

General Description / Equipment Schedule

Level H1-H1

Tempered air supply handling unit with electric heater battery elements situated in Level H1-H1 plantroom with a fresh air intake louvre situated in external wall at low level. Supply duct from AHU splitting into 4 main branch ducts running at h/l to serve the 4 separated areas, each in turn complete with suitably sized sidewall grilles.

Extract by means of 4 runs of h/l ducts down each external wall of the 4 areas, again complete with suitably sized intake grilles, ducts routing through to the plantroom to eventually connect to extract fan having discharge to atmosphere and recirc connection back into AHU. I think that the exhaust to atmosphere should pass through external wall of plantroom and rise up outside wall c/w with a 135deg turnover to avoid clashing with fresh air intake and possible short-circuiting.

Fabric Heat Loss and Cooling by reverse cycle DX multi split systems comprising h/l fan coil units installed to undersides of ceilings (floor slabs above) coupled to matching external condensers.

Levels H2-H2 & H3-H3

Common air supply handling unit having electric heater elements and c/w DX multi-stage cooling coil situated in Level H3-H3 plantroom with a fresh air intake louvre situated at low level in external wall. Supply duct from AHU splitting into 2 main ducts each passing through to areas each side of plantroom, and additional branch duct passing through the floor to below (Level H2-H2) and continuing on at h/l to serve areas in Level H2-H2, each main central spine branch run then running at h/l to serve the areas at both levels with suitably sized sidewall grilles.

Extract by means of 4 runs of h/l ducts down each external wall of each Level, with again suitably sized intake grilles, each branch duct from Level H2-H2 rising from below to Level H3-H3 ducts and then routing through to the plantroom to eventually connect to extract fan having discharge to atmosphere and recirc connection back into AHU. Again, I think that the exhaust to atmosphere should pass through external wall of plantroom and rise up outside wall c/w with a 135deg turnover to avoid clashing with fresh air intake and possible short-circuiting.

Mechanical Cooling by DX multi-stage coil in AHU coupled to 3-off external condensers at ground Floor level.

General:

You will note that I have indicated supply & extract ducts required to serve the miscellaneous areas, such as WC's, Kitchen/Meeting, Stores ect onto each respective system. However I have not indicated the combined dedicated Toilet/Kitchen Extract system at this stage.

Duct sizes passing through floors slabs:**Between Level H2-H2 to Level H3-H3:**

Hole Ref:	Location:	System:	Duct size:	Hole Size: (allowing for Fire Damper)
A	FB001	Extract	300 x 300	375 x 375
B	FA005	Extract	300 x 300	375 x 375
C	FA004	Supply	600 x 600	675 x 675
D	FB001	Extract	300 x 300	375 x 375
E	FA005	Extract	300 x 300	375 x 375

Scheme Description –**Ventilation/Heating and Cooling/Reverse Cycle Heating:****Level H1 – H1**

Room:	No of AC's/Hr:	Supply Air Vol: cum/sec	Extract/Return Air Vol: cum/sec	Htg Load: (based on 10% Fresh air and 90% recirc) Kw	Mechanical Cooling		Total Cooling: Kw	Fabric Loss to be covered by reverse cycle heat pump Kw
					Solar/Lighting Gains: Kw	Machinery Gains: Kw		
DA002	6	0.78	0.70	18.0	15.0	13.0	28.0	12.5
FB001	6	0.78	0.70	18.0	15.0	13.0	28.0	12.5
DA005	6	0.78	0.70	18.0	22.0	13.0	35.0	12.5
FA005	6	0.78	0.70	18.0	22.0	13.0	35.0	12.5
DA004	6	0.08	0.07	2.0	1.0	4.0	5.0	1.5
CA004	6	0.08	0.07	2.0	1.0	4.0	5.0	1.5

Total 3.28cum/s Total 2.94cum/s 76.0Kw

Total 136.0Kw 53.0Kw

Supply AHU:

Internal application, Horizontal comprising:

End inlet Fresh air flanged connection c/w damper for external actuator,
Mixing box c/w top inlet recirc connection c/w damper for external actuator,
EU4 Side withdrawal filters,
Centrifugal fan,
Staged electric heater battery
End outlet supply air flanged ducted connection

