

**Centrimaster GT-5**  
*Belt driven, double inlet centrifugal fans*  
*Technical Data*



**FläktWoods**

T 0320 - 28 61 81 | [www.auerhaan-klimaatechniek.nl](http://www.auerhaan-klimaatechniek.nl)

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**AUERHAAN**  
KLIMAATTECHNIEK



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## Belt driven, double inlet centrifugal fans



Belt drive double inlet CENTRIMASTER GT fans are available for air flow up to  $50 \text{ m}^3/\text{s}$  and for pressure rise up to  $3\,300 \text{ Pa}$ . The fan series consists of centrifugal fans with two impeller types:

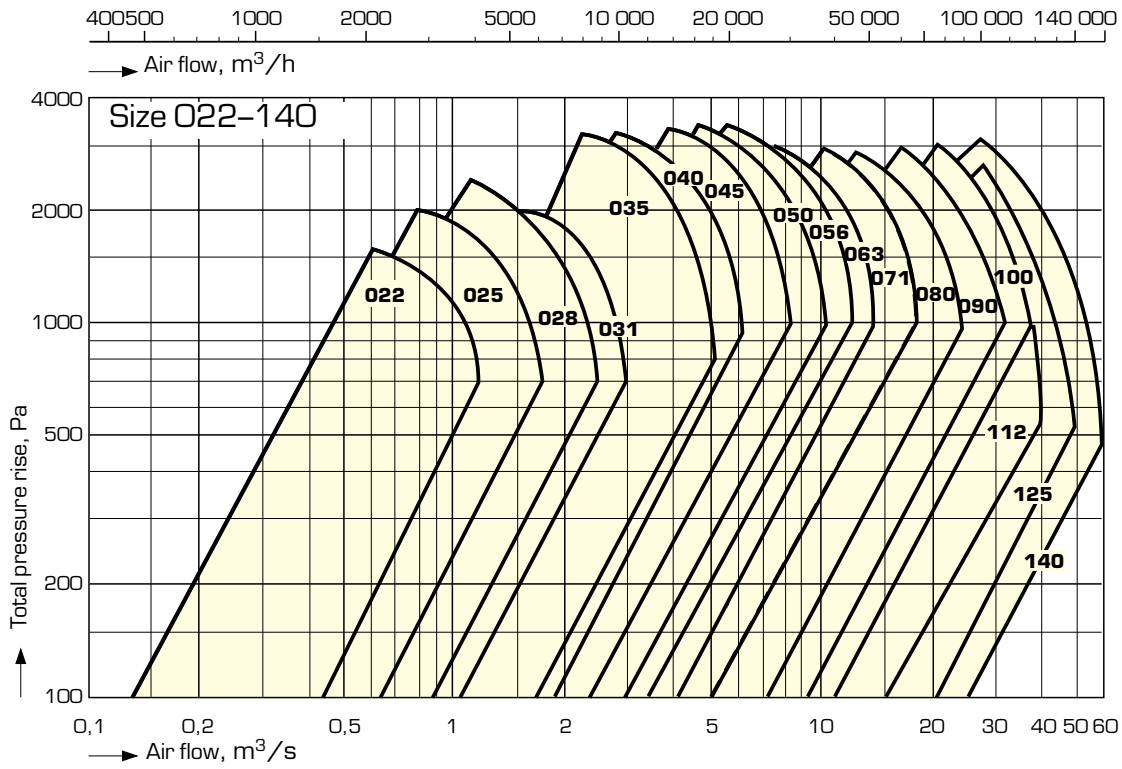
- with forward curved blades, GTLF, sizes 022 – 071
- with backward curved blades, GTLB, sizes 022 – 100
- with backward curved blades, GTHB, sizes 080 - 140.

GTLB and GTHB have similar aerodynamic properties but the type GTHB is a reinforced version for higher speeds. GTHB in sizes 035 – 071 are available to special order.

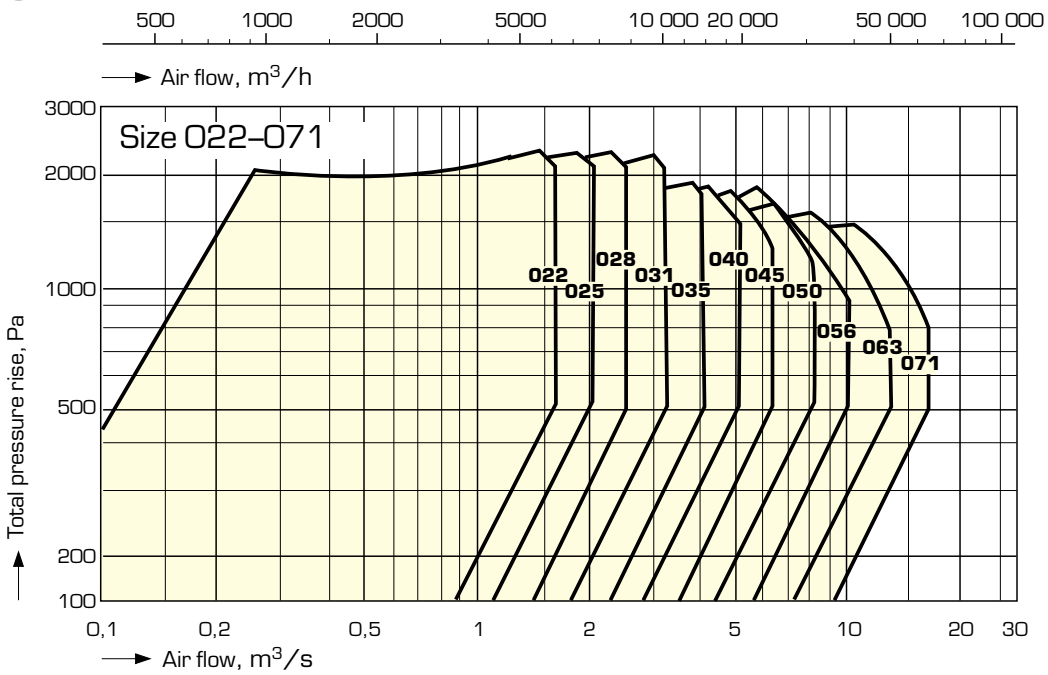
Fans are available in normal version.

# General Survey Charts

## GTLB/ GTHB



## GTLF



## Design Description

### Fan casing

Fan casing is made of sendzimir-galvanized sheet. The casing is jointed by the "Pittsburg folding method" in sizes 022–090. In sizes 100–140 the casing consists of five sections with flanges.



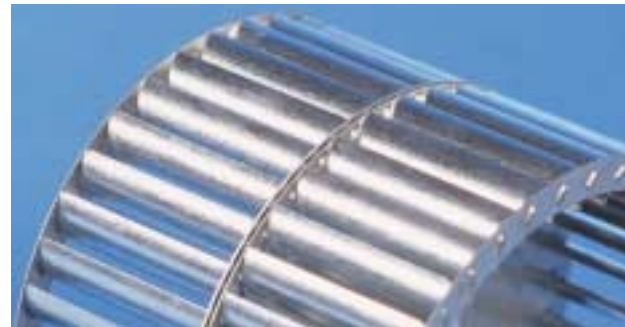
Pittsburg

### Fan impeller

The impellers with backward-curved blades (GTLB and GTHB) are made of steel, welded and painted with 60 mm epoxy powder (color tone AM 8043, dark grey). The impellers with forward curved blades (GTLF) are made of galvanized steel. GTLB and GTHB impellers in sizes 035–100 are dynamically balanced to an accuracy of G 2.5 according to ISO 1940–1973 at the maximum speed. All GTLF and GTLB impellers in sizes 022–031 are dynamically balanced to an accuracy of G 6.3 according to ISO 1940–1973 at the maximum speed. The impeller is secured to the shaft with key (GTLB/GTHB) or with adapter sleeve (GTLF).



GTLB impeller



GTLF impeller

## Konstruktionsbeskrivning

### Shaft

The shafts are made of steel and both shaft ends are equipped with key-ways for pulleys. The shafts are dimensioned so as to make them withstand fatigue and a critical speed that is at least 20% higher than the max. speed of the fan. The shafts are protected against corrosion.



Bearing of GTLF and GTLB in sizes 022 - 071



Bearing of GTHB in sizes 035 - 50

### Bearings

The GTLB and GTLF fans in sizes 022 – 071 are equipped with permanently lubricated single-row deep-groove ball bearings sealed at both sides. These bearings are secured to the shaft by means of an eccentric locking collar. The bearings are supported by three or four-armed strong bearing supports. GTLB fans in size 080 – 100 are equipped with plummer blocks with grease nipple. These bearings are secured to the shaft by means of an eccentric locking collar. The plummer blocks are mounted on a welded, sturdy bearing bracket made of flat steel. The calculated bearing life time of GTLB and GTLF fans is 20.000 hours.

GTHB fans in sizes 035 – 050, are equipped with plummer blocks with single-row deep-groove ball bearings. These bearings are secured to the shaft by means of a conical adapter sleeve. GTHB fans in sizes 056 – 140, are equipped as standard with plummer blocks which have self-aligning roller bearings. The plummer blocks are mounted on a welded, sturdy bearing bracket made of flat steel and are equipped with grease nipples.

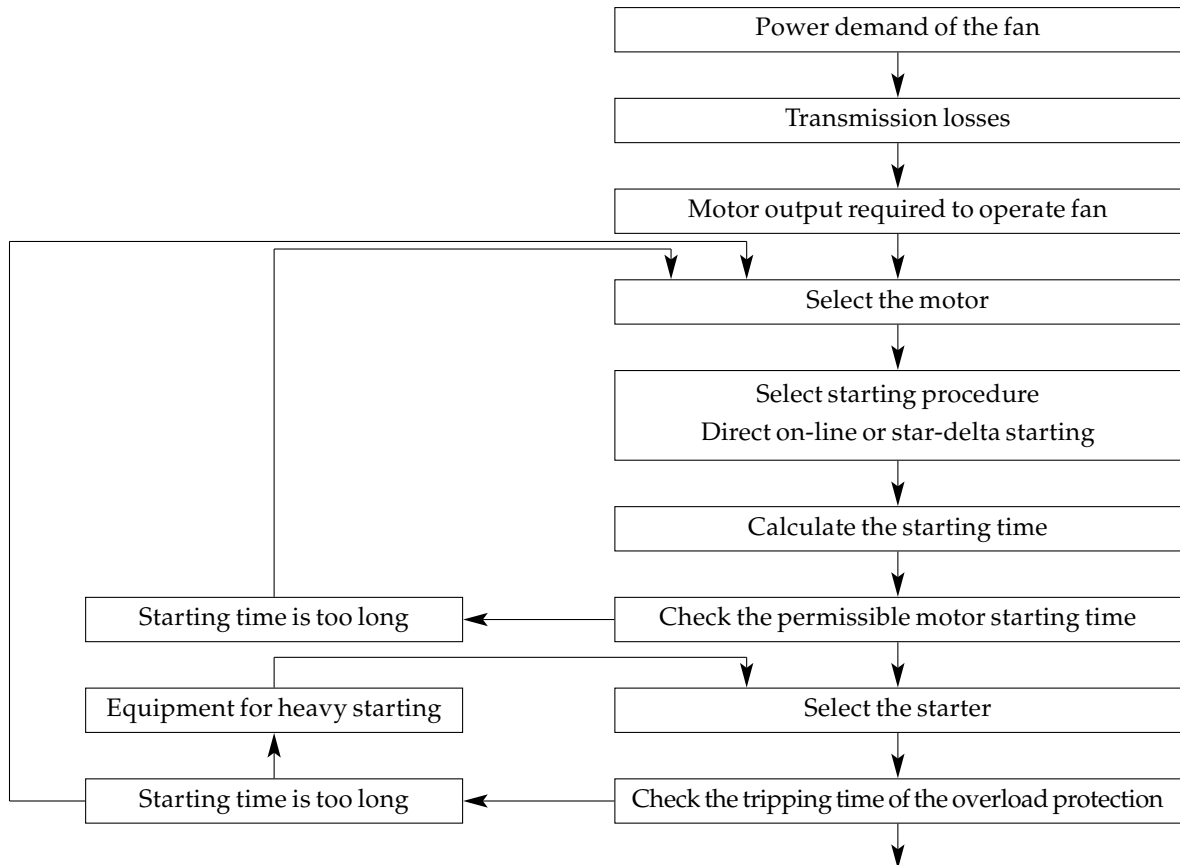


Bearing of GTLB in sizes 080 - 100



Bearing of GTHB in sizes 056 - 140

# Starting of Fans



To calculate the starting time in direct on-line starting  
Use the following formula:

$$t = \frac{J \cdot n_f^2 \cdot 10^{-3}}{46 \left[ P \left( \frac{M_{max}}{M} + \frac{M_{st}}{M} \right) - P_m \right]}$$

The calculated starting time is the time needed for accelerating the fan from rest to full speed.

To calculate the starting time in star-delta starting  
Use the following formula:

$$t = \frac{J \cdot n_f^2 \cdot 10^{-3}}{46 \left[ P \left( \frac{1}{3} \cdot \frac{M_{max}}{M} + \frac{1}{4} \cdot \frac{M_{st}}{M} \right) - P_m \right]}$$

The calculated starting time is the time during which the stardelta starter must be in star for the fan to reach about 90 % of

full speed, whereupon the starter switches over to delta.  
On star-delta starting, also check that the motor curve is higher than the fan torque curve during the star connection period.  
The lowest possible motor rating for star-delta starting can be calculated from the following expression.  $P_{Y/D} = \frac{2,6}{M_{max}} \cdot P_m$

### Symbols used

- P = motor rating, kW.
- $P_m$  1) = power demand with the fan running at rated speed (including any belt-drive losses), kW.
- $P_{Y/D}$  = lowest rating of motor for which star-delta starting can be employed, kW.

- $\frac{M_{st}}{M}$  3) = ratio of motor starting torque to normal torque.
- $\frac{M_{max}}{M}$  3) = ratio of maximum motor torque to normal torque.
- $n_f$  = rated speed of fan, r/min.
- J 2) = Moment of inertia of the system referred to the fan shaft, kg m<sup>2</sup>.

- t = starting time, s.
- 1)  $P_m$  is given in the fan chart.
- 2) The moment of inertia of the impeller is given in the fan-charts. The moment of inertia of the motor can generally be disregarded.
- 3) See the catalogue of the motor supplier.



# Motor

## Motor

The GT fans are normally supplied with the motor mounted. This enables the fan to be trial run prior to dispatch and Fläkt Woods can assume undivided warranty liability. If the fan is supplied without motor, the size and speed of the motor must be specified when the order is placed so that the correct belt drive can be selected. Detailed motor data is tabulated in separate tables. See under Motor Data.

## Belt Drive

The belt drive consists of belt pulleys and belt(s). The pulleys have a separate Taper-Lock-type hub, which is easy to fit and remove.

The belt guard and slide rails are included in the GT fan delivery.

## Base frame

Base frame of GTLB and GTLF is made of galvanized sheet steel with exception of size GTLB-5-100. GTHB and GTLB-5-100 has welded base frame which is hot-dip galvanized.

## Selecting the Motor

The shaft power ( $P$ , kW) and the recommended min. permissible motor output for direct on-line starting ( $P_M$ , kW) are specified in the fan charts, i.e. the safety factor is already included. Base your motor selection on this  $P_M$  figure. The safety factor covers belt losses that arise with standardised belt pulleys.

## Recommendations:

When selecting GTLB and GTHB fans (with backward-curved blades) that at a given speed have an output peak within their operating range, use this output peak for selecting a motor and not the output at the duty point.

When selecting GTLF fans (with forward-curved blades) whose power demand, at a given speed, continuously increases as the air flow increases, use the shaft power demand  $P$  at the duty point (adding the safety factor!) or the recommended min. permissible motor output  $P_M$ . If you cannot with certainty plot the duty point in the fan chart, select a motor for an output that is another 15–20 % higher.

# Materials and tolerances

GT-fans in standard version meet the provisions of environmental class C2.

Fan casing: Sendzimir galvanized sheet steel, (275 g/m<sup>2</sup> thick zinc)

Inlet cone: Sendzimir galvanized sheet steel in the normal version.

Shaft: Centreless-ground steel with anti-corrosion protection.

Fan impeller: GTLB and GTHB: Sheet steel, welded, coated with 60 µm epoxy powder, color: AM8043, dark grey.  
GTLF: Sendzimir galvanized steel.

The particulars in the charts are given with the tolerance specified in the DIN 24 166 Standard, Class 2.

DIN 24166	Tolerance Class		
	1	2	3
Air flow $q_v$ :	±2,5%	±5,0%	±10,0%
Pressure rise, $\Delta p_t$ :	±2,5%	±5,0%	±10,0%
Shaft power demand*, P:	+3,0%	+5,0%	+16,0%
Efficiency** , $\eta$ :	-2,0%	-5,0%	-
A-weighted sound power level*, $L_{WA}$ :	+3 dB	+4 dB	+6 dB

\* Negative tolerance permissible

\*\* Positive tolerance permissible

## ISO 9001 and ISO 14001 Quality

Fläkt Woods has received quality management certification in accordance with ISO 9001. We document our quality management responsibility at every stage of our business activities from the product development to production, procurement and marketing.

We have received environmental management certification in accordance with ISO 14001. We aim to minimise the impact of our business activities and our products on the environment.



## Specification text – CENTRIMASTER

### GTLB

Double inlet centrifugal fan for belt drive in sizes 022 - 100. Fan casing made of Sendzimir galvanized sheet steel and jointed by Pittsburg folding method, in size 100 consisting of five sections equipped with flanges. Steel impeller with backward curved blades, welded and painted with epoxy-powder paint 60 mm. Impeller is dynamically balanced to an accuracy of G 2.5 (sizes 035 – 100) or G 6.3 (sizes 022 – 031) according to ISO 1940 - 1973. Steel shaft with keyways at both ends and designed for a critical speed which is 20% higher than the maximum speed of the fan. Impeller secured to the shaft by means of a key. Permanently lubricated single-row deep-groove ball bearings sealed at both sides, secured to the shaft by means of an eccentric locking collar. The bearings are supported by three or four-arm spider. GTLB-fans in sizes 080 – 100 have plummer blocks with grease nipples supported by a welded bracket. Fan performance is measured according to AMCA 210-85 and sound data according to AMCA 300-85.

Fan data is presented according to DIN 24166, class 2.

### GTHB

Double inlet centrifugal fan for belt drive in sizes 035 – 140. Fan casing is made of Sendzimir galvanized sheet steel and jointed by Pittsburg folding method, in sizes 100 – 140 consisting of five sections equipped with flanges. Steel impeller with backward curved blades, welded and painted with epoxy-powder paint 60 mm. Impeller is dynamically balanced to an accuracy of G 2.5 according to ISO 1940 – 1973. Steel shaft with keyways at both ends and designed for a critical speed which is 20% higher than the maximum speed of the fan. Impeller secured to the shaft by means of a key. GTHB-fans in sizes 035 to 050 have plummer blocks with single-row deep-groove ball bearings, secured to the shaft by means of a taper mounting sleeve. GTHB-fans in sizes 056 to 140 have plummer blocks with self-aligning roller bearings. The plummer blocks bearings have equipped with grease nipples and are supported by a welded bracket. Fan performance is measured according to AMCA 210-85 and sound data according to AMCA 300-85.

Fan data is presented according to DIN 24166, class 2.

### GTLF

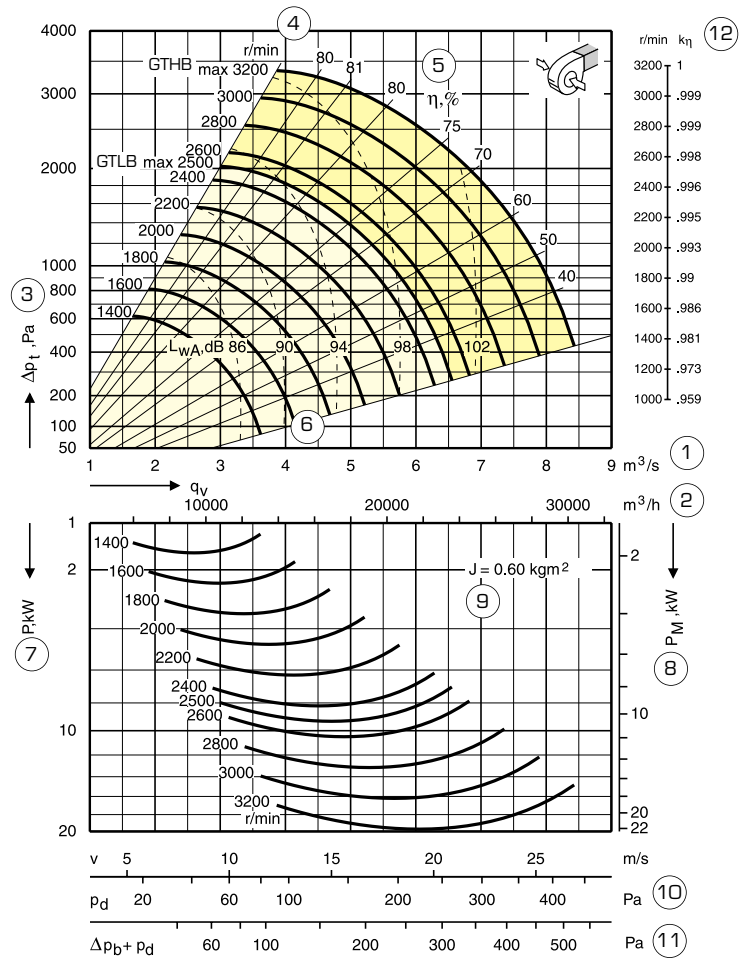
Double inlet centrifugal fan for belt drive in sizes 022 – 071. Fan casing made of Sendzimir galvanized sheet steel and jointed by Pittsburg folding method. Impeller with forward curved blades, made of Sendzimir galvanised sheet steel. Impeller is dynamically balanced to an accuracy of G 6.3 according to ISO 1940 - 1973. Steel shaft with keyways at both ends and designed for a critical speed which is 20% higher than the maximum speed of the fan. Impeller secured to the shaft by means of an adapter sleeve. Permanently lubricated single-row deep-groove ball bearings sealed at both sides, secured to the shaft by means of an eccentric locking collar. The bearings are supported by three or four-arm spider. Fan performance is measured according to AMCA 210-85 and sound data according to AMCA 300-85.

Fan data is presented according to DIN 24166, class 2.

# Fan Charts – Explanation

The GT fan charts on the following pages are applicable to air with a density of  $1.2 \text{ kg/m}^3$ .

- ① = Air flow,  $\text{m}^3/\text{s}$  (x-axis).
  - ② = Air flow,  $\text{m}^3/\text{h}$  (x-axis).
  - ③ = Total pressure rise, Pa (y-axis).
  - ④ = Fan speed, r/min.
  - ⑤ = Fan efficiency,  $\eta$ , %.
  - ⑥ = Total sound power level  $L_{WA}$  (dB), broken line.
  - ⑦ = Power demand, P (kW).
  - ⑧ = Min. recommended motor rating for direct online starting,  $P_M$  (kW).
  - ⑨ = Moment of inertia J ( $\text{kg m}^2$ ).
  - ⑩ = Dynamic pressure at the outlet,  $p_d$ .
  - ⑪ = Adjusted dynamic pressure of a free-dischargelet fan,  $p_2 + p_d$ .
  - ⑫ = Correction factor for the efficiency,  $k_\eta$ .
- = Recommended operating range.
- = Recommended operating range of a heavy-duty.



## Connection losses

- Protective screen at the inlet:  $0,25 \times p_d$
- Protective screen at the outlet: GTLF:  $0,3 \times p_d$   
 GTLB, GTHB:  $0,25 \times p_d$

# Acoustic Data – Explanation

## Acoustic data

The sound power levels to the surroundings and to the outlet duct have been measured for each fan size. The fan diagram gives the A-weighted sound power level  $L_{WA}$  for the outlet side. The following formula is used to determine the sound power level to the surroundings of a free-inlet fan,  $s = 2$ , or to the outlet of a free-discharge fan,  $s = 4$ :

$L_{WA(s)} = L_{WA} + \Delta L_{WA(s)}$	$L_{WA}$ can be read from the fan chart and the $\Delta L_{WA(s)}$ can be obtained from the adjacent table.
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The following formula is used to determine the total sound power level to different sound paths:

$L_{Wt(s)} = L_{WA(s)} + \Delta L_{Wt(s)}$	$\Delta L_{Wt(s)}$ can be obtained from the adjacent table.
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The following formula is used to determine the linear sound power level (not A-weighted) to different sound paths (to the discharge duct  $s = 1$ , to the surroundings of a free-inlet fan  $s = 2$ , to the outlet of a free-discharge fan  $s = 4$ ):

$L_{Wokt(s)} = L_{WA} + K_{okt(s)}$	$K_{okt(s)}$ can be obtained from the adjacent table.
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In general, the maximum sound power level occurs on the octave band that corresponds to the blade frequency. Acoustic data is given including the blade frequency.

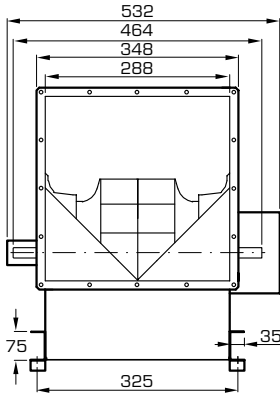
Description of sound path	Test arrangement
1 = To the outlet duct 2 = To the surroundings of a free-inlet fan inlet duct	
4 = To fan outlet of a free-discharge fan	

## Description

$L_{WA}$	A-weighted sound power level to the outlet duct	dB(A)
$s$	Sound path	-
$K_{okt(s)}$	Correction figure for breaking down sound level at each octave band	dB
$L_{Wokt(s)}$	Total sound power level at each octave band (without A-weighting)	dB
$L_{Wt(s)}$	Total sound power level (without A-weighting), corresponding to sound paths	dB
$L_{WA(s)}$	A-weighted sound power level equivalent to sound paths	dB(A)
$\Delta L_{Wt(s)}, \Delta L_{WA(s)}$	Correction factors	dB, dB(A)

# Dimensions and Weights - GTLF-5-022

Right-hand version with 90° direction of discharge shown



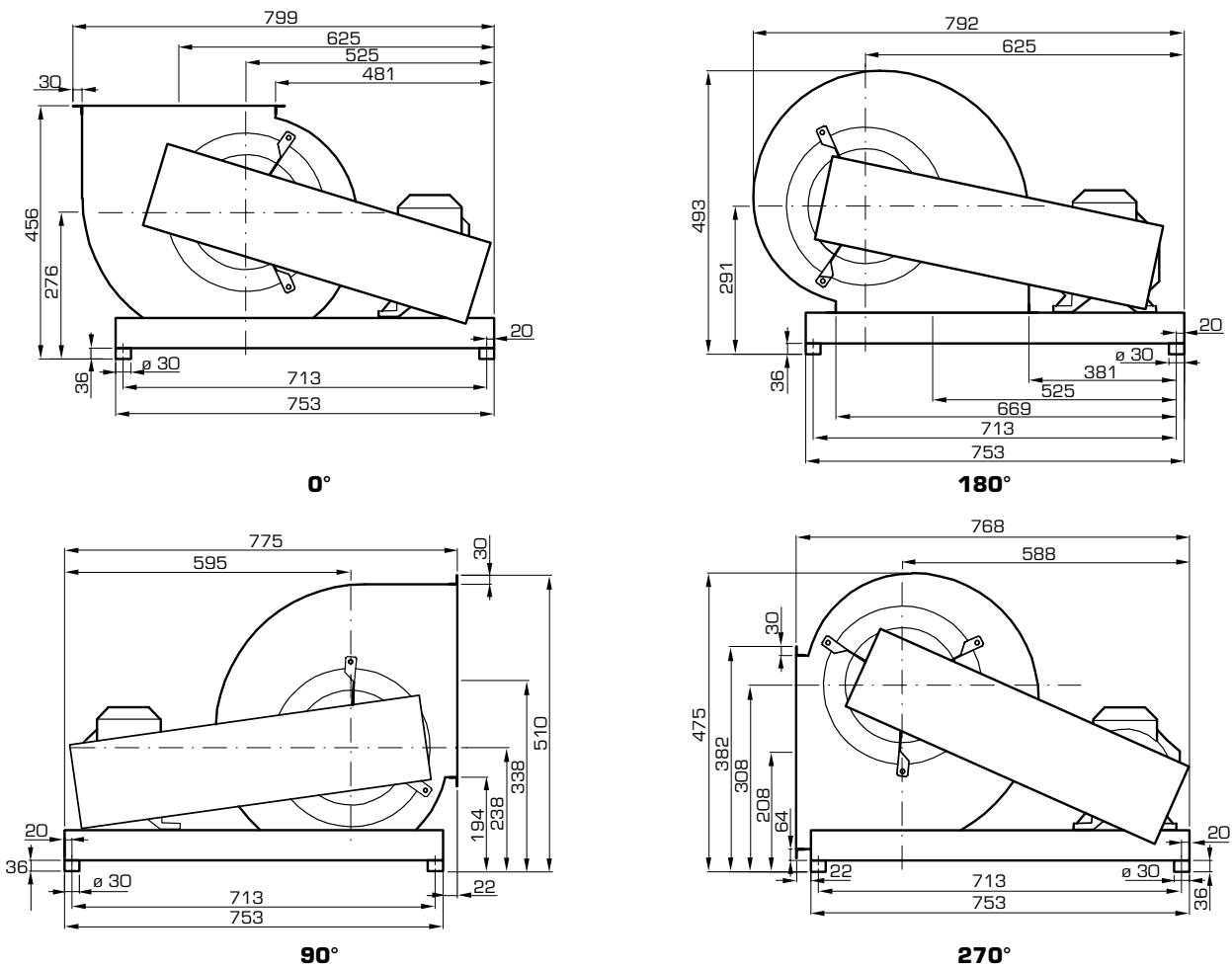
Weight (kg)

GTLF-5-022: 22,0  
(including belt drive, without motor).

Motor data: see separate motor list.

For dimensions of discharge flange, see page 78 Flexible connection.

