

# COMPACT 2000 SERIES



## DESCRIPTION

The Compact 2000 Series of square plate axial fans is a high quality, robust product with 10 sizes ranging from 250 to 800mm diameter. The range is available in three motor options; Standard, High Performance (HP), and Speed Controllable (SC) by Variable Speed Drive. They come with an IP55 rating and are suitable for a wide range of commercial and industrial applications.

## Typical Applications

Capable of exhausting or supplying air in environments containing both clean ambient air and toxic noxious gases. See Special Note below.

## Features

- Robust high quality construction.
- Inlet guard is incorporated as standard for models 025 to 063 and is an optional extra for models 071 and 080.
- The standard 040 to 063 size range in 3 phase are fitted with 2-speed star/delta motors.
- Capable of operating across a wide temperature range; -20°C to 70°C.
- A flying lead with junction box and 20mm dia flexible conduit is fitted as standard to models 025 to 063.
- Can be mounted in any position.
- An extensive range of matched ancillary equipment is available.

## Construction

The square plate is manufactured from galvanised steel with an additional high quality polyester epoxy finish as standard. Impellers have GRP blades as standard; aluminium and nylon blades are an optional extra. Non-sparking blades can be fitted to models 071 and 080.

## Motors

Type - squirrel cage induction motor.

Electricity supply - 230V single or 415V three-phase, 50Hz.

Bearings - sealed for life, ball.

Operating temperature range; -20°C to 70°C.

Maximum ambient temperature when being speed controlled is 40°C. IP55 rating.

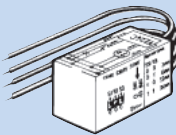
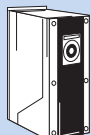
The standard 040 to 063 range are fitted with 2-speed star/delta motors.

Standard models to 063 can be speed controlled using electronic or auto-transformer controllers.

SC models can be speed controlled using a Variable Speed Drive.

See pages O-3/4 for details of these motors.

## ANCILLARY EQUIPMENT

|                                                                                                                           |                                                                                                                                |                                                                                                                                |
|---------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| <br>DG - Finger Guards<br>Ref. Section J | <br>WSK - Backdraft shutter, Ref. Section L | <br>VA - Speed controller<br>Ref. Section M |
| <br>VZ - Run-on timer<br>Ref. Section M | <br>Variable Speed Drive<br>Ref. Section M  |                                                                                                                                |

## Internal Thermal Protection

Manual-reset thermal protection is supplied as standard up to model 063 and as an optional extra on models 071 and 080.

## Testing

Air flow tests to AS ISO5801:1997

Noise tests to BS848:Part 2, 1985

## Wiring Diagram

See Section N

## Special Note

Derate the air flow by at least 25% if the air flow direction is reversed from standard. Add the suffix "R" to fan code.

## SUGGESTED SPECIFICATION

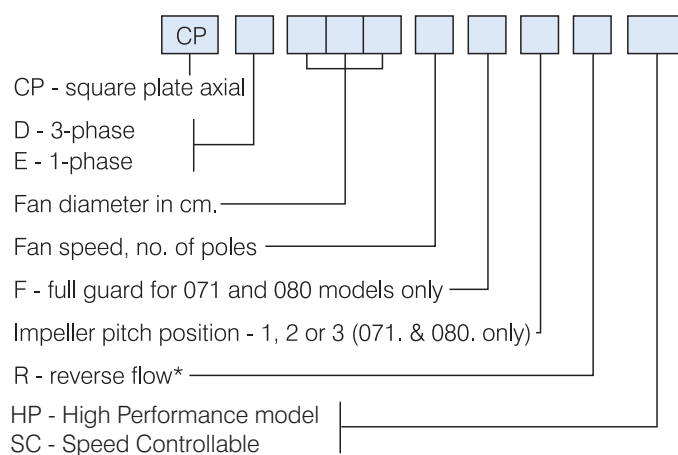
The square plate axial fans shall be of the Compact 2000 Series as designed and manufactured by Fantech Pty Ltd and be of the model numbers shown on the schedule/drawings.

The axial impellers shall have GRP blades.

