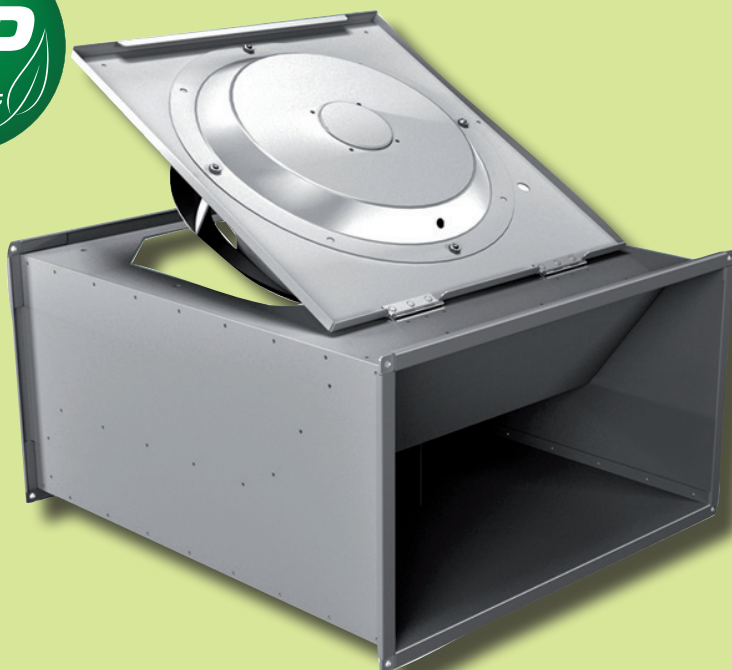


Rectangular Duct Fans - KATANA and KATANA Plus



Features

- Sizes from 400x200 and 1000x500 mm diameter
- Air flow 11,160 m³/h (3.1 m³/s)
- Static pressures up to 920 Pa
- Maximum temperature up to 70°C
- Controllable external rotor motors
- Horizontal or vertical mounting

Electrical Supply

220 - 240V / 50Hz / 1 Ph
380 - 420V / 50Hz / 3 Ph

Sizes

225, 250, 280, 315, 355, 400, 450, 500 and 560.

Features and Construction

The Katana is a centrifugal in-line duct fan which can be mounted in any position. Constructed from galvanized sheet metal. The flange is drilled to allow for ease of installation for mounting in any position.

Katana Plus - Insulated option available please add (A) to selection.

Impeller

Aluminum backward curved centrifugal impeller.

Motor

External rotor motor directly coupled class F, IP54 except model 200 which is IP44. Motor-impeller dynamically balanced according to ISO 1940.

Can be linked star / delta for operation at low / high speed.

Speed Controllers

Controllable using auto-transformers (please see page 99).

Accessories

The range of accessories include flexible connectors, silencers, filters, flanges, shutters and dampers (please see pages 86-88).

Product Code

Katana 225-2-1(A)

- Katana = Product Name
- 225 = Impeller diameter size
- 2 = 2 pole or 4 pole
- 1 = 1 phase or 3 phase
- (A) = Acoustically lined version, Katana Plus only

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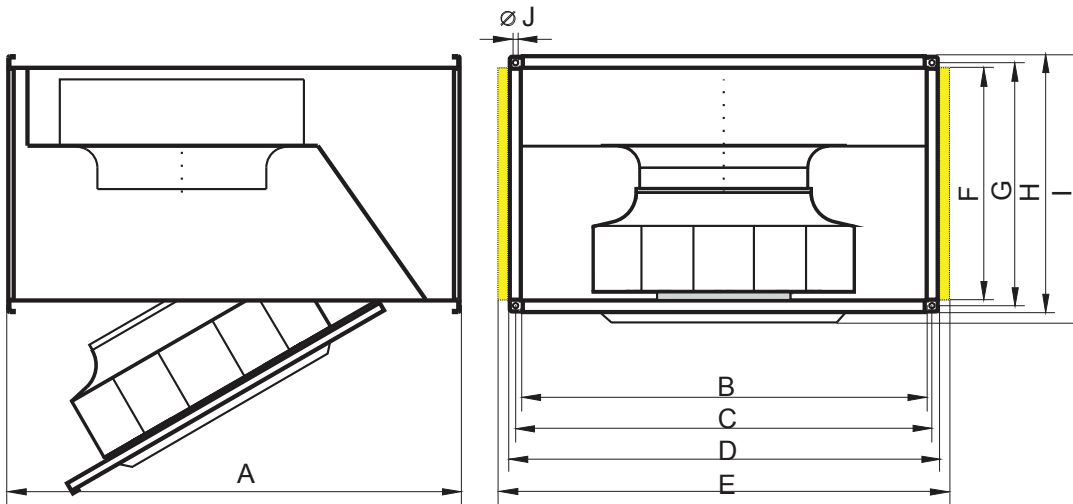


