

24 ΑΥΓ. ΣΥΣΤΗΜΑ: 1

ΦΟΡΤΙΑ ΧΩΡΟΥ												
ΕΠΙΦΑΝΕΙΕΣ	3	4	5	6	7	8	10	11	11	11	11	9
Rad.	1	1	1	2	2	2	10	11	11	11	11	9
Con.	2	3	4	5	6	6	2	3	3	3	3	3
ΦΩΤΙΣΜΟΣ	1	1	1	1	1	1	1	1	1	1	1	1
Rad.	0	0	0	0	0	0	0	0	0	0	0	0
Con.	0	0	0	0	0	0	0	0	0	0	0	0
ΑΙΣΘ. ΑΤΟΜ.	6	6	6	6	6	6	6	6	6	6	6	6
Rad.	3	3	3	3	3	3	3	3	3	3	3	3
Con.	2	2	2	2	2	2	2	2	2	2	2	2
ΑΙΣΘ. ΣΥΣΚ.	0	0	0	0	0	0	0	0	0	0	0	0
Rad.	0	0	0	0	0	0	0	0	0	0	0	0
Con.	0	0	0	0	0	0	0	0	0	0	0	0
ΧΑΡΑΜΑΔΕΣ	0	0	0	0	0	0	0	0	0	0	0	0
ΛΑΝΘ. ΑΤΟΜ.	5	5	5	5	5	5	5	5	5	5	5	5
ΛΑΝΘ. ΣΥΣΚ.	0	0	0	0	0	0	0	0	0	0	0	0
ΣΥΝ.ΑΙΣ.ΧΩΡ	9	10	12	13	14	15	16	17	18	18	17	16
ΣΥΝ.ΛΑΝ.ΧΩΡ	5	5	5	5	5	5	5	5	5	5	5	5
ΦΟΡΤΙΑ ΑΕΡΙΣΜΟΥ												
ΑΙΣΘ. ΑΕΡ.	2	2	3	3	4	4	4	4	4	4	3	3
ΛΑΝΘ. ΑΕΡ.	10	10	10	10	10	10	10	10	10	10	10	10
ΣΥΝΟΛΟ ΣΥΣ.	26	27	29	31	32	33	35	36	36	36	35	33

24 ΑΥΓ. ΣΥΣΤΗΜΑ: 2

ΦΟΡΤΙΑ ΧΩΡΟΥ												
ΕΠΙΦΑΝΕΙΕΣ	25	30	35	39	42	44	46	47	46	43	38	28
Rad.	4	4	4	4	4	5	5	6	6	7	7	7
Con.	21	26	31	35	38	39	41	41	40	36	31	21
ΦΩΤΙΣΜΟΣ	1	2	2	2	2	2	2	2	2	2	2	2
Rad.	1	1	1	1	1	1	1	1	1	1	1	1
Con.	1	1	1	1	1	1	1	1	1	1	1	1
ΑΙΣΘ. ΑΤΟΜ.	9	11	11	11	11	11	11	11	11	11	11	9
Rad.	4	5	5	5	5	6	5	6	6	6	6	5
Con.	5	6	6	6	6	6	5	6	6	6	6	5
ΑΙΣΘ. ΣΥΣΚ.	0	0	0	0	0	0	0	0	0	0	0	0
Rad.	0	0	0	0	0	0	0	0	0	0	0	0
Con.	0	0	0	0	0	0	0	0	0	0	0	0
ΧΑΡΑΜΑΔΕΣ	0	0	0	0	0	0	0	0	0	0	0	0
ΛΑΝΘ. ΑΤΟΜ.	9	11	11	11	11	11	9	9	9	9	9	6
ΛΑΝΘ. ΣΥΣΚ.	0	0	0	0	0	0	0	0	0	0	0	0
ΣΥΝ.ΑΙΣ.ΧΩΡ	36	43	47	52	55	57	58	59	58	56	51	39
ΣΥΝ.ΛΑΝ.ΧΩΡ	9	11	11	11	11	11	9	9	9	9	9	6
ΦΟΡΤΙΑ ΑΕΡΙΣΜΟΥ												
ΑΙΣΘ. ΑΕΡ.	1	1	2	2	2	2	3	3	2	2	2	2
ΛΑΝΘ. ΑΕΡ.	6	6	6	6	6	6	6	6	6	6	6	6
ΣΥΝΟΛΟ ΣΥΣ.	52	61	66	71	74	76	76	77	76	74	68	53

24 ΑΥΓ. ΣΥΣΤΗΜΑ: 3

ΦΟΡΤΙΑ ΧΩΡΟΥ												
ΕΠΙΦΑΝΕΙΕΣ	1	1	1	1	1	2	2	2	2	2	2	2
Rad.	0	0	0	0	0	1	1	1	1	1	1	1
Con.	0	0	0	0	0	1	1	1	1	1	1	1
ΦΩΤΙΣΜΟΣ	0	0	0	0	0	0	0	0	0	0	0	0
Rad.	0	0	0	0	0	0	0	0	0	0	0	0
Con.	0	0	0	0	0	0	0	0	0	0	0	0
ΑΙΣΘ. ΑΤΟΜ.	0	0	0	0	0	0	0	0	0	0	0	0
Rad.	0	0	0	0	0	0	0	0	0	0	0	0
Con.	0	0	0	0	0	0	0	0	0	0	0	0
ΑΙΣΘ. ΣΥΣΚ.	2	2	2	2	2	2	2	2	2	2	2	2
Rad.	0	0	0	0	0	0	0	0	0	0	0	0
Con.	2	2	2	2	2	2	2	2	2	2	2	2
ΧΑΡΑΜΑΔΕΣ	0	0	0	0	0	0	0	0	0	0	0	0
ΛΑΝΘ. ΑΤΟΜ.	0	0	0	0	0	0	0	0	0	0	0	0
ΛΑΝΘ. ΣΥΣΚ.	0	0	0	0	0	0	0	0	0	0	0	0
ΣΥΝ.ΑΙΣ.ΧΩΡ	3	3	3	3	3	3	3	3	3	3	3	3
ΣΥΝ.ΛΑΝ.ΧΩΡ	0	0	0	0	0	0	0	0	0	0	0	0
ΦΟΡΤΙΑ ΑΕΡΙΣΜΟΥ												
ΑΙΣΘ. ΑΕΡ.	0	0	0	0	0	0	0	0	0	0	0	0
ΛΑΝΘ. ΑΕΡ.	0	0	0	0	0	0	0	0	0	0	0	0
ΣΥΝΟΛΟ ΣΥΣ.	3	3	3	3	3	3	3	4	4	4	4	4

24 ΑΥΓ. ΣΥΣΤΗΜΑ: 4

ΦΟΡΤΙΑ ΧΩΡΟΥ												
ΕΠΙΦΑΝΕΙΕΣ	3	4	5	6	6	6	6	6	7	7	7	6
Rad.	0	1	1	1	1	1	1	1	2	2	2	2
Con.	3	4	5	5	5	4	4	4	5	5	5	4
ΦΩΤΙΣΜΟΣ	1	1	1	1	1	1	1	1	1	1	1	1
Rad.	0	0	0	0	0	0	0	0	0	0	0	0
Con.	0	0	0	0	0	0	0	0	0	0	0	0
ΑΙΣΘ. ΑΤΟΜ.	1	1	1	1	1	1	1	1	1	1	1	1
Rad.	0	0	0	0	0	0	0	0	0	0	0	0
Con.	0	0	0	0	0	0	0	0	0	0	0	0
ΑΙΣΘ. ΣΥΣΚ.	1	2	2	2	2	2	2	2	2	2	2	2
Rad.	0	0	0	0	0	0	0	0	0	0	0	0
Con.	1	2	2	2	2	2	2	2	2	2	2	2
ΧΑΡΑΜΑΔΕΣ	0	0	0	0	0	0	0	0	0	0	0	0
ΛΑΝΘ. ΑΤΟΜ.	1	1	1	1	1	1	1	1	1	1	1	1
ΛΑΝΘ. ΣΥΣΚ.	0	0	0	0	0	0	0	0	0	0	0	0
ΣΥΝ.ΑΙΣ.ΧΩΡ	5	7	8	9	9	9	9	9	9	10	10	9
ΣΥΝ.ΛΑΝ.ΧΩΡ	1	1	1	1	1	1	1	1	1	1	1	1
ΦΟΡΤΙΑ ΑΕΡΙΣΜΟΥ												
ΑΙΣΘ. ΑΕΡ.	0	0	0	0	0	0	0	0	0	0	0	0
ΛΑΝΘ. ΑΕΡ.	1	1	1	1	1	1	1	1	1	1	1	1
ΣΥΝΟΛΟ ΣΥΣ.	7	9	10	11	11	11	11	11	11	12	12	11

Μέγιστα φορτία χώρων με αερισμό

Επίπεδο	Χώρος	Σύστη μα	Επιφάνει α (m²)	Ώρα μέγιστου φορτίου	Εξωτερικ ός αέρας (m3/h)	Συνολικό φορτίο (με αερισμό) (Watt)	Συνολικό αισθητό φορτίο (με αερισμό) (Watt)	Συνολικό λανθάνον φορτίο (με αερισμό) (Watt)	Αισθητό φορτίο ανά m² (Watt/m²)	Συνολικό φορτίο ανά m² (Watt/m²)
ΙΣΟΓΕΙΟ	ΧΩΡΟΣ ΕΚΘ. ΑΠΟΘΗΚΗΣ	1	152.0	16	1498.6	37816.3	23164.8	14651.5	152.4	248.8
ΙΣΟΓΕΙΟ	ΔΥΤΙΚΑ ΝΕΩΡΙΑ	2	406.3	15	931.4	82703.1	67159.1	15544.0	165.3	203.6
ΙΣΟΓΕΙΟ	RACK ROOM ΔΥΤ. ΝΕΩΡΙ	3	22.7	17	0.0	3804.9	3741.6	63.3	164.8	167.6
ΙΣΟΓΕΙΟ	ΔΥΤΙΚΗ ΑΠΟΘΗΚΗ	4	113.0	18	211.7	13430.0	11621.4	1808.6	102.8	118.8

