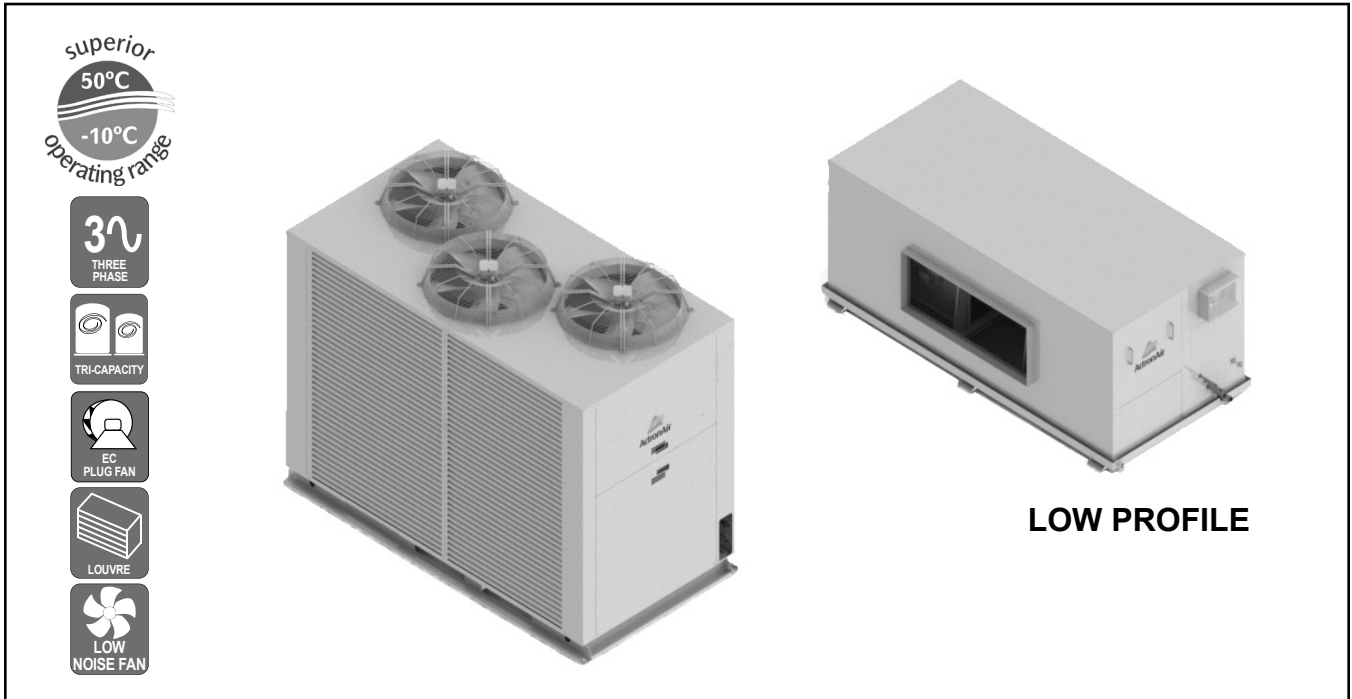


# TRI-CAPACITY SPLIT DUCTED UNIT



LOW PROFILE

## UNIT FEATURES

- Compliant Scroll Compressors
- Tri-Capacity 33% 67% 100% Capacity Stages
- Quad Thermostatic Expansion Valves
- Pre-charged with R-410A Refrigerant
- Two Speed Outdoor Fans
- Blue Epoxy Coat Coil Fin Protection - Indoor & Outdoor Coils
- Louvred Outdoor Coil Guard
- External Stainless Steel Screws - Outdoor Unit
- Adaptive Demand Defrost
- EC Variable Speed Backward Curve Plug Fan
- Adjustable Indoor Airflow via Control Interface
- Foil Faced Polyethylene Insulation
- Integrated Condensate Safety Drain Tray

## UNIT OPTIONS

- Low Ambient / High Static Outdoor Fans
- <sup>(9)</sup> Economy Starter Kit
- Compressor Soft Starters
- Phase Protection
- Additional Full Coil Coat Protection

## CONTROL FEATURES

### ActronAir CP05 / CP10

- Auto / Cool / Heat / Fan Only Modes
- 7-Day Time Clock with 2 On/Off Events per Day
- 12 Programmable Special Days with 2 On/Off Events per Day
- Daylight Saving Time Function
- Indoor Coil Anti-Freeze Protection
- HP / LP Safety Protection
- Alarm Fault Data Logger
- LCD Screen Displays Operating Status, Mode & Menu Information
- Night Mode Function

## CONTROL OPTIONS

### ActronAir CL01-2 (BCA Compliant) - Purchased Separately

- Available in White or Grey
- 7-Day Time Clock with 2 On/Off Events per Day

### Optional BMS Control - Purchased Separately

- MODBUS 485 / BACNET 485 / BACNET TCP/IP

### Optional 3rd Party Control Inputs - Standard Inclusion

- 0-10VDC / 24VAC / Volt Free Digital Input

## UNIT COMPLIANCE

- MEPS 2012
- Demand Response AS4755.3.1
- EMC Compliant
- BCA Compliant with CL01-2 Control Interface

## SPECIFICATION SUMMARY

OUTDOOR UNIT MODEL	CAY620T	
INDOOR UNIT MODEL	ELY620T	
	<sup>(1)</sup> TOTAL	<sup>(2)</sup> NETT
<sup>(3)</sup> COOLING CAPACITY (kW)	63.00	61.00
<sup>(3)</sup> SENSIBLE CAPACITY (kW)	51.23	49.23
<sup>(4)</sup> HEATING CAPACITY (kW)	60.00	62.30
<sup>(5)</sup> COOLING INPUT POWER (kW)	20.35	
<sup>(5)</sup> HEATING INPUT POWER (kW)	19.98	
EER	3.06	3.00
COP	3.00	3.12
<sup>(6)</sup> INDOOR AIRFLOW (l/s) - MIN. / NOMINAL / MAX.	2500 / 3200 / 3900	
OUTDOOR SOUND PRESS. LEVEL @ 3M dB(A) - LOW / HIGH	59.0 / 64.0	
OUTDOOR SOUND POWER LEVEL dB(A) -- LOW / HIGH	76.0 / 81.0	
POWER SUPPLY - OUTDOOR	400V / 3Ph+N / 50Hz	
POWER SUPPLY - INDOOR	400V / 3Ph+N / 50Hz	
<sup>(2)</sup> RATED LOAD AMPS - OUTDOOR / INDOOR / TOTAL	35.7 / 32 / 38.9	
<sup>(7)</sup> FULL LOAD AMPS - OUTDOOR / INDOOR / TOTAL	47.9 / 6.7 / 54.6	
<sup>(8)</sup> CIRCUIT BREAKER AND CABLE AMPS	63.0	
APPROXIMATE STARTING AMPS	140.0	
WEIGHT (kg) -- INDOOR / OUTDOOR	274 / 577	

- <sup>(1)</sup> Based on unit rating excluding indoor fan kW.
- <sup>(2)</sup> Measured and tested in accordance with AS/NZS 3823.1.2.
- <sup>(3)</sup> At 27°C DB / 19°C WB entering air temperatures and 35°C ambient.
- <sup>(4)</sup> At 20°C DB entering air temperature and 7°C DB / 6°C WB ambient.
- <sup>(5)</sup> Input power includes indoor fan kW.
- <sup>(6)</sup> Max. - Min. airflow application range.
- <sup>(7)</sup> Full Load Amps are based on compressor and fan motors' maximum expected current.
- <sup>(8)</sup> See Specifications sheet for cable size and circuit breaker size details.
- <sup>(9)</sup> Room Air Sensor needs to be relocated by the installer specific to site requirements.