Electrical Details and Sound Levels

| Product Code | Product Number | Speed rpm | Motor Frame | Electrical Supply | Electrical Current | | | Wiring Diagrams | Maximum Operating Temp °C | ErP Compliant | | Inlet | ** Speed Controllers |
|--------------------|----------------|-----------|-------------|-------------------|--------------------|-----------------------|----------------------|-----------------|---------------------------|---------------|----------------|-------|----------------------|
| | | | | | Motor (kW) | Full Load Current (A) | Starting Current (A) | | | Pass | FMEG (36=Pass) | | |
| KATANA 225-2-1 (A) | RS225201 | 2640 | Integral | 220-240v/50Hz/1ph | 0.12 | 0.52 | 0.94 | 01.009 | 50 | Yes | Ex | 54 | ✓ |
| KATANA 250-2-1 (A) | RS250201 | 2410 | Integral | 220-240v/50Hz/1ph | 0.24 | 1.04 | 1.66 | 01.009 | 45 | Yes | Ex | 56 | ✓ |
| KATANA 280-2-1 (A) | RS280201 | 2580 | Integral | 220-240v/50Hz/1ph | 0.73 | 3.2 | 6.72 | 01.024 | 60 | Yes | Ex | 66 | ✓ |
| KATANA 280-2-3 (A) | RS280203 | 2440 | Integral | 380-420v/50Hz/3ph | 0.62 | 1 | 2.5 | 01.006 | 65 | Yes | Ex | 65 | ✓ |
| KATANA 315-4-1 (A) | RS315401 | 1325 | Integral | 220-240v/50Hz/1ph | 0.165 | 0.73 | 1.39 | 01.024 | 50 | Yes | Ex | 49 | ✓ |
| KATANA 315-4-3 (A) | RS315403 | 1340 | Integral | 380-420v/50Hz/3ph | 0.15 | 0.33 | 0.92 | 01.006 | 70 | Yes | Ex | 49 | ✓ |
| KATANA 355-4-1 (A) | RS355401 | 1300 | Integral | 220-240v/50Hz/1ph | 0.32 | 1.45 | 2.9 | 01.024 | 40 | Yes | Ex | 54 | ✓ |
| KATANA 355-4-3 (A) | RS355403 | 1300 | Integral | 380-420v/50Hz/3ph | 0.29 | 0.55 | 1.54 | 01.006 | 60 | Yes | Ex | 54 | ✓ |
| KATANA 400-4-1 (A) | RS400401 | 1370 | Integral | 220-240v/50Hz/1ph | 0.54 | 2.6 | 6.5 | 01.024 | 45 | Yes | Ex | 56 | ✓ |
| KATANA 400-4-3 (A) | RS400403 | 1310 | Integral | 380-420v/50Hz/3ph | 0.49 | 0.9 | 2.88 | 01.006 | 40 | Yes | Ex | 56 | ✓ |
| KATANA 450-4-1 (A) | RS450401 | 1265 | Integral | 220-240v/50Hz/1ph | 0.71 | 3.25 | 6.5 | 01.024 | 50 | Yes | Ex | 58 | ✓ |
| KATANA 450-4-3 (A) | RS450403 | 1355 | Integral | 380-420v/50Hz/3ph | 0.78 | 1.55 | 3.87 | 01.006 | 55 | Yes | Ex | 58 | ✓ |
| KATANA 500-4-1 (A) | RS500401 | 1300 | Integral | 220-240v/50Hz/1ph | 1.62 | 7.3 | 16.06 | 01.024 | 40 | Yes | Ex | 66 | ✓ |
| KATANA 500-4-3 (A) | RS500403 | 1390 | Integral | 380-420v/50Hz/3ph | 1.7 | 3.5 | 15.05 | 01.006 | 55 | Yes | Ex | 66 | ✓ |
| KATANA 560-4-3 (A) | RS560403 | 1340 | Integral | 380-420v/50Hz/3ph | 2.4 | 4.5 | 18.9 | 01.006 | 45 | Yes | Ex | 67 | ✓ |

*Sound power levels are average dBA at 3 metres distance over sphere, under free field conditions and are presented for comparative purposes only. Values taken at the mid point on the wave at the highest point. **For speed controllers, please see page 99.