ΘΕΡΜΟΚΡΑΣΙΑΚΑ ΣΤΟΙΧΕΙΑ

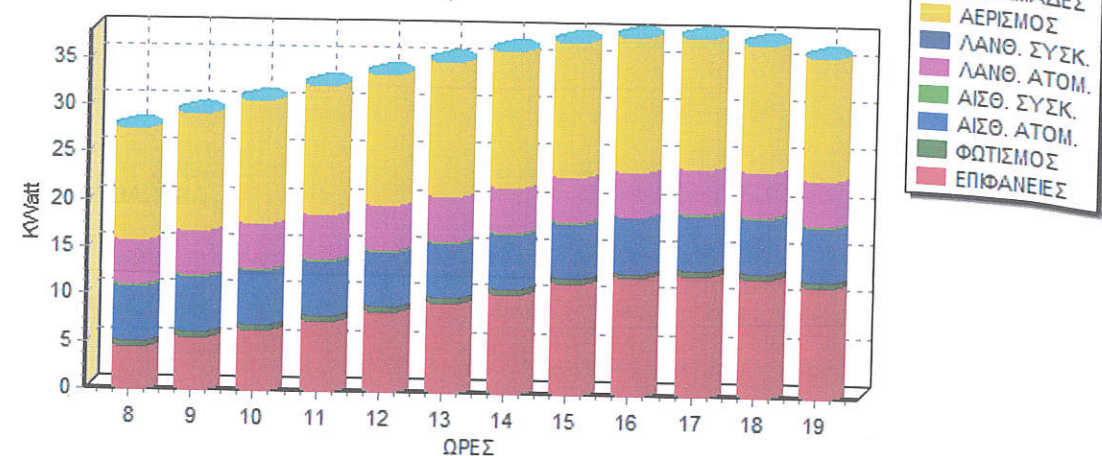
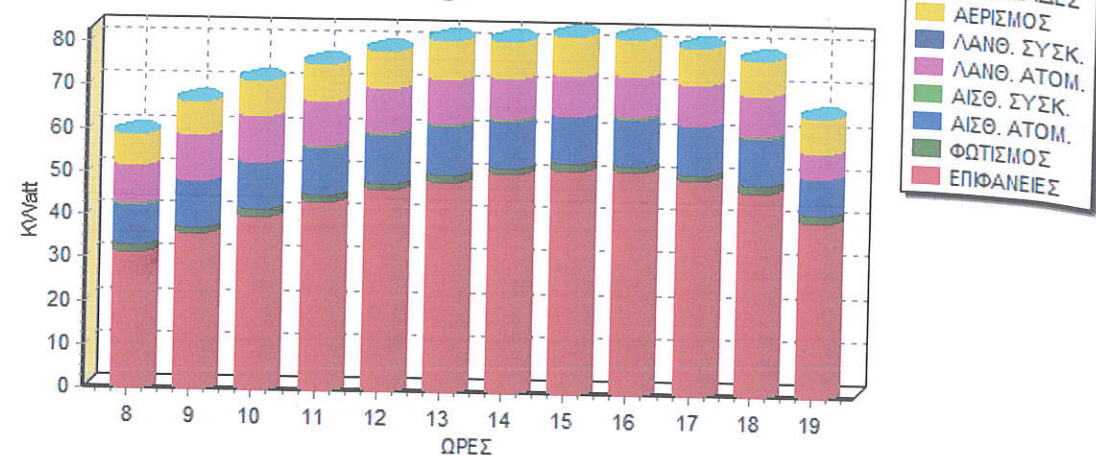
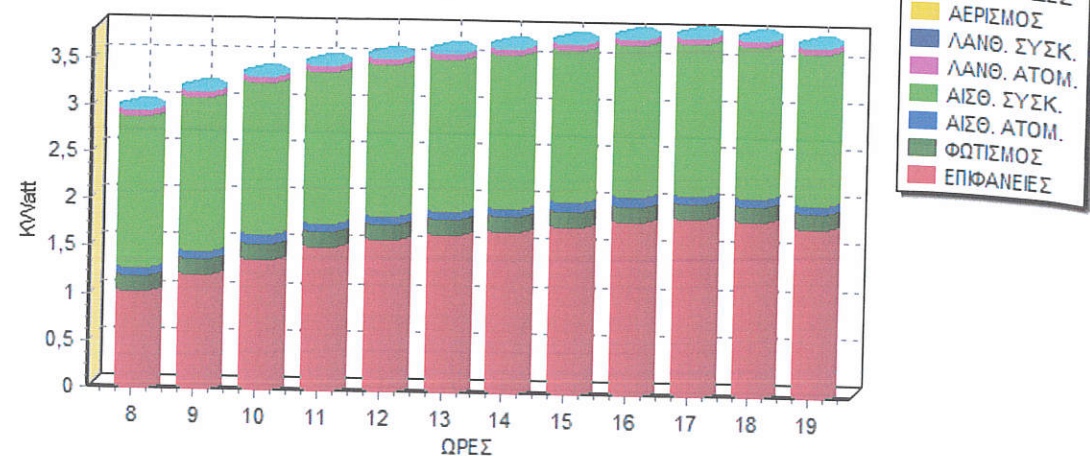
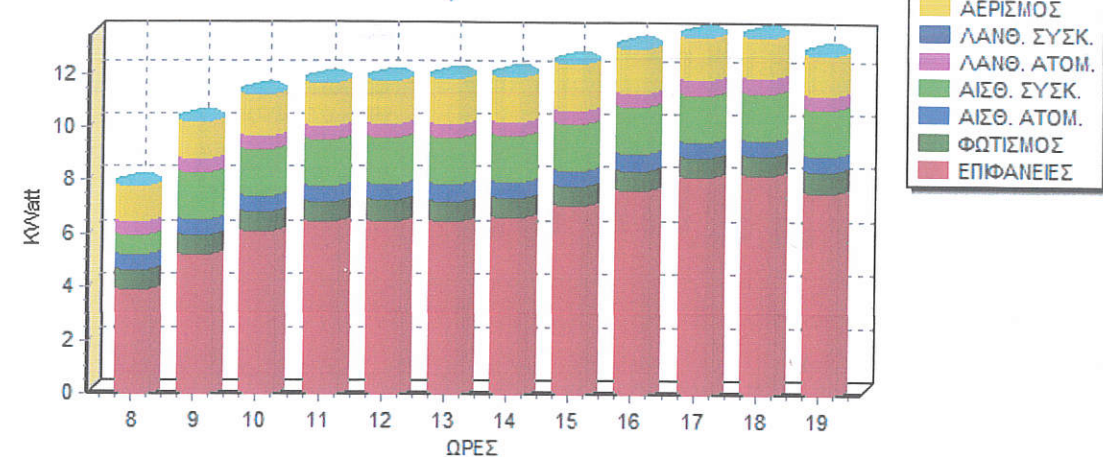
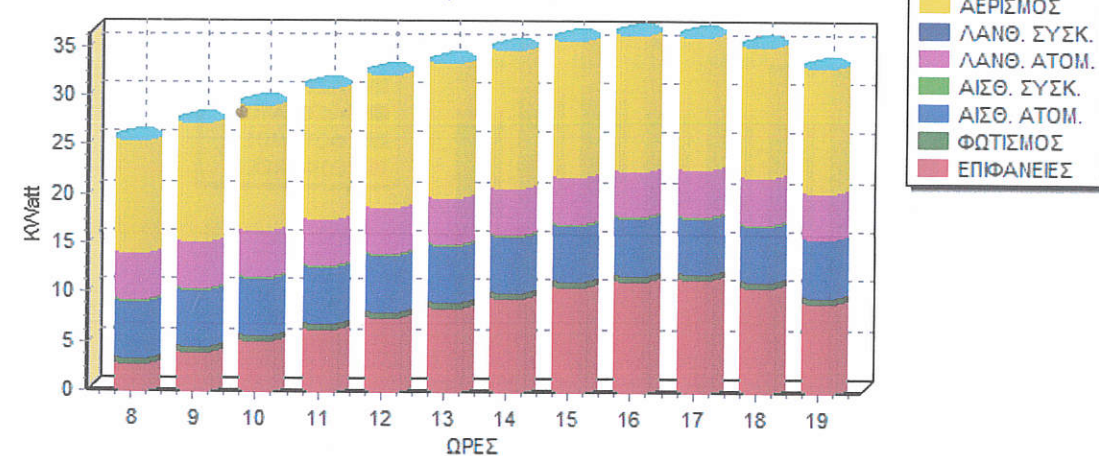
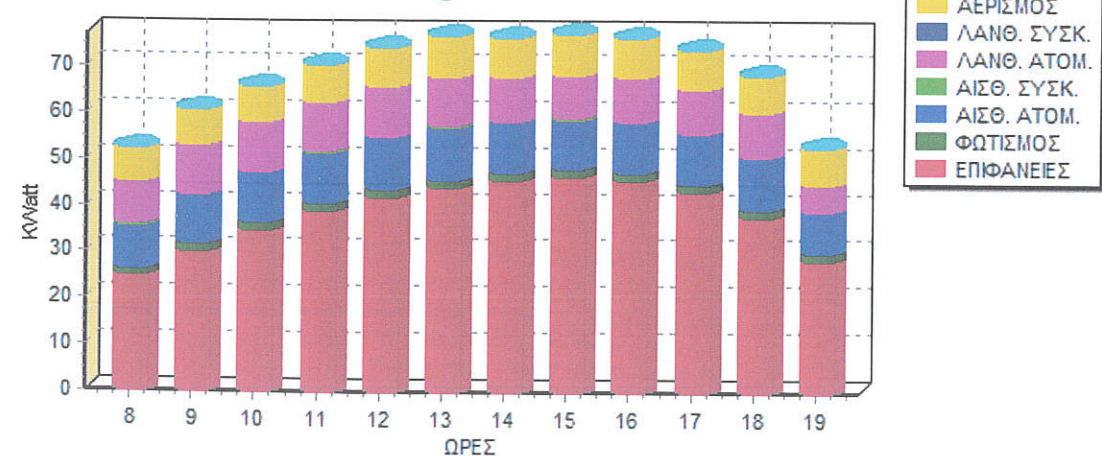
ΠΟΛΗ	:	Ηράκλειο (KENAK)
ΕΣΩΤΕΡΙΚΗ ΘΕΡΜΟΚΡΑΣΙΑ (°C)	:	23
ΕΣΩΤΕΡΙΚΗ ΥΓΡΑΣΙΑ (%)	:	50
ΔΙΑΦΟΡΑ Τ ΕΞΩΤ.- Τ ΜΗ ΚΛΙΜ. ΧΩΡΩΝ (°C)	:	5
ΔΙΑΦΟΡΑ Τ ΕΔΑΦΟΥΣ - Τ ΕΣΩΤΕΡΙΚΗ (°C)	:	-5
ΑΡΙΘΜΟΣ ΕΠΙΠΕΔΩΝ ΚΤΙΡΙΟΥ (1 - 15)	:	1
ΤΥΠΙΚΟ ΥΨΟΣ ΕΠΙΠΕΔΟΥ (m)	:	6.32
ΣΥΣΤ. ΜΟΝΑΔΩΝ ΜΕΘΟΔΟΛΟΓΙΑ	:	Watt ASHRAE RTS

ΗΜΕΡΟΜΗΝΙΑ - ΜΕΓ. ΘΕΡΜΟΚΡΑΣΙΑ - ΔΙΑΚΥΜΑΝΣΗ (°C)										ΔΤ ΜΗ ΚΛΙΜ.
Ώρα ΧΩΡΩΝ	to	te BA	te A	te NA	te N	te ND	te Δ	te ΒΔ	te B	
		(45°)	(90°)	(135°)	(180°)	(225°)	(270°)	(315°)	(0°)	

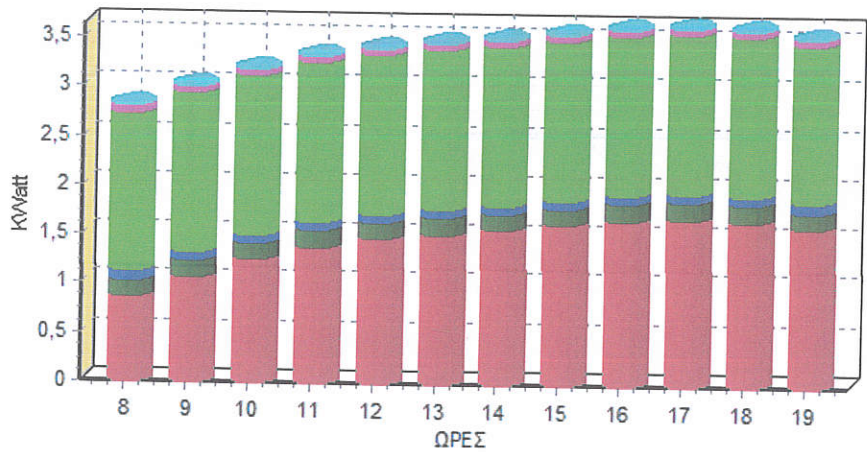
23 ΙΟΥΛ. - 31.7 - 7.1										
ΕΞΩΤΕΡΙΚΗ ΥΓΡΑΣΙΑ (%) 56.50%										
8	26.4	58.6	67.3	54.4	31.2	30.9	30.9	30.9	34.1	-1.6
9	27.8	56.5	68.4	59.9	36.5	33.6	33.6	33.6	34.1	-0.2
10	29.0	50.7	64.1	61.2	43.8	36.0	36.0	36.0	36.2	1.0
11	30.1	42.9	55.8	58.6	49.4	38.2	37.8	37.8	38.0	2.1
12	30.8	39.3	45.0	52.5	52.5	44.8	39.3	39.0	39.0	2.8
13	31.3	39.5	39.8	44.1	52.9	54.2	47.2	39.9	39.6	3.3
14	31.7	39.4	39.4	39.7	50.6	60.9	58.9	45.8	39.5	3.7
15	31.7	38.6	38.6	38.6	45.8	64.1	67.8	54.4	38.8	3.7
16	31.3	36.9	36.9	36.9	39.1	63.1	72.2	60.6	37.4	3.3
17	30.7	34.9	34.9	34.9	35.2	57.8	71.0	62.9	38.8	2.7
18	30.0	32.5	32.5	32.5	32.6	48.4	62.2	58.5	39.7	2.0
19	28.9	29.7	29.7	29.7	29.7	34.5	40.9	40.7	34.1	0.9

24 ΑΥΓ. - 31.1 - 6.7										
ΕΞΩΤΕΡΙΚΗ ΥΓΡΑΣΙΑ (%) 58.30%										
8	26.1	53.0	65.2	56.6	33.0	30.1	30.1	30.1	30.4	-1.9
9	27.4	51.2	67.3	63.3	41.7	32.9	32.9	32.9	33.1	-0.6
10	28.6	45.2	63.2	65.1	49.6	35.4	35.2	35.2	35.2	0.6
11	29.6	37.7	54.9	62.6	55.5	38.2	37.1	37.1	37.1	1.6
12	30.2	38.3	43.7	56.3	58.6	49.2	38.5	38.1	38.1	2.2
13	30.8	38.6	38.9	47.5	58.8	58.7	47.1	38.8	38.6	2.8
14	31.1	38.5	38.5	39.0	56.1	65.3	58.8	40.9	38.5	3.1
15	31.1	37.5	37.5	37.6	50.7	67.9	67.4	49.6	37.6	3.1
16	30.7	35.9	35.9	35.9	43.3	65.8	71.0	55.6	36.1	2.7
17	30.2	33.8	33.8	33.8	35.4	58.7	67.9	56.9	34.1	2.2
18	29.5	31.3	31.3	31.3	31.4	45.8	54.5	49.5	34.1	1.5
19	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	0.5

