

Adjustable Pitch

Aerofoil Fan JM Multi-Stage

- 315mm - 800mm diameter
- Volume flow up to 9 m³/s
- Static pressures up to 1500 Pa
- High energy efficiency
- Low installed noise levels
- Motor protection IP55
- Overheat protection fitted as standard

Sizes

31JM - 315mm, 35JM - 355mm, 40JM - 400mm, 45JM - 450mm, 50JM - 500mm, 56JM - 560mm, 63JM - 630mm, 80JM - 800mm

Fan Performance

All fans are tested to the latest internationally recognised standard ISO5801 1997, installation category D for aerodynamic performance and BS848 Part 2 (1985) for acoustic performance.

Coupled with the above fan diameters, the adjustable pitch Aerofoil impeller gives the exact performance required, with a non overloading fan characteristic.

Impellers

A unique high efficiency aerofoil section blade with a purposely smoothed hub and clamplate for adjustable pitch angle availability.

The Woods impellers are all high pressure die cast to offer thin aerofoil sections for low generation of noise levels. Every cast aluminium component is X-rayed using Real Time Radiography prior to assembly. The maximum pitch angles shown allow for speed control by frequency inverter.

Motors

All motors are totally enclosed air stream rated class F insulation. Constructed from aluminium as standard with special 'T' slot and pad mounted fixings. Single speed motors are suitable for speed control by frequency inverter.

Suitable for horizontal through to vertical shaft operation. Supplied IP55, with removable drain plugs. Sealed for life bearings lubricated with wide temperature range grease. The CT, BT and F22 motors are fitted with overheat protection as standard.

Electrical Supply

380-420 V / 50 Hz / 3 ϕ

Temperature Range

-40°C to 50°C as standard (D132 and D160 motors are not suitable for starting at temperatures lower than -20°C). Fans can be operated up to 70°C with appropriate deration of motors.

Casings

JM Aerofoil fans are available in a long cased form complete with externally mounted pre-wired electrical terminal box.

Casings are spun from sheet steel with integral pre-drilled and radiused inlet flanges. The galvanised finish gives a high resistance to corrosion and makes it ideal for external use.

Ancillary Equipment

Silencers, Mounting feet, Vibration isolators, Matching flanges, Flexible connectors, Air operated non return dampers, Guards, Bell mouth inlets.



For further information, please contact your local sales centre

JM Multi-Stage

Performance Data

| Code | Speed rev/min | m ³ /s at Pa (Static) | | | | | | | | | |
|--------------------|------------------|----------------------------------|------|------|------|------|------|------|------|------|------|
| | | 0 | 100 | 200 | 300 | 400 | 500 | 800 | 1000 | 1200 | 1500 |
| 31JM2/16/4/5/40/32 | 1420 | 0.75 | 0.68 | 0.58 | | | | | | | |
| 35JM2/16/4/5/40/32 | 1420 | 1.19 | 1.08 | 0.93 | 0.78 | | | | | | |
| 35JM2/16/2/5/24/20 | 2840 | 1.5 | 1.45 | 1.4 | 1.38 | 1.35 | 1.3 | 1.15 | 1.0 | 0.85 | |
| 40JM2/16/2/5/27/22 | 2840 | 2.45 | 2.4 | 2.3 | 2.25 | 2.2 | 2.15 | 1.9 | 1.75 | 1.6 | |
| 45JM2/16/4/5/40/32 | 1420 | 2.6 | 2.45 | 2.18 | 1.95 | 1.55 | | | | | |
| 45JM2/20/2/6/29/24 | 2910 | 3.7 | 3.64 | 3.61 | 3.59 | 3.58 | 3.50 | 3.25 | 3.11 | 2.95 | 2.80 |
| 50JM2/20/4/6/41/32 | 1420 | 3.6 | 3.45 | 3.30 | 3.10 | 2.8 | 2.50 | | | | |
| 50JM2/20/2/6/20/16 | 2910 | 4 | 3.9 | 3.8 | 3.7 | 3.65 | 3.6 | 3.45 | 3.3 | 3.15 | 3 |
| 50JM2/20/2/6/30/24 | 2910 | 5.6 | 5.5 | 5.4 | 5.3 | 5.2 | 5.2 | 4.9 | 4.8 | 4.55 | 4.3 |
| 56JM2/20/4/6/30/24 | 1420 | 3.8 | 3.7 | 3.4 | 3.2 | 2.95 | 2.7 | | | | |
| 56JM2/20/4/6/36/28 | 1420 | 4.4 | 4.2 | 4.0 | 3.75 | 3.55 | 3.2 | | | | |
| 63JM2/20/4/6/35/28 | 1420 | 6.5 | 6.3 | 6.1 | 5.8 | 5.5 | 5.2 | | | | |
| 63JM2/25/4/9/40/32 | 1440 | 7.2 | 7.0 | 6.8 | 6.6 | 6.43 | 6.3 | 5.5 | 4.85 | | |
| 80JM2/25/4/9/20/16 | 1440 | 8.4 | 8.2 | 8.0 | 7.7 | 7.5 | 7.2 | 6.6 | 5.8 | 4.6 | |

