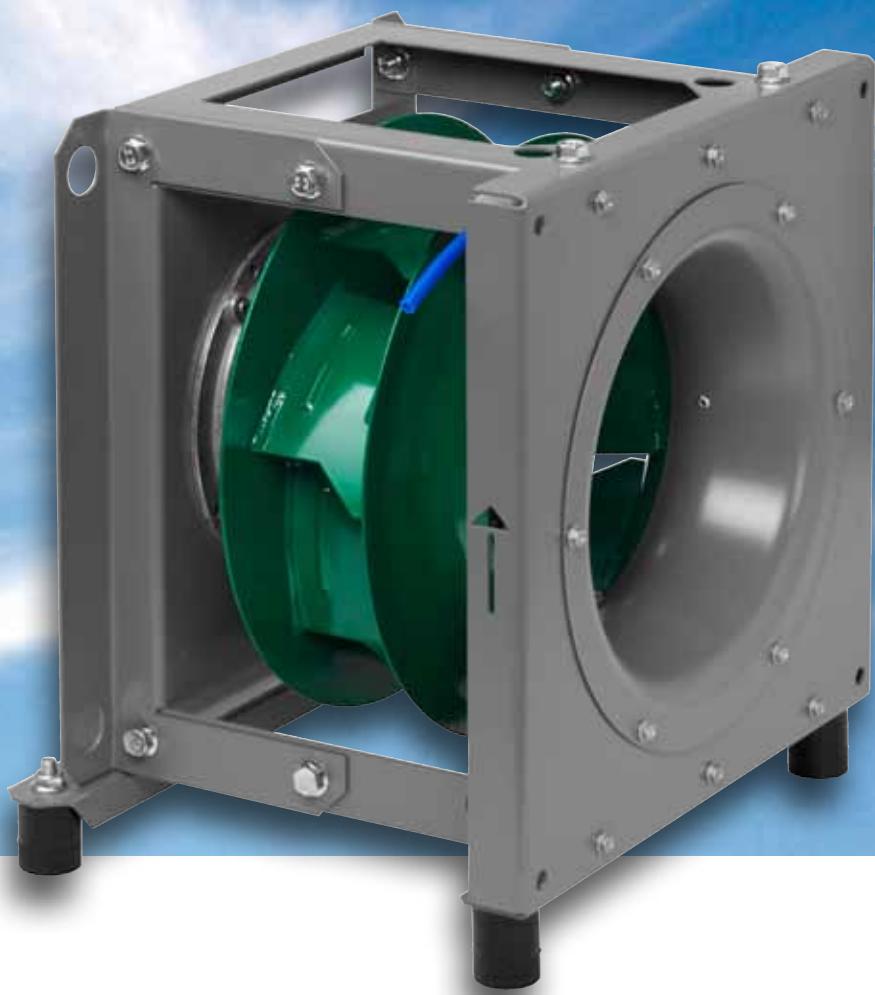


Centriflow Plus EC

Technical data



FläktWoods

Contents

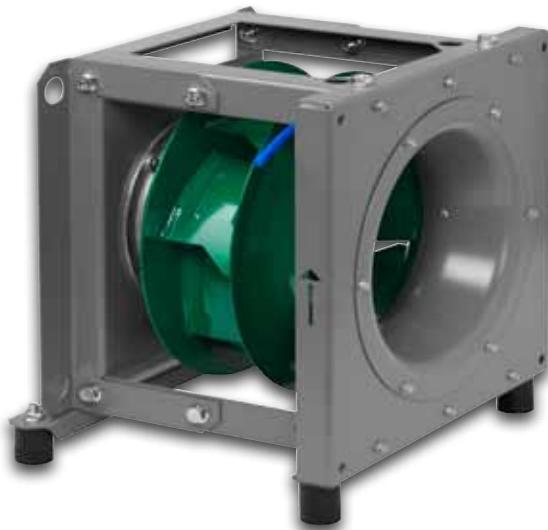
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Technical Data

Dimensions and weights, Motor data, Fan charts, Sound data

| | |
|--------------------------------------|----|
| GPEC-3-022/GPEC-4-022, 0,50 kW | 10 |
| GPEC-3-025/GPEC-4-025, 0,50 kW | 12 |
| GPEC-3-028/GPEC-4-028, 1,00 kW | 14 |
| GPEC-3-031/GPEC-4-031, 1,64 kW | 16 |
| GPEC-3-035/GPEC-4-035, 1,68 kW | 18 |
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| GPEC-3-040/GPEC-4-040, 2,60 kW..... | 22 |
| GPEC-3-045/GPEC-4-045, 2,73 kW..... | 22 |
| GPEC-3-050/GPEC-4-050, 5,50 kW..... | 22 |

General description



The direct driven CENTRIFLOW Plus EC plug fans are available in 8 sizes and cover air flows up to 4 m³/s and maximum pressure rise is 1500 Pa.

Centriflow Plus EC is characterized by high total efficiency. Centriflow Plus EC is available both for horizontal (GPEC-3) and vertical (GPEC-4) mounting.

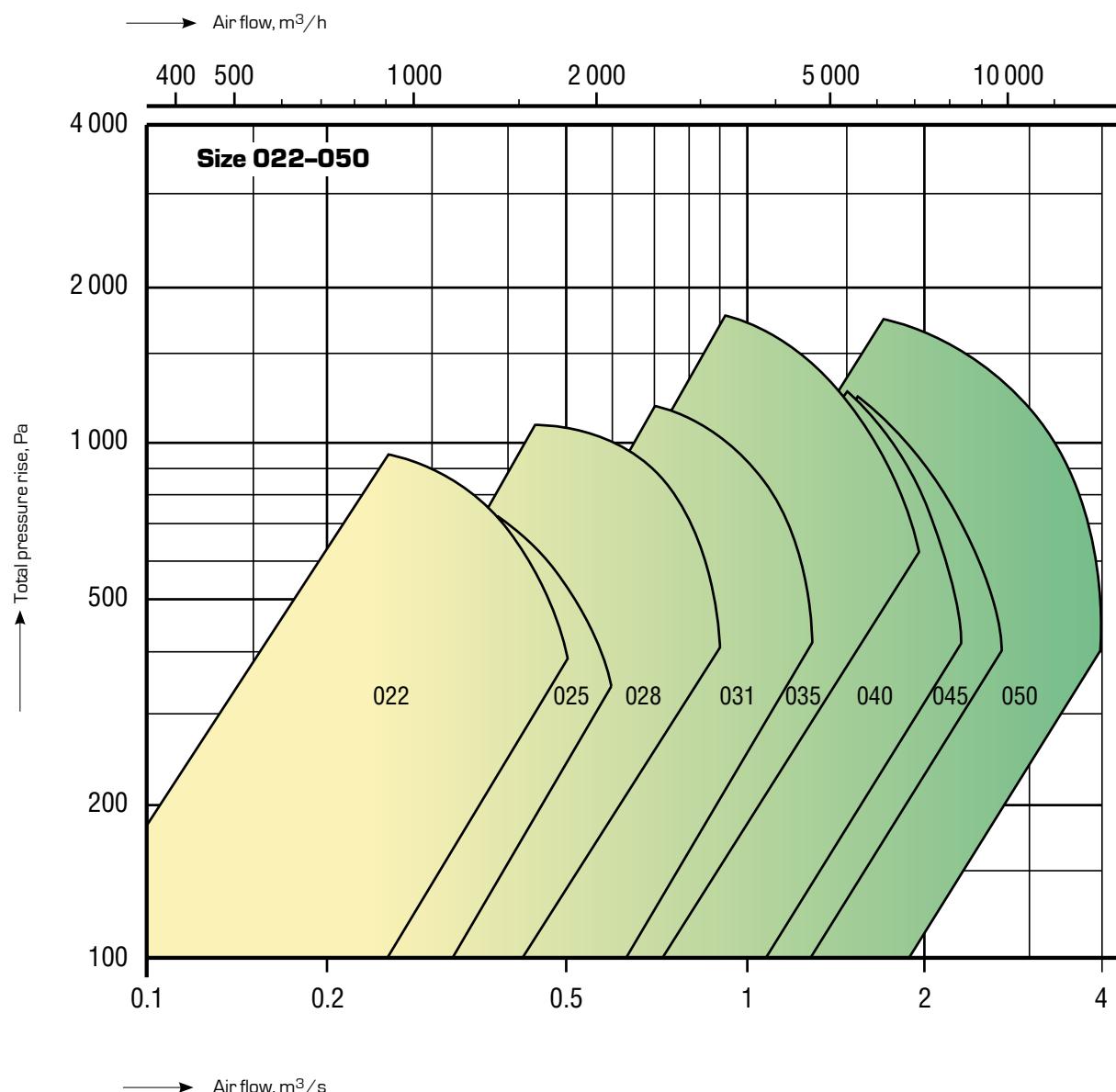


The fans are supplied with an integrated air flow sensor with two measuring points as standard.

The EC motor with its control unit is separately adapted to each fan size.

General survey chart

GPEC - 3/GPEC - 4



Design description

Fan Impeller

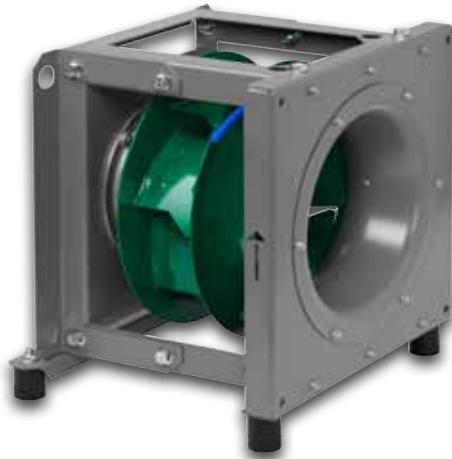
The impeller (sizes 022-040) is made of steel, welded and painted with 60 µm thick epoxy-polyester powder paint (colour tone RAL 6029, green). The impeller (sizes 045-050) is made of aluminium. The impellers are dynamically balanced together with the motor to ISO Standard 1940-1073 G 6.3 at the maximum speed. The vibration level of the fan is below 4.5 mm/s RMS.

Inlet cone and supporting frame

The inlet cones and supporting frames are made of galvanised steel. The inlet cones are deep-drawn in one piece.

EC motor

The term EC is applied to a DC motor having electronic commutation achieved with a microprocessor. The motor runs on a DC voltage but with a single phase 230V AC or three phase 400 V AC supply. The advantages of an EC motor are high efficiency over the whole operating area as well as high functional reliability.



CENTRIFLOW Plus EC GPEC-3 for horizontal mounting.



CENTRIFLOW Plus EC GPEC-4 for vertical mounting.

Design description

Air flow sensor

The air flow sensor is used for measuring the air flow of the fans. The method is based on differential pressure. The pressure is measured at a specific point in the inlet cone and the reference pressure is measured upstream of the inlet cone. The air flow sensor is supplied factory mounted in the inlet cone. The air flow is calculated as a function of the coefficient k and the differential manometer reading Δpm from the expression:

$$Q_v = \frac{1}{k} \cdot \sqrt{\Delta pm}$$

Q_v = airflow (m^3/s)

k = coefficient of the fan (k-factor)

Δpm = measured pressure difference (Pa)

| Fan size | k-factor |
|-------------------|----------|
| GPEC-3/GPEC-4-022 | 68,87 |
| GPEC-3/GPEC-4-025 | 54,81 |
| GPEC-3/GPEC-4-028 | 41,27 |
| GPEC-3/GPEC-4-031 | 36,22 |
| GPEC-3/GPEC-4-035 | 29,05 |
| GPEC-3/GPEC-4-040 | 22,05 |
| GPEC-3/GPEC-4-045 | 15,00 |
| GPEC-3/GPEC-4-050 | 12,80 |

A digital airflow transmitter CENTRIMETER is available as optional extra.

Tolerances and quality

The particulars of the fans are given with the tolerance specified in DIN 24 166, Class 1. Fan performance has been measured in accordance with ISO 5801 and 13347-2.

The production process is certificated to ISO9001 and the environmental system to ISO 14001.

Directive for Machinery

Centriflow Plus EC is not a product which is ready for use but it is designed for mounting in an air handling unit. The manufacturer of the air handling unit must follow all instructions according to Directive for Machinery, EMC Directive and Low Voltage Directive as well as use all necessary protective measures.

Ordering code

For fan and motor code please refer to the separate fan / motor tables.

Accessories GPEZ/GPVZ -aa-00-ccc-d-3

aa = type of accessory

ccc = fan size

d = 1, supplied with fan, mounted
0, supplied loose

3 = for GPEC-3/GPEC-4

GPEZ-09-00-ccc-1-3

Airflow sensor with four measuring points

GPEZ-13-00-ccc-d-3
(N/A for GPEC-4)

Inlet protective screen
d = 0, loose
d = 1, mounted

GPEZ-21-00-ccc-d-3
(N/A for GPEC-4)

Flexible connections, inlet
d = 0, loose
d = 1, mounted

GPEZ-42-00-ccc-d-3
(N/A for GPEC-4)

Rubber antivibration mountings
d = version, see fan / motor table

GPEZ-60-00-ccc-d-3
(N/A for GPEC-4)

Epoxy-powder painting, 60 µm,
colour RAL 7005 dark grey,
impeller RAL 6029 green

GTLZ-86-00-0-0

Airflow transmitter

GPEZ-89-00-1-0

Voltage relay for running indication, for sizes 028-050.

Motor data

ECmotor is an electronically commutated direct current motor. Commutation means applying a current to the motor phases to produce the best torque at the motor's shaft. In traditional brush-type motors commutation is done electromechanically by using graphite brushes and a commutator. In EC motors commutation is achieved by switching electronics using rotor-position information obtained by HALL sensors.