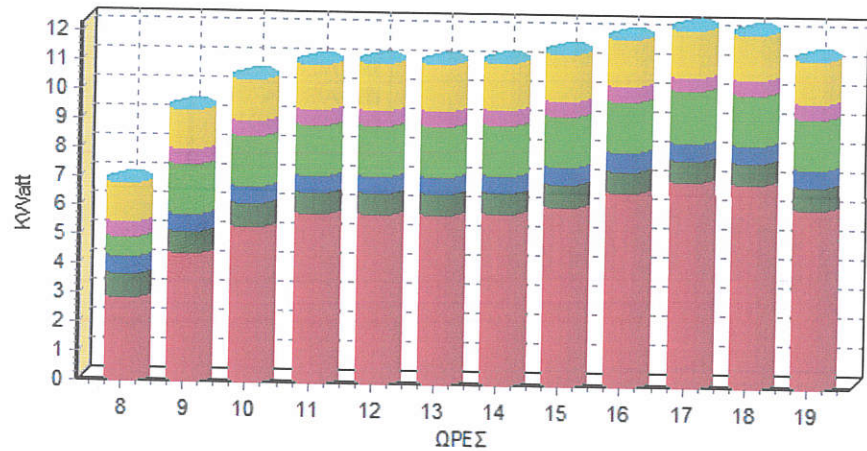
Διαγράμματα Συστημάτων

23 ΙΟΥΛ.
ΣΥΣΤΗΜΑ
123 ΙΟΥΛ.
ΣΥΣΤΗΜΑ
223 ΙΟΥΛ.
ΣΥΣΤΗΜΑ
323 ΙΟΥΛ.
ΣΥΣΤΗΜΑ
424 ΑΥΓ.
ΣΥΣΤΗΜΑ
124 ΑΥΓ.
ΣΥΣΤΗΜΑ
2

24 ΑΥΓ.
ΣΥΣΤΗΜΑ
3



24 ΑΥΓ.
ΣΥΣΤΗΜΑ
4



ΚΩΝΣΤΑΝΤΙΝΟΣ Ν. ΓΑΛΑΝΗΣ
ΔΙΠΛΩΜΑΤΟΥΧΟΣ ΜΗΧΑΝΟΛΟΓΟΣ ΜΗΧΑΝΙΚΟΣ
ΠΟΛΥΤΕΧΝΙΚΗΣ ΣΧΟΛΗΣ ΠΑΝΕΠ. ΠΑΤΡΩΝ
ΜΕΛΟΣ Τ.Ε.Ε. ΑΡΙΘΜΟΣ ΜΗΤΡΩΟΥ 38772
ΧΙΟΥ 52 ΑΓ. ΠΑΡΑΣΚΕΥΗ - ΑΘΗΝΑ ΤΗΛ. 210 6398200



VRV Selection

Project Report

Report details

Produced on: 7/7/2023
Application version: 2023.7.5.4

Project details

Project name: 3516 NEQ
Solution name: OPM ΔΥΤΙΚΑ ΝΕΩΡΙΑ
Client Name:
Customer reference:
Quotation reference:
Project number: 1139934/1432870

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
RXYSQ10TY1	1	RXYSQ-TY1 (VRV IV Mini Large 3 phase)
RXYSQ12TY1	3	RXYSQ-TY1 (VRV IV Mini Large 3 phase)
FXSQ63A	13	FXSQ-A - Concealed ceiling unit with medium ESP
FXSQ100A	1	FXSQ-A - Concealed ceiling unit with medium ESP
KHRQ22M20T	6	Refnet branch piping kit
KHRQ22M29T9	1	Refnet branch piping kit
KHRQ22M64T	3	Refnet branch piping kit
BRC1H52W	14	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 (83) 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
1	FXSQ63A	23.0/50%	n/a	0.0	5.8	n/a	6.0	12.6	4.5	0.101
2	FXSQ63A	23.0/50%	n/a	0.0	5.8	n/a	6.0	12.6	4.5	0.101
3	FXSQ63A	23.0/50%	n/a	0.0	5.8	n/a	6.0	12.6	4.5	0.101
4	FXSQ63A	23.0/50%	n/a	0.0	5.8	n/a	6.0	12.6	4.5	0.101
			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	m³/h
1	FXSQ63A	22.0	n/a	7.5	39.5	0.101	n/a	n/a	1,260.00
2	FXSQ63A	22.0	n/a	7.5	39.5	0.101	n/a	n/a	1,260.00
3	FXSQ63A	22.0	n/a	7.5	39.5	0.101	n/a	n/a	1,260.00
4	FXSQ63A	22.0	n/a	7.5	39.5	0.101	n/a	n/a	1,260.00
			n/a						

Name	FCU	Room	Sound dBA	PS	MCA A	MOP	WxHxD mm	Weight kg
1	FXSQ63A	1	27 - 33	220V 1ph	1.6	Factory Std	1,000 x 245 x 800	35.5
2	FXSQ63A	1	27 - 33	220V 1ph	1.6	Factory Std	1,000 x 245 x 800	35.5
3	FXSQ63A	1	27 - 33	220V 1ph	1.6	Factory Std	1,000 x 245 x 800	35.5
4	FXSQ63A	1	27 - 33	220V 1ph	1.6	Factory Std	1,000 x 245 x 800	35.5

Remarks

Reduced operational load

The sum of the required indoor unit capacities is 23.2kW for cooling and 30.0kW for heating. However, the outdoor unit selection uses reduced load values for cooling of 22.1kW (=95%) and for heating of 27.0kW (=90%). 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 6.8m above the indoor units.

VRV 2 - RXYSQ12TY1

Capacity data at conditions and connection ratio (83) 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
1	FXSQ63A	23.0/50%	n/a	0.0	5.8	n/a	6.0	12.6	4.5	0.101
2	FXSQ63A	23.0/50%	n/a	0.0	5.8	n/a	6.0	12.6	4.5	0.101
3	FXSQ63A	23.0/50%	n/a	0.0	5.8	n/a	6.0	12.6	4.5	0.101
4	FXSQ63A	23.0/50%	n/a	0.0	5.8	n/a	6.0	12.6	4.5	0.101
			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	m³/h
1	FXSQ63A	22.0	n/a	7.5	39.5	0.101	n/a	n/a	1,260.00
2	FXSQ63A	22.0	n/a	7.5	39.5	0.101	n/a	n/a	1,260.00
3	FXSQ63A	22.0	n/a	7.5	39.5	0.101	n/a	n/a	1,260.00
4	FXSQ63A	22.0	n/a	7.5	39.5	0.101	n/a	n/a	1,260.00
			n/a						

Name	FCU	Room	Sound dBA	PS	MCA A	MOP	WxHxD mm	Weight kg
1	FXSQ63A	1	27 - 33	220V 1ph	1.6	Factory Std	1,000 x 245 x 800	35.5
2	FXSQ63A	1	27 - 33	220V 1ph	1.6	Factory Std	1,000 x 245 x 800	35.5
3	FXSQ63A	1	27 - 33	220V 1ph	1.6	Factory Std	1,000 x 245 x 800	35.5
4	FXSQ63A	1	27 - 33	220V 1ph	1.6	Factory Std	1,000 x 245 x 800	35.5

Remarks

Reduced operational load

The sum of the required indoor unit capacities is 23.2kW for cooling and 30.0kW for heating. However, the outdoor unit selection uses reduced load values for cooling of 22.1kW (=95%) and for heating of 27.0kW (=90%). 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 6.8m above the indoor units.

VRV 3 - RXYSQ12TY1

Capacity data at conditions and connection ratio (75) 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
1	FXSQ63A	23.0/50%	n/a	0.0	5.8	n/a	6.0	12.6	4.5	0.101
2	FXSQ63A	23.0/50%	n/a	0.0	5.8	n/a	6.0	12.6	4.5	0.101
3	FXSQ100A	23.0/50%	n/a	0.0	9.2	n/a	6.0	12.1	7.1	0.173
			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	m³/h
1	FXSQ63A	22.0	n/a	7.5	39.5	0.101	n/a	n/a	1,260.00
2	FXSQ63A	22.0	n/a	7.5	39.5	0.101	n/a	n/a	1,260.00
3	FXSQ100A	22.0	n/a	11.7	39.9	0.173	n/a	n/a	1,920.00
			n/a						



Name	FCU	Room	Sound dBA	PS	MCA A	MOP	WxHxD mm	Weight kg
1	FXSQ63A	1	27 - 33	220V 1ph	1.6	Factory Std	1,000 x 245 x 800	35.5
2	FXSQ63A	1	27 - 33	220V 1ph	1.6	Factory Std	1,000 x 245 x 800	35.5
3	FXSQ100A	1	31 - 36	220V 1ph	2.4	Factory Std	1,400 x 245 x 800	46.0

Remarks

Reduced operational load

The sum of the required indoor unit capacities is 26.7kW for heating. However, the outdoor unit selection uses reduced load values for heating of 24.0kW (=90%). 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 6.8m above the indoor units.

VRV 4 - RXYSQ10TY1

Capacity data at conditions and connection ratio (75) 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
1	FXSQ63A	23.0/50%	n/a	0.0	5.8	n/a	6.0	12.6	4.5	0.101
2	FXSQ63A	23.0/50%	n/a	0.0	5.8	n/a	6.0	12.6	4.5	0.101
3	FXSQ63A	23.0/50%	n/a	0.0	5.8	n/a	6.0	12.6	4.5	0.101
			0.0							

Name	FCU	Heating							
		Tmp H °C	Rq HC kW	Max HC kW	Tdis H °C	PIH kW	Min coil m³	Max coil m³	Air Flow Rate m³/h
1	FXSQ63A	22.0	n/a	7.5	39.5	0.101	n/a	n/a	1,260.00
2	FXSQ63A	22.0	n/a	7.5	39.5	0.101	n/a	n/a	1,260.00
3	FXSQ63A	22.0	n/a	7.5	39.5	0.101	n/a	n/a	1,260.00
			n/a						

Name	FCU	Room	Sound dBA	PS	MCA A	MOP	WxHxD mm	Weight kg
1	FXSQ63A	1	27 - 33	220V 1ph	1.6	Factory Std	1,000 x 245 x 800	35.5
2	FXSQ63A	1	27 - 33	220V 1ph	1.6	Factory Std	1,000 x 245 x 800	35.5
3	FXSQ63A	1	27 - 33	220V 1ph	1.6	Factory Std	1,000 x 245 x 800	35.5

Remarks

Reduced operational load

The sum of the required indoor unit capacities is 22.5kW for heating. However, the outdoor unit selection uses reduced load values for heating of 20.3kW (=90%). 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 6.8m above the indoor units.



Outdoor unit details

Table of abbreviations

Abbreviation	Description
Name	Logical name of the device
Model	Device model name
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
			Tmp C °C	CC kW	Rq CC kW	Tmp H °C (DBT/RH)	HC kW	Rq HC kW	
VRV 1	RXYSQ12TY1	83.3	31.7	22.4	22.1	7.0/90%	33.1	27.0	74.0
VRV 2	RXYSQ12TY1	83.3	31.7	23.2	22.1	7.0/90%	33.4	27.0	59.0
VRV 3	RXYSQ12TY1	75.0	31.7	23.3	20.8	7.0/90%	33.5	24.0	56.0
VRV 4	RXYSQ10TY1	75.0	31.7	19.4	17.4	7.0/90%	28.1	20.3	57.0

Name	Model	PS	MCA	MOP	RLA	FLA	WxHxD	Weight
			A	A	A	A	mm	kg
VRV 1	RXYSQ12TY1	400V 3Nph	24.0	32.0	13.4		940 x 1,615 x 460	180.0
VRV 2	RXYSQ12TY1	400V 3Nph	24.0	32.0	13.4		940 x 1,615 x 460	180.0
VRV 3	RXYSQ12TY1	400V 3Nph	24.0	32.0	13.4		940 x 1,615 x 460	180.0
VRV 4	RXYSQ10TY1	400V 3Nph	22.0	25.0	10.7		940 x 1,615 x 460	175.0

Sound Data

Name	Model	Sound Power		Sound Pressure	
		Cooling dBA	Heating dBA	Cooling dBA	Heating dBA
VRV 1	RXYSQ12TY1	76	-	57	-
VRV 2	RXYSQ12TY1	76	-	57	-
VRV 3	RXYSQ12TY1	76	-	57	-
VRV 4	RXYSQ10TY1	74	-	55	-

Seasonal Efficiency

Name	Model	$\eta_{s,h}$ heating	$\eta_{s,c}$ cooling	SCOP	SEER	CSPF
		%	%			
VRV 1	RXYSQ12TY1	169.6	256.5	4.30	6.50	-
VRV 2	RXYSQ12TY1	169.6	256.5	4.30	6.50	-
VRV 3	RXYSQ12TY1	169.6	256.5	4.30	6.50	-
VRV 4	RXYSQ10TY1	162.4	247.4	4.10	6.30	-

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



Refrigerant information

Name	Model	Refrigerant type	GWP	Base charge kg	Extra charge kg	Total refrigerant charge kg	Total CO2 equivalent kg
VRV 1	RXYSQ12TY1	R410A	2087.5	8.00	unknown	unknown	16.70
VRV 2	RXYSQ12TY1	R410A	2087.5	8.00	unknown	unknown	16.70
VRV 3	RXYSQ12TY1	R410A	2087.5	8.00	unknown	unknown	16.70
VRV 4	RXYSQ10TY1	R410A	2087.5	7.00	unknown	unknown	14.61

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.

VRV 1 - RXYSQ12TY1

Model	Quantity	Description
RXYSQ12TY1	1	RXYSQ-TY1 (VRV IV Mini Large 3 phase)
FXSQ63A	4	FXSQ-A - Concealed ceiling unit with medium ESP
KHRQ22M20T	2	Refnet branch piping kit
KHRQ22M64T	1	Refnet branch piping kit
BRC1H52W	4	Remote controller (white)

Refrigerant information

Refrigerant type	GWP	Base charge kg	Extra charge kg	Total refrigerant charge kg	Total CO2 equivalent kg
R410A	2087.5	8.00	unknown	unknown	16.70

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.

