



MECHANICAL PERMIT APPLICATION

City of Portland, Oregon - Bureau of Development Services

1900 SW 4th Avenue, Portland, Oregon 97201 • 503-823-7300 • TTY 503-823-6868 • www.portlandoregon.gov/bds

Type of work

New construction Addition/alteration/replacement
 Demolition Other:

Category of construction

1 & 2 family dwelling Commercial/industrial Accessory building
 Multifamily Master builder Other:

Job site information and location

Job no.: Job address: 2136 East Burnside
City/State/ZIP: Portland Oregon 97214
Suite/bldg./apt. no.: Project name: LUCK HVAC
Cross street/directions to job site: Burnside and 22nd
Subdivision: Lot no. Tax map/parcel no.

Description of work (example: upstairs bath fan/dryer exhaust)

Install ductless mini split AC with interlocking controls box to prevent conflict.

Provide RS permit no.

Property owner Tenant

Name: Bitar Bros a Limited Partnership E-mail: barbara@bitarcompanies.com
Address: 2929 E Burnside
City/State/ZIP: Portland OR 97214
Phone: 503 234 0337 FAX: 503 234 0339
Owner installation: This installation is being made on property that I own, which is not intended for sale, lease, rent, or exchange
Owner signature: [Signature] Date: 6/26/16

Contractor Subcontractor

Business name: D & D Mech E-mail: ddmechanical@gmail.com
Address: WILSON 78th st @ gmail.com
City/State/ZIP: Portland OR 97218
Phone: 503-335-7966 FAX:
Lic. no. CCB lic. no. 143103
Authorized signature: [Signature]
Print name: Douvan Dale Date:

Applicant Contact Person

Business name: Luck
Contact name: John Taborda
Address: 505 SE 16th Ave
City/State/ZIP: Portland Oregon 97214
Phone: 503 780 7618 FAX:
E-mail: taborda.john@gmail.com

This permit application expires if a permit is not obtained within 180 days after it has been accepted as complete.

Commercial Fee Schedule - Use Checklist

Mechanical permit fees* are based on the value of the work performed. Indicate the value (rounded to the nearest dollar of all mechanical materials, equipment, labor, overhead and profit.)
Value: \$ 9,000

Residential Equipment / Systems Fees

For special information use checklist

Description	Qty.	Fee	Total
Heating / cooling			
Air conditioner (site plan required)	1	\$26	
Furnace / burner including duct work / vent / liner		\$55	
Heat pump (site plan required)	1	\$51	
Air handling unit	2	\$26	
Hydronic hot water system		\$32	
Residential boiler (radiator or hydronic) includes piping		\$32	
Unit heaters (fuel type, not electric) in-wall, in-duct, suspended, etc.		\$26	
Vent for appliance other than furnace		\$22	
Alteration of existing HVAC system		\$32	

Other fuel appliances

Decorative gas fireplace		\$26	
Flue vent for water heater or gas fireplace		\$22	
Wood / pellet stove		\$57	
Gas or wood fireplace / insert		\$57	
Chimney / liner / flue / vent		\$22	
Other:		\$32	

Environmental exhaust and ventilation

Range hood / other kitchen equipment		\$14	
Clothes dryer exhaust		\$14	
Single-duct exhaust (bathrooms, toilet compartments, utility rooms)		\$14	
Exhaust system apart from Heating or AC		\$22	
Other:		\$32	

Gas fuel piping

\$15 for the first four, \$2.70 for each additional. Please indicate number of fuel gas piping outlets below

Furnace, etc.			
Gas heat pump			
Wall / suspended / unit heater			
Water heater / boiler			
Fireplace			
Range			
Barbecue			
Clothes dryer			
Other:			

Other appliances

Including oil tanks, gas and diesel generators, gas and electric kilns, gas appliances / equipment not included above		\$32	
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Mechanical permit fees

Subtotal	
Minimum permit fee (\$95)	
Commercial plan review (60% of permit fee)	
State surcharge (12% of permit fee)	
TOTAL PERMIT FEE	



Luce



Submittal Data: 45RLXFZ
Inverter Driven Heat Pump

45,000 BTU Multi-Zone System

Job Name: _____
Location: _____
Engineer: _____
Submitted to: _____
Submitted by: _____
Reference: _____

Date: _____
Approval: _____
Construction: _____
Unit #: _____
Drawing #: _____

General Features

- Wired or wireless remote
- Apple catechin filter
- Ion deodorizing filter
- Auto louver: 4-way
- Low ambient cooling
- Blue fin coating
- 132 connection patterns
- Standard Warranty: 5 years parts, 7 years compressor. Applies to systems purchased before June 1st 2015*
- Extended Warranty: 10 years parts, 10 years compressor. Systems that have been installed on or after June 1st 2015 by licensed contractors and the online Product Registration has been submitted.**
- Elite Contractor Extended Warranty: 12 years parts, 12 years compressor. Systems that have been installed on or after June 1st 2015 by contractors who have met requirements and have been approved for elite contractor status plus, the online Product Registration has been submitted.***