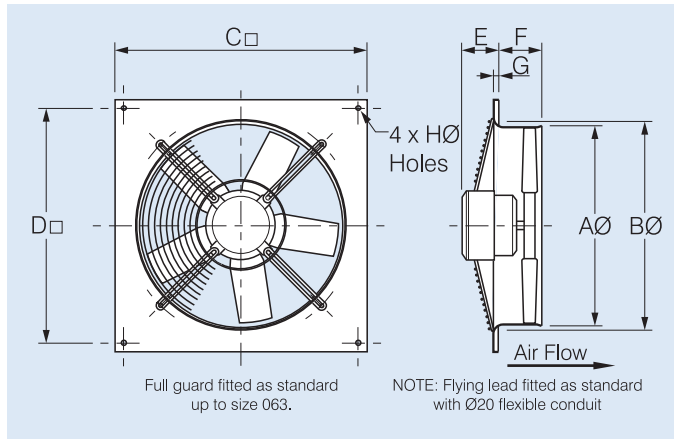
Square plates shall be made from galvanised steel with a polyester epoxy finish.

All models shall be fully tested to AS ISO5801:1997 for air flow and to BS848:Part 2, 1985 for noise

## HOW TO ORDER



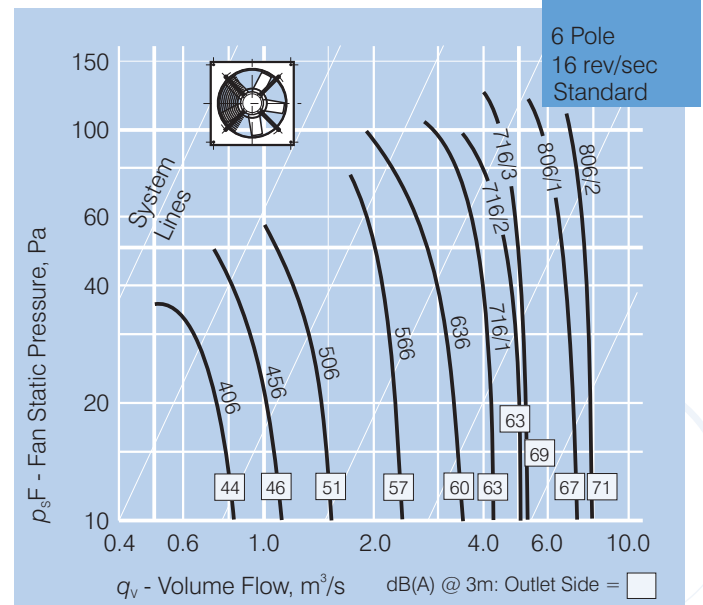
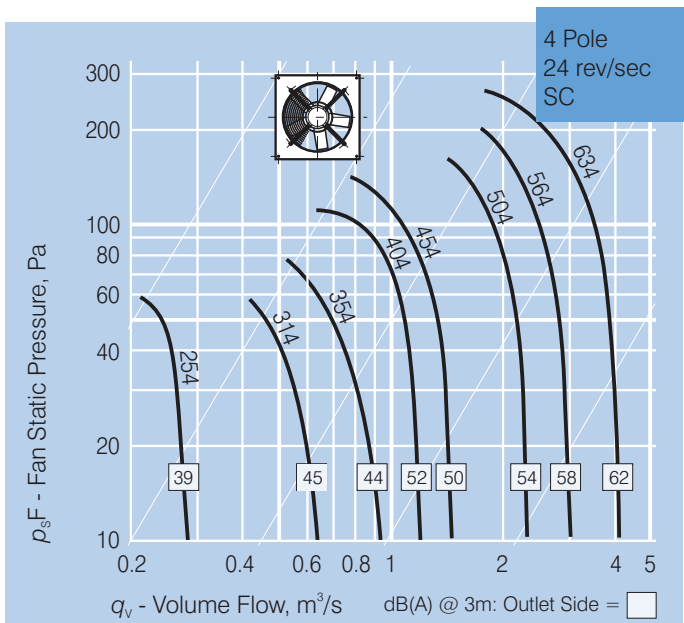
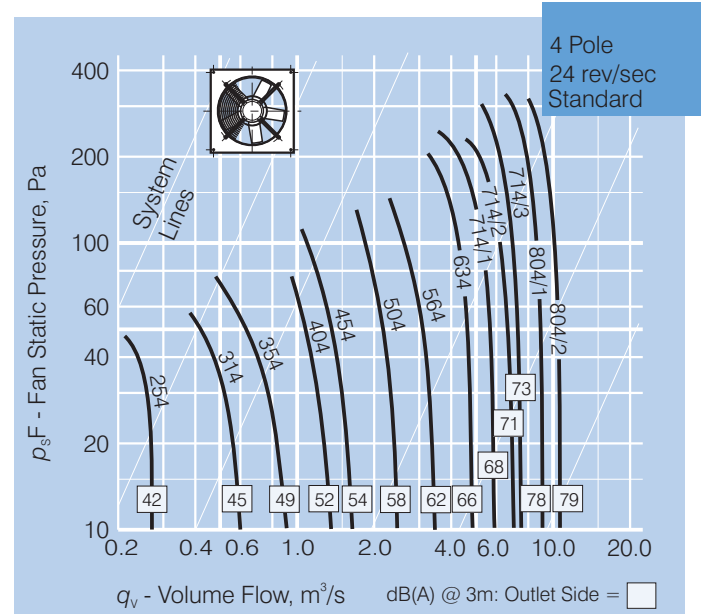
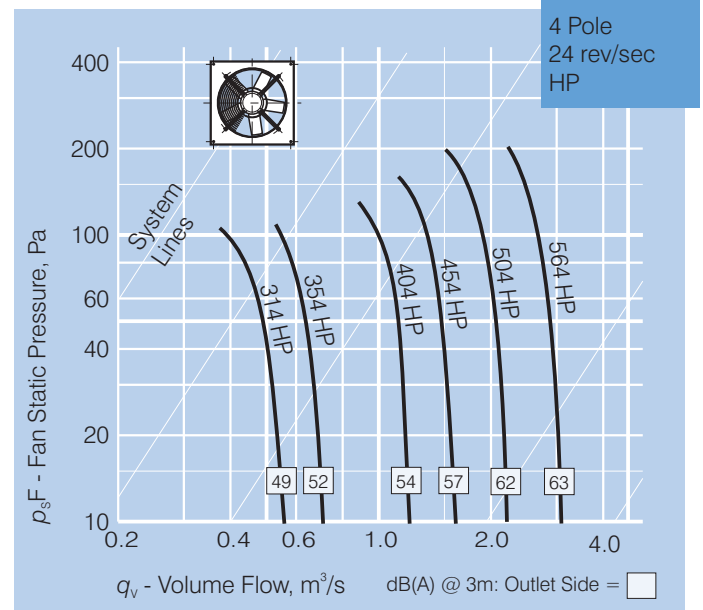
## DIMENSIONS



