

# HVAC Sound Standard Reference Sheet

## AHRI EQUIPMENT SOUND STANDARDS

EQUIPMENT TYPE	260	270	300	350	370	575	880
Air Handling Units	✓						
Water-Cooled Chillers						✓	
Air-Cooled Chillers		✓			✓		
Terminal Devices							✓
Outdoor Condensing Units		✓			✓		
Water Source Heat Pumps	✓			✓			
Ducted Packaged Equipment							
Indoor	✓						
Outdoor		✓			✓		
PTAC/PTHP			✓				
OCTAVE BAND SOUND POWER							
(63 - 8000 Hz)	✓	✓	✓	✓	✓		
(125 - 4000 Hz)							✓
OCTAVE BAND SOUND PRESSURE							
(63 - 8000 Hz)						✓	

## ISO EQUIPMENT SOUND STANDARDS

EQUIPMENT TYPE	13261-1	13261-2	13261-3*	5135	3744	9614
Air Handling Units			✓			
Air-Cooled Chillers	✓				✓	✓
Terminal Devices				✓		
Outdoor Condensing Units	✓					
Water Source Heat Pumps		✓	✓			
Ducted Packaged Equipment						
Indoor			✓			
Outdoor	✓					
OCTAVE BAND SOUND POWER						
(63 - 8000 Hz)	✓	✓	✓		✓	✓
(125 - 4000 Hz)				✓		

\*Under development



YORK® YMC<sup>2</sup> Centrifugal Chiller



YORK® YVAA Air-Cooled Screw Chiller



Solution™ Commercial Air-Handler

## Sample Specification Text: Water-Cooled Chiller

- Sound **pressure** levels are expected from measurements performed in accordance with **AHRI** standard **575**.
- Include estimates for each octave band and A-Weighted values at each of the four standard **AHRI** rating points.
- Manufacturer sound levels must not exceed the specified levels at any load point. Sound attenuation material should be supplied as needed to comply with all specified sound levels.

Please contact your local Johnson Controls representative for more information.

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# A complete selection of controls, equipment and systems

## BUILDING MANAGEMENT SYSTEMS



### METASYS®

**APPLICATION & DATA SERVER**  
Support of IT standards and technologies, web-based user interface, long-term data storage



**NETWORK AUTOMATION ENGINE**  
Scalable family of engines from the smallest system to an enterprise network



**FIELD EQUIPMENT CONTROLLERS**  
Complete family of field controllers and accessories



**WIRELESS COMPONENTS**  
Wireless field buses and room temperature sensing systems designed with the latest wireless technology



**TERMINAL EQUIPMENT CONTROLLERS**  
Complete local control of unitary equipment, plus supervisory communication. Available in BACnet, LON and N2 configurations



**INTEGRATION COMPONENTS**  
Adapts legacy and proprietary systems to current open systems architecture

## WATER-COOLED CHILLERS



**ELECTRIC**  
**YORK® YCWL** • 50–200 tons  
Scroll compressor, HFC-410A refrigerant



**YORK YR** • 200–435 tons  
Screw compressor, HFC-134a refrigerant



**YORK YS** • 115–430 tons  
Screw compressor, HFC-134a refrigerant



**YORK YMC<sup>2</sup>** • 215–380 tons  
Centrifugal compressor, magnetic bearings, permanent magnet motor, OptiSpeed™ variable-speed drive, HFC-134a refrigerant



**YORK YK** • 250–3,000 tons  
Centrifugal compressor, OptiSpeed™ variable-speed drive, HFC-134a refrigerant



**YORK YD** • 3,000–6,000 tons  
Centrifugal compressors, HFC-134a refrigerant



**YORK CYK** • 500–2,500 tons  
High-head, compound centrifugal compressors, HFC-134a refrigerant



**YORK OM** • 3,000–5,500 tons  
Custom-designed, centrifugal compressor, also steam drive, HFC-134a refrigerant



**GAS/STEAM/OIL**  
**YORK YST** • 700–2,800 tons  
Centrifugal compressor, steam-turbine drive, HFC-134a refrigerant



**YORK YPC** • 200–700 tons  
Absorption chiller, two-stage, gas, oil, or high-pressure-steam drive, water refrigerant



**YORK YIA** • 120–1,380 tons  
Absorption chiller, single-stage, low-pressure-steam or hot-water drive, water refrigerant

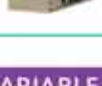
## AIR-COOLED CHILLERS



**YORK YCAL** • 15–65 tons  
Scroll compressors, HFC-410A refrigerant



**TEMPO™ YLAA** • 70–180 tons  
Scroll compressors, HFC-410A refrigerant



**LATITUDE® YCIV/YCAV** • 150–515 tons  
Variable-speed screw compressors, HFC-134a refrigerant

## VARIABLE REFRIGERANT FLOW SYSTEMS



**OUTDOOR UNITS** • Systems from 3-25 tons  
Mini heat pump, heat pump and concurrent heating/cooling



**INDOOR UNITS** • ½-4½ tons  
Ceiling, wall and floor models; exposed and concealed



**CONTROLS & ACCESSORIES**  
Remote unit control, network diagnostic tool

## CONDENSING UNITS & CONDENSERS



**YORK YD & NC/ND SPLIT SYSTEM** • 7.5–50 tons  
Scroll compressors, HFC-410A refrigerant



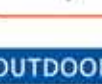
**YORK YCUL** • 40–80 tons  
Condensing unit, scroll compressors, HFC-410A refrigerant



