



Quiet Condenser Option

For Daikin Applied Air Handling Systems



Reducing Noise for Sound Sensitive Applications

For many applications, low radiated sound is a critical factor in the selection and installation of air-cooled equipment. In response to the need for quieter units, Daikin Applied offers a quiet condenser option for RoofPak™ applied rooftop systems and RCS 15-140 ton condensing units. When this option is employed, sound power at the unit is reduced by an average of 7 dB when compared to standard units. The quiet condenser option reduces overall radiated sound power levels by about 6-8 dB depending on unit size. ASHRAE Fundamentals Chapter 7 defines a 5 dB reduction as "quieter" and a 10 dB reduction as "half as loud."

This reduction in sound power can also impact where the unit can be located relative to the lot line. For example, if local code requires a maximum of 50 dB sound pressure at the lot line, the standard condenser must be located 250 feet from the lot line to comply. With Daikin Applied quiet condensers, this distance is reduced to 120 feet.

Features and Benefits

Daikin Applied quiet condensers are specially engineered to reduce radiated noise and improve condenser fan efficiency. Included with this option:

- Aerodynamic, airfoil, sickle-shaped blades and bell mouth orifices improve fan efficiency
- Each fan includes seven blades complete with serrated trailing edges and special blade tip to break up turbulence and reduce noise
- Individual compressor sound blankets are provided to reduce noise

Condensing Unit Performance

The use of the quiet condensers option has a nominal impact on unit performance. Get exact selections from your local Daikin Applied representative.

Sound Performance

The table below shows the sound power levels of standard Daikin Applied RoofPak and RCS condensing units, as well as the same units when fitted with the new quiet condenser option.

Table 1 - Sound Performance Data (in dB)

