

MACHINE MODELS MILLENIER

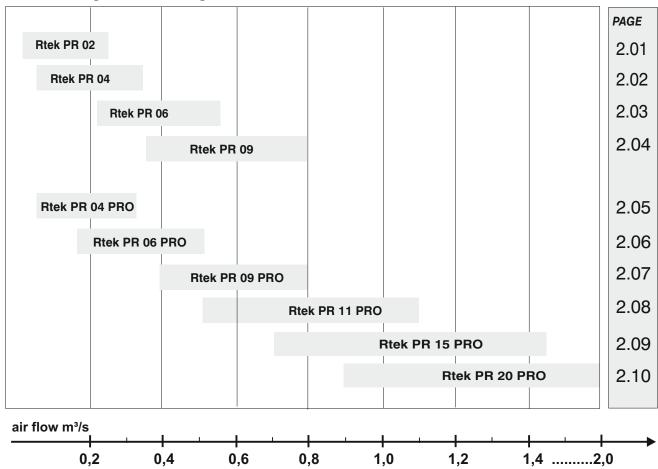
	TABLE OF CONTENTS	Page ———	PDF
		nro:	Adobe page
	2 SELECTION TABLE: PR-Millenier		2
	rtek PR 02 Millenier	2.01	3-4
	rtek PR 04 Millenier	2.02	5-6
	rtek PR 06 Millenier	2.03	7-8
	rtek PR 09 Millenier	2.04	9-10
with rotating heat exchanger (PR)	rtek PR 04 PRO Millenier	2.05	11-12
	rtek PR 06 PRO Millenier	2.06	13-14
	rtek PR 09 PRO Millenier	2.07	15-16
	rtek PR 11 PRO Millenier	2.08	17-18
	rtek PR 15 PRO Millenier	2.09	19-20
	rtek PR 20 PRO Millenier	2.10	21-22
	rtek PR 02-CO Millenier	2.11	23-24
	rtek PR 04-CO Millenier	2.12	25-26
	rtek PR 06-CO Millenier	2.13	27-28
	rtek PR 09-CO Millenier	2.14	29-30
with rotating heat exchanger and	rtek PR 09-CO PRO Millenier	2.15	31-32
with mounted cooler (PR-CO))	rtek PR 11-CO PRO Millenier	2.16	33-34
	rtek PR 15-CO PRO Millenier	2.17	35-36
	rtek PR 20-CO PRO Millenier	2.18	37-38
	2 SELECTION TABLE: VVE-Millenie	r	39
	rtek VVE 880 Millenier	3.01	40-41
	rtek VVE 1400 Millenier		42-43
with a counter-flow	rtek VVE 1600 Millenier	3.03	44-45
heat exchanger (VVE)	rtek VVE 1800 Millenier	3.04	46-47
3 · · · · · · · · · · · · · · · · · · ·	rtek VVE 2800 Millenier	3.05	48-49
	rtek VVE 3800 Millenier	3.06	50-51



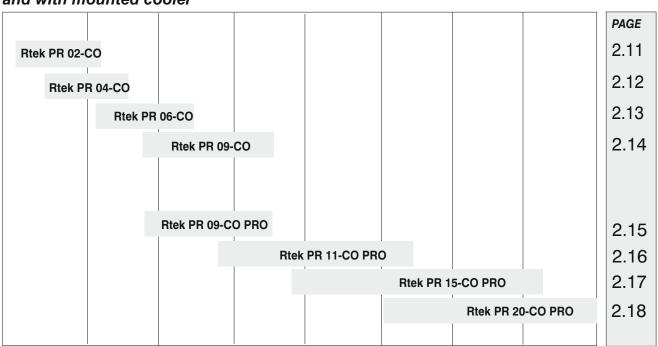
Millenier Devices



with rotating heat exchanger



and with mounted cooler



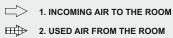






Millenier

* Offices * Schools and Day-care centres * Industries- and **Commercial buildings**



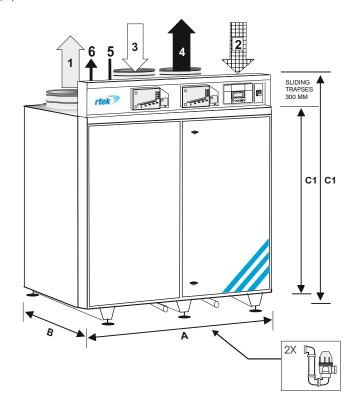
- 3. FRESH AIR 4. EXTRACT AIR

- 5. HETAT PIPING OUT (waterp. in device)
 6. HEAT PIPING RETURN(waterp. in device
 7. ELECTRICAL CONNECTIONS
 8. CONDENSING WATER JUNCTION
 POINTS 32 mm

mm will be provided with fermentation locks

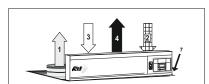


(in the picture left-handed device type)





Machine is equipped adjustable feet 0-70mm



LEFT-HANDED (L) device type



RIGHT-HANDED (R) device type

rtek	THE MA	AIN ME	SURES	\$	SIZE OF DUCT OUTLETS PIPE SIZES					ZES
BY ENERGENT	Α	В	С	C1	1	2	3	4	5	6
Rtek PR 02	1290	750	1240	1610	250	250	250	250	DN20	DN20

2.01 January 2018

Rtek PR 02





TEHNICAL DATA

ELECTRICAL HEATING	5,1 kW					
HEATING WITH WATER	5 kW water 60°/40°C, air △ t 20℃					
EC-FAN:	0,545 kW	230 V 50/60 Hz				

WEIGHT:	200 Kg
FREE SPACE	800 mm

ELECTRIC CONNECTION

ELECTRIC HEATER:

Max.power 6,3kW 3 x 16A MMJ 5x2.5S

WATER HEATER:

Max.power 1.3 kW 3 x 16A MMJ 5 x2,5S

HEAT RECOVERY



ROTATING HEAT EXCHANGER: Manufactured from aluminium, coefficient of efficiency 70-85%, depends on air flow range

EC-FANS



Energy-efficient, low-power consuming EC fans

HEATER; WATER OR ELECTRIC



COOLING RADIATOR



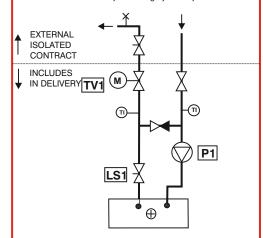
SILENCER



HEAT PIPING CONNECTION

IN THE water heater DEVICE

After heat piping installation, check the connections of thermostat section and adjust flowing by line adjust



OUTFIT OF DEVICE IS CHOSEN:

EC fan -direct-drive Plenum fan - adjustment of fan 's speed of rotation *2-speed from 0-10 volt control *stepless adjustment; 0-10 volt control with temperature, pressure, humidity and carbon dioxide concentration according
-rotating heat exchanger Heat Recovery's stepless rotation speed adjuster with rotation controller
open air filter ; * M5 bag filter or F7 bag filter
-used air filter ; * G3 bag filter or M5 bag filter
spare filters
-filter controller, indicating -filter controller, alarming

- -open air sliding trap -exctract aie sliding trap -platemotors
- *open/off *spring return

-preheating

* liquid heater (HG/CG) duct

-heater

- * water heater
- * electric heater

-water heater's thermostat section

- -electrical control station
- -adjustment station
 - * in device are adjusting device example Ouman
 - -GSM-control
 - -Modbus
 - * Interface to the sub-distribution board's VAK-regulation units

van-regulation units

-moisture detector

-carbon dioxide detectors (Co2)

-pressure transmitter air flow meters

-duct's temperature detectors

-emergency button (fire)

-cooling radiator, cold water (CW),duct

-cooling radiator, freon (CF),duct

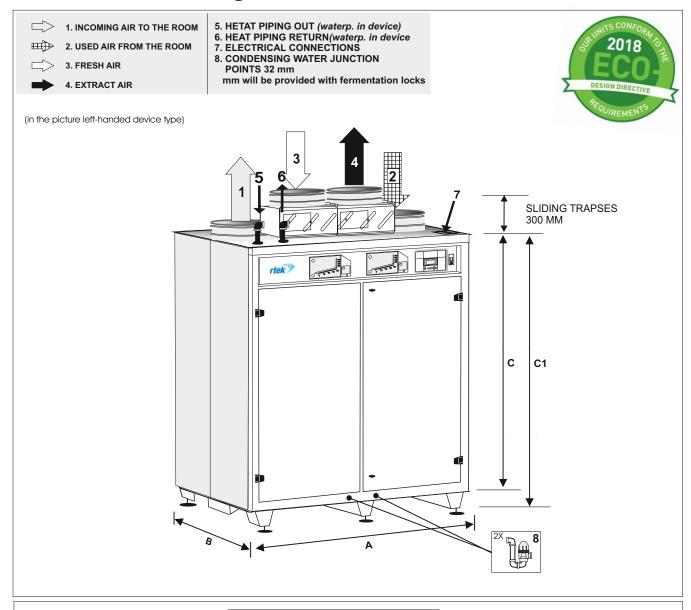
-cooling radiator, glykol (CG),duct





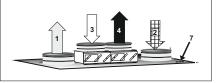
Millenier ----

* Offices * Schools and Day-care centres * Industries- and Commercial buildings

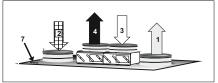








LEFT-HANDED (L) device type



RIGHT-HANDED (R) device type

rtok	THE MAIN MESURES SIZE OF DUCT OUTLETS PIPE								PIPE SIZ	ZES
BY ENERGENT	Α	В	С	C1	1	2	3	4	5	6
Rtek PR 04	1530	790	1700	2165*	315	315	315	315	DN20	DN20

Rtek PR 04





TEHNICAL DATA

ELECTRICAL HEATING	6,8 kW						
HEATING WITH WATER	8,4 kW water 60°/40°C, air △ t 20°C						
EC-FAN:	0,5 kW 2,2 A.max 230 V 50/60 Hz						

WEIGHT:	350 Kg
FREE SPACE	800 mm

ELECTRIC CONNECTION

ELECTRIC HEATER:

Max.power 7,8kW 3 x 16A MMJ 5x6S

WATER HEATER:

Max.power 1.2 kW 3 x 16A MMJ 5 x2,5S

HEAT RECOVERY



ROTATING HEAT EXCHANGER: Manufactured from aluminium, coefficient of efficiency 70-85%, depends on air flow range

EC-FANS



Energy-efficient, low-power consuming EC fans

HEATER; WATER OR ELECTRIC



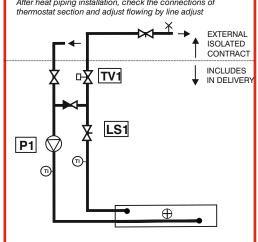
COOLING RADIATOR



SILENCER



HEAT PIPING CONNECTION IN THE water heater DEVICE After heat piping installation, check the connections of thermostat section and adjust flowing by line adjust



OUTFIT OF DEVICE IS CHOSEN:

EC fan -direct-drive Plenum fan - adjustment of fan 's speed of rotation *2-speed from 0-10 volt control *stepless adjustment; 0-10 volt control with temperature, pressure, humidity and carbon dioxide concentration according							
 -rotating heat exchanger Heat Recovery's stepless rotation speed adjuster with rotation controller 							
open air filter ; * M5 bag filter or F7 bag filter							
-used air filter ; * G3 bag filter or M5 bag filter							
spare filters							
-filter controller, indicating -filter controller, alarming							

-open air sliding trap
-exctract aie sliding trap
-platemotors
*open/off
*spring return
-preheating
* liquid heater (HG/CG) duct
-heater
* water heater
* electric heater
-water heater's thermostat section
-electrical control station
-adjustment station
* in device are adjusting device example Ouman
-GSM-control
-Modbus
* Interface to the sub-distribution board's
VAK-regulation units
-moisture detector
-carbon dioxide detectors (Co2)
-pressure transmitter air flow meters
-duct's temperature detectors
-emergency button (fire)
-cooling radiator, cold water (CW),duct
-cooling radiator, freon (CF),duct
-cooling radiator, glykol (CG),duct

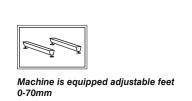


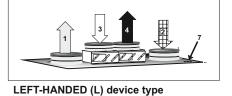


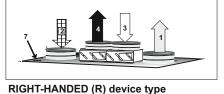
Millenier ———

* Offices * Schools and Day-care centres * Industries- and Commercial buildings









utole)	THE MAIN MESURES SIZE OF DUCT OUTLETS PIPE SIZES									
rtek®	Α	В	С	C1	1	2	3	4	5	6
Rtek PR 06	2050	940	1700	2165*	400	400	400	400	DN25	DN25





FXTFRNAI

ISOLATED CONTRACT INCLUDES

IN DELIVERY

TEHNICAL DATA

ELECTRICAL HEATING	12,75 kW					
HEATING WITH WATER	13,2 kW water 60°/40°C, air					
EC-FAN:	0,715 kW 3,1 A.max 230 V 50/60 Hz					

WEIGHT:	550 Kg
FREE SPACE	900 mm

ELECTRIC CONNECTION

ELECTRIC HEATER:

WATER HEATER:

Max.power 14,3kW 3 x 25A

MMJ 5x6S

Max.power 1.6 kW

3 x 16A

MMJ 5 x2,5S

P1 🗘

HEAT RECOVERY



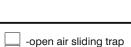
ROTATING HEAT EXCHANGER: Manufactured from aluminium, coefficient of efficiency 70-85%, depends on air flow range

