



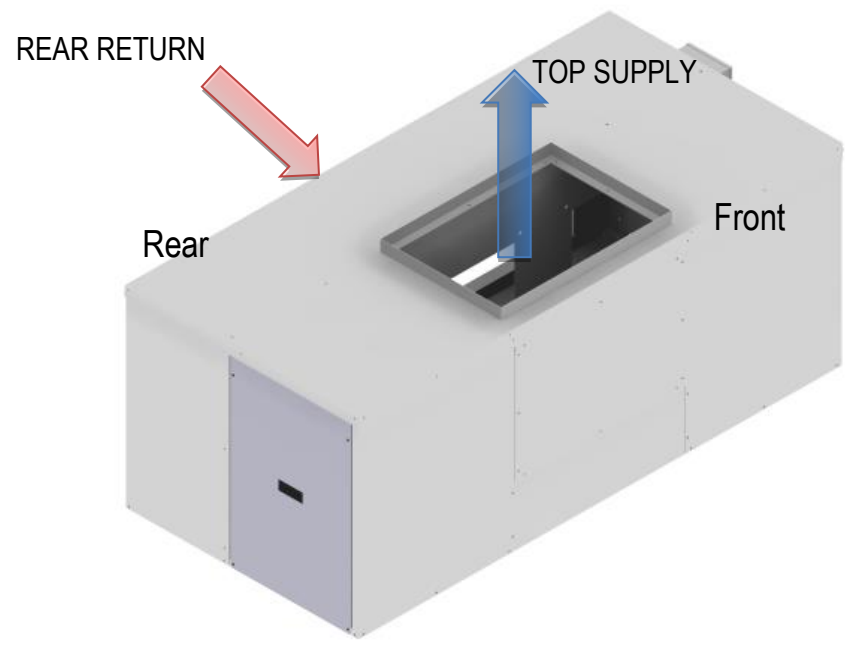
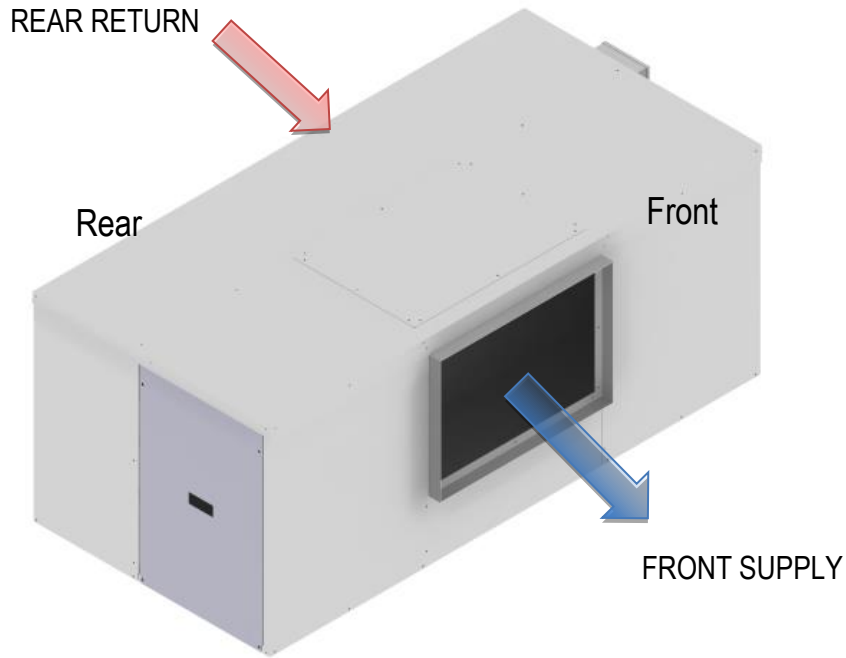
**SDU LOW PROFILE HANDING CONFIRMATION**

<b>SO NUMBER</b> (INTERNAL USE)		<b>WO NUMBER</b> (INTERNAL USE)	
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**SPLIT DUCTED UNITS (SDU IDH)**