Pipe capacities

Maximum Connection Index	Diameters
149.9	9.5mmx15.9mm
199.9	9.5mmx19.1mm
289.9	9.5mmx22.2mm
419.9	12.7mmx28.6mm
639.9	15.9mmx28.6mm



Maximum Connection Index	Diameters
919.9	19.1mmx34.9mm
> 919.9	19.1mmx41.3mm
Main pipe size up	15.9mmx28.6mm



Piping limitations

Description	Value
Maximum total length	300.0m
Maximum longest actual length	120.0m
Maximum longest equivalent length	150.0m
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	40.0m
Minimum connection ratio, outdoor unit below indoor units	-
Maximum height difference, outdoor unit above indoor units	50.0m
Minimum connection ratio, outdoor unit above indoor units	-
Maximum height difference in technical cooling, outdoor unit below indoor units	40.0m
Maximum height difference in technical cooling, outdoor unit above indoor units	50.0m
Maximum height difference between indoor units	15.0m
Connection ratio range	50.0% - 130.0%
Refrigerant pipe diameters	15.9mm (liquid) x 28.6mm (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	-

VRV 2 - RXYSQ12TY1

Model	Quantity	Description
RXYSQ12TY1	1	RXYSQ-TY1 (VRV IV Mini Large 3 phase)
FXSQ63A	4	FXSQ-A - Concealed ceiling unit with medium ESP
KHRQ22M20T	2	Refnet branch piping kit
KHRQ22M64T	1	Refnet branch piping kit
BRC1H52W	4	Remote controller (white)

Refrigerant information

Refrigerant type	GWP	Base charge kg	Extra charge kg	Total refrigerant charge kg	Total CO2 equivalent kg
R410A	2087.5	8.00	unknown	unknown	16.70

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.

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Pipe capacities

Maximum Connection Index	Diameters
149.9	9.5mmx15.9mm
199.9	9.5mmx19.1mm
289.9	9.5mmx22.2mm
419.9	12.7mmx28.6mm
639.9	15.9mmx28.6mm
919.9	19.1mmx34.9mm
> 919.9	19.1mmx41.3mm
Main pipe size up	15.9mmx28.6mm

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Piping limitations

Description	Value
Maximum total length	300.0m
Maximum longest actual length	120.0m
Maximum longest equivalent length	150.0m
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	40.0m
Minimum connection ratio, outdoor unit below indoor units	-
Maximum height difference, outdoor unit above indoor units	50.0m
Minimum connection ratio, outdoor unit above indoor units	-
Maximum height difference in technical cooling, outdoor unit below indoor units	40.0m
Maximum height difference in technical cooling, outdoor unit above indoor units	50.0m
Maximum height difference between indoor units	15.0m
Connection ratio range	50.0% - 130.0%
Refrigerant pipe diameters	15.9mm (liquid) x 28.6mm (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	-

VRV 3 - RXYSQ12TY1

Model	Quantity	Description
RXYSQ12TY1	1	RXYSQ-TY1 (VRV IV Mini Large 3 phase)
FXSQ63A	2	FXSQ-A - Concealed ceiling unit with medium ESP
FXSQ100A	1	FXSQ-A - Concealed ceiling unit with medium ESP
KHRQ22M20T	1	Refnet branch piping kit
KHRQ22M64T	1	Refnet branch piping kit
BRC1H52W	3	Remote controller (white)

Refrigerant information

Refrigerant type	GWP	Base charge kg	Extra charge kg	Total refrigerant charge kg	Total CO2 equivalent kg
R410A	2087.5	8.00	unknown	unknown	16.70

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

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equivalent.

Pipe capacities

Maximum Connection Index	Diameters
149.9	9.5mmx15.9mm
199.9	9.5mmx19.1mm
289.9	9.5mmx22.2mm
419.9	12.7mmx28.6mm
639.9	15.9mmx28.6mm
919.9	19.1mmx34.9mm
> 919.9	19.1mmx41.3mm
Main pipe size up	15.9mmx28.6mm

Piping limitations

Description	Value
Maximum total length	300.0m
Maximum longest actual length	120.0m
Maximum longest equivalent length	150.0m
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	40.0m
Minimum connection ratio, outdoor unit below indoor units	-
Maximum height difference, outdoor unit above indoor units	50.0m
Minimum connection ratio, outdoor unit above indoor units	-
Maximum height difference in technical cooling, outdoor unit below indoor units	40.0m
Maximum height difference in technical cooling, outdoor unit above indoor units	50.0m
Maximum height difference between indoor units	15.0m
Connection ratio range	50.0% - 130.0%
Refrigerant pipe diameters	15.9mm (liquid) x 28.6mm (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	-

VRV 4 - RXYSQ10TY1

Model	Quantity	Description
RXYSQ10TY1	1	RXYSQ-TY1 (VRV IV Mini Large 3 phase)
FXSQ63A	3	FXSQ-A - Concealed ceiling unit with medium ESP
KHRQ22M20T	1	Refnet branch piping kit
KHRQ22M29T9	1	Refnet branch piping kit
BRC1H52W	3	Remote controller (white)

Refrigerant information

Refrigerant type	GWP	Base charge kg	Extra charge kg	Total refrigerant charge kg	Total CO2 equivalent kg
R410A	2087.5	7.00	unknown	unknown	14.61

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.

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Pipe capacities

Maximum Connection Index	Diameters
149.9	9.5mmx15.9mm
199.9	9.5mmx19.1mm
289.9	9.5mmx22.2mm
419.9	12.7mmx28.6mm
639.9	15.9mmx28.6mm
919.9	19.1mmx34.9mm
> 919.9	19.1mmx41.3mm
Main pipe size up	12.7mmx25.4mm

Piping limitations

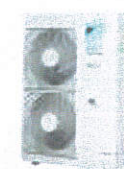
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Maximum total length	300.0m
Maximum longest actual length	120.0m
Maximum longest equivalent length	150.0m
Maximum main pipe length (size up of main pipe required if longer)	-
Maximum length first branch to indoor unit(size up of intermediate pipes 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	40.0m
Minimum connection ratio, outdoor unit below indoor units	-
Maximum height difference, outdoor unit above indoor units	50.0m
Minimum connection ratio, outdoor unit above indoor units	-
Maximum height difference in technical cooling, outdoor unit below indoor units	40.0m
Maximum height difference in technical cooling, outdoor unit above indoor units	50.0m
Maximum height difference between indoor units	15.0m
Connection ratio range	50.0% - 130.0%
Refrigerant pipe diameters	12.7mm (liquid) x 25.4mm (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	-

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Piping diagrams

Piping VRV 1

VRV 1
RXYSQ12TY1



#1.1

KHRQ22ME4T

#1.2

KHRQ22M20T

#1.3

1
1
FXSQ63A

#1.4

2
1
FXSQ63A

#1.5

KHRQ22M20T

#1.6

3
1
FXSQ63A

#1.7

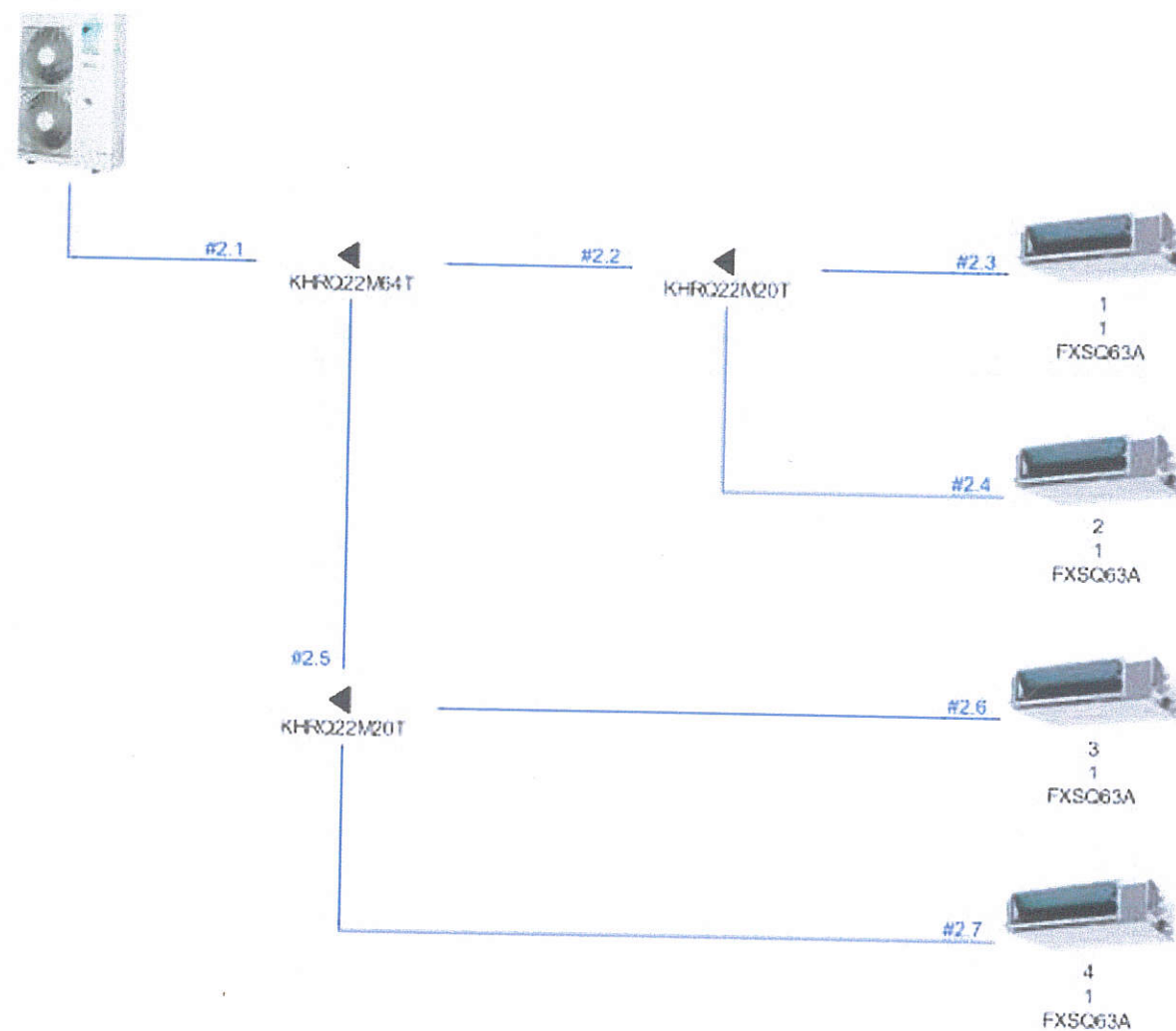
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FXSQ63A





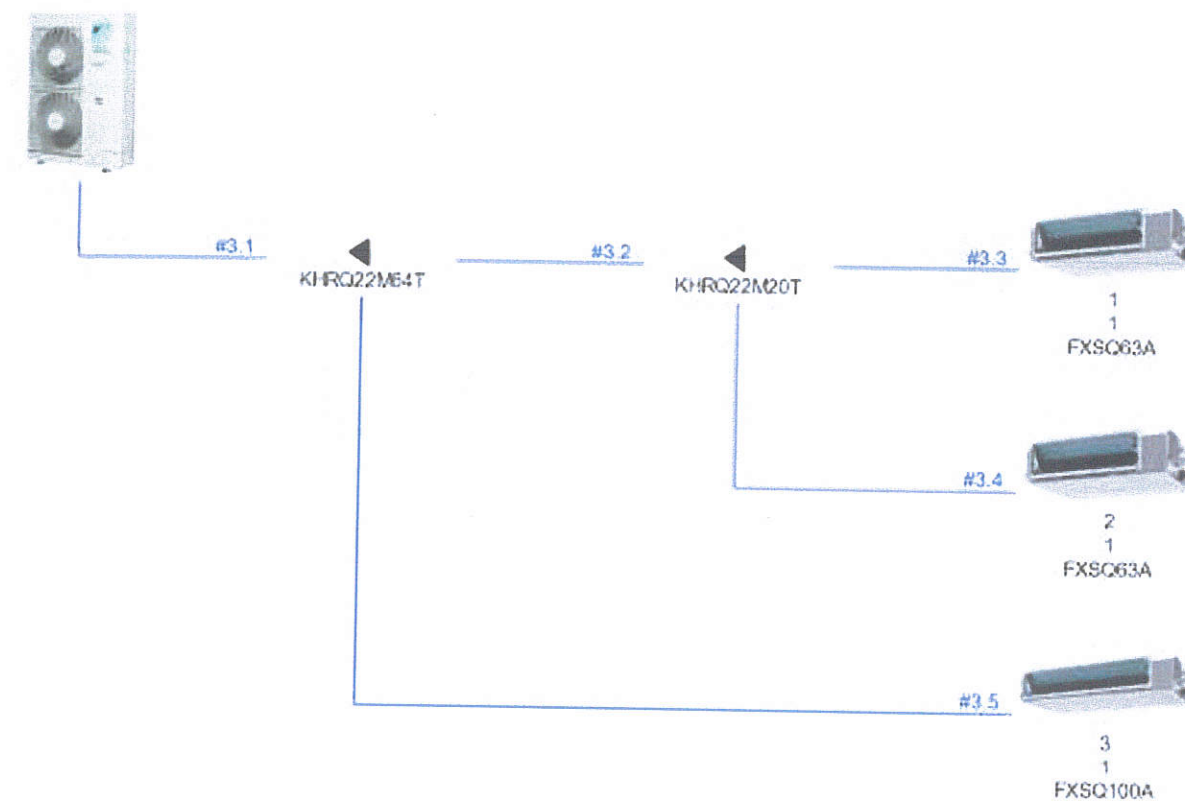
Piping VRV 2

VRV 2
RXY SQ12TY1

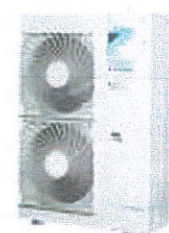


Piping VRV 3

VRV 3
RXY SQ12TY1



VRV 4
RXYSQ10TY1



#4.1

KHRQ22M29T9

#4.3

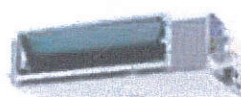
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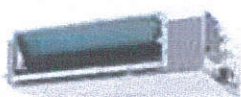
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#4.4



