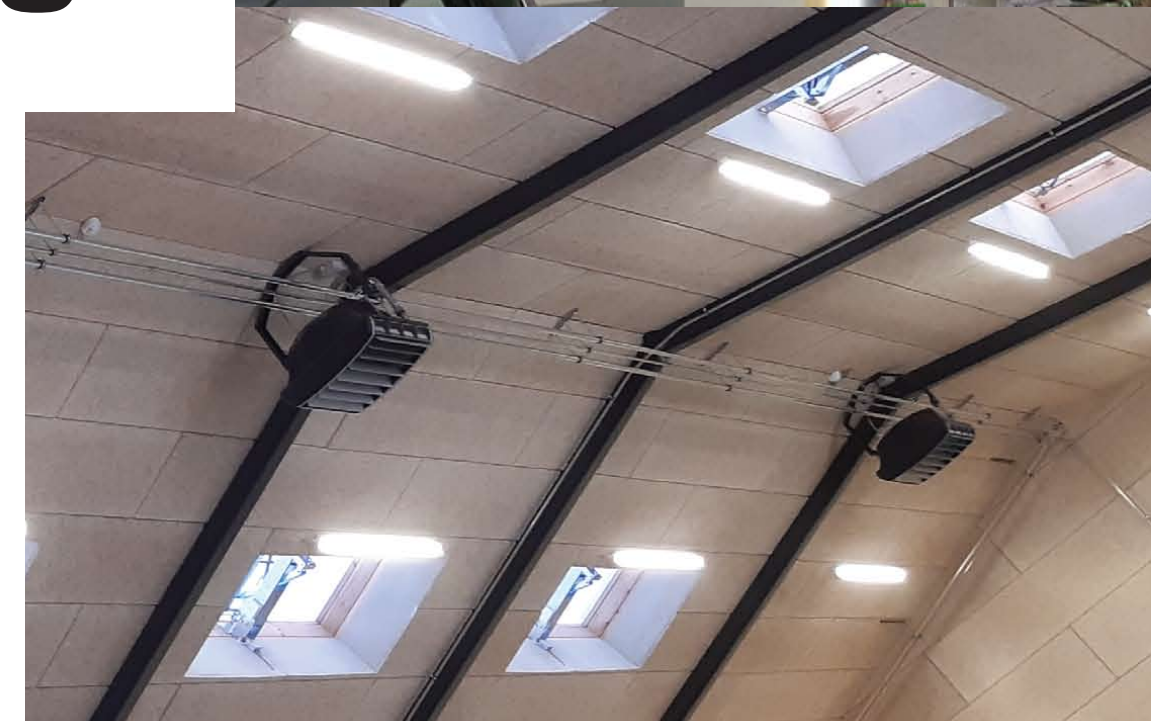
PROTON®

AIR HEATER

PROTON ECO



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PROTON®

AIR HEATER

PROTON ECO

It is an affordable space heating and ventilation system which meets all modern requirements. This series stands out for its features: multi-speed AC motor, wide model range, flexible automation settings, affordable price. The wide choice of automatics enables to maintain various operation regimes including individual or group settings, manual or automatic control, multi-level temperature adjustment or maintenance of the set temperature in the premises.

