

TECHNICAL DATA SHEET

MODEL NUMBER			P027AHC3SA-L/R-S	P032AHC3SA-L/R-S	P036AHC3SA-L/R-S	P042AHC3SA-L/R-S	P046AHC3SA-L/R-S
CONDENSER SECTION	CAPACITY						
	Cooling	kW TOTAL*	28.65	34.40	39.42	45.97	47.18
		kW SENSIBLE*	21.60	26.83	29.76	33.69	35.97
		EER (kW / ikW)*	3.34	3.37	3.23	3.23	3.04
	CAPACITY STEPS (%)		0/100	0/100	0/50/100	0/50/100	0/50/100
	COMPRESSOR						
	TYPE		SCROLL	SCROLL	SCROLL	SCROLL	SCROLL
	STARTER TYPE		D.O.L (Opt Soft/Start)	D.O.L (Opt Soft/Start)	D.O.L (Opt Soft/Start)	D.O.L (Opt Soft/Start)	D.O.L (Opt Soft/Start)
	PHASE		3Ø	3Ø	3Ø	3Ø	3Ø
	No. OFF		1	1	1	1	1
	PROTECTION DEVICES		HP SWITCH, LP SWITCH, INTERNAL THERMAL CUTOUT				
	ALL COMPRESSORS HAVE		SUMP HEATER				
	FAN						
	TYPE		AXIAL	AXIAL	AXIAL	AXIAL	AXIAL
	ikW (MAX INPUT)		0.39	0.39	0.39	0.39	0.39
	PHASE		1Ø	1Ø	1Ø	1Ø	1Ø
	No. OFF		2	2	2	2	2
	FAN SPEED CONTROL		2 SPEED VIA CAPACITOR	2 SPEED VIA CAPACITOR	2 SPEED VIA CAPACITOR	2 SPEED VIA CAPACITOR	2 SPEED VIA CAPACITOR
	HEAT EXCHANGER						
	TYPE		ALU / CU COIL	ALU / CU COIL	ALU / CU COIL	ALU / CU COIL	ALU / CU COIL
	NOM. AIRFLOW l/s		-	-	-	-	-
	REFRIGERANT SYSTEM						
	TYPE		R410A				
	CHARGE PER CIRCUIT (KG)		5.75	6.75	9.5	11	10.8
	No. OF CIRCUITS		1	1	1	1	1
	REFRIGERANT CONTROL		TXV				
	EVAPORATOR SECTION	FAN					
TYPE		EC PLUG	EC PLUG	EC PLUG	EC PLUG	EC PLUG	
ikW (MAX INPUT)		1.32	1.32	1.32	3.35	3.35	
PHASE		3Ø	3Ø	3Ø	3Ø	3Ø	
No. OFF		1	1	1	1	1	
FAN SPEED CONTROL		VARIABLE SPEED	VARIABLE SPEED	VARIABLE SPEED	VARIABLE SPEED	VARIABLE SPEED	
HEAT EXCHANGER							
TYPE		ALU / CU COIL	ALU / CU COIL	ALU / CU COIL	ALU / CU COIL	ALU / CU COIL	
NOM. AIRFLOW l/s		1450	1775	1875	2200	2470	
EXT STATIC pa		100					
COMBINED SECTIONS	ELECTRICAL						
	MAINS POWER		415v / 3Ø / 50hz	415v / 3Ø / 50hz	415v / 3Ø / 50hz	415v / 3Ø / 50hz	415v / 3Ø / 50hz
	H.P. CUT OUT / IN kPa		4500 / 3450	4500 / 3450	4500 / 3450	4500 / 3450	4500 / 3450
	L.P. CUT OUT / IN kPa		175 / 345	175 / 345	175 / 345	175 / 345	175 / 345
	NOM. R.L.A. (TOTAL SYSTEM)		18.39	21.50	21.31	23.92	30.21
	MAX. F.L.A. (TOTAL SYSTEM)		23.86	27.26	30.66	39.76	42.76
	GENERAL						
	CABINET		GALVANISED SHEET STEEL				
	INSULATION		25MM ALUMINIUM FOIL FACED POLYETHYLENE ACOUSTIC INSULATION				
	EXTERNAL FINISH		POLYESTER POWDER COAT - RAL 7035 LIGHT GREY AS STANDARD				
	DIMENSIONS						
	H X W X D (mm)		1563 X 1900 X 1755	1766 X 1900 X 1755		1969 X 1900 X 1755	
	WEIGHT						
	OPERATING KG		392	423	488	534	534
	SHIPPING KG		452	486	538	584	584
	NOISE LEVELS [Based on condenser fan's sound data]						
Sound Power db(A)		67.1	67.5	66.9	67.2	67.2	

