

ARUF SERIES

MULTI-POSITION AIR HANDLER

WITH NEW SMARTFRAME™ CONSTRUCTION

1½- TO 5-TON UNITS

Standard Features

- All-aluminum evaporator coil
- Check flowrate expansion device for cooling-only and heat pump applications
- Direct-drive, multi-speed motor
- Transformer and blower time-delay on all units
- Easy single-bulb UV light compatibility
- Complies with the Factory-sealed Air Handling Credit with or without field-installed filter kits as listed in the 2001 Florida Building Code, Chapter 13, Section 610.2.A.2.1
- AHRI Certified; ETL Listed

Cabinet Features

- New rigid SmartFrame™ cabinet
- 21" depth for easy attic access
- Galvanized leather grain-embossed finish
- Glue-less cabinet insulation retention
- Screw-less sides & back prevents condensation
- Multi-position capability: upflow, downflow, horizontal or vertical
- Coil-mounting track for quick repositioning
- Tool-less filter access accommodates standard-size filters
- Power supply entry at top; low-voltage entry at top and on left side
- Easily convertible 4-way design
- Multiple electrical knockouts
- Heavy-gauge bottom plate



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* Complete warranty details available from your local dealer or at www.amana-hac.com. To receive the 10-Year Parts Limited Warranty, online registration must be completed within 60 days of installation. Online registration is not required in California or Québec.

NOMENCLATURE

	A	R	U	F	18	B	1	4	AA	
	1	2	3	4	5,6	7	8	10	11,12	
Brand										Engineering *
A Single-piece Air Handler										Major/ Minor Revisions * Not used for inventory management
Unit Application										Refrigerant Charge
C Ceiling Mount PSC Motor										4 = R-410A
D Downflow PSC Motor										
E Multi-Position Variable-Speed Motor										Electrical
R Multi-Position PSC Motor										1 208/240 V, 1 Phase, 60 Hz
S Multi-Position EEM Motor										
W Wall Mount PSC Motor										Cabinet Width
Cabinet Finish										B 17½"
U Unpainted										C 21"
P Painted										D 24½"
N Uncased										
Expansion Device										Nominal Capacity Range @ 13 SEER
F Flowrater										18 1½ Tons 42 3½ Tons
T Expansion Valve										24 2 Tons 48 4 Tons
										36 3 Tons 60 5 Tons

