Technical Specification AHU100R Split Ducted Model

Indoor Unit Model Number	AHU100R	Nominal Evaporator Air Flow (l/s)	1800
Outdoor Unit Model Number	LCU100R	Number of Compressors	1
Total Cooling Capacity (kW)*	28.58	Power Requirements (Volt / Phase)	415/3
Sensible Cooling Capacity (kW)*	22.69	Normal Max. Current (Amps / Phase)	27.8
Heating Capacity (kW)**	29.45		

*Entering are @ 27/19 °C and ambient 35 °C ** Entering air @ 21 °C DB and 7 °C ambient

Air Quantity Multiplying Factors

	% Rated Air Quantity-Nominal 1800 l/s				
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

Evaporator

Type	Copper Tube/Aluminium Fins
Face Area (m^2)	0.77
Air Quantity (l/s)	1800

Heating Preformance Data

Outdoor Coil Entering DB temp					
	0	4	8	12	18
Heating Capacity kW	25.6	28	30.6	33.4	38

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

Heating Preformance 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

Electrical

Power Requirements	3 Phase / 415V / 50Hz
Recommend fuse size (Amps/Phase)	35

Condenser

Type	Copper Tube / Aluminium Fins
Face Area (m^2)	1.65

Compressor

Number Per Unit	1
Type	Scroll
RPM (Nom)	2900
Normal Max. Current (Amps / Phase)	16.9
Locked Rotor Current (Amps / Phase)	106
Displacement (m^3/h)	20.91

Condenser (Outdoor)

Number of Fans	1
Type	Axial
Drive	Direct
Type	Enclosed
Motor Watts / rpm	440 / 900
Motor Voltage/Phase/Frequency	240 / 1 / 50

Electrical Controls and Safeties

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

Refrigerant System

Refrigerant Type	R410a
Charge (kg)	7.2
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

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

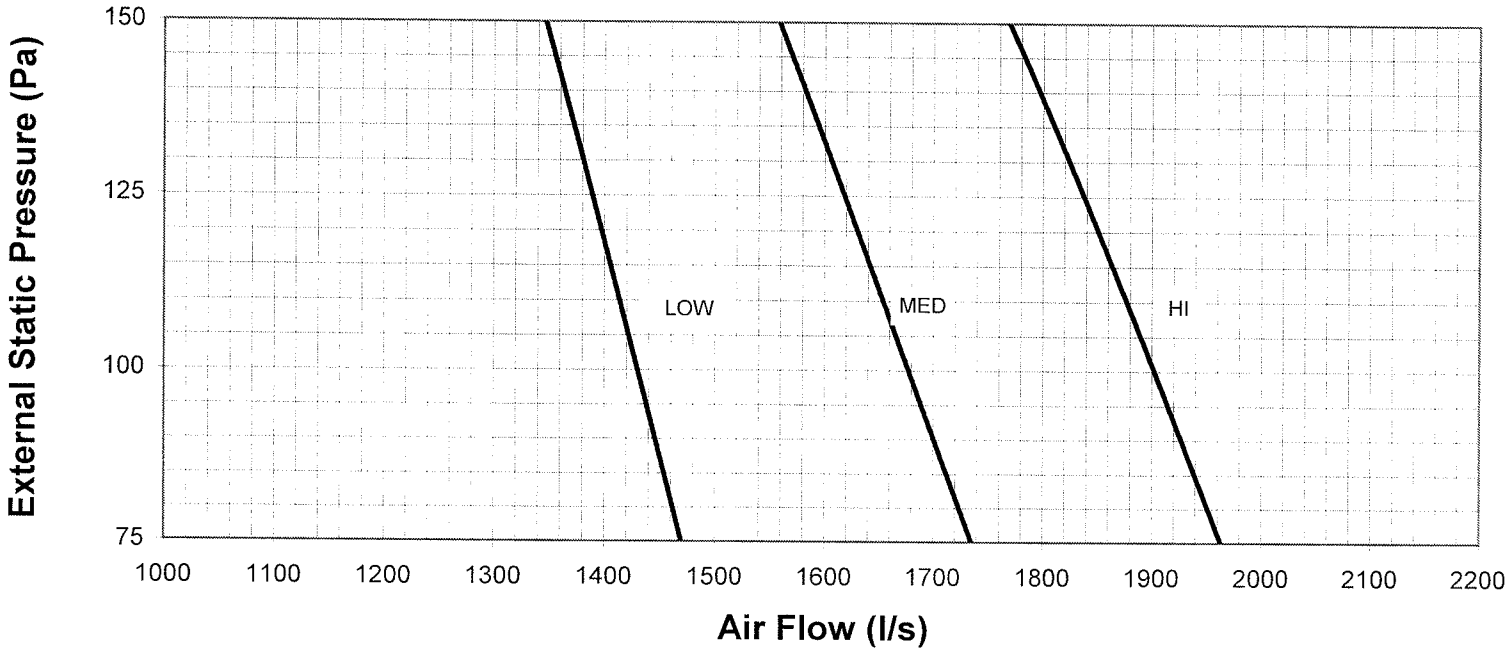
Released Apil 09.