Right-hand version (viewed from drive side)



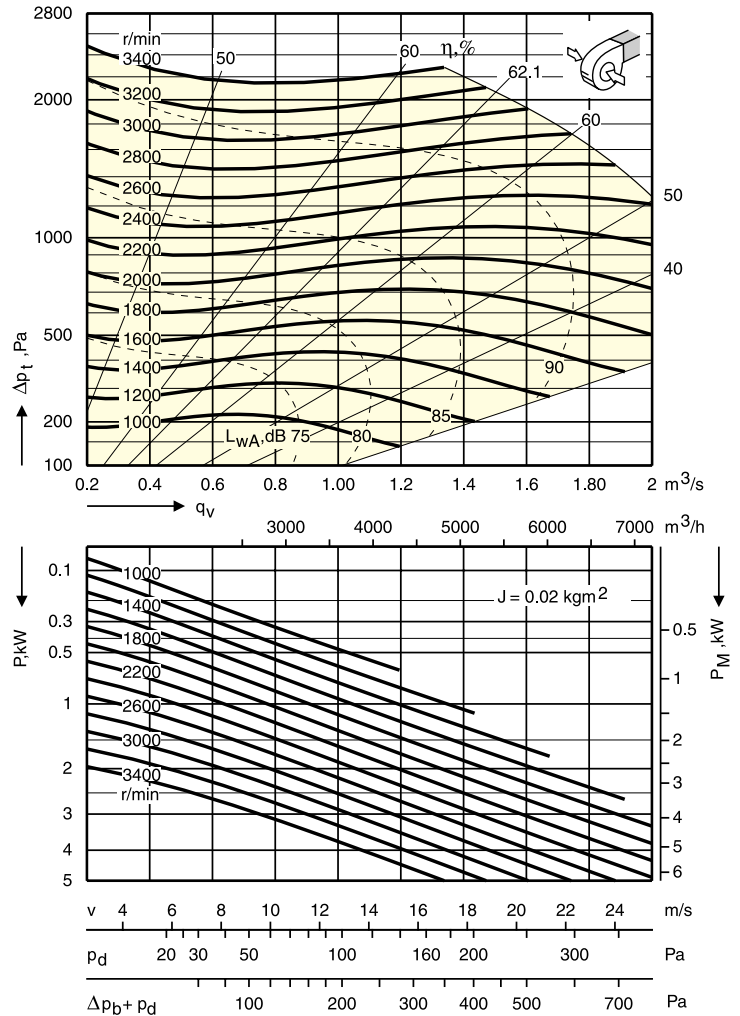
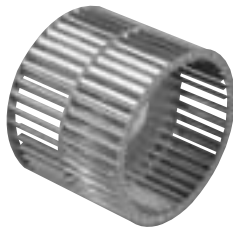
Left-hand version (same dimensions as the right-hand version)



# Fan Charts – Acoustic Data – GTLF-5-022

Belt-driven, double-inlet, forward curved blades

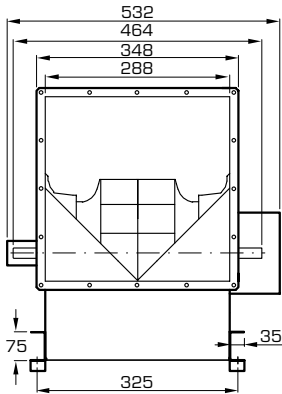
Impeller diameter: 220 mm



Sound path	Speed range r/min	Correction $K_{Dk}$ , dB								$\Delta L_{WA}(s)$	$\Delta L_{Wt}(s)$
		Octave band, mid-frequency, Hz									
		63	125	250	500	1000	2000	4000	8000		
To the outlet duct	0 - 800	4	-2	-3	-5	-4	-8	-10	-15	0	6,7
	801 - 1800	3	-3	-3	-4	-5	-7	-10	-15	0	6,1
	1801 - 3400	2	-3	-4	-5	-6	-6	-9	-14	0	5,4
To the surrounding of a free-inlet fan	0 - 800	-1	0	-1	-2	-2	-6	-9	-15	2	4,3
	801 - 1800	-3	-2	-1	-1	-2	-6	-8	-15	2,3	3,5
	1801 - 3400	-5	-3	-2	-3	-2	-4	-8	-12	2,4	2,7
To the outlet of a free-discharge fan	0 - 800	-12	-9	-6	-6	-4	-8	-10	-15	-0,4	1,8
	801 - 1800	-14	-10	-6	-5	-5	-7	-10	-15	-0,4	1,7
	1801 - 3400	-17	-11	-7	-6	-6	-6	-9	-14	-0,4	1,3

# Dimensions and Weights - GTLB-5-022

Right-hand version with 90° direction of discharge shown



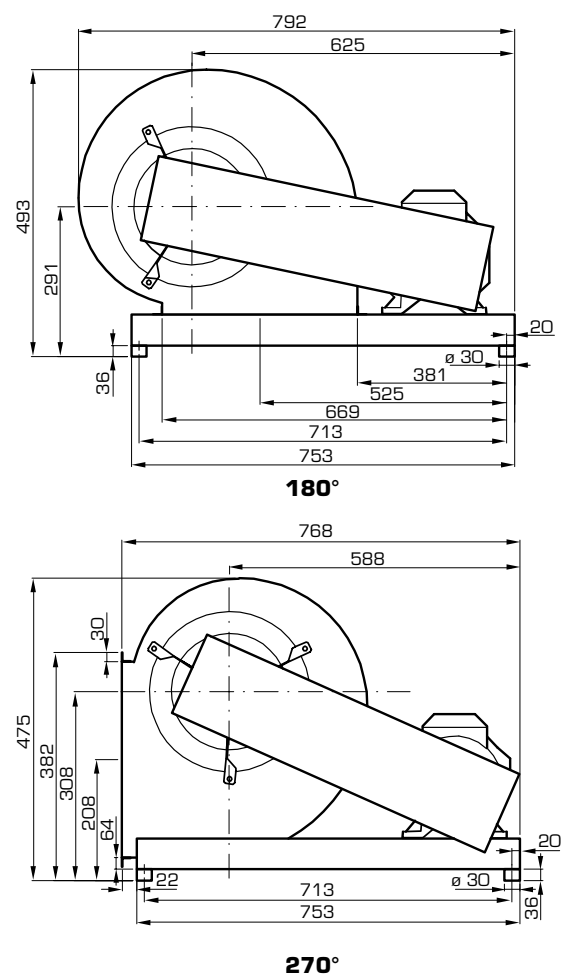
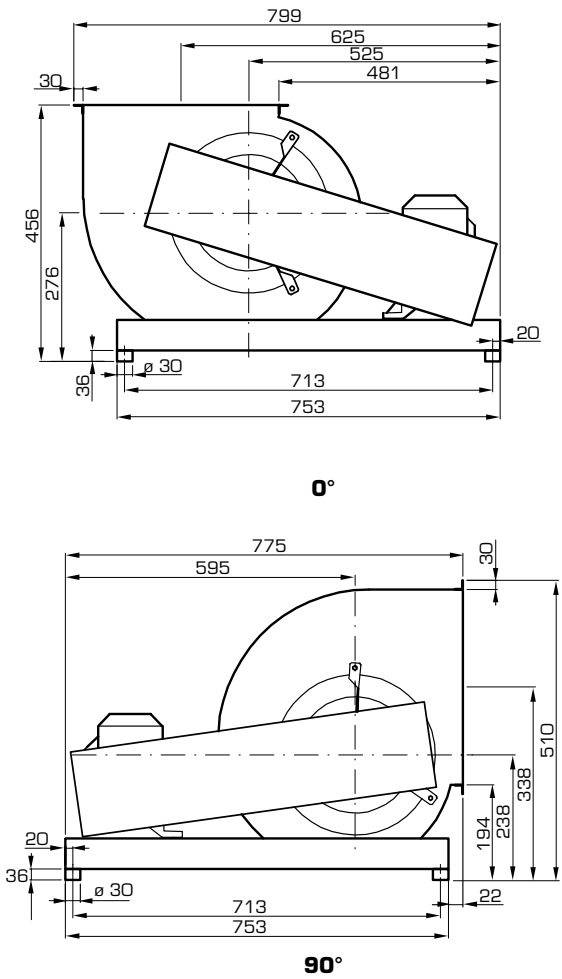
Weight (kg)

GTLB-5-022: 23,0  
(including belt drive, without motor).

Motor data: see separate motor list.

For dimensions of discharge flange, see page 78 Flexible connection.

Right-hand version (viewed from drive side)



Left-hand version (same dimensions as the right-hand version)

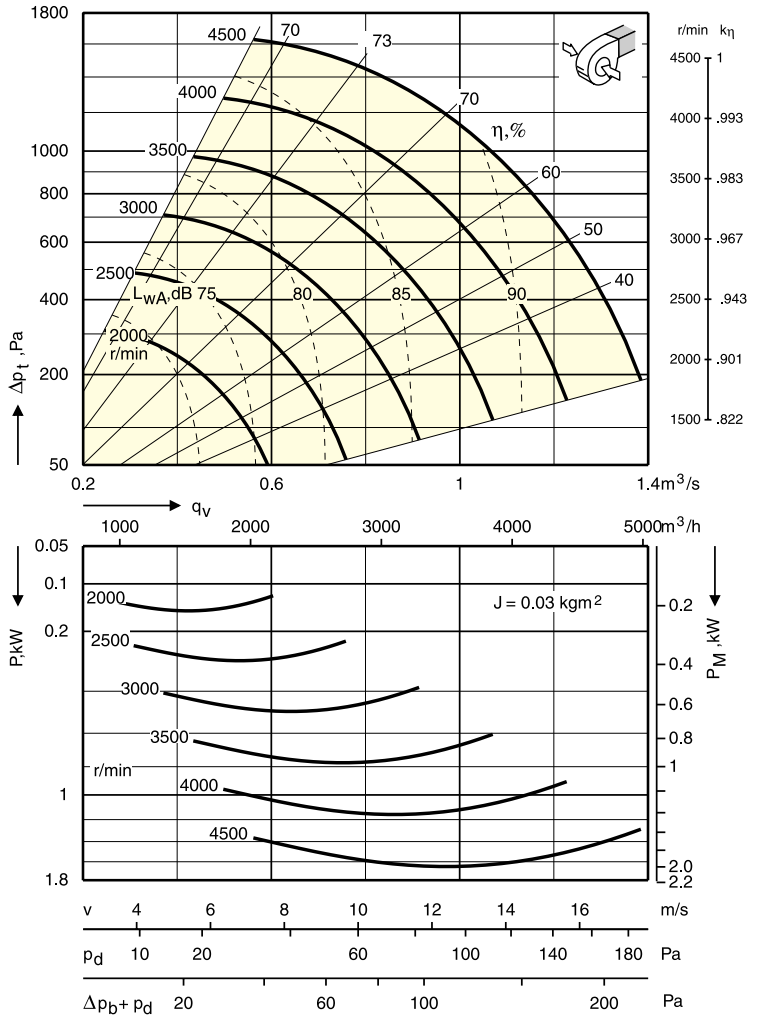




# Fan Charts – Acoustic Data – GTLB-5-022

Belt-driven, double-inlet, backward curved blades

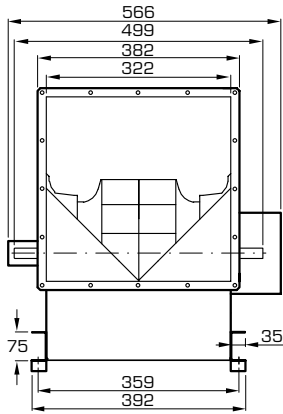
Impeller diameter: 220 mm



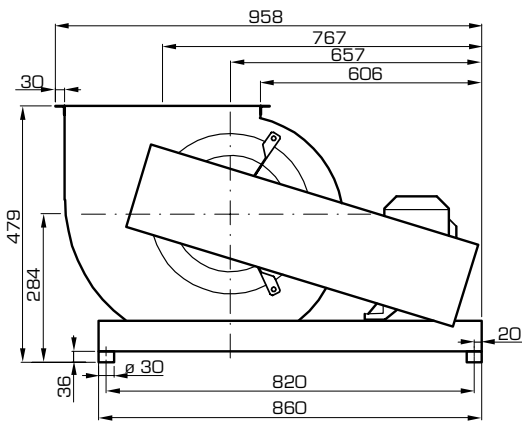
Sound path	Speed range r/min	Correction $K_{Gk}$ , dB								$\Delta L_{WA}(s)$	$\Delta L_{WT}(s)$
		Octave band, mid-frequency, Hz									
		63	125	250	500	1000	2000	4000	8000		
To the outlet duct	0 - 1928	6	4	5	-5	-7	-9	-12	-17	0	10,2
	1929 - 3857	4	-1	-4	0	-8	-8	-12	-18	0	7,1
	3858 - 4500	-1	-3	-2	-9	-2	-8	-12	-18	0	4,7
To the surrounding of a free-inlet fan	0 - 1928	0	4	7	1	-3	-7	-13	-19	3,3	6,9
	1929 - 3857	-5	-2	-2	4	-2	-7	-12	-20	3,7	3,3
	3858 - 4500	-9	-10	-6	-4	2	-5	-11	-21	3,7	0,9
To the outlet of a free-discharge fan	0 - 1928	-7	-3	2	-6	-7	-9	-12	-17	-1	5,7
	1929 - 3857	-12	-8	-7	-1	-8	-8	-12	-18	-0,6	2,7
	3858 - 4500	-18	-10	-5	-10	-2	-8	-12	-18	0,1	1,4

# Dimensions and Weights - GTLF-5-025

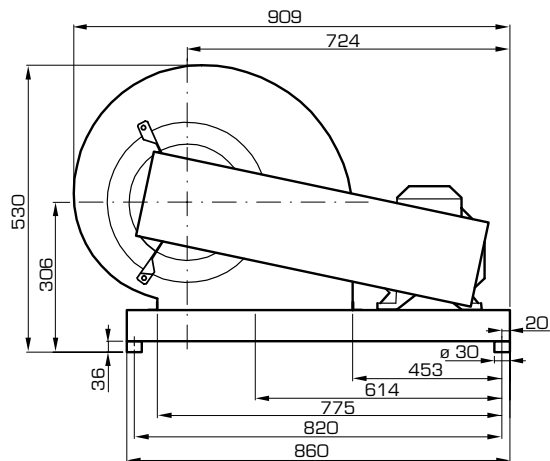
Right-hand version with 90° direction of discharge shown



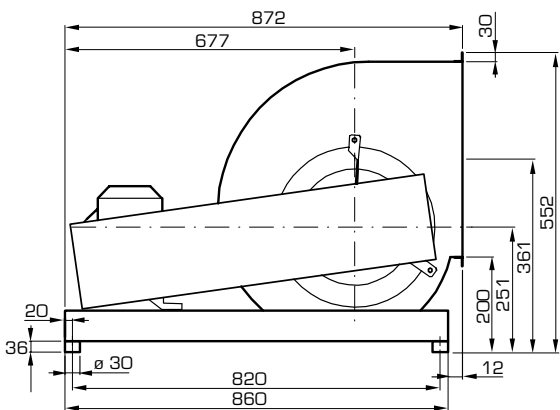
Right-hand version (viewed from drive side)



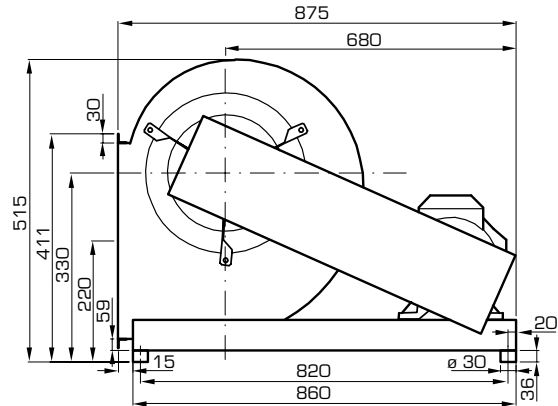
0°



180°



90°



270°

Left-hand version (same dimensions as the right-hand version)



Weight (kg)

GTLF-5-025: 26,0  
(including belt drive, without motor).

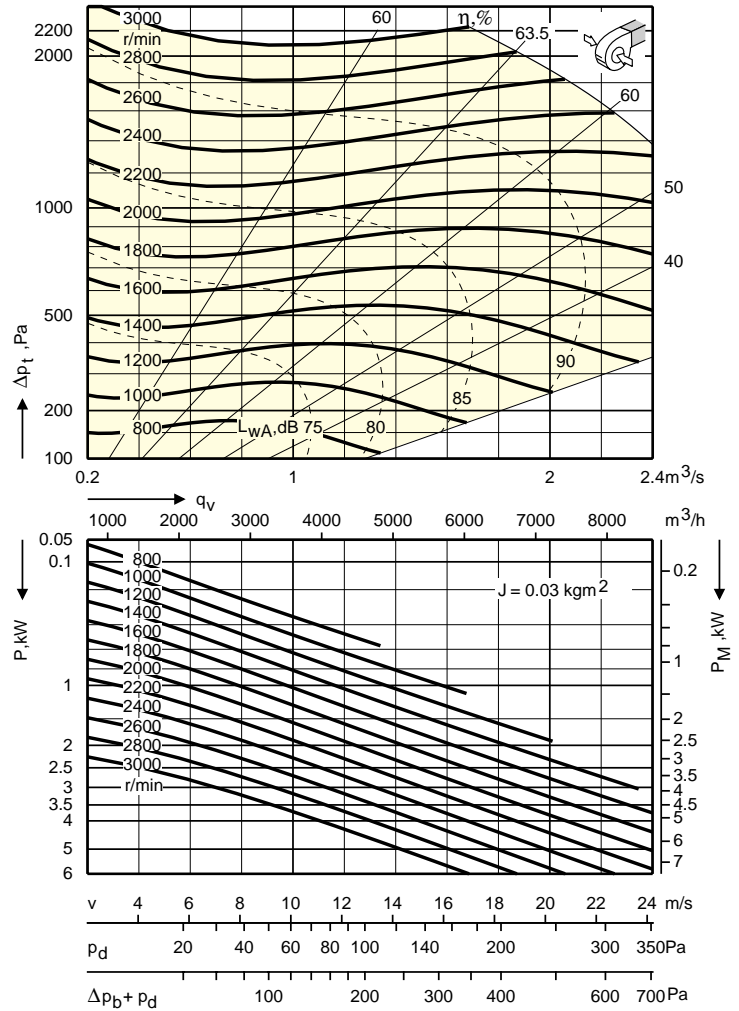
Motor data: see separate motor list.

For dimensions of discharge flange, see page 78 Flexible connection.

# Fan Charts – Acoustic Data – GTLF-5-025

Belt-driven, double-inlet, forward curved blades

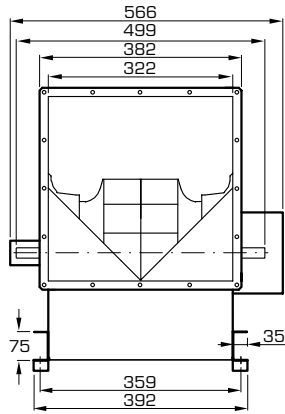
Impeller diameter: 250 mm



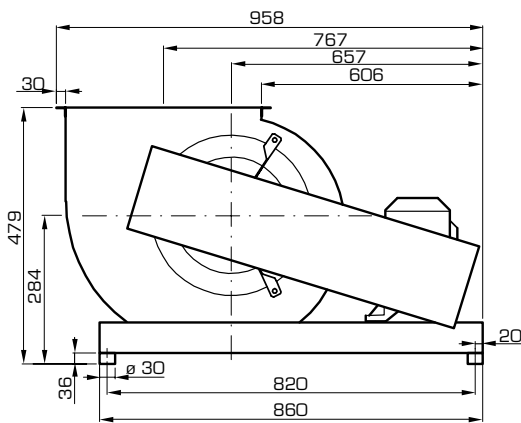
Sound path	Speed range r/min	Correction $K_{Gk}$ , dB								$\Delta L_{WA}(s)$	$\Delta L_{WB}(s)$
		Octave band, mid-frequency, Hz									
		63	125	250	500	1000	2000	4000	8000		
To the outlet duct	0 - 800	4	-2	-3	-5	-4	-8	-10	-15	0	6,7
	801 - 1800	3	-3	-3	-4	-5	-7	-10	-15	0	6,1
	1801 - 3000	2	-3	-4	-5	-6	-6	-9	-14	0	5,4
To the surrounding of a free-inlet fan	0 - 800	-1	0	-1	-2	-2	-6	-9	-15	2	4,3
	801 - 1800	-3	-2	-1	-1	-2	-6	-8	-15	2,3	3,5
	1801 - 3000	-5	-3	-2	-3	-2	-4	-8	-12	2,4	2,7
To the outlet of a free-discharge fan	0 - 800	-10	-8	-6	-6	-4	-8	-10	-15	-0,4	2
	801 - 1800	-12	-9	-6	-5	-5	-7	-10	-15	-0,4	1,9
	1801 - 3000	-15	-9	-7	-6	-6	-6	-9	-14	-0,4	1,5

# Dimensions and Weights – GTLB-5-025

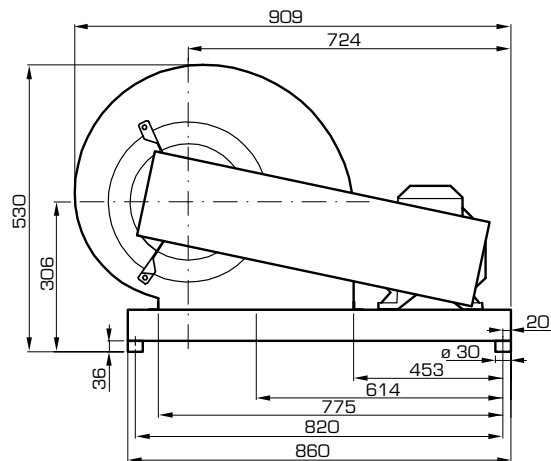
Right-hand version with 90° direction of discharge shown



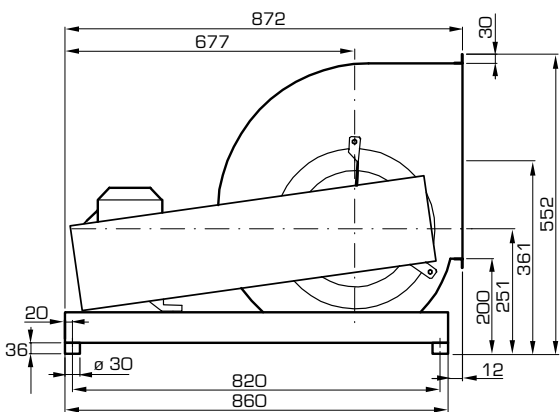
Right-hand version (viewed from drive side)



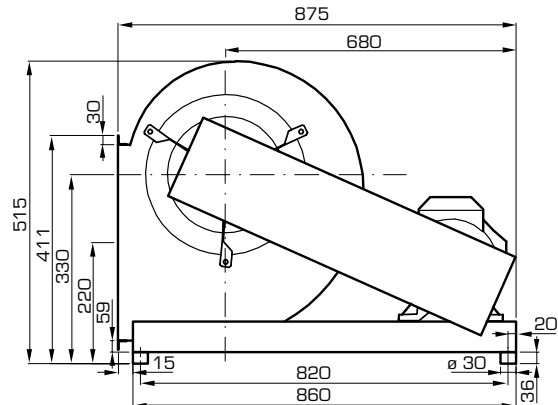
0°



180°



90°



270°

Left-hand version (same dimensions as the right-hand version)



0°



90°



180°



270°

Weight (kg)

GTLB-5-025: 27,0  
(including belt drive, without motor).

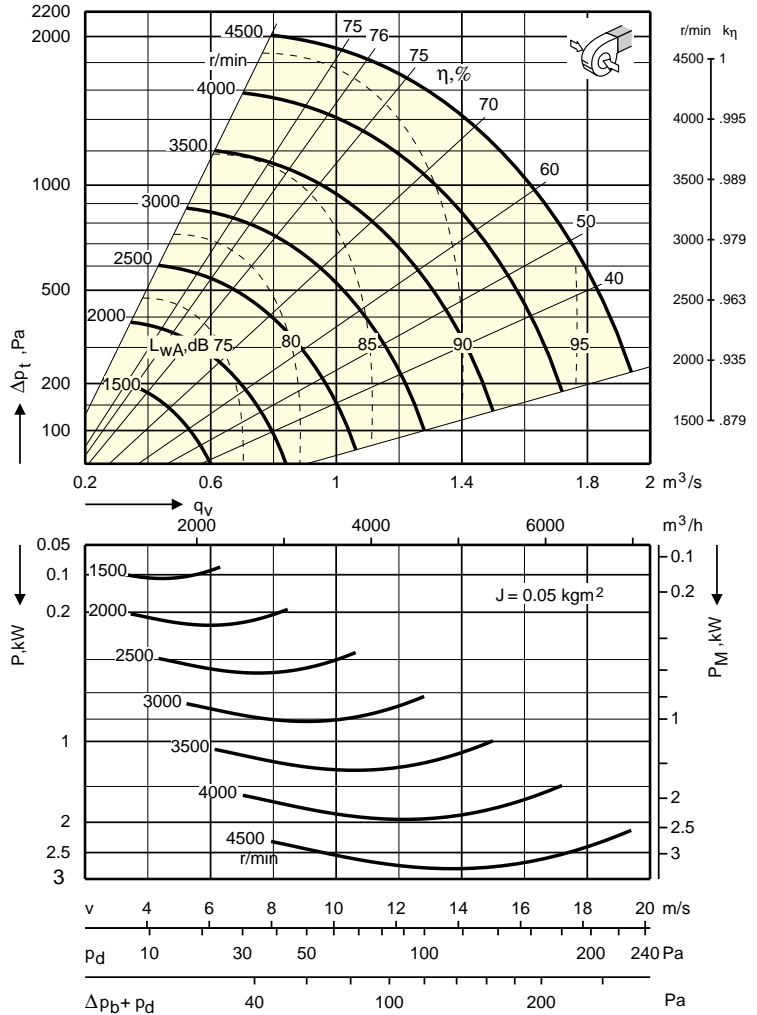
Motor data: see separate motor list.

For dimensions of discharge flange, see page 78 Flexible connection.

# Fan Charts – Acoustic Data – GTLB-5-025

Belt-driven, double-inlet, backward curved blades

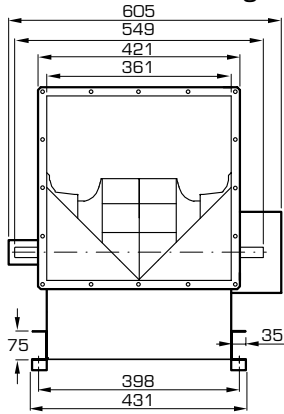
Impeller diameter: 250 mm



Sound path	Speed range r/min	Correction $K_{Gk}$ , dB								$\Delta L_{WA}(s)$	$\Delta L_{Wt}(s)$
		Octave band, mid-frequency, Hz									
		63	125	250	500	1000	2000	4000	8000		
To the outlet duct	0 - 1928	2	2	4	-4	-7	-8	-11	-18	0	8,2
	1929 - 3857	0	0	-5	-1	-7	-7	-11	-18	0	5,6
	3858 - 4500	-3	-3	-2	-8	-3	-8	-10	-15	0	4,1
To the surrounding of a free-inlet fan	0 - 1928	-5	0	5	1	-2	-6	-13	-21	3,2	5
	1929 - 3857	-9	-6	-4	3	-2	-7	-12	-22	3,1	2,5
	3858 - 4500	-12	-10	-9	-4	2	-6	-10	-21	3,5	0,7
To the outlet of a free-discharge fan	0 - 1928	-11	-4	1	-5	-7	-8	-11	-18	-0,8	4,8
	1929 - 3857	-15	-6	-8	-2	-7	-7	-11	-18	-0,4	2,3
	3858 - 4500	-18	-9	-5	-9	-3	-8	-10	-15	-0,2	1,6

# Dimensions and Weights - GTLF-5-028

Right-hand version with 90° direction of discharge shown



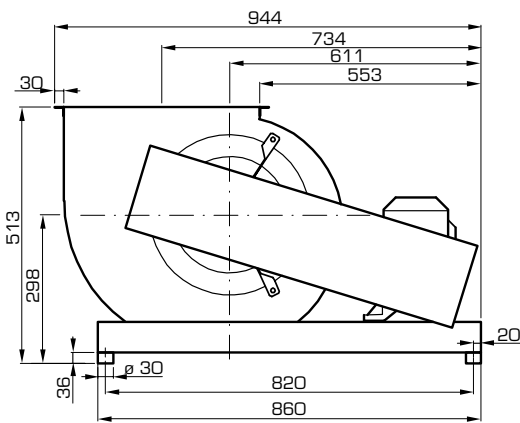
Weight (kg)

GTLF-5-028: 29,0  
(including belt drive, without motor).

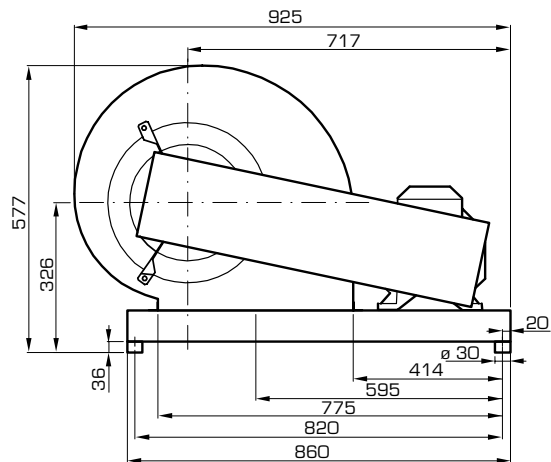
Motor data: see separate motor list.

For dimensions of discharge flange, see page 78 Flexible connection.

