

## Product Fiche

**Importer:** Salvador Escoda S.A.

**Address:** Provenza, 392 P2, 08025 Barcelona (Spain)

| Information requirements for heat pump space heaters and heat pump combination heaters  |   |                     |       |   |  |       |                   |
|---|---|---------------------|-------|---|--|-------|-------------------|
| Model(s):   |   | <b>MUENR-30-H7T</b> |       |   |  |       |                   |
| Air-to-water heat pump:   |   |                     |       |   |  |       | [yes]             |
| Water-to-water heat pump:   |   |                     |       |   |  |       | [no]              |
| Brine-to-water heat pump:   |   |                     |       |   |  |       | [no]              |
| Low-temperature heat pump:  |   |                     |       |   |  |       | [yes]             |
| For low-temperature heat pumps, parameters shall be declared for low-temperature application. Otherwise, parameters shall be declared for medium-temperature application.   |   |                     |       |   |  |       |                   |
| Parameters shall be declared for average climate conditions.  |   |                     |       |   |  |       |                   |
| Item  | Symbol  | Value               | Unit  | Item  | Symbol                                     | Value | Unit              |
| Rated heat output <sup>(1)</sup><br>at T <sub>designh</sub> = -10 (-11) °C  | Prated<br>= P <sub>designh</sub>                              | 21                  | kW    | Seasonal space heating energy efficiency                                    | η <sub>s</sub>                             | 157   | %                 |
| Seasonal coefficient of performance   | SCOP  | 4.01                | –     | Active mode coef. of performance  | SCOP <sub>on</sub>                         | x.xx  | –                 |
|   |   |                     |       | Net seasonal coef. of performance   | SCOP <sub>net</sub>                        |       | –                 |
|   |   |                     |       |   |  |       |                   |
| T <sub>j</sub> = – 7 °C   | P <sub>dh</sub>   | 19.2                | kW    | T <sub>j</sub> = – 7 °C   | COP <sub>d</sub>                           | 2.59  | –                 |
| T <sub>j</sub> = + 2 °C   | P <sub>dh</sub>   | 10.9                | kW    | T <sub>j</sub> = + 2 °C   | COP <sub>d</sub>                           | 3.84  | –                 |
| T <sub>j</sub> = + 7 °C   | P <sub>dh</sub>   | 7.2                 | kW    | T <sub>j</sub> = + 7 °C   | COP <sub>d</sub>                           | 5.21  | –                 |
| T <sub>j</sub> = + 12 °C  | P <sub>dh</sub>   | 8.7                 | kW    | T <sub>j</sub> = + 12 °C  | COP <sub>d</sub>                           | 7.1   | –                 |
| T <sub>j</sub> = bivalent temperature   | P <sub>dh</sub>   | 22.2                | kW    | T <sub>j</sub> = bivalent temperature                                       | COP <sub>d</sub>                           | 2.34  | –                 |
| T <sub>j</sub> = operation limit temperature  | P <sub>dh</sub>   | 22.2                | kW    | T <sub>j</sub> = operation limit temperature                                | COP <sub>d</sub>                           | 2.34  | –                 |
| For air-to-water heat pumps:<br>T <sub>j</sub> = – 15 °C (if TOL < – 20 °C)   | P <sub>dh</sub>   | x,x                 | kW    | For air-to-water heat pumps:<br>T <sub>j</sub> = – 15 °C (if TOL < – 20 °C) | COP <sub>d</sub>                           | x,xx  | –                 |
| Bivalent temperature<br>(maximum +2°C)  | T <sub>biv</sub>  | -10                 | °C    | For air-to-water HP : Operation limit<br>temperature (maximum -7°C)         | TOL  | -10   | °C                |