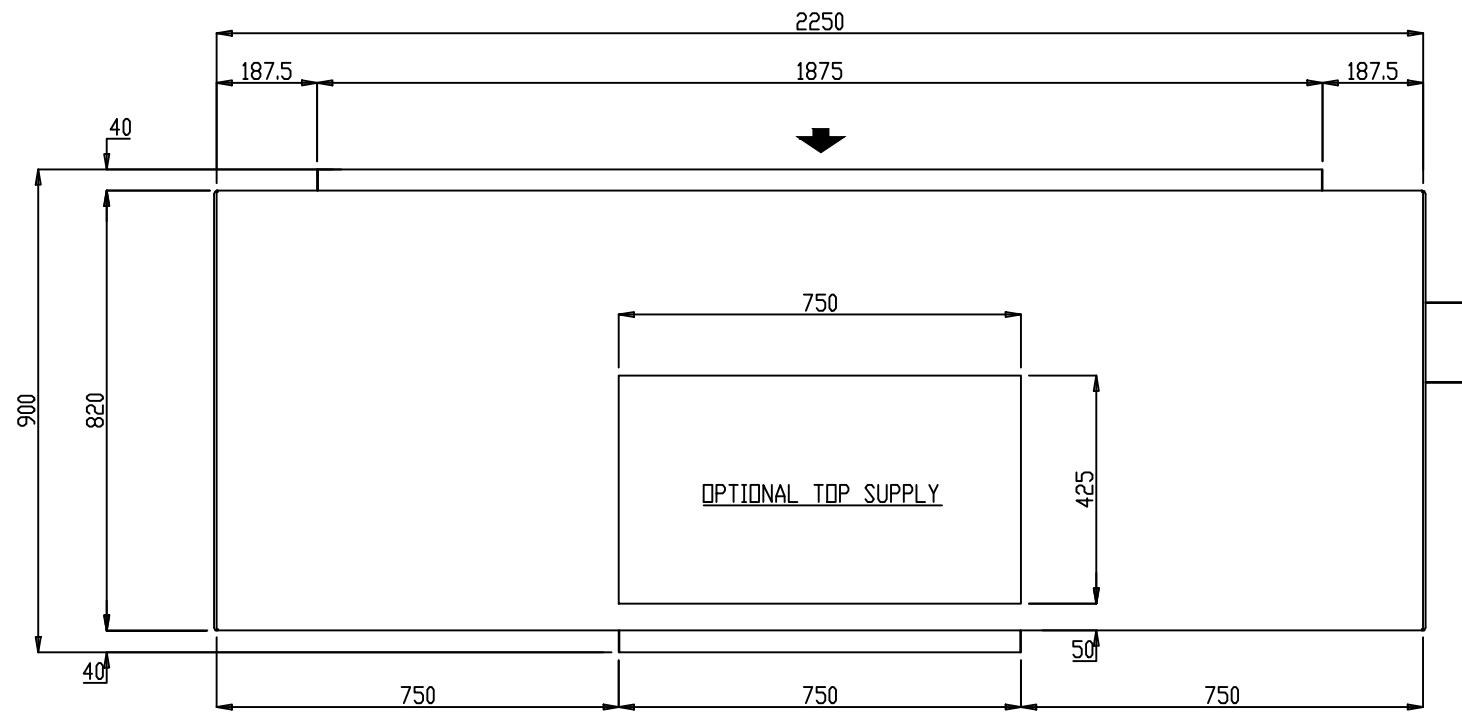
<b>MODELS</b>	S024-045ILR3SA
<b>GENERAL</b>	This document details the airside configurations available on 024-045 models.
<b>SOURCING</b>	Standard configuration is Front Supply / Rear Return. Optional airside configurations to be specified at time of order.
<b>HOW TO USE THIS DOCUMENT</b>	<ol style="list-style-type: none"> <li>1. Circle the required supply air outlet.</li> <li>2. Complete the information at the bottom of this document and return to your APAC representative.</li> </ol>

<b>FS/RR – FRONT SUPPLY / REAR RETURN</b>	<b>TS/RR – TOP SUPPLY / REAR RETURN</b>
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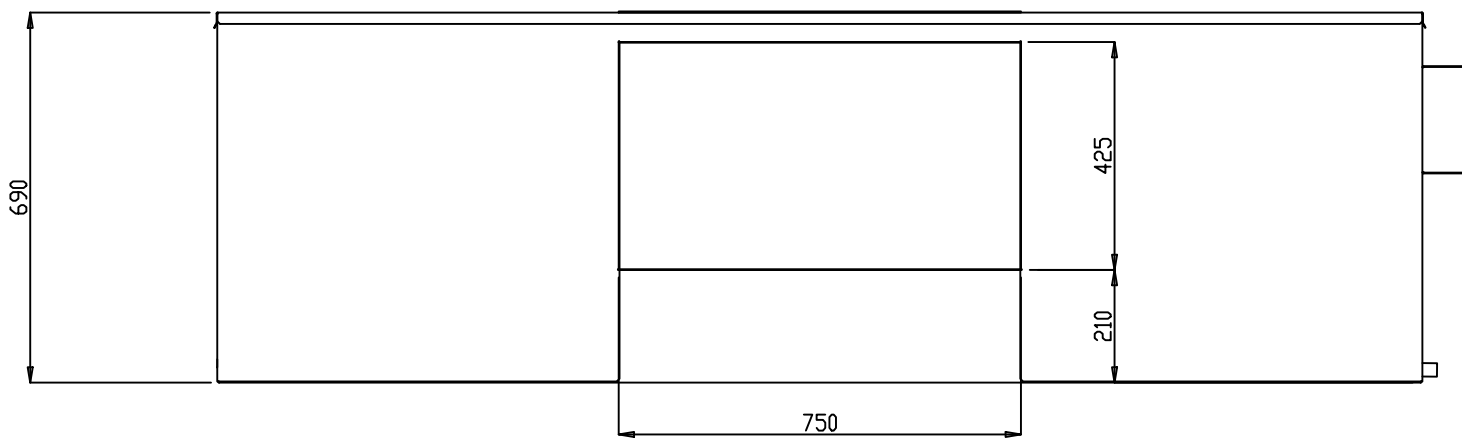