EC-FANS



COOLING RADIATOR





-exctract aie -platemotor

*open *sprin

-preheating

* liqui

-heater

* wate

* electi

-water heate

-electrical c

-adjustment

* in dev

-GSN

-Moc

* Interfa VAK-re

-moisture de

-carbon dio

-pressure tr

-duct's tem

-emergency

-cooling rac

-cooling rad

-cooling radiator, glykol (CG),duct

SILENCER **OUTFIT OF DEVICE IS CHOSEN:**

EC fan -direct-drive Plenum fan

*2-speed from 0-10 volt control

-rotating heat exchanger

rotation controller

-open air filter

-used air filter

-spare filters

- adjustment of fan's speed of rotation

*stepless adjustment; 0-10 volt control with temperature,

Heat Recovery's stepless rotation speed adjuster with

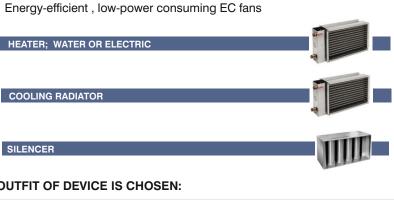
* M5 bag filter or

F7 bag filter

* G3 bag filter or

M5 bag filter

pressure, humidity and carbon dioxide concentration according



+ +
ding trap e sliding trap s /off g return g d heater (HG/CG) duct
r heater ric heater er's thermostat section ontrol station : station vice are adjusting device example Ouman M-control
acce to the sub-distribution board's egulation units etector xide detectors (Co2) ansmitter air flow meters perature detectors v button (fire) liator, cold water (CW),duct liator, freon (CF),duct

HEAT PIPING CONNECTION

After heat piping installation, check the connections of

thermostat section and adjust flowing by line adjust

□ TV1

IN THE water heater DEVICE

-filter controller, indicating

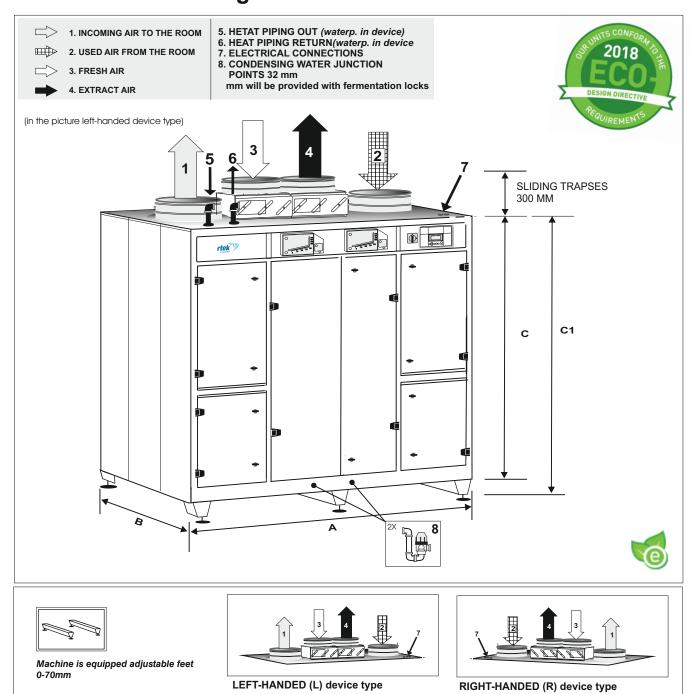
-filter controller, alarming





Millenier ————

* Offices * Schools and Day-care centres * Industries- and Commercial buildings



rtek	THE MAIN MESURES SIZE OF DUCT OUTLETS PIPE SIZES						SIZES			
BY ENERGENT	Α	В	С	C1	1	2	3	4	5	6
Rtek PR 09	2050	1100	1700	2165*	400	400	400	400	DN25	DN25

Rtek PR 09





TEHNICAL DATA

ELECTRICAL HEATING	17,0 kW				
HEATING WITH WATER	18,0 kW water 60°/40°C, air △ t 20°C				
EC-FAN:	1,0 kW	1,6 A.max	400 V 50/60 Hz		

WEIGHT:	750 Kg
FREE SPACE	1000 mm

ELECTRIC CONNECTION

ELECTRIC HEATER:

Max.power 19,1kW 3 x 40A

MMJ 5x10S

WATER HEATER:

Max.power 2,2 kW 3 x 16A MMJ 5 x2,5S

HEAT RECOVERY



ROTATING HEAT EXCHANGER: Manufactured from aluminium, coefficient of efficiency 70-85%, depends on air flow range

EC-FANS



Energy-efficient, low-power consuming EC fans

HEATER; WATER OR ELECTRIC



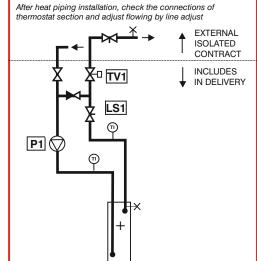
COOLING RADIATOR



SILENCER



HEAT PIPING CONNECTION IN THE water heater DEVICE



OUTFIT OF DEVICE IS CHOSEN:

EC fan -direct-drive Plenum fan - adjustment of fan s speed of rotation *2-speed from 0-10 volt control *stepless adjustment; 0-10 volt control with temperature, pressure, humidity and carbon dioxide concentration according
-rotating heat exchanger Heat Recovery's stepless rotation speed adjuster with rotation controller
open air filter ; * M5 bag filter or F7 bag filter
-used air filter ; * G3 bag filter or M5 bag filter
spare filters
-filter controller, indicating -filter controller, alarming

\vdash	≟ -open air sliding trap
	exctract aie sliding trap
	platemotors
	*open/off
	*spring return
	preheating
	* liquid heater (HG/CG) duct
	heater
	* water heater
	* electric heater
	-water heater's thermostat section
	-electrical control station
	adjustment station
	* in device are adjusting device example Ouman
	-GSM-control
	-Modbus
	* Interface to the sub-distribution board's
	VAK-regulation units
	-moisture detector
	-carbon dioxide detectors (Co2)
	-pressure transmitter air flow meters
	-duct´s temperature detectors
	-emergency button (fire)
	-cooling radiator, cold water (CW)
Г	cooling radiator, freon (CF)
	-cooling radiator, glykol (CG)

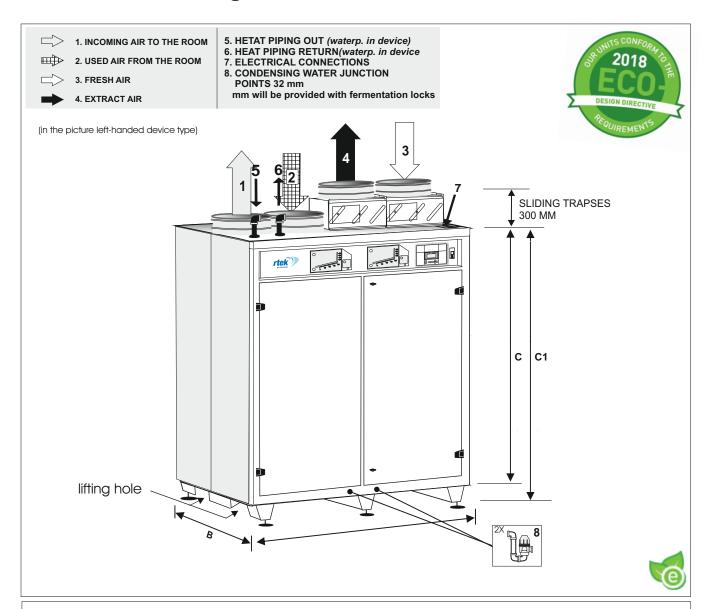






Millenier —

* Offices * Schools and Day-care centres * Industries- and **Commercial buildings**





Machine is equipped adjustable feet



LEFT-HANDED (L) device type



RIGHT-HANDED (R) device type

etok)	THE MA	THE MAIN MESURES SIZE OF DUCT OUTLETS					PIPE SIZES			
BY ENERGENT	Α	В	С	C1	1	2	3	4	5	6
Rtek PR 04 PRO	1530	790	1700	2165*	315	315	315	315	DN20	DN20

*) minium 2.05 January 2018

Rtek PR 04 PRO





TEHNICAL DATA

ELECTRICAL HEATING	6,8 kW				
HEATING WITH WATER	8,4 kW water 60°/40°C, air				
EC-FAN:	0,5 kW	2,2 A.max	230 V 50/60 Hz		

WEIGHT:	350 Kg
FREE SPACE	800 mm

ELECTRIC CONNECTION

ELECTRIC HEATER:

Max.power 7,9kW 3 x 16A MMJ 5x2.5S

WATER HEATER:

Max.power 1.2 kW 3 x 16A MMJ 5 x2,5S

HEAT RECOVERY



ROTATING HEAT EXCHANGER: Manufactured from aluminium, coefficient of efficiency 70-85%, depends on air flow range

EC-FANS



Energy-efficient, low-power consuming EC fans

HEATER; WATER OR ELECTRIC



COOLING RADIATOR

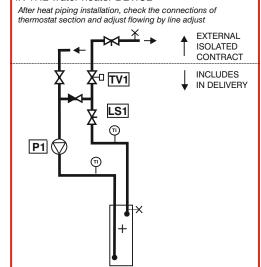


SILENCER



HEAT PIPING CONNECTION

IN THE water heater DEVICE



OUTFIT OF DEVICE IS CHOSEN:

EC fan -direct-drive Plenum fan - adjustment of fan speed of rotation *2-speed from 0-10 volt control *stepless adjustment; 0-10 volt control with temperature, pressure, humidity and carbon dioxide concentration according
 -rotating heat exchanger Heat Recovery's stepless rotation speed adjuster with rotation controller
open air filter; * M5 bag filter or F7 bag filter
-used air filter ; * G3 bag filter or M5 bag filter
spare filters
-filter controller, indicating -filter controller, alarming

open air sliding trap
exctract aie sliding trap
-platemotors
*open/off
*spring return
-preheating
* liquid heater (HG/CG) duct
-heater
* water heater
* electric heater
-water heater's thermostat section
-electrical control station
adjustment station
* in device are adjusting device example Ouman
-GSM-control
-Modbus
* Interface to the sub-distribution board's
VAK-regulation units
-moisture detector
-carbon dioxide detectors (Co2)
-pressure transmitter air flow meters
-duct's temperature detectors
-emergency button (fire)
-cooling radiator, cold water (CW),duct
-cooling radiator, freon (CF), duct
-cooling radiator, glykol (CG),duct



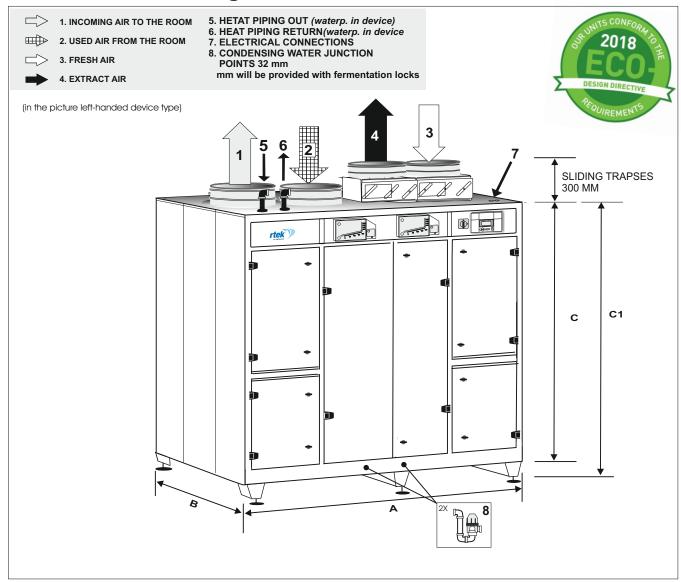




AIR FLOW 220-550 I/s / 200 Pa

Millenier

* Offices * Schools and Day-care centres * Industries- and **Commercial buildings**

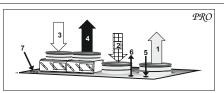








LEFT-HANDED (L) device type



RIGHT-HANDED (R) device type

utole?	THE MA	SIZE OF DUCT OUTLETS PIPE SIZES					ZES			
BY ENERGENT	Α	В	С	C1	1	2	3	4	5	6
Rtek PR 06 PRO	2050	940	1700	2165*	400	400	400	400	DN25	DN25

Rtek PR 06 PRO





TEHNICAL DATA

ELECTRICAL HEATING	12,75 kW					
HEATING WITH WATER	13,2 kW water 60°/40°C, air △ t 20°C					
EC-FAN:	0,715 kW	3,1 A.max	230 V 50/60 Hz			

WEIGHT:	550 Kg
FREE SPACE	900 mm

ELECTRIC CONNECTION

ELECTRIC HEATER:

Max.power 14,3kW 3 x 25A MMJ 5x6S

WATER HEATER:

Max.power 1.6 kW 3 x 16A MMJ 5 x2,5S

HEAT RECOVERY



ROTATING HEAT EXCHANGER: Manufactured from aluminium, coefficient of efficiency 70-85%, depends on air flow range

EC-FANS



Energy-efficient, low-power consuming EC fans

HEATER; WATER OR ELECTRIC



COOLING RADIATOR

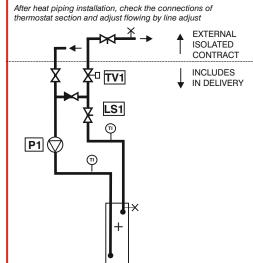


SILENCER



HEAT PIPING CONNECTION

IN THE water heater DEVICE



OUTFIT OF DEVICE IS CHOSEN:

EC fan -direct-drive Plenum fan - adjustment of fan 's speed of rotation *2-speed from 0-10 volt control *stepless adjustment; 0-10 volt control with temperature, pressure, humidity and carbon dioxide concentration according
 -rotating heat exchanger Heat Recovery's stepless rotation speed adjuster with rotation controller
open air filter ; * M5 bag filter or F7 bag filter
-used air filter ; * G3 bag filter or M5 bag filter
spare filters
-filter controller, indicating -filter controller, alarming

-exctract aie sliding trap -platemotors *open/off *spring return -preheating * liquid heater (HG/CG) duct -heater * water heater * electric heater -water heater's thermostat section -electrical control station -adjustment station * in device are adjusting device example Ouman -GSM-control -Modbus * Interface to the sub-distribution board's

VAK-regulation units -moisture detector

open air sliding trap

-carbon dioxide detectors (Co2)

-pressure transmitter air flow meters

-duct's temperature detectors

-emergency button (fire)

-cooling radiator, cold water (CW),duct

-cooling radiator, freon (CF), duct

-cooling radiator, glykol (CG),duct

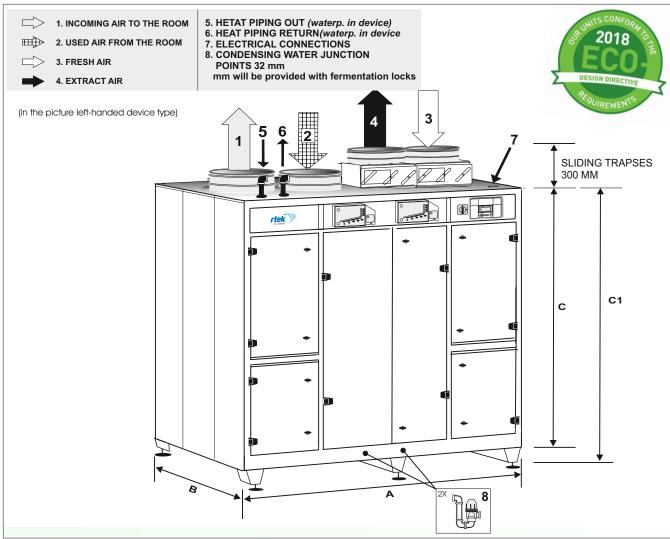






Millenier -

* Offices * Schools and Day-care centres * Industries- and **Commercial buildings**



rtek	THE MAIN MESURES SIZE OF DUCT OUTLETS PIPE SIZES									
BY ENERGENT	Α	В	С	C1	1	2	3	4	5	6
Rtek PR 09 PRO	2050	1100	1700	2165*)	400	400	400	400	DN25	DN25

*) minium **MODULS** 1160 The delivery includes Rtek bracket The device is available right handed too in other words, duct outlets are as mirror images Rtek Modul is made of aluminium frame RIGHT-HANDED (R) device type THE MAIN MESURES SIZE OF DUCT OUTLETS PIPE SIZES 1 A В C C1 2 3 4 5 6 1740 Rtek PR 09 PRO 2250 400 400 DN25 DN25 1100 2190 400 400

2.07 January 2018

Rtek PR 09 PRO





FXTFRNAI

ISOLATED CONTRACT INCLUDES

IN DELIVERY

TEHNICAL DATA

ELECTRICAL HEATING	15,3 kw or 17,0 kW						
HEATING WITH WATER	14,4 kW water 60º/40ºC, air						
	18,0 kW water 60º/40°C, air						
EC-FAN:	1,0 kW	1,63 A.max	400 V 50/60 Hz				

WEIGHT:	750 Kg
FREE SPACE	1000 mm

ELECTRIC CONNECTION

ELECTRIC HEATER:

 Max.power 17,4 kW
 Max.power 19,1kW

 3 x 32A
 3 x 40A

 MMJ 5x10S
 MMJ 5x10S

HEAT PIPING CONNECTION

After heat piping installation, check the connections of thermostat section and adjust flowing by line adjust

□ TV1

LS1

IN THE water heater DEVICE

WATER HEATER:

Max.power 2,2 kW 3 x 16A MMJ 5 x2.5S

HEAT RECOVERY



ROTATING HEAT EXCHANGER: Manufactured from aluminium, coefficient of efficiency 70-85%, depends on air flow range

EC-FANS



Energy-efficient, low-power consuming EC fans

HEATER; WATER OR ELECTRIC



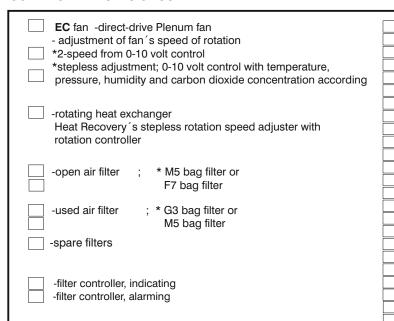
COOLING RADIATOR



SILENCER



OUTFIT OF DEVICE IS CHOSEN:



- -open air sliding trap-exctract aie sliding trap-platemotors
- *open/off *spring return

-preheating

* liquid heater (HG/CG) kanal -heater

- * water heater
- * electric heater

-water heater's thermostat section

- -electrical control station
- -adjustment station
 - * in device are adjusting device example Ouman
 - -GSM-control
 - -Modbus
 - * Interface to the sub-distribution board's VAK-regulation units

-moisture detector

- -carbon dioxide detectors (Co2)
- -pressure transmitter air flow meters
- -duct's temperature detectors
- -emergency button (fire)
- -cooling radiator, cold water (CW)
- -cooling radiator, cold water -cooling radiator, freon (CF)
- -cooling radiator, glykol (CG)

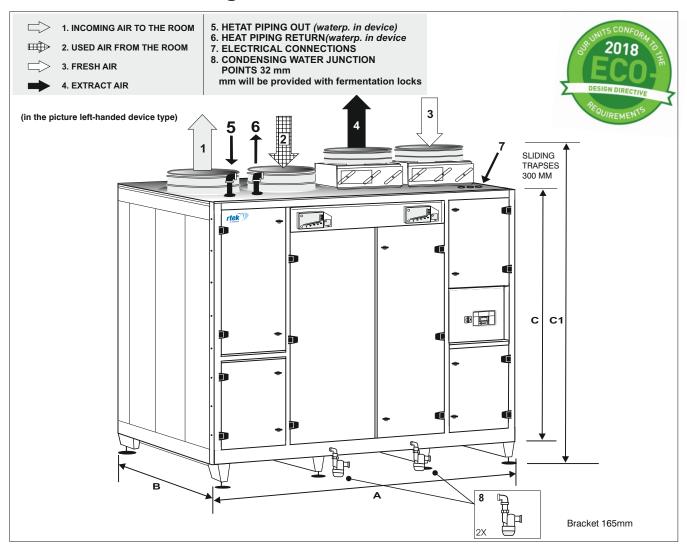




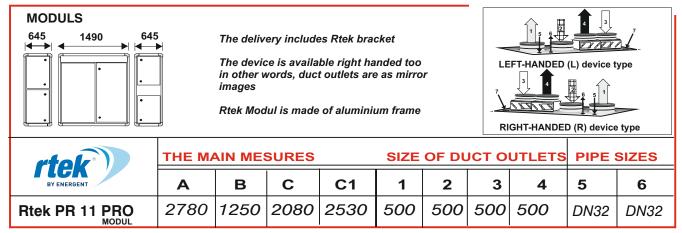


Millenier —

* Offices * Schools and Day-care centres * Industries- and **Commercial buildings**



THE MAIN MESURES					SIZE OF DUCT OUTLETS PIPE SIZES					SIZES
BY ENERGENT	Α	В	С	C1	1	2	3	4	5	6
Rtek PR 11 PRO	2580	1250	2040	2505	500	500	500	500	DN32	DN32



January 2018 2.08

Rtek PR 11 PRO





TEHNICAL DATA

ELECTRICAL HEATING	20,4 kw or 26,35 kW						
HEATING WITH WATER	19,8 kW water 60º/40°C, air						
	26,4 kW water 60°/40°C, air						
EC-FAN:	1,7 kW	2,6 A.max	400 V 50/60 Hz				

WEIGHT:	900 Kg
FREE SPACE	1150 mm

ELECTRIC CONNECTION

ELECTRIC HEATER:

 Max.power 23,9kW
 Max.power 29,9kW

 3 x 40A
 3 x 50A

 MMJ 5x10S
 MMJ 5x16S

WATER HEATER:

Max.power 3,6 kW 3 x 16A MMJ 5 x2,5S

HEAT RECOVERY



ROTATING HEAT EXCHANGER: Manufactured from aluminium, coefficient of efficiency 70-85%, depends on air flow range

EC-FANS



Energy-efficient, low-power consuming EC fans

HEATER; WATER OR ELECTRIC



COOLING RADIATOR

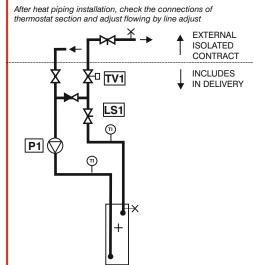


SILENCER



HEAT PIPING CONNECTION

IN THE water heater DEVICE



OUTFIT OF DEVICE IS CHOSEN:

EC fan -direct-drive Plenum fan - adjustment of fan s speed of rotation *2-speed from 0-10 volt control *stepless adjustment; 0-10 volt control with temperature, pressure, humidity and carbon dioxide concentration according
-rotating heat exchanger Heat Recovery's stepless rotation speed adjuster with rotation controller
open air filter ; * M5 bag filter or F7 bag filter
used air filter; * G3 bag filter or M5 bag filter
spare filters
-filter controller, indicating -filter controller, alarming

- -open air sliding trap -exctract aie sliding trap -platemotors
- *open/off
 *spring return
 -preheating

* liquid heater (HG/CG) kanal

-heater

- * water heater
- * electric heater

-water heater's thermostat section

- -electrical control station
- -adjustment station
 - * in device are adjusting device example Ouman
 - -GSM-control
 - -Modbus
 - * Interface to the sub-distribution board's

VAK-regulation units

-moisture detector

-carbon dioxide detectors (Co2)

-pressure transmitter air flow meters

-duct's temperature detectors

-emergency button (fire)

-cooling radiator, cold water (CW)

-cooling radiator, freon (CF)

-cooling radiator, glykol (CG)

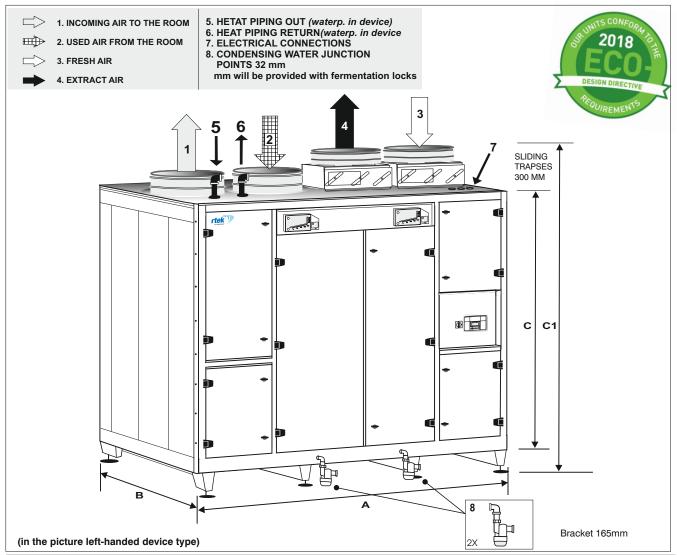




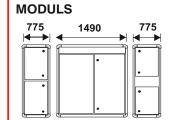


Millenier —

* Offices * Schools and Day-care centres * Industries- and **Commercial buildings**



rtek	THE MA	AIN ME	SURES	URES SIZE OF DUCT OUTLETS PIPE SIZES						
BY ENERGENT	Α	В	С	C1	1	2	3	4	5	6
Rtek PR 15 PRO	2840	1650	2040	2505	500	500	500	500	DN32	DN32



The delivery includes Rtek bracket

The device is available right handed too in other words, duct outlets are as mirror images

Rtek Modul is made of aluminium frame

1 3 VIVIA
LEFT-HANDED (L) device type
3 4 5 1
RIGHT-HANDED (R) device type

rtek	THE M	MAIN MESURES SIZE OF DUCT OUTLETS PIPE S							SIZES	
BY ENERGENT	Α	В	С	C1	1 2	3	4	5	6	
Rtek PR 15 PRO	3040	1650	2080	2530	500	500	500	500	DN32	DN32

2.09 January 2018

Rtek PR 15 PRO





TEHNICAL DATA

ELECTRICAL HEATING	25,5 kw or 34 kW						
HEATING WITH WATER	24 kW water 60°/40°C, air ₄t 15°C						
	34 kW water 60°/40°C, air						
EC-FAN:	1,85 kW	400 V 50/60 Hz					

WEIGHT:	950 Kg
FREE SPACE	1550 mm

ELECTRIC CONNECTION

ELECTRIC HEATER:

 Max.power 29,3 kW
 Max.power 37,8 kW

 3 x 50A
 3 x 63A

 MMJ 5x16S
 MMJ 5x16S

WATER HEATER:

Max.power 3,9 kW

3 x 16A MMJ 5 x2,5S

HEAT RECOVERY



ROTATING HEAT EXCHANGER: Manufactured from aluminium, coefficient of efficiency 70-85%, depends on air flow range