PROTON®

APPLICATION OF AIR HEATERS

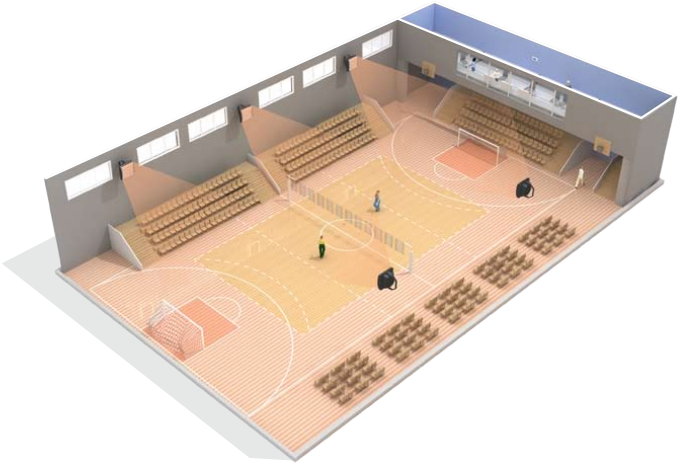
STORE

CAR SERVICE AND CAR WASH

PLANT

EXHIBITION PAVILION

SPORTS HALL

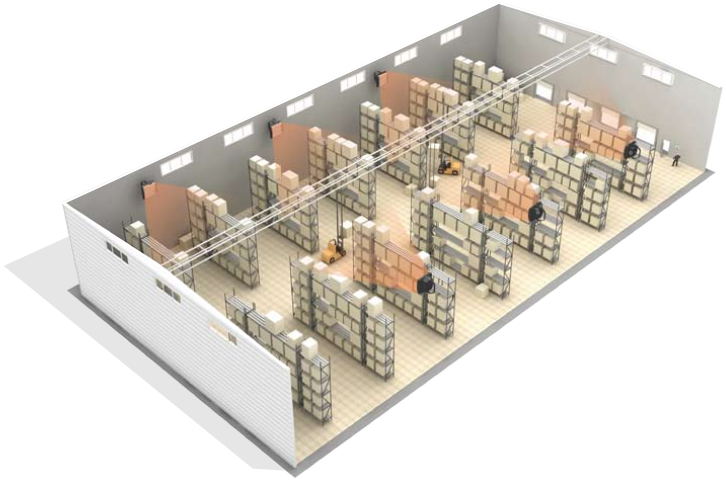


CAR MAINTENANCE STATION

PROTON®

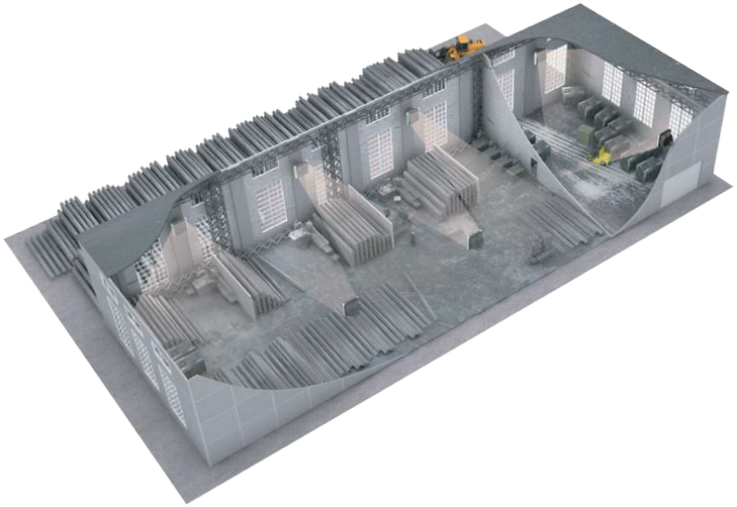
APPLICATION OF AIR HEATERS

WAREHOUSE

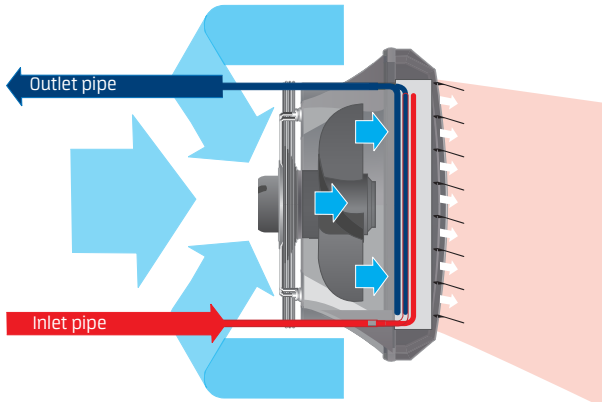


GREENHOUSE

MANUFACTURING FACILITY



REPAIR SHOP



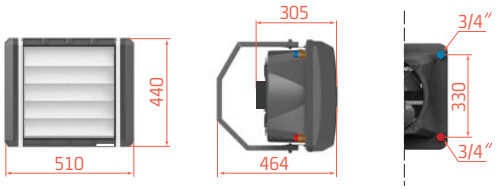
PRINCIPLE OF OPERATION

The air heater PROTON is an element of a heating system. It is designed for heating air and its even distribution in buildings. Its work is based on axial fan functioning, which charges the air and pass it through a copper-aluminum heat exchanger in which the heat medium (hot water) flows at certain temperature. Heated air is supplied into a room and is directed to the working area by directing louvers.

