

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
FEATURES/OPTIONS	
FAN TYPE	ELECTRICALLY COMMUTATED
MAXIMUM AIRFLOW –l/s(CFM)	5437 m <sup>3</sup> /h (3200 CFM)
FAN CONTROL	VARIABLE SPEED
NUMBER OF FANS	8
HOT SWAPPABLE FANS	YES
HOT AISLE /RACK AISLE CONTAINMENT COMPATIBLE	YES
REFRIGERANT TYPE	R410A
NETWORK MANAGEMENT CARD	INCLUDED
STANDARD FILTER TYPE	0.5-in. WASHABLE
STANDARD FILTER EFFICIENCY	MERV 1
OPTIONAL FILTER TYPE	2-in. PLEATED
OPTIONAL FILTER EFFICIENCY	MERV 8
DRAINAGE SYSTEM	GRAVITY DRAIN/ CONDENSATE PUMP
NUMBER OF RACK INLET TEMP SENSORS	1
PIPING CONNECTIONS	TOP OR BOTTOM
ELECTRICAL CONNECTIONS	TOP OR BOTTOM
CABLE TYPE WATER DETECTOR	OPTIONAL
ELECTRICAL REHEAT	NO
HUMIDIFICATION	NO

#### LIMIT WORKING CONDITIONS:

- REFRIGERANT TYPE : R410A
- VOLTAGE INPUT TOLERANCE :  $\pm 10\%$
- APPROXIMATE MINIMUM RECOMMENDED LOAD : 8kW (27297 BTU/hr)
- OUTDOOR AMBIENT TEMPERATURE WITHOUT THE LOW AMBIENT TEMPERATURE KIT INSTALLED:  
DOWN TO  $-15^{\circ}\text{C}(+5^{\circ}\text{F})$  UP TO  $48^{\circ}(118^{\circ}\text{F})$ .
- OUTDOOR AMBIENT TEMPERATURE WITH THE LOW AMBIENT TEMPERATURE KIT INSTALLED:  
DOWN TO  $-40^{\circ}\text{C}(-40^{\circ}\text{F})$  UP TO  $48^{\circ}(118^{\circ}\text{F})$ .
- AMBIENT %RH : 5 TO 80%RH
- ALTITUDE : 3000 METERS (9843 FEET).

#### 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.
- SUCCTION PIPE SHOWN WITHOUT INSULATION IN THIS SHEET.
- AVAILABLE PIPING CONFIGURATIONS: TOP OR BOTTOM.
- NET WEIGHT OF UNIT IS 160 kg [352.7 lb].
- THIS INFORMATION PROVIDES APPROXIMATE CENTER OF GRAVITY CALCULATION.

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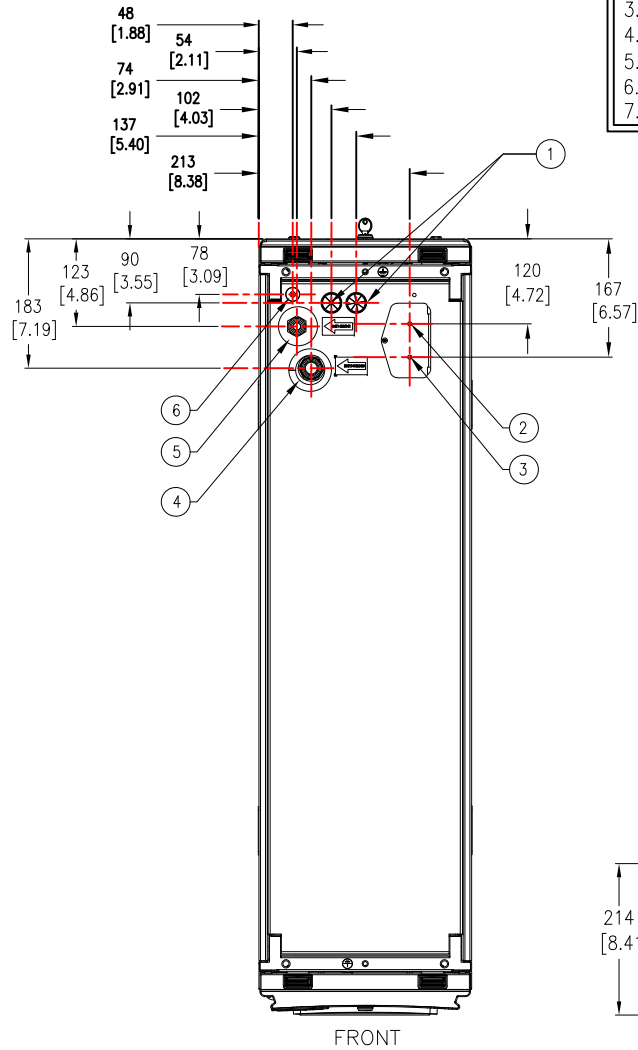
TITLE: InRow DIRECT EXPANSION  
InRow RD 300mm 30kW Indoor Unit  
DUAL FEED –120–230V, Standard, CE/UL  
GENERAL ARRANGEMENT

