

Warm climate and Medium temperature

| | | | |
|---------------------------------------|--------------------------------|---------------------------|-------|
| Model(s): | CTC EcoPart 417 + CTC EcoLogic | | |
| Air-to-water heat pump: | No | Energy efficiency class: | - |
| Water-to-water heat pump: | No | Controller class: | VII - |
| Brine-to-water heat pump: | Yes | Controller contribution: | 3,5 % |
| Low-temperature heat pump: | No | Package efficiency: | 141 % |
| 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> | 17 | kW | Seasonal space heating energy efficiency | η_s | 137 | % |
| 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> | 15,9 | kW | T _j = +2 °C | <i>COP_d</i> | 3,07 | - |
| T _j = +7 °C | <i>P_{dh}</i> | 16,0 | kW | T _j = +7 °C | <i>COP_d</i> | 3,42 | - |
| T _j = +12 °C | <i>P_{dh}</i> | 16,5 | kW | T _j = +12 °C | <i>COP_d</i> | 4,09 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 15,9 | kW | T _j = bivalent temperature | <i>COP_d</i> | 3,17 | - |
| T _j = operation limit temperature | <i>P_{dh}</i> | na | kW | T _j = operation limit temperature | <i>COP_d</i> | na | - |
| 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> | 3 | °C | For air-to-water heat pumps: Operation limit temperature | <i>TOL</i> | na | °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> | 65 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | <i>P_{OFF}</i> | 0,018 | kW | Rated heat output | <i>P_{sup}</i> | 1,3 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,008 | kW | Type of energy input | Electric | | |
| Standby mode | <i>P_{SB}</i> | 0,018 | kW | | | | |
| Crankcase heater mode | <i>P_{CK}</i> | 0,000 | kW | | | | |
| Other items | | | | | | | |
| Capacity control | Fixed | | | For air-to-water heat pumps: Rated air flow rate, outdoors | - | na | m ³ /h |
| Sound power level, indoors/ outdoors | <i>L_{WA}</i> | 56/na | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | 3,1 | m ³ /h |
| Annual energy consumption | <i>Q_{HE}</i> | 6315 | kWh | | | | |

For heat pump combination heater:

| | | | | | | | |
|--|-------------------------|----|-----|--|-------------------------|----|-----|
| Declared load profile / Energy efficiency class | 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

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

www.ctc.se

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Warm climate and Low temperature

| | | | |
|---------------------------------------|--------------------------------|---------------------------|-------|
| Model(s): | CTC EcoPart 417 + CTC EcoLogic | | |
| Air-to-water heat pump: | No | Energy efficiency class: | - |
| Water-to-water heat pump: | No | Controller class: | VII - |
| Brine-to-water heat pump: | Yes | Controller contribution: | 3,5 % |
| Low-temperature heat pump: | No | Package efficiency: | 184 % |
| 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> | 18 | kW | Seasonal space heating energy efficiency | η_s | 180 | % |
| 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> | 16,9 | kW | T _j = +2 °C | <i>COP_d</i> | 4,55 | - |
| T _j = +7 °C | <i>P_{dh}</i> | 17,0 | kW | T _j = +7 °C | <i>COP_d</i> | 4,78 | - |
| T _j = +12 °C | <i>P_{dh}</i> | 17,3 | kW | T _j = +12 °C | <i>COP_d</i> | 5,06 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 16,9 | kW | T _j = bivalent temperature | <i>COP_d</i> | 4,63 | - |
| T _j = operation limit temperature | <i>P_{dh}</i> | na | kW | T _j = operation limit temperature | <i>COP_d</i> | na | - |
| 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> | 3 | °C | For air-to-water heat pumps: Operation limit temperature | <i>TOL</i> | na | °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> | 65 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | <i>P_{OFF}</i> | 0,018 | kW | Rated heat output | <i>P_{sup}</i> | 1,4 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,027 | kW | Type of energy input | Electric | | |
| Standby mode | <i>P_{SB}</i> | 0,018 | kW | | | | |
| Crankcase heater mode | <i>P_{CK}</i> | 0,000 | kW | | | | |
| Other items | | | | | | | |
| Capacity control | Fixed | | | For air-to-water heat pumps: Rated air flow rate, outdoors | - | na | m ³ /h |
| Sound power level, indoors/outdoors | <i>L_{WA}</i> | 56/na | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | 3,8 | m ³ /h |
| Annual energy consumption | <i>Q_{HE}</i> | 5180 | kWh | | | | |

For heat pump combination heater:

| | | | | | | | |
|--|-------------------------|----|-----|--|-------------------------|----|-----|
| Declared load profile / Energy efficiency class | 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