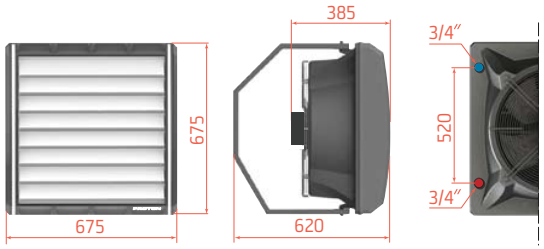
PROTON®

TECHNICAL CHARACTERISTICS		E15	E25	E35	E45	E55	E65	E75
Number of heat exchanger rows	R	2	1	1	2	2	3	3
Airflow[1]	m³/h	1600	4700	5600	4200	5200	3600	4700
Heating power[2]	kW	20.3	30.3	34.1	52.4	60.5	65.2	78.3
Max. temperature of heat medium	°C	105	105	105	105	105	105	105
Max. working pressure	MPa	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Max. warm air throw horizontally	m	13	25	27	24	26	23	25
Max. warm air throw vertically	m	5	10	12	9	11	8	10
Volume of water in heat exchanger	dm³	1.0	1.3	1.3	2.3	2.3	3.2	3.2
Diameter of connection pipes	inch	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Supply voltage	V/Hz	230/50	230/50	230/50	230/50	230/50	230/50	230/50
Motor power	W	85	240	390	240	390	240	390
Rated current of motor	A	0.42	1.20	1.75	1.20	1.75	1.20	1.75
Noise level[3]	dB	48	53	57	53	57	53	57
Motor protection rating	IP	44	54	54	54	54	54	54
Net weight	kg	10.2	17.9	18.9	20.0	21.0	21.7	22.7
Gross weight	kg	12.2	20.4	21.4	22.5	23.5	24.2	25.2
Net dimensions (WxHxL)	mm	510x440x305	675x675x385	675x675x385	675x675x385	675x675x385	675x675x385	675x675x385
Gross dimensions (WxHxL)	mm	600x460x400	800x700x400	800x700x400	800x700x400	800x700x400	800x700x400	800x700x400

[1] Maximum speed.
[2] Data are indicated for water temperature of 90/70°C, and air temperature at the inlet of 0 °C.
[3] Measurements made at distance of 5 m from the unit.



PROTON E15

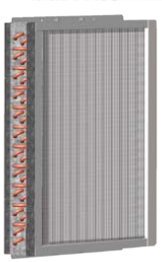


PROTON E25|E35|E45|E55|E65|E75

CONSTRUCTION

CASING

The casing consists of plastic components. The use of aerodynamic fins permits to achieve minimal eddies of air flow that reduce noise and vibrations.

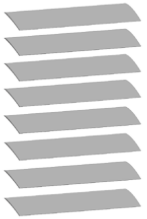


HEAT EXCHANGER

The heat exchanger consists of copper tubes and aluminum lamellas pressed on them. It is equipped with copper pipes with threading connection (external thread 3/4"). The copper-aluminum heat exchanger is distinguished by high efficiency, is not exposed to corrosion if you don't use substances and impurities in the heat medium causing copper corrosion. Maximal parameters of heat medium supply are 105 °C/1.6 MPa.

FAN

The fan is fixed in a special diffuser on the back of the unit, thanks to which air flow is evenly distributed on the heat exchanger's surface. This provides its most effective application. This solution decreases noise level created by the flowing air.
The fan is equipped with a special grill which protects the heater from falling in of debris, leaves etc. as well as prevents possible personnel injures or death caused by rotating fan's blades.
Rated power supply of PROTON ECO fans is 230 V/50 Hz. Motor protection grade is IP54. Operating temperature is up to +55 °C.