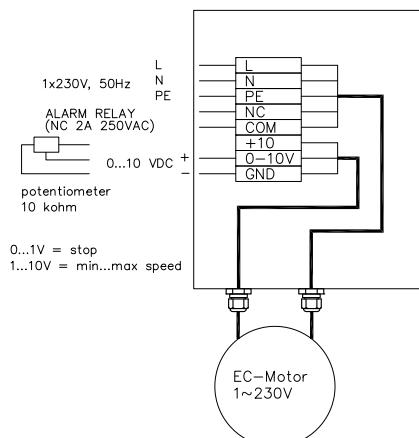
The motor is an outer rotor motor with integrated control unit. No separate speed controller or inverter is needed. The motor is supplied either with single phase 230V AC or with three phase 400V AC depending on the motor size. Control is with 0 – 10V signal and start-up at > 1.4V. The motor and the control unit are equipped with built-in thermal protection and the protective functions include also protection against supply voltage variation.

Design description

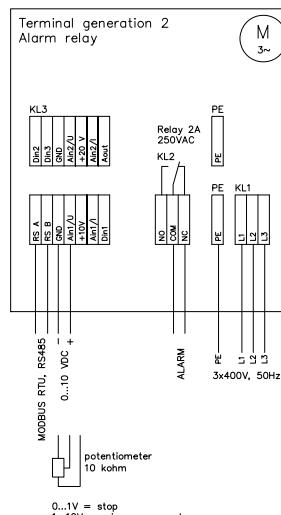
EC motor – electrical

| | 1x230VAC supply | 3x400VAC supply |
|----------------------------|--|--|
| Hardware | | |
| Electronics | Integrated to motor | Integrated to motor |
| Supply voltage | 1x200-277 VAC, 50/60 Hz | 3x380-480 VAC, 50/60 Hz |
| Electrical connections | 1,5 m cables for supply and control | Terminals at motor |
| Type of protection | IP44 | IP54 |
| Control input | 0-10V / PWM 1-10 kHz | 0-10V / PWM 1-10 kHz |
| Aux voltage | 10V (1,1 mA) for 10k potentiometer | 10VDC (10mA) for 10k potentiometer |
| | ————— | 20VDC (50mA) for ext. Sensor |
| Relay | 2A, 250VAC, AC1 | 2A, 250VAC, AC1 |
| Sensor input | ————— | 0-10V / PWM 1-10 kHz |
| | ————— | 4-20mA |
| Master output | ————— | 0-10 V max. 3mA |
| | ————— | ————— |
| Functions | | |
| Start up | Control signal > 1, 4V | Control signal > 1, 4V |
| Stop | Control signal < 1V | Control signal < 1V |
| Speed range | 1-10V = min - max | 1-10V = min - max |
| Relay function | Alarm indication | Alarm indication |
| Additional relay function | ————— | Running indication |
| Automatic restart after | Line failure | Line failure |
| | Phase failure | Phase failure |
| | Line under-voltage | Line under-voltage |
| | DC link voltage too high or too low | DC link voltage too high or too low |
| | Locked rotor | Locked rotor |
| No automatic restart after | Motor temp too high | Motor temp too high |
| | Cooling element too hot | Cooling element too hot |
| | Short-circuit or short-to-ground on motor output | Short-circuit or short-to-ground on motor output |
| | Hall failure | Hall failure |
| Bus connection | ————— | Modbus RTU, RS485 |

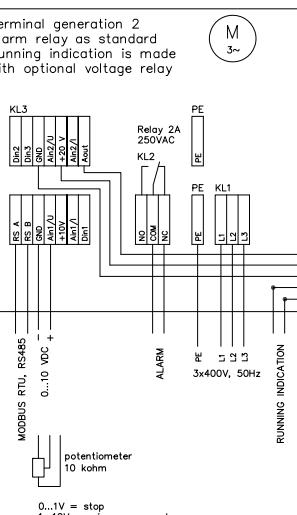
Alarm indication 1-phase



Alarm indication 3-phase

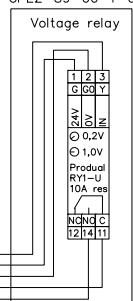


Running indication 3-phase



Accessories code

GPEZ-89-00-1-0



Tolerances and quality

Tolerances

The particulars of the fans are given with the tolerance specified in DIN 24 166, Class 1. The fan curves have been plotted for the max. permissible speed of rotation for each motor size equivalent to 10V control signal.

| | Tolerance class | | |
|---|-----------------|-------|--------|
| DIN 24166 | 1 | 2 | 3 |
| Air flow qv: | ±2,5% | ±5,0% | ±10,0% |
| Pressure rise, Δp_t : | ±2,5% | ±5,0% | ±10,0% |
| Shaft power demand*, P: | +3,0% | +8,0% | +16,0% |
| Efficiency**, h: | -2,0% | -5,0% | - |
| A-weighted sound power level*, L_{WA} : | +3 dB | +4 dB | +6 dB |

* Negative tolerance permissible

** Positive tolerance permissible

Fan performance has been measured in accordance with ISO 5801 and 13347-2.

ErP Regulation

The ErP Regulation sets out minimum efficiency grades for fans. This efficiency grade is based on electrical power from mains and therefore encompasses the fan efficiency, the motor efficiency and the drive efficiency. The Regulation requires certain data to be shown for fans in the technical catalogues.

The first tier is valid from January 01, 2013 and the second January 01, 2015.

Data according to ErP directive established at point of optimum efficiency:

| | |
|-----------------------|--------|
| Installation category | A |
| Efficiency category | Static |
| Variable speed drive | Yes |

| Overall efficiency η_{res} | Efficiency grade | Power input P_{ed} | Air flow Qv | Pressure psf | Speed |
|---------------------------------|------------------|----------------------|-------------|--------------|-------|
| % | N | kW | m3/s | Pa | r/min |
| 56,1 | 76 | 0,5 | 0,36 | 790 | 3950 |

Installation category: which installation category is used in tests

Efficiency category: based on static pressure or total pressure

Variable speed drive: information if VSD is included or not

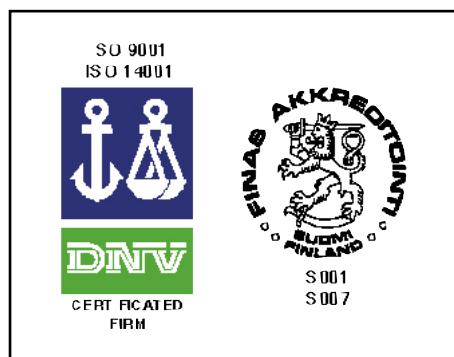
Overall efficiency: efficiency including fan, motor and drive components

Efficiency grade: calculated efficiency grade

Power, air flow, pressure and speed at the optimum efficiency point

Quality to ISO 9001 and ISO 14001

The production process at Fläkt Woods Oy is certified to ISO 9001 and the responsibility for quality control is documented in every phase from product development to production, procurement and sales. Our environmental protection system is certified to ISO 14001. Our ambition is to minimize the impact of our business operations and our products on the environment.



Acoustic Details - explanation

Acoustic Details

The total A-weighted sound power level L_{WA} generated at the outlet of an open discharge fan is specified in the fan chart. Correction factors are tabulated in the table below. The following expression can be used for breaking down the sound into each octave band and sound path:

$$L_{Wokt(s)} = L_{WA} + K_{okt(s)}$$

where $K_{okt(s)}$ can be obtained from the table. The following expression can be used for calculating the A-weighted sound power level at the fan inlet:

$$L_{WA(2)} = L_{WA} + \Delta L$$

where the correction factor ΔL can be obtained from the table.

Acoustic Details - Table

| Fan ID | SoundPoint [s] | Speed range r/min | Correction Kokt, dB Octave band, centre frequency, Hz | | | | | | | | | ΔL |
|-------------------|-------------------|----------------------|--|----------------|----------------|----------------|-----------------|-----------------|-----------------|-----------------|------|------------|
| | | | Octave1 63 | Octave2 125 | Octave3 250 | Octave4 500 | Octave5 1000 | Octave6 2000 | Octave7 4000 | Octave8 8000 | | |
| GPEC-3/GPEC-4-022 | To outlet s=1 | 0-3042 | -13 | -9 | -3 | -6 | -6 | -5 | -11 | -10 | 0 | |
| | | 3043-3950 | -14 | -12 | -8 | -3 | -6 | -7 | -9 | -12 | 0 | |
| | To inlet s=2 | 0-3042 | -7 | -13 | -9 | -6 | -11 | -11 | -19 | -24 | -4,8 | |
| | | 3043-3950 | -12 | -15 | -16 | -2 | -10 | -13 | -14 | -17 | -2,5 | |

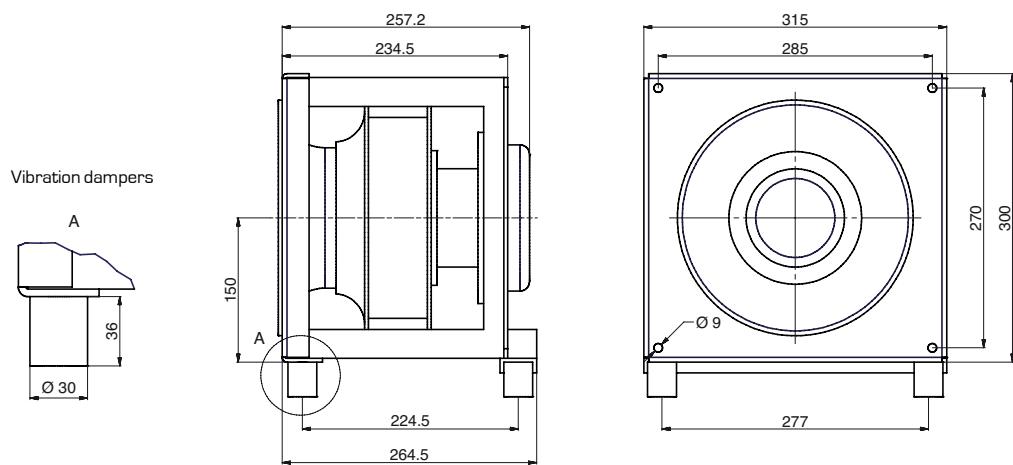
Symbols used

| | | |
|---------------|--|-------|
| L_{WA} | A-weighted total sound power | dB(A) |
| s | Sound path | - |
| $L_{WA(2)}$ | A-weighted total sound power level to inlet | dB(A) |
| $L_{Wokt(s)}$ | Sound power level at each octave band and sound path (without A-weighting) | dB |
| $K_{okt(s)}$ | Correction factor for breaking down the sound level into each octave band and sound path | dB |

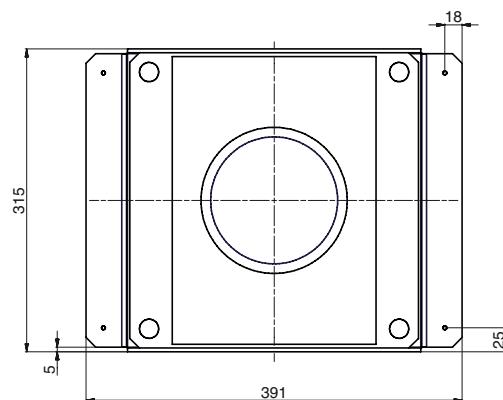
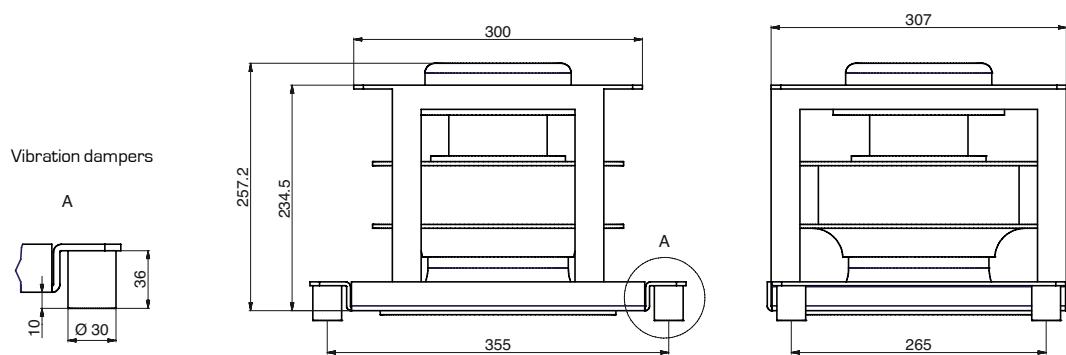
Technical Data - GPEC-3-022/GPEC-4-022, 0,50 kW

Dimensions

GPEC-3



GPEC-4



Fan/Motor data

| Fan code | Motor code | Rated Output kW | Weight Fan kg | Max. speed rpm | Supply voltage | Max. current A | Start-up signal | Anti-vibration mountings | k-value |
|--------------------|--------------------|-----------------|---------------|----------------|----------------|----------------|-----------------|--------------------------|---------|
| GPEC-3-00-022-11-0 | APEC-2-01055-1-2-2 | 0,50 | 11 | 3950 | 1~230 VAC | 3,2 | 1.4 V | GPEZ-42-00-022-1-3 | 68,87 |
| GPEC-4-00-022-11-0 | APEC-2-01055-1-2-2 | 0,50 | 11 | 3950 | 1~230 VAC | 3,2 | 1.4 V | GPVZ-42-00-022-1-3 | 68,87 |