**CUSTOMER TO COMPLETE AND RETURN**

CUSTOMER	PROJECT	UNIT REF	NAME / SIGN	DATE



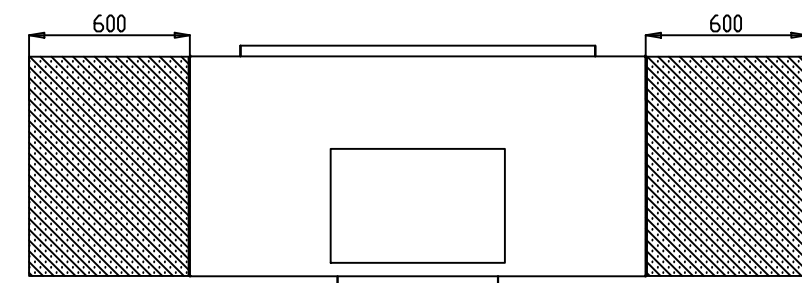
FRONT  
PLAN



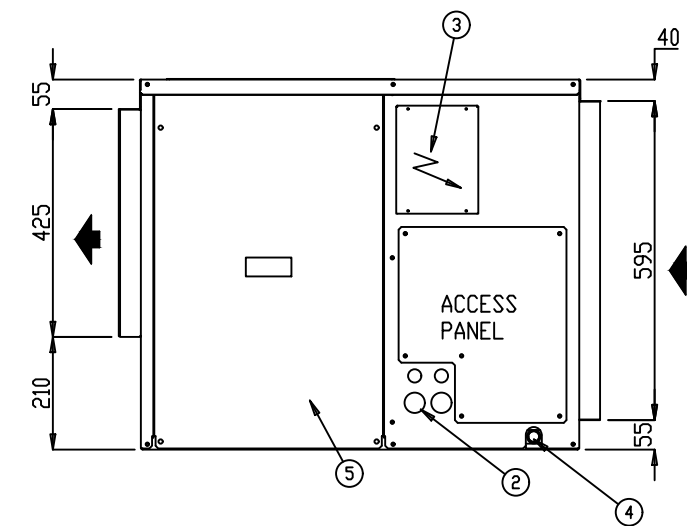
FRONT ELEVATION

NOTES:

1. DRAWING REFLECTS A HORIZONTAL FAN COIL UNIT
2. GAS DRAIN AND ELECTRICAL ENTRIES ON SAME SIDE
3. ELECTRICAL CABLE ENTRY 25 $\phi$
4. CONDENSATE DRAIN OUTLET 25 $\phi$
5. ACCESS PANEL
6. OPTIONAL TOP SUPPLY CONFIGURABLE ON SITE
7. REFER TO INSTALLATION AND OPERATIONAL MANUAL FOR PIPE SIZING



CLEARANCE DETAIL  
FRONT



R/H ELEVATION


- ALL DIMENSIONS IN mm.
- GENERAL TOLERANCE  $\pm 1$ mm.
- DO NOT SCALE DRAWING.
- MASTER DRAWINGS ARE HELD ELECTRONICALLY. ANY COPY IS DEEMED UNCONTROLLED AND THEREFORE NOT NECESSARILY THE LATEST REVISION.
- ALL INFORMATION REMAINS THE PROPERTY OF THE COMPANY.

