

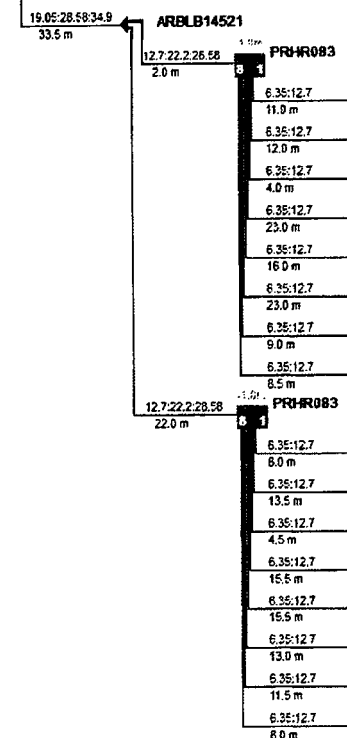
System Tree Diagram

System Name: bl B, et03, k.+7.30

15/06/2020 '梅

System No : 1/1

ARUM200LTE5 (61.98 kW)/82.33 kW
Additional Refrigerant: 22.24 kgs (Precharged Refrigerant: 17.00 kgs)



- ARNU12GVEM4 (3.50 / 2.49 kW) (3.48 kW)
- ARNU12GVEM4 (3.50 / 2.49 kW) (3.48 kW)
- ARNU18GV1M4 (5.43 / 3.86 kW) (5.49 kW)
- ARNU12GVEM4 (3.50 / 2.49 kW) (3.48 kW)
- ARNU18GV1M4 (5.43 / 3.86 kW) (5.49 kW)
- ARNU18GV1M4 (5.43 / 3.86 kW) (5.49 kW)
- ARNU12GVEM4 (3.50 / 2.49 kW) (3.48 kW)
- ARNU12GVEM4 (3.50 / 2.49 kW) (3.48 kW)
- ARNU18GV1M4 (5.43 / 3.86 kW) (5.49 kW)
- ARNU18GV1M4 (5.43 / 3.86 kW) (5.49 kW)
- ARNU12GVEM4 (3.50 / 2.49 kW) (3.48 kW)
- ARNU12GVEM4 (3.50 / 2.49 kW) (3.48 kW)
- ARNU18GV1M4 (5.43 / 3.86 kW) (5.49 kW)
- ARNU18GV1M4 (5.43 / 3.86 kW) (5.49 kW)
- ARNU12GVEM4 (3.50 / 2.49 kW) (3.48 kW)
- ARNU12GVEM4 (3.50 / 2.49 kW) (3.48 kW)
- ARNU18GV1M4 (5.43 / 3.86 kW) (5.49 kW)

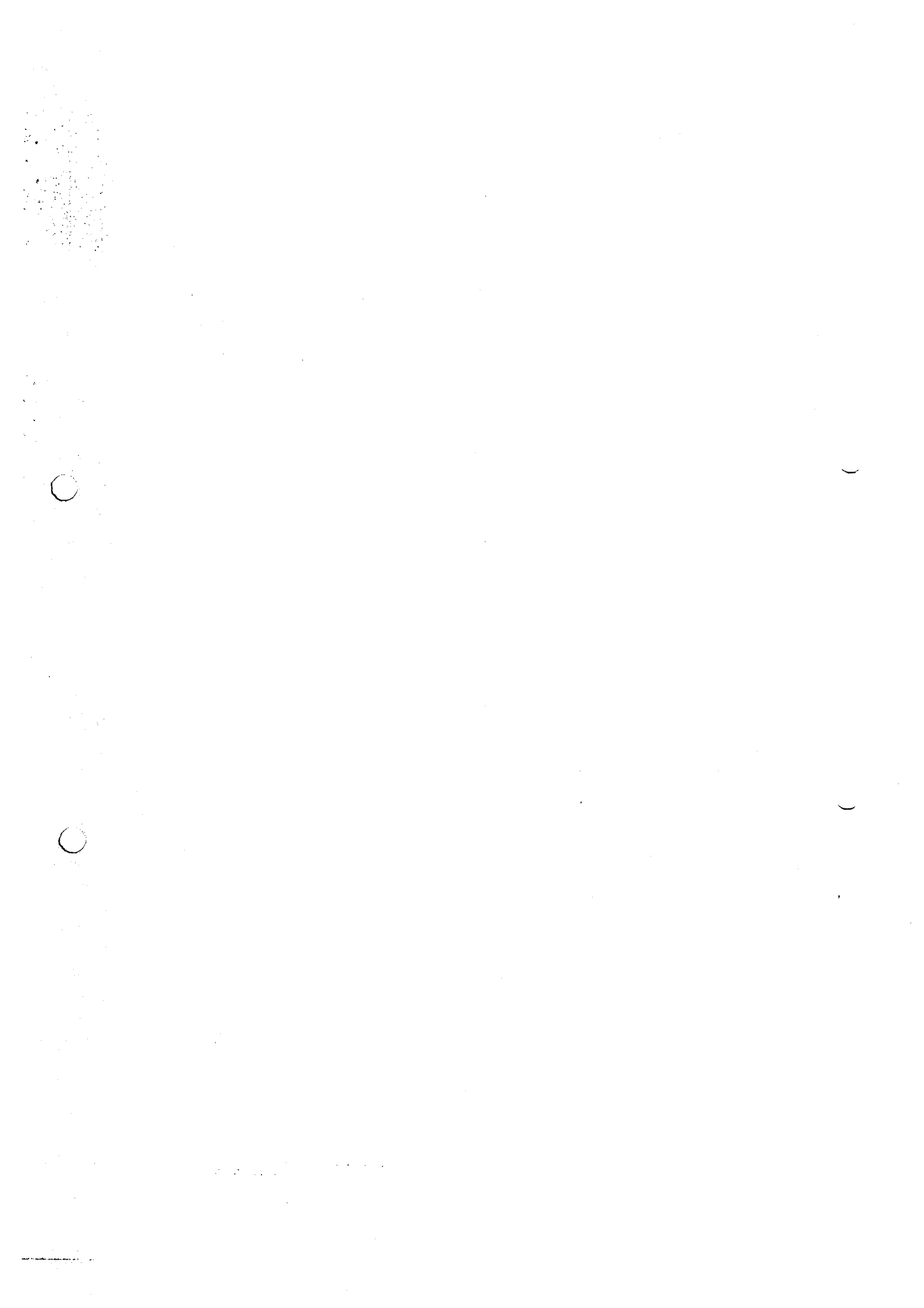
- R03.k.+7.30/Room08 (3.83 (91 %) / - (0 %) kW) (0 %) kW
- R03.k.+7.30/Room07 (3.83 (91 %) / - (0 %) kW) (0 %) kW
- R03.k.+7.30/Room013 (5.00 (108 %) / - (0 %) kW) (0 %) kW
- R03.k.+7.30/Room042 (3.20 (109 %) / - (0 %) kW) (0 %) kW
- R03.k.+7.30/Room011 (4.97 (109 %) / - (0 %) kW) (0 %) kW
- R03.k.+7.30/Room011 (4.97 (109 %) / - (0 %) kW) (0 %) kW
- R03.k.+7.30/Room010 (3.83 (91 %) / - (0 %) kW) (0 %) kW
- R03.k.+7.30/Room09 (3.83 (91 %) / - (0 %) kW) (0 %) kW
- R03.k.+7.30/Room02 (5.83 (93 %) / - (0 %) kW) (0 %) kW
- R03.k.+7.30/Room01 (4.21 (128 %) / - (0 %) kW) (0 %) kW
- R03.k.+7.30/Room012 (3.58 (97 %) / - (0 %) kW) (0 %) kW
- R03.k.+7.30/Room013 (5.00 (108 %) / - (0 %) kW) (0 %) kW
- R03.k.+7.30/Room06 (3.83 (91 %) / - (0 %) kW) (0 %) kW
- R03.k.+7.30/Room05 (3.83 (91 %) / - (0 %) kW) (0 %) kW
- R03.k.+7.30/Room04 (3.83 (91 %) / - (0 %) kW) (0 %) kW
- R03.k.+7.30/Room03 (3.83 (91 %) / - (0 %) kW) (0 %) kW

** Conditional Application
Three pipe : Liquid : High Vapor : Low Vapor
Two pipe : Liquid : Vapor

R Remote Controller, G Group Control, D Dry Contact


Indoor Units : 16 of 64
Combination Ratio : 69.6 of 72.8 (96%)
Total Pipe : 253.5 of 1000.0 m

ЗЕРЕНУТ clima
БЕФИР Климатични системи ЕООД
София

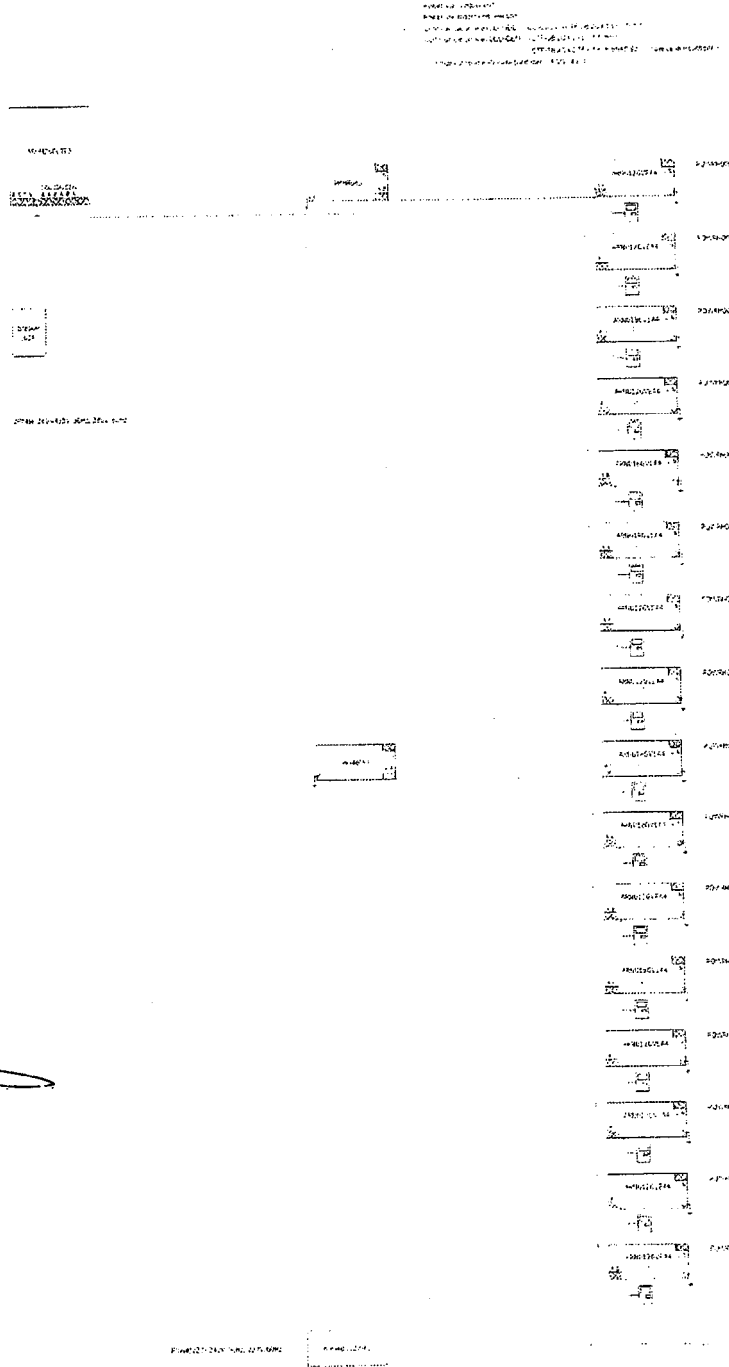


System Schematic Diagram


System Name: bl B, et03, k.+7.30


15/06/2020 'м' 

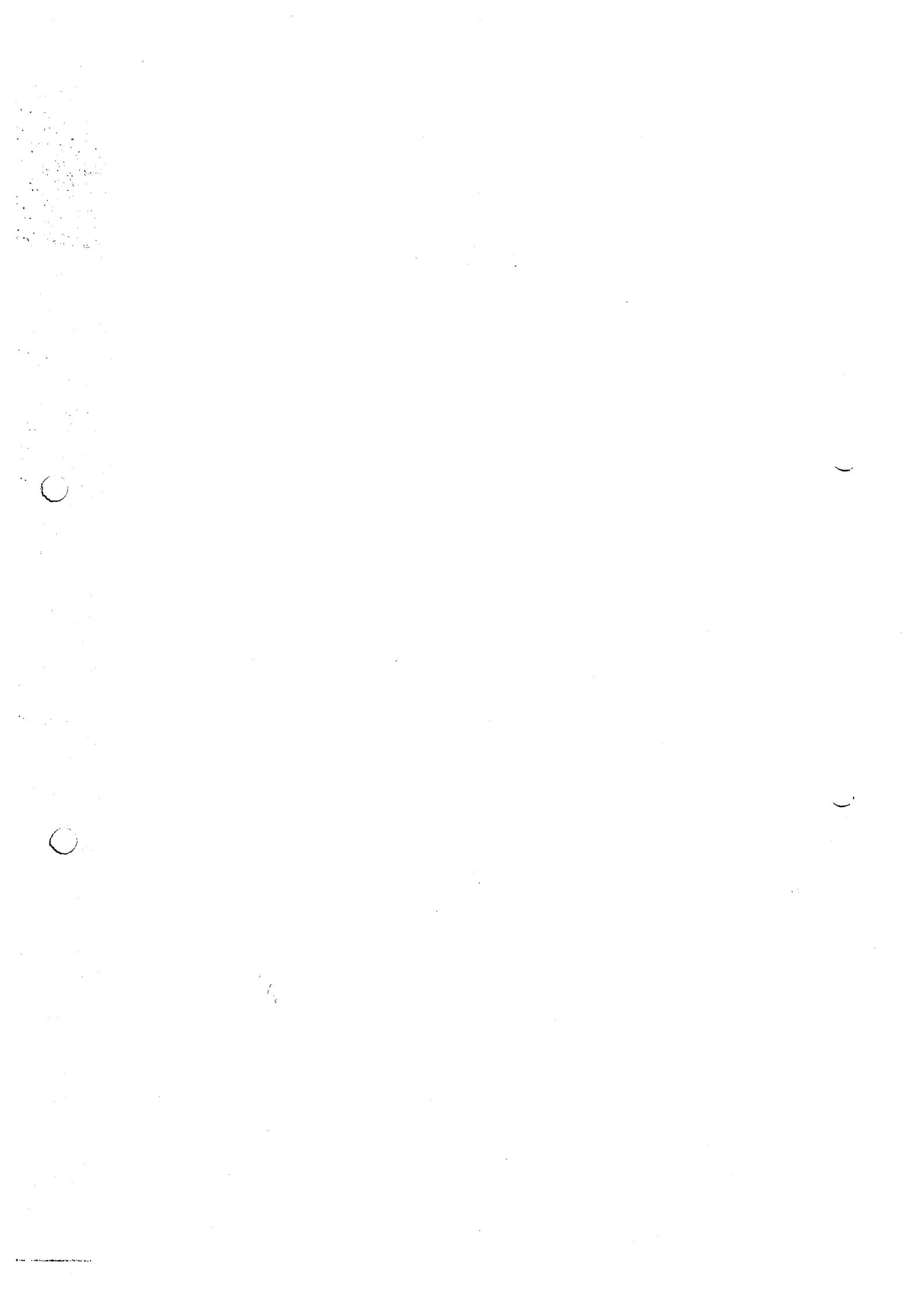
System No : 1/1

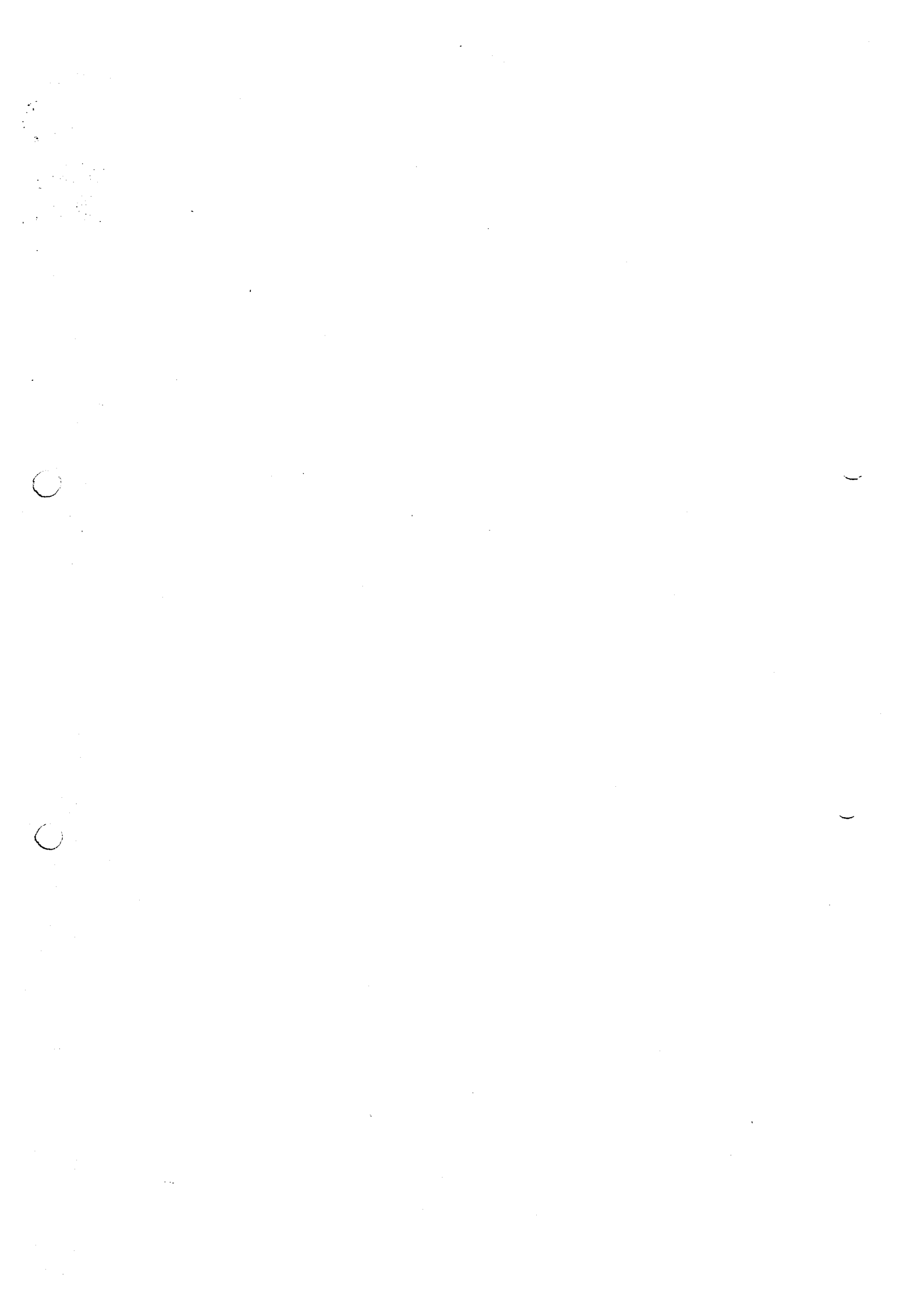












System Schematic Diagram

System Name: bl B, et02, k.+4.00
System No : 1/1

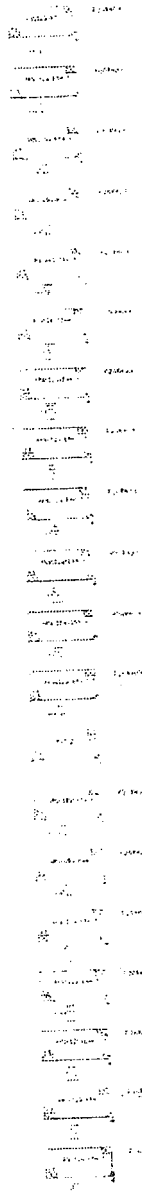
15/06/2020 'м

LEGISLATION OF THE REPUBLIC OF BULGARIA
REGULATED BY THE NATIONAL BUREAU OF METROLOGY
AND QUALITY CONTROL (NBMQC)
IN ACCORDANCE WITH THE REQUIREMENTS OF THE
EUROPEAN DIRECTIVE 90/269/EEC