| Unit Type | Model | Frequency (Hz) | | | | | | | | | | | | | | | | | | | | Total dB | |
|-----------|-------|----------------|------|------|------|------|------|------|------|------|------|------|-------|------|------|------|-------|------|------|------|------|-------------|-------|
| | | 100 | 125 | 160 | 200 | 250 | 315 | 400 | 500 | 630 | 800 | 1k | 1.25k | 1.6k | 2k | 2.5k | 3.15k | 4k | 5k | 6.3k | 8k | | 10k |
| Standard | 015D | 87.0 | 81.3 | 88.5 | 80.7 | 85.2 | 82.3 | 80.6 | 81.3 | 81.5 | 81.6 | 81.2 | 79.1 | 77.3 | 76.3 | 75.8 | 75.0 | 74.4 | 74.5 | 73.9 | 73.0 | 74.1 | 94.8 |
| Quiet | 015D | 68.4 | 82.4 | 68.8 | 66.6 | 75.2 | 71.0 | 74.5 | 73.9 | 73.8 | 74.3 | 79.7 | 74.0 | 70.6 | 69.6 | 69.0 | 68.2 | 65.1 | 63.6 | 61.4 | 58.7 | 55.7 | 87.0 |
| Standard | 020D | 87.0 | 81.3 | 88.5 | 80.7 | 85.2 | 82.3 | 80.5 | 81.8 | 81.5 | 81.6 | 81.8 | 79.1 | 78.2 | 77.6 | 75.9 | 74.8 | 75.3 | 74.7 | 74.1 | 73.4 | 74.1 | 94.9 |
| Quiet | 020D | 68.4 | 82.4 | 68.8 | 66.6 | 75.3 | 70.9 | 74.5 | 76.1 | 73.8 | 74.3 | 80.5 | 74.0 | 73.7 | 73.8 | 69.5 | 67.2 | 69.9 | 64.9 | 64.2 | 64.3 | 55.7 | 87.6 |
| Standard | 025D | 87.0 | 81.3 | 88.5 | 80.7 | 85.2 | 82.4 | 80.6 | 81.7 | 81.7 | 81.8 | 81.3 | 79.5 | 79.0 | 77.4 | 76.5 | 75.7 | 74.8 | 74.9 | 74.1 | 73.1 | 74.2 | 94.9 |
| Quiet | 025D | 68.4 | 82.4 | 68.9 | 66.7 | 75.3 | 71.3 | 74.8 | 75.8 | 75.0 | 75.4 | 79.9 | 75.1 | 75.6 | 73.3 | 71.9 | 71.0 | 67.6 | 66.6 | 64.8 | 61.4 | 58.1 | 87.8 |
| Standard | 030D | 93.0 | 93.2 | 93.1 | 88.6 | 87.6 | 87.7 | 85.4 | 86.2 | 86.7 | 86.4 | 85.8 | 84.3 | 83.2 | 81.8 | 80.6 | 79.5 | 78.3 | 77.6 | 76.3 | 73.7 | 69.5 | 100.5 |
| Quiet | 030D | 74.6 | 90.3 | 73.4 | 71.2 | 79.1 | 74.1 | 76.0 | 76.4 | 77.0 | 76.6 | 80.5 | 76.9 | 76.3 | 74.1 | 72.1 | 70.8 | 68.2 | 68.2 | 65.9 | 61.2 | 58.5 | 92.3 |
| Standard | 035D | 93.0 | 93.2 | 93.1 | 88.6 | 87.6 | 87.7 | 85.5 | 86.3 | 86.7 | 86.4 | 85.7 | 84.3 | 82.7 | 81.6 | 80.6 | 79.5 | 78.2 | 77.4 | 76.2 | 73.7 | 69.5 | 100.5 |
| Quiet | 035D | 74.6 | 90.3 | 73.3 | 71.2 | 79.1 | 74.0 | 76.1 | 76.5 | 76.6 | 77.1 | 80.4 | 76.5 | 73.3 | 72.5 | 71.9 | 71.1 | 67.9 | 66.5 | 64.2 | 61.4 | 58.5 | 92.2 |
