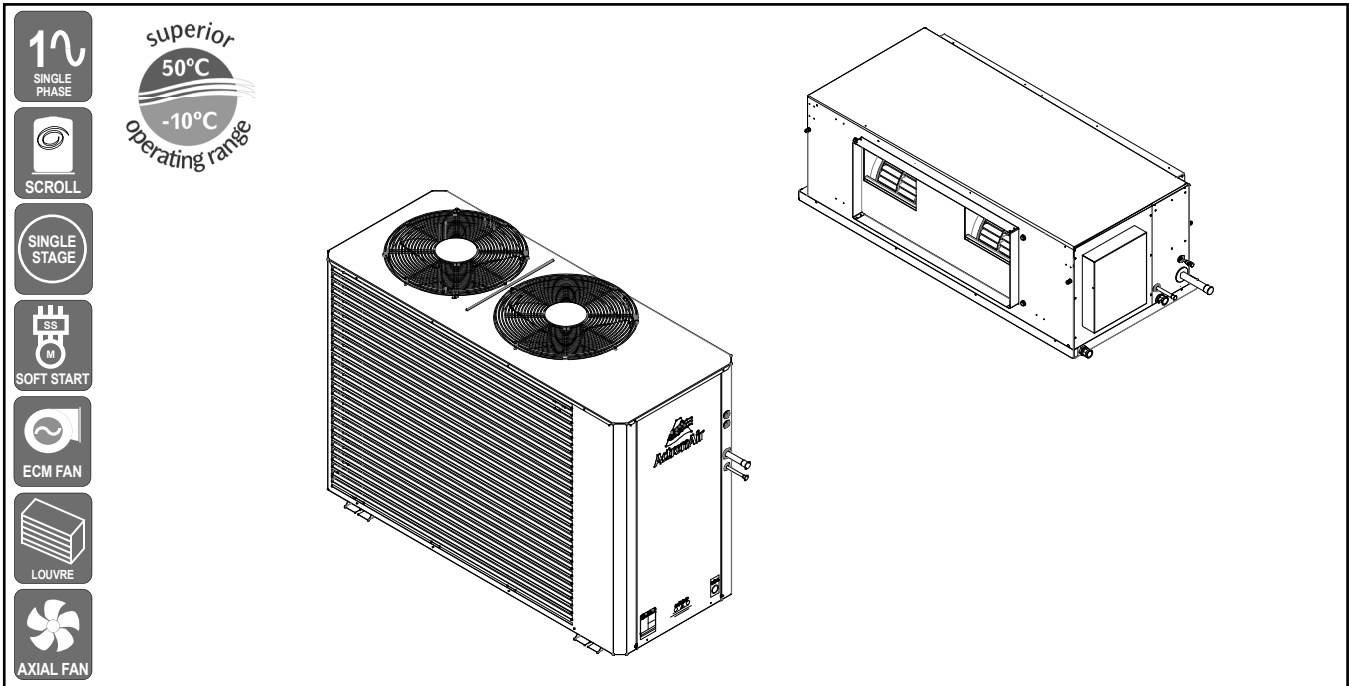


SPLIT DUCTED UNIT



1 Phase
1 Stage
15.29 kW

UNIT FEATURES

- Compliant Scroll Compressor
- EMC High Efficiency Indoor Fan Motor
- Three Speed Outdoor Fan
- Adaptive Demand Defrost
- 20 m Cat5E Cable included
- Low Ambient Cooling Operation to +5 degree
- Fault and Run Indication - Relay Output
- Up to 3 Wall Controllers and 3 Remote Temperature Sensors
- Ready for up to 8 zones
- Single Phase Soft Starter
- Hydrophilic Blue Fin Coil Coat Protection - Indoor & Outdoor Coils
- Integral Fan Coil Safety Tray with Drain Kit
- Pre-charged with R-410A Refrigerant
- Powder Coated Outdoor Unit With Louvred Coil Guard

CONTROL OPTIONS AND FEATURES

ActronAir LR7-1/LC7-2

- Available in White or Grey
- 7-day Programmable Controller with 2 Events per Day
- 24-hour ON/OFF Timer
- Temperature Setback
- After Hours Time (LC7 Only)
- Auto, Heat & Cool Modes
- Auto/Continuous Indoor Fan Operation
- Optional 2nd and 3rd Controllers with Mimic Logic
- On-Board Temperature Sensor

ActronAir Neo

- 7" Colour Touch Screen Master Controller
- In-built Wi-Fi and Blue-Tooth
- Neo Connect App
- On-Board Temperature, Humidity and Proximity Sensor
- Optional wireless Zone Sensor
- Available in White or Black

ActronAir Group Control

ActronAir BMS ICUNO-MOD (Modbus 485)

3RD PARTY CONTROL OPTIONS

- Manual Inputs (Heat, Cool and Fan Operation)
- Analogue Input (Fan Only)

PLENUMS (Optional)

- Supply Air Plenums are Available

UNIT OPTIONS

- Additional Full Coil Coat Protection
- Outdoor Drain Tray
- Horizontal Discharge Condenser
- Vertical Evaporator

SPECIFICATION SUMMARY

OUTDOOR UNIT MODEL	CRA150S	
INDOOR UNIT MODEL	EVA150S	
	⁽¹⁾ TOTAL	⁽²⁾ NETT
⁽³⁾ COOLING CAPACITY (kW)	15.29	14.97
⁽³⁾ SENSIBLE CAPACITY (kW)	12.25	11.93
⁽⁴⁾ HEATING CAPACITY (kW)	14.84	15.12
⁽⁵⁾ COOLING INPUT POWER (kW)	4.56	
⁽⁵⁾ HEATING INPUT POWER (kW)	4.16	
EER	3.35	3.28
COP	3.57	3.63
⁽⁶⁾ INDOOR AIRFLOW (l/s) - MIN. / NOMINAL / MAX.	690 / 770 / 880	
⁽⁷⁾ OUTDOOR SOUND PRESS. LEVEL @ 3M dB(A) - LOW / MEDIUM / HIGH	45.3 / 48.5 / 52.0	
OUTDOOR SOUND POWER LEVEL dB(A) - LOW / MEDIUM / HIGH	66.3 / 68.4 / 71.5	
POWER SUPPLY - OUTDOOR	230V / 1Ph+N / 50 Hz	
POWER SUPPLY - INDOOR	230V / 1Ph+N / 50 Hz	
⁽²⁾ RATED LOAD AMPS - OUTDOOR / INDOOR / TOTAL	17.7 / 2.5 / 20.2	
⁽⁸⁾ FULL LOAD AMPS - OUTDOOR / INDOOR / TOTAL	24.0 / 4.3 / 28.3	
⁽⁹⁾ CIRCUIT BREAKER AND CABLE AMPS	32.0	
APPROXIMATE STARTING AMPS	< 45.0	
WEIGHT (kg) - INDOOR / OUTDOOR	53 / 133	

⁽¹⁾ Total Capacities are based on unit rating excluding indoor fan (kW.)