Drawings and Dimensions

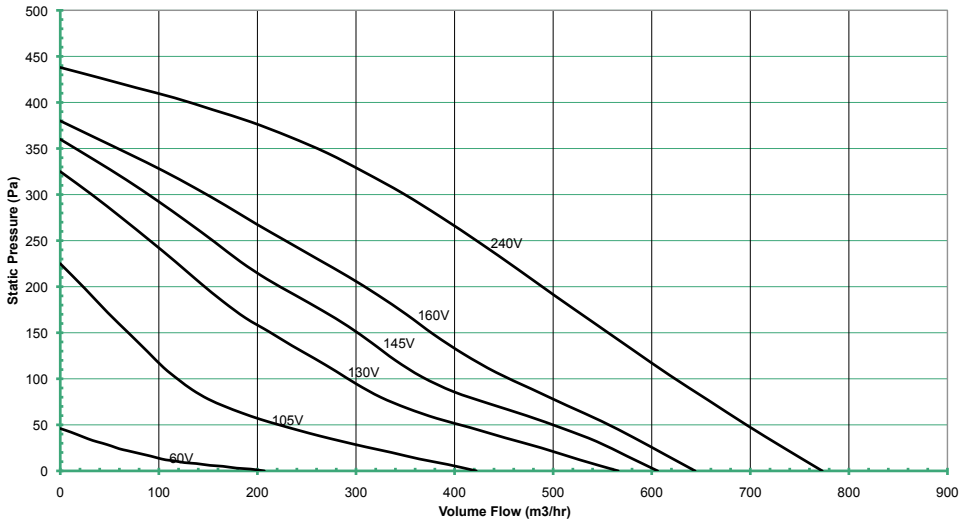


| Product Code | A | B | c | D | E (optional) | F | G | H | I | J | Weight Max (kg) |
|--------------------|-----|------|------|------|--------------|-----|-----|-----|-----|---|-----------------|
| KATANA 225-2-1 (A) | 445 | 400 | 420 | 440 | - | 200 | 220 | 240 | 242 | 9 | 12.5 |
| KATANA 250-2-1 (A) | 445 | 400 | 420 | 440 | - | 200 | 220 | 240 | 242 | 9 | 14 |
| KATANA 280-2-1 (A) | 530 | 500 | 520 | 540 | 580 | 250 | 270 | 290 | 292 | 9 | 26.5 |
| KATANA 280-2-3 (A) | 530 | 500 | 520 | 540 | 580 | 250 | 270 | 290 | 292 | 9 | 24.5 |
| KATANA 315-4-1 (A) | 530 | 500 | 520 | 540 | 580 | 250 | 270 | 290 | 292 | 9 | 23 |
| KATANA 315-4-3 (A) | 530 | 500 | 520 | 540 | 580 | 250 | 270 | 290 | 292 | 9 | 23 |
| KATANA 355-4-1 (A) | 700 | 600 | 620 | 640 | 680 | 350 | 370 | 390 | 410 | 9 | 35 |
| KATANA 355-4-3 (A) | 700 | 600 | 620 | 640 | 680 | 350 | 370 | 390 | 410 | 9 | 34 |
| KATANA 400-4-1 (A) | 700 | 600 | 620 | 640 | 680 | 350 | 370 | 390 | 415 | 9 | 38 |
| KATANA 400-4-3 (A) | 700 | 600 | 620 | 640 | 680 | 350 | 370 | 390 | 415 | 9 | 36 |
| KATANA 450-4-1 (A) | 780 | 700 | 720 | 740 | 780 | 400 | 420 | 440 | 460 | 9 | 50 |
| KATANA 450-4-3 (A) | 780 | 700 | 720 | 740 | 780 | 400 | 420 | 440 | 460 | 9 | 50 |
| KATANA 500-4-1 (A) | 880 | 800 | 820 | 840 | 880 | 500 | 520 | 540 | 574 | 9 | 72 |
| KATANA 500-4-3 (A) | 880 | 800 | 820 | 840 | 880 | 500 | 520 | 540 | 574 | 9 | 72 |
| KATANA 560-4-3 (A) | 982 | 1000 | 1020 | 1040 | 1080 | 500 | 520 | 540 | 573 | 9 | 96 |

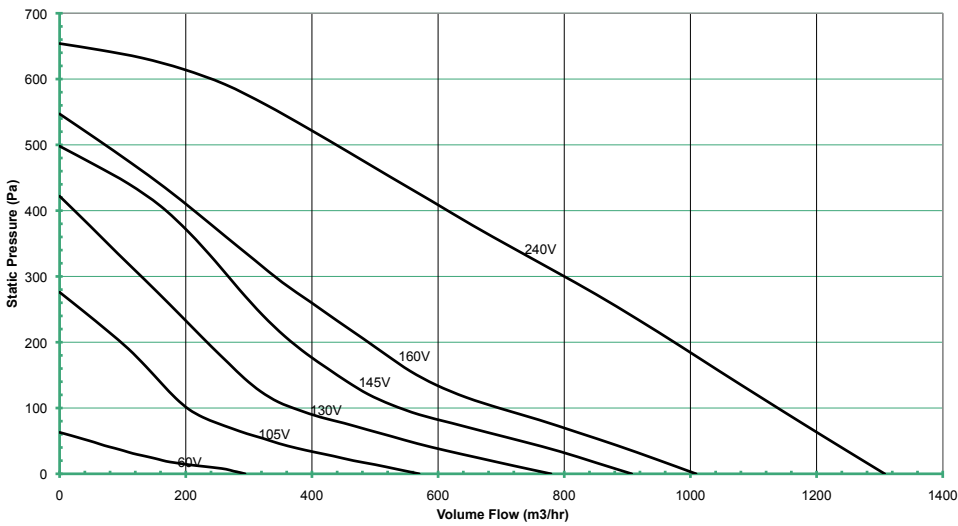
*E is only available on the Katana Plus (Insulated option)
All dimensions shown in mm

Performance Data

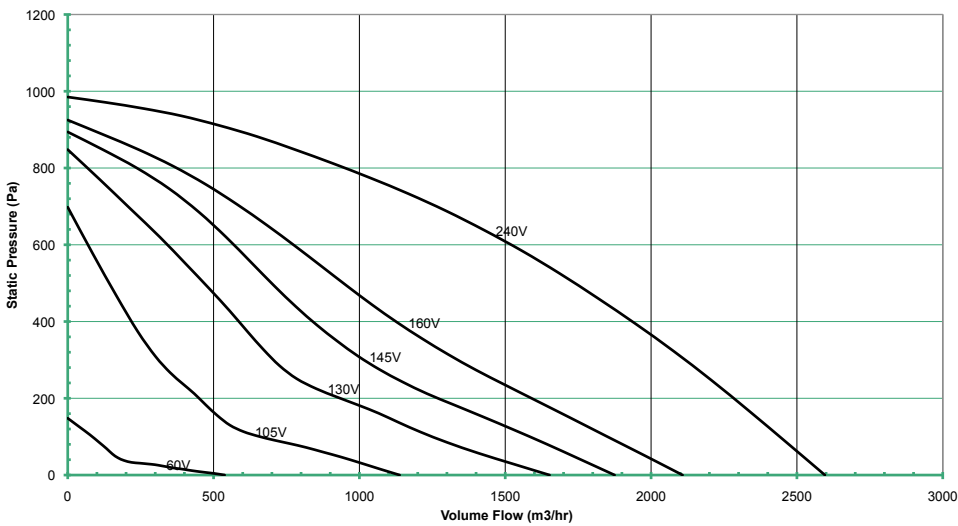
KATANA 225-2-1(A)



KATANA 250-2-1(A)