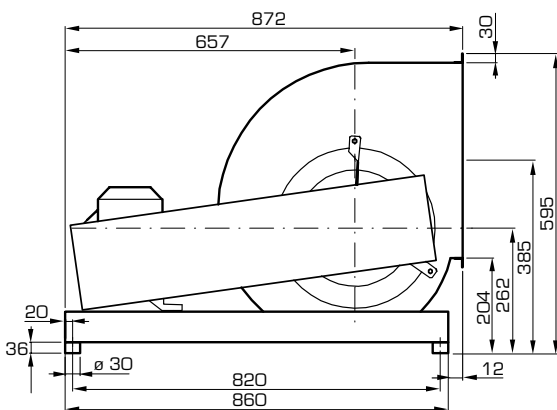
Right-hand version (viewed from drive side)



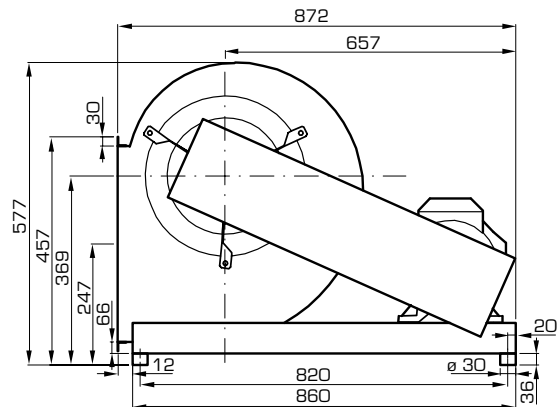
0°



180°



90°



270°

Left-hand version (same dimensions as the right-hand version)



0°



90°



180°

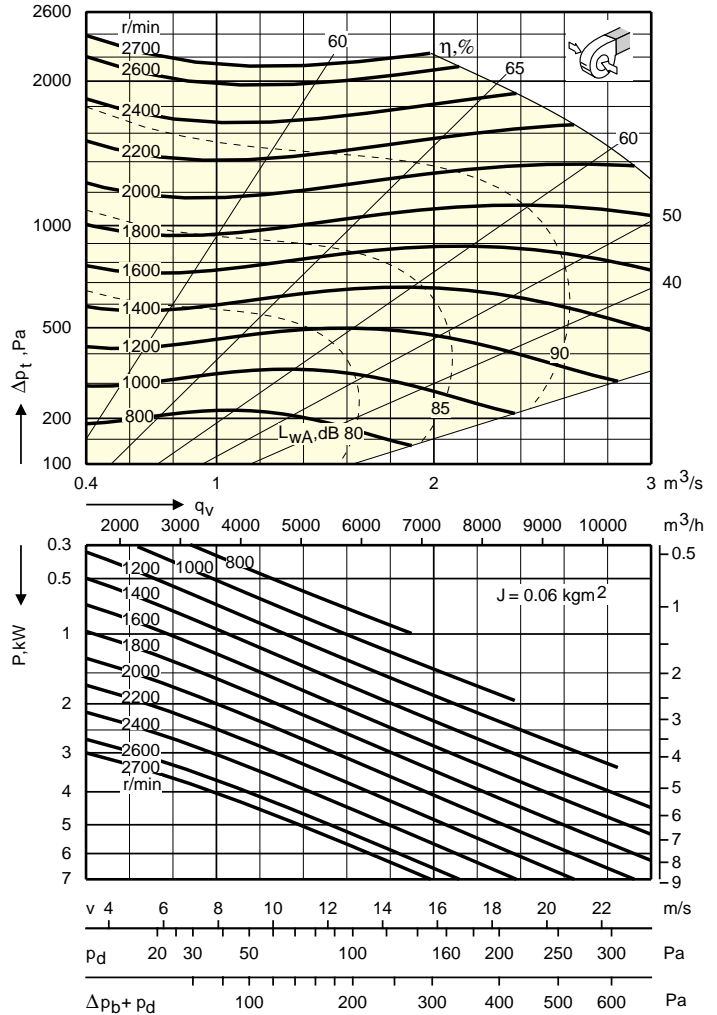


270°

# Fan Charts – Acoustic Data – GTLF-5-028

Belt-driven, double-inlet, forward curved blades

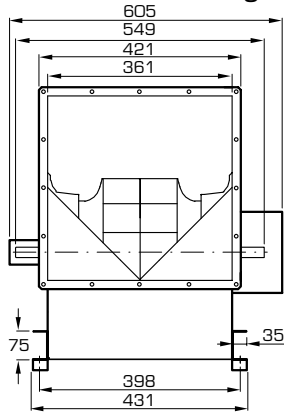
Impeller diameter: 280 mm



Sound path	Speed range r/min	Correction $K_{Gk}$ , dB								$\Delta L_{WA}(s)$	$\Delta L_{WT}(s)$
		Octave band, mid-frequency, Hz									
		63	125	250	500	1000	2000	4000	8000		
To the outlet duct	0 - 800	4	-2	-3	-5	-4	-8	-10	-15	0	6,7
	801 - 1800	3	-3	-3	-4	-5	-7	-10	-15	0	6,1
	1801 - 2700	2	-3	-4	-5	-6	-6	-9	-14	0	5,4
To the surrounding of a free-inlet fan	0 - 800	-1	0	-1	-2	-2	-6	-9	-15	2	4,3
	801 - 1800	-3	-2	-1	-1	-2	-6	-8	-15	2,3	3,5
	1801 - 2700	-5	-3	-2	-3	-2	-4	-8	-12	2,4	2,7
To the outlet of a free-discharge fan	0 - 800	-9	-7	-5	-5	-4	-8	-10	-15	-0,2	2,4
	801 - 1800	-11	-8	-5	-4	-5	-7	-10	-15	-0,2	2,2
	1801 - 2700	-13	-8	-6	-5	-6	-6	-9	-14	-0,2	1,8

# Dimensions and Weights - GTLB-5-028

Right-hand version with 90° direction of discharge shown



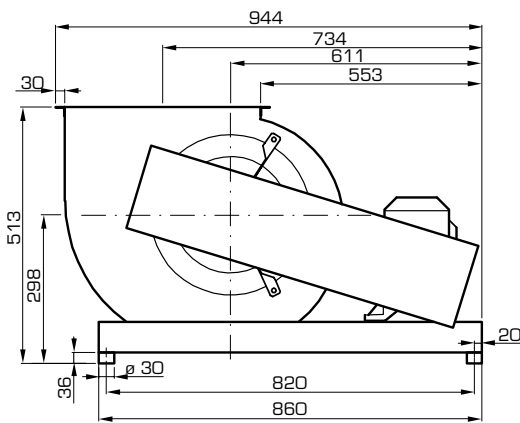
Weight (kg)

GTLB-5-028: 30,0  
(including belt drive, without motor).

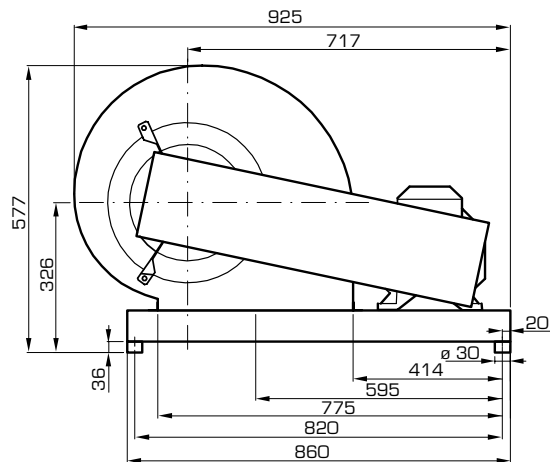
Motor data: see separate motor list.

For dimensions of discharge flange, see page 78 Flexible connection.

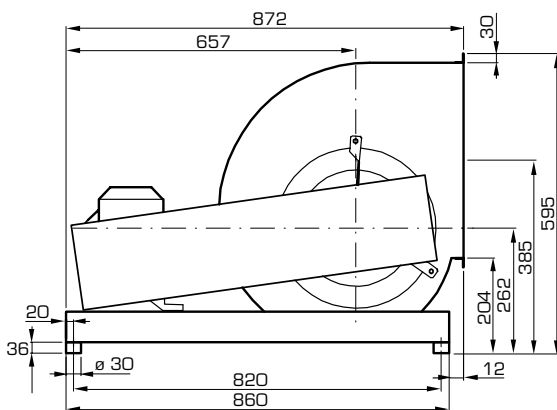
Right-hand version (viewed from drive side)



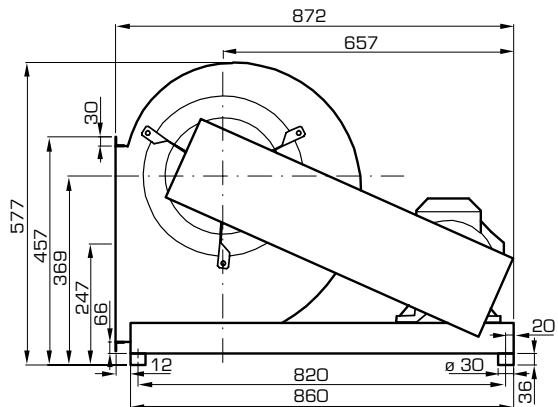
0°



180°



90°



270°

Left-hand version (same dimensions as the right-hand version)



0°



90°



180°



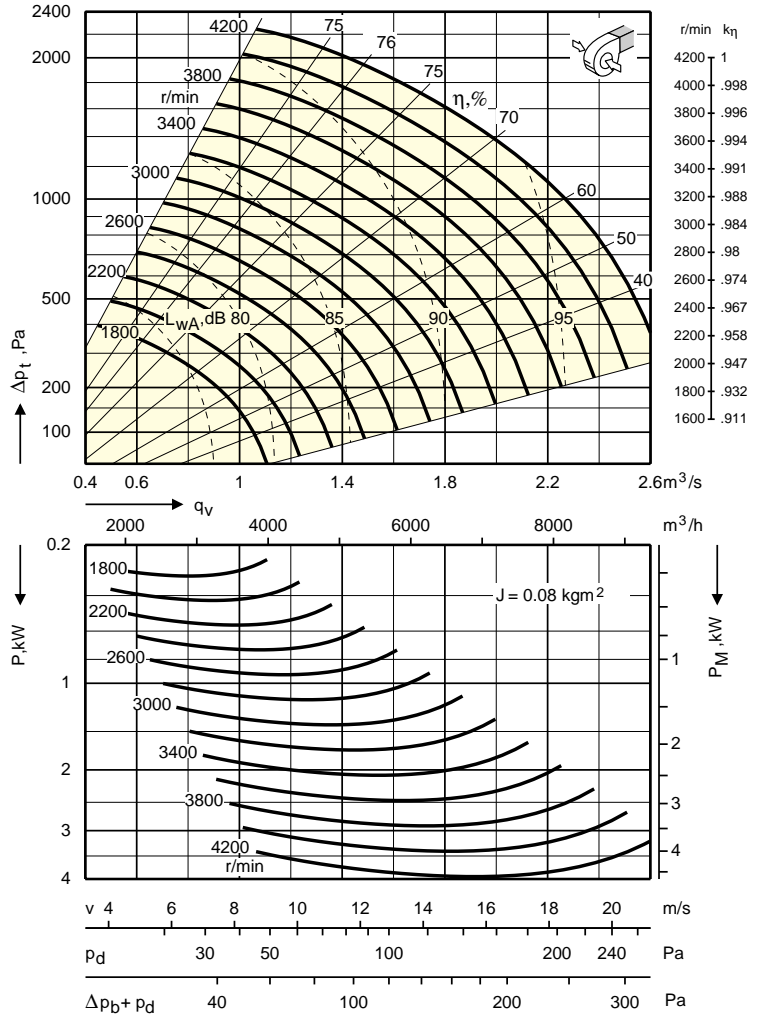
270°



# Fan Charts – Acoustic Data – GTLB-5-028

Belt-driven, double-inlet, backward curved blades

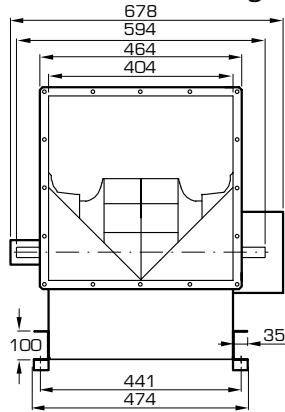
Impeller diameter: 280 mm



Sound path	Speed range r/min	Correction $K_{Gk}$ , dB								$\Delta L_{WA}(s)$	$\Delta L_{WT}(s)$
		Octave band, mid-frequency, Hz									
		63	125	250	500	1000	2000	4000	8000		
To the outlet duct	0 - 1928	1	3	4	-5	-6	-8	-12	-17	0	8,2
	1929 - 3857	-3	0	-5	-2	-6	-7	-12	-17	0	4,7
	3858 - 4200	-5	-3	-2	-7	-4	-6	-10	-14	0	3,9
To the surrounding of a free-inlet fan	0 - 1928	-6	2	4	1	-2	-6	-14	-21	3	5,2
	1929 - 3857	-11	-6	-4	1	-2	-7	-13	-21	2,1	2,5
	3858 - 4200	-14	-10	-9	-4	1	-4	-10	-19	3,3	0,6
To the outlet of a free-discharge fan	0 - 1928	-10	-2	2	-6	-6	-8	-12	-17	-0,5	5,4
	1929 - 3857	-17	-5	-7	-3	-6	-7	-12	-17	-0,5	2,5
	3858 - 4200	-19	-8	-4	-8	-4	-6	-10	-14	0	1,8

# Dimensions and Weights - GTLF-5-031

Right-hand version with 90° direction of discharge shown



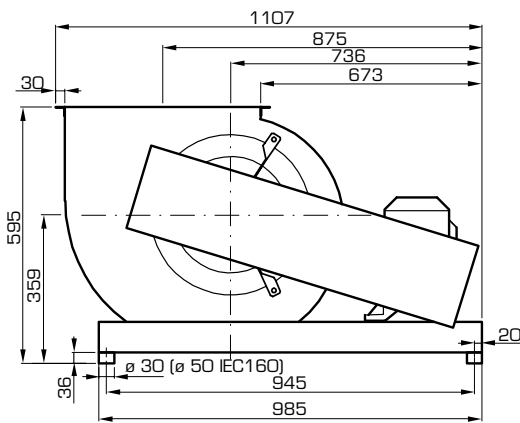
Weight (kg)

GTLF-5-031: 38,0  
(including belt drive, without motor).

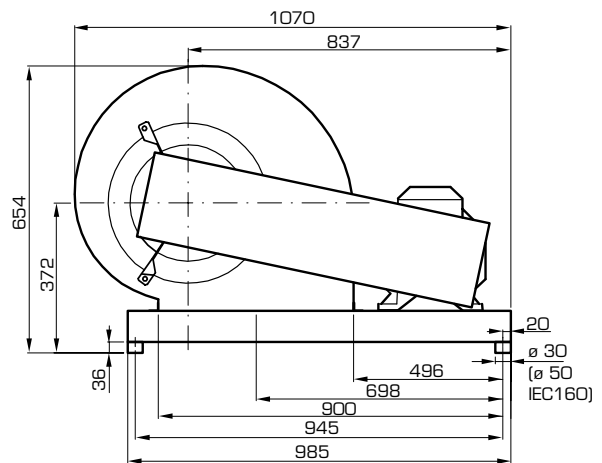
Motor data: see separate motor list.

For dimensions of discharge flange, see page 78 Flexible connection.

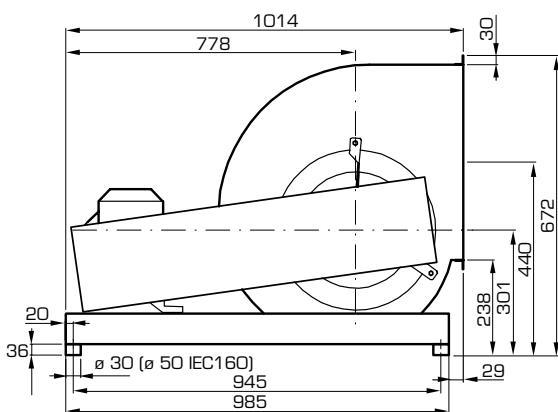
Right-hand version (viewed from drive side)



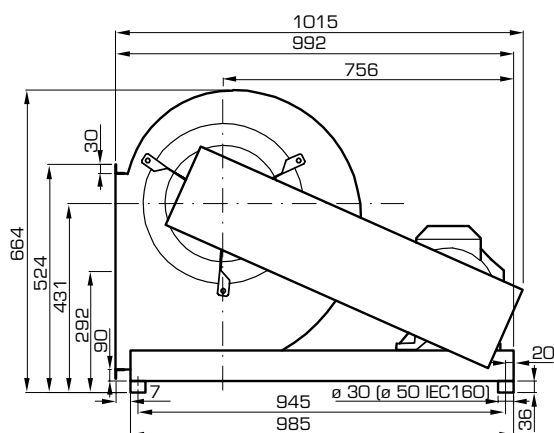
0°



180°



90°



270°

Left-hand version (same dimensions as the right-hand version)



0°



90°



180°

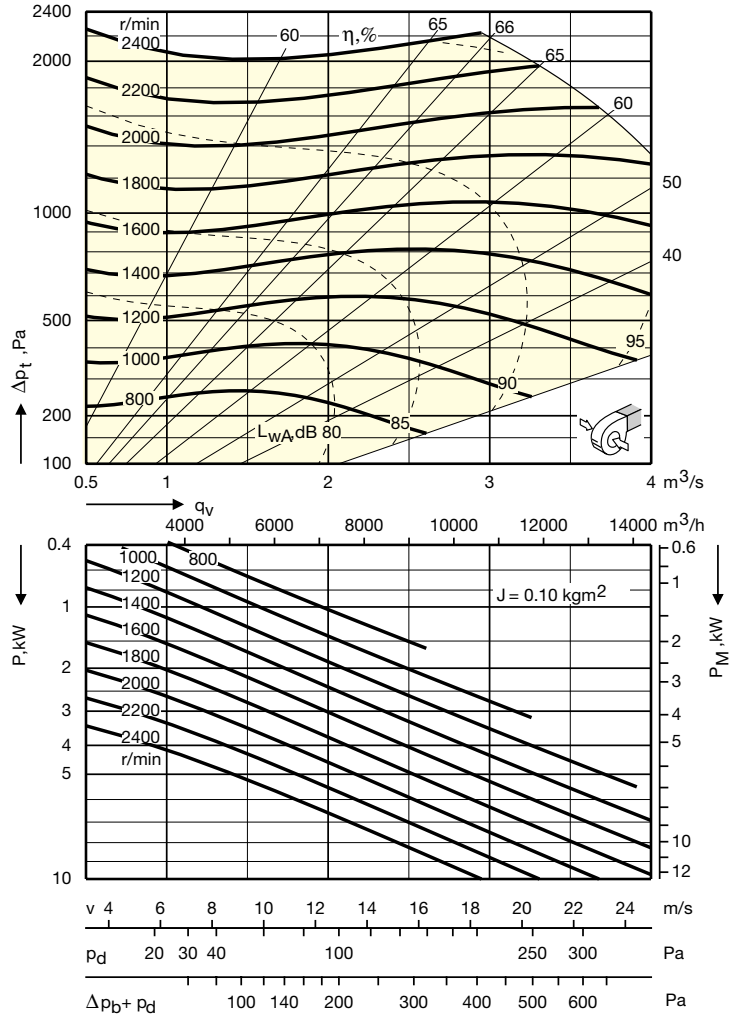


270°

# Fan Charts – Acoustic Data – GTLF-5-031

Belt-driven, double-inlet, forward curved blades

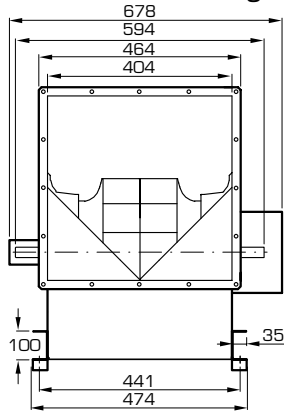
Impeller diameter: 310 mm



Sound path	Speed range r/min	Correction $K_{Gk}$ , dB								$\Delta L_{WA}(s)$	$\Delta L_{WT}(s)$
		Octave band, mid-frequency, Hz									
		63	125	250	500	1000	2000	4000	8000		
To the outlet duct	0 - 800	4	-2	-3	-5	-4	-8	-10	-15	0	6,7
	801 - 1800	3	-3	-3	-4	-5	-7	-10	-15	0	6,1
	1801 - 2400	2	-3	-4	-5	-6	-6	-9	-14	0	5,4
To the surrounding of a free-inlet fan	0 - 800	-1	0	-1	-2	-2	-6	-9	-15	2	4,3
	801 - 1800	-3	-2	-1	-1	-2	-6	-8	-15	2,3	3,5
	1801 - 2400	-5	-3	-2	-3	-2	-4	-8	-12	2,4	2,7
To the outlet of a free-discharge fan	0 - 800	-6	-7	-5	-5	-4	-8	-10	-15	-0,2	2,7
	801 - 1800	-9	-8	-5	-4	-5	-7	-10	-15	-0,2	2,4
	1801 - 2400	-12	-8	-6	-5	-6	-6	-9	-14	-0,2	1,8

# Dimensions and Weights - GTLB-5-031

Right-hand version with 90° direction of discharge shown



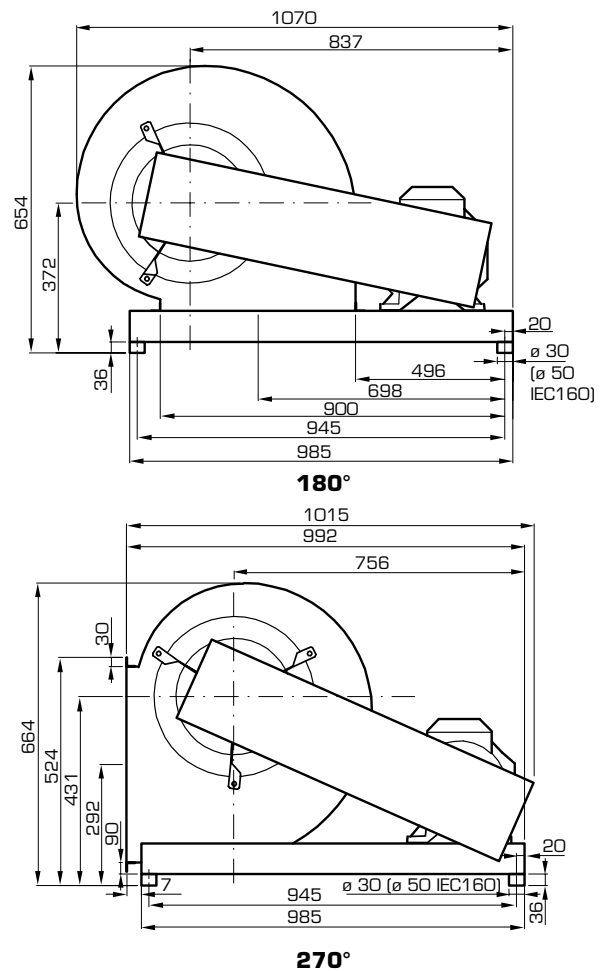
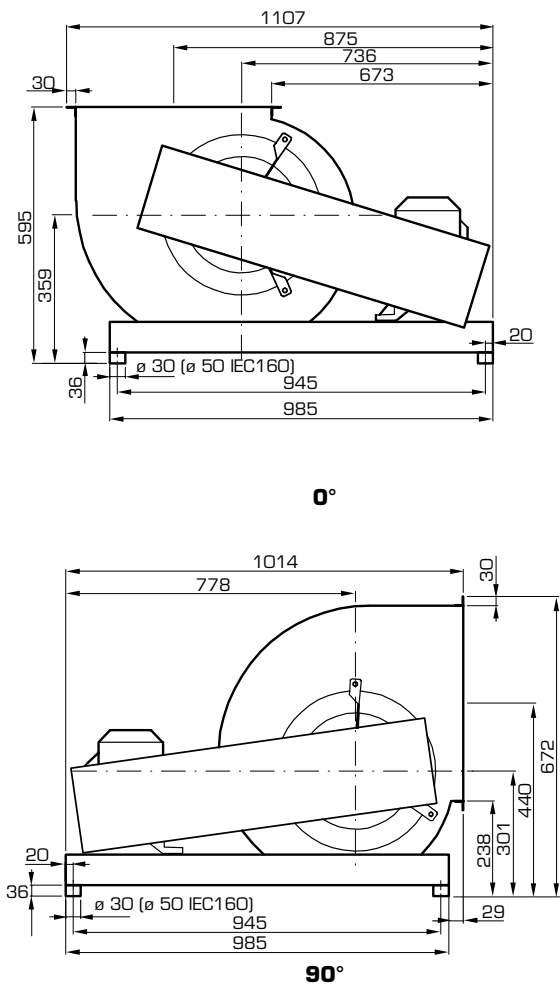
Weight (kg)

GTLB-5-031: 40,0  
(including belt drive, without motor).

Motor data: see separate motor list.

For dimensions of discharge flange, see page 78 Flexible connection.

Right-hand version (viewed from drive side)



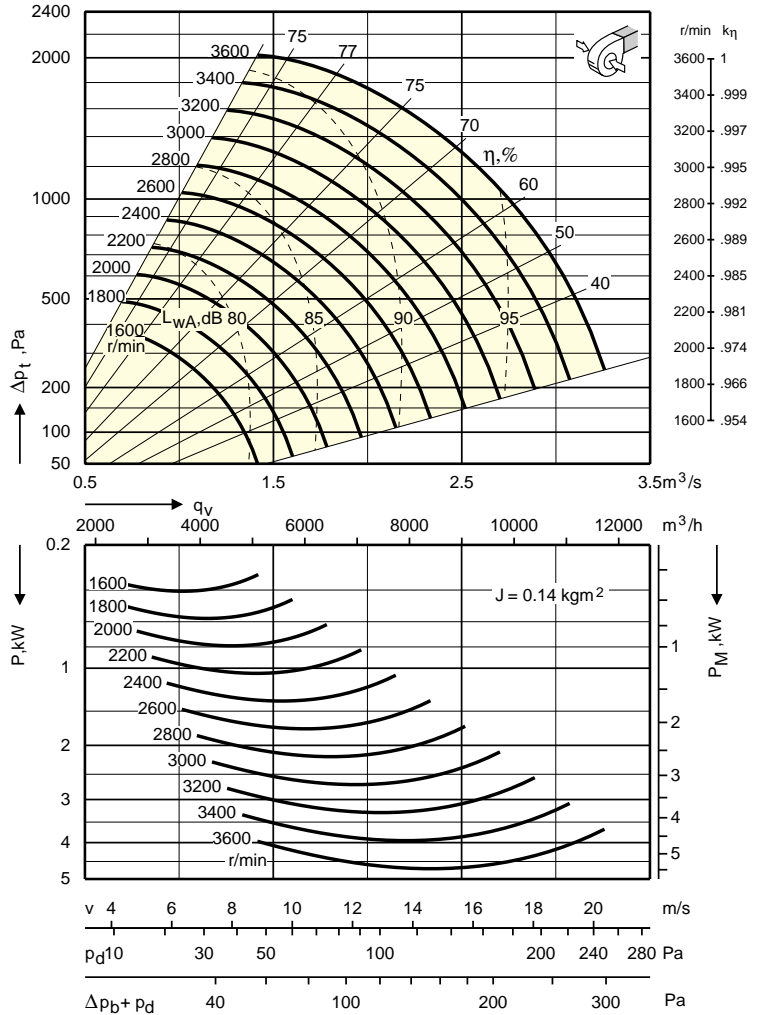
Left-hand version (same dimensions as the right-hand version)



# Fan Charts - Acoustic Data - GTLB-5-031

Belt-driven, double-inlet, backward curved blades

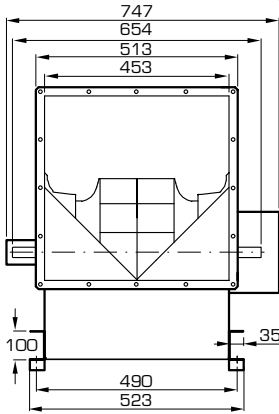
Impeller diameter: 310 mm



Sound path	Speed range r/min	Correction $K_{Gk}$ , dB								$\Delta L_{WA}(s)$	$\Delta L_{WT}(s)$
		Octave band, mid-frequency, Hz									
		63	125	250	500	1000	2000	4000	8000		
To the outlet duct	0 - 1928	-6	0	5	-5	-6	-8	-15	-20	0	7,1
	1929 - 3600	-8	-3	-7	-2	-6	-6	-12	-20	0	3,2
To the surrounding of a free-inlet fan	0 - 1928	-7	-2	4	0	-2	-6	-16	-21	2,6	4,6
	1929 - 3600	-13	-9	-6	-1	-3	-6	-13	-23	1,2	1,9
To the outlet of a free-discharge fan	0 - 1928	-16	-5	3	-5	-6	-8	-15	-20	-0,4	5,3
	1929 - 3600	-20	-8	-9	-2	-6	-6	-12	-20	0	1,8

# Dimensions and Weights - GTLF-5-035

Right-hand version with 90° direction of discharge shown



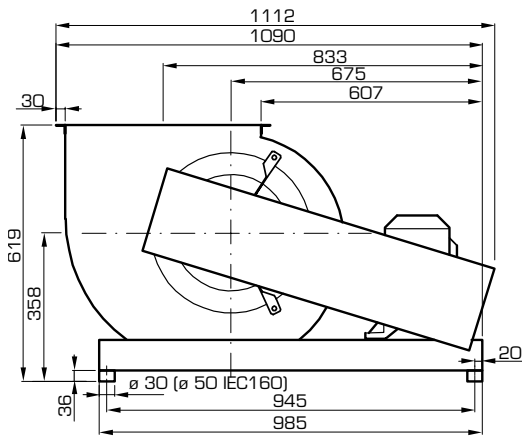
Weight (kg)

GTLF-5-035: 44,0  
(including belt drive, without motor).

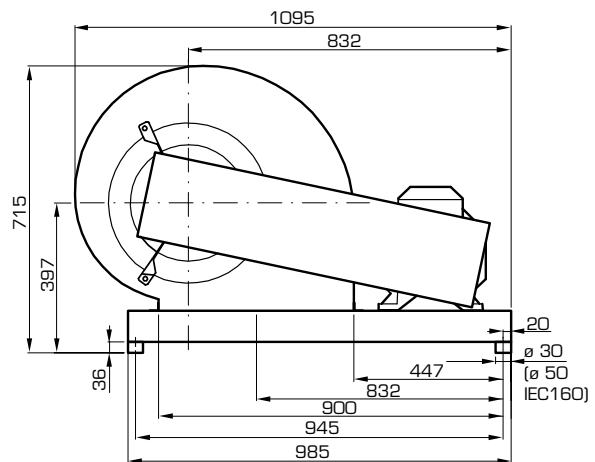
Motor data: see separate motor list.

For dimensions of discharge flange, see page 78 Flexible connection.