Note: Use input power to estimate running cost.

3 Phase  
Tri-Capacity

63.00 kW



# CAPACITY SELECTION DATA

# CAY620T / ELY620T

## COOLING PERFORMANCE

AIR ENTERING		TOTAL CAPACITY kW	TOTAL SENSIBLE CAPACITY - kW										
OUTDOOR DB - °C	INDOOR WB - °C		AT DB TEMPERATURE ONTO INDOOR COIL - °C										
			20	21	22	23	24	25	26	27	28	29	30
25	16	64.28	41.37	44.84	47.78	51.07	54.25	57.37					
	17	65.64	37.81	41.28	44.70	48.12	50.96	54.17	57.29				
	18	67.24	34.13	37.66	41.12	44.58	47.98	50.83	54.07	57.23	60.37		
	19	69.18	30.42	34.00	37.54	41.01	44.39	47.82	50.67	53.98	57.11	60.31	63.35
	20	71.04	26.71	30.30	33.81	37.34	40.79	44.25	47.65	50.85	53.83	57.00	60.18
	21	72.91		18.40	21.06	23.62	26.11	28.60	31.08	33.48	35.83	38.13	40.38
22	75.15			26.31	29.86	33.43	36.94	40.43	43.88	47.27	50.64	53.94	
30	16	61.52	40.12	43.53	46.48	49.75	52.91	56.02					
	17	62.93	36.53	40.01	43.43	46.69	49.67	52.88	55.98				
	18	64.43	32.88	36.41	39.89	43.29	46.72	49.58	52.77	55.91	59.02		
	19	66.29	29.23	32.76	36.30	39.75	43.15	46.54	49.44	52.68	55.85	58.97	
	20	68.17	25.51	29.06	32.60	36.11	39.59	43.00	46.40	49.28	52.53	55.71	58.86
	21	69.85		25.32	28.86	32.42	35.93	39.41	42.85	46.24	49.62	52.37	55.54
22	71.95			25.12	28.71	32.23	35.74	39.23	42.65	46.04	49.38	52.21	
35	16	58.93	38.70	42.06	45.05	48.28	51.44	54.46					
	17	59.91	35.12	38.56	42.01	44.92	48.21	51.41	54.43				
	18	61.30	31.50	35.03	38.46	41.85	45.14	48.14	51.33	54.45			
	19	63.00	27.84	31.35	34.89	38.39	41.77	45.16	48.00	51.23	54.34	57.45	
	20	64.78	24.13	27.68	31.22	34.77	38.24	41.60	44.99	47.86	51.13	54.31	53.35
	21	66.36		23.96	27.54	31.08	34.59	38.05	41.47	44.80	47.70	50.98	53.12
22	68.37			23.81	27.38	30.90	34.41	37.87	41.30	44.67	48.04	49.90	
40	16	56.09	37.08	40.53	43.40	46.67	49.74						
	17	56.60	33.57	37.03	40.41	43.37	46.63	49.75					
	18	57.75	29.97	33.45	36.94	40.32	43.26	46.52	49.72	52.76			
	19	59.39	26.34	29.87	33.38	36.85	40.22	43.14	46.41	49.65	52.74		
	20	61.01	22.63	26.19	29.76	33.25	36.72	40.08	43.45	46.32	49.56	52.67	55.67
	21	62.49		22.52	26.07	29.56	33.04	36.57	39.94	43.29	46.16	49.42	52.56
22	64.39			22.31	25.91	29.43	32.95	36.41	39.79	43.12	45.99	49.27	
45	16	52.88	35.36	38.37	41.65	44.87							
	17	52.91	31.88	35.30	38.73	41.61	44.85	47.93					
	18	53.92	28.31	31.79	35.22	38.61	41.52	44.78	47.90				
	19	55.36	24.69	28.22	31.70	35.14	38.50	41.40	44.67	47.88	50.86		
	20	56.82	20.99	24.57	28.09	31.58	35.01	38.40	41.31	44.58	47.77	50.88	
	21	58.22		20.88	24.44	27.98	31.47	34.91	38.26	41.59	44.45	47.66	50.79
22	59.95			20.75	24.26	27.85	31.30	34.78	38.14	41.46	44.32	47.53	
50	16	49.27	33.47	36.47	39.70	42.85							
	17	49.29	30.04	33.42	36.39	39.69	42.85						
	18	49.74	26.48	29.97	33.34	36.35	39.62	42.84					
	19	50.89	22.88	26.38	29.88	33.27	36.59	39.52	42.77	45.88			
	20	52.19	19.20	22.77	26.28	29.77	33.17	36.50	39.42	42.67	45.81		
	21	53.58		19.10	22.62	26.16	29.67	33.04	36.41	39.32	42.56	45.72	48.80
22	54.99			18.97	22.49	26.01	29.50	32.95	36.25	39.20	42.44	45.61	

## HEATING PERFORMANCE

WB TEMP ON OD COIL - °C	HEATING CAPACITY - kW									
	AT DB ENTERING INDOOR - °C									
	16		18		20		22		24	
	TH	IH	TH	IH	TH	IH	TH	IH	TH	IH
-10	39.31	36.95	39.14	36.79	38.97	36.64	38.81	36.48	38.64	36.32
-8	41.64	38.73	41.47	38.56	41.28	38.39	41.08	38.21	40.89	38.02
-6	44.06	40.53	43.85	40.34	43.66	40.17	43.46	39.98	43.20	39.74
-4	46.63	41.73	46.41	41.54	46.17	41.32	45.91	41.09	45.64	40.85
-2	49.34	42.93	49.06	42.69	48.77	42.43	48.48	42.18	48.24	41.96
0	52.14	44.84	51.84	44.58	51.52	44.30	51.20	44.03	50.92	43.79
2	54.86	48.82	54.50	48.51	54.17	48.21	53.80	47.88	53.46	47.58
4	57.80	54.91	57.40	54.53	56.99	54.15	56.57	53.74	56.20	53.39
6	60.88	60.88	60.42	60.42	60.00	60.00	59.58	59.58	59.03	59.03
8	64.14	64.14	63.64	63.64	63.19	63.19	62.66	62.66	62.10	62.10
10	67.64	67.64	67.05	67.05	66.45	66.45	65.88	65.88	65.30	65.30
12	71.16	71.16	70.59	70.59	69.94	69.94	69.25	69.25	68.55	68.55
14	74.93	74.93	74.23	74.23	73.50	73.50	72.79	72.79	72.11	72.11
16	78.89	78.89	78.13	78.13	77.44	77.44	76.63	76.63	75.81	75.81
18	82.92	82.92	82.19	82.19	81.34	81.34	80.46	80.46	79.58	79.58

TH - Total Heating Capacity (kW).  
IH - Integrated Heating Capacity (kW)  
Includes defrost losses.

## AIRFLOW CORRECTION MULTIPLIER

% VARIATION	-22%	-15%	-10%	-5%	NOMINAL	+5%	+10%	+15%	+22%
INDOOR AIRFLOW (l/s)	2500	2720	2880	3040	3200	3360	3520	3680	3900
TOTAL COOLING	0.956	0.972	0.982	0.991	1.000	1.008	1.016	1.023	1.032
SENSIBLE COOLING	0.884	0.920	0.947	0.974	1.000	1.026	1.051	1.077	1.109
HEATING FACTOR	0.985	0.990	0.993	0.997	1.000	1.001	1.003	1.005	1.007

### NOTES:

- No allowance has been made for the effect of indoor fan motor.
- Selection tables are based on nominal airflows. Correction factors must be applied for selection away from these conditions.