| Model | Dimensions, mm |     |     |     |     |     |    |      | App. wt. kg |
|-------|----------------|-----|-----|-----|-----|-----|----|------|-------------|
| CP..  | AØ             | BØ  | C   | D   | E   | F   | G  | HØ   |             |
| 025.  | 263            | 285 | 370 | 320 | 98  | 74  | 15 | 6    | 5.5         |
| 031.  | 325            | 330 | 430 | 380 | 95  | 85  | 10 | 9    | 10          |
| 035.  | 360            | 370 | 485 | 435 | 95  | 85  | 10 | 9    | 10          |
| 040.  | 410            | 420 | 540 | 490 | 95  | 95  | 12 | 9    | 15          |
| 045.  | 460            | 470 | 575 | 535 | 95  | 95  | 12 | 11   | 17          |
| 050.  | 510            | 535 | 655 | 615 | 145 | 100 | 15 | 11   | 24          |
| 056.  | 575            | 600 | 725 | 670 | 145 | 100 | 15 | 11   | 27          |
| 063.  | 645            | 670 | 805 | 750 | 140 | 105 | 20 | 11   | 34          |
| 071.  | 716            | 760 | 850 | 810 | *   | 98  | 22 | 14.5 | 37/61       |
| 080.  | 809            | 860 | 970 | 910 | *   | 133 | 22 | 14.5 | 50/99       |

| Motor Frame Size | * E |
|------------------|-----|
| D90S             | 222 |
| D90L             | 238 |
| D100L            | 304 |
| D112M            | 346 |
| D132S            | 367 |
| D132M            | 405 |

Note:-  
The selections shown here are based on fixed pitch impellers. If units with different performances than those shown here are required, refer to the SQ Series on pages A-21/23.