| Standard | 040D | 93.0 | 93.2 | 93.1 | 88.6 | 87.6 | 87.7 | 85.5 | 86.5 | 86.8 | 86.4 | 85.8 | 84.3 | 83.1 | 81.7 | 80.9 | 79.5 | 78.4 | 77.6 | 76.5 | 73.9 | 69.6 | 100.5 |
| Quiet | 040D | 74.6 | 90.3 | 73.3 | 71.2 | 79.1 | 74.0 | 76.3 | 78.1 | 77.4 | 77.1 | 80.7 | 76.9 | 75.9 | 73.4 | 73.6 | 71.1 | 69.0 | 67.8 | 67.9 | 63.1 | 59.9 | 92.4 |
| Standard | 042D | 90.0 | 84.3 | 91.5 | 83.7 | 88.2 | 85.3 | 83.6 | 84.6 | 84.6 | 84.6 | 84.3 | 82.3 | 81.0 | 79.5 | 79.2 | 78.0 | 77.5 | 77.7 | 77.2 | 76.1 | 77.2 | 97.9 |
| Quiet | 042D | 71.4 | 85.4 | 71.9 | 69.6 | 78.2 | 74.0 | 77.7 | 78.4 | 77.6 | 77.3 | 82.8 | 77.5 | 76.1 | 73.6 | 73.7 | 71.2 | 69.2 | 67.9 | 68.0 | 63.3 | 60.1 | 90.4 |
| Standard | 045D | 90.0 | 84.3 | 91.5 | 83.7 | 88.2 | 85.3 | 83.6 | 84.5 | 84.7 | 84.9 | 84.3 | 82.4 | 82.1 | 80.7 | 79.4 | 78.1 | 77.5 | 78.0 | 77.4 | 76.1 | 77.2 | 97.9 |
| Quiet | 045D | 71.4 | 85.4 | 71.9 | 69.6 | 78.2 | 74.1 | 77.6 | 77.9 | 78.0 | 78.6 | 82.8 | 77.7 | 79.0 | 76.9 | 74.3 | 71.8 | 69.2 | 70.3 | 69.7 | 63.3 | 60.1 | 90.7 |
| Standard | 050D | 90.0 | 84.3 | 91.5 | 83.7 | 88.2 | 85.4 | 83.7 | 84.9 | 84.7 | 84.8 | 84.4 | 82.6 | 83.0 | 81.0 | 79.9 | 79.0 | 77.9 | 78.0 | 77.3 | 76.2 | 77.2 | 98.0 |
| Quiet | 050D | 71.4 | 85.4 | 71.9 | 69.7 | 78.3 | 74.3 | 77.9 | 79.5 | 78.0 | 78.1 | 82.9 | 78.4 | 80.6 | 77.7 | 75.8 | 74.7 | 71.3 | 70.3 | 68.8 | 65.3 | 62.0 | 91.2 |
| Standard | 060D | 90.0 | 84.3 | 91.5 | 83.7 | 88.2 | 85.4 | 83.6 | 84.5 | 85.0 | 84.6 | 84.4 | 82.8 | 83.0 | 81.0 | 79.4 | 78.3 | 77.7 | 78.3 | 77.4 | 76.0 | 77.2 | 98.0 |
| Quiet | 060D | 71.4 | 85.4 | 71.9 | 69.7 | 78.4 | 74.9 | 77.6 | 77.5 | 79.1 | 77.3 | 83.0 | 78.8 | 80.6 | 77.7 | 74.3 | 72.5 | 70.5 | 72.0 | 69.7 | 62.7 | 60.1 | 91.0 |
| Standard | 062D | 94.8 | 95.0 | 94.9 | 90.4 | 89.4 | 89.5 | 87.2 | 88.0 | 88.6 | 88.1 | 87.6 | 86.3 | 85.7 | 84.0 | 82.6 | 81.3 | 80.1 | 79.7 | 78.3 | 75.5 | 71.3 | 102.3 |
| Quiet | 062D | 80.6 | 92.8 | 77.0 | 75.7 | 82.0 | 77.2 | 77.8 | 78.4 | 79.9 | 78.5 | 80.0 | 79.3 | 80.9 | 78.1 | 74.9 | 73.0 | 71.1 | 72.2 | 69.9 | 63.5 | 60.9 | 94.9 |
| Standard | 068D | 94.8 | 95.0 | 94.9 | 90.4 | 89.4 | 89.5 | 87.2 | 88.1 | 88.6 | 88.2 | 87.8 | 86.6 | 86.0 | 84.2 | 83.0 | 81.5 | 80.3 | 79.6 | 78.2 | 75.6 | 71.4 | 102.3 |