Supply Air Volume = 3.28cum/sec
Ext system res = 200Pa
Electric heating Load = 76.0Kw ("air on" temp of 10degC, "air off" temp of 25degC)
(Say 4 x 20Kw stages)

Physical Dimensions: 2400mm long x 1540mm wide x 1300mm high (inc 100mm channel base)

Weight:

Electrical details: 415v, 3.0Kw motor, 6.21amps run, x7 start

Extract/Return Air Fan:

Centrifugal mounted within a fan casing having side inlet flanged ducted connection and side outlet flanged ducted connection

Extract Air Volume = 2.94cum/sec
Ext system res = 200Pa

Physical Dimensions: 800mm long x 800mm wide x 900mm high (inc 100mm channel base)

Weight:

Electrical details: 415v, 2.2Kw motor, 4.55amps run, x7 start

Plant Operation mode:

Recirc Mode (Heating): Fresh Air Volume = 0.34cum/sec (10%)
Recirc air volume = 2.94cum/sec (100%)
Exhaust to atmosphere = 0.00cum/sec (0%)

Free Cooling Mode: Fresh air volume = 3.28cum/sec (100%)
Exhaust to atmosphere = 2.94cum/sec (100%)
Recirc air volume = 0.00cum/sec (0%)

DX split-system cooling (reverse cycle):

Room/area:	Cooling Duty: Kw	Fabric Heat Heat Loss: Kw	Selected Units Type:	Manufacturer:	Fan Coil Ref:	Fan Coil Model:	Ext Condenser Ref:	Ext Condenser Model:	Cooling Duty Each Kw:	Cooling Duty Total Kw:	Reverse Cycle Each Kw:	Reverse Cycle Total Kw:
DA002	28.0	12.5	u/side Ceiling	?	FC1A FC1B FC2A FC2B	4 x FMC08	HP1 HP2	2 x CPD50	7.3Kw	29.2Kw	8.2Kw	32.8Kw
DA005	28.0	12.5	u/side Ceiling	?	FC3A FC3B FC4A FC4B	4 x FMC08	HP3 HP4	2 x CPD50	7.3Kw	29.2Kw	8.2Kw	32.8Kw
FB001	35.0	12.5	u/side Ceiling	?	FC5A FC5B FC6A FC6B	4 x FMC12	HP5 HP6	2 x CPD60	10.0Kw	40.0Kw	11.0Kw	44.0Kw
FA005	35.0	12.5	u/side Ceiling	?	FC7A FC7B FC8A FC8B	4 x FMC12	HP7 HP8	2 x CPD60	10.0Kw	40.0Kw	11.0Kw	44.0Kw

Split-system equipment physicals:

Fan Coil Ref:	Fan Coil Model:	Length:	Width:	Height:	Weight:
FC1A	FMC08 Fan Coil	1281mm	670mm	235mm	51Kg
FC1B	FMC08 Fan Coil	1281mm	670mm	235mm	51Kg
FC2A	FMC08 Fan Coil	1281mm	670mm	235mm	51Kg
FC2B	FMC08 Fan Coil	1281mm	670mm	235mm	51Kg
FC3A	FMC08 Fan Coil	1281mm	670mm	235mm	51Kg
FC3B	FMC08 Fan Coil	1281mm	670mm	235mm	51Kg
FC4A	FMC08 Fan Coil	1281mm	670mm	235mm	51Kg
FC4B	FMC08 Fan Coil	1281mm	670mm	235mm	51Kg
FC5A	FMC12 Fan Coil	1581mm	670mm	235mm	65Kg
FC5B	FMC12 Fan Coil	1581mm	670mm	235mm	65Kg
FC6A	FMC12 Fan Coil	1581mm	670mm	235mm	65Kg
FC6B	FMC12 Fan Coil	1581mm	670mm	235mm	65Kg
FC7A	FMC12 Fan Coil	1581mm	670mm	235mm	65Kg
FC7B	FMC12 Fan Coil	1581mm	670mm	235mm	65Kg
FC8A	FMC12 Fan Coil	1581mm	670mm	235mm	65Kg