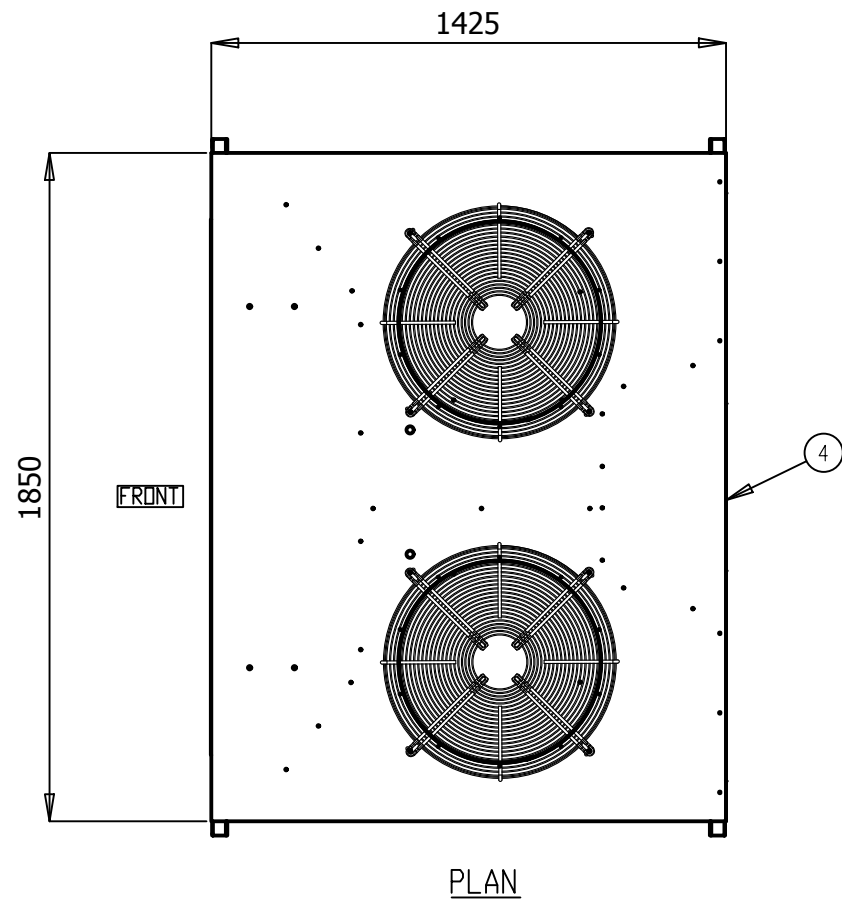
GENERAL ARRANGEMENT

S040ILR3SA- S045ILR3SA-

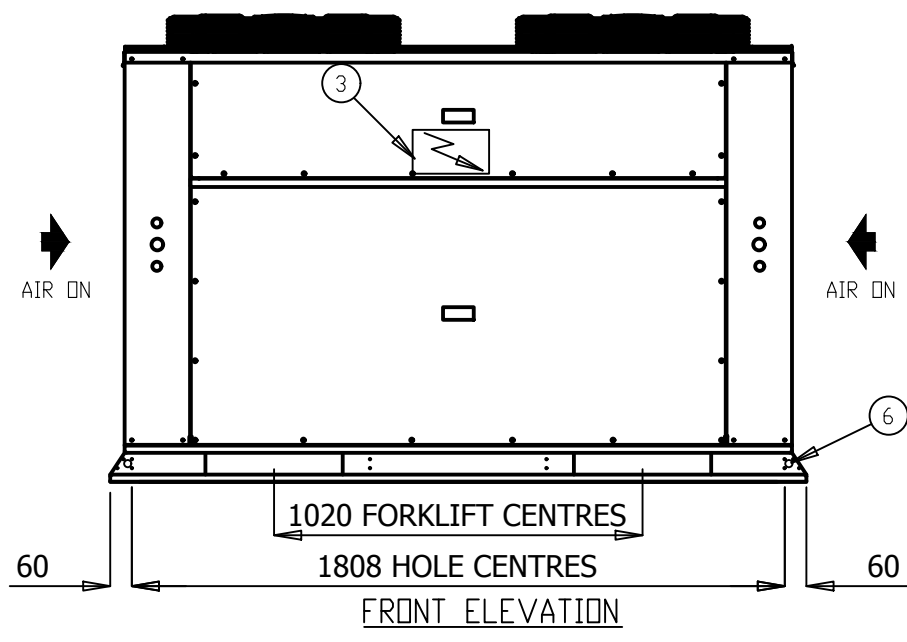
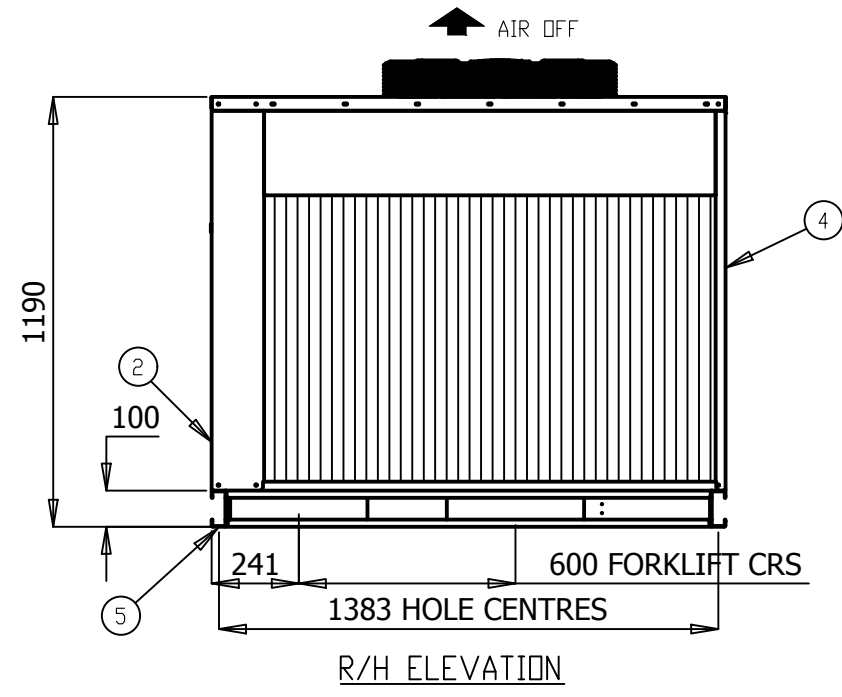
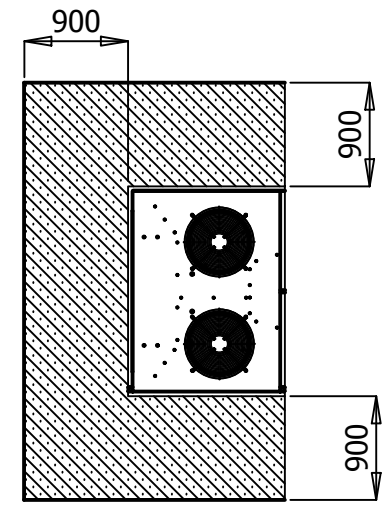
www.apacair.com.au

ABN: 74 005 138 769

REVISION	REVISED NAMEPLATE WITH APAC DETAILS			
 ATLANTIC DR. KEYSBOROUGH VIC 3173 1300 555 545	DRAWN	MT	DRAWING No. A4	
	DATE	02.10.15	GAD0061	
	SCALE	N.T.S.		
	CHECKED	HA	APP'D.	CM