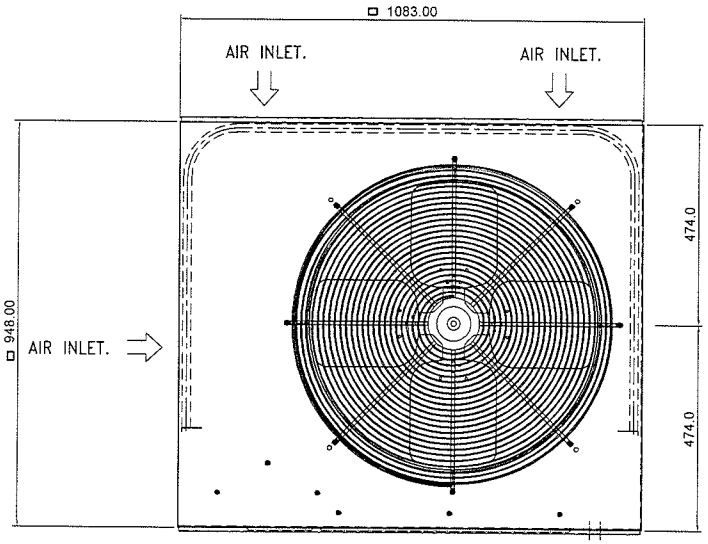
Cooling Performance Data Model AHU100R/LCU100R

