

Warm climate and Medium temperature (55)

| | | | |
|---------------------------------------|---|---------------------------|-------|
| Model(s): | CTC EcoAir 622M + CTC EcoZenith i350/ i350F | | |
| Air-to-water heat pump: | Yes | Energy efficiency class: | - |
| Water-to-water heat pump: | No | Controller class: | VI |
| Brine-to-water heat pump: | No | Controller contribution: | 4 % |
| Low-temperature heat pump: | No | Package efficiency: | 187 % |
| Equipped with a supplementary heater: | Yes | Package efficiency class: | - |
| Heat pump combination heater: | Yes | | |

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low-temperature heat pumps, parameters shall be declared for low-temperature application.

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|--|--------------------------|-----------|------|--|--------------------------|------------|-------------------|
| Rated heat output (*) | <i>P_{rated}</i> | 13 | kW | Seasonal space heating energy efficiency | η_s | 183 | % |
| Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j | | | |
| T _j = -7 °C | <i>P_{dh}</i> | na | kW | T _j = -7 °C | <i>COP_d</i> | na | - |
| T _j = +2 °C | <i>P_{dh}</i> | 14,0 | kW | T _j = +2 °C | <i>COP_d</i> | 2,15 | - |
| T _j = +7 °C | <i>P_{dh}</i> | 8,6 | kW | T _j = +7 °C | <i>COP_d</i> | 4,13 | - |
| T _j = +12 °C | <i>P_{dh}</i> | 5,5 | kW | T _j = +12 °C | <i>COP_d</i> | 6,07 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 14,0 | kW | T _j = bivalent temperature | <i>COP_d</i> | 2,15 | - |
| T _j = operation limit temperature | <i>P_{dh}</i> | 14,0 | kW | T _j = operation limit temperature | <i>COP_d</i> | 2,15 | - |
| For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | <i>P_{dh}</i> | na | kW | For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | <i>COP_d</i> | na | - |
| Bivalent temperature | <i>T_{biv}</i> | 2 | °C | For air-to-water heat pumps: Operation limit temperature | <i>TOL</i> | 2 | °C |
| Cycling interval capacity for heating | <i>P_{cych}</i> | na | kW | Cycling interval efficiency | <i>COP_{cyc}</i> | na | - |
| Degradation co-efficient | <i>C_{dh}</i> | 0,99 | - | Heating water operating limit temperature | <i>WTOL</i> | 55 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | <i>P_{OFF}</i> | 0,012 | kW | Rated heat output (*) | <i>P_{sup}</i> | 0,0 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,012 | kW | Type of energy input Electric | | | |
| Standby mode | <i>P_{SB}</i> | 0,012 | kW | | | | |
| Crankcase heater mode | <i>P_{CK}</i> | 0,000 | kW | | | | |
| Other items | | | | | | | |
| Capacity control | Variable | | | For air-to-water heat pumps: Rated air flow rate, outdoors | - | 4200 | m ³ /h |
| Sound power level, indoors/ outdoors | <i>L_{WA}</i> | na/55 | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | na | m ³ /h |
| Annual energy consumption | <i>Q_{HE}</i> | 3746 | kWh | | | | |

For heat pump combination heater:

| | | | | | | | |
|--------------------------------|-------------------------|-------------------------|-----------|--|-------------------------|------------|-----|
| Declared load profile | XL | Efficiency class | na | Water heating energy efficiency | η_{wh} | 112 | % |
| Daily electricity consumption | <i>Q_{elec}</i> | 6,835 | kWh | Daily fuel consumption | <i>Q_{fuel}</i> | na | kWh |
| Annual electricity consumption | <i>AEC</i> | 1504 | kWh | Annual fuel consumption | <i>AFC</i> | na | GJ |

Specific precautions and end of life information:

The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.

Contact details

EnerTech AB, Box 309, SE-341 26 Ljungby Tel +46 372 88000

www.ctc.se

181005

Warm climate and Low temperature (35)

| | | | |
|---------------------------------------|---|---------------------------|-------|
| Model(s): | CTC EcoAir 622M + CTC EcoZenith i350/ i350F | | |
| Air-to-water heat pump: | Yes | Energy efficiency class: | - |
| Water-to-water heat pump: | No | Controller class: | VI |
| Brine-to-water heat pump: | No | Controller contribution: | 4 % |
| Low-temperature heat pump: | No | Package efficiency: | 249 % |
| Equipped with a supplementary heater: | Yes | Package efficiency class: | - |
| Heat pump combination heater: | Yes | | |

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low-temperature heat pumps, parameters shall be declared for low-temperature application.

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|--|-------------|-----------|------|--|-------------|------------|-------------------|
| Rated heat output (*) | P_{rated} | 13 | kW | Seasonal space heating energy efficiency | η_s | 245 | % |
| Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j | | | |
| T _j = -7 °C | P_{dh} | na | kW | T _j = -7 °C | COP_d | na | - |
| T _j = +2 °C | P_{dh} | 12,9 | kW | T _j = +2 °C | COP_d | 3,16 | - |
| T _j = +7 °C | P_{dh} | 8,3 | kW | T _j = +7 °C | COP_d | 5,88 | - |
| T _j = +12 °C | P_{dh} | 5,6 | kW | T _j = +12 °C | COP_d | 7,61 | - |
| T _j = bivalent temperature | P_{dh} | 12,9 | kW | T _j = bivalent temperature | COP_d | 3,16 | - |
| T _j = operation limit temperature | P_{dh} | 12,9 | kW | T _j = operation limit temperature | COP_d | 3,16 | - |
| For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | P_{dh} | na | kW | For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | COP_d | na | - |
| Bivalent temperature | T_{biv} | 2 | °C | For air-to-water heat pumps: Operation limit temperature | TOL | 2 | °C |
| Cycling interval capacity for heating | P_{cych} | na | kW | Cycling interval efficiency | COP_{cyc} | na | - |
| Degradation co-efficient | C_{dh} | 0,99 | - | Heating water operating limit temperature | WTOL | 55 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | P_{OFF} | 0,012 | kW | Rated heat output (*) | P_{sup} | 0,0 | kW |
| Thermostat-off mode | P_{TO} | 0,012 | kW | Type of energy input: Electric | | | |
| Standby mode | P_{SB} | 0,012 | kW | | | | |
| Crankcase heater mode | P_{CK} | 0,000 | kW | | | | |
| Other items | | | | | | | |
| Capacity control | Variable | | | For air-to-water heat pumps: Rated air flow rate, outdoors | - | 4200 | m ³ /h |
| Sound power level, indoors/outdoors | L_{WA} | na/55 | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | na | m ³ /h |
| Annual energy consumption | Q_{HE} | 2804 | kWh | | | | |

For heat pump combination heater:

| | | | | | | | |
|--------------------------------|------------|-------------------------|-----------|--|-------------|------------|-----|
| Declared load profile | XL | Efficiency class | na | Water heating energy efficiency | η_{wh} | 112 | % |
| Daily electricity consumption | Q_{elec} | 6,835 | kWh | Daily fuel consumption | Q_{fuel} | na | kWh |
| Annual electricity consumption | AEC | 1504 | kWh | Annual fuel consumption | AFC | na | GJ |

Specific precautions and end of life information:

The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.

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Average climate and Medium temperature (55)

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|---------------------------------------|---|---------------------------|--------|
| Model(s): | CTC EcoAir 622M + CTC EcoZenith i350/ i350F | | |
| Air-to-water heat pump: | Yes | Energy efficiency class: | A++ - |
| Water-to-water heat pump: | No | Controller class: | VI - |
| Brine-to-water heat pump: | No | Controller contribution: | 4 % |
| Low-temperature heat pump: | No | Package efficiency: | 152 % |
| Equipped with a supplementary heater: | Yes | Package efficiency class: | A+++ - |
| Heat pump combination heater: | Yes | | |

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low-temperature heat pumps, parameters shall be declared for low-temperature application.

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|--|--------------------------|--------------|------------|--|--------------------------|------------------------|------|
| Rated heat output (*) | <i>P_{rated}</i> | 9 | kW | Seasonal space heating energy efficiency | η_s | 148 | % |
| Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j | | | |
| T _j = -7 °C | <i>P_{dh}</i> | 7,5 | kW | T _j = -7 °C | <i>COP_d</i> | 2,41 | - |
| T _j = +2 °C | <i>P_{dh}</i> | 4,6 | kW | T _j = +2 °C | <i>COP_d</i> | 3,81 | - |
| T _j = +7 °C | <i>P_{dh}</i> | 4,7 | kW | T _j = +7 °C | <i>COP_d</i> | 4,76 | - |
| T _j = +12 °C | <i>P_{dh}</i> | 5,6 | kW | T _j = +12 °C | <i>COP_d</i> | 6,15 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 8,7 | kW | T _j = bivalent temperature | <i>COP_d</i> | 1,99 | - |
| T _j = operation limit temperature | <i>P_{dh}</i> | 8,7 | kW | T _j = operation limit temperature | <i>COP_d</i> | 1,99 | - |
| For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | <i>P_{dh}</i> | na | kW | For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | <i>COP_d</i> | na | - |
| Bivalent temperature | <i>T_{biv}</i> | -10 | °C | For air-to-water heat pumps: Operation limit temperature | <i>TOL</i> | -10 | °C |
| Cycling interval capacity for heating | <i>P_{cych}</i> | na | kW | Cycling interval efficiency | <i>COP_{cyc}</i> | na | - |
| Degradation co-efficient | <i>C_{dh}</i> | 0,98 | - | Heating water operating limit temperature | <i>WTOL</i> | 55 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | <i>P_{OFF}</i> | 0,012 | kW | Rated heat output (*) | <i>P_{sup}</i> | 0,0 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,012 | kW | Type of energy input Electric | | | |
| Standby mode | <i>P_{SB}</i> | 0,012 | kW | | | | |
| Crankcase heater mode | <i>P_{CK}</i> | 0,000 | kW | For air-to-water heat pumps: Rated air flow rate, outdoors | | | |
| Other items | | | | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | | | |
| Capacity control | Variable | | | - | 4200 | <i>m³/h</i> | |
| Sound power level, indoors/outdoors | <i>L_{WA}</i> | na/55 | <i>dB</i> | - | na | <i>m³/h</i> | |
| Annual energy consumption | <i>Q_{HE}</i> | 4656 | <i>kWh</i> | | | | |

For heat pump combination heater:

| | | | | | | | |
|--------------------------------|-------------------------|-------------------------|----------|--|-------------------------|-----------|-----|
| Declared load profile | XL | Efficiency class | A | Water heating energy efficiency | η_{wh} | 98 | % |
| Daily electricity consumption | <i>Q_{elec}</i> | 7,816 | kWh | Daily fuel consumption | <i>Q_{fuel}</i> | NA | kWh |
| Annual electricity consumption | <i>AEC</i> | 1720 | kWh | Annual fuel consumption | <i>AFC</i> | NA | GJ |

Specific precautions and end of life information:

The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.

