



BUILDING EFFICIENCY

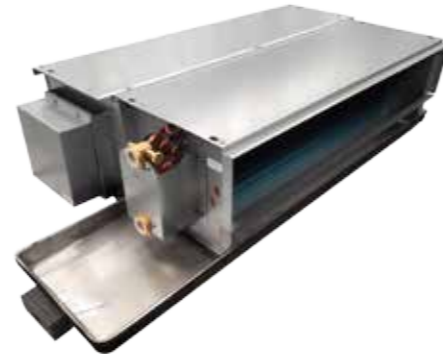
Energy Efficient Variable Speed EC Motor
Fan Coil Unit Solutions
Model YECFC

Product Introduction

INTRODUCTION

Johnson Controls YORK® YECFC fan coil units are high efficiency, low profile, ceiling mounted, concealed air conditioning units for both ducted and non ducted HVAC system applications. They are designed, developed and tested in accordance with Australia and New Zealand regulations to meet the increasing energy efficiency levels demanded by today's sustainable buildings. YECFC fan coil units have been designed incorporating variable speed EC motor technology to exceed the stringent European ErP 2015 energy standard. They are the ideal HVAC solution for both new construction and renovation projects for hotels, apartments, retail centers, office buildings, and education facilities.

YECFC fan coils are available in 5 models with integral EC fan(s) incorporate fully variable 0-10v speed control, and are suitable for a wide range of chilled water and hot water flow rates, including wide delta T applications to maximize pump energy savings. YECFC fan coil units are available with multiple coil options for each model (the 2 pipe system has 3 or 4 rows, and the 4 pipe system has 3+1 or 4+1 rows). The air flow ranges from a nominal 150 L/s to 750 L/s, while the external static pressure ranges from 30 Pa to 120 Pa up to size 04, and up to 150 Pa for size 05. YECFC is designed to cater for a wide range of HVAC applications and system types. With integral EC motor technology



and wide RPM range design, one model size can be adapted to both low pressure ductless and higher pressure ducted applications. Significant energy savings are delivered by continuously regulating fan speed via a 0 - 10 vdc control signal.

| | | | |
|-----------------|---|---|---|
| GENERAL | Coils | 3R Cooling Coil Only (Wide delta T) | ■ |
| | | 4R Cooling Coil Only (Wide delta T) | ▲ |
| | | 1R Heating Coil | ▲ |
| | Motor Protection | IP 44 - 50/60 Hz | ■ |
| | Fin Protection | Hydrophilic Fin | ■ |
| | Drain Pan | Stainless steel 100mm extended drain pan | ■ |
| | Drain Pan Insulation | 6mm closed-cell insulation, Class 1 | ■ |
| | Coil header | Copper with threaded brass connectors | ■ |
| Return Plenum | Back Return | ■ | |
| OPTION | Filters & Rails | 8mm Base Rail | ▲ |
| | | 8mm Nylon Filter | ▲ |
| | Electric Heater | Australia/NZ locally provided option only | ▲ |
| | Water Valve | Australia/NZ locally provided option only | ▲ |
| Control Package | Australia/NZ locally provided option only | ▲ | |

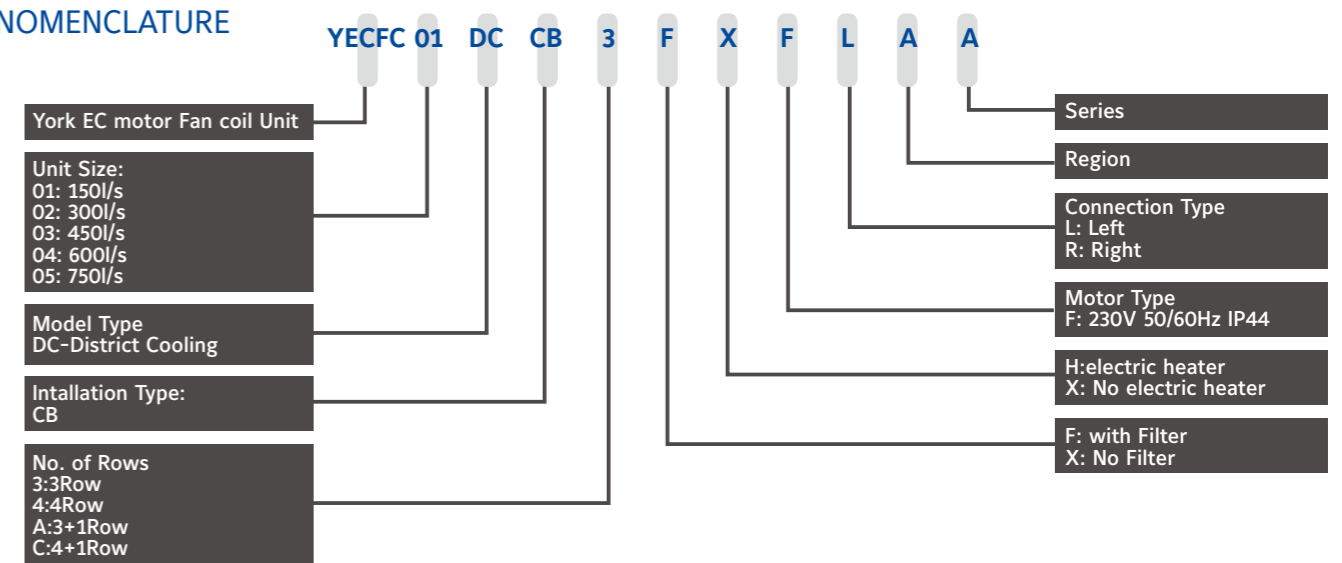
Legend:

