

## Technical Specification AHU120R Split Ducted Model

Indoor Unit Model Number	AHU120R	Nominal Evaporator Air Flow (l/s)	2000
Outdoor Unit Model Number	LCU120R	Number of Compressors	1
Total Cooling Capacity (kW)*	34.58	Power Requirements (Volt / Phase)	415/3
Sensible Cooling Capacity (kW)*	28.25	Normal Max. Current (Amps / Phase)	32.1
Heating Capacity (kW)**	35.46		
*Entering air @ 27/19 °C and ambient 35 °C		** Entering air @ 21 °C DB and 7 °C ambient	

### Air Quantity Multiplying Factors

	% Rated Air Quantity-Nominal 2000 l/s				
	80	90	100	110	120
Capacity	80	90	100	110	120
Total	0.95	0.98	1.00	1.02	1.04
Sensible	0.89	0.95	1.00	1.05	1.09

### Heating Performance Data

Outdoor Coil Entering DB temp					
	0	4	8	12	18
Heating Capacity kW	30.1	33.1	36.3	39.7	45.1

### Heating Performance Correction

% Rated Air Quality	Multiplier	Return Air Temp °C	Multiplier	Outdoor Air Temp °C	Approx. Defrost Factor
80	0.93	15	1.05	0	0.80
90	0.97	18	1.03	2	0.78
100	1.00	21	1.00	4-6	0.75
110	1.03	24	0.97	7	0.87
120	1.05	27	0.95	8	1.00

### Compressor

Number Per Unit	1
Type	Scroll
RPM (Nom)	2900
Normal Max. Current (Amps / Phase)	18.3
Locked Rotor Current (Amps / Phase)	106
Displacement (m <sup>3</sup> /h)	22.95

### Electrical Controls and Safeties

High Pressure Switch(Setting kPa)	4100	Defrost	
Low Pressure Switch(Setting kPa)	170	Initiation Temperature (°C)	-4
Indoor Fan Overload	Internal	Termination Temperature (°C)	10
Outdoor Fan Overload	Internal	Min. Period Between De-Ice (min)	30
Compressor Delay Timer	180 sec	Max. De-Ice Period (min)	10

### Standard Features

Auto reset high pressure and auto reset low pressure cutouts	
Thermal overload protection on all motors	Suction line accumulator
Compressor crankcase heater	Automatic de-ice system
Limit start timer (anti short cycling)	Thermally insulated indoor unit

### Evaporator

Type	Copper Tube/Aluminium Fins
Face Area (m <sup>2</sup> )	0.838
Air Quantity (l/s)	2000

### Evaporator (Indoor)

Number of Fans	3
Type	Centrifugal
Drive	Direct
Motor Voltage/Phase/Frequency	220-240/1/50
Motor (kW) Standard	3x 0.440
Max. Fan Speed (rpm)	1250

### Electrical

Power Requirements	3 Phase / 415V / 50Hz
Recommend fuse size (Amps/Phase)	40

### Condenser

Type	Copper Tube / Aluminium Fins
Face Area (m <sup>2</sup> )	2.09

### Condenser (Outdoor)

Number of Fans	1
Type	Axial
Drive	Direct
Type	Enclosed
Motor Watts / rpm	680 / 900
Motor Voltage/Phase/Frequency	240 / 1 / 50

### Refrigerant System

Refrigerant Type	R410a
Charge (kg)	7.4
Line Size (mm)	
Liquid 0-10 metres	15.88
Gas 0-10 meters	28.58
Max.height difference metres	25
Max.pipe length metres	50
Service Connections	Pack valve
Expansion Control - in outdoor unit	Capillary

DUNNAIR (Aust) Pty Ltd supports a policy of continuous product improvement. Therefore specifications and designs are subject to change without prior notice.