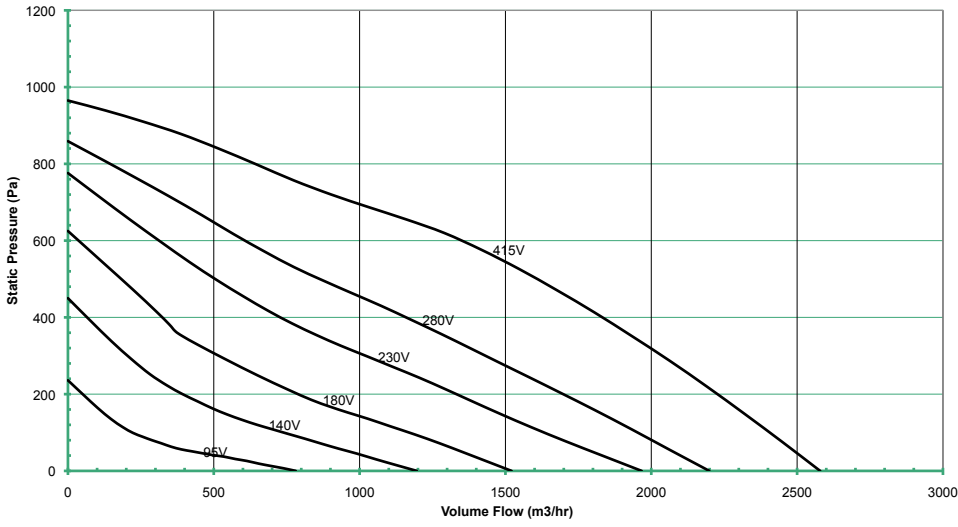


KATANA 280-2-1(A)

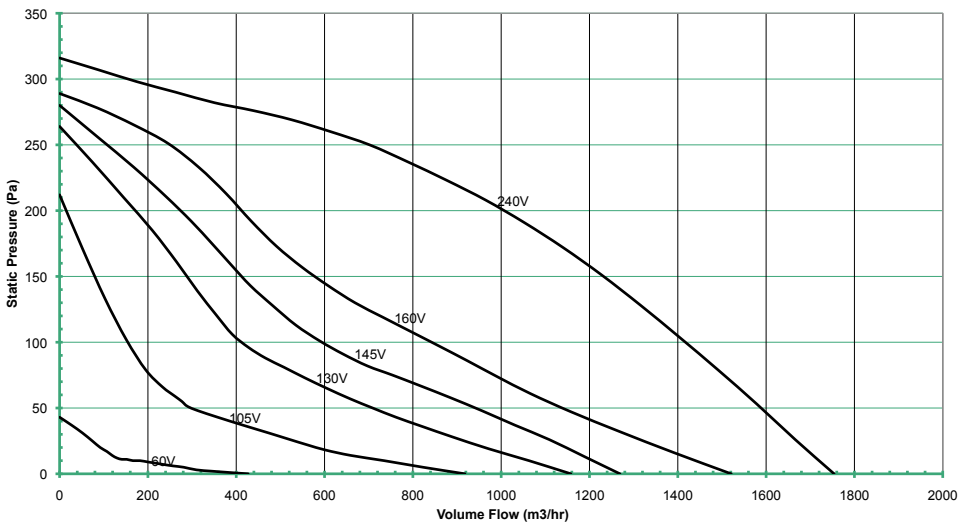


Performance Data

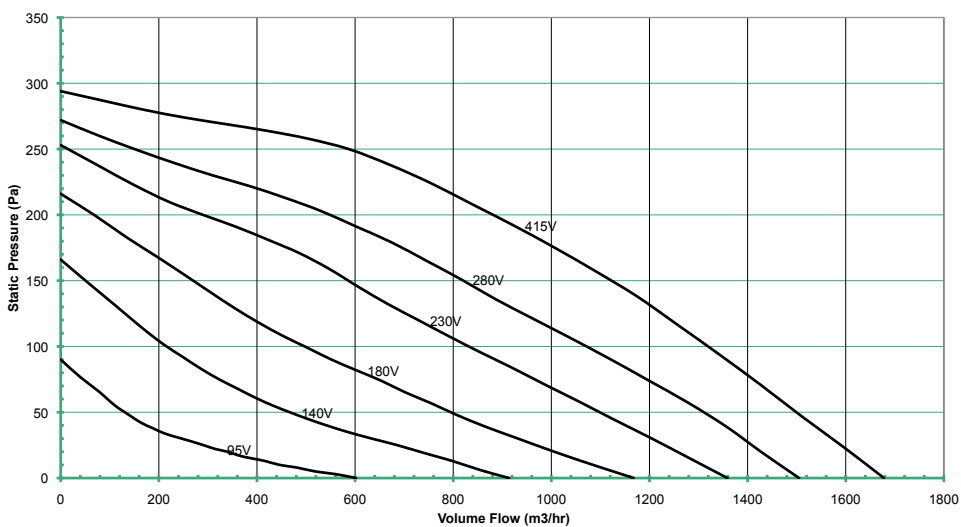
KATANA 280-2-3 (A)



KATANA 315-4-1(A)