Standard ■

Option ▲

Nomenclature & Feature

NOMENCLATURE



FEATURES AND BENEFITS

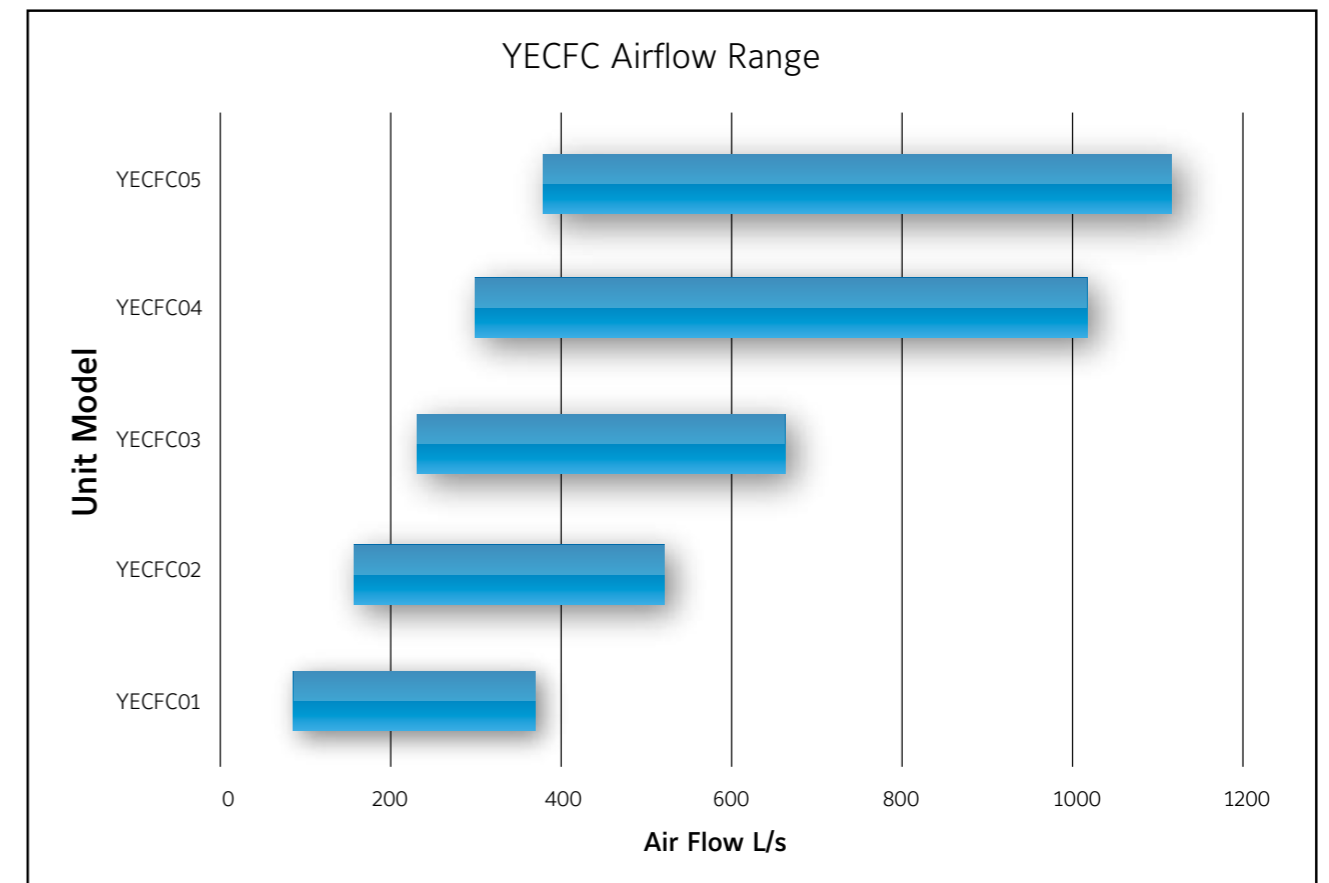
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|---------------------------|--|--|
| Energy saving | Low velocity coil designs are made of expanded copper tubes and corrugated aluminium hydrophilic (blue) fins to achieve high energy exchange efficiency. EC fans can improve the overall efficiency by up to 70% when compared to standard AC motor fan coil units | Significant energy savings Fan and motor performance rating exceeds the 2015 ErP (European Energy- related Products Directive) |
| Low noise level | Each fan and motor assembly has been dynamically and statically balanced. Variable speed fan operation | Quiet comfort condition results in satisfied occupants. |
| Easy drainage | Integral dry pan design allows quick and easy drainage of condensation. Dry pan is made of high quality stainless steel. Extended pan design | Non corrosive design drain pan has positive drainage and permits easy fitment of control valves above extended section. Lowers installation and maintenance costs. |
| Compact size & low height | Unit height is restricted to 233mm or 317mm | Low profile design allows installation in low ceiling height areas |
| Ease of installation | Threaded Brass connector is provided for easy piping connection. Drain and purge valves are provided on all units to assist in commissioning. | Reduces installation and commissioning time and cost. |
| Ease of maintenance | Optional Air Filter can be provided. Extended drain tray permits ease of inspection | Air filter can protect coil from construction debris during installation. Filters can be easily removed for cleaning. Lowers maintenance cost. |

Technical Specifications

| MODEL | | YECFC01 | YECFC02 | YECFC03 | YECFC04 | YECFC05 | |
|---|----------|---------------------------|---------|---------|---------|---------|-------|
| Performance | | | | | | | |
| Nominal Air Flow | L/S | 150 | 300 | 450 | 600 | 750 | |
| Nominal External Static Pressure | Pa | 60 | 60 | 60 | 120 | 150 | |
| External Static Pressure Range | Pa | 30-120 | 30-120 | 30-120 | 30-120 | 60-150 | |
| COIL | | | | | | | |
| Face Area | sq.m | 0.15 | 0.21 | 0.32 | 0.47 | 0.54 | |
| Face Velocity | m/s | 0.99 | 1.42 | 1.42 | 1.27 | 1.40 | |
| Header Material | | Brass | | | | | |
| Max Working Pressure | kPa | 1600 | | | | | |
| COOLING COIL | | | | | | | |
| Water Flow Rate | 3 Rows | L/S | 0.080 | 0.143 | 0.210 | 0.298 | 0.378 |
| | 4 Rows | | 0.096 | 0.172 | 0.263 | 0.363 | 0.430 |
| Water Pressure Drop | 3 Rows | kPa | 16.8 | 14.4 | 24.1 | 31.5 | 29.6 |
| | 4 Rows | | 30.5 | 25.8 | 29.6 | 30.8 | 28.1 |
| Water Content | 3 Rows | L | 0.75 | 1.03 | 1.53 | 2.28 | 2.58 |
| | 4 Rows | | 1.01 | 1.38 | 2.04 | 3.04 | 3.44 |
| Air Pressure Drop | 3 Rows | Pa | 24.8 | 39.8 | 39.9 | 34.4 | 39.1 |
| | 4 Rows | | 34.1 | 58.4 | 58.5 | 49.5 | 57.2 |
| Nominal Capacity | 3 Rows | kW | 2.34 | 4.14 | 6.26 | 8.83 | 11.10 |
| | 4 Rows | | 2.76 | 5.04 | 7.75 | 10.58 | 12.55 |
| HEATING COIL | | | | | | | |
| Water Flow Rate | L/S | 0.050 | 0.085 | 0.121 | 0.182 | 0.221 | |
| Water Pressure Drop | kPa | 7.1 | 6.7 | 8.1 | 14.5 | 20.8 | |
| Water Content | L | 0.25 | 0.34 | 0.51 | 0.76 | 0.86 | |
| Air Pressure Drop | Pa | 22.4 | 39.7 | 39.8 | 33.2 | 38.8 | |
| Nominal Capacity | kW | 4.20 | 7.07 | 10.14 | 15.18 | 18.46 | |
| MOTOR | | | | | | | |
| Type | | Electronically Commutated | | | | | |
| No. of Motor | | 1 | 1 | 1 | 2 | 2 | |
| Total Rating Input | W | 42 | 99 | 148 | 275 | 375 | |
| Control Signal Input | V | 0-10V DC | | | | | |
| Nameplate Volts | V | 230 V AC | | | | | |
| Nameplate Amps(230V / 1 ph. / 50 - 60 Hz.) | A | 1.8 | 1.8 | 1.9 | 3.6 | 3.6 | |
| Nameplate Input Power(230V / 1 ph. / 50 - 60 Hz.) | W | 243 | 243 | 245 | 486 | 480 | |
| FAN | | | | | | | |
| Type | | FC DWDI Centrifugal | | | | | |
| Quantity | | 2 | 2 | 3 | 4 | 4 | |
| UNIT DIMENSIONS | | | | | | | |
| Length | mm | 920 | 1200 | 1700 | 1800 | 2015 | |
| Width | mm | 500 | 500 | 500 | 500 | 500 | |
| Height | mm | 233 | 233 | 233 | 317 | 317 | |
| Weight | 3 Rows | kg | 20.8 | 24.8 | 33.4 | 43.8 | 52.8 |
| | 4 Rows | | 21.5 | 25.7 | 34.7 | 47.9 | 54.9 |
| | 3+1 Rows | | 21.5 | 25.7 | 34.7 | 47.9 | 54.9 |
| | 4+1 Rows | | 22.3 | 27.0 | 36.3 | 49.1 | 57.8 |

