

Project Name: Hampstead-Option 2

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Client Name:

Prepared By: Neil Baxter

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Hampstead-Option 2

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Project: Hampstead-Option 2

Notes:

Equivalent length is calculated by coefficients:
1.2: System 1

The user is responsible for ensuring that all data entered is correct.

Equipment selections have been based on the Design Guidelines stated within the Toshiba SHRM-A/SMMS-u/SMMS-e/SHRM-e/MiNi-SMMS-e/Side Blow VRF Installation Manual.

It is the responsibility of the consultant or contractor, to verify and confirm that the equipment selection and system design is correct before installation.

Please note that in the event of future system expansion being allowed for in the system design or a change in cooling/heating requirements, a re-evaluation of the air conditioning system must be made prior to final installation.

Hampstead-Option 2Outdoor Units

Model	Quantity	Description
MCY-MHP0806HS8-E	1	MiNi Super Modular Multi System (MiNi-SMMS-e)(8,10HP)

Indoor Units

Model	Quantity	Description
MMK-UP0181HP-E	1	2.0HP High Wall Standard
MMD-UP0241BHP-E	2	2.5HP Standard Concealed Duct

Y Joints

Model	Quantity	Description
RBM-BY105E	1	Y-Joint
RBM-BY55E	1	Y-Joint

Accessories

Model	Quantity	Description
RBC-AMSU51-ES	3	Wired remote controller

Piping Length

Pipe Diameter	Total Length	Gas Side	Discharge Side	Liquid Side
1/4"	8.00 m	0.00 m	0.00 m	8.00 m
3/8"	33.00 m	0.00 m	0.00 m	33.00 m
1/2"	8.00 m	8.00 m	0.00 m	0.00 m
5/8"	13.00 m	13.00 m	0.00 m	0.00 m
3/4"	20.00 m	20.00 m	0.00 m	0.00 m

Total Refrigerant Charge Amount

Refrigerant (R410A)	Amount	Description
Outdoor Unit	4.400 kg	Refrigerant amount charged in factory
Additional Refrigerant	3.115 kg	Amount needed for the pipes at the site
TOTAL:	7.515 kg	

Outdoor Design Temperature

System	Mode	Description	Temperature
System 1	Cooling	Dry Bulb temperature	29.0 °C
	Heating	Wet Bulb temperature	-5.0 °C

Hampstead-Option 2 Compliance

System 1

Rules	Specification	Design	Ok
Outdoor Units	-	1 Unit	✓
Indoor Units (Control Boards)	12 Unit	3 Unit	✓
Outdoor Combined Rated HP	-	8.0 HP	✓
Outdoor Combined Rated Cooling	-	22.40 kW	✓
Outdoor Combined Rated Heating	-	25.00 kW	✓
Indoor Combined Rated Cooling	-	19.80 kW	✓
Indoor Combined Corrected Cooling	-	18.60 kW	✓
Indoor Combined Rated Heating	-	22.30 kW	✓
Indoor Combined Corrected Heating	-	18.19 kW	✓
Indoor Units Combined Capacity Code	-	7.00	✓
Outdoor Combined Capacity Code	-	8.0	✓
Outdoor DB (Cooling) temperature range	-5.0°C - 46.0°C	29.0°C	✓
Outdoor WB (Heating) temperature range	-20.0°C - 15.5°C	-5.0°C	✓
Indoor DB (Cooling) temperature range	18.0°C - 32.0°C	23.0°C	✓
Indoor WB (Cooling) temperature range	15.0°C - 24.0°C	19.2°C	✓
Indoor RH (Cooling) range	20% - 80%	70%	✓
Indoor DB (Heating) temperature range	15.0°C - 28.0°C	21.0°C	✓
Capacity Ratio	80 - 130%	87.5 %	✓
Total Pipe Length	300.00 m	41.00 m	✓
Farthest Piping Real Length	150.00 m	36.00 m	✓
Farthest Piping Equivalent Length	180.00 m	43.20 m	✓
Farthest Piping From 1st Indoor Branching Equivalent Length	40.00 m	19.20 m	✓
Main Piping Equivalent Length(L1e)	80.00 m	24.00 m	✓
Greatest Indoor Unit Connecting Piping Real Length	15.00 m	8.00 m	✓
Highest Indoor Unit	30.00 m	0.00 m	✓
Lowest Indoor Unit	50.00 m	0.00 m	✓
Greatest Height Between Indoor and Outdoor Units(H1)	-	0.00 m	✓
Greatest Height Difference Between Indoor Units(H2)	15.00 m	0.00 m	✓
Limit Density	0.390 kg/m ³	0.000 kg/m ³	✓
Additional Charge	-	3.115 kg	✓
Total Charge	-	7.515 kg	✓
Central Control			✓

