WALL HUNG SPLIT SYSTEM

UNIT FEATURES

- Reverse Cycle Wall Hung Split System
- Mono & Multi Compatible Heads
- Rotary Compressor
- Superior Operating Range:
  - Cooling: up to 60°C DB
  - Heating: down to -25°C DB
- Adjustable Airflow
- 3D Multi-Directional Airflow
  - Up / Down Auto Swing
  - Left / Right Auto Swing
- Louvre Position Memory
- Fan Speed: Auto, Low, Medium and High
- Powder Coated Panels - Outdoor Unit
- Hydrophilic Indoor and Outdoor Coil Protection
- Self-Diagnosis and Auto Protection
- Fire Proof Electrical Box - Indoor and Outdoor Units
- Dehumidification Mode
- Super Ionizer Technology
- Intitutive Proximity Sensor
- R-32 low GWP Refrigerant

UNIT OPTIONS

- Left or Right Hand Drain Connection
- Fault Alarm Output

CONTROL FEATURES

- Digital Display
- Auto Restart After Power Failure
- Timer ON/OFF Operation
- Remote ON/OFF Input
- Manual ON/OFF Operation
- 12-speed Indoor Fan
- 5-speed Outdoor Fan
- Sleep Mode
- Boost Mode
- Quiet Operation
- Dry Mode Operation
- Demand Response Ready
- 1W Standby Power Consumption
- Auto Defrost Function
- Follow Me Function
- Mute Operation
- Self Clean Function

SPECIFICATION SUMMARY

OUTDOOR UNIT MODEL		WRC-050CS
INDOOR UNIT MODEL		WRE-050CS
		NETT
[1][2] COOLING CAPACITY (kW) - NOMINAL (MIN - MAX)		5.00 (2.10 - 7.20)
[1][3] HEATING CAPACITY (kW) - NOMINAL (MIN - MAX)		5.00 (2.50 - 7.80)
[1][4] COOLING INPUT POWER (kW)		1.17
[1][4] HEATING INPUT POWER (kW)		1.16
[1][2] EER		4.27
[1][3] COP		4.31
[5] INDOOR AIRFLOW (l/s) - TURBO / HI / MED / LOW / QUIET		291 / 228 / 168 / 137 / 83
MOISTURE REMOVAL (l/hr)		2.6
INDOOR SOUND PRESS. LEVEL dB(A) - SILENT/LOW/MED/HIGH		26 / 30 / 34 / 40
OUTDOOR SOUND PRESS. LEVEL @ 1M dB(A)		58
[6] OUTDOOR SOUND POWER LEVEL dB(A)		67
POWER SUPPLY		220 - 240V / 1Ph+N / 50 Hz
[1] RATED LOAD AMPS - COOLING / HEATING		5.2 / 5.3
[7] FULL LOAD AMPS		15.5
[8] CIRCUIT BREAKER		16.0
WEIGHT (kg) - INDOOR / OUTDOOR		12.3 / 38.4
OUTDOOR OPERATING RANGE (°C)	COOLING	-15 to 60
	HEATING	-25 to 30

[1] Measured and tested in accordance with AS/NZS 3823.1.1.
[2] At 27°C DB / 19°C WB entering air temperatures and 35°C ambient.
[3] At 20°C DB entering air temperature and 7°C DB / 6°C WB ambient.
[4] Input power includes indoor fan kW.
[5] Max. - Min. airflow application range.
[6] Determination of Sound Power Levels of Noise Sources per AS1217.2.
[7] Full Load Amps are based on compressor and fan motors' maximum expected current.
[8] See Specifications sheet for circuit breaker size details.

Note: Use input power to estimate running cost.