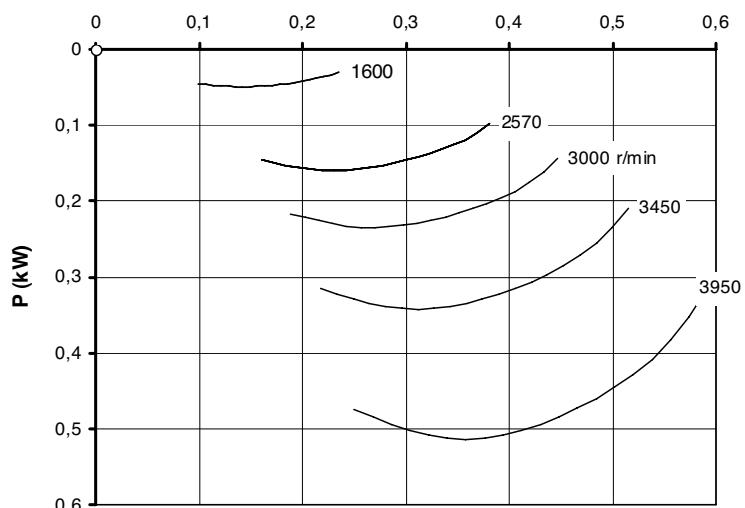
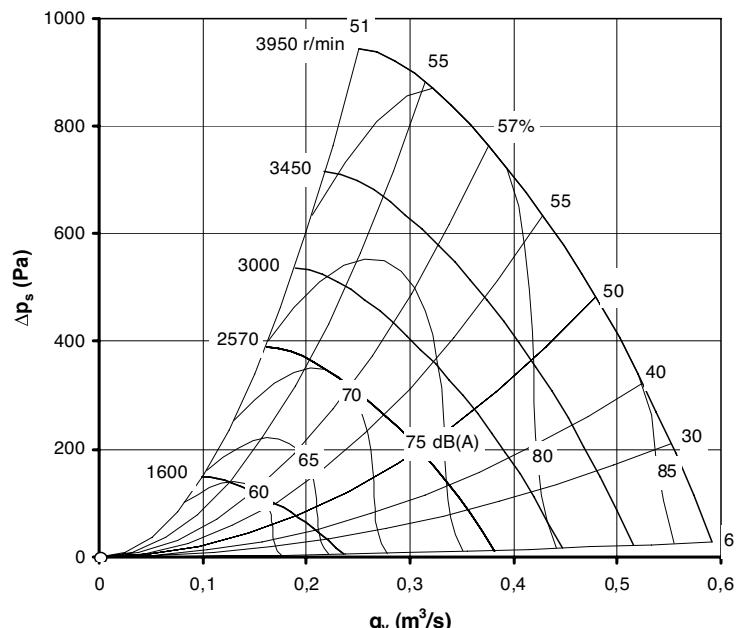
Max. temperature +40 °C

Technical Data - GPEC-3-022/GPEC-4-022, 0,50 kW

Fan charts

Data according to ErP directive

| | |
|-----------------------|--------|
| Installation category | A |
| Efficiency category | Static |
| Variable speed drive | Yes |



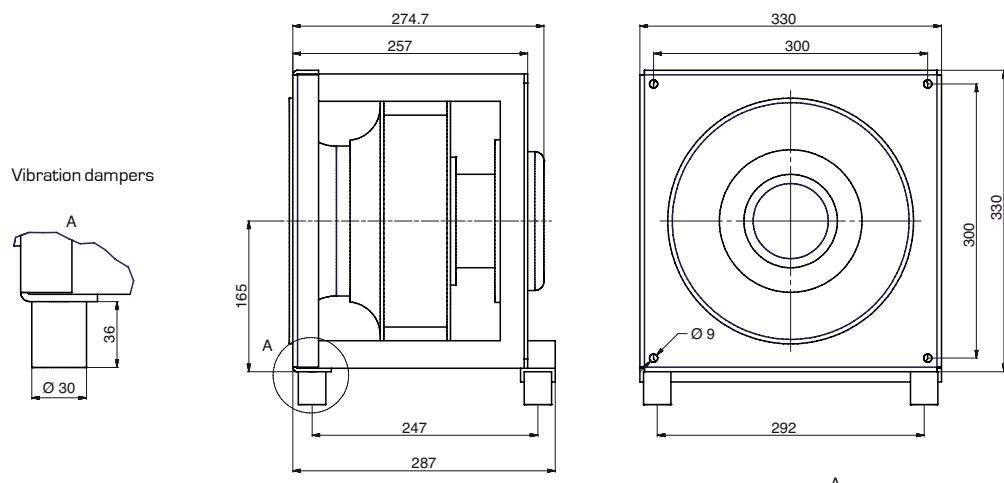
| Fan code | Motor code | Overall efficiency η_{es} % | Efficiency grade N | Power input Ped kW | Air flow Qv m^3/s | Pressure psf Pa | Speed r/min |
|---------------------------|--------------------|--|-----------------------|-----------------------|------------------------|--------------------|-------------|
| GPEC-3/GPEC-4-00-022-11-0 | APEC-2-01055-1-2-2 | 56,1 | 76 | 0,5 | 0,36 | 790 | 3950 |

| Correction, Kokt, dB. Octave band, mid-frequency. | | | | | | | | | | |
|---|---------------------------|----------------------|-----|-----|-----|-----|------|------|------|------|
| | Fan size | Speed range r/min | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
| To outlet s=1 | GPEC-3/GPEC-4-00-022-11-0 | 0 3042 | -13 | -9 | -3 | -6 | -6 | -5 | -11 | -10 |
| | GPEC-3/GPEC-4-00-022-11-0 | 3043 3950 | -14 | -12 | -8 | -3 | -6 | -7 | -9 | -12 |
| To inlet s=2 | GPEC-3/GPEC-4-00-022-11-0 | 0 3042 | -7 | -13 | -9 | -6 | -11 | -11 | -19 | -24 |
| | GPEC-3/GPEC-4-00-022-11-0 | 3043 3950 | -12 | -15 | -16 | -2 | -10 | -13 | -14 | -17 |

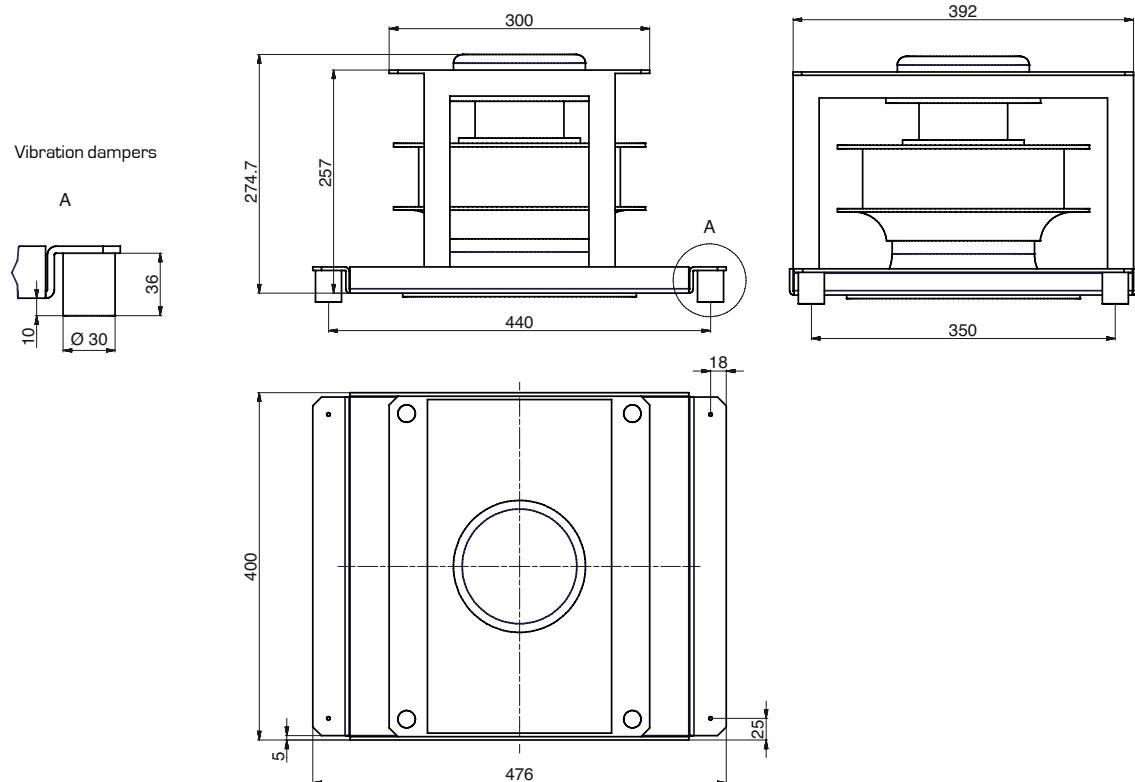
Technical Data - GPEC-3-025/GPEC-4-025, 0,50 kW

Dimensions

GPEC-3



GPEC-4



Fan/Motor data

| Fan code | Motor code | Rated Output kW | Weight Fan kg | Max. speed rpm | Supply voltage | Max. current A | Start-up signal | Anti-vibration mountings | k-value |
|--------------------|--------------------|-----------------|---------------|----------------|----------------|----------------|-----------------|--------------------------|---------|
| GPEC-3-00-025-11-0 | APEC-2-02055-1-2-2 | 0,50 | 13 | 3220 | 1~230 VAC | 3,3 | 1.4 V | GPEZ-42-00-025-1-3 | 54,81 |
| GPEC-4-00-025-11-0 | APEC-2-02055-1-2-2 | 0,50 | 13 | 3220 | 1~230 VAC | 3,3 | 1.4 V | GPVZ-42-00-025-1-3 | 54,81 |

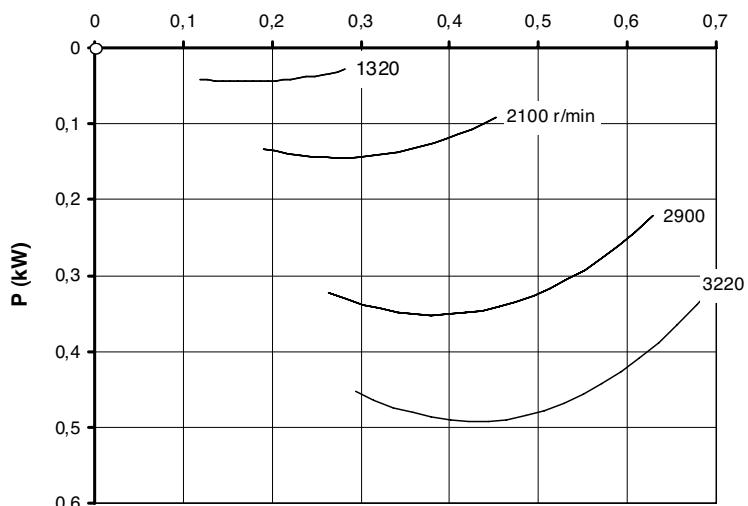
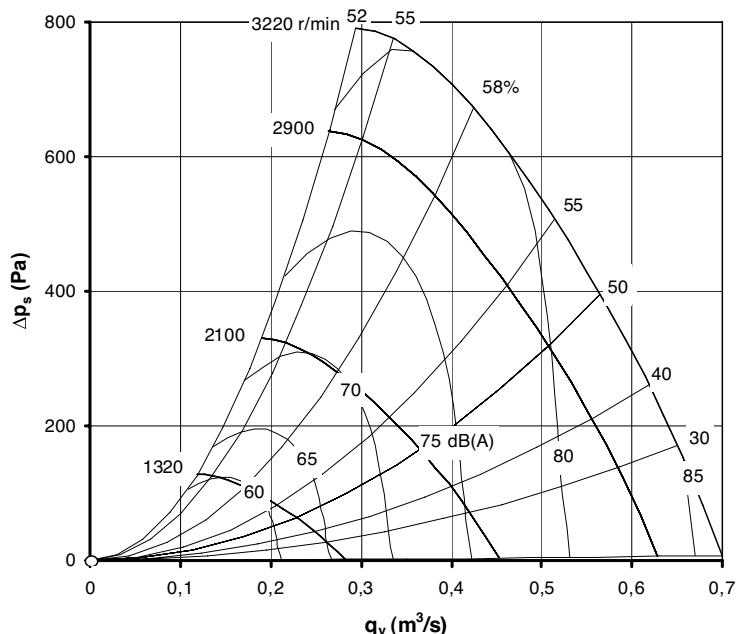
Max. temperature +40 °C

Technical Data - GPEC-3-025/GPEC-4-025, 0,50 kW

Fan charts

Data according to ErP directive

| | |
|-----------------------|--------|
| Installation category | A |
| Efficiency category | Static |
| Variable speed drive | Yes |