100V

200V



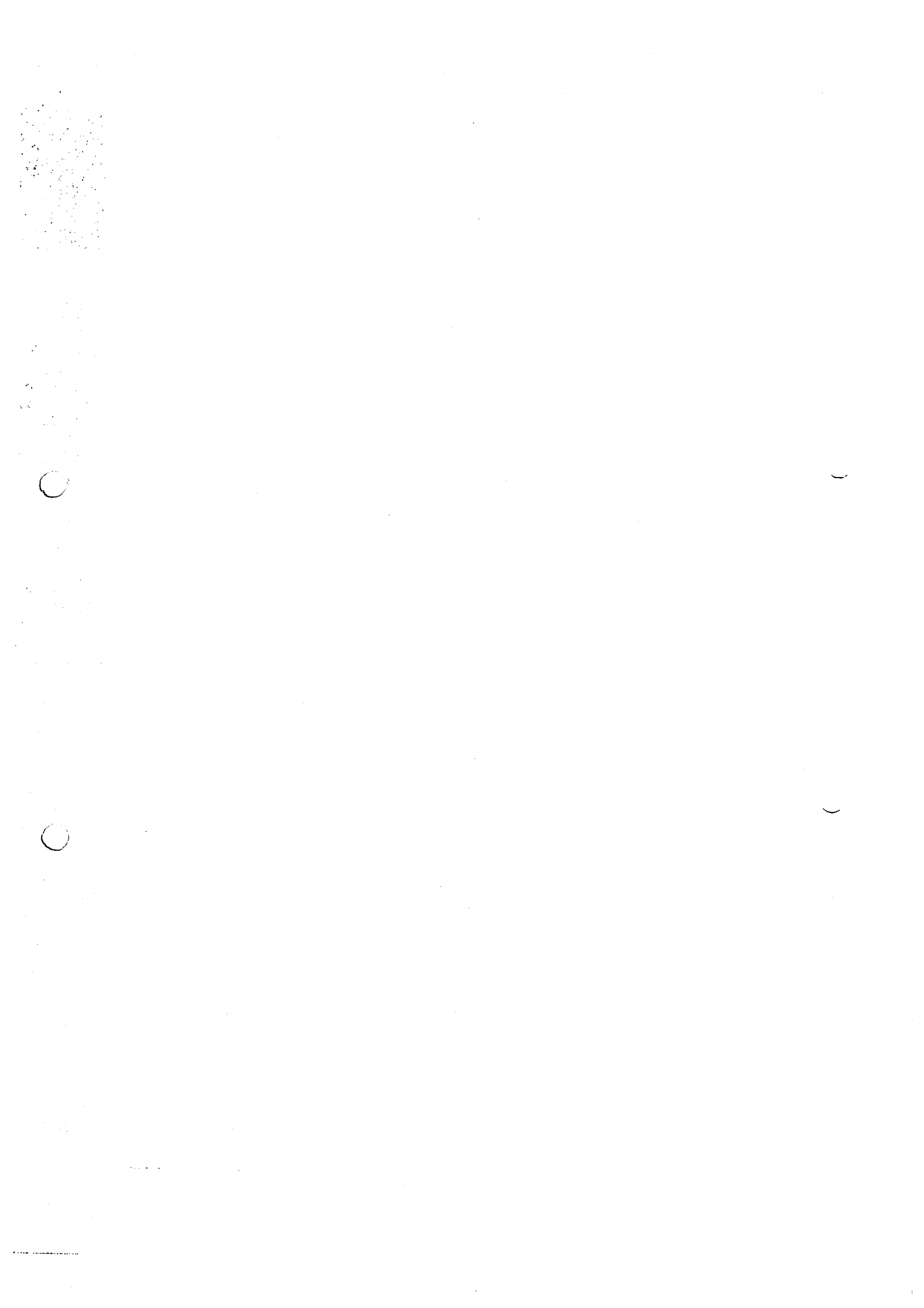
Handwritten signature

Handwritten signature

Handwritten signature

ЗЕФИР Климатични системи ЕООД
София

ZEPIR clima
ЗЕФИР Климатични системи ЕООД
София



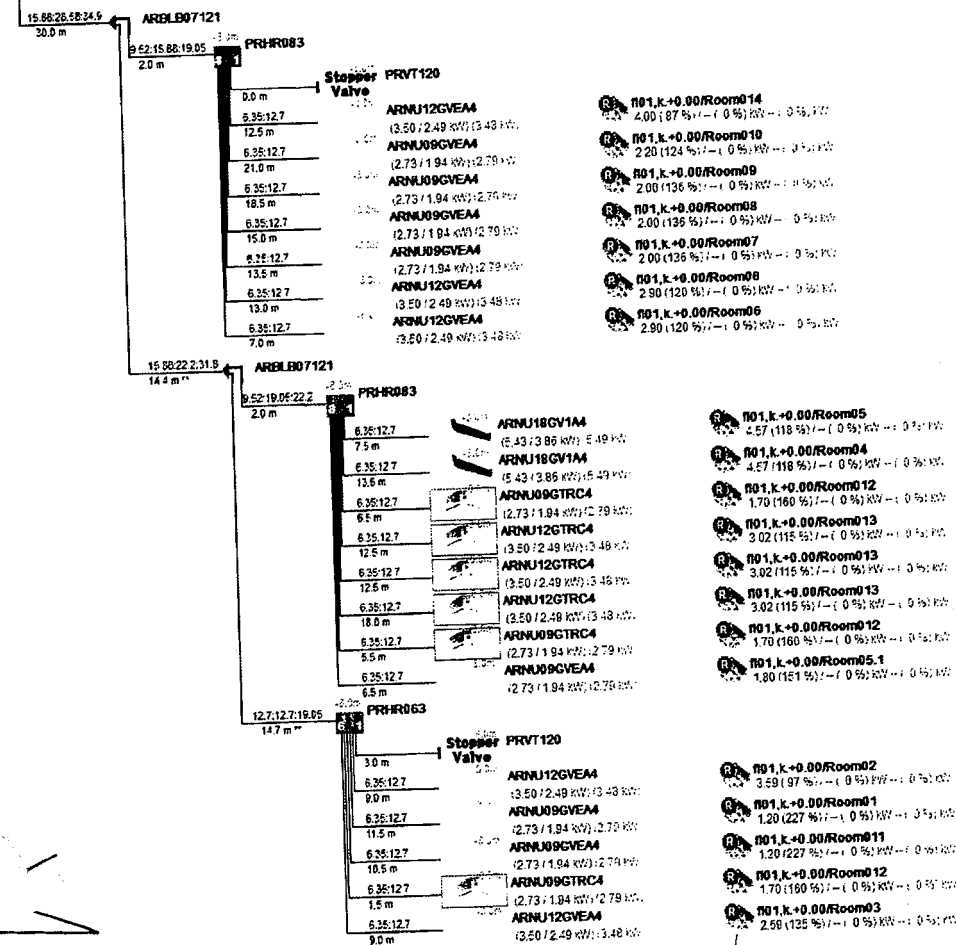
System Tree Diagram

System Name: bl B, et01, k.+0.00

System No : 1/1

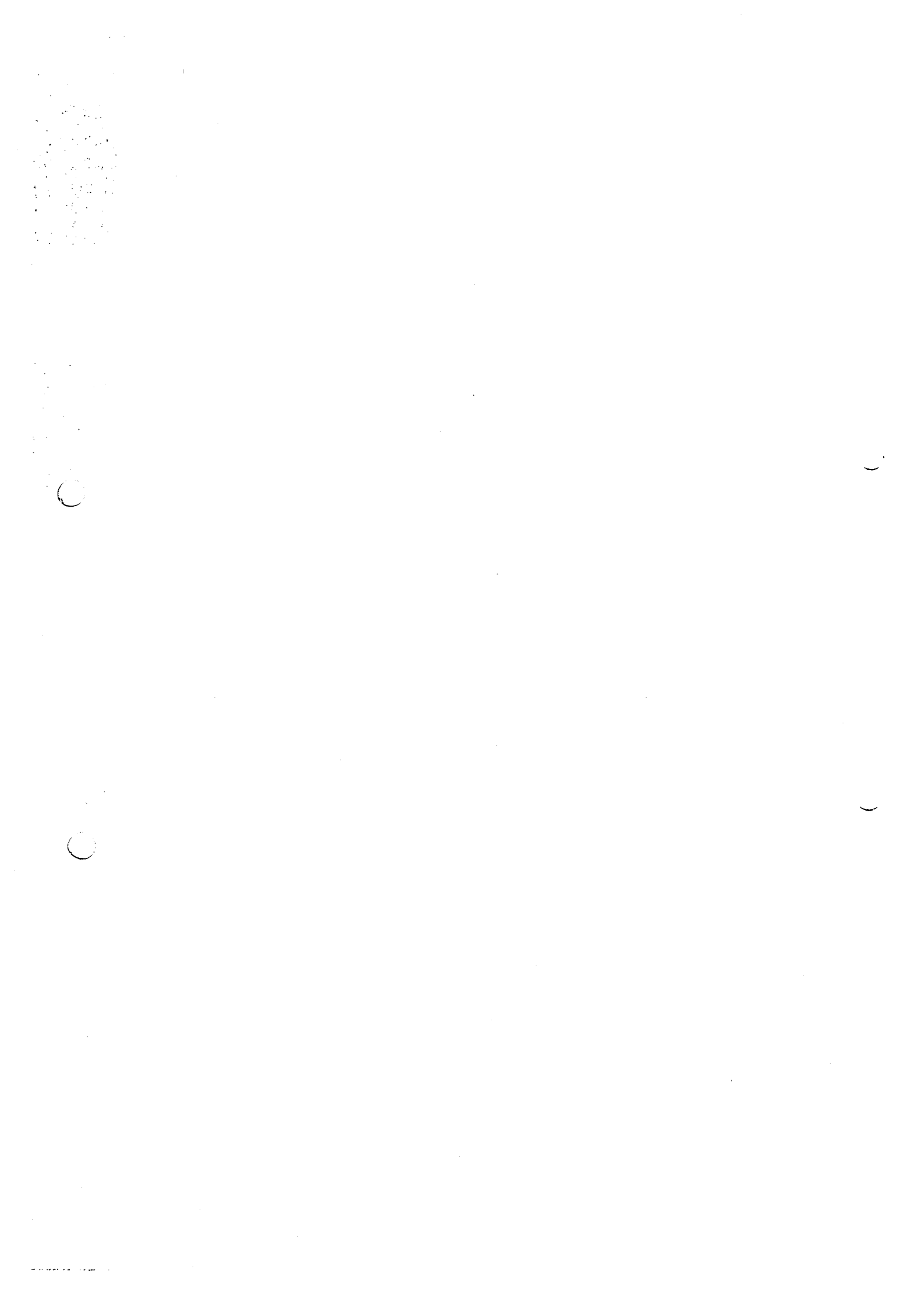
15/06/2020 '橋

ARUM240LTE5 (60.87 kW)(65.27 kW)
Additional Refrigerant: 21.36 kgs (Precharged Refrigerant: 17.00 kgs)



*** : Conditional Application
 Three pipe : Liquid : High Vapor : Low Vapor
 Two pipe : Liquid : Vapor
 (R) Remote Controller (G) Group Control (D) Dry Contact
 Indoor Units : 22 of 61
 Combination Ratio : 68.0 of 67.2 (101%)
 Total Pipe : 319.7 of 1099.0 m





1. List of functions

Category	Function	ARNU18GV1A4, ARNU24GV1A4, ARNU36GV2A4, ARNU48GV2A4
Air flow	Air supply outlet	1
	Airflow direction control(left & right)	X
	Airflow direction control(up & down)	Auto
	Auto swing(left & right)	X
	Auto swing(up & down)	O
	Airflow steps(fan/cool/heat)	3 / 4 / 3
	Chaos wind(auto wind)	X
	Jet cool (Power wind)	O
Air purifying	Swirl wind	X
	Triple filter	X
	Plasma air purifier	X
Installation	Prefilter (washable)	O
	Drain pump	X
	E.S.P. control*	X
	Electric heater(operation)	X
Reliability	High ceiling operation*	O
	Hot start	O
	Self diagnosis	O
Convenience	Soft dry operation	O
	Auto changeover	O (Heat recovery / Heat pump)
	Auto cleaning	X
	Auto operation(artificial intelligence)	O (Cooling only)
	Auto restart operation	O
	Child lock*	O
	Forced operation	O
	Group control*	O
	Sleep mode	O
	Timer(on/off)	O
Individual control	Timer(weekly)*	O
	Two thermistor control*	O
	Wide wired remote controller (RS2 Plus)	PREMTB001/PREMTBB01
	Wide wired remote controller (RS3)	PREMTB100/PREMTBB10
	Premium wired remote controller	PREMTA000/PREMTA000A/PREMTA000B
	Simple wired remote controller	PQRCVCL0Q(W)
	Wired remote controller (for hotel use)	PQRCHCA0Q(W)
Special function kit	Wireless LCD remote controller	PQWRH(C)Q0FDB
	Wi-Fi Controller	PWFMDD200
	Zone controller	-
	CTI (Communication transfer interface)	-
	Electronic thermostat	-
	Remote temperature sensor	-
	Group control wire	PZCWRCG3
	Dry contact	PDRYCB000/PDRYCB300/PDRYCB400/PDRYCB500
Independent Power Module	PRIP0	
Refrigerant Leakage Detector	PRLDNVS0	

Note

- O : Applied, X : Not Applied
Accessory : Ordered and purchased separately the accessory package referring to the model name provided and install at field.
Accessory line-ups varies by region, so check your local catalogue or local sales material.
- Some functions can be limited by remote controller.
- In case of ducted type indoor units using the wireless remote controller, it needs to connect to the wired remote controller for received the signal of that.
- * : These functions need to connect the wired remote controller.

Handwritten signature

Handwritten signature

Handwritten signature



2. Specifications

Type			Ceiling Suspended Unit		
Model		Unit	ARNU18GV1A4	ARNU24GV1A4	
Cooling Capacity		kW	5.6	7.1	
		kcal/h	4,800	6,100	
		Btu/h	19,100	24,200	
Heating Capacity		kW	6.3	8	
		kcal/h	5,400	6,900	
		Btu/h	21,500	27,300	
Power Input (H / M / L)		W	23 / 20 / 17	25 / 21 / 17	
Casing			Galvanized Steel Plate + Painting		
Dimensions (W × H × D)	Body	mm	1,200 × 235 × 690	1,200 × 235 × 690	
		inch	47-1/4 × 9-1/4 × 27-3/16	47-1/4 × 9-1/4 × 27-3/16	
Coil	Rows × Columns × FPI		3 × 18 × 18	3 × 18 × 18	
	Face Area		m ²	0.32	
Fan	Type		Cross Flow Fan	Cross Flow Fan	
	Motor Output × Number		W × No.	85.9 × 1	
	Air Flow Rate (H / M / L)	m ³ /min		13.5 / 12.5 / 12.0	14.0 / 13.0 / 12.0
		ft ³ /min		477 / 441 / 424	495 / 459 / 424
	Drive		Direct	Direct	
Motor type		BLDC	BLDC		
Temperature Control			Microprocessor, Thermostat for cooling and heating		
Sound Absorbing Thermal Insulation Material			Foamed polystyrene		
Safety Device			Fused		
Pipe Connections	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø9.52(3/8)	
	Gas Side	mm(inch)	Ø12.7(1/2)	Ø15.88(5/8)	
	Drain (O.D. / I.D.)	mm	Ø 25.0 / 16.0	Ø 25.0 / 16.0	
Net Weight		kg(lbs)	29.0 (63.9)	29.0 (63.9)	
Shipping Weight		kg(lbs)	36.0 (79.4)	36.0 (79.4)	
Sound Pressure Levels (H / M / L)		dB(A)	36 / 34 / 33	37 / 35 / 33	
Sound Power Levels (H / M / L)		dB(A)	61 / 59 / 56	62 / 59 / 56	
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60	
Running Current by voltage	Rated	A	0.18 - 0.17 - 0.16	0.20 - 0.19 - 0.18	
Maximum Running Current		A	0.97	0.97	
Refrigerant	Type		-	R410A	
	Additional Charging Amount (CF Value of IDU)		kg(each)	0.53	
	Control		-	EEV	
Transmission Cable		mm ² × Cores	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 × 2C	

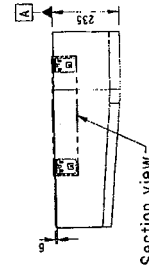
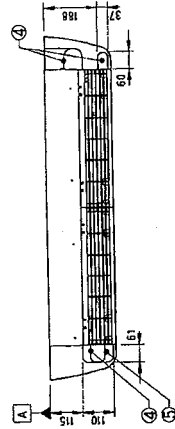
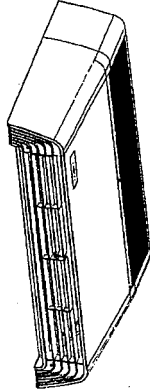
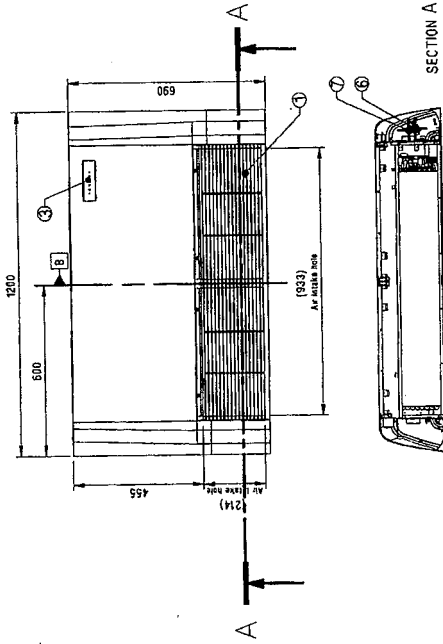
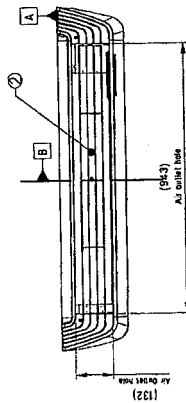
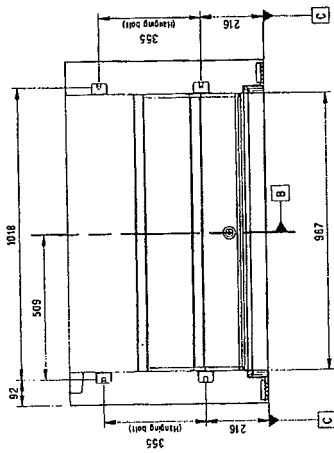
Note

- Due to our policy of innovation some specifications may be changed without notification.
- Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating : Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.

ЗЕРФИР
ЗЕФИР Климатични системи ЕООД
София

3. Dimensions

ARNU18GV1A4 / ARNU24GV1A4



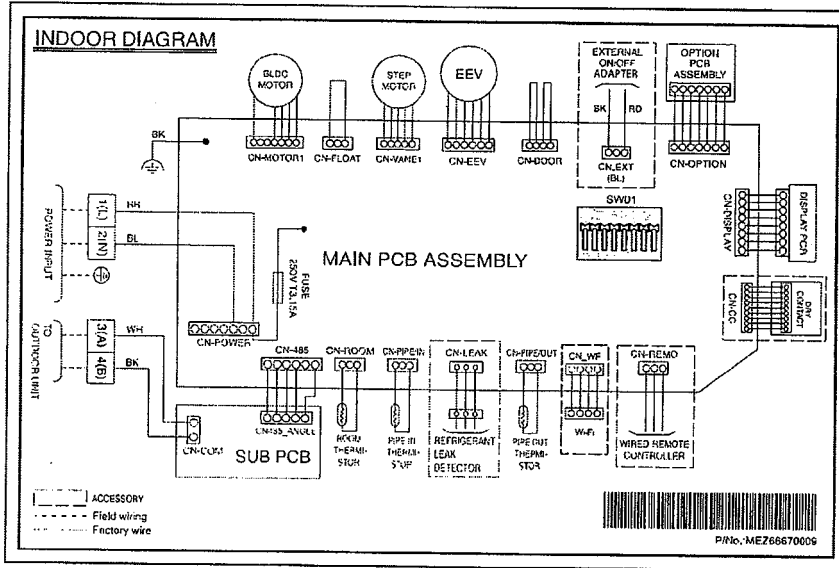
Note
 1. Unit should be installed in compliance with the installation manual in the product box.
 2. Unit should be grounded in accordance with the local regulations or applicable national codes.
 3. All electrical components and materials to be supplied from the site must comply with the local regulations or international codes.