| Cycling interval capacity for heating<br>at T <sub>j</sub> = -7°C   | P <sub>cyh</sub>  | x,x                 | kW    | Heating water<br>operating limit temperature                                | WTOL                                       | x     | °C                |
| Degradation coefficient <sup>(2)</sup> at T = -7°C  | C <sub>dh</sub>   | x,xx                | —     | Cycling interval efficiency<br>at T <sub>j</sub> = +7°C                     | COP <sub>cyh</sub>                         | x,xx  | –                 |
| Cycling interval capacity for heating<br>at T <sub>j</sub> = +2°C   | P <sub>cyh</sub>  | x,x                 | kW    | Cycling interval efficiency<br>at T <sub>j</sub> = +12°C                    | COP <sub>cyh</sub>                         | x,xx  | –                 |
| Degradation coefficient <sup>(2)</sup> at T = +2°C  | C <sub>dh</sub>   | x,xx                | —     | Cycling interval efficiency<br>at T <sub>j</sub> = +7°C                     | COP <sub>cyh</sub>                         | x,xx  | –                 |
| Cycling interval capacity for heating<br>at T <sub>j</sub> = +7°C   | P <sub>cyh</sub>  | x,x                 | kW    | Cycling interval efficiency<br>at T <sub>j</sub> = +12°C                    | COP <sub>cyh</sub>                         | x,xx  | –                 |
| Degradation coefficient <sup>(2)</sup> at T <sub>j</sub> = +7°C   | C <sub>dh</sub>   | x,xx                | —     |   |  |       |                   |
| Cycling interval capacity for heating<br>at T <sub>j</sub> = +12°C  | P <sub>cyh</sub>  | x,x                 | kW    |   |  |       |                   |
| Degradation coefficient <sup>(2)</sup> at T <sub>j</sub> = +12°C  | C <sub>dh</sub>   | x,xx                | —     |   |  |       |                   |
| Power consumption in modes other than active mode   |   |                     |       | Supplementary heater (to be declared even if not provided in the unit)      |  |       |                   |
| Off mode  | P <sub>OFF</sub>  | 0.075               | kW    | Rated heat output (1)   | P <sub>sup</sub><br>= sup(T <sub>j</sub> ) | x,x   | kW                |
| Thermostat-off mode   | P <sub>TO</sub>   | 0.21                | kW    | Type of energy input  |  |       |                   |
| Standby mode  | P <sub>SB</sub>   | 0.075               | kW    |   |  |       |                   |
| Crankcase heater mode   | P <sub>CK</sub>   | 0.075               | kW    |   |  |       |                   |
| Other items   |   |                     |       | Outdoor heat exchanger  |  |       |                   |
| Capacity control  | fixed/variable  | variable            |       | For air-to-water HP: Rated air flow rate                                    | Q <sub>airsource</sub>                     | 12500 | m <sup>3</sup> /h |
| Sound power level, indoors  | L <sub>WA</sub>   | x                   | dB(A) | For water-to-water: Rated water flow rate                                   | Q <sub>watersource</sub>                   | x     | m <sup>3</sup> /h |
| Sound power level, outdoors   | L <sub>WA</sub>   | 78                  | dB(A) | For brine-to-water: Rated brine flow rate                                   | Q <sub>brinesource</sub>                   | x     | m <sup>3</sup> /h |
| Contact details   | SALVADOR ESCODA SA, C/PROVENZA 392 P2 08172 BARCELONA (SPAIN) |                     |       |   |  |       |                   |
| <p>(1) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating P<sub>designh</sub>, and the rated heat output of a supplementary heater P<sub>sup</sub> is equal to the supplementary capacity for heating sup(T<sub>j</sub>).</p> <p>(2) If C<sub>dh</sub> is not determined by measurement then the default degradation coefficient is C<sub>dh</sub> = 0,99.</p> |   |                     |       |   |  |       |                   |

