

Technical Submittal

PROJECT NAME	Rothschild	TEC SUB REFERENCE	TS013
PROJECT ADDRESS	20 Southampton Pl, London, WC1A 2BP	COMPANY	Conditioned Environment Mechanical Services (CEMS)
DOCUMENT TITLE	TS013 – VRF Systems (Alternative)	WORKS PACKAGE	Mechanical
ISSUE DATE	21 March 2022	ISSUED BY	William Jones

ITEM FOR APPROVAL

DESCRIPTION	VRF Systems		
MANUFACTURER	Daikin		
MODEL	Model	Quantity	Description
	RXYSCQ4TV1	4	RXYSCQ-TV1 (VRV IV Mini Compact)
	RXYSCQ5TV1	2	RXYSCQ-TV1 (VRV IV Mini Compact)
	RXYSCQ6TV1	4	RXYSCQ-TV1 (VRV IV Mini Compact)
	FXNQ32A	17	FXNQ-A - Concealed floor standing unit
	FXNQ40A	8	FXNQ-A - Concealed floor standing unit
	FXNQ50A	6	FXNQ-A - Concealed floor standing unit
	FXNQ63A	5	FXNQ-A - Concealed floor standing unit
	KHRQ22M20T	26	Refnet branch piping kit
	DCM601A51	1	Intelligent Touch Manager
	DMS502A51	1	BACnet Interface - integrated control system connecting VRV system with BMS system
	BRC1H52W	36	Remote controller (white)
ATTACHMENT	Daikin Data Sheets		
ADDITIONAL INFORMATION	Proposed alternative to client specified Mitsubishi kits as a result of long lead times.		

CLIENT RESPONSE

AUTHOR	
POSITION	
ISSUE DATE	
APPROVAL STATUS	

COMMENTS	
----------	--



VRV Selection

Project Report

Report details

Produced on: 4/20/2022

Application version: 2022.4.13.3

Project details

Project name: Rothschild (copy)

Solution name: Rothschild

Client Name: Conditioned

Customer reference:

Quotation reference:

Project number: 950893/1161157

The output of the VRV Xpress software is based on Daikin-genuine capacity tables that relate to the Japanese Industry Standard. The VRV Xpress software provides a selection of outdoor and indoor units with optimal efficiency to fit cooling and heating load requirements.



Material list

Model	Quantity	Description
RXYSCQ4TV1	4	RXYSCQ-TV1 (VRV IV Mini Compact)
RXYSCQ5TV1	2	RXYSCQ-TV1 (VRV IV Mini Compact)
RXYSCQ6TV1	4	RXYSCQ-TV1 (VRV IV Mini Compact)
FXNQ32A	17	FXNQ-A - Concealed floor standing unit
FXNQ40A	8	FXNQ-A - Concealed floor standing unit
FXNQ50A	6	FXNQ-A - Concealed floor standing unit
FXNQ63A	5	FXNQ-A - Concealed floor standing unit
KHRQ22M20T	26	Refnet branch piping kit
DCM601A51	1	Intelligent Touch Manager
DMS502A51	1	BACnet Interface - integrated control system connecting VRV system with BMS system
BRC1H52W	36	Remote controller (white)



Indoor unit details

Table of abbreviations

Abbreviation	Description
Name	Logical name of the device
FCU	Device model name
Tmp C	Indoor conditions in cooling
Rq TC	Required total cooling capacity
Rv TC	Revised total cooling capacity (asked from outdoor)
Max TC	Available total cooling capacity
Rq SC	Required sensible cooling capacity
Tevap	Evaporating temperature of indoor unit coil
Tdis C	Indoor unit discharge air temperature in cooling based on maximum capacities
Max SC	Available sensible cooling capacity
PIC	Power input in cooling mode @ 50Hz
Tmp H	Indoor temperature in heating
Rq HC	Required heating capacity
Max HC	Available heating capacity
Tdis H	Indoor unit discharge air temperature in heating based on maximum capacities
PIH	Power input in heating mode @ 50Hz
Sound	Sound pressure level low and high
PS	Power supply (voltage and phases)
MCA	Minimum Circuit Amps
MOP	Maximum Overcurrent Protection
WxHxD	WidthxHeightxD
Weight	Weight of the device
Min coil	Minimum coil volume
Max coil	Maximum coil volume
Air Flow Rate	Air Flow Rate

Capacity data at conditions and connection ratio (125) as entered

Name	FCU	Cooling								
		Tmp C	Rq TC	Rv TC	Max TC	Rq SC	Tevap	Tdis C	Max SC	PIC
		°C (DBT/RH)	kW	kW	kW	kW	°C	°C	kW	kW
Ind 1	FXNQ32A	26.0/50%	n/a	0.0	3.5	n/a	6.0	11.2	2.4	0.071
Ind 2	FXNQ32A	26.0/50%	n/a	0.0	3.5	n/a	6.0	11.2	2.4	0.071
Ind 3	FXNQ50A	26.0/50%	n/a	0.0	5.5	n/a	6.0	11.2	3.8	0.099
Ind 4	FXNQ63A	26.0/50%	n/a	0.0	7.0	n/a	6.0	12.2	4.7	0.110
			0.0							

Name	FCU	Heating					Min coil	Max coil	Air Flow Rate
		Tmp H	Rq HC	Max HC	Tdis H	PIH			
		°C	kW	kW	°C	kW			
Ind 1	FXNQ32A	20.0	n/a	4.0	44.4	0.068	n/a	n/a	133.33
Ind 2	FXNQ32A	20.0	n/a	4.0	44.4	0.068	n/a	n/a	133.33
Ind 3	FXNQ50A	20.0	n/a	6.3	44.6	0.096	n/a	n/a	208.33
Ind 4	FXNQ63A	20.0	n/a	8.0	43.6	0.107	n/a	n/a	275.00
			n/a						

Name	Room	Sound	PS	MCA	MOP	WxHxD	Weight
		dBA		A		mm	
Ind 1		27 - 30	220V 1ph	0.4	Factory Std	790 x 720 x 200	23.5
Ind 2		27 - 30	220V 1ph	0.4	Factory Std	790 x 720 x 200	23.5
Ind 3		29 - 33	220V 1ph	0.5	Factory Std	990 x 720 x 200	27.5
Ind 4		32 - 35	220V 1ph	0.6	Factory Std	1,190 x 720 x 200	32.0

Remarks

Reduced operational load

The sum of the required indoor unit capacities is 19.5kW for cooling and 22.3kW for heating. However, the outdoor unit selection uses reduced load values for cooling of 9.8kW (=50%) and for heating of 11.2kW (=50%). Be aware that unrealistic reductions may lead to reduced comfort levels, different noise levels or increased wear and tear.

Outdoor vs. indoor position

Outdoor unit placed at the same level as the indoor units.

System 2 - RXYSCQ6TV1

Capacity data at conditions and connection ratio (125) as entered

Name	FCU	Cooling								
		Tmp C	Rq TC	Rv TC	Max TC	Rq SC	Tevap	Tdis C	Max SC	PIC
		°C (DBT/RH)	kW	kW	kW	kW	°C	°C	kW	kW
Ind 1	FXNQ32A	26.0/50%	n/a	0.0	3.5	n/a	6.0	11.2	2.4	0.071
Ind 2	FXNQ32A	26.0/50%	n/a	0.0	3.5	n/a	6.0	11.2	2.4	0.071
Ind 3	FXNQ50A	26.0/50%	n/a	0.0	5.5	n/a	6.0	11.2	3.8	0.099
Ind 4	FXNQ63A	26.0/50%	n/a	0.0	7.0	n/a	6.0	12.2	4.7	0.110



Name	FCU	Cooling								
		Tmp C	Rq TC	Rv TC	Max TC	Rq SC	Tevap	Tdis C	Max SC	PIC
		°C (DBT/RH)	kW	kW	kW	kW	°C	°C	kW	kW
			0.0							

Name	FCU	Heating							
		Tmp H	Rq HC	Max HC	Tdis H	PIH	Min coil	Max coil	Air Flow Rate
		°C	kW	kW	°C	kW	m³	m³	l/s
Ind 1	FXNQ32A	20.0	n/a	4.0	44.4	0.068	n/a	n/a	133.33
Ind 2	FXNQ32A	20.0	n/a	4.0	44.4	0.068	n/a	n/a	133.33
Ind 3	FXNQ50A	20.0	n/a	6.3	44.6	0.096	n/a	n/a	208.33
Ind 4	FXNQ63A	20.0	n/a	8.0	43.6	0.107	n/a	n/a	275.00
			n/a						

Name	Room	Sound	PS	MCA	MOP	WxHxD	Weight
		dBA		A		mm	kg
Ind 1		27 - 30	220V 1ph	0.4	Factory Std	790 x 720 x 200	23.5
Ind 2		27 - 30	220V 1ph	0.4	Factory Std	790 x 720 x 200	23.5
Ind 3		29 - 33	220V 1ph	0.5	Factory Std	990 x 720 x 200	27.5
Ind 4		32 - 35	220V 1ph	0.6	Factory Std	1,190 x 720 x 200	32.0

Remarks

Reduced operational load

The sum of the required indoor unit capacities is 19.5kW for cooling and 22.3kW for heating. However, the outdoor unit selection uses reduced load values for cooling of 9.8kW (=50%) and for heating of 11.2kW (=50%). Be aware that unrealistic reductions may lead to reduced comfort levels, different noise levels or increased wear and tear.

Outdoor vs. indoor position

Outdoor unit placed at the same level as the indoor units.

System 3 - RXYSCQ4TV1

Capacity data at conditions and connection ratio (125) as entered

Name	FCU	Cooling								
		Tmp C	Rq TC	Rv TC	Max TC	Rq SC	Tevap	Tdis C	Max SC	PIC
		°C (DBT/RH)	kW	kW	kW	kW	°C	°C	kW	kW
Ind 1	FXNQ32A	26.0/50%	n/a	0.0	3.5	n/a	6.0	11.2	2.4	0.071
Ind 2	FXNQ32A	26.0/50%	n/a	0.0	3.5	n/a	6.0	11.2	2.4	0.071
Ind 3	FXNQ32A	26.0/50%	n/a	0.0	3.5	n/a	6.0	11.2	2.4	0.071
Ind 4	FXNQ32A	26.0/50%	n/a	0.0	3.5	n/a	6.0	11.2	2.4	0.071
			0.0							

Name	FCU	Heating							
		Tmp H	Rq HC	Max HC	Tdis H	PIH	Min coil	Max coil	Air Flow Rate
		°C	kW	kW	°C	kW	m³	m³	l/s
Ind 1	FXNQ32A	20.0	n/a	4.0	44.4	0.068	n/a	n/a	133.33



Name	FCU	Heating					Min coil	Max coil	Air Flow Rate
		Tmp H	Rq HC	Max HC	Tdis H	PIH			
		°C	kW	kW	°C	kW			
Ind 2	FXNQ32A	20.0	n/a	4.0	44.4	0.068	n/a	n/a	133.33
Ind 3	FXNQ32A	20.0	n/a	4.0	44.4	0.068	n/a	n/a	133.33
Ind 4	FXNQ32A	20.0	n/a	4.0	44.4	0.068	n/a	n/a	133.33
			n/a						

Name	Room	Sound	PS	MCA	MOP	WxHxD	Weight
		dBA		A		mm	
Ind 1		27 - 30	220V 1ph	0.4	Factory Std	790 x 720 x 200	23.5
Ind 2		27 - 30	220V 1ph	0.4	Factory Std	790 x 720 x 200	23.5
Ind 3		27 - 30	220V 1ph	0.4	Factory Std	790 x 720 x 200	23.5
Ind 4		27 - 30	220V 1ph	0.4	Factory Std	790 x 720 x 200	23.5

Remarks

Reduced operational load

The sum of the required indoor unit capacities is 14.2kW for cooling and 16.0kW for heating. However, the outdoor unit selection uses reduced load values for cooling of 7.1kW (=50%) and for heating of 8.0kW (=50%). Be aware that unrealistic reductions may lead to reduced comfort levels, different noise levels or increased wear and tear.

Outdoor vs. indoor position

Outdoor unit placed at the same level as the indoor units.

System 4 - RXYSCQ4TV1

Capacity data at conditions and connection ratio (125) as entered

Name	FCU	Cooling								
		Tmp C	Rq TC	Rv TC	Max TC	Rq SC	Tevap	Tdis C	Max SC	PIC
		°C (DBT/RH)	kW	kW	kW	kW	°C	°C	kW	kW
Ind 1	FXNQ32A	26.0/50%	n/a	0.0	3.5	n/a	6.0	11.2	2.4	0.071
Ind 2	FXNQ32A	26.0/50%	n/a	0.0	3.5	n/a	6.0	11.2	2.4	0.071
Ind 3	FXNQ32A	26.0/50%	n/a	0.0	3.5	n/a	6.0	11.2	2.4	0.071
Ind 4	FXNQ32A	26.0/50%	n/a	0.0	3.5	n/a	6.0	11.2	2.4	0.071
			0.0							

Name	FCU	Heating					Min coil	Max coil	Air Flow Rate
		Tmp H	Rq HC	Max HC	Tdis H	PIH			
		°C	kW	kW	°C	kW			
Ind 1	FXNQ32A	20.0	n/a	4.0	44.4	0.068	n/a	n/a	133.33
Ind 2	FXNQ32A	20.0	n/a	4.0	44.4	0.068	n/a	n/a	133.33
Ind 3	FXNQ32A	20.0	n/a	4.0	44.4	0.068	n/a	n/a	133.33
Ind 4	FXNQ32A	20.0	n/a	4.0	44.4	0.068	n/a	n/a	133.33
			n/a						

Name	Room	Sound	PS	MCA	MOP	WxHxD	Weight
		dBA		A		mm	
Ind 1		27 - 30	220V 1ph	0.4	Factory Std	790 x 720 x 200	23.5

Name	Room	Sound dBA	PS	MCA A	MOP	WxHxD mm	Weight kg
Ind 2		27 - 30	220V 1ph	0.4	Factory Std	790 x 720 x 200	23.5
Ind 3		27 - 30	220V 1ph	0.4	Factory Std	790 x 720 x 200	23.5
Ind 4		27 - 30	220V 1ph	0.4	Factory Std	790 x 720 x 200	23.5

Remarks

Reduced operational load

The sum of the required indoor unit capacities is 14.2kW for cooling and 16.0kW for heating. However, the outdoor unit selection uses reduced load values for cooling of 7.1kW (=50%) and for heating of 8.0kW (=50%). Be aware that unrealistic reductions may lead to reduced comfort levels, different noise levels or increased wear and tear.

Outdoor vs. indoor position

Outdoor unit placed at the same level as the indoor units.

System 5 - RXYSCQ5TV1

Capacity data at conditions and connection ratio (107) as entered

Name	FCU	Cooling								
		Tmp C	Rq TC	Rv TC	Max TC	Rq SC	Tevap	Tdis C	Max SC	PIC
		°C (DBT/RH)	kW	kW	kW	kW	°C	°C	kW	kW
Ind 2	FXNQ40A	26.0/50%	n/a	0.0	4.4	n/a	6.0	11.4	3.2	0.078
Ind 3	FXNQ32A	26.0/50%	n/a	0.0	3.5	n/a	6.0	11.2	2.4	0.071
Ind 7	FXNQ63A	26.0/50%	n/a	0.0	7.0	n/a	6.0	12.2	4.7	0.110
			0.0							

Name	FCU	Heating					Min coil	Max coil	Air Flow Rate
		Tmp H	Rq HC	Max HC	Tdis H	PIH			
		°C	kW	kW	°C	kW			
Ind 2	FXNQ40A	20.0	n/a	5.0	43.2	0.075	n/a	n/a	175.00
Ind 3	FXNQ32A	20.0	n/a	4.0	44.4	0.068	n/a	n/a	133.33
Ind 7	FXNQ63A	20.0	n/a	8.0	43.6	0.107	n/a	n/a	275.00
			n/a						

Name	Room	Sound dBA	PS	MCA A	MOP	WxHxD mm	Weight kg
Ind 2		28 - 32	220V 1ph	0.5	Factory Std	990 x 720 x 200	27.5
Ind 3		27 - 30	220V 1ph	0.4	Factory Std	790 x 720 x 200	23.5
Ind 7		32 - 35	220V 1ph	0.6	Factory Std	1,190 x 720 x 200	32.0

Remarks

Reduced operational load

The sum of the required indoor unit capacities is 14.9kW for cooling and 17.0kW for heating. However, the outdoor unit selection uses reduced load values for cooling of 7.5kW (=50%) and for heating of 8.5kW (=50%). Be aware that unrealistic reductions may lead to reduced comfort levels, different noise levels or increased wear and tear.