UNIT COMPLIANCE

- AS/NZS 3823.2 (MEPS)
- AS/NZS 4755.3.1 (DRM 1, 2 and 3)
- AS/NZS CISPR 14.1 (EMC)
- AS/NZS 60335.1 (ELECTRICAL APPLIANCE SAFETY)
- AS/NZS 60335.2.40 (ELECTRICAL APPLIANCE SAFETY - AIR CONDITIONERS)

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CAPACITY SELECTION DATA

WRC-050CS / WRE-050CS

5.00 kW | 1 Stage | 1 Phase

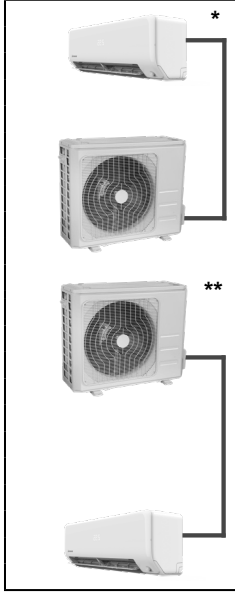
COOLING PERFORMANCE

OUTDOOR TEMPERATURE (DB)		INDOOR CONDITIONS (°C - DB)															
	WB°C	17.0				18.0				19.0				22.0			
	DB°C	24.0	25.0	27.0	29.0	24.0	25.0	27.0	29.0	24.0	25.0	27.0	29.0	24.0	25.0	27.0	29.0
18°C	Nett Capacity, kW	5.46	5.46	5.46	5.52	5.60	5.60	5.60	5.60	5.78	5.78	5.78	5.78	6.21	6.21	6.21	6.21
	Sensible Capacity, kW	3.77	3.99	4.48	4.97	3.47	3.70	4.15	4.65	3.18	3.41	3.87	4.33	2.48	2.73	3.17	3.60
	Power Input, kW	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.82	0.82	0.82	0.82
25°C	Nett Capacity, kW	5.11	5.11	5.11	5.17	5.26	5.26	5.26	5.26	5.43	5.43	5.43	5.43	5.83	5.83	5.83	5.83
	Sensible Capacity, kW	3.58	3.84	4.30	4.76	3.31	3.52	4.00	4.47	3.04	3.26	3.75	4.18	2.33	2.57	2.98	3.44
	Power Input, kW	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
30°C	Nett Capacity, kW	4.89	4.89	4.89	4.94	5.03	5.03	5.03	5.03	5.17	5.17	5.17	5.17	5.57	5.57	5.57	5.57
	Sensible Capacity, kW	3.47	3.71	4.15	4.65	3.22	3.42	3.87	4.32	2.90	3.16	3.62	4.09	2.23	2.45	2.90	3.34
	Power Input, kW	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
35°C	Nett Capacity, kW	4.63	4.63	4.63	4.68	4.77	4.77	4.77	4.77	4.91	4.91	**5.00**	5.02	5.32	5.32	5.32	5.32
	Sensible Capacity, kW	3.33	3.56	4.03	4.54	3.05	3.29	3.77	4.20	2.80	3.00	**3.50**	4.02	2.07	2.34	2.76	3.24
	Power Input, kW	1.14	1.14	1.14	1.14	1.15	1.15	1.15	1.15	1.15	1.15	**1.17**	1.17	1.16	1.16	1.16	1.16
40°C	Nett Capacity, kW	4.36	4.36	4.38	4.42	4.49	4.49	4.49	4.51	4.64	4.64	4.68	4.64	5.01	5.01	5.01	5.01
	Sensible Capacity, kW	3.27	3.49	3.98	4.42	2.97	3.19	3.68	4.15	2.69	2.92	3.42	3.90	1.96	2.21	2.66	4.51
	Power Input, kW	1.26	1.26	1.26	1.26	1.26	1.26	1.26	1.26	1.27	1.27	1.27	1.27	1.28	1.28	1.28	1.28
46°C	Nett Capacity, kW	4.05	4.05	4.08	4.11	4.16	4.16	4.16	4.19	4.31	4.31	4.31	4.41	4.65	4.65	4.65	4.65
	Sensible Capacity, kW	3.08	3.28	3.75	4.11	2.79	3.00	3.46	3.94	2.50	2.76	3.19	4.10	1.81	2.05	2.51	4.28
	Power Input, kW	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.41	1.41	1.41	1.41	1.42	1.42	1.42	1.42
60°C	Nett Capacity, kW	3.07	3.10	3.13	3.16	3.19	3.19	3.22	3.25	3.30	3.30	3.30	3.33	3.59	3.59	3.59	3.59
	Sensible Capacity, kW	2.61	2.85	3.13	3.16	2.36	2.58	3.06	3.25	2.08	2.31	2.77	3.23	1.40	1.62	2.08	3.48
	Power Input, kW	1.87	1.87	1.87	1.87	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.89	1.89	1.89	1.89