- NOTES:
1. GENERAL ARRANGEMENT OF A OUTDOOR SPLIT AIR COOLED VERTICAL UNIT
  2. POWER AND FIELD CABLE ENTRIES, 1 x 32 $\phi$  AND 2 x 25 $\phi$
  3. ELECTRICAL PANEL LOCATED BEHIND SERVICE ACCESS
  4. FIELD PIPE CONNECTIONS
  5. UNIT BASE 4 x 16 $\phi$  FIXING POINTS
  6. UNIT HAS 4 x 20 $\phi$  LIFTING POINTS
  7. REFER TO INSTALLATION AND OPERATIONAL MANUAL FOR PIPE SIZING



- ALL DIMENSIONS IN mm.
- GENERAL TOLERANCE  $\pm 1$ mm.
- DO NOT SCALE DRAWING.
- MASTER DRAWINGS ARE HELD ELECTRONICALLY. ANY COPY IS DEEMED UNCONTROLLED AND THEREFORE NOT NECESSARILY THE LATEST REVISION.
- ALL INFORMATION REMAINS THE PROPERTY OF THE COMPANY.

# GENERAL ARRANGEMENT

S0240VR3SA- S0300VR3SA- S0350VR3SA- S0400VR3SA- S0450VR3SA-

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ABN: 74 005 138 769

	REVISION					REVISED NAMEPLATE WITH APAC DETAILS				
	DRAWN		MT		DRAWING No.			A4		
	DATE		24.08.14		<h2>GAD0028</h2>					
	SCALE		N.T.S.							
CHECKED		HA		APP'D.		CM		REV. D		



# TECHNICAL DATA SHEET

MODEL NUMBER	Indoor Outdoor	S0241LR3SA- S0240VR3SA-	S0301LR3SA- S0300VR3SA-	S0351LR3SA- S0350VR3SA-	S0401LR3SA- S0400VR3SA-	S0451LR3SA- S0450VR3SA-	
MEPS REGISTRATION NUMBER		AAC3274	AAC3287	AAC3276	AAC3286	AAC3277	
OUTDOOR SECTION	<b>CAPACITY</b>						
	Cooling	kW TOTAL*	25.15	31.02	34.13	39.78	45.27
		kW SENSIBLE*	19.39	25.97	28.12	32.42	36.62
		EER (kW / ikW)*	3.59	3.60	3.44	3.40	3.27
	Heating	kW TOTAL	23.80	30.20	33.60	40.10	43.50
		COP	3.66	3.60	3.78	3.61	3.71
	CAPACITY STEPS (%)		50/100	50/100	50/100	50/100	50/100
	<b>COMPRESSOR</b>						
	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		2	2	2	2	2
	PROTECTION DEVICES		HP SWITCH, LP SWITCH, MOTOR OVERLOAD'S				
	ALL COMPRESSORS HAVE		CRANKCASE HEATER				
	<b>FAN</b>						
	TYPE		AXIAL	AXIAL	AXIAL	AXIAL	AXIAL
	ikW (MAX INPUT)		0.39	0.39	0.39	0.60	0.60
	PHASE		1Ø	1Ø	1Ø	1Ø	1Ø
	No. OFF		2	2	2	2	2
	FAN SPEED CONTROL		VARIABLE SPEED	VARIABLE SPEED	VARIABLE SPEED	VARIABLE SPEED	VARIABLE SPEED
	<b>HEAT EXCHANGER</b>						
	TYPE		PLATE FIN COIL	PLATE FIN COIL	PLATE FIN COIL	PLATE FIN COIL	PLATE FIN COIL
	NOM. AIRFLOW l/s		-	-	-	-	-
	<b>REFRIGERANT SYSTEM</b>						
	TYPE		R410A				
	FACTORY CHARGE PER CIRCUIT (KG)		3.95	5.3	5.7	7.3	6.8
	No. OF CIRCUITS		2	2	2	2	2
	REFRIGERANT CONTROL		TXV				
ALL SYSTEMS INCLUDE		DRIERS & SIGHT GLASSES					
<b>DIMENSIONS</b>							
H X W X D (mm)		1190 x 1850 x 1425					
<b>WEIGHT</b>							
OPERATING KG		362	382	389	414	414	
SHIPPING KG		366	386	393	418	418	
<b>ELECTRICAL</b>							
POWER SUPPLY		415v / 3Ø / 50hz					
FLA / RLA (Amps)		19.6 / 12.8	24.2 / 14.7	27.2 / 18	35.2 / 19.2	35.2 / 20.9	
INDOOR SECTION	<b>FAN</b>						
	TYPE		CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL
	ikW (MAX INPUT)		1.7	1.7	1.7	1.7	1.7
	PHASE		3Ø	3Ø	3Ø	3Ø	3Ø
	No. OFF		2	2	2	2	2
	FAN SPEED CONTROL		VARIABLE SPEED	VARIABLE SPEED	VARIABLE SPEED	VARIABLE SPEED	VARIABLE SPEED
	<b>HEAT EXCHANGER</b>						
	TYPE		PLATE FIN COIL	PLATE FIN COIL	PLATE FIN COIL	PLATE FIN COIL	PLATE FIN COIL
	NOM. AIRFLOW l/s		1250	1670	1750	1985	2235
	EXT STATIC pa		100				
	<b>DIMENSIONS</b>						
	H X W X D (mm)		690 x 1700 x 820			690 x 2250 x 820	
	<b>WEIGHT</b>						
	OPERATING KG		192	200	200	225	225
SHIPPING KG		195	211	203	228	228	
<b>ELECTRICAL</b>							
POWER SUPPLY		415v / 3Ø / 50hz					
FLA / RLA (Amps)		5.2 / 0.6	5.2 / 1.1	5.2 / 1.2	5.2 / 1.4	5.2 / 1.8	
COMBINED SECTIONS	<b>ELECTRICAL</b>						
	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)		13.6	15.8	19.1	20.6	22.7
	MAX. F.L.A. (TOTAL SYSTEM)		24.8	29.4	32.4	40.4	40.4
	<b>GENERAL</b>						
	CABINET		GALVANISED SHEET STEEL				
	INSULATION		ALUMINIUM FOIL FACED POLYETHYLENE ACOUSTIC INSULATION				
	EXTERNAL FINISH		POLYESTER POWDER COAT - COLOUR LIGHT GREY AS STANDARD - OPTIONS AVAILABLE				
	<b>INDOOR AND OUTDOOR PIPE CONNECTION</b>						
LIQUID mm (inch)		9.5 (3/8")	9.5 (3/8")	9.5 (3/8")	9.5 (3/8")	9.5 (3/8")	
GAS mm (inch)		15.9 (5/8")	19.1 (3/4")	19.1 (3/4")	22.2 (7/8")	22.2 (7/8")	
<b>ADDITIONAL REFRIGERATION CHARGE AND FIELD PIPING CONNECTIONS</b>							
REFER TO INSTALLATION AND OPERATION MANUAL							
<b>NOISE LEVELS</b> [Based on condenser fan's sound data]							
SOUND POWER db(A)		66.5	66.5	66.5	68.7	68.7	