| | | | |
|---------------------------------------|--------------------------------|---------------------------|-------|
| Model(s): | CTC EcoPart 417 + CTC EcoLogic | | |
| Air-to-water heat pump: | No | Energy efficiency class: | A++ - |
| Water-to-water heat pump: | No | Controller class: | VII - |
| Brine-to-water heat pump: | Yes | Controller contribution: | 3,5 % |
| Low-temperature heat pump: | No | Package efficiency: | 141 % |
| 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> | 18 | kW | Seasonal space heating energy efficiency | η_s | 137 | % |
| 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> | 16 | kW | T _j = -7 °C | <i>COP_d</i> | 3,23 | - |
| T _j = +2 °C | <i>P_{dh}</i> | 16,1 | kW | T _j = +2 °C | <i>COP_d</i> | 3,60 | - |
| T _j = +7 °C | <i>P_{dh}</i> | 16,4 | kW | T _j = +7 °C | <i>COP_d</i> | 3,97 | - |
| T _j = +12 °C | <i>P_{dh}</i> | 16,7 | kW | T _j = +12 °C | <i>COP_d</i> | 4,36 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 16 | kW | T _j = bivalent temperature | <i>COP_d</i> | 3,23 | - |
| T _j = operation limit temperature | <i>P_{dh}</i> | na | kW | T _j = operation limit temperature | <i>COP_d</i> | na | - |
| 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> | -7 | °C | For air-to-water heat pumps: Operation limit temperature | <i>TOL</i> | na | °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> | 65 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | <i>P_{OFF}</i> | 0,018 | kW | Rated heat output | <i>P_{sup}</i> | 2,2 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,008 | kW | Type of energy input | Electric | | |
| Standby mode | <i>P_{SB}</i> | 0,018 | kW | | | | |
| Crankcase heater mode | <i>P_{CK}</i> | 0,000 | kW | | | | |
| Other items | | | | | | | |
| Capacity control | Fixed | | | For air-to-water heat pumps: Rated air flow rate, outdoors | - | na | m ³ /h |
| Sound power level, indoors/outdoors | <i>L_{WA}</i> | 56/na | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | 3,1 | m ³ /h |
| Annual energy consumption | <i>Q_{HE}</i> | 10286 | kWh | | | | |

For heat pump combination heater:

| | | | | | | | |
|--|-------------------------|-----------|-----|--|-------------------------|-----------|-----|
| Declared load profile / Energy efficiency class | 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.

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Average climate and Low temperature

| | | | |
|---------------------------------------|--------------------------------|---------------------------|--------|
| Model(s): | CTC EcoPart 417 + CTC EcoLogic | | |
| Air-to-water heat pump: | No | Energy efficiency class: | A+++ - |
| Water-to-water heat pump: | No | Controller class: | VII - |
| Brine-to-water heat pump: | Yes | Controller contribution: | 3,5 % |
| Low-temperature heat pump: | No | Package efficiency: | 185 % |
| 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> | 19 | kW | Seasonal space heating energy efficiency | η_s | 181 | % |
| 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> | 16,9 | kW | T _j = -7 °C | <i>COP_d</i> | 4,64 | - |
| T _j = +2 °C | <i>P_{dh}</i> | 17,1 | kW | T _j = +2 °C | <i>COP_d</i> | 4,83 | - |
| T _j = +7 °C | <i>P_{dh}</i> | 17,2 | kW | T _j = +7 °C | <i>COP_d</i> | 5,01 | - |
| T _j = +12 °C | <i>P_{dh}</i> | 17,4 | kW | T _j = +12 °C | <i>COP_d</i> | 5,18 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 16,9 | kW | T _j = bivalent temperature | <i>COP_d</i> | 4,64 | - |
| T _j = operation limit temperature | <i>P_{dh}</i> | na | kW | T _j = operation limit temperature | <i>COP_d</i> | na | - |
| 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> | -7 | °C | For air-to-water heat pumps: Operation limit temperature | <i>TOL</i> | na | °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> | 65 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | <i>P_{OFF}</i> | 0,018 | kW | Rated heat output | <i>P_{sup}</i> | 2,3 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,027 | kW | Type of energy input | Electric | | |
| Standby mode | <i>P_{SB}</i> | 0,018 | kW | | | | |
| Crankcase heater mode | <i>P_{CK}</i> | 0,000 | kW | | | | |
| Other items | | | | | | | |
| Capacity control | Fixed | | | For air-to-water heat pumps: Rated air flow rate, outdoors | - | na | m ³ /h |
| Sound power level, indoors/outdoors | <i>L_{WA}</i> | 56/na | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | 3,8 | m ³ /h |
| Annual energy consumption | <i>Q_{HE}</i> | 8362 | kWh | | | | |

For heat pump combination heater:

| | | | | | | | |
|--|-------------------------|-----------|-----|--|-------------------------|-----------|-----|
| Declared load profile / Energy efficiency class | 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 Medium temperature

| | | | |
|---------------------------------------|--------------------------------|---------------------------|-------|
| Model(s): | CTC EcoPart 417 + CTC EcoLogic | | |
| Air-to-water heat pump: | No | Energy efficiency class: | - |
| Water-to-water heat pump: | No | Controller class: | VII - |
| Brine-to-water heat pump: | Yes | Controller contribution: | 3,5 % |
| Low-temperature heat pump: | No | Package efficiency: | 144 % |
| 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> | 17 | kW | Seasonal space heating energy efficiency | η_s | 140 | % |
| 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> | 16,1 | kW | T _j = -7 °C | <i>COP_d</i> | 3,51 | - |
| T _j = +2 °C | <i>P_{dh}</i> | 16,4 | kW | T _j = +2 °C | <i>COP_d</i> | 3,89 | - |
| T _j = +7 °C | <i>P_{dh}</i> | 16,6 | kW | T _j = +7 °C | <i>COP_d</i> | 4,24 | - |
| T _j = +12 °C | <i>P_{dh}</i> | 16,8 | kW | T _j = +12 °C | <i>COP_d</i> | 4,50 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 15,9 | kW | T _j = bivalent temperature | <i>COP_d</i> | 3,19 | - |
| T _j = operation limit temperature | <i>P_{dh}</i> | na | kW | T _j = operation limit temperature | <i>COP_d</i> | na | - |
| 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> | -19 | °C | For air-to-water heat pumps: Operation limit temperature | <i>TOL</i> | na | °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> | 65 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | <i>P_{OFF}</i> | 0,018 | kW | Rated heat output | <i>P_{sup}</i> | 1,4 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,008 | kW | Type of energy input | Electric | | |
| Standby mode | <i>P_{SB}</i> | 0,018 | kW | | | | |
| Crankcase heater mode | <i>P_{CK}</i> | 0,000 | kW | | | | |
| Other items | | | | | | | |
| Capacity control | Fixed | | | For air-to-water heat pumps: Rated air flow rate, outdoors | - | na | m ³ /h |
| Sound power level, indoors/outdoors | <i>L_{WA}</i> | 56/na | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | 3,1 | m ³ /h |
| Annual energy consumption | <i>Q_{HE}</i> | 11554 | kWh | | | | |

For heat pump combination heater:

| | | | | | | | |
|--|-------------------------|-----------|-----|--|-------------------------|-----------|-----|
| Declared load profile / Energy efficiency class | 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.

