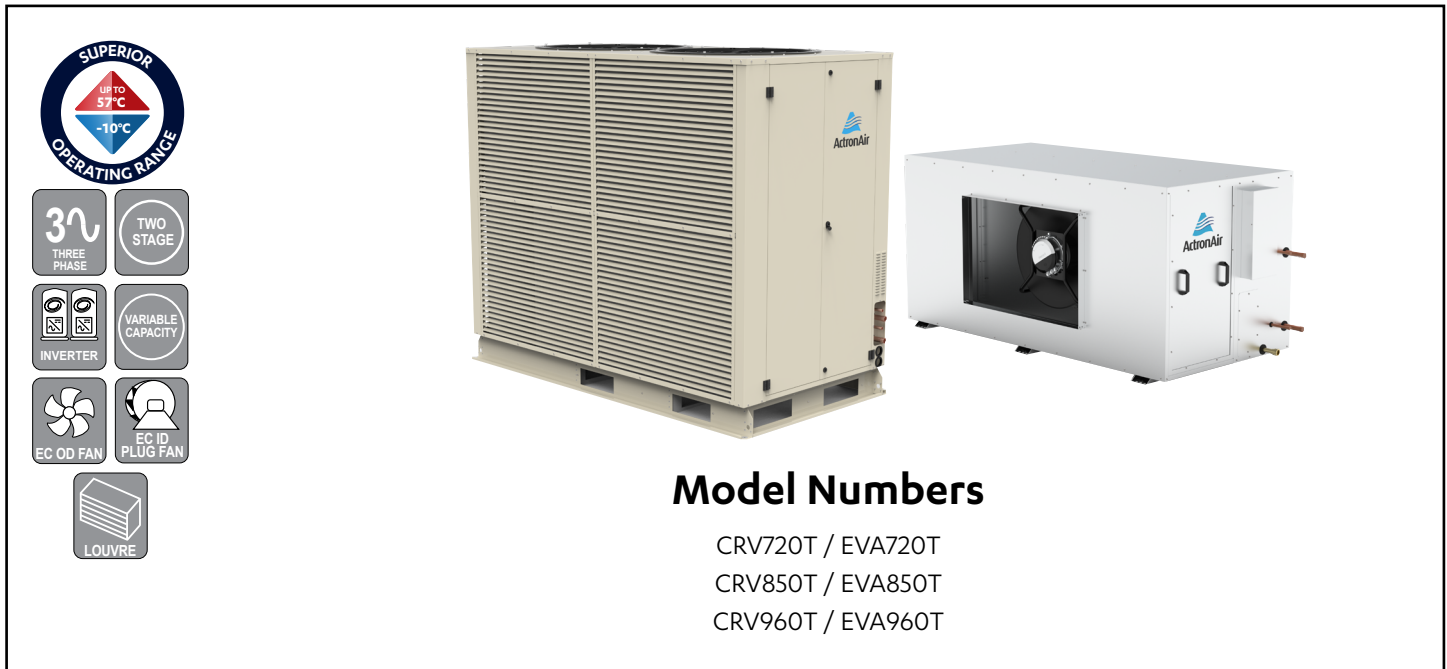


VARIABLE CAPACITY COMMERCIAL INVERTER SPLIT DUCTED UNITS (72-96kW)



Technical Selection Data

UNIT FEATURES

- TruMax™ Inverter Variable Speed Compressor and Drive Technology
- Pre-charged with R-410A Refrigerant
- Variable Speed Outdoor Fans
- 35-100% variable refrigeration capacity
- Electronic expansion valves
- Bi-flow Low ambient cooling operation to +5°C standard
- Phase Protection
- Hydrophilic Blue Coat Coil Fin Protection - Indoor and Outdoor Coils
- Removable Louvered Outdoor Coil Guard
- Adaptive Demand Defrost
- EC Variable Speed Indoor Fan + Reduce Fan Airflow Feature
- Adjustable Indoor Airflow
- Foil Faced Polyethylene Insulation - Indoor unit
- High Static Outdoor Fans - Selectable up to 90Pa

UNIT STANDARD OPTIONS / ACCESSORIES

- Additional Full Coil Coat Protection - Indoor and Outdoor
- Indoor Top Discharge
- Demand Control with CO2
- Compressor Jacket
- Duct Sensor (AERSS)
- Wall Mount Remote Sensor (LM-RS)

UNIT COMPLIANCE

- AS/NZS 3823.2 (MEPS)
- AS/NZS 4755.3.1:2012 (DRM 1, 2 and 3)
- AS 61000.6.4 in conjunction with AS/NZS CISPR 11 (Group 1 Class A) EMC Compatibility
- AS/NZS 60335.2.40 in conjunction with AS/NZS 60335.1 (Electrical Safety - Air Conditioner)

CONTROL OPTIONS AND FEATURES

ActronAir 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
- Auto, Heat, Cool, Turbo, Fan Modes and Night Mode Functions
- Fixed, Auto and 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

Third Party Control Options

- Manual and Analogue Inputs

SPECIFICATION SUMMARY

OUTDOOR UNIT MODEL		CRV720T		CRV850T		CRV960T	
INDOOR UNIT MODEL		EVA720T		EVA850T		EVA960T	
		(1) TOTAL	(2) NETT	(1) TOTAL	(2) NETT	(1) TOTAL	(2) NETT
(3) COOLING CAPACITY (kW)	RATED	73.75	72.00	86.80	85.00	98.50	96.00
	Tru-Max ⁽¹⁰⁾	-	79.20	-	93.50	-	105.60
	MINIMUM	-	13.20	-	15.14	-	17.84
(4) HEATING CAPACITY (kW)	RATED	71.25	73.00	84.30	86.00	94.30	97.00
	Tru-Max ⁽¹⁰⁾	-	80.30	-	94.60	-	106.70
	MINIMUM	-	12.19	-	14.25	-	17.16
(3) SENSIBLE CAPACITY (kW)	RATED	60.79	59.04	71.50	69.70	83.14	80.64
(5) COOLING INPUT POWER (kW)	RATED	21.41		25.28		27.92	
	Tru-Max ⁽¹⁰⁾	25.14		31.38		35.20	
(5) HEATING INPUT POWER (kW)	RATED	21.81		24.85		25.84	
	Tru-Max ⁽¹⁰⁾	25.49		29.11		34.76	
EER	RATED	3.45	3.36	3.43	3.36	3.53	3.44
	Tru-Max ⁽¹⁰⁾	-	3.15	-	2.98	-	3.00
COP	RATED	3.27	3.35	3.39	3.46	3.65	3.75
	Tru-Max ⁽¹⁰⁾	-	3.15	-	3.25	-	3.07
Total Cooling Seasonal Performance Factor Commercial - Hot / Average / Cold		4.81 / 4.81 / 5.09		4.90 / 4.94 / 5.25		4.75 / 4.75 / 5.03	
Heating Seasonal Performance Factor Commercial - Hot / Average / Cold		3.96 / 2.95 / 2.48		4.73 / 3.65 / 3.00		3.70 / 2.78 / 2.43	
(6) INDOOR AIRFLOW (l/s) MIN. / NOMINAL / MAX.		1700 / 3800 / 4500		2000 / 4450 / 5350		2250 / 5000 / 6000	
(7) OUTDOOR SOUND PRESS. LEVEL @ 3M dB(A) - Quiet / Rated / Tru.Max		63.6 / 70.2 / 70.2		63.7 / 69.0 / 69.0		63.7 / 69.0 / 69.0	
OUTDOOR SOUND POWER LEVEL dB(A) - Quiet / Rated / Tru.Max		80.6 / 87.2 / 87.2		80.7 / 86.0 / 86.0		80.7 / 86.0 / 86.0	
POWER SUPPLY - OUTDOOR		400 / 3Ph + N- / 50Hz					
VOLTAGE RANGE (MIN - MAX)		376V – 440V					
IP RATING		IP44					
POWER SUPPLY - INDOOR		230V / 1Ph- / 50Hz and 400V / 3Ph- / 50Hz					
VOLTAGE RANGE (MIN - MAX)		376V - 440V					
IP RATING		IP20					
(2) RATED LOAD AMPS - TOTAL		33.6		39.3		42.9	
(8) FULL LOAD AMPS OUTDOOR / INDOOR / TOTAL		47.0 / 6.0 / 53.0		56.2 / 8.93 / 65.1		65.9 / 9.1 / 75.0	
(9) CIRCUIT BREAKER		63.0		80.0		80.0	
POWER FACTOR		0.93		0.94		0.94	
CABLE SIZE (MAIN LINE)		Refer to latest edition of AS/ANZ 3000 or AS/ANZ 3008 Australian/New Zealand Wiring Rules to determine required cable size.					
CABLE SIZE (INDOOR TO OUTDOOR WIRE) SUGGESTED MINIMUM		1.5mm ²					
DATA CABLE FIELD WIRING (OUTDOOR TO INDOOR)		2 Core 7 / 0.30 (0.5mm ²) Twisted Shielded Data Cable					
WEIGHT (kg) - INDOOR / OUTDOOR		296 / 700		368 / 834		387 / 906	

- (1) 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) Total input power includes indoor fan kW.
- (6) Max. - Min. airflow application range.
- (7) Outdoor sound pressure level is determined in an anechoic chamber and may differ once the unit is installed due to environment conditions.
- (8) Full Load Amps are based on compressor and fan motors' maximum expected current.
- (9) Cable size recommendation selected in accordance to maximum conductor temperature of 75°C with wiring enclosed in air. The local electricity authority may require limits on starting current and voltage drop, please check prior to purchase.
- (10) TRUMAX - Maximum Capacity

Notes: Use Total input power to estimate running cost.