PROJECT: SUBMITTAL DRAWINGS SHEET 1 OF 6

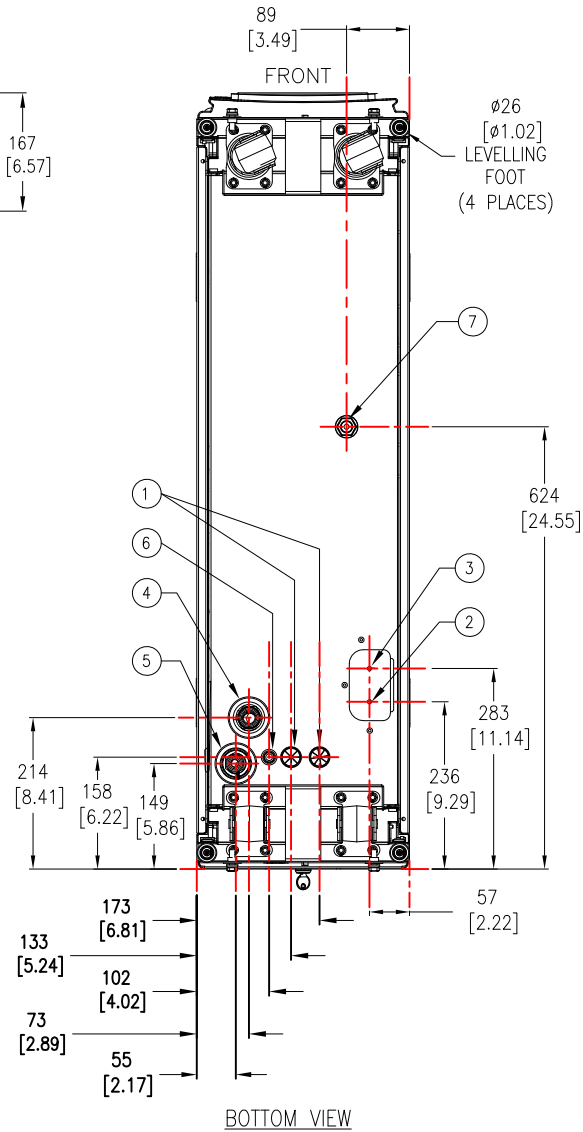
DWG NO: ACRD301S  
DRAWN: DIBYA/JAYAPRAKASH 23-AUG-24  
ENGINEER: XUXIANG ZHANG 28-AUG-24  
APPROVED: RAAM/WILLY 28-AUG-24

REV. 1  
FIRST ANGLE PROJECTION

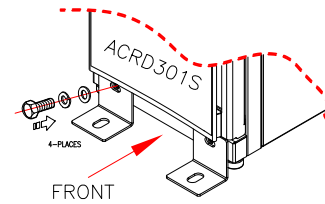
1. LOW VOLTAGE INPUT WIRING INLETS
2. POWER SUPPLY 1 INLET
3. POWER SUPPLY 2 INLET
4. SUCTION LINE CONNECTION- 1 1/4 INCH (12 UNF)
5. LIQUID LINE CONNECTION- 1 INCH (14 UNS)
6. CONDENSATE DRAIN LINE OUTLET
7. GRAVITY DRAIN CONNECTION