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Cold climate and Low temperature

| | | | |
|---------------------------------------|--------------------------------|---------------------------|-------|
| Model(s): | CTC EcoPart 417 + CTC EcoLogic | | |
| Air-to-water heat pump: | No | Energy efficiency class: | - |
| Water-to-water heat pump: | No | Controller class: | VII - |
| Brine-to-water heat pump: | Yes | Controller contribution: | 3,5 % |
| Low-temperature heat pump: | No | Package efficiency: | 166 % |
| 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> | 18 | kW | Seasonal space heating energy efficiency | η_s | 184 | % |
| 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> | 17,1 | kW | T _j = -7 °C | <i>COP_d</i> | 4,84 | - |
| T _j = +2 °C | <i>P_{dh}</i> | 17,2 | kW | T _j = +2 °C | <i>COP_d</i> | 5,01 | - |
| T _j = +7 °C | <i>P_{dh}</i> | 17,3 | kW | T _j = +7 °C | <i>COP_d</i> | 5,13 | - |
| T _j = +12 °C | <i>P_{dh}</i> | 17,3 | kW | T _j = +12 °C | <i>COP_d</i> | 5,15 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 16,9 | kW | T _j = bivalent temperature | <i>COP_d</i> | 4,61 | - |
| T _j = operation limit temperature | <i>P_{dh}</i> | na | kW | T _j = operation limit temperature | <i>COP_d</i> | na | - |
| 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> | -20 | °C | For air-to-water heat pumps: Operation limit temperature | <i>TOL</i> | na | °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> | 65 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | <i>P_{OFF}</i> | 0,018 | kW | Rated heat output | <i>P_{sup}</i> | 1,0 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,027 | kW | Type of energy input | Electric | | |
| Standby mode | <i>P_{SB}</i> | 0,018 | kW | | | | |
| Crankcase heater mode | <i>P_{CK}</i> | 0,000 | kW | | | | |
| Other items | | | | | | | |
| Capacity control | Fixed | | | For air-to-water heat pumps: Rated air flow rate, outdoors | - | na | m ³ /h |
| Sound power level, indoors/ outdoors | <i>L_{WA}</i> | 56/na | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | 3,8 | m ³ /h |
| Annual energy consumption | <i>Q_{HE}</i> | 9166 | kWh | | | | |

For heat pump combination heater:

| | | | | | | | |
|--|-------------------------|-----------|-----|--|-------------------------|-----------|-----|
| Declared load profile / Energy efficiency class | 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

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

www.ctc.se

181001

Warm climate and Medium temperature

| | | | |
|---------------------------------------|--------------------------------------|---------------------------|-------|
| Model(s): | CTC EcoPart 417 + CTC EcoZenith i555 | | |
| Air-to-water heat pump: | No | Energy efficiency class: | - |
| Water-to-water heat pump: | No | Controller class: | VII |
| Brine-to-water heat pump: | Yes | Controller contribution: | 3,5 % |
| Low-temperature heat pump: | No | Package efficiency: | 124 % |
| 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> | 17 | kW | Seasonal space heating energy efficiency | η_s | 120 | % |
| 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> | 15,9 | kW | T _j = +2 °C | <i>COP_d</i> | 2,77 | - |
| T _j = +7 °C | <i>P_{dh}</i> | 16,0 | kW | T _j = +7 °C | <i>COP_d</i> | 3,07 | - |
| T _j = +12 °C | <i>P_{dh}</i> | 16,5 | kW | T _j = +12 °C | <i>COP_d</i> | 3,64 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 15,9 | kW | T _j = bivalent temperature | <i>COP_d</i> | 2,85 | - |
| T _j = operation limit temperature | <i>P_{dh}</i> | 15,9 | kW | T _j = operation limit temperature | <i>COP_d</i> | 2,77 | - |
| 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> | 3 | °C | For air-to-water heat pumps: Operation limit temperature | <i>TOL</i> | na | °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> | 65 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | <i>P_{OFF}</i> | 0,018 | kW | Rated heat output | <i>P_{sup}</i> | 1,3 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,052 | kW | Type of energy input | Electric | | |
| Standby mode | <i>P_{SB}</i> | 0,018 | kW | | | | |
| Crankcase heater mode | <i>P_{CK}</i> | 0,000 | kW | | | | |
| Other items | | | | | | | |
| Capacity control | Fixed | | | For air-to-water heat pumps: Rated air flow rate, outdoors | - | na | m ³ /h |
| Sound power level, indoors/ outdoors | <i>L_{WA}</i> | 56/na | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | 3,1 | m ³ /h |
| Annual energy consumption | <i>Q_{HE}</i> | 7168 | kWh | | | | |

For heat pump combination heater:

| | | | | | | | |
|--|-------------------------|-------|-----|--|-------------------------|----|-----|
| Declared load profile / Energy efficiency class | XL / A | | | Water heating energy efficiency | η_{wh} | 89 | % |
| Daily electricity consumption | <i>Q_{elec}</i> | 9,110 | kWh | Daily fuel consumption | <i>Q_{fuel}</i> | NA | kWh |
| Annual electricity consumption | <i>AEC</i> | 2004 | 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

