION (MOP)	25* / 15**
* DATA FOR UNITS WITH 100-120 V~POWER SUPPLIES ** DATA FOR UNITS WITH 200-240 V~POWER SUPPLIES	
AIR SYSTEM-FAN	
FAN TYPE	ELECTRICALLY COMMUTATED
AIR VOLUME CMH (SCFM)	4950 (2912)
FAN CONTROL	VARIABLE SPEED
NUMBER OF FANS	8
FAN POWER W (TOTAL)	YES
EMERGENCY AIR VOLUME-CMH (SCFM)	5300 (3117)
EVAPORATOR COIL / ECONOMIZER COIL	
FACE AREA -Sqm (Sgft)	0.51 (5.49)
ROWS DEEP	3
FILTERS - WASHABLE (STANDARD)	
QUANTITY	2
SIZE mm (inch)	238x933 (9.375x36.75)
DEPTH mm (inch)	12.7 (0.5)
EFFICIENCY	MERV 1
FILTERS - PLEATED (OPTIONAL)	
QUANTITY	2
SIZE mm (inch)	238x933 (9.375x36.75)
DEPTH mm (inch)	51 (2)
EFFICIENCY	MERV 8
CONNECTION SIZES (NOT PIPING SIZES)	
SUCTION PIPING	1/4 inch(12UNF), 7/8 inch TUBE
LIQUID PIPING	1 inch(12UNF), 1/2 inch TUBE
CONDENSATE DRAIN	4.77 mm (3/16 inch) ID 6.35 mm (1/4 inch) OD
HUMIDIFIER WATER SUPPLY LINE	1/4 inch

NOTES:

- INSTALLATION SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL STANDARDS.
- REFER TO PRODUCT DOCUMENTATION FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
- ALL DIMENSIONS ARE IN MILLIMETERS [INCHES].
- WHEN UNIT IS INSIDE THE ROW 900[36] REQUIRED FOR SERVICE ACCESS, WHEN OUTSIDE THE ROW 1200[48] REQUIRED FOR UNIT MOVEMENT. CHECK THE LOCAL AND NATIONAL CODES AND REGULATIONS FOR FURTHER SERVICE ACCESS REQUIREMENTS.
- AVAILABLE PIPING CONFIGURATIONS: TOP OR BOTTOM.
- NET WEIGHT OF UNIT IS 186.5 kg [411.2 lb].
- THIS INFORMATION PROVIDES APPROXIMATE CENTER OF GRAVITY CALCULATION.

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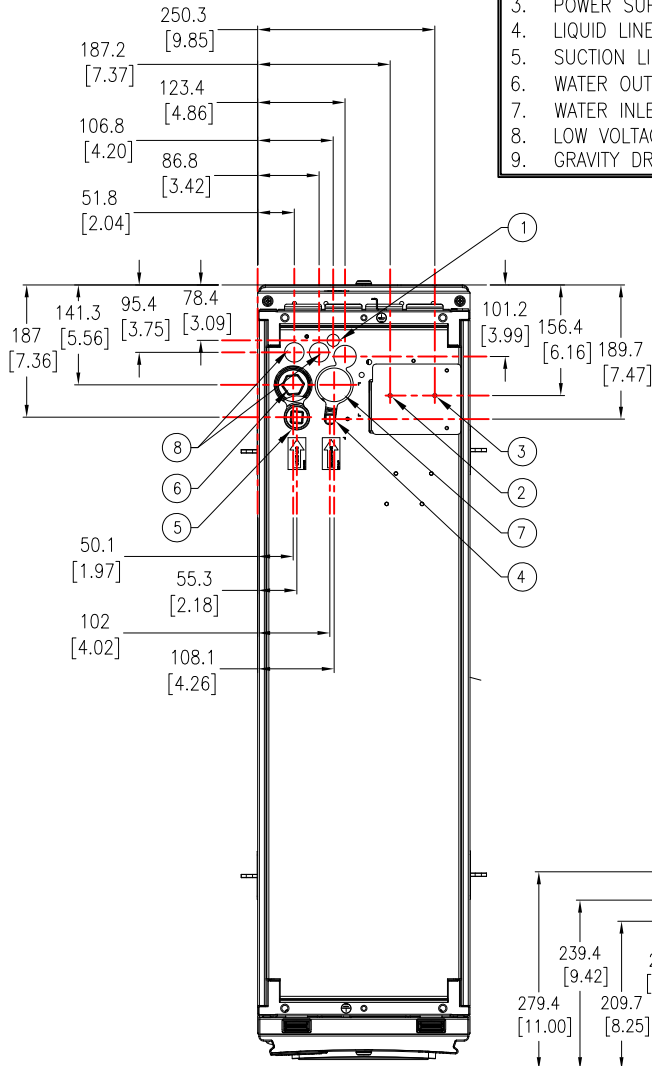


LIMIT WORKING CONDITIONS:

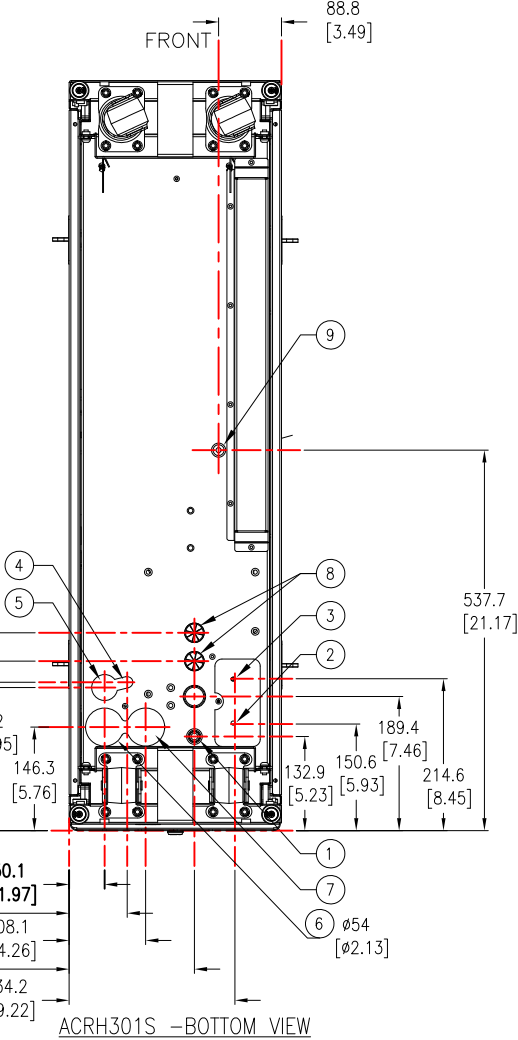
- REFRIGERANT TYPE : R410A
 - VOLTAGE INPUT TOLERANCE : ±10%
 - APPROXIMATE MINIMUM RECOMMENDED LOAD : 8kw (27297 BTU/hr) [FOR DX ONLY MODE]
 - AMBIENT %RH : 5 TO 80%RH
 - ALTITUDE : 3000 METERS (9843 FEET)
- STORAGE CONDITIONS:**
- TEMPERATURE : -25°C TO +65°C (-13°F TO +149°F)
 - HUMIDITY : 5 TO 95%RH

TITLE: InRow DIRECT EXPANSION InRow DX 300mm 30kW Indoor Unit DUAL FEED 100-120V / 200-240V, Standard, CE/UL GENERAL ARRANGEMENT	DWG NO: ACRH301S	REV: 0
PROJECT: SUBMITTAL DRAWINGS	DRAWN: BALA	23-JUN-21
SHEET 1 OF 6	ENGINEER: H YANG	30-JUN-21
	APPROVED: H YANG	30-JUN-21
		FIRST ANGLE PROJECTION

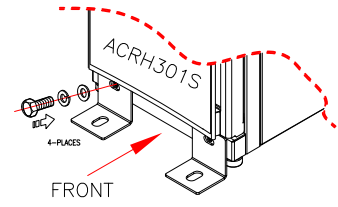
1. CONDENSATE DRAIN LINE OUTLET--0.188 INCH ID
2. POWER SUPPLY 1 INLET
3. POWER SUPPLY 2 INLET
4. LIQUID LINE CONNECTION(1 INCH (14 UNS))--1/2 INCH TUBE
5. SUCTION LINE CONNECTION(1 1/4 INCH (12 UNF))--7/8 INCH TUBE
6. WATER OUTLET(1 7/8 INCH (14 UN) - 1 1/8 INCH TUBE
7. WATER INLET(1 7/8 INCH (14 UN) - 1 1/8 INCH TUBE
8. LOW VOLTAGE INPUT WIRING INLETS
9. GRAVITY DRAIN CONNECTION



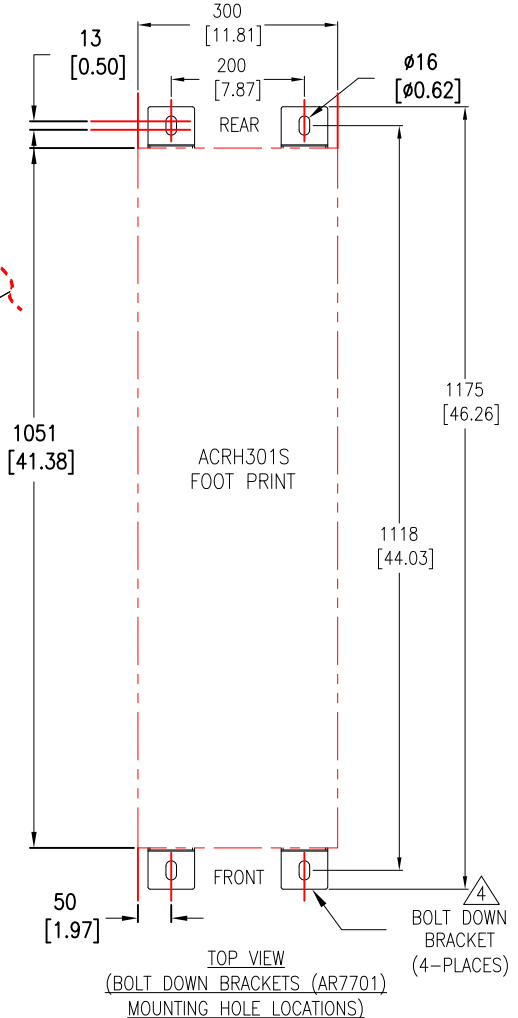
TOP VIEW



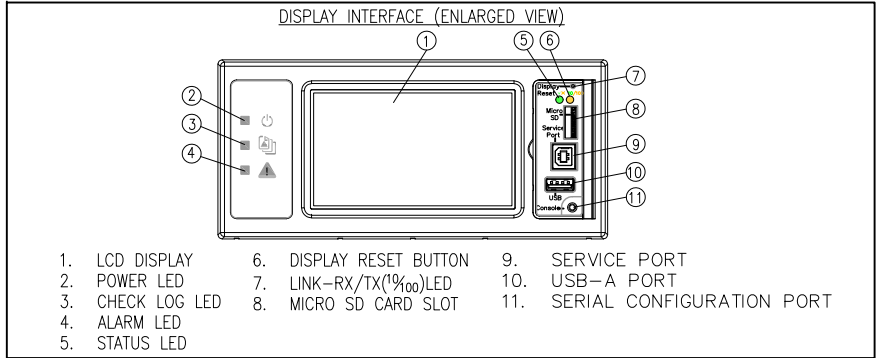
ACRH301S -BOTTOM VIEW



IT IS NOT RECOMMENDED TO PRE-DRILL HOLES BEFORE PLACING RC UNITS IN ROW.