Outdoor vs. indoor position

Outdoor unit placed at the same level as the indoor units.

System 6 - RXYSCQ6TV1

Capacity data at conditions and connection ratio (118) as entered

Name	FCU	Cooling								
		Tmp C	Rq TC	Rv TC	Max TC	Rq SC	Tevap	Tdis C	Max SC	PIC
		°C (DBT/RH)	kW	kW	kW	kW	°C	°C	kW	kW
Ind 1	FXNQ40A	26.0/50%	n/a	0.0	4.4	n/a	6.0	11.4	3.2	0.078
Ind 2	FXNQ63A	26.0/50%	n/a	0.0	7.0	n/a	6.0	12.2	4.7	0.110
Ind 3	FXNQ63A	26.0/50%	n/a	0.0	7.0	n/a	6.0	12.2	4.7	0.110
			0.0							

Name	FCU	Heating					Min coil	Max coil	Air Flow Rate
		Tmp H	Rq HC	Max HC	Tdis H	PIH			
		°C	kW	kW	°C	kW			
Ind 1	FXNQ40A	20.0	n/a	5.0	43.2	0.075	n/a	n/a	175.00
Ind 2	FXNQ63A	20.0	n/a	8.0	43.6	0.107	n/a	n/a	275.00
Ind 3	FXNQ63A	20.0	n/a	8.0	43.6	0.107	n/a	n/a	275.00
			n/a						

Name	Room	Sound	PS	MCA	MOP	WxHxD	Weight
		dBA		A		mm	
Ind 1		28 - 32	220V 1ph	0.5	Factory Std	990 x 720 x 200	27.5
Ind 2		32 - 35	220V 1ph	0.6	Factory Std	1,190 x 720 x 200	32.0
Ind 3		32 - 35	220V 1ph	0.6	Factory Std	1,190 x 720 x 200	32.0

Remarks

Reduced operational load

The sum of the required indoor unit capacities is 18.3kW for cooling and 21.0kW for heating. However, the outdoor unit selection uses reduced load values for cooling of 9.2kW (=50%) and for heating of 10.5kW (=50%). Be aware that unrealistic reductions may lead to reduced comfort levels, different noise levels or increased wear and tear.

Outdoor vs. indoor position

Outdoor unit placed at the same level as the indoor units.

System 7 - RXYSCQ4TV1

Capacity data at conditions and connection ratio (130) as entered

Name	FCU	Cooling								
		Tmp C	Rq TC	Rv TC	Max TC	Rq SC	Tevap	Tdis C	Max SC	PIC
		°C (DBT/RH)	kW	kW	kW	kW	°C	°C	kW	kW
Ind 2	FXNQ50A	26.0/50%	n/a	0.0	5.5	n/a	6.0	11.2	3.8	0.099
Ind 3	FXNQ40A	26.0/50%	n/a	0.0	4.4	n/a	6.0	11.4	3.2	0.078

Name	FCU	Cooling								
		Tmp C	Rq TC	Rv TC	Max TC	Rq SC	Tevap	Tdis C	Max SC	PIC
		°C (DBT/RH)	kW	kW	kW	kW	°C	°C	kW	kW
Ind 5	FXNQ40A	26.0/50%	n/a	0.0	4.4	n/a	6.0	11.4	3.2	0.078
			0.0							

Name	FCU	Heating							
		Tmp H	Rq HC	Max HC	Tdis H	PIH	Min coil	Max coil	Air Flow Rate
		°C	kW	kW	°C	kW	m³	m³	l/s
Ind 2	FXNQ50A	20.0	n/a	6.3	44.6	0.096	n/a	n/a	208.33
Ind 3	FXNQ40A	20.0	n/a	5.0	43.2	0.075	n/a	n/a	175.00
Ind 5	FXNQ40A	20.0	n/a	5.0	43.2	0.075	n/a	n/a	175.00
			n/a						

Name	Room	Sound	PS	MCA	MOP	WxHxD	Weight
		dBA		A		mm	kg
Ind 2		29 - 33	220V 1ph	0.5	Factory Std	990 x 720 x 200	27.5
Ind 3		28 - 32	220V 1ph	0.5	Factory Std	990 x 720 x 200	27.5
Ind 5		28 - 32	220V 1ph	0.5	Factory Std	990 x 720 x 200	27.5

Remarks

Reduced operational load

The sum of the required indoor unit capacities is 14.3kW for cooling and 16.3kW for heating. However, the outdoor unit selection uses reduced load values for cooling of 7.2kW (=50%) and for heating of 8.2kW (=50%). Be aware that unrealistic reductions may lead to reduced comfort levels, different noise levels or increased wear and tear.

Outdoor vs. indoor position

Outdoor unit placed at the same level as the indoor units.

System 8 - RXYSCQ5TV1

Capacity data at conditions and connection ratio (120) as entered

Name	FCU	Cooling								
		Tmp C	Rq TC	Rv TC	Max TC	Rq SC	Tevap	Tdis C	Max SC	PIC
		°C (DBT/RH)	kW	kW	kW	kW	°C	°C	kW	kW
Ind 1	FXNQ50A	26.0/50%	n/a	0.0	5.5	n/a	6.0	11.2	3.8	0.099
Ind 2	FXNQ50A	26.0/50%	n/a	0.0	5.5	n/a	6.0	11.2	3.8	0.099
Ind 3	FXNQ50A	26.0/50%	n/a	0.0	5.5	n/a	6.0	11.2	3.8	0.099
			0.0							

Name	FCU	Heating							
		Tmp H	Rq HC	Max HC	Tdis H	PIH	Min coil	Max coil	Air Flow Rate
		°C	kW	kW	°C	kW	m³	m³	l/s
Ind 1	FXNQ50A	20.0	n/a	6.3	44.6	0.096	n/a	n/a	208.33
Ind 2	FXNQ50A	20.0	n/a	6.3	44.6	0.096	n/a	n/a	208.33
Ind 3	FXNQ50A	20.0	n/a	6.3	44.6	0.096	n/a	n/a	208.33
			n/a						

Name	Room	Sound	PS	MCA	MOP	WxHxD mm	Weight kg
		dBA		A			
Ind 1		29 - 33	220V 1ph	0.5	Factory Std	990 x 720 x 200	27.5
Ind 2		29 - 33	220V 1ph	0.5	Factory Std	990 x 720 x 200	27.5
Ind 3		29 - 33	220V 1ph	0.5	Factory Std	990 x 720 x 200	27.5

Remarks

Reduced operational load

The sum of the required indoor unit capacities is 16.5kW for cooling and 18.9kW for heating. However, the outdoor unit selection uses reduced load values for cooling of 8.2kW (=50%) and for heating of 9.5kW (=50%). Be aware that unrealistic reductions may lead to reduced comfort levels, different noise levels or increased wear and tear.

Outdoor vs. indoor position

Outdoor unit placed at the same level as the indoor units.

System 9 - RXYSCQ6TV1

Capacity data at conditions and connection ratio (114) as entered

Name	FCU	Cooling								
		Tmp C	Rq TC	Rv TC	Max TC	Rq SC	Tevap	Tdis C	Max SC	PIC
		°C (DBT/RH)	kW	kW	kW	kW	°C	°C	kW	kW
Ind 1	FXNQ40A	26.0/50%	n/a	0.0	4.4	n/a	6.0	11.4	3.2	0.078
Ind 2	FXNQ40A	26.0/50%	n/a	0.0	4.4	n/a	6.0	11.4	3.2	0.078
Ind 3	FXNQ40A	26.0/50%	n/a	0.0	4.4	n/a	6.0	11.4	3.2	0.078
Ind 5	FXNQ40A	26.0/50%	n/a	0.0	4.4	n/a	6.0	11.4	3.2	0.078
			0.0							

Name	FCU	Heating					Min coil	Max coil	Air Flow Rate
		Tmp H	Rq HC	Max HC	Tdis H	PIH			
		°C	kW	kW	°C	kW			
Ind 1	FXNQ40A	20.0	n/a	5.0	43.2	0.075	n/a	n/a	175.00
Ind 2	FXNQ40A	20.0	n/a	5.0	43.2	0.075	n/a	n/a	175.00
Ind 3	FXNQ40A	20.0	n/a	5.0	43.2	0.075	n/a	n/a	175.00
Ind 5	FXNQ40A	20.0	n/a	5.0	43.2	0.075	n/a	n/a	175.00
			n/a						

Name	Room	Sound	PS	MCA	MOP	WxHxD mm	Weight kg
		dBA		A			
Ind 1		28 - 32	220V 1ph	0.5	Factory Std	990 x 720 x 200	27.5
Ind 2		28 - 32	220V 1ph	0.5	Factory Std	990 x 720 x 200	27.5
Ind 3		28 - 32	220V 1ph	0.5	Factory Std	990 x 720 x 200	27.5
Ind 5		28 - 32	220V 1ph	0.5	Factory Std	990 x 720 x 200	27.5

Remarks

Reduced operational load

The sum of the required indoor unit capacities is 17.7kW for cooling and 20.0kW for heating. However, the outdoor unit selection uses reduced load values for cooling of 8.8kW (=50%) and for heating of 10.0kW (=50%). Be aware that unrealistic reductions may lead to reduced comfort levels, different noise levels or increased wear and tear.

Outdoor vs. indoor position

Outdoor unit placed at the same level as the indoor units.

System 10 - RXYSCQ4TV1

Capacity data at conditions and connection ratio (125) as entered

Name	FCU	Cooling								
		Tmp C	Rq TC	Rv TC	Max TC	Rq SC	Tevap	Tdis C	Max SC	PIC
		°C (DBT/RH)	kW	kW	kW	kW	°C	°C	kW	kW
Ind 1	FXNQ32A	26.0/50%	n/a	0.0	3.5	n/a	6.0	11.2	2.4	0.071
Ind 2	FXNQ32A	26.0/50%	n/a	0.0	3.5	n/a	6.0	11.2	2.4	0.071
Ind 3	FXNQ32A	26.0/50%	n/a	0.0	3.5	n/a	6.0	11.2	2.4	0.071
Ind 8	FXNQ32A	26.0/50%	n/a	0.0	3.5	n/a	6.0	11.2	2.4	0.071
			0.0							

Name	FCU	Heating					Min coil	Max coil	Air Flow Rate
		Tmp H	Rq HC	Max HC	Tdis H	PIH			
		°C	kW	kW	°C	kW			
Ind 1	FXNQ32A	20.0	n/a	4.0	44.4	0.068	n/a	n/a	133.33
Ind 2	FXNQ32A	20.0	n/a	4.0	44.4	0.068	n/a	n/a	133.33
Ind 3	FXNQ32A	20.0	n/a	4.0	44.4	0.068	n/a	n/a	133.33
Ind 8	FXNQ32A	20.0	n/a	4.0	44.4	0.068	n/a	n/a	133.33
			n/a						

Name	Room	Sound	PS	MCA	MOP	WxHxD	Weight
		dBA		A		mm	kg
Ind 1		27 - 30	220V 1ph	0.4	Factory Std	790 x 720 x 200	23.5
Ind 2		27 - 30	220V 1ph	0.4	Factory Std	790 x 720 x 200	23.5
Ind 3		27 - 30	220V 1ph	0.4	Factory Std	790 x 720 x 200	23.5
Ind 8		27 - 30	220V 1ph	0.4	Factory Std	790 x 720 x 200	23.5

Remarks

Reduced operational load

The sum of the required indoor unit capacities is 14.2kW for cooling and 16.0kW for heating. However, the outdoor unit selection uses reduced load values for cooling of 7.1kW (=50%) and for heating of 8.0kW (=50%). Be aware that unrealistic reductions may lead to reduced comfort levels, different noise levels or increased wear and tear.

Outdoor vs. indoor position

Outdoor unit placed at the same level as the indoor units.



Outdoor unit details

Table of abbreviations

Abbreviation	Description
Name	Logical name of the device
Model	Device model name
▲	Optimized selection: Larger outdoor model selected than standard proposed model
CR	Connection ratio
Tmp C	Outdoor conditions in cooling
WFR per module	Water flow per outdoor unit module
CC	Available cooling capacity
Rq CC	Required cooling capacity
PIC	Power input in cooling mode
InC	Water inlet temperature in cooling mode
OutC	Water outlet temperature in cooling mode
Tmp H	Outdoor conditions in heating (dry bulb temp. / RH)
HC	Available heating capacity (integrated heating capacity)
Rq HC	Required heating capacity
PIH	Power input in heating mode
InH	Water inlet temperature in heating mode
OutH	Water outlet temperature in heating mode
Piping	Largest distance from indoor unit to outdoor unit
Bse Refr	Standard factory refrigerant charge (16.4ft actual piping length) excluding extra refrigerant charge. For calculation of extra refrigerant charge refer to the databook
Ex Refr	Extra refrigerant charge
PS	Power supply (voltage and phases)
MCA	Minimum Circuit Amps
MOP	Maximum Overcurrent Protection
FLA	Fan Motor Input
RLA	Nominal Running Amps
WxHxD	WidthxHeightxD
Weight	Weight of the device
EER	EER value at nominal condition
IEER	IEER value at nominal condition
COP47	COP value at nominal condition and at ambient temperature of 8°C
COP17	COP value at nominal condition and at ambient temperature of -8°C

Outdoor details

Name	Model	CR	Cooling			Heating			Piping m
			Tmp C	CC	Rq CC	Tmp H	HC	Rq HC	
			°C	kW	kW	°C (DBT/RH)	kW	kW	
System 1	RXYSCQ6TV1 ▲	125.0	29.0	13.4	9.8	0.0/86%	12.1	11.2	75.0
System 2	RXYSCQ6TV1 ▲	125.0	29.0	13.4	9.8	0.0/86%	12.1	11.2	75.0
System 3	RXYSCQ4TV1	125.0	29.0	10.3	7.1	0.0/86%	9.5	8.0	75.0
System 4	RXYSCQ4TV1	125.0	29.0	10.3	7.1	0.0/86%	9.5	8.0	75.0
System 5	RXYSCQ5TV1	107.0	29.0	11.3	7.5	0.0/86%	10.6	8.5	75.0
System 6	RXYSCQ6TV1 ▲	117.9	29.0	13.2	9.2	0.0/86%	12.1	10.5	75.0
System 7	RXYSCQ4TV1	130.0	29.0	10.4	7.2	0.0/86%	9.5	8.2	75.0
System 8	RXYSCQ5TV1	120.0	29.0	11.9	8.2	0.0/86%	10.7	9.5	75.0
System 9	RXYSCQ6TV1 ▲	114.3	29.0	13.1	8.8	0.0/86%	12.1	10.0	75.0
System 10	RXYSCQ4TV1	125.0	29.0	10.3	7.1	0.0/86%	9.5	8.0	75.0