Electrical Data

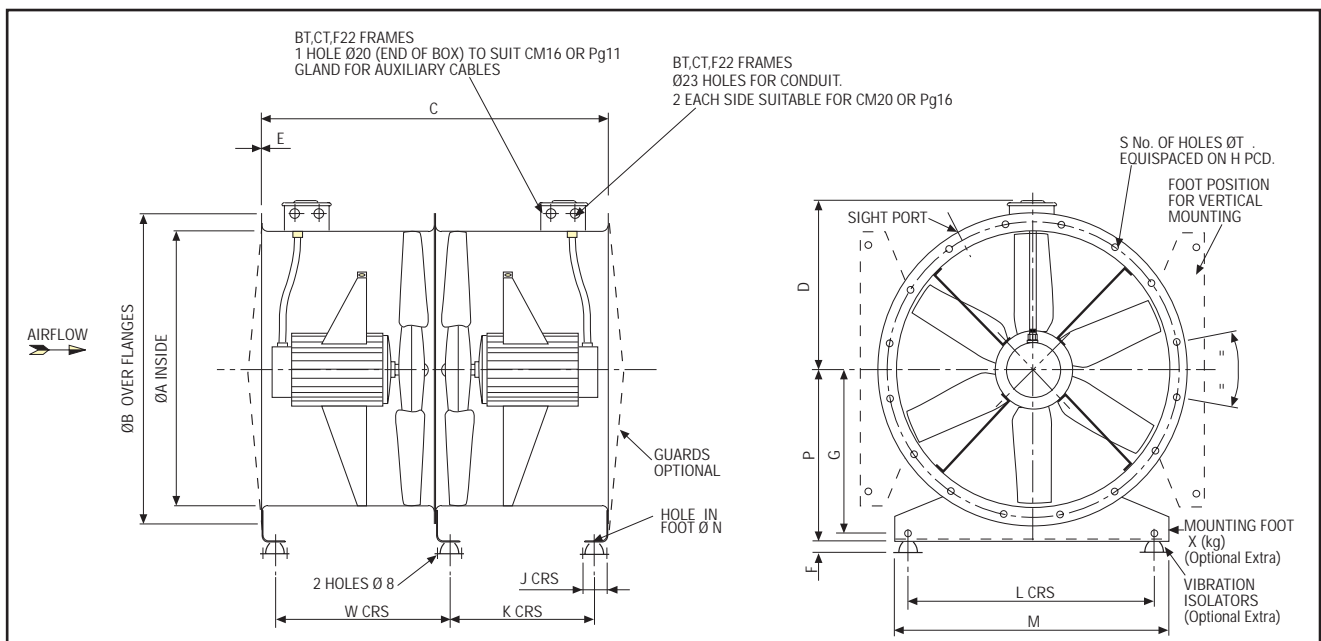
| Product Code | Speed (rev/min) | Motor | 380-420 V / 50 Hz / 3φ | | | |
|--------------------|--------------------|-------|------------------------|----------------------|----------------------------------------|---------------------------------------|
| | | | Product Number | Motor Rating (kW) | Full Load Current (at 400 V) (A) | Starting Current (at 400 V) (A) |
| 31JM2/16/4/5/40/32 | 1420 | BT4 | 341451 | 0.13 | 0.5 | 1.8 |
| 35JM2/16/4/5/40/32 | 1420 | BT5 | 381402 | 0.13 | 0.5 | 1.8 |
| 35JM2/16/2/5/24/20 | 2840 | CT5 | 381203 | 0.95 | 2 | 9.5 |
| 40JM2/16/2/5/27/22 | 2840 | CT9 | 431203 | 1.7 | 3.5 | 20 |
| 45JM2/16/4/5/40/32 | 1420 | CT5 | 481453 | 0.58 | 1.7 | 6.5 |
| 45JM2/20/2/6/29/24 | 2840 | F2225 | 481205 | 3.8 | 7.1 | 44 |
| 50JM2/20/4/6/41/32 | 1420 | CT9 | 531408 | 1.15 | 3 | 14 |
| 50JM2/20/2/6/20/16 | 2840 | F2225 | 531203 | 3.8 | 7.1 | 44 |
| 50JM2/20/2/6/30/24 | 2840 | F2229 | 531204 | 6.2 | 11 | 90 |
| 56JM2/20/4/6/30/24 | 1420 | CT9 | 591458 | 1.15 | 3 | 14 |
| 56JM2/20/4/6/36/28 | 1420 | CT9 | 591408 | 1.4 | 3.5 | 14 |
| 63JM2/20/4/6/20/16 | 1440 | F2245 | 661407 | 2.7 | 5.8 | 30 |
| 63JM2/25/4/9/40/32 | 1440 | F2249 | 661405 | 4.4 | 9.3 | 52 |
| 80JM2/25/4/6/23/18 | 1440 | F2249 | 833402 | 4.4 | 9.3 | 52 |