Note:

\*Performance excludes ikW of evaporator fan motor.

R.L.A - Run Load Amps are based on current drawn at nominal conditions

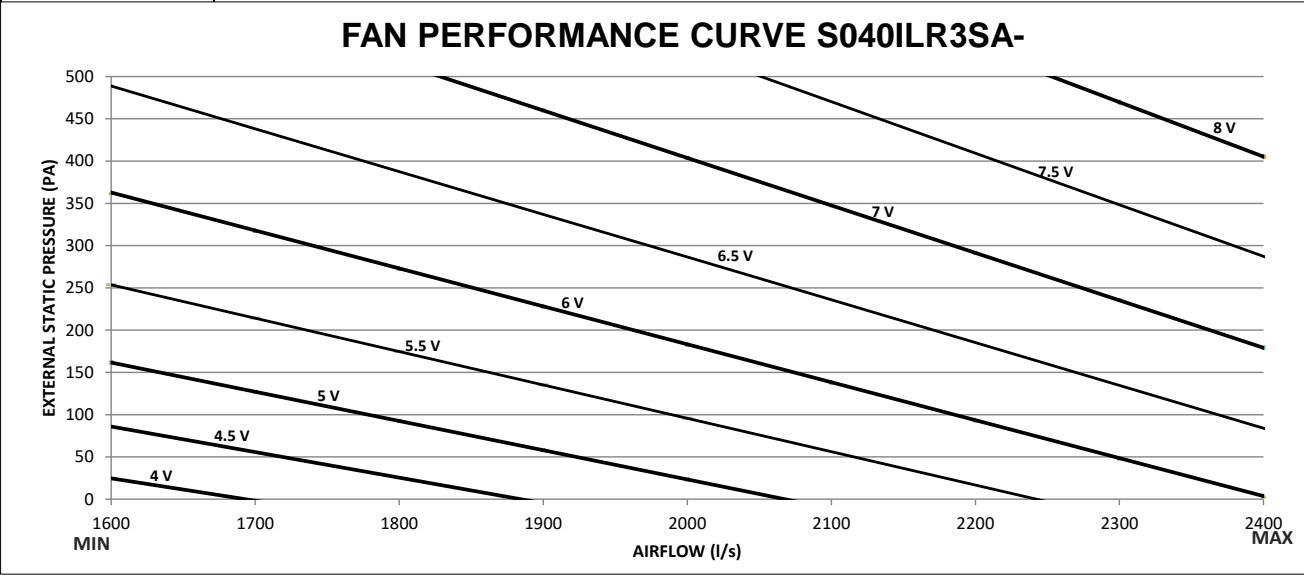
F.L.A - Full Load Amps are based on the overload settings [Max Current] of all Compressor and Fan Motor(s).

Date	Document #	Approved By	Revision
1/6/18	TDS0045	CM	C

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

## FAN PERFORMANCE CURVE

**S040IHL3SA-**



- Note:
- 5V, 5.5 V, 6V, 6.5V, 7V, 7.5V, 8V and 8.5V represents potentiometer voltage. Potentiometer can be adjusted to achieve desired flowrates.
  - Potentiometer voltage can be varied infinitely between 0 to 10V.