Model Information

Condenser..... AOU45RLXFZ
Evaporator^..... (ARU) / (AGU) / (AUU) (ASU) 7, 9, 12, 18, 24RLF(1)
Connectable indoor units..... 2 - 5
Total capacity range..... 34,000 – 54,000 Btu/h
Electrical
Available Voltage Range..... 208/230V AC 1ph-60Hz
Minimum Circuit Ampacity..... 208/230 +/- 10%
Minimum Circuit Ampacity..... 28.9 A
Max Fuse Size..... 30 A

Current

Starting Current..... 20.1 A
Max Operating Current..... 23.8 A
Cooling..... (non-duct) 18.7 A / (ducted) 20.1 A / (mix) 19.4 A
Heating..... (non-duct) 17.0 A / (ducted) 17.0 A / (mix) 17.1 A

Input Power

Cooling..... (non-duct) 4.28 kW / (ducted) 4.59 kW / (mix) 4.43 kW
Heating..... (non-duct) 3.88 kW / (ducted) 3.89 kW / (mix) 3.90 kW

Capacity

Nominal Cooling..... 45,000 Btu/h
Min-Max Cooling..... 12,000 – 48,000 Btu/h
Nominal Heating..... 48,000 Btu/h
Min-Max Heating..... 12,000 – 54,000 Btu/h

Compressor

Motor Output..... DC Twin Rotary (inv x1)
Refrigerant..... 2,100 W
Pre-Charge..... R410a
Oil..... 8 lbs. 13 oz.
Oil..... RB68

Fan Motor

Type: DC (condenser)..... Propeller x1
Motor Output (condenser)..... 111 W
Type: DC (evaporator)..... (wall-mount) Cross flow
(compact cassette) Turbo
(ducted) Sirocco x2 (18 k x3)
(floor) Cross flow x2

Motor Output (Evaporator)..... (wall) 30-42W (compact cassette) 54W (ducted) 80-81W
Heat Exchanger
Dimensions (condenser)
(H x W x D) in. (mm)..... 38-1/16 x 36-5/16 x 2-3/16 (966x922x55)
Fin Pitch..... 1.45 FPI
Rows x Stages..... 2 x 38
Pipe Type (Material)..... Grooved H-Pin (Copper)
Fin Type (Material)..... Aluminum (Blue fin)

Operation Temperature Range

Cooling..... 14°F (-10°C) - 115°F (46°C)
Heating..... 5°F (-15°C) - 75°F (24°C)

Efficiency

SEER^..... 19.7 (wall-mount) 17.7 (duct) 18.7 (mix)
EER (cooling)..... 10.5 Btu/W (wall-mount) 9.8 Btu/W(duct) 10.2 Btu/W(mix)
COP (heating)..... 3.60 W/W (wall-mount) 3.46 W/W (duct) 3.53 W/W(mix)
HSPF (heating)..... 10.3 (wall-mount) 9.3 (duct) 9.8 (mix)

Enclosure (condenser)

Material..... Painted galvanized steel
Color..... Beige (10 YR 7.5/1.0 NN)

Sound Pressure Level

Cooling..... 53 dB(A)
Heating..... 55 dB(A)

Dimensions

H x W x D (condenser)
Net in. (mm)..... 39-5/16 x 38-7/16 x 14-9/16 (998x970x370)
Gross in. (mm)..... 45-3/4 x 45-1/4 x 18-13/16 (1162x1150x478)

Connection Pipe

Liquid..... 1/4" (6.35 mm) x5
Gas..... 3/8" (9.52 mm) x3 + 1/2" (12.70 mm) x2
Method (Liquid/Gas)..... Flare
Pre-charge length (Total)..... 164 ft. (50m)
Max length (Total)..... 262 ft. (79.85m)
Max length (Each)..... 82 ft. (25m)
Min. length (Total)..... 49 ft. (15m)
Min length (Each)..... 16 ft. (5m)
Max Height Difference (bt/wn outdoor and ea. indoor unit)..... 49 ft. (15m)

Weight

Condenser..... 205 lbs. (93kg)
Evaporators..... (wall-mount) 19 lbs. - 31 lbs.
(compact cassette) 33 lbs.
(ducted) 37 lbs. - 49 lbs.
(floor) 31 lbs.