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Average climate and Low temperature (35)

| | | | |
|---------------------------------------|---|---------------------------|--------|
| Model(s): | CTC EcoAir 622M + CTC EcoZenith i350/ i350F | | |
| Air-to-water heat pump: | Yes | Energy efficiency class: | A++ - |
| Water-to-water heat pump: | No | Controller class: | VI - |
| Brine-to-water heat pump: | No | Controller contribution: | 4 % |
| Low-temperature heat pump: | No | Package efficiency: | 198 % |
| Equipped with a supplementary heater: | Yes | Package efficiency class: | A+++ - |
| Heat pump combination heater: | Yes | | |

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low-temperature heat pumps, parameters shall be declared for low-temperature application.

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|--|--------------------------|--------------|------------|--|--------------------------|------------------------|------|
| Rated heat output (*) | <i>P_{rated}</i> | 9 | kW | Seasonal space heating energy efficiency | η_s | 194 | % |
| Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j | | | |
| T _j = -7 °C | <i>P_{dh}</i> | 7,8 | kW | T _j = -7 °C | <i>COP_d</i> | 3,53 | - |
| T _j = +2 °C | <i>P_{dh}</i> | 4,5 | kW | T _j = +2 °C | <i>COP_d</i> | 4,97 | - |
| T _j = +7 °C | <i>P_{dh}</i> | 4,8 | kW | T _j = +7 °C | <i>COP_d</i> | 5,94 | - |
| T _j = +12 °C | <i>P_{dh}</i> | 5,6 | kW | T _j = +12 °C | <i>COP_d</i> | 7,35 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 8,8 | kW | T _j = bivalent temperature | <i>COP_d</i> | 3,04 | - |
| T _j = operation limit temperature | <i>P_{dh}</i> | 8,8 | kW | T _j = operation limit temperature | <i>COP_d</i> | 3,04 | - |
| For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | <i>P_{dh}</i> | na | kW | For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | <i>COP_d</i> | na | - |
| Bivalent temperature | <i>T_{biv}</i> | -10 | °C | For air-to-water heat pumps: Operation limit temperature | <i>TOL</i> | -10 | °C |
| Cycling interval capacity for heating | <i>P_{cych}</i> | na | kW | Cycling interval efficiency | <i>COP_{cyc}</i> | na | - |
| Degradation co-efficient | <i>C_{dh}</i> | 0,98 | - | Heating water operating limit temperature | <i>WTOL</i> | 55 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | <i>P_{OFF}</i> | 0,012 | kW | Rated heat output (*) | <i>P_{sup}</i> | 0,0 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,012 | kW | Type of energy input Electric | | | |
| Standby mode | <i>P_{SB}</i> | 0,012 | kW | | | | |
| Crankcase heater mode | <i>P_{CK}</i> | 0,000 | kW | For air-to-water heat pumps: Rated air flow rate, outdoors | | | |
| Other items | | | | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | | | |
| Capacity control | Variable | | | - | 4200 | <i>m³/h</i> | |
| Sound power level, indoors/ outdoors | <i>L_{WA}</i> | na/55 | <i>dB</i> | - | na | <i>m³/h</i> | |
| Annual energy consumption | <i>Q_{HE}</i> | 3567 | <i>kWh</i> | | | | |

For heat pump combination heater:

| | | | | | | | |
|--------------------------------|-------------------------|-------------------------|----------|--|-------------------------|-----------|-----|
| Declared load profile | XL | Efficiency class | A | Water heating energy efficiency | η_{wh} | 98 | % |
| Daily electricity consumption | <i>Q_{elec}</i> | 7,816 | kWh | Daily fuel consumption | <i>Q_{fuel}</i> | na | kWh |
| Annual electricity consumption | <i>AEC</i> | 1720 | kWh | Annual fuel consumption | <i>AFC</i> | na | GJ |

Specific precautions and end of life information:

The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.

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Cold climate and Medium temperature (55)

| | | | |
|---------------------------------------|---|---------------------------|-------|
| Model(s): | CTC EcoAir 622M + CTC EcoZenith i350/ i350F | | |
| Air-to-water heat pump: | Yes | Energy efficiency class: | - |
| Water-to-water heat pump: | No | Controller class: | VI |
| Brine-to-water heat pump: | No | Controller contribution: | 4 % |
| Low-temperature heat pump: | No | Package efficiency: | 140 % |
| Equipped with a supplementary heater: | Yes | Package efficiency class: | - |
| Heat pump combination heater: | Yes | | |

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low-temperature heat pumps, parameters shall be declared for low-temperature application.

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|--|-----------------|--------------|------|--|-------------|-------------|-------------------|
| Rated heat output (*) | P_{rated} | 12 | kW | Seasonal space heating energy efficiency | η_s | 136 | % |
| Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j | | | |
| T _j = -7 °C | P_{dh} | 7,3 | kW | T _j = -7 °C | COP_d | 2,91 | - |
| T _j = +2 °C | P_{dh} | 4,6 | kW | T _j = +2 °C | COP_d | 4,53 | - |
| T _j = +7 °C | P_{dh} | 4,8 | kW | T _j = +7 °C | COP_d | 5,28 | - |
| T _j = +12 °C | P_{dh} | 5,6 | kW | T _j = +12 °C | COP_d | 6,44 | - |
| T _j = bivalent temperature | P_{dh} | 10,9 | kW | T _j = bivalent temperature | COP_d | 1,46 | - |
| T _j = operation limit temperature | P_{dh} | 4,6 | kW | T _j = operation limit temperature | COP_d | 1,51 | - |
| For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | P_{dh} | 9,6 | kW | For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | COP_d | 1,81 | - |
| Bivalent temperature | T_{biv} | -18 | °C | For air-to-water heat pumps: Operation limit temperature | TOL | -20 | °C |
| Cycling interval capacity for heating | P_{cych} | na | kW | Cycling interval efficiency | COP_{cyc} | na | - |
| Degradation co-efficient | C_{dh} | 0,99 | - | Heating water operating limit temperature | WTOL | 55 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | P_{OFF} | 0,012 | kW | Rated heat output (*) | P_{sup} | 11,5 | kW |
| Thermostat-off mode | P_{TO} | 0,012 | kW | Type of energy input Electric | | | |
| Standby mode | P_{SB} | 0,012 | kW | | | | |
| Crankcase heater mode | P_{CK} | 0,000 | kW | | | | |
| Other items | | | | | | | |
| Capacity control | Variable | | | For air-to-water heat pumps: Rated air flow rate, outdoors | - | 4200 | m ³ /h |
| Sound power level, indoors/ outdoors | L_{WA} | na/55 | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | na | m ³ /h |
| Annual energy consumption | Q_{HE} | 8159 | kWh | | | | |

For heat pump combination heater:

| Declared load profile | XL | Efficiency class | na | Water heating energy efficiency | η_{wh} | 82 | % |
|--------------------------------|-------|------------------|-----|---------------------------------|-------------------|-----------|-----|
| Daily electricity consumption | Qelec | 9,257 | kWh | Daily fuel consumption | Q _{fuel} | na | kWh |
| Annual electricity consumption | AEC | 2037 | kWh | Annual fuel consumption | AFC | na | GJ |

Specific precautions and end of life information:

The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.

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Cold climate and Low temperature (35)

| | | | |
|---------------------------------------|--|---------------------------|--------------|
| Model(s): | CTC EcoAir 622M + CTC EcoZenith i350/ i350F | | |
| Air-to-water heat pump: | Yes | Energy efficiency class: | - |
| Water-to-water heat pump: | No | Controller class: | VI |
| Brine-to-water heat pump: | No | Controller contribution: | 4 % |
| Low-temperature heat pump: | No | Package efficiency: | 172 % |
| Equipped with a supplementary heater: | Yes | Package efficiency class: | - |
| Heat pump combination heater: | Yes | | |

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low-temperature heat pumps, parameters shall be declared for low-temperature application.

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|--|--------------------------|--------------|------|--|--------------------------|-------------|-------------------|
| Rated heat output (*) | <i>P_{rated}</i> | 13 | kW | Seasonal space heating energy efficiency | η_s | 168 | % |
| Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j | | | |
| T _j = -7 °C | <i>P_{dh}</i> | 7,6 | kW | T _j = -7 °C | <i>COP_d</i> | 3,67 | - |
| T _j = +2 °C | <i>P_{dh}</i> | 4,7 | kW | T _j = +2 °C | <i>COP_d</i> | 5,49 | - |
| T _j = +7 °C | <i>P_{dh}</i> | 4,9 | kW | T _j = +7 °C | <i>COP_d</i> | 6,70 | - |
| T _j = +12 °C | <i>P_{dh}</i> | 5,6 | kW | T _j = +12 °C | <i>COP_d</i> | 7,77 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 11,4 | kW | T _j = bivalent temperature | <i>COP_d</i> | 1,99 | - |
| T _j = operation limit temperature | <i>P_{dh}</i> | 4,9 | kW | T _j = operation limit temperature | <i>COP_d</i> | 1,99 | - |
| For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | <i>P_{dh}</i> | 10,3 | kW | For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | <i>COP_d</i> | 2,36 | - |
| Bivalent temperature | <i>T_{biv}</i> | -17 | °C | For air-to-water heat pumps: Operation limit temperature | <i>TOL</i> | -20 | °C |
| Cycling interval capacity for heating | <i>P_{cych}</i> | na | kW | Cycling interval efficiency | <i>COP_{cyc}</i> | na | - |
| Degradation co-efficient | <i>C_{dh}</i> | 0,98 | - | Heating water operating limit temperature | <i>WTOL</i> | 55 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | <i>P_{OFF}</i> | 0,012 | kW | Rated heat output (*) | <i>P_{sup}</i> | 12,5 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,012 | kW | Electric | | | |
| Standby mode | <i>P_{SB}</i> | 0,012 | kW | | | | |
| Crankcase heater mode | <i>P_{CK}</i> | 0,000 | kW | Type of energy input | | | |
| Other items | | | | | | | |
| Capacity control | Variable | | | For air-to-water heat pumps: Rated air flow rate, outdoors | - | 4200 | m ³ /h |
| Sound power level, indoors/ outdoors | <i>L_{WA}</i> | na/55 | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | na | m ³ /h |
| Annual energy consumption | <i>Q_{HE}</i> | 7225 | kWh | | | | |

For heat pump combination heater:

| Declared load profile | XL | Efficiency class | na | Water heating energy efficiency | η_{wh} | 82 | % |
|--------------------------------|-------------------------|------------------|-----|---------------------------------|-------------------------|-----------|-----|
| Daily electricity consumption | <i>Q_{elec}</i> | 9,257 | kWh | Daily fuel consumption | <i>Q_{fuel}</i> | na | kWh |
| Annual electricity consumption | AEC | 2037 | kWh | Annual fuel consumption | AFC | na | GJ |

Specific precautions and end of life information:

The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.