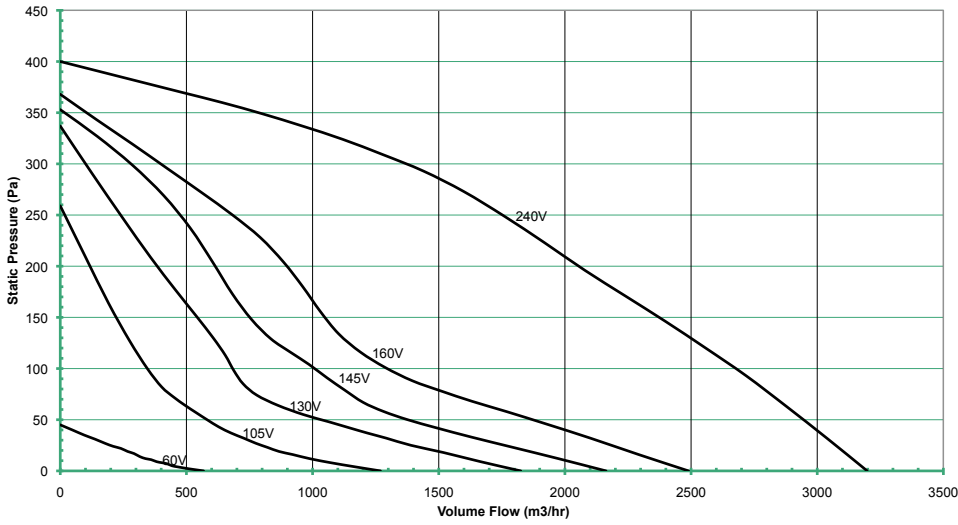


KATANA 315-4-3 (A)

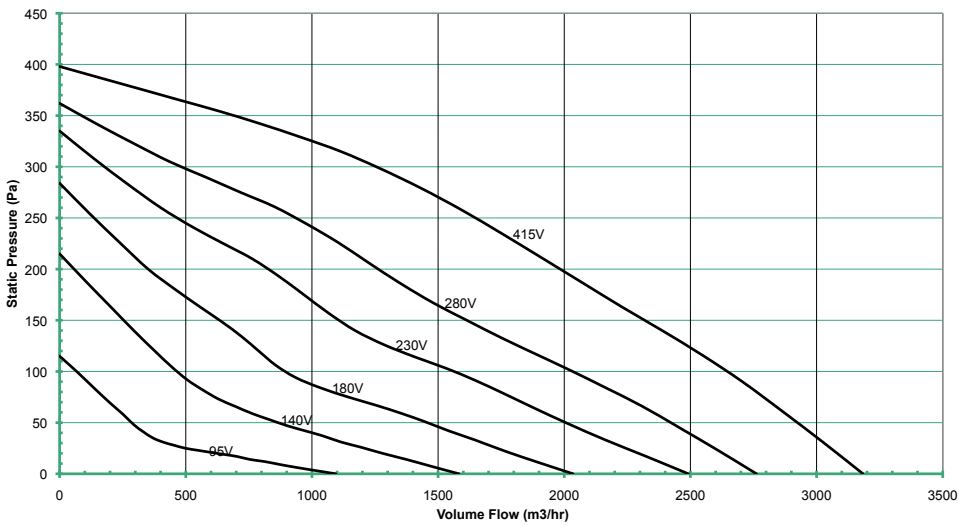


Performance Data

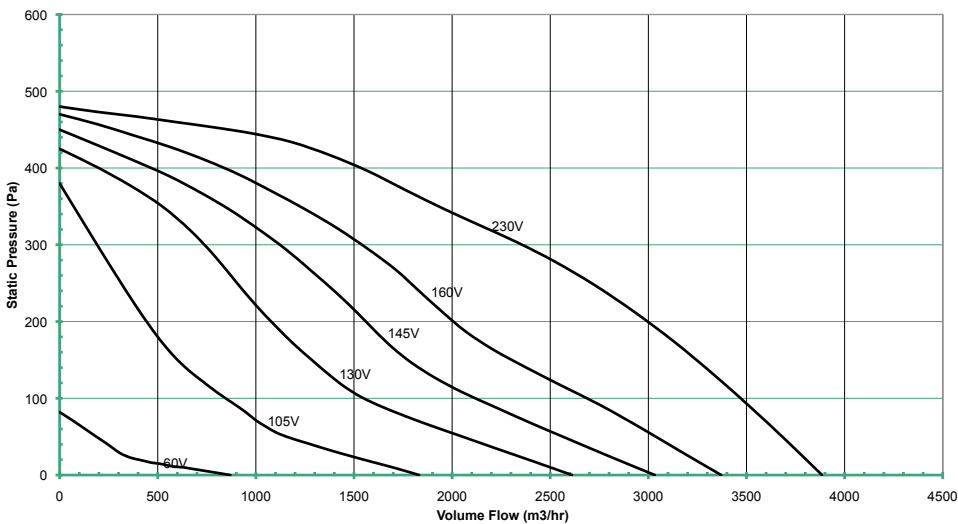
KATANA 355-4-1(A)



KATANA 355-4-3 (A)

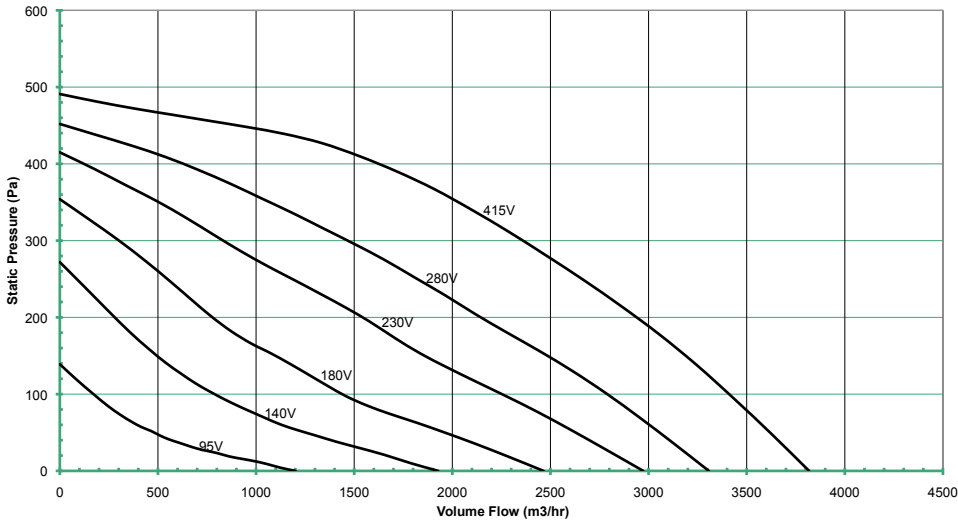


KATANA 400-4-1(A)