200701

Warm climate and Low temperature

| | | | |
|---------------------------------------|--------------------------------------|---------------------------|-------|
| Model(s): | CTC EcoPart 417 + CTC EcoZenith i555 | | |
| Air-to-water heat pump: | No | Energy efficiency class: | - |
| Water-to-water heat pump: | No | Controller class: | VII - |
| Brine-to-water heat pump: | Yes | Controller contribution: | 3,5 % |
| Low-temperature heat pump: | No | Package efficiency: | 153 % |
| 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> | 18 | kW | Seasonal space heating energy efficiency | η_s | 149 | % |
| 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> | 16,9 | kW | T _j = +2 °C | <i>COP_d</i> | 4,01 | - |
| T _j = +7 °C | <i>P_{dh}</i> | 17,0 | kW | T _j = +7 °C | <i>COP_d</i> | 4,20 | - |
| T _j = +12 °C | <i>P_{dh}</i> | 17,3 | kW | T _j = +12 °C | <i>COP_d</i> | 4,43 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 16,9 | kW | T _j = bivalent temperature | <i>COP_d</i> | 4,07 | - |
| T _j = operation limit temperature | <i>P_{dh}</i> | 16,9 | kW | T _j = operation limit temperature | <i>COP_d</i> | 4,01 | - |
| 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> | 3 | °C | For air-to-water heat pumps: Operation limit temperature | <i>TOL</i> | na | °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> | 0,96 | - | Heating water operating limit temperature | <i>WTOL</i> | 65 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | <i>P_{OFF}</i> | 0,018 | kW | Rated heat output | <i>P_{sup}</i> | 1,4 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,146 | kW | Type of energy input | Electric | | |
| Standby mode | <i>P_{SB}</i> | 0,018 | kW | | | | |
| Crankcase heater mode | <i>P_{CK}</i> | 0,000 | kW | | | | |
| Other items | | | | | | | |
| Capacity control | Fixed | | | For air-to-water heat pumps: Rated air flow rate, outdoors | - | na | m ³ /h |
| Sound power level, indoors/ outdoors | <i>L_{WA}</i> | 56/na | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | 3,8 | m ³ /h |
| Annual energy consumption | <i>Q_{HE}</i> | 6208 | kWh | | | | |

For heat pump combination heater:

| | | | | | | | |
|--|-------------------------|-------|-----|--|-------------------------|----|-----|
| Declared load profile / Energy efficiency class | XL / A | | | Water heating energy efficiency | η_{wh} | 89 | % |
| Daily electricity consumption | <i>Q_{elec}</i> | 9,110 | kWh | Daily fuel consumption | <i>Q_{fuel}</i> | NA | kWh |
| Annual electricity consumption | <i>AEC</i> | 2004 | 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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200701

Average climate and Medium temperature

| | | | |
|---------------------------------------|--------------------------------------|---------------------------|-------|
| Model(s): | CTC EcoPart 417 + CTC EcoZenith i555 | | |
| Air-to-water heat pump: | No | Energy efficiency class: | A+ - |
| Water-to-water heat pump: | No | Controller class: | VII - |
| Brine-to-water heat pump: | Yes | Controller contribution: | 3,5 % |
| Low-temperature heat pump: | No | Package efficiency: | 125 % |
| 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> | 19 | kW | Seasonal space heating energy efficiency | η_s | 121 | % |
| 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> | 16,0 | kW | T _j = -7 °C | <i>COP_d</i> | 2,91 | - |
| T _j = +2 °C | <i>P_{dh}</i> | 16,1 | kW | T _j = +2 °C | <i>COP_d</i> | 3,24 | - |
| T _j = +7 °C | <i>P_{dh}</i> | 16,4 | kW | T _j = +7 °C | <i>COP_d</i> | 3,55 | - |
| T _j = +12 °C | <i>P_{dh}</i> | 16,7 | kW | T _j = +12 °C | <i>COP_d</i> | 3,86 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 16,0 | kW | T _j = bivalent temperature | <i>COP_d</i> | 2,96 | - |
| T _j = operation limit temperature | <i>P_{dh}</i> | 15,9 | kW | T _j = operation limit temperature | <i>COP_d</i> | 2,77 | - |
| 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> | -6 | °C | For air-to-water heat pumps: Operation limit temperature | <i>TOL</i> | na | °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> | 65 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | <i>P_{OFF}</i> | 0,018 | kW | Rated heat output | <i>P_{sup}</i> | 3,0 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,052 | kW | Type of energy input | Electric | | |
| Standby mode | <i>P_{SB}</i> | 0,018 | kW | | | | |
| Crankcase heater mode | <i>P_{CK}</i> | 0,000 | kW | | | | |
| Other items | | | | | | | |
| Capacity control | Fixed | | | For air-to-water heat pumps: Rated air flow rate, outdoors | - | na | m ³ /h |
| Sound power level, indoors/outdoors | <i>L_{WA}</i> | 56/na | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | 3,1 | m ³ /h |
| Annual energy consumption | <i>Q_{HE}</i> | 12137 | kWh | | | | |