Contact details

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| | | | |
|---------------------------------------|---------------------------------------|---------------------------|--------------|
| Model(s): | CTC EcoAir 622M + CTC EcoLogic | | |
| Air-to-water heat pump: | Yes | Energy efficiency class: | - |
| Water-to-water heat pump: | No | Controller class: | VI |
| Brine-to-water heat pump: | No | Controller contribution: | 4 % |
| Low-temperature heat pump: | No | Package efficiency: | 187 % |
| Equipped with a supplementary heater: | No | Package efficiency class: | - |
| Heat pump combination heater: | No | | |

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low-temperature heat pumps, parameters shall be declared for low-temperature application.

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|--|--------------------------|--------------|------|--|--------------------------|-------------|-------------------|
| Rated heat output (*) | <i>P_{rated}</i> | 13 | kW | Seasonal space heating energy efficiency | η_s | 183 | % |
| Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j | | | |
| T _j = -7 °C | <i>P_{dh}</i> | na | kW | T _j = -7 °C | <i>COP_d</i> | na | - |
| T _j = +2 °C | <i>P_{dh}</i> | 14,0 | kW | T _j = +2 °C | <i>COP_d</i> | 2,15 | - |
| T _j = +7 °C | <i>P_{dh}</i> | 8,6 | kW | T _j = +7 °C | <i>COP_d</i> | 4,13 | - |
| T _j = +12 °C | <i>P_{dh}</i> | 5,5 | kW | T _j = +12 °C | <i>COP_d</i> | 6,07 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 14,0 | kW | T _j = bivalent temperature | <i>COP_d</i> | 2,15 | - |
| T _j = operation limit temperature | <i>P_{dh}</i> | 14,0 | kW | T _j = operation limit temperature | <i>COP_d</i> | 2,15 | - |
| For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | <i>P_{dh}</i> | na | kW | For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | <i>COP_d</i> | na | - |
| Bivalent temperature | <i>T_{biv}</i> | 2 | °C | For air-to-water heat pumps: Operation limit temperature | <i>TOL</i> | 2 | °C |
| Cycling interval capacity for heating | <i>P_{cych}</i> | na | kW | Cycling interval efficiency | <i>COP_{cyc}</i> | na | - |
| Degradation co-efficient | <i>C_{dh}</i> | 0,99 | - | Heating water operating limit temperature | <i>WTOL</i> | 55 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | <i>P_{OFF}</i> | 0,012 | kW | Rated heat output (*) | <i>P_{sup}</i> | 0,0 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,012 | kW | Electric | | | |
| Standby mode | <i>P_{SB}</i> | 0,012 | kW | | | | |
| Crankcase heater mode | <i>P_{CK}</i> | 0,000 | kW | Type of energy input | | | |
| Other items | | | | | | | |
| Capacity control | Variable | | | For air-to-water heat pumps: Rated air flow rate, outdoors | - | 4200 | m ³ /h |
| Sound power level, indoors/outdoors | <i>L_{WA}</i> | na/55 | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | na | m ³ /h |
| Annual energy consumption | <i>Q_{HE}</i> | 3746 | kWh | | | | |

For heat pump combination heater:

| | | | | | | | |
|--------------------------------|-------------------------|-----------|-----|--|-------------------------|-----------|-----|
| Declared load profile | na | | | Water heating energy efficiency | η_{wh} | na | % |
| Daily electricity consumption | <i>Q_{elec}</i> | na | kWh | Daily fuel consumption | <i>Q_{fuel}</i> | na | kWh |
| Annual electricity consumption | <i>AEC</i> | na | kWh | Annual fuel consumption | <i>AFC</i> | na | GJ |

Specific precautions and end of life information:

The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.



Warm climate and Low temperature (35)

| | | | |
|---------------------------------------|--------------------------------|---------------------------|-------|
| Model(s): | CTC EcoAir 622M + CTC EcoLogic | | |
| Air-to-water heat pump: | Yes | Energy efficiency class: | - |
| Water-to-water heat pump: | No | Controller class: | VI |
| Brine-to-water heat pump: | No | Controller contribution: | 4 % |
| Low-temperature heat pump: | No | Package efficiency: | 249 % |
| Equipped with a supplementary heater: | No | Package efficiency class: | - |
| Heat pump combination heater: | No | | |

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low-temperature heat pumps, parameters shall be declared for low-temperature application.

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|--|--------------------------|-----------|------|--|--------------------------|------------|-------------------|
| Rated heat output (*) | <i>P_{rated}</i> | 13 | kW | Seasonal space heating energy efficiency | η_s | 245 | % |
| Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j | | | |
| T _j = -7 °C | <i>P_{dh}</i> | na | kW | T _j = -7 °C | <i>COP_d</i> | na | - |
| T _j = +2 °C | <i>P_{dh}</i> | 12,9 | kW | T _j = +2 °C | <i>COP_d</i> | 3,16 | - |
| T _j = +7 °C | <i>P_{dh}</i> | 8,3 | kW | T _j = +7 °C | <i>COP_d</i> | 5,88 | - |
| T _j = +12 °C | <i>P_{dh}</i> | 5,6 | kW | T _j = +12 °C | <i>COP_d</i> | 7,61 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 12,9 | kW | T _j = bivalent temperature | <i>COP_d</i> | 3,16 | - |
| T _j = operation limit temperature | <i>P_{dh}</i> | 12,9 | kW | T _j = operation limit temperature | <i>COP_d</i> | 3,16 | - |
| For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | <i>P_{dh}</i> | na | kW | For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | <i>COP_d</i> | na | - |
| Bivalent temperature | <i>T_{biv}</i> | 2 | °C | For air-to-water heat pumps: Operation limit temperature | <i>TOL</i> | 2 | °C |
| Cycling interval capacity for heating | <i>P_{cych}</i> | na | kW | Cycling interval efficiency | <i>COP_{cyc}</i> | na | - |
| Degradation co-efficient | <i>C_{dh}</i> | 0,99 | - | Heating water operating limit temperature | <i>WTOL</i> | 55 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | <i>P_{OFF}</i> | 0,012 | kW | Rated heat output (*) | <i>P_{sup}</i> | 0,0 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,012 | kW | Type of energy input: Electric | | | |
| Standby mode | <i>P_{SB}</i> | 0,012 | kW | | | | |
| Crankcase heater mode | <i>P_{CK}</i> | 0,000 | kW | Other items | | | |
| Capacity control | | | | Variable | | | |
| Sound power level, indoors/outdoors | <i>L_{WA}</i> | na/55 | dB | For air-to-water heat pumps: Rated air flow rate, outdoors | - | 4200 | m ³ /h |
| Annual energy consumption | <i>Q_{HE}</i> | 2804 | kWh | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | na | m ³ /h |

For heat pump combination heater:

| | | | | | | | |
|--------------------------------|-------------------------|----|-----|--|-------------------------|----|-----|
| Declared load profile | na | | | Water heating energy efficiency | η_{wh} | na | % |
| Daily electricity consumption | <i>Q_{elec}</i> | na | kWh | Daily fuel consumption | <i>Q_{fuel}</i> | na | kWh |
| Annual electricity consumption | <i>AEC</i> | na | kWh | Annual fuel consumption | <i>AFC</i> | na | GJ |

Specific precautions and end of life information:

The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.

Average climate and Medium temperature (55)

| | | | |
|---------------------------------------|--------------------------------|---------------------------|--------|
| Model(s): | CTC EcoAir 622M + CTC EcoLogic | | |
| Air-to-water heat pump: | Yes | Energy efficiency class: | A++ - |
| Water-to-water heat pump: | No | Controller class: | VI - |
| Brine-to-water heat pump: | No | Controller contribution: | 4 % |
| Low-temperature heat pump: | No | Package efficiency: | 152 % |
| Equipped with a supplementary heater: | No | Package efficiency class: | A+++ - |
| Heat pump combination heater: | No | | |

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low-temperature heat pumps, parameters shall be declared for low-temperature application.

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|--|--------------------------|--------------|------------|--|--------------------------|------------------------|------|
| Rated heat output (*) | <i>P_{rated}</i> | 9 | kW | Seasonal space heating energy efficiency | η_s | 148 | % |
| Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j | | | |
| T _j = -7 °C | <i>P_{dh}</i> | 7,5 | kW | T _j = -7 °C | <i>COP_d</i> | 2,41 | - |
| T _j = +2 °C | <i>P_{dh}</i> | 4,6 | kW | T _j = +2 °C | <i>COP_d</i> | 3,81 | - |
| T _j = +7 °C | <i>P_{dh}</i> | 4,7 | kW | T _j = +7 °C | <i>COP_d</i> | 4,76 | - |
| T _j = +12 °C | <i>P_{dh}</i> | 5,6 | kW | T _j = +12 °C | <i>COP_d</i> | 6,15 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 8,7 | kW | T _j = bivalent temperature | <i>COP_d</i> | 1,99 | - |
| T _j = operation limit temperature | <i>P_{dh}</i> | 8,7 | kW | T _j = operation limit temperature | <i>COP_d</i> | 1,99 | - |
| For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | <i>P_{dh}</i> | na | kW | For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | <i>COP_d</i> | na | - |
| Bivalent temperature | <i>T_{biv}</i> | -10 | °C | For air-to-water heat pumps: Operation limit temperature | <i>TOL</i> | -10 | °C |
| Cycling interval capacity for heating | <i>P_{cych}</i> | na | kW | Cycling interval efficiency | <i>COP_{cyc}</i> | na | - |
| Degradation co-efficient | <i>C_{dh}</i> | 0,98 | - | Heating water operating limit temperature | <i>WTOL</i> | 55 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | <i>P_{OFF}</i> | 0,012 | kW | Rated heat output (*) | <i>P_{sup}</i> | 0,0 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,012 | kW | Type of energy input Electric | | | |
| Standby mode | <i>P_{SB}</i> | 0,012 | kW | | | | |
| Crankcase heater mode | <i>P_{CK}</i> | 0,000 | kW | For air-to-water heat pumps: Rated air flow rate, outdoors | | | |
| Other items | | | | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | | | |
| Capacity control | Variable | | | - | 4200 | <i>m³/h</i> | |
| Sound power level, indoors/outdoors | <i>L_{WA}</i> | na/55 | <i>dB</i> | - | na | <i>m³/h</i> | |
| Annual energy consumption | <i>Q_{HE}</i> | 4656 | <i>kWh</i> | | | | |

For heat pump combination heater:

| Declared load profile | Symbol | Value | Unit | Water heating energy efficiency | Symbol | Value | Unit |
|--------------------------------|-------------------------|-----------|------|---------------------------------|-------------------------|-----------|------|
| Declared load profile | | na | | Water heating energy efficiency | η_{wh} | na | % |
| Daily electricity consumption | <i>Q_{elec}</i> | na | kWh | Daily fuel consumption | <i>Q_{fuel}</i> | NA | kWh |
| Annual electricity consumption | <i>AEC</i> | na | kWh | Annual fuel consumption | <i>AFC</i> | NA | GJ |

Specific precautions and end of life information:

The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.