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	27.81	17.71	12.00	26.33	16.98	12.20	24.62	16.15	12.50	22.77	15.21	12.80
	18	28.44	16.13	12.90	26.99	15.44	13.30	25.28	14.61	13.60	23.36	13.71	13.90
	19	29.72	14.62	14.00	27.85	13.93	14.30	25.88	13.12	14.70	23.89	12.26	15.00
	20	32.71	11.06	15.80	29.77	12.27	15.20	27.88	11.51	15.50	25.77	10.72	15.90
23	17	28.03	20.88	11.90	26.56	20.13	12.10	24.91	19.28	12.50	23.10	18.32	12.90
	18	28.77	19.28	12.90	27.26	18.54	13.20	25.55	17.68	13.50	23.65	16.72	13.80
	19	29.44	17.66	13.90	27.89	16.93	14.20	26.13	16.12	14.50	24.23	15.22	14.90
	20	30.23	16.08	15.10	28.62	15.40	15.40	26.82	14.59	15.70	24.81	13.72	16.00
	21	31.84	14.55	16.10	30.02	13.87	16.30	27.88	13.13	16.70	25.34	12.24	17.10
25	17	28.44	23.46	11.80	26.91	22.66	11.90	25.29	21.77	12.30	23.41	20.72	12.60
	18	28.97	22.45	12.90	27.47	21.70	13.10	25.97	20.33	13.40	24.05	19.36	13.70
	19	29.74	20.82	13.90	28.14	20.06	14.10	26.44	19.22	14.50	24.50	18.28	14.80
	20	30.51	19.22	15.00	28.91	18.47	15.30	27.05	17.64	15.50	25.11	16.70	15.90
	21	31.26	17.60	16.10	29.62	16.88	16.30	27.69	16.06	16.50	25.70	15.16	17.00
27	17	28.69	26.22	11.70	27.25	25.34	11.90	25.62	24.26	12.20	23.51	23.35	12.60
	18	29.40	24.93	12.70	27.88	24.12	13.00	26.18	23.20	13.30	24.28	22.12	13.70
	19	30.13	23.44	13.70	28.58	22.69	14.00	26.85	21.80	14.40	24.88	20.80	14.70
	20	30.71	22.39	14.90	29.13	21.61	15.20	27.34	20.78	15.50	23.89	18.73	13.60
	21	31.50	20.73	16.00	29.87	19.98	16.30	28.03	19.17	16.60	25.98	18.21	16.90
29	17	28.76	28.70	11.60	27.54	27.54	11.90	26.07	26.07	12.10	24.47	24.47	12.40
	18	29.70	27.50	12.60	28.22	26.64	12.90	26.14	25.96	13.20	24.48	24.48	13.60
	19	30.38	26.40	13.70	28.83	25.54	14.00	27.09	24.57	14.30	25.17	23.46	14.60
	20	31.16	24.96	14.80	29.47	24.14	15.00	27.69	23.23	15.30	25.70	22.23	15.70
	21	31.71	23.94	15.90	30.08	23.16	16.20	28.45	21.76	16.50	26.43	20.85	16.90
31	17	29.80	29.80	11.30	28.58	28.58	11.60	27.12	27.12	11.90	25.47	25.47	12.20
	18	29.87	29.87	12.60	28.60	28.60	12.80	27.14	27.14	13.10	25.48	25.48	13.40
	19	30.73	28.92	13.60	29.19	27.85	13.80	27.17	27.06	14.30	25.50	25.50	14.50
	20	31.38	27.80	14.70	29.80	26.94	15.00	28.02	25.92	15.30	26.07	24.69	15.60
	21	32.16	26.40	15.80	30.51	25.60	16.10	28.66	24.70	16.40	26.55	23.60	16.60

Capacity multipliers should to above capacitities to adjust for reduced or increased air flow.

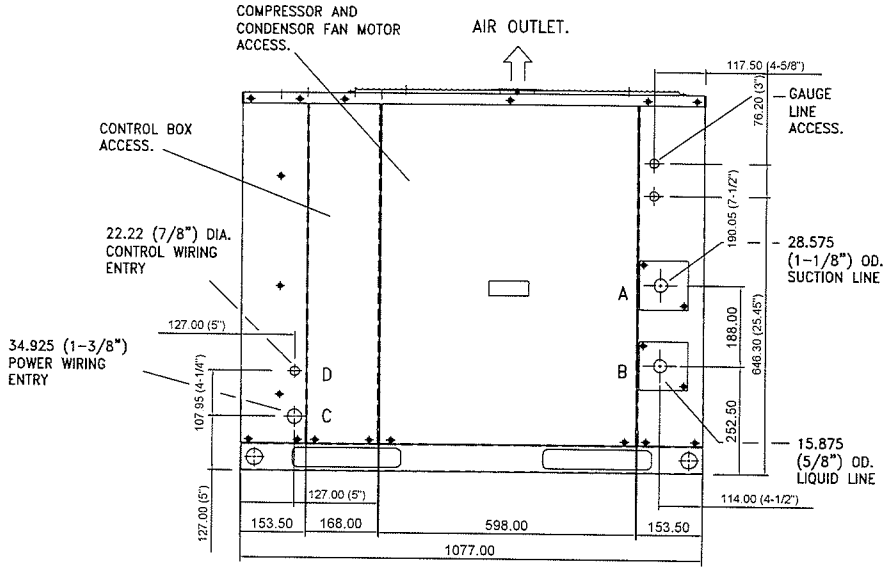
PERFORMANCE CURVE OF AHU-100(new)
(220/240 V. - 50Hz.)