| Quiet | 068D | 80.6 | 92.8 | 77.0 | 75.7 | 82.0 | 76.9 | 77.8 | 78.8 | 79.9 | 79.5 | 81.0 | 80.8 | 81.7 | 78.8 | 76.9 | 74.3 | 72.4 | 71.4 | 69.1 | 65.2 | 62.0 | 95.1 |
| Standard | 070D | 94.8 | 95.0 | 94.9 | 90.4 | 89.4 | 89.5 | 87.2 | 88.2 | 88.6 | 88.4 | 87.6 | 86.2 | 85.6 | 84.2 | 82.8 | 81.4 | 80.1 | 79.7 | 78.6 | 75.6 | 71.4 | 102.3 |
| Quiet | 070D | 76.4 | 92.1 | 75.1 | 73.0 | 80.9 | 75.8 | 78.0 | 79.4 | 79.6 | 80.2 | 82.4 | 79.0 | 80.6 | 78.6 | 76.0 | 73.4 | 70.8 | 72.0 | 71.4 | 64.9 | 61.7 | 94.4 |
| Standard | 075D | 96.0 | 96.2 | 96.1 | 91.6 | 90.6 | 90.8 | 88.5 | 89.5 | 89.8 | 89.5 | 88.8 | 87.5 | 87.1 | 85.4 | 84.1 | 83.0 | 81.5 | 80.8 | 79.5 | 77.0 | 72.7 | 103.5 |
| Quiet | 075D | 81.8 | 94.0 | 78.3 | 77.0 | 83.2 | 78.2 | 79.4 | 81.6 | 80.4 | 80.6 | 81.2 | 80.3 | 82.5 | 79.7 | 77.8 | 76.7 | 73.3 | 72.3 | 70.8 | 67.4 | 64.1 | 96.2 |
| Standard | 080D | 91.8 | 86.1 | 93.3 | 85.5 | 90.0 | 87.1 | 85.4 | 86.3 | 86.5 | 86.7 | 86.0 | 84.1 | 83.9 | 82.4 | 81.1 | 79.9 | 79.3 | 79.7 | 79.2 | 77.8 | 78.9 | 99.7 |
| Quiet | 080D | 75.1 | 90.3 | 74.5 | 72.3 | 80.5 | 76.1 | 79.1 | 81.1 | 79.7 | 79.8 | 83.7 | 80.0 | 82.4 | 79.4 | 77.5 | 76.5 | 73.0 | 72.0 | 70.5 | 67.0 | 63.7 | 93.9 |
| Standard | 085D | 91.8 | 86.1 | 93.3 | 85.5 | 90.0 | 87.2 | 85.3 | 86.2 | 86.7 | 86.4 | 86.2 | 84.6 | 84.8 | 82.8 | 81.1 | 80.0 | 79.5 | 80.1 | 79.2 | 77.8 | 78.9 | 99.7 |
| Quiet | 085D | 75.1 | 90.3 | 74.5 | 72.3 | 80.6 | 76.6 | 78.7 | 79.1 | 80.8 | 79.0 | 83.9 | 80.4 | 82.4 | 79.4 | 76.1 | 74.2 | 72.2 | 73.8 | 71.4 | 64.4 | 61.8 | 93.8 |
| Standard | 090D | 96.0 | 96.2 | 96.1 | 91.6 | 90.7 | 90.8 | 88.5 | 89.3 | 89.9 | 89.4 | 88.9 | 87.5 | 87.1 | 85.4 | 83.9 | 82.6 | 81.4 | 81.0 | 79.6 | 76.8 | 72.5 | 103.5 |
| Quiet | 090D | 80.7 | 93.7 | 77.4 | 75.8 | 82.7 | 78.1 | 79.1 | 79.8 | 81.3 | 79.8 | 82.8 | 80.8 | 82.5 | 79.7 | 76.4 | 74.5 | 72.6 | 73.9 | 71.6 | 64.9 | 62.3 | 95.9 |
| Standard | 100D | 96.3 | 98.5 | 98.4 | 93.5 | 92.1 | 91.9 | 89.9 | 90.7 | 90.9 | 90.3 | 89.8 | 88.6 | 87.9 | 86.1 | 84.7 | 83.2 | 81.7 | 80.7 | 79.2 | 76.7 | 73.1 | 105.0 |
