

Warm climate and Medium temperature

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|---------------------------------------|------------------------|---------------------------|--------------|
| Model(s): | CTC Gsi-12 230V | | |
| Air-to-water heat pump: | No | Energy efficiency class: | - |
| Water-to-water heat pump: | No | Controller class: | VI - |
| Brine-to-water heat pump: | Yes | Controller contribution: | 4 % |
| Low-temperature heat pump: | No | Package efficiency: | 148 % |
| 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 | 144 | % |
| 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> | 11,4 | kW | T _j = +2 °C | <i>COP_d</i> | 2,67 | - |
| T _j = +7 °C | <i>P_{dh}</i> | 7,7 | kW | T _j = +7 °C | <i>COP_d</i> | 3,43 | - |
| T _j = +12 °C | <i>P_{dh}</i> | 3,4 | kW | T _j = +12 °C | <i>COP_d</i> | 4,64 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 11,4 | kW | T _j = bivalent temperature | <i>COP_d</i> | 2,67 | - |
| T _j = operation limit temperature | <i>P_{dh}</i> | 11,44 | kW | T _j = operation limit temperature | <i>COP_d</i> | 2,67 | - |
| 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> | 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> | 0,98 | - | 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> | 0,023 | kW | Rated heat output (*) | <i>P_{sup}</i> | 0,1 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,000 | kW | Type of energy input | Electric | | |
| Standby mode | <i>P_{SB}</i> | 0,023 | 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 | - | na | m ³ /h |
| Sound power level, indoors/outdoors | <i>L_{WA}</i> | 43/na | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | 1 | m ³ /h |
| Annual energy consumption | <i>Q_{HE}</i> | 4031 | kWh | | | | |

For heat pump combination heater:

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|--------------------------------|---|--------------|-----|---|-------------------------|-------------|-----|
| Declared load profile | XL | | | Water heating energy efficiency/Energy class | $\eta_{wh/-}$ | 96/A | % |
| Daily electricity consumption | <i>Q_{elec}</i> | 7,946 | kWh | Daily fuel consumption | <i>Q_{fuel}</i> | na | kWh |
| Annual electricity consumption | <i>AEC</i> | 1748 | kWh | Annual fuel consumption | <i>AFC</i> | na | GJ |
| Contact details | Enertech AB, Box 309, SE-341 26 Ljungby Tel +46 372 88000 | | | www.ctc.se 160214 | | | |

(*) For heat pump space heaters and heat pump combination heaters, the rated heat output *P_{rated}* is equal to the design load for heating *P_{designh}*, and the rated heat output of a supplementary heater *P_{sup}* is equal to the supplementary capacity for heating *sup(T_j)*. (**) If *C_{dh}* is not determined by measurement then the default degradation coefficient is *C_{dh}* = 0,9.

Warm climate and Low temperature

| | | | |
|---------------------------------------|------------------------|---------------------------|--------------|
| Model(s): | CTC Gsi-12 230V | | |
| Air-to-water heat pump: | No | Energy efficiency class: | - |
| Water-to-water heat pump: | No | Controller class: | VI |
| Brine-to-water heat pump: | Yes | Controller contribution: | 4 % |
| Low-temperature heat pump: | No | Package efficiency: | 197 % |
| 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> | 9 | kW | Seasonal space heating energy efficiency | η_s | 193 | % |
| 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> | 9,0 | kW | T _j = +2 °C | <i>COP_d</i> | 4,19 | - |
| T _j = +7 °C | <i>P_{dh}</i> | 5,8 | kW | T _j = +7 °C | <i>COP_d</i> | 5,00 | - |
| T _j = +12 °C | <i>P_{dh}</i> | 2,6 | kW | T _j = +12 °C | <i>COP_d</i> | 5,91 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 9,0 | kW | T _j = bivalent temperature | <i>COP_d</i> | 4,19 | - |
| T _j = operation limit temperature | <i>P_{dh}</i> | 9,0 | kW | T _j = operation limit temperature | <i>COP_d</i> | 4,20 | - |
| 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> | 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> | 0,97 | - | 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> | 0,023 | kW | Rated heat output (*) | <i>P_{sup}</i> | 0,0 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,000 | kW | Type of energy input | Electric | | |
| Standby mode | <i>P_{SB}</i> | 0,023 | 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 | - | na | m ³ /h |
| Sound power level, indoors/ outdoors | <i>L_{WA}</i> | 43/na | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | 1,4 | m ³ /h |
| Annual energy consumption | <i>Q_{HE}</i> | 2396 | kWh | | | | |

