

1. Installation engineer to fully water test drains - ensure drain test document is signed by the store manager or main contractor before leaving site.
2. Installation engineer to pressure test services, complete pressure test certificate and ensure that it is witnessed and signed by the client and pass to commissioning engineer.
3. Commissioning engineer to evacuate system, complete pressure test certificate and ensure that it is witnessed and signed by the client and forward to installation manager.
4. Commissioning engineer to commission system and complete commissioning sheets and forward to installation manager.
5. Commissioning engineer to carry out dial out test, store training and get the dial out test document signed by the store manager and the alarm engineer or main contractor and forward to installation manager.
6. All above documents are in the site file provided - if for any reason they cannot be found please contact the office immediately.

HT 1 Condenser Data																						
Sys No	New / Existing	Manufacture	Model	EC Fan Speed (rpm)	Qty of Fans	KW THR @8K	TD (K)	Power Supply	Star, Delta or EC' (S,D or EC)	Starting Current, Per Fan (Amps)	Max Current, Per Fan (Amps)	Max Power, Per Fan (Watts)	Sound Level (dB(A) @ 10m Day/Night)	Control Fan Speed % Reduction (Day/Night)	Receiver Size	Refrigerant Charge (Kg)	Weight (kg)	Controller Type	Ftr/ Coll Material	Alarm Zone	Leak Detection Zone	
DA COND	New	Keltron	RF-MC102L34.091M480-AM	480	2	56.72	8 K	3PH	EC	0.9	0.6	250	32	20	5	3.2	40	30	469	ROOM	CUMM	-

[illegible]

LT 1 Pack / Compressor Data																		
Pack ID	New / Existing	SST °C	Pack Manufacture	Pack Model	Compressor Manufacture	Compressor Model	HP (Each)	S/Heat @ Load (K)	Suction Gas Return Temp (°C)	Sub Cooling (K)	Gas Type	Ref Capacity @ Selected Condition	Evap Capacity @ Selected Condition	Power Absorbed @ Selected Condition	Full Load Current (Amps)	Locked Rotor (Amps)	Amps @ Selected Condition	THR (KW)
LAPACK	New	-30	Hubbard		Copeland	ZF11K4E-TFD	4	8		5	R448a	2.9	2.59	2.41	6.00	40.00	5.58	5.04
						ZF11K4E-TFD	4	8	0	5	R448a	2.9	2.59	2.41	6.00	40.00	5.58	5.04
							5.8	5.2	4.8	12.0	80.0					11.2	10.1	

Plant Reference	Manufacturer	Unit Type	Model	Equipment Location	Refrigerant	Overall Dimensions (mm)			Dry Weight	Air Volume (m3/y)	Condition	Sound Spectrum (dB)								Noise d8(A)@10M
						Width	Length	Height				63Hz	125Hz	250Hz	500Hz	1K Hz	2K Hz	4K Hz	8K Hz	
DA PACK	Hubbard	Housed Pack	-	External - Plant Area	R448a	750	1792	1946	850	3	Pack - A	TBC	TBC	TBC	TBC	TBC	TBC	TBC	35	
DA COND	Kelvin	Condenser	RF-MC102L38-091M480-AM	External - Plant Area	R448a	1130	3923	1333	469	9	A	-	66.0	64.0	64.0	62.0	56.0	49.0	35.0	32
											C	-	64.0	44.0	46.0	51.0	42.0	37.0	23.0	20
AC1	Mitsubishi	Heat Pump	PUZ 2M140V/KAR1	External - Plant Area	R32	370	1050	1338	118	-	N/A	-	-	-	-	-	-	-	-	40
AC2	Mitsubishi	Heat Pump	PUZ 2M140V/KAR1	External - Plant Area	R32	370	1050	1338	118	-	N/A	-	-	-	-	-	-	-	-	40