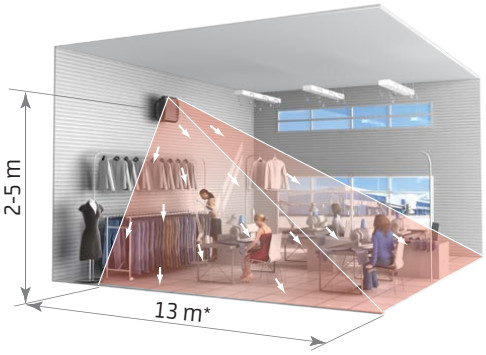
DIRECTING LOUVERS

They are made of aluminum and dyed by special paint, and provide minimal air resistance at the outlet from the air heater. Aesthetic look and high protection from corrosion guarantee durability and safety.

INSTALLATION

PROTON E15

Wall mounting	
Distance from a wall, min.	**0.15 m**
Mounting height	**2-5 m**
Distance of air stream	**up to 13 m**



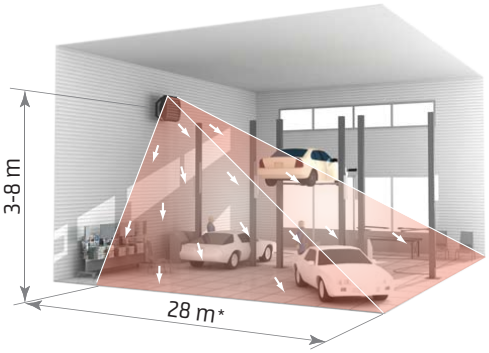
* directing louvers are installed under angle of 45°

Ceiling mounting	
Distance from a ceiling, min.	**0.15 m**
Mounting height	**2.5-8 m**

** directing louvers are installed vertically
*** directing louvers are installed symmetrically under angle of 45°

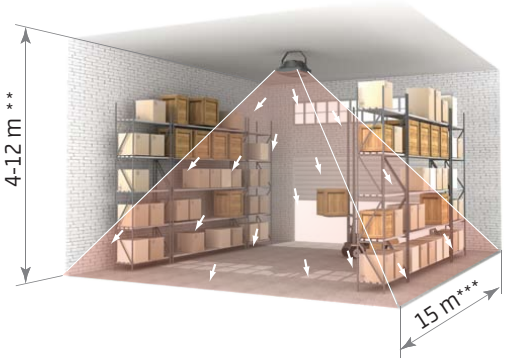
PROTON E25|E35|E45|E55|E65|E75

Wall mounting	
Distance from a wall, min.	**0.25 m**
Mounting height	**3-8 m**
Distance of air stream	**up to 28 m**



* directing louvers are installed under angle of 45°

Ceiling mounting	
Distance from a ceiling, min.	**0.25 m**
Mounting height	**4-12 m**



** directing louvers are installed vertically
*** directing louvers are installed symmetrically under angle of 45°

PROTON®

COMPREHENSIVE CONTROL SOLUTIONS

ECOMATIC PRO

ECOMATIC PRO is a control element with help of which advantages of heating and ventilation systems become more noticeable and perceivable as its use provide comfortable inside temperature and significant energy savings due to fast response of the system to changes of climatic conditions in a room. Using PROTON PRO you increase equipment lifetime protecting it from functioning under alarm mode.

ECOMATIC PRO

OPTION

RC 30

Remote controller.

RTS 10

RTS 10 – is a panel for switching temperature and fan rotation speeds.

- Convenient control of temperature with 1.0°C accuracy
- Temperature control range +5°C ... +30°C
- Manual mode of control of rotation speed of three-speed AC-fan
- Control of required temperature
- Noise reduction
- Operation at heating and cooling modes
- Possibility of operation with valve with actuator SRV
- Protection class IP20
- Weight (net/gross) – 0.19/0.23 kg
- Net dimensions (WxHxL) – (85x130x42) mm
- Gross dimension (WxHxL) – (90x133x50) mm

RTS 30

RTS 30 – is a programmable controller of temperature and AC-fan rotation speed.