## PIPE LENGTH CORRECTION MULTIPLIER

	5 m	10 m	20 m	30 m	40 m	50 m	60 m	70 m	75 m
COOLING	1.000	0.997	0.987	0.976	0.966	0.956	0.945	0.937	0.932
HEATING	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Correction multipliers are based on horizontal pipe runs.



## FAN PERFORMANCE DATA

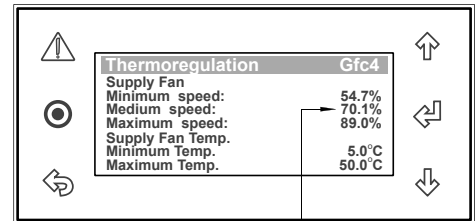
AIRFLOW (l/s)	EXTERNAL STATIC PRESSURE (Pa)																			
	50		100		150		200		250		300		350		400		450		500	
	% Spd.	W	% Spd.	W	% Spd.	W	% Spd.	W	% Spd.	W	% Spd.	W	% Spd.	W	% Spd.	W	% Spd.	W	% Spd.	W
2500	54.7	872	57.8	1056	60.5	1239	63.2	1450	65.7	1647	68.2	1844	70.6	2035	73.1	2238	75.2	2402	77.2	2601
2600	56.8	955	59.6	1143	62.1	1337	64.8	1553	67.2	1746	69.9	1963	72.0	2138	74.6	2354	76.5	2510	78.8	2790
2700	58.7	1047	61.1	1220	63.6	1421	66.2	1632	69.0	1863	71.1	2040	73.6	2255	75.8	2459	77.8	2667	80.0	2896
2800	60.2	1106	62.9	1324	65.5	1535	67.8	1730	70.3	1942	72.8	2164	75.0	2360	77.2	2592	79.2	2803	81.3	2905
2900	62.3	1230	64.8	1435	67.1	1633	69.7	1858	72.0	2065	74.5	2291	76.6	2508	78.8	2743	80.8	2950	82.9	3200
3000	64.0	1348	66.6	1541	69.0	1752	71.2	1949	73.7	2178	75.9	2396	78.2	2647	80.3	2845	82.2	3080	84.3	3315
3100	65.8	1416	68.7	1674	70.7	1853	73.1	2073	75.2	2270	77.5	2530	79.8	2790	81.8	3028	83.8	3268	85.7	3480
3200	67.8	1557	<b>70.1</b>	<b>1809</b>	72.2	1939	74.9	2190	76.8	2405	79.0	2658	81.2	2918	83.2	3161	85.2	3381	87.2	3650
3300	69.7	1610	72.1	1875	74.1	2067	76.4	2313	78.4	2541	80.8	2825	82.8	3076	84.8	3328	86.9	3640	88.8	3900
3400	71.6	1763	73.8	1979	75.8	2188	78.2	2461	80.2	2690	82.2	2945	84.3	3212	86.2	3465	88.2	3737		
3500	73.6	1920	75.4	2074	77.6	2321	80.0	2590	81.8	2824	84.0	3110	85.9	3362	88.0	3646				
3600	75.1	1968	77.2	2211	79.4	2465	81.7	2752	83.5	2981	85.5	3242	87.7	3548						
3700	76.8	2088	79.0	2349	81.1	2605	83.3	2880	85.4	3150	87.2	3408								
3800	79.0	2275	80.9	2498	83.0	2763	85.1	3029	87.0	3311	89.0	3622								
3900	80.9	2410	82.8	2663	84.9	2943	86.8	3220	88.9	3528										

MAXIMUM AIRFLOW LIMIT

### NOTES:

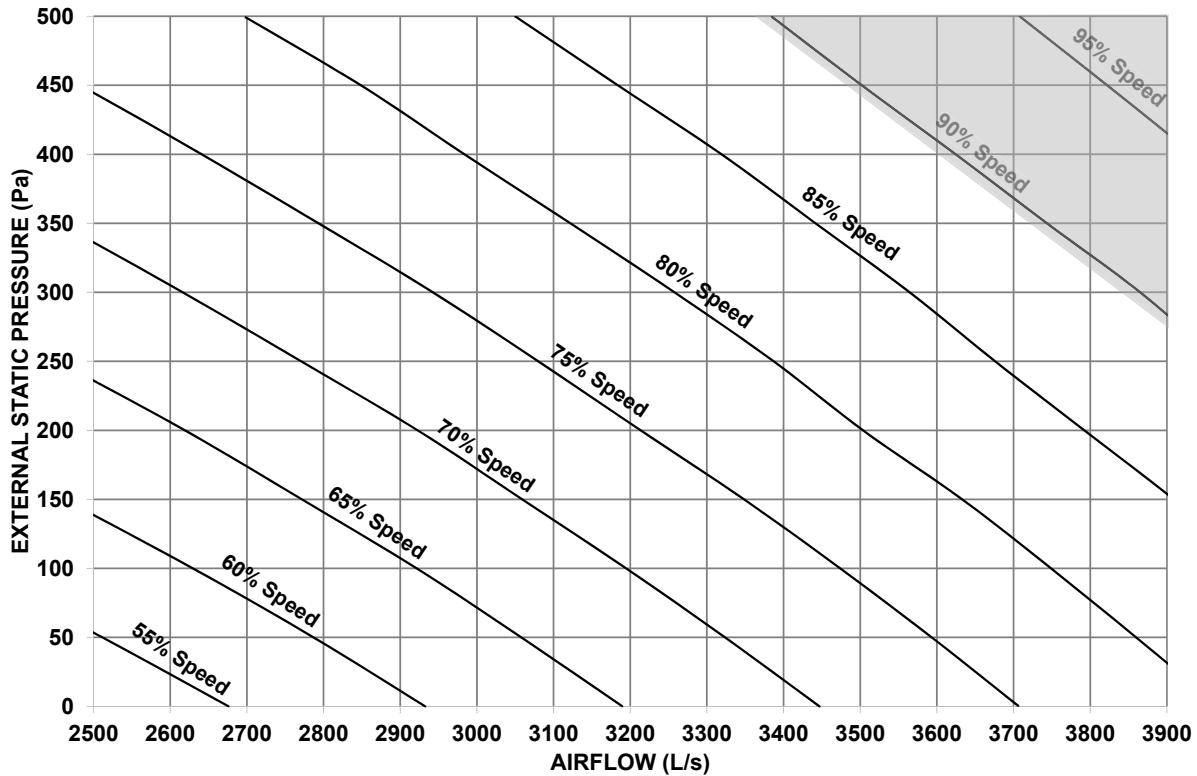
- % Speed = Indoor Fan Speed Control Setting, in percent (Value is set on the Control Interface via Service Menu \*).
- W = Indoor Fan Power, Watts
- Data in the box indicates Factory Default Setting.

\*Service → Service Settings → Thermoregulation → Thermoregulation Gfc4



Set Fan Speed

## INDOOR UNIT FAN CURVE



Nominal Airflow = 3200 l/s

Application Range = 2500 l/s to 3900 l/s

### IMPORTANT NOTE:

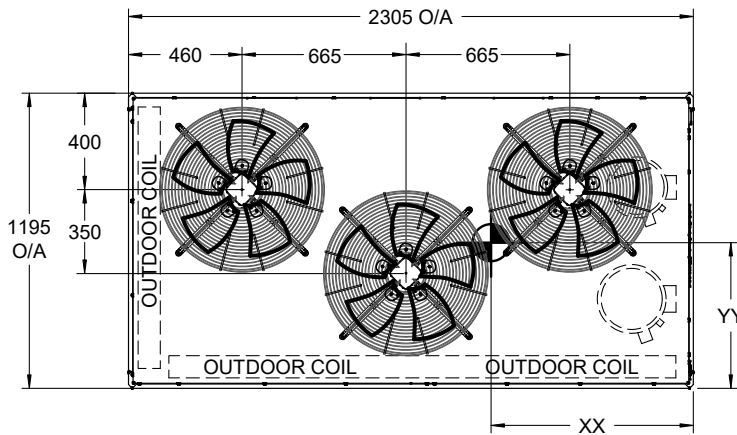
Fan Performance Data & Fan Curve shown is at dry coil and with no air filters installed. Consider ext. static pressure drop specific to your design requirements.