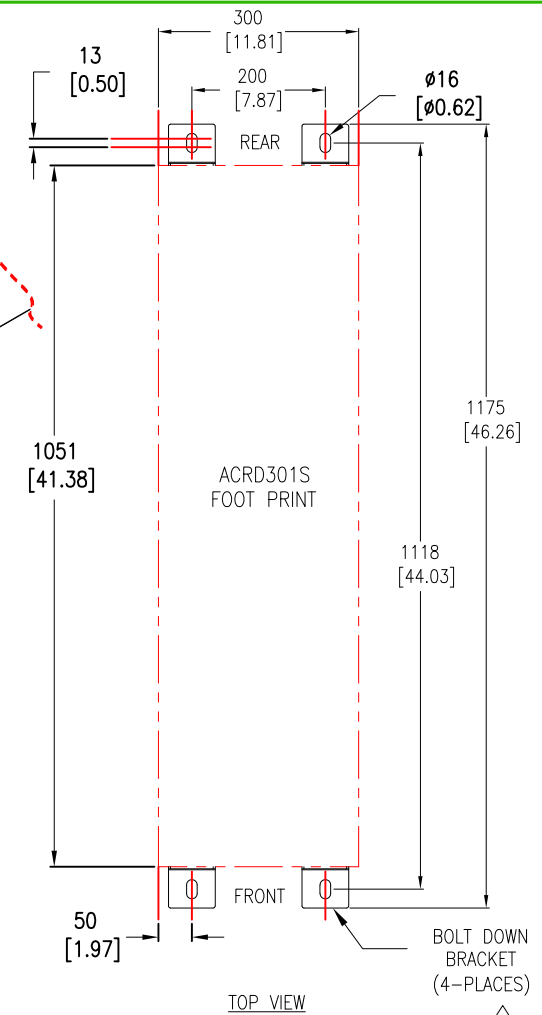
TOP VIEW



BOTTOM VIEW

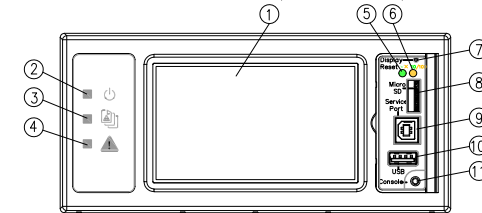


IT IS NOT RECOMMENDED TO PRE-DRILL HOLES BEFORE PLACING RC UNITS IN ROW.



TOP VIEW

DISPLAY INTERFACE (ENLARGED VIEW)



- |                  |                         |                               |
|------------------|-------------------------|-------------------------------|
| 1. LCD DISPLAY   | 6. DISPLAY RESET BUTTON | 9. SERVICE PORT               |
| 2. POWER LED     | 7. LINK-RX/TX 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:

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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. BOLT-DOWN KIT (SKU#AR7701) IS OPTIONAL AND HAS TO BE ORDERED SEPARATELY.

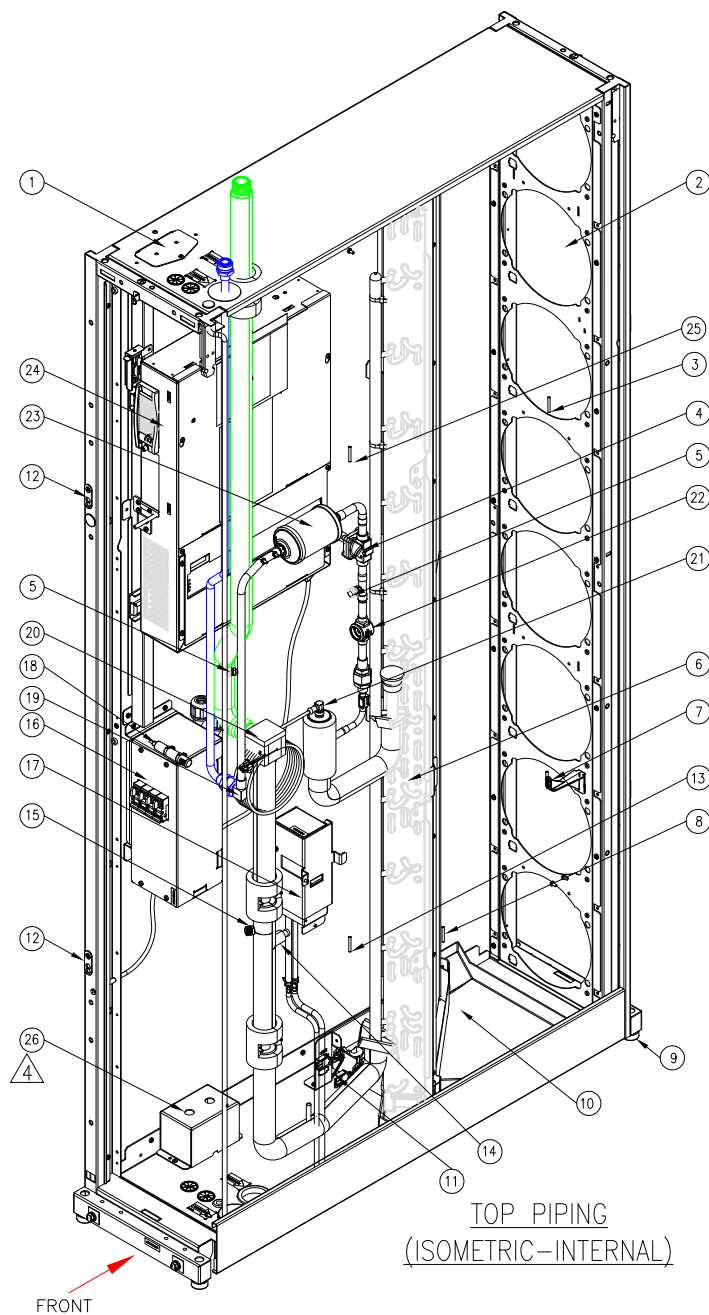
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TITLE: InRow DIRECT EXPANSION  
InRow RD 300mm 30kW Indoor Unit  
DUAL FEED -120-230V, Standard, CE/UL  
TOP-BOTTOM VIEWS AND ANCHORING DETAILS