For heat pump combination heater:

| | | | | | | | |
|--------------------------------|---|--------------|-----|---|-------------------------|-------------|-----|
| Declared load profile | XL | | | Water heating energy efficiency/Energy class | $\eta_{wh/-}$ | 96/A | % |
| Daily electricity consumption | <i>Q_{elec}</i> | 7,946 | kWh | Daily fuel consumption | <i>Q_{fuel}</i> | na | kWh |
| Annual electricity consumption | <i>AEC</i> | 1748 | kWh | Annual fuel consumption | <i>AFC</i> | na | GJ |
| Contact details | Enertech AB, Box 309, SE-341 26 Ljungby Tel +46 372 88000 | | | www.ctc.se 160214 | | | |

(*) For heat pump space heaters and heat pump combination heaters, the rated heat output *Prated* is equal to the design load for heating *P_{designh}*, and the rated heat output of a supplementary heater *P_{sup}* is equal to the supplementary capacity for heating *sup(T_j)*. (**) If *C_{dh}* is not determined by measurement then the default degradation coefficient is *C_{dh}* = 0,9.



Average climate and Medium temperature

| | | | |
|---------------------------------------|------------------------|---------------------------|---------------|
| Model(s): | CTC Gsi-12 230V | | |
| Air-to-water heat pump: | No | Energy efficiency class: | A++ - |
| Water-to-water heat pump: | No | Controller class: | VI - |
| Brine-to-water heat pump: | Yes | 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>Prated</i> | 12 | 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>Pdh</i> | 10,6 | kW | T j = - 7 °C | <i>COPd</i> | 2,96 | - |
| T j = + 2 °C | <i>Pdh</i> | 6,5 | kW | T j = +2 °C | <i>COPd</i> | 3,90 | - |
| T j = + 7 °C | <i>Pdh</i> | 4,2 | kW | T j = +7 °C | <i>COPd</i> | 4,55 | - |
| T j = + 12 °C | <i>Pdh</i> | 2,3 | kW | T j = +12 °C | <i>COPd</i> | 5,24 | - |
| T j = bivalent temperature | <i>Pdh</i> | 11,6 | kW | T j = bivalent temperature | <i>COPd</i> | 2,73 | - |
| T j = operation limit temperature | <i>Pdh</i> | na | kW | T j = operation limit temperature | <i>COPd</i> | na | - |
| For air-to-water heat pumps: T j = - 15 °C (if TOL < - 20 °C) | <i>Pdh</i> | na | kW | For air-to-water heat pumps: T j = - 15 °C (if TOL < - 20 °C) | <i>COPd</i> | na | - |
| Bivalent temperature | <i>T_{biv}</i> | -9 | °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>Cdh</i> | 0,98 | - | 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> | 0,023 | kW | Rated heat output (*) | <i>P_{sup}</i> | 0,4 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,000 | kW | Type of energy input | Electric | | |
| Standby mode | <i>P_{SB}</i> | 0,023 | kW | For air-to-water heat pumps: Rated air flow rate, outdoors | | | |
| Crankcase heater mode | <i>P_{CK}</i> | 0,000 | kW | | | | |
| Other items | Variable | | | | | | |
| Capacity control | Variable | | | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | | | |
| Sound power level, indoors/ outdoors | <i>L_{WA}</i> | 43/na | dB | - | | | |
| Annual energy consumption | <i>Q_{HE}</i> | 6369 | kWh | - | | | |

For heat pump combination heater:

| | | | | | | | |
|--------------------------------|---|--------------|-----|---|-------------------------|-------------|-----|
| Declared load profile | XL | | | Water heating energy efficiency/Energy class | $\eta_{wh/-}$ | 96/A | % |
| Daily electricity consumption | <i>Q_{elec}</i> | 7,945 | kWh | Daily fuel consumption | <i>Q_{fuel}</i> | na | kWh |
| Annual electricity consumption | <i>AEC</i> | 1748 | kWh | Annual fuel consumption | <i>AFC</i> | na | GJ |
| Contact details | Enertech AB, Box 309, SE-341 26 Ljungby Tel +46 372 88000 | | | www.ctc.se 160214 | | | |

(*) For heat pump space heaters and heat pump combination heaters, the rated heat output *Prated* is equal to the design load for heating *Pdesignh*, and the rated heat output of a supplementary heater *Psup* is equal to the supplementary capacity for heating *sup(Tj)*. (**) If *Cdh* is not determined by measurement then the default degradation coefficient is *Cdh* = 0,9.