Contact details

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Average climate and Low temperature (35)

| | | | |
|---------------------------------------|---------------------------------------|---------------------------|---------------|
| Model(s): | CTC EcoAir 622M + CTC EcoLogic | | |
| Air-to-water heat pump: | Yes | Energy efficiency class: | A++ - |
| Water-to-water heat pump: | No | Controller class: | VI - |
| Brine-to-water heat pump: | No | Controller contribution: | 4 % |
| Low-temperature heat pump: | No | Package efficiency: | 198 % |
| Equipped with a supplementary heater: | No | Package efficiency class: | A+++ - |
| Heat pump combination heater: | No | | |

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low-temperature heat pumps, parameters shall be declared for low-temperature application.

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|--|--------------------------|--------------|------|--|--------------------------|-------------|-------------------|
| Rated heat output (*) | <i>P_{rated}</i> | 9 | kW | Seasonal space heating energy efficiency | η_s | 194 | % |
| Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j | | | |
| T _j = -7 °C | <i>P_{dh}</i> | 7,8 | kW | T _j = -7 °C | <i>COP_d</i> | 3,53 | - |
| T _j = +2 °C | <i>P_{dh}</i> | 4,5 | kW | T _j = +2 °C | <i>COP_d</i> | 4,97 | - |
| T _j = +7 °C | <i>P_{dh}</i> | 4,8 | kW | T _j = +7 °C | <i>COP_d</i> | 5,94 | - |
| T _j = +12 °C | <i>P_{dh}</i> | 5,6 | kW | T _j = +12 °C | <i>COP_d</i> | 7,35 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 8,8 | kW | T _j = bivalent temperature | <i>COP_d</i> | 3,04 | - |
| T _j = operation limit temperature | <i>P_{dh}</i> | 8,8 | kW | T _j = operation limit temperature | <i>COP_d</i> | 3,04 | - |
| For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | <i>P_{dh}</i> | na | kW | For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | <i>COP_d</i> | na | - |
| Bivalent temperature | <i>T_{biv}</i> | -10 | °C | For air-to-water heat pumps: Operation limit temperature | <i>TOL</i> | -10 | °C |
| Cycling interval capacity for heating | <i>P_{cych}</i> | na | kW | Cycling interval efficiency | <i>COP_{cyc}</i> | na | - |
| Degradation co-efficient | <i>C_{dh}</i> | 0,98 | - | Heating water operating limit temperature | <i>WTOL</i> | 55 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | <i>P_{OFF}</i> | 0,012 | kW | Rated heat output (*) | <i>P_{sup}</i> | 0,0 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,012 | kW | Electric | | | |
| Standby mode | <i>P_{SB}</i> | 0,012 | kW | | | | |
| Crankcase heater mode | <i>P_{CK}</i> | 0,000 | kW | Type of energy input | | | |
| Other items | | | | | | | |
| Capacity control | Variable | | | For air-to-water heat pumps: Rated air flow rate, outdoors | - | 4200 | m ³ /h |
| Sound power level, indoors/outdoors | <i>L_{WA}</i> | na/55 | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | na | m ³ /h |
| Annual energy consumption | <i>Q_{HE}</i> | 3567 | kWh | | | | |

For heat pump combination heater:

| Declared load profile | Symbol | Value | Unit | Water heating energy efficiency | Symbol | Value | Unit |
|--------------------------------|-------------------------|-----------|------|---------------------------------|-------------------------|-----------|------|
| Declared load profile | | na | | Water heating energy efficiency | η_{wh} | na | % |
| Daily electricity consumption | <i>Q_{elec}</i> | na | kWh | Daily fuel consumption | <i>Q_{fuel}</i> | na | kWh |
| Annual electricity consumption | <i>AEC</i> | na | kWh | Annual fuel consumption | <i>AFC</i> | na | GJ |

Specific precautions and end of life information:

The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.

Contact details

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| | | | |
|---------------------------------------|---------------------------------------|---------------------------|--------------|
| Model(s): | CTC EcoAir 622M + CTC EcoLogic | | |
| Air-to-water heat pump: | Yes | Energy efficiency class: | - |
| Water-to-water heat pump: | No | Controller class: | VI |
| Brine-to-water heat pump: | No | Controller contribution: | 4 % |
| Low-temperature heat pump: | No | Package efficiency: | 140 % |
| Equipped with a supplementary heater: | No | Package efficiency class: | - |
| Heat pump combination heater: | No | | |

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low-temperature heat pumps, parameters shall be declared for low-temperature application.

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|--|--------------------------|--------------|------|--|--------------------------|-------------|-------------------|
| Rated heat output (*) | <i>P_{rated}</i> | 12 | kW | Seasonal space heating energy efficiency | η_s | 136 | % |
| Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j | | | |
| T _j = -7 °C | <i>P_{dh}</i> | 7,3 | kW | T _j = -7 °C | <i>COP_d</i> | 2,91 | - |
| T _j = +2 °C | <i>P_{dh}</i> | 4,6 | kW | T _j = +2 °C | <i>COP_d</i> | 4,53 | - |
| T _j = +7 °C | <i>P_{dh}</i> | 4,8 | kW | T _j = +7 °C | <i>COP_d</i> | 5,28 | - |
| T _j = +12 °C | <i>P_{dh}</i> | 5,6 | kW | T _j = +12 °C | <i>COP_d</i> | 6,44 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 10,9 | kW | T _j = bivalent temperature | <i>COP_d</i> | 1,46 | - |
| T _j = operation limit temperature | <i>P_{dh}</i> | 4,6 | kW | T _j = operation limit temperature | <i>COP_d</i> | 1,51 | - |
| For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | <i>P_{dh}</i> | 9,6 | kW | For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | <i>COP_d</i> | 1,81 | - |
| Bivalent temperature | <i>T_{biv}</i> | -18 | °C | For air-to-water heat pumps: Operation limit temperature | <i>TOL</i> | -20 | °C |
| Cycling interval capacity for heating | <i>P_{cych}</i> | na | kW | Cycling interval efficiency | <i>COP_{cyc}</i> | na | - |
| Degradation co-efficient | <i>C_{dh}</i> | 0,99 | - | Heating water operating limit temperature | <i>WTOL</i> | 55 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | <i>P_{OFF}</i> | 0,012 | kW | Rated heat output (*) | <i>P_{sup}</i> | 11,5 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,012 | kW | Electric | | | |
| Standby mode | <i>P_{SB}</i> | 0,012 | kW | | | | |
| Crankcase heater mode | <i>P_{CK}</i> | 0,000 | kW | Type of energy input | | | |
| Other items | | | | | | | |
| Capacity control | Variable | | | For air-to-water heat pumps: Rated air flow rate, outdoors | - | 4200 | m ³ /h |
| Sound power level, indoors/outdoors | <i>L_{WA}</i> | na/55 | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | na | m ³ /h |
| Annual energy consumption | <i>Q_{HE}</i> | 8159 | kWh | | | | |

For heat pump combination heater:

| | | | | | | | |
|--------------------------------|-------------------------|-----------|-----|--|-------------------------|-----------|-----|
| Declared load profile | na | | | Water heating energy efficiency | η_{wh} | na | % |
| Daily electricity consumption | <i>Q_{elec}</i> | na | kWh | Daily fuel consumption | <i>Q_{fuel}</i> | na | kWh |
| Annual electricity consumption | <i>AEC</i> | na | kWh | Annual fuel consumption | <i>AFC</i> | na | GJ |

Specific precautions and end of life information:

The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.

Cold climate and Low temperature (35)

| | | | |
|---------------------------------------|--------------------------------|---------------------------|-------|
| Model(s): | CTC EcoAir 622M + CTC EcoLogic | | |
| Air-to-water heat pump: | Yes | Energy efficiency class: | - |
| Water-to-water heat pump: | No | Controller class: | VI |
| Brine-to-water heat pump: | No | Controller contribution: | 4 % |
| Low-temperature heat pump: | No | Package efficiency: | 172 % |
| Equipped with a supplementary heater: | No | Package efficiency class: | - |
| Heat pump combination heater: | No | | |

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low-temperature heat pumps, parameters shall be declared for low-temperature application.

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|--|-----------------|--------------|------|--|-------------|-------------|-------------------|
| Rated heat output (*) | P_{rated} | 13 | kW | Seasonal space heating energy efficiency | η_s | 168 | % |
| Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j | | | |
| T _j = -7 °C | P_{dh} | 7,6 | kW | T _j = -7 °C | COP_d | 3,67 | - |
| T _j = +2 °C | P_{dh} | 4,7 | kW | T _j = +2 °C | COP_d | 5,49 | - |
| T _j = +7 °C | P_{dh} | 4,9 | kW | T _j = +7 °C | COP_d | 6,70 | - |
| T _j = +12 °C | P_{dh} | 5,6 | kW | T _j = +12 °C | COP_d | 7,77 | - |
| T _j = bivalent temperature | P_{dh} | 11,4 | kW | T _j = bivalent temperature | COP_d | 1,99 | - |
| T _j = operation limit temperature | P_{dh} | 4,9 | kW | T _j = operation limit temperature | COP_d | 1,99 | - |
| For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | P_{dh} | 10,3 | kW | For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | COP_d | 2,36 | - |
| Bivalent temperature | T_{biv} | -17 | °C | For air-to-water heat pumps: Operation limit temperature | TOL | -20 | °C |
| Cycling interval capacity for heating | P_{cych} | na | kW | Cycling interval efficiency | COP_{cyc} | na | - |
| Degradation co-efficient | C_{dh} | 0,98 | - | Heating water operating limit temperature | WTOL | 55 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | P_{OFF} | 0,012 | kW | Rated heat output (*) | P_{sup} | 12,5 | kW |
| Thermostat-off mode | P_{TO} | 0,012 | kW | Type of energy input Electric | | | |
| Standby mode | P_{SB} | 0,012 | kW | | | | |
| Crankcase heater mode | P_{CK} | 0,000 | kW | | | | |
| Other items | | | | | | | |
| Capacity control | Variable | | | For air-to-water heat pumps: Rated air flow rate, outdoors | - | 4200 | m ³ /h |
| Sound power level, indoors/outdoors | L_{WA} | na/55 | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | na | m ³ /h |
| Annual energy consumption | Q_{HE} | 7225 | kWh | | | | |

For heat pump combination heater:

| Declared load profile | Symbol | Value | Unit | Water heating energy efficiency | Symbol | Value | Unit |
|--------------------------------|------------|-----------|------|---------------------------------|-------------|-----------|------|
| Declared load profile | | na | | Water heating energy efficiency | η_{wh} | na | % |
| Daily electricity consumption | Q_{elec} | na | kWh | Daily fuel consumption | Q_{fuel} | na | kWh |
| Annual electricity consumption | AEC | na | kWh | Annual fuel consumption | AFC | na | GJ |

Specific precautions and end of life information:

The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.