Pack / Compressor Data															
ACU ID	New / Existing	Refrigerant	Manufacture	Model	Unit Type	Position	Duty - Cooling (kW)	Duty - Heating (kW)	FLC (Amps)	9C (Amps)	MCB Rating	Power Supply (1ph/3ph)	Weight (kg)	Refrigerant Charge (kg)	Noise db(A) @10m
AC1	New	R32	Mitsubishi	PUZ-ZH140VKAR1	Outdoor Unit	Plant Area	14	18	28.9	13	40	3PH	118	4	52
AC2	New	R32	Mitsubishi	PUZ-ZH140VKAR1	Outdoor Unit	Plant Area	14	18	28.9	13	40	3PH	118	4	52

		<u>Day Time</u>	<u>Night Time</u>
	\$I	RF-MC102L3H-091M480	RF-MC102L3H-091M300
Total Heat of Rejection	kW	58	39
Ambient Temperature	°C	35	35
Condensing Temperature	°C	43.2	32.9
Actual TD	K	8.2	7.9
Dew or Mid Point		Mid Point	Mid Point
Refrigerant		R448A	R448A
Hot Gas Inlet Temperature	°C	83	73
Maximum Allowable Pressure	bar	32	32
Maximum Medium Temperature	°C	120	120
PED Category		1	1
Sound Pressure Level	dB(A)	32 @ 10 m	20 @ 10 m
Mean Sound Pressure Level	dB(A)	34 @ 10 m	22 @ 10 m
Sound Power Level	dB(A)	66	54
Sound Spectrum 125 Hz	dB	64	64
Sound Spectrum 250 Hz	dB	64	44
Sound Spectrum 500 Hz	dB	64	46
Sound Spectrum 1 kHz	dB	62	51
Sound Spectrum 2 kHz	dB	56	42
Sound Spectrum 4 kHz	dB	49	37
Sound Spectrum 8 kHz	dB	35	23
Tube/Fin Material		CU/Al	CU/Al
Surface Area	m ²	226	226
Subcooling Section		No	No
Degrees of Subcooling	K		
Connections		Same End	Same End
Inlet Connection Size	OD	2-1/8"	2-1/8"
Outlet Connection Size	OD	1-3/8"	1-3/8"
Subcooling Connections			
Subcooling Inlet Connection	OD		
Subcooling Outlet Connection	OD		
Orientation		Horizontal	Horizontal
Air Discharge Direction		Vertical	Vertical
Refrigerant Charge	kg	11	11
Altitude	m	0	0
Air Volume	m ³ /s	6.5	4.1
Internal Volume	dm ³	35	35
Input Power (Total)	kW	0.5	0.185
Energy Rating		A	A+
Fan Speed	1/min	480 (950 max)	300 (950 max)
Control Voltage (for EC fans)	V	3.2	3.2
Electrical Supply		400-3-50/60	400-3-50/60
Rows of Fans		1	1
Fans per Row		2	2
Starting Current (per fan)	A	0.9 (4.2 max)	0.7 (4.2 max)
Full Load Current (per fan)	A	0.6 (3 max)	0.5 (3 max)
Overall Length	mm	3923	3923
Overall Width	mm	1130	1130
Overall Height	mm	1333	1333
Dry Weight	kg	469	469
Part Number		RF-MC102L3H-091M480-AM	RF-MC102L3H-091M300-AM
Software Release		3.9.0	3.9.0

CONSTRUCTION & RESIDUAL RISKS	
	Toe protectors to be worn at all times.
	Protective gloves to be worn at all times.
	Hi-visibility vest to be worn at all times.
	Protective glasses to worn at all times.
	Compressed gases used in this area.
	Caution electrical cables.
	Danger live wires.
	Caution slippery surface
	Caution High Pressure

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Project  HOLYHEAD ROAD

Drawing Title

Proposed Refrigeration,
PLANT LAYOUT

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Drawn By JZS

Scale: 1:50 / A1

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PLEASE READ SCOPE OF WORKS AND PROGRAMME - IF IN DOUBT, ASK