EC-FANS



Energy-efficient, low-power consuming EC fans

HEATER; WATER OR ELECTRIC



COOLING RADIATOR

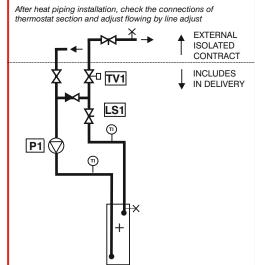


SILENCER



HEAT PIPING CONNECTION

IN THE water heater DEVICE



OUTFIT OF DEVICE IS CHOSEN:

EC fan -direct-drive Plenum fan - adjustment of fan's speed of rotation *2-speed from 0-10 volt control *stepless adjustment; 0-10 volt control with temperature, pressure, humidity and carbon dioxide concentration according
-rotating heat exchanger Heat Recovery's stepless rotation speed adjuster with rotation controller
open air filter ; * M5 bag filter or F7 bag filter
used air filter; * G3 bag filter or M5 bag filter
spare filters
-filter controller, indicating

- -open air sliding trap -exctract aie sliding trap
- -platemotors
- *open/off *spring return

-preheating

* liquid heater (HG/CG) duct

-heater

- * water heater
- * electric heater

-water heater's thermostat section

- -electrical control station
- -adjustment station
 - * in device are adjusting device example Ouman
 - -GSM-control
 - -Modbus
 - * Interface to the sub-distribution board's

VAK-regulation units

-moisture detector

-carbon dioxide detectors (Co2)

-pressure transmitter air flow meters

-duct's temperature detectors

- -emergency button (fire)
- -cooling radiator, cold water (CW)
- -cooling radiator, freon (CF)
- -cooling radiator, glykol (CG)

www.energent.fi

-filter controller, alarming





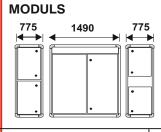


Millenier

* Offices * Schools and Day-care centres * Industries- and **Commercial buildings**



rtek	THE MA	AIN ME	SURES		SIZE (OF DU	PIPE SIZES			
BY ENERGENT	Α	В	С	C1	1	2	3	4	5	6
Rtek PR 20 PRO	2840	1650	2040	2505	630	630	630	630	DN40	DN40



The delivery includes Rtek bracket

The device is available right handed too in other words, duct outlets are as mirror images

Rtek Modul is made of aluminium frame

1 3 VIVIA
LEFT-HANDED (L) device type
3 4 6 5 1
RIGHT-HANDED (R) device type

rtek	THE M	AIN ME	MESURES SIZE OF DUCT OUTLETS PIPE S							SIZES
BY ENERGENT	Α	В	С	C1	C1 1 2	3	4	5	6	
Rtek PR 20 PRO	3040	1650	2080	2530	630	630	630	630	DN40	DN40

2.10 January 2018

Rtek PR 20 PRO





TEHNICAL DATA

ELECTRICAL HEATING	35,7 kw or 47,6 kW							
HEATING WITH WATER	36 kW water 60%40°C, air △t 15°C							
	48 kW water 60º/40°C, air							
EC-FAN:	3,0 kW	4,6 A.max	400 V 50/60 Hz					

WEIGHT:	1100 Kg
FREE SPACE	1550 mm

ELECTRIC CONNECTION

ELECTRIC HEATER:

 Max.power 41,8 kW
 Max.power 53,7 kW

 3 x 80A
 3 x 100A

 MMJ 5x25S
 MMJ 5x25S

WATER HEATER:

Max.power 6,2 kW 3 x 16A MMJ 5 x2,5S

HEAT RECOVERY



ROTATING HEAT EXCHANGER: Manufactured from aluminium, coefficient of efficiency 70-85%, depends on air flow range

EC-FANS



Energy-efficient, low-power consuming EC fans

HEATER; WATER OR ELECTRIC



COOLING RADIATOR

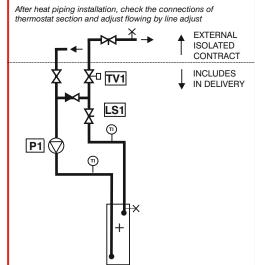


SILENCER



HEAT PIPING CONNECTION

IN THE water heater DEVICE



OUTFIT OF DEVICE IS CHOSEN:

EC fan -direct-drive Plenum fan - adjustment of fan 's speed of rotation *2-speed from 0-10 volt control *stepless adjustment; 0-10 volt control with temperature, pressure, humidity and carbon dioxide concentration according	
-rotating heat exchanger Heat Recovery's stepless rotation speed adjuster with rotation controller	
open air filter ; * M5 bag filter or F7 bag filter	
-used air filter ; * G3 bag filter or M5 bag filter	
spare filters	
-filter controller, indicating	

-open air sliding trap -exctract aie sliding trap -platemotors *open/off *spring return -preheating * liquid heater (HG/CG) duct -heater * water heater * electric heater -water heater's thermostat section -electrical control station -adjustment station * in device are adjusting device example Ouman -GSM-control -Modbus * Interface to the sub-distribution board's VAK-regulation units -moisture detector -carbon dioxide detectors (Co2) -pressure transmitter air flow meters -duct's temperature detectors -emergency button (fire) -cooling radiator, cold water (CW) -cooling radiator, freon (CF) -cooling radiator, glykol (CG)

-filter controller, alarming







Millenier

* Offices * Schools and Day-care centres * Industries- and Commercial buildings



- 5. HETAT PIPING OUT (waterp. in device)
 6. HEAT PIPING RETURN(waterp. in device
 7. ELECTRICAL CONNECTIONS
- 8. CONDENSING WATER JUNCTION POINTS 32 mm

mm will be provided with fermentation locks

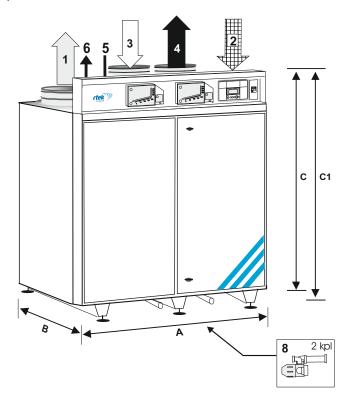
DESIGN DIRECTIVE

PEQUIREMENTS

(in the picture left-handed device type)

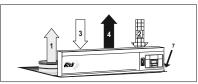
3. FRESH AIR

4. EXTRACT AIR

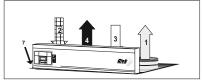




Machine is equipped adjustable feet



LEFT-HANDED (L) device type



RIGHT-HANDED (R) device type

rtek	THE M	AIN MI	ESURE	s	SIZE	OF DU	CT OUT	LETS			
BY ENERGENT	Α	В	С	C C1 1	2	3	4	5	6		
Rtek PR 02-CO	1290	750	1240	1650*)	250	250	250	250	DN20	DN20	

January 2018 **2.11**

Rtek PR 02-CO





TEHNICAL DATA

ELECTRICAL HEATING	5,1 kW				
HEATING WITH WATER	5 kW water 60°/40°C, air △ t 20°C				
EC-FAN:	0,545 kW	3,5 A.max	230 V 50/60 Hz		

COOLING CAPASITY	4 kW, or air flow = 0,25 m³/s Fresh air = 27 C/55% Rh (evaporation) Exctract air = 23 C/55% Rh (condensation
COMPRESSOR	Power 1,7 kW Current 8,8Amp 230V
COLD SUBSTANCE	R 134A

ELECTRIC CONNECTION

ELECTRIC HEATER:

Max.power 6,2kW 3 x 16A MMJ 5x2.5S

WATER HEATER:

Max.power 3.0 kW

3 x 16A MMJ 5 x2,5S

WEIGHT:	250 KG
FREE SPACE	800 mm

HEAT RECOVERY



ROTATING HEAT EXCHANGER: Manufactured from aluminium, coefficient of efficiency 70-85%, depends on air flow range

EC-FANS



Energy-efficient, low-power consuming EC fans

HEATER; WATER OR ELECTRIC



WITH MOUNTED COOLER

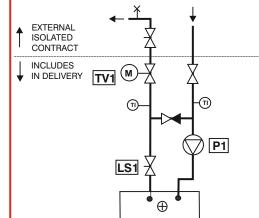
SILENCER



HEAT PIPING CONNECTION

IN THE water heater DEVICE

After heat piping installation, check the connections of thermostat section and adjust flowing by line adjust



OUTFIT OF DEVICE IS CHOSEN:

*2-speed from 0-10 volt control *stepless adjustment; 0-10 volt co	- adjustment of fan's speed of rotation						
-rotating heat exchanger Heat Recovery's stepless rotatio rotation controller	n speed adjuster with						
open air filter; * M5 bag filt F7 bag filt							
used air filter; * G3 bag filt M5 bag filt							
spare filters							
-filter controller, indicating -filter controller, alarming							

- - * in device are adjusting device example Ouman
 -GSM-control
 - -Modbus

-open air sliding trap

- * Interface to the sub-distribution board's VAK-regulation units
- -moisture detector
- -carbon dioxide detectors (Co2)
- -pressure transmitter
- -air flow meters
- -duct's temperature detectors
- -emergency button (fire)
- -with mounted cooler (CO)

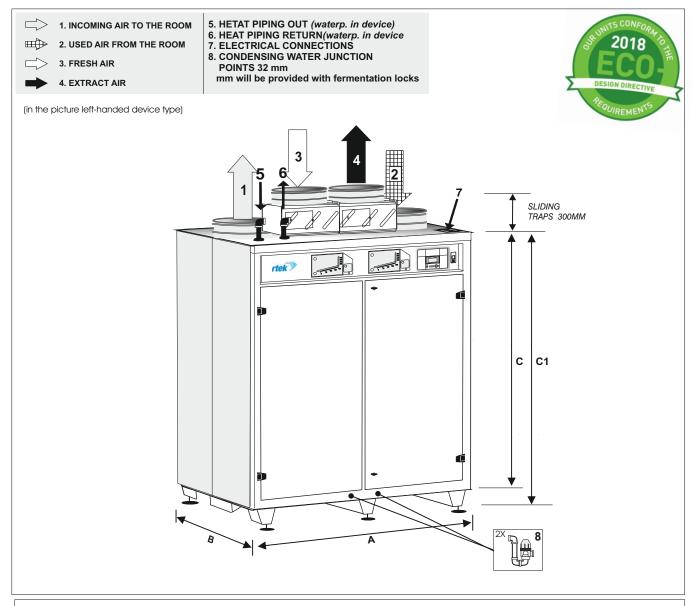






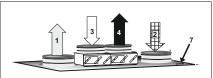
Millenier ——

* Offices * Schools and Day-care centres * Industries- and Commercial buildings

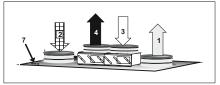




Machine is equipped adjustable feet



LEFT-HANDED (L) device type



RIGHT-HANDED (R) device type

rtek	THE MAIN MESURES SIZE OF DUCT OUTLETS PIPE SIZES									
BY ENERGENT	Α	В	С	C1	1	2	3	4	5	6
Rtek PR 04-CO	1530	790	1700	2165	315	315	315	315	DN20	DN20

January 2018 **2.12**

Rtek PR 04-CO





TEHNICAL DATA

ELECTRICAL HEATING	6,8 kW				
HEATING WITH WATER	8,4 kW water 60°/40°C, air △ t 20°C				
EC-FAN:	0,5 kW 2,2 A.max 230 V 50/60 Hz				

COOLING CAPASITY	5 kW, or air flow = 0,3 m³/s Fresh air = 27 C/55% Rh (evaporation) Exctract air = 23 C/55% Rh (condensation
COMPRESSOR	Power 1,7 kW Current 5,0Amp 3/400V
COLD SUBSTANCE	R 134A

ELECTRIC CONNECTION

ELECTRIC HEATER:

Max.power 7,9kW 3 x 16A MMJ 5x2.5S

WATER HEATER:

Max.power 3.0 kW 3 x 16A

MMJ 5 x2,5S

WEIGHT:	250 KG
FREE SPACE	800 mm

HEAT RECOVERY



ROTATING HEAT EXCHANGER: Manufactured from aluminium, coefficient of efficiency 70-85%, depends on air flow range

EC-FANS



Energy-efficient, low-power consuming EC fans

HEATER; WATER OR ELECTRIC



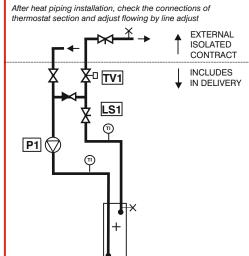
WITH MOUNTED COOLER

SILENCER



HEAT PIPING CONNECTION

IN THE water heater DEVICE



OUTFIT OF DEVICE IS CHOSEN:

EC fan -direct-drive Plenum fan	open air sliding trap
 adjustment of fan's speed of rotation 	exctract aie sliding trap
*2-speed from 0-10 volt control	-platemotors
*stepless adjustment; 0-10 volt control with temperature,	*open/off
pressure, humidity and carbon dioxide concentration according	*spring return
pressure, numberly and carbon dioxide concentration according	-heater
	—
rotating heat exchanger	* water heater
	* electric heater
Heat Recovery's stepless rotation speed adjuster with	-water heater's thermostat s
rotation controller	-electrical control station
	-adjustment station
anan air filtari + MC hag filtar ar	* in device are adjusting
open air filter; * M5 bag filter or	-GSM-control
F7 bag filter	-Modbus
	* Interface to the sub-d
used air filter; * G3 bag filter or	
M5 bag filter	VAK-regulation units
	-moisture detector
spare filters	-carbon dioxide detectors (C
	-pressure transmitter
	-air flow meters
-filter controller, indicating	-duct's temperature detector
	-emergency button (fire)
-filter controller, alarming	-with mounted cooler (CO)
	with mounted cooler (00)

notors open/off spring return water heater electric heater heater's thermostat section cal control station ment station n device are adjusting device example Ouman -GSM-control -Modbus nterface to the sub-distribution board's AK-regulation units ire detector n dioxide detectors (Co2) ıre transmitter

temperature detectors

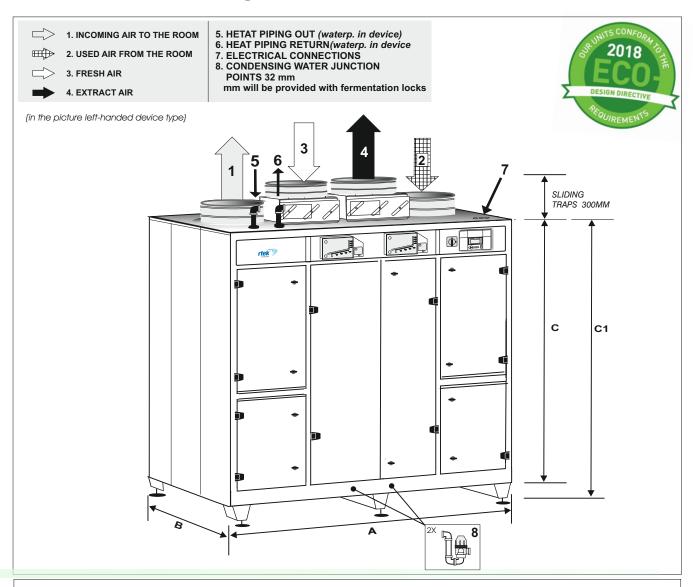


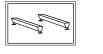




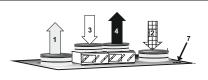
Millenier —

* Offices * Schools and Day-care centres * Industries- and Commercial buildings

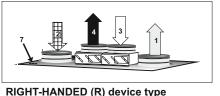




Machine is equipped adjustable feet 0-70mm



LEFT-HANDED (L) device type



 	(1.1) 4.01.00	.)

rtek	THE MAIN MESURES SIZE OF DUCT OUTLETS						PIPE SIZ	ZES		
/ tGR /	Α	В	С	C1	1	2	3	4	5	6
Rtek PR 06-CO	2050	940	1700	2165*	400	400	400	400	DN25	DN25

January 2018 **2.13**

Rtek PR 06-CO





TEHNICAL DATA

ELECTRICAL HEATING	12,75 kW				
HEATING WITH WATER	13,2 kW water 60°/40°C, air				
EC-FAN:	0,715 kW	3,1 A.max	230 V 50/60 Hz		

COOLING CAPASITY	8 kW, or air flow = 0,5 m³/s Fresh air = 27 C/55% Rh (evaporation) Exctract air = 23 C/55% Rh (condensation
COMPRESSOR: Digiscroll	Power 2,83 kW Current 7Amp 3/400V/50Hz
COLD SUBSTANCE	R 410A

ELECTRIC CONNECTION

ELECTRIC HEATER:

Max.power 14,3kW 3 x 25A

MMJ 5x6S

WATER HEATER:

Max.power 4,4 kW

3 x 16A MMJ 5 x2,5S

WEIGHT:	600 KG
FREE SPACE	900 mm

HEAT RECOVERY



ROTATING HEAT EXCHANGER: Manufactured from aluminium, coefficient of efficiency 70-85%, depends on air flow range

EC-FANS



Energy-efficient, low-power consuming EC fans

HEATER; WATER OR ELECTRIC



WITH MOUNTED COOLER

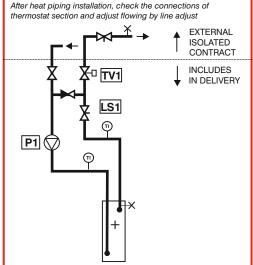
SILENCER



HEAT PIPING CONNECTION

IN THE water heater DEVICE

After heat piping installation, check the connections of



OUTFIT OF DEVICE IS CHOSEN:

	s speed of rotation
-rotating heat exchar Heat Recovery's storotation controller	nger epless rotation speed adjuster with
open air filter;	* M5 bag filter or F7 bag filter
-used air filter ;	* G3 bag filter or M5 bag filter
spare filters	
-filter controller, indic	•

- -open air sliding trap -exctract aie sliding trap -platemotors
 - *open/off
 - *spring return

-heater

- * water heater
- * electric heater
- -water heater's thermostat section
- -electrical control station
- -adjustment station
 - * in device are adjusting device example Ouman
 - -GSM-control
 - -Modbus
 - * Interface to the sub-distribution board's
 - VAK-regulation units
- -moisture detector
- -carbon dioxide detectors (Co2)
- -pressure transmitter
- -air flow meters
- -duct's temperature detectors
- -emergency button (fire)
- -with mounted cooler (CO)







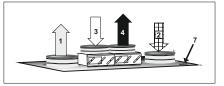
Millenier -

* Offices * Schools and Day-care centres * Industries- and Commercial buildings

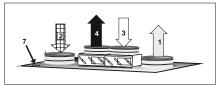




Machine is equipped adjustable feet 0-70mm



LEFT-HANDED (L) device type



RIGHT-HANDED (R) device type

rtek	THE MAIN MESURES					SIZE OF DUCT OUTLETS				
BY ENERGENT	Α	В	С	C1	1	2	3	4	5	6
Rtek PR 09-CO	2050	1100	1700	2165*)	400	400	400	400	DN25	DN25

January 2018 **2.14**

Rtek PR 09-CO





TEHNICAL DATA

ELECTRICAL HEATING	17 kW				
HEATING WITH WATER	18 kW water 60°/40°C, air △t 20°C				
EC-FAN:	1,0 kW	1,63 A.max	400 V 50/60 Hz		

COOLING CAPASITY	12 kW, or air flow = 0,75 m³/s Fresh air = 27 C/55% Rh (evaporation) Exctract air = 23 C/55% Rh (condensation
COMPRESSOR: Digiscroll	Power 4,3 kW Current 10Amp 3/400V/50Hz
COLD SUBSTANCE	R 410A

ELECTRIC CONNECTION

ELECTRIC HEATER:

WATER HEATER:

Max.power 19,1kW 3 x 40A

MMJ 5x10S

Max.power 6,5 kW

3 x 16A MMJ 5 x2,5S

WEIGHT:	800 KG
FREE SPACE	1000 mm

HEAT RECOVERY



ROTATING HEAT EXCHANGER: Manufactured from aluminium, coefficient of efficiency 70-85%, depends on air flow range

EC-FANS



Energy-efficient, low-power consuming EC fans

HEATER; WATER OR ELECTRIC

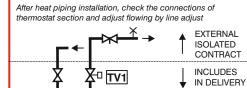


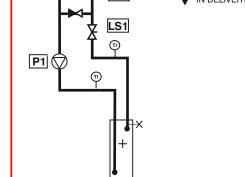
WITH MOUNTED COOLER

SILENCER



HEAT PIPING CONNECTION *IN THE water heater DEVICE*





OUTFIT OF DEVICE IS CHOSEN:

- adjustment of fan 's *2-speed from 0-10 *stepless adjustmer	EC fan -direct-drive Plenum fan - adjustment of fan s speed of rotation *2-speed from 0-10 volt control *stepless adjustment; 0-10 volt control with temperature, pressure, humidity and carbon dioxide concentration according					
-rotating heat exchain Heat Recovery's storotation controller	nger epless rotation speed adjuster with					
open air filter;	* M5 bag filter or F7 bag filter					
-used air filter ;	* G3 bag filter or M5 bag filter					
spare filters						
-filter controller, indic	S .					

 -exctract are sliding trap
-platemotors
*open/off
*spring return
-heater
* water heater
* electric heater
-water heater's thermostat section
-electrical control station
-adjustment station
* in device are adjusting device example Ouman
-GSM-control
-Modbus
* Interface to the sub-distribution board 's
VAK-regulation units
-moisture detector
-carbon dioxide detectors (Co2)
-pressure transmitter
-air flow meters
-duct's temperature detectors
-emergency button (fire)

-open air sliding trap

-with mounted cooler (CO)



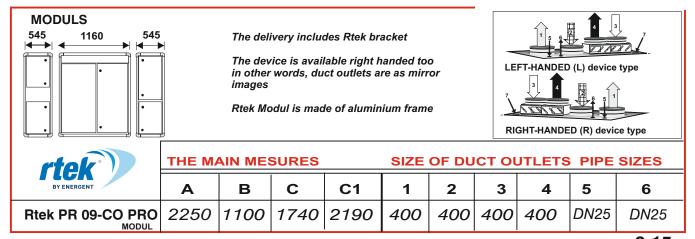


Millenier -

* Offices * Schools and Day-care centres * Industries- and **Commercial buildings**



rtek	THE MAIN MESURES SIZE OF DUCT OUTLETS PIPE SIZES									
BY ENERGENT	Α	В	С	C1	1	2	3	4	5	6
Rtek PR 09 PRO	2050	1100	1700	2165*)	400	400	400	400	DN25	DN25



2.15 January 2018

Rtek PR 09-CO PRO





TEHNICAL DATA

ELECTRICAL HEATING	17 kW				
HEATING WITH WATER	18 kW water 60°/40°C, air △t 20°C				
EC-FAN:	1,0 kW	1,63 A.max	400 V 50/60 Hz		

COOLING CAPASITY	12 kW, or air flow = 0,75 m³/s Fresh air = 27 C/55% Rh (evaporation) Exctract air = 23 C/55% Rh (condensation
COMPRESSOR: Digiscroll	Power 4,3 kW Current 10Amp 3/400V/50Hz
COLD SUBSTANCE	R 410A

ELECTRIC CONNECTION

ELECTRIC HEATER:

Max.power 19,1kW 3 x 40A

WATER HEATER:

Max.power 6,5 kW

3 x 16A MMJ 5 x2,5S

MMJ 5x10S

WEIGHT:	800 KG
FREE SPACE	1000 mm

HEAT RECOVERY



ROTATING HEAT EXCHANGER: Manufactured from aluminium, coefficient of efficiency 70-85%, depends on air flow range

EC-FANS



Energy-efficient, low-power consuming EC fans

HEATER; WATER OR ELECTRIC



WITH MOUNTED COOLER

SILENCER



HEAT PIPING CONNECTION IN THE water heater DEVICE After heat piping installation, check the connections of thermostat section and adjust flowing by line adjust <u>×</u> → **EXTERNAL** ISOLATED CONTRACT INCLUDES ¹ |TV1 IN DELIVERY LS1 P1

OUTFIT OF DEVICE IS CHOSEN:

EC fan -direct-drive Plenum fan -open air sliding trap - adjustment of fan's speed of rotation *2-speed from 0-10 volt control *stepless adjustment; 0-10 volt control with temperature, pressure, humidity and carbon dioxide concentration according -rotating heat exchanger Heat Recovery's stepless rotation speed adjuster with rotation controller -open air filter; * M5 bag filter or F7 bag filter * G3 bag filter or -used air filter; M5 bag filter -spare filters -filter controller, indicating -filter controller, alarming -with mounted cooler (CO)

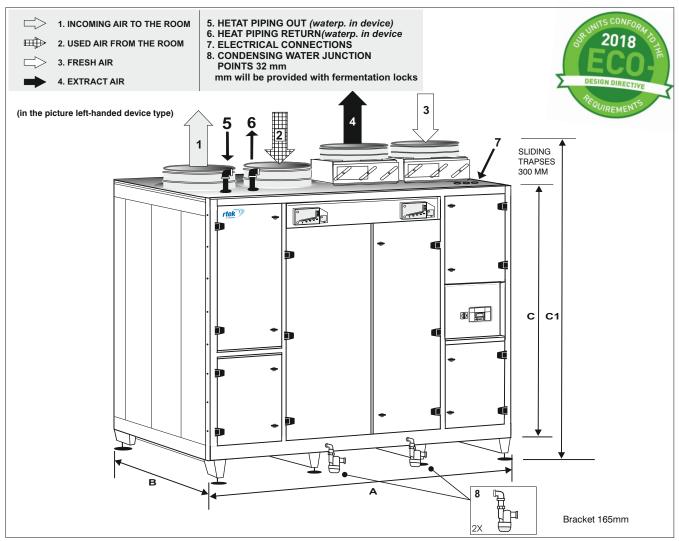
-exctract aie sliding trap -platemotors *open/off *spring return -heater * water heater * electric heater -water heater's thermostat section -electrical control station -adjustment station * in device are adjusting device example Ouman -GSM-control -Modbus * Interface to the sub-distribution board's VAK-regulation units -moisture detector -carbon dioxide detectors (Co2) -pressure transmitter -air flow meters -duct's temperature detectors -emergency button (fire)



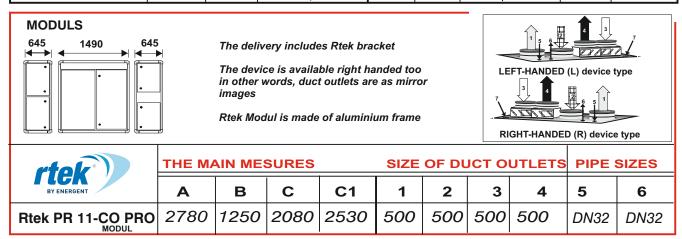


Millenier ——

* Offices * Schools and Day-care centres * Industries- and **Commercial buildings**



rtek	THE MA	THE MAIN MESURES SIZE OF DUCT OUTLETS PIPE							PIPE S	SIZES
BY ENERGENT	Α	В	С	C1	1	2	3	4	5	6
Rtek PR 11-CO PRO	2580	1250	2040	2505	500	500	500	500	DN32	DN32