FC8B	FMC12 Fan Coil	1581mm	670mm	235mm	65Kg
Condenser Ref:	Condenser Model:	Length:	Width:	Height:	Weight:
HP1	CPD50 External Condenser	950mm	370mm	1202mm	116Kg
HP2	CPD50 External Condenser	950mm	370mm	1202mm	116Kg
HP3	CPD50 External Condenser	950mm	370mm	1202mm	116Kg
HP4	CPD50 External Condenser	950mm	370mm	1202mm	116Kg
HP5	CPD60 External Condenser	950mm	370mm	1202mm	116Kg
HP6	CPD60 External Condenser	950mm	370mm	1202mm	116Kg
HP7	CPD60 External Condenser	950mm	370mm	1202mm	116Kg
HP8	CPD60 External Condenser	950mm	370mm	1202mm	116Kg

Electrical details: 2-off FMC08 fan coil units + 1-off CPD50 external condenser unit – 415v, 20amp MCB required
 2-off FMC12 fan coil units + 1-off CPD60 external condenser unit – 415v, 20amp MCB required

Ventilation/Heating and Cooling:

Level H2 – H2

Room:	No of AC's/Hr:	Supply Air Vol:	Extract/Return Air Vol:	Htg Load: (based on 10% Fresh air and 90% recirc) Kw	Fabric Loss to be covered by AHU Kw	Mechanical Cooling		
						Solar/Lighting Gains:	Machinery Gains:	Total Cooling:
		cum/sec	cum/sec			Kw	Kw	Kw
FB001	6	1.09	0.98	25.0	17.5	10.0	5.0	15.0
FA005	6	1.09	0.98	25.0	17.5	10.0	5.0	15.0
DA004 Store	3	0.09	0.08	3.0	No Htg	Nil	Nil	Nil
FA004 Store	3	0.09	0.08	3.0	No Htg	Nil	Nil	Nil
Sub-Totals		2.36cum/s	2.12cum/s	56.0Kw	35.0Kw			30.0Kw

Level H3 – H3

Room:	No of AC's/Hr:	Supply Air Vol:	Extract/Return Air Vol:	Htg Load: (based on 10% Fresh air and 90% recirc) Kw	Fabric Loss to be covered by AHU Kw	Mechanical Cooling		
						Solar/Lighting Gains:	Machinery Gains:	Total Cooling:
		cum/sec	cum/sec			Kw	Kw	Kw
FB001	6	2.18	1.97	50.0	43.0	33.0	25.0	58.0
FA005	6	2.18	1.97	50.0	43.0	33.0	25.0	58.0
FA004 Kitchen	10	0.13	0.12*	2.0	Nil	Nil	Nil	1.5
EA004 WC	10	0.03	0.03*	1.5	Nil	Nil	Nil	0.5
EC004 WC	10	0.03	0.03*	1.5	Nil	Nil	Nil	0.5
Sub-Totals		4.55cum/s	3.94cum/s	105.0Kw	86.0Kw			116.0Kw

* excludes separate Kitchen/Toilet extract

Grand Totals	6.91cum/s	6.06cum/s	161.0Kw	121.0Kw	146.0Kw
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* excludes separate Kitchen/Toilet extract

Supply Air Handling Unit:

Internal application, Horizontal comprising:

End inlet Fresh air flanged connection c/w damper for external actuator,
 Mixing box c/w top inlet recirc connection c/w damper for external actuator,
 EU4 Side withdrawal filters,
 Centrifugal fan,
 Staged electric heater battery
 End outlet supply air flanged ducted connection

Supply Air Volume =	6.91cum/sec
Ext system res =	200Pa
Electric heating Load =	282.0Kw ("air on" temp of 10degC, "air off" temp of 25degC) (Say 6-off 50Kw stages)
DX Cooling Load =	146.0Kw ("air on" temp of 25degC, "air off temp of 15degC) (Say 3-off 50Kw staged circuits)

Physical Dimensions: 4000mm long x 2400mm wide x 1600mm high (including 100mm channel base)

Weight:

Electrical details: 415v, 11.0Kw motor, 20.47amps run, x7 start

Extract/Return Air Fan:

Centrifugal mounted within a fan casing having side inlet flanged ducted connection and side outlet flanged ducted connection

Extract Air Volume =	6.06cum/sec
Ext system res =	200Pa

Physical Dimensions: 1600mm long x 1600mm wide x 1600mm high (including 100mm channel base)

Weight:

Electrical details: 415v, 4.0Kw motor, 7.94amps run, x7 start

DX Refrigerant External Condensers (Cooling only):