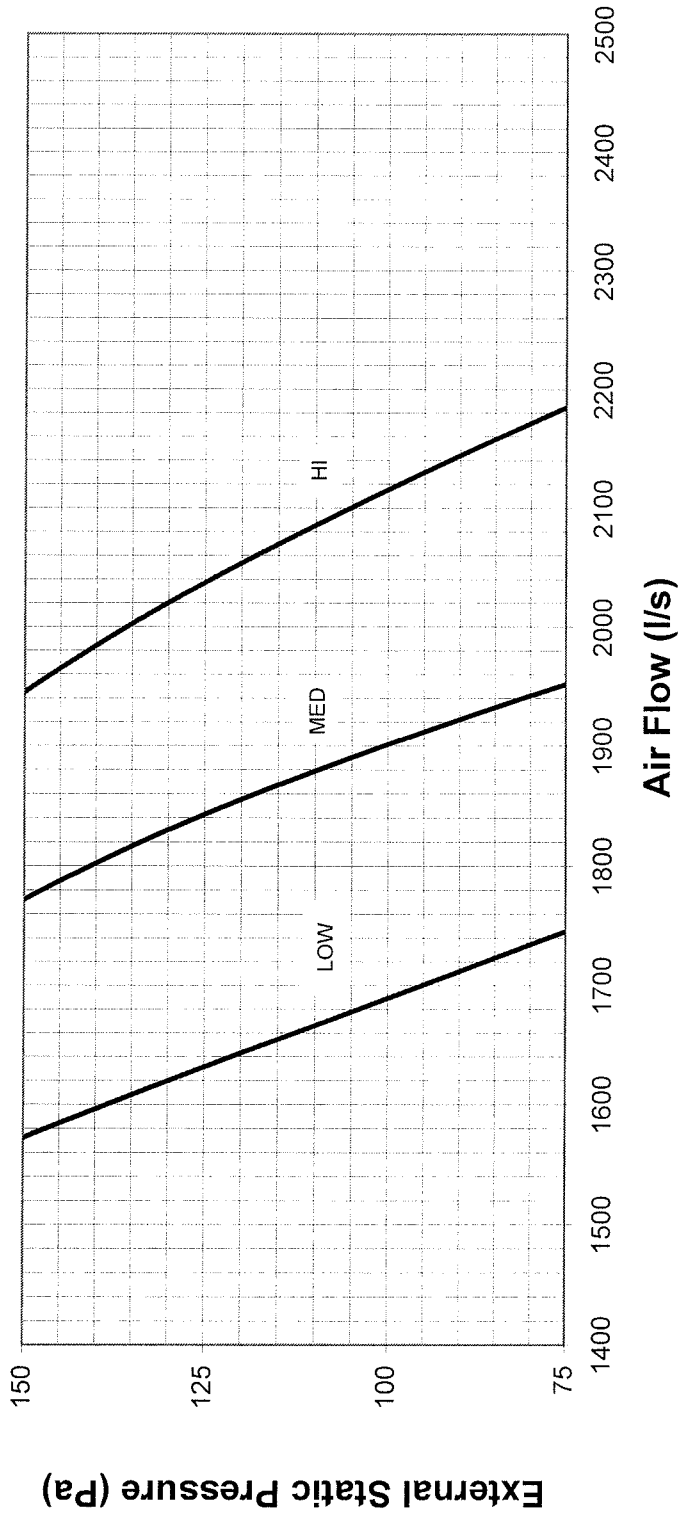
Released April 09.

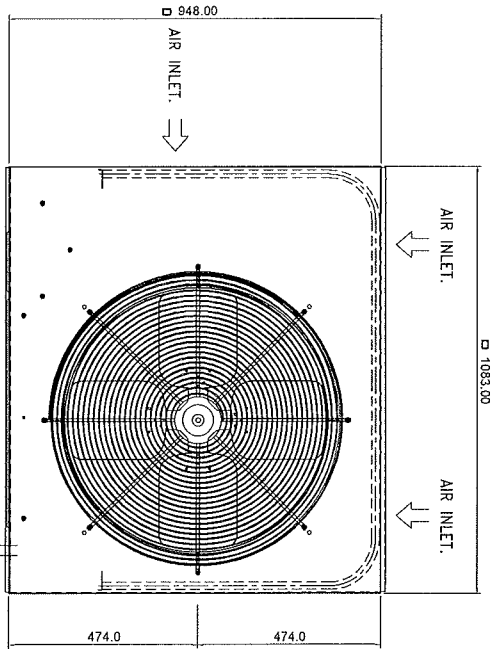
# Cooling Performance Data Model AHU120R/LCU120R