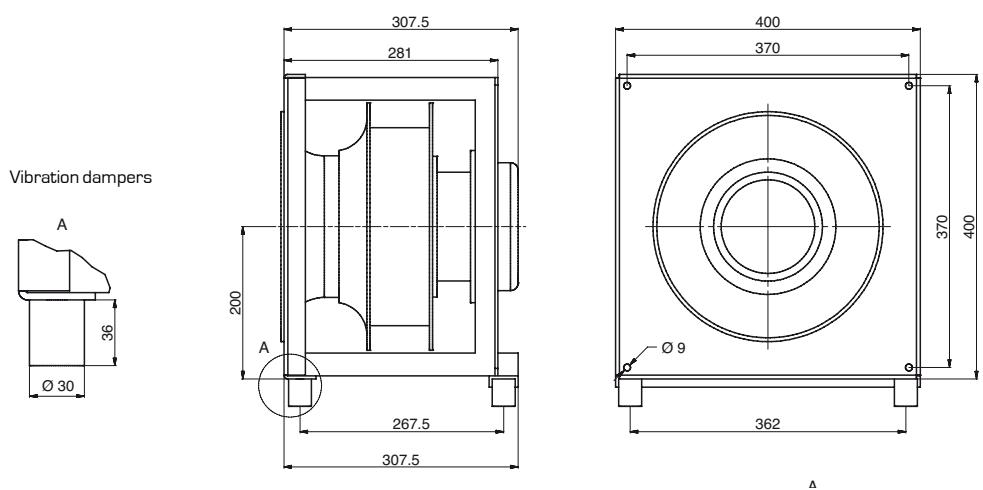
| Fan code | Motor code | Overall efficiency η_{es} % | Efficiency grade N | Power input Ped kW | Air flow Qv m^3/s | Pressure psf Pa | Speed r/min |
|---------------------------|--------------------|--|-----------------------|-----------------------|------------------------|--------------------|-------------|
| GPEC-3/GPEC-4-00-025-11-0 | APEC-2-02055-1-2-2 | 57,8 | 78 | 0,5 | 0,45 | 630 | 3220 |

| Correction, Kokt, dB. Octave band, mid-frequency. | | | | | | | | | | |
|---|---------------------------|----------------------|-----|-----|-----|-----|------|------|------|------|
| | Fan size | Speed range r/min | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
| s=1 | GPEC-3/GPEC-4-00-025-11-0 | 0 1533 | -13 | -3 | -5 | -2 | -6 | -7 | -11 | -12 |
| | GPEC-3/GPEC-4-00-025-11-0 | 1534 3042 | -13 | -11 | -2 | -5 | -6 | -6 | -9 | -13 |
| | GPEC-3/GPEC-4-00-025-11-0 | 3043 3220 | -16 | -12 | -6 | -3 | -7 | -6 | -9 | -12 |
| s=2 | GPEC-3/GPEC-4-00-025-11-0 | 0 1533 | -6 | -5 | -10 | -9 | -7 | -12 | -16 | -23 |
| | GPEC-3/GPEC-4-00-025-11-0 | 1534 3042 | -9 | -13 | -8 | -9 | -6 | -14 | -14 | -18 |
| | GPEC-3/GPEC-4-00-025-11-0 | 3043 3220 | -16 | -17 | -12 | -7 | -8 | -14 | -13 | -17 |

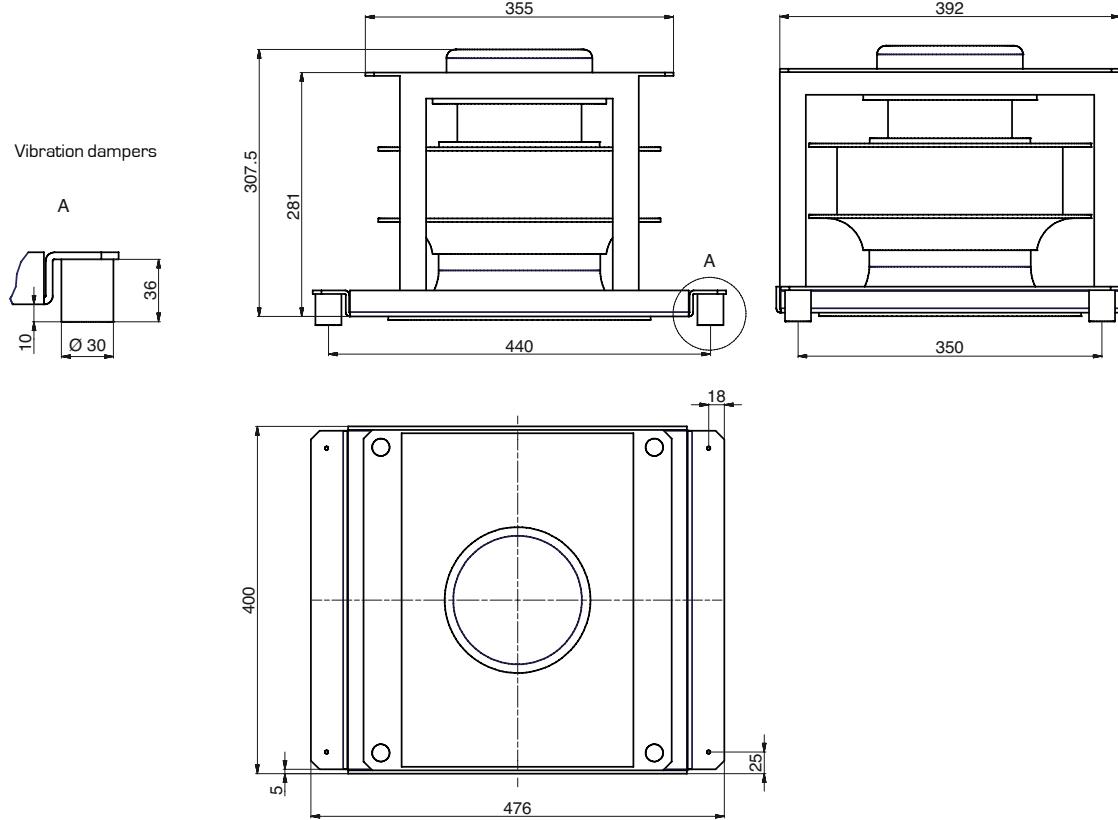
Technical Data - GPEC-3-028/GPEC-4-028, 1,00 kW

Dimensions

GPEC-3



GPEC-4



Fan/Motor data

| Fan code | Motor code | Rated Output kW | Weight Fan kg | Max. speed rpm | Supply voltage | Max. current A | Start-up signal | Anti-vibration mountings | k-value |
|--------------------|--------------------|-----------------|---------------|----------------|----------------|----------------|-----------------|--------------------------|---------|
| GPEC-3-00-028-12-0 | APEC-2-01100-3-2-2 | 1,00 | 18 | 3400 | 3~400 VAC | 1,8 | 1.4 V | GPEZ-42-00-028-1-3 | 41,27 |
| GPEC-4-00-028-12-0 | APEC-2-01100-3-2-2 | 1,00 | 18 | 3400 | 3~400 VAC | 1,8 | 1.4 V | GPVZ-42-00-028-1-3 | 41,27 |

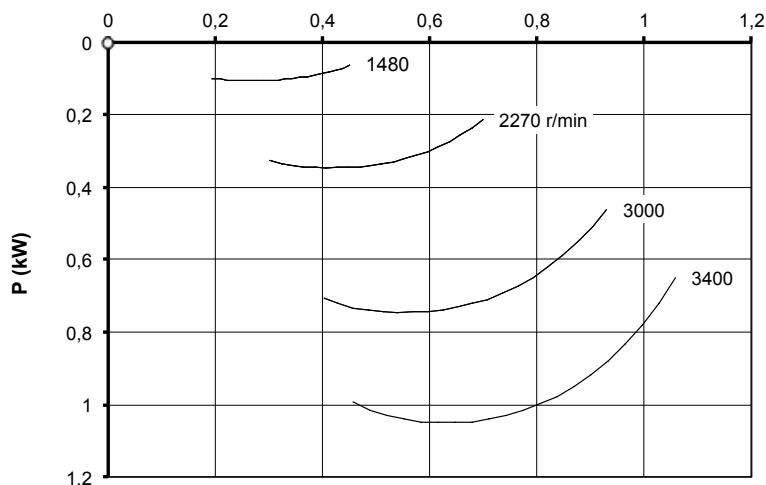
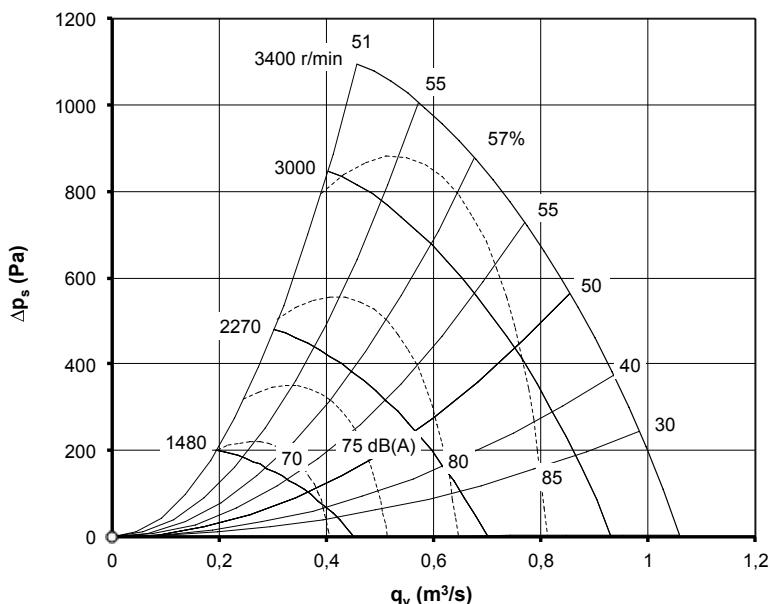
Max. temperature +40 °C

Technical Data - GPEC-3-028/GPEC-4-028, 1,00 kW

Fan charts

Data according to ErP directive

| | |
|-----------------------|--------|
| Installation category | A |
| Efficiency category | Static |
| Variable speed drive | Yes |



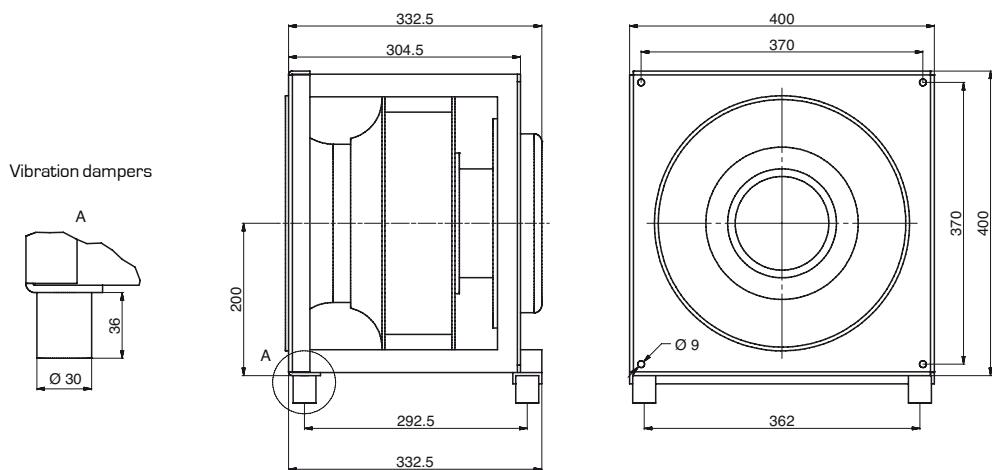
| Fan code | Motor code | Overall efficiency η _{es} % | Efficiency grade N | Power input Ped kW | Air flow Qv m^3/s | Pressure psf Pa | Speed r/min |
|---------------------------|--------------------|--|-----------------------|-----------------------|------------------------|--------------------|-------------|
| GPEC-3/GPEC-4-00-028-12-0 | APEC-2-01100-3-2-2 | 56,6 | 72 | 1,1 | 0,7 | 885 | 3400 |

| Correction, Kokt, dB. Octave band, mid-frequency. | | | | | | | | | | |
|---|---------------------------|----------------------|-----|-----|-----|-----|------|------|------|------|
| | Fan size | Speed range r/min | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
| s=1 | GPEC-3/GPEC-4-00-028-12-0 | 0 1533 | -16 | -7 | -8 | -3 | -5 | -6 | -11 | -14 |
| | GPEC-3/GPEC-4-00-028-12-0 | 1534 3042 | -20 | -17 | -3 | -8 | -5 | -5 | -9 | -14 |
| | GPEC-3/GPEC-4-00-028-12-0 | 3043 3400 | -22 | -16 | -14 | -5 | -7 | -6 | -7 | -11 |
| s=2 | GPEC-3/GPEC-4-00-028-12-0 | 0 1533 | -14 | -9 | -13 | -8 | -7 | -12 | -16 | -22 |
| | GPEC-3/GPEC-4-00-028-12-0 | 1534 3042 | -17 | -20 | -8 | -10 | -10 | -14 | -15 | -19 |
| | GPEC-3/GPEC-4-00-028-12-0 | 3043 3400 | -17 | -25 | -21 | -8 | -11 | -14 | -14 | -17 |

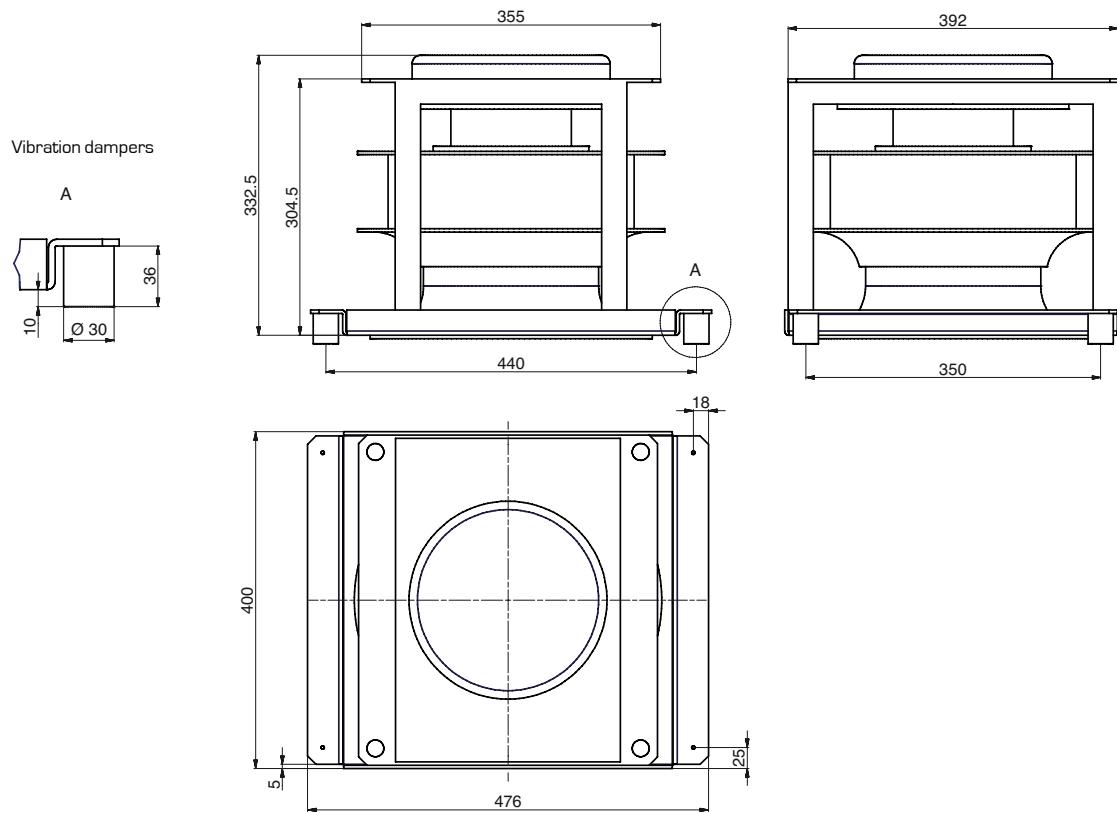
Technical Data - GPEC-3-031/GPEC-4-031, 1,64 kW