HEATING PERFORMANCE

INDOOR CONDITIONS		OUTDOOR TEMPERATURE							
		-15°C D -16°C W	-7°C D -8°C W	-5°C D -6°C W	0°C D -1°C W	4°C D 3°C W	7°C D 6°C W	12°C D 11°C W	24°C D 18°C W
15°C - DB	Nett Capacity, kW	2.02	3.66	4.04	4.47	4.76	5.77	6.35	5.32
	Power Input, kW	0.68	1.09	0.97	1.19	1.33	1.32	1.45	1.21
18°C - DB	Nett Capacity, kW	1.93	3.49	3.86	4.27	4.54	5.51	6.06	5.08
	Power Input, kW	0.65	1.06	0.93	1.14	1.28	1.27	1.39	1.17
20°C - DB	Nett Capacity, kW	1.80	3.27	3.60	3.99	4.25	**5.00**	5.67	4.75
	Power Input, kW	0.62	1.00	0.88	1.08	1.21	**1.16**	1.32	1.10
22°C - DB	Nett Capacity, kW	1.75	3.17	3.49	3.87	4.12	4.99	5.49	4.61
	Power Input, kW	0.63	1.02	0.89	1.10	1.24	1.23	1.35	1.13
27°C - DB	Nett Capacity, kW	1.57	2.85	3.14	3.47	3.69	4.48	4.93	4.13
	Power Input, kW	0.63	1.02	0.90	1.11	1.24	1.23	1.35	1.13

PIPE LENGTH CORRECTION MULTIPLIER

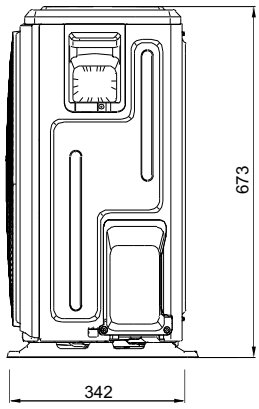


COOLING			PIPE LENGTH (m)			
			5	10	20	30
H = Height Difference (m)	Indoor Unit Higher Than Outdoor Unit*	30	---	---	---	---
		20	---	---	0.904	0.861
		10	---	0.963	0.918	0.874
		5	0.995	0.973	0.928	0.883
		0	**1.000**	**0.977**	**0.932**	**0.887**
	Indoor Unit Lower Than Outdoor Unit**	-5	1.000	0.977	0.932	0.887
		-10	---	0.977	0.932	0.887
		-20	---	---	0.932	0.887
		-30	---	---	---	---