Overall	✓
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System 1

Outdoor Units

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Outdoor Design Temperature

Mode	Description	Temperature
Cooling	Dry Bulb temperature	29.0 °C
Heating	Wet Bulb temperature	-5.0 °C

Electrical Information(OutdoorUnits)

Property	Value	Description
MOCP(A)	20	Maximum Overcurrent Protection
MCA(A)	17	Minimum Circuit Amps
Protection Device Size(A)		Follow applicable local standard as needed
Wire(cable size)(mm ²) or AWG(#)		Follow applicable local standard as needed

Electrical Information(IndoorUnits)

Property	Value	Description
Total MCA(A)	4.37	
Protection Device Size(A)		Follow applicable local standard as needed
Wire(cable size)(mm ²) or AWG(#)		Follow applicable local standard as needed

System 1

Outdoor Unit

Model Name	Cooling (kW)		Heating (kW)		Diversity	
	Rated	Corrected	Rated	Corrected	System	Building
MCY-MHP0806HS8-E	22.40	21.60	25.00	18.19	87.5%	0%

Outdoor Unit Combination

Header	Follower1	Follower2	Follower3	Follower4
MCY-MHP0806HS8-E				

Indoor Units

Model Name	UnitName &Room	Capacity Code	Fan Speed Air flow (m³/h)	Mode	Capacity (Total/Sensible) [kW]		
					Rated	Corrected	Required
MMD-UP0241BHP-E	FCU1	2.5	High 1320	Cooling	7.10/5.96	6.79/5.26	0.00/0.00
				Heating	8.00	6.52	0.00
MMD-UP0241BHP-E	FCU2	2.5	High 1320	Cooling	7.10/5.96	6.65/5.15	0.00/0.00
				Heating	8.00	6.52	0.00
MMK-UP0181HP-E	FCU3	2	High 900	Cooling	5.60/3.90	5.16/3.31	0.00/0.00
				Heating	6.30	5.14	0.00

