



ENERG
енергия · ενεργεια



METROAIR I 20



55 °C

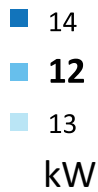
35 °C



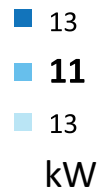
dB



55 dB



kW



kW



2015

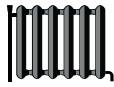
811/2013



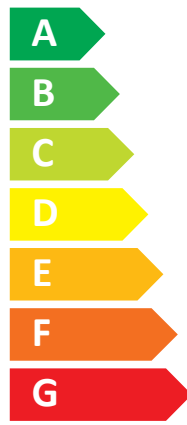
ENERG Y IJA
 енергия · ενεργεια IE IA



METROAIR I 20 + METROAIR 330



A++



A

Two icons showing a house with sound waves. The top icon is labeled "35 dB" and the bottom icon is labeled "55 dB".



A legend for power consumption in kW, showing three colored squares: dark blue for 14 kW, medium blue for 12 kW, and light blue for 13 kW.



ENERG

енергия · ενέργεια

Y

IJA

IE

IA



METROAIR I 20 + METROAIR 330

+

+


+

+

| | | | |
|---|-------------------------------------|------------|-----|
| Supplier's name: | METRO THERM A/S | | |
| Model: | Metroair I 20 + Metroair 330 | | |
| Temperature application | 35 | 55 | °C |
| Declared load profile for water heating | XL | | |
| Seasonal space heating energy efficiency class, average climate: | A++ | A++ | |
| Water heating energy efficiency class, average climate: | A | | |
| Rated heat output, average climate: | 11 | 12,3 | kW |
| Annual energy consumption for space heating, average climate | 4502 | 6524 | kWh |
| Annual electricity consumption for water heating, average climate | 1616 | | kWh |
| Seasonal space heating energy efficiency, average climate: | 199 | 153 | % |
| Water heating energy efficiency, average climate: | 104 | | % |
| Sound power level LWA indoors | 35 | | dB |
| Rated heat output, cold climate: | 13,0 | 14,0 | kW |
| Rated heat output, warm climate: | 13,0 | 13,0 | kW |
| Annual energy consumption for space heating, cold climate | 7543 | 9765 | kWh |
| Annual electricity consumption for water heating, cold climate | 1758 | | kWh |
| Annual energy consumption for space heating, warm climate | 3153 | 3867 | kWh |
| Annual electricity consumption for water heating, warm climate | 1448 | | kWh |
| Seasonal space heating energy efficiency, cold climate: | 167 | 138 | % |
| Water heating energy efficiency, cold climate: | 95 | | % |
| Seasonal space heating energy efficiency, warm climate: | 217 | 177 | % |
| Water heating energy efficiency, warm climate: | 116 | | % |
| Sound power level LWA outdoors | 55 | | dB |

Data for package fiche

| | | | |
|--|-------------|-------------|---|
| Controller class | VI | | |
| Controller contribution to efficiency | 4,0 | | % |
| Seasonal space heating energy efficiency of package, average climate: | 203 | 157 | % |
| Seasonal space heating energy efficiency class for package, average climate: | A+++ | A+++ | % |
| Seasonal space heating energy efficiency of package, cold climate: | 171 | 142 | % |
| Seasonal space heating energy efficiency of package, warm climate: | 221 | 181 | % |

| | | | | | | | | | | | | |
|--|------------------|-------|----|--|-------|--|--|---|--------------------|-------------|-------------------|-------------------|
| Model(s): | | | | Metroair I 20 + Metroair 330 | | | |  | | | | |
| Type of heat source/sink: | | | | Air-to-water | | | | | | | | |
| Low-temperature heat pump: | | | | No | | | | | | | | |
| Equipped with supplementary heater: | | | | Yes | | | | | | | | |
| Heat pump combination heater: | | | | Yes | | | | | | | | |
| Climate condition: | | | | Average | | | | | | | | |
| Temperature application: | | | | Medium temperature (55 °C) | | | | | | | | |
| Applied standards: EN14825 and EN16147 | | | | | | | | | | | | |
| Rated heat output | | | | Prated | 12,3 | kW | Seasonal space heating energy efficiency | | | | | |
| | | | | | | | η_s | 153 | % | | | |
| <i>Declared capacity for part load at outdoor temperature Tj</i> | | | | | | <i>Declared coefficient of performance for part load at outdoor temperature Tj</i> | | | | | | |
| Tj = -7 °C | Pdh | 10,9 | kW | Tj = -7 °C | COPd | 2,48 | - | | | | | |
| Tj = +2 °C | Pdh | 6,7 | kW | Tj = +2 °C | COPd | 3,96 | - | | | | | |
| Tj = +7 °C | Pdh | 5,9 | kW | Tj = +7 °C | COPd | 4,67 | - | | | | | |
| Tj = +12 °C | Pdh | 6,0 | kW | Tj = +12 °C | COPd | 5,67 | - | | | | | |
| Tj = biv | Pdh | 10,9 | kW | Tj = biv | COPd | 2,48 | - | | | | | |
| Tj = TOL | Pdh | 11,6 | kW | Tj = TOL | COPd | 2,40 | - | | | | | |
| Tj = -15 °C (if TOL < -20 °C) | Pdh | | kW | Tj = -15 °C (if TOL < -20 °C) | COPd | | - | | | | | |
| Bivalent temperature | | | | T _{biv} | -7 | °C | Operation limit temperature | | TOL | -10 | °C | |
| Cycling interval capacity for heating | | | | P _{cyc} | | kW | Cycling interval efficiency | | COP _{cyc} | | - | |
| Degradation co-efficient | | | | Cdh | 0,99 | - | Heating water operating limit | | WTOL | 65 | °C | |
| <i>Power consumption in modes other than active mode</i> | | | | | | <i>Supplementary heater</i> | | | | | | |
| Off mode | P _{OFF} | 0,025 | kW | Rated heat output | | P _{sup} | 0,7 | kW | | | | |
| Thermostat-off mode | P _{TO} | 0,007 | kW | | | | | | | | | |
| Standby mode | P _{SB} | 0,025 | kW | Type of energy input | | Electric | | | | | | |
| Crankcase heater mode | P _{CK} | 0,037 | kW | | | | | | | | | |
| <i>Other items</i> | | | | | | | | | | | | |
| Capacity control | | | | variable | | | | Rated air flow rate, outdoors | | | 4150 | m ³ /h |
| Sound power level, indoors/outdoors | | | | L _{WA} | 35/55 | dB | Rated water flow rate, indoor heat exchanger | | | variable | m ³ /h | |
| Annual energy consumption | | | | Q _{HE} | 6524 | kWh | Rated brine or water flow rate, outdoor heat exchanger | | | | m ³ /h | |
| <i>For heat pump combination heater:</i> | | | | | | | | | | | | |
| Declared load profile | | | | XL | | | | Water heating energy efficiency | | η_{wh} | 104 | % |
| Daily electricity consumption | | | | Q _{elec} | 7,36 | kWh | Daily fuel consumption | | Q _{fuel} | | kWh | |
| Annual electricity consumption | | | | AEC | 1616 | kWh | Annual fuel consumption | | AFC | | GJ | |
| Approved by: | | | | | | | | | | | | |
| Contact details | | | | METRO THERM A/S Rundinsvej 55 DK-3220 Helsingør www.metrotherm.dk | | | | | | | | |