PROJECT: SUBMITTAL DRAWINGS SHEET 2 OF 6

DWG NO:	ACRD301S	REV:	0
DRAWN:	BALA	23-OCT-20	FIRST ANGLE PROJECTION
ENGINEER:	RAAM C/K CHENG	23-OCT-20	
APPROVED:	RAAM C/K CHENG	23-OCT-20	



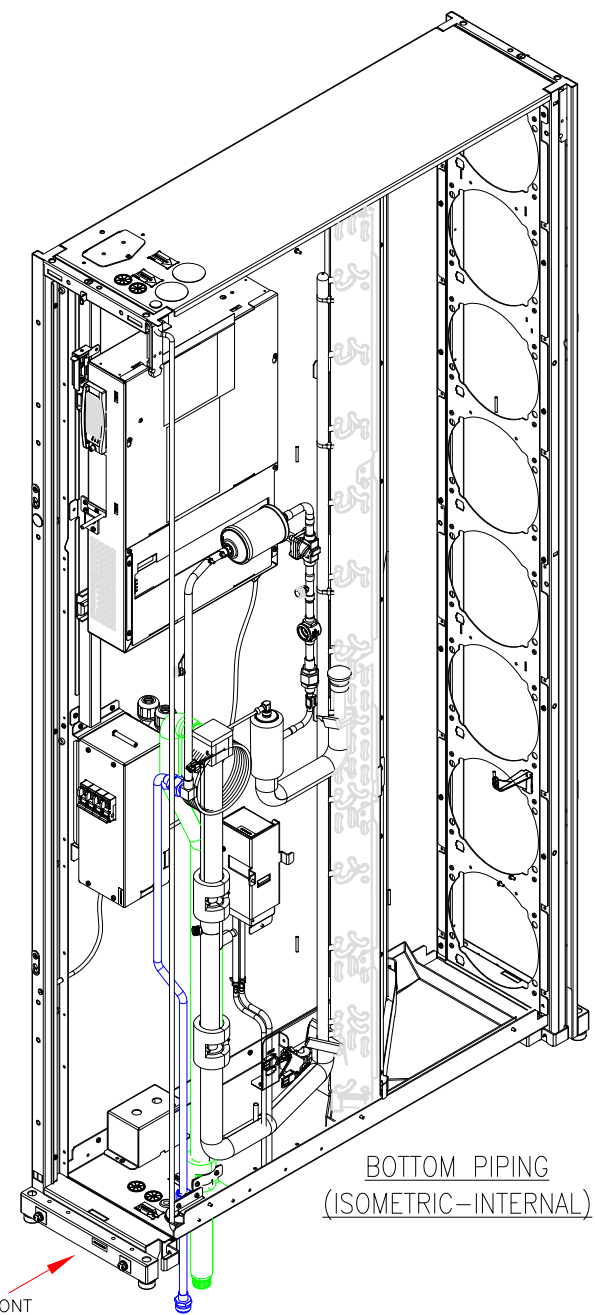
1. POWER SUPPLY CONNECTIONS (TOP)
2. FAN LOCATION (TYPICAL)
3. UPPER SUPPLY AIR TEMPERATURE SENSOR
4. SOLENOID VALVE
5. LIQUID LINE SERVICE PORT
6. COOLING COIL
7. LOWER SUPPLY AIR TEMPERATURE
8. REFRIGERANT TEMPERATURE SENSOR
9. LEVELING FEET
10. CONDENSATE DRAIN PAN
11. DRAIN PAN FLOAT SWITCH
12. JOINING BRACKET
13. LOWER RETURN AIR TEMPERATURE SENSOR
14. TEMPERATURE SENSOR (SUCTION)
15. GAS LINE SERVICE PORT
16. AUTOMATIC TRANSFER SWITCH (ATS)
17. CONDENSATE DRAIN PUMP
18. TEMPERATURE AND HUMIDITY SENSOR(OPTIONAL)
19. INLET CONNECTION
20. OUTLET CONNECTION
21. ELECTRONIC EXPANSION VALVE (EEV)
22. SIGHT GLASS
23. FILTER DRIER
24. ELECTRICAL BOX
25. UPPER RETURN AIR TEMPERATURE SENSOR
26. CONDUIT BOX LOCATION (BOTTOM ENTRY)



SUCTION LINE  
(WITH INSULATION)



LIQUID LINE



#### 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. 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 RD 300mm 30kW Indoor Unit  
DUAL FEED -120-230V, Standard, CE/UL  
INTERNAL ISOMETRIC VIEWS

