ELTA SELECT

# Heat Recovery Product Brochure


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# Heat Recovery

## Komfovent - Recu & Rego

heat rec.

### OVERVIEW

Offering the perfect solution for both new build and replacement ventilation, the SWHR180 goes beyond traditional extract fan technology to incorporate a state of the art heat recovery element, delivering significant energy saving in a simple to install compact unit.

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### QUICK FACTS

- ✓ 10 Standard sizes.
- ✓ Air volume flow rates of up to 0.59m³/s ex stock (2,156m³/hr).
- ✓ Alternative sizes available on request, up to 1.94m³/s (6,984m³/hr).
- ✓ Horizontal and Vertical units available.
- ✓ Integrated control system.

### HEAT RECOVERY

SREGO units incorporate a rotary heat exchanger which recovers heat up to 90%. Rotary heat exchangers work on the principle of heat recovery: A rotating aluminium rotor absorbs heat of the exhaust air and warms up the air supplied to the ventilated premises.

SRECU units incorporate a plate heat exchanger which recovers heat up to 65%, the heat of the exhaust air is transferred to supply air through aluminium plates of the heat exchanger. Air flows through the heat exchanger crosswise. Unit design prevents cross contamination of the exhaust air with fresh air.

### CASING

Panels are double skinned comprising two galvanised steel sheets, infilled with fire resistant thermal and sound attenuating insulation – mineral wool (l = 0,036W/mK). Units with 45 mm thick insulation may operate in unheated premises. Doors are manufactured with 45 mm insulation and equipped with locks. External casing surfaces are powder painted: RAL 7035 as standard preventing the unit from corrosion.

### CONTROLS ELEMENTS

Units incorporate an Integrated control system which ensures safe operation of the unit, controls preset ventilation system parameters, and optimise unit operating costs. C3 and C4 controllers are used in SREGO / SRECU dependant on model.

### MOTORS

The range of units may have either EC or AC external rotor motors fitted as standard. The motors contain sealed for life bearings.

### QUALITY MANAGEMENT

All units in the Elta range are designed and manufactured to procedures as defined in BS EN ISO 9001:2008.

### TYPICAL APPLICATIONS

- Hotels
- Schools
- Colleges
- Libraries
- Offices
- Conference Halls

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# Heat Recovery

## Electrical Data

DC

### SINGLE Phase

#### SRECU-250PE-B-AC-C4

| | | |
|---|---|---|
| Supply voltage | 230V/1Ph/50Hz | |
| FLC Amperes | 5.10 | |
| Control system | C4 / C4 PLUS | |
| Nominal air flow | m³/hr | 250 |
| Unit weight | kg | 40 |

| Rotary heat exchanger | | Supply | Exhaust |
|---|---|---|---|
| Thermal efficiency | % | 80 | |
| Energy recovery | kW | 2.3 | |
| Air temperature in/out | °C | -23 / +13.8 | +20 / -16.8 |

| Fan Motors | | |
|---|---|---|
| Input power | Watts | 58 x 2 |

| Electric Air Heater | | Supply | Exhaust |
|---|---|---|---|
| Rating | kW | 1 | |

#### SRECU-400PE-B-AC-C4

| | | |
|---|---|---|
| Supply voltage | 230V/1Ph/50Hz | |
| FLC Amperes | 5.90 | |
| Control system | C4 / C4 PLUS | |
| Nominal air flow | m³/hr | 400 |
| Unit weight | kg | 57 |

| Rotary heat exchanger | | Supply | Exhaust |
|---|---|---|---|
| Thermal efficiency | % | 83 | |
| Energy recovery | kW | 4.6 | |
| Air temperature in/out | °C | -23 / +13.8 | +20 / -16.8 |

| Fan Motors | | |
|---|---|---|
| Input power | Watts | 135 x 2 |

| Electric Air Heater | | Supply | Exhaust |
|---|---|---|---|
| Rating | kW | 1 | |