3-off Rheem Model SAWD150

Duty each	50Kw
No of circuits/stages each	2
Physical Dimensions each	2032mm long x 787mm wide x 908mm high
Weight each	351Kg
Electrical details each	415v, 31.6amps run, 138amps start

Toilets/Kitchen Extract Air Fan: Extract Air Volume = 0.18cum/sec
Ext system res = 150Pa

Plant Operation mode:

Recirc Mode: Fresh Air Volume = 0.85cum/sec (12.3%)
Recirc air volume = 6.06cum/sec (100%)
Exhaust to atmosphere = 0.00cum/sec (0%)

Cooling Mode: Fresh air volume = 6.91cum/sec (100%)
Exhaust to atmosphere = 6.06cum/sec (100%)
Recirc air volume = 0.00cum/sec (0%)

Grilles Schedule: (to be confirmed)

Level H1-H1

Grille Ref:	Location:	Supply/Extract:	Air Volume: cum/sec	Required	Mounting	Type:	Size: mm x mm	Model:	Integral Damper Yes/No
				Throw: m	Height: m				
SG1	DA002	Supply	0.156	5.5	3.0	Double Deflection	x 200		Yes
SG2	DA002	Supply	0.156	5.5	3.0	Double Deflection	x 200		Yes
SG3	DA002	Supply	0.156	5.5	3.0	Double Deflection	x 200		Yes
SG4	DA002	Supply	0.156	5.5	3.0	Double Deflection	x 200		Yes
SG5	DA002	Supply	0.156	5.5	3.0	Double Deflection	x 200		Yes
SG6	DA005	Supply	0.156	5.5	3.0	Double Deflection	x 200		Yes
SG7	DA005	Supply	0.156	5.5	3.0	Double Deflection	x 200		Yes
SG8	DA005	Supply	0.156	5.5	3.0	Double Deflection	x 200		Yes
SG9	DA005	Supply	0.156	5.5	3.0	Double Deflection	x 200		Yes
SG10	DA005	Supply	0.156	5.5	3.0	Double Deflection	x 200		Yes
SG11	FB001	Supply	0.156	5.5	3.0	Double Deflection	x 200		Yes
SG12	FB001	Supply	0.156	5.5	3.0	Double Deflection	x 200		Yes
SG13	FB001	Supply	0.156	5.5	3.0	Double Deflection	x 200		Yes
SG14	FB001	Supply	0.156	5.5	3.0	Double Deflection	x 200		Yes
SG15	FB001	Supply	0.156	5.5	3.0	Double Deflection	x 200		Yes
SG16	FA005	Supply	0.156	5.5	3.0	Double Deflection	x 200		Yes
SG17	FA005	Supply	0.156	5.5	3.0	Double Deflection	x 200		Yes
SG18	FA005	Supply	0.156	5.5	3.0	Double Deflection	x 200		Yes
SG19	FA005	Supply	0.156	5.5	3.0	Double Deflection	x 200		Yes
SG20	FA005	Supply	0.156	5.5	3.0	Double Deflection	x 200		Yes
SG21	CA004	Supply	0.08	2.0	3.0	Double Deflection	x 200		Yes
SG22	DA004	Supply	0.08	2.0	3.0	Double Deflection	x 200		Yes

Level H1-H1 (continued)

Grille Ref:	Location:	Supply/Extract:	Air Volume:	Required Throw:	Mounting Height:	Type:	Size:	Model:	Integral Damper Yes/No
			cum/sec	m	m		mm x mm		
EG1	DA002	Extract	0.23	n/a	3.0	Egg Crate	x 250		Yes
EG2	DA002	Extract	0.23	n/a	3.0	Egg Crate	x 250		Yes
EG3	DA002	Extract	0.23	n/a	3.0	Egg Crate	x 250		Yes
EG4	DA005	Extract	0.23	n/a	3.0	Egg Crate	x 250		Yes
EG5	DA005	Extract	0.23	n/a	3.0	Egg Crate	x 250		Yes
EG6	DA005	Extract	0.23	n/a	3.0	Egg Crate	x 250		Yes
EG7	FB001	Extract	0.35	n/a	3.0	Egg Crate	x 250		Yes
EG8	FB001	Extract	0.35	n/a	3.0	Egg Crate	x 250		Yes
EG9	FA005	Extract	0.35	n/a	3.0	Egg Crate	x 250		Yes
EG10	FA005	Extract	0.35	n/a	3.0	Egg Crate	x 250		Yes
EG11	CA004	Extract	0.07	n/a	3.0	Egg Crate	x 300		Yes
EG12	DA004	Extract	0.07	n/a	3.0	Egg Crate	x 300		Yes
FAI/1	H3-H3 Plantroom	Fresh air louvre	3.28	n/a	n/a	Weather louvre	1400 x 1200		Anti-bird mesh screen