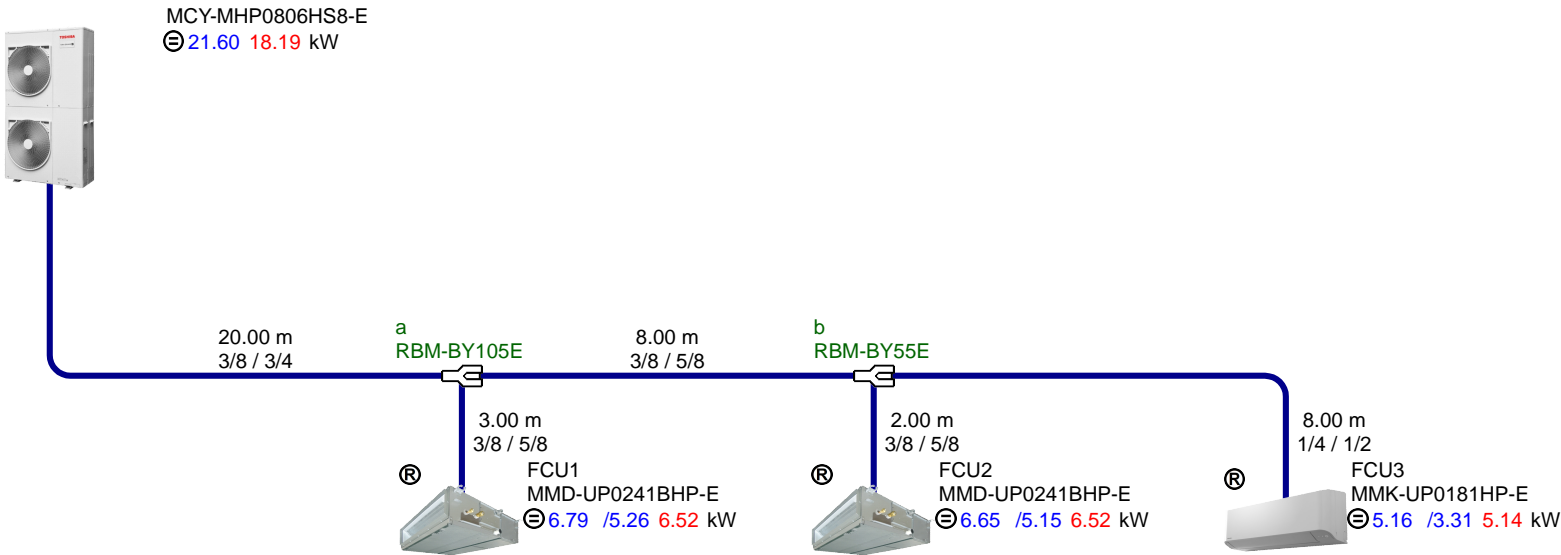
System 1

System information	
Indoor Units	3 of 12
Capacity Ratio	87.5%
Total Pipe Length	41.00 m
Indoor Cap. Tot./Sen.	18.60 kW/13.73 kW
Indoor Cap. Heat.	18.19 kW
Building diversity	0%

Outdoor/Indoor Legend	
Unit Name	
Model Name	
Room Name	
⊖ Corrected capacity	Tot./Sens./ Heat.

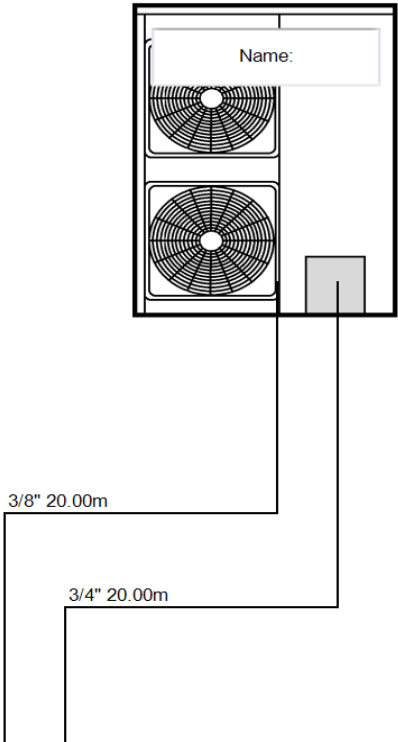
Piping Legend	
Actual Length	
Liquid / Suction Gas diameters	
Note: It is the responsibility of the consultant or contractor, to verify and confirm that the equipment selection and system design is correct before installation.	

