

## Technical documentation for NRVU

| COMMISSION REGULATION (EU) No 1253/2014 ANNEX V |  | VN-M500HE                                 | VN-M650HE         | VN-M800HE         | VN-M1000HE        | VN-M1500HE        | VN-M2000HE        |     |
|---|--|---|-------------------|-------------------|-------------------|-------------------|-------------------|-----|
| (a)   | manufacturer's name or trade mark;   | TOSHIBA CARRIER CORPORATION               |                   |                   |                   |                   |                   |     |
| (b)   | manufacturer's model identifier, i.e. the code, usually alphanumeric, used to distinguish a specific non-residential ventilation unit model from other models with the same trade mark or supplier's name; | VN-M500HE                                 | VN-M650HE         | VN-M800HE         | VN-M1000HE        | VN-M1500HE        | VN-M2000HE        |     |
| (c)   | declared typology in accordance with Article 2 (RVU or NRVU, UVU or BVU);  | NRVU, BVU                                 | NRVU, BVU         | NRVU, BVU         | NRVU, BVU         | NRVU, BVU         | NRVU, BVU         |     |
| (d)   | type of drive installed or intended to be installed (multi-speed drive or variable speed drive);   | multi-speed drive                         | multi-speed drive | multi-speed drive | multi-speed drive | multi-speed drive | multi-speed drive |     |
| (e)   | type of HRS (run-around, other, none);   | other                                     | other             | other             | other             | other             | other             |     |
| (f)   | thermal efficiency of heat recovery (in % or 'not applicable' if the product has no heat recovery system);   | 76,0                                      | 74,4              | 78,2              | 75,6              | 78,2              | 75,6              |     |
| (g)   | nominal NRVU flow rate in m <sup>3</sup> /s;   | 0,139                                     | 0,181             | 0,222             | 0,278             | 0,417             | 0,556             |     |
| (h)   | effective electric power input (kW);   | 0,226                                     | 0,276             | 0,372             | 0,551             | 0,769             | 1,119             |     |
| (i)   | SFPint in W/(m <sup>3</sup> /s);   | 814                                       | 764               | 836               | 991               | 922               | 1006              |     |
| (j)   | face velocity in m/s at design flow rate;  | 1,26                                      | 1,63              | 1,66              | 2,07              | 1,55              | 2,07              |     |
| (k)   | nominal external pressure ( $\Delta p_{s,ext}$ ) in Pa;  | 142                                       | 99                | 150               | 140               | 145,5             | 133,5             |     |
| (l)   | internal pressure drop of ventilation components ( $\Delta p_{s,int}$ ) in Pa;   | 92,5                                      | 140,5             | 154               | 166,5             | 159               | 174               |     |
| (m)   | optional: internal pressure drop of non-ventilation components ( $\Delta p_{s,add}$ ) in Pa;   | -   | -                 | -                 | -                 | -                 | -                 |     |
| (n)   | static efficiency of fans used in accordance with Regulation (EU) No 327/2011;   | -   | -                 | 36,9              | 35,0              | 36,9              | 35,0              |     |
| (o)   | external leakage rate (%) of the casing of ventilation units   | +400 (Pa)                                 | 10,8              | 8,3               | 7,8               | 6,2               | 8,3               | 6,2 |
|   |  | -400 (Pa)                                 | 8,6               | 6,6               | 7,1               | 5,7               | 7,6               | 5,7 |
|   | internal leakage rate (%) of bidirectional ventilation units   | 6,0                                       | 6,0               | 5,8               | 5,8               | 5,8               | 5,8               |     |
| (p)   | energy performance, preferably energy classification, of the filters (declared information about the calculated annual energy consumption);  | -   | -                 | -                 | -                 | -                 | -                 |     |
| (q)   | description of visual filter warning for NRVUs intended for use with filters, including text pointing out the importance of regular filter changes for performance and energy efficiency of the unit;      | -   | -                 | -                 | -                 | -                 | -                 |     |
| (r)   | in the case of NRVUs specified for use indoors, the casing sound power level ( $L_{WA}$ ), rounded to the nearest integer;   | -   | -                 | -                 | -                 | -                 | -                 |     |
| (s)   | internet address for disassembly instructions as referred to in point 3.   | 'http://www.toshiba-carrier.co.jp/global/ |                   |                   |                   |                   |                   |     |

## COMMISSION REGULATION (EU) No 1253/2014 ANNEX V

|     |  | VN-M1000HE1  | VN-M1500HE1          | VN-M2000HE1          |     |
|-----|--|--|----------------------|----------------------|-----|
| (a) | manufacturer's name or trade mark;   | TOSHIBA CARRIER CORPORATION  |                      |                      |     |
| (b) | manufacturer's model identifier, i.e. the code, usually alphanumeric, used to distinguish a specific non-residential ventilation unit model from other models with the same trade mark or supplier's name; | VN-M1000HE1  | VN-M1500HE1          | VN-M2000HE1          |     |
| (c) | declared typology in accordance with Article 2 (RVU or NRVU, UVU or BVU);  | NRVU, BVU  | NRVU, BVU            | NRVU, BVU            |     |
| (d) | type of drive installed or intended to be installed (multi-speed drive or variable speed drive);   | variable speed drive   | variable speed drive | variable speed drive |     |
| (e) | type of HRS (run-around, other, none);   | other  | other                | other                |     |
| (f) | thermal efficiency of heat recovery (in % or 'not applicable' if the product has no heat recovery system);   | 75,6   | 78,2                 | 75,6                 |     |
| (g) | nominal NRVU flow rate in m <sup>3</sup> /s;   | 0,278  | 0,417                | 0,556                |     |
| (h) | effective electric power input (kW);   | 0,390  | 0,640                | 0,780                |     |
| (i) | SFP <sub>int</sub> in W/(m <sup>3</sup> /s);   | 702  | 768                  | 702                  |     |
| (j) | face velocity in m/s at design flow rate;  | 2,07   | 1,55                 | 2,07                 |     |
| (k) | nominal external pressure ( $\Delta p_{s,ext}$ ) in Pa;  | 105  | 140,0                | 105,0                |     |
| (l) | internal pressure drop of ventilation components ( $\Delta p_{s,int}$ ) in Pa;   | 166,5  | 159                  | 174                  |     |
| (m) | optional: internal pressure drop of non-ventilation components ( $\Delta p_{s,add}$ ) in Pa;   | -  | -                    | -                    |     |
| (n) | static efficiency of fans used in accordance with Regulation (EU) No 327/2011;   | 38,0   | 38,0                 | 38,0                 |     |
| (o) | external leakage rate (%) of the casing of ventilation units   | +400 (Pa)  | 9,4                  | 12,5                 | 9,4 |
|     |  | -400 (Pa)  | 8,2                  | 11,0                 | 8,2 |
|     | internal leakage rate (%) of bidirectional ventilation units   | 5,8  | 5,8                  | 5,8                  |     |
| (p) | energy performance, preferably energy classification, of the filters (declared information about the calculated annual energy consumption);  | -  | -                    | -                    |     |
| (q) | description of visual filter warning for NRVUs intended for use with filters, including text pointing out the importance of regular filter changes for performance and energy efficiency of the unit;      | -  | -                    | -                    |     |
| (r) | in the case of NRVUs specified for use indoors, the casing sound power level ( $L_{WA}$ ), rounded to the nearest integer;   | -  | -                    | -                    |     |
| (s) | internet address for disassembly instructions as referred to in point 3.   | <a href="http://www.toshiba-carrier.co.jp/global/">'http://www.toshiba-carrier.co.jp/global/</a> |                      |                      |     |