#### SRECU400HE-R-EC-C3

| | | |
|---|---|---|
| Supply voltage | 230V/1Ph/50Hz | |
| FLC Amperes | 10.7 | |
| Control system | C3 | |
| Nominal air flow | m³/hr | 400 |
| Unit weight | kg | 55 |

| Plate heat exchanger | | Supply | Exhaust |
|---|---|---|---|
| Thermal efficiency wet/dry | % | 58.8 / 52.9 | |
| Energy recovery | kW | 2.4 | |
| Air temperature in/out | °C | -10 / +7.6 | 20 / 4.5 |
| Relative humidity in/out | °C | 82 / 20.3 | 45 / 97 |

| Fan Motors | | |
|---|---|---|
| Input power | Watts | 105 x 2 |
| Speed | r/min | 3570 |

| Electric Air Heater | | Supply | Exhaust |
|---|---|---|---|
| Rating | kW | 2 | |
| Air temperature in/out | °C | 7.6 / 22 | |

#### SRECU400HE-R-AC-C3

| | | |
|---|---|---|
| Supply voltage | 230V/1Ph/50Hz | |
| FLC Amperes | 10.1 | |
| Control system | C3 | |
| Nominal air flow | m³/hr | 400 |
| Unit weight | kg | 55 |

| Plate heat exchanger | | Supply | Exhaust |
|---|---|---|---|
| Thermal efficiency wet/dry | % | 58.8 / 52.9 | |
| Energy recovery | kW | 2.4 | |
| Air temperature in/out | °C | -10 / +7.6 | 20 / 4.5 |
| Relative humidity in/out | °C | 82 / 20.3 | 45 / 97 |

| Fan Motors | | |
|---|---|---|
| Input power | Watts | 135 x 2 |
| Speed | r/min | 2650 |

| Electric Air Heater | | | |
|---|---|---|---|
| Rating | kW | 2 | |
| Air temperature in/out | °C | 7.6 / 22 | |

#### SRECU700HE-R-EC-C3

| | | |
|---|---|---|
| Supply voltage | 230V/1Ph/50Hz | |
| FLC Amperes | 13.7 | |
| Control system | C3 | |
| Nominal air flow | m³/hr | 700 |
| Unit weight | | 75 |

| Plate heat exchanger | | Supply | Exhaust |
|---|---|---|---|
| Thermal efficiency wet/dry | % | 57.6 / 51.9 | |
| Energy recovery | kW | 4 | |
| Air temperature in/out | °C | -10 / +7.3 | 20 / 4.7 |
| Relative humidity in/out | °C | 82 / 20.8 | 45 / 98 |

There are no accessories available for this product.

| Fan Motors | | |
|---|---|---|
| Input power | Watts | 164 x 2 |
| Speed | r/min | 2570 |

| Electric Air Heater | | Supply | Exhaust |
|---|---|---|---|
| Rating | kW | 2.5 | |
| Air temperature in/out | °C | 7.3 / 18 | |

Overall static efficiency, r/min and FMEG values are per ISO 12759 installation category A. FLC Amps @ 230V / 1Ph / 50Hz.

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# Heat Recovery

## Electrical Data

DC

### SINGLE Phase

#### SRECU700HE-R-AC-C3

| | | |
|---|---|---|
| Supply voltage | 230V/1Ph/50Hz | |
| FLC Amperes | 12.9 | |
| Control system | C3 | |
| Nominal air flow | m³/hr | 700 |
| Unit weight | kg | 75 |

| Plate heat exchanger | | Supply | Exhaust |
|---|---|---|---|
| Thermal efficiency wet/dry | % | 57.6 / 51.9 | |
| Energy recovery | kW | 4 | |
| Air temperature in/out | °C | -10 / +7.3 | 20 / 4.7 |
| Relative humidity in/out | °C | 82 / 20.8 | 45 / 96 |

| Fan Motors | | |
|---|---|---|
| Input power | Watts | 240 x 2 |
| Speed | r/min | 2800 |

| Electric Air Heater | | Supply | Exhaust |
|---|---|---|---|
| Rating | kW | 2.5 | |
| Air temperature in/out | °C | 7.3 / 18 | |