- Note:
- Standard return air cooling conditions: air inlet at 23° C DB/17° C WB; chilled water inlet/outlet at 6° C/13° C.
 - Standard return air heating conditions: air inlet at 21° C DB; hot water inlet/outlet at 80° C/60° C.
 - Power Supply Range: 200-240V - 1ph 50/60Hz
 - * means APD at wet condition, ** means APD at dry condition.
 - Unit weight is without water content.
 - Chiller water inlet/outlet connection size for 04/05 4/C Rows unit is R1". For other unit, the chiller water inlet/outlet connection size is Rc3/4".
 - Inlet/outlet hot water pipe diameter for 4 pipes unit is Rc 1/2".

Technical Specifications



Technical Specifications

MOTOR POWER INPUT(W)

3 Rows Cooling Coil+1 Row Heating Coil

| MODEL | ESP (Pa) | 150 L/S | 200 L/S | 250 L/S | 300 L/S | 350 L/S | 400 L/S | 450 L/S | 500 L/S | 550 L/S | 600 L/S | 650 L/S | 700 L/S | 750 L/S | 800 L/S | 850 L/S | 900 L/S | 950 L/S |
|---------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| YECFC01 | 30 | 28 | 46 | 69 | 95 | | | | | | | | | | | | | |
| | 60 | 42 | 61 | 88 | 117 | | | | | | | | | | | | | |
| | 90 | 55 | 79 | | | | | | | | | | | | | | | |
| | 120 | 69 | 97 | | | | | | | | | | | | | | | |
| YECFC02 | 30 | | | 51 | 78 | 105 | 140 | | | | | | | | | | | |
| | 60 | | | 71 | 99 | 127 | 168 | | | | | | | | | | | |
| | 90 | | | 88 | 123 | | | | | | | | | | | | | |
| | 120 | | | 105 | 150 | | | | | | | | | | | | | |
| YECFC03 | 30 | | | | | | 91 | 121 | 150 | 186 | | | | | | | | |
| | 60 | | | | | | 120 | 148 | 182 | 226 | | | | | | | | |
| | 90 | | | | | | 152 | 188 | | | | | | | | | | |
| | 120 | | | | | | 185 | 217 | | | | | | | | | | |
| YECFC04 | 30 | | | | | | | | | 114 | 143 | 165 | 194 | 227 | 262 | | | |
| | 60 | | | | | | | | | 153 | 183 | 209 | 239 | 277 | 315 | | | |
| | 90 | | | | | | | | | 189 | 234 | 250 | | | | | | |
| | 120 | | | | | | | | | 231 | 275 | | | | | | | |
| YECFC05 | 60 | | | | | | | | | | | | 196 | 232 | 259 | 292 | 330 | 374 |
| | 90 | | | | | | | | | | | | 234 | 275 | 299 | 343 | | |
| | 120 | | | | | | | | | | | | 281 | 335 | 346 | 391 | | |
| | 150 | | | | | | | | | | | | 328 | 375 | | | | |

MOTOR POWER INPUT(W)

4 Rows Cooling Coil+1 Row Heating Coil

| MODEL | ESP (Pa) | 150 L/S | 200 L/S | 250 L/S | 300 L/S | 350 L/S | 400 L/S | 450 L/S | 500 L/S | 550 L/S | 600 L/S | 650 L/S | 700 L/S | 750 L/S | 800 L/S | 850 L/S | 900 L/S | 950 L/S |
|---------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| YECFC01 | 30 | 30 | 48 | 74 | 109 | | | | | | | | | | | | | |
| | 60 | 43 | 65 | 93 | 128 | | | | | | | | | | | | | |
| | 90 | 57 | 82 | | | | | | | | | | | | | | | |
| | 120 | 71 | 100 | | | | | | | | | | | | | | | |
| YECFC02 | 30 | | | 57 | 84 | 131 | 158 | | | | | | | | | | | |
| | 60 | | | 77 | 104 | 141 | 189 | | | | | | | | | | | |
| | 90 | | | 94 | 130 | | | | | | | | | | | | | |
| | 120 | | | 120 | 154 | | | | | | | | | | | | | |
| YECFC03 | 30 | | | | | | 100 | 125 | 161 | 194 | | | | | | | | |
| | 60 | | | | | | 125 | 157 | 191 | 241 | | | | | | | | |
| | 90 | | | | | | 155 | 192 | | | | | | | | | | |
| | 120 | | | | | | 188 | 223 | | | | | | | | | | |
| YECFC04 | 30 | | | | | | | | | 125 | 148 | 179 | 210 | 236 | 275 | | | |
| | 60 | | | | | | | | | 163 | 195 | 221 | 256 | 288 | 325 | | | |
| | 90 | | | | | | | | | 205 | 245 | 266 | | | | | | |
| | 120 | | | | | | | | | 248 | 293 | | | | | | | |
| YECFC05 | 60 | | | | | | | | | | | | 210 | 241 | 274 | 312 | 356 | 406 |
| | 90 | | | | | | | | | | | | 254 | 287 | 322 | 359 | | |
| | 120 | | | | | | | | | | | | 297 | 345 | 369 | 416 | | |
| | 150 | | | | | | | | | | | | 342 | 390 | | | | |