Accessories

UTY-RVNUM..... Wired remote control (backlit, displays room temp.)
UTY-RNNUM..... Wired remote control
UTY-RSNUM..... Wired remote control (simple)

Intertek®ETL Number

AOU45RLXFZ..... 3170288

*Reference literature for approved construction. **Test conditions are based on AHRI 210/240. ***Standard warranty. ****Elite contractor warranty. *****

1 of 2

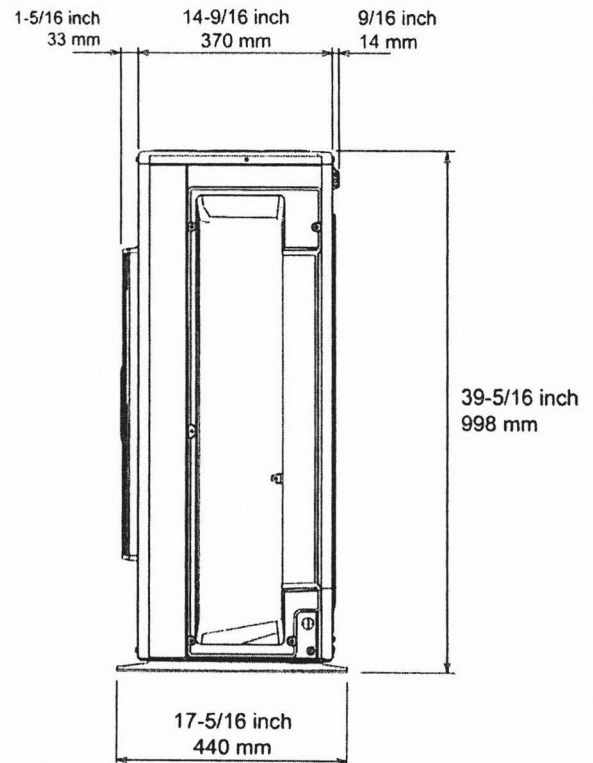
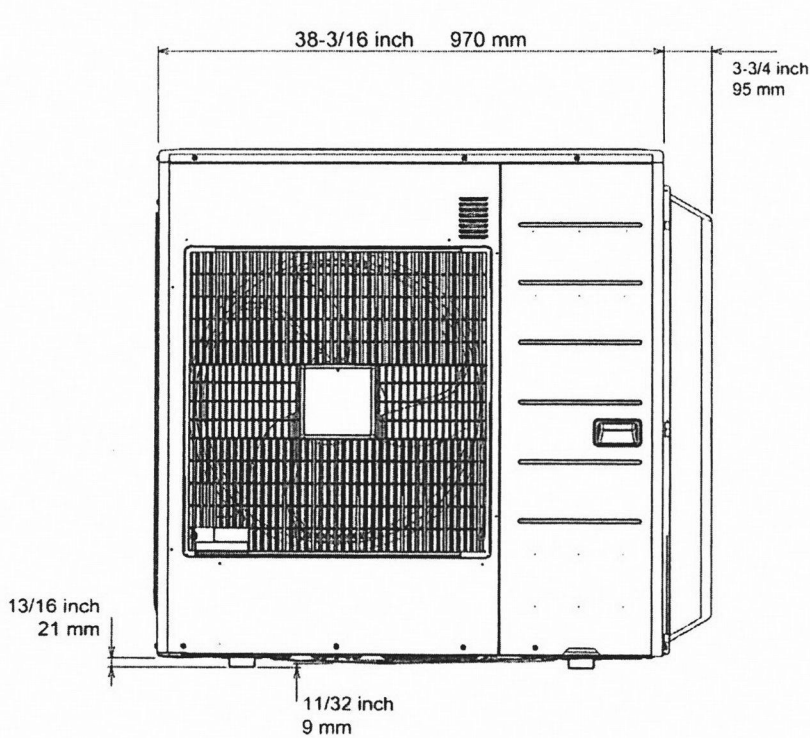
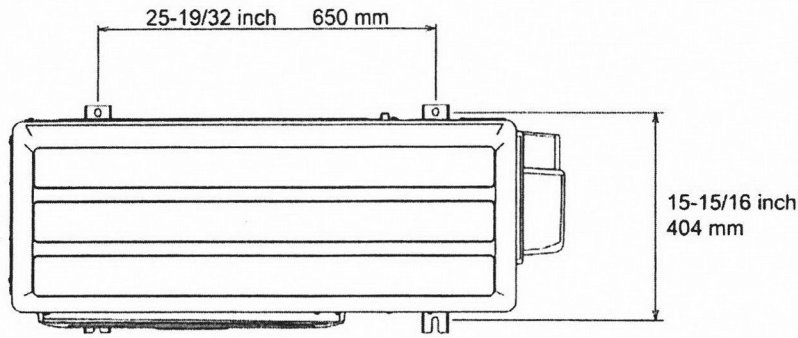
City of Portland
REVIEWED FOR CODE
PERFORMANCE
JUN 27 2015
Permit Number

Fujitsu General America, Inc.
353 Route 46 West
Fairfield, NJ 07004
Toll Free: 1-888-888-3424
Fax: (973) 836-0447
www.fujitsu-general.com

7 Year
Elite

Dimensions: 45RLXFZ

[Unit: in. (mm)]



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 and information in this brochure without notice and without incurring any obligations.