- Programmability of temperature mode with accuracy up to 0.5°C
- Temperature control range+5°C ... +70°C
- Automatic and manual modes of control of rotation speed of three-speed AC-fan
- Week programmability 5+1+1
- Can be used with RC30 remote controller
- Possibility of operation with door switch DC230 Possibility to connect thermal sensor NTC65
- High level of energy savings
- Protection against indoor temperature drop lower than critical level
- Operation at heating and cooling modes
- MODBUS protocol
- Possibility of operation with valve with actuator SRV2
- Protection class IP20
- Weight (net/gross) – 0.21/0.30 kg
- Net dimensions (WxHxL)– (138x94x36) mm
- Gross dimension (WxHxL) – (156x120x46) mm

ECOMATIC PRO

SRV/SRV 2

SRV/SRV 2 – is a two-way valve with actuator allows to control the flow of coolant in automatic mode from a programmable controller or mechanical remote control.

- Valve type - Normally Opened (SRV) / Normally Closed (SRV 2)
- Energy savings
- Protection class IP54
- Power supply 230 V/50 Hz
- Weight (net/gross) – 0.42/0.46 kg
- Net dimensions (WxHxL) – (90x105x40) mm
- Gross dimension (WxHxL) – (105x100x70) mm

NTC 65

NTC 65 – is a external thermal sensor. Checks indoor temperature and sends data to a controller.

- High accuracy
- Possibility to connect a number of sensors for large buildings
- Possibility to use in explosive buildings
- Protection class IP65
- Weight (net/gross) – 0.09/0.10 kg
- Net dimensions (WxHxL) – (65x128x42) mm
- Gross dimension (WxHxL) – (70x150x50) mm

ECOMATIC PRO

POWER BOX

POWER BOX – is a board to regulate fan motors. It is controlled by signals from RTS 10 or RTS 30.

- Ease of adjustment and accurate control
- Can provide control of up to 9 air heaters (AC)
- High efficiency
- Protection class IP65
- Weight (net/gross) – 1.35/1.40 kg
- Net dimensions (WxHxL) – (240x190x100) mm
- Gross dimension (WxHxL) – (240x190x100) mm

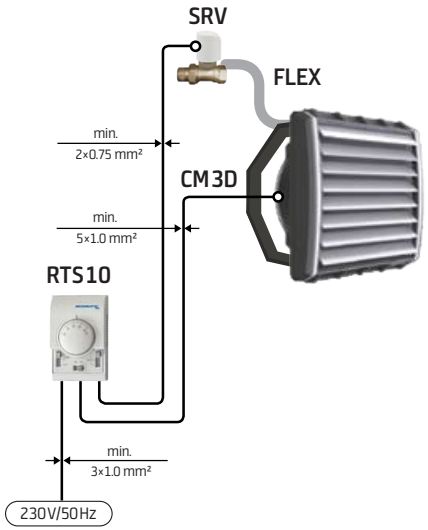
RT10

RT10 – thermostat.

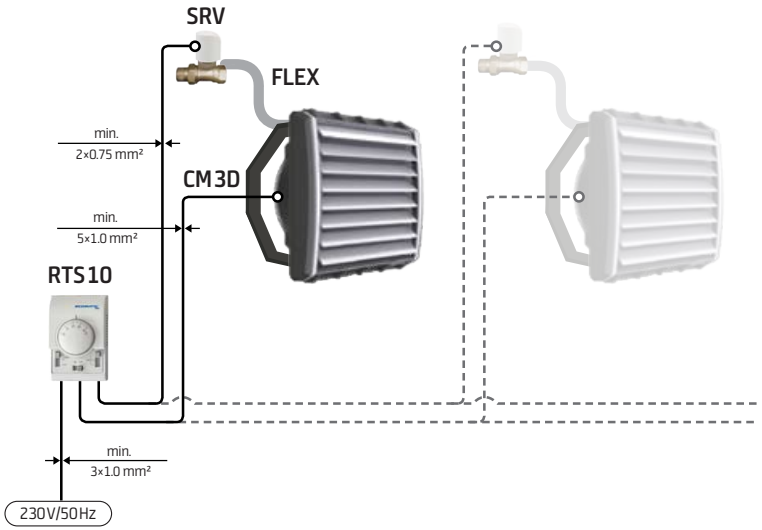
- Diverse ways to connect a control devise (an actuator or a fan motor with help of additional relay)
- Simple and reliable construction
- Availability