Performance Data

PERFORMANCE RATINGS

Cooling Coil

| Model | Airflow L/S | Rows | Air Inlet Temp(Dry Bulb/Wet Bulb) 23°C/17°C | | | | |
|---------|----------------|------|---|---------------------------------|---|------------------------|----------------------------|
| | | | Total Cooling Capacity kW | Sensible Cooling Capacity kW | Air Off Temp (Dry Bulb/Wet Bulb) °C | Water Flow Rate L/S | Water Pressure Drop kPa |
| | | | | | | | |
| YECFC01 | 150 | 3 | 2.34 | 1.75 | 13.4/12.2 | 0.080 | 16.8 |
| | 200 | | 2.95 | 2.28 | 13.6/12.5 | 0.100 | 25.1 |
| | 250 | | 3.52 | 2.78 | 13.8/12.7 | 0.121 | 33.5 |
| | 300 | | 3.99 | 3.24 | 14.1/13.0 | 0.134 | 41.6 |
| | 150 | 4 | 2.76 | 1.97 | 12.2/11.3 | 0.096 | 30.5 |
| | 200 | | 3.42 | 2.51 | 12.6/11.7 | 0.118 | 42.5 |
| | 250 | | 4.08 | 3.06 | 12.9/12.0 | 0.137 | 57.4 |
| | 300 | | 4.62 | 3.55 | 13.2/12.3 | 0.159 | 71.5 |
| YECFC02 | 250 | 3 | 3.62 | 2.83 | 13.7/12.6 | 0.125 | 11.2 |
| | 300 | | 4.14 | 3.32 | 13.9/12.8 | 0.143 | 14.4 |
| | 350 | | 4.71 | 3.83 | 14.0/12.9 | 0.158 | 17.9 |
| | 400 | | 5.03 | 4.14 | 14.5/13.2 | 0.172 | 20.6 |
| | 250 | 4 | 4.45 | 3.24 | 12.3/11.5 | 0.149 | 21.1 |
| | 300 | | 5.04 | 3.76 | 12.7/11.8 | 0.172 | 25.8 |
| | 350 | | 5.73 | 4.35 | 12.7/12.0 | 0.194 | 32.5 |
| | 400 | | 6.21 | 4.82 | 13.1/12.2 | 0.210 | 38.1 |
| YECFC03 | 400 | 3 | 5.79 | 4.56 | 13.6/12.6 | 0.199 | 21.6 |
| | 450 | | 6.26 | 4.95 | 13.9/12.8 | 0.210 | 24.1 |
| | 500 | | 6.76 | 5.44 | 14.0/12.9 | 0.231 | 28.0 |
| | 550 | | 7.29 | 5.96 | 14.1/13.0 | 0.246 | 31.4 |
| | 400 | 4 | 6.95 | 5.20 | 12.3/11.6 | 0.239 | 24.1 |
| | 450 | | 7.75 | 5.83 | 12.3/11.7 | 0.263 | 29.6 |
| | 500 | | 8.33 | 6.36 | 12.5/11.9 | 0.286 | 33.4 |
| | 550 | | 9.01 | 6.99 | 12.5/12.0 | 0.304 | 38.5 |
| YECFC04 | 550 | 3 | 8.41 | 6.40 | 13.4/12.3 | 0.288 | 28.5 |
| | 650 | | 9.60 | 7.41 | 13.6/12.5 | 0.327 | 36.3 |
| | 750 | | 10.35 | 8.11 | 14.1/12.8 | 0.348 | 41.0 |
| | 850 | | 11.28 | 8.93 | 14.3/13.0 | 0.382 | 47.3 |
| | 550 | 4 | 9.75 | 7.15 | 12.3/11.5 | 0.330 | 26.2 |
| | 650 | | 11.23 | 8.34 | 12.4/11.7 | 0.384 | 33.7 |
| | 750 | | 12.47 | 9.34 | 12.7/11.9 | 0.424 | 40.6 |
| | 850 | | 13.50 | 10.35 | 13.0/12.1 | 0.458 | 46.5 |
| YECFC05 | 750 | 3 | 11.10 | 8.71 | 13.4/12.5 | 0.378 | 29.6 |
| | 800 | | 11.74 | 9.41 | 13.3/12.5 | 0.403 | 31.4 |
| | 850 | | 12.29 | 9.92 | 13.4/12.6 | 0.416 | 34.0 |
| | 900 | | 12.55 | 10.03 | 13.8/12.8 | 0.429 | 35.2 |
| | 750 | 4 | 13.12 | 10.54 | 13.8/12.8 | 0.447 | 38.0 |
| | 800 | | 12.55 | 9.38 | 12.7/11.8 | 0.430 | 28.1 |
| | 850 | | 13.38 | 10.08 | 12.6/11.8 | 0.458 | 30.6 |
| | 900 | | 13.91 | 10.52 | 12.8/12.0 | 0.473 | 33.6 |
| 950 | | | 14.54 | 11.09 | 12.8/12.0 | 0.496 | 36.2 |
| 950 | | | 14.99 | 11.55 | 13.0/12.2 | 0.509 | 38.1 |

Note: Chilled water inlet/ outlet temperature is 6/ 13 °C

PERFORMANCE RATINGS

Heating Coil

| Model | Airflow L/S | Air Inlet Temp(Dry Bulb) 21°C | | | |
|--------|----------------|----------------------------------|---------------------------------------|------------------------|----------------------------|
| | | Total Cooling Capacity kW | Air Off Temp(Dry Bulb/Wet Bulb) °C | Water Flow Rate L/S | Water Pressure Drop kPa |
| | | YEFC01 | 150 | 4.20 | 43.7/20.2 |
| YEFC01 | 200 | 5.00 | 41.3/19.3 | 0.060 | 9.0 |
| | 250 | 5.58 | 39.1/18.2 | 0.067 | 10.7 |
| | 300 | 6.19 | 37.7/17.2 | 0.074 | 12.3 |
| YEFC02 | 250 | 6.31 | 41.5/19.1 | 0.076 | 5.5 |
| | 300 | 7.17 | 40.1/18.9 | 0.085 | 6.7 |
| | 350 | 7.72 | 38.9/17.5 | 0.092 | 7.7 |
| YEFC02 | 400 | 8.38 | 38.0/17.6 | 0.100 | 8.7 |
| | 400 | 9.56 | 40.4/19.5 | 0.114 | 7.4 |
| | YEFC03 | 450 | 10.14 | 39.3/19.6 | 0.121 |
| 500 | | 10.84 | 38.6/18.6 | 0.130 | 9.0 |
| 550 | | 11.51 | 38.0/18.4 | 0.138 | 9.8 |
| YEFC04 | 550 | 14.64 | 42.6/19.8 | 0.175 | 13.6 |
| | 650 | 15.88 | 40.8/19.7 | 0.190 | 15.4 |
| | 750 | 17.00 | 39.4/19.2 | 0.203 | 18.2 |
| YEFC04 | 850 | 17.83 | 38.0/18.9 | 0.213 | 19.1 |
| | 750 | 18.46 | 41.0/19.7 | 0.221 | 20.8 |
| | YEFC05 | 800 | 19.02 | 40.3/19.2 | 0.228 |
| 850 | | 19.90 | 40.0/18.9 | 0.238 | 23.2 |
| 900 | | 20.77 | 39.7/19.6 | 0.248 | 24.9 |
| YEFC05 | 950 | 21.63 | 39.5/18.6 | 0.259 | 26.6 |