No.	Part Name	Description
7	Liquid pipe connection	-
6	Gas pipe connection	-
5	Refrigerant pipe and cable routing hole	Knock-out type
4	Drain hose routing hole	Knock-out type
3	Remote Controller Signal Receiver	For wireless type
2	Air outlet	-
1	Air intake	-

(UNIT/mm)
 Chassis code : VM1
 WG No. : TAZ35326401_Rev01

5. Wiring Diagrams

VM1, VM2 Chassis



CONNECTOR NUMBER	LOCATION POINT	FUNCTION
CN-POWER	AC Power supply	AC Power line input for indoor controller
CN-MOTOR1	Fan motor output	Motor output of BLDC
CN-485	Communication	Connection between indoor and outdoor
CN-DISPLAY	Display	Display of indoor status
CN-EEV	EEV Output	EEV Control output : connect to EEV directly or through IPM(Independent Power Module)
CN-LEAK	Refrigerant leak detector	Refrigerant leak detector line
CN-VANE1	Step motor	Step motor output
CN-FLOAT	Float switch input	Float switch sensing
CN-PIPE_IN	Suction pipe sensor	Pipe in thermistor
CN-PIPE_OUT	Discharge pipe sensor	Pipe out thermistor
CN-ROOM	Room sensor	Room air thermistor
CN-REMO	Remote controller	Remote control line
CN-CC	Dry contact	Dry contact line
CN-OPTION	Option pwb.	Communication between main and option
CN-EXT	External On/Off	External On/Off signal input
CN-DOOR	- (not used)	-

Dip Switch Setting		Off	On	Remarks
SW3	GROUP	Master	Slave	Group Control setting using Wired Remote Controller
SW4	DRY CONTACT	Variable	Auto	Old Dry Contact Mode Setting 1. Variable : Auto/Manual Mode can be chosen by Wide wired remote controller or Wireless remote controller (When shipped from Factory → Manual Mode) 2. Auto : For Dry Contact, it is always Auto mode.
SW5	EXTRA 1	Off	On	1. Duct model - OFF : Default(not operate continuously) - ON : Fan operate continuously 2. Cassette Model : No Function 3. Ceiling Suspended Model - OFF : Ceiling(default) - ON : Floor

CAUTION

For Multi V Model, Dip Switch 1,2,6,7,8 must be set OFF
That dip switch is used for the other model.



1. List of functions

List of functions

* Model Name (N, C : Ionizer)

Category	Function	ARNU05GSJ*4, ARNU07GSJ*4, ARNU09GSJ*4, ARNU12GSJ*4, ARNU15GSJ*4, ARNU18GSK*4, ARNU24GSK*4
Air flow	Air supply outlet	1
	Airflow direction control(left & right)	Manual
	Airflow direction control(up & down)	Auto
	Auto swing(left & right)	X
	Auto swing(up & down)	Auto
	Airflow steps(fan/cool/heat)	3 / 4 / 3
	Chaos wind(auto wind)	X
	Jet cool(Power wind)	O
	Swirl wind*	-
Air purifying	Triple filter	X
	Plasma air purifier	X
	Ionizer	O
	Prefilter(washable)	O
Installation	Drain pump	-
	E.S.P. control*	-
	Electric heater(operation)	-
Reliability	Hot start	O
	Self diagnosis	O
	Soft dry operation	O
Convenience	Auto changeover	O(Heat recovery / Heat pump)
	Auto cleaning	O
	Auto operation(artificial intelligence)	O(Cooling only)
	Auto restart operation	O
	Child lock*	O
	Forced operation	O
	Group control*	O
	Sleep mode	O
	Timer(on/off)	O
	Timer(weekly)*	O
Two thermistor control*	O	
External On/Off	O	
Wi-Fi	O	

Note

- O : Applied, X : Not Applied
Accessory : Ordered and purchased separately the accessory package referring to the model name provided and install at field.
Accessory line-ups varies by region, so check your local catalogue or local sales material.
- Some functions can be limited by remote controller.
- In case of ducted type indoor units using the wireless remote controller, it needs to connect to the wired remote controller for received the signal of that.
- * : These functions need to connect the wired remote controller.

Handwritten signature

Handwritten signature

Handwritten signature



2. Specifications

* Model Name (N, C : Ionizer)

Type		Wall Mounted Unit		
Model		ARNU18GSK*4	ARNU24GSK*4	
Cooling Capacity	Unit			
	kW	5.6	7.1	
	kcal/h	4,800	6,100	
Heating Capacity	Unit			
	kW	6.3	7.5	
	kcal/h	5,400	6,400	
Power Input (H / M / L)	Unit			
	W	32 / 26 / 16	39 / 26 / 16	
Dimensions (W×H×D)	Body	mm	975 × 354 × 209	
		inch	38-3/8 × 13-15/16 × 8-7/32	
	Shipping	mm	1,063 × 420 × 274	
		inch	41-27/32 × 16-17/32 × 10-25/32	
Coil	Rows × Columns × FPI	2 × 16 × 20	2 × 16 × 20	
	Face Area	m ²	0.25	
Fan	Type	Cross Flow Fan	Cross Flow Fan	
	Motor Output × Number	W	58 × 1	
	Air Flow Rate(H / M / L)	m ³ /min	14.0 / 12.0 / 10.5	15.2 / 12.7 / 10.5
		ft ³ /min	494 / 424 / 371	537 / 449 / 371
	Drive	Direct	Direct	
Motor type	BLDC	BLDC		
Temperature Control	Microprocessor, Thermostat for cooling and heating			
Sound Absorbing Thermal Insulation Material	Foamed polystyrene			
Air Filter	Resin Net(washable)			
Safety Device	Fuse			
Pipe Connections	Liquid Side	mm (inch)	Ø6.35 (1/4)	
	Gas Side	mm (inch)	Ø9.52(3/8)	
	Drain Pipe(ID)	mm (inch)	Ø15.88(5/8)	
Weight	Body	kg (lbs)	12.2 (26.9)	
	Shipping	kg (lbs)	16.0 (35.3)	
Sound Pressure Levels (H / M / L)	dB(A)	43 / 39 / 34	46 / 41 / 34	
Sound Power Levels (H / M / L)	dB(A)	63 / 57 / 54	65 / 60 / 54	
Power Supply	Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60	
Running Current by voltage	Rated	A	0.33 - 0.31 - 0.30	
Maximum Running Current	A	0.52	0.40 - 0.38 - 0.37	
Refrigerant	Type	-	R410A / R32	
	Additional Charging Amount (CF Value of IDU)	kg(each)	0.28 / 0.23	
	Control	-	EEV	
Transmission cable	mm ²	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 × 2C	
Color		White	White	

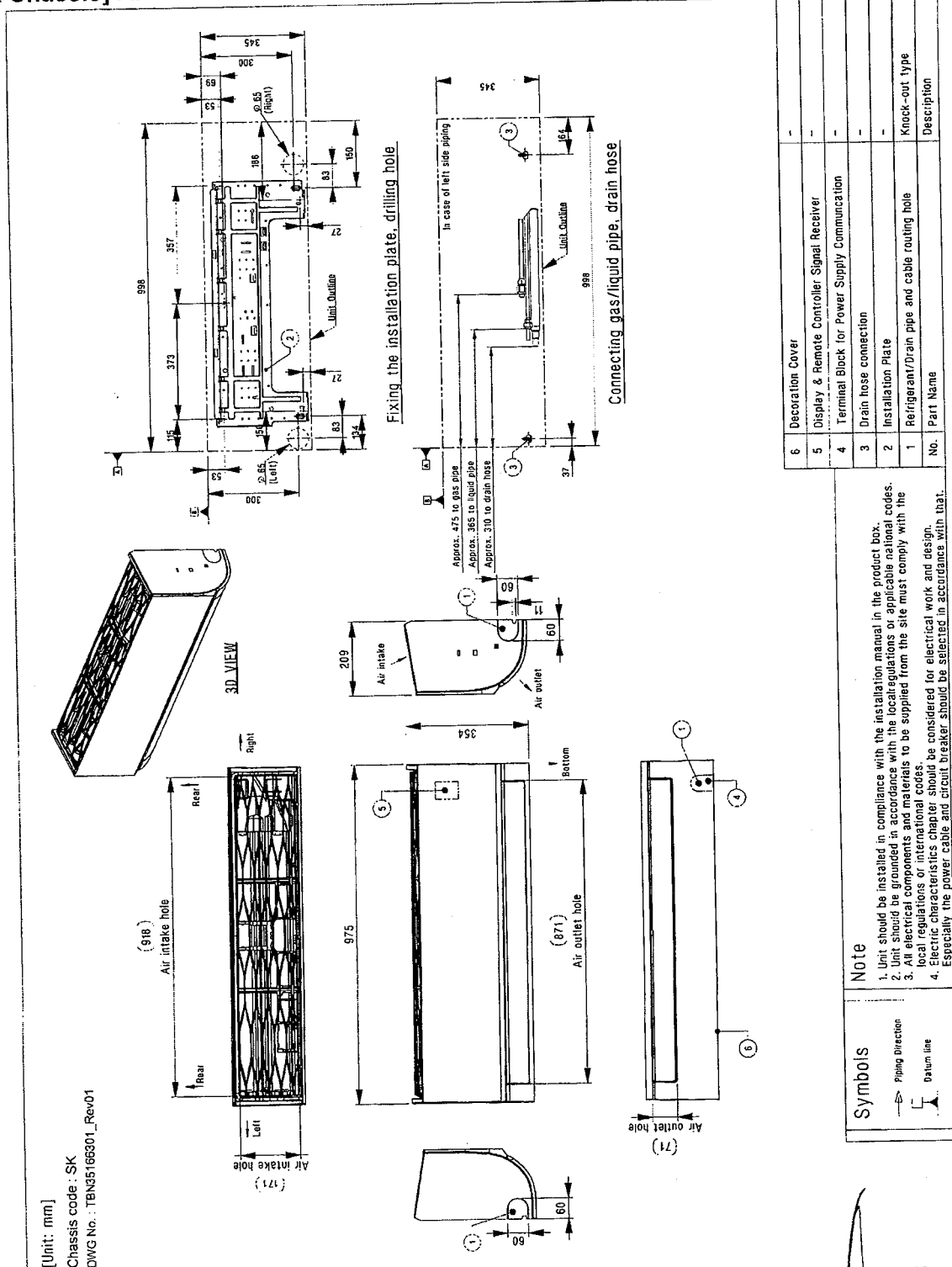
Note

- Due to our policy of innovation some specifications may be changed without notification.
- Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating : Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.

ADDITIONAL models may look different depending on the time of production.

3. Dimensions

[SK Chassis] ARNU18GSK*4 / ARNU24GSK*4

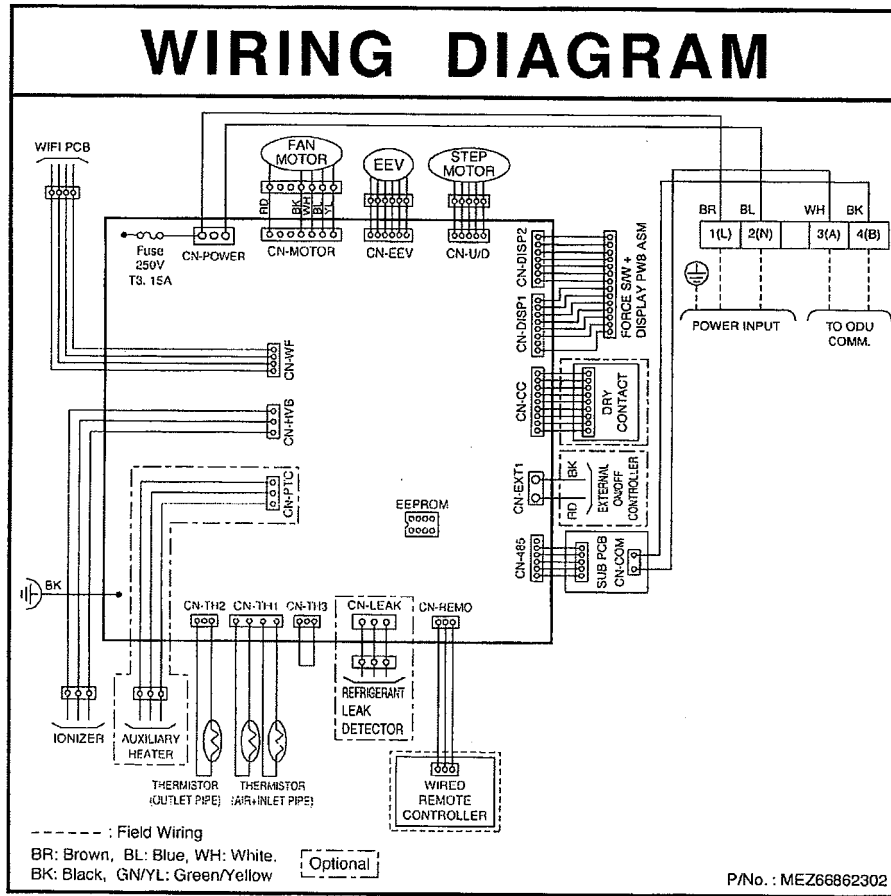


[Unit: mm]
 Chassis code : SK
 DWG No. : TBN35166301_Rev01

* ARNU-N4 models may look different depending on the time of production.

5. Wiring Diagrams

■ SJ/SK Chassis

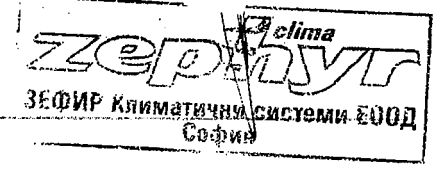


CONNECTOR NUMBER	LOCATION POINT	FUNCTION
CN-POWER	AC Power supply	AC Power line input for indoor
CN-MOTOR	Fan motor output	Motor output of BLDC
CN-485	Communication	Connection between indoor
CN-DISP1	Display	Display of indoor status
CN-DISP2	Display	Display of indoor status
CN-EEV	EEV Output	EEV Control output : connect to EEV directly or through IPM (Independent Power Module)
CN-LEAK	Refrigerant leak detector	Refrigerant leak detector line
CN-U/D	Step motor	Step motor output
CN-TH1	Room/inlet pipe sensor	Room and inlet pipe thermistor
CN-TH2	Outlet pipe sensor	Outlet pipe thermistor
CN-REMO	Remote controller	Remote control line
CN-CC	Dry contact	Dry contact line
CN-EXT1	External On/Off	External On/Off signal input
CN-PTC	Auxiliary heater	Auxiliary heater line
CN-WF	WIFI module	WIFI module connection line
CN-HVB	Ionizer module	Ionizer connection line

Handwritten mark: Int

Handwritten mark: Int

Handwritten mark: Int



1. List of functions

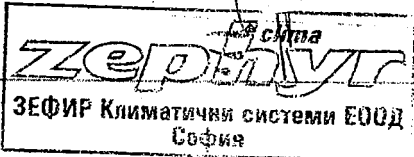
Category	Function	ARNU05GTRB4, ARNU07GTRB4, ARNU09GTRB4, ARNU12GTRB4, ARNU15GTQB4, ARNU18GTQB4, ARNU21GTQB4
Air flow	Air supply outlet	4
	Airflow direction control(left & right)	-
	Airflow direction control(up & down)	Auto
	Auto swing(left & right)	-
	Auto swing(up & down)	0
	Airflow steps(fan/cool/heat)	4 / 5 / 4
	Chaos swing	X
	Chaos wind(auto wind)	0
	Jet cool(Power wind)	0
	Swirl wind	0
Air purifying	Deodorizing filter	X
	Prefilter(washable)	0
Installation	Drain pump	0
	E.S.P. control*	X
	Electric heater(operation)	X
	High ceiling operation*	0
Reliability	Hot start	0
	Self diagnosis	0
	Soft dry operation	0
Convenience	Auto changeover	0(Heat recovery / Heat pump)
	Auto cleaning	X
	Auto operation(artificial intelligence)	0(Cooling only)
	Auto restart operation	0
	Child lock*	0
	Forced operation	0
	Group control*	0
	Sleep mode	0
	Timer(on/off)	0
	Timer(weekly)*	0
	Two thermistor control*	0
	Elevation Grille	X
	External On/Off	0

Note
 1. 0 : Applied, X : Not Applied
 Accessory : Ordered and purchased separately the accessory package referring to the model name provided and install at field.
 Accessory line-ups varies by region, so check your local catalogue or local sales material.
 2. Some functions can be limited by remote controller.
 3. In case of ducted type indoor units using the wireless remote controller, it needs to connect to the wired remote controller for received the signal of that.
 4. * : These functions need to connect the wired remote controller.

Handwritten signature

Handwritten signature

Handwritten signature



1. List of functions

Category		Product	Remark	ARNU05GTRB4, ARNU07GTRB4, ARNU09GTRB4, ARNU12GTRB4, ARNU15GTQB4, ARNU18GTQB4, ARNU21GTQB4
Wireless Remote Controller		PQWRHQ0FDB / PQWRCQ0FDB	Heat Pump / Cooling only	0
		PWLSSB21H / PWLSSB21C	Heat Pump / Cooling only	0
Wired Remote Controller	Simple	PQRCVCL0Q(W)	Simple	0
		PQRCHCA0Q(W)	for Hotel	0
	Standard	PREMTB001	Standard II (White)	0
		PREMTBB01	Standard II (Black)	0
		PREMTB100**	Standard III (White)	0
		PREMTBB10**	Standard III (Black)	0
Premium	PREMTA000(A/B)	Premium	0	
Dry contact	Simple Contact	PDRYCB000	Simple Dry Contact	0
	Communication type	PDRYCB400	2 Points Dry Contact (For Setback)	0
		PDRYCB300	Dry Contact For 3rd Party Thermostat	0
		PDRYCB500	Dry Contact For Modbus	0
Gateway	IDU PI485	PHNFP14A0	Without case	-
		PSNFP14A0	With case	-
ETC	Remote temperature sensor	PQRSTA0	-	0
	Group control wire	PZCWRCG3	0.25m	0
	2-Remo Control Wire	PZCWRC2	0.25m	-
	Extension Wire	PZCWRC1	10m	-
	Wi-Fi Controller*	PWFMDD200	-	0
	Independent Power Module	PRIP0	-	0
	Refrigerant Leakage Detector	PRLDNVS0	-	0
	Human Detecting Controller	PHD-TM0	-	-
	Air Cleaning Kit (4way)	PTAHMP0	-	0

Note

1. O: Possible, X: Impossible, -: Not applicable, Embedded: Included with product.
2. *: Some advanced functions controlled by individual controller cannot be operated.
3. **: It could not be operated some functions.
4. If you need more detail, please refer to the **BECON** PDB or the manual of product. (<http://partner.lge.com/global> : Home> Doc.Library> Product > Control(BECON))



2. Specifications

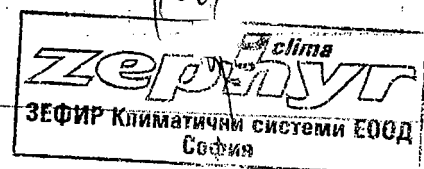
Model		Unit	ARNU09GTRB4	ARNU12GTRB4	
Cooling Capacity		kW	2.8	3.6	
		kcal/h	2,400	3,100	
		Btu/h	9,600	12,300	
Heating Capacity		kW	3.2	4.0	
		kcal/h	2,800	3,400	
		Btu/h	10,900	13,600	
Power Input (H / M / L)		W	14 / 13 / 12	17 / 15 / 13	
Casing			Galvanized Steel Plate	Galvanized Steel Plate	
Dimensions (W x H x D)	Body	mm	570 x 214 x 570	570 x 214 x 570	
		inch	22-7/16 x 8-7/16 x 22-7/16	22-7/16 x 8-7/16 x 22-7/16	
	Decoration Panel #1	mm	700 x 22 x 700	700 x 22 x 700	
		inch	27-9/16 x 7/8 x 27-9/16	27-9/16 x 7/8 x 27-9/16	
	Decoration Panel #2	mm	620 x 34 x 620	620 x 34 x 620	
		inch	24-13/32 x 1-11/32 x 24-13/32	24-13/32 x 1-11/32 x 24-13/32	
Coil	Rows x Columns x FPI		2 x 8 x 18	2 x 8 x 18	
	Face Area		m ²	0.21	
Fan	Type		Turbo Fan	Turbo Fan	
	Motor Output x Number		W	43 x 1	
	Air Flow Rate (H / M / L)	m ³ /min		8.0 / 7.5 / 7.1	8.7 / 8.0 / 7.0
		ft ³ /min		283 / 265 / 251	307 / 283 / 247
	Drive		Direct	Direct	
Motor type		BLDC	BLDC		
Temperature Control			Microprocessor, Thermostat for cooling and heating		
Sound Absorbing Thermal Insulation Material			Foamed polystyrene	Foamed polystyrene	
Safety Device			Fuse	Fuse	
Pipe Connections	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)	
	Gas Side	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)	
	Drain Pipe(Internal Dia.)	mm(inch)	25(1)	25(1)	
Net Weight	Body	kg(lbs)	13.7(30.2)	13.7(30.2)	
	Packaged	kg(lbs)	16.4(36.2)	16.4(36.2)	
Sound Pressure Levels (H / M / L)		dB(A)	30 / 29 / 27	32 / 30 / 27	
Sound Power Levels (H / M / L)		dB(A)	46 / 43 / 42	48 / 46 / 43	
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60	
Running Current by voltage	Rated	A	0.10 - 0.09 - 0.09	0.12 - 0.11 - 0.11	
Maximum Running Current		A	0.20	0.20	
Refrigerant	Type	-	R410A / R32	R410A / R32	
	Additional Charging Amount (CF Value of IDU)	kg(each)	0.25 / 0.21	0.25 / 0.21	
	Control	-	EEV	EEV	
Transmission cable		mm ²	1.0~1.5 x 2C	1.0~1.5 x 2C	
Panel Color			Morning fog	Morning fog	
Panel Name(Accessory)			PT-UQC, PT-QCHW0		
Note					
1. Due to our policy of innovation some specifications may be changed without notification.					
2. Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.					
3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.					
4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.					
• Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB					
• Heating : Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB					
• Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.					
5. Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.					