For heat pump combination heater:

| Declared load profile / Energy efficiency class | XL / A | | | Water heating energy efficiency | η_{wh} | 89 | % |
|---|-------------------------|--------------|-----|---------------------------------|-------------------------|-----------|-----|
| Daily electricity consumption | <i>Q_{elec}</i> | 9,110 | kWh | Daily fuel consumption | <i>Q_{fuel}</i> | NA | kWh |
| Annual electricity consumption | <i>AEC</i> | 2004 | 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

| | | | |
|---------------------------------------|--------------------------------------|---------------------------|-------|
| Model(s): | CTC EcoPart 417 + CTC EcoZenith i555 | | |
| Air-to-water heat pump: | No | Energy efficiency class: | A++ - |
| Water-to-water heat pump: | No | Controller class: | VII - |
| Brine-to-water heat pump: | Yes | Controller contribution: | 3,5 % |
| Low-temperature heat pump: | No | Package efficiency: | 157 % |
| 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> | 20 | kW | Seasonal space heating energy efficiency | η_s | 153 | % |
| 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> | 16,9 | kW | T _j = -7 °C | <i>COP_d</i> | 4,09 | - |
| T _j = +2 °C | <i>P_{dh}</i> | 17,1 | kW | T _j = +2 °C | <i>COP_d</i> | 4,25 | - |
| T _j = +7 °C | <i>P_{dh}</i> | 17,2 | kW | T _j = +7 °C | <i>COP_d</i> | 4,39 | - |
| T _j = +12 °C | <i>P_{dh}</i> | 17,4 | kW | T _j = +12 °C | <i>COP_d</i> | 4,53 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 17,0 | kW | T _j = bivalent temperature | <i>COP_d</i> | 4,12 | - |
| T _j = operation limit temperature | <i>P_{dh}</i> | 16,9 | kW | T _j = operation limit temperature | <i>COP_d</i> | 4,01 | - |
| 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> | -6 | °C | For air-to-water heat pumps: Operation limit temperature | <i>TOL</i> | na | °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> | 0,96 | - | Heating water operating limit temperature | <i>WTOL</i> | 65 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | <i>P_{OFF}</i> | 0,018 | kW | Rated heat output | <i>P_{sup}</i> | 3,2 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,146 | kW | Type of energy input | Electric | | |
| Standby mode | <i>P_{SB}</i> | 0,018 | kW | | | | |
| Crankcase heater mode | <i>P_{CK}</i> | 0,000 | kW | | | | |
| Other items | | | | | | | |
| Capacity control | Fixed | | | For air-to-water heat pumps: Rated air flow rate, outdoors | - | na | m ³ /h |
| Sound power level, indoors/outdoors | <i>L_{WA}</i> | 56/na | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | 3,8 | m ³ /h |
| Annual energy consumption | <i>Q_{HE}</i> | 10312 | kWh | | | | |

For heat pump combination heater:

| | | | | | | | |
|--|-------------------------|--------------|-----|--|-------------------------|-----------|-----|
| Declared load profile / Energy efficiency class | XL / A | | | Water heating energy efficiency | η_{wh} | 89 | % |
| Daily electricity consumption | <i>Q_{elec}</i> | 9,110 | kWh | Daily fuel consumption | <i>Q_{fuel}</i> | NA | kWh |
| Annual electricity consumption | <i>AEC</i> | 2004 | 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 Medium temperature

| | | | |
|---------------------------------------|--------------------------------------|---------------------------|-------|
| Model(s): | CTC EcoPart 417 + CTC EcoZenith i555 | | |
| Air-to-water heat pump: | No | Energy efficiency class: | - |
| Water-to-water heat pump: | No | Controller class: | VII - |
| Brine-to-water heat pump: | Yes | Controller contribution: | 3,5 % |
| 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> | 18 | 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> | 16,1 | kW | T _j = -7 °C | <i>COP_d</i> | 3,17 | - |
| T _j = +2 °C | <i>P_{dh}</i> | 16,4 | kW | T _j = +2 °C | <i>COP_d</i> | 3,48 | - |
| T _j = +7 °C | <i>P_{dh}</i> | 16,6 | kW | T _j = +7 °C | <i>COP_d</i> | 3,76 | - |
| T _j = +12 °C | <i>P_{dh}</i> | 16,8 | kW | T _j = +12 °C | <i>COP_d</i> | 3,97 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 16,0 | kW | T _j = bivalent temperature | <i>COP_d</i> | 2,94 | - |
| T _j = operation limit temperature | <i>P_{dh}</i> | 15,9 | kW | T _j = operation limit temperature | <i>COP_d</i> | 2,77 | - |
| 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> | -17 | °C | For air-to-water heat pumps: Operation limit temperature | <i>TOL</i> | na | °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> | 65 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | <i>P_{OFF}</i> | 0,018 | kW | Rated heat output | <i>P_{sup}</i> | 2,5 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,052 | kW | Type of energy input | Electric | | |
| Standby mode | <i>P_{SB}</i> | 0,018 | kW | | | | |
| Crankcase heater mode | <i>P_{CK}</i> | 0,000 | kW | | | | |
| Other items | | | | | | | |
| Capacity control | Fixed | | | For air-to-water heat pumps: Rated air flow rate, outdoors | - | na | m ³ /h |
| Sound power level, indoors/ outdoors | <i>L_{WA}</i> | 56/na | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | 3,1 | m ³ /h |
| Annual energy consumption | <i>Q_{HE}</i> | 13902 | kWh | | | | |

For heat pump combination heater:

| | | | | | | | |
|--|-------------------------|--------------|-----|--|-------------------------|-----------|-----|
| Declared load profile / Energy efficiency class | XL / A | | | Water heating energy efficiency | η_{wh} | 89 | % |
| Daily electricity consumption | <i>Q_{elec}</i> | 9,110 | kWh | Daily fuel consumption | <i>Q_{fuel}</i> | NA | kWh |
| Annual electricity consumption | <i>AEC</i> | 2004 | 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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Cold climate and Low temperature