Note: Hot water inlet/outlet temperature is 80/60°C

Acoustics

SOUND PRESSURE LEVEL

3 Rows Cooling Coil+1 Row Heating Coil

| Model | ESP(Pa) | Air Flow (L/S) | 63Hz | 125Hz | 250Hz | 500Hz | 1kHz | 2kHz | 4kHz | 8kHz | dB(A) |
|--------|---------|----------------|------|-------|-------|-------|------|------|------|------|-------|
| YEFC01 | 30 | 150 | 13.6 | 25.2 | 30.2 | 38.3 | 34.7 | 28.1 | 21.6 | 21.6 | 40.8 |
| | 60 | | 19.5 | 29.8 | 35.7 | 40.6 | 39.9 | 36.5 | 30.7 | 27.5 | 45.1 |
| | 90 | | 22.1 | 33.2 | 38.2 | 42.1 | 42.4 | 40.7 | 35.6 | 28.9 | 47.7 |
| | 120 | | 26.6 | 38.4 | 42.2 | 46.1 | 45.0 | 42.2 | 35.2 | 28.2 | 50.7 |
| YEFC02 | 30 | 300 | 19.0 | 29.7 | 36.2 | 44.8 | 42.6 | 38.5 | 34.5 | 26.2 | 48.1 |
| | 60 | | 24.2 | 33.9 | 39.2 | 46.1 | 45.8 | 43.6 | 38.3 | 28.9 | 50.8 |
| | 90 | | 22.4 | 37.3 | 39.7 | 48.1 | 47.6 | 46.0 | 40.5 | 32.1 | 52.8 |
| YEFC03 | 120 | 450 | 24.6 | 39.4 | 41.7 | 49.1 | 48.8 | 48.5 | 42.8 | 34.6 | 54.4 |
| | 30 | | 24.0 | 32.6 | 40.9 | 44.7 | 44.9 | 41.4 | 36.0 | 29.9 | 49.7 |
| | 60 | | 28.9 | 36.0 | 45.1 | 46.7 | 46.5 | 44.2 | 39.0 | 31.5 | 52.2 |
| YEFC04 | 90 | 600 | 33.9 | 39.1 | 47.1 | 48.1 | 49.7 | 47.2 | 42.4 | 35.5 | 54.7 |
| | 120 | | 34.5 | 40.1 | 49.9 | 48.9 | 50.4 | 50.0 | 44.4 | 39.0 | 56.4 |
| | 30 | | 24.5 | 31.6 | 43.9 | 47.3 | 51.5 | 44.8 | 38.2 | 29.5 | 54.1 |
| YEFC05 | 60 | 750 | 27.1 | 33.8 | 45.9 | 48.6 | 54.6 | 47.1 | 39.5 | 30.5 | 56.7 |
| | 90 | | 28.9 | 38.8 | 48.1 | 50.5 | 55.4 | 49.4 | 41.9 | 32.9 | 58.0 |
| | 120 | | 31.3 | 40.9 | 49.8 | 52.4 | 57.2 | 51.5 | 44.0 | 35.4 | 59.9 |
| YEFC05 | 60 | 750 | 28.3 | 33.8 | 43.5 | 47.5 | 45.6 | 44.5 | 39.9 | 32.0 | 52.0 |
| | 90 | | 26.8 | 36.6 | 45.8 | 48.0 | 47.3 | 46.5 | 41.9 | 33.6 | 53.5 |
| | 120 | | 32.1 | 39.6 | 48.9 | 50.0 | 48.9 | 48.6 | 43.9 | 35.9 | 55.6 |
| YEFC05 | 150 | 750 | 34.0 | 41.1 | 49.9 | 51.3 | 50.7 | 50.4 | 45.9 | 38.1 | 57.2 |

SOUND PRESSURE LEVEL

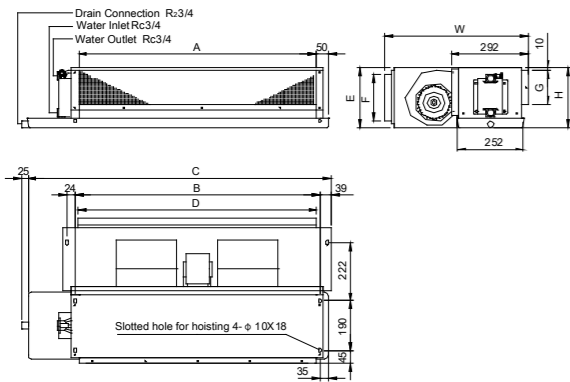
4 Rows Cooling Coil+1 Row Heating Coil

| Model | ESP(Pa) | Air Flow (L/S) | 63Hz | 125Hz | 250Hz | 500Hz | 1kHz | 2kHz | 4kHz | 8kHz | dB(A) |
|--------|---------|----------------|------|-------|-------|-------|------|------|------|------|-------|
| YEFC01 | 30 | 150 | 13.7 | 26.8 | 32.2 | 38.6 | 34.9 | 28.5 | 21.4 | 21.4 | 41.3 |
| | 60 | | 17.1 | 29.0 | 33.6 | 42.5 | 39.1 | 35.2 | 28.6 | 25.7 | 45.2 |
| | 90 | | 20.3 | 31.7 | 37.2 | 43.4 | 42.9 | 40.5 | 34.6 | 28.9 | 48.0 |
| | 120 | | 23.9 | 35.7 | 41.1 | 45.7 | 46.1 | 44.0 | 38.3 | 32.9 | 51.1 |
| YEFC02 | 30 | 300 | 17.8 | 31.0 | 36.1 | 45.4 | 42.3 | 38.9 | 33.8 | 25.7 | 48.3 |
| | 60 | | 19.4 | 33.2 | 38.4 | 47.2 | 46.0 | 43.1 | 37.3 | 29.1 | 51.1 |
| | 90 | | 24.8 | 36.5 | 41.7 | 48.2 | 48.5 | 46.0 | 40.4 | 31.9 | 53.2 |
| YEFC03 | 120 | 450 | 27.1 | 39.5 | 43.7 | 49.3 | 50.3 | 48.8 | 42.5 | 34.6 | 55.1 |
| | 30 | | 26.6 | 15.0 | 43.3 | 44.7 | 44.7 | 42.5 | 37.2 | 30.5 | 50.2 |
| | 60 | | 38.5 | 39.1 | 46.0 | 47.4 | 47.5 | 44.8 | 40.2 | 32.5 | 53.2 |
| YEFC04 | 90 | 600 | 38.7 | 43.2 | 48.9 | 47.7 | 48.3 | 46.8 | 42.2 | 36.3 | 54.8 |
| | 120 | | 40.2 | 44.7 | 50.4 | 49.1 | 50.2 | 49.1 | 45.5 | 41.0 | 56.7 |
| | 30 | | 26.0 | 31.6 | 43.6 | 48.0 | 51.7 | 45.2 | 37.9 | 29.5 | 54.4 |
| YEFC05 | 60 | 750 | 30.0 | 35.3 | 46.8 | 49.9 | 54.8 | 48.1 | 40.3 | 31.8 | 57.2 |
| | 90 | | 31.6 | 37.8 | 47.9 | 51.1 | 55.6 | 49.4 | 41.8 | 33.4 | 58.2 |
| | 120 | | 35.0 | 40.3 | 49.6 | 52.6 | 58.0 | 51.8 | 44.1 | 35.7 | 60.4 |
| YEFC05 | 60 | 750 | 27.9 | 36.3 | 43.8 | 48.0 | 46.6 | 44.1 | 40.0 | 31.0 | 52.4 |
| | 90 | | 29.9 | 39.2 | 45.7 | 49.0 | 48.6 | 46.4 | 42.0 | 33.0 | 54.1 |
| | 120 | | 32.3 | 40.3 | 48.0 | 50.2 | 50.3 | 48.8 | 43.8 | 35.3 | 55.9 |
| YEFC05 | 150 | 750 | 35.8 | 42.1 | 50.2 | 52.3 | 51.7 | 49.9 | 45.0 | 36.9 | 57.6 |