2. Specifications

Model		Unit	ARNU15GTQB4	ARNU18GTQB4
Cooling Capacity		kW	4.5	5.6
		kcal/h	3,900	4,800
		Btu/h	15,400	19,100
Heating Capacity		kW	5.0	6.3
		kcal/h	4,300	5,400
		Btu/h	17,100	21,500
Power Input (H / M / L)		W	24 / 21 / 18	25 / 22 / 19
Casing			Galvanized Steel Plate	Galvanized Steel Plate
Dimensions (W x H x D)	Body	mm	570 x 256 x 570	570 x 256 x 570
		inch	22-7/16 x 10-3/32 x 22-7/16	22-7/16 x 10-3/32 x 22-7/16
	Decoration Panel #1	mm	700 x 22 x 700	700 x 22 x 700
		inch	27-9/16 x 7/8 x 27-9/16	27-9/16 x 7/8 x 27-9/16
	Decoration Panel #2	mm	620 x 34 x 620	620 x 34 x 620
		inch	24-13/32 x 1-11/32 x 24-13/32	24-13/32 x 1-11/32 x 24-13/32
Coil		Rows x Columns x FPI	2 x 10 x 18	2 x 10 x 18
Face Area		m ²	0.27	0.27
Fan	Type		Turbo Fan	Turbo Fan
	Motor Output x Number		43 x 1	43 x 1
	Air Flow Rate (H / M / L)	m ³ /min	11.0 / 10.0 / 9.3	11.2 / 11.0 / 10.0
		ft ³ /min	388 / 353 / 328	396 / 388 / 353
	Drive		Direct	Direct
Motor type		BLDC	BLDC	
Temperature Control			Microprocessor, Thermostat for cooling and heating	
Sound Absorbing Thermal Insulation Material			Foamed polystyrene	Foamed polystyrene
Safety Device			Fuse	Fuse
Pipe Connections	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)
	Gas Side	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)
	Drain Pipe(Internal Dia.)	mm(inch)	25(1)	25(1)
Net Weight	Body	kg(lbs)	15.0(33.1)	15.0(33.1)
	Packaged	kg(lbs)	17.9(39.5)	17.9(39.5)
Sound Pressure Levels (H / M / L)		dB(A)	36 / 34 / 32	37 / 35 / 34
Sound Power Levels (H / M / L)		dB(A)	50 / 48 / 46	51 / 50 / 46
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60
Running Current by voltage	Rated	A	0.17 - 0.16 - 0.15	0.17 - 0.17 - 0.16
Maximum Running Current		A	0.20	0.20
Refrigerant	Type	-	R410A / R32	R410A / R32
	Additional Charging Amount (CF Value of IDU)	kg(each)	0.32 / 0.26	0.32 / 0.26
	Control	-	EEV	EEV
Transmission cable		mm ²	1.0~1.5 x 2C	1.0~1.5 x 2C
Panel Color			Morning fog	Morning fog
Panel Name(Accessory)			PT-UQC, PT-QCHW0	

Note

- Due to our policy of innovation some specifications may be changed without notification.
- Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB. Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating : Indoor Ambient Temp. 20°CDB / 15°CWB. Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.



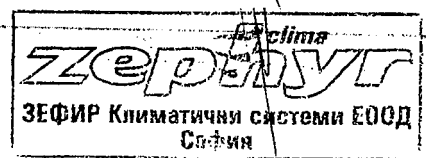
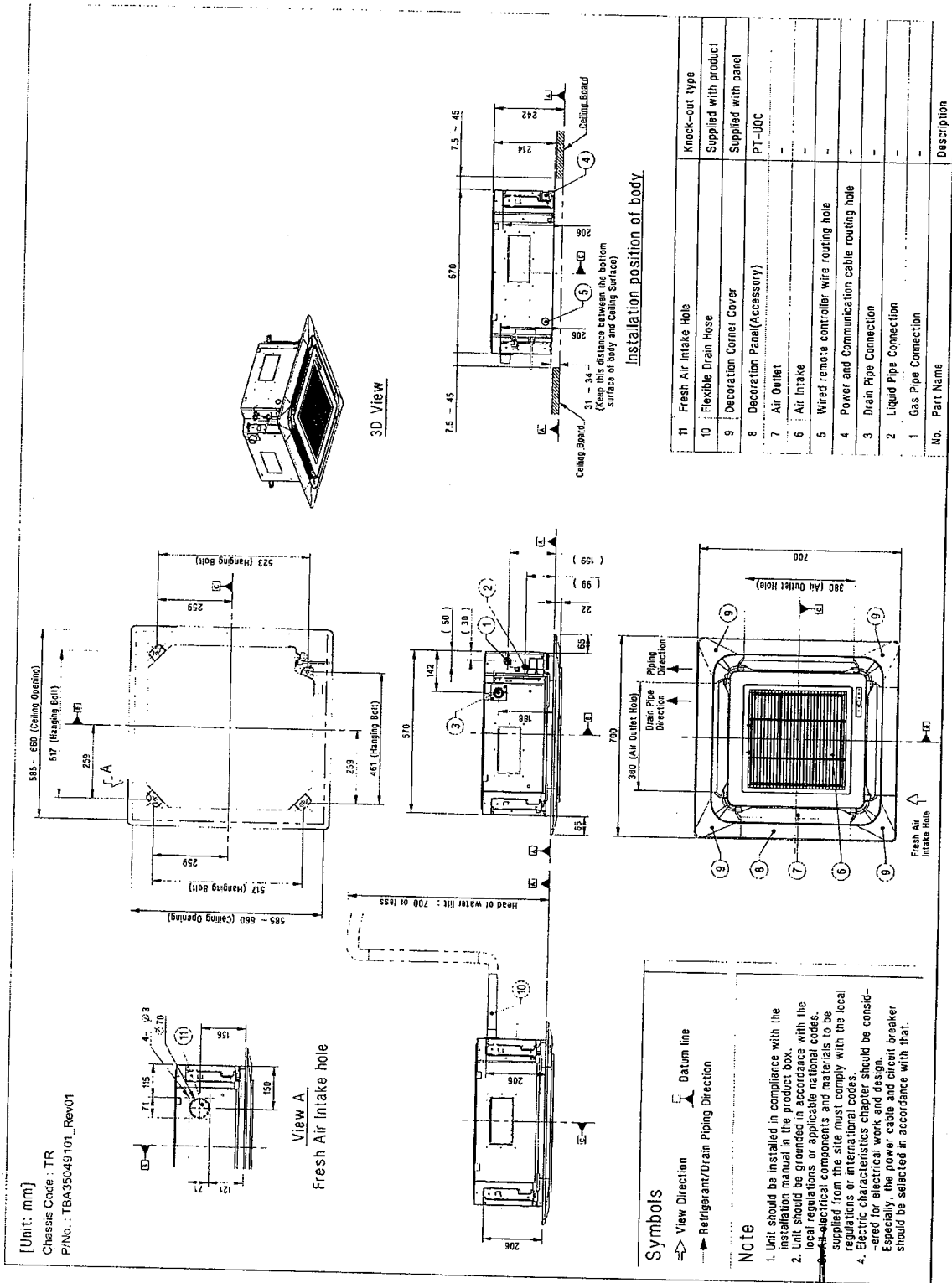
2. Specifications

Model		Unit	ARNU21GTQB4
Cooling Capacity		kW	6.0
		kcal/h	5,100
		Btu/h	20,500
Heating Capacity		kW	6.8
		kcal/h	5,800
		Btu/h	23,200
Power Input (H / M / L)		W	28 / 23 / 20
Casing			Galvanized Steel Plate
Dimensions (W x H x D)	Body	mm	570 x 256 x 570
		inch	22-7/16 x 10-3/32 x 22-7/16
	Decoration Panel #1	mm	700 x 22 x 700
		inch	27-9/16 x 7/8 x 27-9/16
	Decoration Panel #2	mm	620 x 34 x 620
		inch	24-13/32 x 1-11/32 x 24-13/32
Coil	Rows x Columns x FPI		2 x 10 x 18
	Face Area	m ²	0.27
Fan	Type		Turbo Fan
	Motor Output x Number	W	43 x 1
	Air Flow Rate (H / M / L)	m ³ /min	12.0 / 11.1 / 9.4
		ft ³ /min	424 / 392 / 332
	Drive		Direct
Motor type		BLDC	
Temperature Control			Microprocessor, Thermostat for cooling and heating
Sound Absorbing Thermal Insulation Material			Foamed polystyrene
Safety Device			Fuse
Pipe Connections	Liquid Side	mm(inch)	Ø9.52(3/8)
	Gas Side	mm(inch)	Ø15.88(5/8)
	Drain Pipe(Internal Dia.)	mm(inch)	25(1)
Net Weight	Body	kg(lbs)	15.0(33.0)
			40 / 38 / 34
Sound Pressure Levels (H / M / L)		dB(A)	53 / 51 / 46
Sound Power Levels (H / M / L)		dB(A)	53 / 51 / 46
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60
Running Current by voltage	Rated	A	0.20 - 0.19 - 0.18
			0.20
Maximum Running Current		A	R410A / R32
Refrigerant	Type	-	R410A / R32
	Additional Charging Amount (CF Value of IDU)	kg(each)	0.32 / 0.26
	Control	-	EEV
Transmission cable		mm ²	1.0~1.5 x 2C
Panel Color			Morning fog
Panel Name(Accessory)			PT-UQC, PT-QCHW0
<p>Note</p> <ol style="list-style-type: none"> Due to our policy of innovation some specifications may be changed without notification. Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity. <ul style="list-style-type: none"> Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB Heating : Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m. Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit. 			

3. Dimensions

■ ARNU05GTRB4 / ARNU07GTRB4 / ARNU09GTRB4 / ARNU12GTRB4

◆ Panel Name : PT-UQC



ПРИЛОЖЕНИЕ 10

Разпределение на скоростта и температурата на въздуха след:

*вътрешно тяло VRF за подово-таванен монтаж (референтни данни):

- ARNU09GVEA4;
- ARNU12GVEA4;
- ARNU18GV1A4;
- ARNU24GV1A4;

*вътрешно тяло VRF за висок-стенен монтаж (референтни данни):


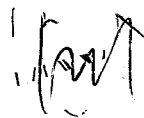
- ARNU24GSKC4;

*вътрешно тяло VRF четири-пътна касета (референтни данни):

- ARNU09GTRD4;
- ARNU12GTRD4;
- ARNU18GTQD4;
- ARNU21GTQD4;

Очаквани температури в офис помещения за всички етажи на блок В при критични външни температури:

- кота ± 0.00 , етаж 1;
- кота +4.00, етаж 2;
- кота +7.30, етаж 3;
- кота +10.60, етаж 4;
- кота +13.90, етаж 5;
- кота +17.20, етаж 6;
- кота +20.50, етаж 7;
- кота +23.80, етаж 8;
- кота +27.10, етаж 9;
- кота +30.40, етаж 10;
- кота +33.70, етаж 11;
- кота +37.00, етаж 12;



7. Air Velocity and Temperature Distribution

■ ARUN09GVEA4

◆ Ceiling Installation

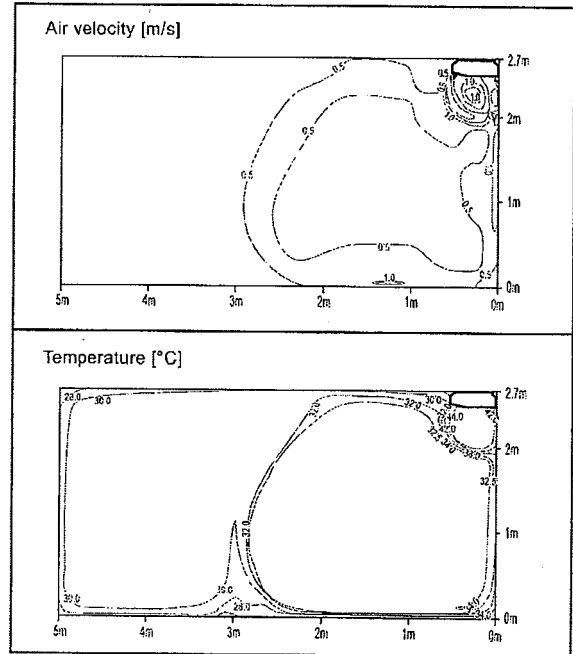
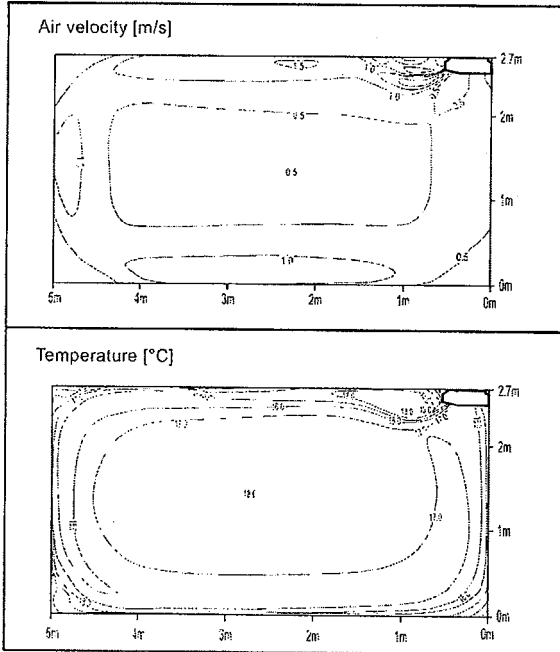
Handwritten signature

Cooling

Heating

Discharge angle:50°

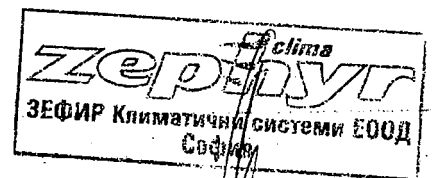
Discharge angle:60°



Note

- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

Handwritten signature



Handwritten signature

Handwritten signature

7. Air Velocity and Temperature Distribution

■ ARUN12GVEA4

◆ Ceiling Installation

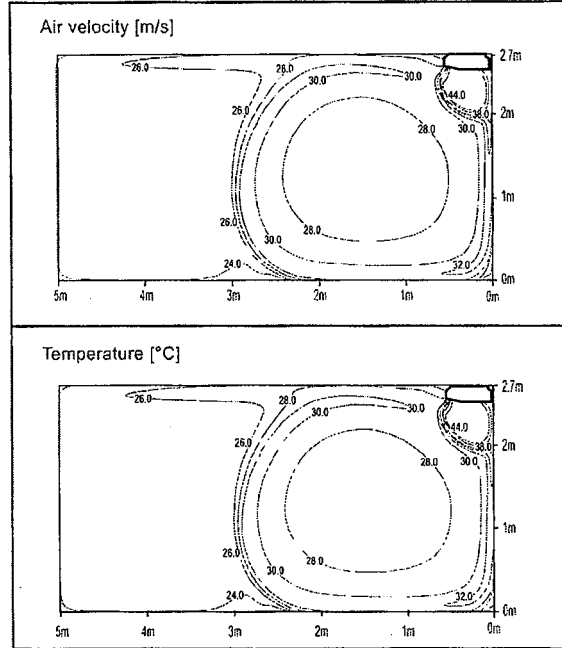
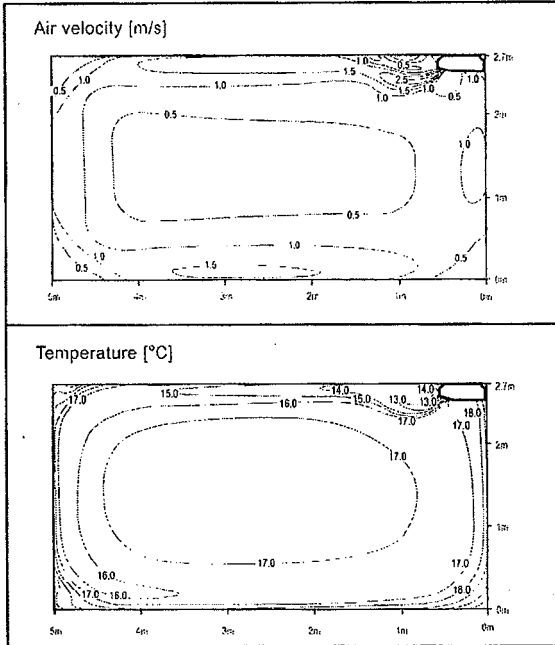
Handwritten signature

Cooling

Heating

Discharge angle: 50°

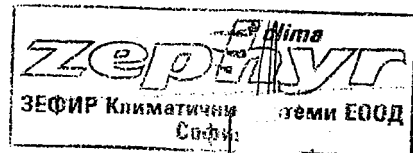
Discharge angle: 60°



Note

- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles. etc.