Level H2-H2

Grille Ref:	Location:	Supply/Extract:	Air Volume:	Required Throw:	Mounting Height:	Type:	Size:	Model:	Integral Damper Yes/No
			cum/sec	m	m		mm x mm		
SG23	FB001	Supply	0.109	6.5	2.5	Double Deflection	x 200		Yes
SG24	FB001	Supply	0.109	6.5	2.5	Double Deflection	x 200		Yes
SG25	FB001	Supply	0.109	6.5	2.5	Double Deflection	x 200		Yes
SG26	FB001	Supply	0.109	6.5	2.5	Double Deflection	x 200		Yes
SG27	FB001	Supply	0.109	6.5	2.5	Double Deflection	x 200		Yes
SG28	FA005	Supply	0.109	6.5	2.5	Double Deflection	x 200		Yes
SG29	FA005	Supply	0.109	6.5	2.5	Double Deflection	x 200		Yes
SG30	FA005	Supply	0.109	6.5	2.5	Double Deflection	x 200		Yes
SG31	FA005	Supply	0.109	6.5	2.5	Double Deflection	x 200		Yes
SG32	FA005	Supply	0.109	6.5	2.5	Double Deflection	x 200		Yes
SG33	FB001	Supply	0.109	5.5	2.5	Double Deflection	x 200		Yes
SG34	FB001	Supply	0.109	5.5	2.5	Double Deflection	x 200		Yes
SG35	FB001	Supply	0.109	5.5	2.5	Double Deflection	x 200		Yes
SG36	FB001	Supply	0.109	5.5	2.5	Double Deflection	x 200		Yes
SG37	FB001	Supply	0.109	5.5	2.5	Double Deflection	x 200		Yes

Level H2-H2 (continued)

Grille Ref:	Location:	Supply/Extract:	Air Volume:	Required	Mounting	Type:	Size:	Model:	Integral
				Throw:	Height:				
			cum/sec	m	m		mm x mm		Yes/No
SG38	FA005	Supply	0.109	5.5	2.5	Double Deflection	x 200		Yes
SG39	FA005	Supply	0.109	5.5	2.5	Double Deflection	x 200		Yes
SG40	FA005	Supply	0.109	5.5	2.5	Double Deflection	x 200		Yes
SG41	FA005	Supply	0.109	5.5	2.5	Double Deflection	x 200		Yes
SG42	FA005	Supply	0.109	5.5	2.5	Double Deflection	x 200		Yes
SG43	DA004	Supply	0.09	6.5	2.5	Double Deflection	x 200		Yes
SG44	FA004	Supply	0.09	5.5	2.5	Double Deflection	x 200		Yes
EG13	FB001	Extract	0.163	n/a	2.5	Egg Crate	x 200		Yes
EG14	FB001	Extract	0.163	n/a	2.5	Egg Crate	x 200		Yes
EG15	FB001	Extract	0.163	n/a	2.5	Egg Crate	x 200		Yes
EG16	FA005	Extract	0.163	n/a	2.5	Egg Crate	x 200		Yes
EG17	FA005	Extract	0.163	n/a	2.5	Egg Crate	x 200		Yes
EG18	FA005	Extract	0.163	n/a	2.5	Egg Crate	x 200		Yes
EG19	FB001	Extract	0.245	n/a	2.5	Egg Crate	x 200		Yes
EG20	FB001	Extract	0.245	n/a	2.5	Egg Crate	x 200		Yes
EG21	FA005	Extract	0.245	n/a	2.5	Egg Crate	x 200		Yes
EG22	FA005	Extract	0.245	n/a	2.5	Egg Crate	x 200		Yes
EG23	DA004	Extract	0.08	n/a	2.5	Egg Crate	x 200		Yes
EG24	FA004	Extract	0.08	n/a	2.5	Egg Crate	x 200		Yes