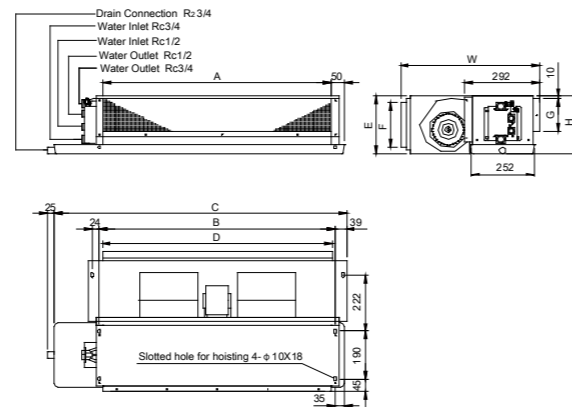
Unit Sound Pressure Test: According to JBT4330-1999, unit sound pressure level is tested with 2m of outlet and 1m of inlet ductwork in hemi-anechoic room.

Units Drawings

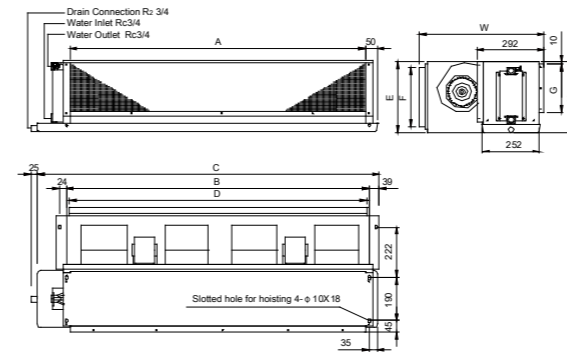
01&02 3/4R Model Cooling



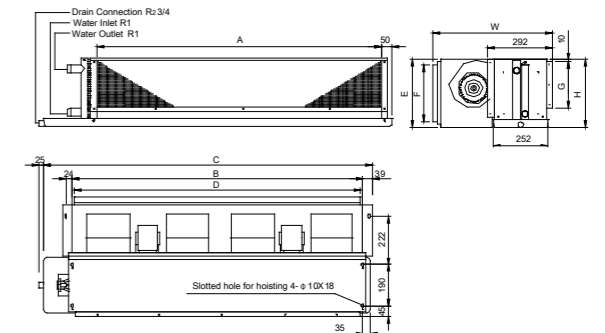
01&02 A/CR Model Cooling and Heating



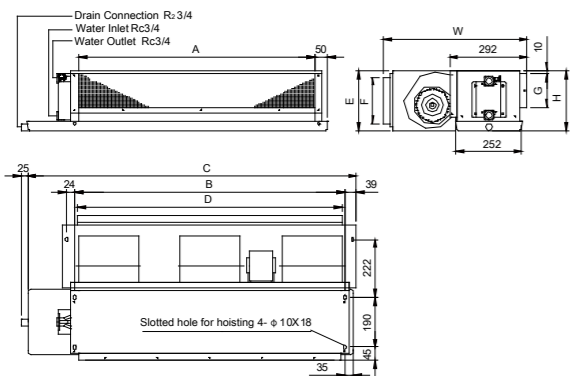
04&05 3R Model Cooling



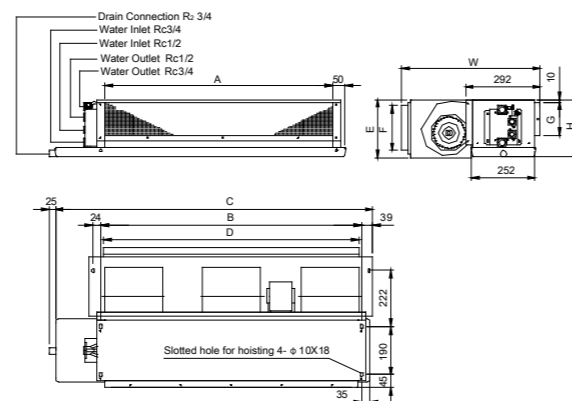
04&05 4R Model Cooling



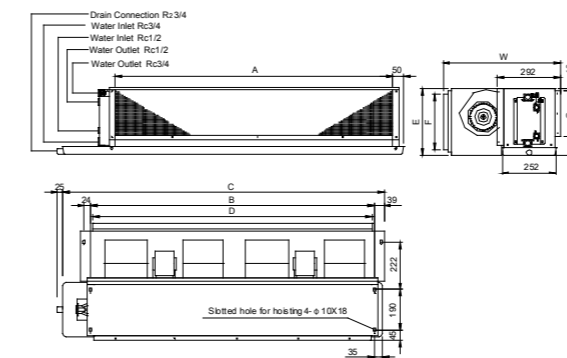
03 3/4R Model Cooling



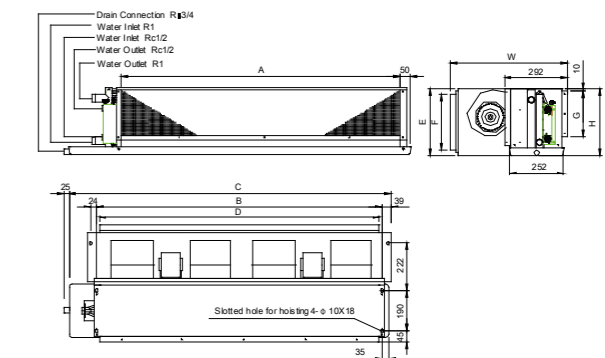
03 A/CR Model Cooling and Heating



04&05 AR Model Cooling and Heating



04&05 CR Model Cooling and Heating



| Model | A | B | C(Length) | E | W | H | G | Plenum Conn Dim(mm x mm) | Return Plenum Conn Dim(D x F) |
|-----------------------|------|------|-----------|-----|-----|-----|-----|--------------------------|-------------------------------|