2.16 January 2018

Rtek PR 11-CO PRO





TEHNICAL DATA

ELECTRICAL HEATING	20,4 or 26,3 kW					
HEATING WITH WATER	19,8 kW water 60°/40°C, air △t 15°C					
	26,4 kW water 60°/40°C, air ^Δ t 20°C					
EC-FAN:	1,7 kW 2,6 A.max 400 V 50/60 Hz					
COOLING CAPASITY	18 kW, or air flow = 1,1 m³/s Fresh air = 27 C/55% Rh (evaporation) Exctract air = 23 C/55% Rh (condensation					
COMPRESSOR: Digiscroll	Power 4,93 kW Current 11,8Amp 3/400V/50Hz					
COLD SUBSTANCE	R 410A					

ELECTRIC CONNECTION

ELECTRIC HEATER:		
Max.power 3 x 50A MMJ 5x16S	23,9kW	Max.power 29,9kW 3 x 50A MMJ 5x16S
WATER HEATER:		
Max.power 3 x 25A MMJ 5 x6S	8,5 kW	
WEIGHT:	950 KG	
FREE SPACE	1150 mm	

HEAT RECOVERY



ROTATING HEAT EXCHANGER: Manufactured from aluminium, coefficient of efficiency 70-85%, depends on air flow range

EC-FANS



Energy-efficient, low-power consuming EC fans

HEATER; WATER OR ELECTRIC



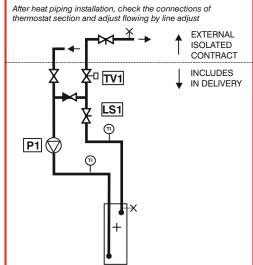
WITH MOUNTED COOLER

SILENCER



HEAT PIPING CONNECTION

IN THE water heater DEVICE



OUTFIT OF DEVICE IS CHOSEN:

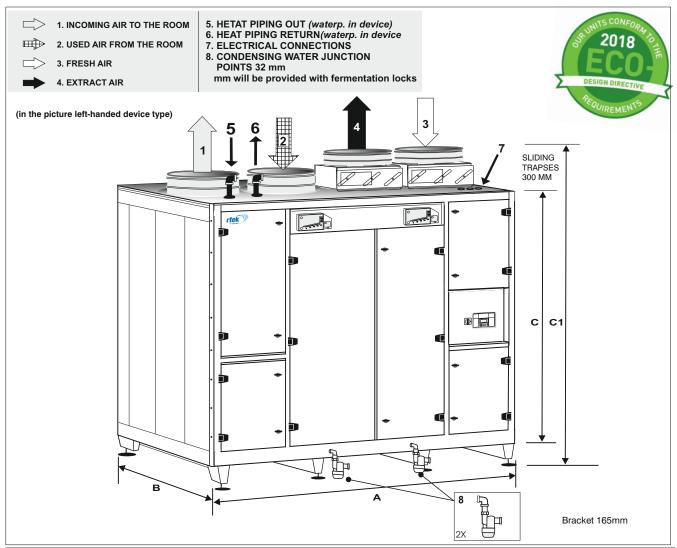
EC fan -direct-drive Plenum fan - adjustment of fan 's speed of rotation *2-speed from 0-10 volt control *stepless adjustment; 0-10 volt control with temperature, pressure, humidity and carbon dioxide concentration according -rotating heat exchanger Heat Recovery 's stepless rotation speed adjuster with rotation controller -open air filter; * M5 bag filter or F7 bag filter -used air filter; * G3 bag filter or M5 bag filter -spare filters -filter controller, indicating -filter controller, alarming	-open air sliding trap -exctract aie sliding trap -platemotors
--	--



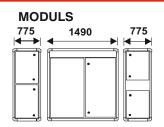


- Millenier -

* Offices * Schools and Day-care centres * Industries- and **Commercial buildings**



etok.)	THE MA	THE MAIN MESURES SIZE OF DUCT OUTLETS PIPE SIZES								
BY ENERGENT	Α	В	С	C1	1	2	3	4	5	6
Rtek PR 15-COPRO	2840	1650	2040	2505	500	500	500	500	DN 32	DN32



The delivery includes Rtek bracket

The device is available right handed too in other words, duct outlets are as mirror images

Rtek Modul is made of aluminium frame

1 5 6 7	
LEFT-HANDED (L) device type	
3 4 2 5 1	
RIGHT-HANDED (R) device type	

rtek	THE MAIN MESURES				SIZE	SIZE OF DUCT OUTLETS PIPE SIZE				SIZES
BY ENERGENT	Α	В	С	C1	1	2	3	4	5	6
Rtek PR 15-CO PRO MODUL	3040	1650	2080	2530	500	500	500	500	DN32	DN32

January 2018 2.17

Rtek PR 15-CO PRO





TEHNICAL DATA

ELECTRICAL HEATING	25,5 or 30,6 kW					
HEATING WITH WATER	24 kW water 60º/40°C, air △t 15°C					
	34 kW water 60°/40°C, air △t 20°C					
EC-FAN:	1,85 kW 2,9 A.max 400 V 50/60 Hz					
COOLING CAPASITY	25 kW, or air flow = 1,5 m³/s Fresh air = 27 C/55% Rh (evaporation) Exctract air = 23 C/55% Rh (condensation					
COMPRESSOR: Digiscroll	Power 7,94 kW Current 18,2Amp 3/400V/50Hz					
COLD SUBSTANCE	R 410A					

ELECTRIC CONNECTION

ELECTRIC HEATER:		
Max.power 3 x 63A MMJ 5x16S	29,3kW	Max.power 37,8kW 3 x 63A MMJ 5x16S
WATER HEATER:		
Max.power 3 x 25A MMJ 5 x6S	11,9 kW	
WEIGHT:	1000 KG	
FREE SPACE	1550 mm	

HEAT RECOVERY



ROTATING HEAT EXCHANGER: Manufactured from aluminium, coefficient of efficiency 70-85%, depends on air flow range

EC-FANS



Energy-efficient, low-power consuming EC fans

HEATER; WATER OR ELECTRIC



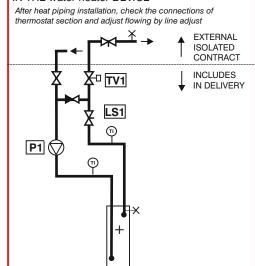
WITH MOUNTED COOLER

SILENCER



HEAT PIPING CONNECTION

IN THE water heater DEVICE



OUTFIT OF DEVICE IS CHOSEN:

EC fan -direct-drive Plenum fan - adjustment of fan 's speed of rotation *2-speed from 0-10 volt control *stepless adjustment; 0-10 volt control with temperature, pressure, humidity and carbon dioxide concentration according -rotating heat exchanger Heat Recovery 's stepless rotation speed adjuster with rotation controller	-open air sliding trap -exctract aie sliding trap -platemotors
-open air filter; * M5 bag filter or F7 bag filter -used air filter; * G3 bag filter or M5 bag filter	-adjustment station * in device are adjusting device example Ouman -GSM-control -Modbus * Interface to the sub-distribution board 's VAK-regulation units -moisture detector
-spare filters -filter controller, indicating -filter controller, alarming	-carbon dioxide detectors (Co2) -pressure transmitter -air flow meters -duct's temperature detectors -emergency button (fire) -with mounted cooler (CO)



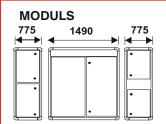


- Millenier -

* Offices * Schools and Day-care centres * Industries- and **Commercial buildings**



etok.)	THE MA	AIN ME	SURES		SIZE OF DUCT OUTLETS PIPE SIZES					
BY ENERGENT	Α	В	С	C1	1	2	3	4	5	6
Rtek PR 20-COPRO	2840	1650	2040	2505	630	630	630	630	DN40	DN40



The delivery includes Rtek bracket

The device is available right handed too in other words, duct outlets are as mirror images

Rtek Modul is made of aluminium frame

1 5 6 7	
LEFT-HANDED (L) device type	
3 4 2 5 1	
RIGHT-HANDED (R) device type	

rtek	THE MA	AIN MES	SURES		SIZE OF DUCT OUTLETS PIPE SIZES						
BY ENERGENT	Α	В	С	C1	1	2	3	4	5	6	
Rtek PR 20-CO PRO MODUL	3040	1650	2080	2530	630	630	630	630	DN40	DN40	

January 2018 2.18

Rtek PR 20-CO PRO





TEHNICAL DATA

ELECTRICAL HEATING	35,7 or 47,6 kW						
HEATING WITH WATER	36 kW water 60º/40°C, air △t 15°C						
	48 kW water 60º/40°C, air △t 20°C						
EC-FAN:	3,0 kW	400 V 50/60 Hz					
COOLING CAPASITY	Fresh air = 2	flow = 2,0 m³/s 27 C/55% Rh (eva 23 C/55% Rh (co					
COMPRESSOR: Digiscroll	Power 11,2 kW Current 21,6Amp 3/400V/50Hz						
COLD SUBSTANCE	R 410A						

ELECTRIC CONNECTION

ELECTRIC HEATER:									
Max.power 3 x 80A MMJ 5x16S	41,8kW	Max.power 53,7kW 3 x 100A MMJ 5x25S							
WATER HEATER:	WATER HEATER:								
Max.power 3 x 40A MMJ 5 x10S	·								
WEIGHT:	1150 KG								
FREE SPACE	1550 mm								

HEAT RECOVERY



ROTATING HEAT EXCHANGER: Manufactured from aluminium, coefficient of efficiency 70-85%, depends on air flow range

EC-FANS



Energy-efficient, low-power consuming EC fans

HEATER; WATER OR ELECTRIC



WITH MOUNTED COOLER

SILENCER



HEAT PIPING CONNECTION IN THE water heater DEVICE After heat piping installation, check the connections of thermostat section and adjust flowing by line adjust EXTERNAL ISOLATED CONTRACT INCLUDES IN DELIVERY

EC fan -direct-drive Plenum fan - adjustment of fan s speed of rotation *2-speed from 0-10 volt control *stepless adjustment; 0-10 volt control with temperature, pressure, humidity and carbon dioxide concentration according	-open air sliding trap -exctract aie sliding trap -platemotors *open/off *spring return -heater
 -rotating heat exchanger Heat Recovery's stepless rotation speed adjuster with rotation controller 	* water heater * electric heater -water heater's thermostat section -electrical control station -adjustment station
open air filter; * M5 bag filter or F7 bag filter	* in device are adjusting device example Ouman -GSM-control -Modbus
-used air filter; * G3 bag filter or M5 bag filter	* Interface to the sub-distribution board s VAK-regulation units -moisture detector
spare filters	-carbon dioxide detectors (Co2) -pressure transmitter -air flow meters
-filter controller, indicating -filter controller, alarming	-duct´s temperature detectors -emergency button (fire) -with mounted cooler (CO)

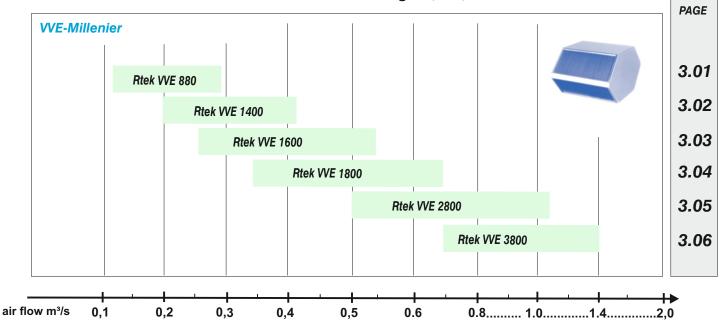
SELECTION TABLE 3

VVE-Millenier

Devices and airflow m3/s

with a counter-flow heat exchanger

Rtek-device alternatives between air flow range 0,1-1,5 m³/s









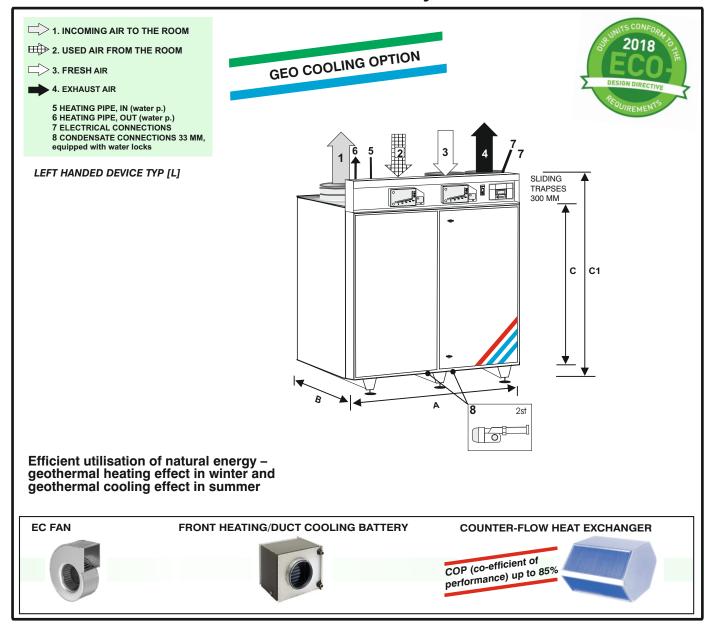


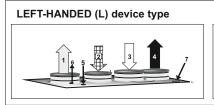
AIR FLOW 120-290 I/s / 200 Pa

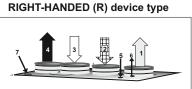


Air Conditioning System Utilising Natural Energy

*Houses * Offices * Schools and day-care centres









Machine is equipped adjustable feet of adjustment 0-70mm

uto[c]	THE MA	AIN ME	ASURE	S	SIZE	OF DUC	T OUTL	ETS	PIPE SIZES		
BY ENERGENT	Α	В	С	C1	1	2	3	4	5	6	
VVE 880	1290	750	1240	1650*)	250	250	250	250	DN20	DN20	



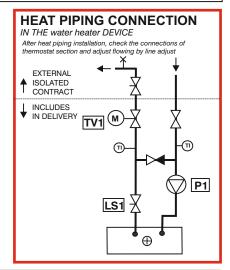


TECHNIAL DATA

FRONT HEATING / COOLING : (HG/CG) with ethylene glycol connected to the geothermal heating circuit		HEATING 3.2 kW	HEATING COOLING 3.2 kW 3.5 kW					
FRONT HEATING WITH ELECT	max.1,7	kW						
POST-HEATING	WATER	3,2 kW water 60°/40°C, air △t 8°C 6,1 kW water 60°/40°C, air △t 15°C						
EL	ECTRICITY	max. 3,4 kW						
	0,5 kW	2,2 A.max	230V 50/60 Hz					
	250 Kg		•					

ELECTRICAL CONNECTIONS

ELECTRICAL CONNECTIONS:	
ELECTRIC RADIATOR : +with an electric heater	Max. power 6,2 kW 3 x 16A MMJ 5 x 2,5S
WATER RADIATOR: +with an electric heater	Max. power 3,0 kW 3 x 16A MMJ 5 x 2,5S
ELECTRIC RADIATOR : (no preheating)	Max. power 4,5 kW 3 x 16A MMJ 5 x 2,5S
WATER RADIATOR: (no preheating)	Max. power 1,3 kW 3 x 16A MMJ 5 x 2,5S



HEAT RECOVERY:

Counter-flow heat exchanger. Made of aluminium, efficiency ratio 75-85%, depending on the air-flow range.