TOP VIEW
(BOLT DOWN BRACKETS (AR7701)
MOUNTING HOLE LOCATIONS)



- | | | |
|------------------|--------------------------------------|-------------------------------|
| 1. LCD DISPLAY | 6. DISPLAY RESET BUTTON | 9. SERVICE PORT |
| 2. POWER LED | 7. LINK-RX/TX(1% ₁₀₀)LED | 10. USB-A PORT |
| 3. CHECK LOG LED | 8. MICRO SD CARD SLOT | 11. SERIAL CONFIGURATION PORT |
| 4. ALARM LED | | |
| 5. STATUS LED | | |

- NOTES:
1. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL STANDARDS.
 2. REFER TO PRODUCT DOCUMENTATION FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
 3. ALL DIMENSIONS ARE IN MILLIMETERS [INCHES].
 - △4. BOLT-DOWN KIT (SKU#AR7701) IS OPTIONAL AND HAS TO BE ORDERED SEPARATELY.

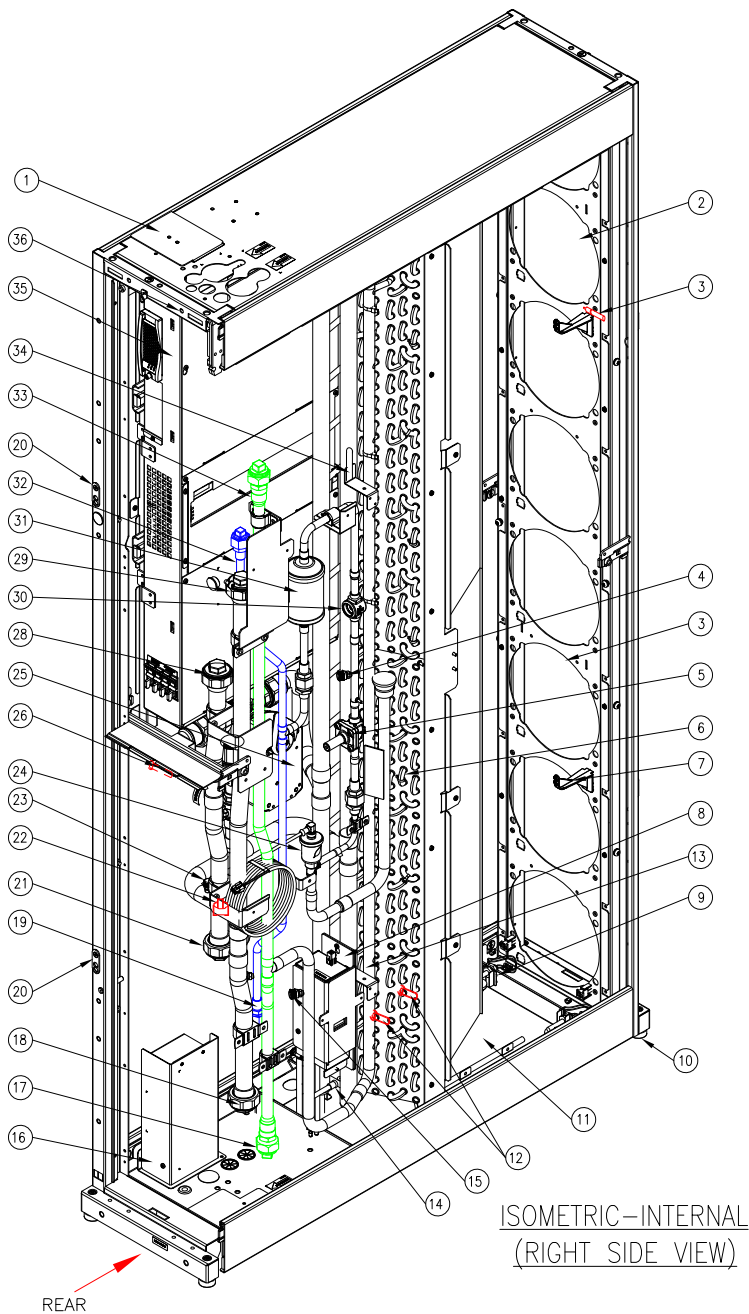
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TITLE: InRow DIRECT EXPANSION
InRow DX 300mm 30kW Indoor Unit
DUAL FEED 100-120V / 200-240V, Standard, CE/UL
TOP-BOTTOM VIEWS AND ANCHORING DETAILS

DWG NO: ACRH301S
REV: 0
DRAWN: BALA 23-JUN-21
ENGINEER: H YANG 30-JUN-21
APPROVED: H YANG 30-JUN-21
PROJECT: SUBMITTAL DRAWINGS SHEET 2 OF 6

FIRST ANGLE PROJECTION



ISOMETRIC-INTERNAL
(RIGHT SIDE VIEW)