Branches Legend		
a	RBM-BY105E	(x1)
b	RBM-BY55E	(x1)



System 1

MCY-MHP0806HS8-E



Accessories
Header

Follower1

Follower2

Follower3

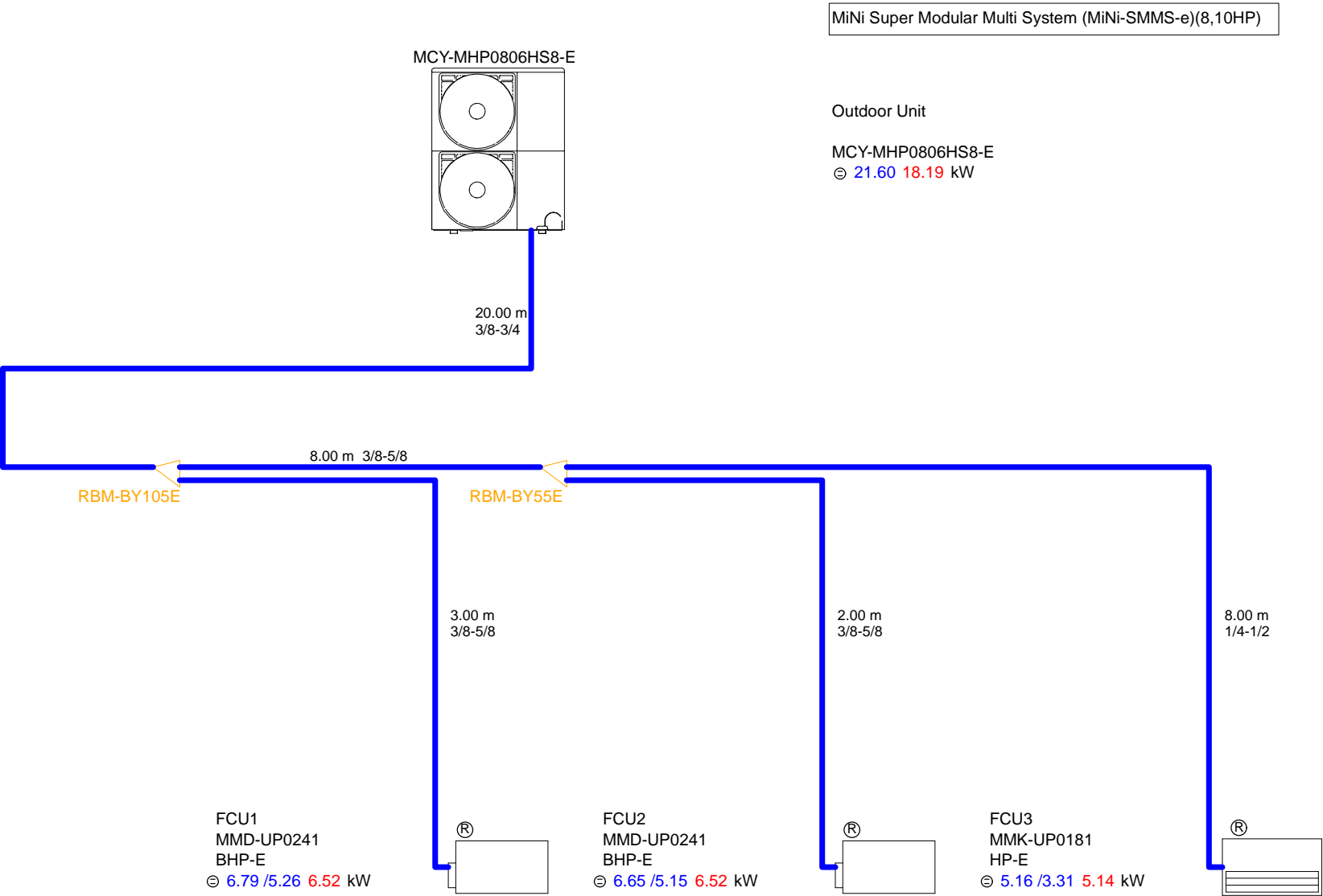
Follower4