Name	Model	PS	MCA	MOP	RLA	FLA	WxHxD	Weight
			A	A	A	A	mm	kg
System 1	RXYSCQ6TV1	230V 1ph	29.1	32.0	23.2	0.6	940 x 823 x 460	89.0
System 2	RXYSCQ6TV1	230V 1ph	29.1	32.0	23.2	0.6	940 x 823 x 460	89.0
System 3	RXYSCQ4TV1	230V 1ph	29.1	32.0	19.0	0.6	940 x 823 x 460	89.0
System 4	RXYSCQ4TV1	230V 1ph	29.1	32.0	19.0	0.6	940 x 823 x 460	89.0
System 5	RXYSCQ5TV1	230V 1ph	29.1	32.0	19.0	0.6	940 x 823 x 460	89.0
System 6	RXYSCQ6TV1	230V 1ph	29.1	32.0	23.2	0.6	940 x 823 x 460	89.0
System 7	RXYSCQ4TV1	230V 1ph	29.1	32.0	19.0	0.6	940 x 823 x 460	89.0
System 8	RXYSCQ5TV1	230V 1ph	29.1	32.0	19.0	0.6	940 x 823 x 460	89.0
System 9	RXYSCQ6TV1	230V 1ph	29.1	32.0	23.2	0.6	940 x 823 x 460	89.0
System 10	RXYSCQ4TV1	230V 1ph	29.1	32.0	19.0	0.6	940 x 823 x 460	89.0

Name	Model	Sound Power		Sound Pressure	
		Cooling	Heating	Cooling	Heating
		dBA	dBA	dBA	dBA
System 1	RXYSCQ6TV1	70	-	53	-
System 2	RXYSCQ6TV1	70	-	53	-
System 3	RXYSCQ4TV1	68	-	51	-
System 4	RXYSCQ4TV1	68	-	51	-
System 5	RXYSCQ5TV1	69	-	52	-
System 6	RXYSCQ6TV1	70	-	53	-
System 7	RXYSCQ4TV1	68	-	51	-
System 8	RXYSCQ5TV1	69	-	52	-
System 9	RXYSCQ6TV1	70	-	53	-
System 10	RXYSCQ4TV1	68	-	51	-

Seasonal Efficiency

Name	Model	$\eta_{s,h}$ heating	$\eta_{s,c}$ cooling	SCOP	SEER	CSPF
		%	%			
System 1	RXYSCQ6TV1	186.0	281.3	4.70	7.10	-
System 2	RXYSCQ6TV1	186.0	281.3	4.70	7.10	-
System 3	RXYSCQ4TV1	182.3	322.8	4.60	8.10	-
System 4	RXYSCQ4TV1	182.3	322.8	4.60	8.10	-
System 5	RXYSCQ5TV1	185.1	303.4	4.70	7.70	-
System 6	RXYSCQ6TV1	186.0	281.3	4.70	7.10	-
System 7	RXYSCQ4TV1	182.3	322.8	4.60	8.10	-
System 8	RXYSCQ5TV1	185.1	303.4	4.70	7.70	-
System 9	RXYSCQ6TV1	186.0	281.3	4.70	7.10	-
System 10	RXYSCQ4TV1	182.3	322.8	4.60	8.10	-

For more information go to: <https://energylabel.daikin.eu/>.

Refrigerant information

Name	Model	Refrigerant type	GWP	Base charge kg	Extra charge kg	TCO2 equivalent
System 1	RXYSCQ6TV1	R410A	2087.5	3.70	unknown	7.7
System 2	RXYSCQ6TV1	R410A	2087.5	3.70	unknown	7.7
System 3	RXYSCQ4TV1	R410A	2087.5	3.70	unknown	7.7
System 4	RXYSCQ4TV1	R410A	2087.5	3.70	unknown	7.7
System 5	RXYSCQ5TV1	R410A	2087.5	3.70	unknown	7.7
System 6	RXYSCQ6TV1	R410A	2087.5	3.70	unknown	7.7
System 7	RXYSCQ4TV1	R410A	2087.5	3.70	unknown	7.7
System 8	RXYSCQ5TV1	R410A	2087.5	3.70	unknown	7.7
System 9	RXYSCQ6TV1	R410A	2087.5	3.70	unknown	7.7
System 10	RXYSCQ4TV1	R410A	2087.5	3.70	unknown	7.7

The system(s) contain fluorinated greenhouse gases.

When extra refrigerant charge requirements are not calculated, TCO2 equivalent is calculated only considering the base refrigerant charge. Depending on the field pipe length extra refrigerant needs to be added which will increase the TCO2



equivalent.

System 1 - RXYSCQ6TV1

Model	Quantity	Description
RXYSCQ6TV1	1	RXYSCQ-TV1 (VRV IV Mini Compact)
FXNQ32A	2	FXNQ-A - Concealed floor standing unit
FXNQ50A	1	FXNQ-A - Concealed floor standing unit
FXNQ63A	1	FXNQ-A - Concealed floor standing unit
KHRQ22M20T	3	Refnet branch piping kit
BRC1H52W	4	Remote controller (white)

Refrigerant information

Refrigerant type	GWP	Base charge kg	Extra charge kg	TCO2 equivalent
R410A	2087.5	3.70	unknown	7.7

The system(s) contain fluorinated greenhouse gases.

Pipe capacities

Maximum Connection Index	Diameters
149.9	3/8"x5/8"
199.9	3/8"x3/4"
289.9	3/8"x7/8"
419.9	1/2"x1 1/8"
639.9	5/8"x1 1/8"
919.9	3/4"x1 3/8"
> 919.9	3/4"x1 5/8"
Main pipe size up	3/8"x3/4"

Piping limitations

Description	Value
Maximum total length	300.0m
Maximum longest actual length	70.0m
Maximum longest equivalent length	90.0m
Maximum main pipe length (size up of main pipe required if longer)	-
Maximum length first branch to indoor unit(size up of intermediate pipes required if longer)	40.0m
Maximum length first branch to indoor unit	40.0m
Maximum length of indoor units to nearest branch	40.0m
Maximum length difference between longest and shortest distance to indoor units	40.0m
Maximum height difference, outdoor unit below indoor units	30.0m
Minimum connection ratio, outdoor unit below indoor units	-
Maximum height difference, outdoor unit above indoor units	30.0m
Minimum connection ratio, outdoor unit above indoor units	-
Maximum height difference in technical cooling, outdoor unit below indoor units	30.0m
Maximum height difference in technical cooling, outdoor unit above indoor units	30.0m
Maximum height difference between indoor units	15.0m
Connection ratio range	50.0% - 130.0%
Refrigerant pipe diameters	3/8" (liquid) x 3/4" (gas)
Maximum equivalent length from BP unit or VRV indoor to VRV REFNET (size up of intermediate pipes required if longer)	-
Maximum equivalent length from BP unit or VRV indoor to VRV REFNET	40.0m
Maximum actual length between CM and HM	-
Maximum height difference between CM and HM	-

System 2 - RXYSCQ6TV1

Model	Quantity	Description
RXYSCQ6TV1	1	RXYSCQ-TV1 (VRV IV Mini Compact)
FXNQ32A	2	FXNQ-A - Concealed floor standing unit
FXNQ50A	1	FXNQ-A - Concealed floor standing unit
FXNQ63A	1	FXNQ-A - Concealed floor standing unit
KHRQ22M20T	3	Refnet branch piping kit
BRC1H52W	4	Remote controller (white)

Refrigerant information

Refrigerant type	GWP	Base charge kg	Extra charge kg	TCO2 equivalent
R410A	2087.5	3.70	unknown	7.7

The system(s) contain fluorinated greenhouse gases.



Pipe capacities

Maximum Connection Index	Diameters
149.9	3/8"x5/8"
199.9	3/8"x3/4"
289.9	3/8"x7/8"
419.9	1/2"x1 1/8"
639.9	5/8"x1 1/8"
919.9	3/4"x1 3/8"
> 919.9	3/4"x1 5/8"
Main pipe size up	3/8"x3/4"

Piping limitations

Description	Value
Maximum total length	300.0m
Maximum longest actual length	70.0m
Maximum longest equivalent length	90.0m
Maximum main pipe length (size up of main pipe required if longer)	-
Maximum length first branch to indoor unit(size up of intermediate pipes required if longer)	40.0m
Maximum length first branch to indoor unit	40.0m
Maximum length of indoor units to nearest branch	40.0m
Maximum length difference between longest and shortest distance to indoor units	40.0m
Maximum height difference, outdoor unit below indoor units	30.0m
Minimum connection ratio, outdoor unit below indoor units	-
Maximum height difference, outdoor unit above indoor units	30.0m
Minimum connection ratio, outdoor unit above indoor units	-
Maximum height difference in technical cooling, outdoor unit below indoor units	30.0m
Maximum height difference in technical cooling, outdoor unit above indoor units	30.0m
Maximum height difference between indoor units	15.0m
Connection ratio range	50.0% - 130.0%
Refrigerant pipe diameters	3/8" (liquid) x 3/4" (gas)
Maximum equivalent length from BP unit or VRV indoor to VRV REFNET (size up of intermediate pipes required if longer)	-
Maximum equivalent length from BP unit or VRV indoor to VRV REFNET	40.0m
Maximum actual length between CM and HM	-
Maximum height difference between CM and HM	-

System 3 - RXYSCQ4TV1

Model	Quantity	Description
RXYSCQ4TV1	1	RXYSCQ-TV1 (VRV IV Mini Compact)
FXNQ32A	4	FXNQ-A - Concealed floor standing unit
KHRQ22M20T	3	Refnet branch piping kit
BRC1H52W	4	Remote controller (white)

Refrigerant information

Refrigerant type	GWP	Base charge kg	Extra charge kg	TCO2 equivalent
R410A	2087.5	3.70	unknown	7.7

The system(s) contain fluorinated greenhouse gases.



Pipe capacities

Maximum Connection Index	Diameters
149.9	3/8"x5/8"
199.9	3/8"x3/4"
289.9	3/8"x7/8"
419.9	1/2"x1 1/8"
639.9	5/8"x1 1/8"
919.9	3/4"x1 3/8"
> 919.9	3/4"x1 5/8"
Main pipe size up	3/8"x3/4"

Piping limitations

Description	Value
Maximum total length	300.0m
Maximum longest actual length	70.0m
Maximum longest equivalent length	90.0m
Maximum main pipe length (size up of main pipe required if longer)	-
Maximum length first branch to indoor unit (size up of intermediate pipes required if longer)	40.0m
Maximum length first branch to indoor unit	40.0m
Maximum length of indoor units to nearest branch	40.0m
Maximum length difference between longest and shortest distance to indoor units	40.0m
Maximum height difference, outdoor unit below indoor units	30.0m
Minimum connection ratio, outdoor unit below indoor units	-
Maximum height difference, outdoor unit above indoor units	30.0m
Minimum connection ratio, outdoor unit above indoor units	-
Maximum height difference in technical cooling, outdoor unit below indoor units	30.0m
Maximum height difference in technical cooling, outdoor unit above indoor units	30.0m
Maximum height difference between indoor units	15.0m
Connection ratio range	50.0% - 130.0%
Refrigerant pipe diameters	3/8" (liquid) x 3/4" (gas)
Maximum equivalent length from BP unit or VRV indoor to VRV REFNET (size up of intermediate pipes required if longer)	-
Maximum equivalent length from BP unit or VRV indoor to VRV REFNET	40.0m
Maximum actual length between CM and HM	-
Maximum height difference between CM and HM	-

System 4 - RXYSCQ4TV1

Model	Quantity	Description
RXYSCQ4TV1	1	RXYSCQ-TV1 (VRV IV Mini Compact)
FXNQ32A	4	FXNQ-A - Concealed floor standing unit
KHRQ22M20T	3	Refnet branch piping kit
BRC1H52W	4	Remote controller (white)

Refrigerant information

Refrigerant type	GWP	Base charge kg	Extra charge kg	TCO2 equivalent
R410A	2087.5	3.70	unknown	7.7

The system(s) contain fluorinated greenhouse gases.



Pipe capacities

Maximum Connection Index	Diameters
149.9	3/8"x5/8"
199.9	3/8"x3/4"
289.9	3/8"x7/8"
419.9	1/2"x1 1/8"
639.9	5/8"x1 1/8"
919.9	3/4"x1 3/8"
> 919.9	3/4"x1 5/8"
Main pipe size up	3/8"x3/4"

Piping limitations

Description	Value
Maximum total length	300.0m
Maximum longest actual length	70.0m
Maximum longest equivalent length	90.0m
Maximum main pipe length (size up of main pipe required if longer)	-
Maximum length first branch to indoor unit(size up of intermediate pipes required if longer)	40.0m
Maximum length first branch to indoor unit	40.0m
Maximum length of indoor units to nearest branch	40.0m
Maximum length difference between longest and shortest distance to indoor units	40.0m
Maximum height difference, outdoor unit below indoor units	30.0m
Minimum connection ratio, outdoor unit below indoor units	-
Maximum height difference, outdoor unit above indoor units	30.0m
Minimum connection ratio, outdoor unit above indoor units	-
Maximum height difference in technical cooling, outdoor unit below indoor units	30.0m
Maximum height difference in technical cooling, outdoor unit above indoor units	30.0m
Maximum height difference between indoor units	15.0m
Connection ratio range	50.0% - 130.0%
Refrigerant pipe diameters	3/8" (liquid) x 3/4" (gas)
Maximum equivalent length from BP unit or VRV indoor to VRV REFNET (size up of intermediate pipes required if longer)	-
Maximum equivalent length from BP unit or VRV indoor to VRV REFNET	40.0m
Maximum actual length between CM and HM	-
Maximum height difference between CM and HM	-

System 5 - RXYSCQ5TV1

Model	Quantity	Description
RXYSCQ5TV1	1	RXYSCQ-TV1 (VRV IV Mini Compact)
FXNQ32A	1	FXNQ-A - Concealed floor standing unit
FXNQ40A	1	FXNQ-A - Concealed floor standing unit
FXNQ63A	1	FXNQ-A - Concealed floor standing unit
KHRQ22M20T	2	Refnet branch piping kit
BRC1H52W	3	Remote controller (white)

Refrigerant information

Refrigerant type	GWP	Base charge kg	Extra charge kg	TCO2 equivalent
R410A	2087.5	3.70	unknown	7.7

The system(s) contain fluorinated greenhouse gases.



Pipe capacities

Maximum Connection Index	Diameters
149.9	3/8"x5/8"
199.9	3/8"x3/4"
289.9	3/8"x7/8"
419.9	1/2"x1 1/8"
639.9	5/8"x1 1/8"
919.9	3/4"x1 3/8"
> 919.9	3/4"x1 5/8"
Main pipe size up	3/8"x3/4"

Piping limitations

Description	Value
Maximum total length	300.0m
Maximum longest actual length	70.0m
Maximum longest equivalent length	90.0m
Maximum main pipe length (size up of main pipe required if longer)	-
Maximum length first branch to indoor unit(size up of intermediate pipes required if longer)	40.0m
Maximum length first branch to indoor unit	40.0m
Maximum length of indoor units to nearest branch	40.0m
Maximum length difference between longest and shortest distance to indoor units	40.0m
Maximum height difference, outdoor unit below indoor units	30.0m
Minimum connection ratio, outdoor unit below indoor units	-
Maximum height difference, outdoor unit above indoor units	30.0m
Minimum connection ratio, outdoor unit above indoor units	-
Maximum height difference in technical cooling, outdoor unit below indoor units	30.0m
Maximum height difference in technical cooling, outdoor unit above indoor units	30.0m
Maximum height difference between indoor units	15.0m
Connection ratio range	50.0% - 130.0%
Refrigerant pipe diameters	3/8" (liquid) x 3/4" (gas)
Maximum equivalent length from BP unit or VRV indoor to VRV REFNET (size up of intermediate pipes required if longer)	-
Maximum equivalent length from BP unit or VRV indoor to VRV REFNET	40.0m
Maximum actual length between CM and HM	-
Maximum height difference between CM and HM	-

System 6 - RXYSCQ6TV1

Model	Quantity	Description
RXYSCQ6TV1	1	RXYSCQ-TV1 (VRV IV Mini Compact)
FXNQ40A	1	FXNQ-A - Concealed floor standing unit
FXNQ63A	2	FXNQ-A - Concealed floor standing unit
KHRQ22M20T	2	Refnet branch piping kit
BRC1H52W	3	Remote controller (white)

Refrigerant information

Refrigerant type	GWP	Base charge kg	Extra charge kg	TCO2 equivalent
R410A	2087.5	3.70	unknown	7.7

The system(s) contain fluorinated greenhouse gases.