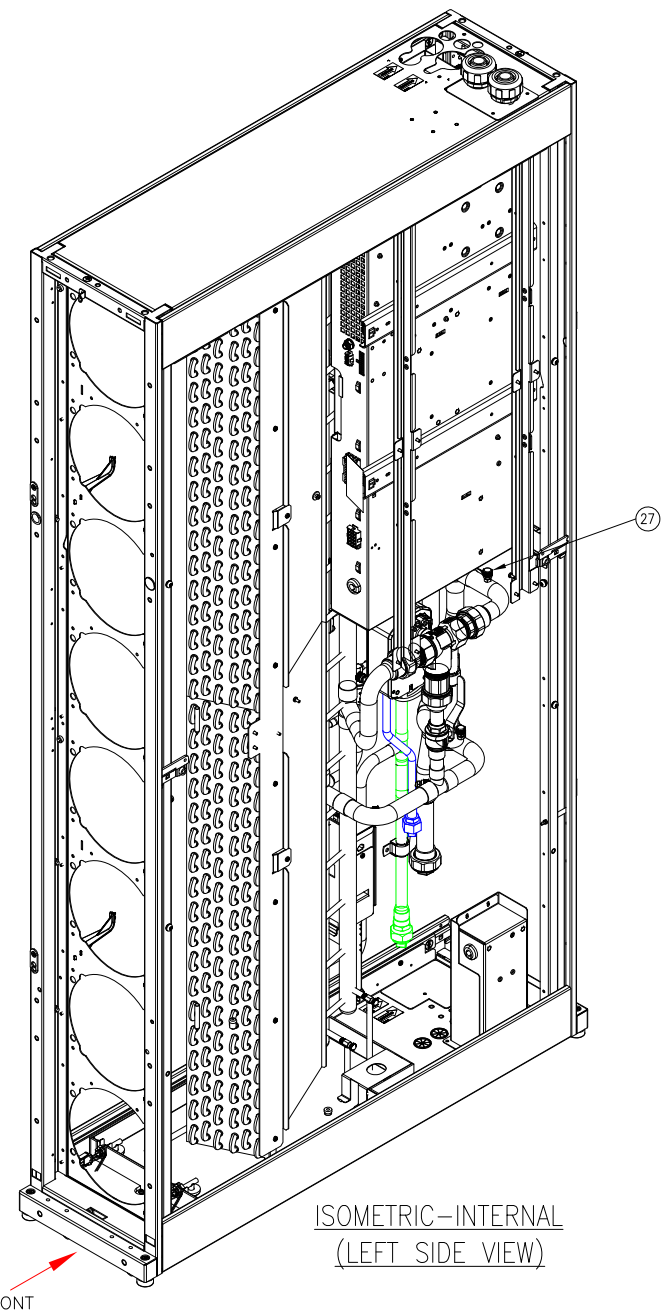
1. POWER SUPPLY CONNECTIONS (TOP)
2. FAN LOCATION-TYPICAL
3. UPPER SUPPLY AIR TEMPERATURE SENSOR
4. LIQUID LINE SERVICE PORT
5. SOLENOID VALVE
6. COOLING COIL
7. LOWER SUPPLY AIR TEMPERATURE SENSOR
8. CONDENSATE DRAIN PUMP
9. DRAIN PAN FLOAT SWITCH
10. LEVELING FEET
11. CONDENSATE DRAIN PAN
12. DRAIN VALVE
13. LOWER RETURN AIR TEMPERATURE SENSOR
14. TEMPERATURE SENSOR (EVAPORATOR COIL OUTLET)
15. SERVICE PORT
16. POWER SUPPLY CONNECTIONS (BOTTOM)
17. BOTTOM OUTLET CONNECTION (SUCTION LINE)
18. PIPE CONNECTION, WATER BOTTOM INLET
19. BOTTOM INLET CONNECTION (LIQUID LINE)
20. JOINING BRACKET
21. PIPE CONNECTION, WATER BOTTOM OUTLET
22. TEMPERATURE SENSOR (WATER IN LINE)
23. SERVICE PORT (INLET WATER)
24. ELECTRONIC EXPANSION VALVE (EEV)
25. 3-WAY VALVE ACTUATOR
26. TEMPERATURE AND HUMIDITY SENSOR
27. SERVICE PORT (OUTLET WATER)
28. PIPE CONNECTION, WATER TOP OUTLET
29. PIPE CONNECTION, WATER TOP INLET
30. SIGHT GLASS
31. FILTER DRIER
32. TOP INLET CONNECTION (LIQUID LINE)
33. TOP OUTLET CONNECTION (SUCTION LINE)
34. UPPER RETURN AIR TEMPERATURE SENSOR
35. ELECTRICAL BOX
36. AIR DISCHARGE VALVE



SUCTION LINE



LIQUID LINE



ISOMETRIC-INTERNAL
(LEFT SIDE VIEW)

NOTES:

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2. REFER TO PRODUCT DOCUMENTATION FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
3. ALL DIMENSIONS ARE IN MILLIMETERS [INCHES].
- △4. CONDUIT BOX A QUANTITY OF 1 ONLY SUPPLIED INSIDE THE UNIT, CAN BE MOUNTED IN LOCATIONS AS SHOWN BASED ON TOP OR BOTTOM ENTRY APPLICATION. REFER TO INSTALLATION MANUAL FOR DETAILS.
5. SOME STRUCTURAL DETAILS BEEN OMITTED FOR THE PURPOSE OF CLARITY.

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TITLE: InRow DIRECT EXPANSION
InRow DX 300mm 30kW Indoor Unit
DUAL FEED 100-120V / 200-240V, Standard, CE/UL
INTERNAL ISOMETRIC VIEWS