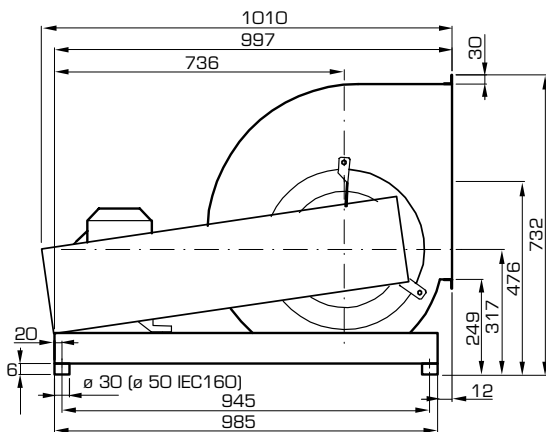
Right-hand version (viewed from drive side)



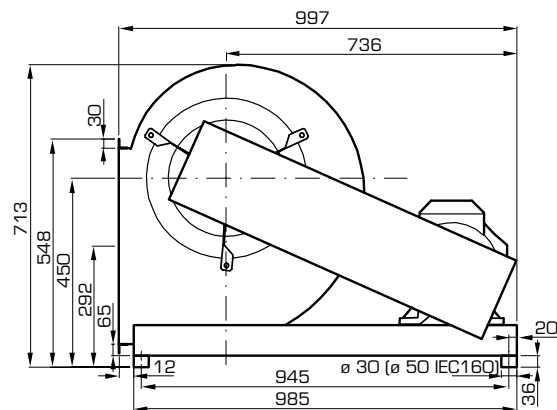
0°



180°



90°



270°

Left-hand version (same dimensions as the right-hand version)



0°



90°



180°

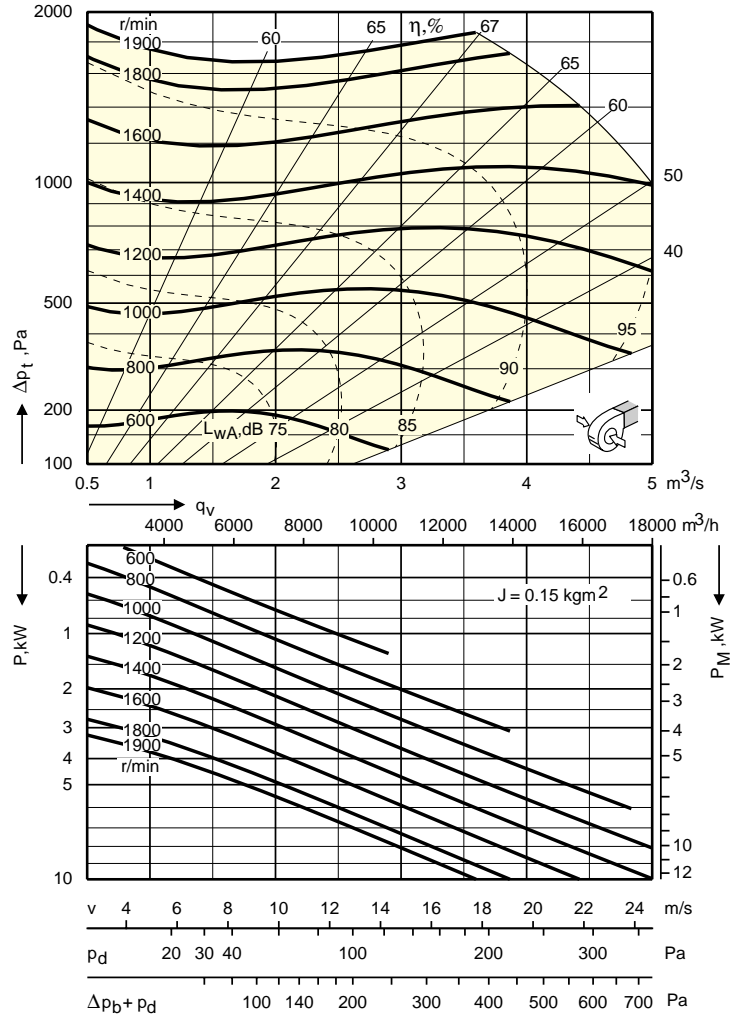


270°

# Fan Charts – Acoustic Data – GTLF-5-035

Belt-driven, double-inlet, forward curved blades

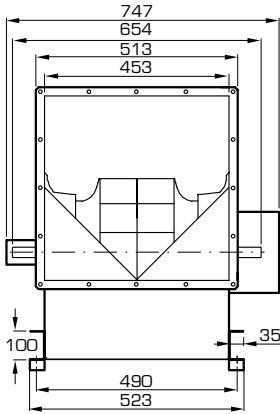
Impeller diameter: 350 mm



Sound path	Speed range r/min	Correction $K_{Gk}$ , dB								$\Delta L_{WA}(s)$	$\Delta L_{Wt}(s)$
		Octave band, mid-frequency, Hz									
		63	125	250	500	1000	2000	4000	8000		
To the outlet duct	0 - 800	4	-2	-3	-5	-4	-8	-10	-15	0	6,7
	801 - 1800	3	-3	-3	-4	-5	-7	-10	-15	0	6,1
	1801 - 1900	2	-3	-4	-5	-6	-6	-9	-14	0	5,4
To the surrounding of a free-inlet fan	0 - 800	-1	0	-1	-2	-2	-6	-9	-15	2	4,3
	801 - 1800	-3	-2	-1	-1	-2	-6	-8	-15	2,3	3,5
	1801 - 1900	-5	-3	-2	-3	-2	-4	-8	-12	2,4	2,7
To the outlet of a free-discharge fan	0 - 800	-5	-6	-4	-5	-4	-8	-10	-15	-0,2	3,1
	801 - 1800	-8	-7	-4	-4	-5	-7	-10	-15	-0,1	2,7
	1801 - 1900	-9	-7	-5	-5	-6	-6	-9	-14	-0,2	2,3

# Dimensions and Weights - GTLB-5-035

Right-hand version with 90° direction of discharge shown



Weight (kg)

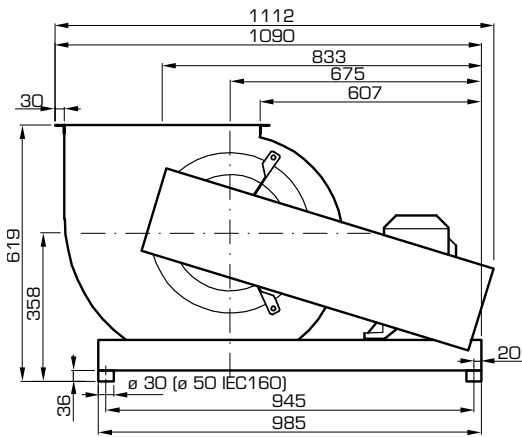
GTLB-5-035: 47,0  
(including belt drive, without motor).

Motor data: see separate motor list.

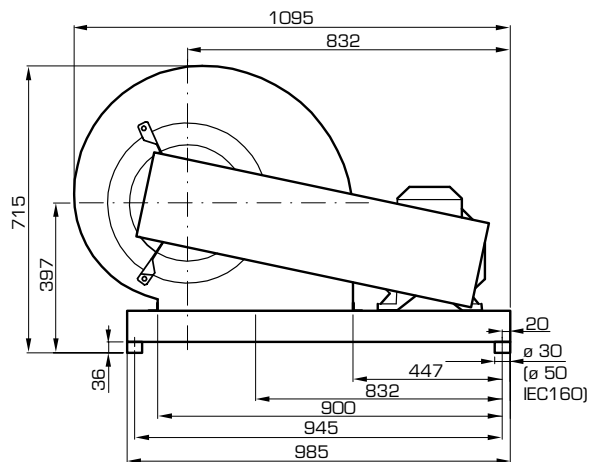
For dimensions of discharge flange, see page 78 Flexible connection.

Dimension on GTHB-5-035 available to special order.

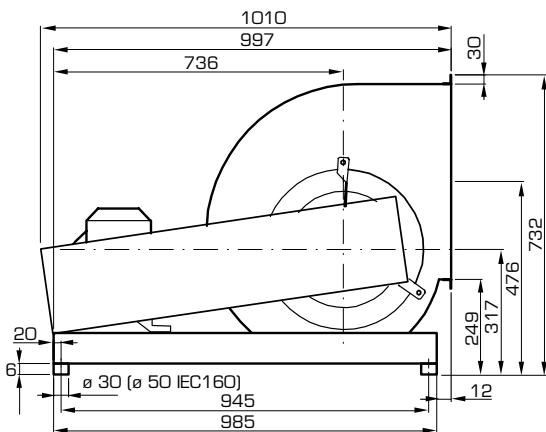
Right-hand version (viewed from drive side)



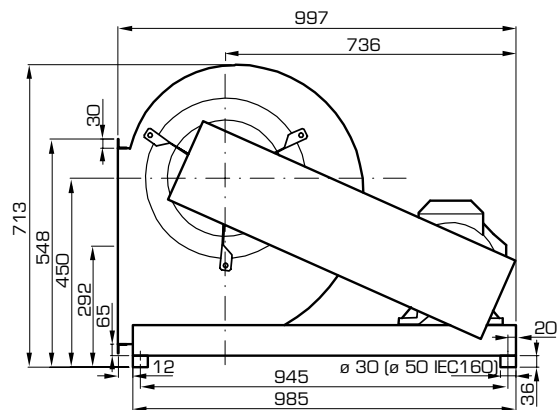
0°



180°



90°



270°

Left-hand version (same dimensions as the right-hand version)



0°



90°



180°



270°



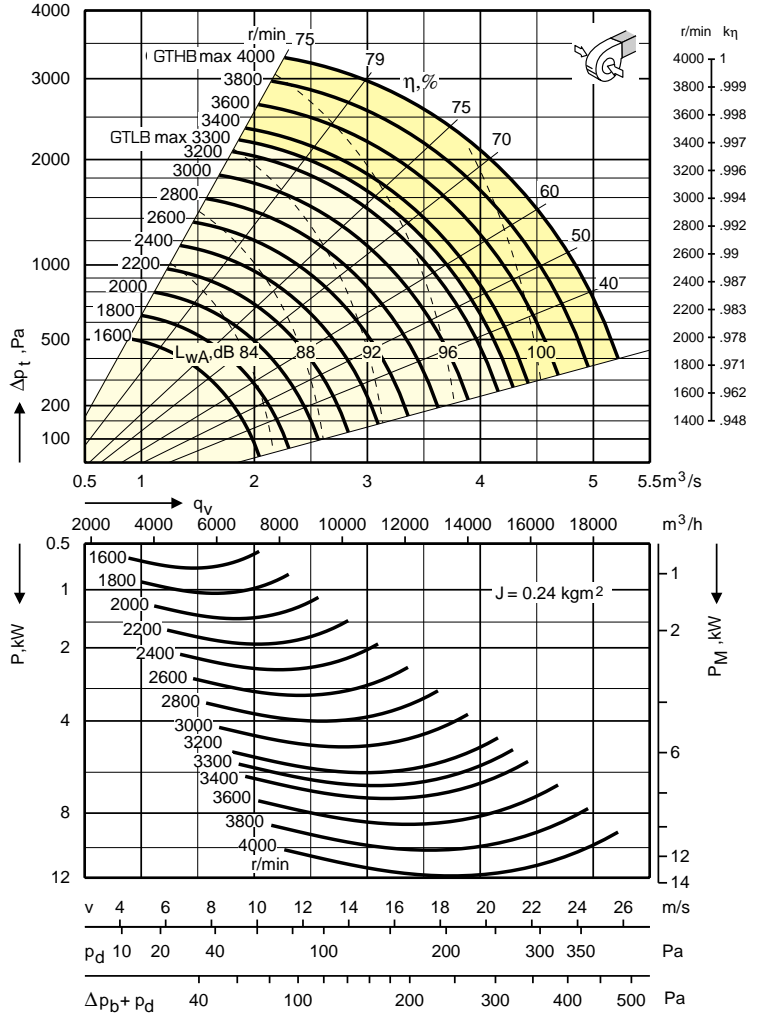
# Fan Charts – Acoustic Data – GTLB-5-035

Belt-driven, double-inlet, backward curved blades

Impeller diameter: 350 mm



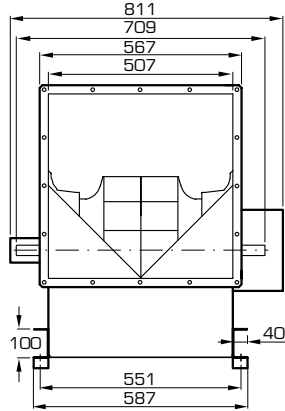
= GTHB-5-035 available to special order.



Sound path	Speed range r/min	Correction $K_{Gk}$ , dB								$\Delta L_{WA}(s)$	$\Delta L_{Wt}(s)$
		Octave band, mid-frequency, Hz									
		63	125	250	500	1000	2000	4000	8000		
To the outlet duct	0 - 1928	-4	0	5	-5	-6	-8	-15	-21	0	7,3
	1929 - 3857	-9	-3	-6	-3	-6	-5	-12	-19	0	3,1
	3858 - 4000	-11	-6	-3	-8	-4	-5	-11	-15	0	2,6
To the surrounding of a free-inlet fan	0 - 1928	-5	1	3	0	-3	-7	-10	-21	2,2	5,1
	1929 - 3857	-12	-6	-5	-1	-5	-7	-12	-21	0,4	2,6
	3858 - 4000	-14	-10	-8	-6	-1	-5	-8	-16	1,9	0,8
To the outlet of a free-discharge fan	0 - 1928	-13	-4	3	-5	-6	-8	-15	-21	-0,4	5,5
	1929 - 3857	-20	-7	-8	-3	-6	-5	-12	-19	0,1	1,7
	3858 - 4000	-23	-10	-4	-8	-4	-5	-11	-15	0,2	1,5

# Dimensions and Weights - GTLF-5-040

Right-hand version with 90° direction of discharge shown



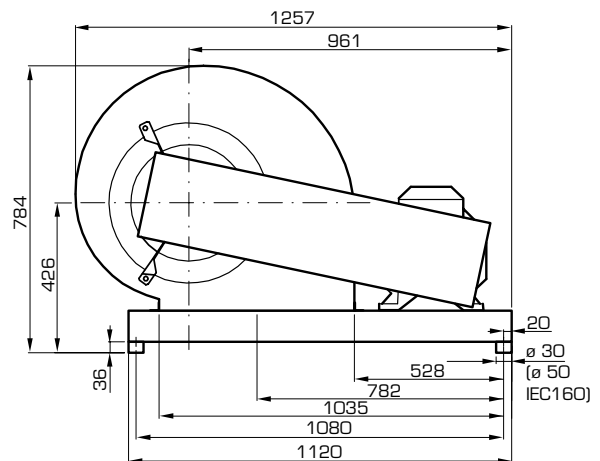
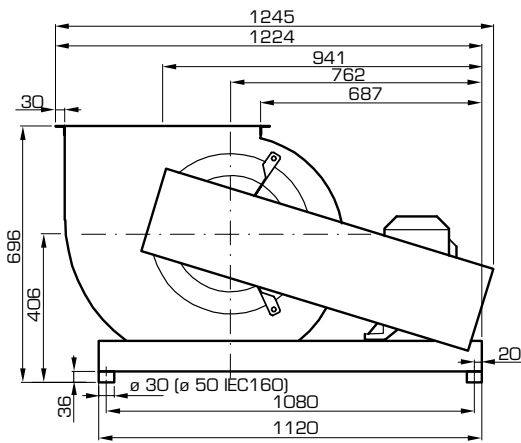
Weight (kg)

GTLF-5-040: 54,0  
(including belt drive, without motor).

Motor data: see separate motor list.

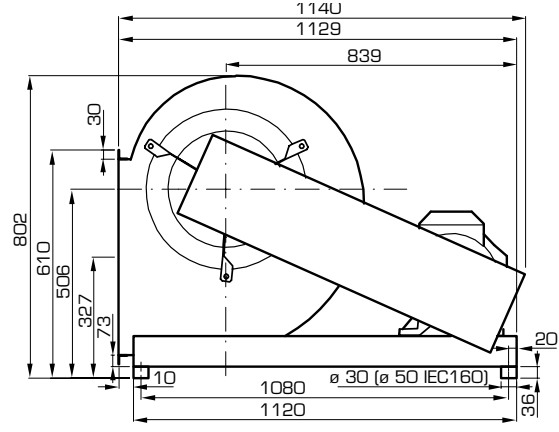
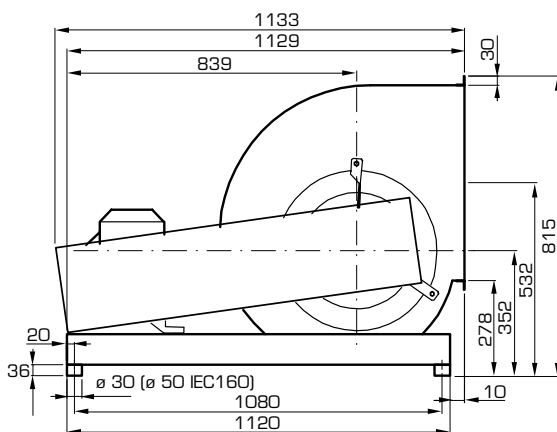
For dimensions of discharge flange, see page 78 Flexible connection.

Right-hand version (viewed from drive side)



0°

180°



90°

270°

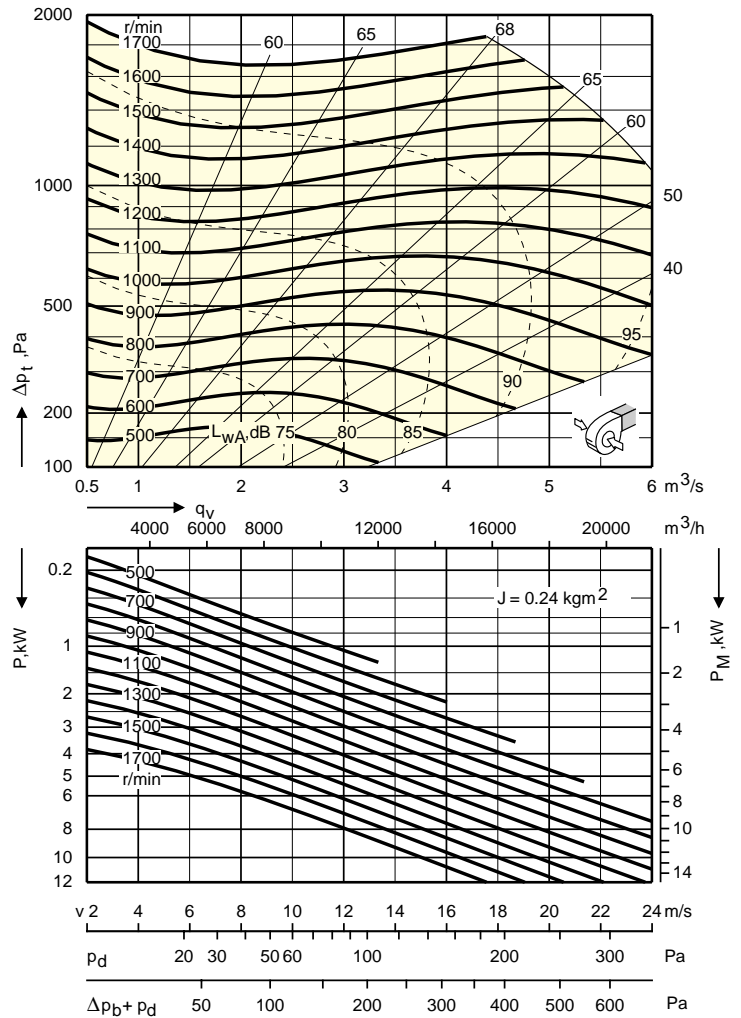
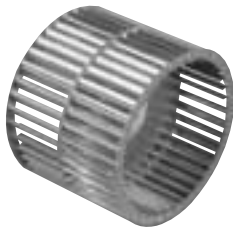
Left-hand version (same dimensions as the right-hand version)



# Fan Charts - Acoustic Data - GTLF-5-040

Belt-driven, double-inlet, forward curved blades

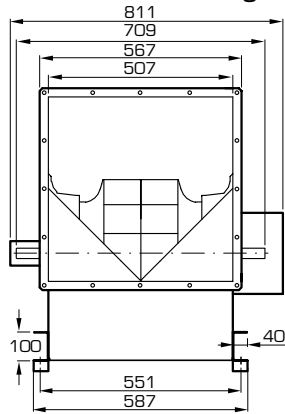
Impeller diameter: 400 mm



Sound path	Speed range r/min	Correction $K_{Gk}$ , dB								$\Delta L_{WA}(s)$	$\Delta L_{WT}(s)$
		Octave band, mid-frequency, Hz									
		63	125	250	500	1000	2000	4000	8000		
To the outlet duct	0 - 800	4	-2	-3	-5	-4	-8	-10	-15	0	6,7
	801 - 1700	3	-3	-3	-4	-5	-7	-10	-15	0	6,1
To the surrounding of a free-inlet fan	0 - 800	-1	0	-1	-2	-2	-6	-9	-15	2	4,3
	801 - 1700	-3	-2	-1	-1	-2	-6	-8	-15	2,3	3,5
To the outlet of a free-discharge fan	0 - 800	-4	-6	-4	-5	-4	-8	-10	-15	-0,2	3,3
	801 - 1700	-6	-7	-4	-4	-5	-7	-10	-15	-0,1	2,9

# Dimensions and Weights - GTLB-5-040

Right-hand version with 90° direction of discharge shown



Weight (kg)

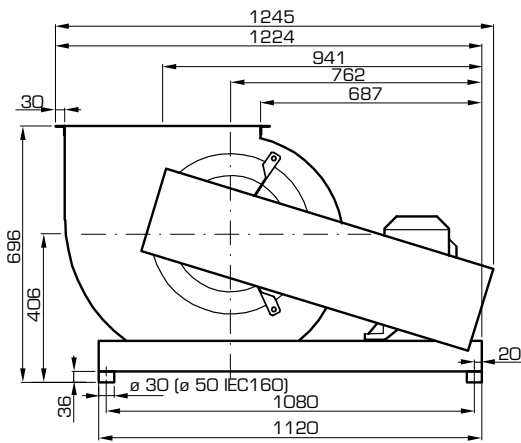
GTLB-5-040: 59,0  
(including belt drive, without motor).

Motor data: see separate motor list.

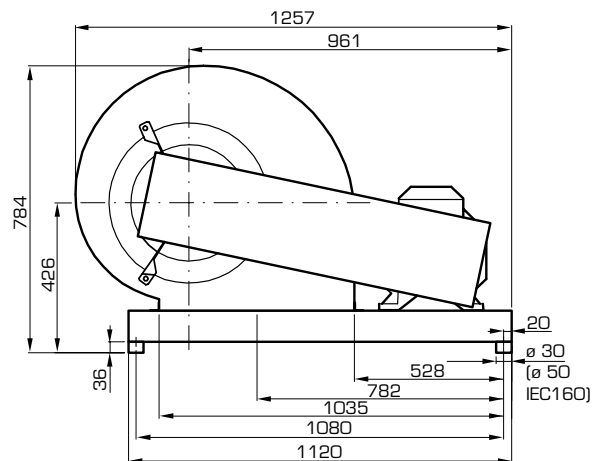
For dimensions of discharge flange, see page 78 Flexible connection.

Dimension on GTHB-5-040 available to special order.

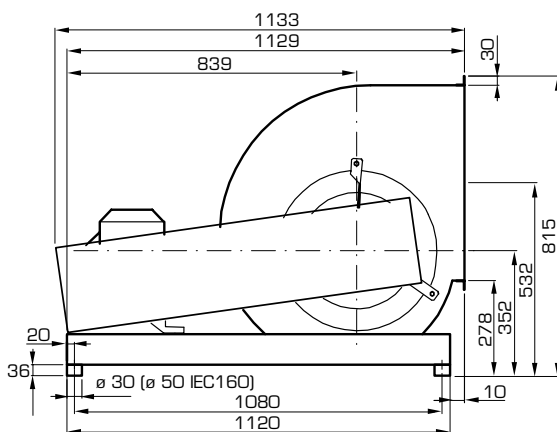
Right-hand version (viewed from drive side)



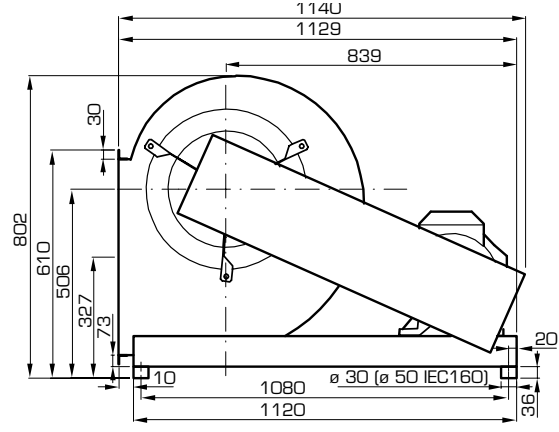
0°



180°



90°



270°

Left-hand version (same dimensions as the right-hand version)



0°



90°



180°



270°

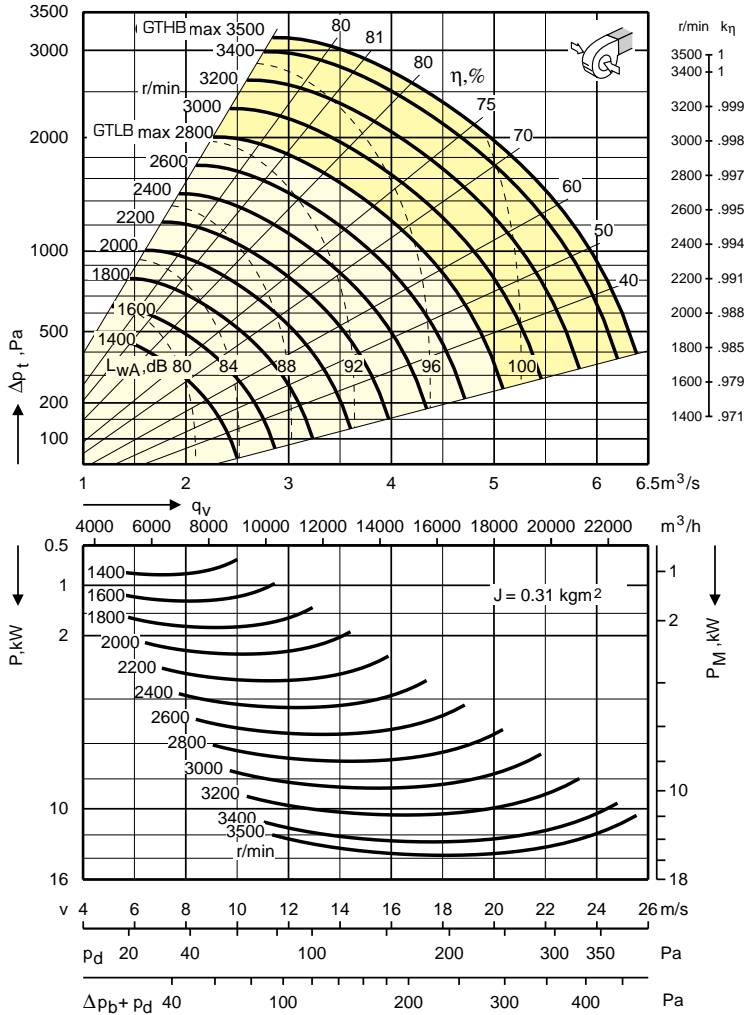
# Fan Charts - Acoustic Data - GTLB-5-040

Belt-driven, double-inlet, backward curved blades

Impeller diameter: 400 mm



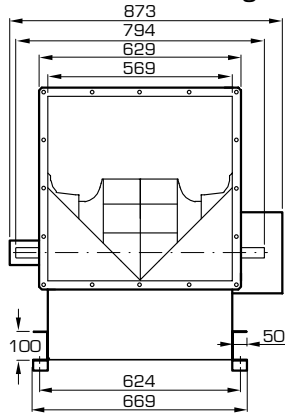
= GTHB-5-040 available to special order.



Sound path	Speed range r/min	Correction $K_{ok}$ , dB								$\Delta L_{WA}(s)$	$\Delta L_{Wt}(s)$
		Octave band, mid-frequency, Hz									
		63	125	250	500	1000	2000	4000	8000		
To the outlet duct	0 - 1928	-7	-3	4	-5	-5	-8	-15	-20	0	6,1
	1929 - 3500	-11	-5	-9	-4	-5	-5	-12	-18	0	2,1
To the surrounding of a free-inlet fan	0 - 1928	-6	-3	2	0	-3	-8	-10	-20	1,9	4,2
	1929 - 3500	-15	-8	-9	-2	-4	-7	-13	-20	0,2	1,9
To the outlet of a free-discharge fan	0 - 1928	-15	-7	3	-5	-5	-8	-15	-20	-0,1	5
	1929 - 3500	-20	-9	-10	-4	-5	-5	-12	-18	0,1	1,2

# Dimensions and Weights - GTLF-5-045

Right-hand version with 90° direction of discharge shown



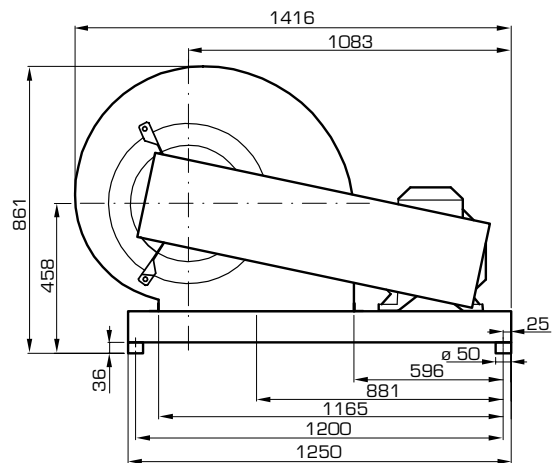
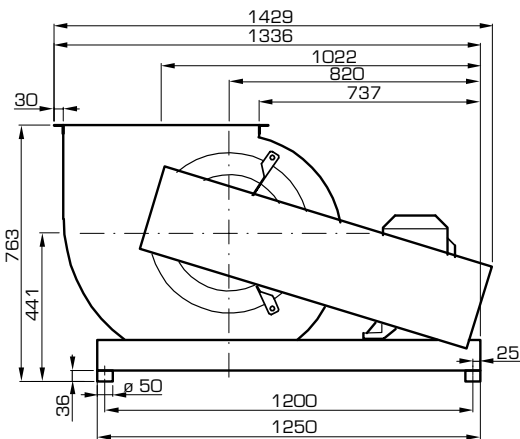
Weight (kg)

GTLF-5-045: 69,0  
(including belt drive, without motor).

Motor data: see separate motor list.

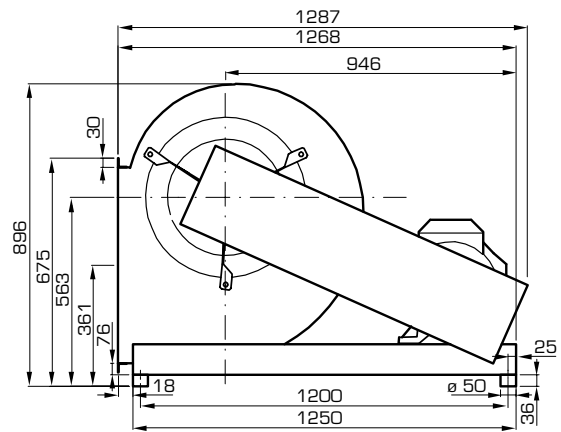
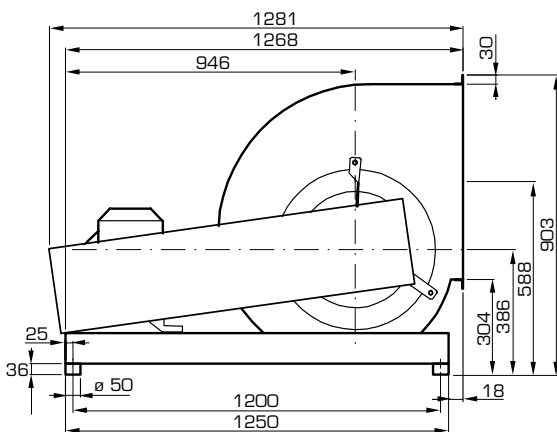
For dimensions of discharge flange, see page 78 Flexible connection.