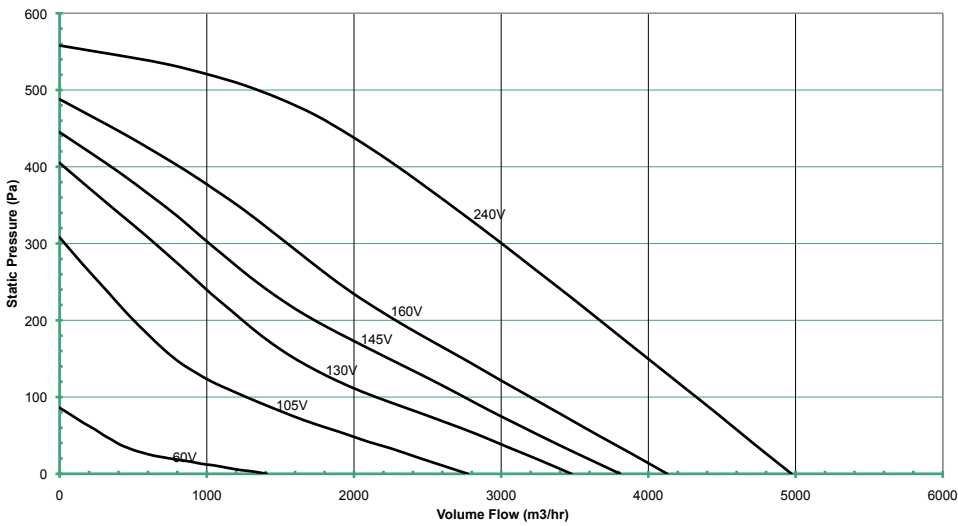


Performance Data

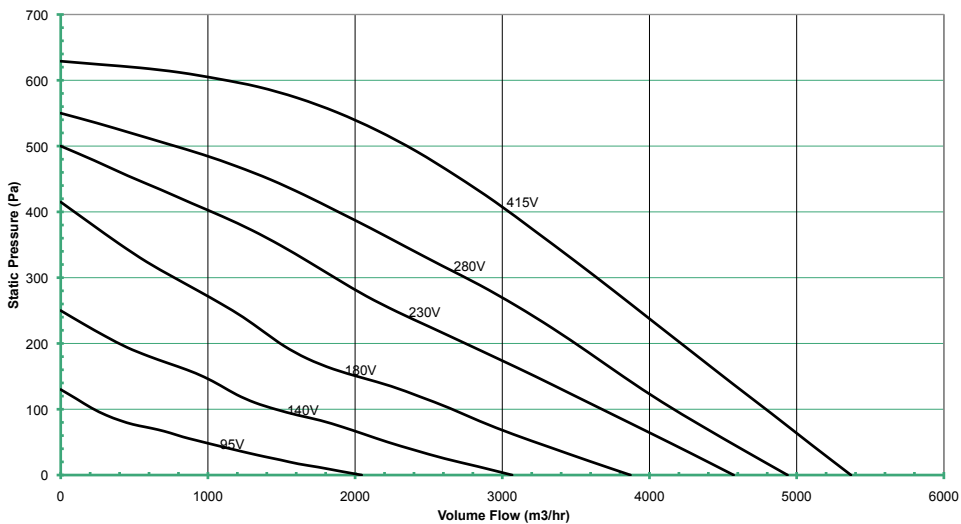
KATANA 400-4-3 (A)



KATANA 450-4-1(A)

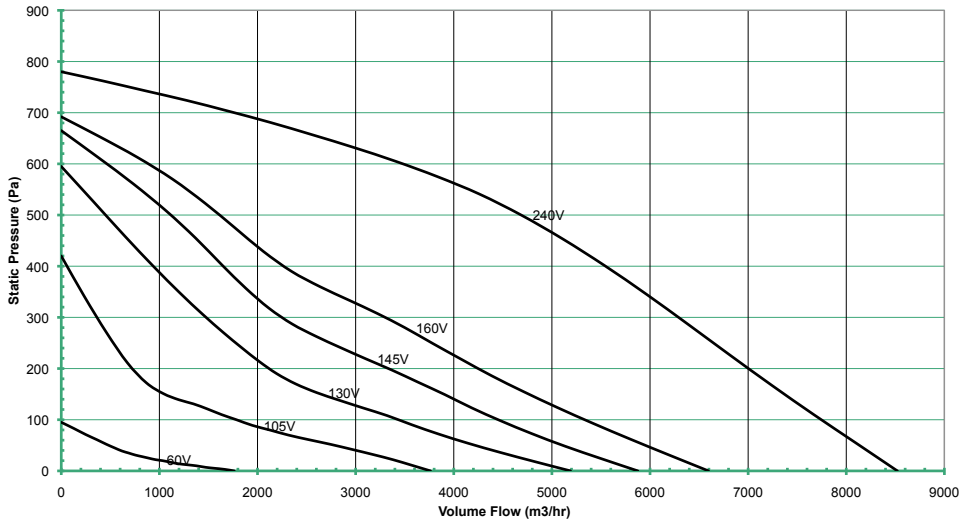


KATANA 450-4-3 (A)