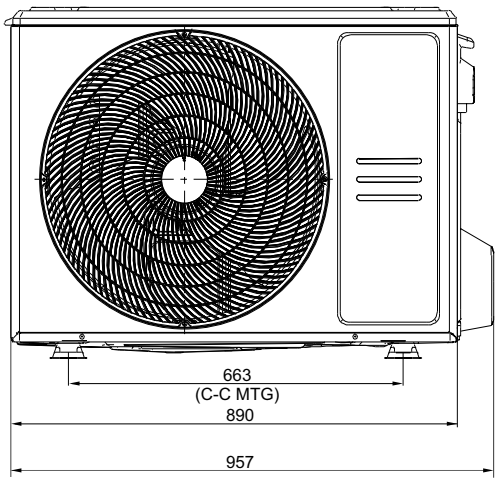
HEATING			PIPE LENGTH (m)			
			5	10	20	30
H = Height Difference (m)	Indoor Unit Higher Than Outdoor Unit*	30	---	---	---	---
		20	---	---	0.972	0.953
		10	---	0.991	0.972	0.953
		5	1.000	0.991	0.972	0.953
		0	**1.000**	**0.991**	**0.972**	**0.953**
	Indoor Unit Lower Than Outdoor Unit**	-5	0.992	0.983	0.964	0.945
		-10	---	0.975	0.956	0.938
		-20	---	---	0.949	0.930
		-30	---	---	---	---

C OUTDOOR UNIT : WRC-050CS

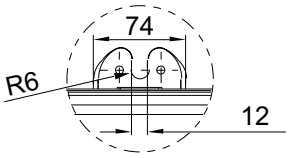
NOMINAL DIMENSION (H x W x D)
= 673 x 890 x 342