INDOOR COIL ENTERING AIR TEMP °C		OUTDOOR COIL ENTERING AIR TEMPERATURE °C											
		30°C			35°C			40°C			45°C		
		Tot Cap	Sens Cap	LWB	Tot Cap	Sens Cap	LWB	Tot Cap	Sens Cap	LWB	Tot Cap	Sens Cap	LWB
DB°C	WB°C	kW	kW	°C	kW	kW	°C	kW	kW	°C	kW	kW	°C
21	17	33.62	21.68	11.50	31.97	20.88	11.70	30.13	19.95	12.00	28.09	18.96	12.40
	18	34.50	19.70	12.50	32.80	18.93	12.80	30.90	18.01	13.10	28.79	17.04	13.40
	19	36.32	17.72	13.40	34.48	17.00	13.70	32.38	16.16	14.10	29.88	15.21	14.30
	20	37.86	15.52	14.40	36.01	14.80	14.70	33.95	14.02	15.00	31.67	13.14	15.40
23	17	33.97	25.31	11.40	32.32	24.47	11.60	30.49	23.54	11.90	28.44	22.50	12.30
	18	34.72	23.64	12.40	33.02	22.82	12.70	31.13	21.88	13.00	29.10	20.89	13.40
	19	35.68	21.62	13.50	33.94	20.84	13.80	32.00	19.94	14.10	29.85	18.92	14.40
	20	36.59	19.65	14.60	34.79	18.86	14.90	32.80	18.01	15.20	30.58	17.03	15.50
	21	38.70	17.61	15.50	36.75	16.87	15.80	34.59	16.05	16.10	32.17	15.18	16.50
25	17	34.20	29.07	11.30	32.57	28.21	11.50	30.72	27.22	11.80	28.73	26.12	12.20
	18	35.11	27.21	12.30	33.41	26.36	12.60	31.53	25.41	12.90	29.45	24.38	13.30
	19	36.06	25.24	13.40	34.30	24.39	13.70	32.32	23.50	14.00	30.16	22.47	14.30
	20	36.78	23.54	14.40	35.08	22.77	14.80	33.09	21.84	15.10	30.89	20.85	15.40
	21	37.82	21.56	15.60	35.97	20.75	15.90	33.93	19.88	16.20	31.66	18.87	16.50
27	17	34.57	32.60	11.20	32.98	31.59	11.40	31.22	30.38	11.70	29.14	29.14	12.10
	18	35.29	30.88	12.20	33.64	30.01	12.50	31.78	29.02	12.80	29.79	27.85	13.20
	19	36.26	29.08	13.30	34.58	28.25	13.60	32.61	27.26	13.90	30.47	26.20	14.30
	20	37.22	27.13	14.40	35.42	26.32	14.70	33.44	25.38	15.00	31.25	24.34	15.30
	21	38.06	25.46	15.50	36.17	24.67	15.70	34.25	23.77	16.10	32.05	22.44	16.40
29	17	35.16	35.16	11.00	33.76	33.76	11.20	32.16	32.16	11.50	30.37	30.37	11.80
	18	35.80	34.30	12.10	34.19	33.20	12.40	32.18	32.15	12.70	30.39	30.39	13.00
	19	36.56	32.76	13.20	34.85	31.85	13.50	32.96	30.78	13.80	30.82	29.53	14.10
	20	37.42	30.91	14.30	35.68	30.04	14.60	33.71	29.09	14.90	31.53	28.00	15.20
	21	38.42	29.01	15.40	36.58	28.17	15.70	34.55	27.26	16.00	32.30	26.20	16.30
31	17	36.53	36.53	10.70	35.09	35.09	10.90	33.46	33.46	11.20	31.62	31.62	11.60
	18	36.55	36.55	11.90	35.11	35.11	12.20	33.48	33.48	12.50	31.64	31.64	12.80
	19	37.09	35.94	13.10	35.13	35.02	13.40	33.49	33.49	13.70	31.65	31.65	14.00
	20	37.79	34.54	14.20	36.04	33.59	15.40	34.12	32.48	14.80	32.01	31.11	15.10
	21	38.59	32.72	15.30	36.78	31.85	15.50	34.81	30.88	15.90	32.59	29.75	16.20

Capacity multipliers should be used to adjust for reduced or increased air flow.

