



FTP SERIES

Centrifugal Plug Fan

FTP SERIES

Product Overview

Description

FTP series of centrifugal plug fans

Licensed to bear the AMCA Seal for Sound and Air performance and Fan Efficiency Grade (FEG)

A total of 12 models

Ranging from 280mm to 1000mm

Air volume flow rates from 1000m³/h to 50,000m³/h

Backward-curved aerofoil impellers

Totally enclosed three-phase squirrel-cage induction motors

IP55 protection is standard, Class F insulation with Class B temperature rise

Operating ambient temperature of up to +40°C

Features

Compact, space-saving design

Made using advanced manufacturing techniques

Impeller has an aerodynamic profile; designed to achieve greater efficiency and lower noise level

Impeller is made of high-grade steel or aluminium alloy

Hub is tapered sleeve or threaded shaft sleeve to ensure operating stability

Low power consumption

Thermal protection devices are available upon request

Elta Fans Malaysia Sdn Bhd certifies that the FTP Series fans shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program. All the Centrifugal Fans described herein are licensed to bear the AMCA Seal, and their certified ratings are shown on pages 4 through 15.



Product Coding

| Code | Reference |
|------------|-----------------------------------|
| FTP | Backward-curved aerofoil plug fan |
| 630 | Nominal Diameter (mm) |
| e.g. | FTP630 |

Typical applications

Central air-conditioning system

Air purification systems and a variety of ventilation applications

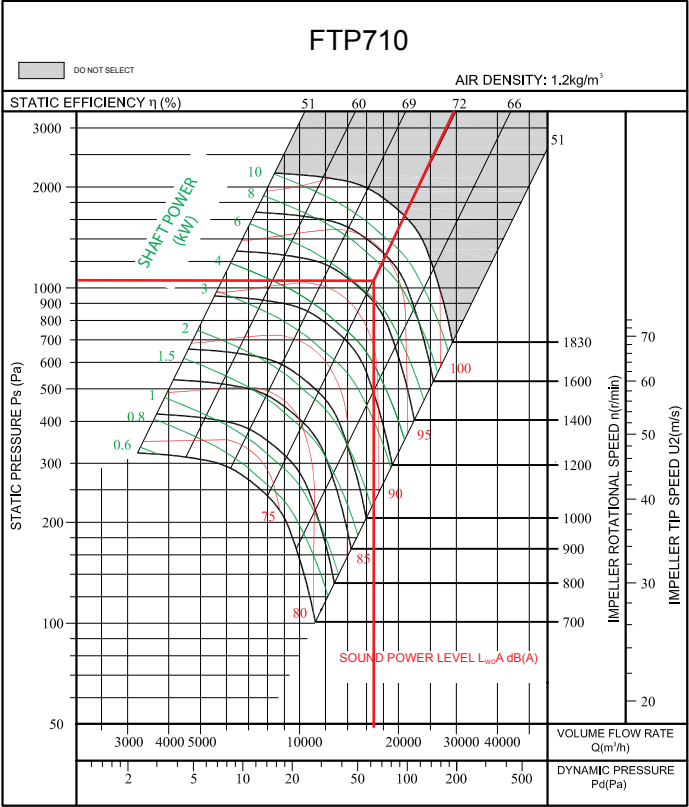
Not suitable for corrosive, inflammable, toxic or explosive environments



FTP SERIES

How to Select

| | |
|---------------------|--------------------------------|
| Model | FTP710 |
| Volume | $q_v=16553\text{m}^3/\text{h}$ |
| Static Pressure | $P_{sf}=1030\text{Pa}$ |
| Dynamic Pressure | $P_{df}=61\text{Pa}$ |
| Fan Speed | $n=1450\text{r/min}$ |
| Shaft Power | $P_{sh}=6.571\text{KW}$ |
| A Sound Power Level | $L_{WA}=96.8\text{dB(A)}$ |
| Static Efficiency | $\eta_{sf}=72\%$ |

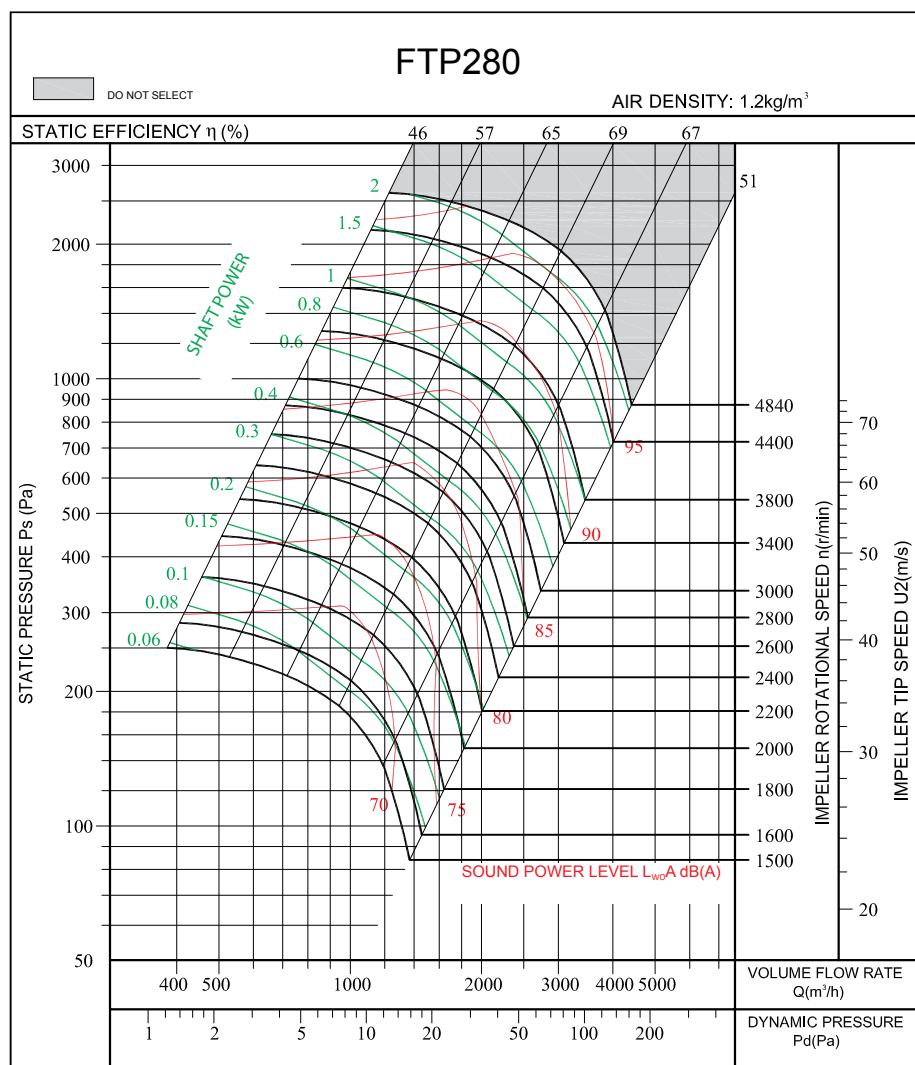


FTP280 FEG85

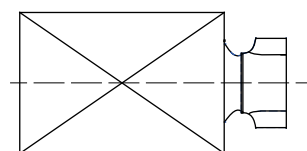
Technical Data & Performance Curve

| | | | |
|-------------------|-----------------------------|-------------|-------------------------------|
| Wheel diameter | D = 289 mm | Fan weight | m = 30 kg |
| Moment of inertia | J = 0.056 kg·m ² | Speed limit | n _{max} = 4840 r/min |

Performance certified is for installation type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for outlet L_{wo}A sound power levels for installation type A: free inlet, free outlet.