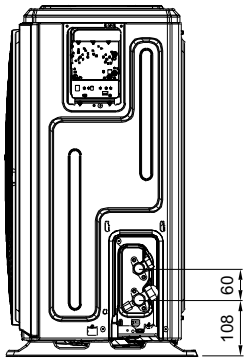
SIDE VIEW



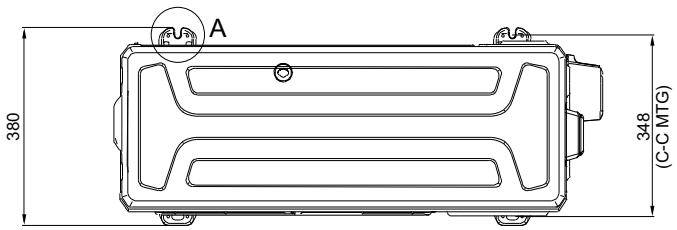
FRONT VIEW



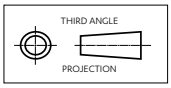
DETAIL - A



SIDE VIEW



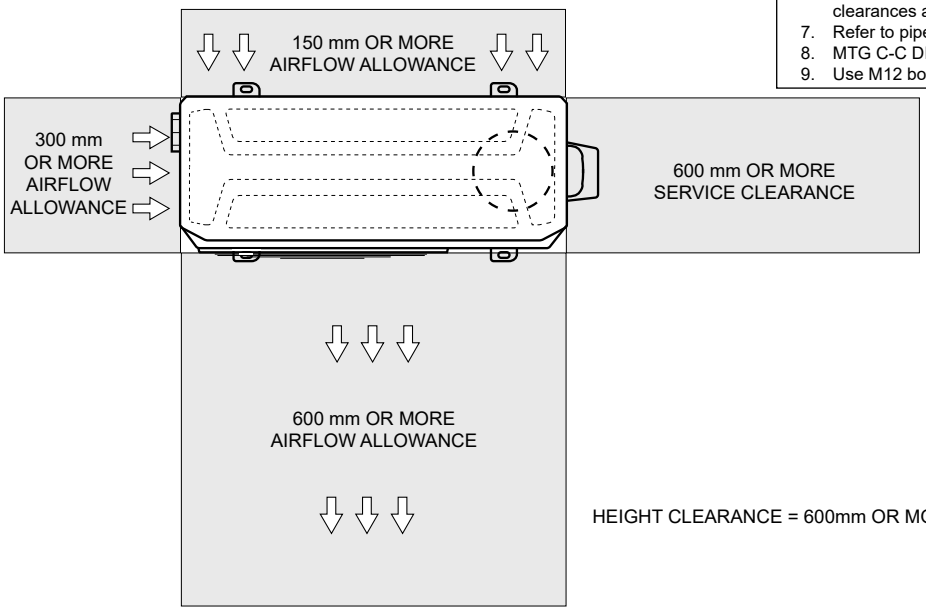
TOP VIEW



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 1000 mm 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. Maximum External Static of Outdoor Fans is 5 Pa.
6. STACKING OF UNITS: Ensure that minimum airflow and clearances are met.
7. Refer to pipe Connection Details on Specifications Sheet.
8. MTG C-C DIST = Mounting Centre to Centre Distance.
9. Use M12 bolt for feet mounting.

SERVICE ACCESS AREAS & AIRFLOW ALLOWANCES



HEIGHT CLEARANCE = 600mm OR MORE

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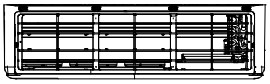
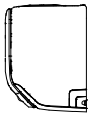
5.00 kW | 1 Phase | 1 Stage

E INDOOR UNIT : WRE-050CS

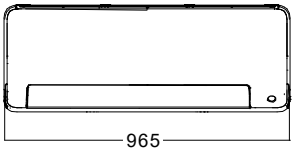
NOMINAL DIMENSION (H x W x D)
= 315 x 965 x 239



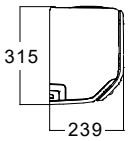
TOP VIEW



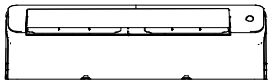
LHS VIEW



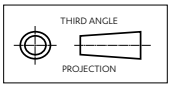
FRONT VIEW



RHS VIEW



BOTTOM VIEW



NOTES:

1. Do not scale drawing. All dimensions are in mm unless specified. Refer to corresponding unit dimensional drawing for mounting hole details.
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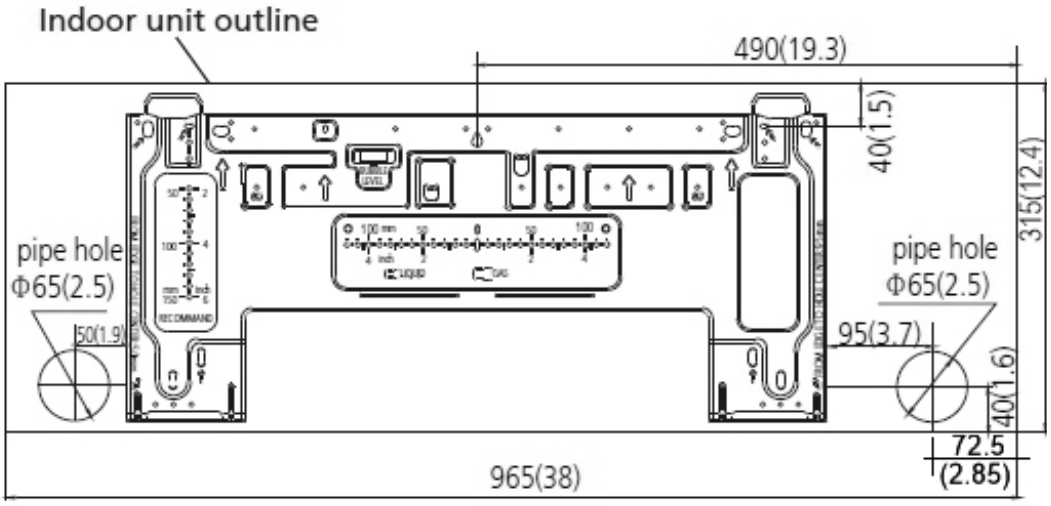
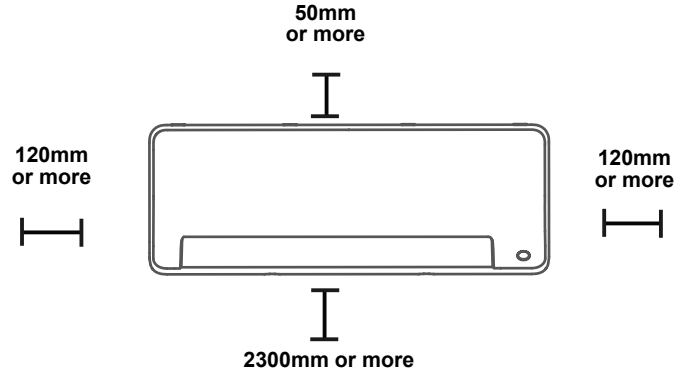
3. Minimum Service Access Areas and Spaces for Airflow Clearances are responsibilities of the installer, ActronAir will not be held liable for any extra charges incurred due to lack of access and space for airflow.