2
1
FXSQ63A

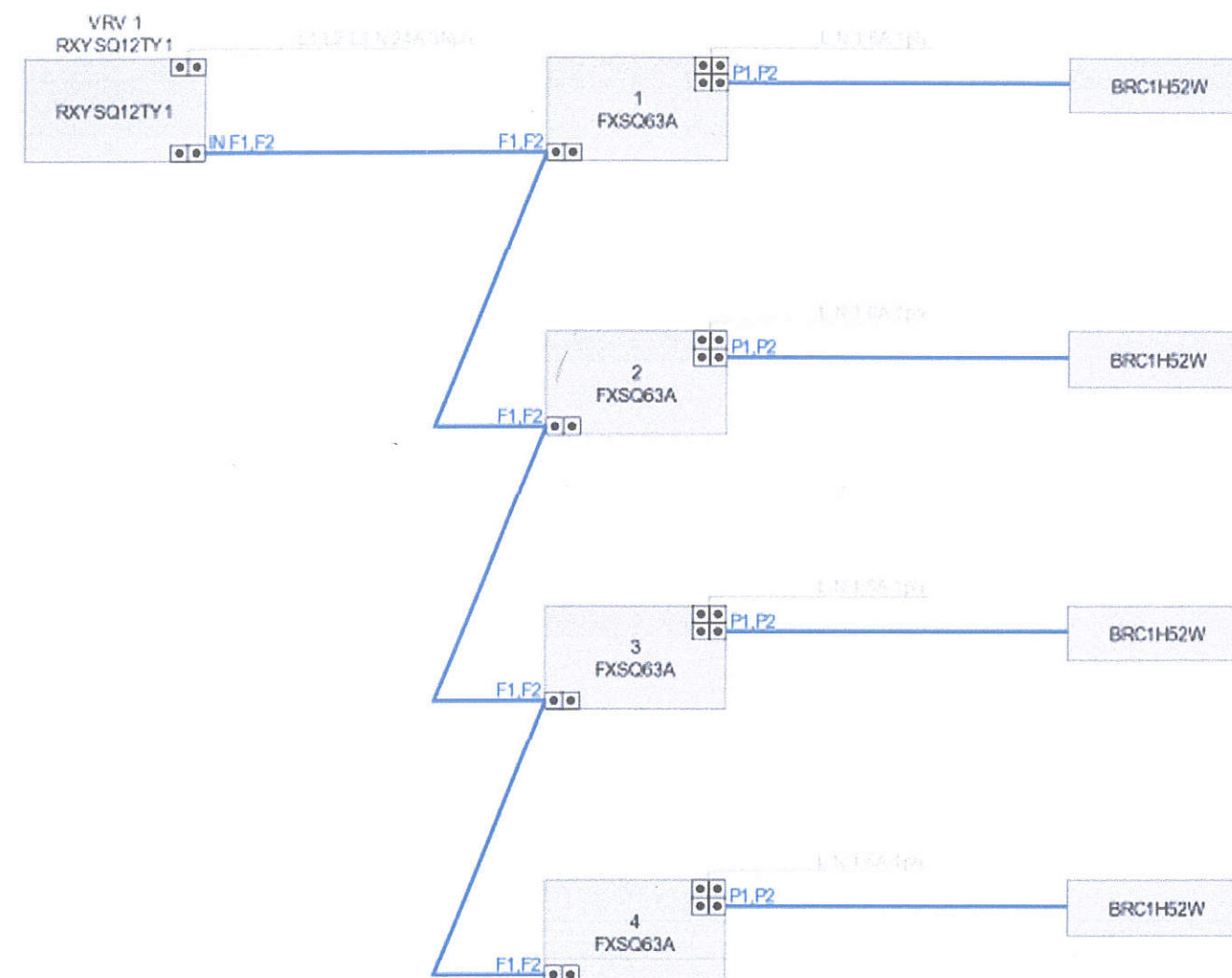
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3
1
FXSQ63A

Wiring diagrams

Wiring VRV 1

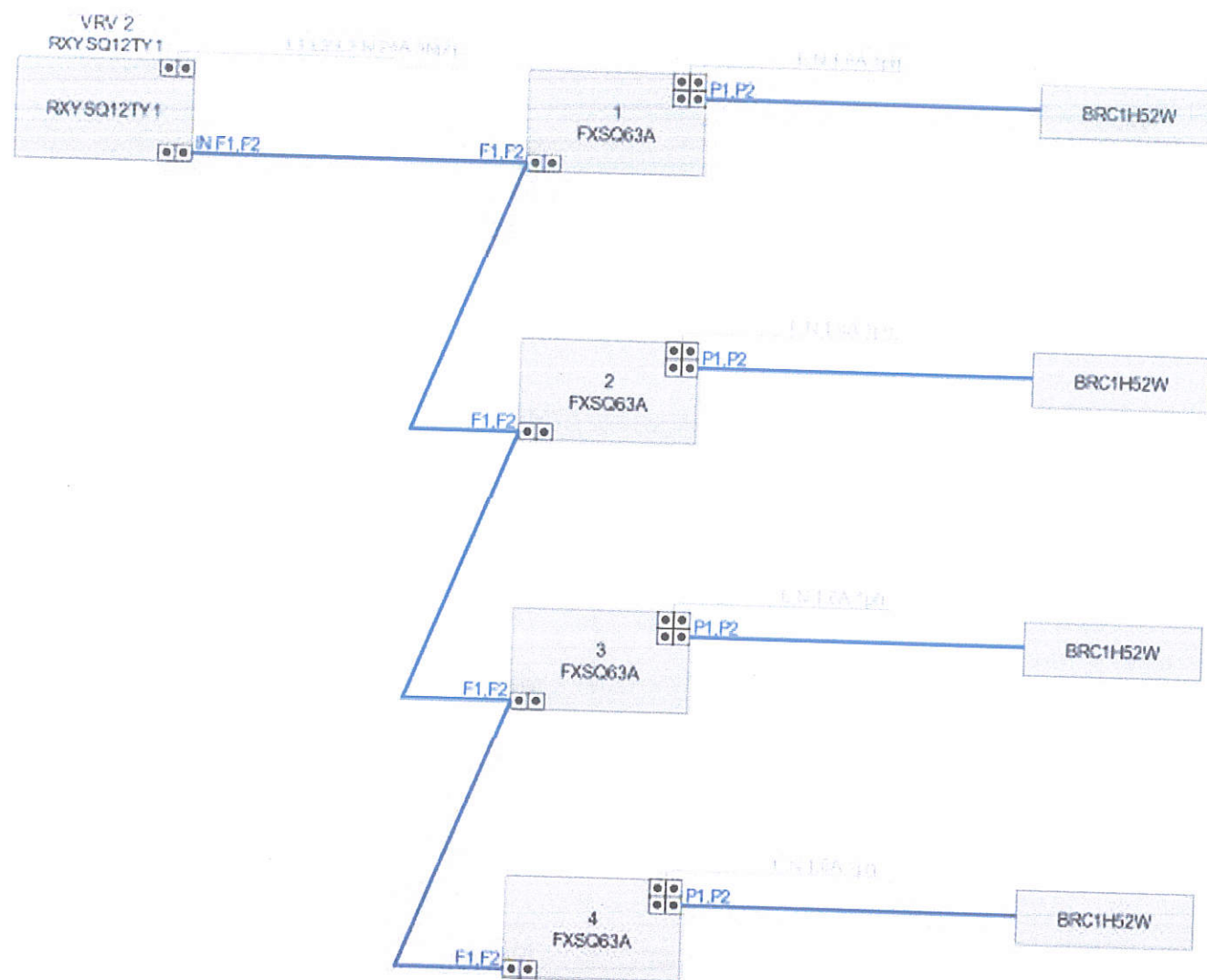


Remarks

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

F1F2 IN/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 local regulation prescribes it).

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

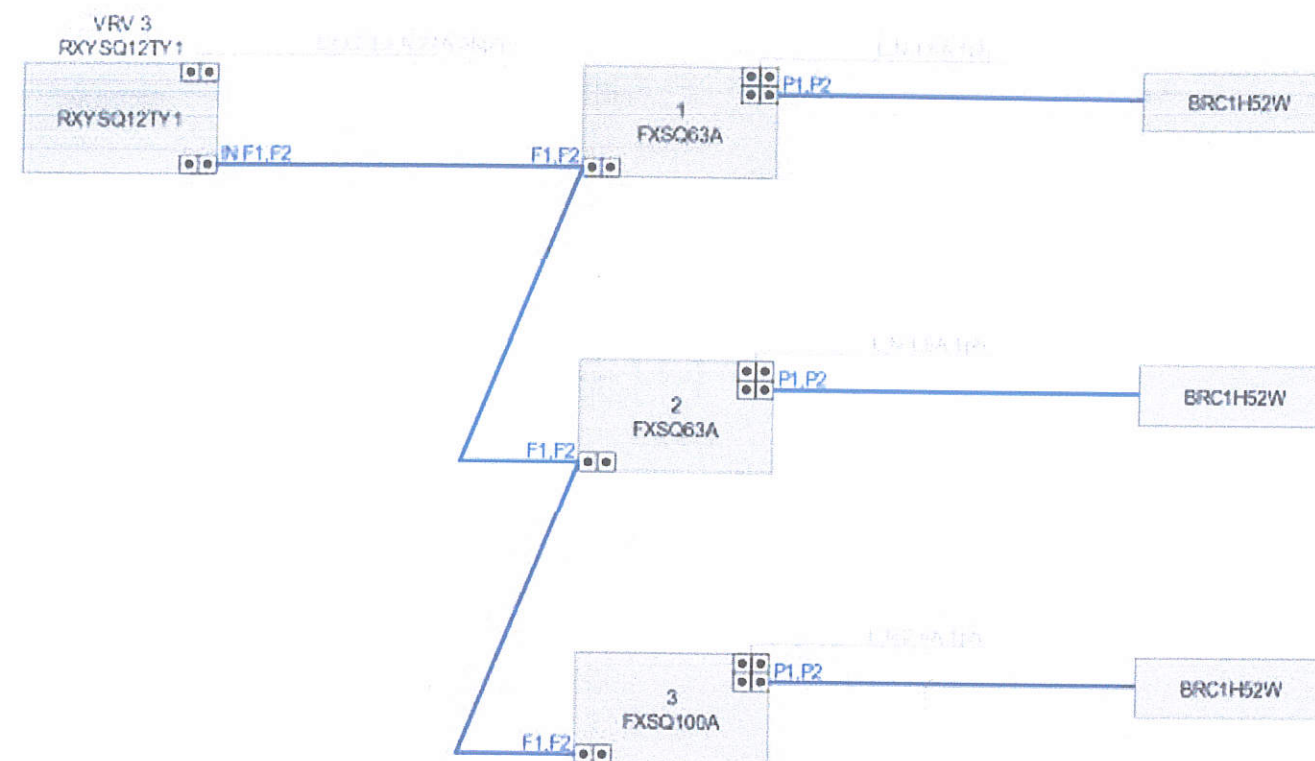


Remarks

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

F1F2 IN/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 local regulation prescribes it).

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



Remarks

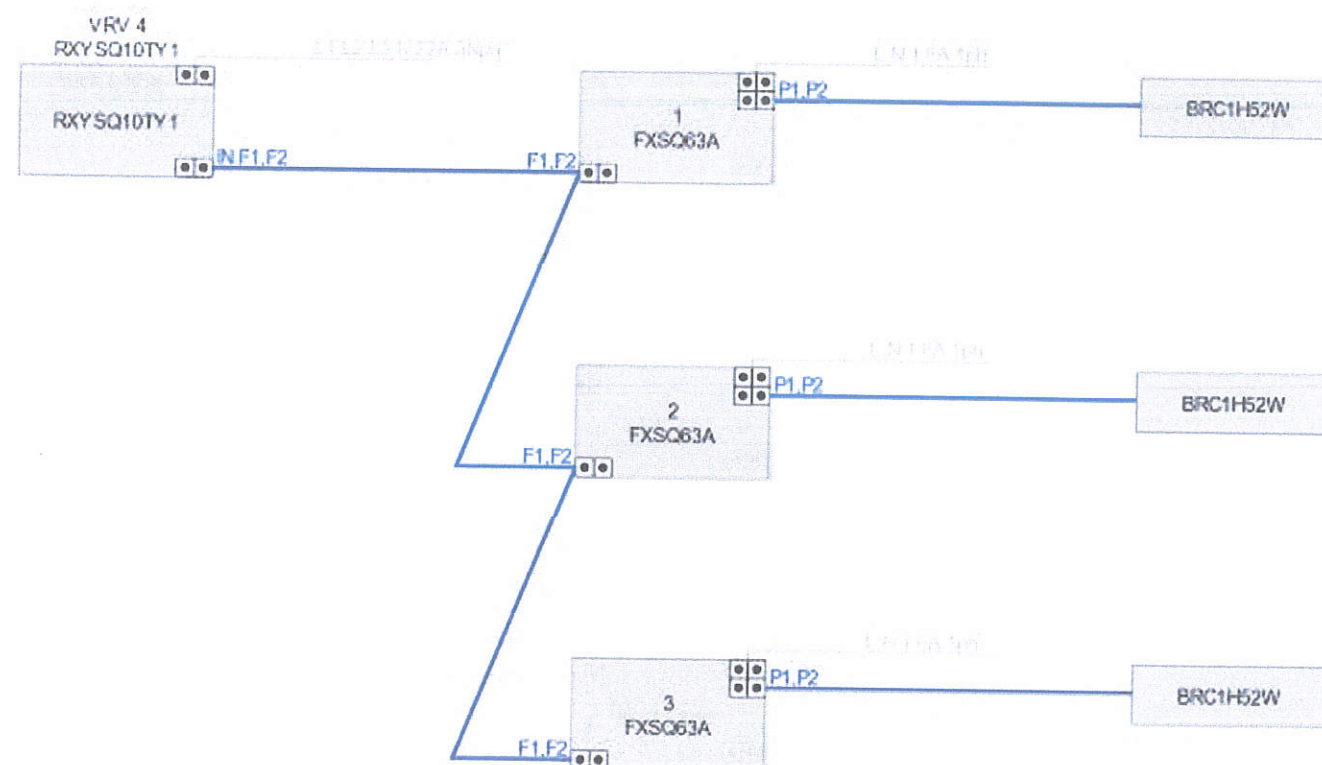
P1P2 = AWG 18-2 is required - however always refer to local code for further information.