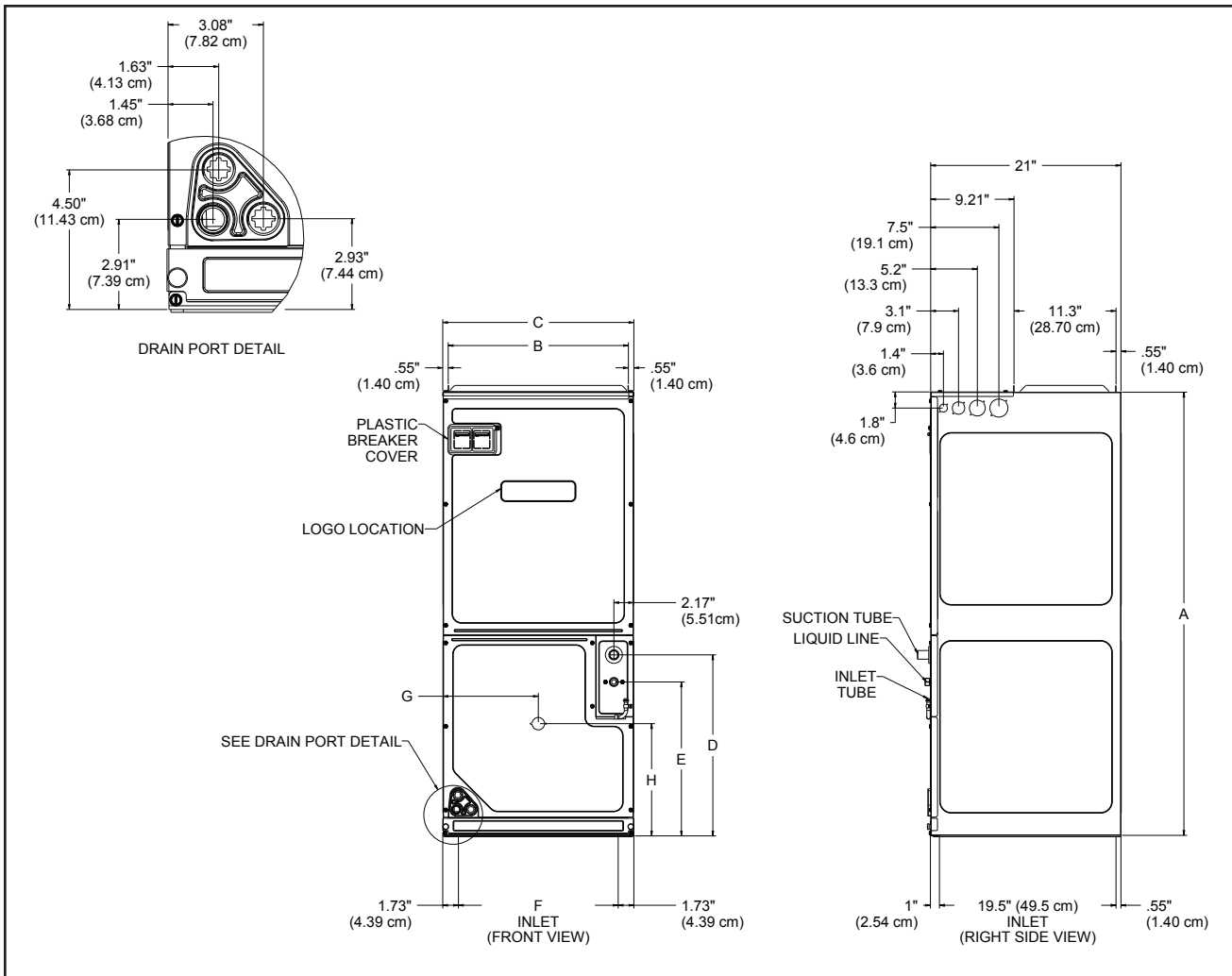


SPECIFICATIONS

	ARUF 18B14*	ARUF 24B14*	ARUF 30B14*	ARUF 36C14*	ARUF 42C14*	ARUF 48D14*	ARUF 60D14*
NOMINAL RATINGS							
Cooling (Btu/h)	18,000	24,000	30,000	36,000	42,000	48,000	60,000
BLOWER							
Diameter	9½"	9½"	9½"	10⅝"	10⅝"	10⅝"	11 ¹⁵ / ₁₆ "
Width	6"	6"	6"	8"	8"	10⅝"	10⅝"
Coil Drain Connect FPT	¾"	¾"	¾"	¾"	¾"	¾"	¾"
REFRIGERANT LINE CONNECTION SIZE							
Liquid	⅜"	⅜"	⅜"	⅜"	⅜"	⅜"	⅜"
Suction	¾"	¾"	¾"	¾"	7⁄8"	7⁄8"	7⁄8"
ELECTRICAL DATA							
Voltage	208/230	208/230	208/230	208/230	208/230	208/230	208/230
Min Circuit Ampacity	3	3	3	4	4	5	6
Max. Overcurrent Device (amps)	15	15	15	15	15	15	15
Min. / Max VAC	197/ 253	197/ 253	197/ 253	197/ 253	197/ 253	197/ 253	197/ 253
Blower Motor FLA	1.9	1.9	1.9	3.0	3.1	3.5	4.6
Horsepower	⅓	⅓	⅓	⅓	⅓	½	¾
SHIP WEIGHT (LBS)	98	98	103	115	117	154	154

* Airflow rate @.3 ESP

DIMENSIONS



MODEL	A"	B"	C"	D"	E"	F"	G"	H"
ARUF18B14*	45	16.4	17.5	18.0	15.0	14.2	8.8	11.9
ARUF24B14*	45	16.4	17.5	18.0	15.0	14.2	8.8	11.9
ARUF30B14*	45	16.4	17.5	18.0	15.0	14.2	8.8	11.9
ARUF36C14*	49	19.9	21.0	20.0	17.0	17.7	10.5	12.4
ARUF42C14*	49	19.9	21.0	20.0	17.0	17.7	10.5	12.4
ARUF48D14*	58	23.3	24.5	28.8	25.8	21.2	12.3	12.4
ARUF60D14*	58	23.3	24.5	28.8	25.8	21.2	12.3	12.4