Note: Rated in accordance with AHRI 210/240 or 340/360
Performance excludes ikW of indoor fan motor
R.L.A - Run Load Amps are based on current drawn at nominal conditions
F.L.A - Full Load Amps are based on the overload settings [Max Current] of all Compressor and Fan Motor(s)

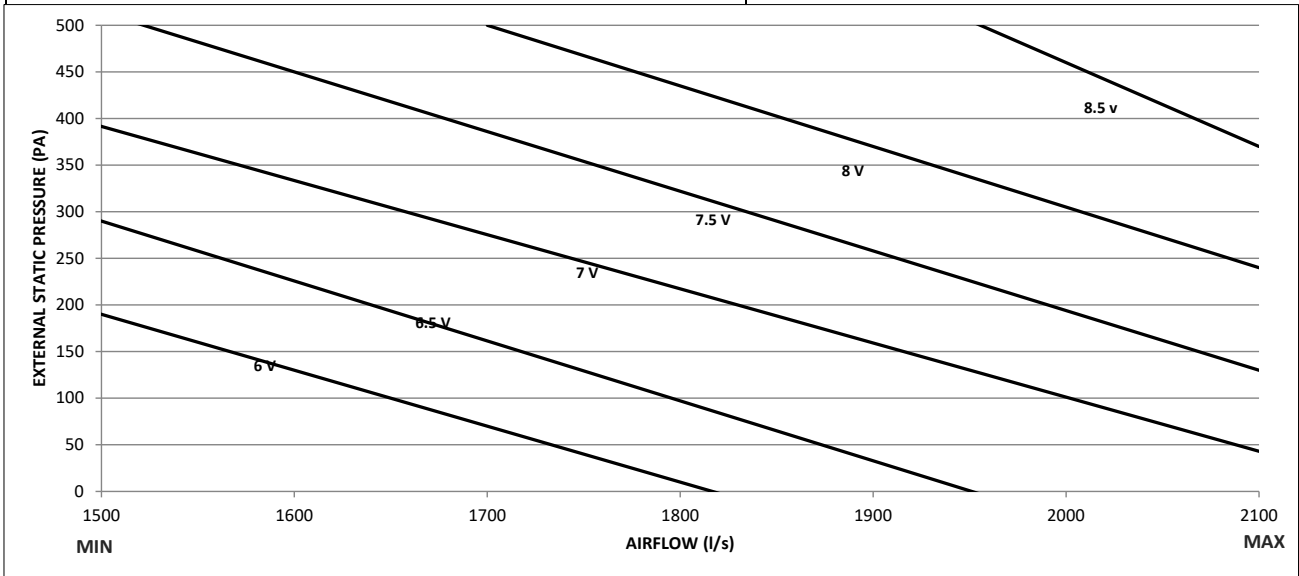
Date	Document #	Approved By	Revision
20/12/22	TDS001155	AY	B

NOTE: Due to continuous improvement Rinnai reserve the right to change details without notice.



FAN PERFORMANCE DATA

P032AHR(C)3SA-L/R-S



- Note:
- 5V, 5.5V, 6V, 6.5V, 7V and 7.5V represents potentiometer voltage. Potentiometer adjusted to achieve desired flowrates.
 - Potentiometer voltage can be varied infinitely between 0 to 10V.

Date	Document #	Approved By	Revision
4/2/22	FPD000574	CM	A

NOTE: Due to continuous improvement Rinnai reserve the right to change details without notice.