MOUNTING DETAILS



MOUNTING CLEARANCES



SPECIFICATIONS

WRC-050CS / WRE-050CS

UNIT DIMENSIONS

OUTDOOR DIMENSIONS	Depth	342 mm
	Height	673 mm
	Width	890 mm
INDOOR DIMENSIONS	Depth	239 mm
	Height	315 mm
	Width	965 mm

ELECTRICAL

POWER SUPPLY		220 - 240 Volts / 1 Ph + N / 50Hz
FULL LOAD AMPS*	Total	15.5
FULL LOAD AMPS	Indoor	0.275
RATED LOAD AMPS**	Cooling	5.2
	Heating	5.3
IP RATING	Outdoor	IP24
	Indoor	IPX0

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/NZS3823.1.1.

CIRCUIT BREAKER SIZE

Circuit Breaker Size	16.0 Amps

Refer to AS/NZS 3000 "Australian/New Zealand Wiring Rules or AS/NZS 3008 "Electrical Installations-Selection of Cables" for cable size to be used.

OUTDOOR COIL

TUBE TYPE	Copper Ø7mm, inner groove tube
FIN TYPE	Hydrophylic Aluminium
FACE AREA	0.54m^2
FIN SPACING	1.3 mm

OUTDOOR FAN

NUMBER OF FANS x TYPE	1 x Axial
INPUT (W)	340
FAN SPEED (rpm) - Hi / Lo	700 / 530
AIRFLOW (l/s)	970

INDOOR COIL

TUBE TYPE	Copper Ø7mm, inner groove tube
FIN TYPE	Hydrophylic Aluminium
FACE AREA	0.25 m^2
FIN SPACING	1.3 mm

INDOOR FAN

NUMBER OF FANS x TYPE	1 x Cross- flow fan
INPUT (W)	36
AIRFLOW - Boost/High/Med/Low	240/201/172/120 (l/s)

AIR FILTERS

Air filters are supplied standard and pre-fitted.

COMPRESSOR

NUMBER PER UNIT x TYPE	1 x Rotary Compressor
STARTING METHOD	DC Inverter Starter
INPUT (W)	1090
REFRIGERANT OIL (TYPE / CHARGE)	ESTER OIL VG74 / 440ml
PROTECTION	External Thermal Cut-Out

REFRIGERATION SYSTEM

REFRIGERANT TYPE	R-32
FACTORY CHARGE	1100 g
PRE-CHARGE LENGTH	15 m
MINIMUM ROOM AREA (@ 2.3 INSTALLED HEIGHT)	No restriction
ADD'L. REFRIGERANT CHARGE	12 g / m
DESIGN PRESSURE (High / Low)	4.3 / 1.7 MPa