CAPACITY SELECTION DATA

CRV720T / EVA720T

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	22	24	26	27	28	30	
25	16	77.19	46.36	55.24	63.86					
	17	77.92	41.97	50.75	59.57	67.67				
	18	78.77	37.29	46.18	55.11	63.86	67.89	71.52		
	19	80.76	32.52	41.83	50.54	59.38	63.77	67.87	75.07	
	20	82.61	27.62	37.04	45.94	54.81	59.26	63.64	71.81	
	21	84.99		32.17	41.48	50.30	54.67	59.04	67.74	
	22	87.17		27.41	36.75	45.92	50.07	54.49	63.31	
35	16	71.57	43.61	52.46	60.54					
	17	71.83	39.28	48.01	56.68	64.27				
	18	72.49	34.69	43.48	52.33	60.85	64.78			
	19	73.75	29.92	39.20	47.87	56.62	60.79	64.88		
	20	75.73	25.14	34.48	43.30	52.15	56.49	60.75	68.71	
	21	77.65		29.72	38.90	47.56	52.03	56.32	64.87	
	22	79.57		24.91	34.17	43.01	47.42	51.82	60.59	
45	16	64.16	40.14	48.85						
	17	64.23	35.74	44.54	52.95					
	18	64.69	31.44	40.10	48.88	56.82				
	19	65.22	26.79	35.61	44.46	53.01	57.01	60.13		
	20	66.68	22.03	31.30	39.98	48.70	52.96	57.06		
	21	68.33		26.59	35.71	44.23	48.55	52.96	60.95	
	22	70.25		21.81	31.10	39.77	44.16	48.46	56.93	
50	16	59.93	38.23	46.74						
	17	60.00	33.85	42.66	50.62					
	18	60.26	29.62	38.18	46.85					
	19	60.46	24.99	33.81	42.51	50.90	54.54			
	20	61.65	20.30	29.47	38.10	46.71	50.92	54.81		
	21	63.17		24.85	33.84	42.29	46.68	50.96	58.40	
	22	64.82		20.05	29.30	37.92	42.26	46.58	54.89	

HEATING PERFORMANCE

WB TEMP ON OUTDOOR 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	47.70	45.79	47.47	45.57	47.21	45.32	47.01	45.13	46.78	44.91
-6	53.08	49.89	52.77	49.60	52.45	49.30	52.14	49.01	51.80	48.69
-2	59.09	52.59	58.69	52.23	58.29	51.88	57.86	51.50	57.46	51.14
2	65.55	59.65	65.07	59.21	64.56	58.75	64.04	58.28	63.53	57.81
6	72.45	72.45	71.85	71.85	71.25	71.25	70.82	70.82	70.17	70.17
10	80.48	80.48	79.77	79.77	79.03	79.03	78.29	78.29	77.52	77.52
14	89.05	89.05	88.17	88.17	87.26	87.26	86.37	86.37	85.46	85.46
18	98.19	98.19	97.17	97.17	96.14	96.14	95.12	95.12	94.01	94.01

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

AIRFLOW CORRECTION MULTIPLIER

% VARIATION	-20%	-15%	-10%	-5%	NOMINAL	5%	10%	15%	20%
INDOOR AIRFLOW (l/s)	3040	3230	3420	3610	3800	3990	4180	4370	4560
TOTAL COOLING	0.958	0.973	0.983	0.993	1.000	1.008	1.016	1.021	1.024
SENSIBLE COOLING	0.880	0.921	0.948	0.975	1.000	1.026	1.052	1.071	1.082
HEATING FACTOR	0.989	0.992	0.995	0.998	1.000	1.002	1.004	1.005	1.006

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	0.983	0.970	0.958	0.946	0.933	0.921	0.916
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.



CAPACITY SELECTION DATA

CRV850T / EVA850T

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	22	24	26	27	28	30
25	16	90.86	54.47	64.94	75.12				
	17	91.72	49.28	59.65	70.06	79.63			
	18	92.73	43.76	54.25	64.79	75.13	79.88	84.17	
	19	95.07	38.13	49.12	59.40	69.83	75.02	79.85	88.36
	20	97.26	32.34	43.46	53.96	64.44	69.70	74.86	84.51
	21	100.07		37.72	48.71	59.11	64.27	69.43	79.71
	22	102.64		32.09	43.12	53.95	58.85	64.06	74.48
35	16	84.22	51.22	61.67	71.20				
	17	84.54	46.10	56.42	66.64	75.61			
	18	85.32	40.69	51.06	61.51	71.57	76.21		
	19	86.80	35.06	46.01	56.25	66.58	71.50	76.33	
	20	89.14	29.41	40.44	50.85	61.30	66.42	71.45	80.86
	21	91.41		34.82	45.66	55.89	61.16	66.22	76.32
	22	93.67		29.14	40.07	50.51	55.72	60.91	71.26
45	16	75.48	47.12	57.41					
	17	75.56	41.93	52.32	62.24				
	18	76.11	36.85	47.07	57.44	66.82			
	19	76.73	31.36	41.77	52.23	62.32	67.04	70.72	
	20	78.45	25.74	36.68	46.93	57.22	62.25	67.10	
	21	80.40		31.13	41.90	51.95	57.05	62.25	71.68
	22	82.66		25.48	36.44	46.68	51.87	56.94	66.94
50	16	70.49	44.87	54.91					
	17	70.56	39.70	50.10	59.50				
	18	70.88	34.70	44.81	55.04				
	19	71.11	29.23	39.65	49.92	59.83	64.13		
	20	72.52	23.70	34.52	44.71	54.87	59.85	64.44	
	21	74.31		29.07	39.69	49.66	54.85	59.90	68.68
	22	76.26		23.41	34.32	44.50	49.62	54.72	64.53

HEATING PERFORMANCE

WB TEMP ON OUTDOOR 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	56.55	54.29	56.28	54.03	55.98	53.74	55.75	53.52	55.48	53.26
-6	62.89	59.12	62.52	58.77	62.15	58.42	61.78	58.08	61.38	57.70
-2	69.97	62.28	69.50	61.86	69.03	61.44	68.53	60.99	68.06	60.57
2	77.59	70.61	77.02	70.09	76.41	69.54	75.81	68.99	75.21	68.44
6	85.71	85.71	85.00	85.00	84.30	84.30	83.80	83.80	83.02	83.02
10	95.17	95.17	94.33	94.33	93.46	93.46	92.59	92.59	91.68	91.68
14	105.27	105.27	104.23	104.23	103.16	103.16	102.12	102.12	101.04	101.04
18	116.04	116.04	114.83	114.83	113.63	113.63	112.42	112.42	111.11	111.11

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

AIRFLOW CORRECTION MULTIPLIER

% VARIATION	-20%	-15%	-10%	-5%	Nominal	5%	10%	15%	20%
INDOOR AIRFLOW (l/s)	3560	3783	4005	4228	4450	4673	4895	5118	5350
TOTAL COOLING	0.953	0.978	0.982	0.987	1.000	1.035	1.008	1.012	1.019
SENSIBLE COOLING	0.873	0.910	0.939	0.964	1.000	1.019	1.040	1.068	1.081
HEATING FACTOR	0.953	0.956	0.987	0.980	1.000	1.016	1.020	1.030	1.034

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	0.983	0.970	0.958	0.946	0.933	0.921	0.916
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.



CAPACITY SELECTION DATA

CRV960T / EVA960T

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	22	24	26	27	28	30
25	16	103.08	63.43	75.55	87.33				
	17	104.05	57.44	69.42	81.47	92.54			
	18	105.20	51.04	63.18	75.38	87.34	92.84	97.80	
	19	107.84	44.53	57.24	69.14	81.21	87.21	92.81	102.65
	20	110.31	37.84	50.70	62.85	74.98	81.06	87.03	98.19
	21	113.49		44.05	56.77	68.81	74.78	80.75	92.63
	22	116.40		37.54	50.30	62.83	68.50	74.53	86.58
35	16	95.59	59.68	71.76	82.80				
	17	95.94	53.76	65.69	77.52	87.90			
	18	96.83	47.50	59.49	71.58	83.22	88.59		
	19	98.50	40.98	53.65	65.49	77.45	83.14	88.73	
	20	101.14	34.44	47.20	59.25	71.34	77.26	83.08	93.96
	21	103.70		40.71	53.24	65.08	71.18	77.04	88.72
	22	106.26		34.13	46.78	58.86	64.88	70.89	82.86
45	16	85.72	54.93	66.84					
	17	85.81	48.93	60.95	72.43				
	18	86.42	43.05	54.88	66.87	77.72			
	19	87.13	36.70	48.74	60.84	72.51	77.98	82.24	
	20	89.07	30.19	42.86	54.72	66.62	72.44	78.04	
	21	91.27		36.43	48.89	60.52	66.43	72.44	83.35
	22	93.83		29.90	42.58	54.43	60.42	66.30	77.87
50	16	80.08	52.33	63.95					
	17	80.16	46.35	58.38	69.26				
	18	80.52	40.57	52.26	64.10				
	19	80.78	34.24	46.29	58.17	69.64	74.61		
	20	82.37	27.84	40.36	52.15	63.90	69.66	74.97	
	21	84.40		34.05	46.33	57.87	63.87	69.71	79.88
	22	86.60		27.50	40.12	51.90	57.82	63.73	75.08

HEATING PERFORMANCE

WB TEMP ON OUTDOOR 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	63.00	60.48	62.70	60.19	62.36	59.86	62.09	59.61	61.79	59.32
-6	70.15	65.94	69.74	65.55	69.32	65.16	68.91	64.77	68.45	64.34
-2	78.14	69.54	77.61	69.07	77.08	68.60	76.51	68.10	75.98	67.62
2	86.73	78.92	86.09	78.34	85.41	77.72	84.72	77.10	84.04	76.48
6	95.89	95.89	95.09	95.09	94.30	94.30	93.73	93.73	92.86	92.86
10	106.56	106.56	105.62	105.62	104.63	104.63	103.65	103.65	102.63	102.63
14	117.95	117.95	116.78	116.78	115.57	115.57	114.40	114.40	113.19	113.19
18	130.10	130.10	128.74	128.74	127.38	127.38	126.02	126.02	124.54	124.54

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

AIRFLOW CORRECTION MULTIPLIER

% VARIATION	-20%	-15%	-10%	-5%	Nominal	5%	10%	15%	20%
INDOOR AIRFLOW (l/s)	4000	4250	4500	4750	5000	5250	5500	5750	6000
TOTAL COOLING	0.965	0.982	0.989	0.997	1.000	1.004	1.009	1.015	1.020
SENSIBLE COOLING	0.884	0.916	0.945	0.974	1.000	1.024	1.046	1.072	1.092
HEATING FACTOR	0.969	0.976	0.983	0.991	1.000	1.011	1.022	1.033	1.044

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	0.983	0.970	0.958	0.946	0.933	0.921	0.916
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.



INDOOR FAN DATA

CRV720T / EVA720T

FAN 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
1*	1000	33	174	41	275	49	435	55	561	60	687	65	834	69	963	73	1121	77	1291	81	1461
	1500	40	260	47	395	53	544	58	691	63	856	68	1037	72	1203	75	1341	79	1525	83	1709
2*	1700	43	313	50	465	55	623	60	772	65	953	70	1138	74	1323	77	1468	81	1676	84	1864
	2000	48	394	54	570	59	741	63	893	68	1098	72	1289	76	1502	79	1658	83	1902	86	2095
	2500	56	574	61	770	66	988	70	1172	74	1398	77	1573	81	1818	84	2020	88	2297	92	2577
	3000	65	846	70	1088	73	1272	77	1517	81	1771	84	1985	87	2212	91	2537	94	2809	97	2898
3*	3500	74	1205	78	1464	81	1667	84	1886	88	2205	91	2468	94	2769	96	2970	98	3170	MOTOR / BLOWER LIMIT	
	3800	79	1477	83	1726	86	1961	89	2221	92	2529	95	2633	98	3103	99	3229				
	4000	83	1658	86	1901	89	2157	92	2444	95	2745	97	2743								
	4500	92	2258	95	2563	97	2562														

- * 1 Airflow during compressor OFF operation.
- 2 Airflow during Safe Mode, see the fan curve for detailed information.
- 3 Capacity Selection Range - See the Airflow Correction Multiplier for details.

