Indoor unit: HSB140 Models Outdoor unit: FDCW140VNX-A Tank: Air-to-water heat pump Equipped with a supplimentary heater: Heat pump type: [[ves]/no Low-temperature heat pump: [ves/[no]] Heat pump combination heater: [ves/[no] Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For lowtemperature heat pumps, parameters shall be declared for low-temperature application Declared climate condition: Average Item Symbol Value Unit Symbol Value Unit Item Seasonal space heating Rated heat output(\*) Prated 13.0 kW 133 %  $\eta_s$ energy efficiency Declared capacity for heating for part load at indoor Declared coefficient of performance for part load at temperature 20°C and outdoor temperature Ti indoor temperature 20°C and outdoor temperature Ti  $Ti = -7^{\circ}C$ Pdh 11.5 kW  $Ti = -7^{\circ}C$ COPd 2.06  $Ti = +2^{\circ}C$ Pdh 7.0 kW  $Ti = +2^{\circ}C$ COPd 3.24  $Ti = +7^{\circ}C$ 4.8 4.76 Pdh kW  $Ti = +7^{\circ}C$ **COPd** Ti = +12°CPdh 5.2 kW Ti = +12°CCOPd 5.55 Tj = bivalent temperature 11.5 kW Tj = bivalent temperature **COPd** 2.06 Pdh Ti = operation limit  $T_i = operation limit$ Pdh 11.0 kW COPd 1.98 temperature temperature For air-to-water heat pumps: For air-to-water heat pumps: COPd Pdh kW  $T_i = -15^{\circ}C$  (if  $TOL < -20^{\circ}C$ )  $T_i = -15^{\circ}C$  (if  $TOL < -20^{\circ}C$ ) For air-to-water heat pumps: Bivalent temperature -7 °C TOL -10 °C  $T_{biv}$ Operation limit temperature Cycling interval capacity for Pcvch kW Cycling interval efficiency **COPcyc** heating Heating water operating limit WTOL 0.98 58 °C Degradation co-efficient(\*\*) Cdh temperature Power consumption in modes other than active mode Supplimentary heater Off mode P<sub>OFF</sub> 0.002 kW Rated heat output(\*) Psup 2.0 kW Thermostat-off mode 0.016 kW  $P_{TO}$ Standby mode  $P_{SB}$ 0.015 kW Type of energy input Electricity 0.035 Crankcase heater mode  $P_{CK}$ kW Other items Capacity control variable Sound power level, outdoors 58 dB For air-to-water heat pumps: dΒ 33 6000  $m^3/h$ Sound power level, indoors  $L_{WA}$ Rated air flow rate, outdoors For heat pump combination heater Daily electricity consumption kWh **Declared load profile** Water heating energy % Annual electricity consumption AEC kWh  $\eta_{wh}$ efficiency MHIAE SERVICES B.V.(Wholly-owned subsidiary of MITSUBISHI HEAVY INDUSTRIES AIR-CONDITIONING EUROPE, LTD.) Contact details Herikerbergweg 238, Luna ArenA, 1101 CM Amsterdam, Netherlands P.O.Box 23393 1100 DW Amsterdam, Netherlands

(\*) 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(Tj). (\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.