| | | | |
|---------------------------------------|--------------------------------------|---------------------------|-------|
| Model(s): | CTC EcoPart 417 + CTC EcoZenith i555 | | |
| Air-to-water heat pump: | No | Energy efficiency class: | - |
| Water-to-water heat pump: | No | Controller class: | VII - |
| Brine-to-water heat pump: | Yes | Controller contribution: | 3,5 % |
| Low-temperature heat pump: | No | Package efficiency: | 158 % |
| 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> | 19 | kW | Seasonal space heating energy efficiency | η_s | 154 | % |
| 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> | 17,1 | kW | T _j = -7 °C | <i>COP_d</i> | 4,27 | - |
| T _j = +2 °C | <i>P_{dh}</i> | 17,2 | kW | T _j = +2 °C | <i>COP_d</i> | 4,39 | - |
| T _j = +7 °C | <i>P_{dh}</i> | 17,3 | kW | T _j = +7 °C | <i>COP_d</i> | 4,49 | - |
| T _j = +12 °C | <i>P_{dh}</i> | 17,3 | kW | T _j = +12 °C | <i>COP_d</i> | 4,51 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 17,0 | kW | T _j = bivalent temperature | <i>COP_d</i> | 4,11 | - |
| T _j = operation limit temperature | <i>P_{dh}</i> | 16,9 | kW | T _j = operation limit temperature | <i>COP_d</i> | 4,01 | - |
| 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> | -18 | °C | For air-to-water heat pumps: Operation limit temperature | <i>TOL</i> | na | °C |
| Cycling interval capacity for heating | <i>P_{cy}</i> | na | kW | Cycling interval efficiency | <i>COP_{cy}</i> | na | - |
| Degradation co-efficient | <i>C_{dh}</i> | 0,96 | - | Heating water operating limit temperature | <i>WTOL</i> | 65 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | <i>P_{OFF}</i> | 0,018 | kW | Rated heat output | <i>P_{sup}</i> | 2,1 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,146 | kW | Type of energy input | Electric | | |
| Standby mode | <i>P_{SB}</i> | 0,018 | kW | | | | |
| Crankcase heater mode | <i>P_{CK}</i> | 0,000 | kW | | | | |
| Other items | | | | | | | |
| Capacity control | Fixed | | | For air-to-water heat pumps: Rated air flow rate, outdoors | - | na | m ³ /h |
| Sound power level, indoors/ outdoors | <i>L_{WA}</i> | 56/na | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | 3,8 | m ³ /h |
| Annual energy consumption | <i>Q_{HE}</i> | 11573 | kWh | | | | |

For heat pump combination heater:

| Declared load profile / Energy efficiency class | XL / A | | | Water heating energy efficiency | η_{wh} | 89 | % |
|--|-------------------------|--------------|-----|------------------------------------|-------------------------|-----------|-----|
| Daily electricity consumption | <i>Q_{elec}</i> | 9,110 | kWh | Daily fuel consumption | <i>Q_{fuel}</i> | NA | kWh |
| Annual electricity consumption | <i>AEC</i> | 2004 | 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

200701

Warm climate and Medium temperature

| | | | |
|---------------------------------------|-------------------------------------|---------------------------|-------|
| Model(s): | CTC EcoPart 417 + CTC Basicstyrning | | |
| Air-to-water heat pump: | No | Energy efficiency class: | - |
| Water-to-water heat pump: | No | Controller class: | I - |
| Brine-to-water heat pump: | Yes | Controller contribution: | 1 % |
| Low-temperature heat pump: | No | Package efficiency: | 138 % |
| 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> | 17 | kW | Seasonal space heating energy efficiency | η_s | 137 | % |
| 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> | 15,9 | kW | T _j = +2 °C | <i>COP_d</i> | 3,07 | - |
| T _j = +7 °C | <i>P_{dh}</i> | 16,0 | kW | T _j = +7 °C | <i>COP_d</i> | 3,42 | - |
| T _j = +12 °C | <i>P_{dh}</i> | 16,5 | kW | T _j = +12 °C | <i>COP_d</i> | 4,09 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 15,9 | kW | T _j = bivalent temperature | <i>COP_d</i> | 3,17 | - |
| T _j = operation limit temperature | <i>P_{dh}</i> | na | kW | T _j = operation limit temperature | <i>COP_d</i> | na | - |
| 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> | 3 | °C | For air-to-water heat pumps: Operation limit temperature | <i>TOL</i> | na | °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> | 65 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | <i>P_{OFF}</i> | 0,018 | kW | Rated heat output | <i>P_{sup}</i> | 1,3 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,008 | kW | Type of energy input | Electric | | |
| Standby mode | <i>P_{SB}</i> | 0,018 | kW | | | | |
| Crankcase heater mode | <i>P_{CK}</i> | 0,000 | kW | | | | |
| Other items | | | | | | | |
| Capacity control | Fixed | | | For air-to-water heat pumps: Rated air flow rate, outdoors | - | na | m ³ /h |
| Sound power level, indoors/outdoors | <i>L_{WA}</i> | 56/na | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | 3,1 | m ³ /h |
| Annual energy consumption | <i>Q_{HE}</i> | 6315 | kWh | | | | |

For heat pump combination heater:

| | | | | | | | |
|--|-------------------------|----|-----|--|-------------------------|----|-----|
| Declared load profile / Energy efficiency class | 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