⁽²⁾ Measured and tested in accordance with AS/NZS 3823.1.2.

⁽³⁾ At 27°C DB / 19°C WB entering air temperatures and 35°C ambient.

⁽⁴⁾ At 20°C DB entering air temperature and 7°C DB / 6°C WB ambient.

⁽⁵⁾ Input power includes indoor fan (kW).

⁽⁶⁾ Max. - Min. airflow application range.

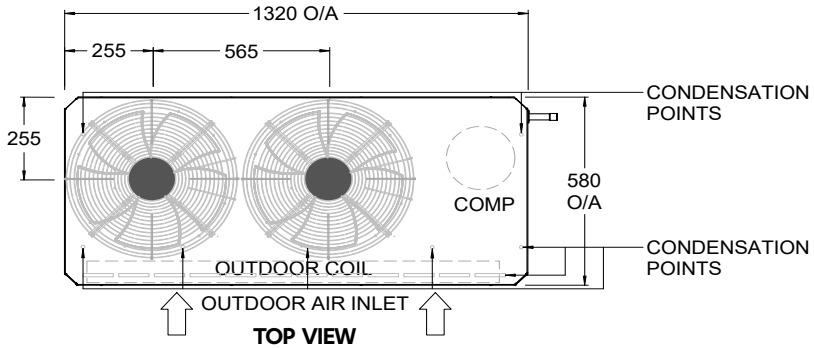
⁽⁷⁾ Sound levels are determined in an anechoic chamber and may differ once the unit is installed due to ambient conditions.

⁽⁸⁾ Full Load Amps are based on compressor and fan motors' maximum expected current.

⁽⁹⁾ See Specifications sheet for cable size and circuit breaker size details.

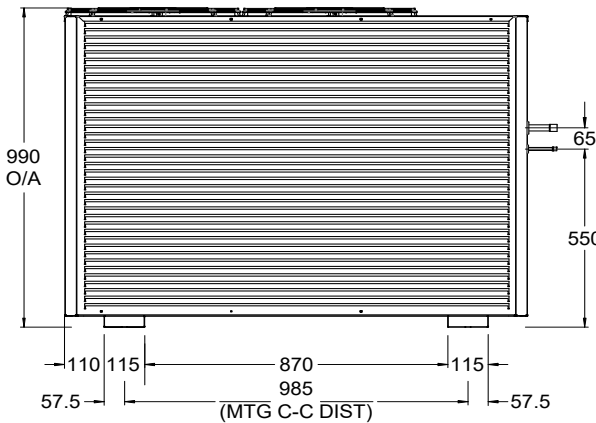
Note: Use input power to estimate running cost.

Outdoor Unit Dimensions and Clearances

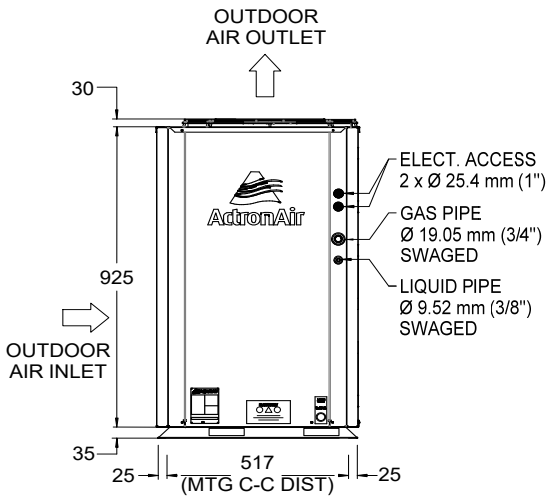


CONDENSATION POINTS ARE DESIGNED TO ENSURE ALL CONDENSATION IS REMOVED EFFICIENTLY TO AVOID WATER POOLING WITHIN THE CONDENSER. IF A SINGLE CONDENSATION DRAIN POINT IS REQUIRED, ACTRONAIR RECOMMENDS THE INSTALLATION OF A CONDENSER TRAY. THESE ARE AVAILABLE AS AN ADDITIONAL ACCESSORY.

** DRAWING IS SUBJECT TO CHANGE WITHOUT NOTICE**



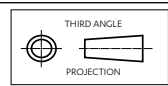
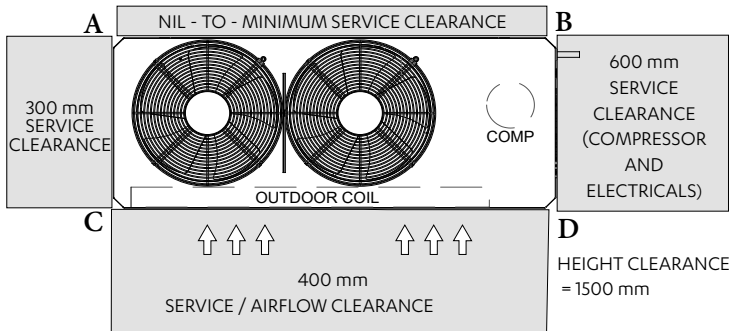
SIDE VIEW



FRONT VIEW

UNIT MODEL NUMBER	UNIT WEIGHT (kg)	CORNER WEIGHTS (kg)			
		A	B	C	D
CRA150S / CCA150S	133	19	45	22	47
CRA150T	132	20	43	21	48

Minimum Service Access Areas and Airflow Clearances



NOTES:

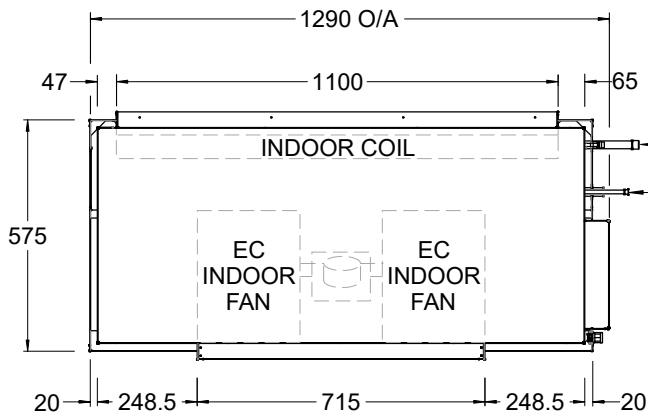
1. Do not scale drawing. All dimensions are in mm unless specified. Refer to corresponding unit dimensional drawing for mounting hole details.
2. Service Access Areas and Spaces for Airflow Clearances given above are suggested minimum based on the condition that the spaces around the units are free from any obstructions and a walkway passage of 1000mm between the units or between the unit and the outside perimeter is available.
3. Minimum service access areas and spaces for airflow clearances are responsibilities of the installer, ActronAir will not be held liable for any extra charges incurred due to lack of access and space for airflow.
4. Under all circumstances, condenser air must not recirculate back onto condenser coil. Keep all clearance free of any obstructions.
5. STACKING OF UNITS: Ensure that minimum airflow and clearances are met.
6. Refer to pipe Connection Details on Specifications Sheet.
7. MTG C-C DIST = Mounting Centre to Centre Distance.
8. Use M12 bolt for feet mounting.



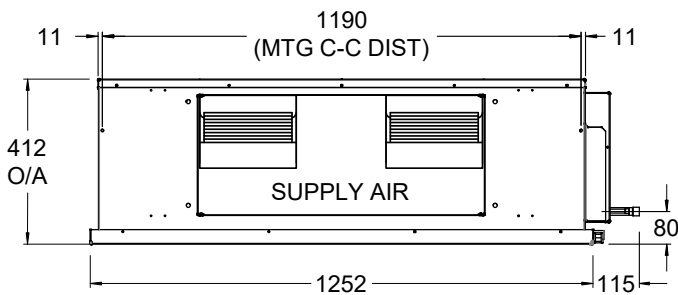
1 Phase
1 Stage
15.29 kW

Indoor Unit Dimensions and Clearances

15.29 kW
1 Phase 1 Stage

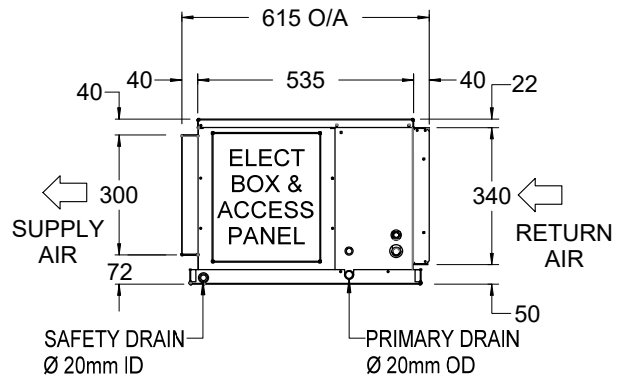


TOP VIEW



FRONT VIEW

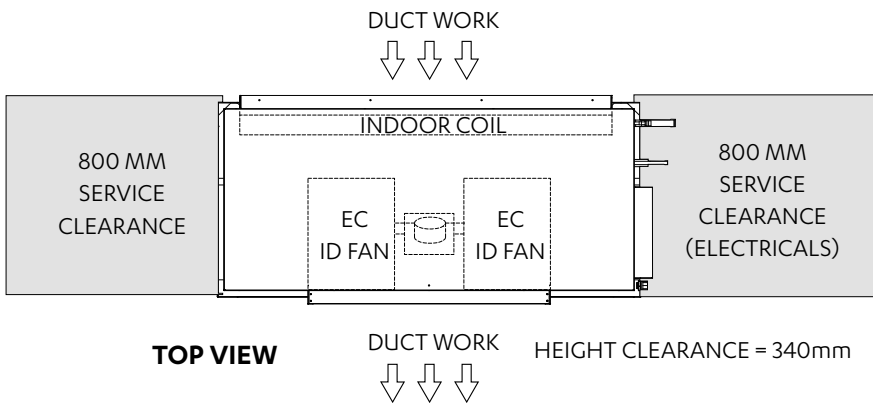
OVERALL NOMINAL DIMENSION (H X W X D)
= 412 X 1290 X 615
SUPPLY DUCT (H X W) = 300 X 715
RETURN DUCT = 340 X 1100
CONDENSATE DRAIN CONNECTION = 20mm OD