NOTES:

% Speed = Indoor Fan Speed Control Setting, in percent

W = Indoor Fan Power, Watts

 Bold data in the box indicates Factory Default Setting.

High speed limit may be outside the fan curves at lower static condition which needs to be taken care while operating the unit.

Indoor Fan PWM Limits	
High Spd. Limit (%)	99
Low Spd. Limit (%)	33



INDOOR FAN DATA

CRV850T / EVA850T

FAN DATA																			
AIRFLOW (l/s)	100		150		200		250		300		350		400		450		500		
	% PWM	W	% PWM	W	% PWM	W	% PWM	W	% PWM	W	% PWM	% PWM	% PWM	W	% PWM	% PWM	% PWM	% PWM	
1*	1200	40	349	46	518	52	697	57	875	62	1072	66	1250	70	1460	74	1696	78	1936
	1500	41	410	47	574	53	775	58	968	63	1185	67	1384	71	1609	75	1856	79	2103
2*	2000	44	515	50	718	55	912	61	1179	65	1380	69	1611	73	1870	77	2181	80	2447
	2500	48	650	53	851	58	1081	63	1337	67	1574	71	1844	75	2153	79	2475	82	2717
	3000	52	790	57	1038	62	1316	66	1562	70	1836	74	2152	77	2404	81	2752	84	3012
	3500	57	993	62	1285	66	1547	70	1841	73	2098	77	2457	80	2738	83	3039	87	3438
3*	4000	63	1277	67	1566	70	1802	74	2166	77	2450	80	2740	83	3067	86	3394	89	3721
	4450	68	1522	72	1873	75	2151	78	2464	81	2779	84	3114	87	3485	90	3872	93	4259
	4500	68	1550	72	1907	75	2190	78	2497	81	2815	84	3155	87	3531	90	3925	93	4319
	5000	73	1877	76	2178	80	2612	83	2974	86	3349	88	3617	91	4039	94	4498	96	4650
	5350	77	2140	80	2479	83	2874	86	3266	89	3673	92	4082	94	4427	96	4784	98	5048

- * 1 Airflow during compressor OFF operation.
- 2 Airflow during Safe Mode, see the fan curve for detailed information.
- 3 Capacity Selection Range - See the Airflow Correction Multiplier for details.

NOTES:

% Speed = Indoor Fan Speed Control Setting, in percent

W = Indoor Fan Power, Watts

 Bold data in the box indicates Factory Default Setting.

High speed limit may be outside the fan curves at lower static condition which needs to be taken care while operating the unit.

Indoor Fan PWM Limits	
High Spd. Limit (%)	98
Low Spd. Limit (%)	40

INDOOR FAN DATA

CRV960T / EVA960T

FAN DATA																			
AIRFLOW (l/s)		EXTERNAL STATIC PRESSURE (Pa)																	
		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
1*	1250	39	389	46	525	51	682	57	882	62	1105	66	1298	70	1520	73	1701	77	1947
	1500	40	407	47	582	52	748	58	979	63	1200	67	1411	71	1650	74	1847	78	2110
	2000	44	525	49	695	54	894	60	1146	65	1402	69	1655	72	1857	76	2150	80	2484
2*	2250	46	578	51	786	56	997	62	1252	66	1507	70	1777	73	1990	77	2299	81	2634
	2500	47	631	53	876	58	1100	63	1359	67	1612	71	1899	74	2123	78	2449	82	2784
	3000	52	815	57	1061	62	1338	66	1599	69	1822	73	2132	77	2473	80	2749	83	3024
	3500	57	1022	62	1315	66	1591	69	1832	73	2165	76	2428	80	2800	83	3125	86	3449
	4000	62	1253	66	1543	70	1878	73	2143	77	2516	80	2813	83	3159	86	3505	88	3736
3*	4500	71	1538	71	1892	75	2262	78	2572	81	2897	84	3251	87	3643	89	3917	92	4328
	5000	76	1959	76	2262	79	2593	82	2957	85	3336	88	3753	91	4190	93	4511	96	4830
	5500	81	2353	81	2727	84	3121	87	3528	89	3803	92	4264	95	4748	97	4746		
	6000	85	2718	85	3131	88	3559	91	4005	94	4490	96	4813	99	5298				

- * 1 Airflow during compressor OFF operation.
- 2 Airflow during Safe Mode, see the fan curve for detailed information.
- 3 Capacity Selection Range - See the Airflow Correction Multiplier for details.

NOTES:

% Speed = Indoor Fan Speed Control Setting, in percent

W = Indoor Fan Power, Watts

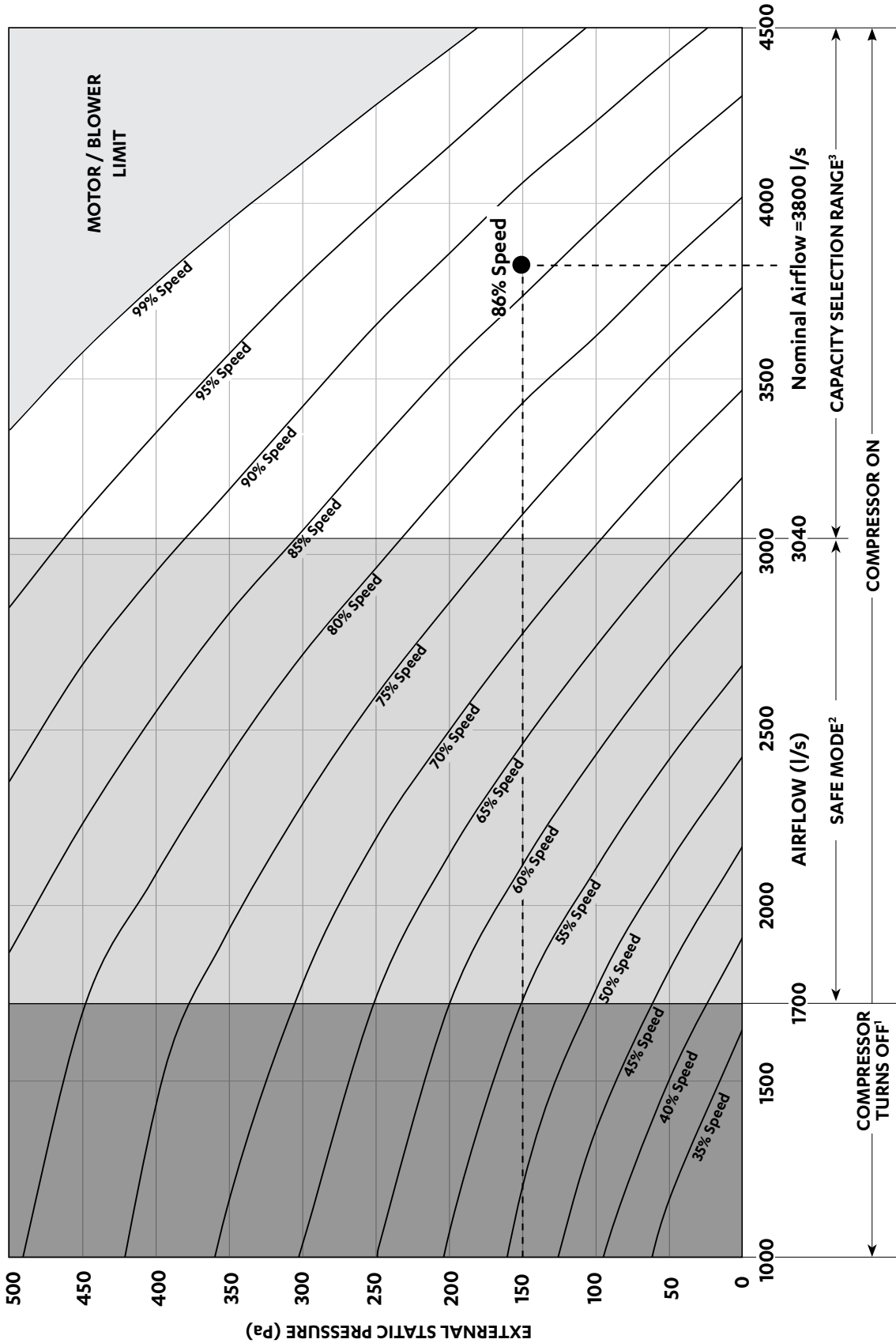
 Bold data in the box indicates Factory Default Setting.

High speed limit may be outside the fan curves at lower static condition which needs to be taken care while operating the unit.