### THREE Phase

#### SRECU900HE-R-AC-C3

| | | |
|---|---|---|
| Supply voltage | 400V/3Ph/50Hz | |
| FLC Amperes | 10.3 | |
| Control system | C3 | |
| Nominal air flow | m³/hr | 900 |
| Unit weight | kg | 78 |

| Plate heat exchanger | | Supply | Exhaust |
|---|---|---|---|
| Thermal efficiency wet/dry | % | 56.5 / 50.9 | |
| Energy recovery | kW | 5.1 | |
| Air temperature in/out | °C | -10 / +7 | 20 / 4.7 |
| Relative humidity in/out | °C | 82 / 21.3 | 45 / 96 |

| Fan Motors | | |
|---|---|---|
| Input power | Watts | 235 x 2 |
| Speed | r/min | 2780 |

| Electric Air Heater | | Supply | Exhaust |
|---|---|---|---|
| Rating | kW | 4.5 | |
| Air temperature in/out | °C | 7 / 22 | |

#### SRECU1200HE-R-AC-C3

| | | |
|---|---|---|
| Supply voltage | 400V/3Ph/50Hz | |
| FLC Amperes | 13.9 | |
| Control system | C3 | |
| Nominal air flow | m³/hr | 1200 |
| Unit weight | kg | 195 |

| Plate heat exchanger | | Supply | Exhaust |
|---|---|---|---|
| Thermal efficiency | % | 52 | |
| Energy recovery | kW | 6.3 | |
| Air temperature in/out | °C | -10 / +5.7 | 20 / 6.1 |
| Relative humidity in/out | °C | 82 / 26 | 45 / 100 |

| Fan Motors | | |
|---|---|---|
| Input power | Watts | 490 x 2 |
| Speed | r/min | 1480 |

| Electric Air Heater | | | |
|---|---|---|---|
| Rating | kW | 6 | |
| Air temperature in/out | °C | 5.9 / 20.9 | |

#### SRECU1600HE-R-AC-C3

| | | |
|---|---|---|
| Supply voltage | 400V/3Ph/50Hz | |
| FLC Amperes | 26.6 | |
| Control system | C3 | |
| Nominal air flow | m³/hr | 1600 |
| Unit weight | kg | 320 |

| Plate heat exchanger | | Supply | Exhaust |
|---|---|---|---|
| Thermal efficiency | % | 60.3 | |
| Energy recovery | kW | 9.7 | |
| Air temperature in/out | °C | -10 / +8.1 | 20 / 5.2 |
| Relative humidity in/out | °C | 82 / 20 | 45 / 95 |

| Fan Motors | | |
|---|---|---|
| Input power | Watts | 650 x 2 |
| Speed | r/min | 1480 |

| Electric Air Heater | | Supply | Exhaust |
|---|---|---|---|
| Rating | kW | 12 | |
| Air temperature in/out | °C | -2.8 / +20 | |

#### SRECU2000HE-R-AC-C3

| | | |
|---|---|---|
| Supply voltage | 400V/3Ph/50Hz | |
| FLC Amperes | 38.8 | |
| Control system | C3 | |
| Nominal air flow | m³/hr | 2000 |
| Unit weight | kg | 325 |

| Plate heat exchanger | | Supply | Exhaust |
|---|---|---|---|
| Thermal efficiency | % | 51.9 | |
| Energy recovery | kW | 10.4 | |
| Air temperature in/out | °C | -10 / +5.6 | 20 / 6.9 |
| Relative humidity in/out | °C | 82 / 23 | 45 / 90 |

| Fan Motors | | |
|---|---|---|
| Input power | Watts | 830 x 2 |
| Speed | r/min | 1480 |

| Electric Air Heater | | Supply | Exhaust |
|---|---|---|---|
| Rating | kW | 12 | |
| Air temperature in/out | °C | -2.8 / +20 | |

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## BUILDING SERVICES

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