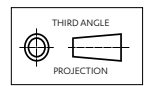
SIDE VIEW

UNIT MODEL NUMBER	UNIT WEIGHT (kg)
EVA150S	53
EVA170S	56

Minimum Service Access Areas and Airflow Clearances



TOP VIEW

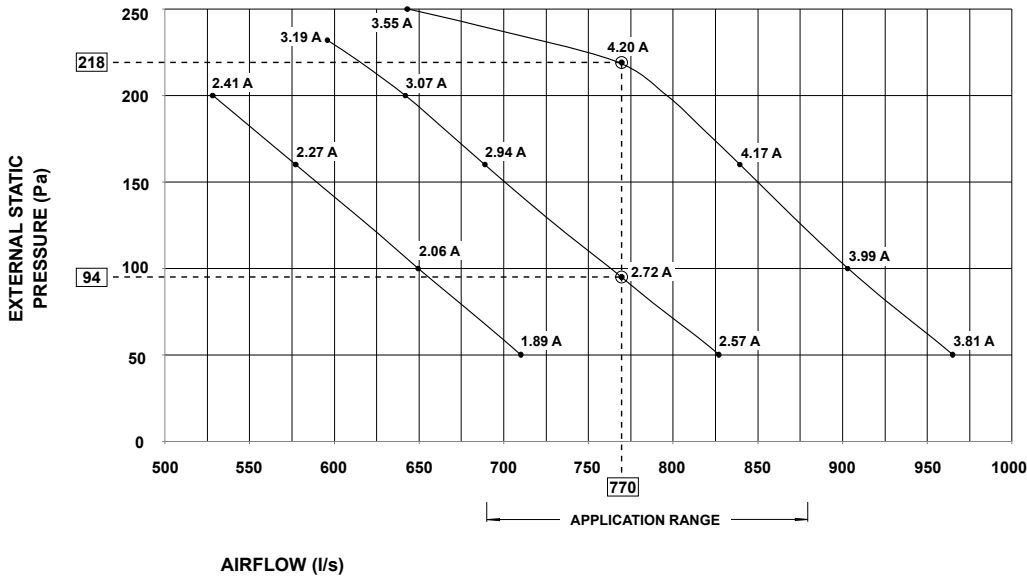


NOTES:

1. Do not scale drawing. All dimensions are in mm unless specified.
2. Service Clearances given are suggested minimum based on the condition that the spaces around the units are free from any obstructions and a walkway passage of 1000mm between the units or between the unit and the outside perimeter is available.
3. Minimum service access clearances are responsibilities of the installer, ActronAir will not be held liable for any extra charges incurred due to lack of access.



Indoor Unit Fan Curve*



* Performance Fan Curve shown is at Dry Coil Condition for FD 9x7AM - 1/2Hp EC Fan.

1 Phase
1 Stage
15.29 kW

Indoor Unit - With 3rd Party Control

AIRFLOW (l/s)	EXTERNAL STATIC PRESSURE (Pa)													
	50		75		100		125		150		175		200	
	% PWM	W	% PWM	W	% PWM	W	% PWM	W	% PWM	W	% PWM	W	% PWM	W
690	64	298	69	341	71	360	77	421	81	467	86	515	90	559
700	65	301	70	344	74	384	78	425	82	472	87	519	91	562
725	69	325	73	365	77	409	81	453	86	499	90	547	96	591
750	72	345	76	389	81	437	85	481	90	530	95	579		
770	74	370	79	411	84	468	88	516	93	560	98	609		
775	75	374	80	417	85	471	89	518	94	564				
800	79	398	84	443	89	495	94	546	98	596				
825	83	426	88	475	93	525	98	582	MOTOR / BLOWER LIMIT					
850	87	455	92	510	97	566								
875	92	500	97	556										
880	93	507	98	564										

NOTES:

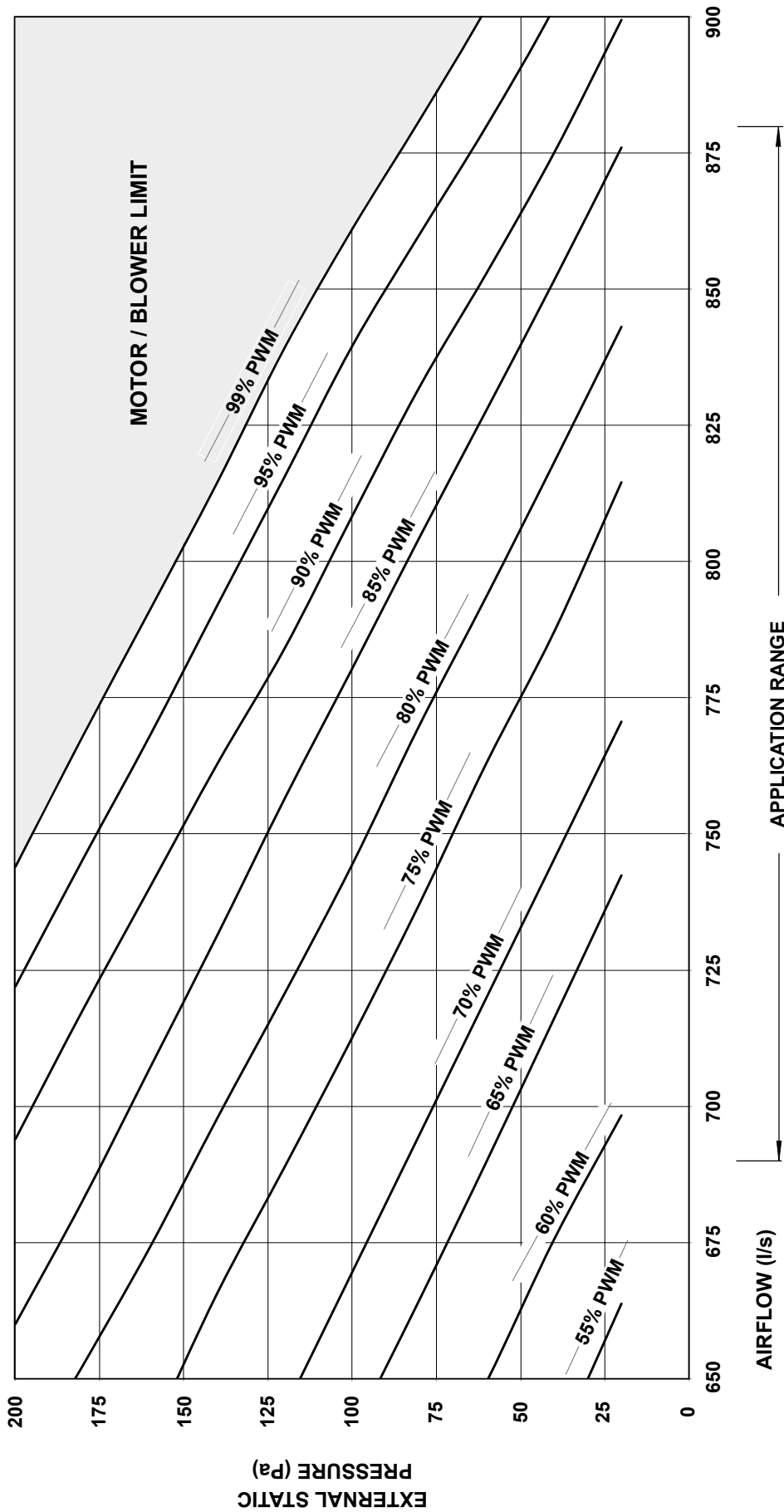
W = Indoor Fan Power, Watts

PWM = Pulse Width Modulation Setting, % PWM

Default PWM Setting = 75% PWM (Medium Speed) at 100 Pa



15.29 kW
1 Phase 1 Stage



Outdoor Radiated

Sound Power Level (SWL)