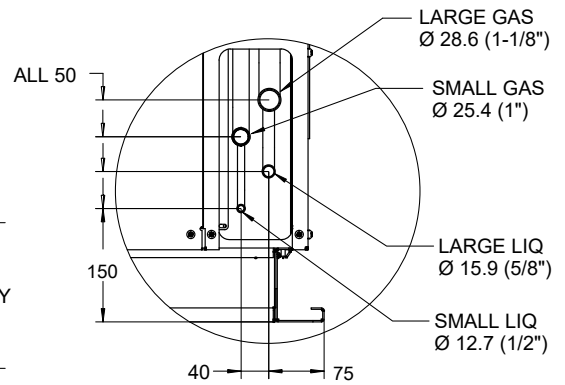
# OUTDOOR UNIT DIMENSIONS

# CAY620T

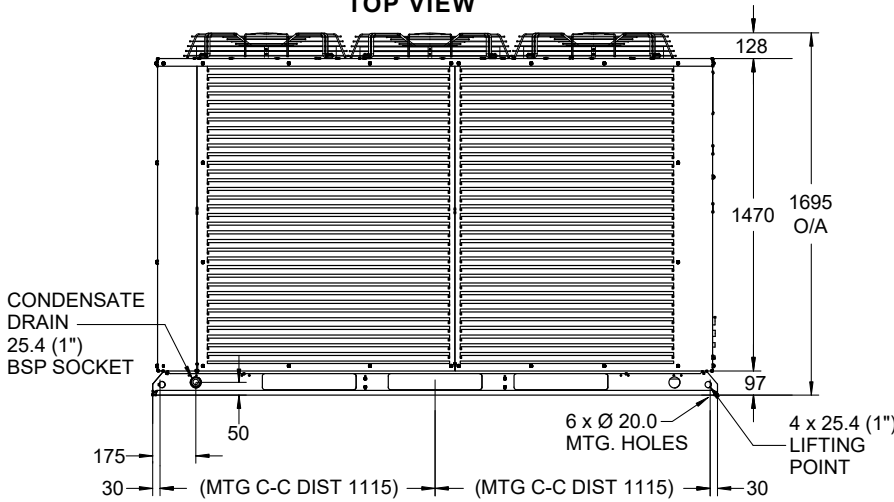
OVERALL NOMINAL DIMENSION (H x W x D)  
= 1695 x 2305 x 1195



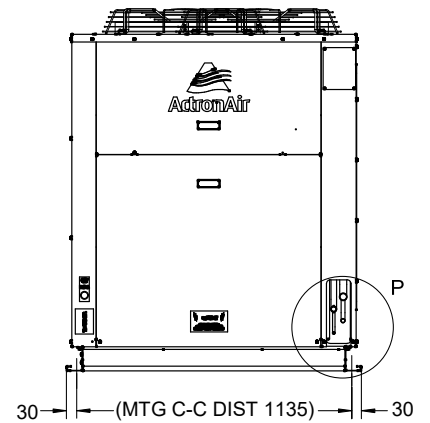
TOP VIEW



DETAIL P



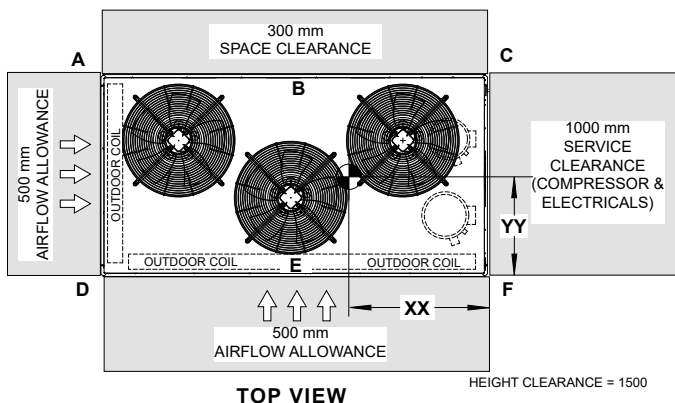
SIDE VIEW



FRONT VIEW

UNIT MODEL NUMBER	UNIT WEIGHT	CORNER WEIGHTS (kg)						CENTRE OF GRAVITY POSITION	
		A	B	C	D	E	F	XX	YY
CAY620T	577	68	65	121	93	93	137	931	569

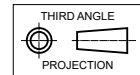
## SERVICE ACCESS AREAS & AIRFLOW ALLOWANCES



TOP VIEW

HEIGHT CLEARANCE = 1500

### NOTES:



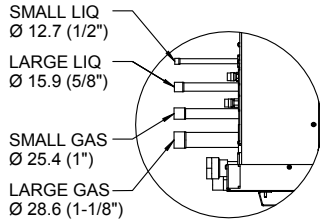
- Do not scale drawing. All dimensions are in mm unless otherwise specified. Refer to corresponding unit dimensional drawing for mounting hole details.
- Service Access Areas and Spaces for Airflow Clearances are suggested minimum based on the condition that the spaces around the units are free from any obstructions and a walkway passage of 1000 mm between the units or between the unit and the outside perimeter is available.
- 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.
- Under all circumstances, condenser air must not recirculate back onto condenser coil. Keep all clearance free of any obstruction.
- Maximum External Static of Outdoor Fans is 20 Pa.
- STACKING OF UNITS: Ensure that minimum airflow and clearances are met.
- Refer to Pipe Connection Details on Specifications Sheet.
- MTG C-C DIST = Mounting Centre to Centre Distance.
- Use M12 bolt for feet mounting.