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| <b>Information requirements for heat pump space heaters and heat pump combination heaters</b>   |   |          |       |   |  |       |                   |
|---|---|----------|-------|---|--|-------|-------------------|
| Model(s):   | <b>MUENR-60-H7T</b>   |          |       |   |  |       |                   |
| Air-to-water heat pump:   |   |          |       |   |  |       | [yes]             |
| Water-to-water heat pump:   |   |          |       |   |  |       | [no]              |
| Brine-to-water heat pump:   |   |          |       |   |  |       | [no]              |
| Low-temperature heat pump:  |   |          |       |   |  |       | [yes]             |
| Equipped with a supplementary heater:   |   |          |       |   |  |       | [no]              |
| Heat pump combination heater:   |   |          |       |   |  |       | [no]              |
| For low-temperature heat pumps, parameters shall be declared for low-temperature application. Otherwise, parameters shall be declared for medium-temperature application.   |   |          |       |   |  |       |                   |
| Parameters shall be declared for average climate conditions.  |   |          |       |   |  |       |                   |
| Item  | Symbol  | Value    | Unit  | Item  | Symbol                                     | Value | Unit              |
| Rated heat output <sup>(1)</sup><br>at T <sub>designh</sub> = -10 (-11) °C  | Prated<br>= Pdesignh  | 31       | kW    | Seasonal space heating energy efficiency                                    | η <sub>s</sub>                             | 152   | %                 |
| Seasonal coefficient of performance   | SCOP  | 3.85     | –     | Active mode coef. of performance  | SCOP <sub>on</sub>                         | X.XX  | –                 |
|   |   |          |       | Net seasonal coef. of performance   | SCOP <sub>net</sub>                        | X.XX  | –                 |
| T <sub>j</sub> = – 7 °C   | Pdh   | 27.3     | kW    | T <sub>j</sub> = – 7 °C   | COPd                                       | 2.84  | –                 |
| T <sub>j</sub> = + 2 °C   | Pdh   | 17.1     | kW    | T <sub>j</sub> = + 2 °C   | COPd                                       | 3.60  | –                 |
| T <sub>j</sub> = + 7 °C   | Pdh   | 15.4     | kW    | T <sub>j</sub> = + 7 °C   | COPd                                       | 5.24  | –                 |
| T <sub>j</sub> = + 12 °C  | Pdh   | 12.5     | kW    | T <sub>j</sub> = + 12 °C  | COPd                                       | 6.43  | –                 |
| T <sub>j</sub> = bivalent temperature   | Pdh   | 27.3     | kW    | T <sub>j</sub> = bivalent temperature                                       | COPd                                       | 2.84  | –                 |
| T <sub>j</sub> = operation limit temperature  | Pdh   | 31.5     | kW    | T <sub>j</sub> = operation limit temperature                                | COPd                                       | 2.40  | –                 |
| For air-to-water heat pumps:<br>T <sub>j</sub> = – 15 °C (if TOL < – 20 °C)   | Pdh   | x,x      | kW    | For air-to-water heat pumps:<br>T <sub>j</sub> = – 15 °C (if TOL < – 20 °C) | COPd                                       | x,xx  | –                 |
| Bivalent temperature<br>(maximum +2°C)  | Tbiv  | -7       | °C    | For air-to-water HP : Operation limit<br>temperature (maximum -7°C)         | TOL  | -10   | °C                |
| Cycling interval capacity for heating<br>at T <sub>j</sub> = -7°C   | Pcych   | x,x      | kW    | Heating water<br>operating limit temperature                                | WTOL                                       | x     | °C                |
| Degradation coefficient <sup>(2)</sup> at T <sub>j</sub> = -7°C   | Cdh   | x,xx     | —     | Cycling interval efficiency<br>at T <sub>j</sub> = +7°C                     | COP <sub>cy</sub>                          | x,xx  | –                 |
| Cycling interval capacity for heating<br>at T <sub>j</sub> = +2°C   | Pcych   | x,x      | kW    | Cycling interval efficiency<br>at T <sub>j</sub> = +12°C                    | COP <sub>cy</sub>                          | x,xx  | –                 |
| Degradation coefficient <sup>(2)</sup> at T <sub>j</sub> = +2°C   | Cdh   | x,xx     | —     | Cycling interval efficiency<br>at T <sub>j</sub> = +7°C                     | COP <sub>cy</sub>                          | x,xx  | –                 |
| Cycling interval capacity for heating<br>at T <sub>j</sub> = +7°C   | Pcych   | x,x      | kW    | Cycling interval efficiency<br>at T <sub>j</sub> = +12°C                    | COP <sub>cy</sub>                          | x,xx  | –                 |
| Degradation coefficient <sup>(2)</sup> at T <sub>j</sub> = +7°C   | Cdh   | x,xx     | —     | Supplementary heater (to be declared even if not provided in the unit)      |  |       |                   |
| Cycling interval capacity for heating<br>at T <sub>j</sub> = +12°C  | Pcych   | x,x      | kW    | Rated heat output (1)   | P <sub>sup</sub><br>= sup(T <sub>j</sub> ) | x,x   | kW                |
| Degradation coefficient <sup>(2)</sup> at T <sub>j</sub> = +12°C  | Cdh   | x,xx     | —     | Type of energy input  |  |       |                   |
| Power consumption in modes other than active mode   |   |          |       | Outdoor heat exchanger  |  |       |                   |
| Off mode  | P <sub>OFF</sub>  | 0.08     | kW    | For air-to-water HP: Rated air flow rate                                    | Q <sub>airsource</sub>                     | 24000 | m <sup>3</sup> /h |
| Thermostat-off mode   | P <sub>TO</sub>   | 0.40     | kW    | For water-to-water: Rated water flow rate                                   | Q <sub>watersource</sub>                   | x     | m <sup>3</sup> /h |
| Standby mode  | P <sub>SB</sub>   | 0.08     | kW    | For brine-to-water: Rated brine flow rate                                   | Q <sub>brinesource</sub>                   | x     | m <sup>3</sup> /h |
| Crankcase heater mode   | P <sub>CK</sub>   | 0.08     | kW    |   |  |       |                   |
| Other items   |   |          |       |   |  |       |                   |
| Capacity control  | fixed/variable  | variable |       |   |  |       |                   |
| Sound power level, indoors  | L <sub>WA</sub>   | x        | dB(A) |   |  |       |                   |
| Sound power level, outdoors   | L <sub>WA</sub>   | 84       | dB(A) |   |  |       |                   |
| Contact details   | SALVADOR ESCODA SA, C/PROVENZA 392 P2 08172 BARCELONA (SPAIN) |          |       |   |  |       |                   |
| (1) 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(T <sub>j</sub> ). |   |          |       |   |  |       |                   |
| (2) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,99.   |   |          |       |   |  |       |                   |