Fan Speed	Sound Power Level dB(A)	Octave Band Centre Frequency (Hz), dB						
		125	250	500	1k	2k	4k	8k
Low	66.3	66.2	61.5	65.3	61.6	53.1	45.3	42.5
Medium	68.4	70.7	65.3	66.6	63.5	56.3	49.8	43.5
High	71.5	73.3	69.9	69.5	66.4	61.1	55.3	46.5

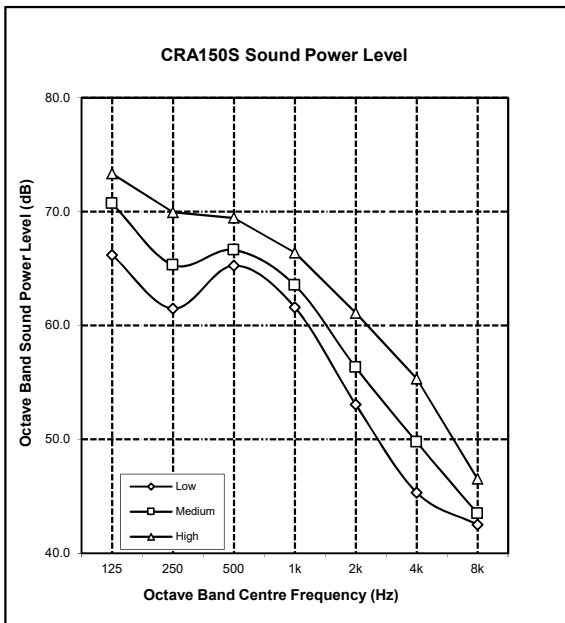
Indoor Outlet

Sound Power Level (SWL)

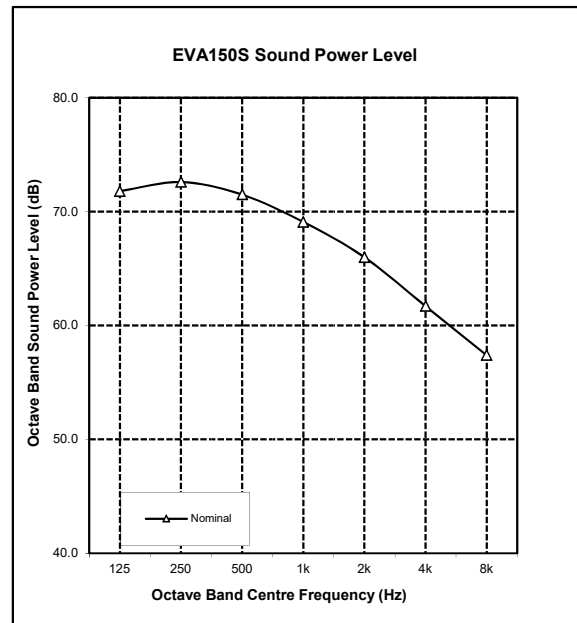
Airflow Setting	Airflow l/s	Sound Power Level dB(A)	Octave Band Centre Frequency (Hz), dB						
			125	250	500	1k	2k	4k	8k
Nominal	770	74.0	71.8	72.6	71.5	69.1	66.0	61.7	57.4

1 Phase
1 Stage
15.29 kW

OUTDOOR RADIATED



INDOOR OUTLET



NOTES:

Radiated sound power levels are based on ISO 3743-1.



SPECIFICATIONS

CRA150S / EVA150S

15.29 kW
1 Phase 1 Stage

CONSTRUCTION	
CABINET (Indoor Unit)	0.5 - 0.9 mm Galvanized Steel
CABINET (Outdoor Unit)	0.9 - 1.2 mm Galv. Steel
SURFACE FINISH (Outdoor Unit)	65 μ Baked Polyester Powder Coat

INSULATION (Indoor Unit)	
TYPE	Foil Faced Polyethylene Expanded Polystyrene

ELECTRICAL	
OUTDOOR UNIT	
Power Supply - 50 Hz	230 Volts x 1 Phase + N
Voltage Range (min - max)	216 V - 253 V
Full Load Amps*	24.0
Rated Load Amps**	17.7
Approximate Starting Amps	< 45.0
IP Rating	IP44

INDOOR UNIT	
Power Supply - 50 Hz	230 Volts x 1 Phase + N
Voltage Range (min - max)	216 V - 253 V
Full Load Amps*	4.3
Rated Load Amps**	2.5
IP Rating	IP20

OUTDOOR & INDOOR UNIT (TOTAL)	
Full Load Amps* - Phase 1	28.3
Full Load Amps* - Phase 2 & 3	N/A
Rated Load Amps**	20.2

IMPORTANT - The local electricity authority may require limits on starting current and voltage drop, please check prior to purchase.

* Full Load Amps are based on Compressor and Fan Motor's maximum expected current.

** Rated Load Amps are measured and tested in accordance with AS/NZS3823.1.2.

CABLE SIZE & CIRCUIT BREAKER SIZE	
Suggested minimum cable size should be used as a guide only, refer to AS/NZS 3000 "Australian/New Zealand Wiring Rules" for more details.	
Cable Size (main line)	6.0 mm ² (SUGGESTED MINIMUM)
Cable Size (indoor to outdoor wire)	1.0 mm ² (SUGGESTED MINIMUM)
Circuit Breaker (RCBO if applicable)	32.0 Amps

OUTDOOR COIL	
TUBE TYPE	Copper - Rifle Bore
FIN TYPE	Aluminium - Wave
FACE AREA (m sq)	1.1
FIN SPACING (per m)	709
COIL COATING	Hydrophilic Blue Fin Coil Coat Protection
ROWS	---

OUTDOOR FAN	
NUMBER OF FANS x TYPE	2 x Axial
NUMBER OF BLADES PER FAN	5
DIAMETER (mm)	450
OUTPUT kW (each)	0.145
MOTOR TYPE / DRIVE TYPE	6 Pole External Rotor / Direct
FAN SPEED CONTROL	3 Speed via Capacitor
The standard type outdoor fans fitted to this unit will accept up to 5 Pa of external static resistance.	