PROJECT: SUBMITTAL DRAWINGS SHEET 3 OF 6

DWG NO: ACRD301S

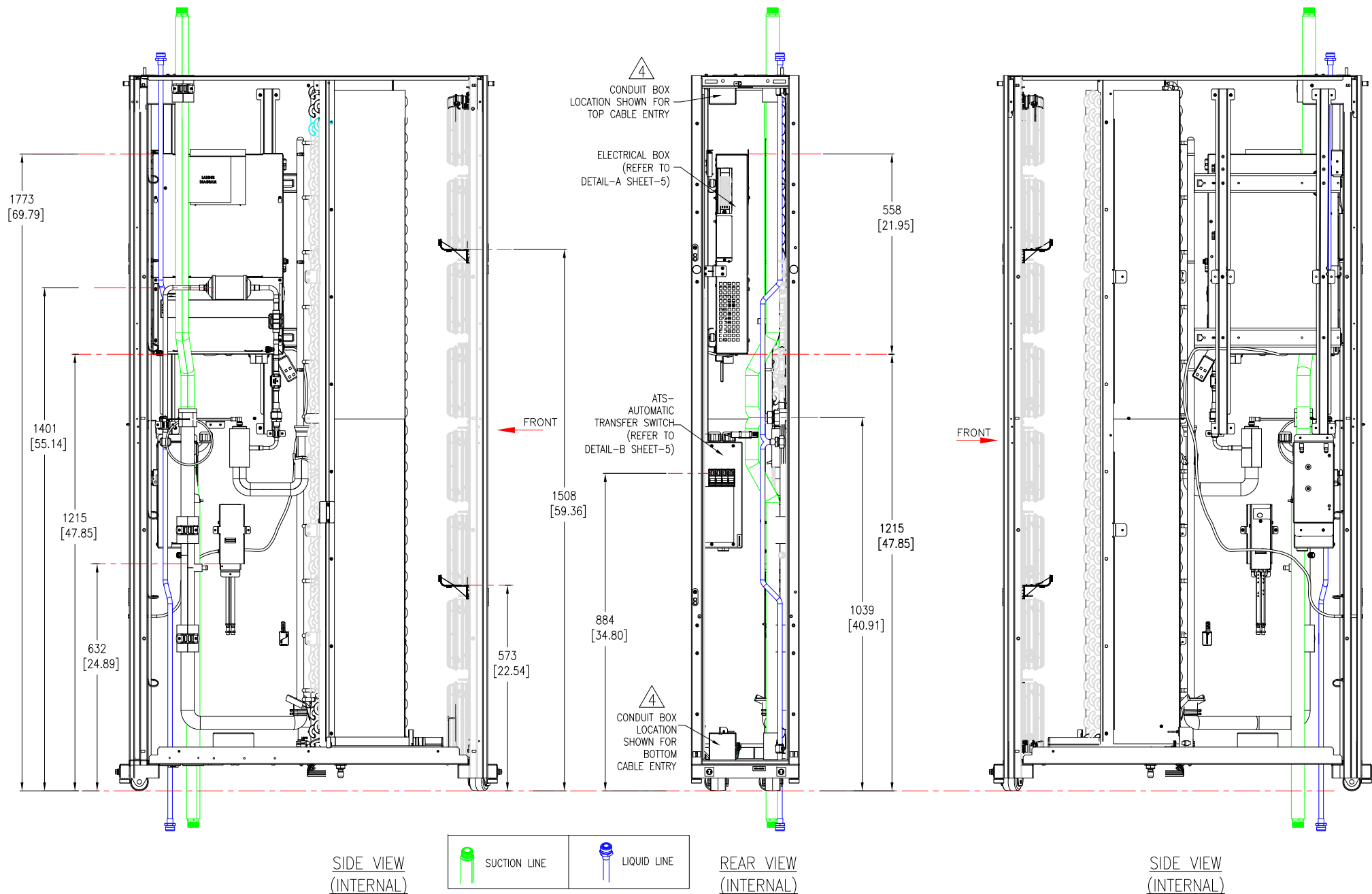
DRAWN: BALA 29-SEP-20

ENGINEER: RAAM C/K CHENG 15-OCT-20

APPROVED: RAAM C/K CHENG 15-OCT-20

REV: 0

FIRST  
ANGLE  
PROJECTION



#### NOTES:

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- △ 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 RD 300mm 30kW Indoor Unit  
DUAL FEED -120-230V, Standard, CE/UL  
INTERNAL VIEWS