AIRFLOW DATA

MODEL	MOTOR SPEED	STATIC PRESSURE (IN W.C) AIRFLOW (CFM)						
		0.1	0.2	0.3	0.4	0.5	0.6	0.7
ARUF18B14	High	1,150	1,095	1,045	1,025	950	865	775
	Medium	890	855	835	775	715	665	605
	Low	640	605	565	530	485	440	360
ARUF24B14	High	1,150	1,095	1,045	1,025	950	865	775
	Medium	890	855	835	775	715	665	605
	Low	640	605	565	530	485	440	360
ARUF30B14	High	1,145	1,085	1,020	950	900	845	765
	Medium	870	820	775	745	705	655	580
	Low	615	585	565	535	490	435	345
ARUF36C14	High	1,485	1,435	1,385	1,345	1,275	1,205	1,125
	Medium	1,300	1,270	1,235	1,195	1,130	1,060	955
	Low	1,040	1,015	980	930	865	790	705
ARUF42C14	High	1,580	1,530	1,465	1,400	1,330	1,255	1,165
	Medium	1,395	1,340	1,290	1,235	1,170	1,095	1,000
	Low	1,095	1,045	1,000	950	895	820	725
ARUF48D14	High	1,990	1,915	1,810	1,765	1,690	1,585	1,435
	Medium	1,655	1,605	1,555	1,480	1,295	1,200	1,060
	Low	1,480	1,420	1,350	1,290	1,185	1,100	1,045
ARUF60D14	High	2,235	2,175	2,125	2,050	1,960	1,825	1,720
	Medium	2,030	1,970	1,885	1,800	1,690	1,600	1,495
	Low	1,615	1,535	1,455	1,355	1,270	1,185	1,090

NOTES

- Airflow data indicated is at 230V without air filter in place.
- The chart is for information only. For satisfactory operation, external static pressure must not exceed value shown on rating plate. The shaded area indicates ranges in excess of maximum recommended design external static pressure.
- Use the CFM adjustment factors of 0.98 for horizontal left and 0.96 for horizontal right & downflow orientations

HEAT KIT APPLICATIONS

MODEL	ARUF 18B14-A*	ARUF 24B14-A*	ARUF 30B14-A*	ARUF 36C14-A*	ARUF 42C14-A*	ARUF 48D14-A*	ARUF 60D14-A*
HKSX03XC*	X	X	X	X	X	X	X
HKSX05XC*	X	X	X	X	X	X	X
HKSX06XC*	X	X	X	X	X	X	X
HKSX08XC*	X	X	X	X	X	X	X
HKSX10XC*	X	X	X	X	X	X	X
HKSC05XC*	X	X	X	X	X	X	X
HKSC08XC*	X	X	X	X	X	X	X
HKSC10XC*	X	X	X	X	X	X	X
HKSC15XA*	---	---	X	X	X	X	X
HKSC15XB*	---	---	X	X	X	X	X
HKSC19CA*	---	---	---	X	X	---	---
HKSC19CB*	---	---	---	X	X	---	---
HKSC20DA*	---	---	---	---	---	X	X
HKSC20DB*	---	---	---	---	---	X	X

* Revision level that may or may not be designated
 Note: Refer to the minimum airflow requirements for each of the heat kits