Level H3-H3

Grille Ref:	Location:	Supply/Extract:	Air Volume:	Required	Mounting	Type:	Size:	Model:	Integral
				Throw:	Height:				
			cum/sec	m	m		mm x mm		Yes/No
SG45	FB001	Supply	0.218	6.5	3.5	Double Deflection	x 300		Yes
SG46	FB001	Supply	0.218	6.5	3.5	Double Deflection	x 300		Yes
SG47	FB001	Supply	0.218	6.5	3.5	Double Deflection	x 300		Yes
SG48	FB001	Supply	0.218	6.5	3.5	Double Deflection	x 300		Yes
SG49	FB001	Supply	0.218	6.5	3.5	Double Deflection	x 300		Yes
SG50	FA005	Supply	0.218	6.5	3.5	Double Deflection	x 300		Yes
SG51	FA005	Supply	0.218	6.5	3.5	Double Deflection	x 300		Yes
SG52	FA005	Supply	0.218	6.5	3.5	Double Deflection	x 300		Yes
SG53	FA005	Supply	0.218	6.5	3.5	Double Deflection	x 300		Yes
SG54	FA005	Supply	0.218	6.5	3.5	Double Deflection	x 300		Yes
SG55	FB001	Supply	0.218	5.5	3.5	Double Deflection	x 300		Yes

Level H3-H3 (continued)

Grille Ref:	Location:	Supply/Extract:	Air Volume: cum/sec	Required	Mounting	Type:	Size: mm x mm	Model:	Integral Damper Yes/No
				Throw: m	Height: m				
SG56	FB001	Supply	0.218	5.5	3.5	Double Deflection	x 300		Yes
SG57	FB001	Supply	0.218	5.5	3.5	Double Deflection	x 300		Yes
SG58	FB001	Supply	0.218	5.5	3.5	Double Deflection	x 300		Yes
SG59	FB001	Supply	0.218	5.5	3.5	Double Deflection	x 300		Yes
SG60	FA005	Supply	0.218	5.5	3.5	Double Deflection	x 300		Yes
SG61	FA005	Supply	0.218	5.5	3.5	Double Deflection	x 300		Yes
SG62	FA005	Supply	0.218	5.5	3.5	Double Deflection	x 300		Yes
SG63	FA005	Supply	0.218	5.5	3.5	Double Deflection	x 300		Yes
SG64	FA005	Supply	0.218	5.5	3.5	Double Deflection	x 300		Yes
SG65	FA004 Kitchen	Supply	0.13	2.5	2.8	3-way curved blade	x		Yes
SG66	Lobby	Supply	0.06	2.5	2.8	1-way curved blade	x		Yes
EG25	FB001	Extract	0.328	n/a	2.5	Egg Crate	x 300		Yes
EG26	FB001	Extract	0.328	n/a	2.5	Egg Crate	x 300		Yes
EG27	FB001	Extract	0.328	n/a	2.5	Egg Crate	x 300		Yes
EG28	FA005	Extract	0.328	n/a	2.5	Egg Crate	x 300		Yes
EG29	FA005	Extract	0.328	n/a	2.5	Egg Crate	x 300		Yes
EG30	FA005	Extract	0.328	n/a	2.5	Egg Crate	x 300		Yes
EG31	FB001	Extract	0.493	n/a	2.5	Egg Crate	x 300		Yes
EG32	FB001	Extract	0.493	n/a	2.5	Egg Crate	x 300		Yes
EG33	FA005	Extract	0.493	n/a	2.5	Egg Crate	x 300		Yes
EG34	FA005	Extract	0.493	n/a	2.5	Egg Crate	x 300		Yes
EG35	FA004 Kitchen	Extract	0.12	n/a	2.5	Egg Crate	x 300		Yes
EG36	EA004 WC	Extract	0.03	n/a	2.5	Egg Crate	150 x 150		Yes
EG37	EC004 WC	Extract	0.03	n/a	2.5	Egg Crate	150 x 150		Yes
DTG1	EA004 WC	Door transfer	0.03	n/a	n/a	Non-vision	300 x 150		No
DTG2	EC004 WC	Door transfer	0.03	n/a	n/a	Non-vision	300 x 150		No
FAI/2	H3-H3 Plantroom	Fresh air louvre	6.91	n/a	n/a	Weather louvre	1400 x 2400		Anti-bird mesh screen