Submittal Data: ASU18RLF Inverter Driven Heat Pump **18,000 BTU Wall Mount Type**

Job Name: _____ Date: _____

Location: _____ Approval: _____

Engineer: _____ Construction: _____

Submitted to: _____ Unit #: _____

Submitted by: _____ Drawing #: _____

Reference: _____

General Features

- Refrigerant Type R410A.
- Wired and wireless remote controllers
- Auto changeover
- Weekly timer
- Removable open panel
- Super quiet operation
- Removable air filter
- Program timer
- 5 years standard parts warranty
- Eligible for 10 year or 12 year parts warranty. See warranty statement for details.

Model Information

Evaporator..... ASU18RLF
 Condenser compatibility... AOU18RLXFW, AOU18RLXFW1, AOU18RLXFWH
 AOU24RLXFZ, AOU24RLXFZH
 AOU36RLXFZ, AOU36RLXFZ1, AOU36RLXFZH
 AOU45RLXFZ, AOU48RLXFZ1

Electrical

..... 208/230V AC 1ph-60Hz
 Available Voltage Range..... 208/230 +/- 10%
 Minimum Circuit Ampacity..... 0.42 A
 Full Load Amps..... 0.34 A
 Input Power 41 W
 Running Current..... 0.32 A

Capacity

Nominal Cooling..... 18,000 Btu/h

Fan Motor

Type: DC Cross flow x1
 Motor Output..... 42 W
 Fan Motor Protection..... off: 302 ± 27°F (150 ± 15°C)

Airflow Rate

Cooling (High / Medium / Low / Quiet) on: 248 ± 27°F (120 ± 15°C)
 542 CFM (920 m3/h) / 436 CFM (740 m3/h) / 365 CFM (620 m3/h) / 324 CFM (550 m3/h)
 Heating (High / Medium / Low / Quiet)
 542 CFM (920 m3/h) / 436 CFM (740 m3/h) / 365 CFM (620 m3/h) / 324 CFM (550 m3/h)

Heat Exchanger

Dimensions
 H x W x D in. (mm)..... 15-7/8 x 33-3/4 x 1-1/16 (378x832x26.6)
 Fin Pitch..... Main 21 FPI / Sub 18 FPI
 Rows x Stages..... Main 2 x 18 / Sub 1 x 4
 Pipe Type (Material)..... Copper
 Type (Material)..... Aluminum



Temperature Setting Range

Cooling..... 64°F - 90°F (18°C - 32°C)
 Heating..... 60°F - 88°F (16°C - 30°C)

Enclosure

Material..... Galvanized Steel Sheet

Sound Pressure Level

Cooling
 High/Medium/Low/Quiet..... 43 dB (A) / 37 dB (A) / 33 dB (A) / 31 dB (A)
 Heating
 High/Medium/Low/Quiet..... 44 dB (A) / 37 dB (A) / 33 dB (A) / 31 dB (A)

Dimensions

H x W x D
 in. (mm)..... 12-5/8 x 39-1/4 x 9 (320x998x228)

Connection Pipe

Liquid..... 1/4" in. (6.35 mm)
 Gas..... 1/2" in. (9.52 mm)
 Method (Liquid/Gas)..... Flare
 Drain hose

Material..... PP + LLDPE
 Size..... Ø1/2 (I.D.), Ø5/8 [Ø12 (I.D.), Ø16 O.D.]

Weight

Net..... 31 lbs. (14 kg)
 Gross..... 40 lbs. (18 kg)

Accessories

Wired Remote Controller..... UTY-RNNUM
 Backlit Display..... UTY-RVNUM
 Simple Remote Controller..... UTY-RSNUM
 Dry Contact Wire Kit..... UTY-XWZXZ5
 Interface Kit..... UTY-XCBXZ2