DWG NO: ACRH301S

REV: 1

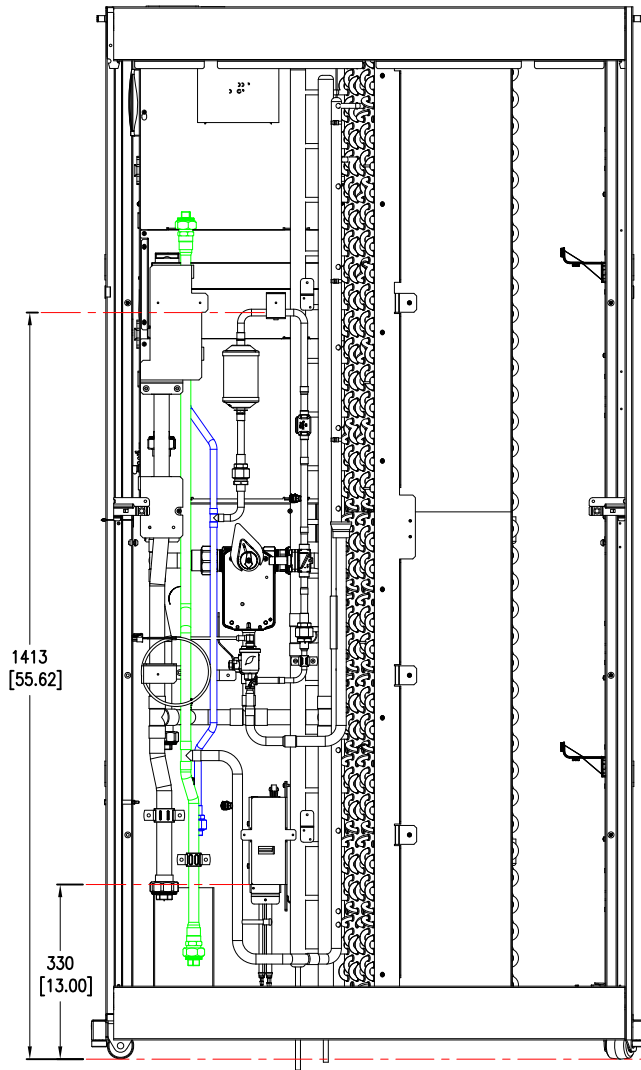
DRAWN: BALA 23-JUN-21

ENGINEER: H YANG 30-JUN-21

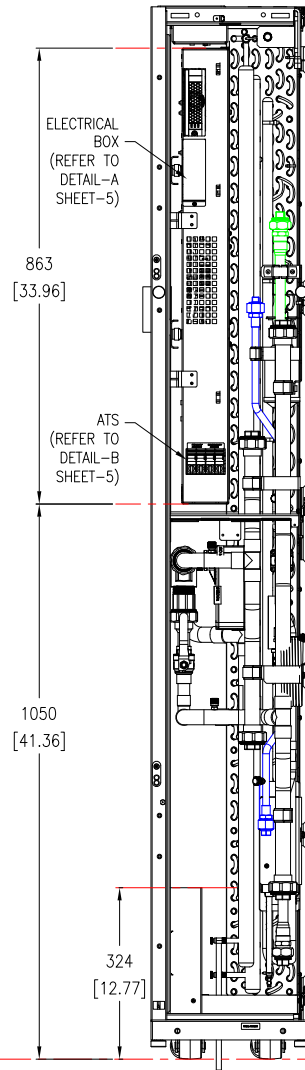
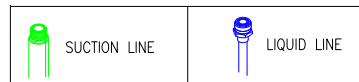
APPROVED: H YANG 30-JUN-21

PROJECT: SUBMITTAL DRAWINGS SHEET 3 OF 6

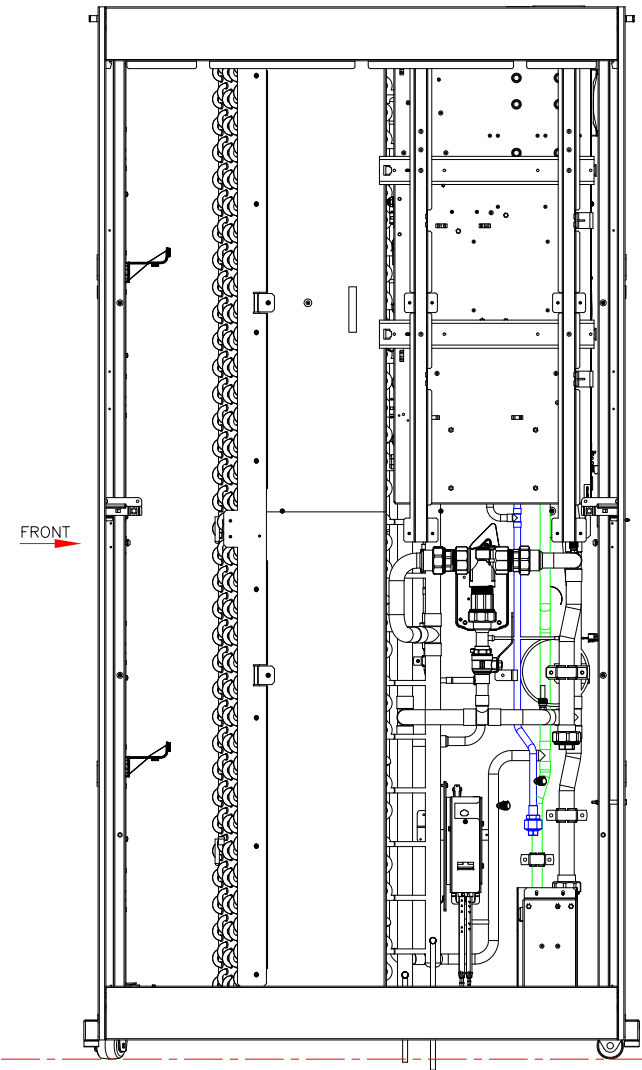
FIRST ANGLE PROJECTION



SIDE VIEW
(INTERNAL)



REAR VIEW
(INTERNAL)



SIDE VIEW
(INTERNAL)

NOTES:

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3. ALL DIMENSIONS ARE IN MILLIMETERS [INCHES].
- △ 4. CONDUIT BOX A QUANTITY OF 1 ONLY SUPPLIED INSIDE THE UNIT, CAN BE MOUNTED IN LOCATIONS AS SHOWN BASED ON TOP OR BOTTOM ENTRY APPLICATION.
5. SUCTION PIPE SHOWN WITH INSULATION IN THIS SHEET.
6. SOME STRUCTURAL DETAILS BEEN OMITTED FOR THE PURPOSE OF CLARITY.