Indoor Fan PWM Limits	
High Spd. Limit (%)	99
Low Spd. Limit (%)	39

THIRD PARTY FAN CURVE

CRV720T / EVA720T



NOTE

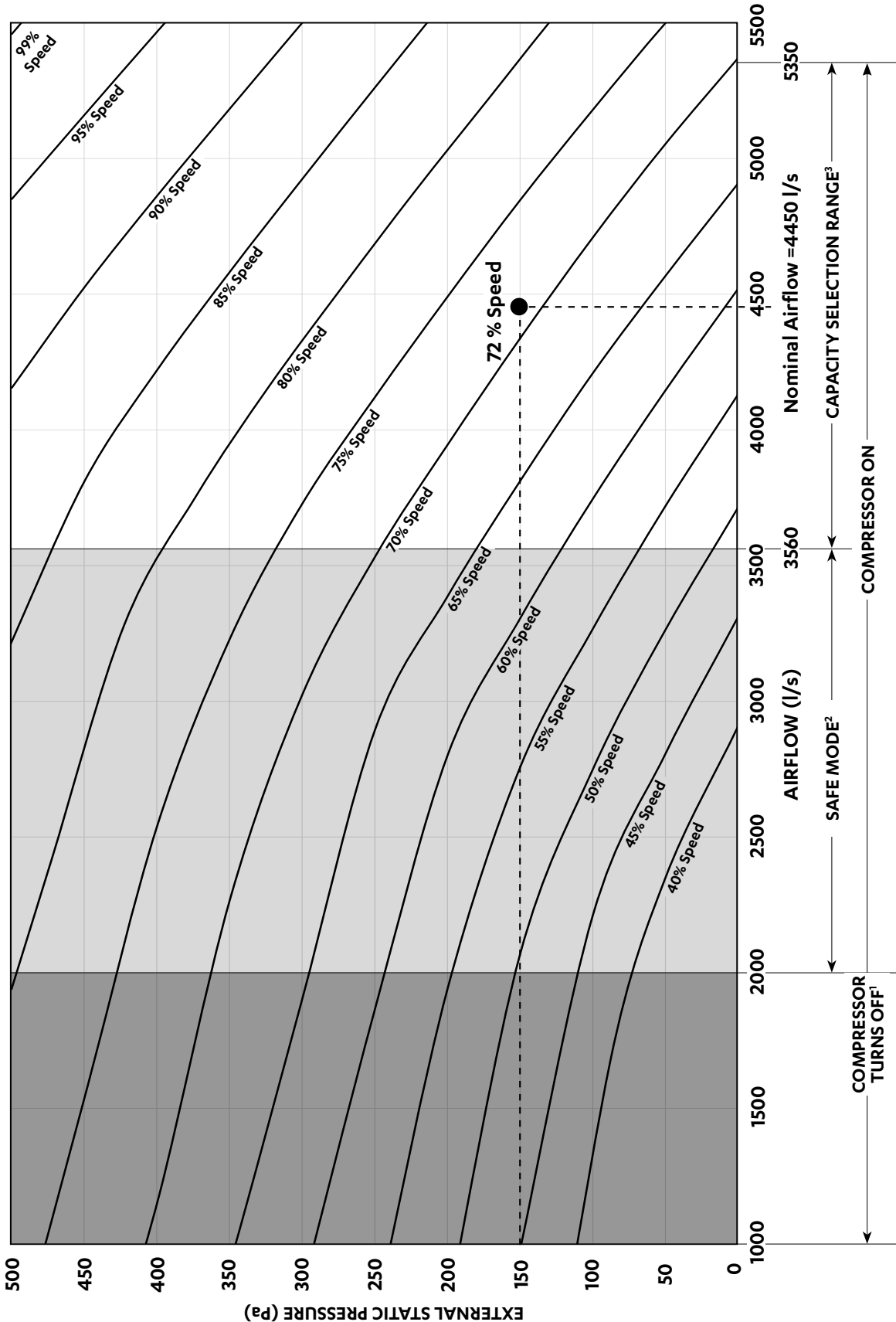
- 1 When the airflow goes below the lower limit of the Safe Mode, the compressor turns off; the fan will continue to run.
- 2 System safety logic may be activated

Fan Performance Data and Fan Curve shown is at dry coil and with no air filters installed. Consider external static pressure drop specific to your design requirements. Airflow should be reduce with respect to the moisture content in the air. Please review filter manufacturer for application. 2.5 m/s face velocity point will occur outside the application range.



THIRD PARTY FAN CURVE

CRV850T / EVA850T



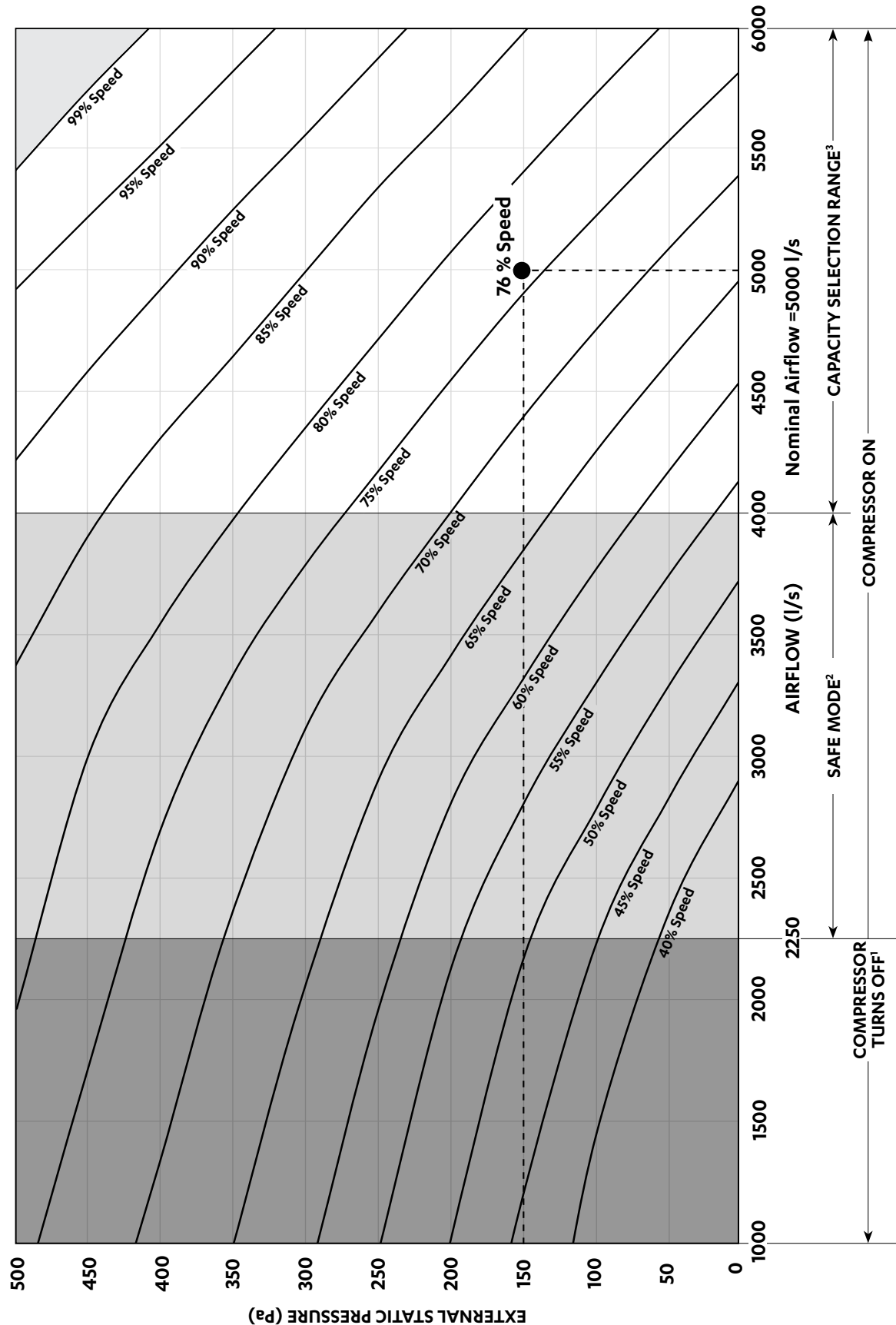
NOTE

- 1 When the airflow goes below the lower limit of the Safe Mode, the compressor turns off; the fan will continue to run.
 - 2 System safety logic may be activated
- Fan Performance Data and Fan Curve shown is at dry coil and with no air filters installed. Consider external static pressure drop specific to your design requirements. Airflow should be reduce with respect to the moisture content in the air. Please review filter manufacturer for application. 2.5 m/s face velocity point will occur outside the application range.



THIRD PARTY FAN CURVE

CRV960T / EVA960T



NOTE

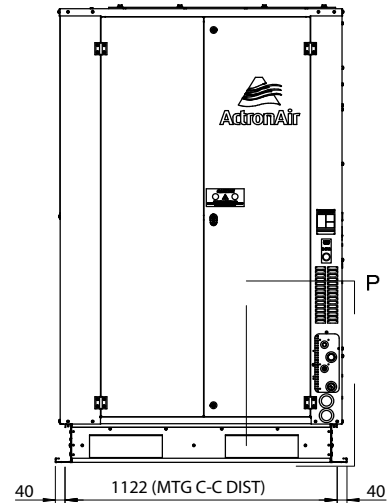
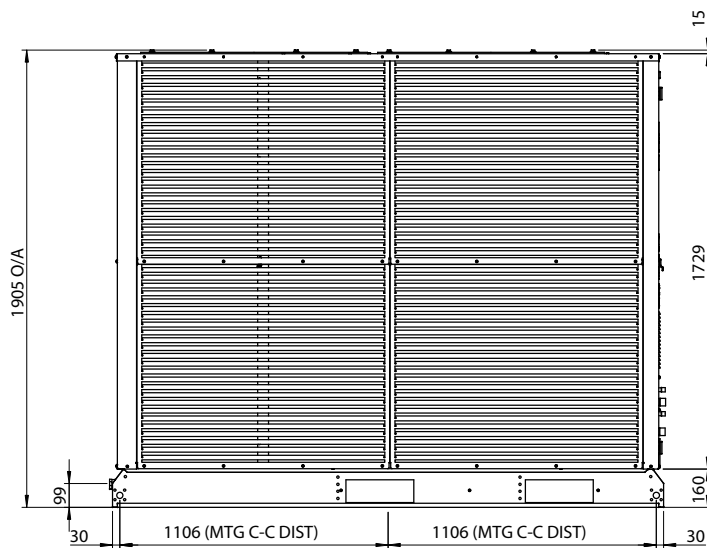
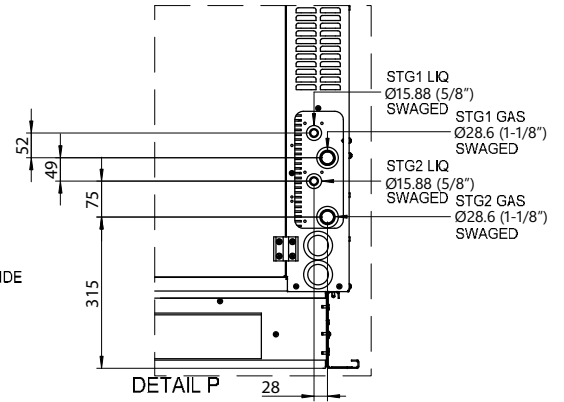
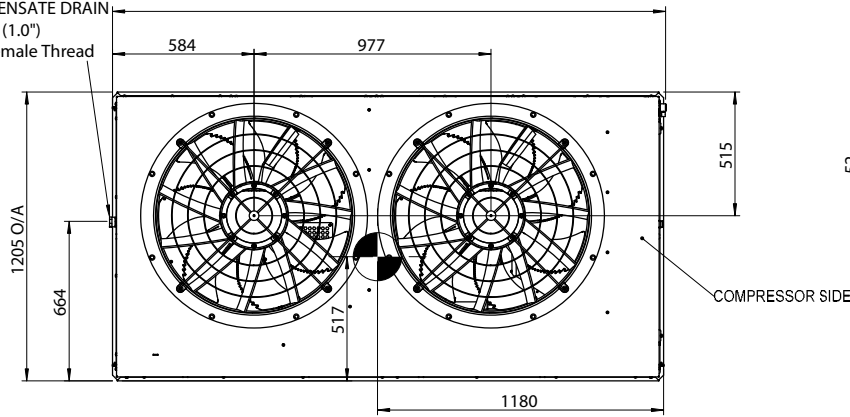
- 1 When the airflow goes below the lower limit of the Safe Mode, the compressor turns off; the fan will continue to run.
 - 2 System safety logic may be activated
- Fan Performance Data and Fan Curve shown is at dry coil and with no air filters installed. Consider external static pressure drop specific to your design requirements. Airflow should be reduced with respect to the moisture content in the air. Please review filter manufacturer for application. 2.5 m/s face velocity point will occur outside the application range.