Measured in installation A according to AMCA Standard 210:



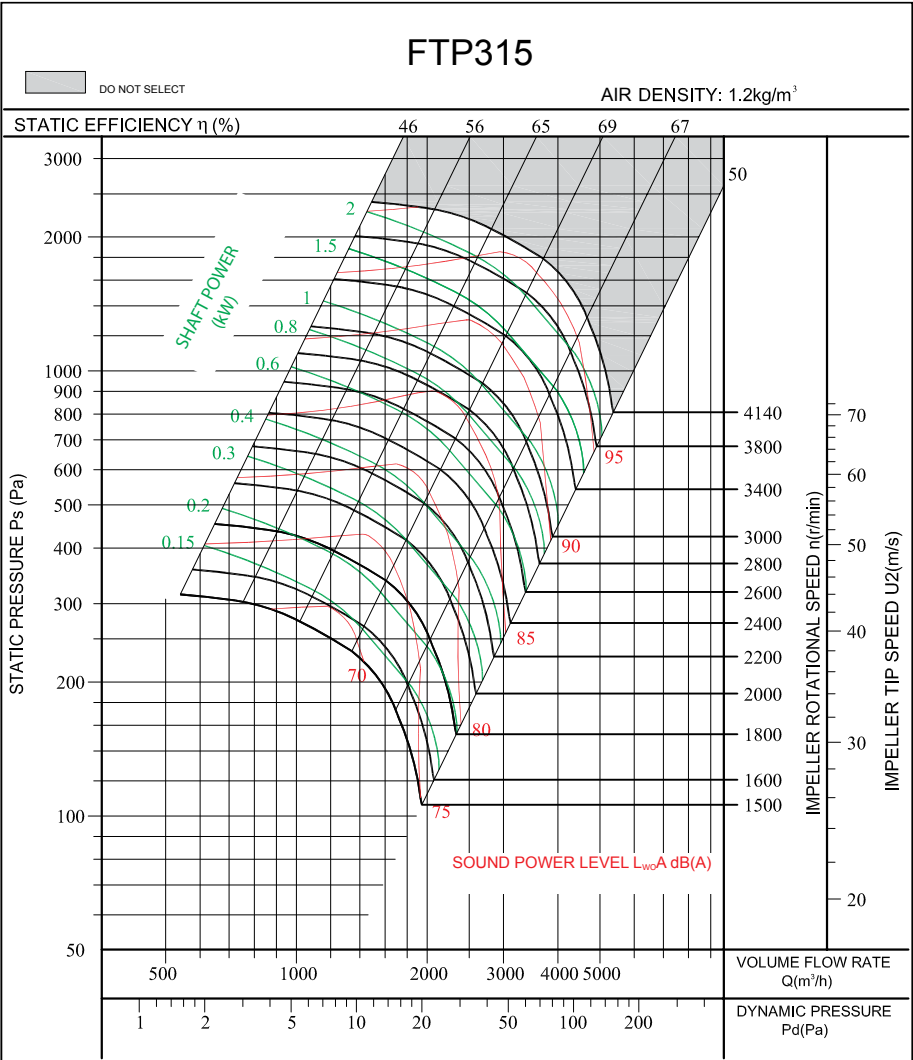
FTP315

FEG85

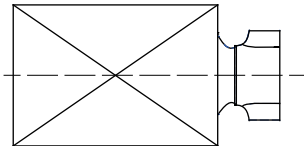
Technical Data & Performance Curve

| | | | |
|-------------------|-----------------------------|-------------|-------------------------------|
| Wheel diameter | D = 325 mm | Fan weight | m = 40 kg |
| Moment of inertia | J = 0.076 kg·m ² | Speed limit | n _{max} = 4140 r/min |

Performance certified is for installation type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for outlet L_{wo}A sound power levels for installation type A: free inlet, free outlet.



Measured in installation A according to AMCA Standard 210:

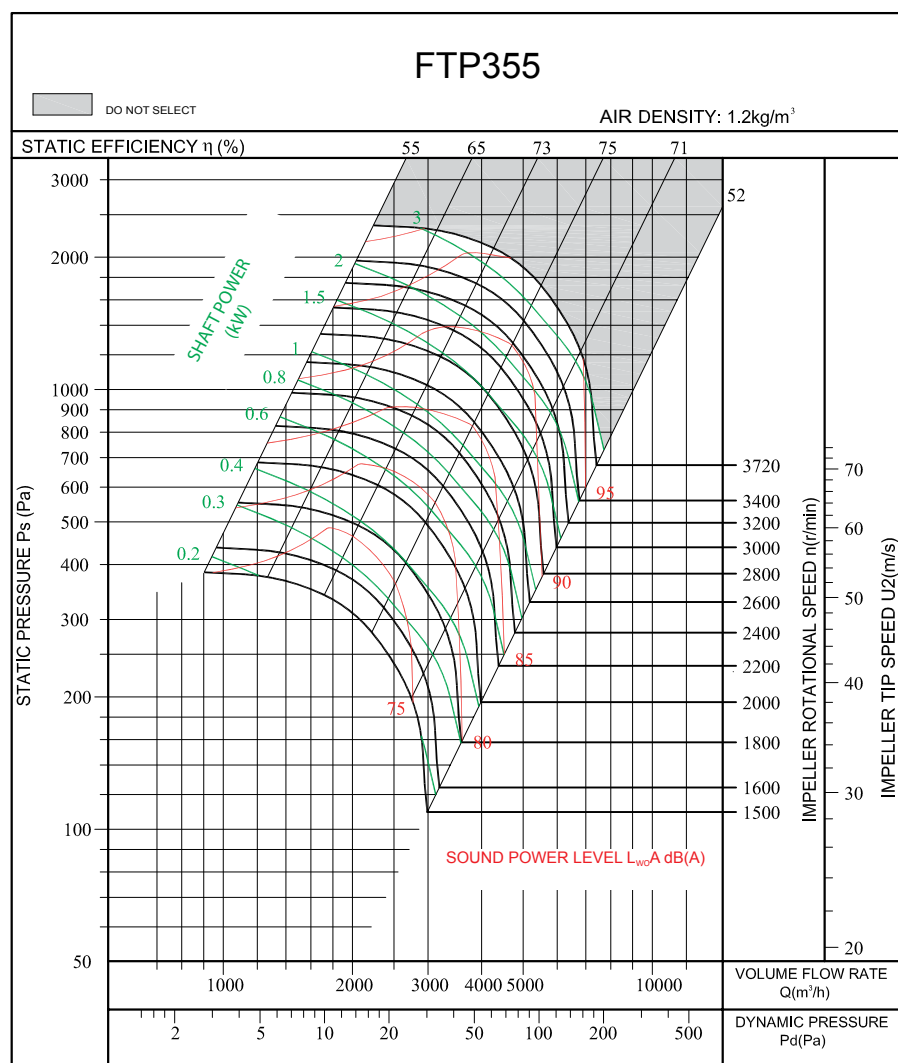


FTP355 FEG90

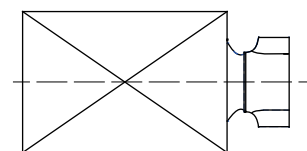
Technical Data & Performance Curve

| | | | |
|-------------------|-----------------------------|-------------|-------------------------------|
| Wheel diameter | D = 363mm | Fan weight | m = 45 kg |
| Moment of inertia | J = 0.136 kg·m ² | Speed limit | n _{max} = 3720 r/min |