Intertek ETL Number

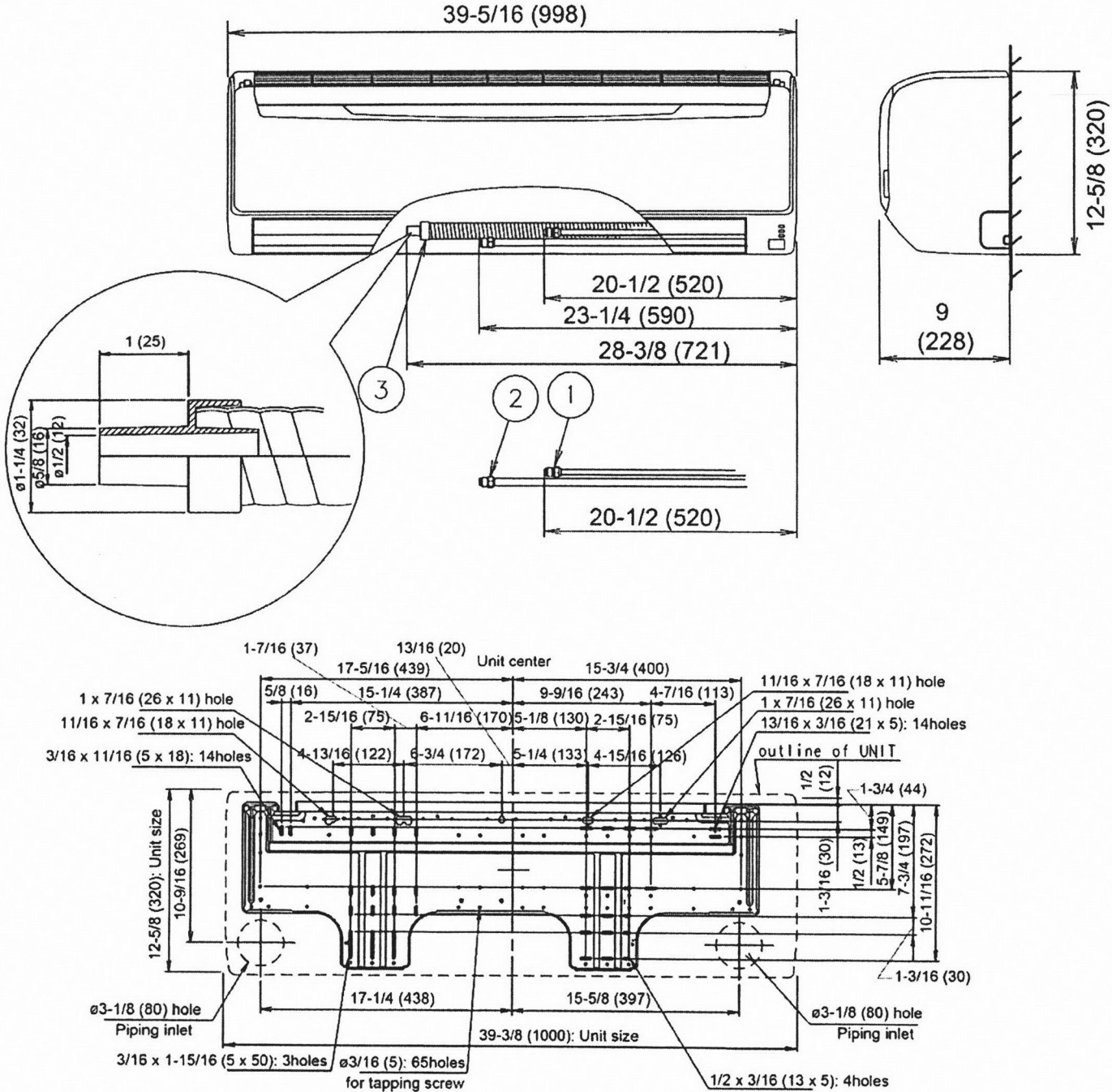
ASU18RLF..... 91986

See Specifications are based on the following conditions:
 Cooling: Indoor temperature of 80°F (26.7°C) DB/67°F (19.4°C) WB, and outdoor temperature of 95°F (35°C) DB/75°F (23.9°C) WB.
 Heating: Indoor temperature of 70°F (21.1°C) DB/59°F (15°C) WB, and outdoor temperature of 47°F (8.3°C) DB/41°F (6.1°C) WB.



Dimensions: ASU18RLF

[Unit: in. (mm)]



Job Name: _____
 Location: _____
 Engineer: _____
 Submitted to: _____
 Submitted by: _____
 Reference: _____

Date: _____
 Approval: _____
 Construction: _____
 Unit #: _____
 Drawing #: _____

General Features

- Refrigerant Type R410A.
- Wired and wireless remote controllers
- Auto changeover
- Weekly timer
- Removable open panel
- Super quiet operation
- Removable air filter
- Program timer
- 5 years standard parts warranty
- Eligible for 10 year or 12 year parts warranty. See warranty statement for details.

Model Information

Model: ASU24RLF
 Condenser compatibility: AOU24RLXFW, AOU24RLXFW1, AOU24RLXFWH, AOU36RLXFZ, AOU36RLXFZ1, AOU36RLXFZH, AOU45RLXFZ, AOU48RLXFZ, AOU48RLXFZ1

Electrical
 Available Voltage Range: 208/230V AC 1ph-60Hz
 Minimum Circuit Ampacity: 208/230 +/- 10%
 Full Load Amps: 0.71 A
 Unit Power: 69 W
 Running Current: 0.53 A

Capacity
 Nominal Cooling: 24,000 Btu/h

Motor
 Type: DC
 Motor Output: 42 W
 Motor Protection: off: 302 ± 27°F (150 ± 15°C)
 on: 248 ± 27°F (120 ± 15°C)