**YORK YLUA** • 80–160 tons  
Condensing unit, scroll compressors, HFC-410A refrigerant



**YORK VDC** • 155–2,280 MBH  
Air-cooled condenser, multiple refrigerants



**YORK VDCF** • 155–2,280 MBH  
Fluid cooler, water or glycol

## OUTDOOR PACKAGED EQUIPMENT



**SERIES 5 SINGLE-PACKAGED UNITS**  
Cooling capacity: 3-6 tons  
Rated up to 13 SEER / 11.2 EER / 13.1 IEER



**SERIES 10 SINGLE-PACKAGED UNITS**  
Cooling capacity: 3-12.5 tons  
Rated up to 15 SEER / 12.2 EER / 14.9 IEER



**SERIES 20 SINGLE-PACKAGED UNITS**  
Cooling capacity: 15-25 tons  
Rated up to 11 EER / 12.9 IEER



**SERIES 40 SINGLE-PACKAGED UNITS**  
Cooling capacity: 25-40 tons  
Rated up to 10.5 EER / 12.3 IEER



**SERIES 100 SINGLE-PACKAGED UNITS**  
Cooling capacity: 50-130 tons  
Meets or exceeds ASHRAE 90.1 energy standards

## INDOOR PACKAGED EQUIPMENT



**AIR-COOLED SELF-CONTAINED UNITS**  
Vertical • 3-20 tons, horizontal • 2-10 tons



**WATER-COOLED SELF-CONTAINED UNITS**  
Vertical • 5-105 tons



**WATER SOURCE HEAT PUMPS**  
Vertical & horizontal • ½-25 tons  
geothermal



**REVERSIBLE CHILLERS**  
Water-to-water heat pumps, 8-45 tons,  
modular application, geothermal



**VERTICAL AIR CONDITIONERS & HEAT PUMPS**  
¾-3 tons cooling, 3kW-10kW electric heating



**SKYPAK™ SELF-CONTAINED HEATING/COOLING UNITS**  
1-2.5 tons cooling, 20,000-80,000 BTUH gas heating

## TERMINAL UNITS



**FAN-COIL UNITS** • 250-5,000 CFM  
Exposed & concealed, horizontal & vertical, variable cabinet sizing, direct-drive and belt-drive, flexible factory-packaged controls, wireless-ready option



**UNIT VENTILATORS** • 500-2,000 CFM  
Horizontal and vertical units, flexible factory-packaged controls, wireless-ready option



**VAV TERMINAL BOXES** • 75-8,000 CFM  
Single-duct, series or parallel fan-powered, flexible factory-packaged controls, wireless-ready option

## COMMERCIAL COMFORT SYSTEMS (CCS)



**SINGLE-PACKAGED UNITS**  
Cooling capacity: 3-65 tons  
Heating capacity: 40 to 900 MBH output



**SYSTEM MANAGER & ZONE COORDINATOR**  
Color touch screen user interface, remotely accessible via standard web browser, controls up to 24 changeover/bypass zones or 32 VAV boxes



**VAV TERMINALS** • 75-8,000 CFM  
Single-duct, series or parallel fan powered



**ZONE & BYPASS DAMPERS**  
Complete assembly including factory mounted, wired and programmed direct digital controller (DDC)

## CONTROL PRODUCTS



**VARIABLE-SPEED DRIVES**  
Open, enclosed and bypass drives, 1-250 HP, engineered solutions available



**VALVES, ACTUATORS & DAMPERS**  
Global product family, broad selection, easy installation



**SENSORS & THERMOSTATS**  
Temperature, humidity and CO<sub>2</sub> sensors



**AIRFLOW MEASURING SYSTEM**  
Differential pressure or thermal dispersion



**REFRIGERATION CONTROLS**  
Temperature, pressure, fan speed and lube oil controls, flow switches, drives



**CONTROL PANELS**  
Pre-wired and pre-assembled, standard and custom control panels

## SECURITY & FIRE SAFETY PRODUCTS



**P2000 SECURITY MANAGEMENT SYSTEM**  
Interactive, real time security management



**CONTROLLERS**  
Intelligent network/IP controllers



**DIGITAL VISION NETWORK**  
Hybrid video surveillance system



**IFC FIRE ALARM CONTROL PANELS**  
Scalable systems to meet any size application

## SERVICE



With more than 150 offices across North America, Johnson Controls has the know-how, experience and resources to meet all of your facility service needs, including preventative and predictive maintenance, remote monitoring, 24/7 coverage and emergency repairs.

## SOLUTIONS



There is increased focus on reducing carbon footprints and being good stewards of the environment. Customers are being asked to deliver all of that and more with budgets that have never been tighter. We have a long history of partnering with public and private entities

to deliver innovative, guaranteed solutions that meet your triple bottom line. Create quality environments. Maximize energy and water efficiency. Provide clean, renewable energy. And save millions!

## CONTACT JOHNSON CONTROLS

For more information, contact your local Johnson Controls representative or visit us at [www.johnsoncontrols.com](http://www.johnsoncontrols.com)  
Form PUBL-6676 (1011) New Release