63.00 kW  
3 Phase  
Tri-Capacity

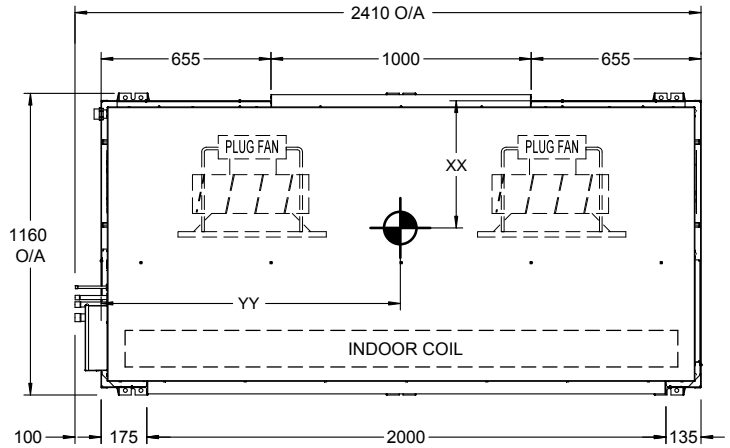
# INDOOR UNIT DIMENSIONS

# ELY620T

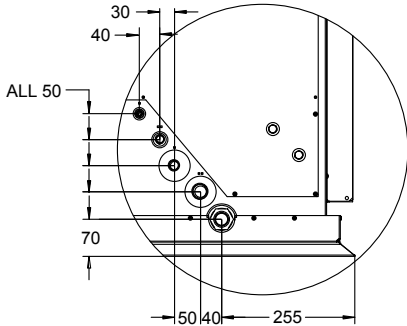


DETAIL T

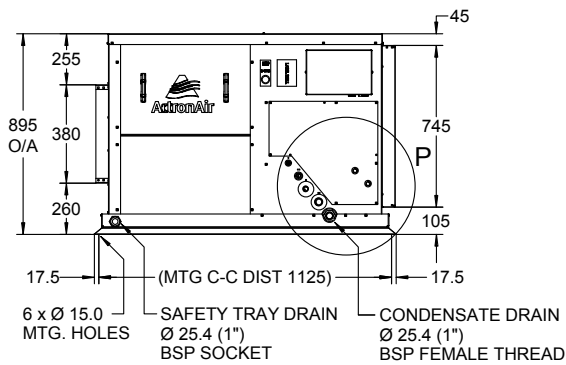
DIMENSION (H x W x D) = 895 x 2410 x 1160  
 SUPPLY DUCT (H x W) = 380 x 1000  
 RETURN DUCT = 745 x 2000  
 USE M12 BOLT FOR FEET MOUNTING



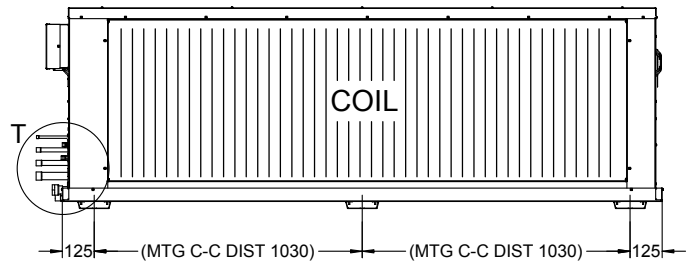
TOP VIEW



DETAIL P



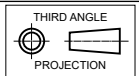
SIDE VIEW



REAR VIEW

3 Phase  
 Tri-Capacity  
 63.00 kW

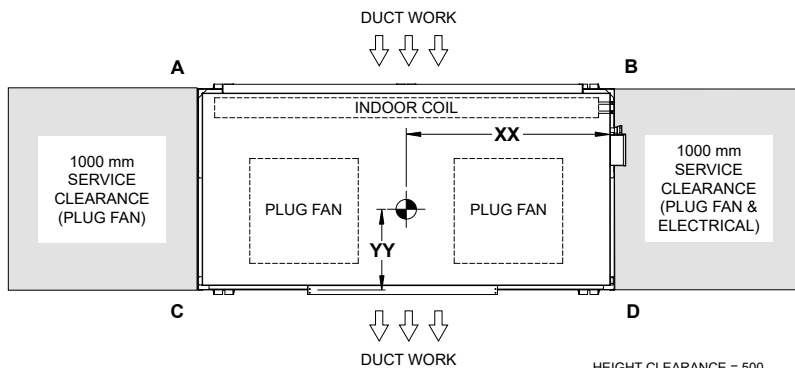
UNIT MODEL NUMBER	UNIT WEIGHT	CORNER WEIGHTS (kg)				CENTRE OF GRAVITY POSITION	
		A	B	C	D	XX	YY
ELY620T	274	78	81	56	59	1130	463



**NOTES:**

1. Do not scale drawing. All dimensions are in mm unless otherwise specified. Refer to corresponding unit dimensional drawing for mounting hole details.
2. Service Access Areas and Spaces for Airflow Clearances 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.

## SERVICE ACCESS AREAS & AIRFLOW ALLOWANCES



TOP VIEW



**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	76.0	83.3	73.3	73.4	70.5	64.7	56.8	52.0
High	81.0	88.6	78.8	77.3	75.3	70.2	62.3	57.0

**Indoor Outlet**

**Sound Power Level (SWL)**

Airflow Setting	Airflow Li/s	Sound Power Level dB(A)	Octave Band Centre Frequency (Hz), dB						
			125	250	500	1k	2k	4k	8k
Minimum	2500	73.6	82.1	73.1	70.8	67.6	63.6	58.8	55.3
Nominal	3200	80.6	84.7	81.6	78.5	74.3	70.9	67.2	62.0
Maximum	3900	85.6	88.3	86.8	82.7	79.6	75.8	75.3	66.9

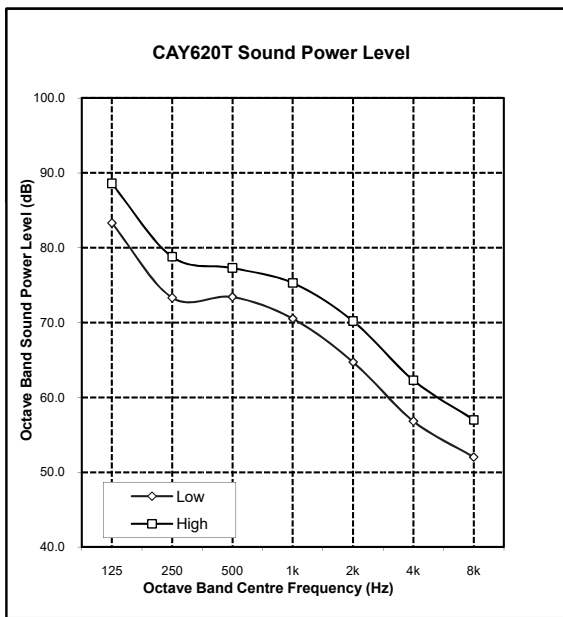
**Indoor Inlet + Radiated**

**Sound Power Level (SWL)**

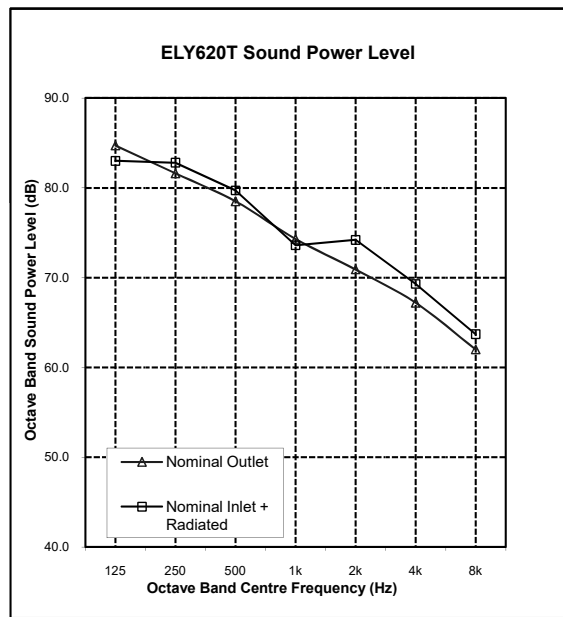
Airflow Setting	Airflow Li/s	Sound Power Level dB(A)	Octave Band Centre Frequency (Hz), dB						
			125	250	500	1k	2k	4k	8k
Minimum	2500	74.3	80.0	73.5	71.8	67.2	66.7	61.9	57.0
Nominal	3200	81.7	83.0	82.8	79.7	73.6	74.2	69.3	63.7
Maximum	3900	87.1	86.0	90.5	83.0	78.9	79.2	77.1	68.7