F1F2 IN/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 local regulation prescribes it).

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



Wiring VRV 4



Remarks

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

F1F2 IN/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 local regulation prescribes it).

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



VRV Selection

Project Report

Report details

Produced on: 7/7/2023

Application version: 2023.7.5.4

Project details

Project name: 3516 NEΩ

Solution name: OPM XQPOΣ FOYER-ΘEATPOY ZANE

Client Name:

Customer reference:

Quotation reference:

Project number: 1139934/1403794

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
RXYQ18U	1	RXYQ-U (VRV IV Non Continuous Heating)
RXYQ16U	1	RXYQ-U (VRV IV Non Continuous Heating)
RXYQ8U	1	RXYQ-U (VRV IV Non Continuous Heating)
FXNQ63A	8	FXNQ-A - Concealed floor standing unit
FXSQ100A	4	FXSQ-A - Concealed ceiling unit with medium ESP
KHRQ22M20T	5	Refnet branch piping kit
KHRQ22M29T9	1	Refnet branch piping kit
KHRQ22M64T	3	Refnet branch piping kit
KHRQ22M75T	1	Refnet branch piping kit
BHFQ22P1007	1	Outdoor unit multi connection piping kit for 2 modules
BRC1H52W	12	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



VRV ΧΩΡΟΣ ΕΚΘΕΣΕΩΝ - RXYQ24U = RXYQ16U + RXYQ8U

Capacity data at conditions and connection ratio (83) 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
1	FXNQ63A	23.0/50%	n/a	0.0	5.8	n/a	6.0	10.4	4.3	0.110
2	FXNQ63A	23.0/50%	n/a	0.0	5.8	n/a	6.0	10.4	4.3	0.110
3	FXNQ63A	23.0/50%	n/a	0.0	5.8	n/a	6.0	10.4	4.3	0.110
4	FXNQ63A	23.0/50%	n/a	0.0	5.8	n/a	6.0	10.4	4.3	0.110
5	FXNQ63A	23.0/50%	n/a	0.0	5.8	n/a	6.0	10.4	4.3	0.110
6	FXNQ63A	23.0/50%	n/a	0.0	5.8	n/a	6.0	10.4	4.3	0.110
7	FXNQ63A	23.0/50%	n/a	0.0	5.8	n/a	6.0	10.4	4.3	0.110
8	FXNQ63A	23.0/50%	n/a	0.0	5.8	n/a	6.0	10.4	4.3	0.110
			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	m³/h
1	FXNQ63A	22.0	n/a	7.5	44.2	0.107	n/a	n/a	990.00
2	FXNQ63A	22.0	n/a	7.5	44.2	0.107	n/a	n/a	990.00
3	FXNQ63A	22.0	n/a	7.5	44.2	0.107	n/a	n/a	990.00
4	FXNQ63A	22.0	n/a	7.5	44.2	0.107	n/a	n/a	990.00
5	FXNQ63A	22.0	n/a	7.5	44.2	0.107	n/a	n/a	990.00
6	FXNQ63A	22.0	n/a	7.5	44.2	0.107	n/a	n/a	990.00
7	FXNQ63A	22.0	n/a	7.5	44.2	0.107	n/a	n/a	990.00
8	FXNQ63A	22.0	n/a	7.5	44.2	0.107	n/a	n/a	990.00
			n/a						

Name	FCU	Room	Sound dBA	PS	MCA A	MOP	WxHxD mm	Weight kg
1	FXNQ63A	1	32 - 35	220V 1ph	0.6	Factory Std	1,190 x 720 x 200	32.0
2	FXNQ63A	1	32 - 35	220V 1ph	0.6	Factory Std	1,190 x 720 x 200	32.0
3	FXNQ63A	1	32 - 35	220V 1ph	0.6	Factory Std	1,190 x 720 x 200	32.0
4	FXNQ63A	1	32 - 35	220V 1ph	0.6	Factory Std	1,190 x 720 x 200	32.0
5	FXNQ63A	1	32 - 35	220V 1ph	0.6	Factory Std	1,190 x 720 x 200	32.0
6	FXNQ63A	1	32 - 35	220V 1ph	0.6	Factory Std	1,190 x 720 x 200	32.0
7	FXNQ63A	1	32 - 35	220V 1ph	0.6	Factory Std	1,190 x 720 x 200	32.0
8	FXNQ63A	1	32 - 35	220V 1ph	0.6	Factory Std	1,190 x 720 x 200	32.0

Remarks

Outdoor vs. indoor position

Outdoor unit placed 10.0m above the indoor units.

VRV ΧΩΡΟΣ ΘΕΑΤΡΟΥ - RXYQ18U

Capacity data at conditions and connection ratio (89) 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
10	FXSQ100A	23.0/50%	n/a	0.0	9.2	n/a	6.0	12.1	7.1	0.173
11	FXSQ100A	23.0/50%	n/a	0.0	9.2	n/a	6.0	12.1	7.1	0.173
12	FXSQ100A	23.0/50%	n/a	0.0	9.2	n/a	6.0	12.1	7.1	0.173
13	FXSQ100A	23.0/50%	n/a	0.0	9.2	n/a	6.0	12.1	7.1	0.173
			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	m³/h
10	FXSQ100A	22.0	n/a	11.7	39.9	0.173	n/a	n/a	1,920.00
11	FXSQ100A	22.0	n/a	11.7	39.9	0.173	n/a	n/a	1,920.00
12	FXSQ100A	22.0	n/a	11.7	39.9	0.173	n/a	n/a	1,920.00
13	FXSQ100A	22.0	n/a	11.7	39.9	0.173	n/a	n/a	1,920.00
			n/a						

Name	FCU	Room	Sound dBA	PS	MCA A	MOP	WxHxD mm	Weight kg
10	FXSQ100A	2	31 - 36	220V 1ph	2.4	Factory Std	1,400 x 245 x 800	46.0
11	FXSQ100A	2	31 - 36	220V 1ph	2.4	Factory Std	1,400 x 245 x 800	46.0
12	FXSQ100A	2	31 - 36	220V 1ph	2.4	Factory Std	1,400 x 245 x 800	46.0
13	FXSQ100A	2	31 - 36	220V 1ph	2.4	Factory Std	1,400 x 245 x 800	46.0

Remarks

Outdoor vs. indoor position

Outdoor unit placed 10.0m above the indoor units.



Outdoor unit details

Table of abbreviations

Abbreviation	Description
Name	Logical name of the device
Model	Device model name
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	WidthxHeightxDepth
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
			Tmp C °C	CC kW	Rq CC kW	Tmp H °C (DBT/RH)	HC kW	Rq HC kW	
VRV XΩΠΟΣ ΕΚΘΕΣΕΩΝ	RXYQ24U	83.3	31.7	48.4	46.5	7.0/90%	66.4	60.0	72.0
VRV XΩΠΟΣ ΘΕΑΤΡΟΥ	RXYQ18U	88.9	31.7	36.9	36.7	7.0/90%	50.6	46.8	40.0

Name	Model	PS	MCA	MOP	RLA	FLA	WxHxD	Weight
			A	A	A	A	mm	kg
VRV XΩΠΟΣ ΕΚΘΕΣΕΩΝ	RXYQ24U	400V 3Nph						
A	- RXYQ16U		31.0	40.0	18.0		1,240 x 1,685 x 765	275.0
B	- RXYQ8U		16.1	20.0	7.2		930 x 1,685 x 765	198.0
VRV XΩΠΟΣ ΘΕΑΤΡΟΥ	RXYQ18U	400V 3Nph	35.0	40.0	20.8		1,240 x 1,685 x 765	308.0

Sound Data

Name	Model	Sound Power		Sound Pressure	
		Cooling	Heating	Cooling	Heating
		dBA	dBA	dBA	dBA
VRV XΩΠΟΣ ΕΚΘΕΣΕΩΝ	RXYQ24U	86	70	64	-
VRV XΩΠΟΣ ΘΕΑΤΡΟΥ	RXYQ18U	84	66	62	-

Seasonal Efficiency

Name	Model	η _{s,h} heating	η _{s,c} cooling	SCOP	SEER	CSPF
		%	%			
VRV XΩΠΟΣ ΕΚΘΕΣΕΩΝ	RXYQ24U	167.0	269.9	4.30	6.80	-
VRV XΩΠΟΣ ΘΕΑΤΡΟΥ	RXYQ18U	163.1	238.3	4.20	6.00	-



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

Refrigerant information

Name	Model	Refrigerant type	GWP	Base charge kg	Extra charge kg	Total refrigerant charge kg	Total CO2 equivalent kg
VRV XQPOΣ EKΘEΣEQN	RXYQ24U	R410A	2087.5	17.20	unknown	unknown	35.91
VRV XQPOΣ ΘEATPOY	RXYQ18U	R410A	2087.5	11.70	unknown	unknown	24.42

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.

VRV XQPOΣ EKΘEΣEQN - RXYQ24U = RXYQ16U + RXYQ8U

Model	Quantity	Description
RXYQ16U	1	RXYQ-U (VRV IV Non Continuous Heating)
RXYQ8U	1	RXYQ-U (VRV IV Non Continuous Heating)
FXNQ63A	8	FXNQ-A - Concealed floor standing unit
KHRQ22M20T	5	Refnet branch piping kit
KHRQ22M64T	1	Refnet branch piping kit
KHRQ22M75T	1	Refnet branch piping kit
BHFQ22P1007	1	Outdoor unit multi connection piping kit for 2 modules
BRC1H52W	8	Remote controller (white)

Refrigerant information

Refrigerant type	GWP	Base charge kg	Extra charge kg	Total refrigerant charge kg	Total CO2 equivalent kg
R410A	2087.5	17.20	unknown	unknown	35.91

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.



Pipe capacities

Maximum Connection Index	Diameters
149.9	9.5mmx15.9mm
199.9	9.5mmx19.1mm
289.9	9.5mmx22.2mm
419.9	12.7mmx28.6mm
639.9	15.9mmx28.6mm
919.9	19.1mmx34.9mm
> 919.9	19.1mmx41.3mm
Main pipe size up	19.1mmx34.9mm

Remarks

Sufficient distance should be respected between the modules according to the service & operation space rules as mentioned in the databook.



Piping limitations

Description	Value
Maximum total length	1,000.0m
Maximum longest actual length	165.0m
Maximum longest equivalent length	190.0m
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	90.0m
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	90.0m
Minimum connection ratio, outdoor unit below indoor units	-
Maximum height difference, outdoor unit above indoor units	90.0m
Minimum connection ratio, outdoor unit above indoor units	-
Maximum height difference in technical cooling, outdoor unit below indoor units	90.0m
Maximum height difference in technical cooling, outdoor unit above indoor units	90.0m
Maximum height difference between indoor units	30.0m
Connection ratio range	50.0% - 130.0%
Refrigerant pipe diameters	19.1mm (liquid) x 34.9mm (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	90.0m
Maximum actual length between CM and HM	-
Maximum height difference between CM and HM	-

VRV XQPOΣ ΘΕΑΤΡΟΥ - RXYQ18U

Model	Quantity	Description
RXYQ18U	1	RXYQ-U (VRV IV Non Continuous Heating)
FXSQ100A	4	FXSQ-A - Concealed ceiling unit with medium ESP
KHRQ22M29T9	1	Refnet branch piping kit
KHRQ22M64T	2	Refnet branch piping kit
BRC1H52W	4	Remote controller (white)

Refrigerant information

Refrigerant type	GWP	Base charge kg	Extra charge kg	Total refrigerant charge kg	Total CO2 equivalent kg
R410A	2087.5	11.70	unknown	unknown	24.42

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.

The VRV Selection application is property of Daikin Europe N.V. Daikin Europe N.V. cannot be held liable for any inaccuracy, reliability of the outcome of the VRV Selection application.