# COMPACT 2000 SERIES

## TECHNICAL DATA & NOISE LEVELS

| Model<br>CPD..<br>CPE.. | Nom.<br>Speed<br>rev/sec | Avg.<br>dB(A)<br>@ 3m | CPE.. 1 ph. |       | CPD.. 3 ph. |             | Max.<br>amb<br>°C | In-duct Sound Power Levels |                          |     |     |     |    |    |    |    |
|-------------------------|--------------------------|-----------------------|-------------|-------|-------------|-------------|-------------------|----------------------------|--------------------------|-----|-----|-----|----|----|----|----|
|                         |                          |                       | kW          | Amps* | Frame**     | kW          |                   | Amps*                      | L <sub>w</sub> dB re 1pW |     |     |     |    |    |    |    |
|                         |                          |                       |             |       |             |             |                   |                            | 63                       | 125 | 250 | 500 | 1k | 2k | 4k | 8k |
| 0254F                   | 22                       | 42                    | 0.09        | 0.90  | -           | 0.12        | 0.50              | 70 <sup>Δ</sup>            | 66                       | 64  | 61  | 60  | 56 | 55 | 51 | 45 |
| 0254FSC                 | 23                       | 39                    |             |       | -           | 0.12        | 0.41              | 70 <sup>Δ</sup>            | 58                       | 68  | 62  | 53  | 53 | 51 | 45 | 38 |
| 0314F                   | 22                       | 45                    | 0.09        | 0.90  | -           | 0.12        | 0.50              | 70 <sup>Δ</sup>            | 69                       | 67  | 63  | 63  | 60 | 57 | 53 | 49 |
| 0314FSC                 | 23                       | 45                    |             |       | -           | 0.12        | 0.41              | 70 <sup>Δ</sup>            | 65                       | 69  | 69  | 62  | 65 | 64 | 57 | 44 |
| 0314FHP                 | 22                       | 49                    | 0.09        | 0.90  | -           | 0.12        | 0.50              | 70 <sup>Δ</sup>            | 64                       | 74  | 68  | 59  | 59 | 57 | 51 | 44 |
| 0354F                   | 22                       | 49                    | 0.09        | 0.90  | -           | 0.12        | 0.50              | 70 <sup>Δ</sup>            | 71                       | 70  | 65  | 67  | 66 | 59 | 55 | 54 |
| 0354FSC                 | 23                       | 44                    |             |       | -           | 0.12        | 0.41              | 70 <sup>Δ</sup>            | 68                       | 72  | 72  | 65  | 68 | 67 | 60 | 47 |
| 0354FHP                 | 22                       | 52                    | 0.09        | 0.90  | -           | 0.12        | 0.50              | 70 <sup>Δ</sup>            | 63                       | 73  | 67  | 58  | 59 | 56 | 50 | 43 |
| 0404F                   | 22                       | 52                    | 0.25        | 1.80  | -           | <b>0.37</b> | <b>1.40</b>       | 70 <sup>Δ</sup>            | 71                       | 72  | 68  | 70  | 69 | 64 | 61 | 56 |
| 0404FSC                 | 23                       | 52                    |             |       | -           | 0.25        | 0.68              | 70 <sup>Δ</sup>            | 68                       | 70  | 70  | 69  | 71 | 69 | 61 | 52 |
| 0404FHP                 | 22                       | 54                    | 0.25        | 1.80  | -           | <b>0.37</b> | <b>1.40</b>       | 70 <sup>Δ</sup>            | 74                       | 77  | 69  | 69  | 65 | 65 | 62 | 59 |
| 0406F                   | 15                       | 44                    | 0.12        | 1.05  | -           | <b>0.18</b> | <b>0.68</b>       | 70 <sup>Δ</sup>            | 67                       | 63  | 66  | 63  | 61 | 53 | 48 | 43 |
| 0454F                   | 22                       | 54                    | 0.25        | 1.80  | -           | <b>0.37</b> | <b>1.40</b>       | 70 <sup>Δ</sup>            | 74                       | 75  | 72  | 71  | 70 | 67 | 64 | 56 |
| 0454FSC                 | 23                       | 50                    |             |       | -           | 0.25        | 0.68              | 70 <sup>Δ</sup>            | 71                       | 73  | 73  | 72  | 74 | 72 | 64 | 55 |
| 0454FHP                 | 22                       | 57                    | 0.25        | 1.80  | -           | <b>0.37</b> | <b>1.40</b>       | 70 <sup>Δ</sup>            | 69                       | 75  | 67  | 67  | 64 | 64 | 60 | 54 |
| 0456F                   | 15                       | 46                    | 0.12        | 1.05  | -           | <b>0.18</b> | <b>0.68</b>       | 70 <sup>Δ</sup>            | 66                       | 64  | 66  | 64  | 61 | 58 | 54 | 45 |
| 0504F                   | 22                       | 58                    | 0.55        | 3.60  | -           | <b>0.55</b> | <b>1.75</b>       | 70 <sup>Δ</sup>            | 77                       | 81  | 78  | 73  | 72 | 72 | 69 | 62 |
| 0504FSC                 | 23                       | 54                    | -           |       | -           | 0.55        | 1.35              | 70 <sup>Δ</sup>            | 73                       | 74  | 74  | 76  | 79 | 76 | 74 | 62 |