| YECFC-01CB-2(3/4/A/C) | 725 | 755 | 1030 | 233 | 558 | 233 | 130 | 775 x 130 | 750 x 190 |
| YECFC-02CB-2(3/4/A/C) | 1005 | 1035 | 1310 | 233 | 558 | 233 | 130 | 1055 x 130 | 1030 x 190 |
| YECFC-03CB-2(3/4/A/C) | 1505 | 1535 | 1810 | 233 | 558 | 233 | 130 | 1555 x 130 | 1530 x 190 |
| YECFC-04CB-2(3/4/A/C) | 1605 | 1635 | 1910 | 317 | 558 | 317 | 214 | 1655 x 214 | 1630 x 274 |
| YECFC-05CB-2(3/4/A/C) | 1820 | 1850 | 2125 | 317 | 558 | 317 | 214 | 1870 x 214 | 1845 x 274 |

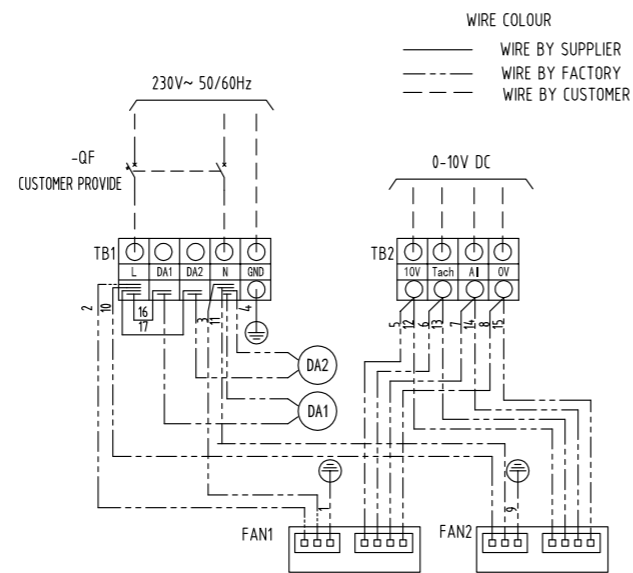
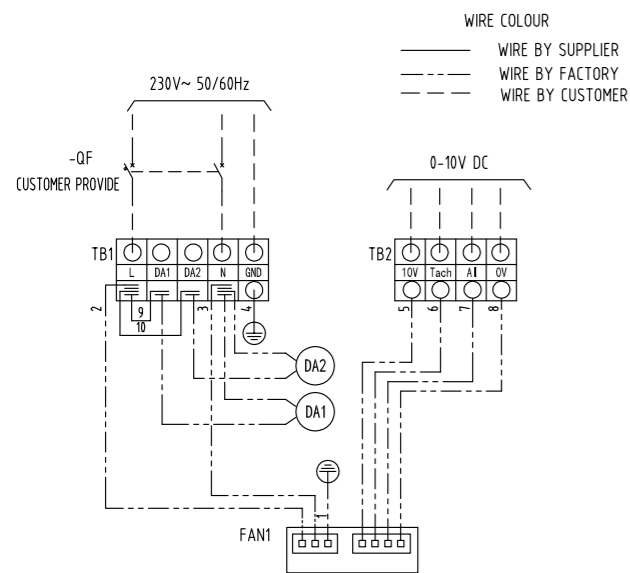
Notes:

1. Facing the air outlet, the left type unit has pipes on the left side, right type unit opposite.
2. Filter frame is provided as standard. Filter media is provided as an option.

Electrical Data and Wiring

YECFC 01/02/03

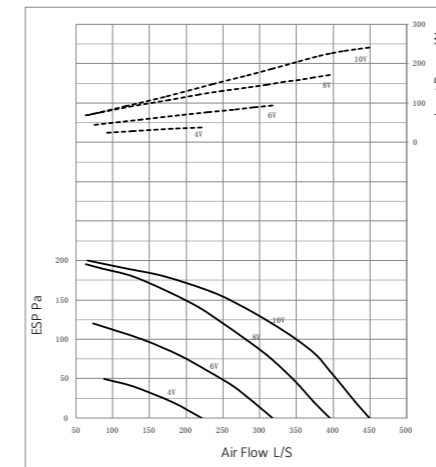
YECFC 04/05



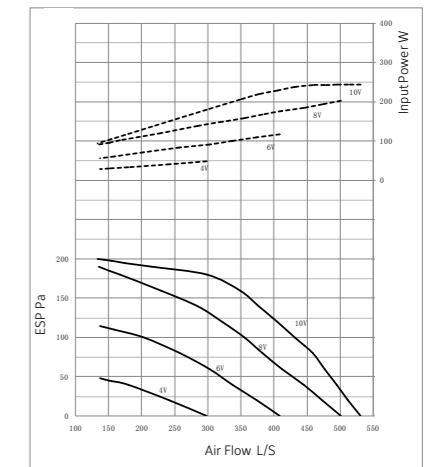
| | |
|-----------|-------------|
| DA1/DA2 | WATER VALVE |
| FAN1/FAN2 | FAN1/FAN2 |
| TB1/TB2 | TERMANL |
| QF | DISJUNCTOR |
| ITEM | DIS. |