EC fan -direct-drive Plenum fan - adjustment of fan 's speed of rotation *2-speed from 0-10 volt control *stepless adjustment; 0-10 volt control with temperature, pressure, humidity and carbon dioxide concentration according	-open air sliding trap -exctract aie sliding trap -platemotors *open/off *spring return -preheating
-Counter-flow heat exchanger -by-pass plate of heat recovery -sector defrosting system	* electric heater (HE)
-large area filter G3/G4 M5 M6 F7	-water heater's thermostat section -electrical control station -adjustment station * in device are adjusting device example Ouman -GSM-control
spare filters	-Modbus * Interface to the sub-distribution board's VAK-regulation units -moisture detector
-filter controller, indicating -filter controller, alarming	-moisture detector -carbon dioxide detectors (Co2) -pressure transmitter air flow meters -duct 's temperature detectors -emergency button (fire) -cooling radiator, cold water (CW),duct -cooling radiator, freon (CF),duct -cooling radiator, glykol (CG),duct



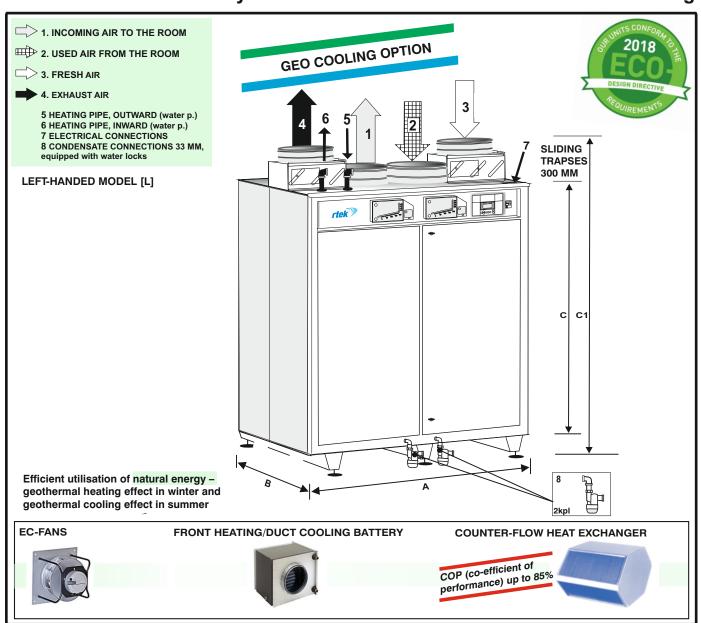


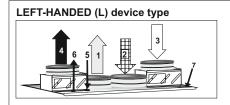
AIR FLOW 200-420 I/s / 200 Pa

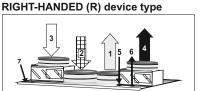


Air Conditioning System Utilising Natural Energy

* Offices * Schools and day care institutions * Industrial and office buildings









Machine is equipped adjustable feet of adjustment 0-70mm

etole)	THE MA	AIN ME	ASURES	S	SIZE (OF DUC	T OUTL	PIPE SIZES		
FTEK BY ENERGENT	Α	В	С	C1	1	2	3	4	5	6
VVE 1400	1530	790	1700	2165*)	315	315	315	315	DN20	DN20





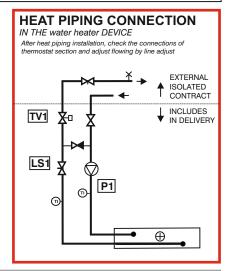
TECHNIAL DATA

FRONT HEATING / COOLING : (HG/CG) with ethylene glycol connected to the geothermal heating circuit		HEATING 4,4 kW	HEATING COOLING 4,4 kW 4,9 kW					
FRONT HEATING WITH ELEC	max.5,1	kW						
POST-HEATING	WATER	4,4 kW water 60°/40°C, air △t 8°C 8,3 kW water 60°/40°C, air △t 15°C						
	ELECTRICITY			max. 5,1 kW				
	EC-FAN	0,75 kW	3,3 A.max	230V 50/60 Hz				
	WEIGHT	350 Kg						

ELECTRICAL CONNECTIONS

ELECTRICAL CONNECTIONS:		
ELECTRIC RADIATOR : +with an electric heater	Max. power 11,6 kW 3 x 25A MMJ 5 x 6S	
WATER RADIATOR: +with an electric heater	Max. power 6,7 kW 3 x 16A MMJ 5 x 2,5S	
ELECTRIC RADIATOR : (no preheating)	Max. power 6,5 kW 3 x 16A MMJ 5 x 2,5S	
WATER RADIATOR: (no preheating)	Max. power 1,6 kW 3 x 16A	

MMJ 5 x 2,5S



HEAT RECOVERY:

Counter-flow heat exchanger. Made of aluminium, efficiency ratio 75-85%, depending on the air-flow range.



EC fan -direct-drive Plenum fan - adjustment of fan 's speed of rotation *2-speed from 0-10 volt control *stepless adjustment; 0-10 volt control with temperature, pressure, humidity and carbon dioxide concentration according	-open air sliding trap -exctract aie sliding trap -platemotors
-Counter-flow heat exchanger -by-pass plate of heat recovery -sector defrosting system	* electric heater (HE)
-large area filter	-water heater's thermostat section -electrical control station -adjustment station * in device are adjusting device example Ouman -GSM-control
spare filters	-Modbus * Interface to the sub-distribution board s VAK-regulation units
-filter controller, indicating -filter controller, alarming	-moisture detector -carbon dioxide detectors (Co2) -pressure transmitter air flow meters -duct's temperature detectors -emergency button (fire) -cooling radiator, cold water (CW),duct -cooling radiator, freon (CF),duct -cooling radiator, glykol (CG),duct



WWE 1600

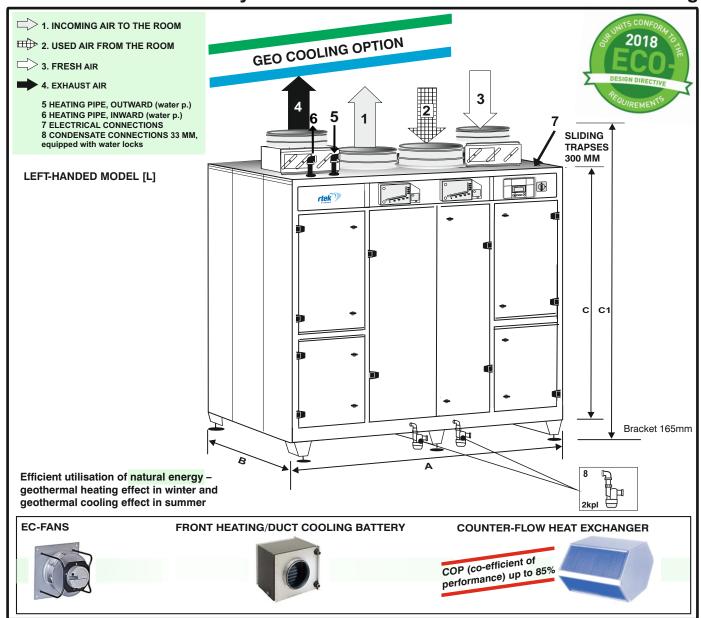
AIR CONDITIONING SYSTEM with a counter-flow heat exchanger

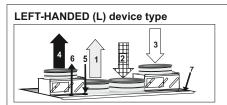
AIR FLOW 270-530 I/s / 200 Pa

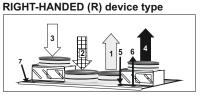


Air Conditioning System Utilising Natural Energy

* Offices * Schools and day care institutions * Industrial and office buildings









Machine is equipped adjustable feet of adjustment 0-70mm

rtek	THE MA	IN MEAS	URES		SIZE OF DUCT OUTLETS PIPE SIZES					ZES
BY ENERGENT	Α	В	С	C1	1	2	3	4	5	6
VVE 1600	2050	940	1700	2165	400	400	400	400	DN25	DN25



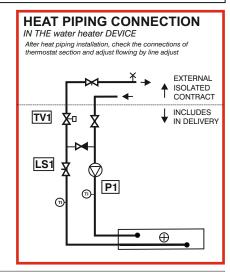


TECHNIAL DATA

FRONT HEATING / COOLING : (I with ethylene glycol connected to the geothermal heat	HEATING 5,5 kW						
FRONT HEATING WITH ELECTI	RICITY (HE)	max.6,8	max.6,8 kW				
POST-HEATING	WATER	5,6 kW water 60°/40°C, air △t 8°C 10,4 kW water 60°/40°C, air △t 15°C					
EL	ECTRICITY	max. 6,8 kW					
	0,75 kW	3,3 A.max	230V 50/60 Hz				
	500 Kg		•				

ELECTRICAL CONNECTIONS

ELECTRICAL CONNECTIONS:	
ELECTRIC RADIATOR : +with an electric heater	Max. power 15 kW 3 x 25A MMJ 5 x 6S
WATER RADIATOR: +with an electric heater	Max. power 8,4 kW 3 x 16A MMJ 5 x 2,5S
ELECTRIC RADIATOR : (no preheating)	Max. power 7,9 kW 3 x 16A MMJ 5 x 2,5S
WATER RADIATOR: (no preheating)	Max. power 1,3 kW 3 x 16A MMJ 5 x 2,5S



HEAT RECOVERY:

Counter-flow heat exchanger. Made of aluminium, efficiency ratio 75-85%, depending on the air-flow range.



EC fan -direct-drive Plenum fan	open air sliding trap
- adjustment of fan 's speed of rotation	
*2-speed from 0-10 volt control	-exctract aie sliding trap -platemotors
*stepless adjustment; 0-10 volt control with temperature,	*open/off
pressure, humidity and carbon dioxide concentration according	*spring return
	-preheating
Country flour hoot qual-page	* electric heater (HE)
-Counter-flow heat exchanger	* liquid heater (HG/CG),duct
-by-pass plate of heat recovery	heater
-sector defrosting system	* water heater
	* electric heater
-large area filter open air used air	-water heater's thermostat section
G3/G4	-electrical control station
M5	-adjustment station
M6	* in device are adjusting device example Ouman
F7	-GSM-control
	-Modbus
-spare filters	* Interface to the sub-distribution board's
	VAK-regulation units
	-moisture detector
-filter controller, indicating	-carbon dioxide detectors (Co2)
-filter controller, alarming	-pressure transmitter
	-duct's temperature detectors
	-emergency button (fire)
	-cooling radiator, cold water (CW),duct
	-cooling radiator, freon (CF),duct
	-cooling radiator, glykol (CG),duct
	cooling radiator, grykor (od), duct