Pipe capacities

Maximum Connection Index	Diameters
149.9	3/8"x5/8"
199.9	3/8"x3/4"
289.9	3/8"x7/8"
419.9	1/2"x1 1/8"
639.9	5/8"x1 1/8"
919.9	3/4"x1 3/8"
> 919.9	3/4"x1 5/8"
Main pipe size up	3/8"x3/4"

Piping limitations

Description	Value
Maximum total length	300.0m
Maximum longest actual length	70.0m
Maximum longest equivalent length	90.0m
Maximum main pipe length (size up of main pipe required if longer)	-
Maximum length first branch to indoor unit(size up of intermediate pipes required if longer)	40.0m
Maximum length first branch to indoor unit	40.0m
Maximum length of indoor units to nearest branch	40.0m
Maximum length difference between longest and shortest distance to indoor units	40.0m
Maximum height difference, outdoor unit below indoor units	30.0m
Minimum connection ratio, outdoor unit below indoor units	-
Maximum height difference, outdoor unit above indoor units	30.0m
Minimum connection ratio, outdoor unit above indoor units	-
Maximum height difference in technical cooling, outdoor unit below indoor units	30.0m
Maximum height difference in technical cooling, outdoor unit above indoor units	30.0m
Maximum height difference between indoor units	15.0m
Connection ratio range	50.0% - 130.0%
Refrigerant pipe diameters	3/8" (liquid) x 3/4" (gas)
Maximum equivalent length from BP unit or VRV indoor to VRV REFNET (size up of intermediate pipes required if longer)	-
Maximum equivalent length from BP unit or VRV indoor to VRV REFNET	40.0m
Maximum actual length between CM and HM	-
Maximum height difference between CM and HM	-

System 7 - RXYSCQ4TV1

Model	Quantity	Description
RXYSCQ4TV1	1	RXYSCQ-TV1 (VRV IV Mini Compact)
FXNQ40A	2	FXNQ-A - Concealed floor standing unit
FXNQ50A	1	FXNQ-A - Concealed floor standing unit
KHRQ22M20T	2	Refnet branch piping kit
BRC1H52W	3	Remote controller (white)

Refrigerant information

Refrigerant type	GWP	Base charge kg	Extra charge kg	TCO2 equivalent
R410A	2087.5	3.70	unknown	7.7

The system(s) contain fluorinated greenhouse gases.



Pipe capacities

Maximum Connection Index	Diameters
149.9	3/8"x5/8"
199.9	3/8"x3/4"
289.9	3/8"x7/8"
419.9	1/2"x1 1/8"
639.9	5/8"x1 1/8"
919.9	3/4"x1 3/8"
> 919.9	3/4"x1 5/8"
Main pipe size up	3/8"x3/4"

Piping limitations

Description	Value
Maximum total length	300.0m
Maximum longest actual length	70.0m
Maximum longest equivalent length	90.0m
Maximum main pipe length (size up of main pipe required if longer)	-
Maximum length first branch to indoor unit (size up of intermediate pipes required if longer)	40.0m
Maximum length first branch to indoor unit	40.0m
Maximum length of indoor units to nearest branch	40.0m
Maximum length difference between longest and shortest distance to indoor units	40.0m
Maximum height difference, outdoor unit below indoor units	30.0m
Minimum connection ratio, outdoor unit below indoor units	-
Maximum height difference, outdoor unit above indoor units	30.0m
Minimum connection ratio, outdoor unit above indoor units	-
Maximum height difference in technical cooling, outdoor unit below indoor units	30.0m
Maximum height difference in technical cooling, outdoor unit above indoor units	30.0m
Maximum height difference between indoor units	15.0m
Connection ratio range	50.0% - 130.0%
Refrigerant pipe diameters	3/8" (liquid) x 3/4" (gas)
Maximum equivalent length from BP unit or VRV indoor to VRV REFNET (size up of intermediate pipes required if longer)	-
Maximum equivalent length from BP unit or VRV indoor to VRV REFNET	40.0m
Maximum actual length between CM and HM	-
Maximum height difference between CM and HM	-

System 8 - RXYSCQ5TV1

Model	Quantity	Description
RXYSCQ5TV1	1	RXYSCQ-TV1 (VRV IV Mini Compact)
FXNQ50A	3	FXNQ-A - Concealed floor standing unit
KHRQ22M20T	2	Refnet branch piping kit
BRC1H52W	3	Remote controller (white)

Refrigerant information

Refrigerant type	GWP	Base charge kg	Extra charge kg	TCO2 equivalent
R410A	2087.5	3.70	unknown	7.7

The system(s) contain fluorinated greenhouse gases.



Pipe capacities

Maximum Connection Index	Diameters
149.9	3/8"x5/8"
199.9	3/8"x3/4"
289.9	3/8"x7/8"
419.9	1/2"x1 1/8"
639.9	5/8"x1 1/8"
919.9	3/4"x1 3/8"
> 919.9	3/4"x1 5/8"
Main pipe size up	3/8"x3/4"

Piping limitations

Description	Value
Maximum total length	300.0m
Maximum longest actual length	70.0m
Maximum longest equivalent length	90.0m
Maximum main pipe length (size up of main pipe required if longer)	-
Maximum length first branch to indoor unit(size up of intermediate pipes required if longer)	40.0m
Maximum length first branch to indoor unit	40.0m
Maximum length of indoor units to nearest branch	40.0m
Maximum length difference between longest and shortest distance to indoor units	40.0m
Maximum height difference, outdoor unit below indoor units	30.0m
Minimum connection ratio, outdoor unit below indoor units	-
Maximum height difference, outdoor unit above indoor units	30.0m
Minimum connection ratio, outdoor unit above indoor units	-
Maximum height difference in technical cooling, outdoor unit below indoor units	30.0m
Maximum height difference in technical cooling, outdoor unit above indoor units	30.0m
Maximum height difference between indoor units	15.0m
Connection ratio range	50.0% - 130.0%
Refrigerant pipe diameters	3/8" (liquid) x 3/4" (gas)
Maximum equivalent length from BP unit or VRV indoor to VRV REFNET (size up of intermediate pipes required if longer)	-
Maximum equivalent length from BP unit or VRV indoor to VRV REFNET	40.0m
Maximum actual length between CM and HM	-
Maximum height difference between CM and HM	-

System 9 - RXYSCQ6TV1

Model	Quantity	Description
RXYSCQ6TV1	1	RXYSCQ-TV1 (VRV IV Mini Compact)
FXNQ40A	4	FXNQ-A - Concealed floor standing unit
KHRQ22M20T	3	Refnet branch piping kit
BRC1H52W	4	Remote controller (white)

Refrigerant information

Refrigerant type	GWP	Base charge kg	Extra charge kg	TCO2 equivalent
R410A	2087.5	3.70	unknown	7.7

The system(s) contain fluorinated greenhouse gases.



Remarks

Chosen outdoor unit size differs from default proposed size. Be aware that this might lead to reduced comfort levels, increased noise levels, wear and tear. In case of doubt, contact your sales representative.

Pipe capacities

Maximum Connection Index	Diameters
149.9	3/8"x5/8"
199.9	3/8"x3/4"
289.9	3/8"x7/8"
419.9	1/2"x1 1/8"
639.9	5/8"x1 1/8"
919.9	3/4"x1 3/8"
> 919.9	3/4"x1 5/8"
Main pipe size up	3/8"x3/4"

Piping limitations

Description	Value
Maximum total length	300.0m
Maximum longest actual length	70.0m
Maximum longest equivalent length	90.0m
Maximum main pipe length (size up of main pipe required if longer)	-
Maximum length first branch to indoor unit(size up of intermediate pipes required if longer)	40.0m
Maximum length first branch to indoor unit	40.0m
Maximum length of indoor units to nearest branch	40.0m
Maximum length difference between longest and shortest distance to indoor units	40.0m
Maximum height difference, outdoor unit below indoor units	30.0m
Minimum connection ratio, outdoor unit below indoor units	-
Maximum height difference, outdoor unit above indoor units	30.0m
Minimum connection ratio, outdoor unit above indoor units	-
Maximum height difference in technical cooling, outdoor unit below indoor units	30.0m
Maximum height difference in technical cooling, outdoor unit above indoor units	30.0m
Maximum height difference between indoor units	15.0m
Connection ratio range	50.0% - 130.0%
Refrigerant pipe diameters	3/8" (liquid) x 3/4" (gas)
Maximum equivalent length from BP unit or VRV indoor to VRV REFNET (size up of intermediate pipes required if longer)	-
Maximum equivalent length from BP unit or VRV indoor to VRV REFNET	40.0m
Maximum actual length between CM and HM	-
Maximum height difference between CM and HM	-

System 10 - RXYSCQ4TV1

Model	Quantity	Description
RXYSCQ4TV1	1	RXYSCQ-TV1 (VRV IV Mini Compact)
FXNQ32A	4	FXNQ-A - Concealed floor standing unit
KHRQ22M20T	3	Refnet branch piping kit
BRC1H52W	4	Remote controller (white)

Refrigerant information

Refrigerant type	GWP	Base charge kg	Extra charge kg	TCO2 equivalent
R410A	2087.5	3.70	unknown	7.7

The system(s) contain fluorinated greenhouse gases.



Pipe capacities

Maximum Connection Index	Diameters
149.9	3/8"x5/8"
199.9	3/8"x3/4"
289.9	3/8"x7/8"
419.9	1/2"x1 1/8"
639.9	5/8"x1 1/8"
919.9	3/4"x1 3/8"
> 919.9	3/4"x1 5/8"
Main pipe size up	3/8"x3/4"

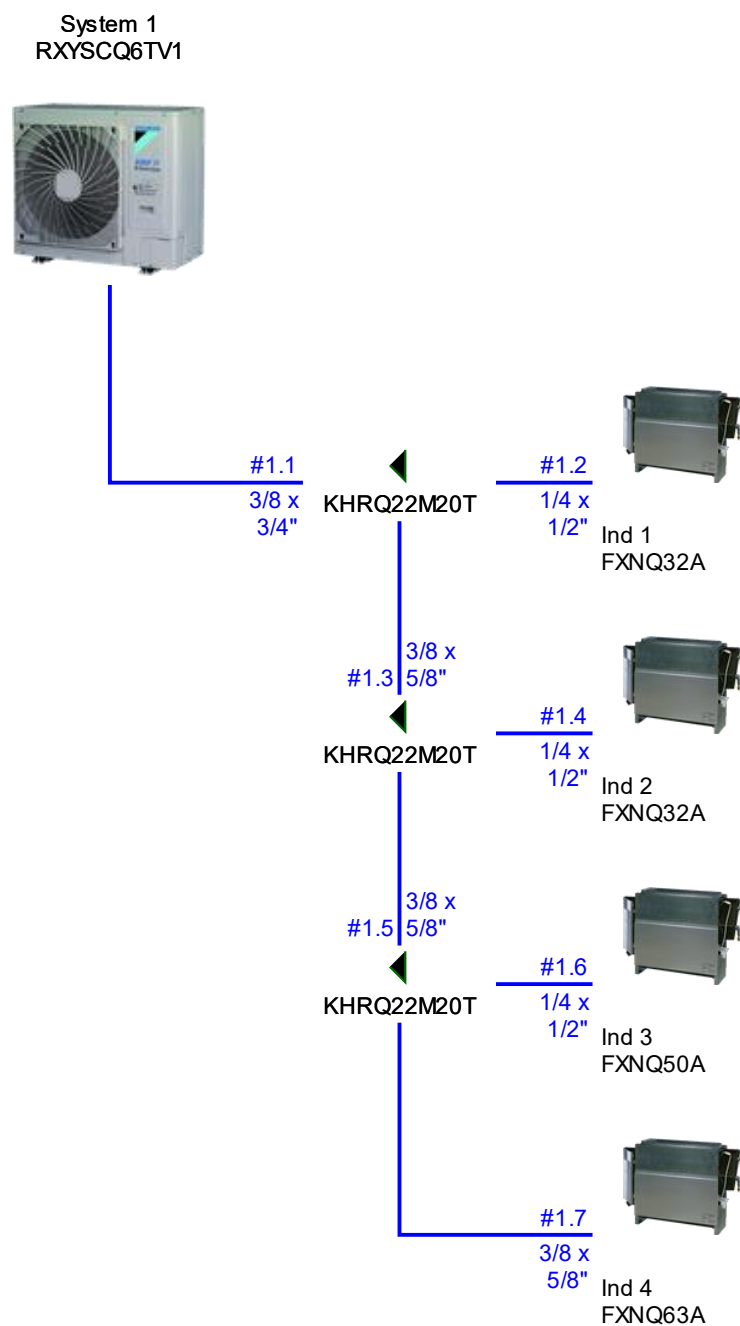
Piping limitations

Description	Value
Maximum total length	300.0m
Maximum longest actual length	70.0m
Maximum longest equivalent length	90.0m
Maximum main pipe length (size up of main pipe required if longer)	-
Maximum length first branch to indoor unit(size up of intermediate pipes required if longer)	40.0m
Maximum length first branch to indoor unit	40.0m
Maximum length of indoor units to nearest branch	40.0m
Maximum length difference between longest and shortest distance to indoor units	40.0m
Maximum height difference, outdoor unit below indoor units	30.0m
Minimum connection ratio, outdoor unit below indoor units	-
Maximum height difference, outdoor unit above indoor units	30.0m
Minimum connection ratio, outdoor unit above indoor units	-
Maximum height difference in technical cooling, outdoor unit below indoor units	30.0m
Maximum height difference in technical cooling, outdoor unit above indoor units	30.0m
Maximum height difference between indoor units	15.0m
Connection ratio range	50.0% - 130.0%
Refrigerant pipe diameters	3/8" (liquid) x 3/4" (gas)
Maximum equivalent length from BP unit or VRV indoor to VRV REFNET (size up of intermediate pipes required if longer)	-
Maximum equivalent length from BP unit or VRV indoor to VRV REFNET	40.0m
Maximum actual length between CM and HM	-
Maximum height difference between CM and HM	-