SOUND DATA TABLE

MODEL NUMBER

P032AHR(C)3SA-L/R-S

Outdoor Fan

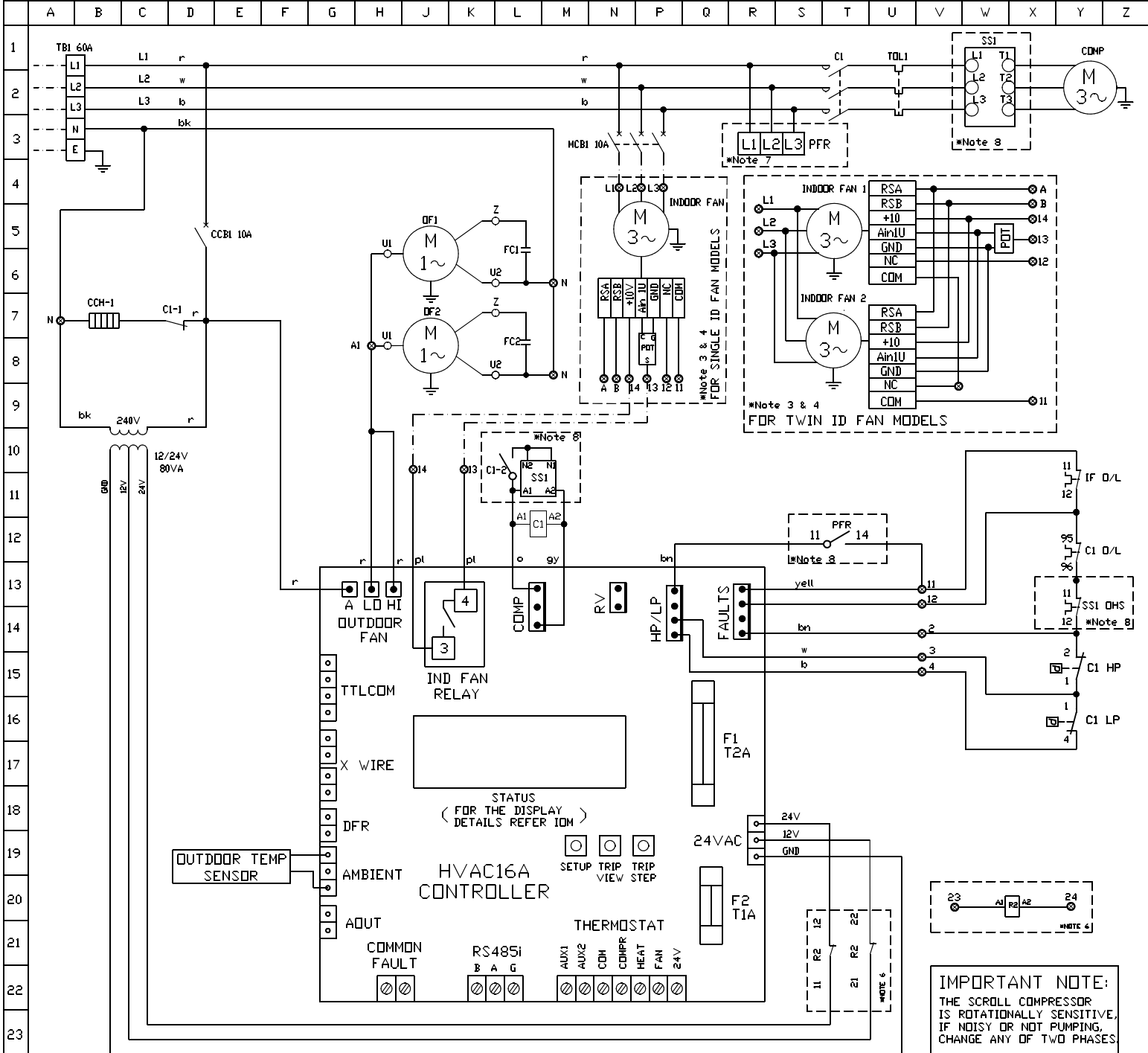
Sound Power Level dB(A)	Octave band Centre Frequency (hz), dB						
	125	250	500	1k	2k	4k	8k
67.5	73.8	62.9	63.1	63	60.3	54	50.5

Indoor Fan

Sound Power Level dB(A)	Air Flow (l/s)	Octave band Centre Frequency (hz), dB						
		125	250	500	1k	2k	4k	8k
77.2	1775	71.7	70.9	74	74.1	68.7	62.6	56.3

Date	Document #	Approved By	Revision
27/1/23	SDT000580	CM	A

NOTE: Due to continuous improvement Rinnai reserve the right to change details without notice.