Dimensions

GPEC-3



GPEC-4



Fan/Motor data

| Fan code | Motor code | Rated Output kW | Weight Fan kg | Max. speed rpm | Supply voltage | Max. current A | Start-up signal | Anti-vibration mountings | k-value |
|--------------------|--------------------|-----------------|---------------|----------------|----------------|----------------|-----------------|--------------------------|---------|
| GPEC-3-00-031-13-0 | APEC-2-02170-3-2-2 | 1,64 | 21 | 3250 | 3~400 VAC | 2,4 | 1.4 V | GPEZ-42-00-031-1-3 | 36,22 |
| GPEC-4-00-031-13-0 | APEC-2-02170-3-2-2 | 1,64 | 21 | 3250 | 3~400 VAC | 2,4 | 1.4 V | GPVZ-42-00-031-1-3 | 36,22 |

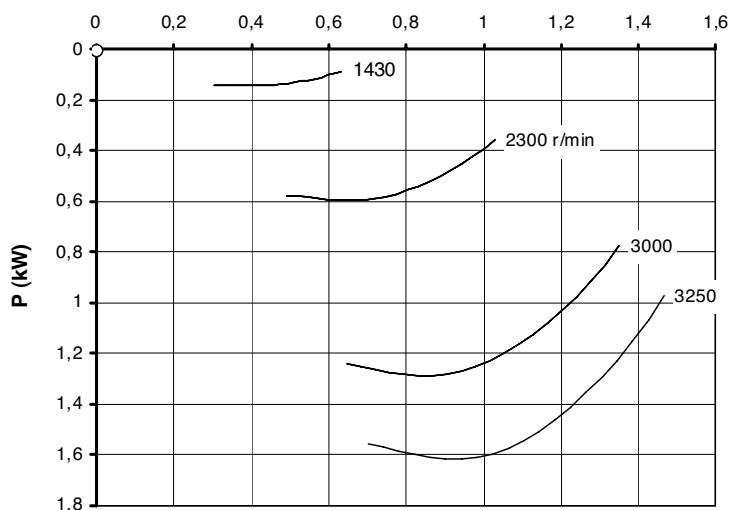
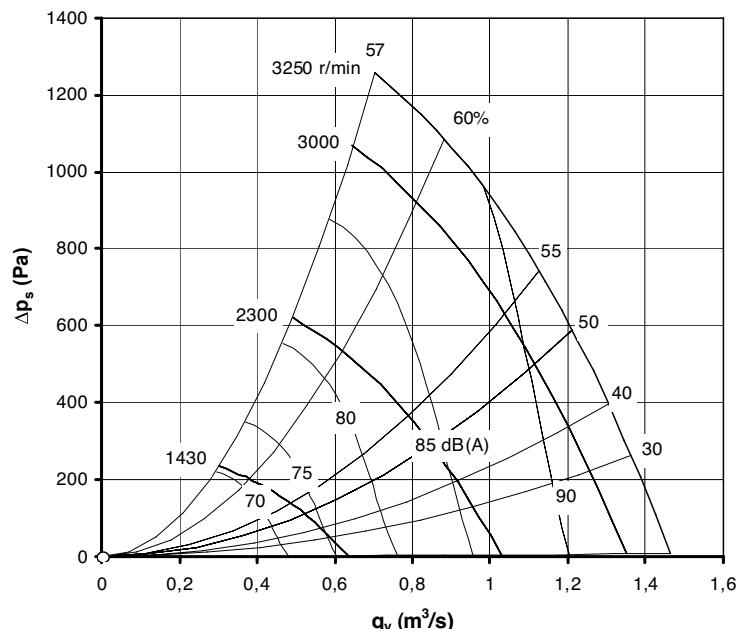
Max. temperature +40 °C

Technical Data - GPEC-3-031/GPEC-4-031, 1,64 kW

Fan charts

Data according to ErP directive

| | |
|-----------------------|--------|
| Installation category | A |
| Efficiency category | Static |
| Variable speed drive | Yes |



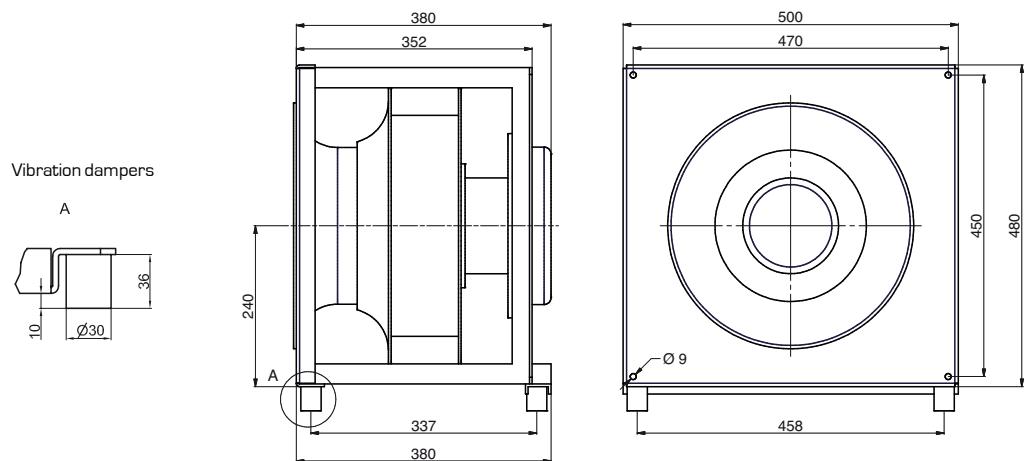
| Fan code | Motor code | Overall efficiency η _{es} % | Efficiency grade N | Power input Ped kW | Air flow Qv m^3/s | Pressure psf Pa | Speed r/min |
|---------------------------|--------------------|--|-----------------------|-----------------------|------------------------|--------------------|-------------|
| GPEC-3/GPEC-4-00-031-13-0 | APEC-2-02170-3-2-2 | 59,3 | 72 | 1,6 | 0,89 | 1180 | 3250 |

| Correction, Kort, dB. Octave band, mid-frequency. | | | | | | | | | | |
|---|---------------------------|----------------------|-----|-----|-----|-----|------|------|------|------|
| | Fan size | Speed range r/min | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
| s=1 | GPEC-3/GPEC-4-00-031-13-0 | 0 1533 | -14 | -3 | -7 | -6 | -4 | -6 | -10 | -13 |
| | GPEC-3/GPEC-4-00-031-13-0 | 1534 3042 | -16 | -14 | -2 | -6 | -6 | -6 | -8 | -13 |
| | GPEC-3/GPEC-4-00-031-13-0 | 3043 3250 | -18 | -19 | -13 | -2 | -6 | -8 | -9 | -12 |
| s=2 | GPEC-3/GPEC-4-00-031-13-0 | 0 1533 | -13 | -9 | -13 | -9 | -8 | -11 | -16 | -22 |
| | GPEC-3/GPEC-4-00-031-13-0 | 1534 3042 | -18 | -15 | -5 | -6 | -11 | -13 | -15 | -19 |
| | GPEC-3/GPEC-4-00-031-13-0 | 3043 3250 | -20 | -22 | -19 | -9 | -13 | -15 | -16 | -19 |

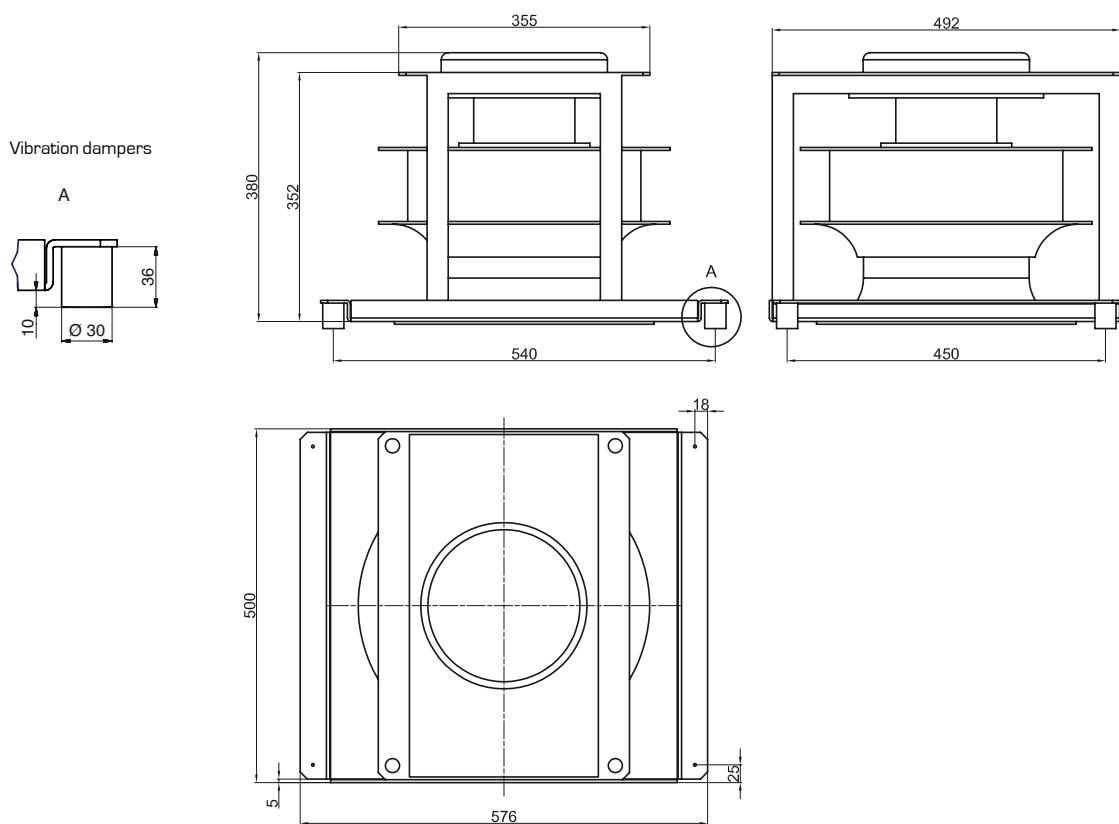
Technical Data - GPEC-3-035/GPEC-4-035, 1,68 kW

Dimensions

GPEC-3



GPEC-4



Motor data

| Fan code | Motor code | Rated Output kW | Weight Fan kg | Max. speed rpm | Supply voltage | Max. current A | Start-up signal | Anti-vibration mountings | k-value |
|--------------------|--------------------|-----------------|---------------|----------------|----------------|----------------|-----------------|--------------------------|---------|
| GPEC-3-00-035-12-0 | APEC-2-03170-3-2-2 | 1,68 | 30 | 2700 | 3~400 VAC | 2,5 | 1.4 V | GPEZ-42-00-035-1-3 | 29,05 |
| GPEC-4-00-035-12-0 | APEC-2-03170-3-2-2 | 1,68 | 30 | 2700 | 3~400 VAC | 2,5 | 1.4 V | GPVZ-42-00-035-1-3 | 29,05 |

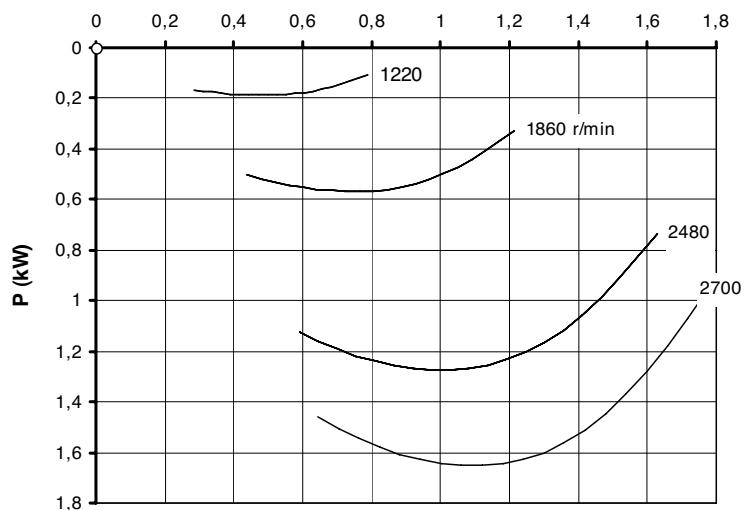
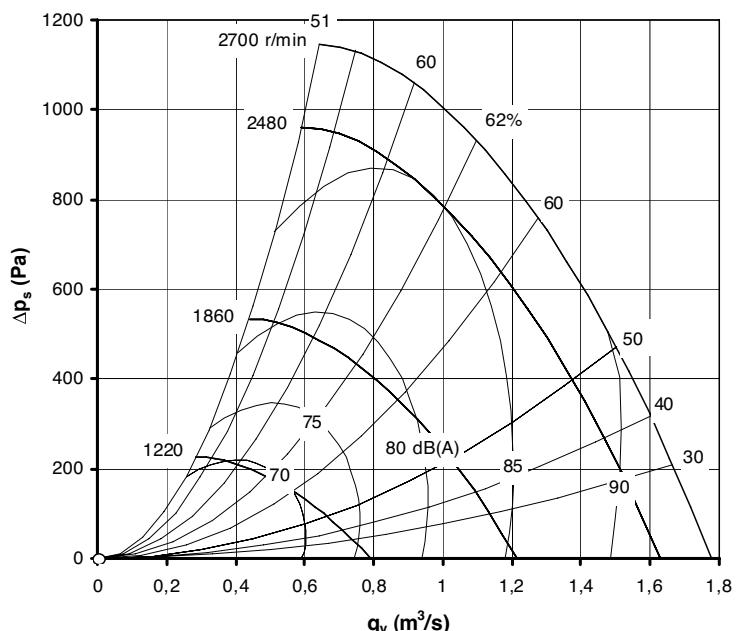
Max. temperature +40 °C