Average climate and Low temperature

| | | | |
|---------------------------------------|------------------------|---------------------------|---------------|
| Model(s): | CTC Gsi-12 230V | | |
| Air-to-water heat pump: | No | Energy efficiency class: | A++ - |
| Water-to-water heat pump: | No | Controller class: | VI - |
| Brine-to-water heat pump: | Yes | Controller contribution: | 4 % |
| Low-temperature heat pump: | No | Package efficiency: | 200 % |
| 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> | 10 | 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 | <i>P_{dh}</i> | 8,9 | kW | T _j = - 7 °C | <i>COP_d</i> | 4,37 | - |
| T _j = + 2 °C | <i>P_{dh}</i> | 5,4 | kW | T _j = +2 °C | <i>COP_d</i> | 5,25 | - |
| T _j = + 7 °C | <i>P_{dh}</i> | 3,4 | kW | T _j = +7 °C | <i>COP_d</i> | 5,75 | - |
| T _j = + 12 °C | <i>P_{dh}</i> | 2,4 | kW | T _j = +12 °C | <i>COP_d</i> | 6,10 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 11,8 | kW | T _j = bivalent temperature | <i>COP_d</i> | 3,68 | - |
| 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> | -15 | °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> | 0,97 | - | 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> | 0,023 | kW | Rated heat output (*) | <i>P_{sup}</i> | 0,0 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,000 | kW | Type of energy input | Electric | | |
| Standby mode | <i>P_{SB}</i> | 0,023 | kW | For air-to-water heat pumps: Rated air flow rate, outdoors | | | |
| Crankcase heater mode | <i>P_{CK}</i> | 0,000 | kW | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | | | |
| Other items | | | | For heat pump combination heater: | | | |
| Capacity control | Variable | | | Declared load profile | XL | | |
| Sound power level, indoors/ outdoors | <i>L_{WA}</i> | 43/na | dB | Water heating energy efficiency/Energy class | $\eta_{wh/-}$ | 96/A | % |
| Annual energy consumption | <i>Q_{HE}</i> | 4041 | kWh | Daily electricity consumption | <i>Q_{elec}</i> | 7,945 | kWh |
| | | | | Annual electricity consumption | <i>AEC</i> | 1748 | kWh |
| | | | | Annual fuel consumption | <i>AFC</i> | na | GJ |

For heat pump combination heater:

| | | | | | | | |
|--------------------------------|---|--------------|-----|---|-------------------------|-------------|-----|
| Declared load profile | XL | | | Water heating energy efficiency/Energy class | $\eta_{wh/-}$ | 96/A | % |
| Daily electricity consumption | <i>Q_{elec}</i> | 7,945 | kWh | Daily fuel consumption | <i>Q_{fuel}</i> | na | kWh |
| Annual electricity consumption | <i>AEC</i> | 1748 | kWh | Annual fuel consumption | <i>AFC</i> | na | GJ |
| Contact details | Enertech AB, Box 309, SE-341 26 Ljungby Tel +46 372 88000 | | | www.ctc.se 160214 | | | |

(*) For heat pump space heaters and heat pump combination heaters, the rated heat output *P_{rated}* is equal to the design load for heating *P_{design,h}*, and the rated heat output of a supplementary heater *P_{sup}* is equal to the supplementary capacity for heating *sup(T_j)*. (**) If *C_{dh}* is not determined by measurement then the default degradation coefficient is *C_{dh}* = 0,9.

Cold climate and Medium temperature

| | | | |
|---------------------------------------|------------------------|---------------------------|--------------|
| Model(s): | CTC Gsi-12 230V | | |
| Air-to-water heat pump: | No | Energy efficiency class: | - |
| Water-to-water heat pump: | No | Controller class: | VI |
| Brine-to-water heat pump: | Yes | Controller contribution: | 4 % |
| Low-temperature heat pump: | No | Package efficiency: | 156 % |
| 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> | 12 | kW | Seasonal space heating energy efficiency | η_s | 152 | % |
| 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> | 7,13 | kW | T _j = -7 °C | <i>COP_d</i> | 3,66 | - |
| T _j = +2 °C | <i>P_{dh}</i> | 4,3 | kW | T _j = +2 °C | <i>COP_d</i> | 4,38 | - |
| T _j = +7 °C | <i>P_{dh}</i> | 2,7 | kW | T _j = +7 °C | <i>COP_d</i> | 5,04 | - |
| T _j = +12 °C | <i>P_{dh}</i> | 2,3 | kW | T _j = +12 °C | <i>COP_d</i> | 5,33 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 11,6 | kW | T _j = bivalent temperature | <i>COP_d</i> | 2,68 | - |
| T _j = operation limit temperature | <i>P_{dh}</i> | 11,63 | kW | T _j = operation limit temperature | <i>COP_d</i> | 2,68 | - |
| 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> | -22 | °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> | 0,97 | - | 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> | 0,023 | kW | Rated heat output (*) | <i>P_{sup}</i> | 0,1 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,000 | kW | Type of energy input | Electric | | |
| Standby mode | <i>P_{SB}</i> | 0,023 | 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 | - | na | m ³ /h |
| Sound power level, indoors/ outdoors | <i>L_{WA}</i> | 43/na | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | 1,0 | m ³ /h |
| Annual energy consumption | <i>Q_{HE}</i> | 7225 | kWh | | | | |
| For heat pump combination heater: | | | | | | | |
| Declared load profile | XL | | | Water heating energy efficiency/Energy class | $\eta_{wh/-}$ | 96/A | % |
| Daily electricity consumption | <i>Q_{elec}</i> | 7,945 | kWh | Daily fuel consumption | <i>Q_{fuel}</i> | na | kWh |
| Annual electricity consumption | <i>AEC</i> | 1748 | kWh | Annual fuel consumption | <i>AFC</i> | na | GJ |
| Contact details | Enertech AB, Box 309, SE-341 26 Ljungby Tel +46 372 88000 | | | www.ctc.se 160214 | | | |