Fan Performance Curves

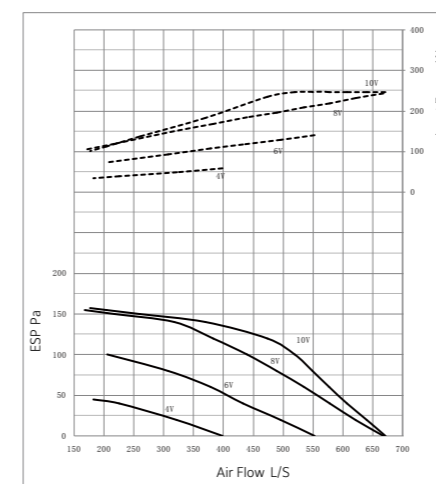
YECFC01 3+1R



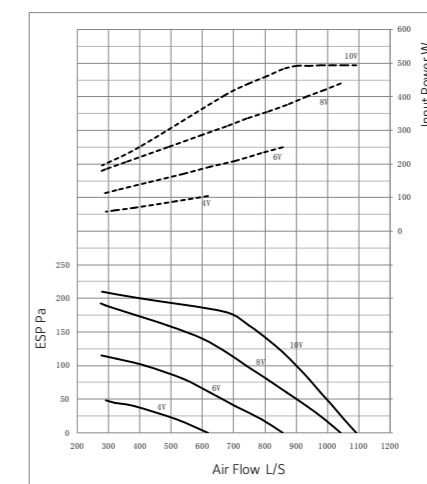
YECFC02 3+1R



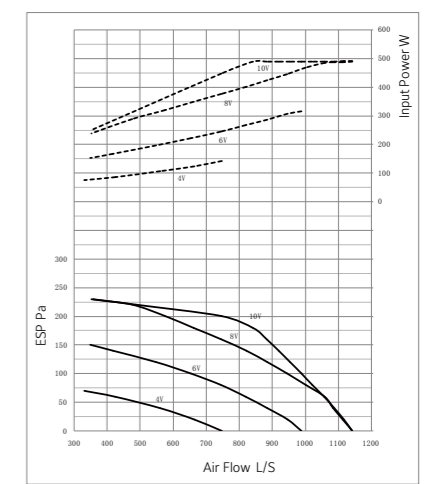
YECFC03 3+1R



YECFC04 3+1R



YECFC05 3+1R



TEC3000 Series Temperature Sensors

TEC3000 Series Thermostat Controllers are stand-alone and field-selectable BACnet® Master-Slave/Token-Passing (MS/TP) or N2 networked devices that provide on/off, floating, and proportional control of two or four-pipe fan coils with variable-speed EC motors (0 to 10 VDC control)

The networked models feature a field-selectable Building Automation System (BAS) BACnet MS/TP or N2 communication capability that enables remote monitoring and programming for efficient space temperature control.

All models include a USB port configuration that reduces installation time by allowing simple backup and restore features from a USB drive, which enables rapid cloning of the configuration between like units.

All models feature an intuitive user interface with backlit display that makes setup and operation quick and easy.

The Backlit Liquid Crystal Display (LCD) offers real-time control status of the environment in easy-to-read, plain text messages with adjustable backlight that brightens during user interaction.

Some models have occupancy sensing capability built into the device.

These thermostat controllers can deliver further energy savings of up to 30% by using additional standby set-points.

These thermostats feature two configurable binary inputs that provide for advanced functions such as remote night setback, service or filter alarms, motion detector, and key switch or window status, and configures the application to respond accordingly.

A Full Line of Remote TE-6300 Series Temperature Sensors supports a wide range of applications.



Guide Specifications

GENERAL

Furnish and install compact low profile concealed fan coil units not exceeding 233 mm height (model 01,02,03) or 317 mm height (model 04,05) as indicated and scheduled in the plans. Units shall be factory assembled with coils that are pressure tested individually to 400 psi (2.8 MPa). The unit shall incorporate one or two directly driven EC forward curved fans with integral variable speed drive(s). The units shall be suitable for operation on 240 volt single phase 50 hz power.

BASIC UNIT

The basic unit shall be fabricated out of galvanized steel. Thermal insulation shall be 6mm PE class 1 applied to both the fan coil casing and return air plenum sections. The fan motor shall be easily removable for serviceability. A terminal box with terminal strip shall be provided for terminating the wiring. On ceiling concealed units with plenum, the filter shall be easily removable from side.

COILS

Copper tube with corrugated aluminum hydrophilic fins. Aluminum fins shall be 0.110mm thick and the coil shall have maximum spacing of 2.3mm between the fins. The coil shall be pressure tested under water to 2.8 MPa (For a working pressure of 1600 kpa) and dehydrated before assembly. Coil shall be provided with a drain plug in the bottom and a manual air vent on the top. The coil assembly shall be protected on the side on which piping is to be fitted with a cover made of GI sheet. The drain tray below the coils shall be stainless steel to avoid corrosion and shall extend 100mm beyond the unit casing to facilitate easy installation of CHW and HW control valves.

MOTORS

High efficiency electronically commutated (EC) 230 volt single phase 50/60Hz motors shall be fitted as standard on all units. Motor can be regulated by 0-10V dc signal supplied by a BMS, thermostat or DDC controller. The motor is resiliently mounted, self aligning and oiled for life.

FANS

All fans shall be statically and dynamically balanced, forwardly curved, DWDI centrifugal type. The fan motor assembly shall be designed for low-noise operation, while having compact dimension and being easy for installation and replacement. Fans shall be mounted inside the insulated return air plenum.

TERMINAL BOX

All units shall be provided with factory installed terminal box with the fan motor and 0-10vdc speed control input factory wired to the box.

FILTER (OPTION)

Provide 8 mm nylon filter in factory provided filter track
Located on inlet of unit return air plenum

Solutions for your success

Every building is unique in design and technical requirements. Our customers always receive customised building solutions to meet their individual needs.

Johnson Controls can handle many challenges with its innovative and flexible solutions. From A to Z, from consulting to planning, installation, maintenance (service, inspection and repair) and modernisation – Johnson Controls supports customers throughout the entire life cycle of a building.

Our well thought-out solutions guarantee a high level of comfort and energy efficiency. The majority of our products are already rated as Class A for Energy Efficiency, with high levels of compatibility and flexibility allowing for future additions to be carried out without difficulty.

External systems can be easily integrated using BACnet® or proprietary solutions. Our service team is available to you 24 hours a day with one of the largest service networks in Europe.



High Efficiency Chiller



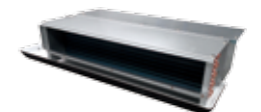
Building Automation & Chiller Plant Optimization



Variable Air Volume



EC Motor AHUs



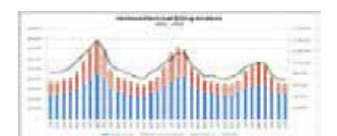
EC Motor FCUs



EC Motor Ceiling AHUs



Service Solutions



Energy Management & Reporting



Office Locations

Australia (Melbourne)

Tel: +61 (3) 9751 5000
Fax: +61 (3) 9755 7566

China (Shanghai)

Tel: +86 (21) 6276 6509
Fax: +86 (21) 6277 3543

Hong Kong

Tel: +852 2590 0012
Fax: +852 2516 5648

India (Mumbai)

Tel: +91 (22) 6617 4107
Fax: +91 (22) 6683 7002

Indonesia

Tel: +62 (21) 5366 8500
Fax: +61 (21) 5366 8300

Japan

Tel: +81 (3) 5738 6100
Fax: +81 (3) 5738 6298

Korea

Tel: +822 554 5935
Fax: +822 554 5739

Macau

Tel: +853 2875 1820
Fax: +853 2875 1825

Malaysia (Kuala Lumpur)

Tel: +60 (3) 7628 4300
Fax: +60 (3) 7874 1180

New Zealand

Tel: +64 (9) 444 6434
Fax: +64 (9) 444 2092

Singapore

Tel: +65 6748 0202
Fax: +65 6743 4420

Thailand (Bangkok)

Tel: +66 (2) 717 1260-80
Fax: +66 (2) 717 1325-8



INSTALL CONFIDENCE.

PUBL-7897 (1215)