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

www.ctc.se

181001

Warm climate and Low temperature

| | | | |
|---------------------------------------|-------------------------------------|---------------------------|-------|
| Model(s): | CTC EcoPart 417 + CTC Basicstyrning | | |
| Air-to-water heat pump: | No | Energy efficiency class: | - |
| Water-to-water heat pump: | No | Controller class: | I - |
| Brine-to-water heat pump: | Yes | Controller contribution: | 1 % |
| Low-temperature heat pump: | No | Package efficiency: | 181 % |
| 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} | 18 | kW | Seasonal space heating energy efficiency | η_s | 180 | % |
| 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} | 16,9 | kW | T _j = +2 °C | COP_d | 4,55 | - |
| T _j = +7 °C | P_{dh} | 17,0 | kW | T _j = +7 °C | COP_d | 4,78 | - |
| T _j = +12 °C | P_{dh} | 17,3 | kW | T _j = +12 °C | COP_d | 5,06 | - |
| T _j = bivalent temperature | P_{dh} | 16,9 | kW | T _j = bivalent temperature | COP_d | 4,63 | - |
| T _j = operation limit temperature | P_{dh} | na | kW | T _j = operation limit temperature | COP_d | na | - |
| 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} | 3 | °C | For air-to-water heat pumps: Operation limit temperature | TOL | na | °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 | 65 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | P_{OFF} | 0,018 | kW | Rated heat output | P_{sup} | 1,4 | kW |
| Thermostat-off mode | P_{TO} | 0,027 | kW | Type of energy input | Electric | | |
| Standby mode | P_{SB} | 0,018 | kW | | | | |
| Crankcase heater mode | P_{CK} | 0,000 | kW | | | | |
| Other items | | | | For air-to-water heat pumps: Rated air flow rate, outdoors | | | |
| Capacity control | Fixed | | | | | na | m ³ /h |
| Sound power level, indoors/outdoors | L_{WA} | 56/na | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | | 3,8 | m ³ /h |
| Annual energy consumption | Q_{HE} | 5180 | kWh | | | | |

For heat pump combination heater:

| | | | | | | | |
|--|------------|----|-----|--|-------------|----|-----|
| Declared load profile / Energy efficiency class | 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

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www.ctc.se

181001

Average climate and Medium temperature

| | | | |
|---------------------------------------|-------------------------------------|---------------------------|-------|
| Model(s): | CTC EcoPart 417 + CTC Basicstyrning | | |
| Air-to-water heat pump: | No | Energy efficiency class: | A++ - |
| Water-to-water heat pump: | No | Controller class: | I - |
| Brine-to-water heat pump: | Yes | Controller contribution: | 1 % |
| Low-temperature heat pump: | No | Package efficiency: | 138 % |
| 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> | 18 | kW | Seasonal space heating energy efficiency | η_s | 137 | % |
| 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> | 16 | kW | T _j = -7 °C | <i>COP_d</i> | 3,23 | - |
| T _j = +2 °C | <i>P_{dh}</i> | 16,1 | kW | T _j = +2 °C | <i>COP_d</i> | 3,60 | - |
| T _j = +7 °C | <i>P_{dh}</i> | 16,4 | kW | T _j = +7 °C | <i>COP_d</i> | 3,97 | - |
| T _j = +12 °C | <i>P_{dh}</i> | 16,7 | kW | T _j = +12 °C | <i>COP_d</i> | 4,36 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 16 | kW | T _j = bivalent temperature | <i>COP_d</i> | 3,23 | - |
| T _j = operation limit temperature | <i>P_{dh}</i> | na | kW | T _j = operation limit temperature | <i>COP_d</i> | na | - |
| 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> | -7 | °C | For air-to-water heat pumps: Operation limit temperature | <i>TOL</i> | na | °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> | 65 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | <i>P_{OFF}</i> | 0,018 | kW | Rated heat output | <i>P_{sup}</i> | 2,2 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,008 | kW | Type of energy input | Electric | | |
| Standby mode | <i>P_{SB}</i> | 0,018 | kW | | | | |
| Crankcase heater mode | <i>P_{CK}</i> | 0,000 | kW | | | | |
| Other items | | | | | | | |
| Capacity control | Fixed | | | For air-to-water heat pumps: Rated air flow rate, outdoors | - | na | m ³ /h |
| Sound power level, indoors/outdoors | <i>L_{WA}</i> | 56/na | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | 3,1 | m ³ /h |
| Annual energy consumption | <i>Q_{HE}</i> | 10286 | kWh | | | | |

For heat pump combination heater:

| | | | | | | | |
|--|-------------------------|-----------|-----|--|-------------------------|-----------|-----|
| Declared load profile / Energy efficiency class | 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

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

www.ctc.se

181001

Average climate and Low temperature

| | | | |
|---------------------------------------|-------------------------------------|---------------------------|--------|
| Model(s): | CTC EcoPart 417 + CTC Basicstyrning | | |
| Air-to-water heat pump: | No | Energy efficiency class: | A+++ - |
| Water-to-water heat pump: | No | Controller class: | I - |
| Brine-to-water heat pump: | Yes | Controller contribution: | 1 % |
| Low-temperature heat pump: | No | Package efficiency: | 182 % |
| 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> | 19 | kW | Seasonal space heating energy efficiency | η_s | 181 | % |
| 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> | 16,9 | kW | T _j = -7 °C | <i>COP_d</i> | 4,64 | - |
| T _j = +2 °C | <i>P_{dh}</i> | 17,1 | kW | T _j = +2 °C | <i>COP_d</i> | 4,83 | - |
| T _j = +7 °C | <i>P_{dh}</i> | 17,2 | kW | T _j = +7 °C | <i>COP_d</i> | 5,01 | - |
| T _j = +12 °C | <i>P_{dh}</i> | 17,4 | kW | T _j = +12 °C | <i>COP_d</i> | 5,18 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 16,9 | kW | T _j = bivalent temperature | <i>COP_d</i> | 4,64 | - |
| T _j = operation limit temperature | <i>P_{dh}</i> | na | kW | T _j = operation limit temperature | <i>COP_d</i> | na | - |
| 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> | -7 | °C | For air-to-water heat pumps: Operation limit temperature | <i>TOL</i> | na | °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> | 65 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | <i>P_{OFF}</i> | 0,018 | kW | Rated heat output | <i>P_{sup}</i> | 2,3 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,027 | kW | Type of energy input | Electric | | |
| Standby mode | <i>P_{SB}</i> | 0,018 | kW | | | | |
| Crankcase heater mode | <i>P_{CK}</i> | 0,000 | kW | | | | |
| Other items | | | | | | | |
| Capacity control | Fixed | | | For air-to-water heat pumps: Rated air flow rate, outdoors | - | na | m ³ /h |
| Sound power level, indoors/ outdoors | <i>L_{WA}</i> | 56/na | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | 3,8 | m ³ /h |
| Annual energy consumption | <i>Q_{HE}</i> | 8362 | kWh | | | | |