OUTDOOR UNIT DIMENSIONS

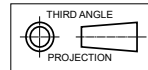
CRV720T

CONDENSATE DRAIN
 Ø 25.4 (1.0")
 BSP Female Thread



NOTES:

- Do not scale drawing. All dimensions are in mm unless otherwise specified. Refer to corresponding unit dimensional drawing for mounting hole details.
- The unit is designed to ensure all condensation is removed efficiently to avoid water pooling with the condenser. A single condensation drain point is provided. An external drip tray may be used, if unit requires to be extra water tight.
- Drawing is subject to change without notice.
- Use M12 Bolt for feet mounting
- Not to scale drawing. All dimensions are in mm unless otherwise specified.
- Refer to corresponding unit dimensional drawing for mounting hole details

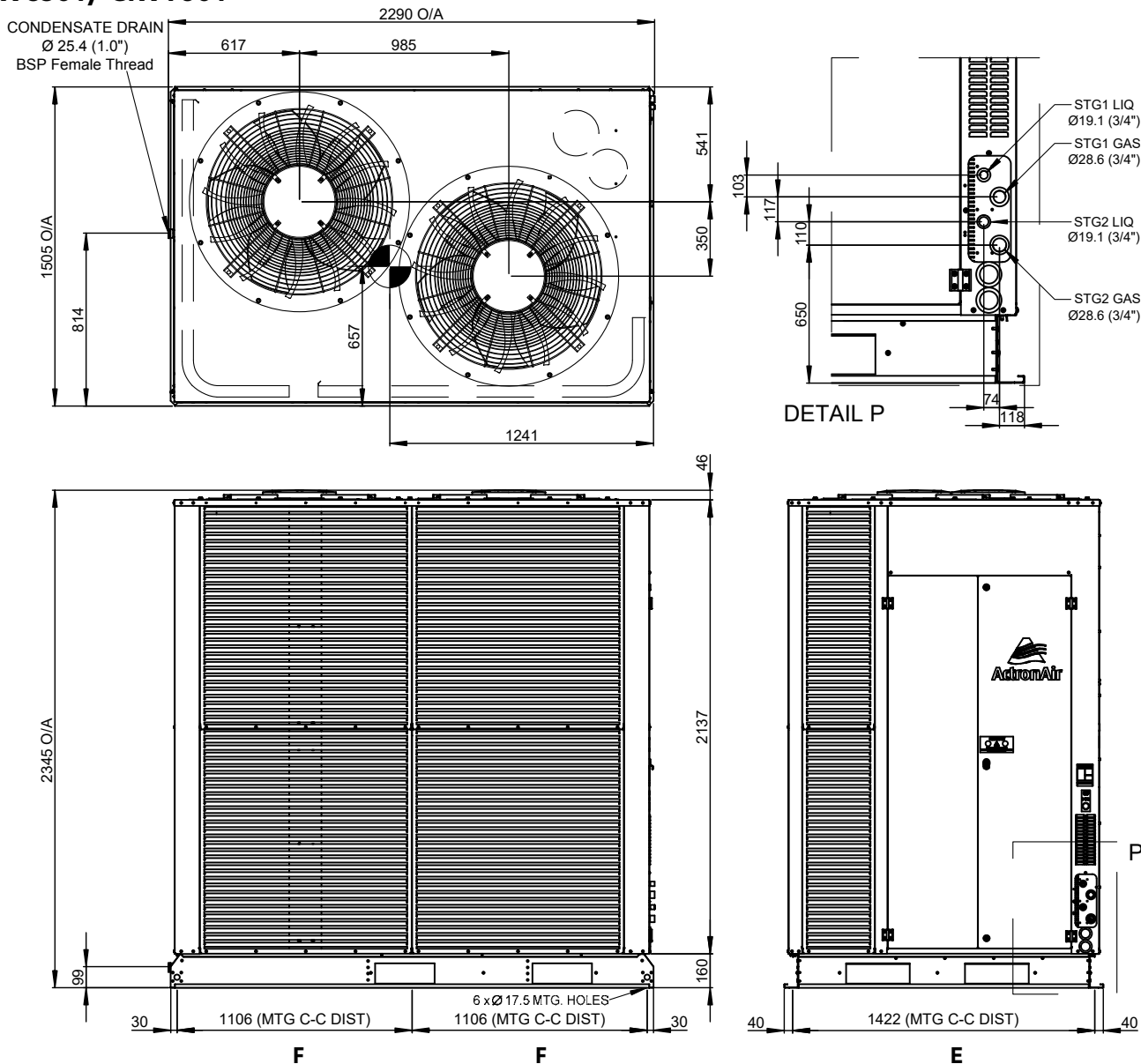


Unit Model Number	Overall Nominal Dimension (OA)			MTG C-C DIST Mounting Distance Base Foot (Centre to Centre)		Gas Pipe	Liquid Pipe
	H	W	D	F	E		
CRV720T	1905	2280	1205	1106	1122	Ø 28.60 mm (1-1/8") Swaged	Ø 15.88 mm (5/8") Swaged



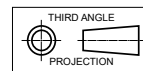
OUTDOOR UNIT DIMENSIONS

CRV850T/ CRV960T



NOTES:

- Do not scale drawing. All dimensions are in mm unless otherwise specified. Refer to corresponding unit dimensional drawing for mounting hole details.
- The unit is designed to ensure all condensation is removed efficiently to avoid water pooling with the condenser. A single condensation drain point is provided. An external drip tray may be used, if unit requires to be extra water tight.
- Drawing is subject to change without notice.
- Use M12 Bolt for feet mounting
- Not to scale drawing. All dimensions are in mm unless otherwise specified.
- Refer to corresponding unit dimensional drawing for mounting hole details

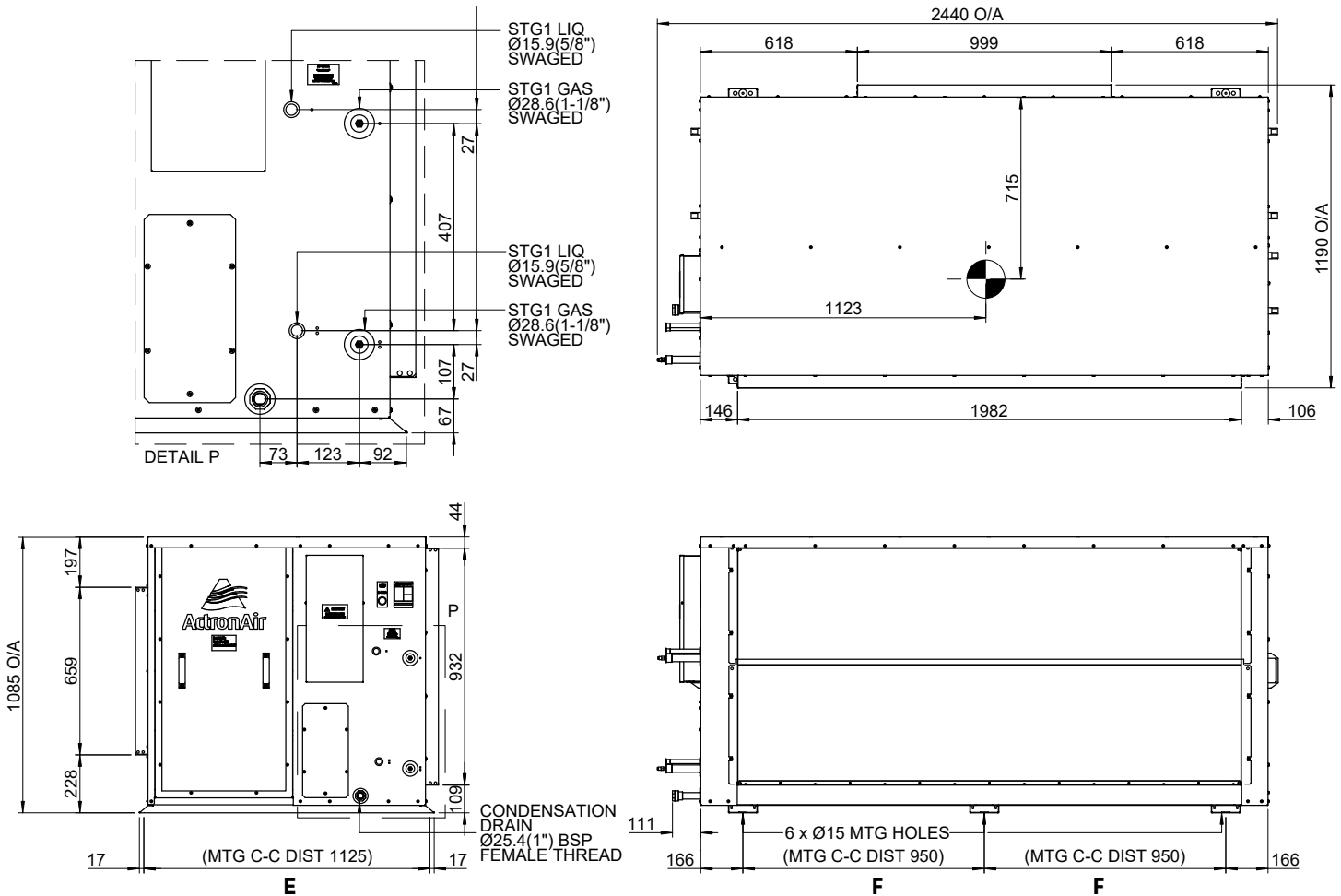


Unit Model Number	Overall Nominal Dimension (OA)			MTG C-C DIST Mounting Distance Base Foot (Centre to Centre)		Gas Pipe	Liquid Pipe
	H	W	D	F	E		
CRV850T	2345	2290	1505	1106	1422	Ø 28.60 mm (1-1/8") Swaged	Ø 19.05 mm (3/4") Swaged
CRV960T							



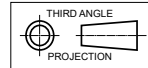
INDOOR UNIT DIMENSIONS

EVA720T



NOTES:

- Do not scale drawing. All dimensions are in mm unless otherwise specified. Refer to corresponding unit dimensional drawing for mounting hole details.
- Drawing is subject to change without notice.
- Use M12 Bolt for feet mounting
- Not to scale drawing. All dimensions are in mm unless otherwise specified.
- Refer to corresponding unit dimensional drawing for mounting hole details.