INDOOR COIL	
TUBE TYPE	Copper - Rifle Bore
FIN TYPE	Aluminium - Louvre
FACE ARE (m sq)	0.41
FIN SPACING (per m)	590
COIL COATING	Hydrophilic Blue Fin Coil Coat Protection
ROWS	---

INDOOR FAN	
NUMBER OF FANS x TYPE	1 x Twin Deck Centrifugal EC Fan
DIAMETER / WIDTH (mm)	240 x 180
OUTPUT (kW)	0.373
MOTOR TYPE / DRIVE TYPE	Variable Speed EC Motor / Direct

COMPRESSOR	
NUMBER PER UNIT x TYPE	1 x Scroll (Hermetic)
FULL LOAD AMPS	22.5
LOCKED ROTOR AMPS	115.5
STARTING METHOD	Soft Starter

REFRIGERATION SYSTEM	
REFRIGERANT TYPE	R-410A
EXPANSION CONTROL	Direct Expansion Orifice
FACTORY CHARGE (grams)	4650
PRE-CHARGE LENGTH (metres)	15
ADDITIONAL REF. CHARGE (gm/m)	50

FILTER DRIER	
CONNECTION SIZE & TYPE	9.52 mm (3/8") ODF Soldered Bi-Flow
FACTORY SUPPLIED / FITTED	No

INTERCONNECTING PIPE RUN	
MAX. PIPE LENGTH (metres)	60
MAX. VERTICAL LENGTH (metres)	20 (Included in Max. Pipe Length)

FIELD PIPE SIZES	
Liquid Pipe	9.52 mm (3/8")
Gas Pipe	19.05 mm (3/4")

PIPE CONNECTIONS		
Indoor	Liquid Pipe	9.52 mm (3/8") Swaged to fit 9.52 mm (3/8") field pipe
	Gas Pipe	19.05 mm (3/4") Swaged to fit 19.05 mm (3/4") field pipe
Outdoor	Liquid Pipe	9.52 mm (3/8") Swaged to fit 9.52 mm (3/8") field pipe
	Gas Pipe	19.05 mm (3/4") Swaged to fit 19.05 mm (3/4") field pipe
CONNECTION TYPE		Solder
Insulate both gas and liquid pipes separately.		

PROTECTION DEVICES	
HIGH PRESSURE CUTOUT SWITCH	Nonadjustable (Automatic Reset)
LOW PRESSURE CUTOUT SWITCH	Nonadjustable (Automatic Reset)
COMPRESSOR MOTOR TEMP.	Internal Thermal Cut-Out
INDOOR FAN OVERLOAD	Internal Thermal Cut-Out
OUTDOOR FAN OVERLOAD	Internal Thermal Cut-Out
SUMP HEATER WATTS *	30 W during Compressor Off Cycle
* Crankcase Heater is to be disconnected for pipe lengths 8 m or less.	

ELECTRIC CONTROLS	
DEFROST METHOD	Reverse Cycle
DEFROST TYPE	Adaptive Demand Defrost
CONTROL CIRCUIT BREAKER	10.0 Amps
CONTROL FIELD WIRING	2 Core 14 / 0.20 Screened Cable
WALL CONTROLLER / SENSOR FIELD WIRING	Cat5e UTP (AWG 24) Data Cable

OPERATING RANGE			
It is essential that the unit is correctly sized for the application and operates within its recommended range of operating conditions as shown below.			
MODE	RANGE	INDOOR AIR INTAKE TEMPERATURE	OUTDOOR AIR INTAKE TEMPERATURE
Cooling	Max.	30°C DB / 22°C WB	50°C DB
	Min.	20°C DB / 16°C WB	5°C DB
Heating	Max.	24°C DB	19.5°C DB / 18°C WB
	Min.	16°C DB	-10°C DB

AIR FILTERS
All return air including fresh air must have adequate filters supplied and fitted by the installing contractor. Filters must be located in accessible location between the return air grille and the unit.
ActronAir does not supply or make any provisions for return air filter.