| 0504FHP                 | 22                       | 62                    | 0.55        | 3.60  | -           | <b>0.55</b> | <b>1.75</b>       | 70 <sup>Δ</sup>            | 72                       | 78  | 70  | 70  | 69 | 68 | 66 | 60 |
| 0506F                   | 15                       | 51                    | 0.18        | 1.55  | -           | <b>0.25</b> | <b>0.94</b>       | 70 <sup>Δ</sup>            | 72                       | 67  | 69  | 68  | 69 | 63 | 57 | 51 |
| 0564F                   | 22                       | 62                    | 0.75        | 4.90  | -           | <b>0.75</b> | <b>2.00</b>       | 70 <sup>Δ</sup>            | 81                       | 83  | 80  | 79  | 78 | 75 | 73 | 67 |
| 0564FSC                 | 23                       | 58                    | -           |       | -           | 0.75        | 1.76              | 70 <sup>Δ</sup>            | 76                       | 74  | 77  | 78  | 80 | 77 | 75 | 66 |
| 0564FHP                 | 22                       | 63                    | 0.75        | 4.90  | -           | <b>0.75</b> | <b>2.00</b>       | 70 <sup>Δ</sup>            | 80                       | 79  | 74  | 75  | 72 | 71 | 69 | 65 |
| 0566F                   | 15                       | 57                    | 0.25        | 2.20  | -           | <b>0.25</b> | <b>0.94</b>       | 70 <sup>Δ</sup>            | 76                       | 73  | 76  | 76  | 73 | 71 | 60 | 56 |
| 0634F                   | 22                       | 66                    | -           |       | -           | <b>1.50</b> | <b>4.30</b>       | 70 <sup>Δ</sup>            | 81                       | 82  | 86  | 84  | 80 | 78 | 77 | 72 |
| 0634FSC                 | 24                       | 62                    | -           |       | -           | 1.10        | 2.68              | 70 <sup>Δ</sup>            | 78                       | 83  | 78  | 78  | 76 | 76 | 74 | 69 |
| 0636F                   | 15                       | 60                    | 0.55        | 6.00  | -           | <b>0.55</b> | <b>2.00</b>       | 70 <sup>Δ</sup>            | 83                       | 80  | 78  | 77  | 76 | 73 | 68 | 59 |
| 0714/1                  | 24                       | 68                    | -           |       | D100La      | 2.20        | 4.70              | 40                         | 90                       | 80  | 84  | 83  | 83 | 82 | 81 | 76 |
| 0714/2                  | 24                       | 71                    | -           |       | D100Lb      | 3.00        | 6.34              | 40                         | 87                       | 84  | 87  | 87  | 86 | 84 | 84 | 75 |
| 0714/3                  | 24                       | 73                    | -           |       | D112M       | 4.00        | 8.37              | 40                         | 91                       | 90  | 93  | 91  | 87 | 86 | 83 | 77 |
| 0716/1                  | 16                       | 63                    | -           |       | D90S        | 0.75        | 2.22              | 40                         | 85                       | 79  | 77  | 83  | 78 | 73 | 71 | 63 |
| 0716/2                  | 16                       | 63                    | -           |       | D90L        | 1.10        | 3.00              | 40                         | 84                       | 81  | 82  | 83  | 78 | 73 | 72 | 61 |
| 0716/3                  | 16                       | 69                    | -           |       | D100L       | 1.50        | 3.91              | 40                         | 90                       | 84  | 85  | 89  | 86 | 79 | 72 | 68 |
| 0804/1                  | 24                       | 78                    | -           |       | D132S       | 5.50        | 11.00             | 40                         | 90                       | 83  | 89  | 92  | 95 | 93 | 88 | 81 |
| 0804/2                  | 24                       | 79                    | -           |       | D132M       | 7.50        | 14.51             | 40                         | 96                       | 93  | 94  | 95  | 94 | 93 | 89 | 82 |
| 0806/1                  | 16                       | 67                    | -           |       | D100L       | 1.50        | 3.91              | 40                         | 90                       | 86  | 85  | 87  | 82 | 77 | 73 | 65 |
| 0806/2                  | 16                       | 71                    | -           |       | D132S       | 3.00        | 7.61              | 40                         | 92                       | 84  | 88  | 89  | 87 | 84 | 78 | 69 |

\* Amperages shown are a guide only, refer to our Sales Department for accurate figures at time of order.

\*\* Use inverter controllers for variable speed.

Electrical data in **bold** type refers to fans that are fitted with 2-speed star/delta motors as standard. High speed data shown.

<sup>Δ</sup> Maximum ambient is 40°C when being speed controlled.

The In-duct Sound Power Levels are for the Outlet Side of the fan; Inlet Side values are generally 1-2 dB lower. The levels are based on the fans operating at approximately 50% of peak pressure.



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