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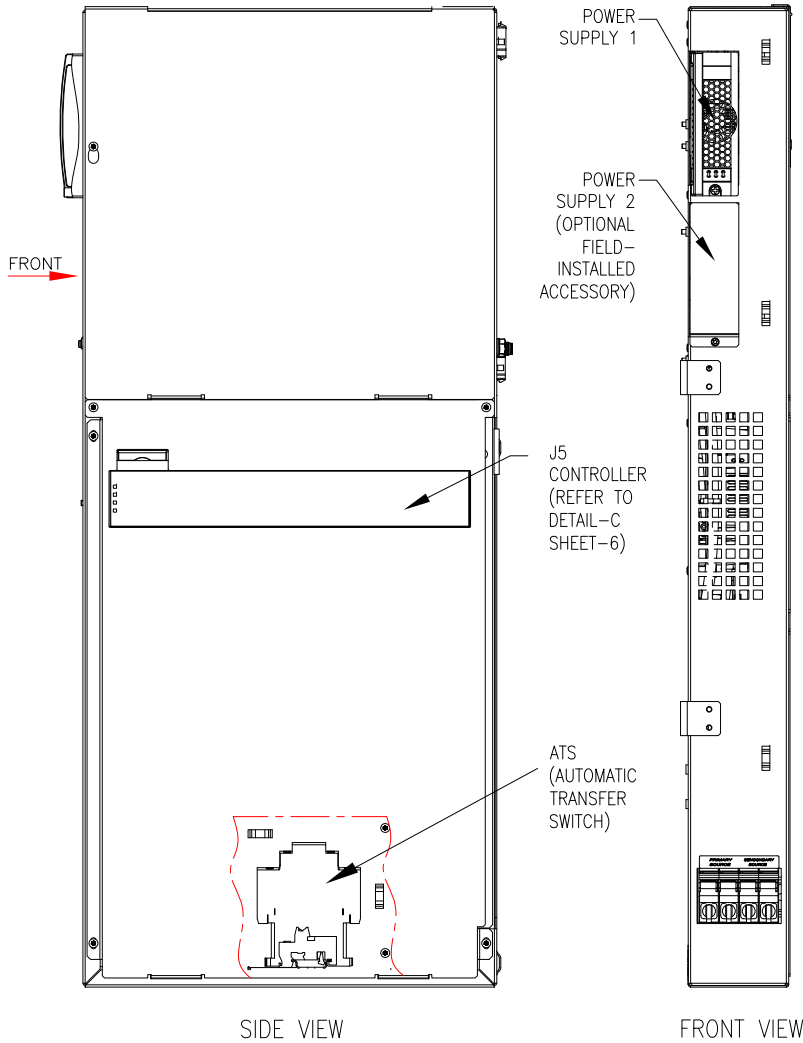
TITLE: InRow DIRECT EXPANSION
InRow DX 300mm 30kW Indoor Unit
DUAL FEED 100-120V / 200-240V, Standard, CE/UL
INTERNAL VIEWS

DWG NO: ACRH301S

REV: 0

DRAWN:	BALA	23-JUN-21	FIRST ANGLE PROJECTION
ENGINEER:	H YANG	30-JUN-21	
APPROVED:	H YANG	30-JUN-21	

DETAIL-A (ELECTRICAL BOX)



NOTE:-
1. REFER THE LADDER DIAGRAM INCLUDED WITH THE UNIT FOR MORE INFORMATION.

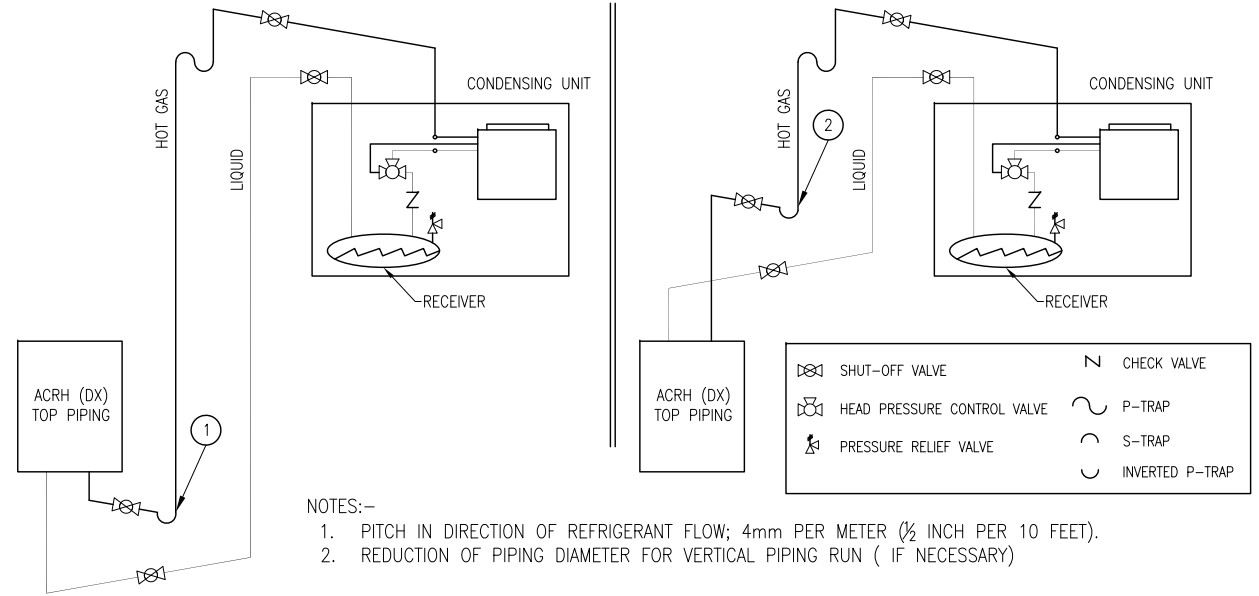
COMMON NOTES:

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2. REFER TO PRODUCT DOCUMENTATION FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
3. SOME STRUCTURAL DETAILS BEEN OMITTED FOR THE PURPOSE OF CLARITY.