Date	Document #	Approved By	Revision
30.05.18	FPC0068	CM	B

**NOTE: Due to continuous improvement Rinnai Australia Pty Ltd reserve the right to change details without notice.**



## SOUND DATA

**MODEL NUMBER**

**S040IHL3SA-/ S040OVR3SA-**

### Outdoor Fan

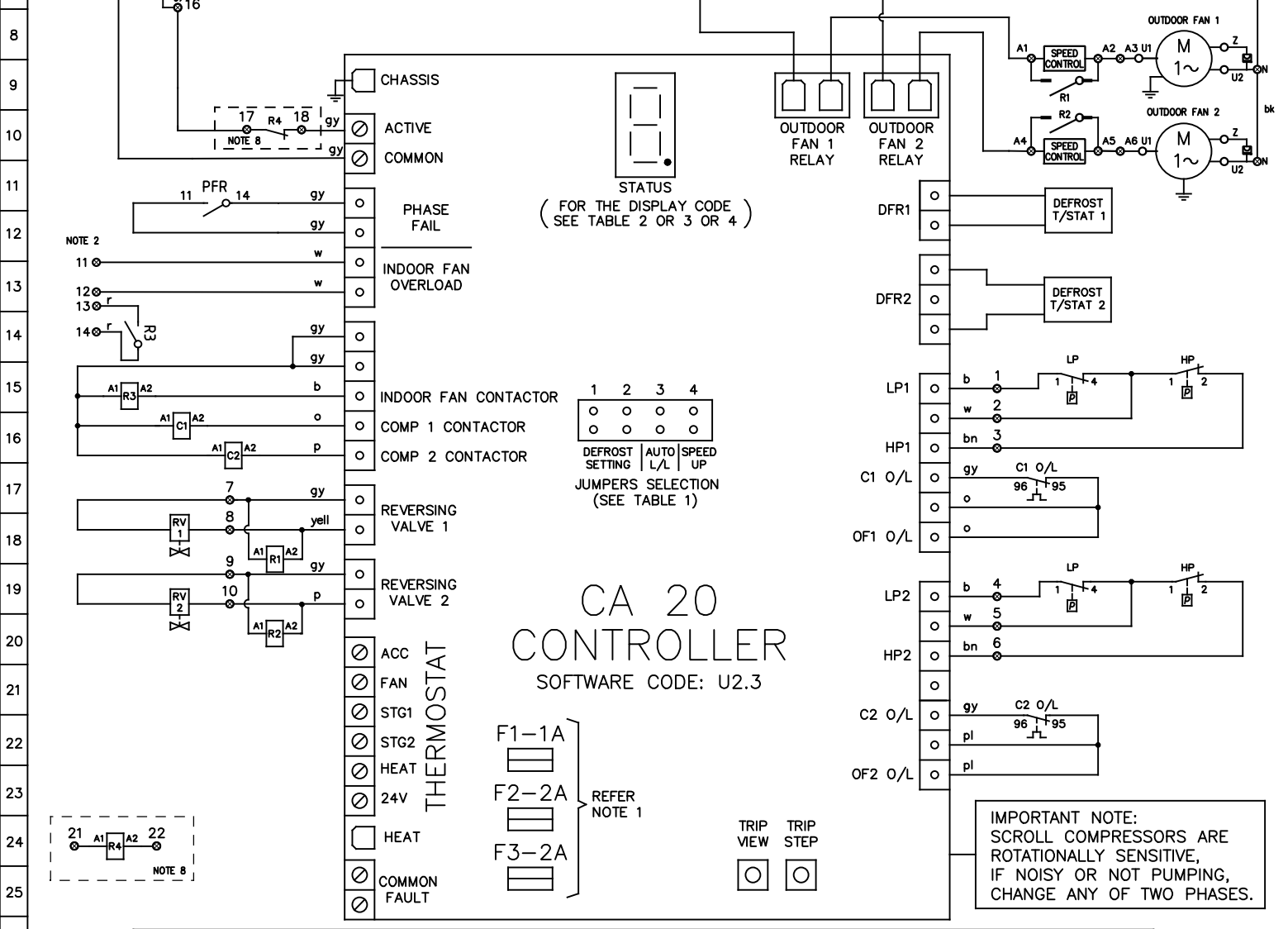
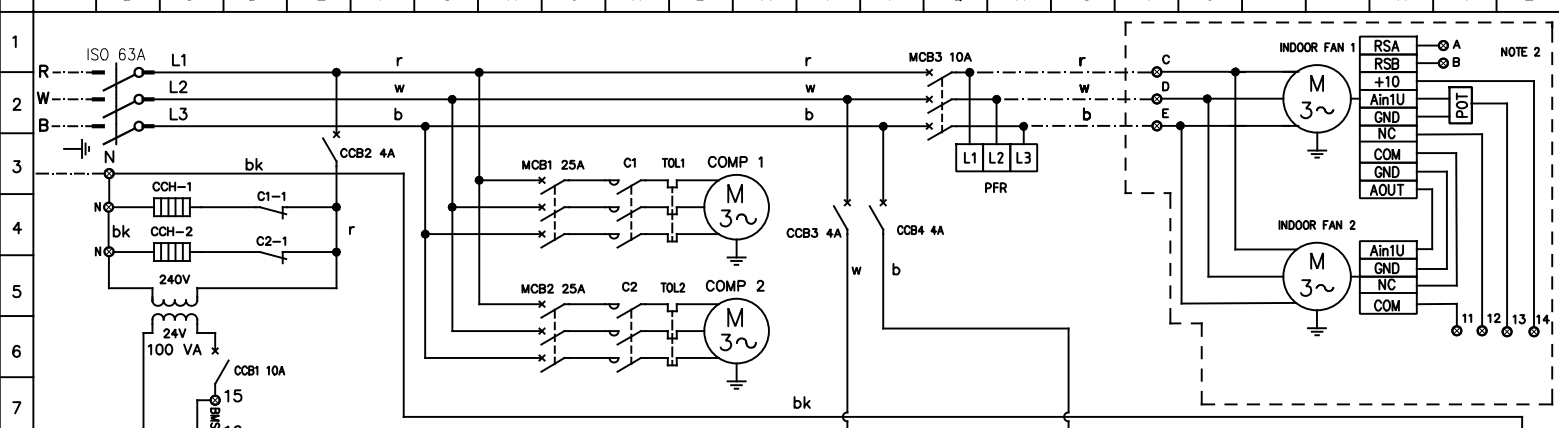
Sound Power Level dB(A)	Octave band Centre Frequency (Hz), dB						
	125	250	500	1k	2k	4k	8k
68.7	75.6	63.7	64.1	63.2	61.4	58.2	52.3