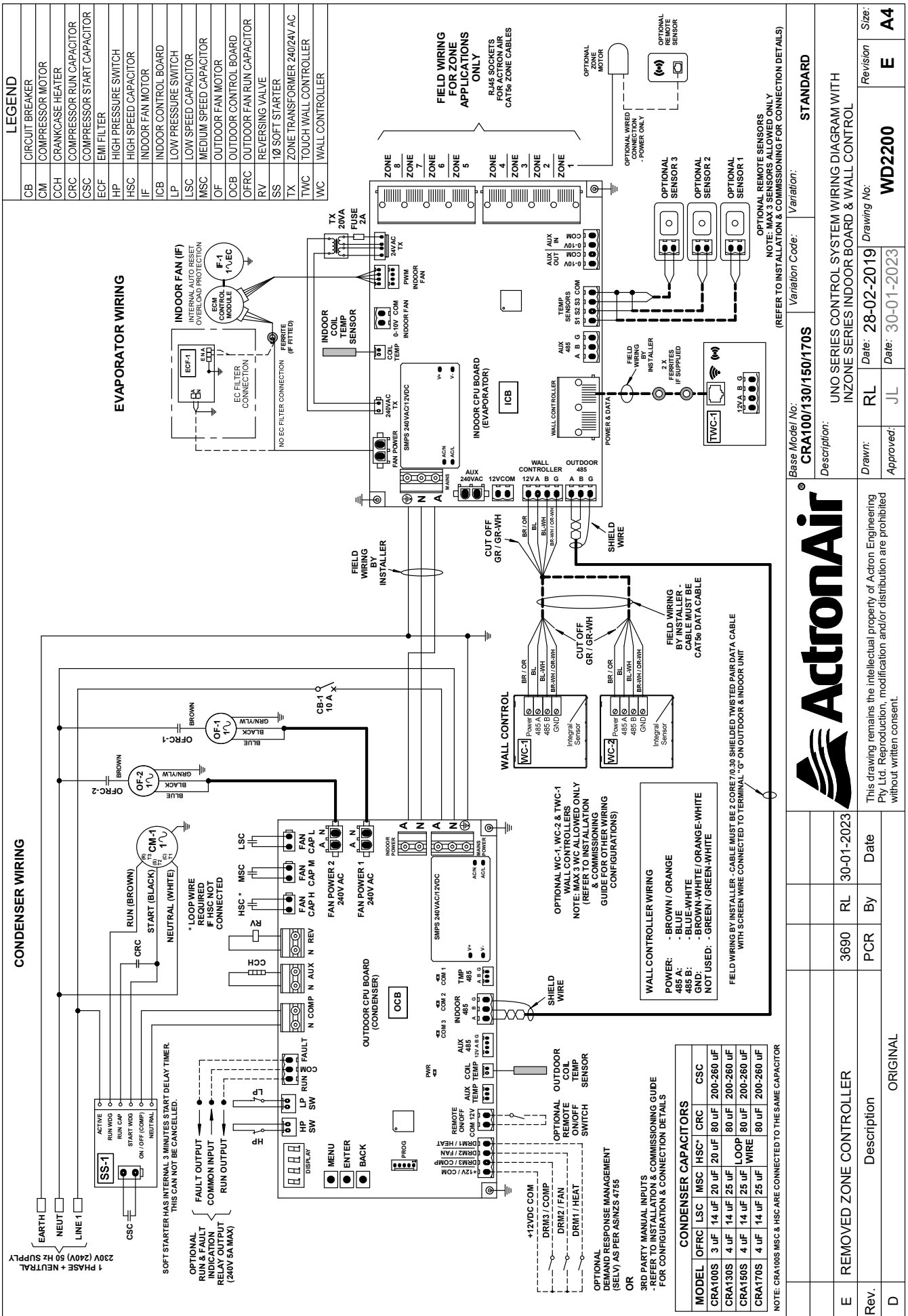
UNIT COMPLIANCE

- AS/NZS 3823.2 (MEPS)
- AS/NZS 4755.3.1 (DRM1, 2 and 3)
- AS/NZS CISPR 14.1 (EMC)
- AS/NZS 60335.2.40 (Safety)



WIRING DIAGRAM

CRA150S / EVA150S



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Rev.	Description	By	Date
E	REMOVED ZONE CONTROLLER	PCR	30-01-2023
D	ORIGINAL		

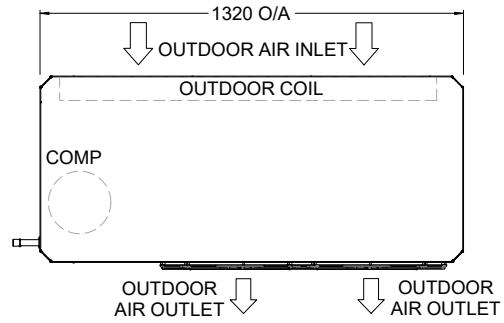
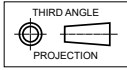
1 Phase
1 Stage
15.29 kW

H OUTDOOR UNIT - HORIZONTAL DISCHARGE FANS

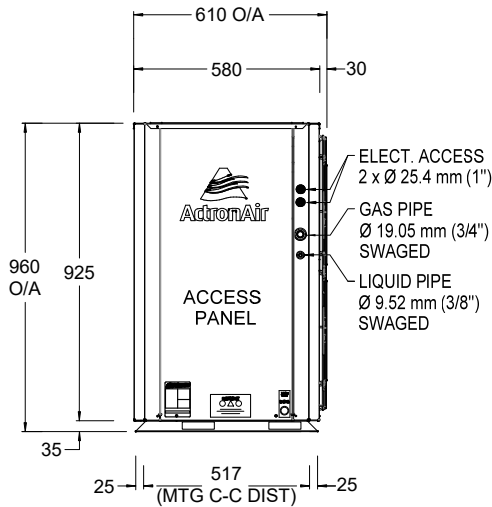
OVERALL NOMINAL DIMENSION (H x W x L)
= 960 x 1320 x 610
USE M12 BOLT FOR FEET MOUNTING

NOTES:

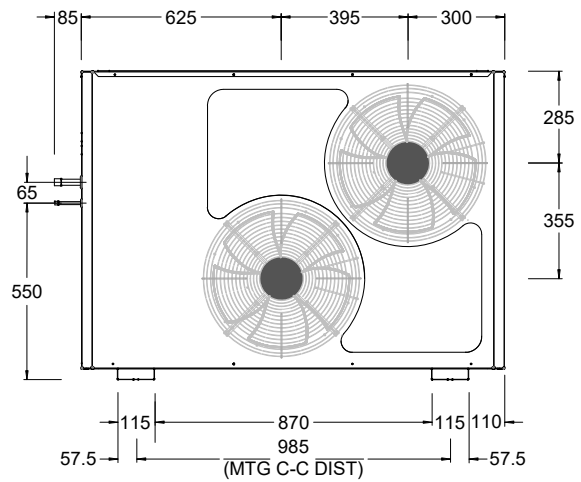
1. All dimensions are in mm unless specified.
2. Do not scale drawing.
3. Additional Full Coil Coat Protection option available on all units.
4. Suggested Service Clearance and Airflow Allowances are based on conditions that the spaces are free from obstructions and walkway passage of 1000 mm is available.
5. Minimum service access areas are responsibilities of the installer.
6. Maximum External Static of Outdoor Fans is 5 Pa.
7. Multiple drainage is as illustrated on the standard outdoor model.