Contact details

Enertech AB, Box 309, SE-341 26 Ljungby Tel +46 372 88000

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181005

Warm climate and Medium temperature (55)

| | | | |
|---------------------------------------|-------------------------------------|---------------------------|-------|
| Model(s): | CTC EcoAir 622M + CTC EcoZenith 250 | | |
| Air-to-water heat pump: | Yes | Energy efficiency class: | - |
| Water-to-water heat pump: | No | Controller class: | VI |
| Brine-to-water heat pump: | No | Controller contribution: | 4 % |
| Low-temperature heat pump: | No | Package efficiency: | 146 % |
| Equipped with a supplementary heater: | Yes | Package efficiency class: | - |
| Heat pump combination heater: | Yes | | |

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low-temperature heat pumps, parameters shall be declared for low-temperature application.

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|--|-------------|-----------|------|--|-------------|------------|-------------------|
| Rated heat output (*) | P_{rated} | 13 | kW | Seasonal space heating energy efficiency | η_s | 142 | % |
| Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j | | | |
| T _j = -7 °C | P_{dh} | na | kW | T _j = -7 °C | COP_d | na | - |
| T _j = +2 °C | P_{dh} | 12,5 | kW | T _j = +2 °C | COP_d | 1,56 | - |
| T _j = +7 °C | P_{dh} | 8,0 | kW | T _j = +7 °C | COP_d | 3,15 | - |
| T _j = +12 °C | P_{dh} | 5,5 | kW | T _j = +12 °C | COP_d | 4,89 | - |
| T _j = bivalent temperature | P_{dh} | 12,5 | kW | T _j = bivalent temperature | COP_d | 1,56 | - |
| T _j = operation limit temperature | P_{dh} | 12,5 | kW | T _j = operation limit temperature | COP_d | 1,56 | - |
| For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | P_{dh} | na | kW | For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | COP_d | na | - |
| Bivalent temperature | T_{biv} | 2 | °C | For air-to-water heat pumps: Operation limit temperature | TOL | 2 | °C |
| Cycling interval capacity for heating | P_{cych} | na | kW | Cycling interval efficiency | COP_{cyc} | na | - |
| Degradation co-efficient | C_{dh} | 0,99 | - | Heating water operating limit temperature | WTOL | 55 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | P_{OFF} | 0,014 | kW | Rated heat output (*) | P_{sup} | 0,0 | kW |
| Thermostat-off mode | P_{TO} | 0,014 | kW | Type of energy input: Electric | | | |
| Standby mode | P_{SB} | 0,014 | kW | | | | |
| Crankcase heater mode | P_{CK} | 0,000 | kW | | | | |
| Other items | | | | | | | |
| Capacity control | Variable | | | For air-to-water heat pumps: Rated air flow rate, outdoors | - | 4200 | m ³ /h |
| Sound power level, indoors/outdoors | L_{WA} | na/55 | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | na | m ³ /h |
| Annual energy consumption | Q_{HE} | 4792 | kWh | | | | |

For heat pump combination heater:

| Declared load profile | L | Efficiency class | NA | Water heating energy efficiency | η_{wh} | 66 | % |
|--------------------------------|-------------------|------------------|-----|---------------------------------|-------------------|----|-----|
| Daily electricity consumption | Q _{elec} | 7,118 | kWh | Daily fuel consumption | Q _{fuel} | NA | kWh |
| Annual electricity consumption | AEC | 1566 | kWh | Annual fuel consumption | AFC | NA | GJ |

Specific precautions and end of life information:

The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.

Contact details

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Warm climate and Low temperature (35)

| | | | |
|---------------------------------------|-------------------------------------|---------------------------|-------|
| Model(s): | CTC EcoAir 622M + CTC EcoZenith 250 | | |
| Air-to-water heat pump: | Yes | Energy efficiency class: | - |
| Water-to-water heat pump: | No | Controller class: | VI |
| Brine-to-water heat pump: | No | Controller contribution: | 4 % |
| Low-temperature heat pump: | No | Package efficiency: | 200 % |
| Equipped with a supplementary heater: | Yes | Package efficiency class: | - |
| Heat pump combination heater: | Yes | | |

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low-temperature heat pumps, parameters shall be declared for low-temperature application.

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|--|-------------|-----------|------|--|-------------|------------|-------------------|
| Rated heat output (*) | P_{rated} | 13 | kW | Seasonal space heating energy efficiency | η_s | 196 | % |
| Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j | | | |
| T _j = -7 °C | P_{dh} | na | kW | T _j = -7 °C | COP_d | na | - |
| T _j = +2 °C | P_{dh} | 12,6 | kW | T _j = +2 °C | COP_d | 2,51 | - |
| T _j = +7 °C | P_{dh} | 8,2 | kW | T _j = +7 °C | COP_d | 4,70 | - |
| T _j = +12 °C | P_{dh} | 5,5 | kW | T _j = +12 °C | COP_d | 6,12 | - |
| T _j = bivalent temperature | P_{dh} | 12,6 | kW | T _j = bivalent temperature | COP_d | 2,51 | - |
| T _j = operation limit temperature | P_{dh} | 12,6 | kW | T _j = operation limit temperature | COP_d | 2,51 | - |
| For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | P_{dh} | na | kW | For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | COP_d | na | - |
| Bivalent temperature | T_{biv} | 2 | °C | For air-to-water heat pumps: Operation limit temperature | TOL | 2 | °C |
| Cycling interval capacity for heating | P_{cych} | na | kW | Cycling interval efficiency | COP_{cyc} | na | - |
| Degradation co-efficient | C_{dh} | 0,99 | - | Heating water operating limit temperature | WTOL | 55 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | P_{OFF} | 0,014 | kW | Rated heat output (*) | P_{sup} | 0,0 | kW |
| Thermostat-off mode | P_{TO} | 0,014 | kW | Type of energy input: Electric | | | |
| Standby mode | P_{SB} | 0,014 | kW | | | | |
| Crankcase heater mode | P_{CK} | 0,000 | kW | | | | |
| Other items | | | | | | | |
| Capacity control | Variable | | | For air-to-water heat pumps: Rated air flow rate, outdoors | - | 4200 | m ³ /h |
| Sound power level, indoors/outdoors | L_{WA} | na/55 | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | na | m ³ /h |
| Annual energy consumption | Q_{HE} | 3483 | kWh | | | | |

For heat pump combination heater:

| | | | | | | | |
|--------------------------------|------------|-------------------------|-----------|--|-------------|-----------|-----|
| Declared load profile | L | Efficiency class | NA | Water heating energy efficiency | η_{wh} | 66 | % |
| Daily electricity consumption | Q_{elec} | 7,118 | kWh | Daily fuel consumption | Q_{fuel} | NA | kWh |
| Annual electricity consumption | AEC | 1566 | kWh | Annual fuel consumption | AFC | NA | GJ |

Specific precautions and end of life information:

The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.

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Average climate and Medium temperature (55)

| | | | |
|---------------------------------------|-------------------------------------|---------------------------|-------|
| Model(s): | CTC EcoAir 622M + CTC EcoZenith 250 | | |
| Air-to-water heat pump: | Yes | Energy efficiency class: | A+ - |
| Water-to-water heat pump: | No | Controller class: | VI - |
| Brine-to-water heat pump: | No | Controller contribution: | 4 % |
| Low-temperature heat pump: | No | Package efficiency: | 126 % |
| Equipped with a supplementary heater: | Yes | Package efficiency class: | A++ - |
| Heat pump combination heater: | Yes | | |

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low-temperature heat pumps, parameters shall be declared for low-temperature application.

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|--|-----------------|--------------|------|--|-------------|-------------|-------------------|
| Rated heat output (*) | P_{rated} | 9 | kW | Seasonal space heating energy efficiency | η_s | 122 | % |
| Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j | | | |
| T _j = -7 °C | P_{dh} | 6,2 | kW | T _j = -7 °C | COP_d | 1,00 | - |
| T _j = +2 °C | P_{dh} | 4,1 | kW | T _j = +2 °C | COP_d | 1,97 | - |
| T _j = +7 °C | P_{dh} | 4,4 | kW | T _j = +7 °C | COP_d | 3,35 | - |
| T _j = +12 °C | P_{dh} | 5,5 | kW | T _j = +12 °C | COP_d | 4,40 | - |
| T _j = bivalent temperature | P_{dh} | 7,0 | kW | T _j = bivalent temperature | COP_d | 6,01 | - |
| T _j = operation limit temperature | P_{dh} | 7,0 | kW | T _j = operation limit temperature | COP_d | 1,59 | - |
| For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | P_{dh} | na | kW | For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | COP_d | 1,59 | - |
| Bivalent temperature | T_{biv} | -10 | °C | For air-to-water heat pumps: Operation limit temperature | TOL | -10 | °C |
| Cycling interval capacity for heating | P_{cych} | na | kW | Cycling interval efficiency | COP_{cyc} | na | - |
| Degradation co-efficient | C_{dh} | 0,99 | - | Heating water operating limit temperature | WTOL | 55 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | P_{OFF} | 0,014 | kW | Rated heat output (*) | P_{sup} | 1,5 | kW |
| Thermostat-off mode | P_{TO} | 0,014 | kW | Type of energy input Electric | | | |
| Standby mode | P_{SB} | 0,014 | kW | | | | |
| Crankcase heater mode | P_{CK} | 0,000 | kW | | | | |
| Other items | | | | | | | |
| Capacity control | Variable | | | For air-to-water heat pumps: Rated air flow rate, outdoors | - | 4200 | m ³ /h |
| Sound power level, indoors/outdoors | L_{WA} | na/55 | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | na | m ³ /h |
| Annual energy consumption | Q_{HE} | 5630 | kWh | | | | |

For heat pump combination heater:

| Declared load profile | L | Efficiency class | B | Water heating energy efficiency | η_{wh} | 53 | % |
|--------------------------------|-------------------|------------------|-----|---------------------------------|-------------------|-----------|-----|
| Daily electricity consumption | Q _{elec} | 8,780 | kWh | Daily fuel consumption | Q _{fuel} | NA | kWh |
| Annual electricity consumption | AEC | 1932 | kWh | Annual fuel consumption | AFC | NA | GJ |

Specific precautions and end of life information:

The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.

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Average climate and Low temperature (35)

| | | | |
|---------------------------------------|--|---------------------------|--------------|
| Model(s): | CTC EcoAir 622M + CTC EcoZenith 250 | | |
| Air-to-water heat pump: | Yes | Energy efficiency class: | A++ - |
| Water-to-water heat pump: | No | Controller class: | VI - |
| Brine-to-water heat pump: | No | Controller contribution: | 4 % |
| Low-temperature heat pump: | No | Package efficiency: | 169 % |
| Equipped with a supplementary heater: | Yes | Package efficiency class: | A++ - |
| Heat pump combination heater: | Yes | | |

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low-temperature heat pumps, parameters shall be declared for low-temperature application.