Handwritten signature



Handwritten signature

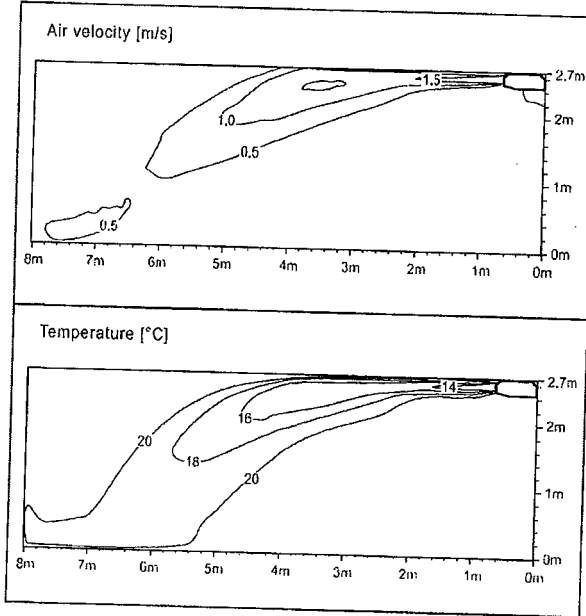
Handwritten signature

7. Air Velocity and Temperature Distribution

◆ ARNU18GV1A4, ARNU24GV1A4

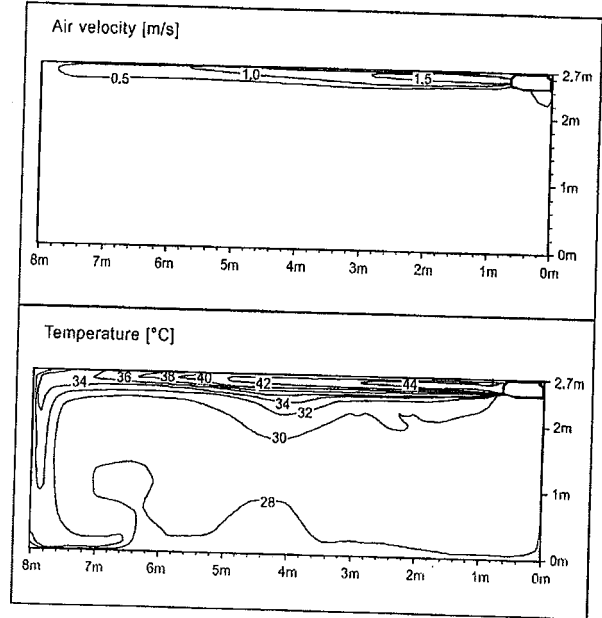
Cooling

Discharge angle: 0°



Heating

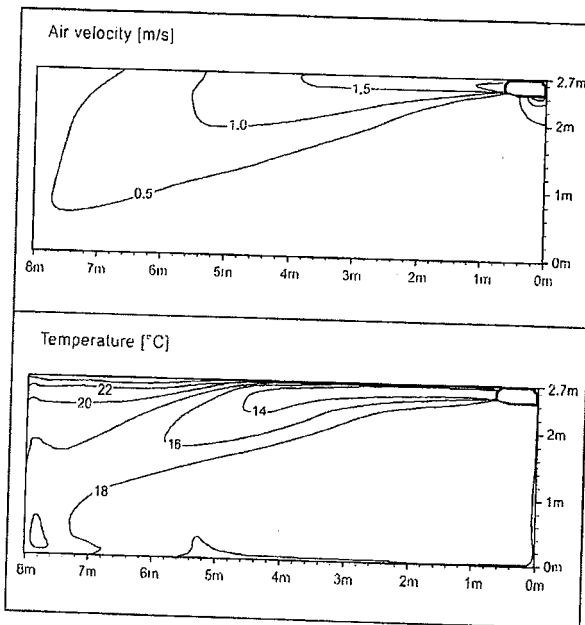
Discharge angle: 0°



◆ ARNU36GV2A4

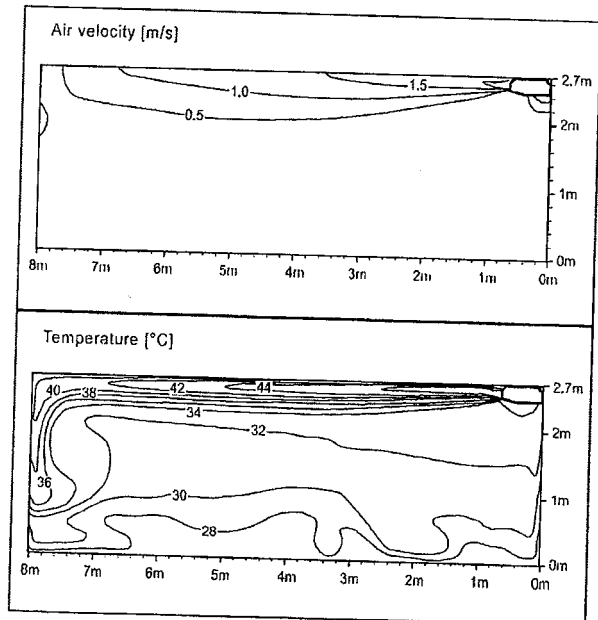
Cooling

Discharge angle: 0°



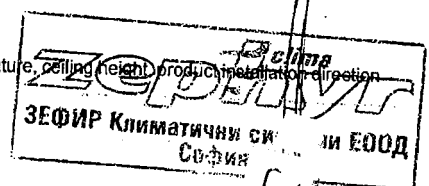
Heating

Discharge angle: 0°



Note

- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

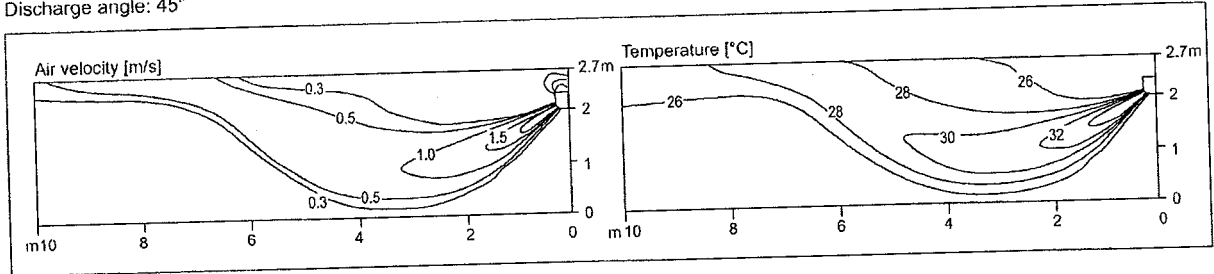


7. Air Velocity and Temperature Distribution

◆ Heating

Side View

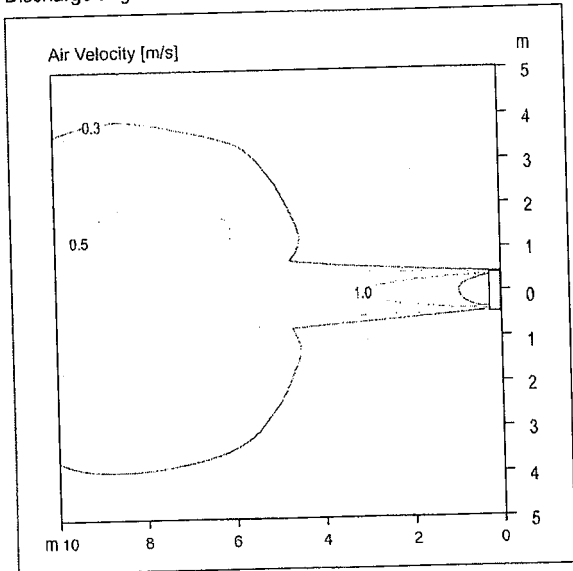
Discharge angle: 45°



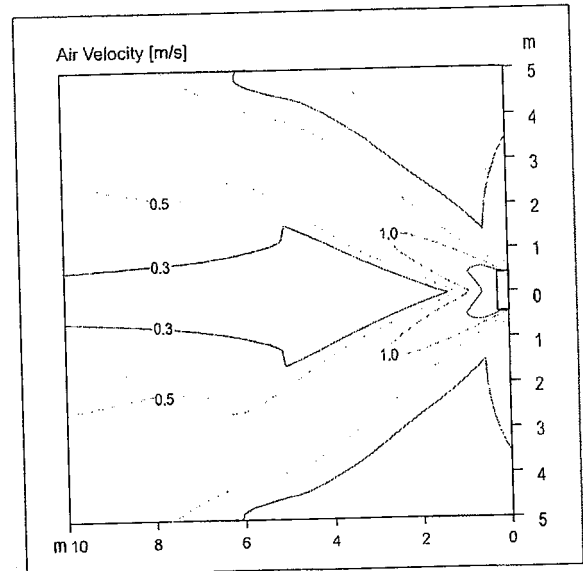
- Vertical Louver : Center
- Vertical Louver angle : 0°
- Fan speed : High

Top View

Discharge angle: 45°



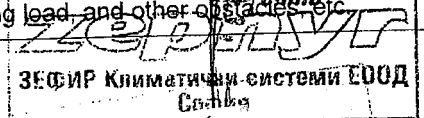
- Vertical Louver : Center
- Vertical Louver angle : 0°
- Air speed 0.3m/s Range : 12.1m
- Fan speed : High



- Vertical Louver : Left & Right
- Vertical Louver angle : 50°
- Air speed 0.3m/s Range : 15.2m
- Fan speed : High

Note

- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

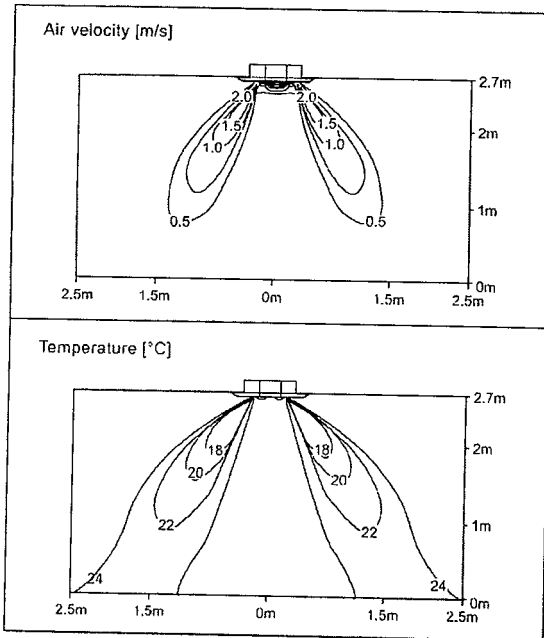


7. Air Velocity and Temperature Distribution(Reference Data)

◆ ARNU05GTRB4, ARNU07GTRB4, ARNU09GTRB4

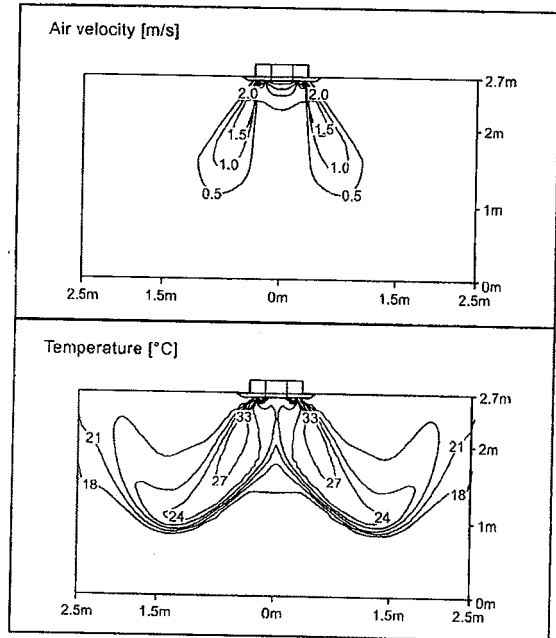
Cooling

Discharge angle: 40°



Heating

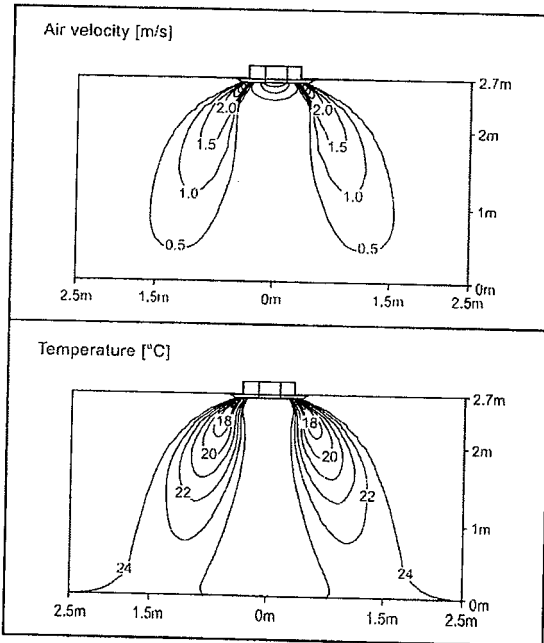
Discharge angle: 50°



◆ ARNU12GTRB4

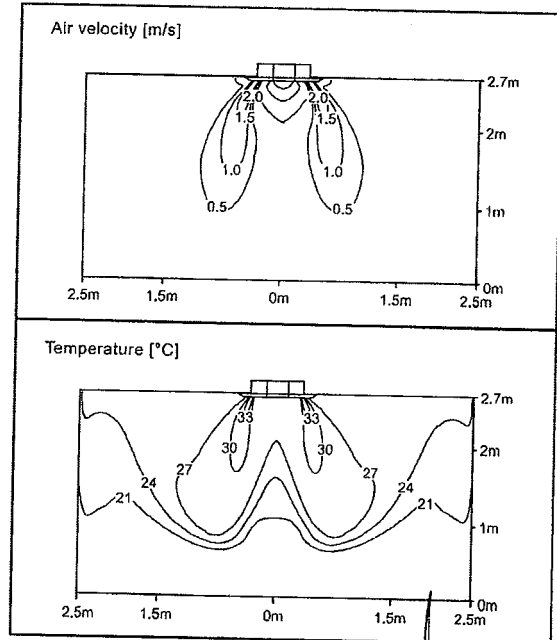
Cooling

Discharge angle: 40°



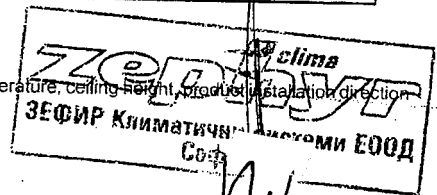
Heating

Discharge angle: 50°



Note

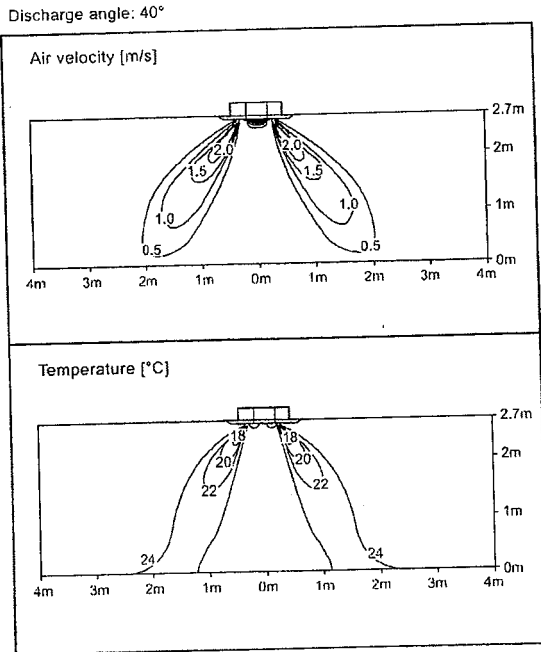
- These figures are accordance with normal certain condition and environment. (Airflow step is 'High'. Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.



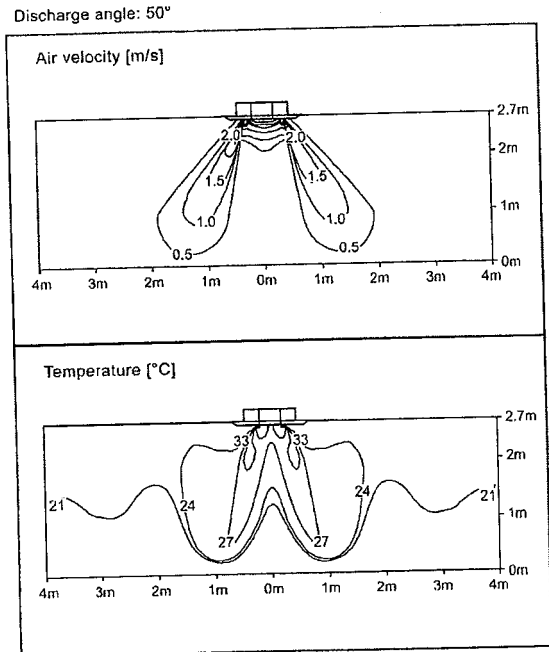
7. Air Velocity and Temperature Distribution(Reference Data)

◆ ARNU15GTQB4

Cooling

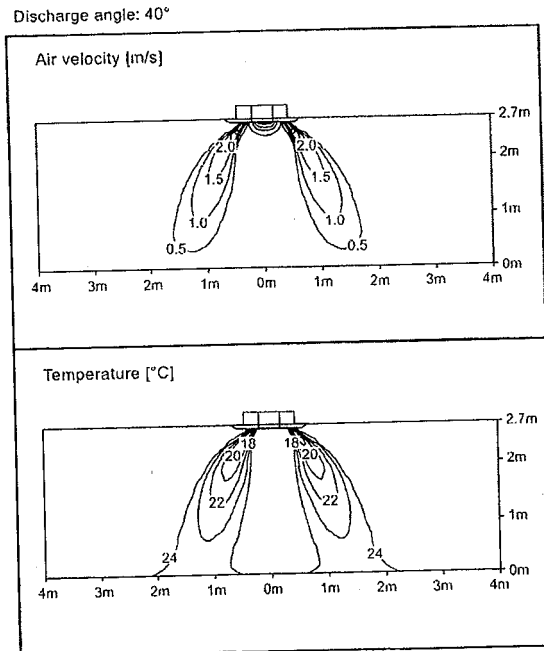


Heating

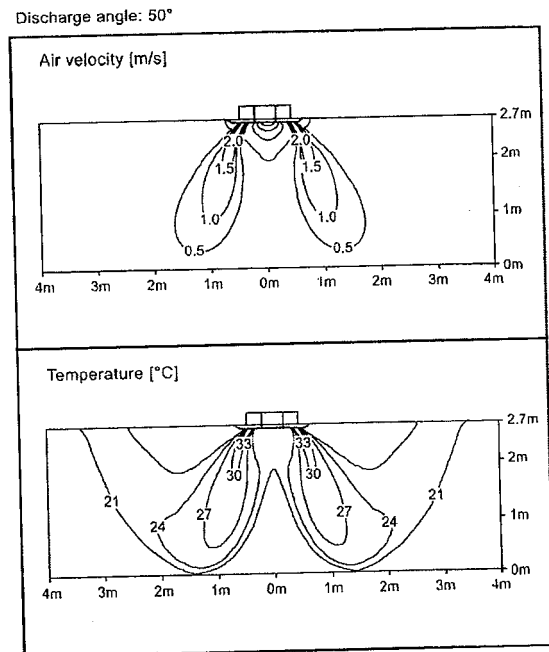


◆ ARNU18GTQB4

Cooling

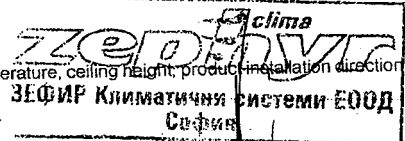


Heating



Note

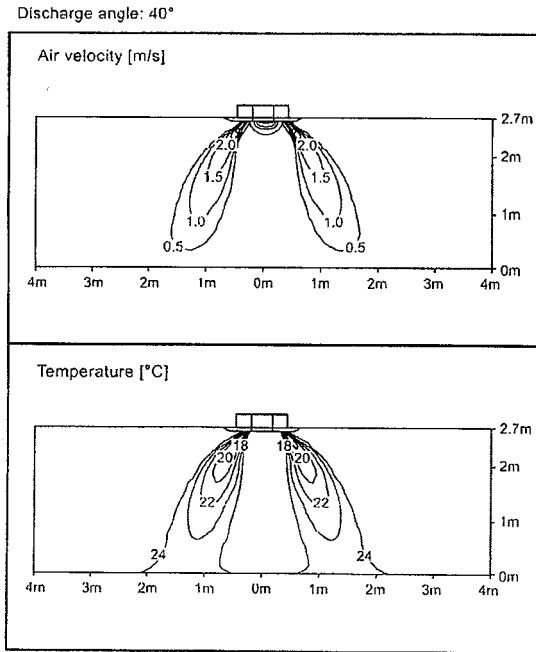
- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.



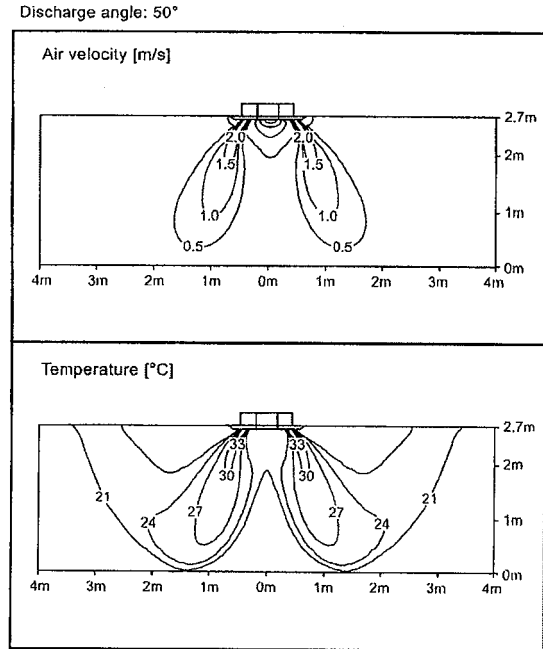
7. Air Velocity and Temperature Distribution(Reference Data)

◆ ARNU21GTQB4

Cooling



Heating



Note

- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.