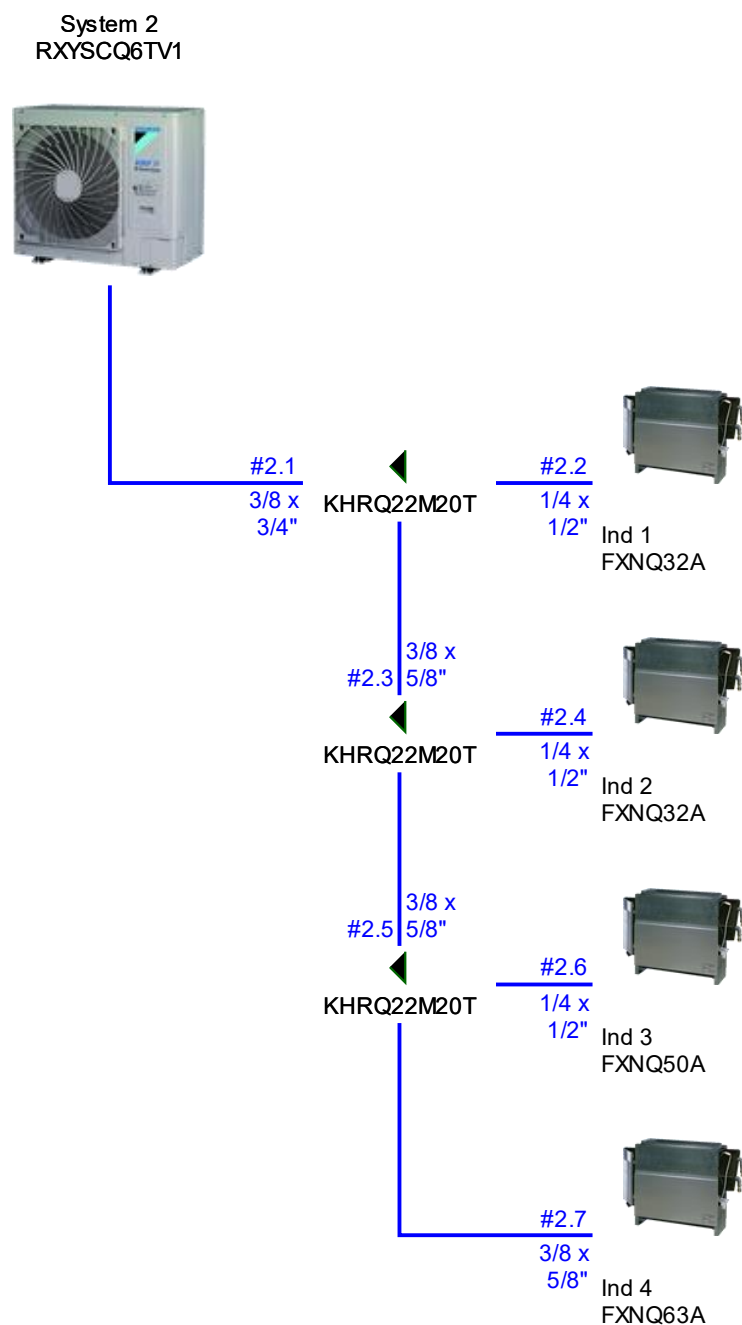
Piping diagrams

Piping System 1



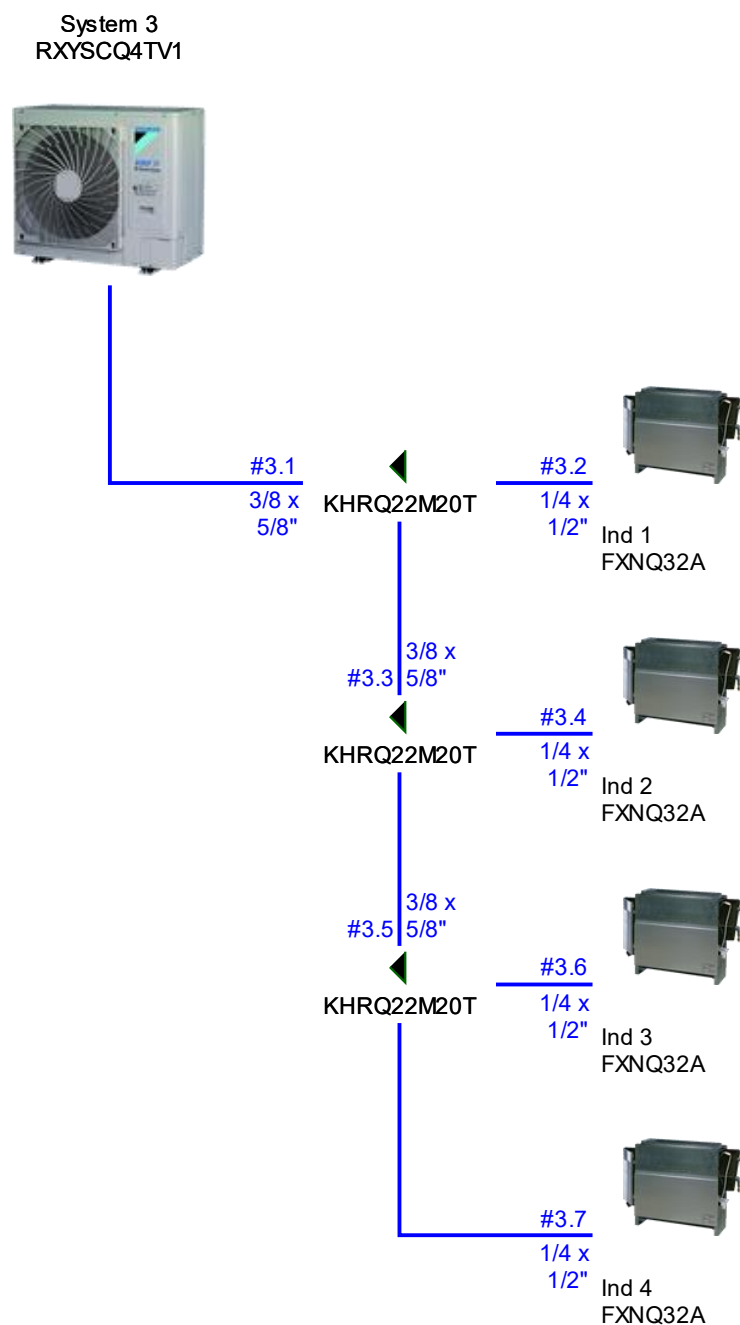
Piping

Warning: The pipe diameter values are purely indicative. Depending on the required pipe lengths, a different pipe diameter might be required.



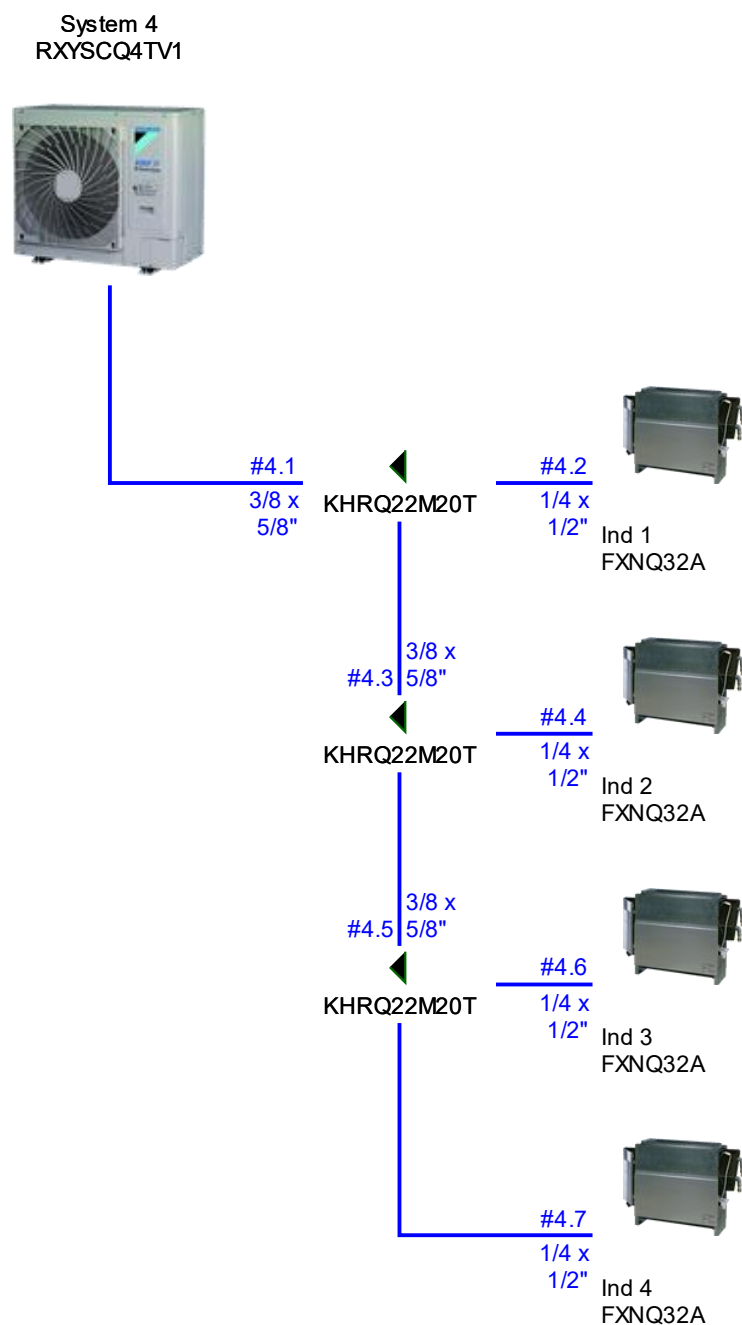
Piping

Warning: The pipe diameter values are purely indicative. Depending on the required pipe lengths, a different pipe diameter might be required.



Piping

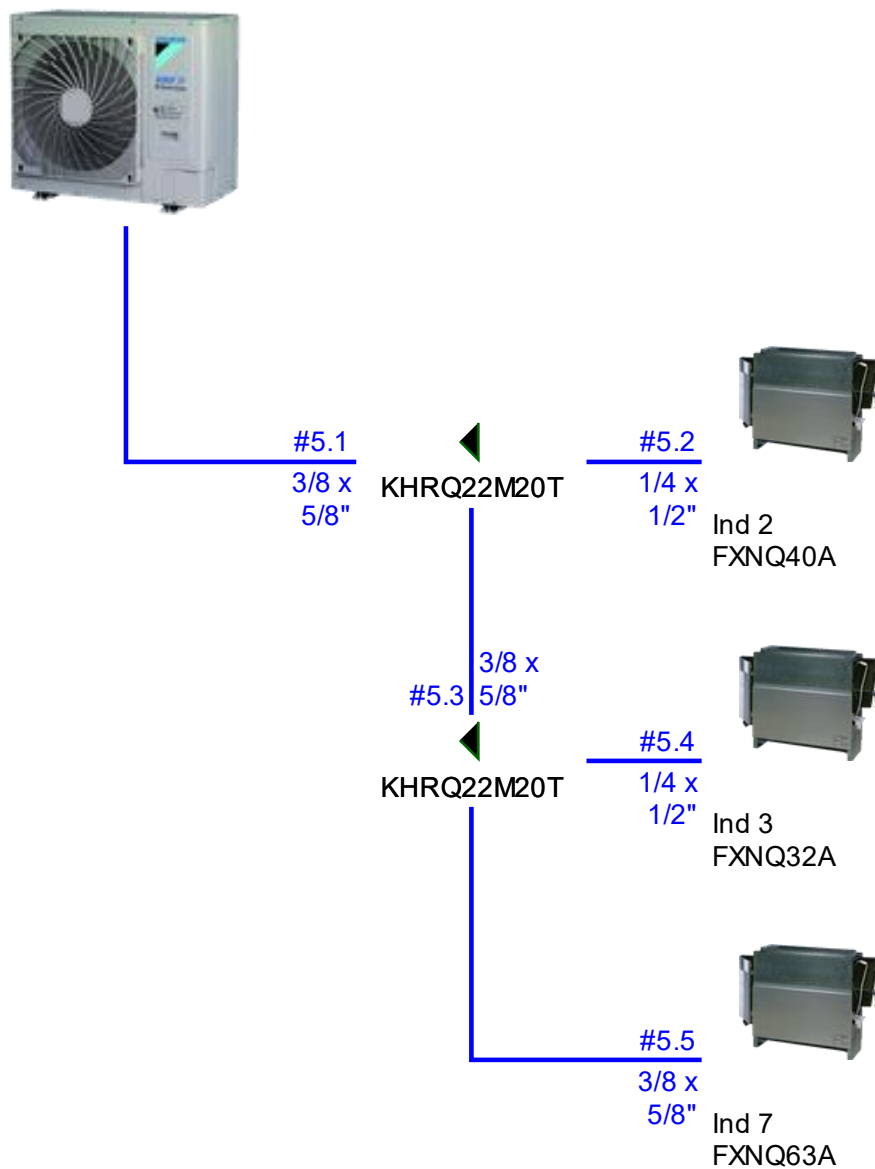
Warning: The pipe diameter values are purely indicative. Depending on the required pipe lengths, a different pipe diameter might be required.



Piping

Warning: The pipe diameter values are purely indicative. Depending on the required pipe lengths, a different pipe diameter might be required.

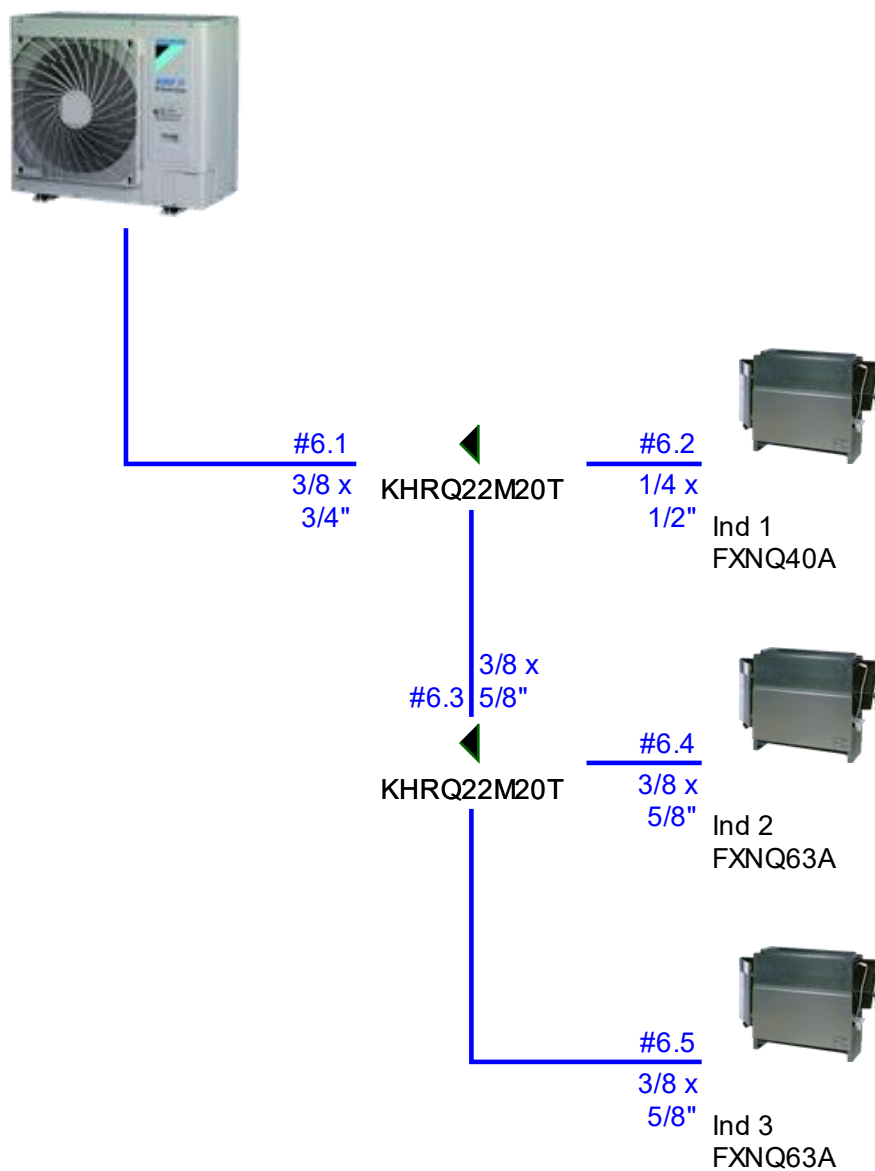
System 5
RXYSCQ5TV1



Piping

Warning: The pipe diameter values are purely indicative. Depending on the required pipe lengths, a different pipe diameter might be required.