Airflow Rate
 Cooling (High / Medium / Low / Quiet)
 9 CFM (1,120 m3/h) / 530 CFM (900 m3/h) / 436 CFM (740 m3/h) / 365 CFM (620 m3/h)
 Heating (High / Medium / Low / Quiet)
 47 CFM (1,000 m3/h) / 530 CFM (900 m3/h) / 436 CFM (740 m3/h) / 365 CFM (620 m3/h)

Coil Exchanger
 Dimensions
 H x W x D in. (mm): 15-7/8 x 33-3/4 x 1-1/16 (378x832x26.6)
 Pitch: Main 21 FPI / Sub 18 FPI
 Stages x Stages: Main 2 x 18 / Sub 1 x 4
 Coil Type (Material): Copper
 Case (Material): Aluminum



Temperature Setting Range

Cooling: 64°F - 90°F (18°C - 32°C)
 Heating: 60°F - 88°F (16°C - 30°C)

Enclosure

Material: Galvanized Steel Sheet

Sound Pressure Level

Cooling
 High/Medium/Low/Quiet: 49 dB (A) / 42 dB (A) / 37 dB (A) / 33 dB (A)
 Heating
 High/Medium/Low/Quiet: 48 dB (A) / 42 dB (A) / 37 dB (A) / 33 dB (A)

Dimensions

H x W x D
 in. (mm): 12-5/8 x 39-1/4 x 9 (320x998x228)

Connection Pipe

Liquid: 1/4" in. (6.35 mm)
 Gas: 5/8" in. (9.52 mm)
 Method (Liquid/Gas): Flare

Drain hose
 Material: PP + LLDPE
 Size: Ø1/2 (I.D.), Ø5/8 [Ø12 (I.D.), Ø16 O.D.]

Weight

Net: 31 lbs. (14 kg)
 Gross: 40 lbs. (18 kg)

Accessories

Wired Remote Controller: UTY-RNNUM
 Backlit Display: UTY-RVNUM
 Simple Remote Controller: UTY-RSNUM
 Dry Contact Wire Kit: UTY-XWZXZ5
 Interface Kit: UTY-XCBXZ2