INTERCONNECTING PIPE RUN

MAXIMUM PIPE LENGTH		30 m
MAXIMUM CHARGE		1280 g
MINIMUM ROOM AREA (@ 2.3 INSTALLED HEIGHT)		0.949 m^2
MINIMUM PIPE LENGHT		3 m
MAX. VERTICAL LENGTH		20 m (Included in Max. Pipe Length)
FIELD PIPE SIZES		
Liquid Pipe		6.35 mm (1/4")
Gas Pipe		12.7 mm (1/2")
PIPE CONNECTIONS		
Indoor	Liquid Pipe	6.35 mm (1/4")
	Gas Pipe	12.7 mm (1/2")
Outdoor	Liquid Pipe	6.35 mm (1/4")
	Gas Pipe	12.7 mm (1/2")
CONNECTION TYPE		Flare Nut

ELECTRIC CONTROLS

DEFROST METHOD	Reverse Cycle
WALL CONTROLLER CABLE (INCLUDED FOR WIRED CONTROLLER OPTION)	4 Core (0.75mm^2) Shielded 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 OPERATING TEMPERATURE	OUTDOOR AIR INTAKE TEMPERATURE
COOLING	Max.	32ºC DB	60ºC DB
	Min.	17ºC DB	-15ºC DB
HEATING	Max.	30ºC DB	30ºC DB
	Min.	0ºC DB	-25ºC DB

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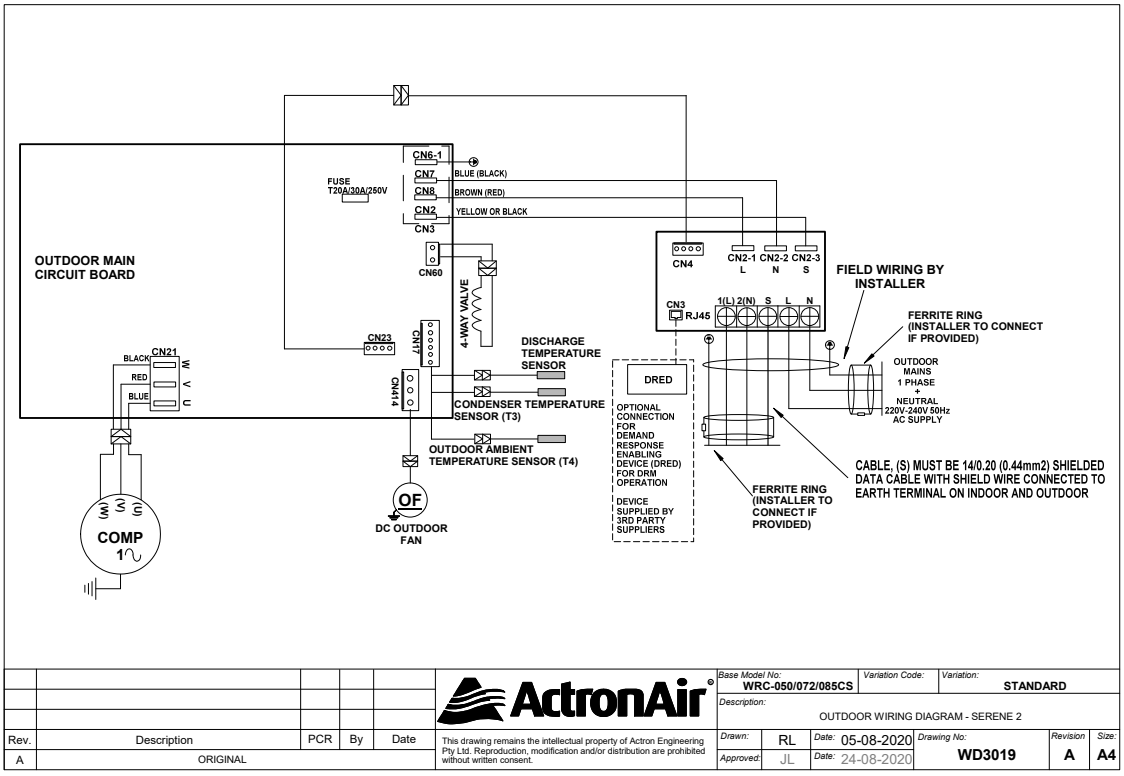
WIRING DIAGRAM