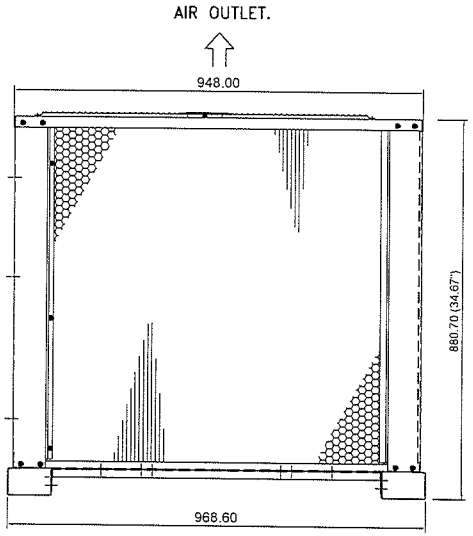




COMMERCIAL UNIT

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	DESCRIPTION/DETAIL	NAME	DATE
1	ADD DIMENSIONS		16-05-09

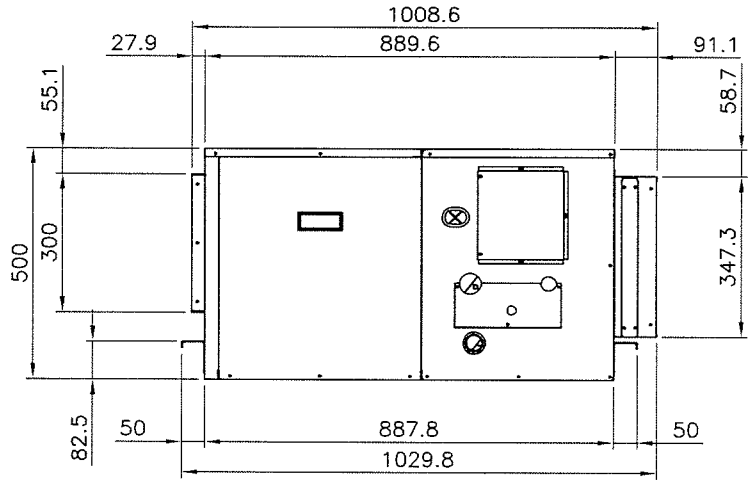
ITEM	PART NAME	MATERIAL	SIZE	QTY.	DWG. NO.

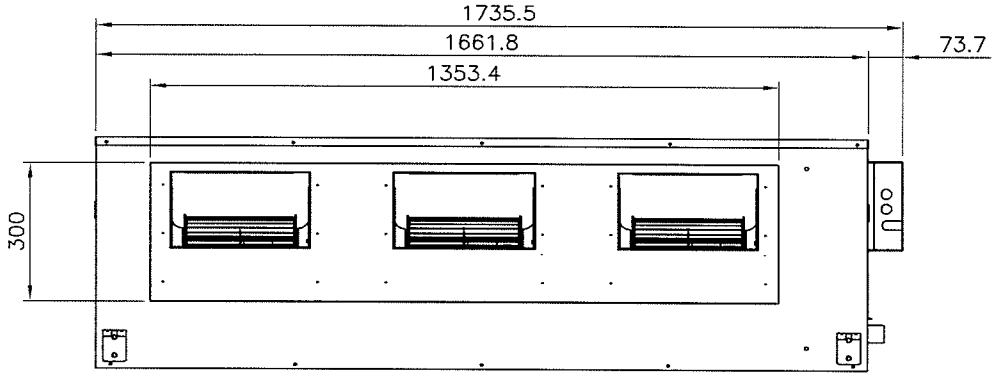
TITLE : PRODUCT DIMENSION COMMERCIAL UNIT
Model: LCU 100 (100,000 BTU)/(29.31 kW.)