Electrical Information

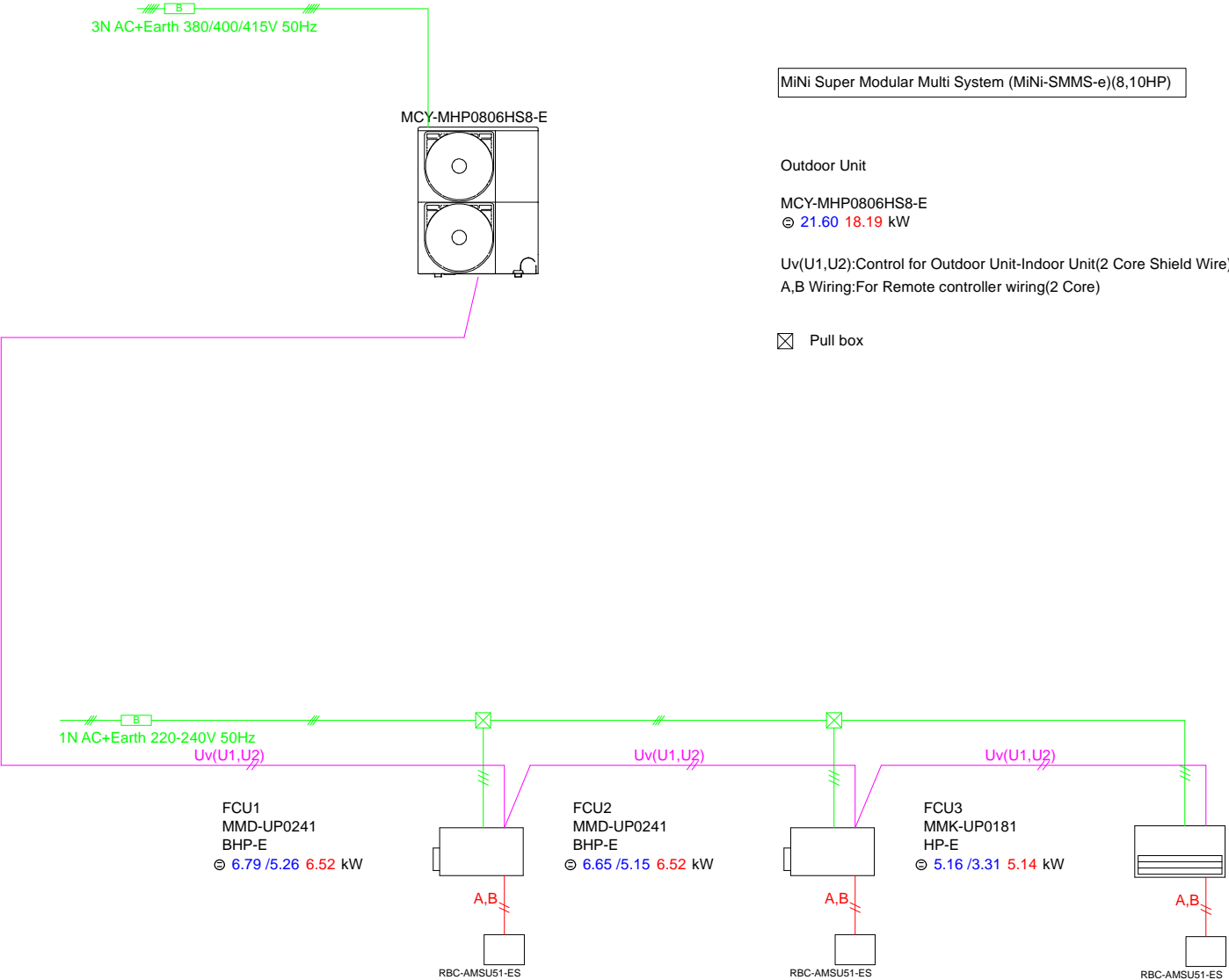
Summary: 3N AC+Earth 380/400/415V 50Hz

- Slot 1
- Slot 2
- Slot 3
- Slot 4
- Slot 5

System 1



System 1



System 1