PROJECT: SUBMITTAL DRAWINGS SHEET 4 OF 6

DWG NO: ACRD301S

DRAWN: BALA 29-SEP-20

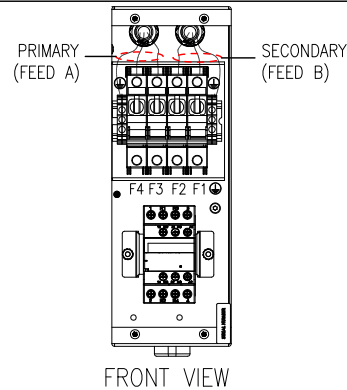
ENGINEER: RAAM C/K CHENG 15-OCT-20

APPROVED: RAAM C/K CHENG 15-OCT-20

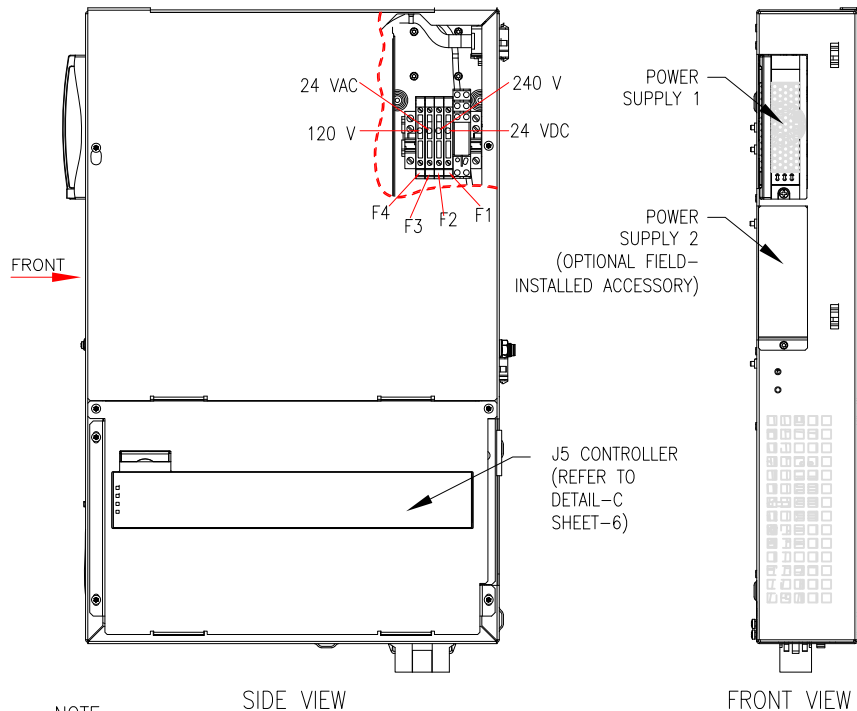
REV: 0

FIRST ANGLE PROJECTION

DETAIL-B (ATS-AUTOMATIC TRANSFER SWITCH)



DETAIL-A (ELECTRICAL BOX)



- NOTE:-
- 200-240V : CONFIGURE THE WIRE LABELED F2-1 TO THE 240-V FUSE.
  - 100-120V : CONFIGURE THE WIRE LABELED F2-1 TO THE 120-V FUSE.
  - REFER THE LADDER DIAGRAM INCLUDED WITH THE UNIT FOR MORE INFORMATION.

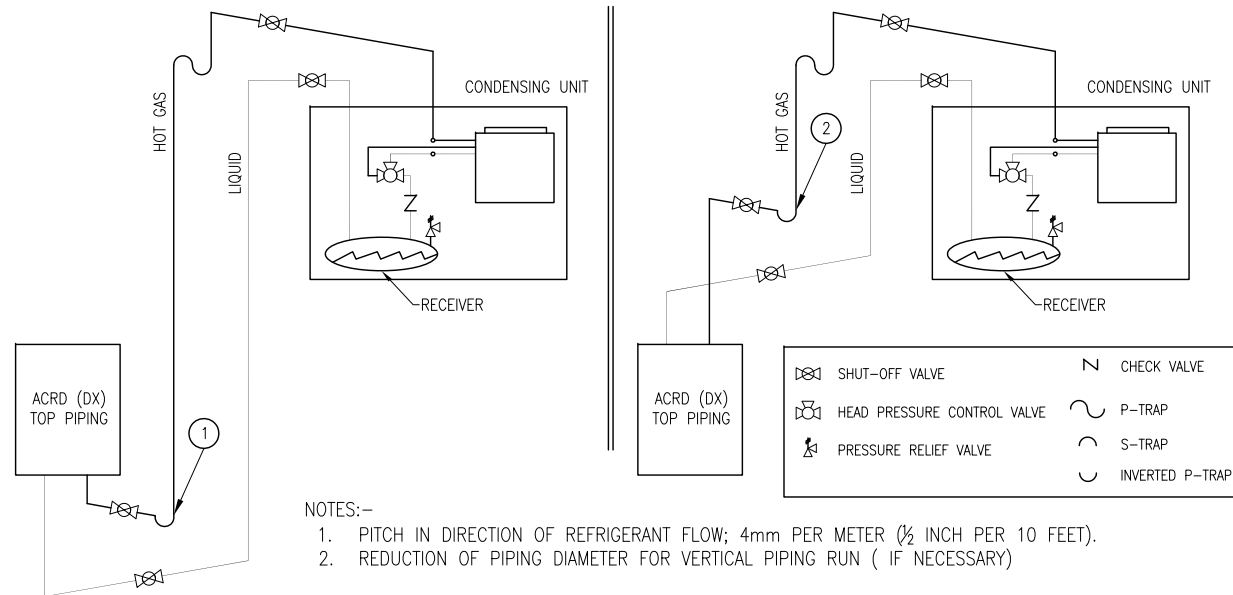
COMMON NOTES:

- INSTALLATION SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL STANDARDS.
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- SOME STRUCTURAL DETAILS BEEN OMITTED FOR THE PURPOSE OF CLARITY.