Right-hand version (viewed from drive side)



0°

180°



90°

270°

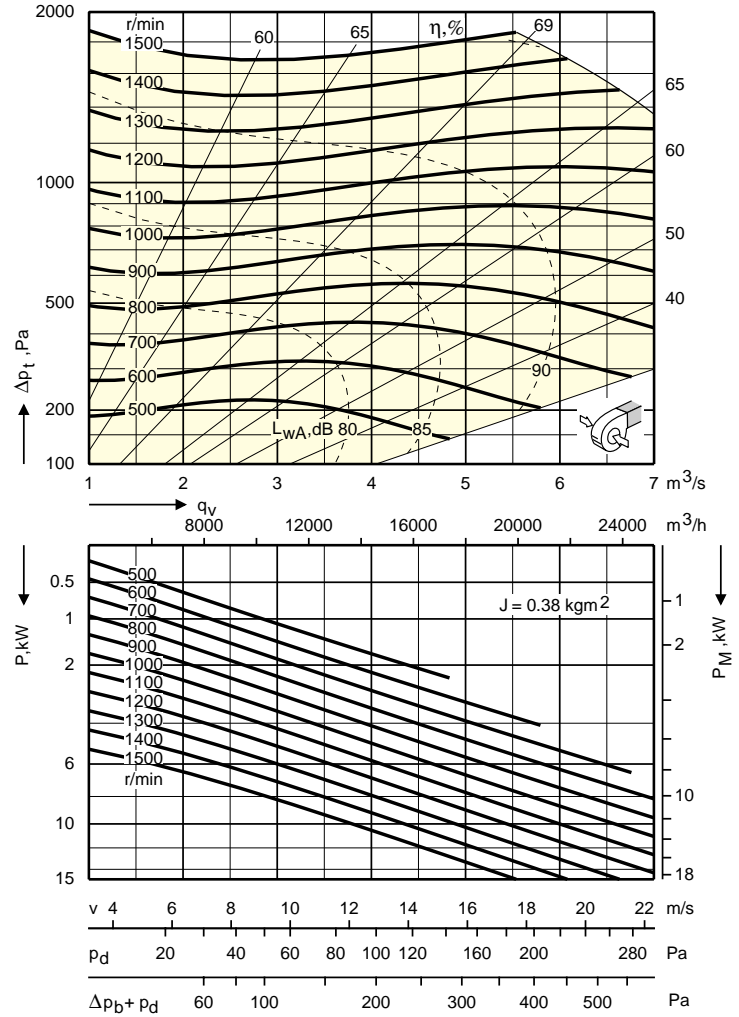
Left-hand version (same dimensions as the right-hand version)



# Fan Charts – Acoustic Data – GTLF-5-045

Belt-driven, double-inlet, forward curved blades

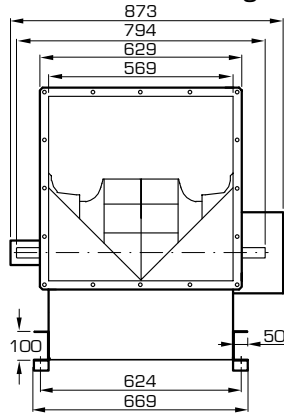
Impeller diameter: 450 mm



Sound path	Speed range r/min	Correction $K_{Gk}$ , dB								$\Delta L_{WA}(s)$	$\Delta L_{WB}(s)$
		Octave band, mid-frequency, Hz									
		63	125	250	500	1000	2000	4000	8000		
To the outlet duct	0 - 800	4	-2	-3	-5	-4	-8	-10	-15	0	6,7
	801 - 1500	3	-3	-3	-4	-5	-7	-10	-15	0	6,1
To the surrounding of a free-inlet fan	0 - 800	-1	0	-1	-2	-2	-6	-9	-15	2	4,3
	801 - 1500	-3	-2	-1	-1	-2	-6	-8	-15	2,3	3,5
To the outlet of a free-discharge fan	0 - 800	-3	-5	-4	-5	-4	-8	-10	-15	-0,1	3,6
	801 - 1500	-5	-6	-4	-4	-5	-7	-10	-15	-0,1	3,1

# Dimensions and Weights - GTLB-5-045

Right-hand version with 90° direction of discharge shown



Weight (kg)

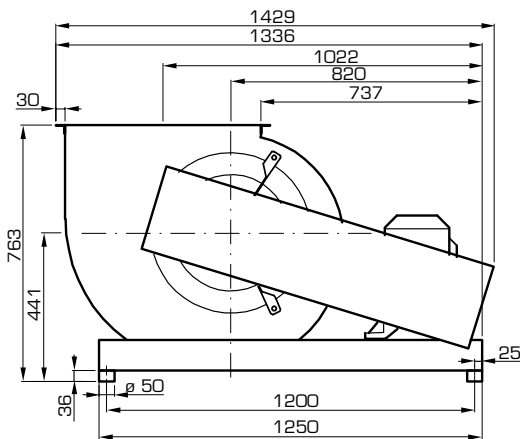
GTLB-5-045: 74,0  
(including belt drive, without motor).

Motor data: see separate motor list.

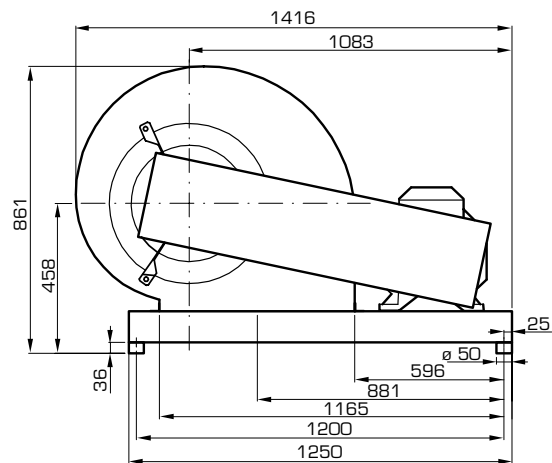
For dimensions of discharge flange, see page 78 Flexible connection.

Dimension on GTHB-5-045 available to special order.

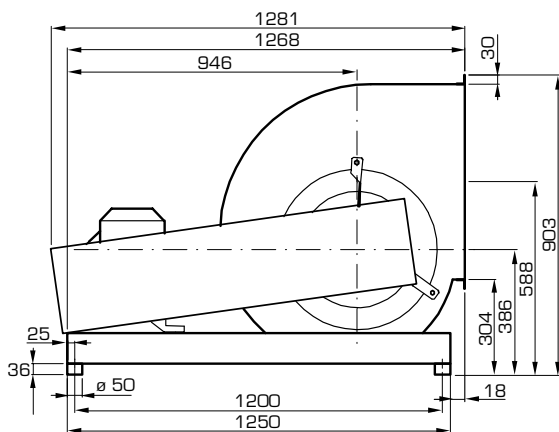
Right-hand version (viewed from drive side)



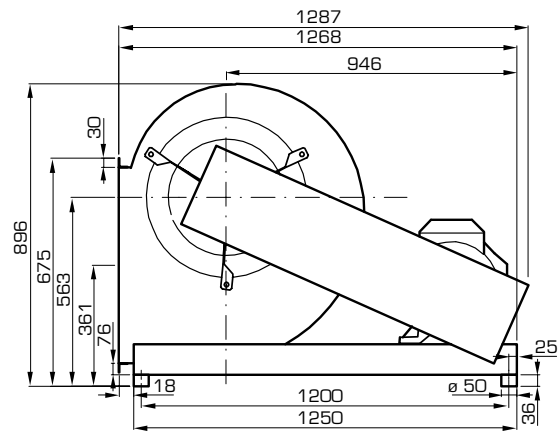
0°



180°



90°



270°

Left-hand version (same dimensions as the right-hand version)



0°



90°



180°



270°



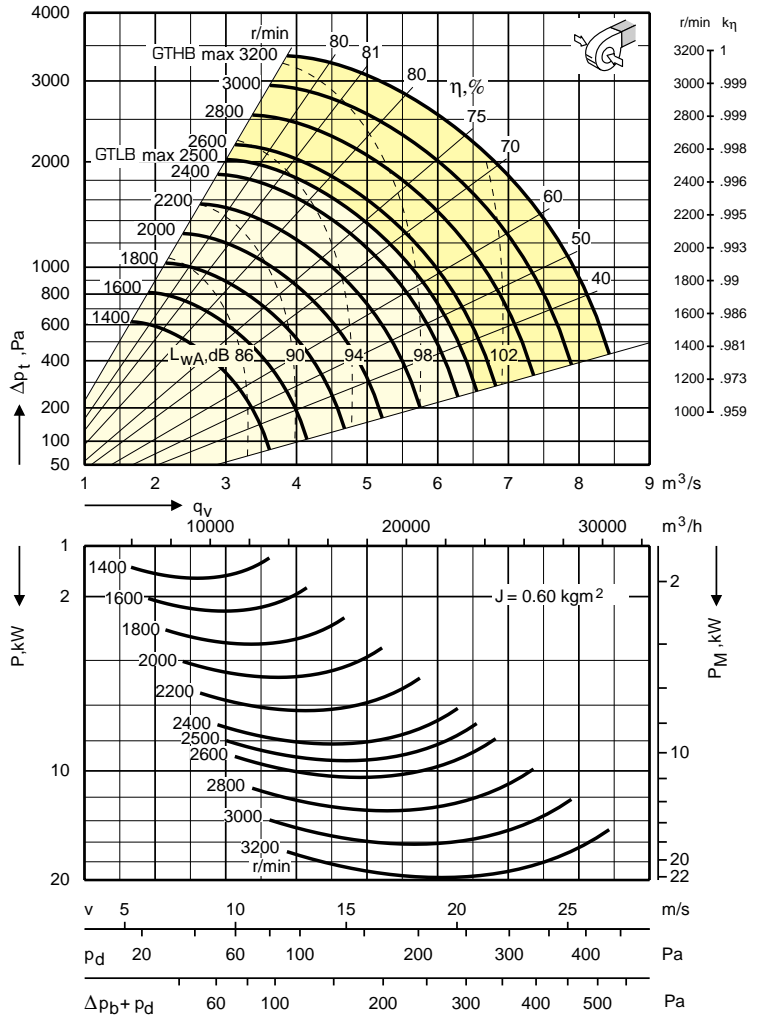
# Fan Charts – Acoustic Data – GTLB-5-045

Belt-driven, double-inlet, backward curved blades

Impeller diameter: 450 mm



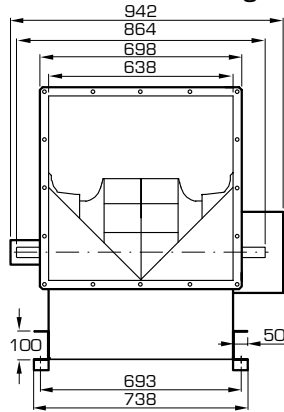
= GTHB-5-045 available to special order.



Sound path	Speed range r/min	Correction $K_{Gk}$ , dB								$\Delta L_{WA}(s)$	$\Delta L_{WT}(s)$
		Octave band, mid-frequency, Hz									
		63	125	250	500	1000	2000	4000	8000		
To the outlet duct	0 - 964	-4	4	3	-5	-5	-8	-13	-17	0	7,6
	965 - 1928	-8	-3	1	-7	-3	-8	-14	-18	0	4,5
	1929 - 3200	-13	-5	-9	-7	-4	-5	-11	-17	0	1,8
To the surrounding of a free-inlet fan	0 - 964	-3	3	1	-2	0	-6	-11	-16	2,9	4,7
	965 - 1928	-8	-3	-1	-4	-2	-7	-11	-19	1,2	3,2
	1929 - 3200	-13	-8	-9	-4	-3	-7	-12	-19	0,3	1,5
To the outlet of a free-discharge fan	0 - 964	-11	1	2	-5	-5	-8	-13	-17	-0,1	5,9
	965 - 1928	-15	-6	0	-7	-3	-8	-14	-18	0	3,4
	1929 - 3200	-21	-8	-10	-7	-4	-5	-11	-17	0,1	1,0

# Dimensions and Weights - GTLF-5-050

Right-hand version with 90° direction of discharge shown



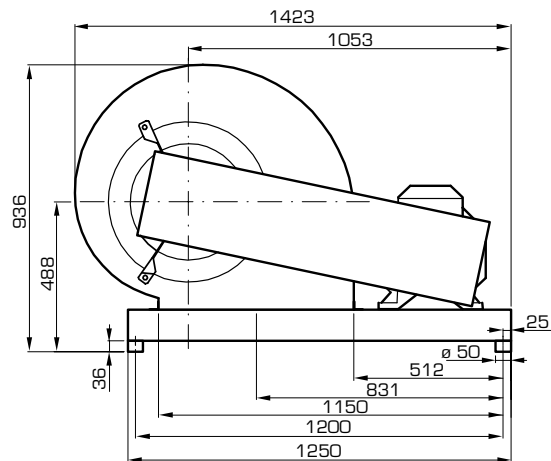
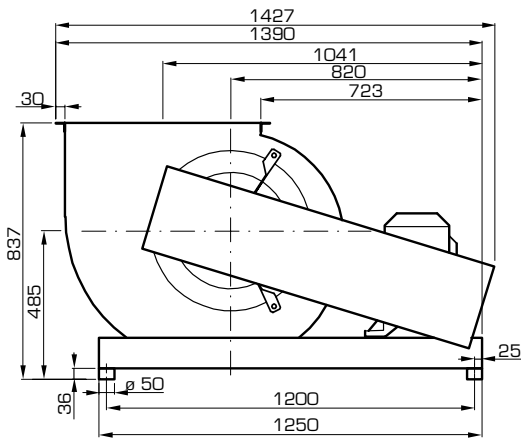
Weight (kg)

GTLF-5-050: 79,0  
(including belt drive, without motor).

Motor data: see separate motor list.

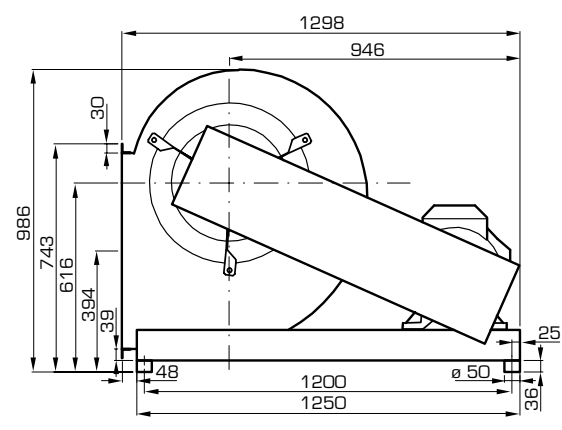
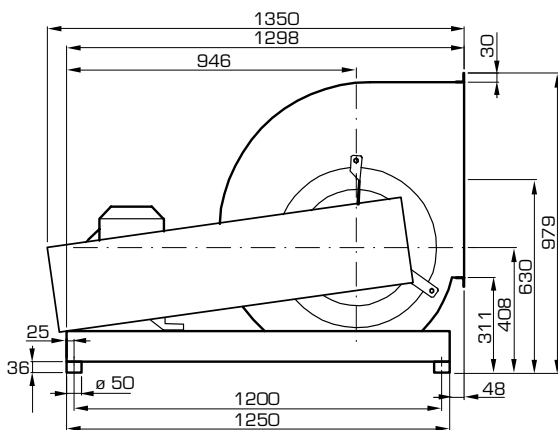
For dimensions of discharge flange, see page 78 Flexible connection.

Right-hand version (viewed from drive side)



0°

180°



90°

270°

Left-hand version (same dimensions as the right-hand version)



0°



90°



180°

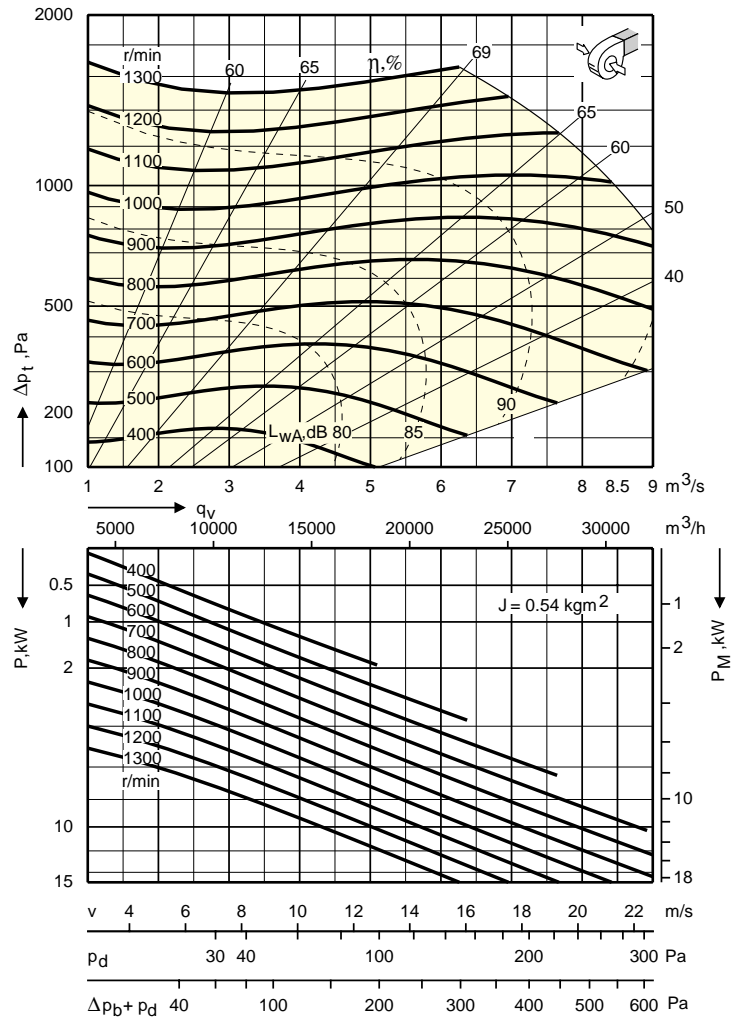


270°

# Fan Charts – Acoustic Data – GTLF-5-050

Belt-driven, double-inlet, forward curved blades

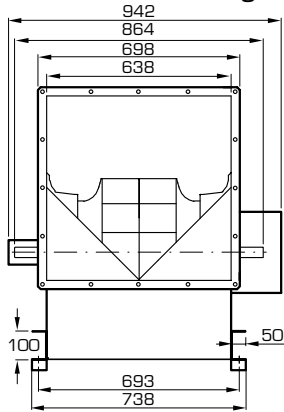
Impeller diameter: 500 mm



Sound path	Speed range r/min	Correction $K_{Gk}$ , dB								$\Delta L_{WA}(s)$	$\Delta L_{Wt}(s)$
		Octave band, mid-frequency, Hz									
		63	125	250	500	1000	2000	4000	8000		
To the outlet duct	0 - 800	4	-2	-3	-5	-4	-8	-10	-15	0	6,7
	801 - 1300	3	-3	-3	-4	-5	-7	-10	-15	0	6,1
To the surrounding of a free-inlet fan	0 - 800	-1	0	-1	-2	-2	-6	-9	-15	2	4,3
	801 - 1300	-3	-2	-1	-1	-2	-6	-8	-15	2,3	3,5
To the outlet of a free-discharge fan	0 - 800	-2	-5	-4	-5	-4	-8	-10	-15	-0,1	3,8
	801 - 1300	-3	-6	-4	-4	-5	-7	-10	-15	-0,1	3,5

# Dimensions and Weights – GTLB-5-050

Right-hand version with 90° direction of discharge shown



Weight (kg)

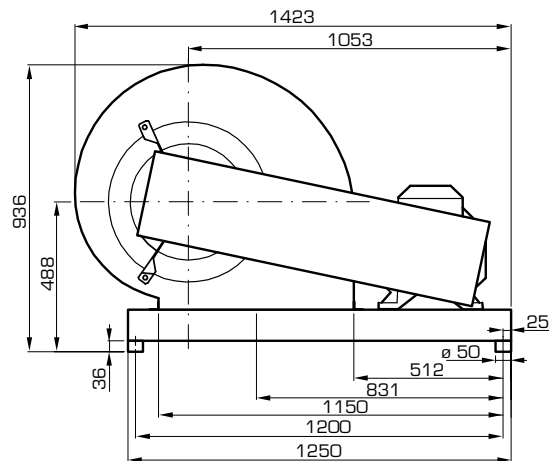
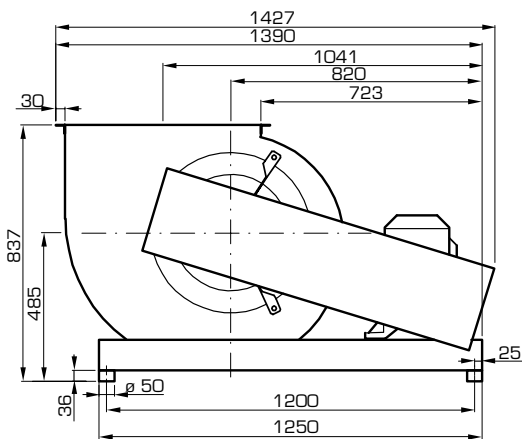
GTLB-5-050: 86,0  
(including belt drive, without motor).

Motor data: see separate motor list.

For dimensions of discharge flange, see page 78 Flexible connection.

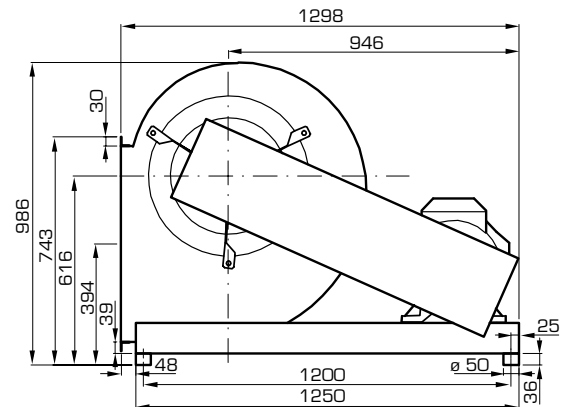
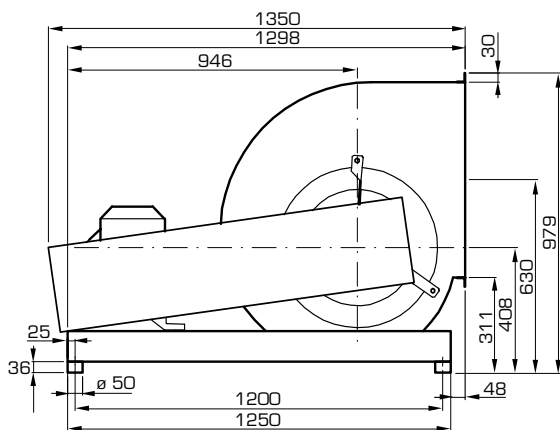
Dimension on GTHB-5-050 available to special order.

Right-hand version (viewed from drive side)



0°

180°



90°

270°

Left-hand version (same dimensions as the right-hand version)



0°



90°



180°



270°

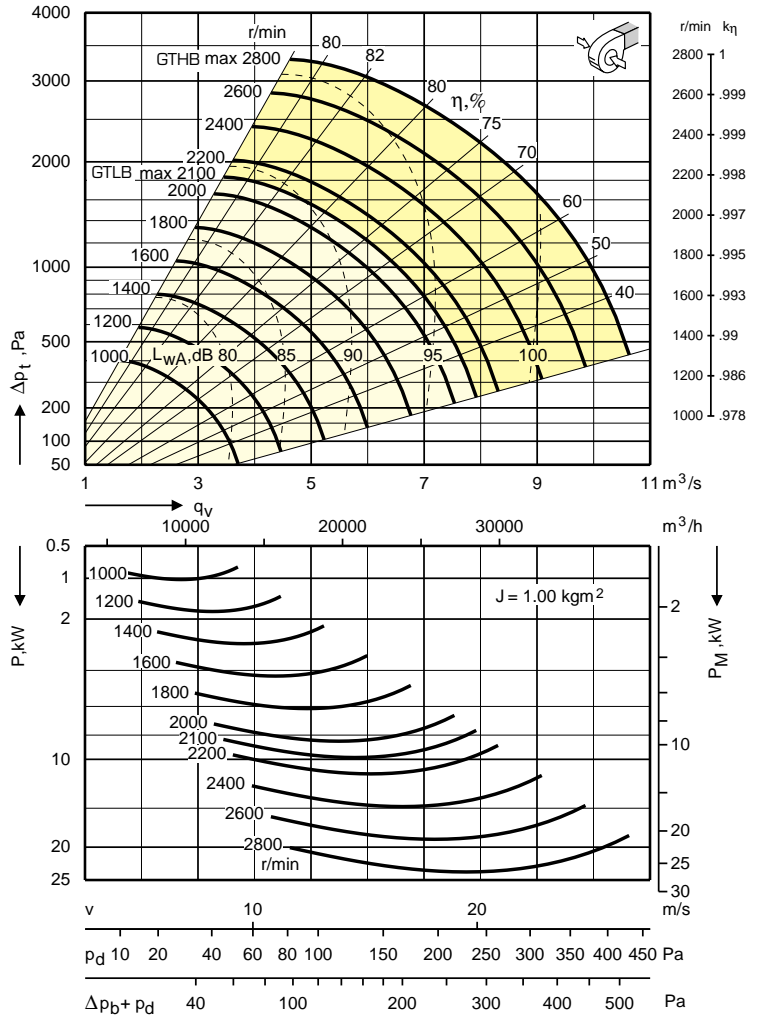
# Fan Charts – Acoustic Data – GTLB-5-050

Belt-driven, double-inlet, backward curved blades

Impeller diameter: 500 mm



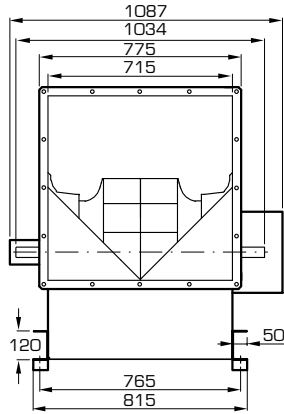
= GTHB-5-050 available to special order.



Sound path	Speed range r/min	Correction $K_{Gk}$ , dB								$\Delta L_{WA}(s)$	$\Delta L_{WT}(s)$
		Octave band, mid-frequency, Hz									
		63	125	250	500	1000	2000	4000	8000		
To the outlet duct	0 - 964	1	6	2	-6	-5	-8	-12	-16	0	8,8
	965 - 1928	-4	-2	2	-6	-4	-8	-13	-17	0	5,4
	1929 - 2800	-8	-3	-4	-2	-7	-6	-11	-15	0	3,5
To the surrounding of a free-inlet fan	0 - 964	-1	5	3	-1	-2	-5	-10	-15	2,8	6,1
	965 - 1928	-7	-3	1	-2	-3	-7	-11	-17	1,3	4
	1929 - 2800	-11	-7	-4	0	-6	-7	-11	-16	0,7	2,8
To the outlet of a free-discharge fan	0 - 964	-5	3	1	-6	-5	-8	-12	-16	-0,2	6,6
	965 - 1928	-10	-5	1	-6	-4	-8	-13	-17	-0,1	4,2
	1929 - 2800	-14	-6	-5	-2	-7	-6	-11	-15	0	2,6

# Dimensions and Weights - GTLF-5-056

Right-hand version with 90° direction of discharge shown



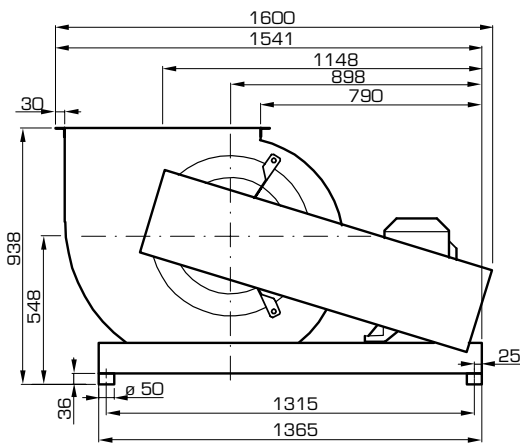
Weight (kg)

GTLF-5-056: 116,0  
(including belt drive, without motor).

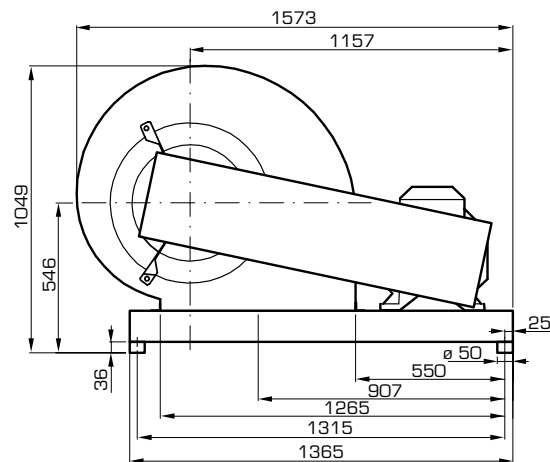
Motor data: see separate motor list.

For dimensions of discharge flange, see page 78 Flexible connection.