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|--|--------------------------|--------------|------|--|--------------------------|-------------|-------------------|
| Rated heat output (*) | <i>P_{rated}</i> | 9 | kW | Seasonal space heating energy efficiency | η_s | 165 | % |
| Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j | | | |
| T _j = -7 °C | <i>P_{dh}</i> | 7,4 | kW | T _j = -7 °C | <i>COP_d</i> | 2,95 | - |
| T _j = +2 °C | <i>P_{dh}</i> | 4,4 | kW | T _j = +2 °C | <i>COP_d</i> | 4,23 | - |
| T _j = +7 °C | <i>P_{dh}</i> | 4,7 | kW | T _j = +7 °C | <i>COP_d</i> | 5,10 | - |
| T _j = +12 °C | <i>P_{dh}</i> | 5,5 | kW | T _j = +12 °C | <i>COP_d</i> | 6,34 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 8,3 | kW | T _j = bivalent temperature | <i>COP_d</i> | 2,52 | - |
| T _j = operation limit temperature | <i>P_{dh}</i> | 8,3 | kW | T _j = operation limit temperature | <i>COP_d</i> | 2,52 | - |
| For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | <i>P_{dh}</i> | na | kW | For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | <i>COP_d</i> | na | - |
| Bivalent temperature | <i>T_{biv}</i> | -10 | °C | For air-to-water heat pumps: Operation limit temperature | <i>TOL</i> | -10 | °C |
| Cycling interval capacity for heating | <i>P_{cych}</i> | na | kW | Cycling interval efficiency | <i>COP_{cyc}</i> | na | - |
| Degradation co-efficient | <i>C_{dh}</i> | 0,98 | - | Heating water operating limit temperature | <i>WTOL</i> | 55 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | <i>P_{OFF}</i> | 0,014 | kW | Rated heat output (*) | <i>P_{sup}</i> | 0,0 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,014 | kW | Electric | | | |
| Standby mode | <i>P_{SB}</i> | 0,014 | kW | | | | |
| Crankcase heater mode | <i>P_{CK}</i> | 0,000 | kW | Type of energy input | | | |
| Other items | | | | | | | |
| Capacity control | Variable | | | For air-to-water heat pumps: Rated air flow rate, outdoors | - | 4200 | m ³ /h |
| Sound power level, indoors/outdoors | <i>L_{WA}</i> | na/55 | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | na | m ³ /h |
| Annual energy consumption | <i>Q_{HE}</i> | 4185 | kWh | | | | |

For heat pump combination heater:

| Declared load profile | L | Efficiency class | B | Water heating energy efficiency | η_{wh} | 53 | % |
|--------------------------------|-------------------------|------------------|----------|---------------------------------|-------------------------|-----------|-----|
| Daily electricity consumption | <i>Q_{elec}</i> | 8,780 | kWh | Daily fuel consumption | <i>Q_{fuel}</i> | NA | kWh |
| Annual electricity consumption | <i>AEC</i> | 1932 | kWh | Annual fuel consumption | <i>AFC</i> | NA | GJ |

Specific precautions and end of life information:

The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.

Contact details

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| | | | |
|---------------------------------------|--|---------------------------|--------------|
| Model(s): | CTC EcoAir 622M + CTC EcoZenith 250 | | |
| Air-to-water heat pump: | Yes | Energy efficiency class: | - |
| Water-to-water heat pump: | No | Controller class: | VI |
| Brine-to-water heat pump: | No | Controller contribution: | 4 % |
| Low-temperature heat pump: | No | Package efficiency: | 108 % |
| Equipped with a supplementary heater: | Yes | Package efficiency class: | - |
| Heat pump combination heater: | Yes | | |

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low-temperature heat pumps, parameters shall be declared for low-temperature application.

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|--|--------------------------|--------------|------------|--|--------------------------|------------------------|------|
| Rated heat output (*) | <i>P_{rated}</i> | 12 | kW | Seasonal space heating energy efficiency | η_s | 104 | % |
| Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j | | | |
| T _j = -7 °C | <i>P_{dh}</i> | 6,1 | kW | T _j = -7 °C | <i>COP_d</i> | 2,37 | - |
| T _j = +2 °C | <i>P_{dh}</i> | 4,1 | kW | T _j = +2 °C | <i>COP_d</i> | 3,98 | - |
| T _j = +7 °C | <i>P_{dh}</i> | 4,5 | kW | T _j = +7 °C | <i>COP_d</i> | 4,88 | - |
| T _j = +12 °C | <i>P_{dh}</i> | 5,5 | kW | T _j = +12 °C | <i>COP_d</i> | 6,30 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 8,5 | kW | T _j = bivalent temperature | <i>COP_d</i> | 1,13 | - |
| T _j = operation limit temperature | <i>P_{dh}</i> | 3,6 | kW | T _j = operation limit temperature | <i>COP_d</i> | 1,16 | - |
| For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | <i>P_{dh}</i> | 7,6 | kW | For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | <i>COP_d</i> | 1,41 | - |
| Bivalent temperature | <i>T_{biv}</i> | -18 | °C | For air-to-water heat pumps: Operation limit temperature | <i>TOL</i> | -20 | °C |
| Cycling interval capacity for heating | <i>P_{cych}</i> | na | kW | Cycling interval efficiency | <i>COP_{cyc}</i> | na | - |
| Degradation co-efficient | <i>C_{dh}</i> | 0,99 | - | Heating water operating limit temperature | <i>WTOL</i> | 55 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | <i>P_{OFF}</i> | 0,014 | kW | Rated heat output (*) | <i>P_{sup}</i> | 11,5 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,014 | kW | Type of energy input Electric | | | |
| Standby mode | <i>P_{SB}</i> | 0,014 | kW | | | | |
| Crankcase heater mode | <i>P_{CK}</i> | 0,000 | kW | For air-to-water heat pumps: Rated air flow rate, outdoors | | | |
| Other items | | | | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | | | |
| Capacity control | Variable | | | - | 4200 | <i>m³/h</i> | |
| Sound power level, indoors/outdoors | <i>L_{WA}</i> | na/55 | <i>dB</i> | - | na | <i>m³/h</i> | |
| Annual energy consumption | <i>Q_{HE}</i> | 10614 | <i>kWh</i> | | | | |

For heat pump combination heater:

| | | | | | | | |
|--------------------------------|-------------------------|-------------------------|-----------|--|-------------------------|-----------|-----|
| Declared load profile | L | Efficiency class | NA | Water heating energy efficiency | η_{wh} | 46 | % |
| Daily electricity consumption | <i>Q_{elec}</i> | 10,113 | kWh | Daily fuel consumption | <i>Q_{fuel}</i> | NA | kWh |
| Annual electricity consumption | <i>AEC</i> | 2225 | kWh | Annual fuel consumption | <i>AFC</i> | NA | GJ |

Specific precautions and end of life information:

The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.



| | | | |
|---------------------------------------|--|---------------------------|--------------|
| Model(s): | CTC EcoAir 622M + CTC EcoZenith 250 | | |
| Air-to-water heat pump: | Yes | Energy efficiency class: | - |
| Water-to-water heat pump: | No | Controller class: | VI |
| Brine-to-water heat pump: | No | Controller contribution: | 4 % |
| Low-temperature heat pump: | No | Package efficiency: | 145 % |
| Equipped with a supplementary heater: | Yes | Package efficiency class: | - |
| Heat pump combination heater: | Yes | | |

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low-temperature heat pumps, parameters shall be declared for low-temperature application.

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|--|--------------------------|--------------|------|--|--------------------------|-------------|-------------------|
| Rated heat output (*) | <i>P_{rated}</i> | 13 | kW | Seasonal space heating energy efficiency | η_s | 141 | % |
| Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j | | | |
| T _j = -7 °C | <i>P_{dh}</i> | 7,3 | kW | T _j = -7 °C | <i>COP_d</i> | 3,06 | - |
| T _j = +2 °C | <i>P_{dh}</i> | 4,6 | kW | T _j = +2 °C | <i>COP_d</i> | 4,67 | - |
| T _j = +7 °C | <i>P_{dh}</i> | 4,8 | kW | T _j = +7 °C | <i>COP_d</i> | 5,75 | - |
| T _j = +12 °C | <i>P_{dh}</i> | 5,5 | kW | T _j = +12 °C | <i>COP_d</i> | 6,70 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 10,5 | kW | T _j = bivalent temperature | <i>COP_d</i> | 1,61 | - |
| T _j = operation limit temperature | <i>P_{dh}</i> | 4,5 | kW | T _j = operation limit temperature | <i>COP_d</i> | 1,59 | - |
| For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | <i>P_{dh}</i> | 9,6 | kW | For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | <i>COP_d</i> | 1,92 | - |
| Bivalent temperature | <i>T_{biv}</i> | -17 | °C | For air-to-water heat pumps: Operation limit temperature | <i>TOL</i> | -20 | °C |
| Cycling interval capacity for heating | <i>P_{cych}</i> | na | kW | Cycling interval efficiency | <i>COP_{cyc}</i> | na | - |
| Degradation co-efficient | <i>C_{dh}</i> | 0,98 | - | Heating water operating limit temperature | <i>WTOL</i> | 55 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | <i>P_{OFF}</i> | 0,014 | kW | Rated heat output (*) | <i>P_{sup}</i> | 12,5 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,014 | kW | Electric | | | |
| Standby mode | <i>P_{SB}</i> | 0,014 | kW | | | | |
| Crankcase heater mode | <i>P_{CK}</i> | 0,000 | kW | Type of energy input | | | |
| Other items | | | | | | | |
| Capacity control | Variable | | | For air-to-water heat pumps: Rated air flow rate, outdoors | - | 4200 | m ³ /h |
| Sound power level, indoors/outdoors | <i>L_{WA}</i> | na/55 | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | na | m ³ /h |
| Annual energy consumption | <i>Q_{HE}</i> | 8538 | kWh | | | | |

For heat pump combination heater:

| Declared load profile | L | Efficiency class | NA | Water heating energy efficiency | η_{wh} | 46 | % |
|--------------------------------|-------------------------|------------------|-----|---------------------------------|-------------------------|-----------|-----|
| Daily electricity consumption | <i>Q_{elec}</i> | 10,113 | kWh | Daily fuel consumption | <i>Q_{fuel}</i> | NA | kWh |
| Annual electricity consumption | AEC | 2225 | kWh | Annual fuel consumption | AFC | NA | GJ |

Specific precautions and end of life information:

The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.