WRC-050CS / WRE-050CS

WRC-050CS (OUTDOOR)



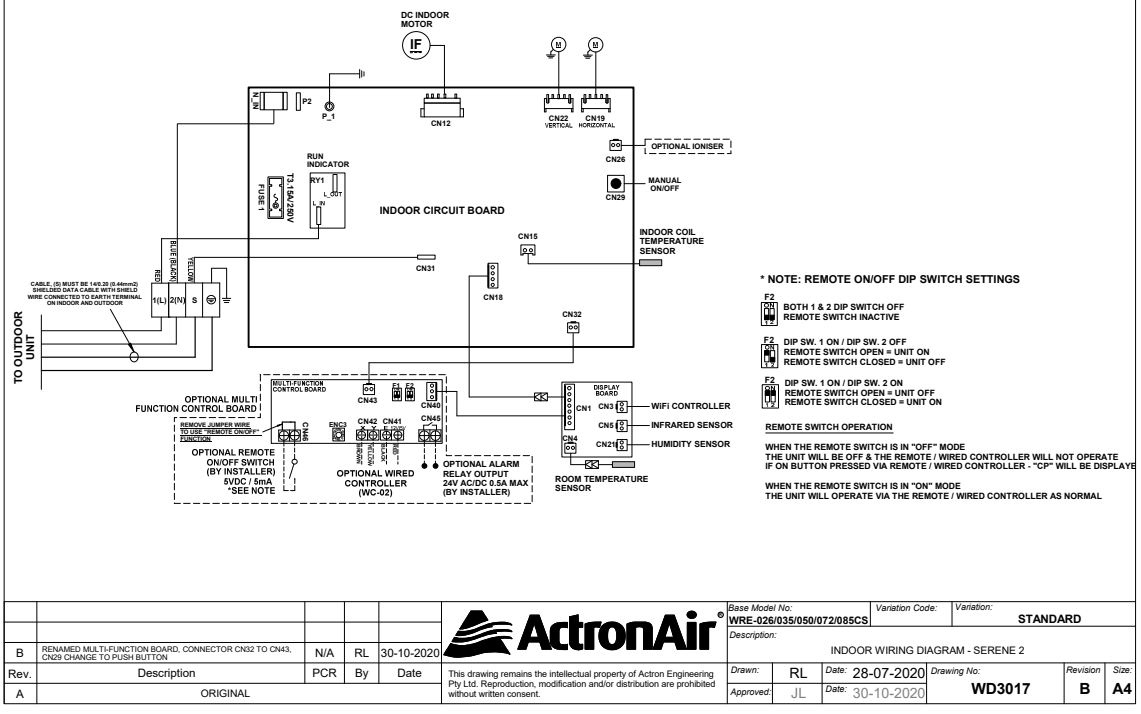
Rev.	Description	PCR	By	Date
A	ORIGINAL			

Base Model No:	Variation Code:	Variation:
WRC-050/072/085CS		STANDARD

Description: OUTDOOR WIRING DIAGRAM - SERENE 2

Drawn:		Date:	Drawing No:	Revision	Size:
RL	05-08-2020		WD3019	A	A4
Approved: JL	Date: 24-08-2020				

WRE-050CS (INDOOR)



Rev.	Description	PCR	By	Date
B	RENAMED MULTI-FUNCTION BOARD, CONNECTOR CN32 TO CN43, CN29 CHANGE TO PUSH BUTTON	N/A	RL	30-10-2020
A	ORIGINAL			

Base Model No:	Variation Code:	Variation:
WRE-026/035/050/072/085CS		STANDARD

Description: INDOOR WIRING DIAGRAM - SERENE 2

Drawn:		Date:	Drawing No:	Revision	Size:
RL	28-07-2020		WD3017	B	A4
Approved: JL	Date: 30-10-2020				