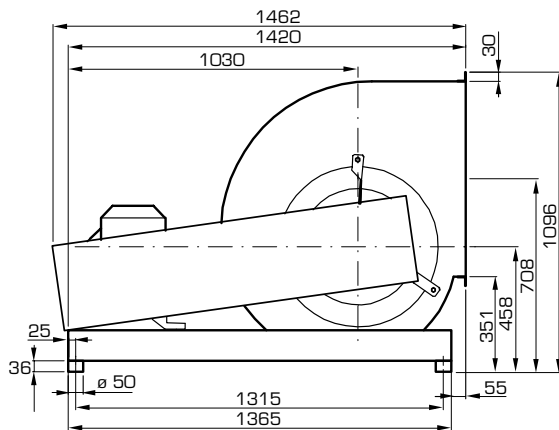
Right-hand version (viewed from drive side)



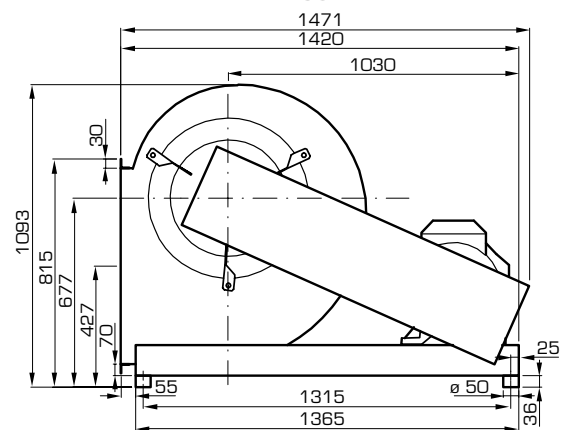
0°



180°



90°



270°

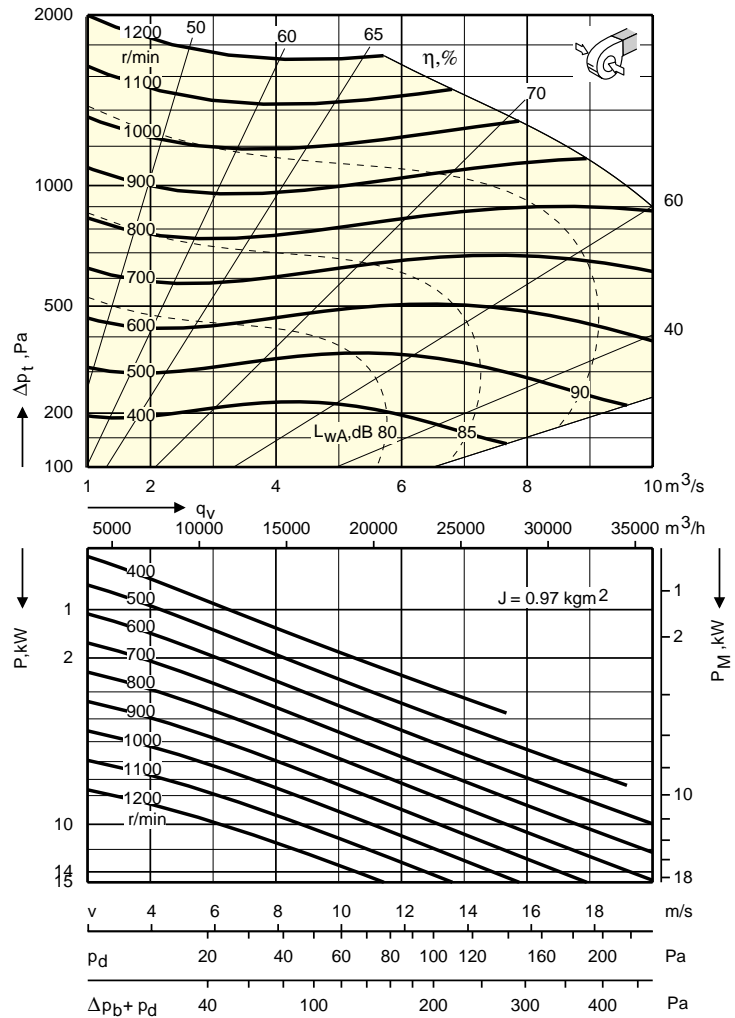
Left-hand version (same dimensions as the right-hand version)



# Fan Charts - Acoustic Data - GTLF-5-056

Belt-driven, double-inlet, forward curved blades

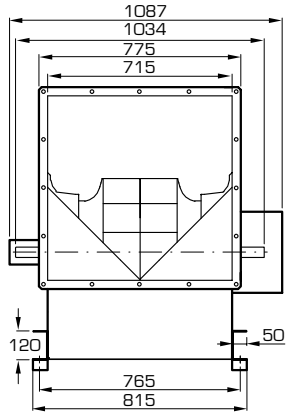
Impeller diameter: 560 mm



Sound path	Speed range r/min	Correction $K_{Gk}$ , dB								$\Delta L_{WA}(s)$	$\Delta L_{Wt}(s)$
		Octave band, mid-frequency, Hz									
		63	125	250	500	1000	2000	4000	8000		
To the outlet duct	0 - 800	4	-2	-3	-5	-4	-8	-10	-15	0	6,7
	801 - 1200	3	-3	-3	-4	-5	-7	-10	-15	0	6,1
To the surrounding of a free-inlet fan	0 - 800	-1	0	-1	-2	-2	-6	-9	-15	2	4,3
	801 - 1200	-3	-2	-1	-1	-2	-6	-8	-15	2,3	3,5
To the outlet of a free-discharge fan	0 - 800	-2	-4	-3	-5	-4	-8	-10	-15	-0,1	4,1
	801 - 1200	-3	-5	-3	-4	-5	-7	-10	-15	0	3,7

# Dimensions and Weights - GTLB-5-056

Right-hand version with 90° direction of discharge shown



Weight (kg)

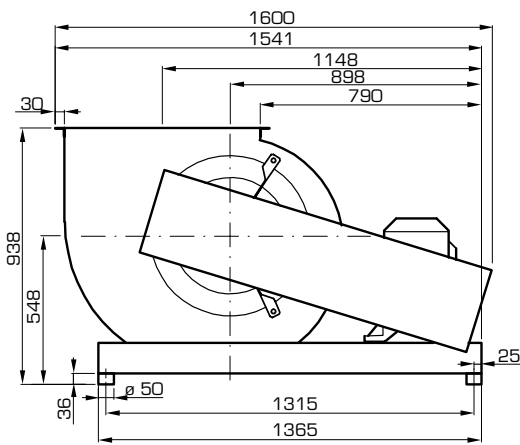
GTLB-5-056: 126,0  
(including belt drive, without motor).

Motor data: see separate motor list.

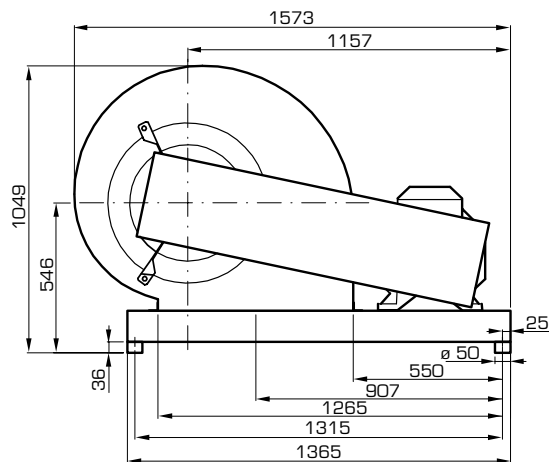
For dimensions of discharge flange, see page 78 Flexible connection.

Dimension on GTHB-5-056 available to special order.

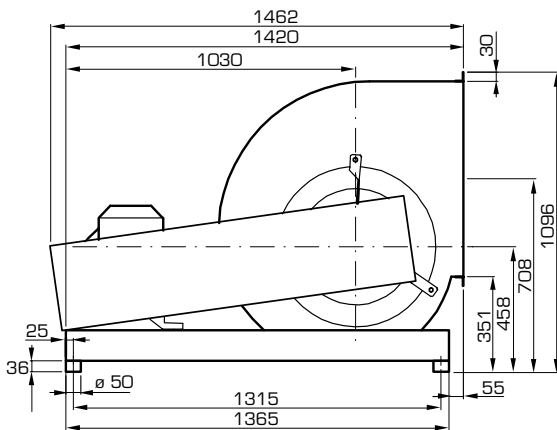
Right-hand version (viewed from drive side)



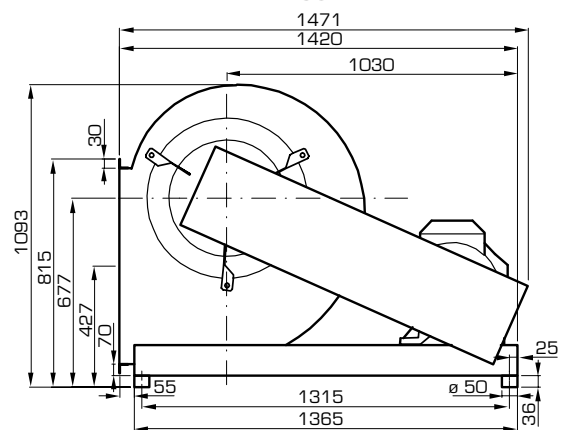
0°



180°



90°



270°

Left-hand version (same dimensions as the right-hand version)



0°



90°



180°



270°



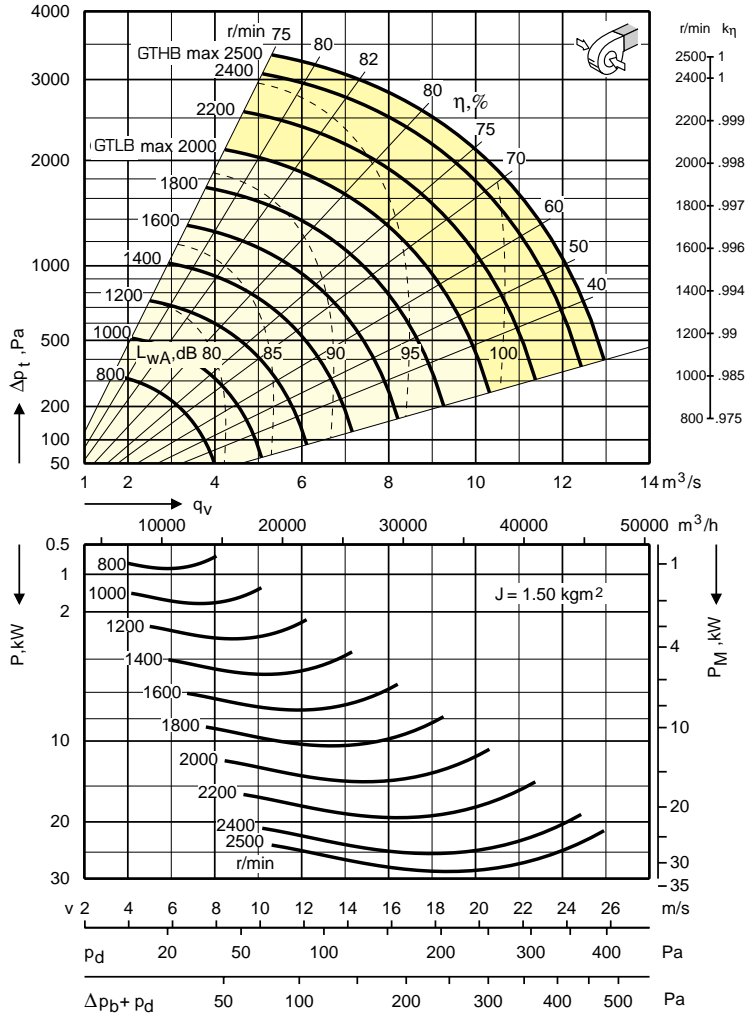
# Fan Charts – Acoustic Data – GTLB-5-056

Belt-driven, double-inlet, backward curved blades

Impeller diameter: 560 mm



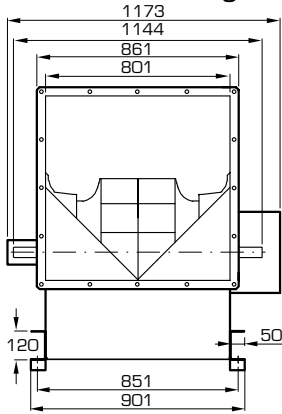
= GTHB-5-056 available to special order.



Sound path	Speed range r/min	Correction $K_{Gk}$ , dB								$\Delta L_{WA}(s)$	$\Delta L_{Wt}(s)$
		Octave band, mid-frequency, Hz									
		63	125	250	500	1000	2000	4000	8000		
To the outlet duct	0 - 964	0	6	3	-5	-5	-9	-12	-17	0	8,9
	965 - 1928	-6	-1	2	-6	-3	-9	-13	-18	0	5,5
	1929 - 2500	-9	-3	-4	-3	-7	-6	-11	-14	0	3,2
To the surrounding of a free-inlet fan	0 - 964	-2	5	3	0	-1	-6	-10	-15	3,2	5,8
	965 - 1928	-8	-2	1	-2	-3	-7	-11	-17	1,3	4,1
	1929 - 2500	-13	-6	-4	0	-7	-8	-11	-16	0,3	3
To the outlet of a free-discharge fan	0 - 964	-6	4	3	-5	-5	-9	-12	-17	0,2	7,3
	965 - 1928	-12	-3	2	-6	-3	-9	-13	-18	0,3	4,6
	1929 - 2500	-15	-5	-4	-3	-7	-6	-11	-14	-0,2	2,8

# Dimensions and Weights - GTLF-5-063

Right-hand version with 90° direction of discharge shown



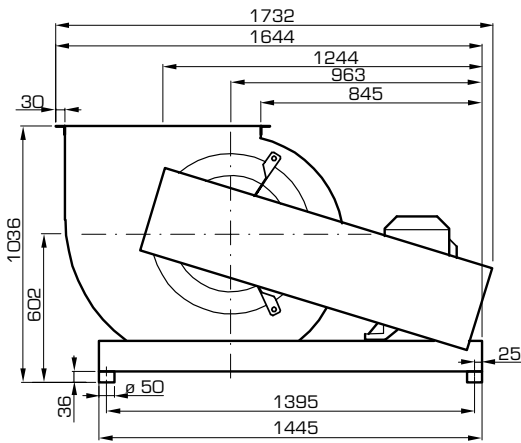
Weight (kg)

GTLF-5-063: 142,0  
(including belt drive, without motor).

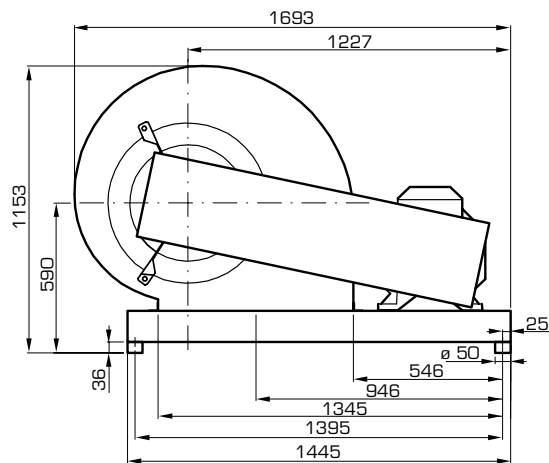
Motor data: see separate motor list.

For dimensions of discharge flange, see page 78 Flexible connection.

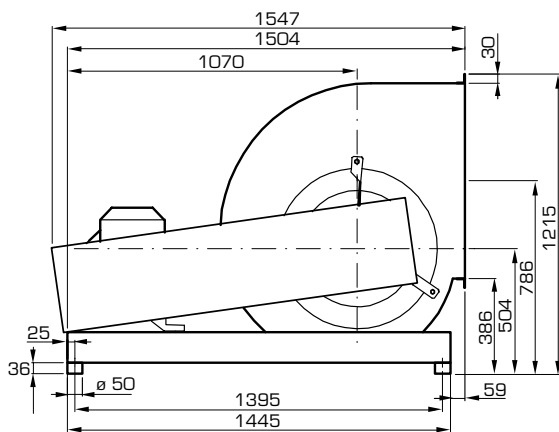
Right-hand version (viewed from drive side)



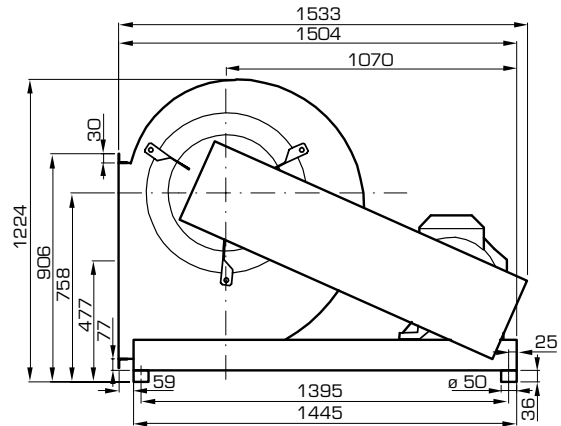
0°



180°



90°



270°

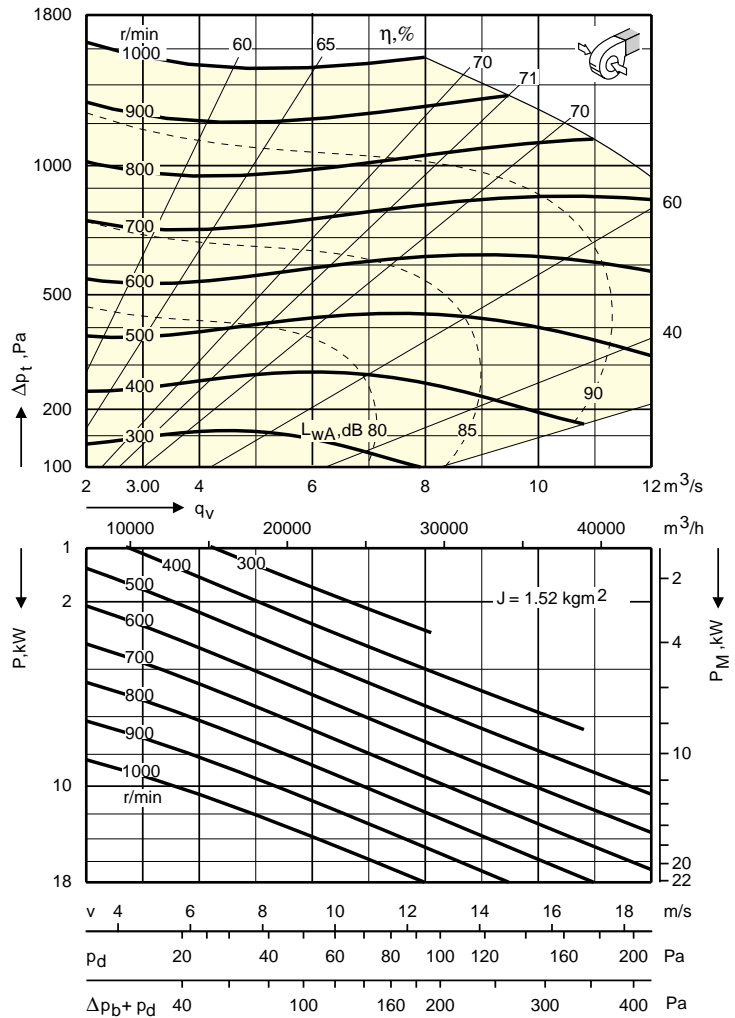
Left-hand version (same dimensions as the right-hand version)



# Fan Charts – Acoustic Data – GTLF-5-063

Belt-driven, double-inlet, forward curved blades

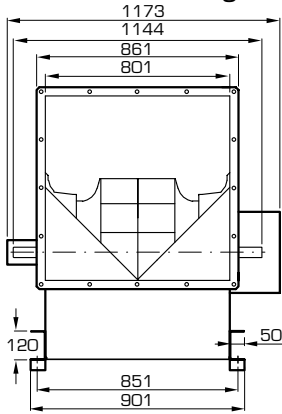
Impeller diameter: 630 mm



Sound path	Speed range r/min	Correction $K_{ok}$ , dB								$\Delta L_{WA}(s)$	$\Delta L_{Wt}(s)$
		Octave band, mid-frequency, Hz									
		63	125	250	500	1000	2000	4000	8000		
To the outlet duct	0 - 800	4	-2	-3	-5	-4	-8	-10	-15	0	6,7
	801 - 1000	3	-3	-3	-4	-5	-7	-10	-15	0	6,1
To the surrounding of a free-inlet fan	0 - 800	-1	0	-1	-2	-2	-6	-9	-15	2	4,3
	801 - 1000	-3	-2	-1	-1	-2	-6	-8	-15	2,3	3,5
To the outlet of a free-discharge fan	0 - 800	-1	-4	-3	-5	-4	-8	-10	-15	-0,1	4,4
	801 - 1000	-2	-5	-3	-4	-5	-7	-10	-15	0	4,0

# Dimensions and Weights – GTLB-5-063

Right-hand version with 90° direction of discharge shown



Weight (kg)

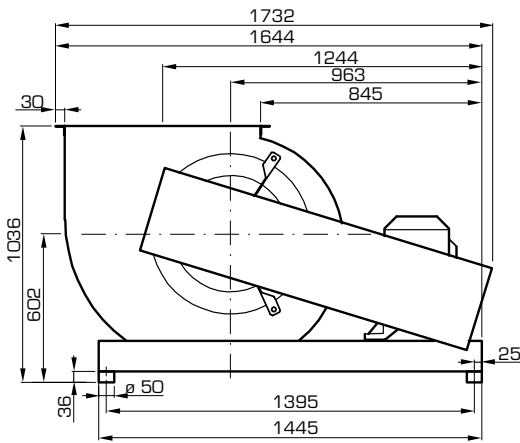
GTLB-5-063: 163,0  
(including belt drive, without motor).

Motor data: see separate motor list.

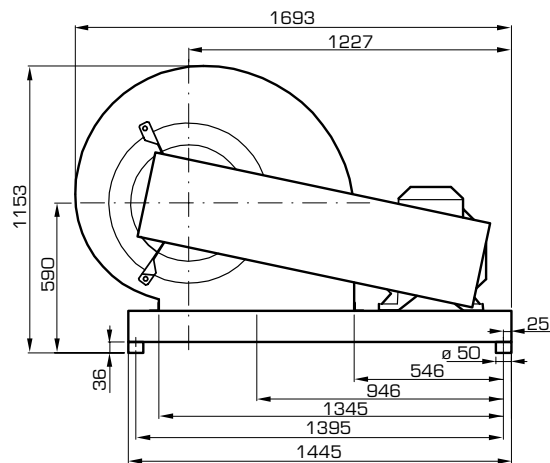
For dimensions of discharge flange, see page 78 Flexible connection.

Dimension on GTHB-5-063 available to special order.

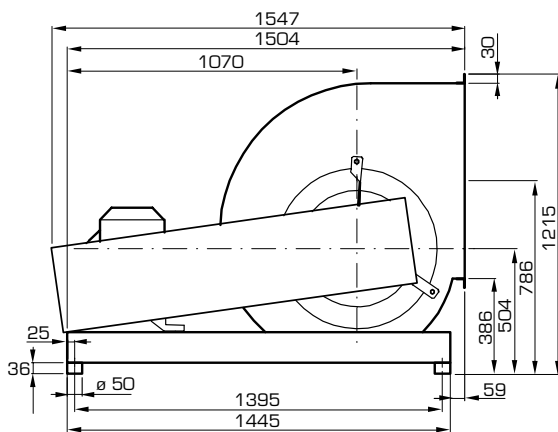
Right-hand version (viewed from drive side)



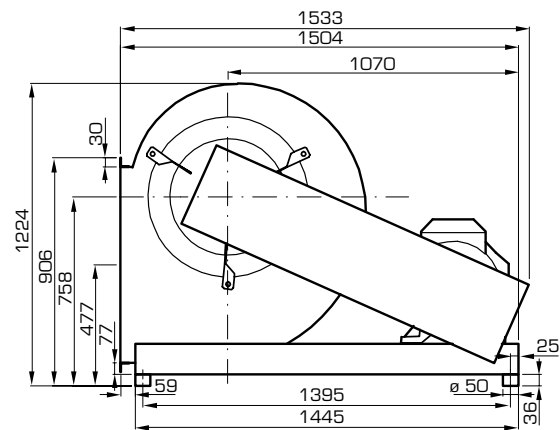
0°



180°



90°



270°

Left-hand version (same dimensions as the right-hand version)



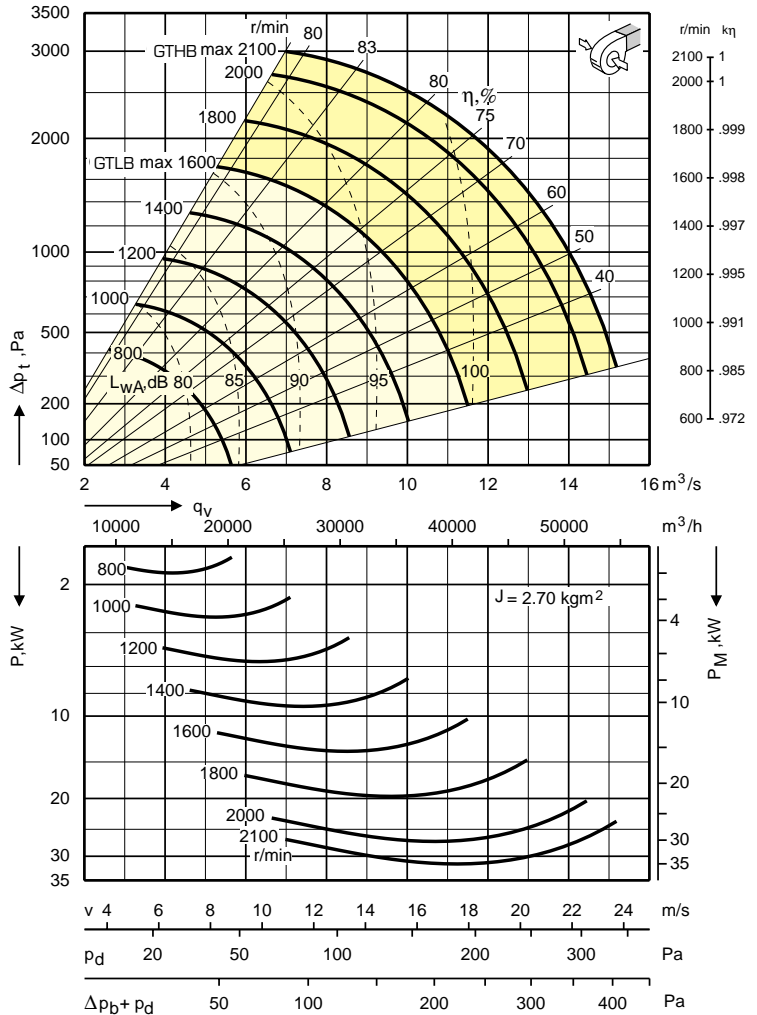
# Fan Charts – Acoustic Data – GTLB-5-063

Belt-driven, double-inlet, backward curved blades

Impeller diameter: 630 mm



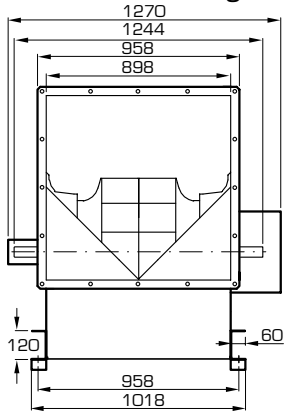
= GTHB-5-063 available to special order.



Sound path	Speed range r/min	Correction $K_{Gk}$ , dB								$\Delta L_{WA}(s)$	$\Delta L_{Wt}(s)$
		Octave band, mid-frequency, Hz									
		63	125	250	500	1000	2000	4000	8000		
To the outlet duct	0 - 815	-6	4	2	-6	-5	-8	-11	-15	0	7,1
	816 - 1631	-10	-6	0	-7	-3	-8	-12	-15	0	3,6
	1632 - 2100	-12	-3	-5	-4	-7	-5	-10	-14	0	2,9
To the surrounding of a free-inlet fan	0 - 815	-4	4	1	-3	-5	-8	-15	-20	0,2	6,9
	816 - 1631	-9	-6	0	-4	-6	-8	-16	-21	-0,9	4,4
	1632 - 2100	-12	-5	-6	-2	-4	-7	-14	-19	0,3	2,5
To the outlet of a free-discharge fan	0 - 815	-11	2	2	-6	-5	-8	-11	-15	0	6,1
	816 - 1631	-15	-8	0	-7	-3	-8	-12	-15	0,2	3,1
	1632 - 2100	-17	-5	-5	-4	-7	-5	-10	-14	0	2,3

# Dimensions and Weights - GTLF-5-071

Right-hand version with 90° direction of discharge shown



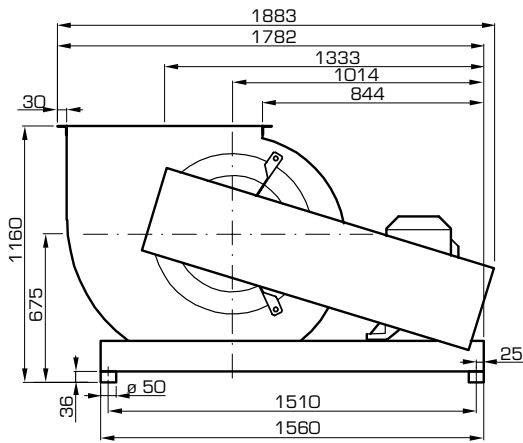
Weight (kg)

GTLF-5-071: 171,0  
(including belt drive, without motor).

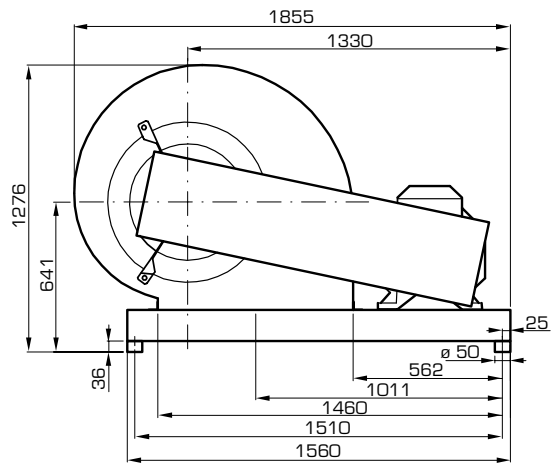
Motor data: see separate motor list.

For dimensions of discharge flange, see page 78 Flexible connection.

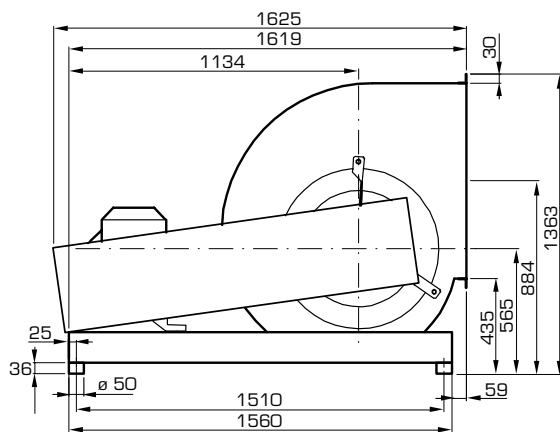
Right-hand version (viewed from drive side)



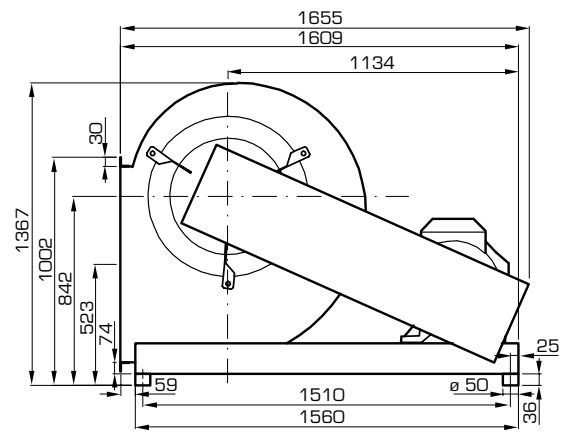
0°



180°



90°



270°

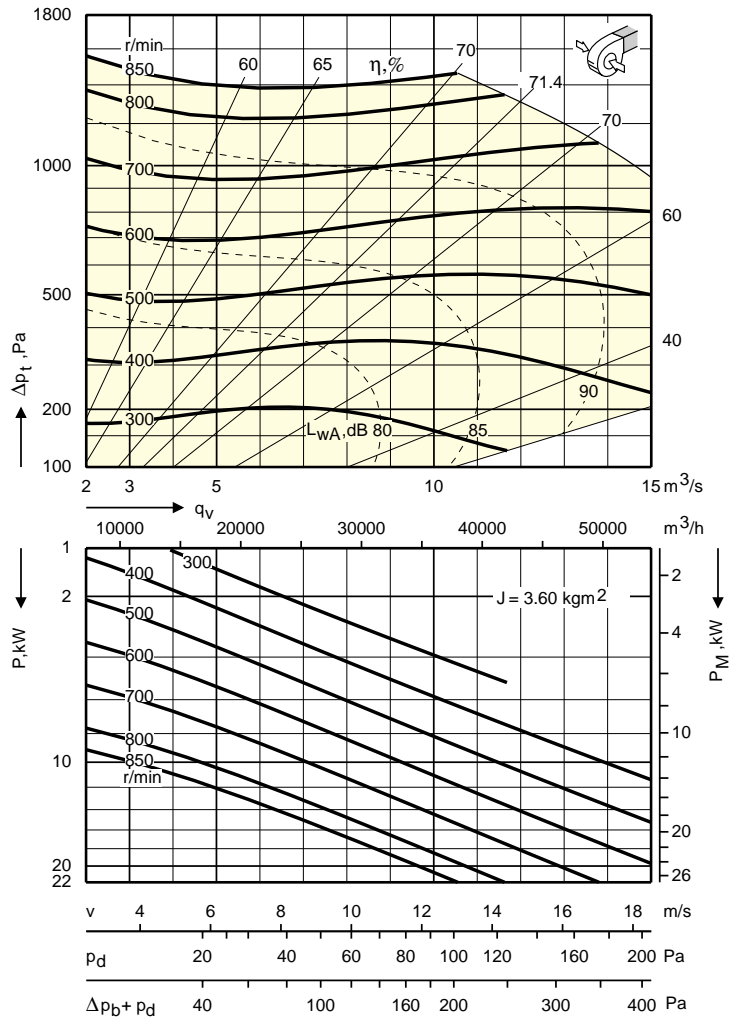
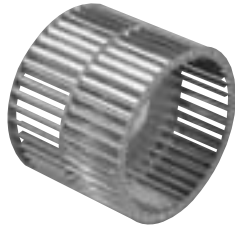
Left-hand version (same dimensions as the right-hand version)



# Fan Charts – Acoustic Data – GTLF-5-071

Belt-driven, double-inlet, forward curved blades

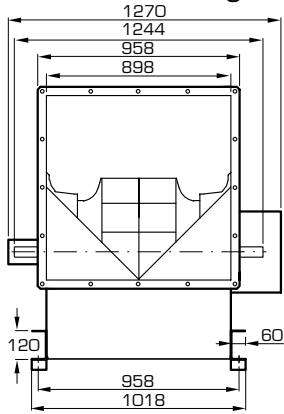
Impeller diameter: 710 mm



Sound path	Speed range r/min	Correction $K_{Gk}$ , dB								$\Delta L_{WA}(s)$	$\Delta L_{WT}(s)$
		Octave band, mid-frequency, Hz									
		63	125	250	500	1000	2000	4000	8000		
To the outlet duct	0 - 800	4	-2	-3	-5	-4	-8	-10	-15	0	6,7
	801 - 850	3	-3	-3	-4	-5	-7	-10	-15	0	6,1
To the surrounding of a free-inlet fan	0 - 800	-1	0	-1	-2	-2	-6	-9	-15	2	4,3
	801 - 850	-3	-2	-1	-1	-2	-6	-8	-15	2,3	3,5
To the outlet of a free-discharge fan	0 - 800	0	-3	-3	-5	-4	-8	-10	-15	-0,1	4,9
	801 - 850	-1	-4	-3	-4	-5	-7	-10	-15	0	4,4

# Dimensions and Weights - GTLB-5-071

Right-hand version with 90° direction of discharge shown



Weight (kg)

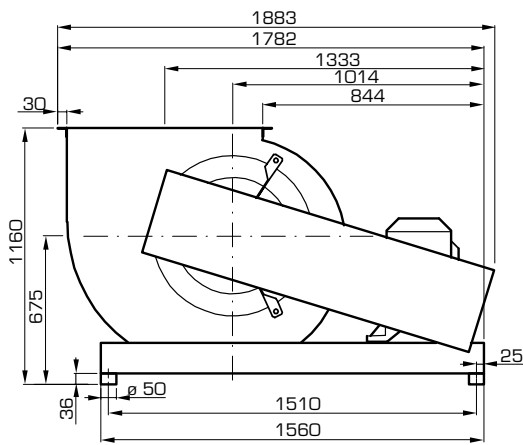
GTLB-5-071: 192,0  
(including belt drive, without motor).