Note: Motor data is per fan (2 fans per unit)

Standard

Super Standard

Dimensions



| Code | Motor | A | B | C | D | E | F | G | H | J | K | L | M | N | P | S | T | W | X (kg) | Weight (kg) |
|--------------------|-------|-----|-----|------|-----|-----|----|-----|-----|----|-----|-----|-----|----|-----|----|----|-----|--------|-------------|
| 31JM2/16/4/5/40/32 | BT4 | 315 | 395 | 750 | 235 | 2.5 | 25 | 175 | 355 | 66 | 290 | 265 | 315 | 10 | 200 | 8 | 10 | 375 | 0.8 | 44 |
| 35JM2/16/4/5/40/32 | BT5 | 355 | 435 | 750 | 256 | 2.5 | 25 | 200 | 395 | 66 | 290 | 305 | 355 | 10 | 225 | 8 | 10 | 375 | 1.1 | 48 |
| 35JM2/16/2/5/24/20 | CT5 | 355 | 435 | 750 | 256 | 2.5 | 25 | 200 | 395 | 66 | 290 | 305 | 355 | 10 | 225 | 8 | 10 | 375 | 1.1 | 56 |
| 40JM2/16/2/5/27/22 | CT9 | 400 | 480 | 750 | 279 | 2.5 | 25 | 225 | 450 | 66 | 290 | 350 | 400 | 10 | 250 | 8 | 12 | 375 | 1.2 | 60 |
| 45JM2/16/4/5/40/32 | CT5 | 450 | 530 | 750 | 306 | 2.5 | 25 | 255 | 500 | 66 | 290 | 400 | 450 | 10 | 280 | 8 | 12 | 375 | 1.5 | 64 |
| 45JM2/20/2/6/29/24 | F2225 | 450 | 530 | 1040 | 306 | 3 | 25 | 255 | 500 | 66 | 434 | 400 | 450 | 10 | 280 | 8 | 12 | 520 | 1.5 | 88 |
| 50JM2/20/4/6/41/32 | CT9 | 500 | 594 | 750 | 338 | 2.5 | 25 | 290 | 560 | 66 | 280 | 450 | 500 | 10 | 315 | 12 | 12 | 375 | 2.0 | 68 |
| 50JM2/20/2/6/20/16 | F2225 | 500 | 594 | 1040 | 338 | 3 | 25 | 290 | 560 | 66 | 424 | 450 | 500 | 10 | 315 | 12 | 12 | 520 | 2.0 | 108 |
| 50JM2/20/2/6/30/24 | F2229 | 500 | 594 | 1040 | 338 | 3 | 25 | 290 | 560 | 66 | 424 | 450 | 500 | 10 | 315 | 12 | 12 | 520 | 2.0 | 130 |
| 56JM2/20/4/6/30/24 | CT9 | 560 | 654 | 750 | 368 | 2.5 | 25 | 330 | 620 | 66 | 280 | 510 | 560 | 10 | 355 | 12 | 12 | 375 | 2.3 | 76 |
| 56JM2/20/4/6/36/28 | CT9 | 560 | 654 | 750 | 368 | 2.5 | 25 | 330 | 620 | 66 | 280 | 510 | 560 | 10 | 355 | 12 | 12 | 375 | 2.3 | 76 |
| 63JM2/20/4/6/20/16 | F2245 | 630 | 724 | 1040 | 403 | 3 | 25 | 375 | 690 | 66 | 434 | 580 | 630 | 10 | 400 | 12 | 12 | 520 | 2.4 | 140 |
| 63JM2/25/4/9/40/32 | F2249 | 630 | 724 | 1040 | 403 | 3 | 25 | 375 | 690 | 66 | 434 | 580 | 630 | 10 | 400 | 12 | 12 | 520 | 2.4 | 162 |
| 80JM2/25/4/9/20/16 | F2249 | 800 | 894 | 1040 | 488 | 3 | 25 | 485 | 860 | 66 | 434 | 750 | 800 | 10 | 510 | 16 | 12 | 520 | 5.8 | 188 |

All dimensions shown in mm

For a full range of ancillaries including silencers, speed controllers and mounting accessories, please refer to pages 95-99.