Technical Data - GPEC-3-035/GPEC-4-035, 1,68 kW

Fan charts

Data according to ErP directive

| | |
|-----------------------|--------|
| Installation category | A |
| Efficiency category | Static |
| Variable speed drive | Yes |



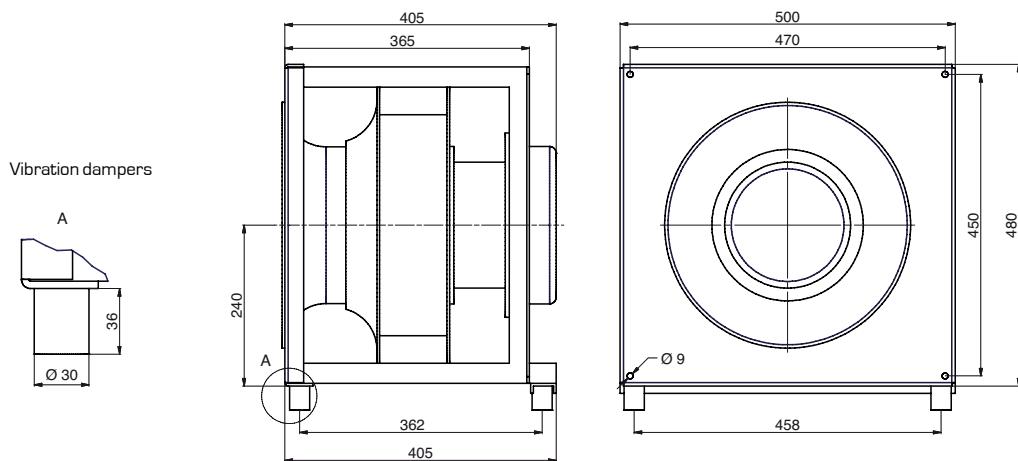
| Fan code | Motor code | Overall efficiency η_{es} % | Efficiency grade N | Power input Ped kW | Air flow Qv m^3/s | Pressure psf Pa | Speed r/min |
|---------------------------|--------------------|--|-----------------------|-----------------------|------------------------|--------------------|-------------|
| GPEC-3/GPEC-4-00-035-12-0 | APEC-2-03170-3-2-2 | 61,8 | 75 | 1,6 | 1,11 | 916 | 2700 |

| Correction, Kokt, dB. Octave band, mid-frequency. | | | | | | | | | | |
|---|---------------------------|----------------------|-----|-----|-----|-----|------|------|------|------|
| | Fan size | Speed range r/min | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
| To outlet s=1 | GPEC-3/GPEC-4-00-035-12-0 | 0 1533 | -5 | -2 | -6 | -5 | -3 | -7 | -16 | -21 |
| | GPEC-3/GPEC-4-00-035-12-0 | 1534 2700 | -11 | -9 | -1 | -5 | -5 | -7 | -10 | -16 |
| To inlet s=2 | GPEC-3/GPEC-4-00-035-12-0 | 0 1533 | -4 | -1 | -4 | -7 | -10 | -11 | -19 | -23 |
| | GPEC-3/GPEC-4-00-035-12-0 | 1534 2700 | -19 | -10 | 2 | -8 | -12 | -13 | -14 | -19 |

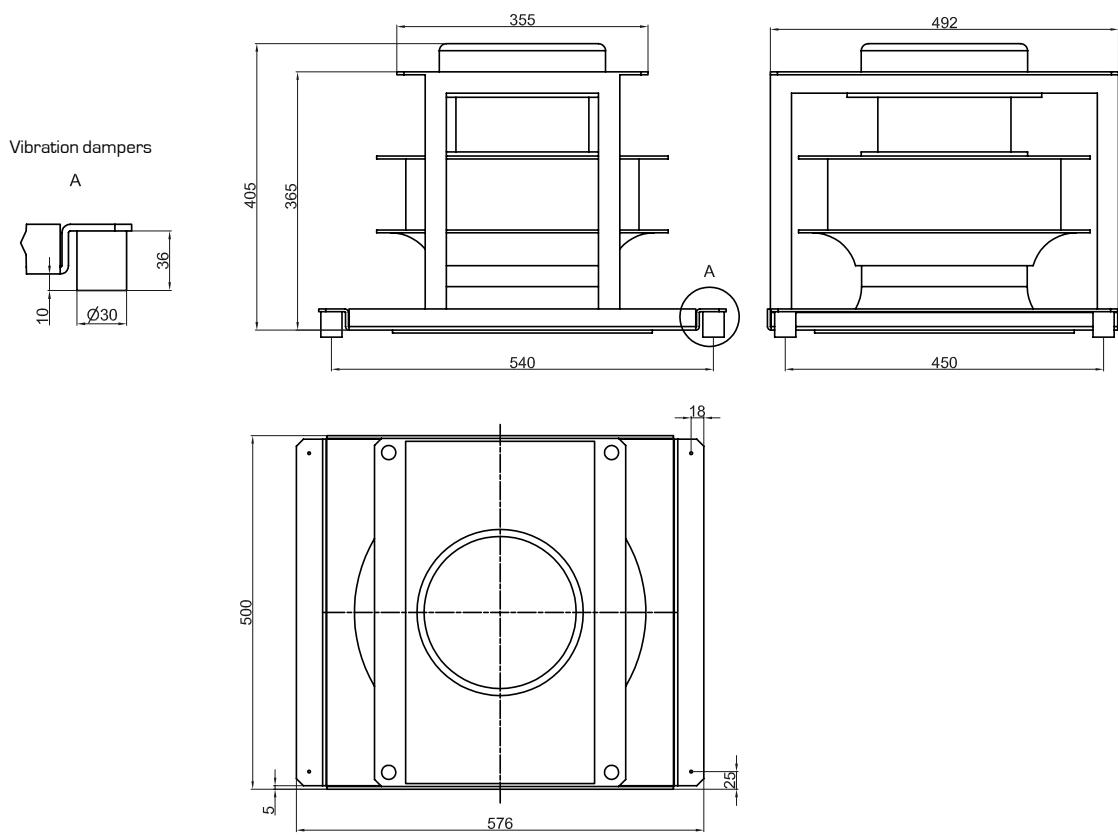
Technical Data - GPEC-3-035/GPEC-4-035, 3,05 kW

Dimensions

GPEC-3



GPEC-4



Fan/Motor data

| Fan code | Motor code | Rated Output kW | Weight Fan kg | Max. speed rpm | Supply voltage | Max. current A | Start-up signal | Anti-vibration mountings | k-value |
|--------------------|--------------------|-----------------|---------------|----------------|----------------|----------------|-----------------|--------------------------|---------|
| GPEC-3-00-035-13-0 | APEC-2-01300-3-2-2 | 3,05 | 38 | 3300 | 3~400 VAC | 4,7 | 1.4 V | GPEZ-42-00-035-1-3 | 29,05 |
| GPEC-4-00-035-13-0 | APEC-2-01300-3-2-2 | 3,05 | 38 | 3300 | 3~400 VAC | 4,7 | 1.4 V | GPVZ-42-00-035-1-3 | 29,05 |

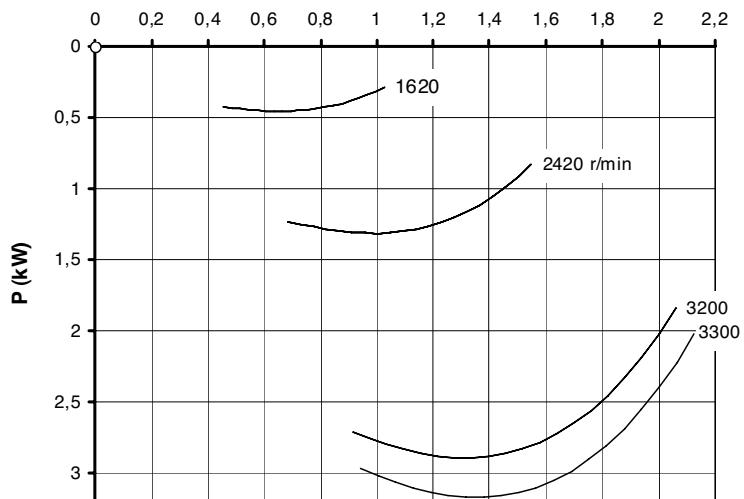
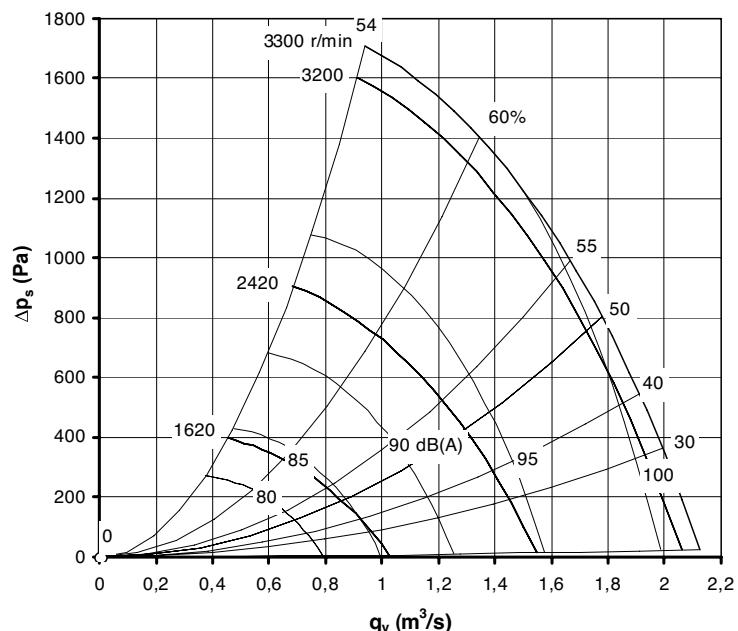
Max. temperature +40 °C

Technical Data - GPEC-3-035/GPEC-4-035, 3,05 kW

Fan charts

Data according to ErP directive

| | |
|-----------------------|--------|
| Installation category | A |
| Efficiency category | Static |
| Variable speed drive | Yes |



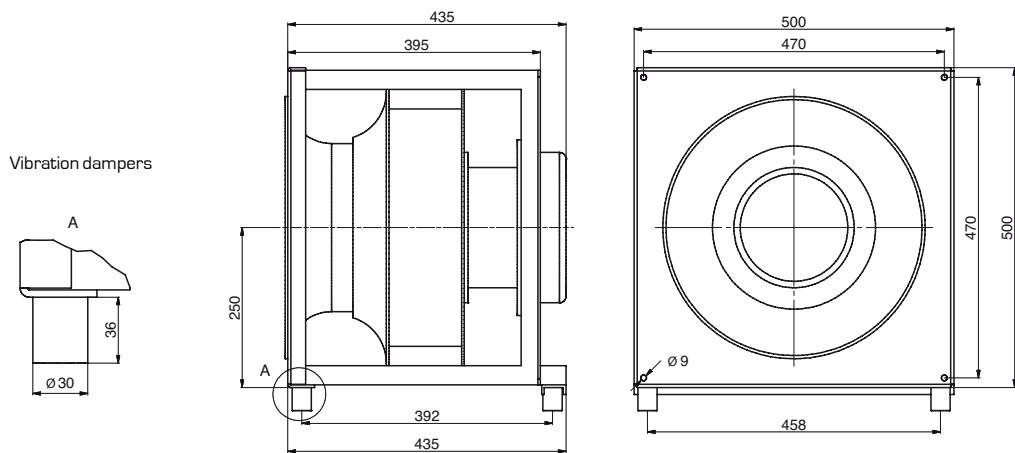
| Fan code | Motor code | Overall efficiency η_{es} % | Efficiency grade N | Power input Ped kW | Air flow Qv m^3/s | Pressure psf Pa | Speed r/min |
|---------------------------|--------------------|--|-----------------------|-----------------------|------------------------|--------------------|-------------|
| GPEC-3/GPEC-4-00-035-13-0 | APEC-2-01300-3-2-2 | 59,4 | 68 | 3,1 | 1,4 | 1349 | 3300 |

| Correction, Kkt, dB. Octave band, mid-frequency. | | | | | | | | | | |
|--|---------------------------|----------------------|-----|-----|-----|-----|------|------|------|------|
| | Fan size | Speed range r/min | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
| To outlet s=1 | GPEC-3/GPEC-4-00-035-13-0 | 0 1533 | -10 | -2 | -4 | -5 | -4 | -7 | -11 | -19 |
| | GPEC-3/GPEC-4-00-035-13-0 | 1534 3042 | -17 | -17 | -4 | -6 | -3 | -8 | -12 | -19 |
| | GPEC-3/GPEC-4-00-035-13-0 | 3043 3300 | -15 | -23 | -17 | -10 | -9 | -2 | -14 | -20 |
| To inlet s=2 | GPEC-3/GPEC-4-00-035-13-0 | 0 1533 | -16 | -3 | -6 | -8 | -13 | -14 | -20 | -23 |
| | GPEC-3/GPEC-4-00-035-13-0 | 1534 3042 | -24 | -20 | -4 | -10 | -15 | -18 | -21 | -25 |
| | GPEC-3/GPEC-4-00-035-13-0 | 3043 3300 | -28 | -25 | -18 | -7 | -15 | -18 | -21 | -26 |