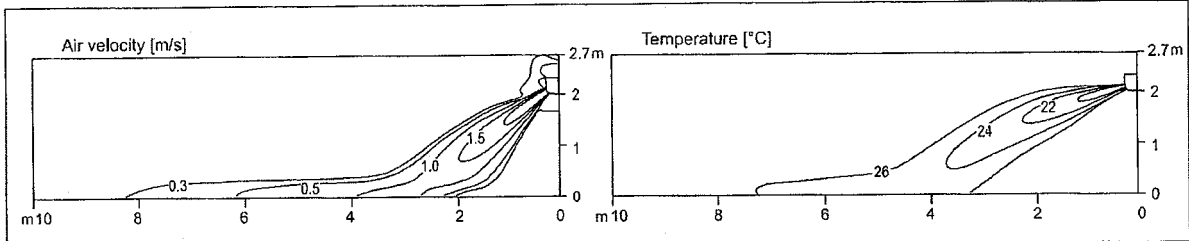
7. Air Velocity and Temperature Distribution

■ ARNU24GSK*4

◆ Cooling

Side View

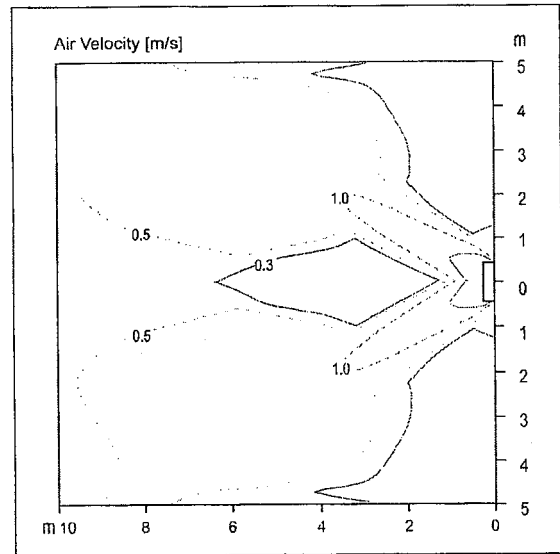
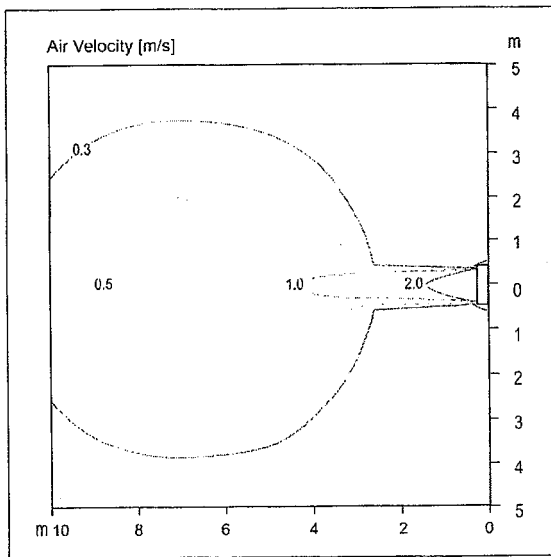
Discharge angle: 25°



- Vertical Louver : Center
- Vertical Louver angle : 0°
- Fan speed : High

Top View

Discharge angle: 25°



- Vertical Louver : Center
- Vertical Louver angle : 0°
- Air speed 0.3m/s Range : 11.2m
- Fan speed : High

- Vertical Louver : Left & Right
- Vertical Louver angle : 50°
- Air speed 0.3m/s Range : 16.5m
- Fan speed : High

Note

- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load and other obstacles.

ЗЕФИР Климатични Системи ЕООД

ОЧАКВАНА ТЕМПЕРАТУРА В ПОМЕЩЕНИЯ

Външни параметри на климата:
 Тз=-12°C
 Тл=+33°C

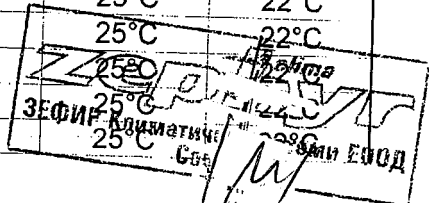
14

№	Кота	Етаж	помещение №	проектна температура в помещение		очаквана температура в помещение	
				ЛЯТО	ЗИМА	ЛЯТО	ЗИМА
1	±0.00	1	01	25°C	22°C	25°C	22°C
2	±0.00	1	02	25°C	22°C	25°C	22°C
3	±0.00	1	03	25°C	22°C	25°C	22°C
4	±0.00	1	04	25°C	22°C	25°C	22°C
5	±0.00	1	05	25°C	22°C	25°C	22°C
6	±0.00	1	05.1	25°C	22°C	25°C	22°C
7	±0.00	1	06	25°C	22°C	25°C	22°C
8	±0.00	1	07	25°C	22°C	25°C	22°C
9	±0.00	1	08	25°C	22°C	25°C	22°C
10	±0.00	1	09	25°C	22°C	25°C	22°C
11	±0.00	1	010	25°C	22°C	25°C	22°C
12	±0.00	1	011	25°C	22°C	25°C	22°C
13	±0.00	1	012	25°C	22°C	25°C	22°C
14	±0.00	1	013	25°C	22°C	25°C	22°C
15	±0.00	1	014	25°C	22°C	25°C	22°C
16	+4.00	2	01	25°C	22°C	25°C	22°C
17	+4.00	2	02	25°C	22°C	25°C	22°C
18	+4.00	2	03	25°C	22°C	25°C	22°C
19	+4.00	2	04	25°C	22°C	25°C	22°C
20	+4.00	2	05	25°C	22°C	25°C	22°C
21	+4.00	2	06	25°C	22°C	25°C	22°C
22	+4.00	2	07	25°C	22°C	25°C	22°C
23	+4.00	2	08	25°C	22°C	25°C	22°C
24	+4.00	2	09	25°C	22°C	25°C	22°C
25	+4.00	2	10	25°C	22°C	25°C	22°C
26	+4.00	2	11	25°C	22°C	25°C	22°C
27	+4.00	2	12	25°C	22°C	25°C	22°C
28	+4.00	2	13	25°C	22°C	25°C	22°C
29	+4.00	2	14	25°C	22°C	25°C	22°C
30	+4.00	2	26	25°C	22°C	25°C	22°C
31	+4.00	2	27	25°C	22°C	25°C	22°C
32	+7.30	3	01	25°C	22°C	25°C	22°C
33	+7.30	3	02	25°C	22°C	25°C	22°C
34	+7.30	3	03	25°C	22°C	25°C	22°C
35	+7.30	3	04	25°C	22°C	25°C	22°C
36	+7.30	3	05	25°C	22°C	25°C	22°C
37	+7.30	3	06	25°C	22°C	25°C	22°C
38	+7.30	3	07	25°C	22°C	25°C	22°C
39	+7.30	3	08	25°C	22°C	25°C	22°C
40	+7.30	3	09	25°C	22°C	25°C	22°C
41	+7.30	3	10	25°C	22°C	25°C	22°C

C

C

14



14

№	Кота	Этаж	помещение №	проектна температура в помещение		охлажденная температура в помещении	
				ЛЯТО	ЗИМА	ЛЯТО	ЗИМА
				42	+7.30	3	11
43	+7.30	3	12	25°C	22°C	25°C	22°C
44	+7.30	3	13	25°C	22°C	25°C	22°C
45	+7.30	3	42	25°C	22°C	25°C	22°C
46	+10.60	4	01	25°C	22°C	25°C	22°C
47	+10.60	4	02	25°C	22°C	25°C	22°C
48	+10.60	4	03	25°C	22°C	25°C	22°C
49	+10.60	4	04	25°C	22°C	25°C	22°C
50	+10.60	4	05	25°C	22°C	25°C	22°C
51	+10.60	4	06	25°C	22°C	25°C	22°C
52	+10.60	4	07	25°C	22°C	25°C	22°C
53	+10.60	4	08	25°C	22°C	25°C	22°C
54	+10.60	4	09	25°C	22°C	25°C	22°C
55	+10.60	4	10	25°C	22°C	25°C	22°C
56	+10.60	4	11	25°C	22°C	25°C	22°C
57	+10.60	4	12	25°C	22°C	25°C	22°C
58	+10.60	4	13	25°C	22°C	25°C	22°C
59	+10.60	4	14	25°C	22°C	25°C	22°C
60	+10.60	4	15	25°C	22°C	25°C	22°C
61	+10.60	4	16	25°C	22°C	25°C	22°C
62	+10.60	4	17	25°C	22°C	25°C	22°C
63	+10.60	4	18	25°C	22°C	25°C	22°C
64	+10.60	4	19	25°C	22°C	25°C	22°C
65	+10.60	4	20	25°C	22°C	25°C	22°C
66	+13.90	5	01	25°C	22°C	25°C	22°C
67	+13.90	5	02	25°C	22°C	25°C	22°C
68	+13.90	5	03	25°C	22°C	25°C	22°C
69	+13.90	5	04	25°C	22°C	25°C	22°C
70	+13.90	5	05	25°C	22°C	25°C	22°C
71	+13.90	5	06	25°C	22°C	25°C	22°C
72	+13.90	5	07	25°C	22°C	25°C	22°C
73	+13.90	5	08	25°C	22°C	25°C	22°C
74	+13.90	5	09	25°C	22°C	25°C	22°C
75	+13.90	5	10	25°C	22°C	25°C	22°C
76	+13.90	5	11	25°C	22°C	25°C	22°C
77	+13.90	5	12	25°C	22°C	25°C	22°C
78	+13.90	5	13	25°C	22°C	25°C	22°C
79	+13.90	5	14	25°C	22°C	25°C	22°C
80	+13.90	5	15	25°C	22°C	25°C	22°C
81	+13.90	5	16	25°C	22°C	25°C	22°C
82	+13.90	5	17	25°C	22°C	25°C	22°C
83	+13.90	5	18	25°C	22°C	25°C	22°C
84	+13.90	5	19	20°C	20°C	20°C	20°C
85	+17.20	6	01	25°C	22°C	25°C	22°C
86	+17.20	6	02	25°C	22°C	25°C	22°C
87	+17.20	6	03	25°C	22°C	25°C	22°C
88	+17.20	6	04	25°C	22°C	25°C	22°C
89	+17.20	6	05	25°C	22°C	25°C	22°C

№	Кота	Этаж	помещение №	проектна температура в помещение		окачвана температура в помещение	
				ЛЯТО	ЗИМА	ЛЯТО	ЗИМА
90	+17.20	6	06	25°C	22°C	25°C	22°C
91	+17.20	6	07	25°C	22°C	25°C	22°C
92	+17.20	6	08	25°C	22°C	25°C	22°C
93	+17.20	6	09	25°C	22°C	25°C	22°C
94	+17.20	6	10	25°C	22°C	25°C	22°C
95	+17.20	6	11	25°C	22°C	25°C	22°C
96	+17.20	6	12	25°C	22°C	25°C	22°C
97	+17.20	6	13	25°C	22°C	25°C	22°C
98	+17.20	6	14	25°C	22°C	25°C	22°C
99	+17.20	6	15	25°C	22°C	25°C	22°C
100	+17.20	6	16	25°C	22°C	25°C	22°C
101	+17.20	6	17	25°C	22°C	25°C	22°C
102	+17.20	6	18	25°C	22°C	25°C	22°C
103	+17.20	6	19	25°C	22°C	25°C	22°C
104	+17.20	6	20	25°C	22°C	25°C	22°C
105	+17.20	6	21	25°C	22°C	25°C	22°C
106	+17.20	6	22	25°C	22°C	25°C	22°C
107	+17.20	6	23	25°C	22°C	25°C	22°C
108	+20.50	7	01	25°C	22°C	25°C	22°C
109	+20.50	7	02	25°C	22°C	25°C	22°C
110	+20.50	7	03	25°C	22°C	25°C	22°C
111	+20.50	7	04	25°C	22°C	25°C	22°C
112	+20.50	7	05	25°C	22°C	25°C	22°C
113	+20.50	7	06	25°C	22°C	25°C	22°C
114	+20.50	7	07	25°C	22°C	25°C	22°C
115	+20.50	7	08	25°C	22°C	25°C	22°C
116	+20.50	7	09	25°C	22°C	25°C	22°C
117	+20.50	7	10	25°C	22°C	25°C	22°C
118	+20.50	7	11	25°C	22°C	25°C	22°C
119	+20.50	7	12	25°C	22°C	25°C	22°C
120	+20.50	7	13	25°C	22°C	25°C	22°C
121	+20.50	7	14	25°C	22°C	25°C	22°C
122	+20.50	7	15	25°C	22°C	25°C	22°C
123	+20.50	7	16	25°C	22°C	25°C	22°C
124	+20.50	7	17	25°C	22°C	25°C	22°C
125	+20.50	7	18	25°C	22°C	25°C	22°C
126	+20.50	7	19	25°C	22°C	25°C	22°C
127	+20.50	7	20	25°C	22°C	25°C	22°C
128	+20.50	7	21	25°C	22°C	25°C	22°C
129	+20.50	7	22	20°C	20°C	20°C	20°C
130	+23.80	8	01	25°C	22°C	25°C	22°C
131	+23.80	8	02	25°C	22°C	25°C	22°C
132	+23.80	8	03	25°C	22°C	25°C	22°C
133	+23.80	8	04	25°C	22°C	25°C	22°C
134	+23.80	8	05	25°C	22°C	25°C	22°C
135	+23.80	8	06	25°C	22°C	25°C	22°C
136	+23.80	8	07	25°C	22°C	25°C	22°C
137	+23.80	8	08	25°C	22°C	25°C	22°C

Handwritten mark resembling the letter 'M' or 'U' in the top right corner.

Stamp: ЗЕФИР КИШЕВА № 2286 КОШ

Handwritten mark resembling the letter 'M' or 'U' at the bottom center.

Handwritten mark resembling the letter 'M' or 'U' at the bottom left.

№	Кота	Етаж	помещение №	проектна температура в помещение		охлаждана температура в помещение	
				ЛЯТО	ЗИМА	ЛЯТО	ЗИМА
				138	+23.80	8	09
139	+23.80	8	10	25°C	22°C	25°C	22°C
140	+23.80	8	11	25°C	22°C	25°C	22°C
141	+23.80	8	12	25°C	22°C	25°C	22°C
142	+23.80	8	13	25°C	22°C	25°C	22°C
143	+23.80	8	14	25°C	22°C	25°C	22°C
144	+23.80	8	15	25°C	22°C	25°C	22°C
145	+23.80	8	16	25°C	22°C	25°C	22°C
146	+23.80	8	17	25°C	22°C	25°C	22°C
147	+23.80	8	18	25°C	22°C	25°C	22°C
148	+23.80	8	19	25°C	22°C	25°C	22°C
149	+23.80	8	20	25°C	22°C	25°C	22°C
150	+23.80	8	21	25°C	22°C	25°C	22°C
151	+23.80	8	22	25°C	22°C	25°C	22°C
152	+27.10	9	01	25°C	22°C	25°C	22°C
153	+27.10	9	02	25°C	22°C	25°C	22°C
154	+27.10	9	03	25°C	22°C	25°C	22°C
155	+27.10	9	04	25°C	22°C	25°C	22°C
156	+27.10	9	05	25°C	22°C	25°C	22°C
157	+27.10	9	06	25°C	22°C	25°C	22°C
158	+27.10	9	07	25°C	22°C	25°C	22°C
159	+27.10	9	08	25°C	22°C	25°C	22°C
160	+27.10	9	09	25°C	22°C	25°C	22°C
161	+27.10	9	10	25°C	22°C	25°C	22°C
162	+27.10	9	11	25°C	22°C	25°C	22°C
163	+27.10	9	12	25°C	22°C	25°C	22°C
164	+27.10	9	13	25°C	22°C	25°C	22°C
165	+27.10	9	14	25°C	22°C	25°C	22°C
166	+27.10	9	15	25°C	22°C	25°C	22°C
167	+27.10	9	16	25°C	22°C	25°C	22°C
168	+27.10	9	17	25°C	22°C	25°C	22°C
169	+27.10	9	18	25°C	22°C	25°C	22°C
170	+27.10	9	19	25°C	22°C	25°C	22°C
171	+27.10	9	20	25°C	22°C	25°C	22°C
172	+27.10	9	21	20°C	20°C	20°C	20°C
173	+30.40	10	01	25°C	22°C	25°C	22°C
174	+30.40	10	02	25°C	22°C	25°C	22°C
175	+30.40	10	03	25°C	22°C	25°C	22°C
176	+30.40	10	04	25°C	22°C	25°C	22°C
177	+30.40	10	05	25°C	22°C	25°C	22°C
178	+30.40	10	06	25°C	22°C	25°C	22°C
179	+30.40	10	07	25°C	22°C	25°C	22°C
180	+30.40	10	08	25°C	22°C	25°C	22°C
181	+30.40	10	09	25°C	22°C	25°C	22°C
182	+30.40	10	10	25°C	22°C	25°C	22°C
183	+30.40	10	11	25°C	22°C	25°C	22°C
184	+30.40	10	12	25°C	22°C	25°C	22°C
185	+30.40	10	13	25°C	22°C	25°C	22°C

М

М

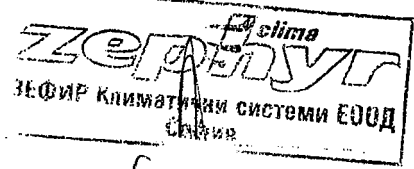
ZEON
ТЕФИР Клиде
систе

М

№	Кота	Етаж	помещение №	проектна температура в помещение		офактивна температура в помещение	
				ЛЯТО	ЗИМА	ЛЯТО	ЗИМА
186	+30.40	10	14	25°C	22°C	25°C	22°C
187	+30.40	10	15	25°C	22°C	25°C	22°C
188	+30.40	10	16	25°C	22°C	25°C	22°C
189	+30.40	10	17	25°C	22°C	25°C	22°C
190	+30.40	10	18	25°C	22°C	25°C	22°C
191	+30.40	10	19	25°C	22°C	25°C	22°C
192	+30.40	10	20	25°C	22°C	25°C	22°C
193	+30.40	10	21	25°C	22°C	25°C	22°C
194	+30.40	10	22	25°C	22°C	25°C	22°C
195	+33.70	11	01	25°C	22°C	25°C	22°C
196	+33.70	11	02	25°C	22°C	25°C	22°C
197	+33.70	11	03	25°C	22°C	25°C	22°C
198	+33.70	11	04	25°C	22°C	25°C	22°C
199	+33.70	11	05	25°C	22°C	25°C	22°C
200	+33.70	11	06	25°C	22°C	25°C	22°C
201	+33.70	11	07	25°C	22°C	25°C	22°C
202	+33.70	11	08	25°C	22°C	25°C	22°C
203	+33.70	11	09	25°C	22°C	25°C	22°C
204	+33.70	11	10	25°C	22°C	25°C	22°C
205	+33.70	11	11	25°C	22°C	25°C	22°C
206	+33.70	11	12	25°C	22°C	25°C	22°C
207	+33.70	11	13	25°C	22°C	25°C	22°C
208	+33.70	11	14	25°C	22°C	25°C	22°C
209	+33.70	11	15	25°C	22°C	25°C	22°C
210	+33.70	11	16	25°C	22°C	25°C	22°C
211	+33.70	11	17	25°C	22°C	25°C	22°C
212	+33.70	11	18	25°C	22°C	25°C	22°C
213	+33.70	11	19	25°C	22°C	25°C	22°C
214	+33.70	11	20	25°C	22°C	25°C	22°C
215	+33.70	11	21	25°C	22°C	25°C	22°C
216	+33.70	11	22	20°C	20°C	20°C	20°C
217	+37.00	12	01	25°C	22°C	25°C	22°C
218	+37.00	12	02	25°C	22°C	25°C	22°C
219	+37.00	12	03	25°C	22°C	25°C	22°C
220	+37.00	12	04	25°C	22°C	25°C	22°C

Handwritten signature

Handwritten signature



Handwritten signature

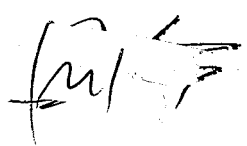
Handwritten signature



ПРИЛОЖЕНИЕ 13



ДЕКЛАРАЦИЯ от „ЕЛ ДЖИ ЕМК“ – Търговско представителство София, като представител на LG Electronics за територията на Р. България за поддържани резервни части за всички модели климатични системи с марка LG за период от 10г. съгласно действащите европейски норми.





LG Electronics Magyar Kft.

Trade Representation Office in Bulgaria

София 1784, бул. Цариградско шосе № 115 Г, Бизнес сграда "Мегапарк"

T. +359 2 817 34 34 F. +359 2 817 3415 www.lge.bg

До: Всички Заинтересовани

Декларация

Уважаеми Дами и Господа,

Ние, „Ел Джи ЕМК“ - Търговско Представителство София, като представител на LG Electronics за територията на Р.България и адрес София, бул. „Цариградско шосе“ 115Г, Бизнес сграда Мегапарк, с настоящето писмо декларираме:

Декларираме, че всички климатични системи на LG доставени по проект „НОИ“ с административен адрес гр. София, 1303, бул. "Александър Стамболийски" № 62-64, ще бъдат подържани резервни части за период от 10г. съгласно действащите европейски норми за подържане на резервни части.

С уважение,

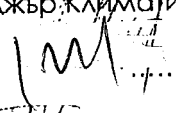
Име

Петър Митев

Длъжност

Мениджър Климатична техника и енергийни решения

Подпис

/..... 

Дата:

11.06.2020 г.