Warm climate and Medium temperature (55)

| | | | |
|---------------------------------------|---|---------------------------|-------|
| Model(s): | CTC EcoAir 622M + CTC EcoZenith i550 230/400V | | |
| Air-to-water heat pump: | Yes | Energy efficiency class: | - |
| Water-to-water heat pump: | No | Controller class: | VI |
| Brine-to-water heat pump: | No | Controller contribution: | 4 % |
| Low-temperature heat pump: | No | Package efficiency: | 147 % |
| Equipped with a supplementary heater: | Yes | Package efficiency class: | - |
| Heat pump combination heater: | Yes | | |

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low-temperature heat pumps, parameters shall be declared for low-temperature application.

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|--|-------------|--------------|------|--|-------------|-------------|-------------------|
| Rated heat output (*) | P_{rated} | 13 | kW | Seasonal space heating energy efficiency | η_s | 143 | % |
| Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j | | | |
| T _j = -7 °C | P_{dh} | na | kW | T _j = -7 °C | COP_d | na | - |
| T _j = +2 °C | P_{dh} | 13,3 | kW | T _j = +2 °C | COP_d | 1,62 | - |
| T _j = +7 °C | P_{dh} | 8,3 | kW | T _j = +7 °C | COP_d | 3,20 | - |
| T _j = +12 °C | P_{dh} | 5,5 | kW | T _j = +12 °C | COP_d | 4,83 | - |
| T _j = bivalent temperature | P_{dh} | 13,3 | kW | T _j = bivalent temperature | COP_d | 1,62 | - |
| T _j = operation limit temperature | P_{dh} | 13,3 | kW | T _j = operation limit temperature | COP_d | 1,62 | - |
| For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | P_{dh} | na | kW | For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | COP_d | na | - |
| Bivalent temperature | T_{biv} | 2 | °C | For air-to-water heat pumps: Operation limit temperature | TOL | 2 | °C |
| Cycling interval capacity for heating | P_{cych} | na | kW | Cycling interval efficiency | COP_{cyc} | na | - |
| Degradation co-efficient | C_{dh} | 0,99 | - | Heating water operating limit temperature | WTOL | 55 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | P_{OFF} | 0,014 | kW | Rated heat output (*) | P_{sup} | 0,0 | kW |
| Thermostat-off mode | P_{TO} | 0,014 | kW | Type of energy input Electric | | | |
| Standby mode | P_{SB} | 0,014 | kW | | | | |
| Crankcase heater mode | P_{CK} | 0,000 | kW | | | | |
| Other items | | | | | | | |
| Capacity control | Variable | | | For air-to-water heat pumps: Rated air flow rate, outdoors | - | 4200 | m ³ /h |
| Sound power level, indoors/outdoors | L_{WA} | na/55 | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | na | m ³ /h |
| Annual energy consumption | Q_{HE} | 4770 | kWh | | | | |

For heat pump combination heater:

| Declared load profile | XL | Efficiency class | NA | Water heating energy efficiency | η_{wh} | 112 | % |
|--------------------------------|-------|------------------|-----|---------------------------------|-------------|-----|-----|
| Daily electricity consumption | Qelec | 6,835 | kWh | Daily fuel consumption | Q_{fuel} | na | kWh |
| Annual electricity consumption | AEC | 1504 | kWh | Annual fuel consumption | AFC | na | GJ |

Specific precautions and end of life information:

The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.

Contact details

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Warm climate and Low temperature (35)

| | | | |
|---------------------------------------|---|---------------------------|-------|
| Model(s): | CTC EcoAir 622M + CTC EcoZenith i550 230/400V | | |
| Air-to-water heat pump: | Yes | Energy efficiency class: | - |
| Water-to-water heat pump: | No | Controller class: | VI |
| Brine-to-water heat pump: | No | Controller contribution: | 4 % |
| Low-temperature heat pump: | No | Package efficiency: | 199 % |
| Equipped with a supplementary heater: | Yes | Package efficiency class: | - |
| Heat pump combination heater: | Yes | | |

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low-temperature heat pumps, parameters shall be declared for low-temperature application.

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|--|--------------------------|-----------|------|--|--------------------------|------------|-------------------|
| Rated heat output (*) | <i>P_{rated}</i> | 13 | kW | Seasonal space heating energy efficiency | η_s | 195 | % |
| Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j | | | |
| T _j = -7 °C | <i>P_{dh}</i> | na | kW | T _j = -7 °C | <i>COP_d</i> | na | - |
| T _j = +2 °C | <i>P_{dh}</i> | 12,7 | kW | T _j = +2 °C | <i>COP_d</i> | 2,50 | - |
| T _j = +7 °C | <i>P_{dh}</i> | 8,2 | kW | T _j = +7 °C | <i>COP_d</i> | 4,67 | - |
| T _j = +12 °C | <i>P_{dh}</i> | 5,6 | kW | T _j = +12 °C | <i>COP_d</i> | 6,06 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 12,7 | kW | T _j = bivalent temperature | <i>COP_d</i> | 2,50 | - |
| T _j = operation limit temperature | <i>P_{dh}</i> | 12,7 | kW | T _j = operation limit temperature | <i>COP_d</i> | 2,50 | - |
| For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | <i>P_{dh}</i> | na | kW | For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | <i>COP_d</i> | na | - |
| Bivalent temperature | <i>T_{biv}</i> | 2 | °C | For air-to-water heat pumps: Operation limit temperature | <i>TOL</i> | 2 | °C |
| Cycling interval capacity for heating | <i>P_{cych}</i> | na | kW | Cycling interval efficiency | <i>COP_{cyc}</i> | na | - |
| Degradation co-efficient | <i>C_{dh}</i> | 0,99 | - | Heating water operating limit temperature | <i>WTOL</i> | 55 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | <i>P_{OFF}</i> | 0,014 | kW | Rated heat output (*) | <i>P_{sup}</i> | 0,0 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,014 | kW | Type of energy input: Electric | | | |
| Standby mode | <i>P_{SB}</i> | 0,014 | kW | | | | |
| Crankcase heater mode | <i>P_{CK}</i> | 0,000 | kW | For air-to-water heat pumps: Rated air flow rate, outdoors | | | |
| Other items | | | | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | | | |
| Capacity control | Variable | | | - | | 4200 | m ³ /h |
| Sound power level, indoors/outdoors | <i>L_{WA}</i> | na/55 | dB | - | | na | m ³ /h |
| Annual energy consumption | <i>Q_{HE}</i> | 3513 | kWh | | | | |

For heat pump combination heater:

| | | | | | | | |
|--------------------------------|-------------------------|-------------------------|-----------|--|-------------------------|------------|-----|
| Declared load profile | XL | Efficiency class | NA | Water heating energy efficiency | η_{wh} | 112 | % |
| Daily electricity consumption | <i>Q_{elec}</i> | 6,835 | kWh | Daily fuel consumption | <i>Q_{fuel}</i> | na | kWh |
| Annual electricity consumption | <i>AEC</i> | 1504 | kWh | Annual fuel consumption | <i>AFC</i> | na | GJ |

Specific precautions and end of life information:

The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.

Average climate and Medium temperature (55)

| | | | |
|---------------------------------------|--|---------------------------|--------------|
| Model(s): | CTC EcoAir 622M + CTC EcoZenith i550 230/400V | | |
| Air-to-water heat pump: | Yes | Energy efficiency class: | A++ - |
| Water-to-water heat pump: | No | Controller class: | VI - |
| Brine-to-water heat pump: | No | Controller contribution: | 4 % |
| Low-temperature heat pump: | No | Package efficiency: | 139 % |
| Equipped with a supplementary heater: | Yes | Package efficiency class: | A++ - |
| Heat pump combination heater: | Yes | | |

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low-temperature heat pumps, parameters shall be declared for low-temperature application.

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|--|--------------------------|--------------|------|--|--------------------------|-------------|-------------------|
| Rated heat output (*) | <i>P_{rated}</i> | 9 | kW | Seasonal space heating energy efficiency | η_s | 135 | % |
| Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j | | | |
| T _j = -7 °C | <i>P_{dh}</i> | 6,9 | kW | T _j = -7 °C | <i>COP_d</i> | 2,13 | - |
| T _j = +2 °C | <i>P_{dh}</i> | 4,4 | kW | T _j = +2 °C | <i>COP_d</i> | 3,48 | - |
| T _j = +7 °C | <i>P_{dh}</i> | 4,6 | kW | T _j = +7 °C | <i>COP_d</i> | 4,45 | - |
| T _j = +12 °C | <i>P_{dh}</i> | 5,5 | kW | T _j = +12 °C | <i>COP_d</i> | 5,92 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 7,9 | kW | T _j = bivalent temperature | <i>COP_d</i> | 1,74 | - |
| T _j = operation limit temperature | <i>P_{dh}</i> | 7,9 | kW | T _j = operation limit temperature | <i>COP_d</i> | 1,74 | - |
| For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | <i>P_{dh}</i> | na | kW | For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | <i>COP_d</i> | na | - |
| Bivalent temperature | <i>T_{biv}</i> | -10 | °C | For air-to-water heat pumps: Operation limit temperature | <i>TOL</i> | -10 | °C |
| Cycling interval capacity for heating | <i>P_{cych}</i> | na | kW | Cycling interval efficiency | <i>COP_{cyc}</i> | na | - |
| Degradation co-efficient | <i>C_{dh}</i> | 0,99 | - | Heating water operating limit temperature | <i>WTOL</i> | 55 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | <i>P_{OFF}</i> | 0,014 | kW | Rated heat output (*) | <i>P_{sup}</i> | 0,0 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,014 | kW | Electric | | | |
| Standby mode | <i>P_{SB}</i> | 0,014 | kW | | | | |
| Crankcase heater mode | <i>P_{CK}</i> | 0,000 | kW | Type of energy input | | | |
| Other items | | | | | | | |
| Capacity control | Variable | | | For air-to-water heat pumps: Rated air flow rate, outdoors | - | 4200 | m ³ /h |
| Sound power level, indoors/outdoors | <i>L_{WA}</i> | na/55 | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | na | m ³ /h |
| Annual energy consumption | <i>Q_{HE}</i> | 5079 | kWh | | | | |

For heat pump combination heater:

| Declared load profile | XL | Efficiency class | A | Water heating energy efficiency | η_{wh} | 98 | % |
|--------------------------------|-------------------------|------------------|-----|---------------------------------|-------------------------|-----------|-----|
| Daily electricity consumption | <i>Q_{elec}</i> | 7,816 | kWh | Daily fuel consumption | <i>Q_{fuel}</i> | NA | kWh |
| Annual electricity consumption | <i>AEC</i> | 1719 | kWh | Annual fuel consumption | <i>AFC</i> | NA | GJ |

Specific precautions and end of life information:

The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.