Motor data: see separate motor list.

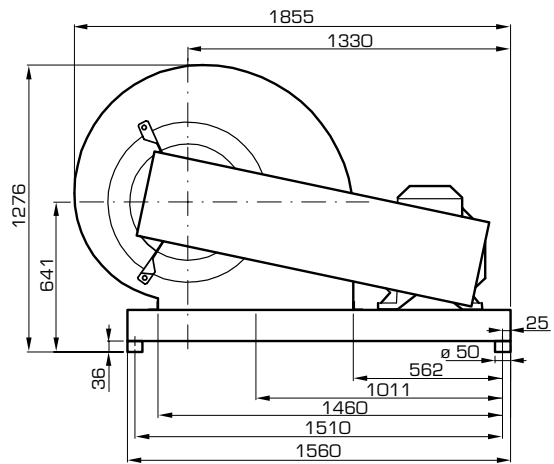
For dimensions of discharge flange, see page 78 Flexible connection.

Dimension on GTHB-5-071 available to special order.

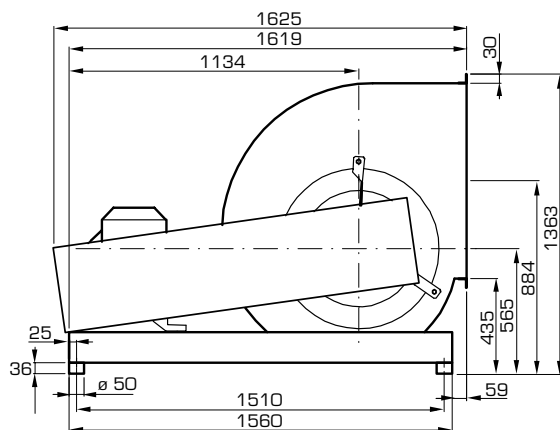
Right-hand version (viewed from drive side)



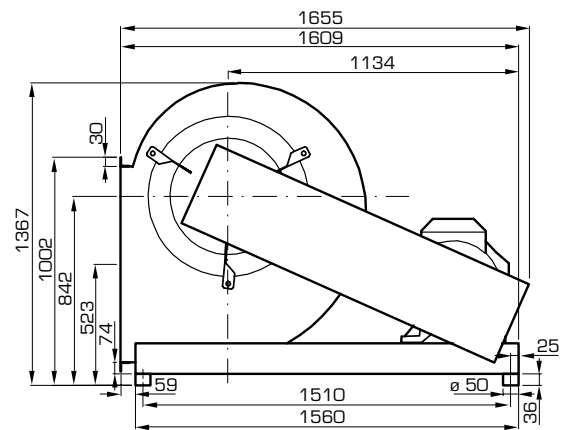
0°



180°



90°



270°

Left-hand version (same dimensions as the right-hand version)



0°



90°



180°



270°



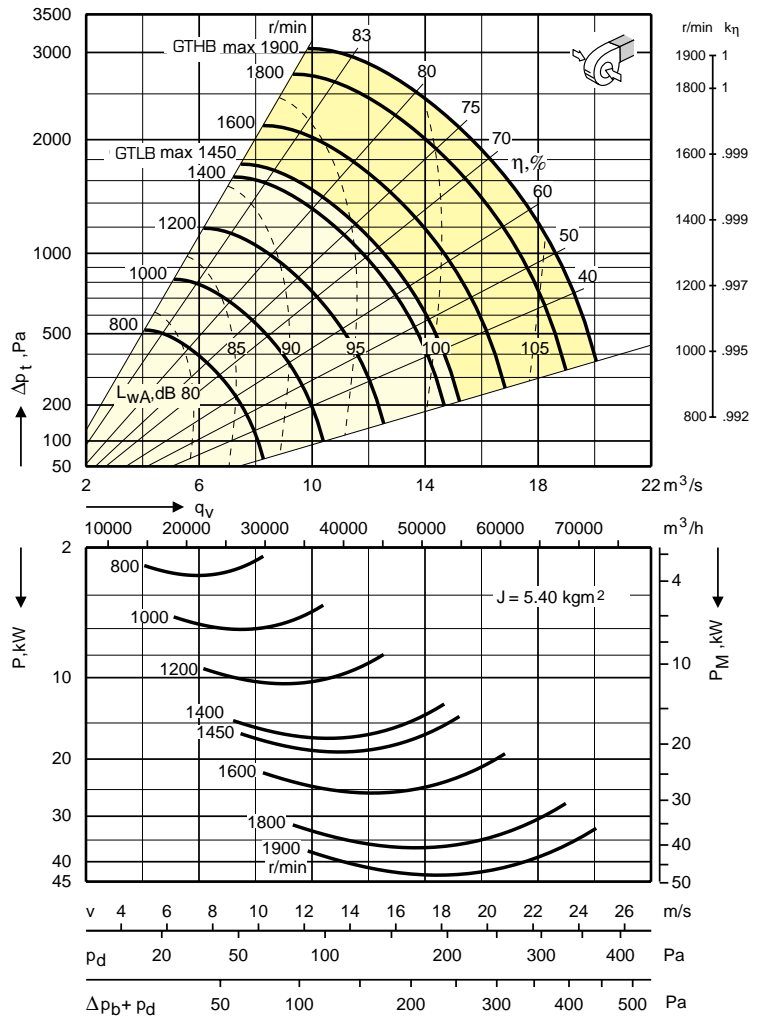
# Fan Charts – Acoustic Data – GTLB-5-071

Belt-driven, double-inlet, backward curved blades

Impeller diameter: 710 mm



= GTHB-5-071 available to special order.

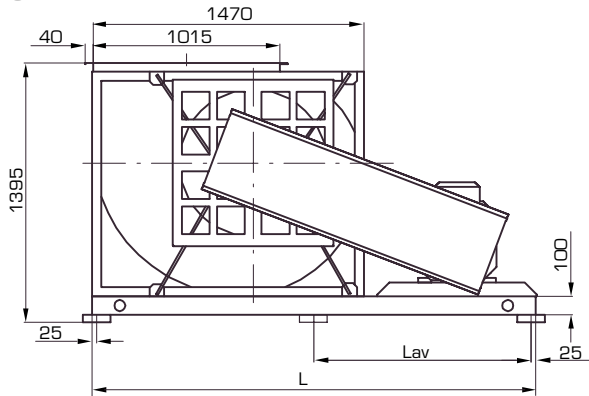


Sound path	Speed range r/min	Correction $K_{Gk}$ , dB								$\Delta L_{WA}(s)$	$\Delta L_{WT}(s)$
		Octave band, mid-frequency, Hz									
		63	125	250	500	1000	2000	4000	8000		
To the outlet duct	0 - 815	-6	2	0	-5	-3	-9	-14	-17	0	5,8
	816 - 1631	-11	-6	-2	-6	-3	-8	-13	-18	0	2,9
	1632 - 1900	-12	-3	-4	-4	-8	-5	-11	-15	0	2,9
To the surrounding of a free-inlet fan	0 - 815	-4	1	0	-3	-4	-9	-18	-23	0	5,7
	816 - 1631	-10	-7	-2	-2	-6	-9	-17	-24	-0,8	3,7
	1632 - 1900	-12	-4	-5	-2	-5	-7	-15	-20	-0,1	3
To the outlet of a free-discharge fan	0 - 815	-10	0	0	-5	-3	-9	-14	-17	0,2	4,7
	816 - 1631	-15	-8	-2	-6	-3	-8	-13	-18	-0,1	2,6
	1632 - 1900	-16	-5	-4	-4	-8	-5	-11	-15	-0,3	2,7

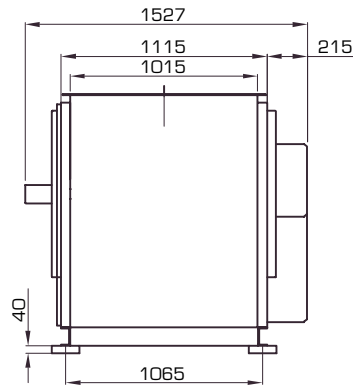
# Dimensions and Weights – GTLB/GTHB-5-080

Right-hand version (viewed from drive side)

0°

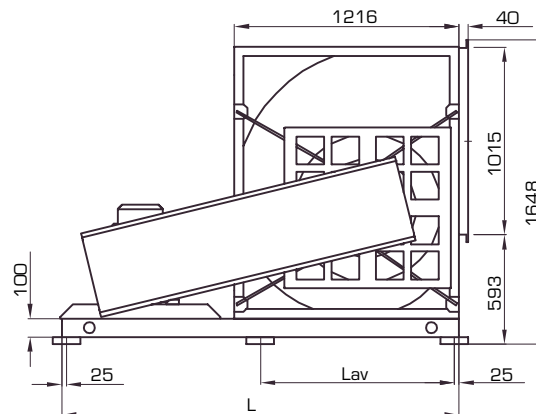
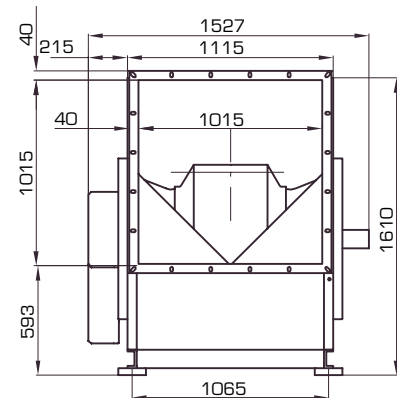


Left-hand version (same dimensions as the right-hand version)



Fan	Motor size, IEC	Length	Lav	Number of anti-vibration mountings	Weight, kg (without motor)
GTLB-5-080-c-d1-00	100-180	2200	-	4	390
GTHB-5-080-c-d1-00	160/180	2200	-	4	440
GTHB-5-080-c-d1-00	200/225	2400	1175	6	450
GTHB-5-080-c-d1-00	250	2600	1275	6	480

90°

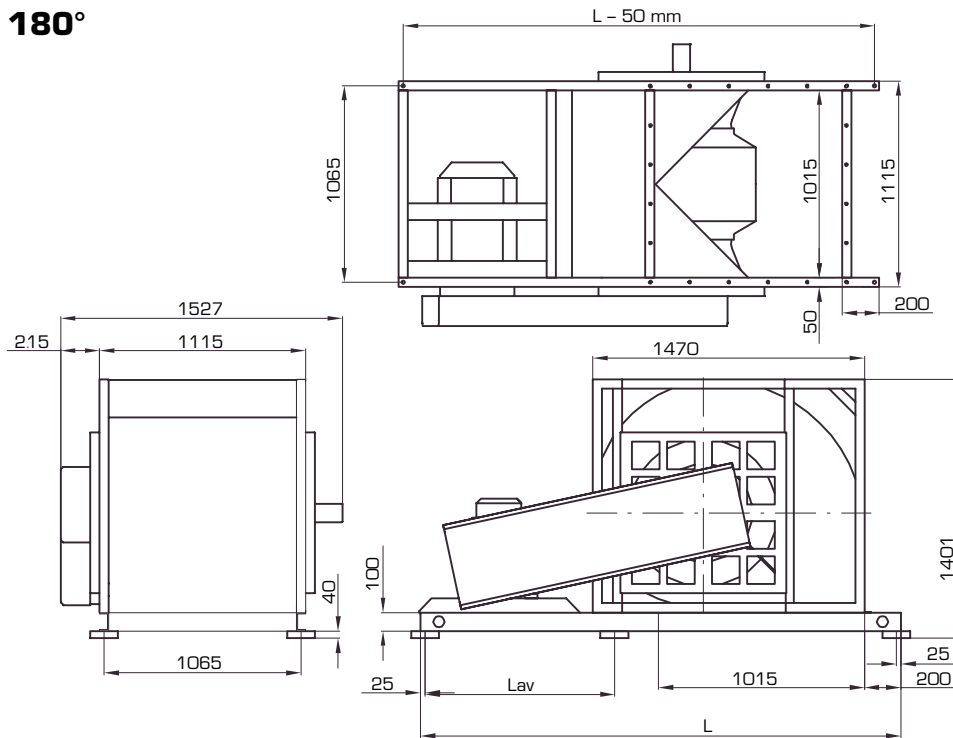


Fan	Motor size, IEC	Length	Lav	Number of anti-vibration mountings	Weight, kg (without motor)
GTLB-5-080-c-d3-00	100-180	1950	-	4	390
GTHB-5-080-c-d3-00	160/180	1950	-	4	430
GTHB-5-080-c-d3-00	200/225	2180	1050	6	450
GTHB-5-080-c-d3-00	250	2350	1150	6	480

# Dimensions and Weights – GTLB/GTHB-5-080

Right-hand version (viewed from drive side)

**180°**

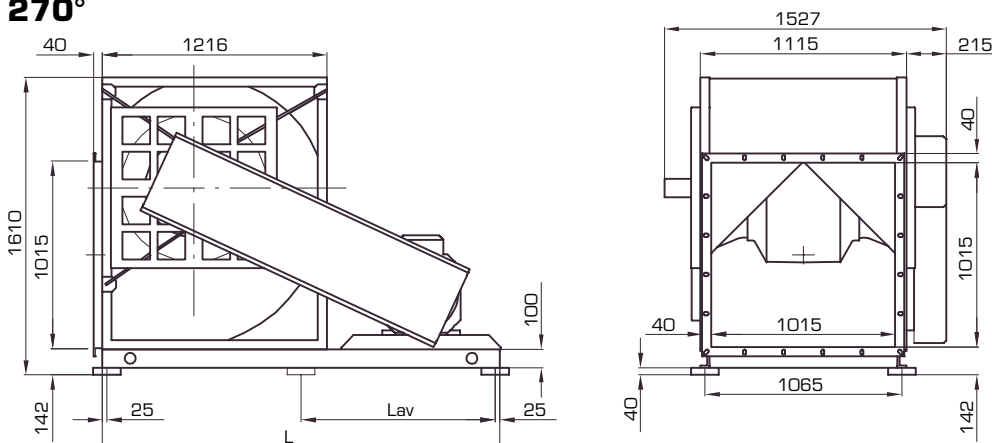


Left-hand version  
(same dimensions  
as the right-hand  
version)



Fan	Motor size, IEC	Length	Lav	Number of anti-vibration mountings	Weight, kg (without motor)
GTLB-5-080-c-d5-00	100-180	2400	-	4	410
GTHB-5-080-c-d5-00	160/180	2400	-	4	450
GTHB-5-080-c-d5-00	200/225	2600	1100	6	470
GTHB-5-080-c-d5-00	250	2800	1300	6	490

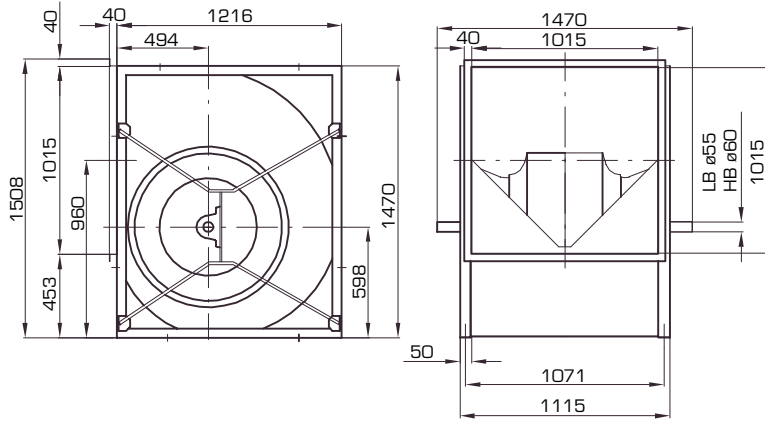
**270°**



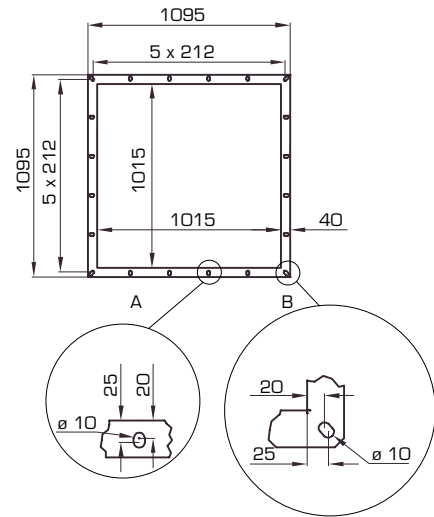
Fan	Motor size, IEC	Length	Lav	Number of anti-vibration mountings	Weight, kg (without motor)
GTLB-5-080-c-d7-00	100-180	1950	-	4	390
GTHB-5-080-c-d7-00	160/180	1950	-	4	430
GTHB-5-080-c-d7-00	200/225	2150	1050	6	450
GTHB-5-080-c-d7-00	250	2350	1150	6	470

# Dimensions and Weights - GTLB/GTHB-5-080

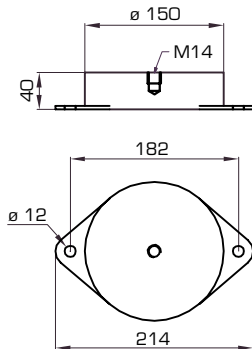
## Fan casing



## Discharge flange



## Anti-vibration mounting, GTLZ-42-080-d-0

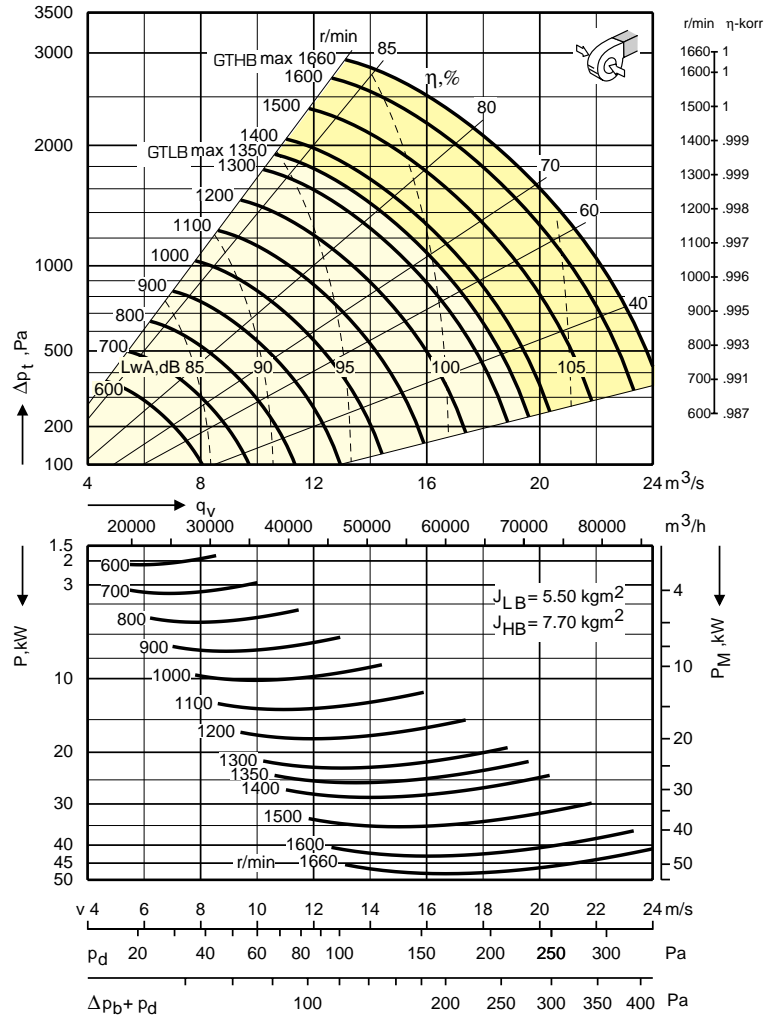


Motor size, IEC	d	Number of anti-vibration mountings
100 - 180	1	4
200 - 250	2	6

# Fan Charts – Acoustic Data – GTLB/GTHB-5-080

Belt-driven, double-inlet, backward curved blades

Impeller diameter: 800 mm

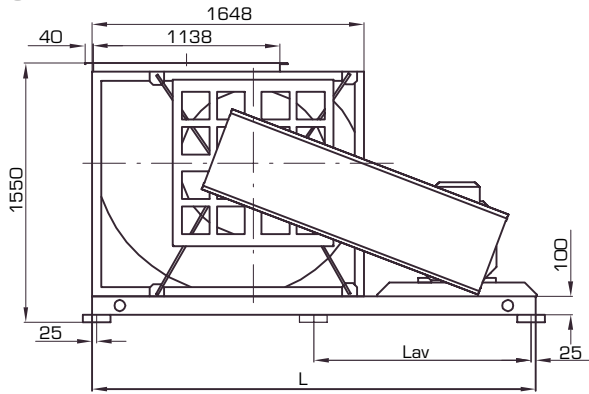


Sound path	Speed range r/min	Correction $K_{ok}$ , dB								$\Delta L_{WA}(s)$	$\Delta L_{WT}(s)$
		Octave band, mid-frequency, Hz									
		63	125	250	500	1000	2000	4000	8000		
To the outlet duct	0 - 409	2	-1	-3	-3	-2	-14	-22	-28	0	6,1
	410 - 815	-6	0	-3	-2	-3	-13	-20	-26	0	4,7
	816 - 1631	-10	-7	-2	-2	-3	-11	-18	-24	0	3,3
	1632 - 1660	-12	-8	-4	-2	-4	-8	-16	-21	0	2,6
To the surrounding of a free-inlet fan	0 - 409	4	0	-6	-8	-12	-17	-24	-29	-6,3	12,3
	410 - 815	-3	2	-3	-8	-10	-17	-24	-28	-5,0	9,6
	816 - 1631	-8	-8	2	-7	-10	-15	-23	-27	-3,5	7,0
	1632 - 1660	-12	-8	-7	1	-9	-13	-19	-25	-0,6	3,3
To the outlet of a free-discharge fan	0 - 409	-2	-2	-3	-3	-2	-14	-22	-28	0,1	4,6
	410 - 815	-10	-1	-3	-2	-3	-13	-20	-26	-0,1	4,2
	816 - 1631	-14	-8	-2	-2	-3	-11	-18	-24	0,1	3,0
	1632 - 1660	-16	-9	-4	-2	-4	-8	-16	-21	0	2,5

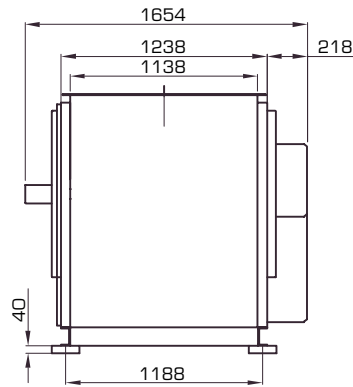
# Dimensions and Weights – GTLB/GTHB-5-090

Right-hand version (viewed from drive side)

0°

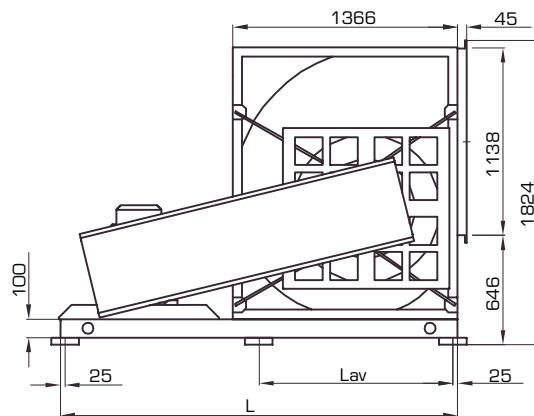
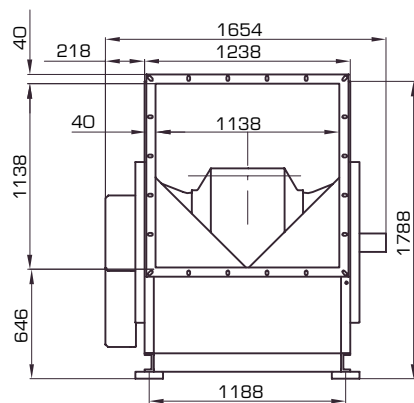


Left-hand version (same dimensions as the right-hand version)



Fan	Motor siz, IEC	Length	Lav	Number of anti-vibration mountings	Weight, kg (without motor)
GTLB-5-090-c-d1-00	100-180	2400	1175	6	480
GTHB-5-090-c-d1-00	160/180	2400	1175	6	520
GTHB-5-090-c-d1-00	200/225	2600	1275	6	560
GTHB-5-090-c-d1-00	250	2800	1375	6	580

90°

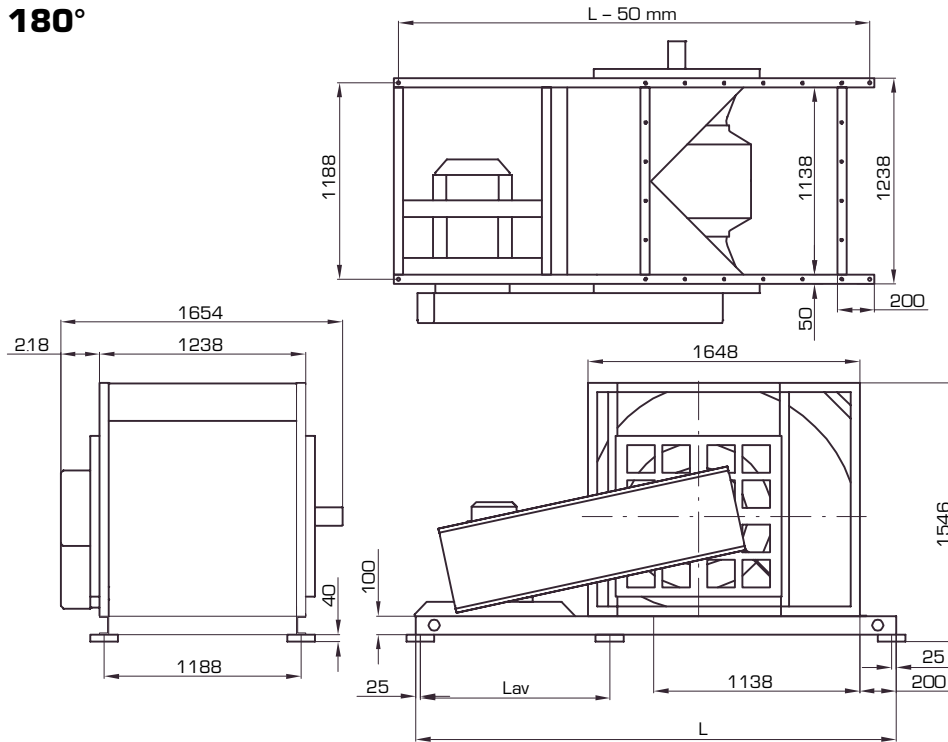


Fan	Motor size, IEC	Length	Lav	Number of anti-vibration mountings	Weight, kg (without motor)
GTLB-5-090-c-d3-00	100-180	2100	1025	6	480
GTHB-5-090-c-d3-00	160/180	2100	1025	6	530
GTHB-5-090-c-d3-00	200/225	2300	1125	6	550
GTHB-5-090-c-d3-00	250	2500	1225	6	590

# Dimensions and Weights – GTLB/GTHB-5-090

Right-hand version (viewed from drive side)

**180°**



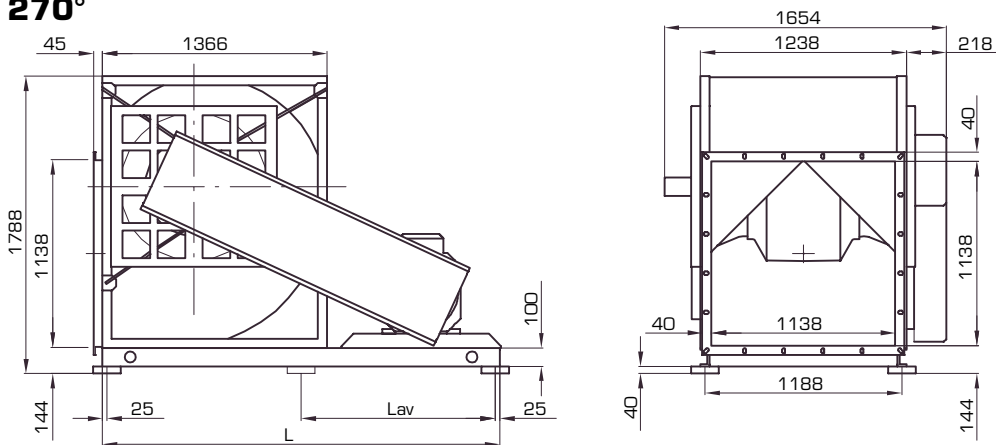
Left-hand version  
(same dimensions  
as the right-hand  
version)