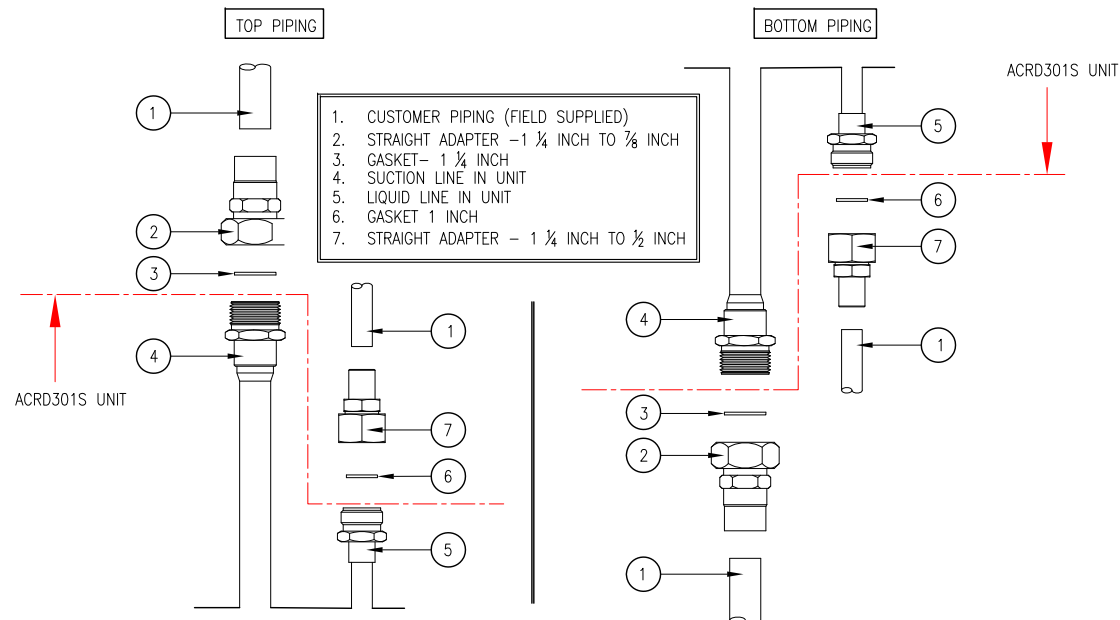
BOTTOM PIPING

REFRIGERATION PIPING DIAGRAM

TOP PIPING



CUSTOMER PIPING CONNECTIONS



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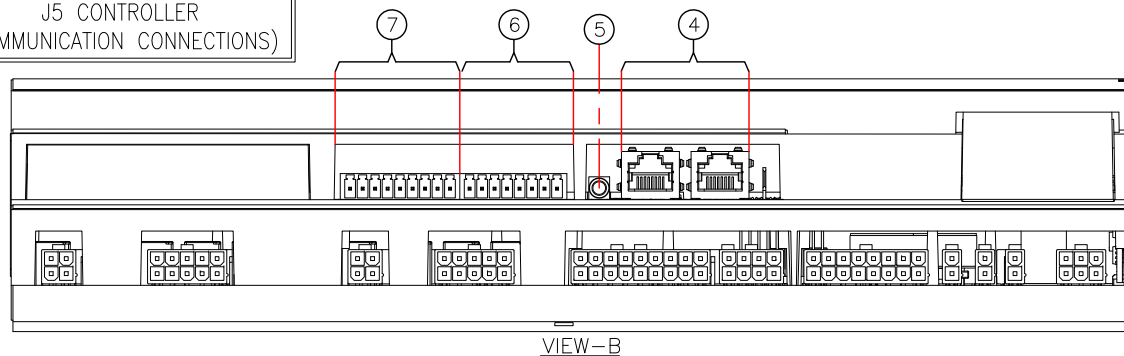
TITLE: InRow DIRECT EXPANSION  
InRow RD 300mm 30kW Indoor Unit  
DUAL FEED -120-230V, Standard, CE/UL  
INTERNAL DETAILS AND  
REFRIGERATION PIPING DIAGRAM