Contact details

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Average climate and Low temperature (35)

| | | | |
|---------------------------------------|--|---------------------------|--------------|
| Model(s): | CTC EcoAir 622M + CTC EcoZenith i550 230/400V | | |
| Air-to-water heat pump: | Yes | Energy efficiency class: | A++ - |
| Water-to-water heat pump: | No | Controller class: | VI - |
| Brine-to-water heat pump: | No | Controller contribution: | 4 % |
| Low-temperature heat pump: | No | Package efficiency: | 168 % |
| Equipped with a supplementary heater: | Yes | Package efficiency class: | A++ - |
| Heat pump combination heater: | Yes | | |

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low-temperature heat pumps, parameters shall be declared for low-temperature application.

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|--|-------------------------|--------------|------|--|-------------------------|-------------|-------------------|
| Rated heat output (*) | <i>Prated</i> | 9 | kW | Seasonal space heating energy efficiency | η_s | 164 | % |
| Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j | | | |
| T _j = -7 °C | <i>P_{dh}</i> | 7,6 | kW | T _j = -7 °C | <i>COP_d</i> | 2,96 | - |
| T _j = +2 °C | <i>P_{dh}</i> | 4,4 | kW | T _j = +2 °C | <i>COP_d</i> | 4,21 | - |
| T _j = +7 °C | <i>P_{dh}</i> | 4,8 | kW | T _j = +7 °C | <i>COP_d</i> | 5,05 | - |
| T _j = +12 °C | <i>P_{dh}</i> | 5,5 | kW | T _j = +12 °C | <i>COP_d</i> | 6,27 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 8,5 | kW | T _j = bivalent temperature | <i>COP_d</i> | 2,54 | - |
| T _j = operation limit temperature | <i>P_{dh}</i> | 8,5 | kW | T _j = operation limit temperature | <i>COP_d</i> | 2,54 | - |
| For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | <i>P_{dh}</i> | na | kW | For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | <i>COP_d</i> | na | - |
| Bivalent temperature | <i>T_{biv}</i> | -10 | °C | For air-to-water heat pumps: Operation limit temperature | <i>TOL</i> | -10 | °C |
| Cycling interval capacity for heating | <i>P_{cych}</i> | na | kW | Cycling interval efficiency | <i>COP_{cy}</i> | na | - |
| Degradation co-efficient | <i>C_{dh}</i> | 0,98 | - | Heating water operating limit temperature | <i>WTOL</i> | 55 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | <i>P_{OFF}</i> | 0,014 | kW | Rated heat output (*) | <i>P_{sup}</i> | 0,0 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,014 | kW | Type of energy input Electric | | | |
| Standby mode | <i>P_{SB}</i> | 0,014 | kW | | | | |
| Crankcase heater mode | <i>P_{CK}</i> | 0,000 | kW | | | | |
| Other items | | | | | | | |
| Capacity control | Variable | | | For air-to-water heat pumps: Rated air flow rate, outdoors | - | 4200 | m ³ /h |
| Sound power level, indoors/ outdoors | <i>L_{WA}</i> | na/55 | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | na | m ³ /h |
| Annual energy consumption | <i>Q_{HE}</i> | 4204 | kWh | | | | |

For heat pump combination heater:

| | | | | | | | |
|--------------------------------|-------------------------|-------------------------|----------|--|-------------------------|-----------|-----|
| Declared load profile | XL | Efficiency class | A | Water heating energy efficiency | η_{wh} | 98 | % |
| Daily electricity consumption | <i>Q_{elec}</i> | 7,816 | kWh | Daily fuel consumption | <i>Q_{fuel}</i> | na | kWh |
| Annual electricity consumption | <i>AEC</i> | 1719 | kWh | Annual fuel consumption | <i>AFC</i> | na | GJ |

Specific precautions and end of life information:

The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.

Contact details

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| | | | |
|---------------------------------------|--|---------------------------|--------------|
| Model(s): | CTC EcoAir 622M + CTC EcoZenith i550 230/400V | | |
| Air-to-water heat pump: | Yes | Energy efficiency class: | - |
| Water-to-water heat pump: | No | Controller class: | VI |
| Brine-to-water heat pump: | No | Controller contribution: | 4 % |
| Low-temperature heat pump: | No | Package efficiency: | 126 % |
| Equipped with a supplementary heater: | Yes | Package efficiency class: | - |
| Heat pump combination heater: | Yes | | |

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low-temperature heat pumps, parameters shall be declared for low-temperature application.

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|--|--------------------------|--------------|------|--|--------------------------|-------------|-------------------|
| Rated heat output (*) | <i>P_{rated}</i> | 12 | kW | Seasonal space heating energy efficiency | η_s | 122 | % |
| Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j | | | |
| T _j = -7 °C | <i>P_{dh}</i> | 6,7 | kW | T _j = -7 °C | <i>COP_d</i> | 2,57 | - |
| T _j = +2 °C | <i>P_{dh}</i> | 4,4 | kW | T _j = +2 °C | <i>COP_d</i> | 4,14 | - |
| T _j = +7 °C | <i>P_{dh}</i> | 4,6 | kW | T _j = +7 °C | <i>COP_d</i> | 4,94 | - |
| T _j = +12 °C | <i>P_{dh}</i> | 5,5 | kW | T _j = +12 °C | <i>COP_d</i> | 6,19 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 9,7 | kW | T _j = bivalent temperature | <i>COP_d</i> | 1,26 | - |
| T _j = operation limit temperature | <i>P_{dh}</i> | 4,1 | kW | T _j = operation limit temperature | <i>COP_d</i> | 1,30 | - |
| For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | <i>P_{dh}</i> | 8,6 | kW | For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | <i>COP_d</i> | 1,56 | - |
| Bivalent temperature | <i>T_{biv}</i> | -18 | °C | For air-to-water heat pumps: Operation limit temperature | <i>TOL</i> | -20 | °C |
| Cycling interval capacity for heating | <i>P_{cych}</i> | na | kW | Cycling interval efficiency | <i>COP_{cyc}</i> | na | - |
| Degradation co-efficient | <i>C_{dh}</i> | 0,99 | - | Heating water operating limit temperature | <i>WTOL</i> | 55 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | <i>P_{OFF}</i> | 0,014 | kW | Rated heat output (*) | <i>P_{sup}</i> | 11,5 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,014 | kW | Type of energy input Electric | | | |
| Standby mode | <i>P_{SB}</i> | 0,014 | kW | | | | |
| Crankcase heater mode | <i>P_{CK}</i> | 0,000 | kW | | | | |
| Other items | | | | | | | |
| Capacity control | Variable | | | For air-to-water heat pumps: Rated air flow rate, outdoors | - | 4200 | m ³ /h |
| Sound power level, indoors/outdoors | <i>L_{WA}</i> | na/55 | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | na | m ³ /h |
| Annual energy consumption | <i>Q_{HE}</i> | 9055 | kWh | | | | |

| | | | | | | | |
|-----------------------------------|-------------------------|-------------------------|-----------|--|-------------------------|-----------|-----|
| For heat pump combination heater: | | | | | | | |
| Declared load profile | XL | Efficiency class | NA | Water heating energy efficiency | η_{wh} | 82 | % |
| Daily electricity consumption | <i>Q_{elec}</i> | 9,257 | kWh | Daily fuel consumption | <i>Q_{fuel}</i> | na | kWh |
| Annual electricity consumption | <i>AEC</i> | 2037 | kWh | Annual fuel consumption | <i>AFC</i> | na | GJ |

Specific precautions and end of life information:

The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.



| | | | |
|---------------------------------------|--|---------------------------|--------------|
| Model(s): | CTC EcoAir 622M + CTC EcoZenith i550 230/400V | | |
| Air-to-water heat pump: | Yes | Energy efficiency class: | - |
| Water-to-water heat pump: | No | Controller class: | VI |
| Brine-to-water heat pump: | No | Controller contribution: | 4 % |
| Low-temperature heat pump: | No | Package efficiency: | 146 % |
| Equipped with a supplementary heater: | Yes | Package efficiency class: | - |
| Heat pump combination heater: | Yes | | |

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low-temperature heat pumps, parameters shall be declared for low-temperature application.

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|--|-------------------------|--------------|------|--|--------------------------|-------------|-------------------|
| Rated heat output (*) | <i>Prated</i> | 13 | kW | Seasonal space heating energy efficiency | η_s | 142 | % |
| Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j | | | |
| T _j = -7 °C | <i>P_{dh}</i> | 7,4 | kW | T _j = -7 °C | <i>COP_d</i> | 3,08 | - |
| T _j = +2 °C | <i>P_{dh}</i> | 4,6 | kW | T _j = +2 °C | <i>COP_d</i> | 4,65 | - |
| T _j = +7 °C | <i>P_{dh}</i> | 4,8 | kW | T _j = +7 °C | <i>COP_d</i> | 5,70 | - |
| T _j = +12 °C | <i>P_{dh}</i> | 5,6 | kW | T _j = +12 °C | <i>COP_d</i> | 6,62 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 10,9 | kW | T _j = bivalent temperature | <i>COP_d</i> | 1,64 | - |
| T _j = operation limit temperature | <i>P_{dh}</i> | 4,7 | kW | T _j = operation limit temperature | <i>COP_d</i> | 1,63 | - |
| For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | <i>P_{dh}</i> | 10,0 | kW | For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C) | <i>COP_d</i> | 1,96 | - |
| Bivalent temperature | <i>T_{biv}</i> | -17 | °C | For air-to-water heat pumps: Operation limit temperature | <i>TOL</i> | -20 | °C |
| Cycling interval capacity for heating | <i>P_{cych}</i> | na | kW | Cycling interval efficiency | <i>COP_{cyc}</i> | na | - |
| Degradation co-efficient | <i>C_{dh}</i> | 0,98 | - | Heating water operating limit temperature | <i>WTOL</i> | 55 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | <i>P_{OFF}</i> | 0,014 | kW | Rated heat output (*) | <i>P_{sup}</i> | 12,5 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,014 | kW | Type of energy input | Electric | | |
| Standby mode | <i>P_{SB}</i> | 0,014 | kW | | | | |
| Crankcase heater mode | <i>P_{CK}</i> | 0,000 | kW | | | | |
| Other items | | | | | | | |
| Capacity control | Variable | | | For air-to-water heat pumps: Rated air flow rate, outdoors | - | 4200 | m ³ /h |
| Sound power level, indoors/ outdoors | <i>L_{WA}</i> | na/55 | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | na | m ³ /h |
| Annual energy consumption | <i>Q_{HE}</i> | 8523 | kWh | | | | |

For heat pump combination heater:

| Declared load profile | XL | Efficiency class | NA | Water heating energy efficiency | η_{wh} | 82 | % |
|--------------------------------|-------------------------|------------------|-----|---------------------------------|-------------------------|-----------|-----|
| Daily electricity consumption | <i>Q_{elec}</i> | 9,257 | kWh | Daily fuel consumption | <i>Q_{fuel}</i> | na | kWh |
| Annual electricity consumption | AEC | 2037 | kWh | Annual fuel consumption | AFC | na | GJ |

Specific precautions and end of life information:

The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.