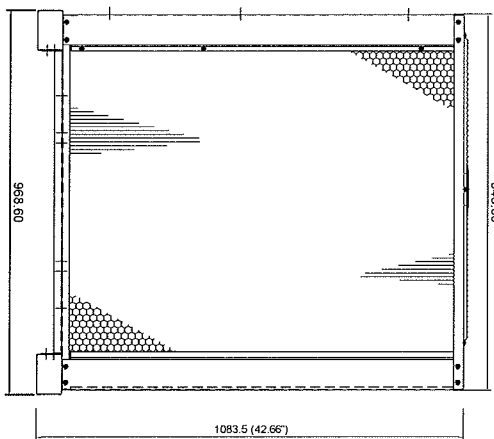
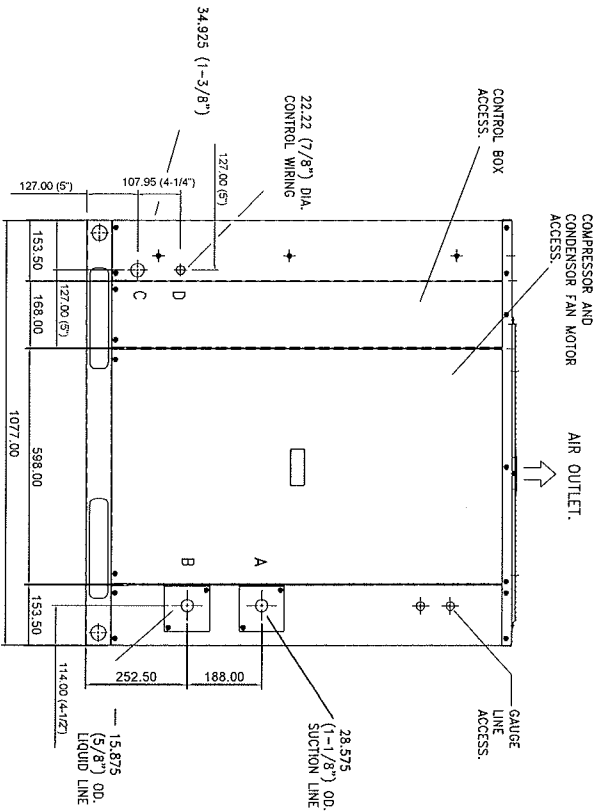
**PERFORMANCE CURVE OF AHU-120(new)**  
**( 220/240 V. - 50Hz. )**





COMMERCIAL UNIT

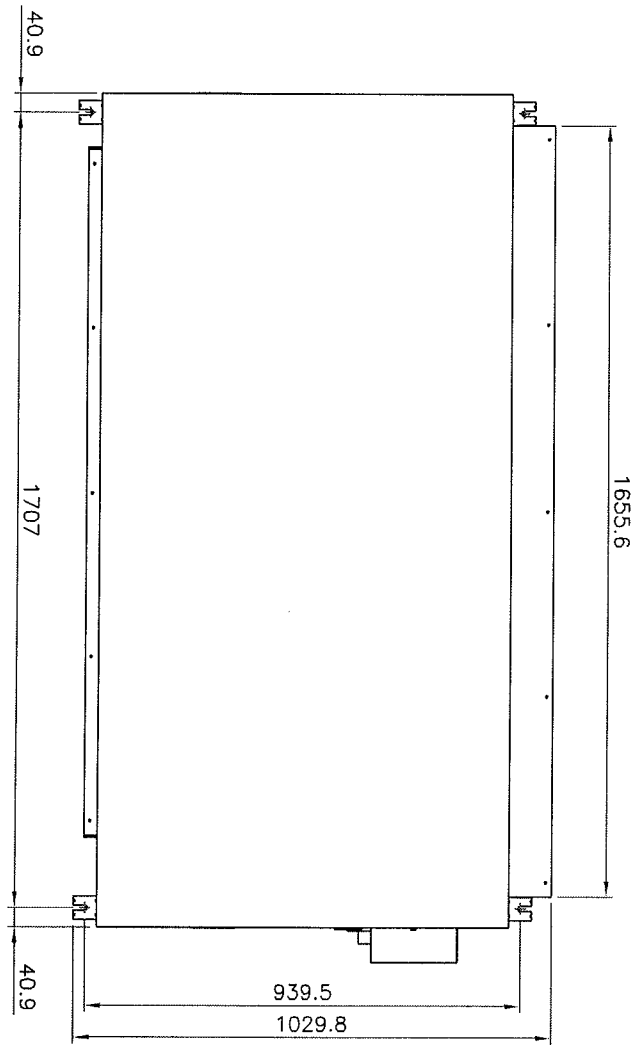
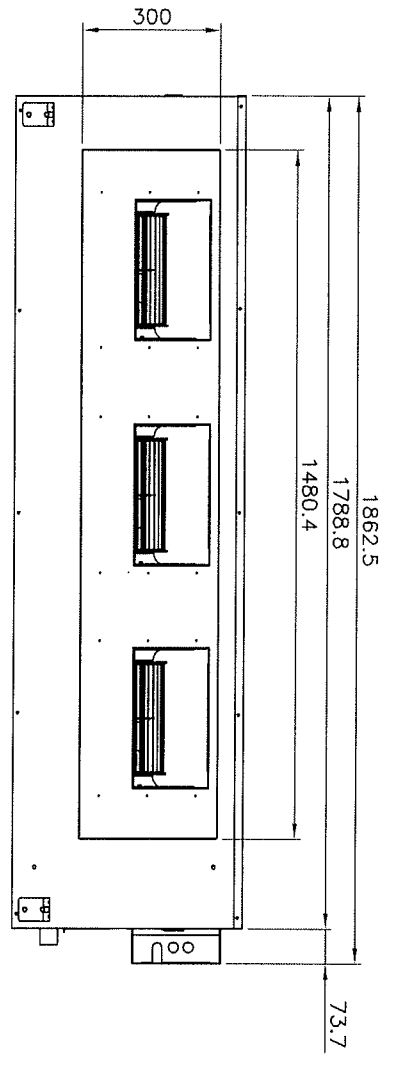
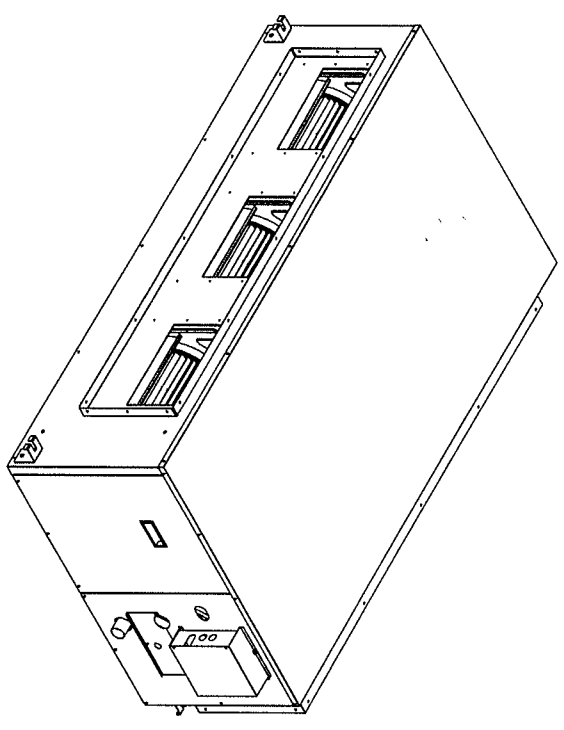
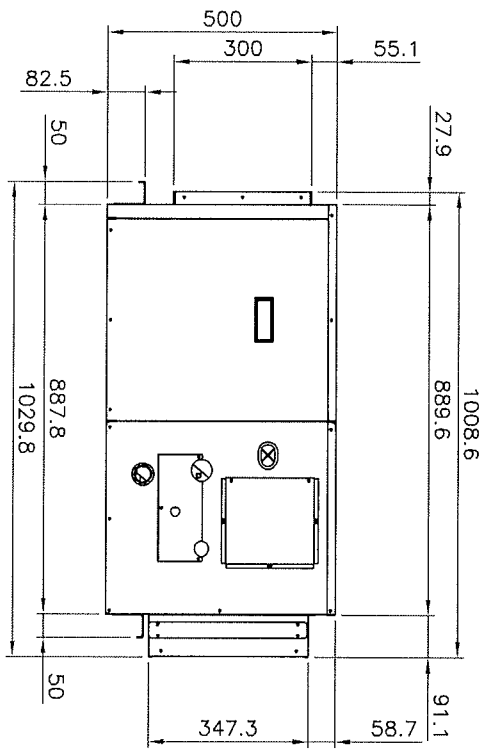
CONNECTION ENTRY	CONNECTION SIZE
Suction Line	A 1-1/8"
Liquid Line	B 5/8"
Power Wiring	C 1-3/8"
Control Wiring	D 7/8"