Pipe capacities

Maximum Connection Index	Diameters
149.9	9.5mmx15.9mm
199.9	9.5mmx19.1mm
289.9	9.5mmx22.2mm
419.9	12.7mmx28.6mm
639.9	15.9mmx28.6mm
919.9	19.1mmx34.9mm
> 919.9	19.1mmx41.3mm
Main pipe size up	19.1mmx31.8mm

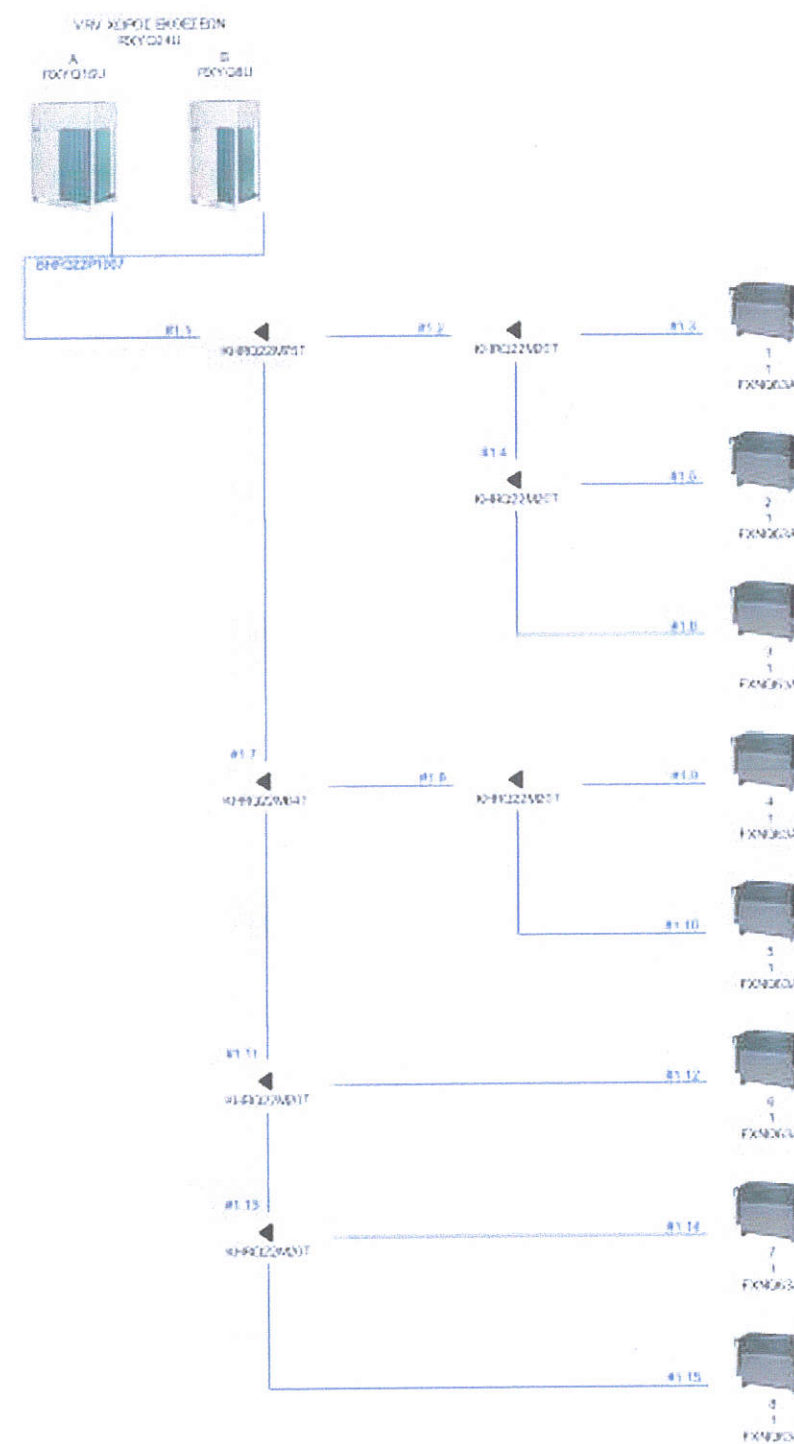
Piping limitations

Description	Value
Maximum total length	1,000.0m
Maximum longest actual length	165.0m
Maximum longest equivalent length	190.0m
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	90.0m
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	90.0m
Minimum connection ratio, outdoor unit below indoor units	-
Maximum height difference, outdoor unit above indoor units	90.0m
Minimum connection ratio, outdoor unit above indoor units	-
Maximum height difference in technical cooling, outdoor unit below indoor units	90.0m
Maximum height difference in technical cooling, outdoor unit above indoor units	90.0m
Maximum height difference between indoor units	30.0m
Connection ratio range	50.0% - 130.0%
Refrigerant pipe diameters	19.1mm (liquid) x 31.8mm (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	90.0m
Maximum actual length between CM and HM	-
Maximum height difference between CM and HM	-

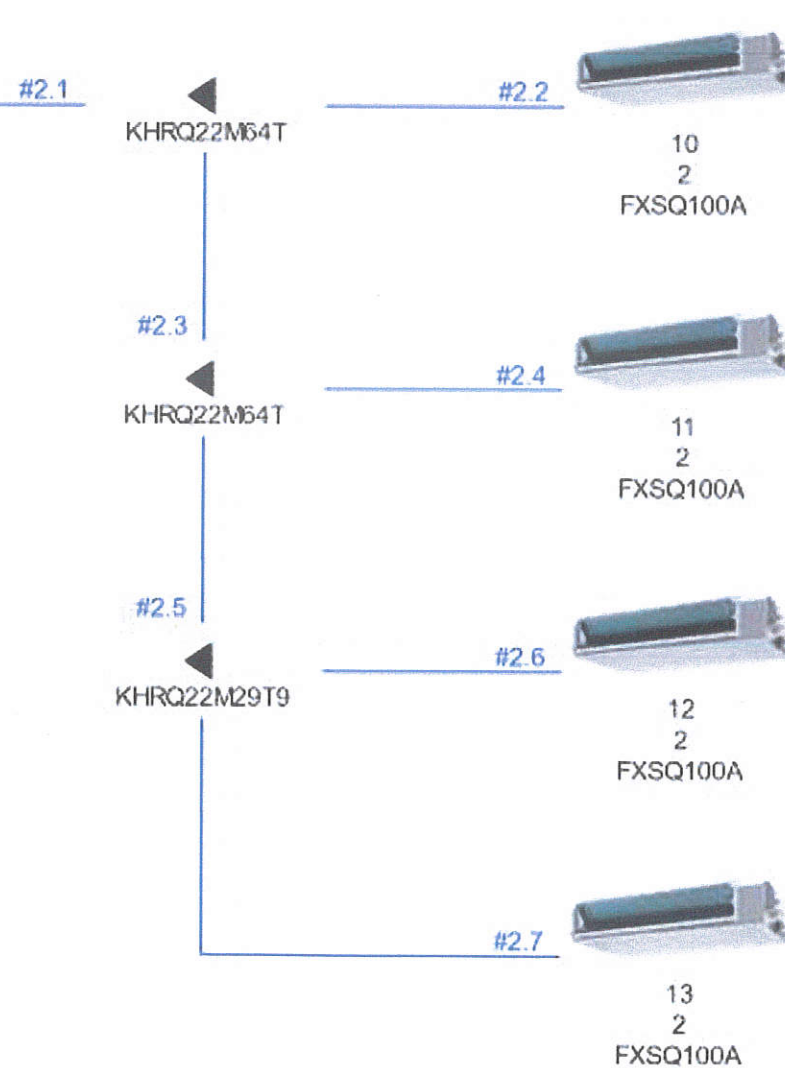
The VRV Selection application is property of Daikin Europe N.V. Daikin Europe N.V. cannot be held liable for any inaccuracy, reliability of the outcome of the VRV Selection application.

Piping diagrams

Piping VRV ΧΩΡΟΣ ΕΚΘΕΣΕΩΝ

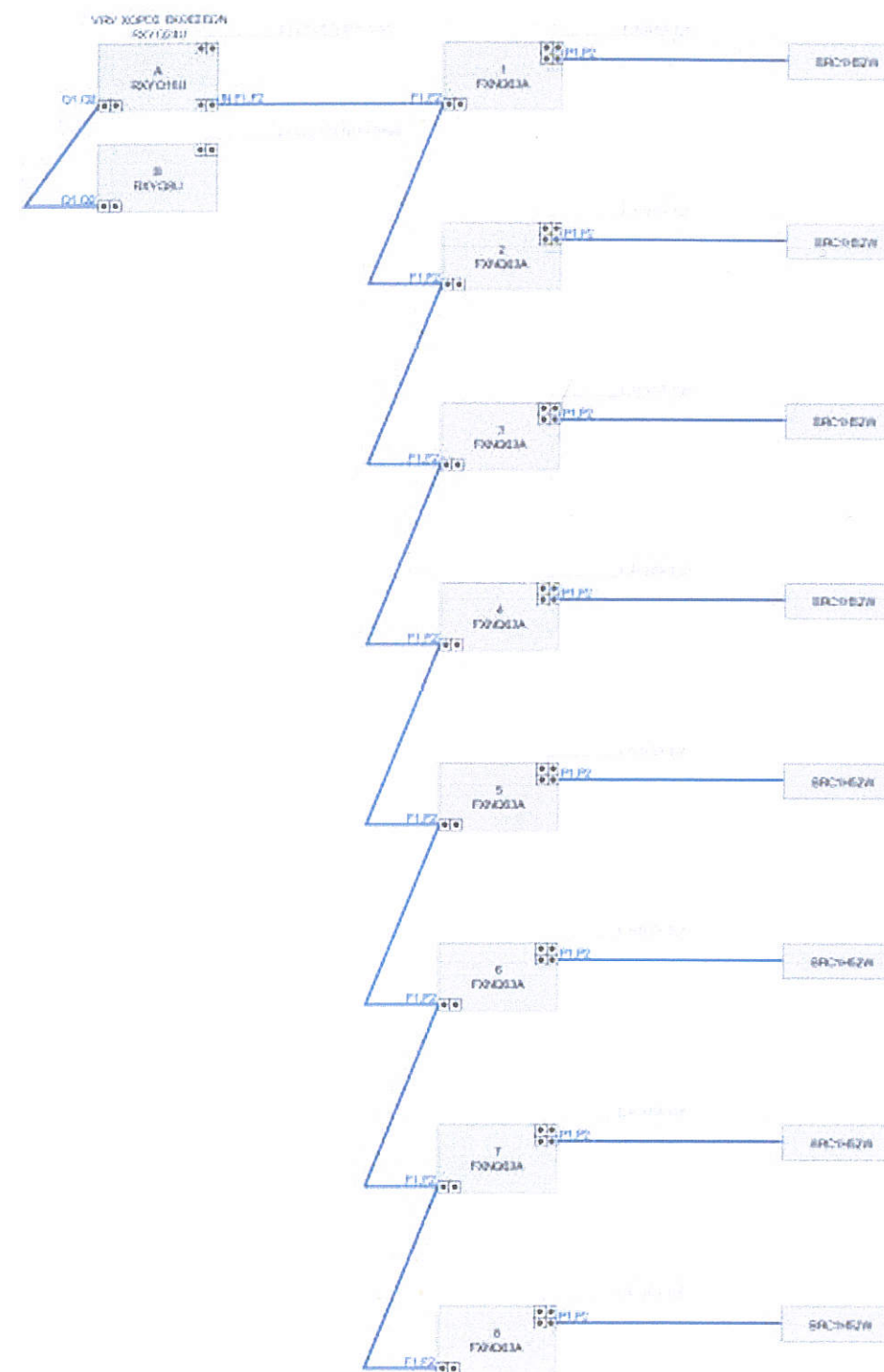


VRV ΧΩΡΟΣ ΘΕΑΤΡΟΥ
RXYQ18U



Wiring diagrams

Wiring VRV ΧΩΡΟΣ ΕΚΘΕΣΕΩΝ



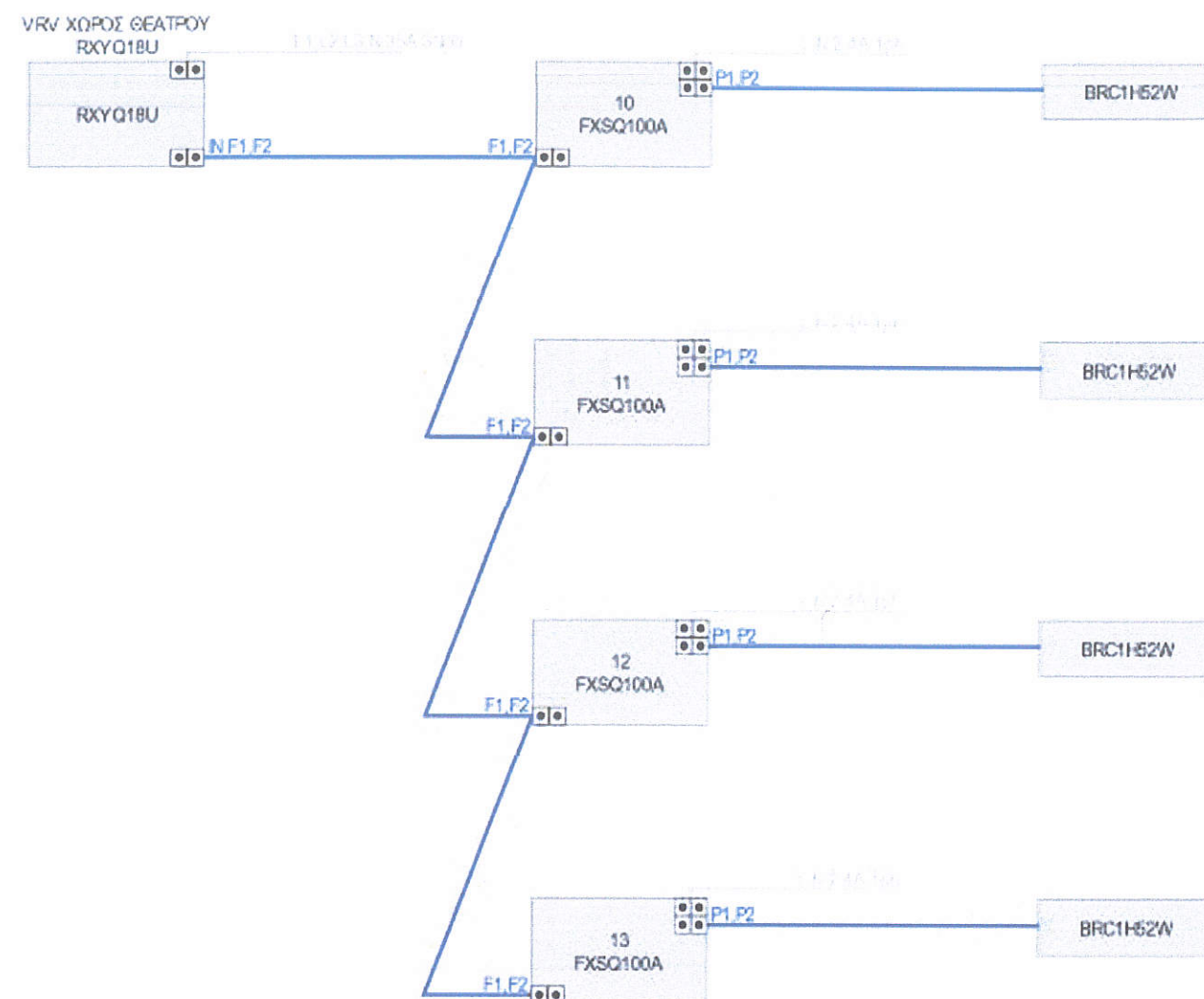
Remarks

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

F1F2 IN/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 local regulation prescribes it).