WARNING: THE SOFTWARE OF THE HVAC16A CONTROLLER IS **NOT** DESIGNED TO FUNCTION AS A PRIMARY PERSONAL SAFETY DEVICE AS CONNECTED EQUIPMENT CAN START AUTOMATICALLY WITHOUT WARNING. ALSO OPENING THE THERMOSTAT CONTACTS MAY **NOT** CAUSE THE EQUIPMENT TO STOP. OUTDOOR FAN MOTORS HAVE INTERNAL OVERLOADS AND MAY RESTART AUTOMATICALLY.

- NOTES:**
1. THERMAL OVERLOAD RELAYS ARE MANUAL RESET. HP SWITCH AND LP SWITCH ARE AUTO RESET, UNLESS OTHERWISE STATED.
 2. ALL FIELD WIRING IS THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR AND MUST COMPLY WITH AS/NZS 3000 AND LOCAL RULES.
 3. FOR SPLIT SYSTEMS, OTHERS TO INSTALL ISOLATOR AND FIELD WIRING FOR INDOOR FAN TO TERMINATE TO TERMINALS 13 & 14.
 4. FOR PACKAGE SYSTEMS THE WIRING FOR INDOOR FAN TO INDOOR FAN RELAY WILL BE FACTORY FITTED TO TERMINALS 13 & 14.
 5. ISOLATOR FOR ELECTRICAL PROTECTION TO BE SUPPLIED BY THE INSTALLER.
 6. OPTIONAL FIRE ALARM RELAY. JUMPER SHORT IF NOT SELECTED.
 7. OPTIONAL PHASE MONITORING RELAY (PFR). JUMPER SHORT IF NOT SELECTED.
 8. OPTIONAL SOFT STARTER (SS). FOR 42 & 46kW UNITS SOFT STARTER SS1 OHS NOT CONNECTED AND NI-12 ON THE SOFT STARTER TO BE WIRED AS SHOWN.

REV	ECN	DESCRIPTION	DATE
C	K10317	REVISED BOARD TO HVAC16A	16/04/2024
B	K10298	THERMAL OVERLOAD AS STANDARD SUPPLY	16/10/2023
A		FIRST RELEASE	07/03/2022

NO	MODEL	COMPRESSOR			OD FAN		ID FAN	
		kW	FLA	O/L	kW	FLA	kW	FLA
1	P027AHC3SA-L-S/S0320VC3SA-S-ILC3SA	6.74	18.20	20.00	0.39	1.78	2.73	4.20
2	P032AHC3SA-L-S/S0320VC3SA-S-ILC3SA	7.83	21.60	23.80	0.39	1.78	2.73	4.20
3	P036AHC3SA-L-S/S0360VC3SA-S-ILC3SA	8.87	25.00	27.50	0.39	1.78	2.73	4.20
4	P042AHC3SA-L-S/S0420VC3SA-S-ILC3SA	9.88	31.00	34.10	0.39	1.78	2.82	4.30
5	P046AHC3SA-L-S/S0460VC3SA-S-ILC3SA	11.60	34.00	36.00	0.39	1.78	2.82	4.30

TABLE 1			
JUMPERS SELECTION	DEFROST INTERVAL TIME SETTING	JUMPERS SELECTION	SPEED UP
	15 min		OFF
	FACTORY SETTING 30 min		ON
	45 min		ON

LEGEND			
COMP C1	COMPRESSOR CONTACTOR	OF POT	OUTDOOR FAN POTENTIOMETER
O/L	OVERLOAD		
TOL	THERMAL OVERLOAD		
CCH	CRANK CASE HEATER		
HP	HIGH PRESSURE SWITCH		
LP	LOW PRESSURE SWITCH		
MCB	MINIATURE CIRCUIT BREAKER		
CCB	CONTROL CIRCUIT BREAKER		
PFR	PHASE FAILURE RELAY		

LEGEND		COLOUR CODE	
---	FIELD WIRING	r	RED WHITE
---	MAINS/CONTROL WIRING	w	BLUE
---	OPTION WIRING	b	BLACK
---	SWITCHBOARD TB2	bn	BROWN
---	TERMINAL	o	ORANGE
---		p	PINK
---		pl	PURPLE
---		gy	GREY
---		yell	YELLOW

TYPE: 3-S (AHC)		OPTIONS	
REF	DESCRIPTION	A	B
		STANDARD	SOFT STARTER

apac

DATE: 07/03/2022

DWN: doiwL APPD: CM

REV: C

DWG No: EWS000590