Performance certified is for installation type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for outlet L_{wo}A sound power levels for installation type A: free inlet, free outlet.



Measured in installation A according to AMCA Standard 210:

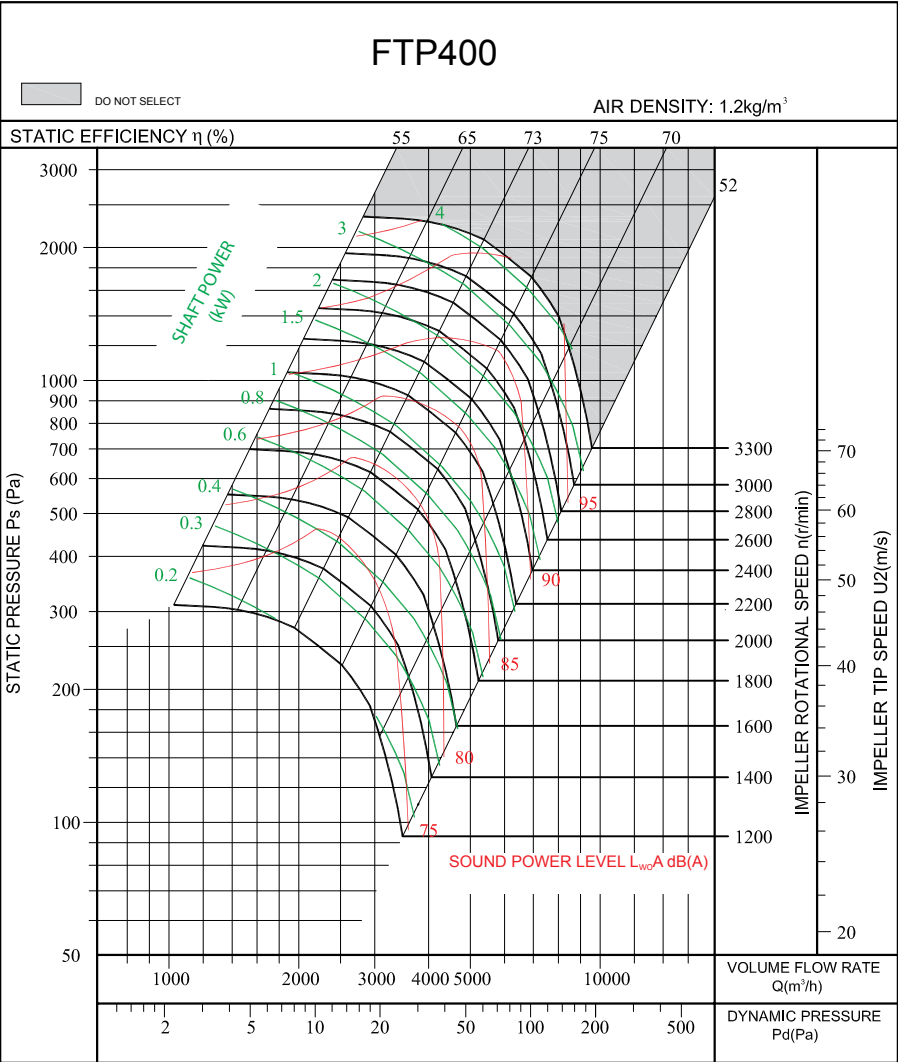


FTP400 FEG85

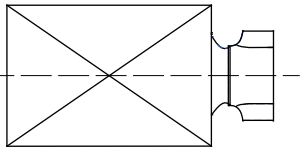
Technical Data & Performance Curve

| | | | |
|-------------------|-----------------------------|-------------|-------------------------------|
| Wheel diameter | D = 408 mm | Fan weight | m = 55 kg |
| Moment of inertia | J = 0.208 kg·m ² | Speed limit | n _{max} = 3300 r/min |

Performance certified is for installation type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for outlet L_{wo}A sound power levels for installation type A: free inlet, free outlet.



Measured in installation A according to AMCA Standard 210:

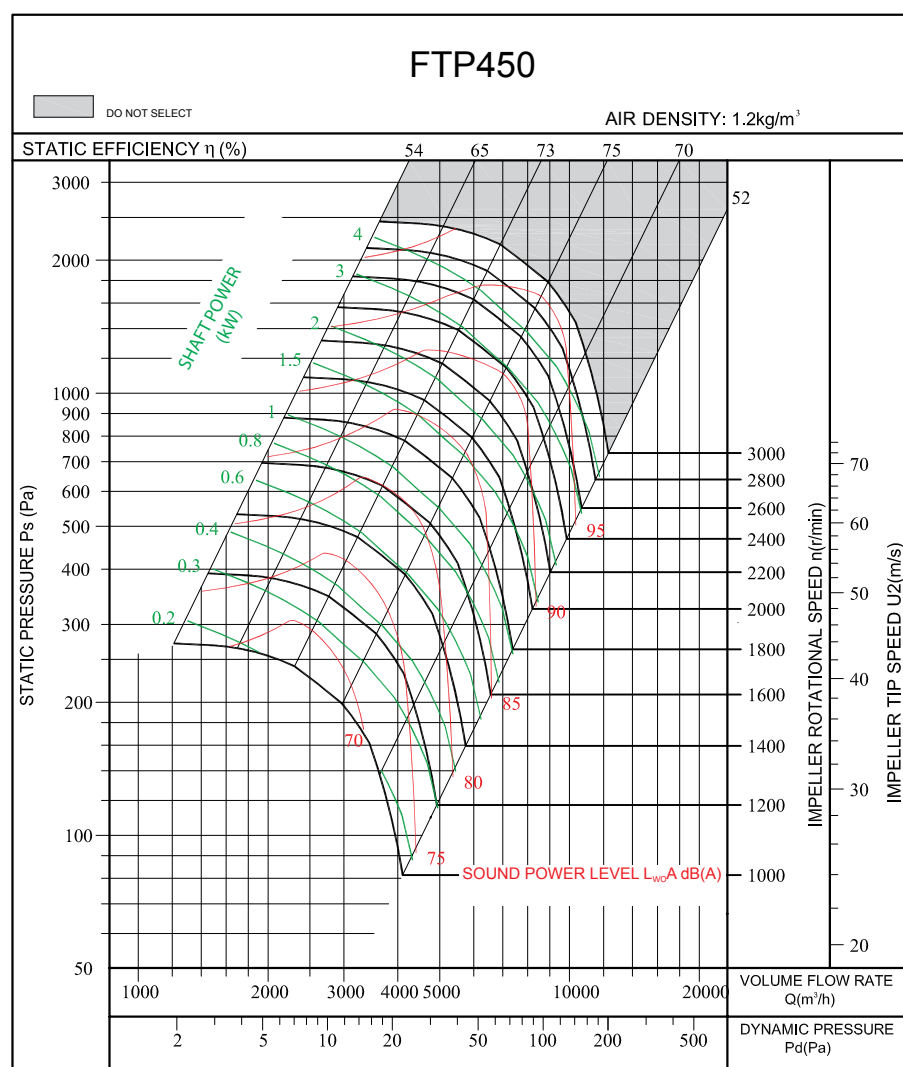


FTP450 FEG85

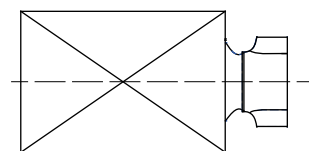
Technical Data & Performance Curve

| | | | |
|-------------------|-----------------------------|-------------|-------------------------------|
| Wheel diameter | D = 458 mm | Fan weight | m = 65 kg |
| Moment of inertia | J = 0.393 kg·m ² | Speed limit | n _{max} = 3000 r/min |

Performance certified is for installation type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for outlet L_{wo}A sound power levels for installation type A: free inlet, free outlet.



Measured in installation A according to AMCA Standard 210:

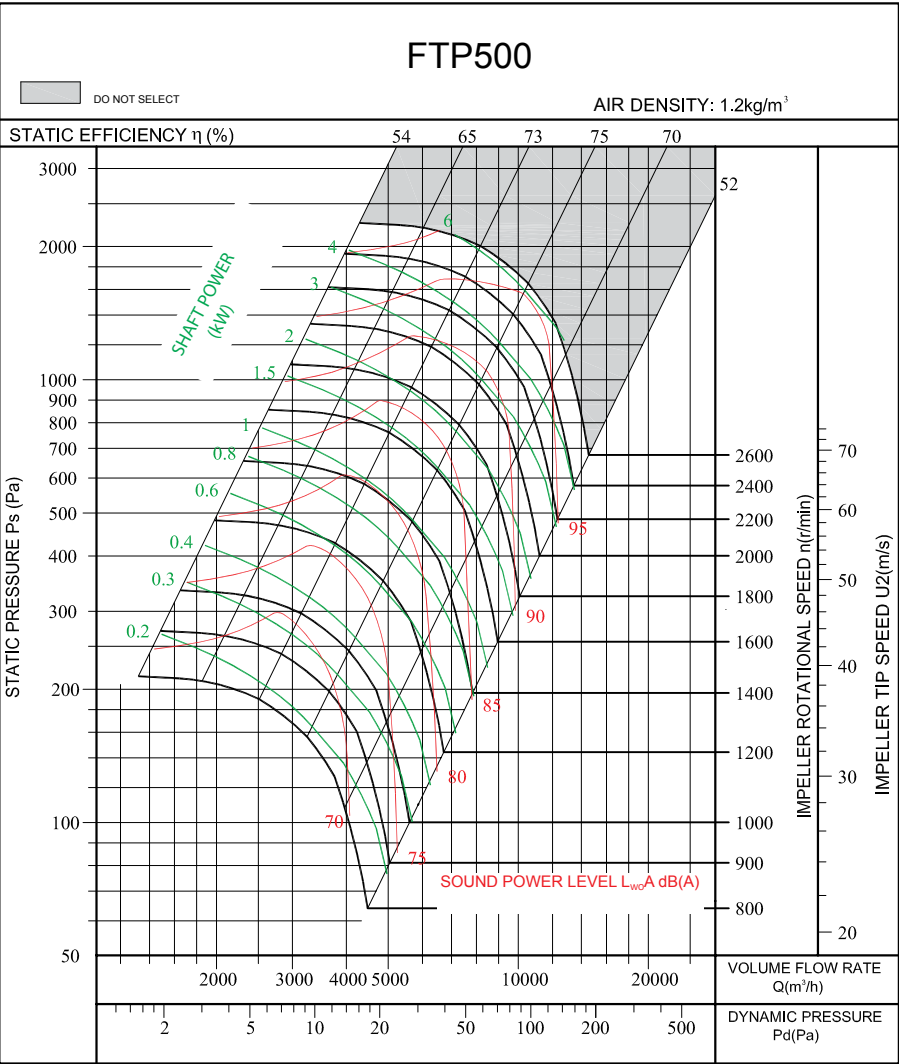


FTP500 FEG85

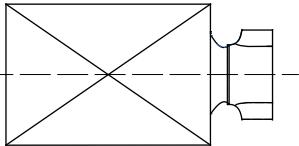
Technical Data & Performance Curve

| | | | |
|-------------------|-----------------------------|-------------|-------------------------------|
| Wheel diameter | D = 508 mm | Fan weight | m = 80kg |
| Moment of inertia | J = 0.567 kg·m ² | Speed limit | n _{max} = 2600 r/min |

Performance certified is for installation type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for outlet L_{wo}A sound power levels for installation type A: free inlet, free outlet.



Measured in installation A according to AMCA Standard 210:

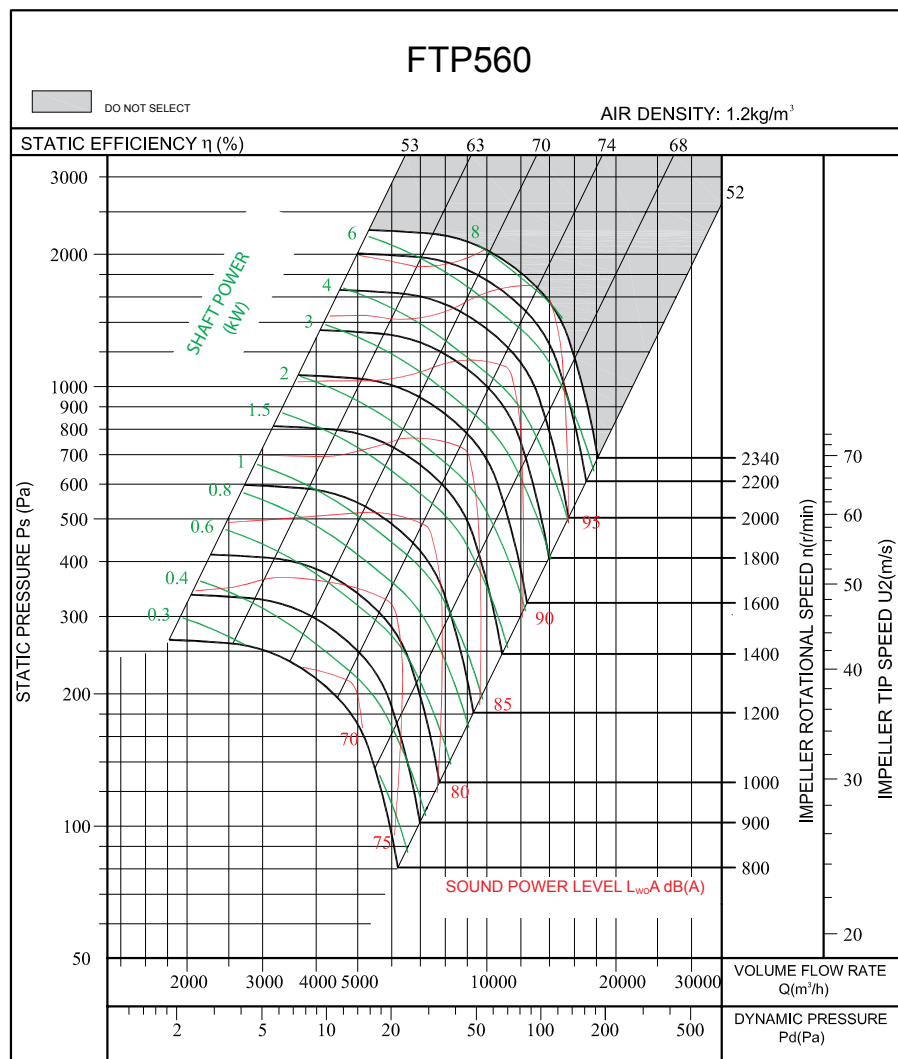


FTP560 FEG80

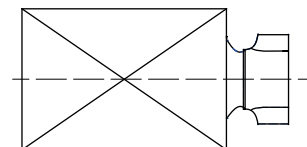
Technical Data & Performance Curve

| | | | |
|-------------------|-----------------------------|-------------|-------------------------------|
| Wheel diameter | D = 568 mm | Fan weight | m = 90 kg |
| Moment of inertia | J = 0.992 kg·m ² | Speed limit | n _{max} = 2340 r/min |

Performance certified is for installation type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for outlet L_{WA} sound power levels for installation type A: free inlet, free outlet.



Measured in installation A according to AMCA Standard 210:



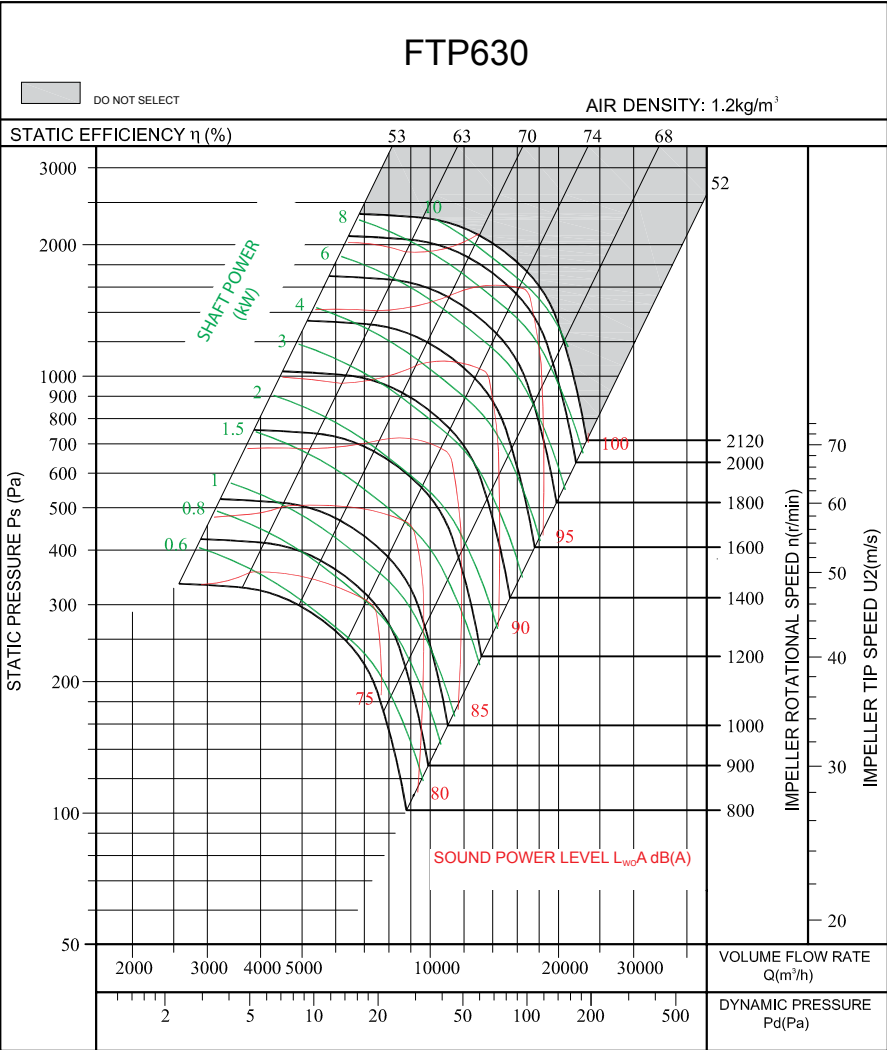
FTP630

FEG80

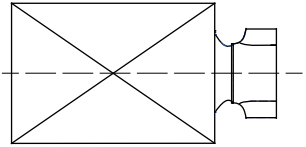
Technical Data & Performance Curve

| | | | |
|-------------------|-----------------------------|-------------|-------------------------------|
| Wheel diameter | D = 638 mm | Fan weight | m = 110 kg |
| Moment of inertia | J = 1.602 kg·m ² | Speed limit | n _{max} = 2120 r/min |

Performance certified is for installation type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for outlet L_{wa} sound power levels for installation type A: free inlet, free outlet.



Measured in installation A according to AMCA Standard 210:

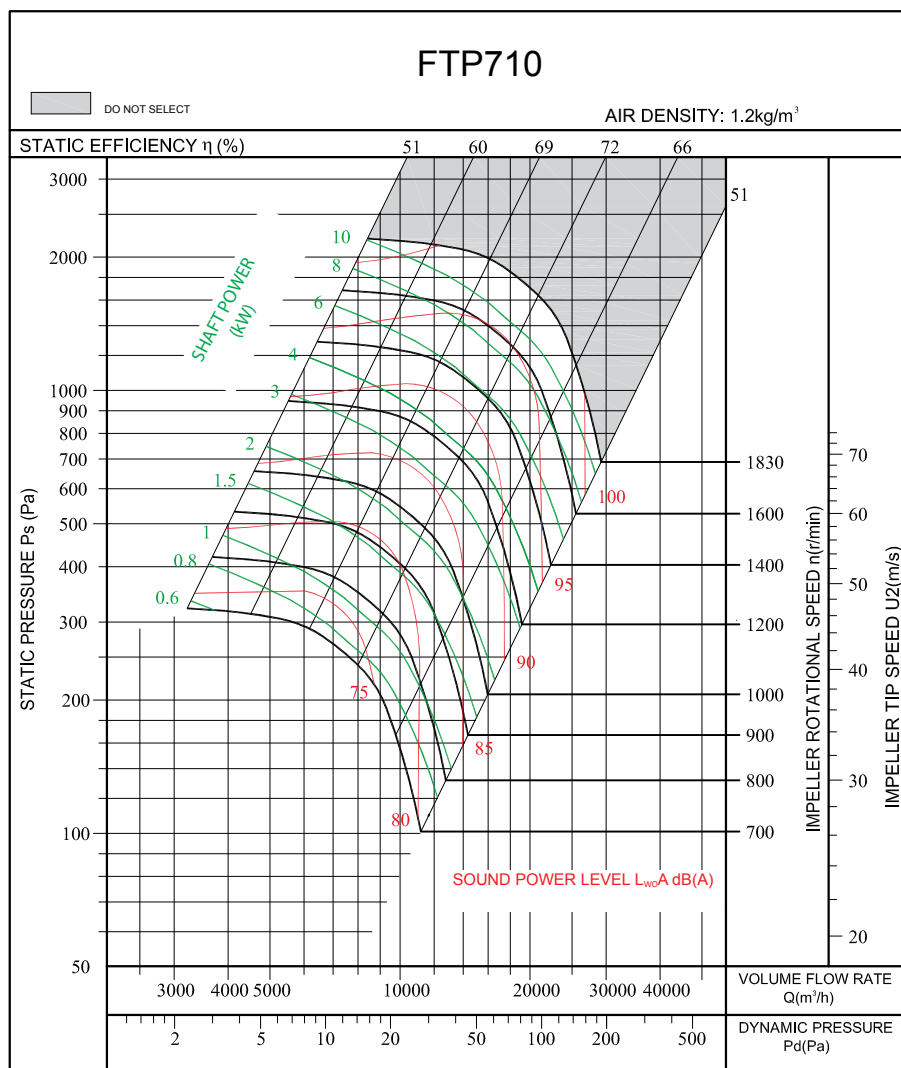


FTP710 FEG80

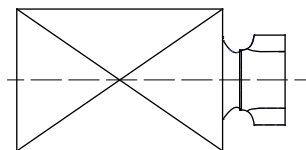
Technical Data & Performance Curve

| | | | |
|-------------------|-----------------------------|-------------|-------------------------------|
| Wheel diameter | D = 716mm | Fan weight | m = 140 kg |
| Moment of inertia | J = 2.723 kg·m ² | Speed limit | n _{max} = 1830 r/min |

Performance certified is for installation type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for outlet L_{wo}A sound power levels for installation type A: free inlet, free outlet.



Measured in installation A according to AMCA Standard 210:



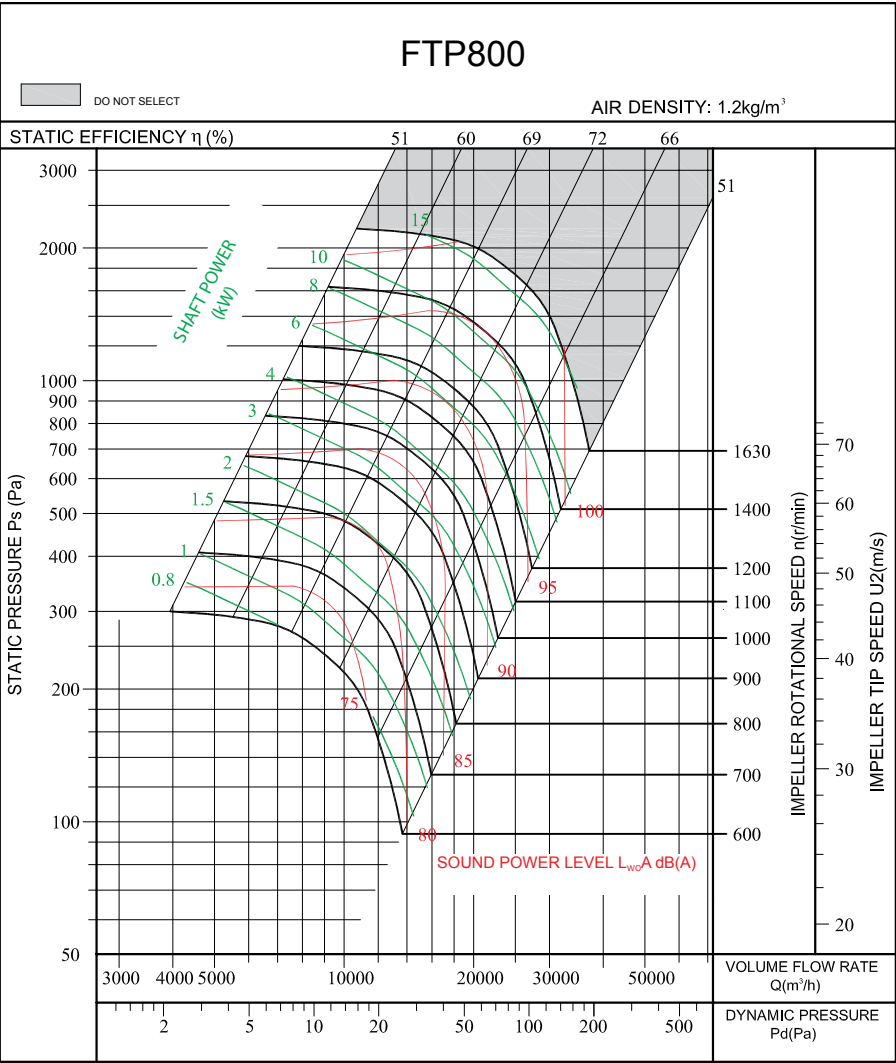
FTP800

FEG80

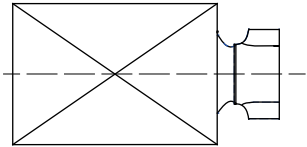
Technical Data & Performance Curve

| | | | |
|-------------------|-----------------------------|-------------|-------------------------------|
| Wheel diameter | D = 806 mm | Fan weight | m = 210 kg |
| Moment of inertia | J = 5.034 kg·m ² | Speed limit | n _{max} = 1630 r/min |

Performance certified is for installation type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for outlet L_{WA} sound power levels for installation type A: free inlet, free outlet.