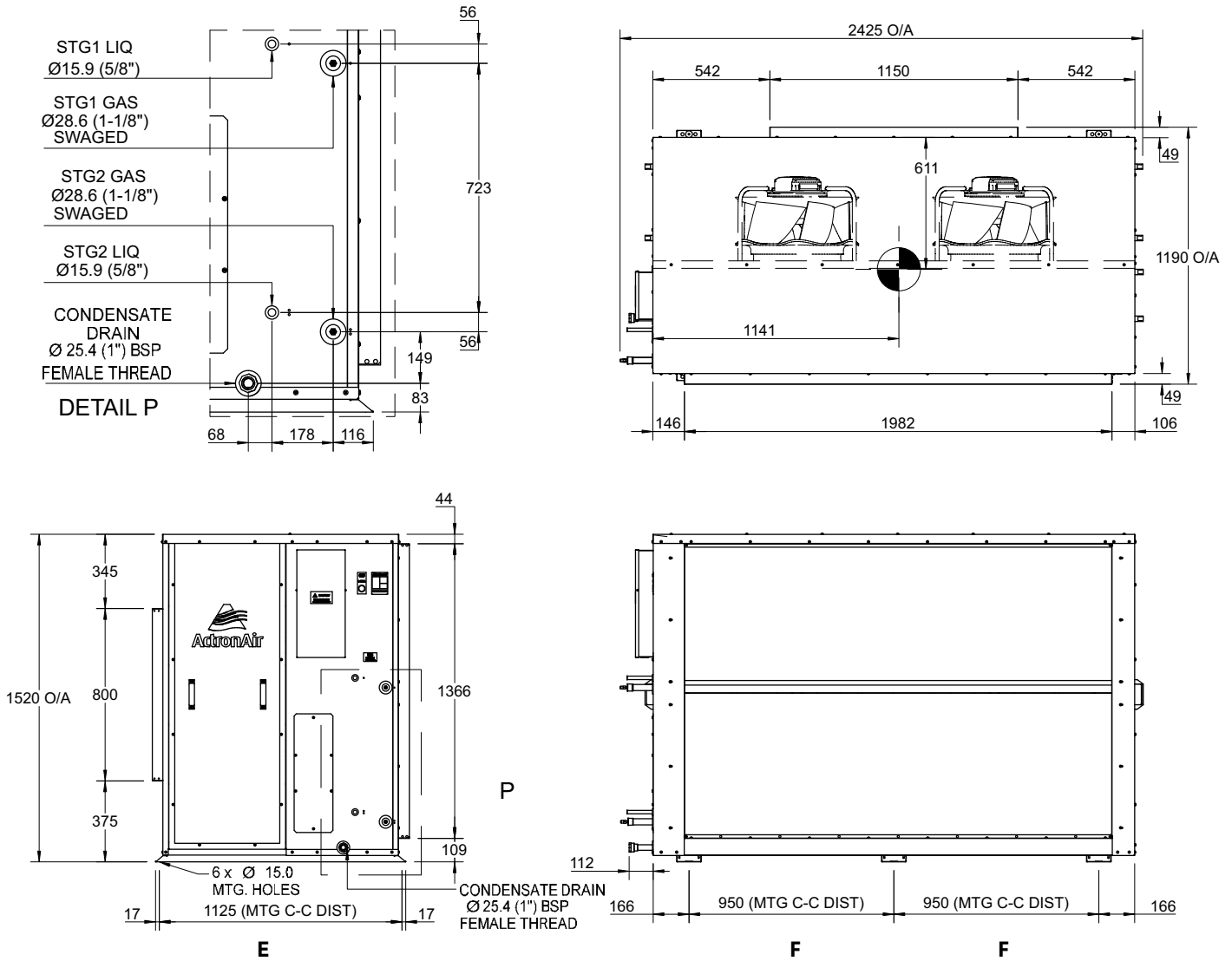


Unit Model Number	Overall Nominal Dimension (OA)			MTG C-C DIST Mounting Distance Base Foot (Centre to Centre)		Supply Duct	Return Duct	Gas Pipe	Liquid Pipe
	H	W	D	F	E	H-SD x W-SD	H-RD x W-RD		
EVA720T	1085	2440	1190	950	1125	659 x 999	932 x 1982	Ø 28.60 mm (1-1/8") Swaged	Ø 15.88 mm (5/8") Swaged



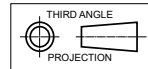
INDOOR UNIT DIMENSIONS

EVA850T/ EVA960T



NOTES:

- Do not scale drawing. All dimensions are in mm unless otherwise specified. Refer to corresponding unit dimensional drawing for mounting hole details.
- Drawing is subject to change without notice.
- Use M12 Bolt for feet mounting
- Not to scale drawing. All dimensions are in mm unless otherwise specified.
- Refer to corresponding unit dimensional drawing for mounting hole details.

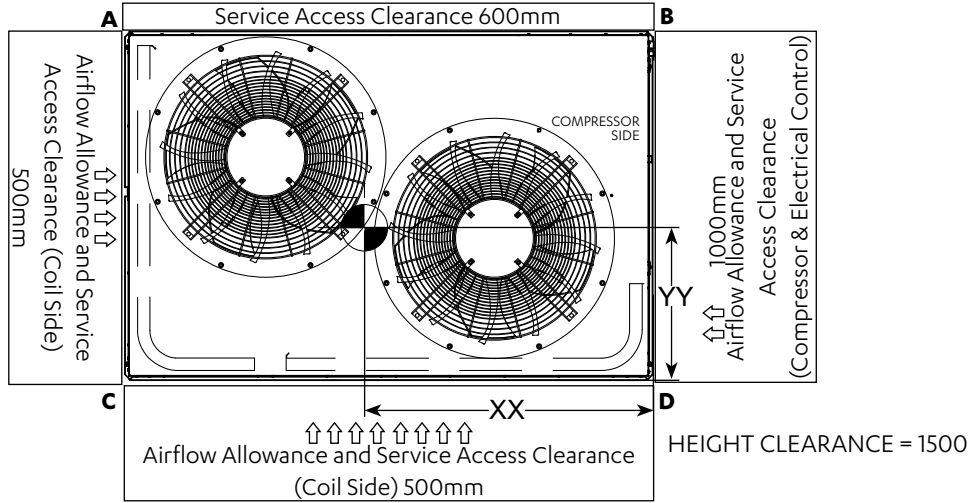


Unit Model Number	Overall Nominal Dimension (OA)			MTG C-C DIST Mounting Distance Base Foot (Centre to Centre)		Supply Duct	Return Duct	Gas Pipe	Liquid Pipe
	H	W	D	F	E	H-SD x W-SD	H-RD x W-RD		
EVA850T	1520	2425	1190	950	1125	800 x 1150	1366 x 1982	Ø 28.60 mm (1-1/8") Swaged	Ø 15.88 mm (5/8") Not Swaged
EVA960T									



SERVICE CLEARANCES, AIRFLOW ALLOWANCES AND WEIGHTS

OUTDOOR UNIT

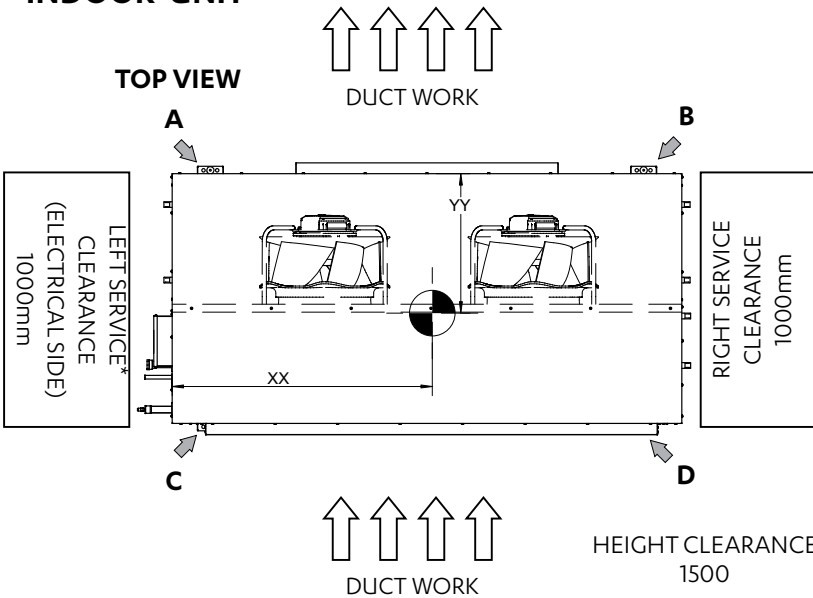


Unit Model Number	Total Weight (Kg)	Corner Weights (Kg)				Centre of Gravity Position	
		A	B	C	D	XX	YY
CRV720T	700	132	201	140	227	1235	502
CRV850T	834	129	285	195	225	1213	663
CRV960T	906	139	300	239	228	1213	663

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. Refer Pipe Connection Details on Specifications Sheet.
6. MTG C-C DIST = Mounting Centre to Centre Distance.
7. Use M12 bolt for feet mounting.
8. Installation of this unit should be in accordance with Electrical Safety Standard, AS/NZS 60335.2.40.