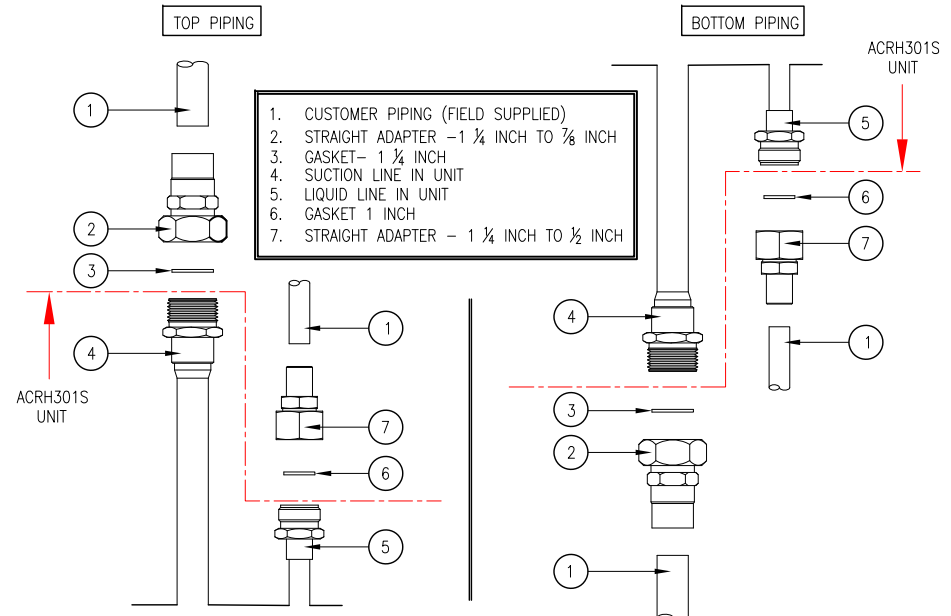
BOTTOM PIPING

REFRIGERATION PIPING DIAGRAM

TOP PIPING



CUSTOMER PIPING CONNECTIONS



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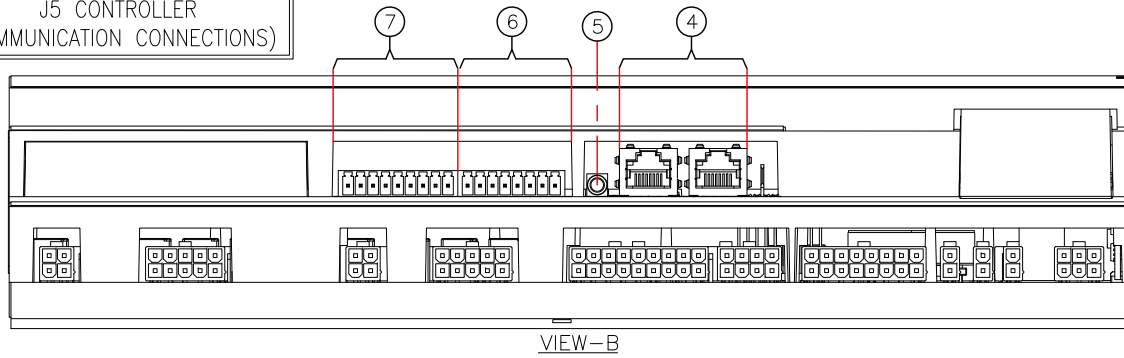


TITLE: InRow DIRECT EXPANSION InRow DX 300mm 30kW Indoor Unit DUAL FEED 100-120V / 200-240V, Standard, CE/UL INTERNAL DETAILS AND REFRIGERATION PIPING DIAGRAM

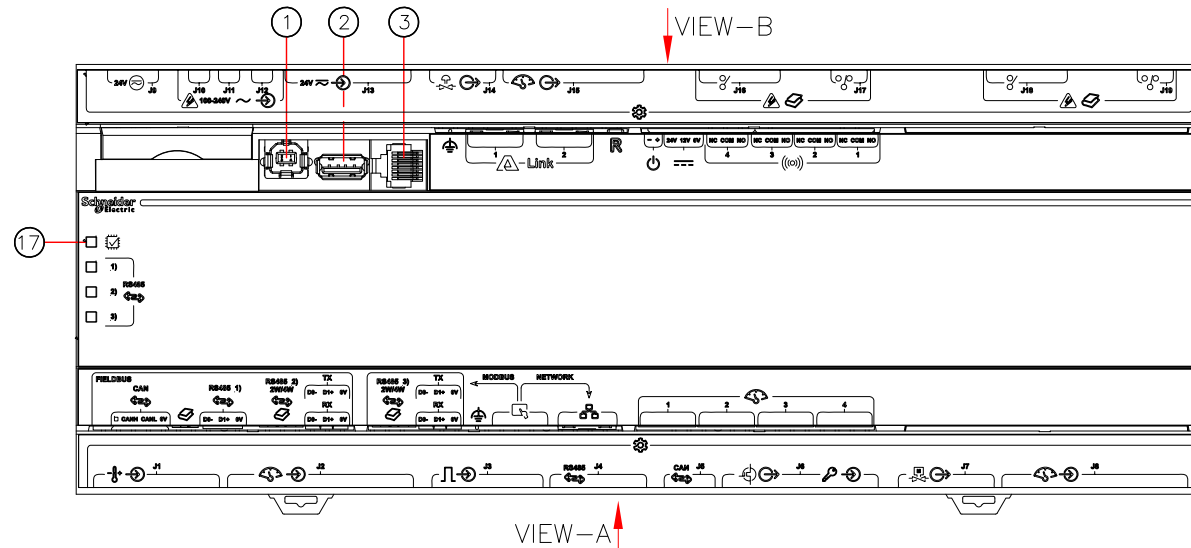
PROJECT: SUBMITTAL DRAWINGS SHEET 5 OF 6