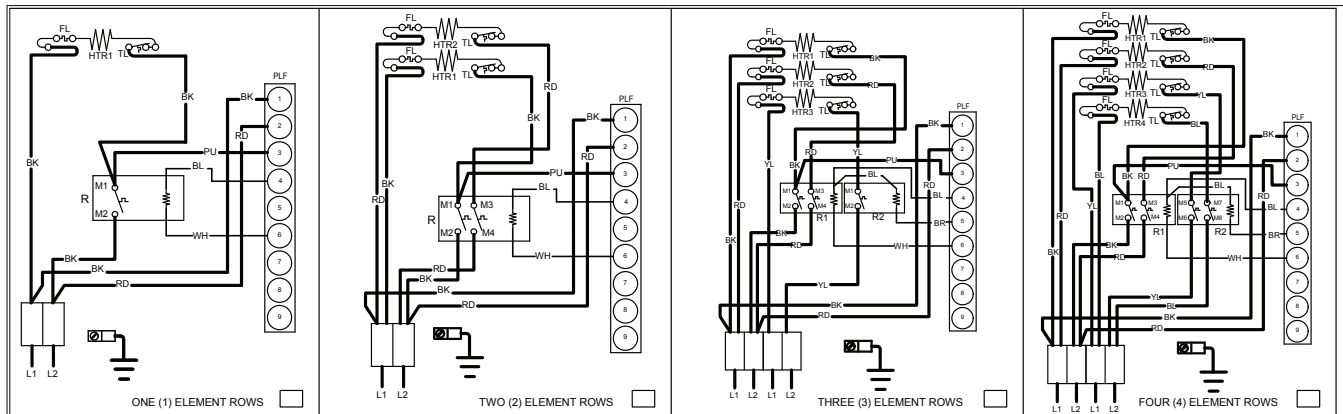
SINGLE-POINT KIT **

MODEL	HKSC15X*	HKSC19**	HKSC20**
SPW-01	X	X	X

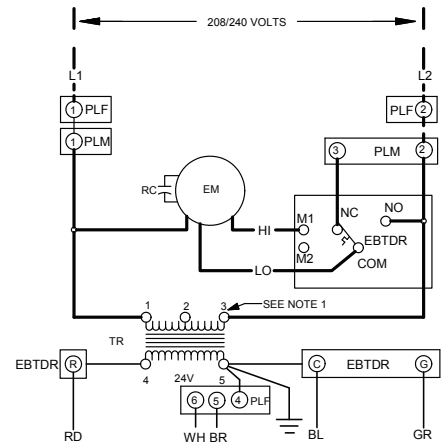
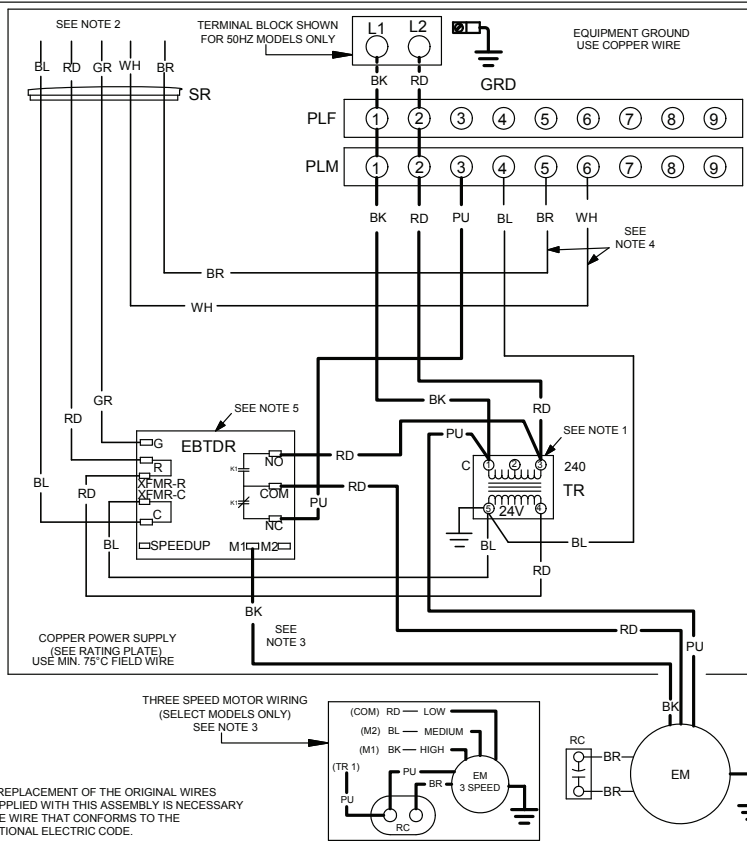
** Must be installed along with any of the above compatible heat kits. This kit will fit any ARPT air handler as long as a compatible heat kit is installed in the unit.