LG Electronics MK
Търговско представителство
бул. "Цариградско шосе" 115
София 1784

● 18 1/2" x 11" x 1/4" (457 x 279 x 6.35 mm)
Labco Products, Inc. (USA)
1000 W. 14th Street, Lincoln, NE 68502, USA
(402) 479-1234

ПРИЛОЖЕНИЕ 14

(м)

Изисквания за дебелина на стената на медната тръба;

Изчисление на дебелина на топлоизолация от микропореста гума върху медна тръба, за предотвратяване появата на конденз;

Размери на Y- разклонител за "Heat-Recovery".

Техническа информация за кутия "Heat-Recovery":

- спецификация и габаритни размери;
- функционална, тръбна и електрическа схема;
- звукови характеристики при различни режими на работа;

Принципна схема на захранване с комуникационен кабел "Heat-Recovery".

(м)

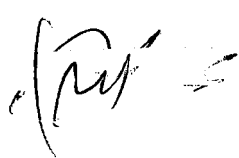
(м)

Хладилният агент R410A е уязвим на замърсявания като вода, окислители и масла. Поради тази причина не трябва вода, прах, различен от R410A хладилен агент или хладилно масло да проникват в охладителният контур на климатичната инсталация (тръбния път) по време на монтажа.

Да се използват нови и чисти тръби, в които няма вода или прах.

Поради високите налягания, с които работи климатичната система използваща хладилен агент R410A е задължително да се спазват минимално препоръчителните дебелини на стените на медните тръби, както е показано в таблицата по-долу:

Мека тръба	Полутвърда или твърда тръба	Външен диаметър, "	Външен диаметър, mm	Минимална дебелина на стената, mm
Да	Да	1/4"	6.35	0.80
Да	Да	3/8"	9.52	0.80
Да	Да	1/2"	12.70	0.80
Да	Да	5/8"	15.88	1.00
Не	Да	3/4"	19.05	1.00
Не	Да	7/8"	22.20	1.00
Не	Да	1.1/8"	28.58	1.00
Не	Да	1.3/8"	34.92	1.10
Не	Да	1.5/8"	41.28	1.25




ZEPIFYR
ЗЕФИР Климатични системи ЕООД
София



ДЕБЕЛИНА НА ТРЪБНА ТОПЛОИЗОЛАЦИЯ S.Z.v08.2013

Handwritten signature

тип тръба :	медна тръба	φ12.7x1.0
коэф. на топлопроводност :	389.60	W/m.K
тип топлоизолация :	М.П.Г. (K-Flex) - тръбна	
дебелина :	9.0	mm
коэф. на топлопроводност :	0.038	W/m.K
температура на околна среда :	30	°C
температура в тръба :	5	°C
движение на околният въздух :	0.1	m/s
съпр. на топлопредаване:		
от вътрешната страна :	α.вт=	1.0E+11 W/m².K
от външната страна :	α.вн=	13.81 W/m².K
коэф. на топлопреминаване :	к.тр=	0.22 W/m.K
/за еднослойна изолация/		
топлинен поток на изол.тръба :	q.из=	-5.62 W/m
повърхностна темп. на изолация :	θ.из ₁ =	25.78 °C

контрол	θ.из ₂ =	25.78 °C
---------	---------------------	----------

надморска височина :	H=	550 m	
изч.баром. налягане :	B=	94 889.85 Pa	
Pb [Pa]	94 890	Pb [Pa]	94 890
f	0.60	f	1.00
твъзд.[°C]	30.00	троса[°C]	21.30
критично с-е на възд.		условия на роса	
I [Kj/kg]	73.25	I [Kj/kg]	64.25
Pn [Pa]	4 177.24	Pn [Pa]	2 506.85
Pw [Pa]	2 506.35	Pw [Pa]	2 506.85
d [g/kg]	16.87	d [g/kg]	16.88

троса. =	21.30 °C
θ.из ₁ =	25.78 °C

max.φ =	60 %
θ.из ₁ -троса. =	4.48 °C

(m) >

Handwritten signature



Handwritten signature

7. Refrigerant piping system

7.5 Selection of Y Branch, Header and Reducer

7.5.1 Y Branch

Heat Recovery System

Models	Low Pressure Gas pipe [unit:mm]	High Pressure Gas pipe [unit:mm]	Liquid pipe [unit:mm]
ARBLB01621			
ARBLB03321			
ARBLB07121			
ARBLB14521			
ARBLB23220			

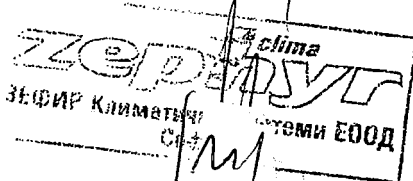
Handwritten signature

1. Nomenclature

Model Name	PRHR	04	3
No.	1	2	3

No.	Signification
1	HR Unit connecting to Multi V Heat Recovery System Outdoor Unit using R410A PRHR : Global line-up
2	The No. of connected branches 02 : For 2 branches 03 : For 3 branches 04 : For 4 branches 06 : For 6 branches 08 : For 8 branches
3	Serial Number

[Handwritten signature]

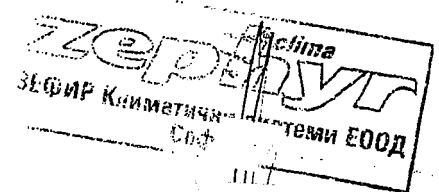
[Handwritten signature]

 ЗЕФИР климатични системи ЕООД

2. Specifications

Model		PRHR023	PRHR033	PRHR043	
Max. Connectable No. of Indoor Units		16	24	32	
Max. Connectable No. of Indoor Units of a branch		8	8	8	
Nominal Input	Cooling(W)	39.8	39.8	39.8	
	Heating(W)	37.2	37.2	37.2	
Net. Weight	kg	16.0	17.8	19.3	
	lbs	35.3	39.2	42.5	
Dimensions (WxHxD)	mm	786 x 218 x 657			
	Inch	30-15/16 x 8-19/32 x 25-7/8			
Casing		Galvanized steel plate			
Connecting Pipes	Indoor side	Liquid Pipe [mm/inch]	Ø9.52[3/8] - Ø6.35[1/4]		
		Gas Pipe [mm/inch]	Ø15.88[5/8] - Ø12.7[1/2]		
	Outdoor side	Liquid [mm/inch]	Ø9.52[3/8]	Ø12.7[1/2]	Ø15.88[5/8]
		Low Pressure [mm/inch]	Ø22.2[7/8]	Ø28.58[1-1/8]	Ø28.58[1-1/8]
		High Pressure [mm/inch]	Ø19.05[3/4]	Ø22.2[7/8]	Ø22.2[7/8]
Sound Absorbing Insulation Material		Polyethylene Foam			
Current	Minimum circuit Amps(MCA)	0.17			
	Maximum fuse Amps(MFA)	15			
Power Supply		1Ø, 220-240V, 50Hz / 1Ø, 220V, 60Hz			

Note

1. Voltage range : Voltage supplied to the unit terminals should be within the minimum and maximum range.
2. Maximum allowable voltage unbalance between phases is 2%.
3. MCA = 1.25 x FLA , MFA ≤ (4 x FLA)
Next lower standard fuse rating. Minimum 15A.
4. Select wire size based on the MCA.
5. MFA is used to select the circuit breaker and ground fault circuit interrupter, and all installation site must require attachment of an earth leakage breaker. [circuit breaker type is ELCB(Earth Leakage Circuit Breaker)].



2. Specifications

Model		PRHR063	PRHR083	
Max. Connectable No. of Indoor Units		48	64	
Max. Connectable No. of Indoor Units of a branch		8	8	
Nominal Input	Cooling(W)	75.9	75.9	
	Heating(W)	72.1	72.1	
Net. Weight	kg	28.3	31.8	
	lbs	62.4	70.1	
Dimensions (WxHxD)	mm	1,113 x 218 x 657		
	Inch	43-13/16 x 8-19/32 x 25-7/8		
Casing		Galvanized steel plate		
Connecting Pipes	Indoor side	Liquid Pipe [mm/inch]	Ø9.52[3/8] ~ Ø6.35[1/4]	
		Gas Pipe [mm/inch]	Ø15.88[5/8] ~ Ø12.7[1/2]	
	Outdoor side	Liquid [mm/inch]	Ø15.88[5/8]	Ø15.88[5/8]
		Low Pressure [mm/inch]	Ø28.58[1-1/8]	Ø28.58[1-1/8]
		High Pressure [mm/inch]	Ø22.2[7/8]	Ø22.2[7/8]
Sound Absorbing Insulation Material		Polyethylene Foam		
Current	Minimum circuit Amps(MCA)	0.27		
	Maximum fuse Amps(MFA)	15		
Power Supply		1Ø, 220-240V, 50Hz / 1Ø, 220V, 60Hz		

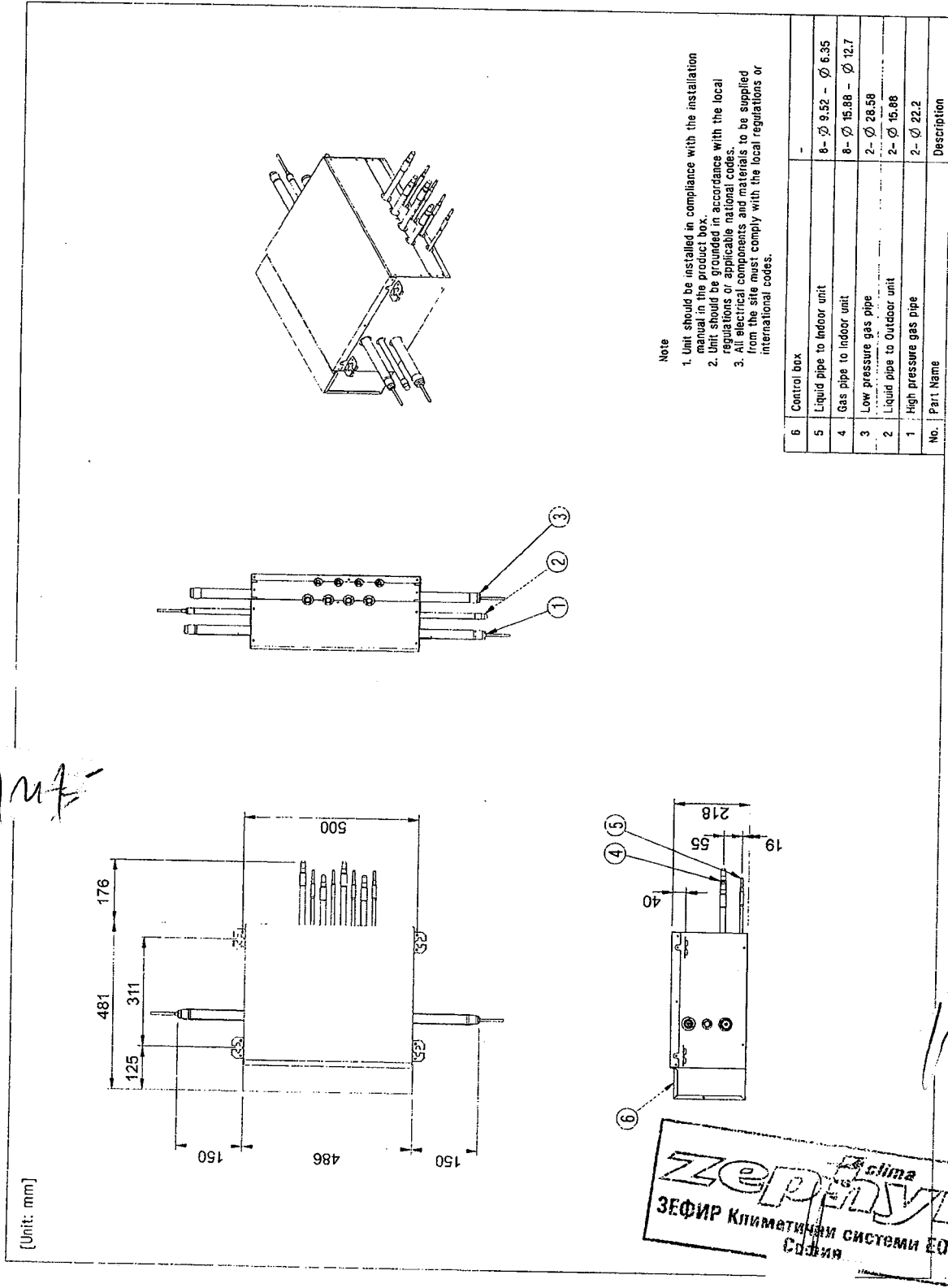
Note

1. Voltage range : Voltage supplied to the unit terminals should be within the minimum and maximum range.
2. Maximum allowable voltage unbalance between phases is 2%.
3. MCA = 1.25 x FLA , MFA ≤ (4 x FLA)
Next lower standard fuse rating. Minimum 15A.
4. Select wire size based on the MCA.
5. MFA is used to select the circuit breaker and ground fault circuit interrupter, and all installation site must require attachment of an earth leakage breaker. [circuit breaker type is ELCB(Earth Leakage Circuit Breaker)].



3. Dimensions

PRHR023 / PRHR033 / PRHR043



Note

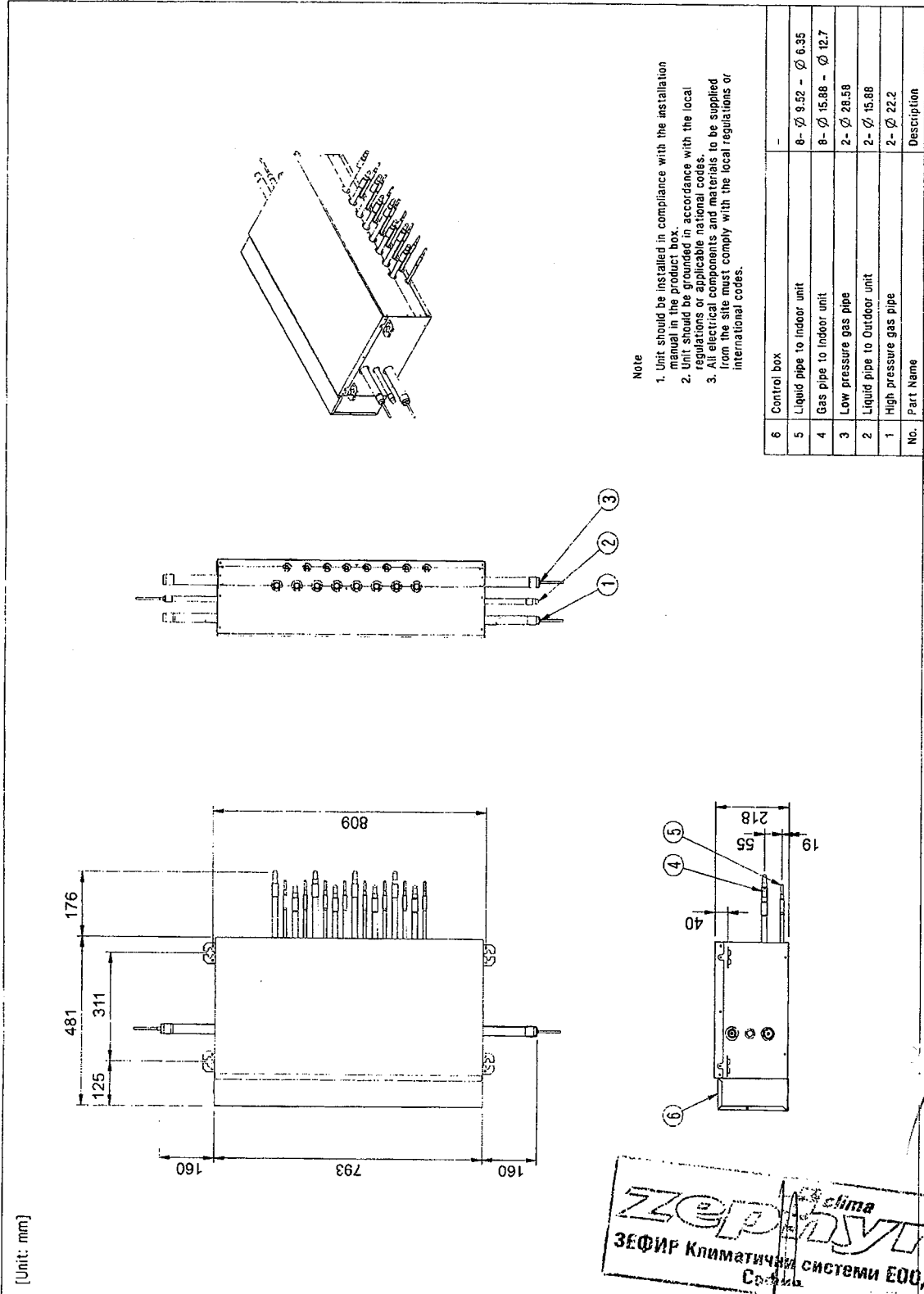
- Unit should be installed in compliance with the installation manual in the product box.
- Unit should be grounded in accordance with the local regulations or applicable national codes.
- All electrical components and materials to be supplied from the site must comply with the local regulations or international codes.

No.	Part Name	Description
6	Control box	
5	Liquid pipe to indoor unit	8- ∅ 9.52 - ∅ 6.35
4	Gas pipe to indoor unit	8- ∅ 15.88 - ∅ 12.7
3	Low pressure gas pipe	2- ∅ 28.58
2	Liquid pipe to outdoor unit	2- ∅ 15.88
1	High pressure gas pipe	2- ∅ 22.2



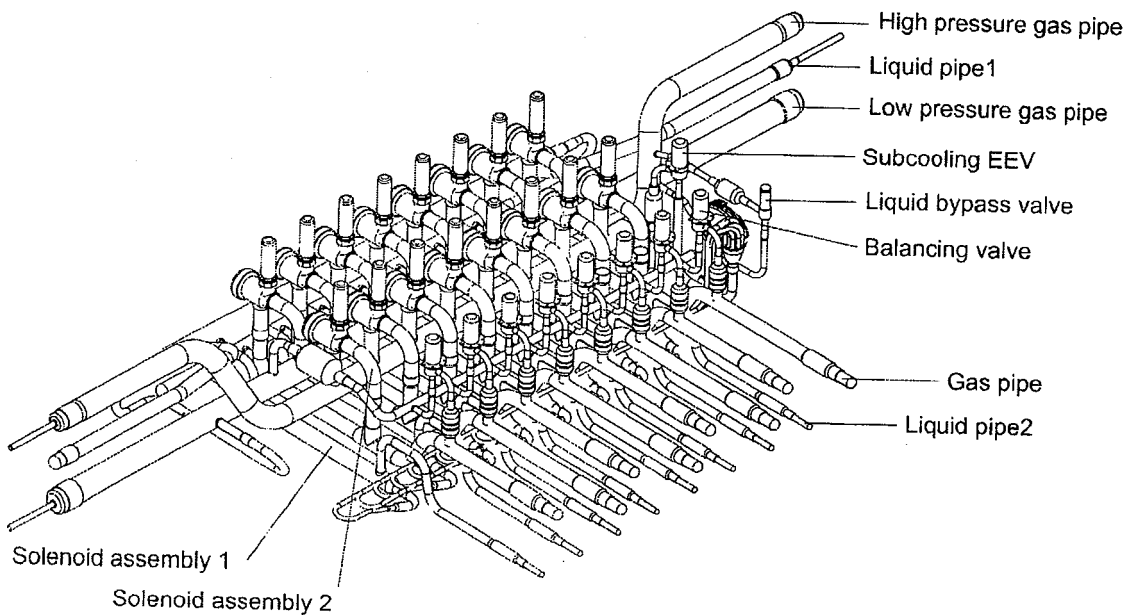
3. Dimensions

PRHR063 / PRHR083



4. Parts Function

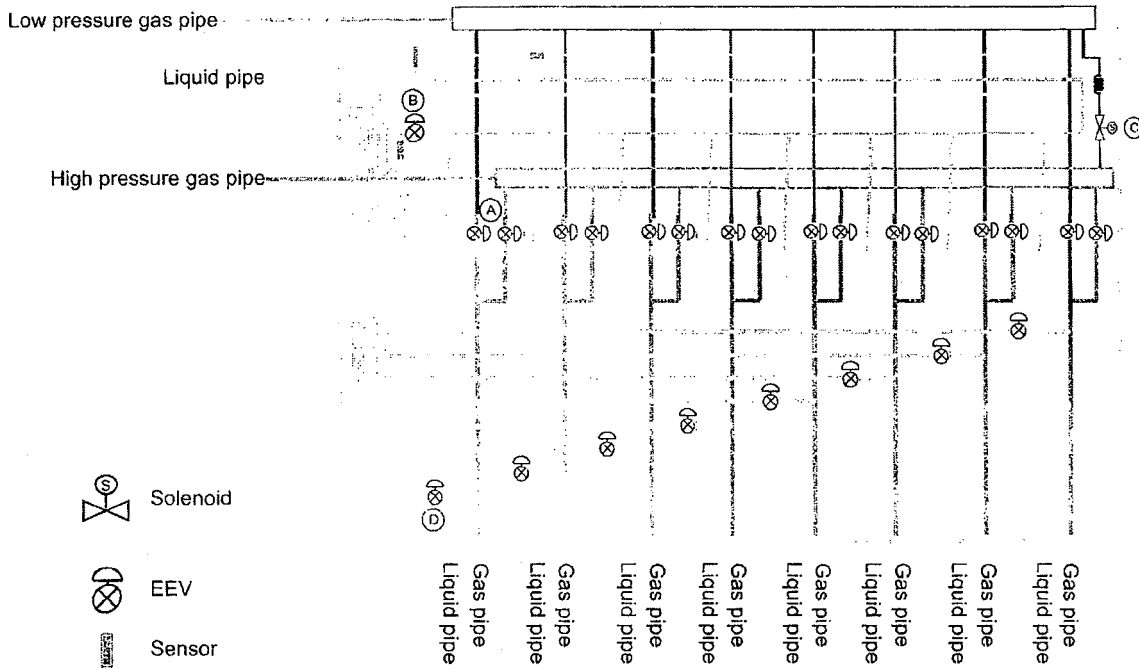
Parts Name	Symbol	Major Function
Low pressure gas pipe	LPGV	Pipe for Low pressure gas
High pressure gas pipe	HPGV	Pipe for High pressure gas
Liquid pipe 1	LP1	Liquid pipe connected with outdoor unit
Liquid bypass valve	LBV	Prevent Liquid charging
Solenoid Assembly 1, 2	SOL1, 2	Control the path for heating or cooling
Liquid pipe 2	LP2	Liquid pipe connected with indoor unit
Gas pipe	GSP	Gas pipe connected with indoor unit
Balancing valve	BLV	Control the pressure between High and Low pressure pipe during operation switching
Subcooling EEV	SCEEV	Control the subcooling