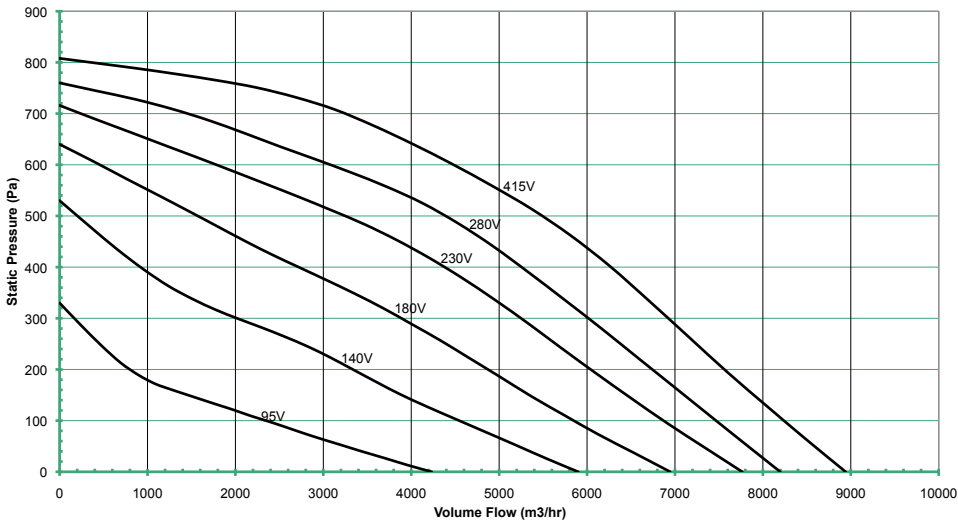


Performance Data

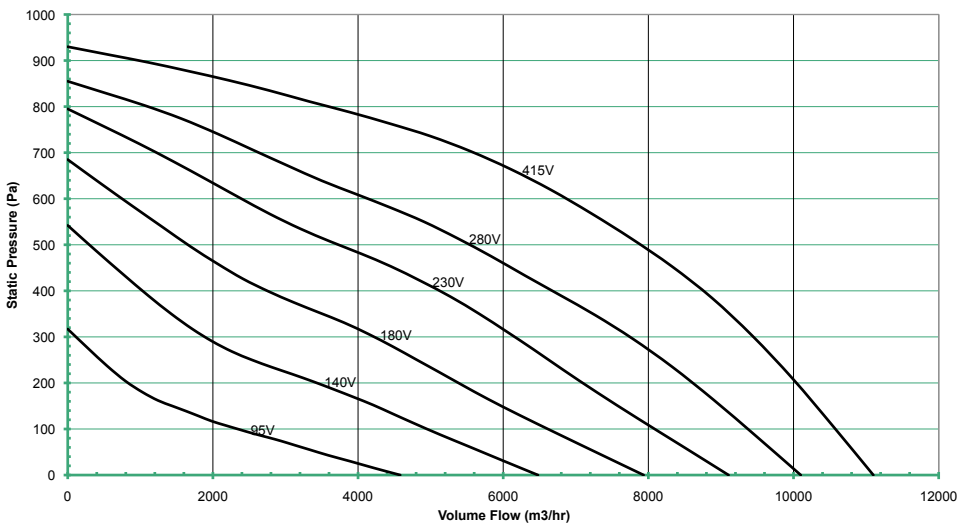
KATANA 500-4-1(A)



KATANA 500-4-3 (A)

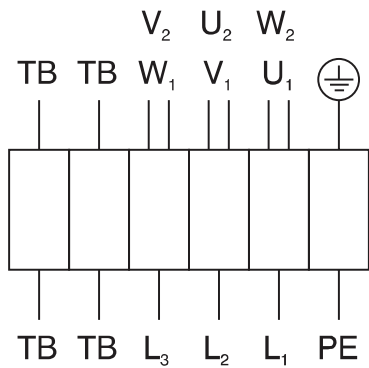


KATANA 560-4-3 (A)



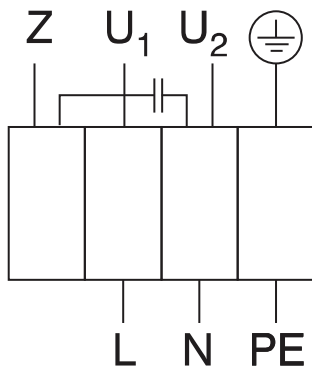
Wiring Diagrams

01.006



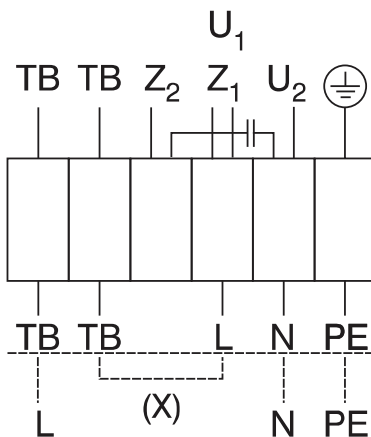
- U₁ brown
- V₁ blue
- W₁ black
- U₂ red
- V₂ grey
- W₂ orange
- TB white
- PE yellow-green