Note: See HKS spec sheet and equipment data label for specific single-point rating.

ARUF WIRING DIAGRAM



NOTE: WHEN INSTALLING HEATER KIT, ENSURE SPEED TAP IS NOT BELOW MINIMUM BLOWER SPEED (MBS) SPECIFIED FOR THE AIR HANDLER/HEATER KIT COMBINATION ON THIS UNITS SERIAL PLATE. AFTER INSTALLING OPTIONAL HEAT KIT, MARK A "X" IN THE PROVIDED ABOVE. MARK ACCORDING TO THE NUMBER OF HEATER ELEMENT ROWS INSTALLED. NO MARK INDICATES NO HEAT KIT INSTALLED. 5 ELEMENT ROWS DATA SUPPLIED WITH HEATER KIT.



COLOR CODE		WIRING CODE
BK _ BLACK	GR _ GREEN	FACTORY WIRING
RD _ RED	PU _ PURPLE	HIGH VOLTAGE
YL _ YELLOW	BR _ BROWN	LOW VOLTAGE
BL _ BLUE	WH _ WHITE	FIELD WIRING
		HIGH VOLTAGE
		LOW VOLTAGE
COMPONENT CODE		
EM _ EVAPORATOR MOTOR	TR _ TRANSFORMER	
RC _ RUN CAPACITOR	PLF _ FEMALE PLUG CONNECTOR	
SR _ STRAIN RELIEF	PLM _ MALE PLUG CONNECTOR	
R _ RELAY	FL _ FUSE LINK	
EBTDR _ ELECTRONIC BLOWER TIME DELAY RELAY	TL _ THERMAL LIMIT	
	HTR _ HEAT ELEMENTS	

- NOTES:**
- 1) RED WIRES TO BE ON TRANSFORMER TERMINAL "3" FOR 240 VOLTS AND ON TERMINAL "2" FOR 208 VOLTS.
 - 2) SEE COMPOSITE WIRING DIAGRAMS IN INSTALLATION INSTRUCTIONS FOR PROPER LOW VOLTAGE WIRING CONNECTIONS.
 - 3) CONFIRM SPEED TAP SELECTED IS APPROPRIATE FOR APPLICATION. IF SPEED TAP NEEDS TO BE CHANGED, CONNECT APPROPRIATE MOTOR WIRE (RED FOR LOW, BLUE FOR MEDIUM AND BLACK FOR HIGH SPEED) ON "COM" CONNECTION OF THE EBTDR. INACTIVE MOTOR WIRES SHOULD BE CONNECTED TO "M1 OR M2" ON EBTDR.
 - 4) BROWN AND WHITE WIRES ARE USED WITH HEAT KITS ONLY.
 - 5) EBTDR HAS A 7 SECOND ON DELAY WHEN "G" IS ENERGIZED AND A 65 SECOND OFF DELAY WHEN "G" IS DE-ENERGIZED.



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Wiring is subject to change. Always refer to the wiring diagram or the unit for the most up-to-date wiring.



WARNING

High Voltage: Disconnect all power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury, or death.



ACCESSORIES

EXPANSION VALVE KITS FOR AIR CONDITIONING AND HEAT PUMP APPLICATIONS

KIT NUMBER	DESCRIPTION	APPLICATION	REFRIGERANT	TONNAGE: OUTDOOR UNIT
TX2N4A	Non-bleed Valve	AC or HP	R-410A	1½ - 2 Ton
TX3N4	Non-bleed Valve	AC or HP	R-410A	2½ - 3 Ton
TX5N4	Non-bleed Valve	AC or HP	R-410A	3½ - 5 Ton

DOWNFLOW INSULATION KIT

DPI-B	DPI-C	DPI-D
ARUF18B14**	ARUF36C14**	ARUF48D14**
ARUF24B14**	ARUF42C14**	ARUF60D14**
ARUF30B14**		