TOP VIEW

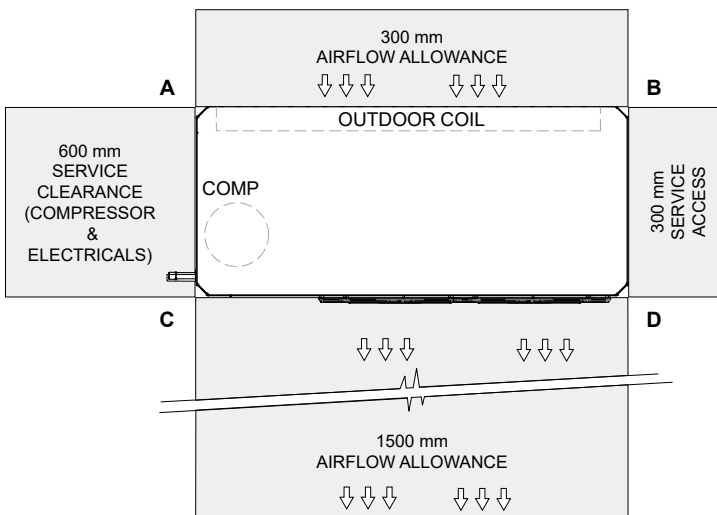


SIDE VIEW



FRONT VIEW

MINIMUM SERVICE ACCESS CLEARANCES & AIRFLOW SPACE ALLOWANCES



TOP VIEW

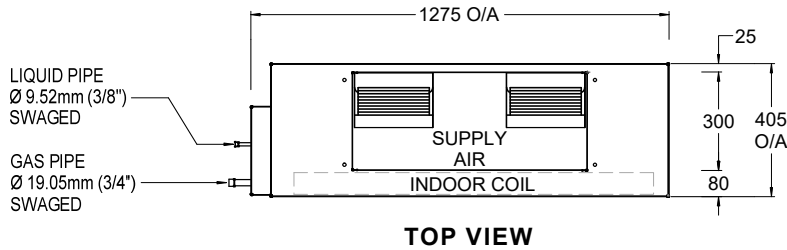
PLEASE NOTE THAT UNDER ALL CIRCUMSTANCES, CONDENSER AIR MUST NOT RECIRCULATE BACK ONTO CONDENSER COIL. KEEP ALL CLEARANCES FREE OF ANY OBSTRUCTIONS

STACKING OF UNITS	
ONE IN FRONT OF THE OTHER (DISTANCE BET. A & B)	SIDE BY SIDE (DISTANCE BET. A & C)
600 mm	1500 mm



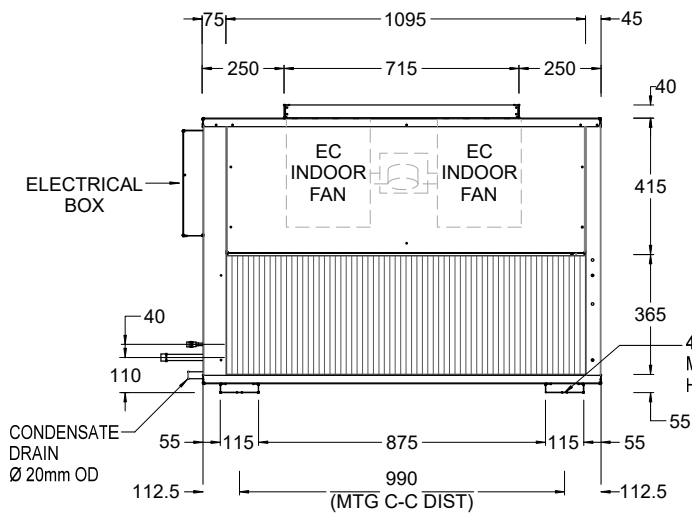
15.29 kW
1 Phase 1 Stage

V INDOOR UNIT - UPRIGHT FAN COIL WITH VERTICAL DISCHARGE

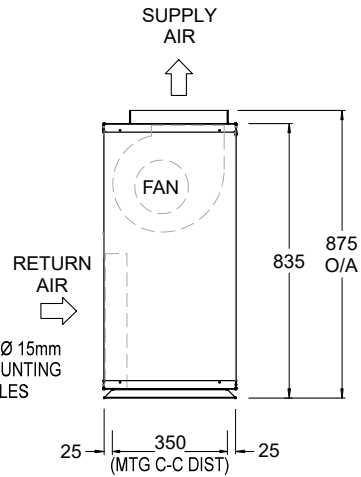


TOP VIEW

OVERALL NOMINAL DIMENSION (H x W x L)
= 875 x 1275 x 405
SUPPLY DUCT (H x W) = 300 x 715
RETURN DUCT (H x W) = 365 x 1095
DRAIN CONNECTION = 20 mm OD



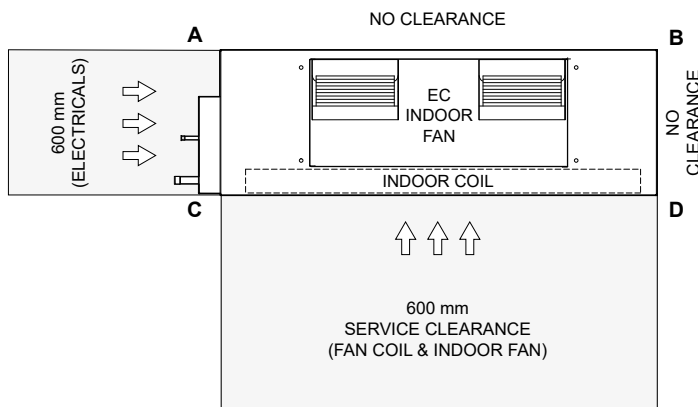
FRONT VIEW



SIDE VIEW

1 Phase
1 Stage
15.29 kW

MINIMUM SERVICE ACCESS CLEARANCES & AIRFLOW SPACE ALLOWANCES

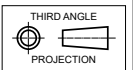


HEIGHT CLEARANCE = DUCT WORK

TOP VIEW

NOTES:

1. All dimensions are in mm unless specified.
2. Do not scale drawing.
3. Refer Fan Curve to corresponding standard EVA150S model.
4. Additional Full Coil Coat Protection option available on all units.
5. Suggested Service Clearance and Airflow Allowances are based on conditions that the spaces are free from obstructions and walkway passage of 1000 mm is available.
6. Minimum service access areas are responsibilities of the installer.



STACKING OF UNITS	
ONE IN FRONT OF THE OTHER (DISTANCE BET. A & B)	SIDE BY SIDE (DISTANCE BET. A & C)
600 mm	1000 mm