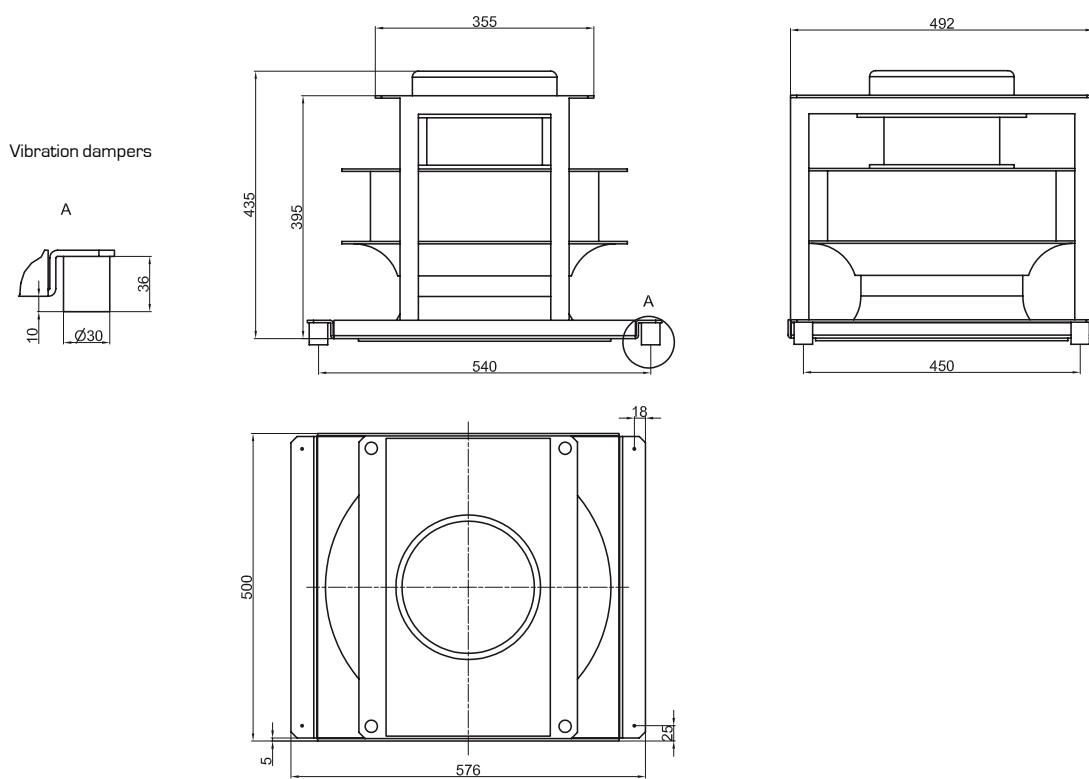
Technical Data - GPEC-3-040/GPEC-4-040, 2,60 kW

Dimensions

GPEC-3



GPEC-4



Fan/Motor data

| Fan code | Motor code | Rated Output kW | Weight Fan kg | Max. speed rpm | Supply voltage | Max. current A | Start-up signal | Anti-vibration mountings | k-value |
|--------------------|--------------------|-----------------|---------------|----------------|----------------|----------------|-----------------|--------------------------|---------|
| GPEC-3-00-040-12-0 | APEC-2-02300-3-2-2 | 2,6 | 39 | 2650 | 3~400 VAC | 4,1 | 1.4 V | GPEZ-42-00-040-1-3 | 22,05 |
| GPEC-4-00-040-12-0 | APEC-2-02300-3-2-2 | 2,6 | 39 | 2650 | 3~400 VAC | 4,1 | 1.4 V | GPVZ-42-00-040-1-3 | 22,05 |

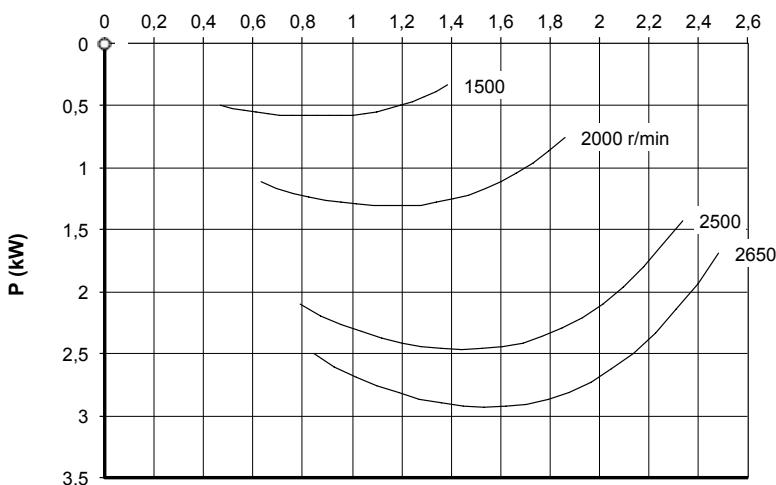
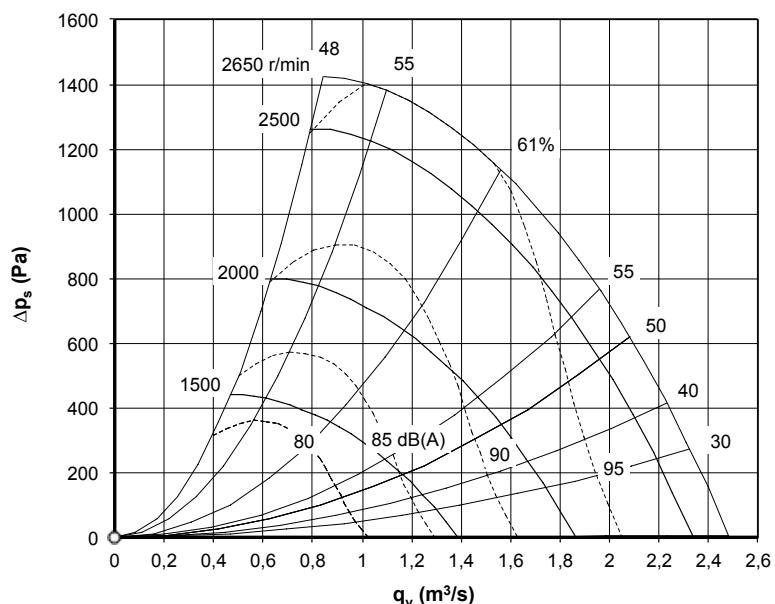
Max. temperature +40 °C

Technical Data - GPEC-3-040/GPEC-4-040, 2,60 kW

Fan charts

Data according to ErP directive

| | |
|-----------------------|--------|
| Installation category | A |
| Efficiency category | Static |
| Variable speed drive | Yes |



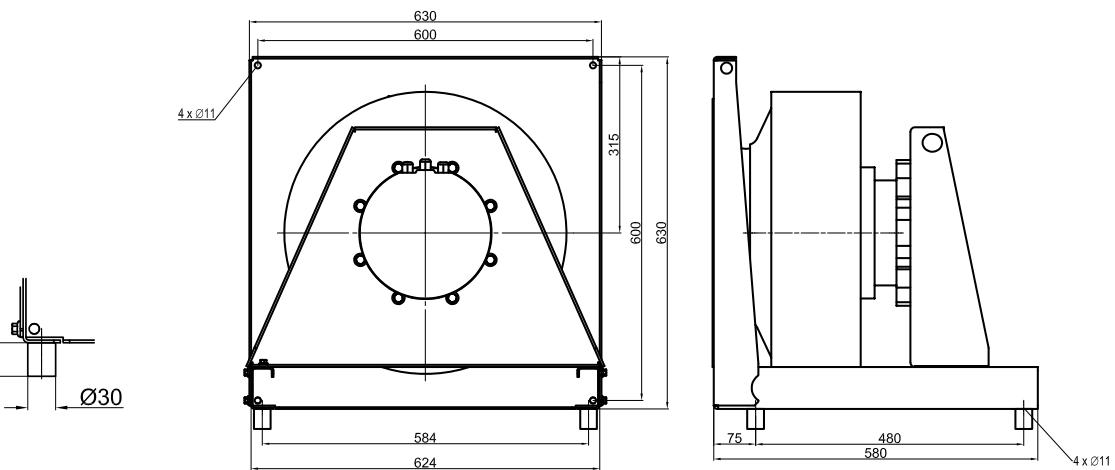
| Fan code | Motor code | Overall efficiency η _{es} % | Efficiency grade N | Power input Ped kW | Air flow Qv m^3/s | Pressure psf Pa | Speed r/min |
|---------------------------|--------------------|--|-----------------------|-----------------------|------------------------|--------------------|-------------|
| GPEC-3/GPEC-4-00-040-12-0 | APEC-2-02300-3-2-2 | 60,4 | 69 | 3 | 1,54 | 1165 | 2650 |

| | Fan size | Speed range r/min | Correction, Kokt, dB. Octave band, mid-frequency. | | | | | | | |
|------------------|---------------------------|----------------------|---|-----|-----|-----|------|------|------|------|
| | | | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
| To outlet s=1 | GPEC-3/GPEC-4-00-040-12-0 | 0 1533 | -14 | 1 | -2 | -3 | -4 | -8 | -13 | -20 |
| | GPEC-3/GPEC-4-00-040-12-0 | 1534 2650 | -20 | -17 | 3 | -6 | -4 | -9 | -13 | -20 |
| To inlet s=2 | GPEC-3/GPEC-4-00-040-12-0 | 0 1533 | -15 | 1 | -3 | -7 | -12 | -13 | -18 | -22 |
| | GPEC-3/GPEC-4-00-040-12-0 | 1534 2650 | -23 | -18 | -2 | -10 | -13 | -16 | -19 | -23 |

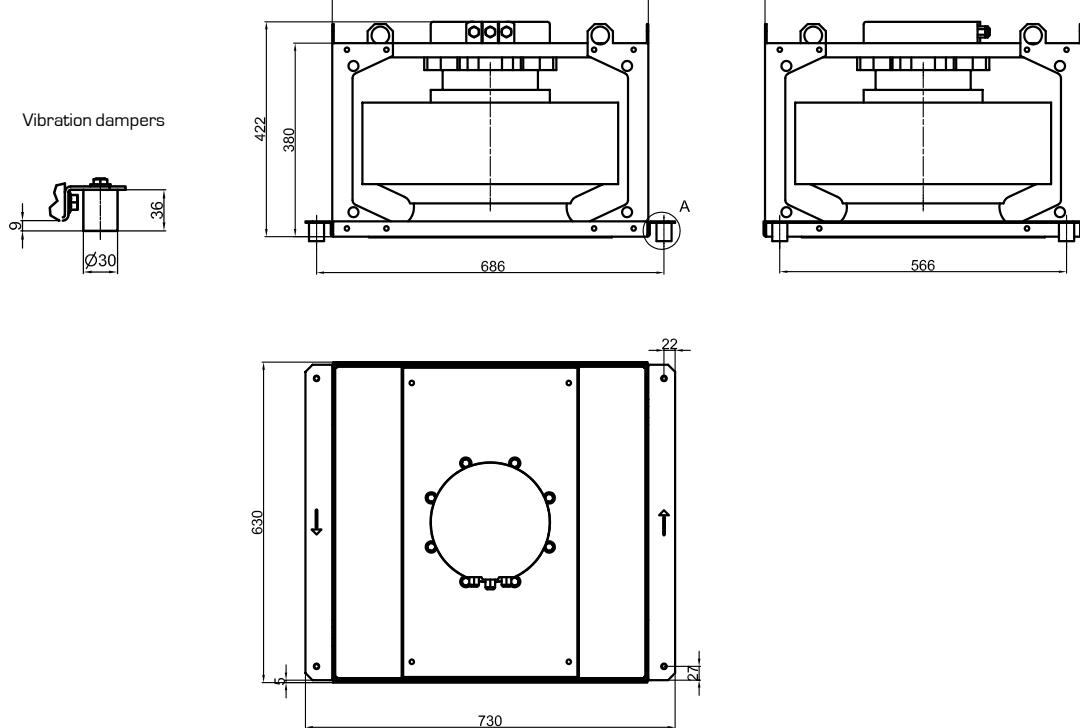
Technical Data - GPEC-3-045/GPEC-4-045, 2,73 kW

Dimensions

GPEC-3



GPEC-4



Fan/Motor data

| Fan code | Motor code | Rated Output kW | Weight Fan kg | Max. speed rpm | Supply voltage | Max. current A | Start-up signal | Anti-vibration mountings | k-value |
|--------------------|--------------------|-----------------|---------------|----------------|----------------|----------------|-----------------|--------------------------|---------|
| GPEC-3-00-045-14-0 | APEC-2-04300-3-2-2 | 2,73 | 49 | 2040 | 3~400 VAC | 4,2 | 1.4 V | GPEZ-42-00-045-1-3 | 15 |
| GPEC-4-00-045-14-0 | APEC-2-04300-3-2-2 | 2,73 | 49 | 2040 | 3~400 VAC | 4,2 | 1.4 V | GPVZ-42-00-045-1-3 | 15 |