PROJECT: SUBMITTAL DRAWINGS | SHEET 5 OF 6

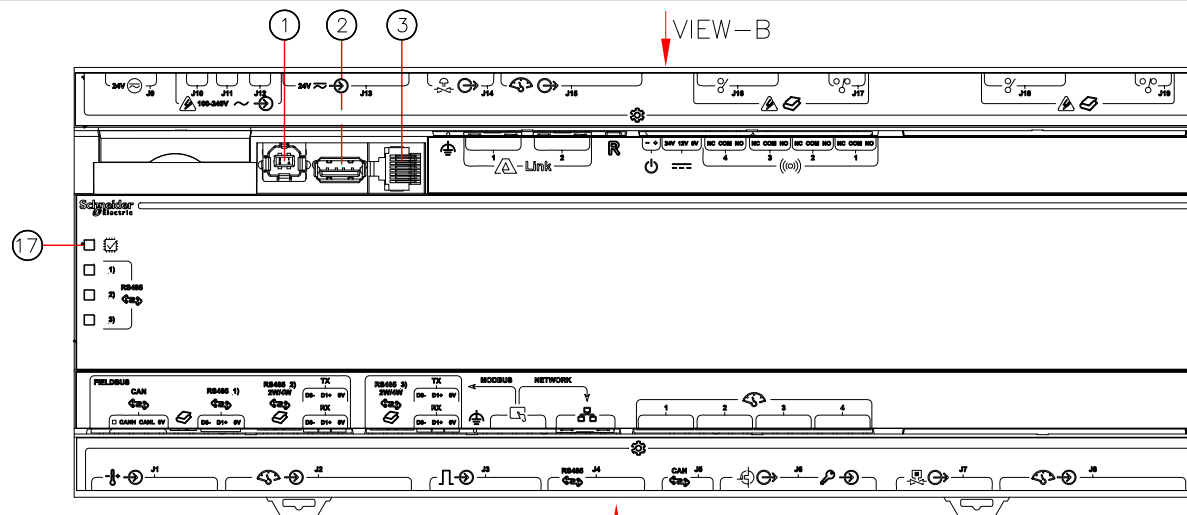
DWG NO: ACRD301S 0

DRAWN: BALA	29-SEP-20	FIRST ANGLE
ENGINEER: RAAM C/K CHENG	15-OCT-20	PROJECTION
APPROVED: RAAM C/K CHENG	15-OCT-20	

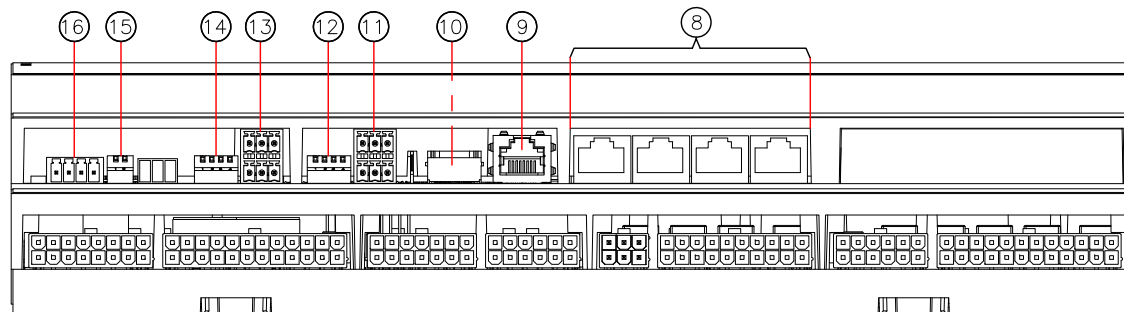
# J5 CONTROLLER (COMMUNICATION CONNECTIONS)



VIEW-B



VIEW-A



VIEW-A

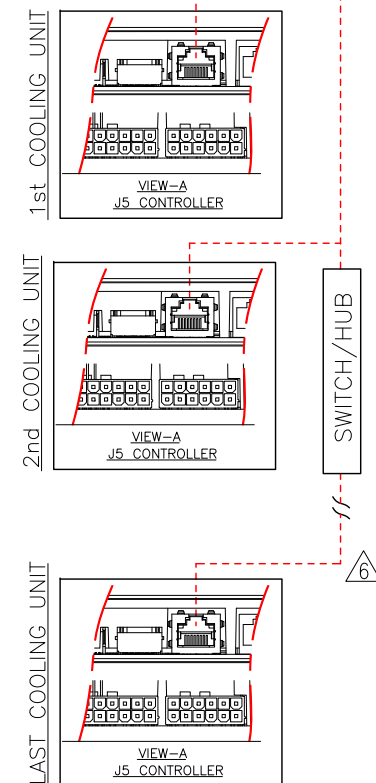
## NOTES:

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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 UNIFLIR InRow ACRD301S 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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# J5 CONTROLLER (NETWORK CONNECTIONS)



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

TITLE: InRow DIRECT EXPANSION  
InRow RD 300mm 30kW Indoor Unit  
DUAL FEED -120-230V, Standard, CE/UL  
COMMUNICATION DETAILS

DWG NO: ACRD301S  
REV: 0  
DRAWN: BALA 29-SEP-20  
ENGINEER: RAAM C/K CHENG 15-OCT-20  
APPROVED: RAAM C/K CHENG 15-OCT-20  
PROJECT: SUBMITTAL DRAWINGS SHEET 6 OF 6  
FIRST ANGLE PROJECTION