REVISION RECORD		ITEM	PART NAME	MATERIAL	SIZE	QTY.	DWG. NO.
ITEM	DESCRIPTION/DETAIL	NAME	DATE	TITLE :	PRODUCT DIMENSION COMMERCIAL UNIT		
ADD DIMENSIONS			16-05-09	Model: LCU 120 ( 120,000 BTU)/(35.17 kW)			
				DRAWN :	POCHET	DATE :	16/05/2009
				CHECKED :	A.CHAN	DATE :	16/05/2009
				APPROVED :	DI MARTINO GIUSEPPE	DATE :	16/05/2009
				SCALE :	NTS.		
				UNIT :	mm.		
				DRAWING No. :	CMU120D-00-00		
				REV.	0		
				TOLERANCE	± 0.5		



**DUNN**  
AIR  
(Aust) Pty Ltd



REVISION RECORD			ITEM	PART NAME		MATERIAL	SIZE	QTY.	DWG. NO.
ITEM	DESCRIPTION/DETAIL	NAME	DATE	TITLE : Product Dimension (AHU 120)					
				DRAWN :	DATE :	PART NUMBER			
				K. ANURAK					
				CHECKED :	DATE :				
				A. CHAN					
				APPROVED :	DATE :	SCALE :	UNIT :	DRAWING No. :	REV.
				DI MARTINO GIUSEPPE		1 : 17	mm.		0
									TOLERANCE
									± 5