WWE 1800

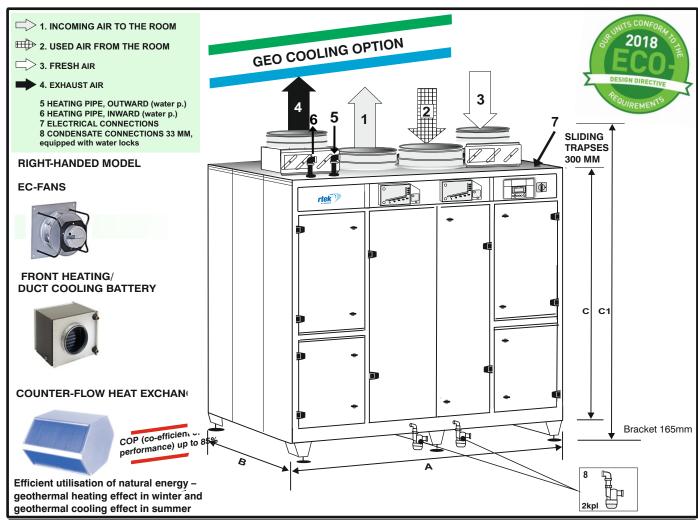


AIR FLOW 340-660 I/s / 200 Pa

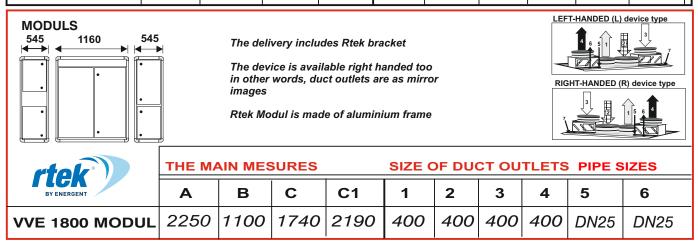


Air Conditioning System Utilising Natural Energy

* Offices * Schools and day care institutions * Industrial and office buildings



rtek	THE M	AIN MES	URES		SIZE OF DUCT OUTLETS PIPE SIZES					ZES
BY ENERGENT	Α	В	С	C1	1	2	3	4	5	6
VVE 1800	2050	1100	1700	2165	400	400	400	400	DN25	DN25





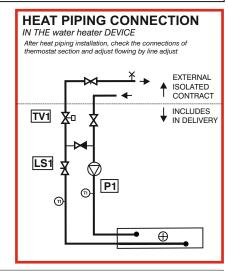


TECHNIAL DATA

FRONT HEATING / COOLING : (with ethylene glycol connected to the geothermal he	HEATING 6,7 kW	HEATING COOLING 6,7 kW 7,5 kW					
FRONT HEATING WITH ELECT	RICITY (HE)	max.6,8	kW				
POST-HEATING	WATER	6,7 kW	6,7 kW water 60°/40°C, air △t 8°C 12,6 kW water 60°/40°C, air △t 15°C				
EL	ECTRICITY	max. 8,5 kW					
	1,0 kW	1,6 A.max	400V 50/60 Hz				
	700 Kg						

ELECTRICAL CONNECTIONS

ELECTRICAL CONNECTIONS:	
ELECTRIC RADIATOR : +with an electric heater	Max. power 16,7 kW 3 x 32A MMJ 5 x 10S
WATER RADIATOR: +with an electric heater	Max. power 8,4 kW 3 x 25A MMJ 5 x 6S
ELECTRIC RADIATOR : (no preheating)	Max. power 9,9 kW 3 x 25A MMJ 5 x 6S
WATER RADIATOR: (no preheating)	Max. power 1,6 kW 3 x 16A MMJ 5 x 2,5S



HEAT RECOVERY:

Counter-flow heat exchanger. Made of aluminium, efficiency ratio 75-85%, depending on the air-flow range.



EC fan -direct-drive Plenu - adjustment of fan 's spee			-open air sliding trap			
			\vdash	-exctract aie sliding trap		
*2-speed from 0-10 volt co						platemotors
*stepless adjustment; 0-10						*open/off
pressure, humidity and ca	rbon dioxide	e concentr	ation accordir	ng		*spring return
						-preheating
						* electric heater (HE)
-Counter-flow heat exchange						* liquid heater (HG/CG),duct
-by-pass plate of heat reco	ery					-heater
 -sector defrosting system 						* water heater
						* electric heater
-large area filter		open air	used air			-water heater's thermostat section
large area liner	G3/G4					-electrical control station
	M5					-adjustment station
	M6					* in device are adjusting device example Ouman
	F7					-GSM-control
						-Modbus
-spare filters						* Interface to the sub-distribution board's
						VAK-regulation units
						-moisture detector
-filter controller, indicating						carbon dioxide detectors (Co2)
-filter controller, alarming						-pressure transmitter
Inter controller, diaming						-duct's temperature detectors
						-emergency button (fire)
					\vdash	-cooling radiator, cold water (CW),duct
					\vdash	-cooling radiator, freon (CF),duct
					\vdash	-cooling radiator, glykol (CG),duct
					\Box	j cooming radiator, grynor (od), addi



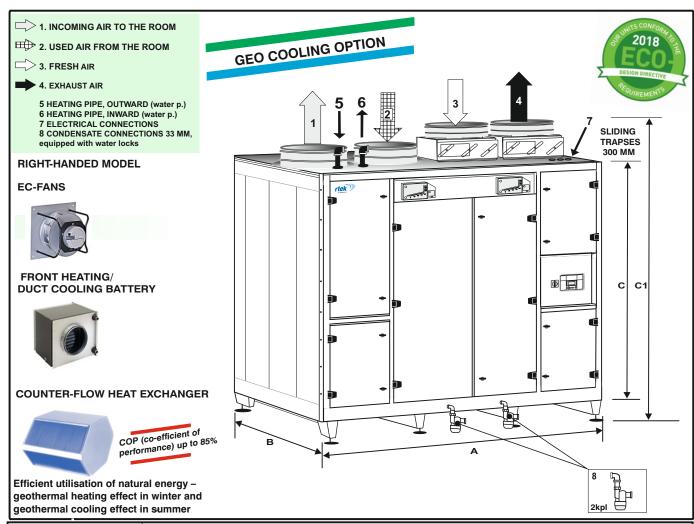


AIR FLOW 500-1100 I/s / 200 Pa

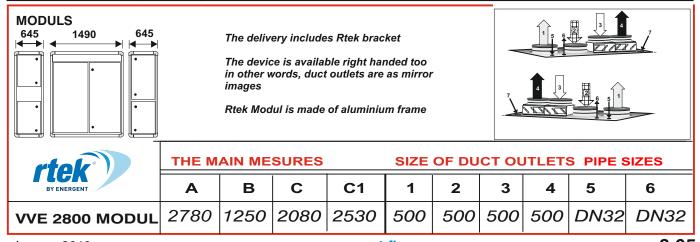


Air Conditioning System Utilising Natural Energy

* Offices * Schools and day care institutions * Industrial and office buildings



rtok	THE M	AIN MES	URES		SIZE OF DUCT OUTLETS PIPE SIZES					ZES
BY ENERGENT	Α	В	С	C1	1	2	3	4	5	6
VVE 2800	2580	1250	2040	2505	500	500	500	500	DN32	DN32





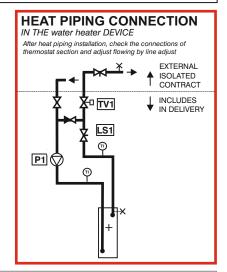


TECHNIAL DATA

FRONT HEATING / COOLING : (I with ethylene glycol connected to the geothermal heat	HEATING 10,6 kW						
FRONT HEATING WITH ELECT	RICITY (HE)	max.10,2	kW				
POST-HEATING	WATER	10,6 kW	10,6 kW water 60°/40°C, air △t 8°C 19,8 kW water 60°/40°C, air △t 15°C				
EL	ECTRICITY	max. 15,3 kW					
	1,7 kW	2,6 A.max	400V 50/60 Hz				
	900 Kg						

ELECTRICAL CONNECTIONS

ELECTRICAL CONNECTIONS:	
ELECTRIC RADIATOR : +with an electric heater	Max. power 28,9 kW 3 x 50A MMJ 5 x 16S
WATER RADIATOR: +with an electric heater	Max. power 13,8 kW 3 x 25A MMJ 5 x 6S
ELECTRIC RADIATOR : (no preheating)	Max. power 18,7 kW 3 x 32A MMJ 5 x 10S
WATER RADIATOR: (no preheating)	Max. power 3,6 kW 3 x 16A MMJ 5 x 2,5S



HEAT RECOVERY:

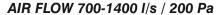
Counter-flow heat exchanger. Made of aluminium, efficiency ratio 75-85%, depending on the air-flow range.



EC fan -direct-drive Plenum fan						-open air sliding trap
- adjustment of fan 's speed of rotation						-exctract aie sliding trap
*2-speed from 0-10 volt co					Щ	-platemotors
*stepless adjustment; 0-10					Щ	*open/off
pressure, humidity and ca	rbon dioxide	e concentr	ation accordir	ng	Щ	*spring return
					Ш	-preheating
						* electric heater (HE),duct
-Counter-flow heat exchang						* liquid heater (HG/CG),duct
 -by-pass plate of heat recover 	ery					-heater
 -sector defrosting system 						* water heater
						* electric heater
-large area filter		open air	used air			-water heater's thermostat section
-large area linter	G3/G4					-electrical control station
	M5				П	-adjustment station
	M6				П	* in device are adjusting device example Ouman
	F7				П	-GSM-control
					П	-Modbus
-spare filters					H	* Interface to the sub-distribution board's
					Н	VAK-regulation units
					H	-moisture detector
-filter controller, indicating					Н	-carbon dioxide detectors (Co2)
-filter controller, alarming					H	-pressure transmitter
-inter controller, alarming					H	-duct's temperature detectors
						-emergency button (fire)
					\vdash	-cooling radiator, cold water (CW),duct
					\vdash	-cooling radiator, freon (CF),duct
					\vdash	-cooling radiator, glykol (CG),duct
					ш	cooming radiator, grynor (ca), addit



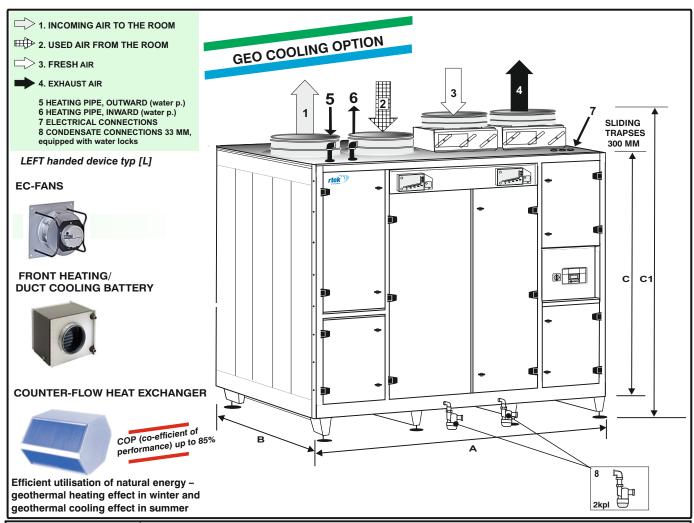




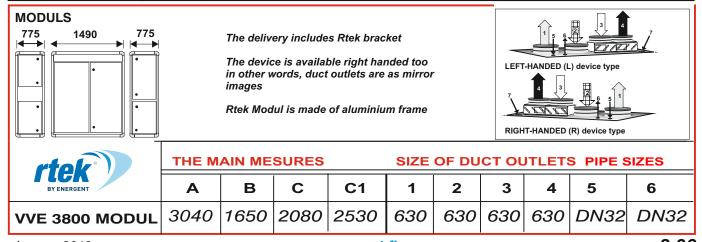


Air Conditioning System Utilising Natural Energy

* Offices * Schools and day care institutions * Industrial and office buildings



rtek	THE M	AIN MES		SIZE OF DUCT OUTLETS PIPE SIZES					ZES	
BY ENERGENT	Α	В	С	C1	1	2	3	4	5	6
VVE 3800	2840	1650	2040	2505	630	630	630	630	DN32	DN32





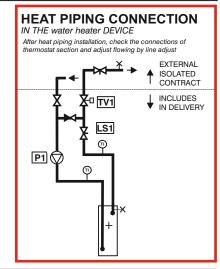


TECHNIAL DATA

FRONT HEATING / COOLING : (HG/CG) with ethylene glycol connected to the geothermal heating circuit		HEATING 13,4 kW		COOLING 15 kW					
FRONT HEATING WITH ELECT	RICITY (HE)	max.13,6	kW						
POST-HEATING	WATER	13,4 kW	water 60°/4	0°C, air∆t 8°C	25,2 kW water 60°/40°C, air ∆t 15°C				
EL	max. 18,7	kW							
	EC-FAN	3,0 kW	4,6 A.max	400V 50/60 Hz					
	WEIGHT	1000 Kg		•					

ELECTRICAL CONNECTIONS

ELECTRICAL CONNECTIONS:						
ELECTRIC RADIATOR : +with an electric heater	Max. power 36,2 kW 3 x 63A MMJ 5 x 16S					
WATER RADIATOR: +with an electric heater	Max. power 17,7 kW 3 x 32A MMJ 5 x 10S					
ELECTRIC RADIATOR : (no preheating)	Max. power 22,4 kW 3 x 40A MMJ 5 x 10S					
WATER RADIATOR: (no preheating)	Max. power 3,9 kW 3 x 16A MMJ 5 x 2.5S					



HEAT RECOVERY:

Counter-flow heat exchanger. Made of aluminium, efficiency ratio 75-85%, depending on the air-flow range.



EC fan -direct-drive Plenur - adjustment of fan 's speed *2-speed from 0-10 volt cor *stepless adjustment; 0-10 pressure, humidity and car	of rotation ntrol volt control with tem	-open air sliding trap -exctract aie sliding trap -platemotors	
-Counter-flow heat exchange by-pass plate of heat recoversector defrosting system		* electric heater (HE),duct	
large area filter	open air G3/G4 M5 M6 F7	used air	-water heater's thermostat section -electrical control station -adjustment station * in device are adjusting device example Ouman -GSM-control
spare filters			-Modbus * Interface to the sub-distribution board's VAK-regulation units -moisture detector
-filter controller, indicating -filter controller, alarming			-carbon dioxide detectors (Co2) -pressure transmitter -duct's temperature detectors -emergency button (fire) -cooling radiator, cold water (CW),duct -cooling radiator, freon (CF),duct -cooling radiator, glykol (CG),duct