(*) For heat pump space heaters and heat pump combination heaters, the rated heat output *Prated* is equal to the design load for heating *P_{designh}*, and the rated heat output of a supplementary heater *P_{sup}* is equal to the supplementary capacity for heating *sup(T_j)*. (**) If *C_{dh}* is not determined by measurement then the default degradation coefficient is *C_{dh}* = 0,9.

Cold climate and Low temperature

| | | | |
|---------------------------------------|------------------------|---------------------------|--------------|
| Model(s): | CTC Gsi-12 230V | | |
| Air-to-water heat pump: | No | Energy efficiency class: | - |
| Water-to-water heat pump: | No | Controller class: | VI - |
| Brine-to-water heat pump: | Yes | Controller contribution: | 4 % |
| Low-temperature heat pump: | No | Package efficiency: | 208 % |
| 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> | 10 | kW | Seasonal space heating energy efficiency | η_s | 204 | % |
| 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> | 5,7 | kW | T _j = -7 °C | <i>COP_d</i> | 5,15 | - |
| T _j = +2 °C | <i>P_{dh}</i> | 3,5 | kW | T _j = +2 °C | <i>COP_d</i> | 5,65 | - |
| T _j = +7 °C | <i>P_{dh}</i> | 2,4 | kW | T _j = +7 °C | <i>COP_d</i> | 6,06 | - |
| T _j = +12 °C | <i>P_{dh}</i> | 2,4 | kW | T _j = +12 °C | <i>COP_d</i> | 6,06 | - |
| T _j = bivalent temperature | <i>P_{dh}</i> | 9,5 | kW | T _j = bivalent temperature | <i>COP_d</i> | 4,21 | - |
| T _j = operation limit temperature | <i>P_{dh}</i> | 9,48 | kW | T _j = operation limit temperature | <i>COP_d</i> | 4,21 | - |
| 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> | -22 | °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_{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> | 0,023 | kW | Rated heat output (*) | <i>P_{sup}</i> | 0,0 | kW |
| Thermostat-off mode | <i>P_{TO}</i> | 0,000 | kW | Type of energy input Electric | | | |
| Standby mode | <i>P_{SB}</i> | 0,023 | 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 | | | - | na | 1,0 | m ³ /h |
| Sound power level, indoors/ outdoors | <i>L_{WA}</i> | 43/na | dB | - | 1,0 | | m ³ /h |
| Annual energy consumption | <i>Q_{HE}</i> | 4425 | kWh | | | | |

For heat pump combination heater:

| | | | | | | | |
|--------------------------------|---|--------------|-----|---|-------------------------|-------------|-----|
| Declared load profile | XL | | | Water heating energy efficiency/Energy class | $\eta_{wh/-}$ | 96/A | % |
| Daily electricity consumption | <i>Q_{elec}</i> | 7,945 | kWh | Daily fuel consumption | <i>Q_{fuel}</i> | na | kWh |
| Annual electricity consumption | <i>AEC</i> | 1748 | kWh | Annual fuel consumption | <i>AFC</i> | na | GJ |
| Contact details | Enertech AB, Box 309, SE-341 26 Ljungby Tel +46 372 88000 | | | www.ctc.se 160214 | | | |

(*) For heat pump space heaters and heat pump combination heaters, the rated heat output *P_{rated}* is equal to the design load for heating *P_{designh}*, and the rated heat output of a supplementary heater *P_{sup}* is equal to the supplementary capacity for heating *sup(T_j)*. (**) If *C_{dh}* is not determined by measurement then the default degradation coefficient is *C_{dh}* = 0,9.