### Indoor Fan

Sound Power Level dB(A)	Air Flow (l/s)	Octave band Centre Frequency (Hz), dB						
		125	250	500	1k	2k	4k	8k
82.8	1984	64.9	71.9	75	78.5	75.7	74.5	73.4

Date	Document #	Approved By	Revision
07.06.18	SD0064	CM	B

**NOTE: Due to continuous improvement Rinnai Australia Pty Ltd reserve the right to change details without notice.**



**WARNING!** THE SOFTWARE OF THE CA20 CONTROLLER IS NOT DESIGNED TO FUNCTION AS A PRIMARY PERSONAL SAFETY DEVICE, AS CONNECTED EQUIPMENT CAN START AUTOMATICALLY WITHOUT WARNING. ALSO, OPENING THERMOSTAT CONTACTS MAY NOT CAUSE THE EQUIPMENT TO STOP. OUTDOOR FAN MOTORS HAVE INTERNAL OVERLOADS AND MAY RESTART AUTOMATICALLY.

- NOTES:
- TIME DELAY GLASS FUSES ON THE PCB CONTROLLER ARE THE FOLLOWING:
    - F1 PROTECTS THE THERMOSTAT CIRCUIT.
    - F2 PROTECTS THE REVERSING VALVE CIRCUITS AND THE "HEAT" OUTPUT. THIS FUSE F2 ALSO SUPPLIES FUSE F1.
    - F3 PROTECTS BOTH COMPRESSOR CONTACTOR CIRCUITS AND THE INDOOR FAN CONTACTOR CIRCUIT.
  - FOR SPLIT SYSTEMS. OTHERS TO INSTALL ISOLATOR AND FIELD WIRING
  - HP CUT OUT & LP CUT OUT - AUTO RESET.
  - THERMAL OVERLOAD RELAYS - AUTO RESET, UNLESS OTHERWISE STATED.
  - DO NOT CONNECT ANY ADDITIONAL EQUIPMENT TO THE CONTROL TRANSFORMER OTHER THAN THE EQUIPMENT SHOWN ON THE ELECTRICAL DRAWING.
  - ALL FIELD WIRING IS THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR AND MUST COMPLY WITH AS/NZS 3000 AND LOCAL RULES.
  - SOFTWARE CODE MUST BE CHECKED AFTER REPLACEMENT OF THE CA-20 CONTROLLER BY CHECKING THE DISPLAY CODE ON THE 7 SEGMENT DISPLAY AFTER THE CONTROLLER IS ACTIVATED.
  - OPTIONAL FIRE ALARM RELAY

JUMPERS SELECTION	DEFROST INTERVAL TIME SETTING	JUMPERS SELECTION	AUTO LEAD/LAG	JUMPERS SELECTION	SPEED UP
1 2 ○ ○	15 min	3 ○	OFF	4 ○	OFF
1 2 ● ○	FACTORY SETTING 30 min	3 ●	ON	4 ●	ON
1 2 ● ●	45 min	3 ●	ON	4 ●	ON

UNIT MUST BE SWITCHED OFF BEFORE CHANGING THE JUMPER SELECTION

LEGEND		LEGEND		COLOUR CODE		COMPRESSOR (EACH)		MODEL: S0400VR3SA-L	
○	TERMINAL SWITCHBOARD	TOL	THERMAL OVERLOAD RELAY	r	RED	KW		4.86	
⊗	TERMINAL	R	CONTACTOR	w	WHITE	RATED CURRENT		15.00	
---	FIELD WIRING	C	CONTACTOR OF OUTDOOR FAN	b	BLUE	O/L SETTING		16.50	
---	CONTROL PARAMETER	COMP	COMPRESSOR ISOLATOR SWITCH	bk	BLACK	FANS (EACH)	KW	FLA	
---	MAINS/CONTROL WIRING	MCB	MINIATURE CIRCUIT BREAKER	bn	BROWN	OUTDOOR	0.60	2.62	
CCH	CRANK CASE HEATER	CCB	CONTROL CIRCUIT BREAKER	o	ORANGE	INDOOR	1.70	2.60	
PFR	PHASE FAILURE RELAY	O/L	OVERLOAD	p	PINK				
RV	REVERSING VALVE	POT	POTENTIOMETER	pl	PURPLE				
HP	HIGH PRESSURE SWITCH			gy	GREY				
LP	LOW PRESSURE SWITCH			yell	YELLOW				

**apac**  
by Rianni

DATE: 2/07/2018

DWN: S.P    APPD: ENG

REV: A    GRID: B270

DWG No. EWS02257