63.00 kW  
3 Phase  
Tri-Capacity

**OUTDOOR RADIATED**



**INDOOR NOMINAL OUTLET / INLET + RADIATED**



**NOTES:**

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



# SPECIFICATIONS

# CAY620T / ELY620T

## CONSTRUCTION

CABINET (INDOOR UNIT)	Base	1.1 - 1.6 mm Galvanised Steel
	Top and Side	1.1 mm Galvanised Steel
CABINET (OUTDOOR UNIT)	Base	1.1 - 2.4 mm Galvanised Steel
	Top and Side	0.9 - 1.1 mm Galvanised Steel
SURFACE FINISH (Outdoor Unit)		65 µ Baked Polyester Powder Coat

## INSULATION

INDOOR UNIT	Foil Faced Polyethylene
OUTDOOR UNIT	Foil Faced Polyethylene

## ELECTRICAL

OUTDOOR UNIT	
Power Supply - 50 Hz	400 Volts x 3 Phase + Neutral
Voltage Range (min - max)	376 V - 440 V
Full Load Amps*	47.9
Rated Load Amps**	35.7
Approximate Starting Amps	140.0
IP Rating	IP44
INDOOR UNIT	
Power Supply - 50 Hz	400 Volts x 3 Phase + Neutral
Voltage Range (min - max)	376 V - 440 V
Full Load Amps*	6.7
IP Rating	IP20
OUTDOOR & INDOOR UNIT (TOTAL)	
Full Load Amps* - Phase 1	54.6
Full Load Amps* - Phase 2 & 3	54.6 & 54.6
Rated Load Amps**	38.9
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)	16.0 mm <sup>2</sup> (SUGGESTED MINIMUM)
Cable Size (indoor to outdoor wire)	1.5 mm <sup>2</sup> (SUGGESTED MINIMUM)
Circuit Breaker Size - Amps	63.0

## OUTDOOR COIL

TUBE TYPE	Copper - Rifle Bore
FIN TYPE	Aluminium - Wave
FACE AREA (m sq) - Coil 1 & 2	1.45 & 2.75
FIN SPACING (per m)	472 & 472
COIL COATING	Blue Epoxy Coat Coil Fin Protection

## OUTDOOR FAN

NUMBER OF FANS x TYPE	3 x Axial Low Noise
NUMBER OF BLADES PER FAN	5
INPUT kW / FULL LOAD AMPS	0.52 / 2.62 each fan
MOTOR TYPE / DRIVE TYPE	6 Pole External Rotor / Direct
FAN SPEED CONTROL	2 Speed via Capacitor
The standard type outdoor fans fitted to this unit will accept up to 20 Pa of external static resistance.	

## INDOOR COIL

TUBE TYPE	Copper - Rifle Bore
FIN TYPE	Aluminium - Louvre
FACE AREA (m sq)	1.67 (interlaced)
FIN SPACING (per m)	472
COIL COATING	Blue Epoxy Coat Coil Fin Protection

## INDOOR FAN

NUMBER OF FANS x TYPE	2 x Backward Curve Plug Fan
INPUT kW / FULL LOAD AMPS	1.0 each / 6.7 total
MOTOR TYPE / DRIVE TYPE	Variable Speed EC Motor / Direct Drive

## COMPRESSOR

NUMBER PER UNIT x TYPE	2 x Scroll (Hermetic)
FULL LOAD AMPS - (Comp. 1 & 2)	14.3 & 25.5
LOCKED ROTOR AMPS - (Comp. 1 & 2)	101.0 & 140.0
STARTING METHOD	D.O.L. (optional soft starter)

## REFRIGERATION SYSTEM

REFRIGERANT TYPE	R-410A
EXPANSION CONTROL	TXV (Thermostatic Valve) x 4
FACTORY CHARGE - (Circuit 1 & 2)	7,900 grams & 15,400 grams
PRE-CHARGE LENGTH (metres)	5.0
ADDITIONAL REF. CHARGE (Crt. 1 & 2)	100.0 g/m & 165.0 g/m

## INTERCONNECTING PIPE RUN

MAX PIPE LENGTH (metres)	75.0	
MAX. VERTICAL LENGTH (metres)	20 (Included in Max. Pipe Length)	
FIELD PIPE SIZES		
Liquid Pipe - (Crt. 1 & 2)	12.7 mm (1/2") & 15.9 mm (5/8")	
Gas Pipe - (Crt. 1 & 2)	25.4 mm (1") & 28.6 mm (1-1/8")	
PIPE CONNECTIONS (Factory Swaged)		
Indoor - (Crt. 1 & 2)	Liquid Pipe	12.7 mm (1/2") & 15.9 mm (5/8")
	Gas Pipe	25.4 mm (1") & 28.6 mm (1-1/8")
Outdoor	Liquid Pipe	12.7 mm (1/2") & 15.9 mm (5/8")
	Gas Pipe	25.4 mm (1") & 28.6 mm (1-1/8")
CONNECTION TYPE	Solder	

## FILTER DRIER

CONNECTION SIZE & TYPE (Drier 1)	12.7 mm (1/2") ODF - Soldered
CONNECTION SIZE & TYPE (Drier 2)	15.9 mm (5/8") ODF - Soldered
FACTORY SUPPLIED / FITTED	Yes
See Installation Section for complete Filter Drier specifications.	

## PROTECTION DEVICES

HIGH PRESSURE CUTOOUT SWITCH	Nonadjustable (Automatic Reset)
LOW PRESSURE CUTOOUT SWITCH	Nonadjustable (Automatic Reset)
COMPRESSOR MOTOR TEMP.	Internal Thermal Cut-Out
INDOOR FAN OVERLOAD	Full Electronic Monitoring
OUTDOOR FAN OVERLOAD	Internal Thermal Cut-Out
SUMP HEATER WATTS - (Comp. 1 & 2)	30W & 90W

## ELECTRIC CONTROLS

DEFROST METHOD	Reverse Cycle
DEFROST TYPE	Adaptive Demand Defrost
CONTROL CIRCUIT BREAKER	16.0 Amps
OPTIONAL THIRD PARTY BMS / CONTROLLER INPUTS	MODBUS 485 BACNET 485 BACNET TCP/IP 0-10VDC / 24VAC Third Party Input

## 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.	29°C DB / 19°C WB	50°C DB
	Min.	20°C DB / 15°C WB	15°C DB
Heating	Max.	24°C DB	21°C DB / 16°C WB
	Min.	16°C DB	-10°C DB

IMPORTANT - For low ambient cooling use option S. Lower ambient available on request. Contact your nearest ActronAir office for more details.

Low Ambient Cooling	Option S	Max.	29°C DB / 19°C WB	50°C DB
		Min.	20°C DB / 15°C WB	5°C DB
	On Request	Max.	29°C DB / 19°C WB	50°C DB
		Min.	20°C DB / 15°C WB	-5°C DB

## AIR FILTERS

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

3 Phase  
Tri-Capacity

63.00 kW



# WIRING DIAGRAM

# CAY620T

### LEGEND

AH-PB	AFTER HOURS PUSH BUTTON
CB	CIRCUIT BREAKER
CCH	CRANKCASE HEATER
CM	COMPRESSOR MOTOR
CMC	COMPRESSOR MOTOR CONTACTOR
GPO	GENERAL PURPOSE OUTLET
HCT	HIGH SPEED FAN CONTACTOR
HF	HIGH PRESSURE SWITCH
IF	INDOOR FAN MOTOR
IFB	INDOOR FAN CONTROL BOARD
IFC	INDOOR FAN CONTACTOR
LCT	LOW SPEED FAN CONTACTOR
LP	LOW PRESSURE SWITCH
LSC	LOW SPEED CAPACITOR
MISCB	MOTOR START CIRCUIT BREAKER / OL
OCB	OUTDOOR CONTROL BOARD
OF	OUTDOOR FAN MOTOR
R	RELAY
RS	RESISTOR
RV	REVERSING VALVE
RCBO	RESIDUAL CURRENT CIRCUIT BREAKER / OL
TERM	TERMINAL BLOCK
TX	TRANSFORMER