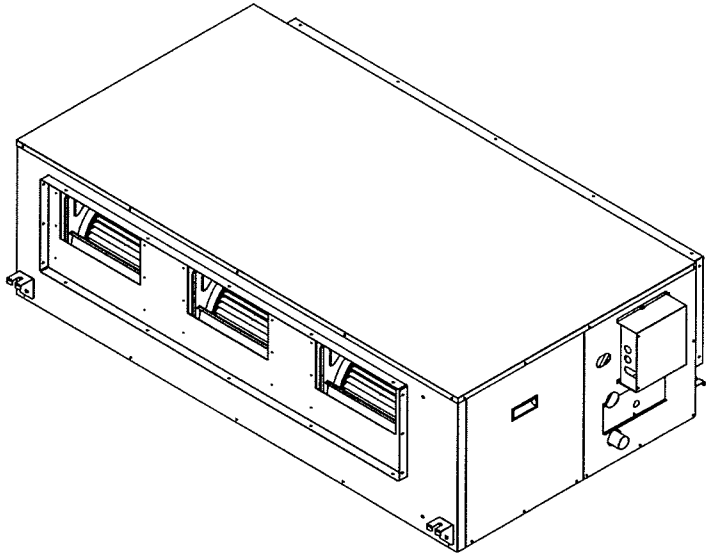
DRAWN : PICHET	DATE : 16/05/2009	PART NUMBER
CHECKED : A.CHAN	DATE : 16/05/2009	
APPROVED : DI MARTINO GIUSEPPE	DATE : 16/05/2009	SCALE : NTS.

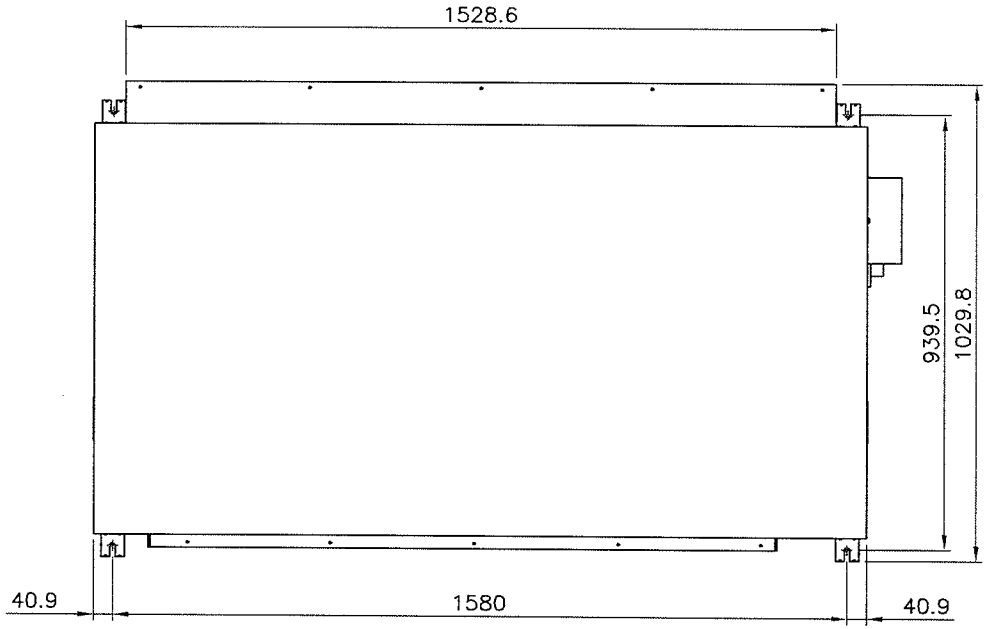
DUNNAIR (Aust) Pty Ltd

UNIT :	DRAWING No. :	REV.	TOLERANCE
mm.	CMU100D-00-00	0	± 0.5









REVISION RECORD			
ITEM	DESCRIPTION/DETAIL	NAME	DATE

ITEM	PART NAME	MATERIAL	SIZE	QTY.	DWG. NO.

TITLE : Product Dimension (AHU 100)

DRAWN : K.ANURAK	DATE :	PART NUMBER –
CHECKED : A.CHAN	DATE :	
APPROVED : DI MARTINO GIUSEPPE	DATE :	SCALE : 1 : 17

DUNNAIR (Aust) Pty Ltd

UNIT :	DRAWING No. :	REV.	TOLERANCE
mm.	–	0	± 5