ЗЕРКАЛО
 ЗЕРКАЛО Климатични системи ЕООД
 София

5. Piping Diagrams

Handwritten signature



- A : To be switched operation between cooling and heating by two valves
- B : To be used decreasing noise according to sub-cooling of inlet of indoor unit and outlet of indoor unit (Simultaneous operation)
- C : To prevent liquid charging between H/P gas valve and HR unit at cooling mode
- D : To be controlled the pressure between High and Low pressure pipe during operation switching

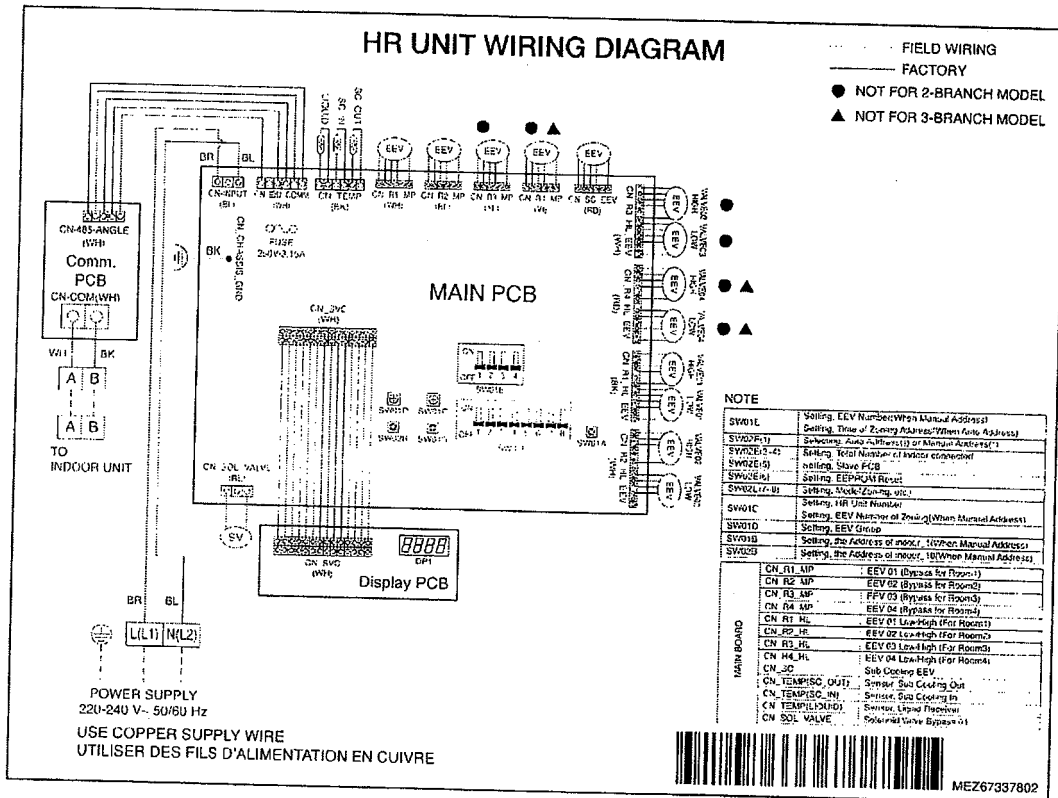
Handwritten signature

ZEPELUR *Zepeclima*
 ЗЕФИР Климатичк
 Ст. *Семи ЕООД*

Handwritten signature

6. Wiring Diagrams

PRHR023, PRHR033, PRHR043



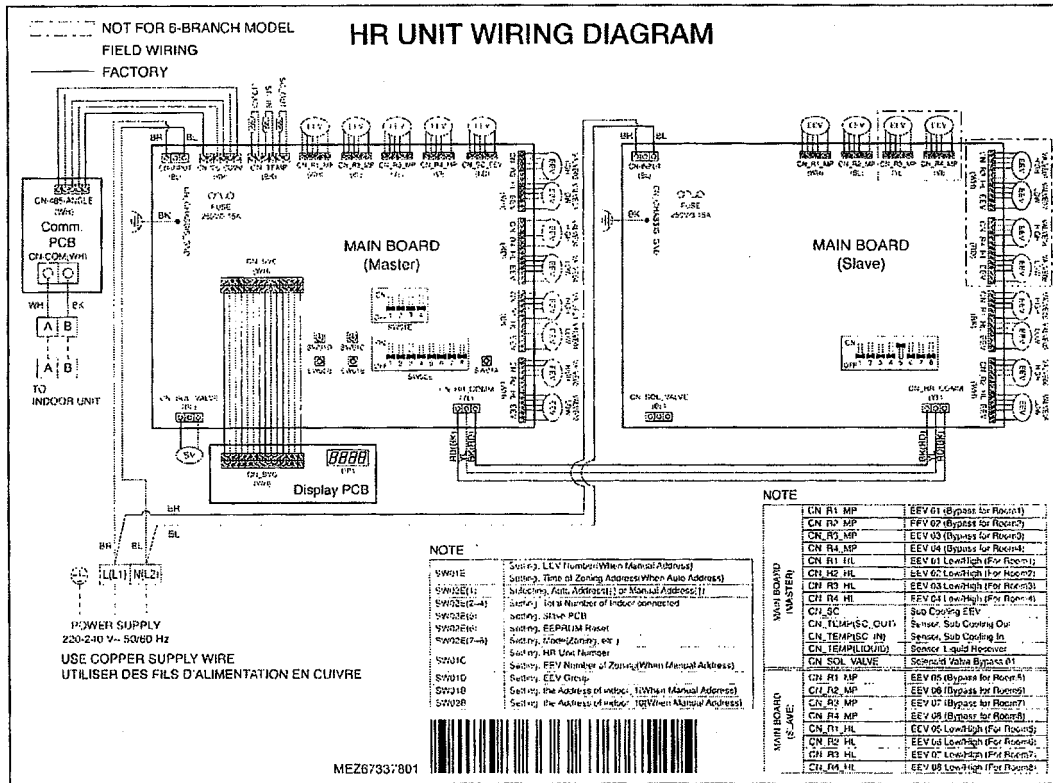
CONNECTOR NUMBER	FUNCTION
CN_R1_MP	EEV 01 (Bypass for Room1)
CN_R2_MP	EEV 02 (Bypass for Room2)
CN_R3_MP	EEV 03 (Bypass for Room3)
CN_R4_MP	EEV 04 (Bypass for Room4)
CN_R1_HL	EEV 01 Low/High (For Room1)
CN_R2_HL	EEV 02 Low/High (For Room2)
CN_R3_HL	EEV 03 Low/High (For Room3)
CN_R4_HL	EEV 04 Low/High (For Room4)
CN_SC	Sub Cooling LEV
CN_TEMP(SC_OUT)	Sensor, Sub Cooling Out
CN_TEMP(SC_IN)	Sensor, Sub Cooling In
CN_TEMP(LIQUID)	Sensor, Liquid Receiver
CN_SOL_VALVE	Solenoid Valve Bypass 01
SW01E	Setting, EEV Number (When Manual Address) Setting, Time of Zoning Address (When Auto Address)
SW02E(1)	Selecting, Auto Address (↓) or manual Address (↑)
SW02E(2-4)	Setting, Total Number of Indoor connected
SW02E(5)	Setting, Slave PCB
SW02E(6)	Setting, EEPROM Reset
SW02E(7-8)	Setting, Mode (Zoning, etc.)
SW01C	Setting, HR Unit Number
SW01D	Setting, EEV Number of Zoning (When Manual Address)
SW01B	Setting, EEV Group
SW02B	Setting, the Address of indoor_1 (When Manual Address)
SW02C	Setting, the Address of indoor_10 (When manual Address)

Handwritten signature

Handwritten signature

6. Wiring Diagrams

PRHR063, PRHR083



CONNECTOR NUMBER	FUNCTION	
MAIN BOARD (MASTER)	CN_R1_MP	EEV 01 (Bypass for Room1)
	CN_R2_MP	EEV 02 (Bypass for Room2)
	CN_R3_MP	EEV 03 (Bypass for Room3)
	CN_R4_MP	EEV 04 (Bypass for Room4)
	CN_R1_HL	EEV 01 Low/High (For Room1)
	CN_R2_HL	EEV 02 Low/High (For Room2)
	CN_R3_HL	EEV 03 Low/High (For Room3)
	CN_R4_HL	EEV 04 Low/High (For Room4)
	CN_SC	Sub Cooling EEV
	CN_TEMP(SC_OUT)	Sensor, Sub Cooling Out
	CN_TEMP(SC_IN)	Sensor, Sub Cooling In
	CN_TEMP(LIQUID)	Sensor, Sub Cooling Out
	CN_SEN_02 (SC_IN)	Sensor, Sub Cooling In
	CN_SEN_02 (LIQUID)	Sensor, Liquid Receiver
MAIN BOARD (SLAVE)	CN_R1_MP	EEV 05 (Bypass for Room5)
	CN_R2_MP	EEV 06 (Bypass for Room6)
	CN_R3_MP	EEV 07 (Bypass for Room7)
	CN_R4_MP	EEV 08 (Bypass for Room8)
	CN_R1_HL	EEV 05 Low/High (For Room5)
	CN_R2_HL	EEV 06 Low/High (For Room6)
	CN_R3_HL	EEV 07 Low/High (For Room7)
	CN_R4_HL	EEV 08 Low/High (For Room8)

6. Wiring Diagrams

M

CONNECTOR NUMBER	FUNCTION
SW01E	Setting, EEV Number(When Manual Address)
SW02E(1)	Setting, Time of Zoning Address(When Auto Address)
SW02E(2~4)	Selecting, Auto Address(↓) or Manual Address(↑)
SW02E(5)	Setting, Total Number of Indoor connected
SW02E(6)	Setting, Slave PCB
SW02E(7~8)	Setting, EEPROM Reset
SW01C	Setting, Mode(Zoning, etc.)
SW01D	Setting, HR Unit Number
SW01E	Setting, EEV Number of Zoning(When Manual Address)
SW01B	Setting, EEV Group
SW02B	Setting, the Address of indoor_1(When Manual Address)
SW02B	Setting, the Address of indoor_10(When Manual Address)



M

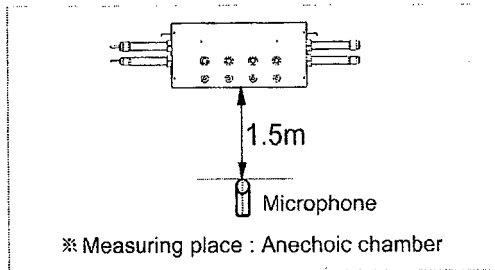
M

M

7. Sound Levels

7.1 Sound pressure level

Overall

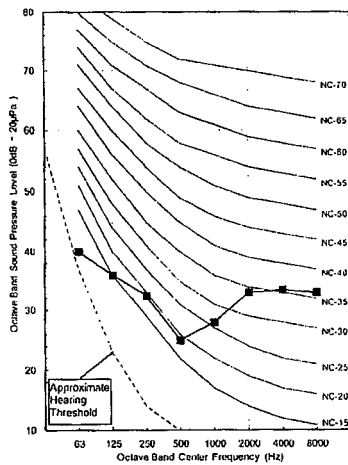


Note

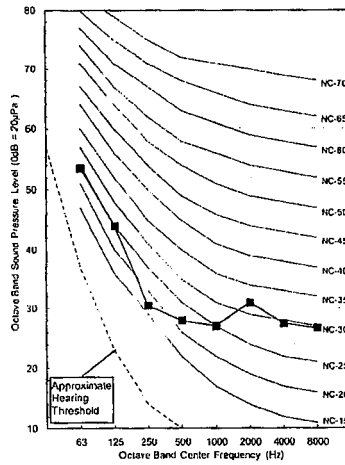
- Sound measured at 1.5m away from the center of the unit.
- Operating condition]
 - Power source : 220-240V 50Hz / 220V 60Hz
 - Cooling : Indoor temperature (27°C DB, 19°C WB), Outdoor temperature (35°C DB, 24°C WB)
 - Heating : Indoor temperature (20°C DB, 15°C WB), Outdoor temperature (7°C DB, 6°C WB)
- Reference acoustic pressure 0dB=20μPa.
- Sound level will vary depending on a range of factors such as the construction(acoustic absorption coefficient) of particular room in which the equipment is installed.
- The changeover sound was measured by switching the mode of one indoor unit.
It could vary depending on the number of indoor units in operation, piping length and installation environment.

Operation Mode	50Hz, 220-240V
	Sound pressure Levels [dB(A)]
Cooling	30
Heating	30
Changeover : Cooling → Heating	33
Changeover : Heating → Cooling	38

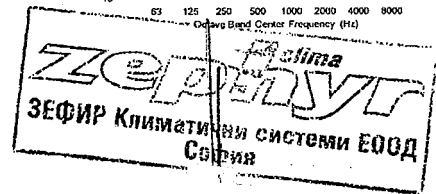
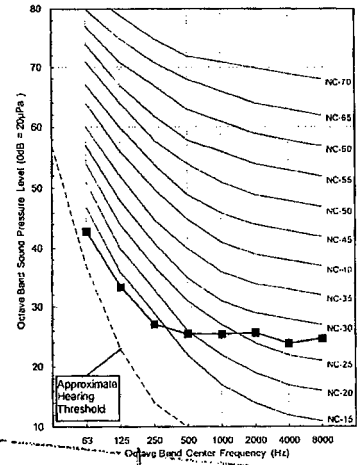
Cooling



Heating



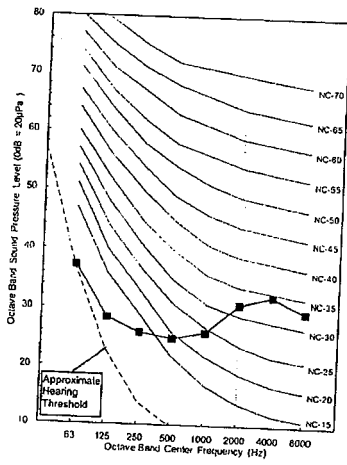
Changeover : Cooling → Heating



7. Sound Levels

(Handwritten signature)

Changeover : Heating → Cooling



(Handwritten signature)

ЗЕРЕНУТ *Climate*
ЗЕРЕНУТ КЛИМАТИЧНИ СИСТЕМИ ЕООД
България

(Handwritten signature)

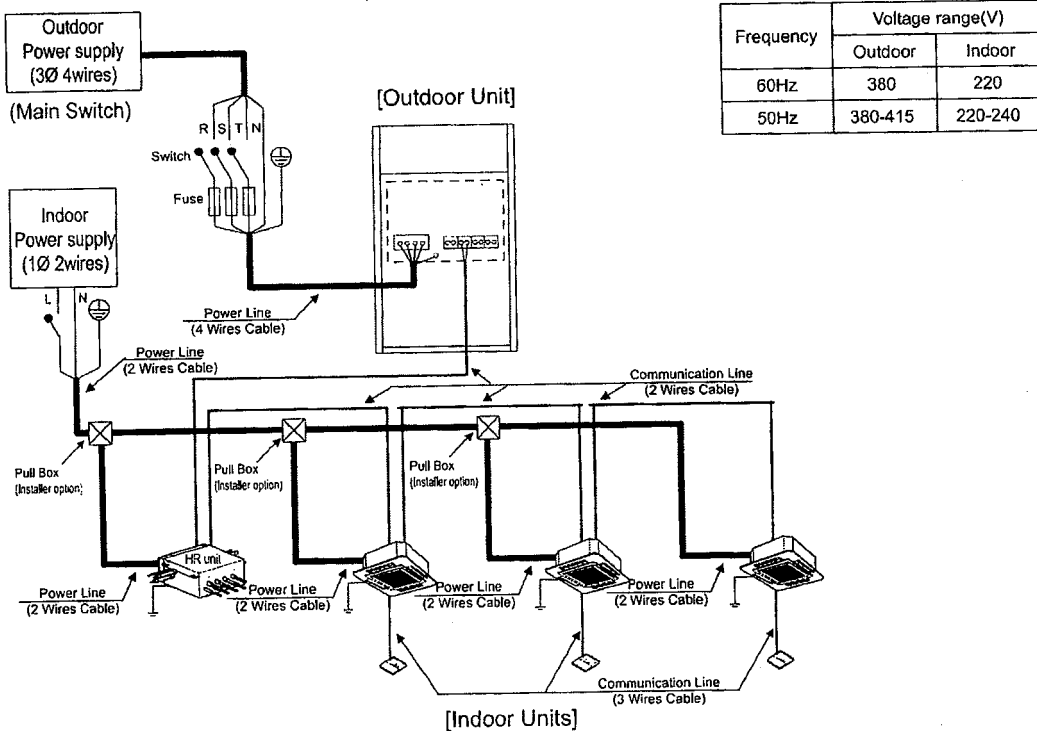
(Handwritten signature)

5. Field Wiring

5.1 Heat Recovery System

■ Example Connection of Communication Cable

◆ Single Outdoor Unit

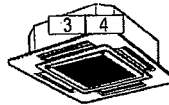
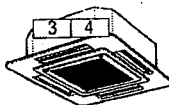
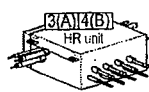
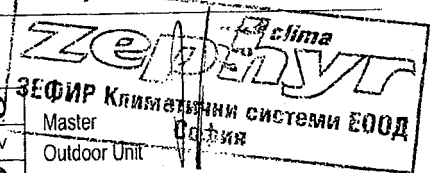


⚠ WARNING

- Indoor Unit ground Lines are required for preventing electrical shock accident during current leakage, Communication disorder by noise effect and motor current leakage (without connection to pipe).
 - Don't install an individual switch or electrical outlet to disconnect each of indoor unit separately from the power supply.
 - Install the main switch that can interrupt all the power sources in an integrated manner because this system consists of the equipment utilizing the multiple power sources.
 - If there exists the possibility of reversed phase, lose phase, momentary blackout or the power goes on and off while the product is operating, attach a reversed phase protection circuit locally.
- Running the product in reversed phase may break the compressor and other parts.

Between Indoor and Master Outdoor unit

⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
SODU.B	SODU.A	IDU.B	IDU.A	CEN.B	CEN.A	DRY1	DRY2	GND	12V	
⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	



The GND terminal at the main PCB is a '-' terminal for day contact, it is not the point to make ground connection.

ПРИЛОЖЕНИЕ 15

Линеен график за изпълнение на предвидените дейности;
Диаграма на работната ръка.

1/20/1

с

с

1/20/1

1/20/1