CONTROL SOLUTIONS

INDIVIDUAL CONTROL



GROUP CONTROL

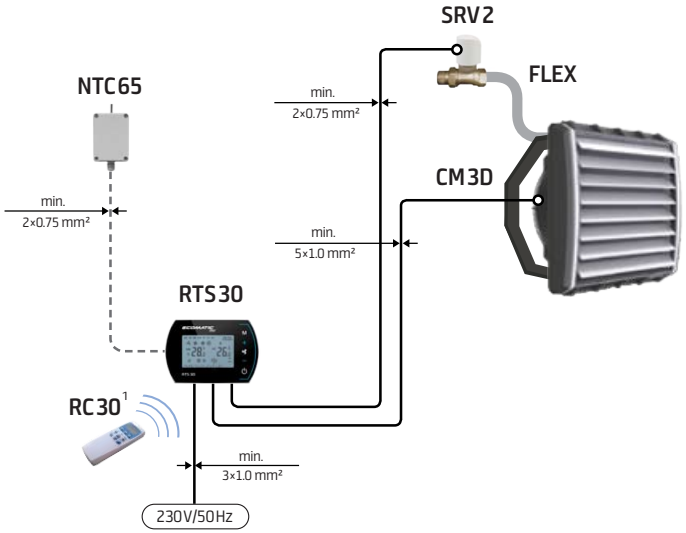


TO ONE **RTS 10**:

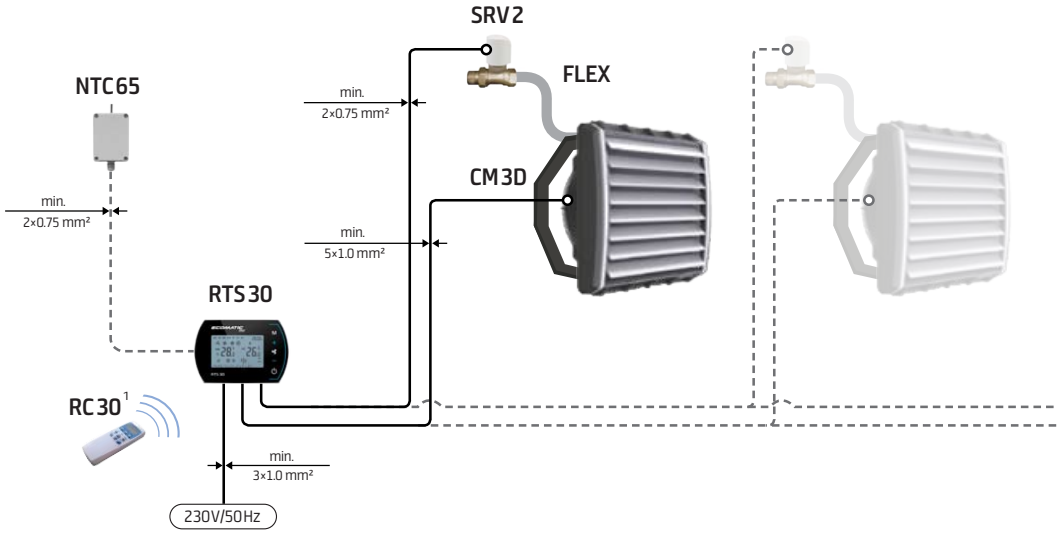
MAX. 7	MAX. 3	MAX. 2
ECO 15	ECO 25 | 45 | 65	ECO 35 | 55 | 75