Intertek® ETL Number

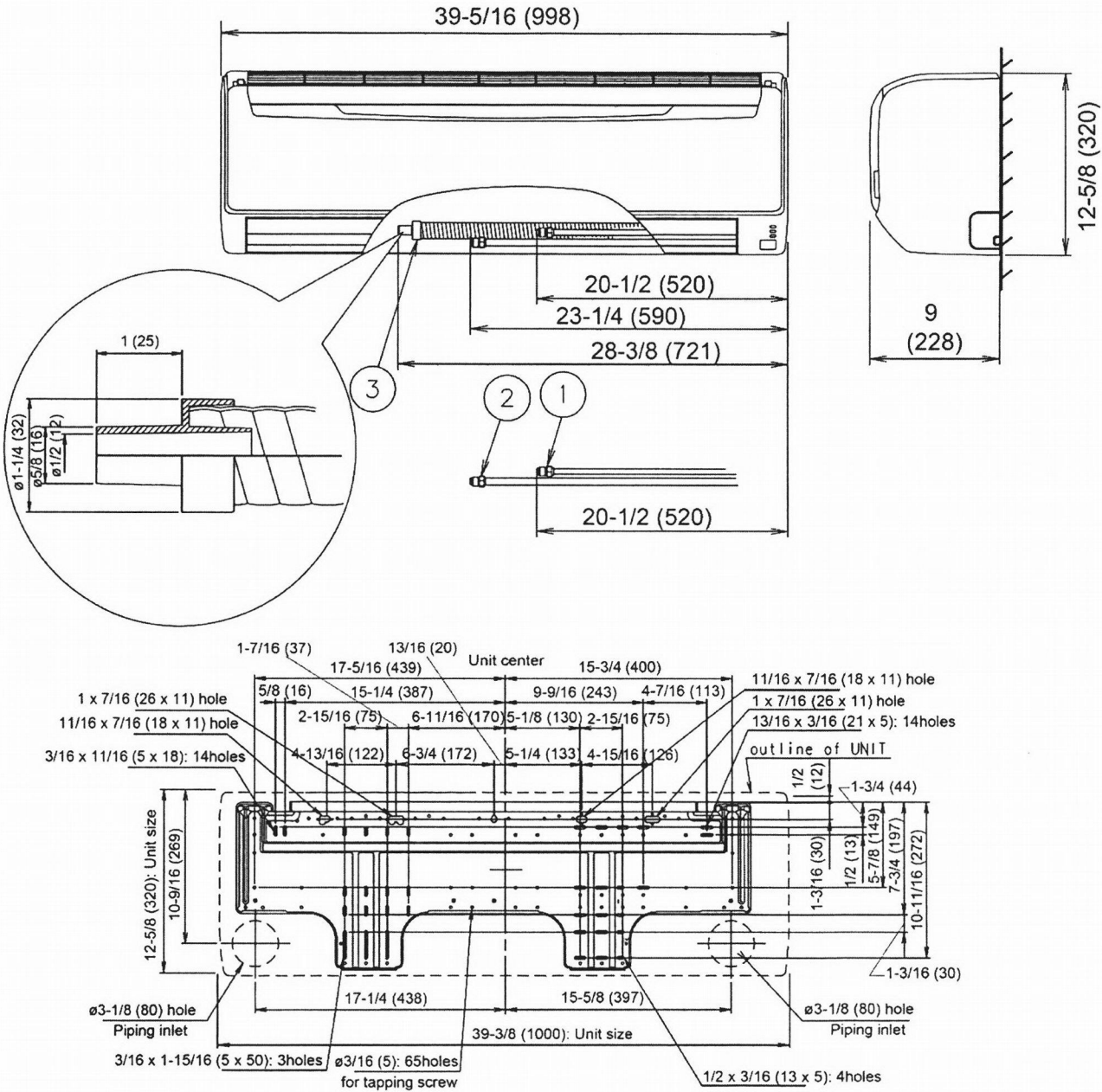
ASU24RLF: 91986

Specifications are based on the following conditions:
 Cooling: Indoor temperature of 80°F (26.7°C) DB/67°F (19.44°C) WB, and outdoor temperature of 95°F (35°C) DB/75°F (23.9°C) WB.
 Heating: Indoor temperature of 70°F (21.11°C) DB/59°F (15°C) WB, and outdoor temperature of 47°F (8.33°C) DB/43°F (6.11°C) WB.
 Height: 24ft. 7in. (7.5m). Height difference: 0ft. (0m) (Outdoor unit - indoor unit)