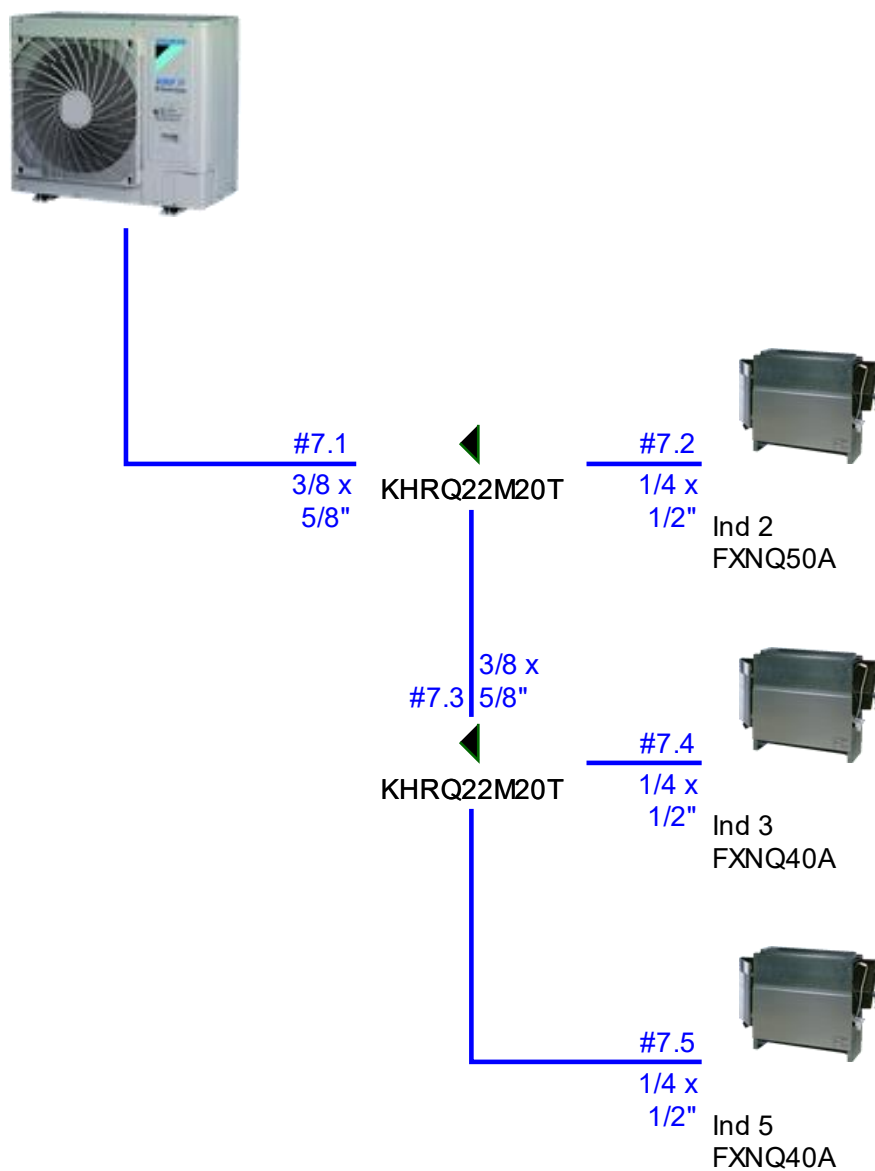
System 6
RXYSCQ6TV1



Piping

Warning: The pipe diameter values are purely indicative. Depending on the required pipe lengths, a different pipe diameter might be required.

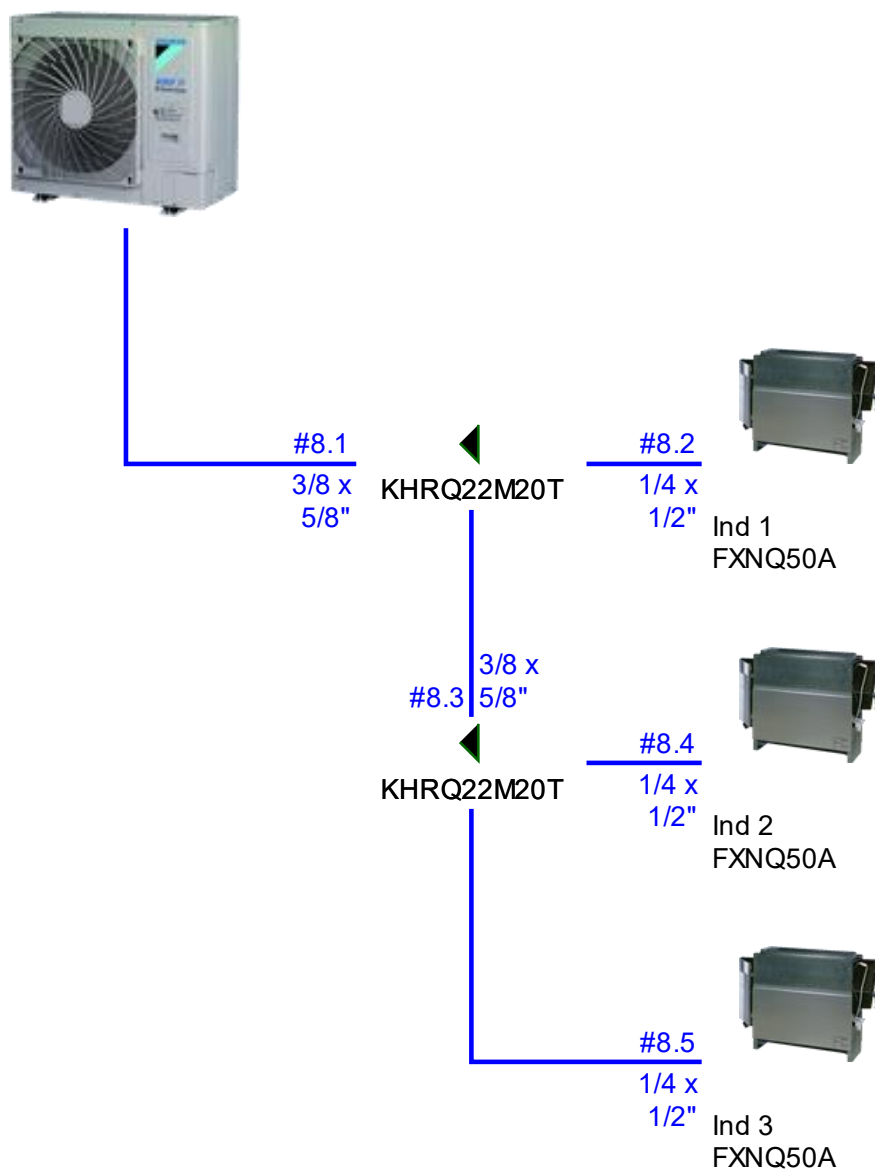
System 7
RXYSCQ4TV1



Piping

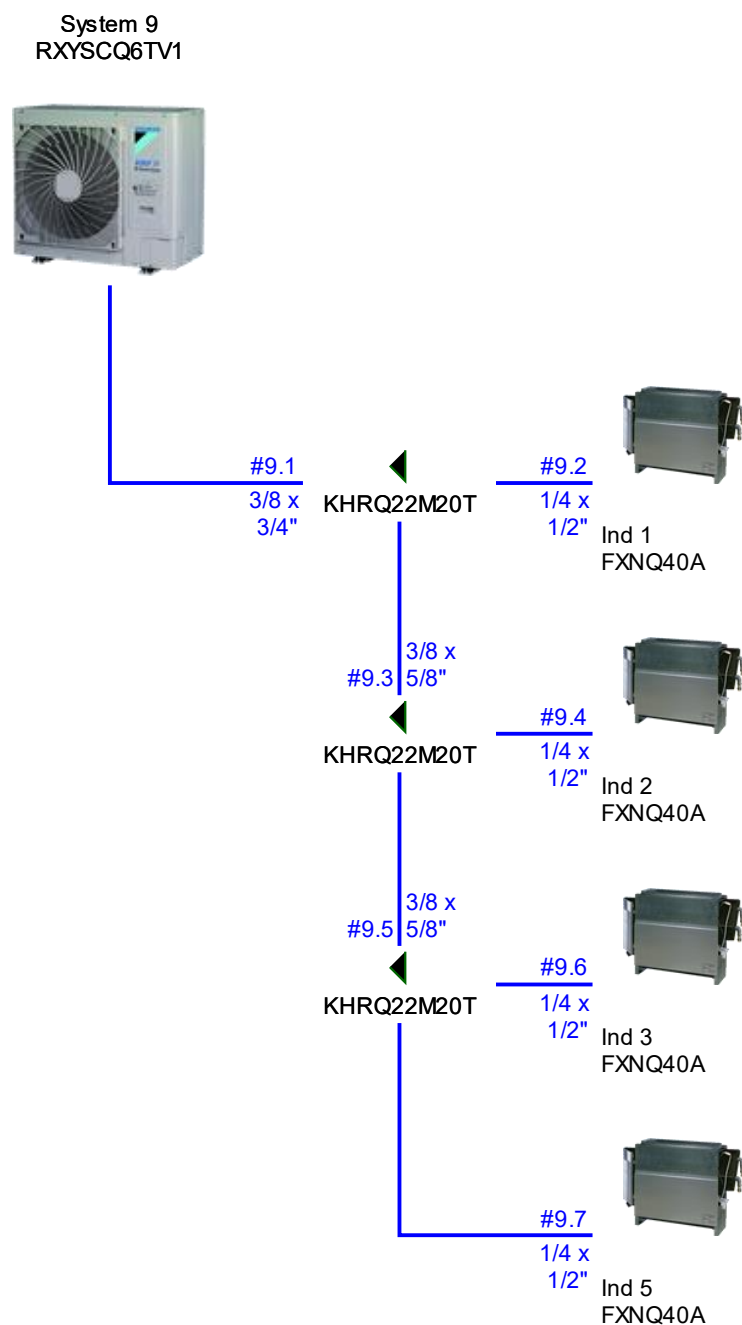
Warning: The pipe diameter values are purely indicative. Depending on the required pipe lengths, a different pipe diameter might be required.

System 8
RXYSCQ5TV1



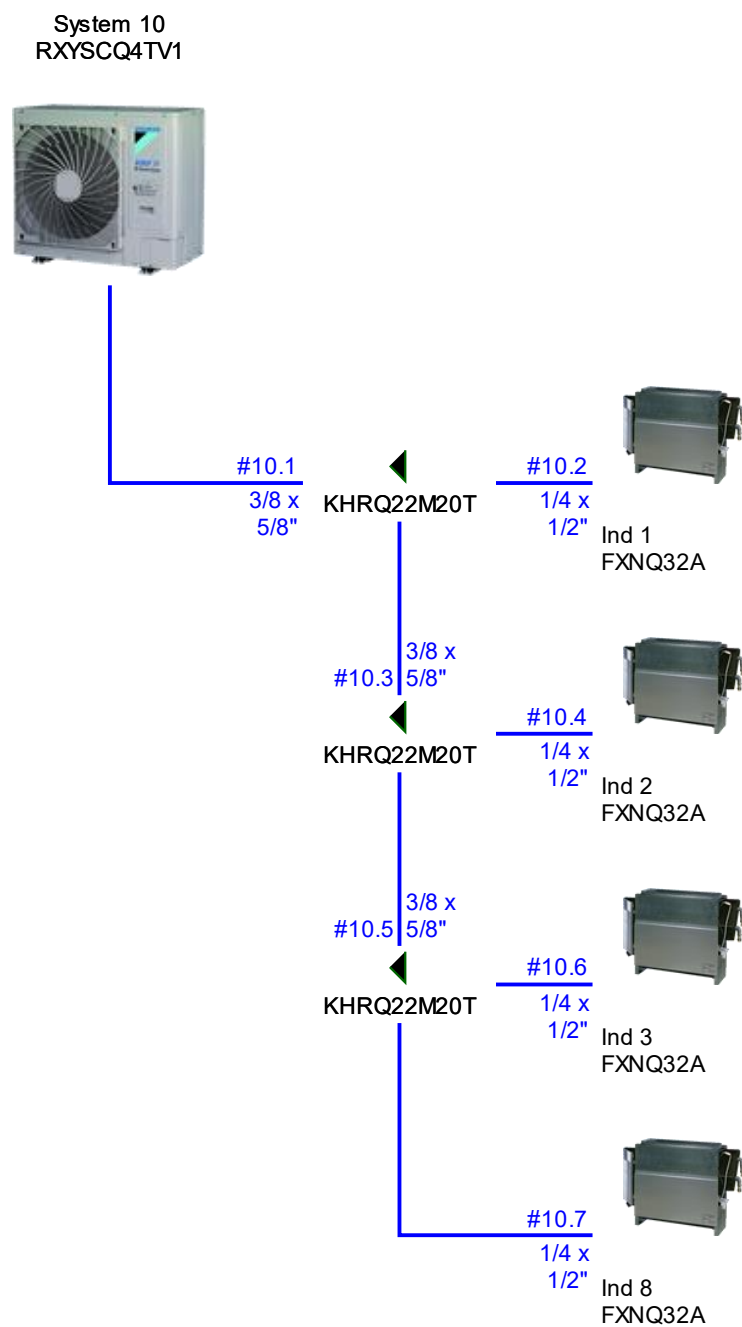
Piping

Warning: The pipe diameter values are purely indicative. Depending on the required pipe lengths, a different pipe diameter might be required.



Piping

Warning: The pipe diameter values are purely indicative. Depending on the required pipe lengths, a different pipe diameter might be required.



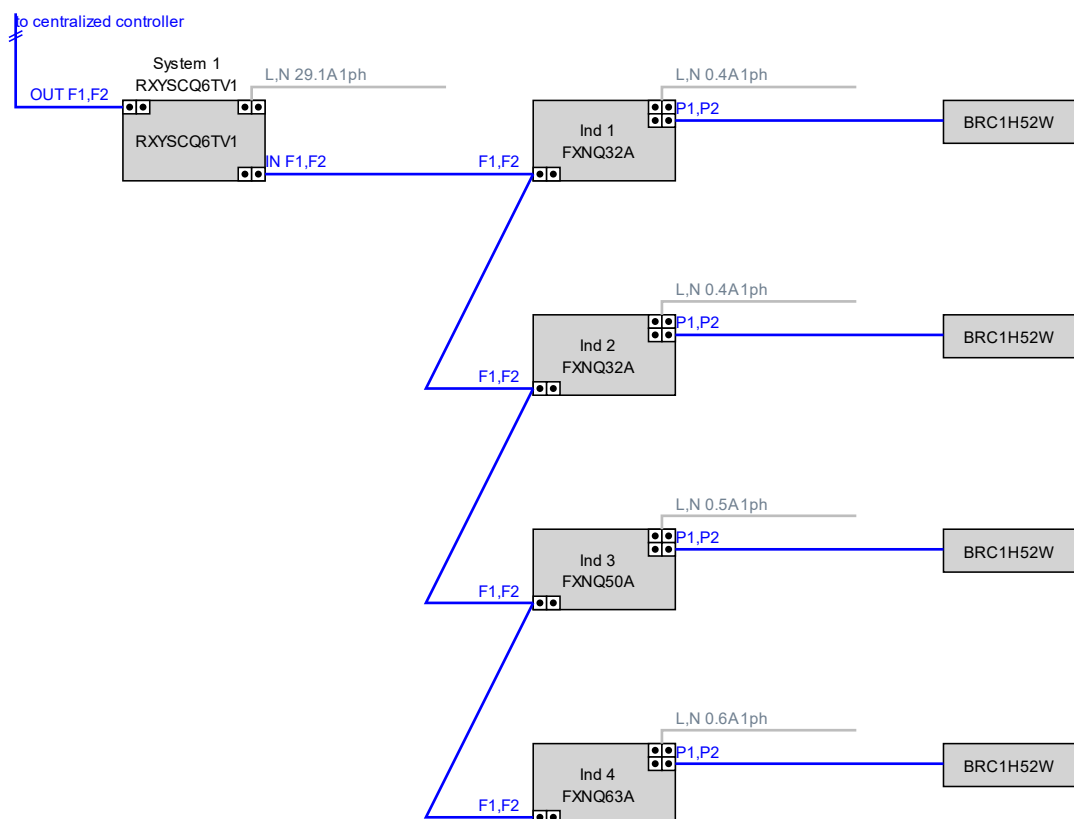
Piping

Warning: The pipe diameter values are purely indicative. Depending on the required pipe lengths, a different pipe diameter might be required.