CONTROL SOLUTIONS

INDIVIDUAL CONTROL



GROUP CONTROL

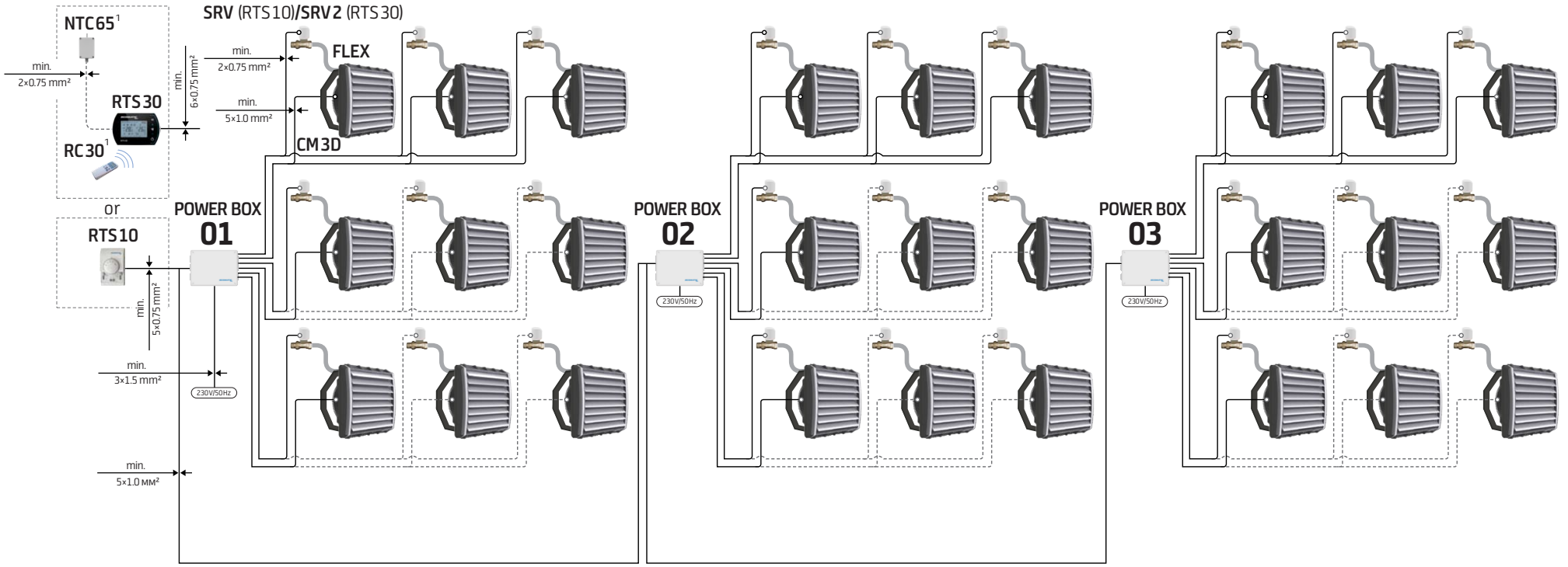


TO ONE **RTS30**:

MAX. 6	MAX. 2	MAX. 1
ECO 15	ECO 25 | 45 | 65	ECO 35 | 55 | 75

[1] Option for RTS30 (not included).

CONTROL SOLUTIONS



POWER BOX **01**

MAX.

9

PROTON ECO

POWER BOX **02**

MAX.

18

PROTON ECO

POWER BOX **03**

MAX.

27

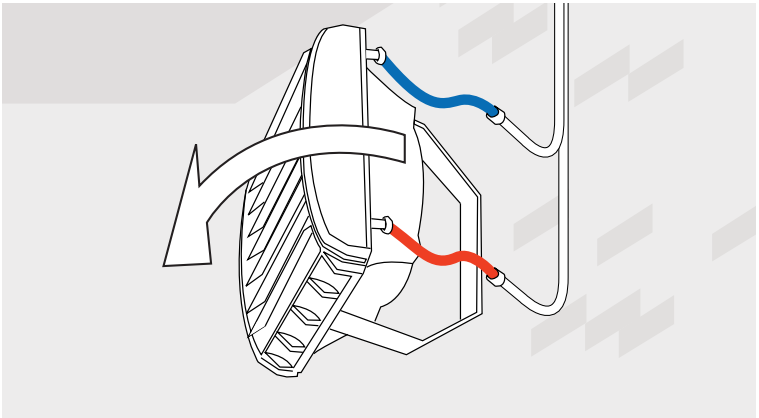
PROTON ECO

[1] Option for RTS 30 (not included).