| Quiet | 100D | 81.3 | 94.3 | 78.2 | 76.7 | 83.4 | 78.5 | 79.6 | 80.3 | 81.6 | 80.7 | 83.2 | 81.9 | 83.0 | 80.2 | 77.8 | 75.4 | 73.5 | 73.6 | 71.3 | 66.1 | 63.2 | 96.6 |
| Standard | 105D | 96.0 | 96.2 | 96.1 | 91.6 | 90.6 | 90.8 | 88.5 | 89.3 | 89.9 | 89.5 | 89.1 | 87.9 | 87.4 | 85.6 | 84.3 | 82.8 | 81.6 | 80.9 | 79.5 | 76.9 | 74.1 | 103.6 |
| Quiet | 105D | 80.7 | 93.8 | 77.6 | 76.1 | 82.8 | 77.8 | 79.1 | 80.2 | 81.3 | 80.9 | 83.3 | 82.4 | 83.4 | 80.5 | 78.6 | 75.9 | 74.0 | 73.1 | 70.7 | 66.7 | 63.5 | 96.2 |
| Standard | 110D | 93.0 | 87.3 | 94.5 | 86.7 | 91.2 | 88.4 | 86.6 | 87.5 | 87.8 | 87.8 | 87.6 | 86.2 | 85.9 | 83.9 | 82.8 | 81.4 | 80.9 | 81.0 | 80.2 | 79.1 | 80.2 | 101.0 |
| Quiet | 110D | 74.4 | 88.4 | 74.9 | 72.7 | 81.3 | 77.2 | 80.5 | 80.5 | 81.4 | 81.0 | 86.3 | 82.7 | 83.4 | 80.5 | 78.6 | 76.0 | 74.1 | 73.1 | 70.8 | 66.8 | 63.5 | 94.1 |
| Standard | 120D | 93.9 | 91.7 | 95.5 | 88.8 | 92.2 | 89.2 | 87.4 | 89.6 | 88.5 | 88.5 | 89.6 | 86.6 | 85.5 | 89.1 | 83.0 | 81.9 | 84.5 | 81.2 | 80.3 | 79.6 | 78.7 | 102.4 |
| Quiet | 120D | 77.0 | 92.3 | 76.3 | 74.1 | 84.0 | 77.4 | 80.2 | 85.4 | 80.3 | 80.1 | 87.6 | 81.4 | 81.0 | 88.1 | 76.7 | 74.2 | 82.2 | 70.9 | 68.6 | 72.7 | 62.2 | 96.6 |
| Standard | 125D | 97.0 | 97.2 | 97.1 | 92.6 | 92.1 | 91.7 | 89.4 | 91.8 | 90.5 | 90.2 | 91.4 | 88.1 | 86.5 | 91.7 | 84.3 | 83.1 | 86.6 | 81.2 | 80.0 | 79.5 | 73.3 | 104.8 |
| Quiet | 125D | 78.6 | 94.3 | 77.3 | 75.1 | 85.7 | 77.6 | 79.8 | 87.6 | 78.8 | 79.0 | 88.6 | 79.5 | 75.2 | 90.7 | 73.0 | 71.1 | 84.9 | 66.0 | 64.1 | 75.1 | 60.2 | 98.1 |
| Standard | 130D | 97.8 | 98.0 | 97.9 | 93.4 | 92.8 | 92.5 | 90.2 | 92.4 | 91.3 | 91.0 | 92.0 | 88.9 | 87.3 | 91.9 | 85.1 | 83.9 | 86.9 | 82.0 | 80.8 | 80.0 | 74.1 | 105.5 |
| Quiet | 130D | 79.4 | 95.1 | 78.1 | 75.9 | 86.2 | 78.4 | 80.6 | 87.7 | 79.6 | 79.8 | 88.9 | 80.3 | 76.0 | 90.7 | 73.8 | 71.9 | 84.9 | 66.8 | 64.9 | 75.2 | 61.0 | 98.6 |
| Standard | 140D | 97.8 | 98.0 | 97.9 | 93.4 | 92.9 | 92.5 | 90.2 | 93.0 | 91.3 | 91.0 | 93.6 | 88.9 | 87.3 | 93.3 | 85.1 | 83.9 | 86.9 | 82.0 | 80.8 | 79.6 | 74.1 | 105.7 |
| Quiet | 140D | 79.4 | 95.1 | 78.1 | 75.9 | 86.7 | 78.4 | 80.6 | 89.3 | 79.6 | 79.8 | 91.7 | 80.3 | 76.0 | 92.4 | 73.8 | 71.9 | 84.9 | 66.8 | 64.9 | 74.0 | 61.0 | 99.5 |