Wiring diagrams

Wiring System 1



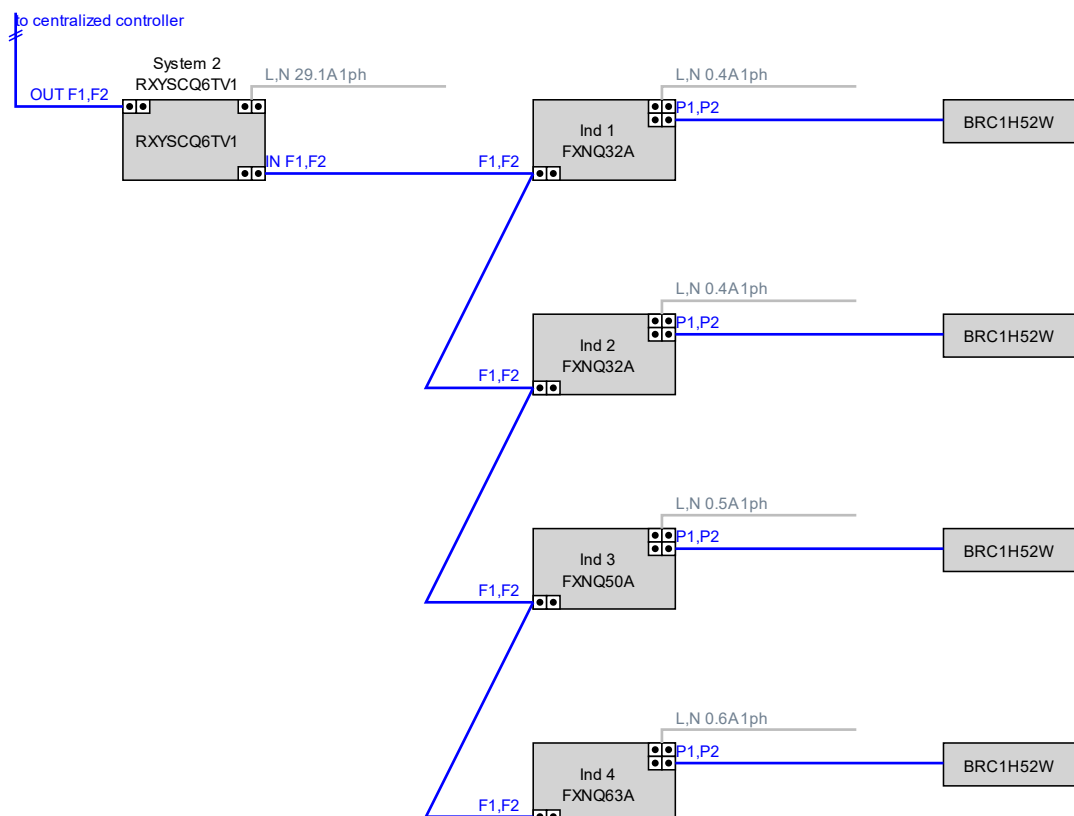
Remarks

P1P2 = AWG 18-2 is required - however always refer to local code for further information.

F1F2 IN transmission wiring, use 2-core wires of 0,75 to 1,25mm² size cables, with shield.

F1F2 OUT transmission wiring, use 2-core wires of 0,75 to 1,25 mm² size cables, without shield, (but shielded cable can be used if required by local regulations and standards).

Note: The shield should only be earthed at outdoor unit side, not at the indoor units!



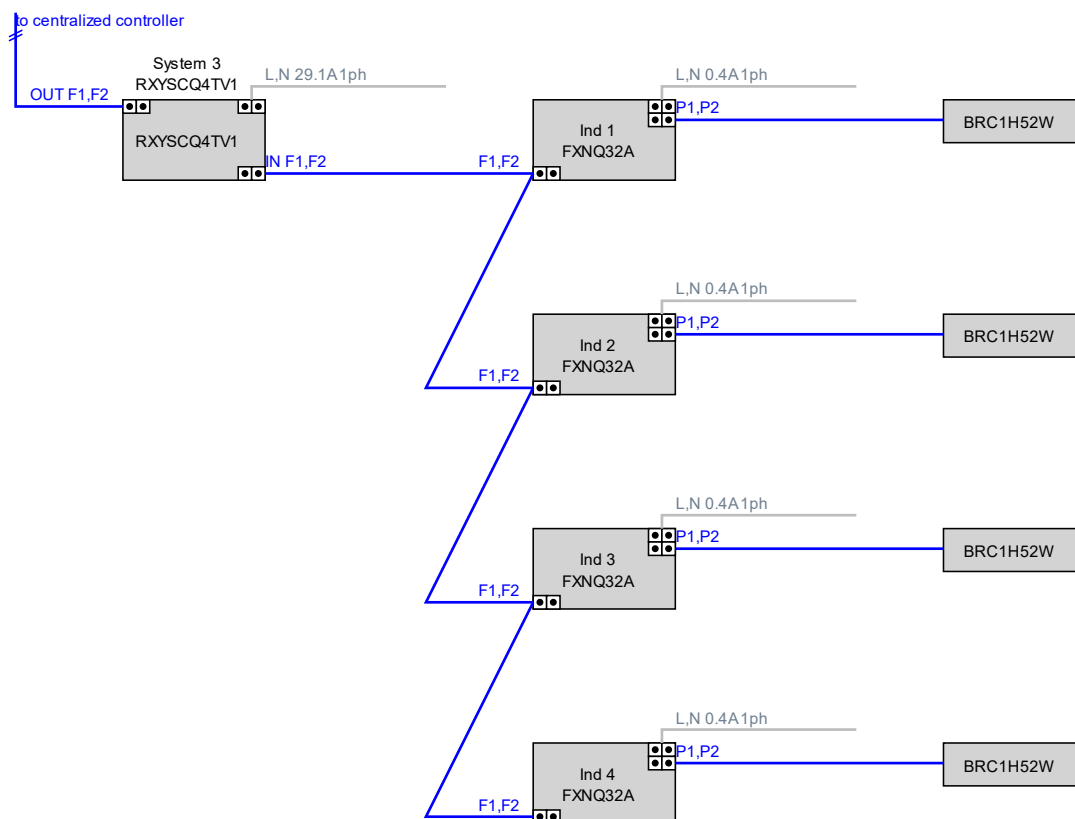
Remarks

P1P2 = AWG 18-2 is required - however always refer to local code for further information.

F1F2 IN transmission wiring, use 2-core wires of 0,75 to 1,25mm² size cables, with shield.

F1F2 OUT transmission wiring, use 2-core wires of 0,75 to 1,25 mm² size cables, without shield, (but shielded cable can be used if required by local regulations and standards).

Note: The shield should only be earthed at outdoor unit side, not at the indoor units!



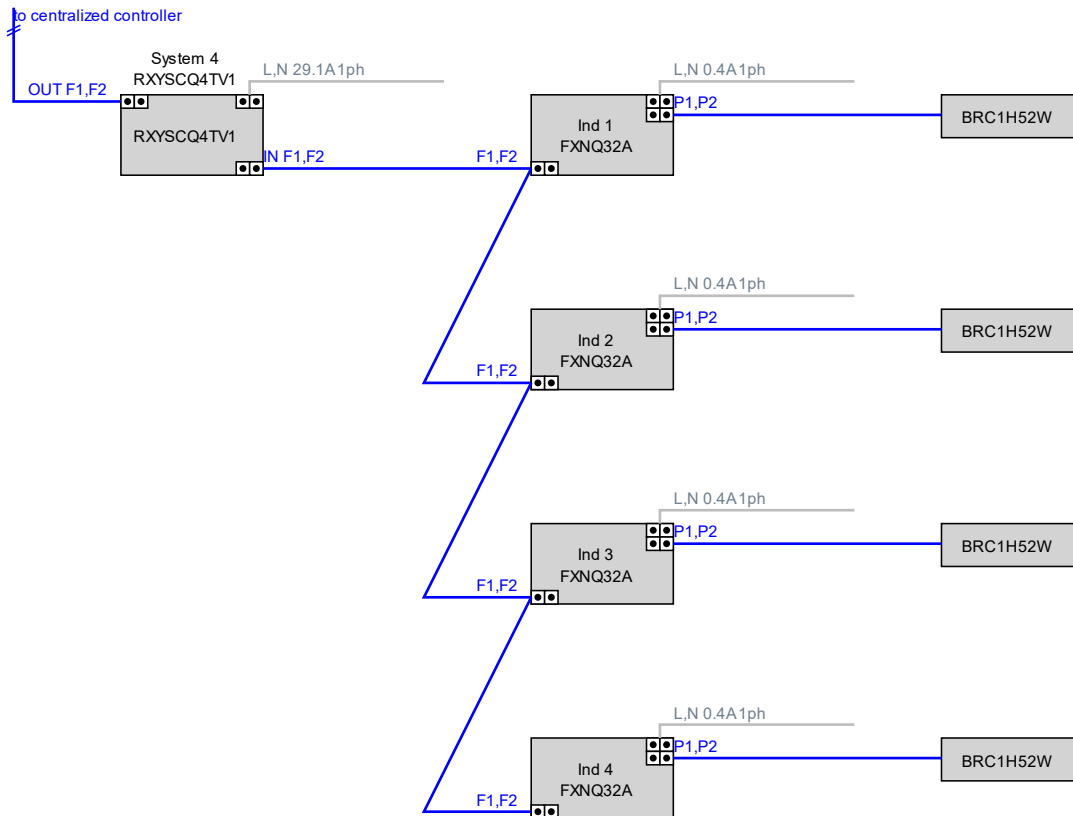
Remarks

P1P2 = AWG 18-2 is required - however always refer to local code for further information.

F1F2 IN transmission wiring, use 2-core wires of 0,75 to 1,25mm² size cables, with shield.

F1F2 OUT transmission wiring, use 2-core wires of 0,75 to 1,25 mm² size cables, without shield, (but shielded cable can be used if required by local regulations and standards).

Note: The shield should only be earthed at outdoor unit side, not at the indoor units!



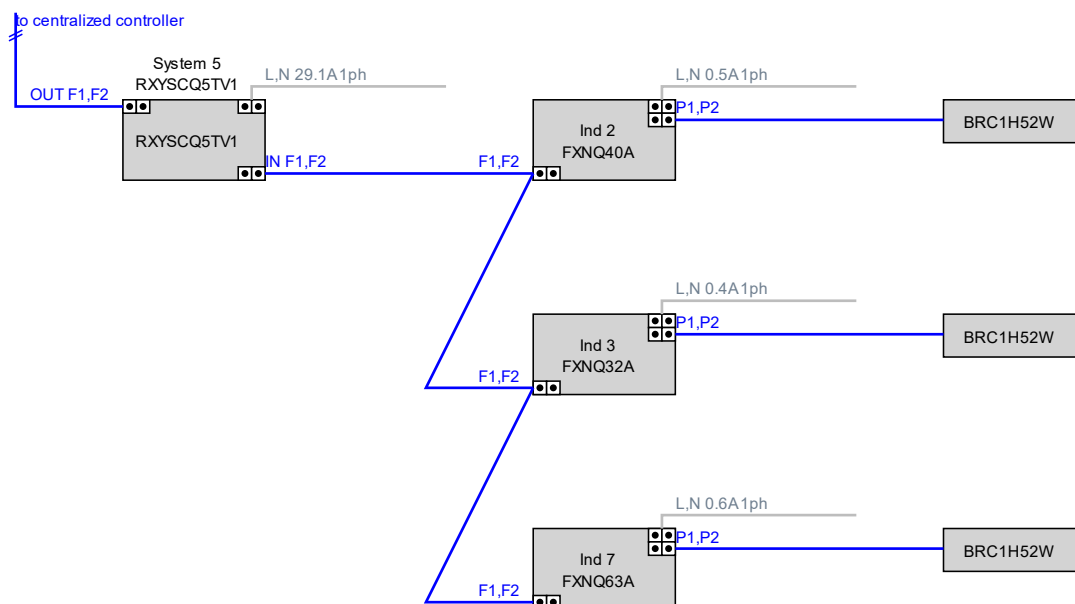
Remarks

P1P2 = AWG 18-2 is required - however always refer to local code for further information.

F1F2 IN transmission wiring, use 2-core wires of 0,75 to 1,25mm² size cables, with shield.

F1F2 OUT transmission wiring, use 2-core wires of 0,75 to 1,25 mm² size cables, without shield, (but shielded cable can be used if required by local regulations and standards).

Note: The shield should only be earthed at outdoor unit side, not at the indoor units!



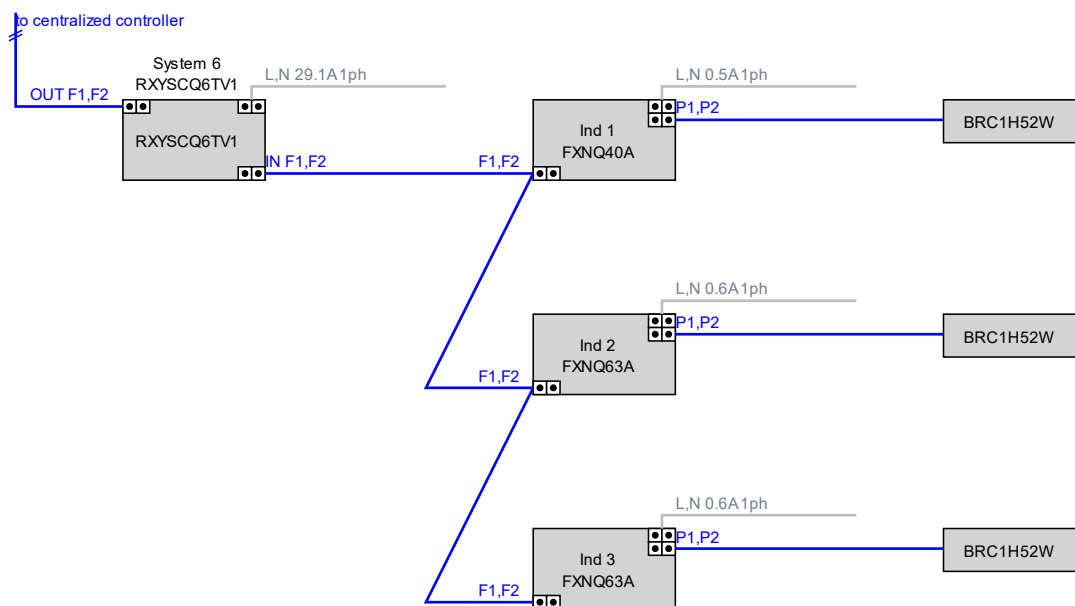
Remarks

P1P2 = AWG 18-2 is required - however always refer to local code for further information.

F1F2 IN transmission wiring, use 2-core wires of 0,75 to 1,25mm² size cables, with shield.

F1F2 OUT transmission wiring, use 2-core wires of 0,75 to 1,25 mm² size cables, without shield, (but shielded cable can be used if required by local regulations and standards).

Note: The shield should only be earthed at outdoor unit side, not at the indoor units!



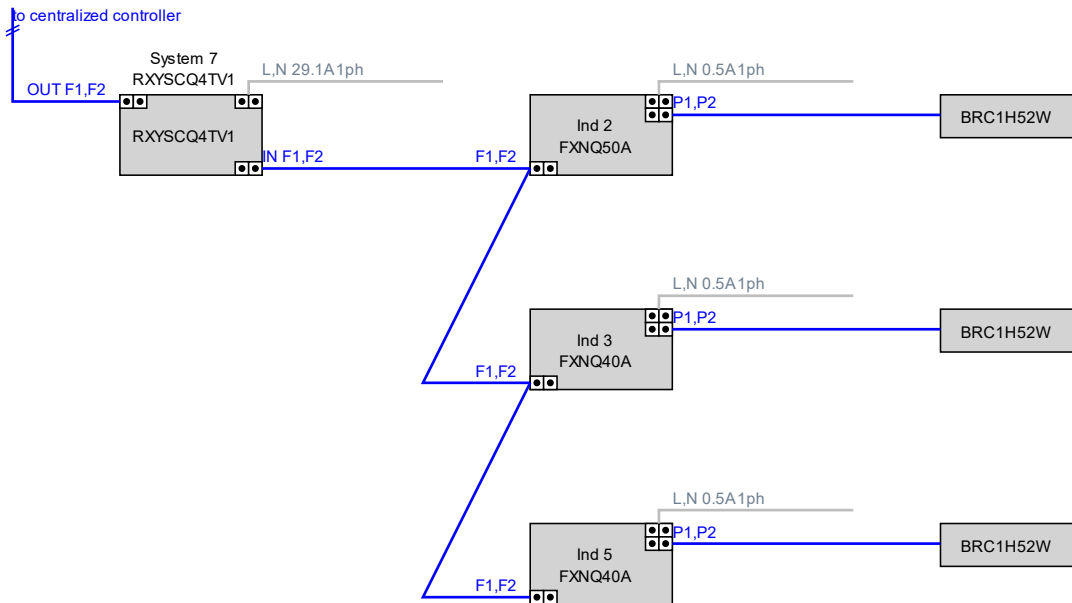
Remarks

P1P2 = AWG 18-2 is required - however always refer to local code for further information.