Measured in installation A according to AMCA Standard 210:

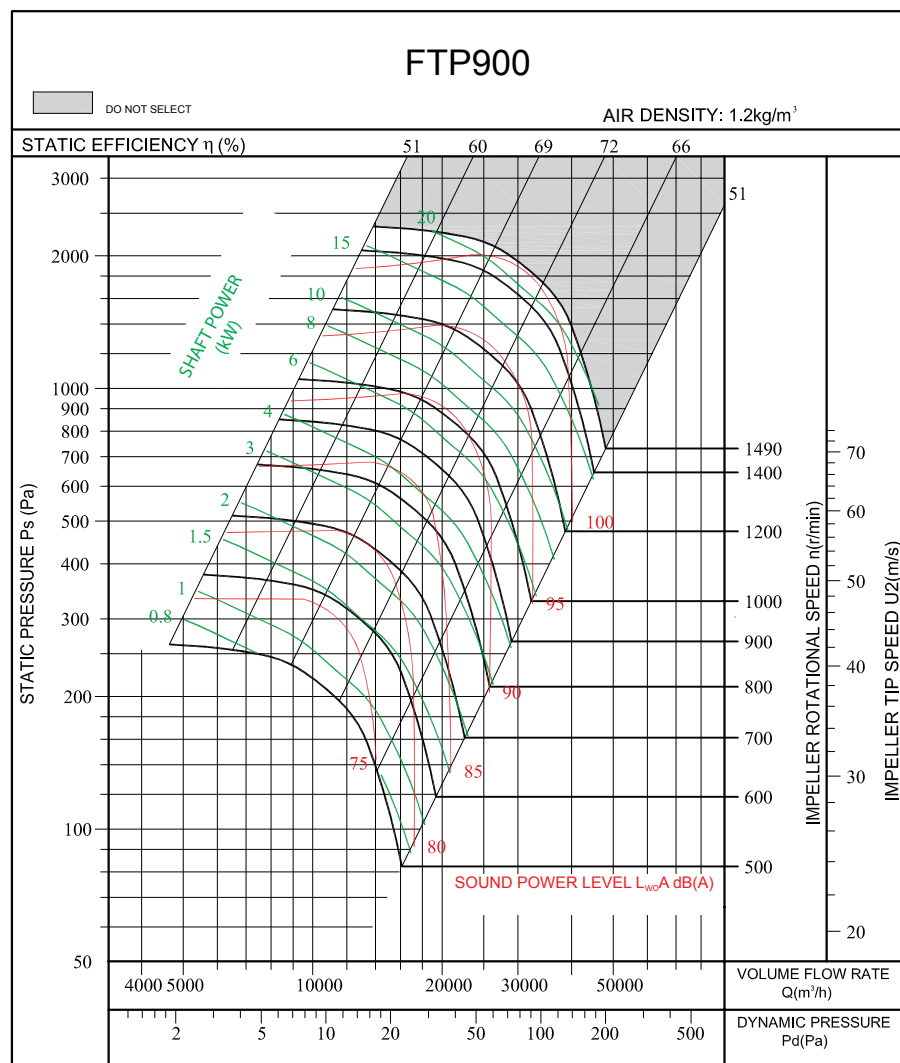


FTP900 FEG80

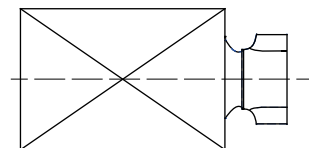
Technical Data & Performance Curve

| | | | |
|-------------------|-----------------------------|-------------|-------------------------------|
| Wheel diameter | D = 905 mm | Fan weight | m = 300 kg |
| Moment of inertia | J = 9.214 kg·m ² | Speed limit | n _{max} = 1490 r/min |

Performance certified is for installation type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for outlet L_{wo}A sound power levels for installation type A: free inlet, free outlet.



Measured in installation A according to AMCA Standard 210:



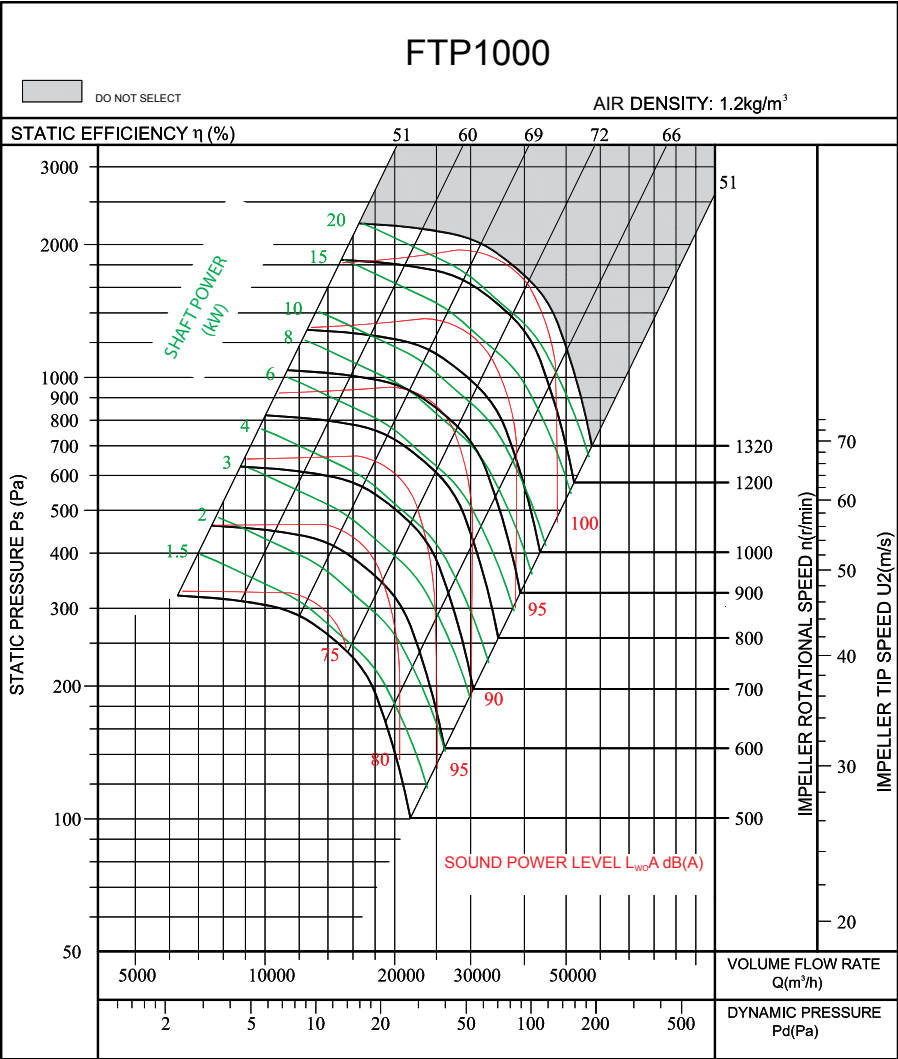
FTP1000

FEG80

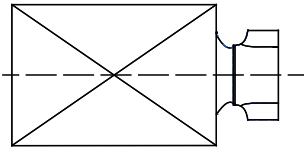
Technical Data & Performance Curve

| | | | |
|-------------------|------------------------------|-------------|-------------------------------|
| Wheel diameter | D = 1000 mm | Fan weight | m = 350 kg |
| Moment of inertia | J = 14.375 kg·m ² | Speed limit | n _{max} = 1320 r/min |

Performance certified is for installation type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for outlet L_{WA} sound power levels for installation type A: free inlet, free outlet.