ACCESSORIES

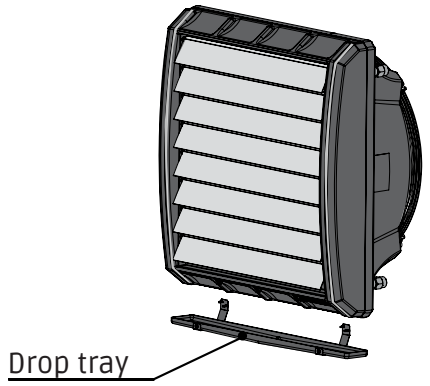
FLEX FLEXIBLE HOSES

Corrosion-proof flexible hoses are used to connect various water-consuming equipment.

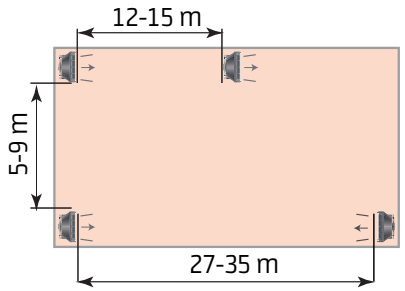


FROST CONDENSATE DROP TRAY

The tray is designed to collect and discharge condensate while the unit operates in cooling mode. It provides possibility of fast and simple installation.

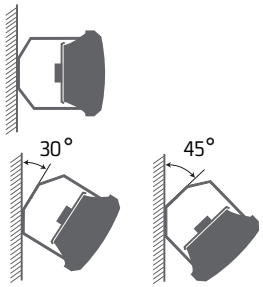


ACCESSORIES

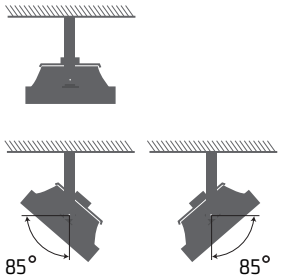


When mounting a few air heaters PROTON it is recommended to stick to the following distances between units: installation in one line – 5-9 m, installation opposite to each other – 27-35 m, installation one by one – 12-15 m. These distances are just recommendations. The installer should also take into account dimensions and shape of a building, its encumbering, and recommendations of specialists on a project.

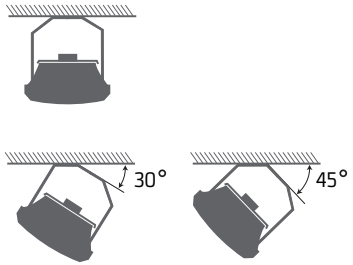
CM 3D MOUNTING CONSOLE



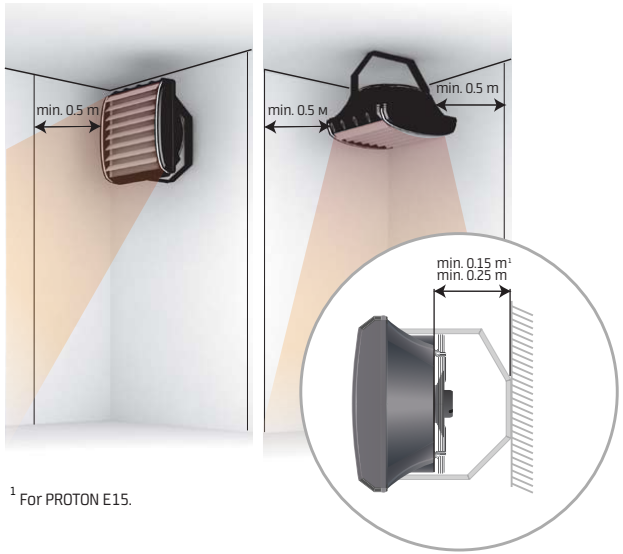
On a wall vertically or horizontally, and under angle of 30° or 45°.



On a wall with bend to the right or left under angle 0° to 85°.



Under a ceiling horizontally, or under angle of 30° or 45°.



[1] For PROTON E15.

PROTON

IT'S SIMPLE AND EASY

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