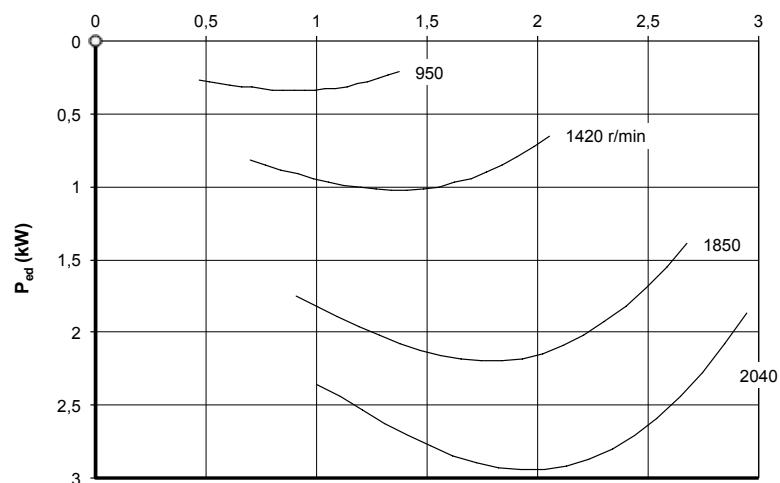
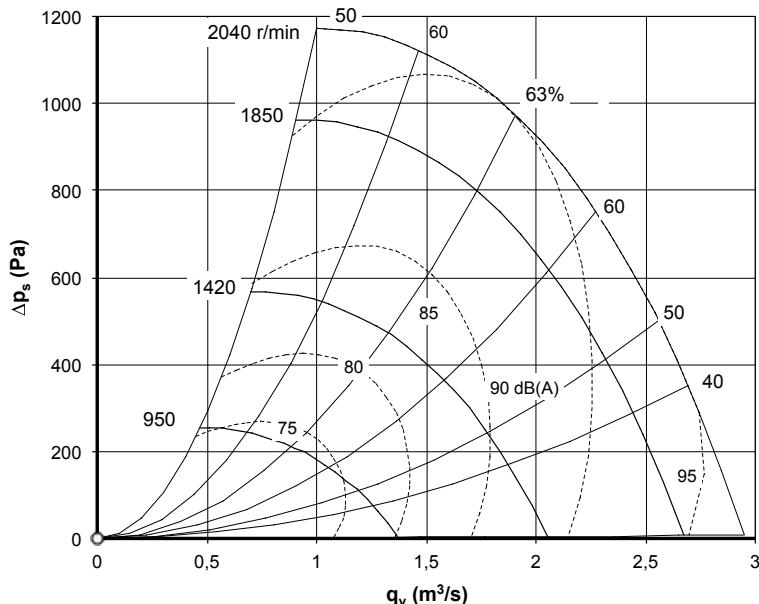
Max. temperature +40 °C

Technical Data - GPEC-3-045/GPEC-4-045, 2,73 kW

Fan charts

Data according to ErP directive

| | |
|-----------------------|--------|
| Installation category | A |
| Efficiency category | Static |
| Variable speed drive | Yes |



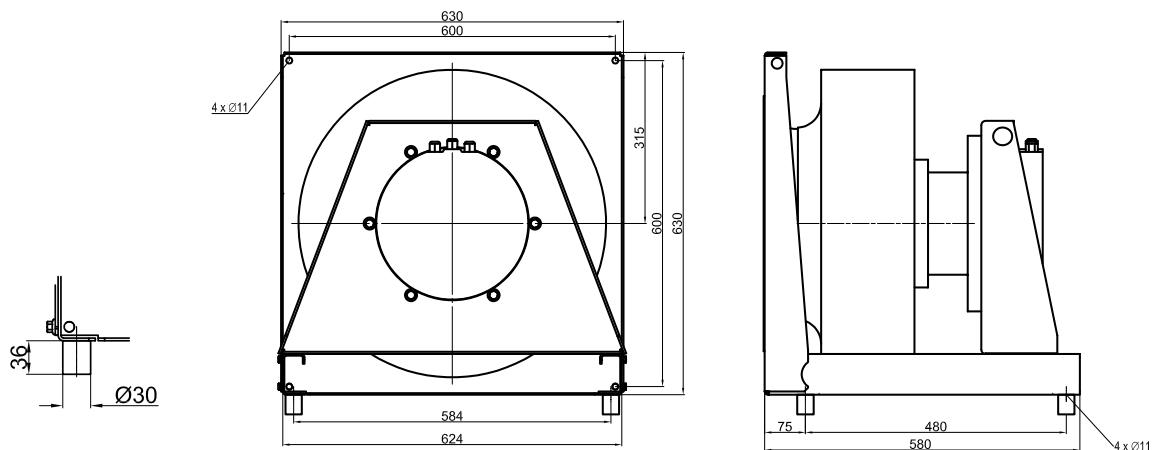
| Fan code | Motor code | Overall efficiency η _{es} % | Efficiency grade N | Power input Ped kW | Air flow Qv m^3/s | Pressure psf Pa | Speed r/min |
|---------------------------|--------------------|--|-----------------------|-----------------------|------------------------|--------------------|-------------|
| GPEC-3/GPEC-4-00-045-14-0 | APEC-2-04300-3-2-2 | 66,3 | 72 | 2,7 | 2,1 | 804 | 2040 |

| Correction, Kokt, dB. Octave band, mid-frequency. | | | | | | | | | | |
|---|---------------------------|----------------------|-----|-----|-----|-----|------|------|------|------|
| | Fan size | Speed range r/min | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
| To outlet s=1 | GPEC-3/GPEC-4-00-045-14-0 | 0 1533 | -13 | -1 | -6 | -5 | -4 | -7 | -12 | -17 |
| | GPEC-3/GPEC-4-00-045-14-0 | 1534 2040 | -14 | -12 | -1 | -5 | -5 | -7 | -10 | -14 |
| To inlet s=2 | GPEC-3/GPEC-4-00-045-14-0 | 0 1533 | -10 | -3 | -11 | -11 | -10 | -10 | -17 | -19 |
| | GPEC-3/GPEC-4-00-045-14-0 | 1534 2040 | -20 | -15 | -10 | -14 | -12 | -11 | -16 | -18 |

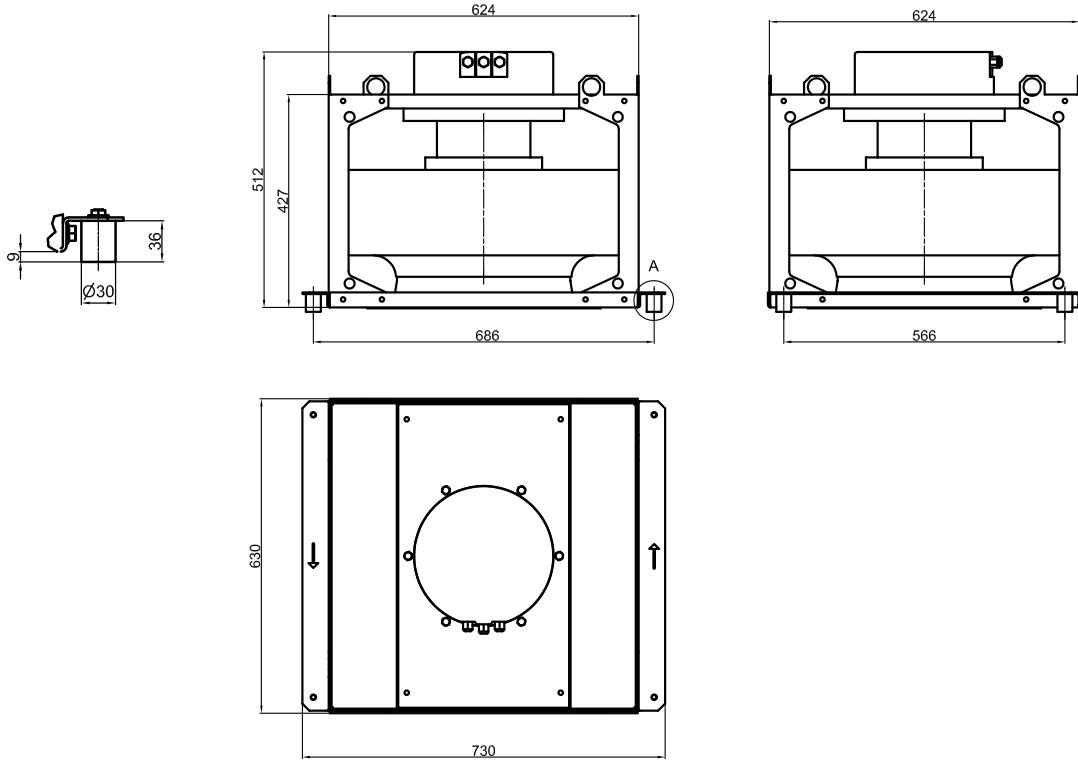
Technical Data - GPEC-3-050/GPEC-4-050, 5,5 kW

Dimensions

GPEC-3



GPEC-4



Fan/Motor data

| Fan code | Motor code | Rated Output kW | Weight Fan kg | Max. speed rpm | Supply voltage | Max. current A | Start-up signal | Anti-vibration mountings | k-value |
|--------------------|--------------------|-----------------|---------------|----------------|----------------|----------------|-----------------|--------------------------|---------|
| GPEC-3-00-050-14-0 | APEC-2-01550-3-2-2 | 5,5 | 57 | 2200 | 3~400 VAC | 8,4 | 1.4 V | GPEZ-42-00-050-1-3 | 12,8 |
| GPEC-4-00-050-14-0 | APEC-2-01550-3-2-2 | 5,5 | 57 | 2200 | 3~400 VAC | 8,4 | 1.4 V | GPVZ-42-00-050-1-3 | 12,8 |

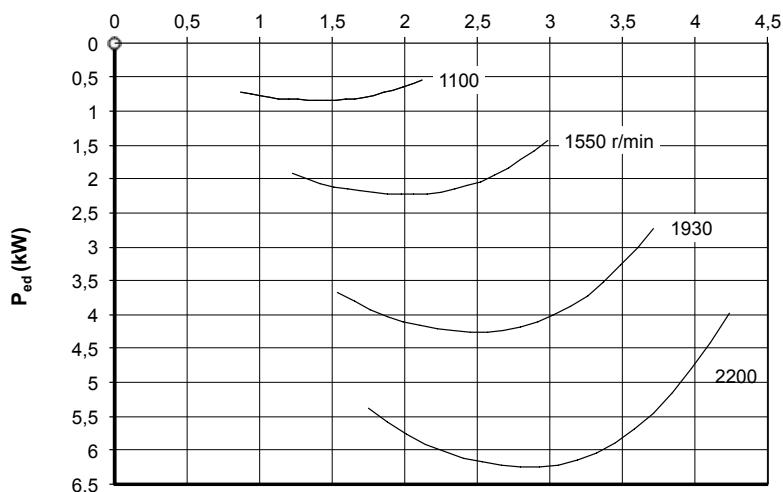
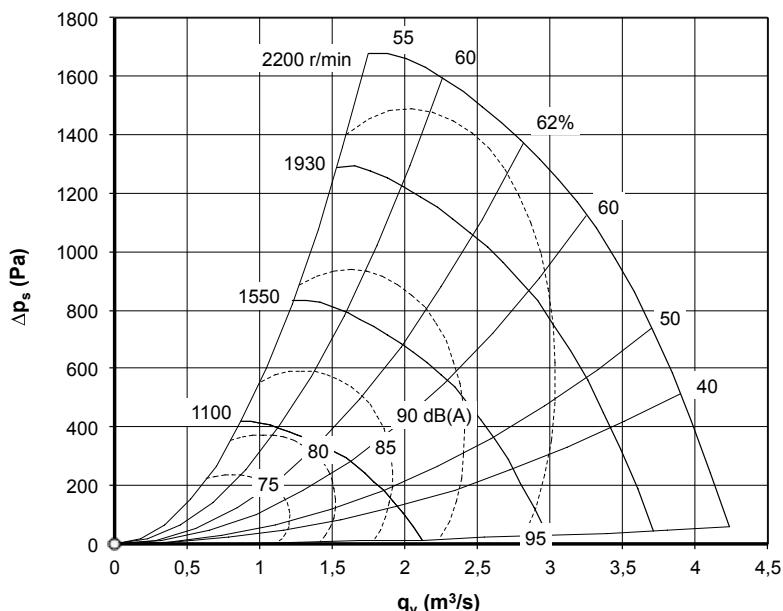
Max. temperature +40 °C

Technical Data - GPEC-3-050/GPEC-4-050, 5,5 kW

Fan charts

Data according to ErP directive

| | |
|-----------------------|--------|
| Installation category | A |
| Efficiency category | Static |
| Variable speed drive | Yes |



| Fan code | Motor code | Overall efficiency η _{es} % | Efficiency grade N | Power input Ped kW | Air flow Qv m^3/s | Pressure psf Pa | Speed r/min |
|---------------------------|--------------------|--|-----------------------|-----------------------|--------------------------------------|--------------------|-------------|
| GPEC-3/GPEC-4-00-050-14-0 | APEC-2-01550-3-2-2 | 64,1 | 67 | 5,5 | 2,77 | 1223 | 2200 |

| | Fan size | Speed range r/min | Correction, Kokt, dB. Octave band, mid-frequency. | | | | | | | |
|------------------|---------------------------|----------------------|---|-----|-----|-----|------|------|------|------|
| | | | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
| To outlet s=1 | GPEC-3/GPEC-4-00-050-14-0 | 0 1533 | -12 | -4 | -6 | -4 | -4 | -7 | -13 | -15 |
| | GPEC-3/GPEC-4-00-050-14-0 | 1534 2200 | -14 | -14 | -1 | -6 | -4 | -7 | -11 | -14 |
| To inlet s=2 | GPEC-3/GPEC-4-00-050-14-0 | 0 1533 | -11 | -5 | -11 | -12 | -11 | -11 | -17 | -19 |
| | GPEC-3/GPEC-4-00-050-14-0 | 1534 2200 | -20 | -17 | -11 | -14 | -12 | -10 | -16 | -16 |

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