INDOOR UNIT



Model Number	Unit Weight (kg)	Corner Mounting Point Weights (kg)				Centre Of Gravity Position	
		A	B	C	D	XX	YY
EVA720T	296	76	34	74	112	1123	715
EVA850T	368	40	101	147	80	1127	638
EVA960T	387	108	59	90	130	1141	611



SOUND DATA

OUTDOOR RADIATED

Sound Power Level (SWL)

Model Number		Sound Power Level dB(A)	Sound Pressure Level dB(A)	Octave Band Centre Frequency (Hz), dB							
				63	125	250	500	1k	2k	4k	8k
CRV720T/EVA720T	Tru.Max	87.2	70.2	98.7	97.6	87.1	84.1	79.7	76.7	71.5	64.5
	Rated	87.2	70.2	98.7	97.6	87.1	84.1	79.7	76.7	71.5	64.5
	Quiet	80.6	63.6	84.3	82.2	81.4	77.2	76.2	71.7	65.3	59.1
CRV850T/EVA850T	Tru.Max	86.0	69.0	89.5	91.4	85.2	80.9	81.7	78.2	72.5	67.0
	Rated	86.0	69.0	89.5	91.4	85.2	80.9	81.7	78.2	72.5	67.0
	Quiet	80.7	63.7	88.0	81.4	78.8	75.8	75.8	74.2	65.3	62.8
CRV960T/EVA960T	Tru.Max	86.0	69.0	89.5	91.4	85.2	80.9	81.7	78.2	72.5	67.0
	Rated	86.0	69.0	89.5	91.4	85.2	80.9	81.7	78.2	72.5	67.0
	Quiet	80.7	63.7	88.0	81.4	78.8	75.8	75.8	74.2	65.3	62.8

INDOOR OUTLET

Sound Power Level (SWL)

Model Number	Airflow Setting	Airflow l/s	Sound Power Level dB(A)	Octave Band Centre Frequency (Hz), dB							
				63	125	250	500	1k	2k	4k	8k
CRV720T/EVA720T	Nominal	3750	80.0	80.1	85.7	82.7	79.0	72.0	66.9	66.3	55.9
CRV850T/EVA850T	Nominal	4450	78.2	77.8	84.1	78.6	76.9	71.7	68.2	62.4	52.8
CRV960T/EVA960T	Nominal	5000	80.1	77.7	86.6	80.4	78.9	73.5	70.0	64.1	54.5

NOTE:

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

SPECIFICATIONS

MODEL NUMBERS	CRV720T/EVA720T	CRV850T/EVA850T	CRV960T/EVA960T				
CONSTRUCTION							
CABINET (INDOOR UNIT)	BASE	1.6 mm Galvanised Steel					
	TOP AND SIDE	0.9 - 1.2 mm Galvanised Steel					
CABINET (OUTDOOR UNIT)	BASE	1.6 - 2.4 mm Galvanised Steel					
	TOP AND SIDE	0.9 - 1.6 mm Galvanised Steel					
SURFACE FINISH (OUTDOOR UNIT)		60 -80 µ Baked Polyester Powder Coat					
INSULATION (INDOOR UNIT)							
TYPE		Foil Faced Polyethylene					
OUTDOOR COIL							
TUBE TYPE		Copper - Rifle Bore Enhanced					
FIN TYPE		Aluminum Lanced Straight Edge	Aluminum Straight Slit				
FACE AREA (m sqr)		1.31	1.91	1.84			
COIL COATING		Hydrophilic Blue Fin Coil Coat					
OUTDOOR FAN							
NUMBER OF FANS x TYPE		2 x Axial / Direct Drive					
FAN SPEED CONTROL		Variable Speed					
The factory installed outdoor fans fitted to this unit will accept up to 90 Pa of external static resistance.							
INDOOR COIL							
TUBE TYPE		Aluminum - Rifle Bore Enhanced					
FIN TYPE		Aluminum with hydro coating					
FACE AREA (m sqr)		0.94	1.37				
COIL COATING		Hydrophilic Blue Fin Coat					
INDOOR FAN							
NUMBER OF FANS x TYPE		1 x EC Fan	2 x EC Fan				
DIAMETER (mm)		630	570				
MOTOR TYPE / DRIVE TYPE		Variable Speed ECM / Direct Drive Backward Curve Plug Fan					
COMPRESSOR							
NUMBER PER UNIT x TYPE		2 x Inverter Variable Speed Scroll					
STARTING METHOD		Variable Speed Drive					
REFRIGERATION SYSTEM							
REFRIGERANT TYPE		R-410A					
EXPANSION CONTROL		Direct Expansion Orifice /EEV					
FACTORY CHARGE (grams)		Circuit-1	Circuit-2	Circuit-1	Circuit-2	Circuit-1	Circuit-2
		13,370	13,370	13,330	13,830	17,120	18,600
PRE-CHARGE LENGTH (metres)		5					
INTERCONNECTING PIPE RUN							
FIELD PIPE LENGTH RANGE (metres)		0-60	60-75	0-45	45-75	0-35	35-75
ADDITIONAL REF. CHARGE (gram/metre)		165	220	165	220	220	
PRE-CHARGED OIL QTY LENGTH (metres)		40		55		75	
ADDITIONAL OIL PER METER		25		25		NA	
MAX. VERTICAL HEIGHT DIFFERENTIAL		20 metres (Included in Max. Pipe Length)					
FIELD PIPE SIZES							
LIQUID PIPE IN. (mm)		5/8" (15.88)	3/4" (19.05)	5/8" (15.88)	3/4" (19.05)	3/4" (19.05)	
GAS PIPE IN. (mm)		1-1/8" (28.60)		1-1/8" (28.60)	1-3/8" (34.93)	1-1/8" (28.60)	1-3/8" (34.93)

SPECIFICATIONS

MODEL NUMBERS	CRV720T/EVA720T	CRV850T/EVA850T	CRV960T/EVA960T
PIPE CONNECTIONS			
INDOOR	LIQUID PIPE	Ø 15.88 mm (5/8") Swaged	Ø 15.88 mm (5/8") Not Swaged
	GAS PIPE	Ø 28.60 mm (1-1/8") Swaged	Ø 28.60 mm (1-1/8") Swaged
OUTDOOR	LIQUID PIPE	Ø 15.88 mm (5/8") Swaged	Ø 19.05 mm (3/4") Swaged
	GAS PIPE	Ø 28.60 mm (1-1/8") Swaged	Ø 28.60 mm (1-1/8") Swaged
CONNECTION TYPE		Solder	

PROTECTION DEVICES	
HIGH PRESSURE CUTOFF 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 During Compressor Off Cycle	50 W

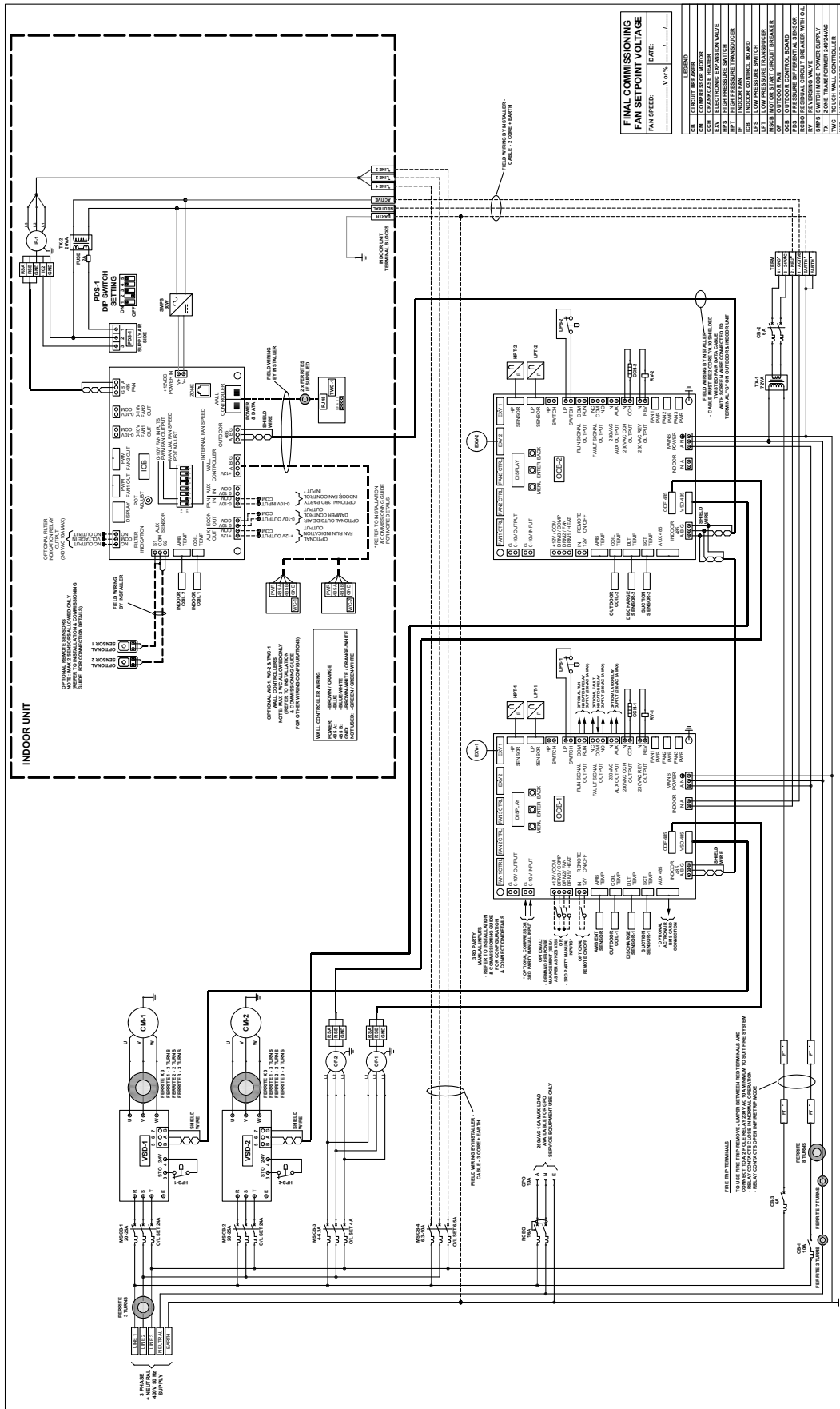
ELECTRIC CONTROLS	
DEFROST METHOD	Reverse Cycle
DEFROST TYPE	Adaptive Demand Defrost
CONTROL FIELD WIRING	2 Core (1 Pair) Twisted Pair, 7/0.30 (0.5mm ²) Shielded Data Cable
MASTER/SECONDARY CONTROLLER CABLE SPECS.	Cat5e UTP (AWG 24) Data Cable
SENSOR CABLE/WIRING SPECS.	Cat5e UTP (AWG 24) Data Cable

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.

INDOOR AIR INTAKE TEMPERATURE				
COOLING MODE	MAX.	30°C DB / 22°C WB		
	MIN.	20°C DB / 16°C WB		
HEATING MODE	MAX.	24°C DB		
	MIN.	16°C DB		
OUTDOOR AIR INTAKE TEMPERATURE				
COOLING MODE	MAX.	54°C DB	56°C DB	57°C DB
	MIN.	5°C DB		
HEATING MODE	MAX.	21°C DB / 16°C WB		
	MIN.	-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.