### DEFAULT FAN SPEED SETTINGS (@ 100pa)

EY 620 T	7.1V / 71%
EY 700 T	8.0V / 80%

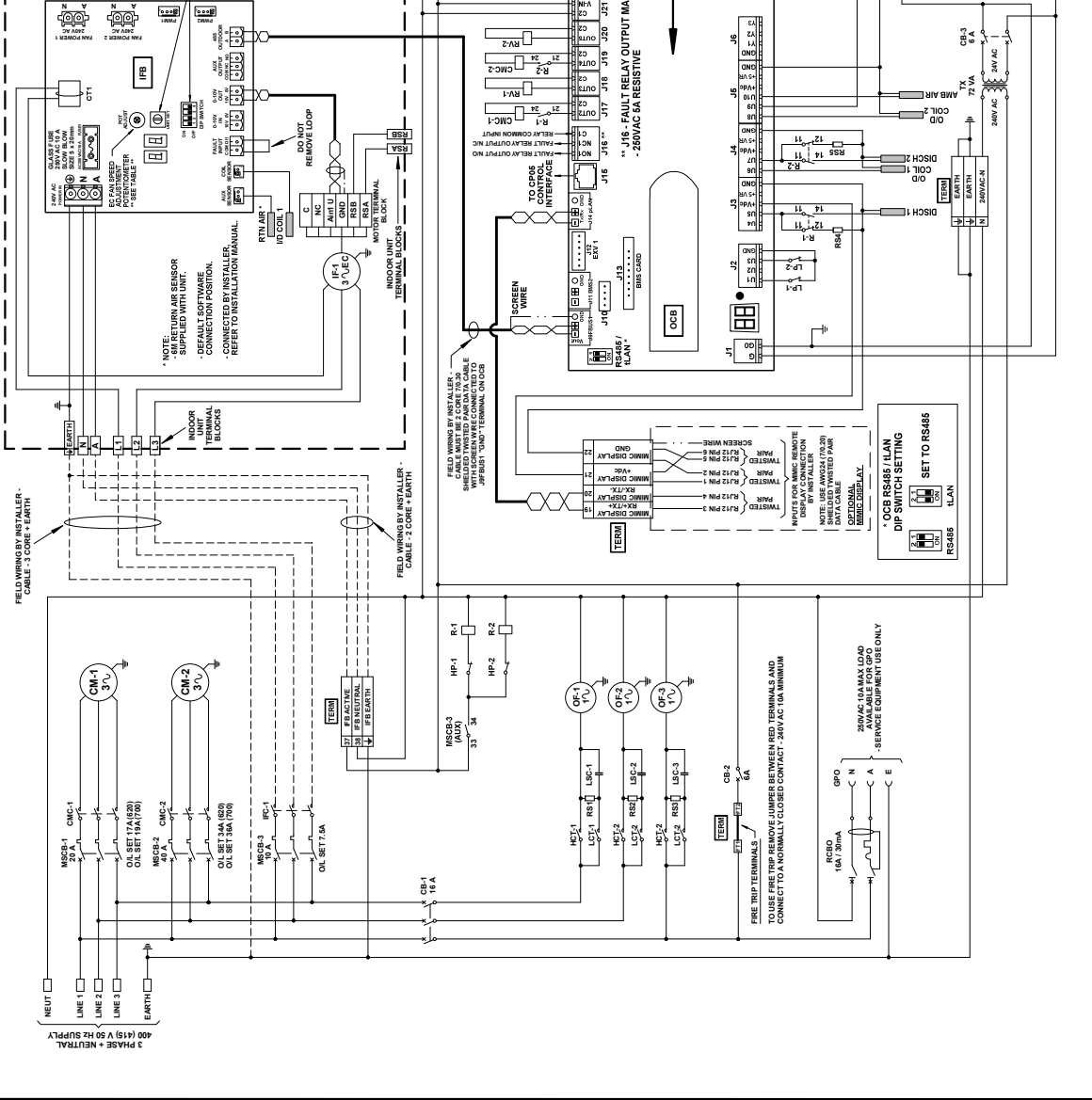
**FINAL COMMISSIONING FAN SETPOINT VOLTAGE**  
Fan Speed: ..... V or %  
Date: .....

### INDOOR UNIT

OPER SET	INDOOR	INDOOR	INDOOR	INDOOR	INDOOR	INDOOR	INDOOR
ADJUSTMENT	NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
1	ON	ON	EY 620 T	7.1V / 71%	EY 700 T	8.0V / 80%	OFF
2	ON	ON	EY 620 T	7.1V / 71%	EY 700 T	8.0V / 80%	OFF
3	ON	ON	EY 620 T	7.1V / 71%	EY 700 T	8.0V / 80%	OFF
4	ON	ON	EY 620 T	7.1V / 71%	EY 700 T	8.0V / 80%	OFF
5	ON	ON	EY 620 T	7.1V / 71%	EY 700 T	8.0V / 80%	OFF
6	ON	ON	EY 620 T	7.1V / 71%	EY 700 T	8.0V / 80%	OFF
7	ON	ON	EY 620 T	7.1V / 71%	EY 700 T	8.0V / 80%	OFF
F	OFF	OFF	OFF	OFF	OFF	OFF	OFF

### MULTIINPUT SELECTION TABLE

MULTIINPUT	DESCRIPTION	TYPE
A	SUPPLY AIR TEMP	RESISTOR
B	COMMON MODE	DIGITAL INPUT
C	NIGHT MODE	DIGITAL INPUT
D	COMP STAGE CONTROL	5-12V ANALOGUE
E	IN-FAN SPEED CONTROL	5-12V ANALOGUE



Base Model No:	CAY620-700T	Variation Code:	STANDARD
Description:	CM100 TRI-CAPACITY CONTROL SYSTEM WITH CIB01 INDOOR FAN CONTROL BOARD WIRING DIAGRAM	Drawn:	RL
Revision:	A	Date:	06-11-2018
Size:	A3	Approved:	MJH
Drawing No:	0515-8403	Date:	06-11-2018