F1F2 IN transmission wiring, use 2-core wires of 0,75 to 1,25mm² size cables, with shield.

F1F2 OUT transmission wiring, use 2-core wires of 0,75 to 1,25 mm² size cables, without shield, (but shielded cable can be used if required by local regulations and standards).

Note: The shield should only be earthed at outdoor unit side, not at the indoor units!



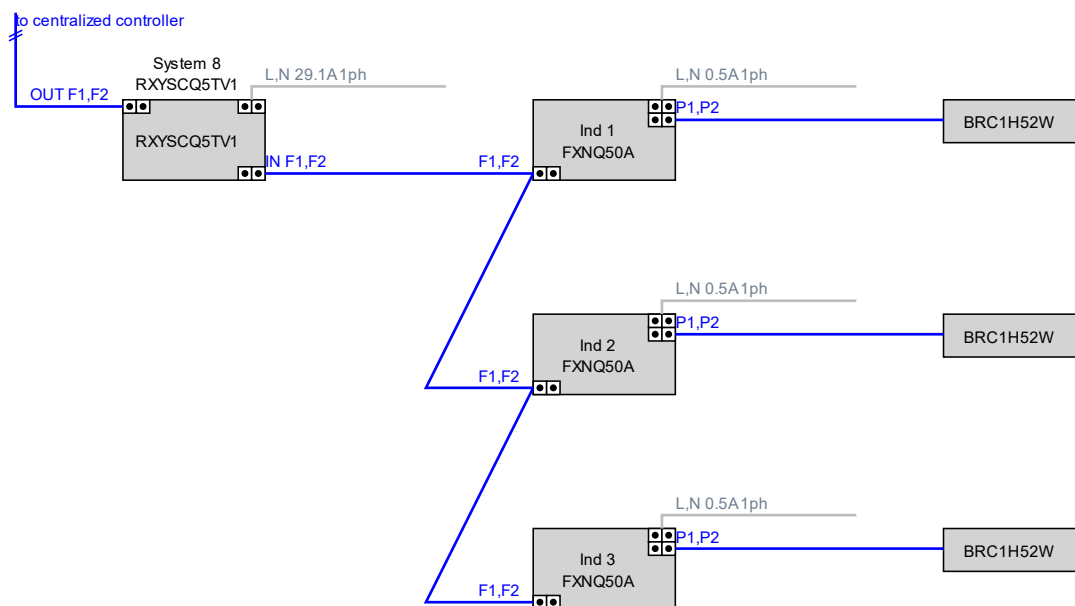
Remarks

P1P2 = AWG 18-2 is required - however always refer to local code for further information.

F1F2 IN transmission wiring, use 2-core wires of 0,75 to 1,25mm² size cables, with shield.

F1F2 OUT transmission wiring, use 2-core wires of 0,75 to 1,25 mm² size cables, without shield, (but shielded cable can be used if required by local regulations and standards).

Note: The shield should only be earthed at outdoor unit side, not at the indoor units!



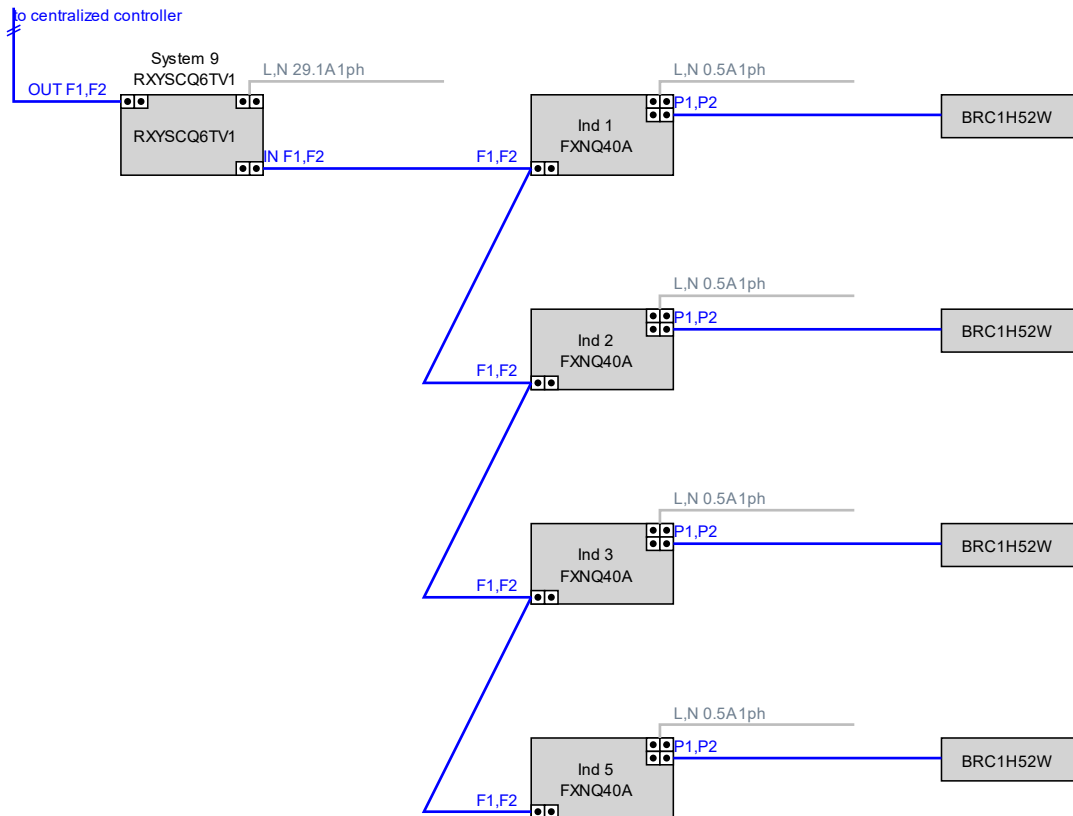
Remarks

P1P2 = AWG 18-2 is required - however always refer to local code for further information.

F1F2 IN transmission wiring, use 2-core wires of 0,75 to 1,25mm² size cables, with shield.

F1F2 OUT transmission wiring, use 2-core wires of 0,75 to 1,25 mm² size cables, without shield, (but shielded cable can be used if required by local regulations and standards).

Note: The shield should only be earthed at outdoor unit side, not at the indoor units!



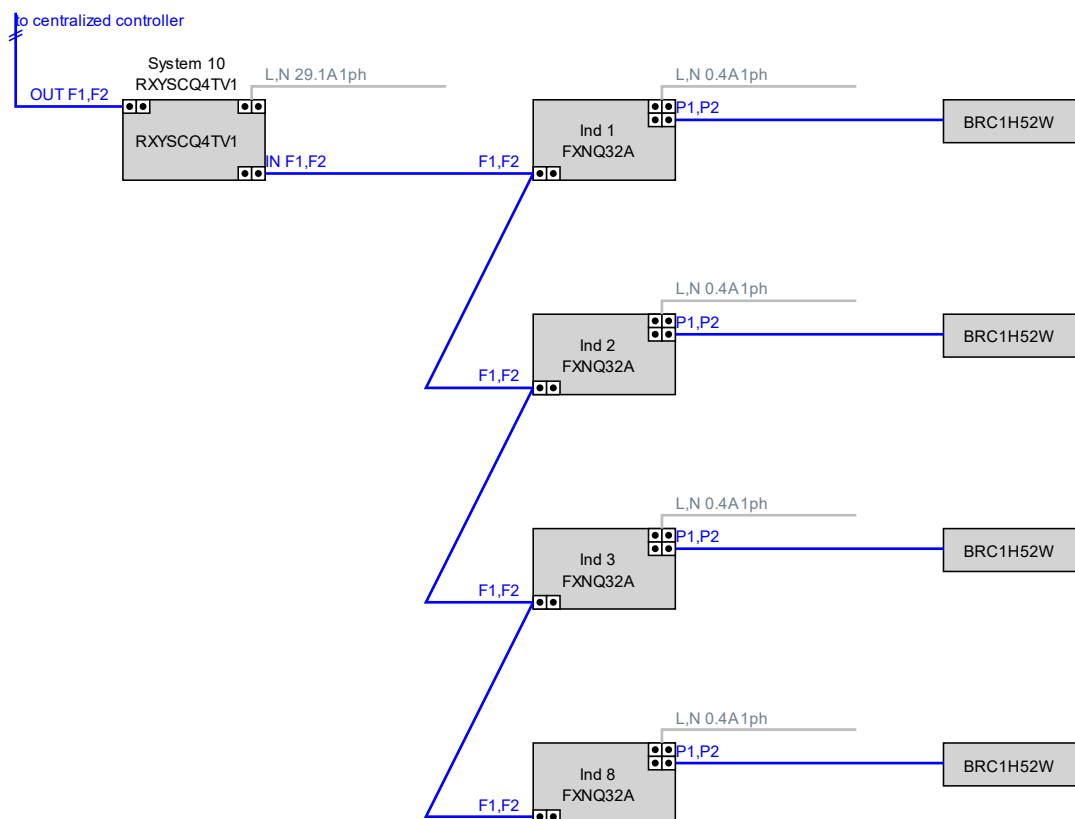
Remarks

P1P2 = AWG 18-2 is required - however always refer to local code for further information.

F1F2 IN transmission wiring, use 2-core wires of 0,75 to 1,25mm² size cables, with shield.

F1F2 OUT transmission wiring, use 2-core wires of 0,75 to 1,25 mm² size cables, without shield, (but shielded cable can be used if required by local regulations and standards).

Note: The shield should only be earthed at outdoor unit side, not at the indoor units!



Remarks

P1P2 = AWG 18-2 is required - however always refer to local code for further information.

F1F2 IN transmission wiring, use 2-core wires of 0,75 to 1,25mm² size cables, with shield.

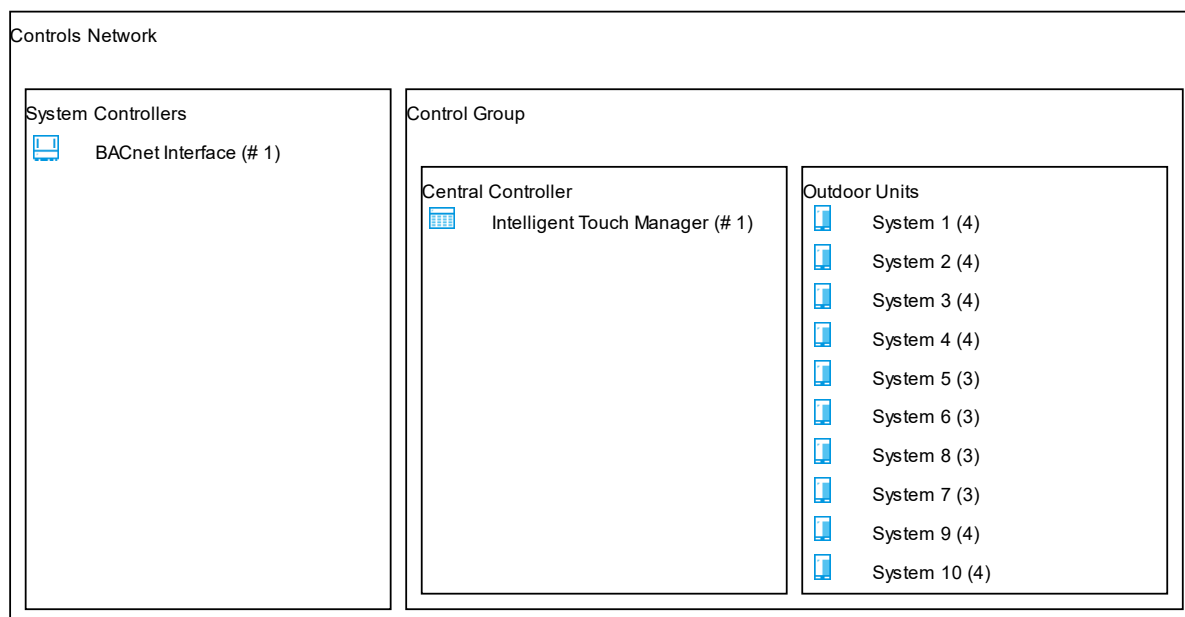
F1F2 OUT transmission wiring, use 2-core wires of 0,75 to 1,25 mm² size cables, without shield, (but shielded cable can be used if required by local regulations and standards).

Note: The shield should only be earthed at outdoor unit side, not at the indoor units!



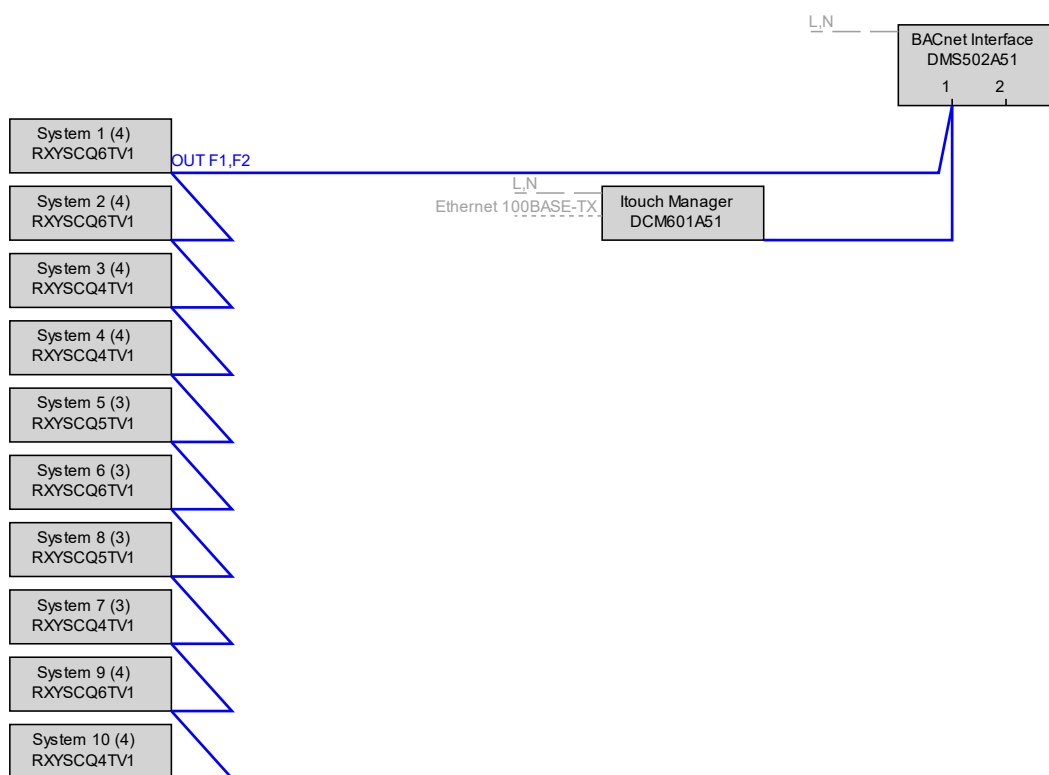
Centralized controllers

Concept



Controller wiring diagrams

Control Group







Best Practices

Residual Current Circuit Breaker

For better protection of installations against the risk of fire, power supply of indoor and outdoor units must be protected with a Residual Current Circuit Breaker. For protection against fire, we recommend a sensitivity of 300mA. The selected RCCB should be of the type B, suitable for inverter devices and indicated by the symbols here below. Further electrical characteristics of the RCCB must be selected in accordance with local regulation.



For a complete list of all required safety precautions, warnings and attention points, please consult the “general safety precautions manual” delivered with the unit.