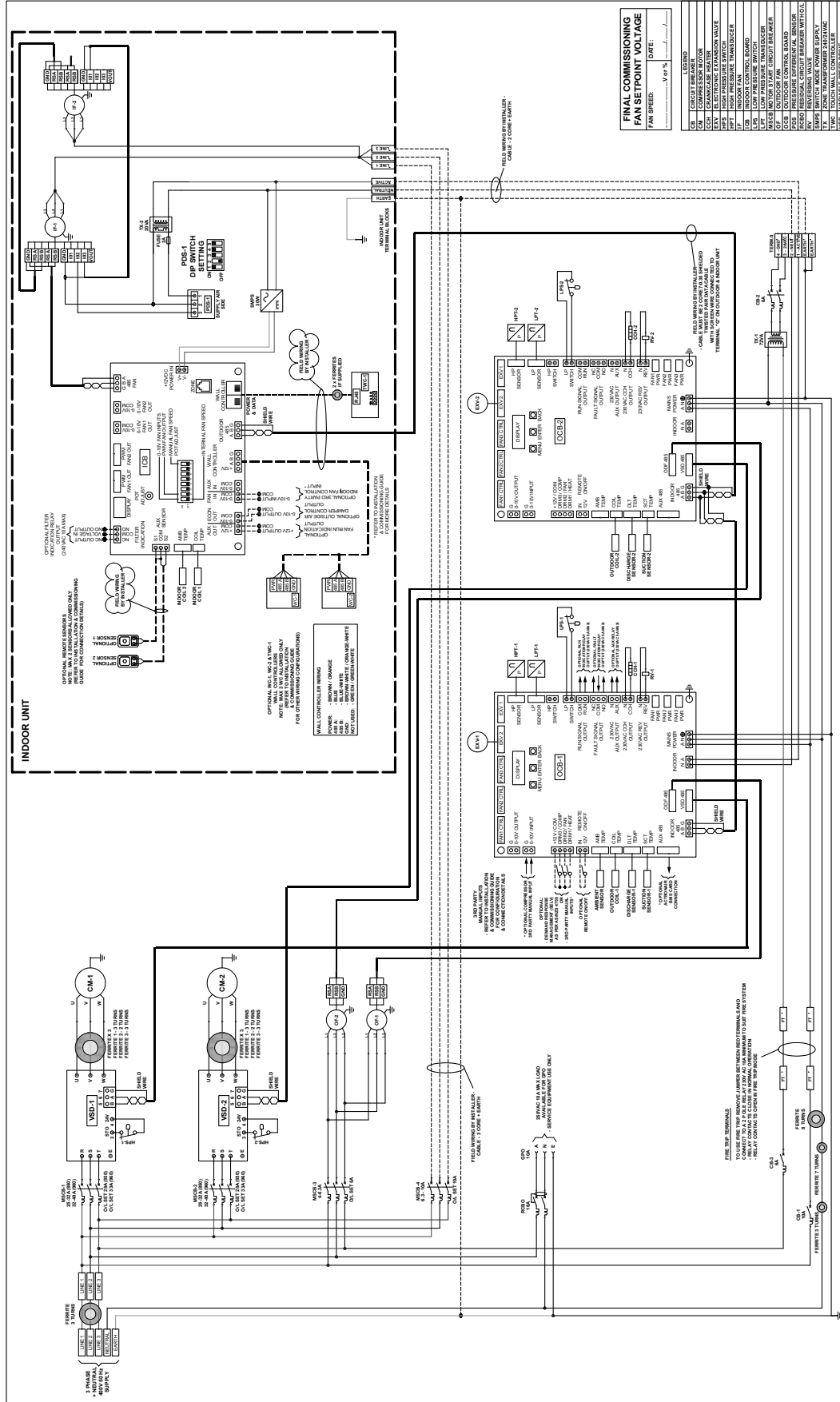
WIRING DIAGRAM - CRV720T



ActronAir		Base Model No:	CRV720T	Variation Code:	STANDARD
Description:		Drawn:	JL 22/08/2022	Approved:	JL 11/09/2023
UNOPRO VARIABLE CAPACITY CONTROL SYSTEM WITH CMI INDOOR CONTROL BOARD WIRING DIAGRAM		Sheet:	1/1	Revision:	B
This drawing remains the intellectual property of Actron Engineering Pty. Ltd. Reproduction, modification and/or distribution are prohibited without written consent.		Rev.	3768	Description	PCR By Date
3768		JL	11/09/2023		



WIRING DIAGRAM - CRV850T and CRV960T



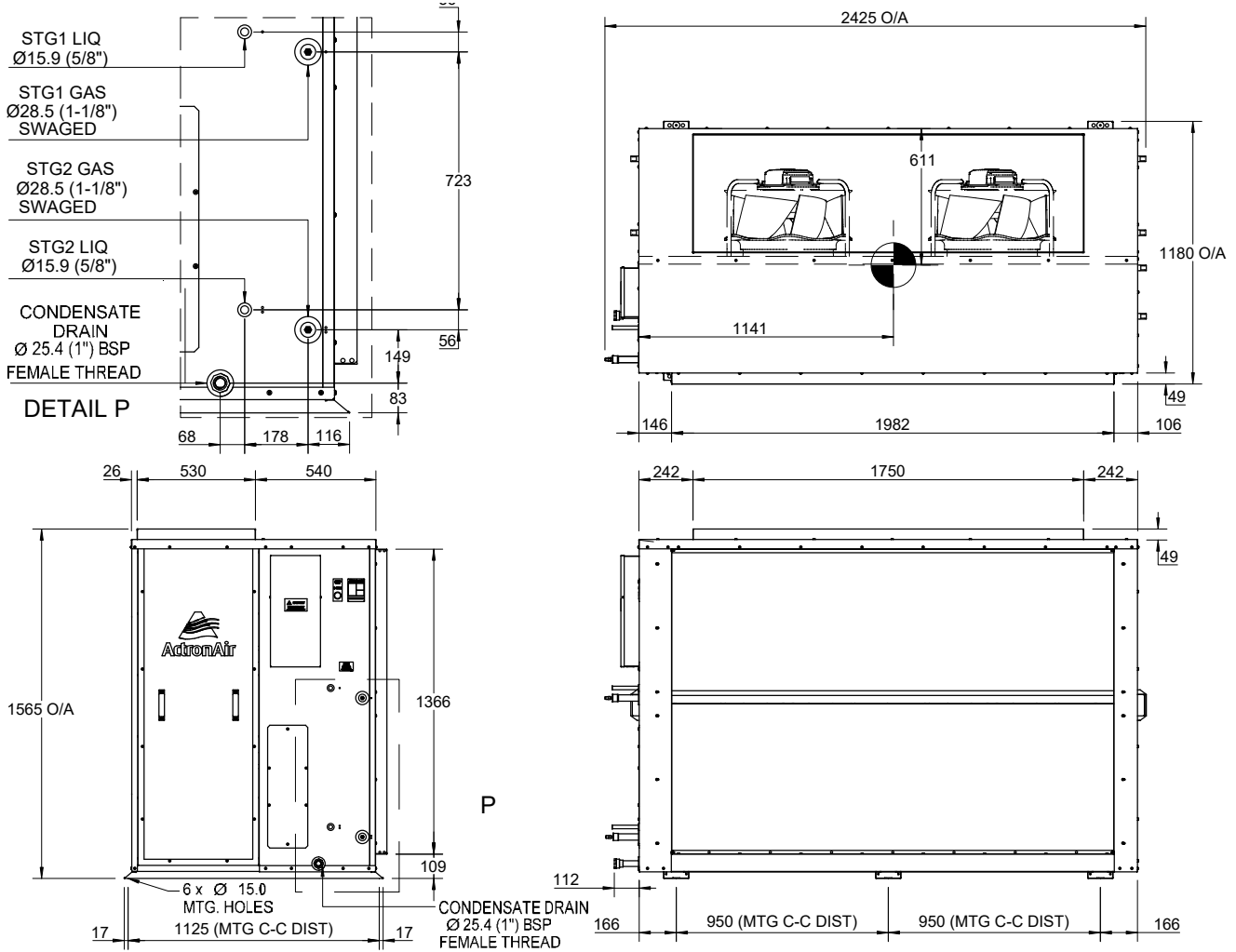
ActronAir	Base Model No: CRV850-960T	Variation Code: STANDARD	Variation: STANDARD
	Description: UNOPRO VARIABLE CAPACITY CONTROL SYSTEM WITH CMI INDOOR CONTROL BOARD WIRING DIAGRAM		
3768	JL	11/09/2023	1/1
C	JL	11/09/2023	C
Rev.	Description	By	Date
	PCR	JL	11/09/2023
	3768	JL	11/09/2023
	JL	11/09/2023	1/1
	JL	11/09/2023	C

This drawing remains the intellectual property of Actron Engineering Pty. Ltd. Reproduction, modification and/or distribution are prohibited without written consent.

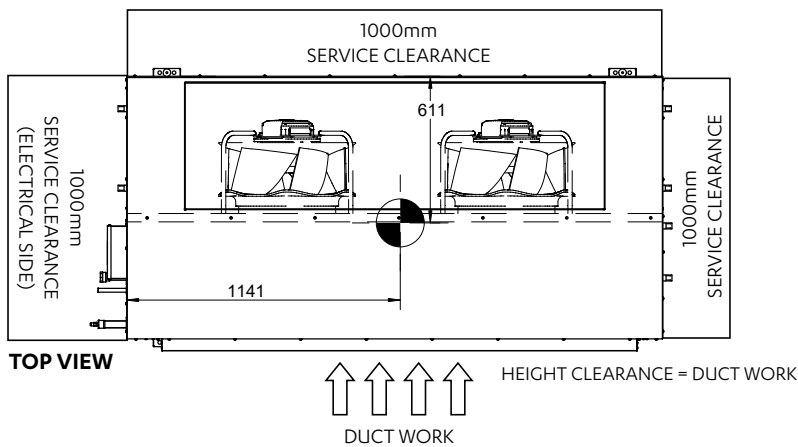


INDOOR UNIT VARIATION - VERTICAL DISCHARGE

DIMENSION



SERVICE CLEARANCES, AIRFLOW ALLOWANCES AND WEIGHTS



Unit Model Number	Total Weight (Kg)
EVA720T	296
EVA850T	368
EVA960T	387

Variable Capacity Commercial Inverter Split Ducted Units (72-96kW)

Index

- Technical Selection Data (Unit and Control Features)
- Specification Summary
- Capacity Selection Data
- Third Party Control Fan Curves
- Outdoor Unit Dimensions
- Indoor Unit Dimensions
- Indoor and Outdoor Service Clearances and Weights
- Sound Data
- Specifications
- Wiring Diagram - Three Phase
- Outdoor Unit Variation Dimensions
- Indoor Unit Dimensions
- Indoor and Outdoor Variations Service Clearances and Weights