For heat pump combination heater:

| | | | | | | | |
|--|-------------------------|-----------|-----|--|-------------------------|-----------|-----|
| Declared load profile / Energy efficiency class | 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

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

www.ctc.se

190911

Cold climate and Medium temperature

| | | | |
|---------------------------------------|-------------------------------------|---------------------------|-------|
| Model(s): | CTC EcoPart 417 + CTC Basicstyrning | | |
| Air-to-water heat pump: | No | Energy efficiency class: | - |
| Water-to-water heat pump: | No | Controller class: | I - |
| Brine-to-water heat pump: | Yes | Controller contribution: | 1 % |
| Low-temperature heat pump: | No | Package efficiency: | 141 % |
| 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} | 17 | kW | Seasonal space heating energy efficiency | η_s | 140 | % |
| 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} | 16,1 | kW | T _j = -7 °C | COP_d | 3,51 | - |
| T _j = +2 °C | P_{dh} | 16,4 | kW | T _j = +2 °C | COP_d | 3,89 | - |
| T _j = +7 °C | P_{dh} | 16,6 | kW | T _j = +7 °C | COP_d | 4,24 | - |
| T _j = +12 °C | P_{dh} | 16,8 | kW | T _j = +12 °C | COP_d | 4,50 | - |
| T _j = bivalent temperature | P_{dh} | 15,9 | kW | T _j = bivalent temperature | COP_d | 3,19 | - |
| T _j = operation limit temperature | P_{dh} | na | kW | T _j = operation limit temperature | COP_d | na | - |
| 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} | -19 | °C | For air-to-water heat pumps: Operation limit temperature | TOL | na | °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 | 65 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | P_{OFF} | 0,018 | kW | Rated heat output | P_{sup} | 1,4 | kW |
| Thermostat-off mode | P_{TO} | 0,008 | kW | Type of energy input | Electric | | |
| Standby mode | P_{SB} | 0,018 | kW | | | | |
| Crankcase heater mode | P_{CK} | 0,000 | kW | | | | |
| Other items | | | | | | | |
| Capacity control | Fixed | | | For air-to-water heat pumps: Rated air flow rate, outdoors | - | na | m ³ /h |
| Sound power level, indoors/ outdoors | L_{WA} | 56/na | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | 3,1 | m ³ /h |
| Annual energy consumption | Q_{HE} | 11554 | kWh | | | | |

For heat pump combination heater:

| | | | | | | | |
|--|------------|-----------|-----|--|-------------|-----------|-----|
| Declared load profile / Energy efficiency class | 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:

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Contact details

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

www.ctc.se

181001

Cold climate and Low temperature

| | | | |
|---------------------------------------|-------------------------------------|---------------------------|-------|
| Model(s): | CTC EcoPart 417 + CTC Basicstyrning | | |
| Air-to-water heat pump: | No | Energy efficiency class: | - |
| Water-to-water heat pump: | No | Controller class: | I - |
| Brine-to-water heat pump: | Yes | Controller contribution: | 1 % |
| Low-temperature heat pump: | No | Package efficiency: | 185 % |
| 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> | 18 | kW | Seasonal space heating energy efficiency | η_s | 184 | % |
| 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> | 17,1 | kW | T _j = -7 °C | <i>COP_d</i> | 4,84 | - |
| T _j = +2 °C | <i>P_{dh}</i> | 17,2 | kW | T _j = +2 °C | <i>COP_d</i> | 5,01 | - |
| T _j = +7 °C | <i>P_{dh}</i> | 17,3 | kW | T _j = +7 °C | <i>COP_d</i> | 5,13 | - |
| T _j = +12 °C | <i>P_{dh}</i> | 17,3 | kW | T _j = +12 °C | <i>COP_d</i> | 5,15 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 16,9 | kW | T _j = bivalent temperature | <i>COP_d</i> | 4,61 | - |
| T _j = operation limit temperature | <i>P_{dh}</i> | na | kW | T _j = operation limit temperature | <i>COP_d</i> | na | - |
| 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> | -20 | °C | For air-to-water heat pumps: Operation limit temperature | <i>TOL</i> | na | °C |
| Cycling interval capacity for heating | <i>P_{cyh}</i> | na | kW | Cycling interval efficiency | <i>COP_{cyh}</i> | na | - |
| Degradation co-efficient | <i>C_{dh}</i> | 0,99 | - | Heating water operating limit temperature | <i>WTOL</i> | 65 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | <i>P_{OFF}</i> | 0,018 | kW | Rated heat output | <i>P_{sup}</i> | 1,0 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,027 | kW | Type of energy input | Electric | | |
| Standby mode | <i>P_{SB}</i> | 0,018 | kW | | | | |
| Crankcase heater mode | <i>P_{CK}</i> | 0,000 | kW | | | | |
| Other items | | | | | | | |
| Capacity control | Fixed | | | For air-to-water heat pumps: Rated air flow rate, outdoors | - | na | m ³ /h |
| Sound power level, indoors/outdoors | <i>L_{WA}</i> | 56/na | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | 3,8 | m ³ /h |
| Annual energy consumption | <i>Q_{HE}</i> | 9166 | kWh | | | | |

For heat pump combination heater:

| | | | | | | | |
|--|-------------------------|-----------|-----|--|-------------------------|-----------|-----|
| Declared load profile / Energy efficiency class | 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 |

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