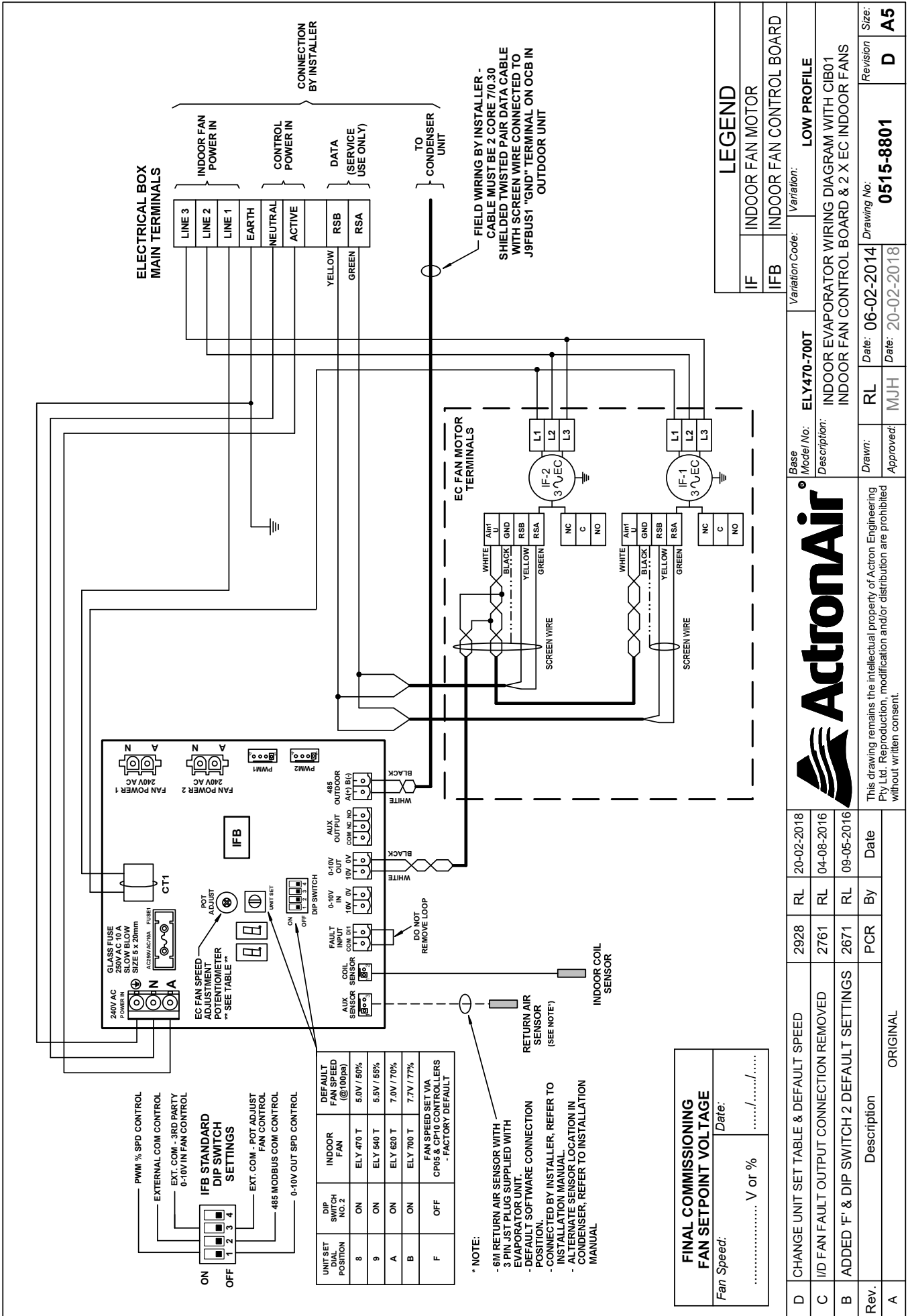
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**ORIGINAL**



# WIRING DIAGRAM

# ELY620T



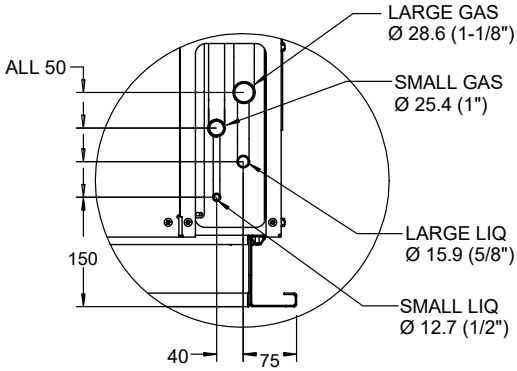
3 Phase  
Tri-Capacity  
63.00 kW

# OUTDOOR UNIT VARIATION

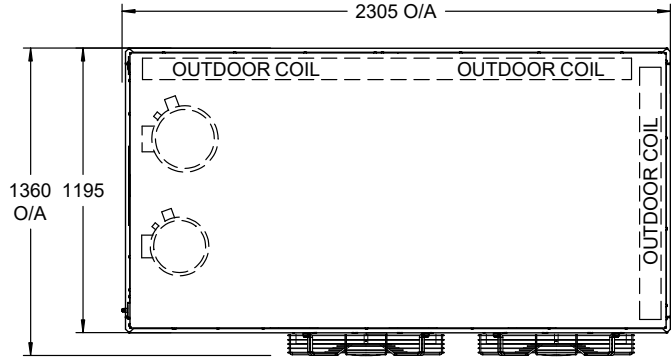
# CAY620T-SV

## SV SIDE DISCHARGE ELECTRONICALLY COMMUTATED FAN

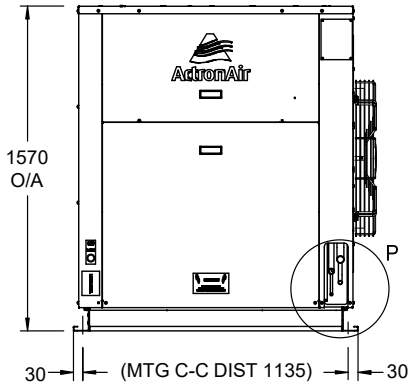
OVERALL NOMINAL DIMENSION (H x W x D)  
= 1570 x 2305 x 1360



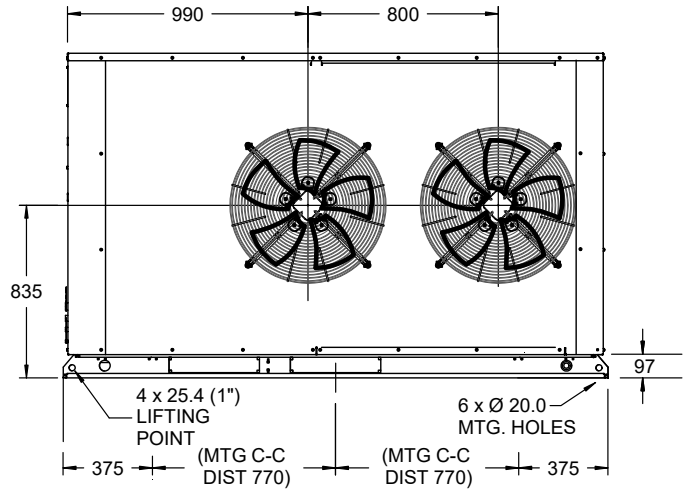
DETAIL P



TOP VIEW



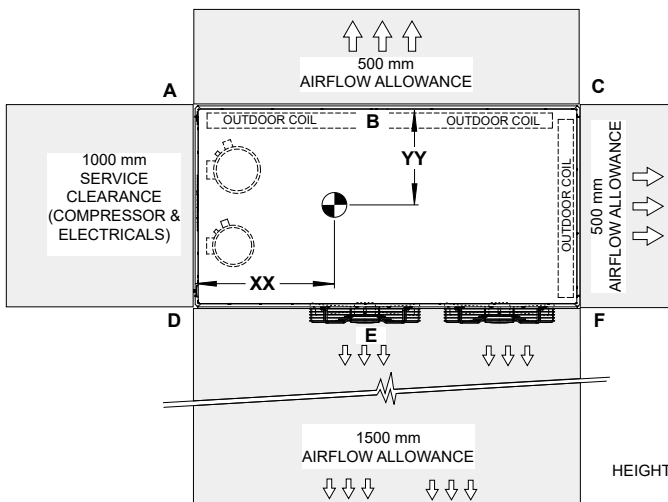
FRONT VIEW



SIDE VIEW

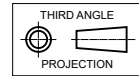
63.00 kW  
3 Phase  
Tri-Capacity

### SERVICE ACCESS AREAS



TOP VIEW

### NOTES:



1. Do not scale drawing. All dimensions are in mm unless otherwise specified. Refer to corresponding unit dimensional drawing for mounting hole details.
2. Service Access Areas and Spaces for Airflow Clearances 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 obstruction.
5. Maximum External Static of Outdoor Fans is 20 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.