DWG NO:	ACRH301S		REV:	0
DRAWN:	BALA	24-JUN-21	FIRST	ANGLE
ENGINEER:	H YANG	30-JUN-21	PROJECTION	
APPROVED:	H YANG	30-JUN-21		

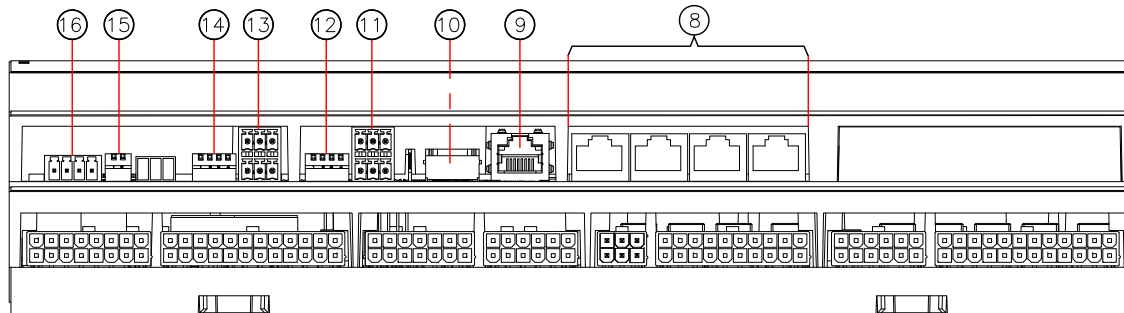
J5 CONTROLLER
(COMMUNICATION CONNECTIONS)



VIEW-B

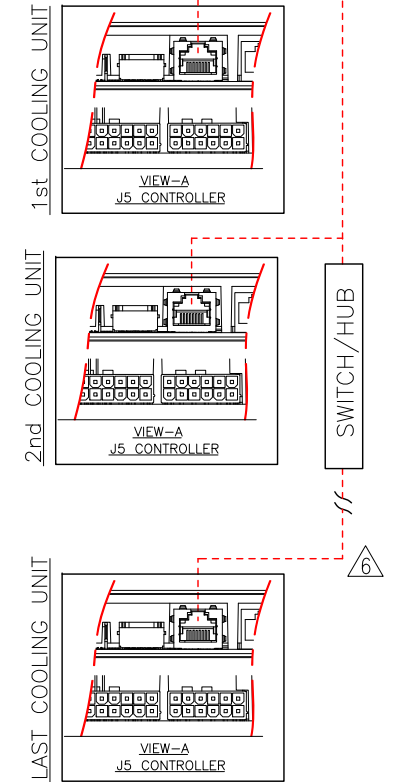


VIEW-A



VIEW-A

J5 CONTROLLER
(NETWORK CONNECTIONS)



NOTES:

1. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL STANDARDS.
2. REFER TO PRODUCT DOCUMENTATION FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
3. FOR OUTPUT RELAY DETAILS, MODBUS SWITCH CONFIGURATIONS AND STANDBY INPUTS DETAILS, REFER TO INSTALLATION MANUAL.
4. THE A-LINK BUS CONNECTION ALLOWS A MAXIMUM GROUP OF 20 UNIFLAIR InRow ACRH301S UNITS.
5. TO ENABLE UNITS TO FUNCTION AS A GROUP, LINK THEM TOGETHER USING A STANDARD PIN-OUT CAT-5 CABLE WITH RJ-45 CONNECTORS. THE A-LINK BUS MUST BE TERMINATED AT THE 1st AND LAST UNIT INSTALLED IN THE GROUP. AN A-LINK TERMINATOR IS SUPPLIED WITH EACH UNIT.
- △ 6. THE MAXIMUM WIRE LENGTH FOR THE ENTIRE GROUP MUST NOT EXCEED 500 METERS (1640 FEET).
7. ALL INPUT AND OUTPUT CONNECTIONS SHOULD BE WIRED AS CLASS 2 CIRCUITS.

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TITLE: InRow DIRECT EXPANSION
InRow DX 300mm 30kW Indoor Unit
DUAL FEED 100-120V / 200-240V, Standard, CE/UL
COMMUNICATION DETAILS

DWG NO: ACRH301S

REV: 0

PROJECT: SUBMITTAL DRAWINGS SHEET 6 OF 6

DRAWN:	BALA	23-JUN-21	FIRST ANGLE PROJECTION
ENGINEER:	H YANG	30-JUN-21	
APPROVED:	H YANG	30-JUN-21	

1. USB DEVICE PORT
2. USB HOST PORT
3. SERIAL PORT
4. A-LINK PORTS
5. RESET BUTTON
6. OUTPUT RELAY 4/STANDBY INPUT
7. OUTPUT RELAY 1-3
8. UNIVERSAL SENSOR PARTS
9. NETWORK CONNECTION
10. TOUCH SCREEN DISPLAY CONNECTION
11. MODBUS CONNECTION
12. MODBUS CONFIGURATION SWITCHES
13. FIELDBUS MODBUS CONNECTION
14. FIELDBUS MODBUS CONFIGURATION SWITCHES
15. FIELDBUS CANBus CONFIGURATION SWITCHES
16. FIELDBUS CANBus CONNECTION
17. PROCESSOR STATUS LED