01.009



- U₁ blue
- U₂ black
- Z brown
- PE yellow-green

01.024



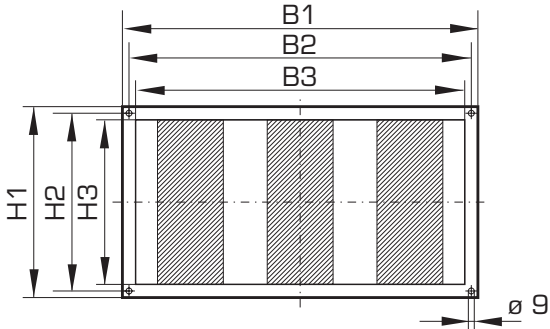
- U₁ brown
- U₂ blue
- Z₁ black
- Z₂ orange
- TB white
- PE yellow-green

clockwise

Accessories

RSA - Duct Sound Attenuator

Duct sound attenuator with frame made of galvanized sheet steel. Sound trap with incombustible mineral wool according to DIN 4102 class A, Ex version with perforated steel. This guarantees a high sound insulation and due to aerodynamic optimized guide plates lower pressure losses. Max. air speed 20 m/s, max. temperature 100°C, max. pressure from -800 to 1000 Pa.



| Duct size in cm | Product Number | B1 | B2 | B3 | H1 | H2 | H3 | Number of sound traps |
|-----------------|----------------|------|------|------|-----|-----|-----|-----------------------|
| 40/20 | enq | 440 | 420 | 400 | 240 | 220 | 200 | 2 |
| 50/25 | enq | 540 | 520 | 500 | 290 | 270 | 250 | 3 |
| 50/30 | enq | 540 | 520 | 500 | 340 | 320 | 300 | 3 |
| 60/30 | enq | 640 | 620 | 600 | 340 | 320 | 300 | 3 |
| 60/35 | enq | 640 | 620 | 600 | 390 | 370 | 350 | 3 |
| 70/40 | enq | 740 | 720 | 700 | 440 | 420 | 400 | 3 |
| 80/50 | enq | 840 | 820 | 800 | 540 | 520 | 500 | 3 |
| 100/50 | enq | 1040 | 1020 | 1000 | 540 | 520 | 500 | 4 |

| Duct size in cm | Attenuation values in dB | | | | | | | Average sound absorbing rate |
|-----------------|--------------------------|--------|--------|-------|-------|-------|-------|------------------------------|
| | 125 Hz | 250 Hz | 500 Hz | 1 kHz | 2 kHz | 4 kHz | 8 kHz | |
| 40/20 | 7 | 12 | 23 | 30 | 32 | 28 | 20 | 19 dB(A) |
| 50/25 | 6 | 10 | 23 | 29 | 31 | 27 | 21 | 15 dB(A) |
| 50/30 | 6 | 11 | 23 | 30 | 31 | 27 | 20 | 17 dB(A) |
| 60/30 | 7 | 10 | 23 | 30 | 32 | 23 | 20 | 15 dB(A) |
| 60/35 | 8 | 10 | 24 | 32 | 33 | 18 | 18 | 14 dB(A) |
| 70/40 | 5 | 8 | 17 | 23 | 26 | 17 | 17 | 12 dB(A) |
| 80/50 | 5 | 8 | 19 | 27 | 27 | 15 | 15 | 13 dB(A) |
| 100/50 | 4 | 10 | 12 | 18 | 19 | 12 | 12 | 11 dB(A) |

All dimensions shown in mm

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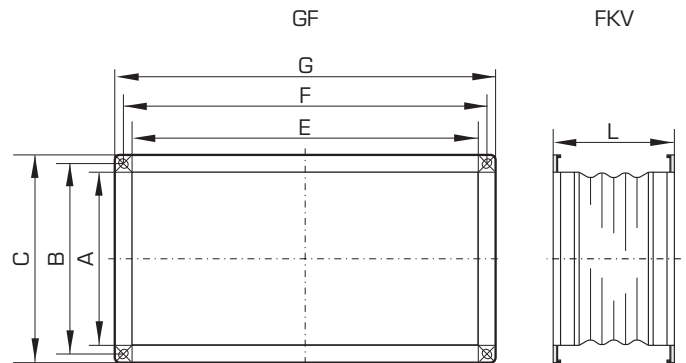
RFC - Flexible Duct Connection

Flexible duct connection with flange frame made of galvanized sheet steel. Flexible middle section made from PVC woven cloth with a temperature range of up to +70°C. Electroconductive and therefore also suitable for explosion proof fans.



RCF - Flange

Harmonized flange made of galvanized sheet steel for temperatures of up to +120°C, suited for Ex-applications.



| Product Size | Product Code RCF | Product Code RFC | A | B | C | E | F | G | L min |
|--------------|------------------|------------------|-----|-----|-----|------|------|------|-------|
| 200 | B1100363 | B1100373 | 200 | 220 | 240 | 400 | 420 | 440 | 140 |
| 225 | B1100364 | B1100374 | 250 | 270 | 290 | 500 | 520 | 540 | 140 |
| 250 | B1100365 | B1100375 | 300 | 320 | 340 | 500 | 520 | 540 | 140 |
| 280 | B1100366 | B1100376 | 300 | 320 | 340 | 600 | 620 | 640 | 140 |
| 315 | B1100367 | B1100377 | 350 | 370 | 390 | 600 | 620 | 640 | 140 |
| 355 | B1100368 | B1100378 | 400 | 420 | 440 | 700 | 720 | 740 | 140 |
| 400 | B1100369 | B1100379 | 500 | 520 | 540 | 800 | 820 | 840 | 140 |
| 450 | B1100370 | B1100380 | 500 | 520 | 540 | 900 | 920 | 940 | 140 |
| 500 | B1100371 | B1100381 | 550 | 570 | 590 | 900 | 920 | 940 | 140 |
| 560 | B1100372 | B1100382 | 500 | 520 | 540 | 1000 | 1020 | 1040 | 140 |