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

Wiring VRV ΧΩΡΟΣ ΘΕΑΤΡΟΥ



Remarks

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

F1F2 IN/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 local regulation prescribes it).

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

ΚΩΝΣΤΑΝΤΙΝΟΣ Ν. ΓΑΛΑΝΗΣ
ΔΙΠΛΩΜΑΤΟΥΧΟΣ ΜΗΧΑΝΟΛΟΓΟΣ ΜΗΧΑΝΙΚΟΣ
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ΜΕΛΟΣ Τ.Ε.Ε. ΑΡΙΘΜΟΣ ΜΗΤΡΩΟΥ 38772
ΧΙΟΥ 52 ΑΓ. ΠΑΡΑΣΚΕΥΗ - ΑΘΗΝΑ ΤΗΛ. 210 6398200



VRV Selection

Project Report

Report details

Produced on: 7/7/2023

Application version: 2023.7.5.4

Project details

Project name: 3516 NEΩ

Solution name: ΟΡΜ ΑΠΟΘΗΚΗ ΑΛΑΤΟΣ

Client Name:

Customer reference:

Quotation reference:

Project number: 1139934/1432312

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
RXYQ20U	1	RXYQ-U (VRV IV Non Continuous Heating)
FXNQ63A	7	FXNQ-A - Concealed floor standing unit
KHRQ22M20T	4	Refnet branch piping kit
KHRQ22M64T	2	Refnet branch piping kit
BRC1H52W	7	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



VRV XQPOΣ EKΘEΣEQN - RXYQ20U

Capacity data at conditions and connection ratio (88) 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
6	FXNQ63A	23.0/50%	n/a	0.0	5.8	n/a	6.0	10.4	4.3	0.110
7	FXNQ63A	23.0/50%	n/a	0.0	5.8	n/a	6.0	10.4	4.3	0.110
5	FXNQ63A	23.0/50%	n/a	0.0	5.8	n/a	6.0	10.4	4.3	0.110
3	FXNQ63A	23.0/50%	n/a	0.0	5.8	n/a	6.0	10.4	4.3	0.110
4	FXNQ63A	23.0/50%	n/a	0.0	5.8	n/a	6.0	10.4	4.3	0.110
1	FXNQ63A	23.0/50%	n/a	0.0	5.8	n/a	6.0	10.4	4.3	0.110
2	FXNQ63A	23.0/50%	n/a	0.0	5.8	n/a	6.0	10.4	4.3	0.110
			0.0							

Name	FCU	Heating							Air Flow Rate
		Tmp H	Rq HC	Max HC	Tdis H	PIH	Min coil	Max coil	
		°C	kW	kW	°C	kW	m³	m³	
6	FXNQ63A	22.0	n/a	7.5	44.2	0.107	n/a	n/a	990.00
7	FXNQ63A	22.0	n/a	7.5	44.2	0.107	n/a	n/a	990.00
5	FXNQ63A	22.0	n/a	7.5	44.2	0.107	n/a	n/a	990.00
3	FXNQ63A	22.0	n/a	7.5	44.2	0.107	n/a	n/a	990.00
4	FXNQ63A	22.0	n/a	7.5	44.2	0.107	n/a	n/a	990.00
1	FXNQ63A	22.0	n/a	7.5	44.2	0.107	n/a	n/a	990.00
2	FXNQ63A	22.0	n/a	7.5	44.2	0.107	n/a	n/a	990.00
			n/a						

Name	FCU	Room	Sound dBA	PS	MCA A	MOP	WxHxD	Weight kg
							mm	
6	FXNQ63A	1	32 - 35	220V 1ph	0.6	Factory Std	1,190 x 720 x 200	32.0
7	FXNQ63A	1	32 - 35	220V 1ph	0.6	Factory Std	1,190 x 720 x 200	32.0
5	FXNQ63A	1	32 - 35	220V 1ph	0.6	Factory Std	1,190 x 720 x 200	32.0
3	FXNQ63A	1	32 - 35	220V 1ph	0.6	Factory Std	1,190 x 720 x 200	32.0
4	FXNQ63A	1	32 - 35	220V 1ph	0.6	Factory Std	1,190 x 720 x 200	32.0
1	FXNQ63A	1	32 - 35	220V 1ph	0.6	Factory Std	1,190 x 720 x 200	32.0
2	FXNQ63A	1	32 - 35	220V 1ph	0.6	Factory Std	1,190 x 720 x 200	32.0

Remarks

Outdoor vs. indoor position

Outdoor unit placed 7.0m above the indoor units.



Outdoor unit details

Table of abbreviations

Abbreviation	Description
Name	Logical name of the device
Model	Device model name
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
			Tmp C °C	CC kW	Rq CC kW	Tmp H °C (DBT/RH)	HC kW	Rq HC kW	
VRV ΧΩΡΟΣ ΕΚΘΕΣΕΩΝ	RXYQ20U	87.5	31.7	42.2	40.7	7.0/90%	57.0	52.5	38.0

Name	Model	PS	MCA	MOP	RLA	FLA	WxHxD	Weight
			A	A	A	A	mm	kg
VRV ΧΩΡΟΣ ΕΚΘΕΣΕΩΝ	RXYQ20U	400V 3Nph	39.0	50.0	26.9		1,240 x 1,685 x 765	308.0

Sound Data

Name	Model	Sound Power		Sound Pressure	
		Cooling dBA	Heating dBA	Cooling dBA	Heating dBA
VRV ΧΩΡΟΣ ΕΚΘΕΣΕΩΝ	RXYQ20U	88	67	65	-

Seasonal Efficiency

Name	Model	η _{s,h} heating	η _{s,c} cooling	SCOP	SEER	CSPF
		%	%			
VRV ΧΩΡΟΣ ΕΚΘΕΣΕΩΝ	RXYQ20U	156.6	233.7	4.00	5.90	-

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

Refrigerant information

Name	Model	Refrigerant type	GWP	Base charge kg	Extra charge kg	Total refrigerant charge kg	Total CO2 equivalent kg
VRV ΧΩΡΟΣ ΕΚΘΕΣΕΩΝ	RXYQ20U	R410A	2087.5	11.80	unknown	unknown	24.63

The system(s) contain fluorinated greenhouse gases.

When extra refrigerant charge requirements are not calculated, TCO2 equivalent is calculated only considering the base

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refrigerant charge. Depending on the field pipe length extra refrigerant needs to be added which will increase the TCO2 equivalent.

VRV ΧΩΡΟΣ ΕΚΘΕΣΕΩΝ - RXYQ20U

Model	Quantity	Description
RXYQ20U	1	RXYQ-U (VRV IV Non Continuous Heating)
FXNQ63A	7	FXNQ-A - Concealed floor standing unit
KHRQ22M20T	4	Refnet branch piping kit
KHRQ22M64T	2	Refnet branch piping kit
BRC1H52W	7	Remote controller (white)

Refrigerant information

Refrigerant type	GWP	Base charge kg	Extra charge kg	Total refrigerant charge kg	Total CO2 equivalent kg
R410A	2087.5	11.80	unknown	unknown	24.63

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.

Pipe capacities

Maximum Connection Index	Diameters
149.9	9.5mmx15.9mm
199.9	9.5mmx19.1mm
289.9	9.5mmx22.2mm
419.9	12.7mmx28.6mm
639.9	15.9mmx28.6mm
919.9	19.1mmx34.9mm
> 919.9	19.1mmx41.3mm
Main pipe size up	19.1mmx31.8mm

Piping limitations

Description	Value
Maximum total length	1,000.0m
Maximum longest actual length	165.0m
Maximum longest equivalent length	190.0m
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

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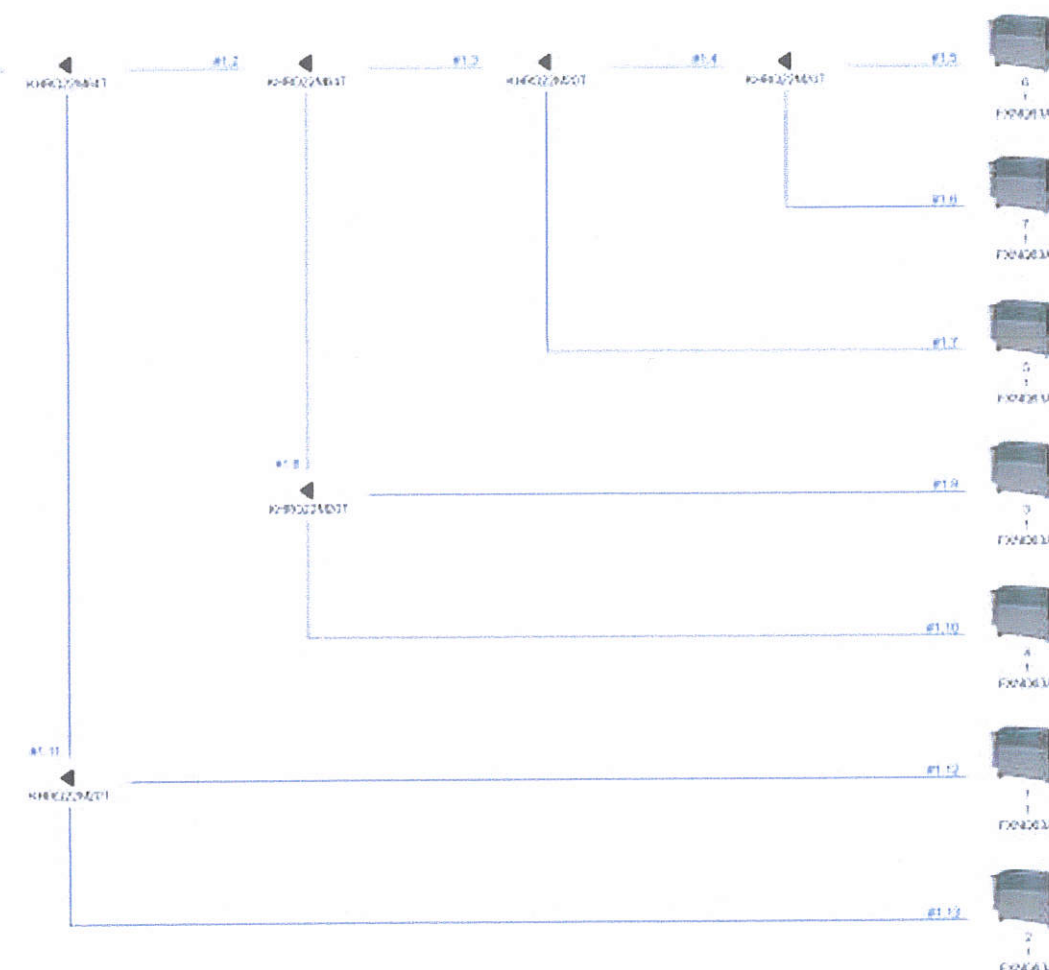
Maximum length first branch to indoor unit	90.0m
Maximum length of indoor units to nearest branch	40.0m
Maximum length difference between longest and shortest distance to indoor units	40.0m
Maximum height difference, outdoor unit below indoor units	90.0m
Minimum connection ratio, outdoor unit below indoor units	-
Maximum height difference, outdoor unit above indoor units	90.0m
Minimum connection ratio, outdoor unit above indoor units	-
Maximum height difference in technical cooling, outdoor unit below indoor units	90.0m
Maximum height difference in technical cooling, outdoor unit above indoor units	90.0m
Maximum height difference between indoor units	30.0m
Connection ratio range	50.0% - 130.0%
Refrigerant pipe diameters	19.1mm (liquid) x 31.8mm (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	90.0m
Maximum actual length between CM and HM	-
Maximum height difference between CM and HM	-



Piping diagrams

Piping VRV ΧΩΡΟΣ ΕΚΘΕΣΕΩΝ

VRV ΧΩΡΟΣ ΕΚΘΕΣΕΩΝ
BPV (20.1)



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