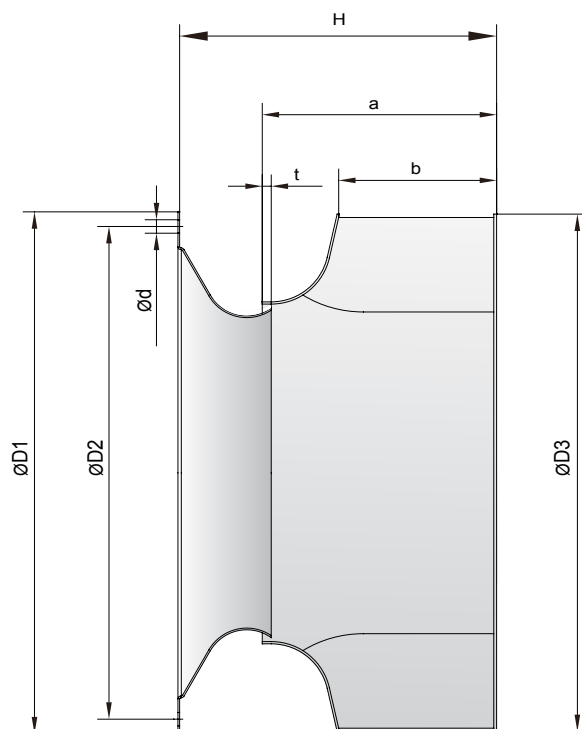
Measured in installation A according to AMCA Standard 210:



FTP SERIES

Dimensional Data

Impeller & Inlet cone



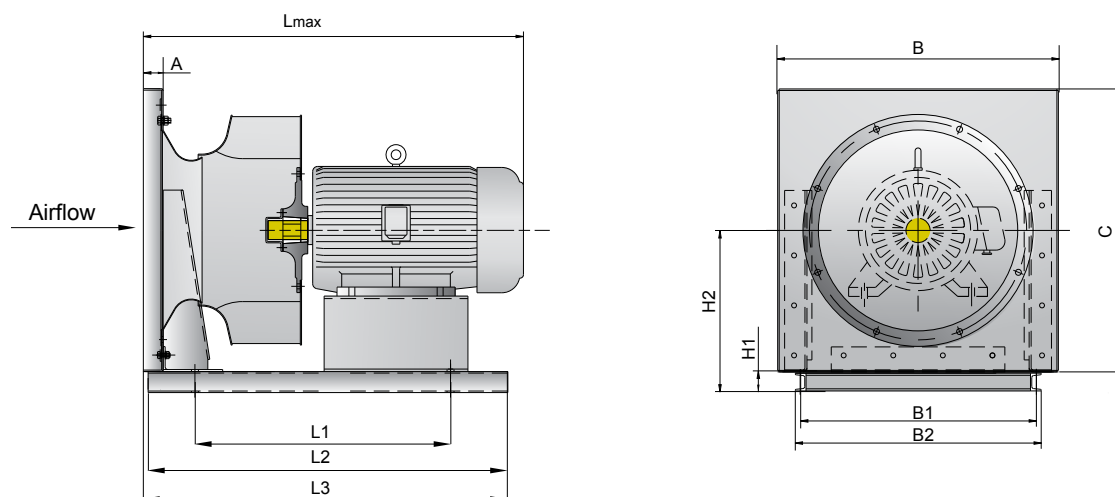
Unit : mm

| Dim Model | a | b | t | ØD1 | ØD2 | ØD3 | H | Ød |
|--------------|-----|-----|----|-----|-----|------|-----|----|
| FTP280 | 117 | 84 | 4 | 300 | 280 | 323 | 169 | 7 |
| FTP315 | 126 | 92 | 5 | 355 | 325 | 360 | 178 | 7 |
| FTP355 | 144 | 103 | 6 | 383 | 344 | 406 | 196 | 7 |
| FTP400 | 160 | 116 | 7 | 423 | 386 | 456 | 220 | 7 |
| FTP450 | 179 | 131 | 7 | 466 | 432 | 512 | 243 | 7 |
| FTP500 | 200 | 145 | 8 | 515 | 485 | 570 | 277 | 9 |
| FTP560 | 229 | 164 | 8 | 570 | 544 | 640 | 314 | 9 |
| FTP630 | 253 | 184 | 9 | 635 | 605 | 720 | 353 | 9 |
| FTP710 | 283 | 206 | 10 | 700 | 670 | 810 | 394 | 9 |
| FTP800 | 320 | 233 | 12 | 778 | 750 | 912 | 447 | 12 |
| FTP900 | 357 | 260 | 14 | 875 | 844 | 1023 | 503 | 12 |
| FTP1000 | 400 | 291 | 16 | 980 | 945 | 1120 | 561 | 12 |

FTP SERIES

Dimensional Data

Plug Fans



Unit : mm

| Model | Motor frame size | A | B | C | H1 | H2 | L1 | L2 | L3 | Lmax* | B1 | B2 |
|---------|--------------------|----|------|------|----|-----|------------|-------------|-------------|-------|------|------|
| FTP280 | 71-100 | 35 | 396 | 473 | 50 | 275 | 360 | 460 | 465 | 605 | 310 | 346 |
| FTP315 | 71-112 | 35 | 440 | 523 | 50 | 303 | 360 | 460 | 465 | 615 | 360 | 396 |
| FTP355 | 71-80 90-112 | 35 | 480 | 569 | 50 | 329 | 300 380 | 420 500 | 425 505 | 635 | 400 | 436 |
| FTP400 | 80-112 132 | 35 | 520 | 624 | 50 | 364 | 400 500 | 520 620 | 525 625 | 755 | 450 | 486 |
| FTP450 | 90-112 132 | 35 | 590 | 697 | 50 | 402 | 400 500 | 520 620 | 525 625 | 780 | 510 | 546 |
| FTP500 | 90-112 132-160 | 40 | 650 | 778 | 63 | 453 | 440 620 | 600 780 | 605 785 | 950 | 550 | 590 |
| FTP560 | 90-112 132-160 | 40 | 720 | 878 | 63 | 518 | 460 660 | 620 820 | 625 825 | 990 | 610 | 650 |
| FTP630 | 112 132-160 | 45 | 800 | 975 | 63 | 575 | 510 700 | 670 860 | 675 865 | 1025 | 685 | 725 |
| FTP710 | 112-132 160-180 | 50 | 880 | 1116 | 80 | 676 | 600 740 | 800 940 | 805 945 | 1125 | 770 | 810 |
| FTP800 | 132 160-180 | 50 | 1000 | 1250 | 80 | 750 | 650 800 | 850 1000 | 860 1010 | 1180 | 850 | 890 |
| FTP900 | 132 160-180 | 50 | 1120 | 1393 | 80 | 833 | 700 900 | 900 1100 | 910 1110 | 1240 | 960 | 1000 |
| FTP1000 | 160-200 | 50 | 1250 | 1536 | 80 | 911 | 1000 | 1200 | 1210 | 1365 | 1080 | 1120 |

*Dimension Lmax is approximate as it varies with the make of the motor.

Elta Fans Malaysia Sdn Bhd

Tel **+603 7846 0340**

Fax **+603 7842 1132**

Email **info@eltafans.asia**

No. 147, Jalan TUDM, Kampung Baru Subang,
40150 Shah Alam, Selangor, West Malaysia, Malaysia

eltafans.asia

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