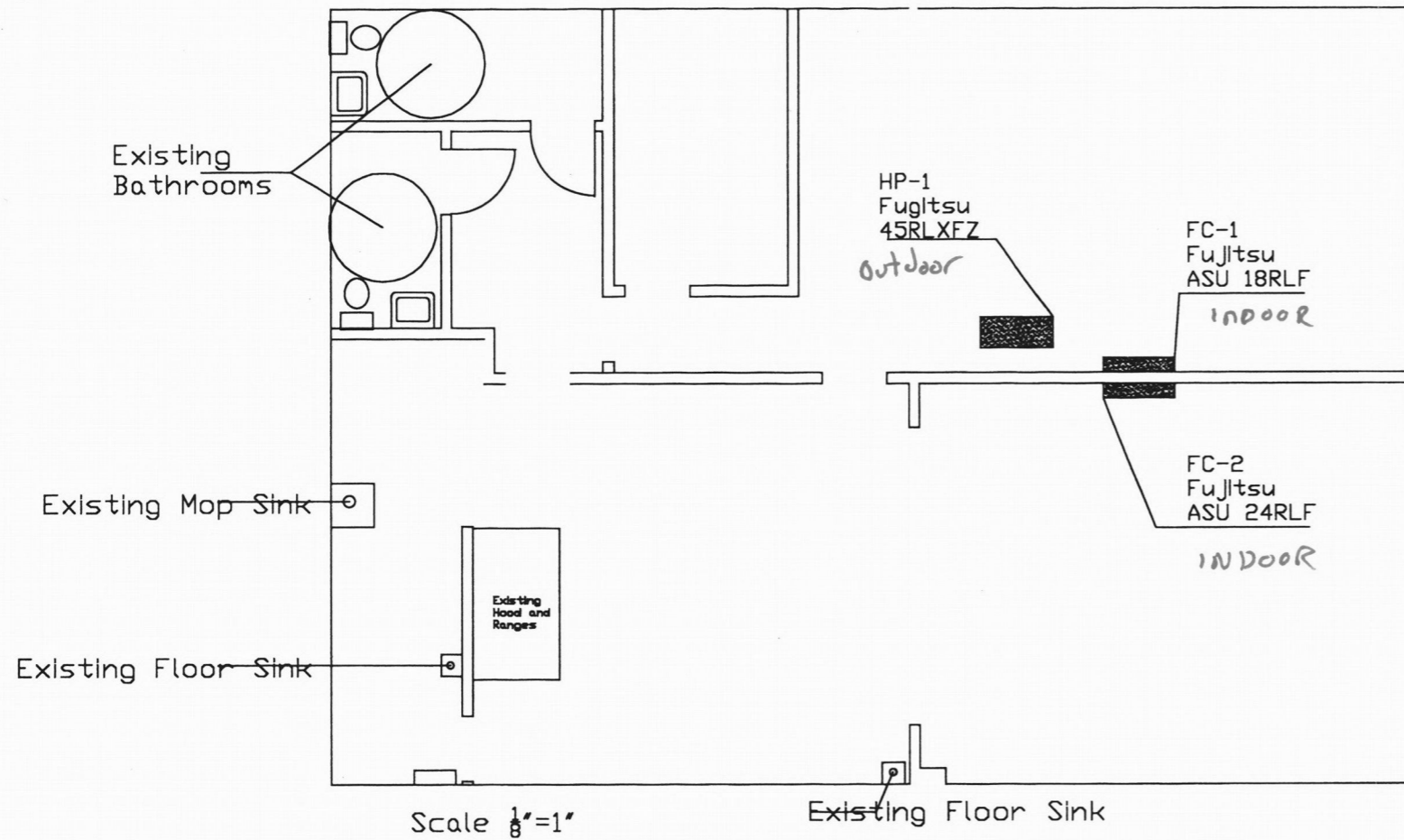


Dimensions: ASU24RLF

[Unit: in. (mm)]



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Equipment Schedule
 Hp-1 Fujitsu Model 45RLXFZ
 Cooling 45,000 BTU/HR, 19.7 SEER
 Heating 48,000 BTU/HR, 10.3 HSPF

Fc-1 Fujitsu Model ASU18RLF, 18,000 BTU/HR
 Cooling 18,000 BTU, 542 CFM
 Heating 18,000 BTU, 542 CFM

Fc-2 Fujitsu Model ASU24RLF, 24,000 BTU/HR
 Cooling 24,000 BTU, 542 CFM
 Heating 24,000 BTU, 542 CFM

Note
 Route Condensate Lines to Roof

Scope of Work
 Add one new split system Heatpump with two heads to Exist. Restaurant

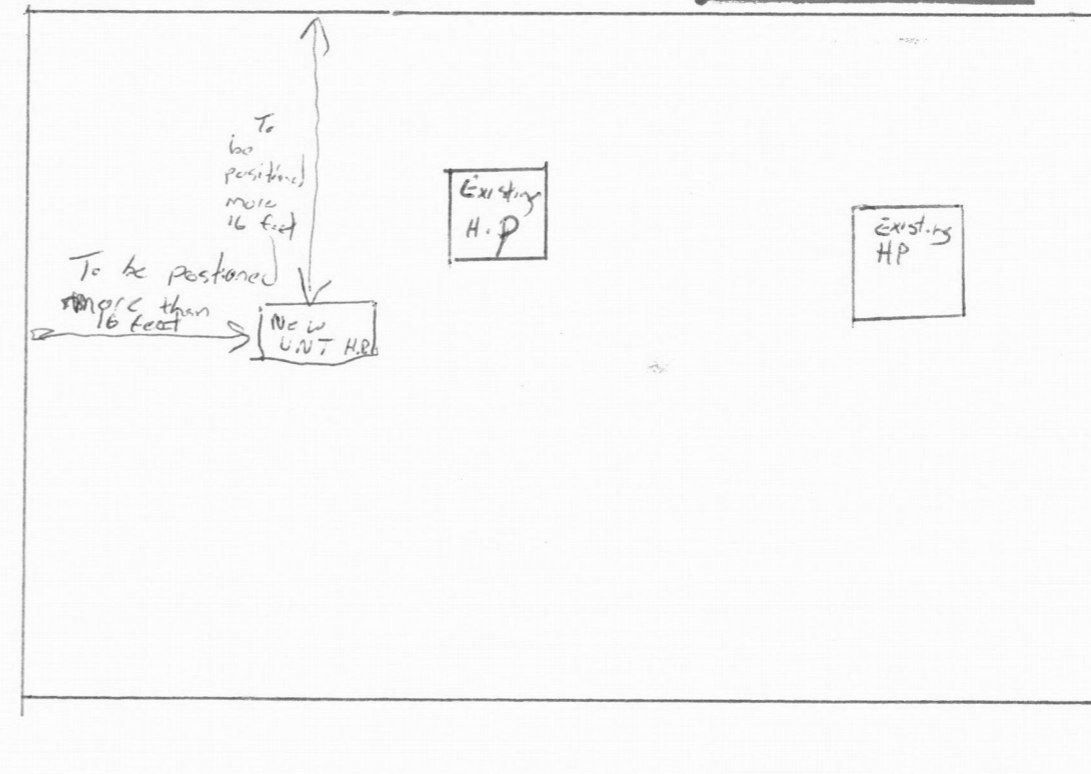
City of Portland
 Bureau of
 Development Services

By SM Date 6/27/18

Approved by
 Planning and Zoning Review

City of Portland
 REVIEWED FOR CODE
 COMPLIANCE
 JUN 27 2018
 Permit Number

STARK



2

STARK

Luce
 2138 East Burnside, Portland
 Oregon 97214