**180°**

Fan	Motor size, IEC	Length	Lav	Number of anti-vibration mountings	Weight, kg (without motor)
GTLB-5-090-c-d5-00	100-180	2600	1000	6	500
GTHB-5-090-c-d5-00	160/180	2600	1100	6	560
GTHB-5-090-c-d5-00	200/225	2800	1200	6	580
GTHB-5-090-c-d5-00	250	3000	1400	6	620

**270°**

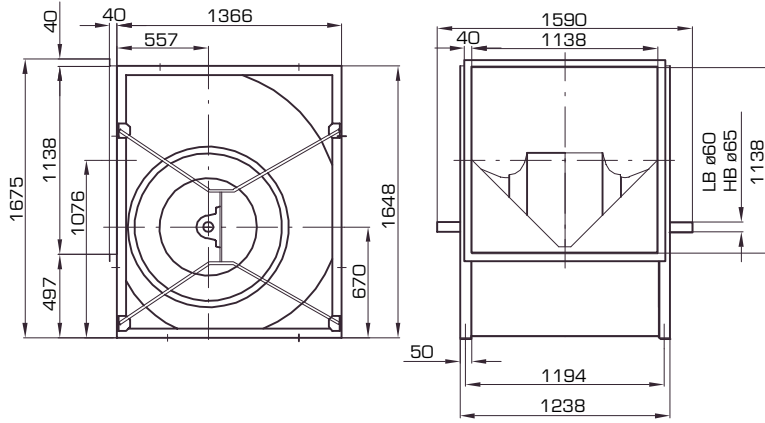


**270°**

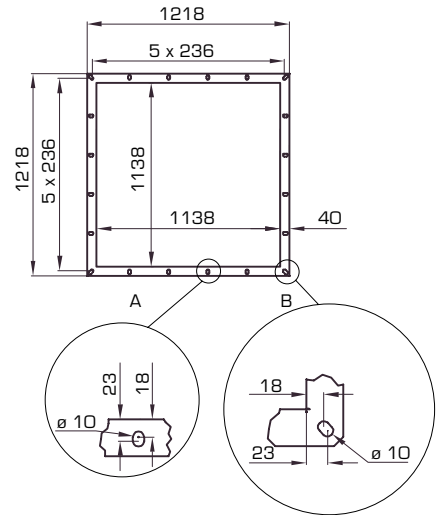
Fan	Motor size, IEC	Length	Lav	Number of anti-vibration mountings	Weight, kg (without motor)
GTLB-5-090-c-d7-00	100-180	2100	1025	6	480
GTHB-5-090-c-d7-00	160/180	2100	1025	6	530
GTHB-5-090-c-d7-00	200/225	2300	1125	6	550
GTHB-5-090-c-d7-00	250	2500	1225	6	590

# Dimensions and Weights - GTLB/GTHB-5-090

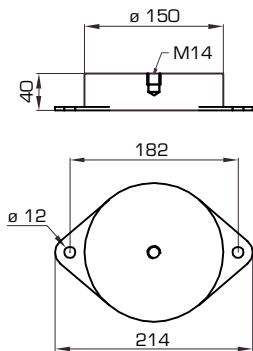
## Fan casing



## Discharge flange



## Anti-vibration mounting, GTLZ-42-090-d-0



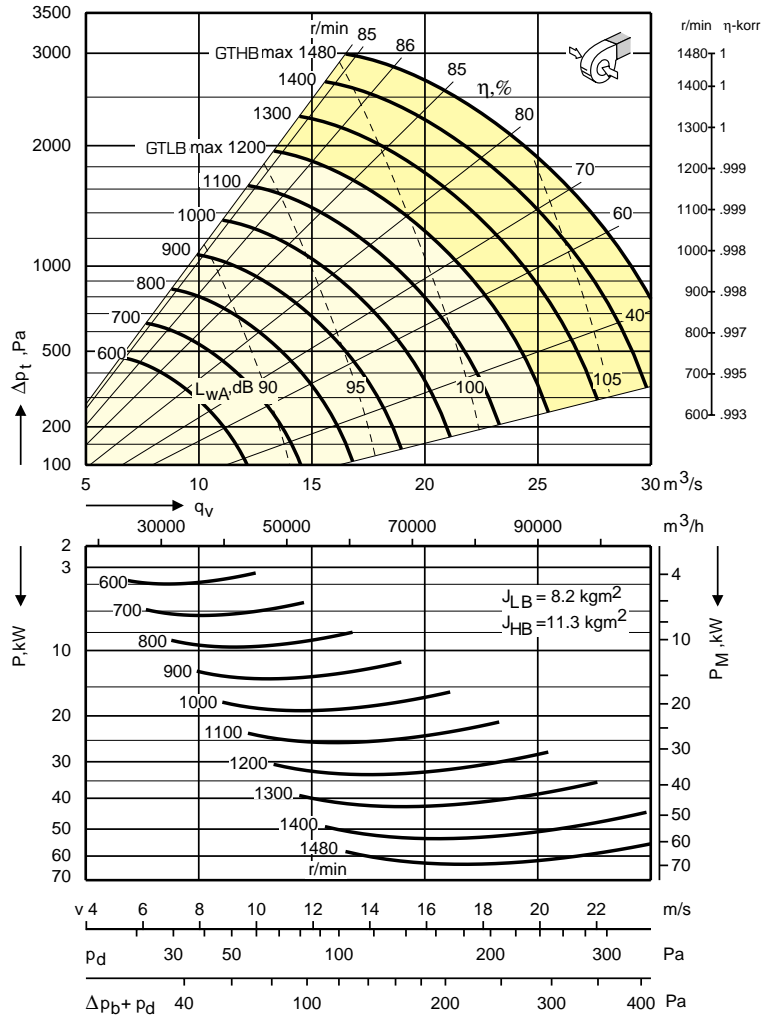
Motor size, IEC	d	Number of anti-vibration mountings
100 - 132	1	4
160 - 250	2	6



# Fan Charts – Acoustic Data – GTLB/GTHB-5-090

Belt-driven, double-inlet, backward curved blades

Impeller diameter: 900 mm



Sound path	Speed range r/min	Correction $K_{Gk}$ , dB								$\Delta L_{WA}(s)$	$\Delta L_{WB}(s)$
		Octave band, mid-frequency, Hz									
		63	125	250	500	1000	2000	4000	8000		
To the outlet duct	0 - 409	1	-2	-4	-3	-2	-14	-22	-29	0	5,4
	410 - 815	-7	0	-3	-3	-3	-10	-20	-27	0	4,5
	816 - 1480	-11	-8	-2	-1	-4	-11	-19	-25	0	3,3
To the surrounding of a free-inlet fan	0 - 409	4	-2	-7	-10	-15	-20	-26	-33	-8,4	13,8
	410 - 815	-4	3	-5	-10	-13	-16	-25	-31	-6,4	11
	816 - 1480	-8	-9	2	-9	-10	-15	-23	-29	-3,8	7,1
To the outlet of a free-discharge fan	0 - 409	-2	-3	-4	-3	-2	-14	-22	-29	0	4,3
	410 - 815	-10	-1	-3	-3	-3	-10	-20	-27	-0,1	4,1
	816 - 1480	-14	-9	-2	-1	-4	-11	-19	-25	0	3,2

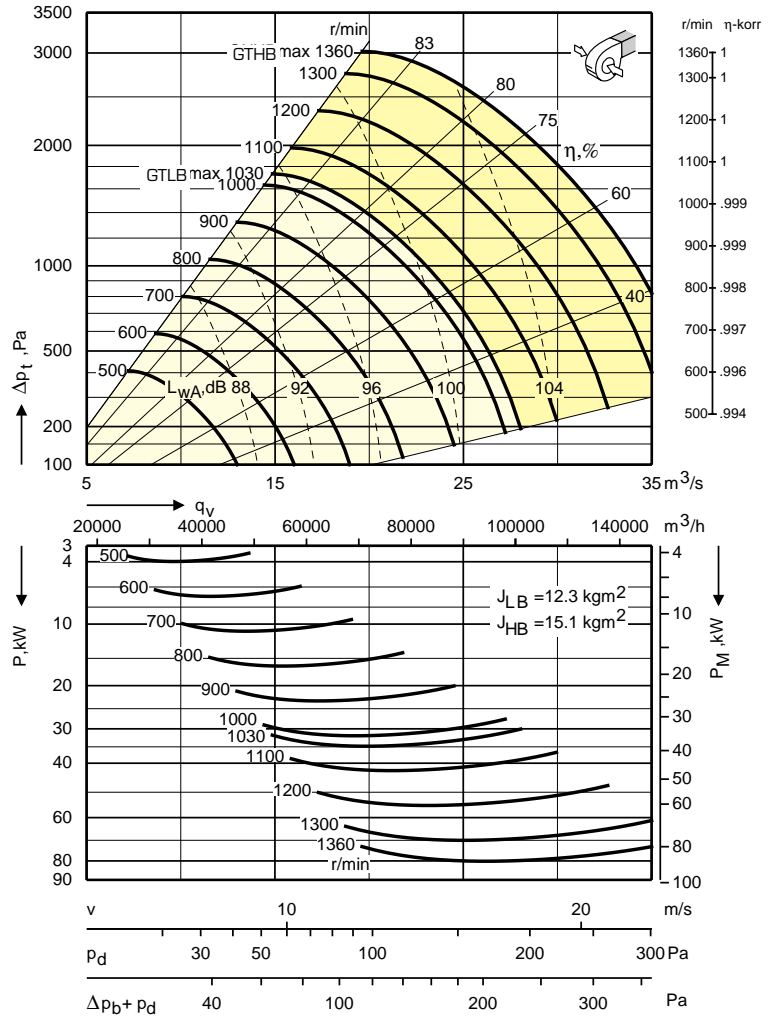
## **Dimensions and Weights – GTLB-5-100/GTHB-5-100 – 140**

Dimensions and weights available on request

# Fan Charts – Acoustic Data – GTLB/GTHB-5-100

Belt-driven, double-inlet, backward curved blades

Impeller diameter: 1000 mm

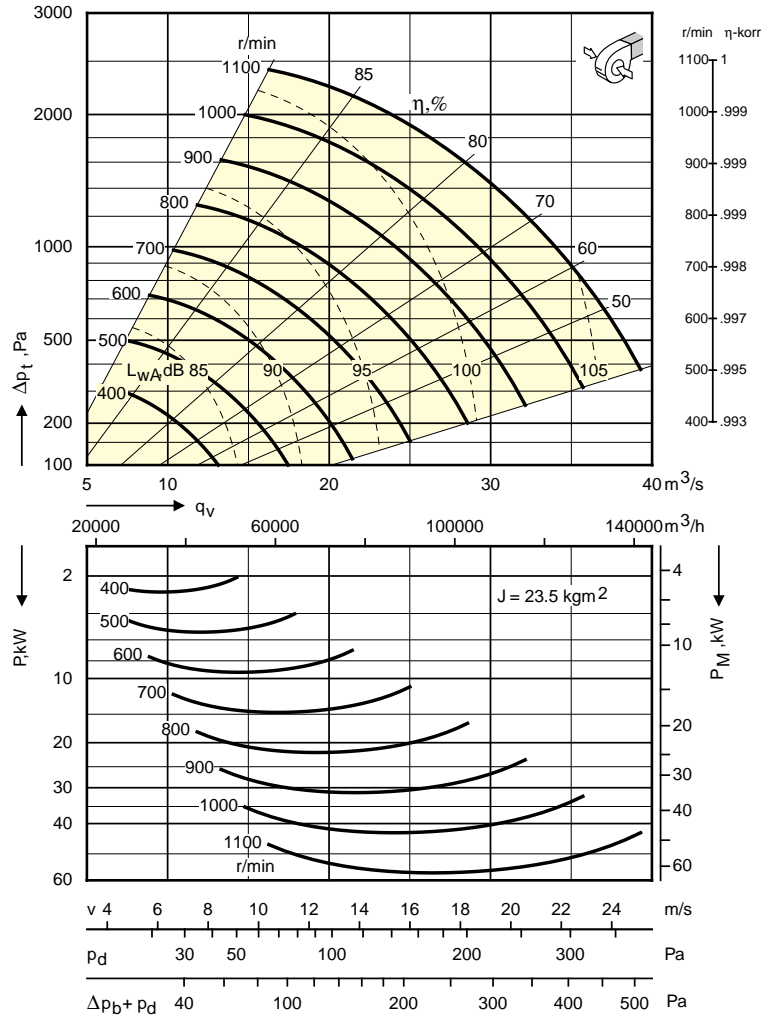


Sound path	Speed range r/min	Correction $K_{Gk}$ , dB								$\Delta L_{WA}(s)$	$\Delta L_{WT}(s)$
		Octave band, mid-frequency, Hz									
		63	125	250	500	1000	2000	4000	8000		
To the outlet duct	0 - 409	4	1	-2	-1	-4	-14	-21	-27	0	7,5
	410 - 815	-2	2	-2	-1	-4	-13	-20	-26	0	6,1
	816 - 1360	-8	-7	-1	0	-5	-13	-19	-26	0	4
To the surrounding of a free-inlet fan	0 - 409	5	2	-3	-4	-8	-16	-23	-26	-2,9	10,6
	410 - 815	-2	4	-3	-5	-8	-13	-21	-25	-2,8	9
	816 - 1360	-5	-6	2	-6	-7	-14	-20	-25	-2,2	6,4
To the outlet of a free-discharge fan	0 - 409	1	0	-2	-1	-4	-14	-21	-27	-0,2	6,4
	410 - 815	-5	1	-2	-1	-4	-13	-20	-26	-0,1	5,5
	816 - 1360	-11	-8	-1	0	-5	-13	-19	-26	0	3,8

# Fan Charts - Acoustic Data - GTLB/GTHB-5-112

Belt-driven, double-inlet, backward curved blades

Impeller diameter: 1200 mm

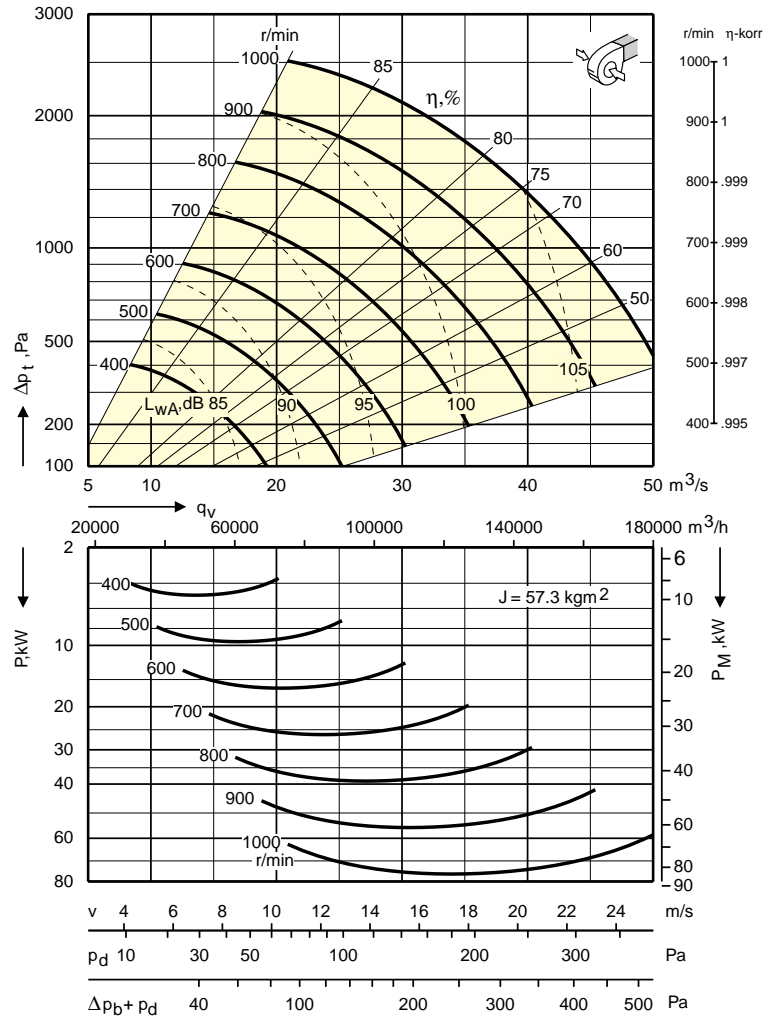


Sound path	Speed range r/min	correction $K_{Dk}$ , dB								$\Delta L_{WA}(s)$	$\Delta L_{Wt}(s)$
		Octave band, mid-frequency, Hz									
		63	125	250	500	1000	2000	4000	8000		
To the outlet duct	0 - 401	0	-1	-1	-2	-5	-8	-14	-27	0	5,7
	401 - 801	0	1	0	-3	-5	-8	-13	-24	0	6,3
	801 - 1100	-4	-2	0	-2	-5	-8	-14	-25	0	5
To the surrounding of a free-inlet fan	0 - 401	-1	-3	-3	-5	-6	-7	-14	-27	-1	5,2
	401 - 801	-2	1	-2	-4	-5	-7	-13	-24	-0,2	5,6
	801 - 1100	-6	-5	0	-4	-6	-7	-14	-25	-0,5	4,4
Till utlopp från friblåsande fläkt	0 - 401	-3	-2	-1	-2	-5	-8	-14	-27	0	4,9
	401 - 801	-3	0	0	-3	-5	-8	-13	-24	-0,1	5,6
	801 - 1100	-7	-3	0	-2	-5	-8	-14	-25	0,1	4,4

# Fan Charts – Acoustic Data – GTLB/GTHB-5-125

Belt-driven, double-inlet, backward curved blades

Impeller diameter: 1250 mm

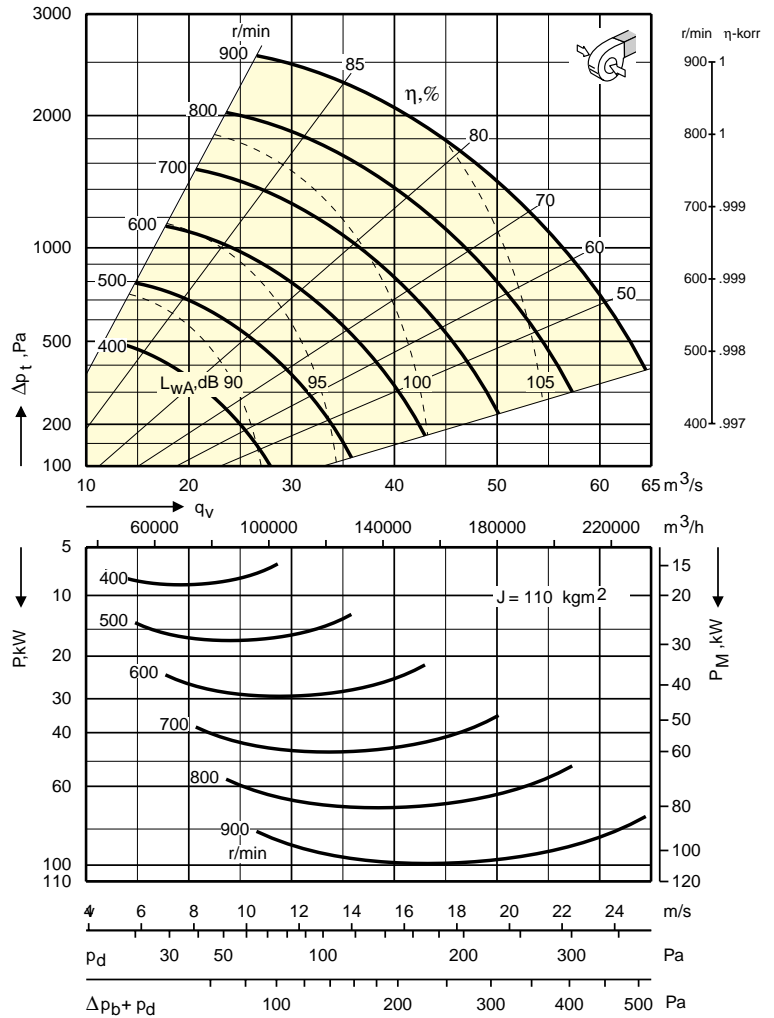


Sound path	Speed range r/min	Correction $K_{O_k}$ , dB								$\Delta L_{WA}(s)$	$\Delta L_{Wt}(s)$
		Octave band, mid-frequency, Hz									
		63	125	250	500	1000	2000	4000	8000		
To the outlet duct	0 - 401	0	-1	-1	-2	-5	-8	-14	-27	0	5,7
	401 - 801	0	1	0	-3	-5	-8	-13	-24	0	6,3
	801 - 1100	-4	-2	0	-2	-5	-8	-14	-25	0	5
To the surrounding of a free-inlet fan	0 - 401	-1	-3	-3	-5	-6	-7	-14	-27	-1	5,2
	401 - 801	-2	1	-2	-4	-5	-7	-13	-24	-0,2	5,6
	801 - 1100	-6	-5	0	-4	-6	-7	-14	-25	-0,5	4,4
To the outlet of a free-discharge fan	0 - 401	-3	-2	-1	-2	-5	-8	-14	-27	0	4,9
	401 - 801	-3	0	0	-3	-5	-8	-13	-24	-0,1	5,6
	801 - 1100	-7	-3	0	-2	-5	-8	-14	-25	0,1	4,4

# Fan Charts – Acoustic Data – GTLB/GTHB-5-140

Belt-driven, double-inlet, backward curved blades

Impeller diameter: 1400 mm



Sound path	Speed range r/min	Correction $K_{Gk}$ , dB								$\Delta L_{WA}(s)$	$\Delta L_{WB}(s)$
		Octave band, mid-frequency, Hz									
		63	125	250	500	1000	2000	4000	8000		
To the outlet duct	0 - 401	0	-1	-1	-2	-5	-8	-14	-27	0	5,7
	401 - 801	0	1	0	-3	-5	-8	-13	-24	0	6,3
	801 - 900	-4	-2	0	-2	-5	-8	-14	-25	0	5
To the surrounding of a free-inlet fan	0 - 401	-1	-3	-3	-5	-6	-7	-14	-27	-1	5,2
	401 - 801	-2	1	-2	-4	-5	-7	-13	-24	-0,2	5,6
	801 - 900	-6	-5	0	-4	-6	-7	-14	-25	-0,5	4,4
Till utlopp från friblåsande fläkt	0 - 401	-2	-1	-1	-2	-5	-8	-14	-27	0	5,3
	401 - 801	-2	1	0	-3	-5	-8	-13	-24	0	5,9
	801 - 900	-6	-2	0	-2	-5	-8	-14	-25	0,1	4,7

# Motor Data – Single-speed Motors, 50 Hz

2 poles = 3000 r/min

Motor size IEC	Ordering code	Rated output, kW	Speed, r/min	At rated output <sup>1)</sup> Current at 400 V, ca A	$\frac{M_{st}}{M}$	$\frac{M_{max}}{M}$	Efficiency, $\eta$ %	Weight, kg
71	APAL-2-00037-c-0-2	0,37	2810	0,85	3	3,2	74	8
71	APAL-2-00055-c-0-2	0,55	2800	1,23	2,9	3	76	9
80	APAL-2-00075-c-0-2	0,75	2790	1,57	2,9	3,1	80	12
80	APAL-2-00110-c-0-2	1,1	2810	2,32	3	2,9	80	12
90S/L	APAL-2-00150-c-0-2	1,5	2870	3,41	2,8	3	84	17
90S/L	APAL-2-00220-c-0-2	2,2	2840	4,48	2,8	3	83	19
100L	APAL-2-00300-c-0-2	3	2880	5,75	2,6	2,8	86	26
112M	APAL-2-00400-c-0-2	4	2890	7,55	2,7	3,1	87	33
132M	APAL-2-00550-c-0-2	5,5	2870	10,3	2,7	3,2	88	37
132S	APAL-2-00750-c-0-2	7,5	2925	13,6	2,5	2,9	89	67
160M	APAL-2-01100-c-2-2	11	2945	20	2,6	3,1	90	104
160M	APAL-2-01500-c-2-2	15	2945	27	2,5	3,2	91	111
160L	APAL-2-01850-c-2-2	18,5	2945	33,1	2,6	3,3	92	126
180M	APAL-2-02200-c-2-2	22	2950	38,7	2,8	3,1	92	172
200L	APAL-2-03000-c-2-2	30	2965	53,1	2,8	2,8	93	239
200L	APAL-2-03700-c-2-2	37	2965	65,3	2,9	2,9	93	253
225S/M	APAL-2-04500-c-2-2	45	2965	75,4	2,6	3,5	94	411
250S/M	APAL-2-05500-c-2-2	55	2960	91	2,8	3	94	490
280S/M	APAL-2-07500-c-2-2	75	2975	129	2,3	2,8	94	655
280S/M	APAL-2-09000-c-2-2	90	2970	153	2,4	2,8	94	705
315S/M	APAL-2-11000-c-2-2	110	2975	188	2,3	2,8	95	807
315S/M	APAL-2-13200-c-2-2	132	2970	223	2,3	2,8	95	937
315S/M	APAL-2-16000-c-2-2	160	2970	269	2,2	2,5	95	1010

## 1) Correction factors

The current values in the tables are applicable to motors wound for 400 V. All motors can be used for voltages between 380 and 415 V.

Motors with voltage code c=1 can be connected in D to operate in the range of 220–240 V.

Motors with voltage code c=2 can be connected in Y to operate in the range of 660–690 V.

The correction factors on the current in the range of 400 V will then be: 220–240 V = 1.73 and 660–690 V = 0.58.

The motors can also be wound for 500 V, and the voltage code is then c=5. The correction factor on the current at 400 V is then 0.8.

The speeds, efficiencies and power factors are applicable at 230, 400, 690 and 500 V.

### Code suffix for voltage (c)

1 = 220–240 V delta/380–415 VY

2 = 380–415 V delta/660–690 VY

### Temperature sensors in the stator winding, code suffix (d)

0 = without

1 = with bimetal temperature contacts

2 = with thermistor

### Motor versions, code suffix (e)

2 = Flåkt Woods accepted motor

# Motor Data – Single-speed Motors, 50 Hz

4 poles = 1500 r/min

Motor size IEC	Ordering code	Rated output, kW	Speed, r/min	At rated output: <sup>1)</sup> Current at 400 V, ca A	$\frac{M_{st}}{M}$	$\frac{M_{max}}{M}$	Efficiency, $\eta$ %	Weight, kg
71	APAL-4-00025-c-0-2	0,25	1410	0,71	3	3,1	73	9
71	APAL-4-00037-c-0-2	0,37	1395	1,04	2,7	2,8	74	9
80	APAL-4-00055-c-0-2	0,55	1430	1,36	2,6	2,8	75	12
80	APAL-4-00075-c-0-2	0,75	1415	1,71	2,4	2,6	76	13
90S/L	APAL-4-00110-c-0-2	1,1	1440	2,53	3	3	81	17
90S/L	APAL-4-00150-c-0-2	1,5	1420	3,19	2,7	2,7	82	19
100L	APAL-4-00220-c-0-2	2,2	1420	4,61	2,7	2,9	83	26
100L	APAL-4-00300-c-0-2	3	1410	5,94	2,7	2,7	85	28
112M	APAL-4-00400-c-0-2	4	1430	7,62	2,7	2,8	87	32
132M	APAL-4-00550-c-0-2	5,5	1450	10,6	2,4	3	88	37
132M	APAL-4-00750-c-0-2	7,5	1470	14,2	2,5	2,8	89	59
160M	APAL-4-01100-c-2-2	11	1460	21	2,2	2,5	90	105
160L	APAL-4-01500-c-2-2	15	1455	28,4	2,2	2,4	91	121
180M	APAL-4-01850-c-2-2	18,5	1470	34,5	2,7	2,8	92	175
180M	APAL-4-02200-c-2-2	22	1470	41,4	2,8	2,8	92	181
200M	APAL-4-03000-c-2-2	30	1475	54,8	2,2	2,5	93	227
225S/M	APAL-4-03700-c-2-2	37	1480	65,4	2,3	2,7	93	350
225S/M	APAL-4-04500-c-2-2	45	1475	78,9	2,3	2,7	94	382
250S/M	APAL-4-05500-c-2-2	55	1475	94,4	2,3	2,6	93	460
280S/M	APAL-4-07500-c-2-2	75	1485	128	2,1	2,4	94	735
280S/M	APAL-4-09000-c-2-2	90	1485	155	2,4	2,5	94	802
315S/M	APAL-4-11000-c-2-2	110	1485	191	2,3	2,6	94	865
315S/M	APAL-4-13200-c-2-2	132	1485	228	2,2	2,6	95	1010
315S/M	APAL-4-16000-c-2-2	160	1480	278	2,4	2,7	96	1010

## 1) Correction factors

The current values in the tables are applicable to motors wound for 400 V. All motors can be used for voltages between 380 and 415 V.

Motors with voltage code c=1 can be connected in D to operate in the range of 220–240 V.

Motors with voltage code c=2 can be connected in Y to operate in the range of 660–690 V.

The correction factors on the current in the range of 400 V will then be: 220–240 V = 1.73 and 660–690 V = 0.58.

The motors can also be wound for 500 V, and the voltage code is then c=5. The correction factor on the current at 400 V is then 0.8.

The speeds, efficiencies and power factors are applicable at 230, 400, 690 and 500 V.

### Code suffix for voltage **(c)**

1 = 220–240 V delta/380–415 VY

2 = 380–415 V delta/660–690 VY

### Temperature sensors in the stator winding, code suffix **(d)**

0 = without

1 = with bimetal temperature contacts

2 = with thermistor

### Motor versions, code suffix **(e)**

2 = Fläkt Woods accepted motor



# Motor Data – Single-speed Motors, 50 Hz

6 poles = 1000 r/min

Motor size IEC	Ordering code	Rated output, kW	Speed, r/min	At rated output <sup>1)</sup> Current at 400 V, ca A	$\frac{M_{st}}{M}$	$\frac{M_{max}}{M}$	Efficiency, $\eta$ %	Weight, kg
71	APAL-6-00018-c-0-2	0,18	905	0,74	2,1	2,2	57	9
71	APAL-6-00025-c-0-2	0,25	900	0,99	2,2	2,2	64	10
80	APAL-6-00037-c-0-2	0,37	930	1,23	2,5	2,5	65	11
80	APAL-6-00055-c-0-2	0,55	930	1,62	2,3	2,3	67	13
90S/L	APAL-6-00075-c-0-2	0,75	920	1,97	2,1	2,1	72	16
90S/L	APAL-6-00110-c-0-2	1,1	925	2,82	2,3	2,2	75	19
100L	APAL-6-00150-c-0-2	1,5	940	3,78	2,2	2,5	78	26
112M	APAL-6-00220-c-0-2	2,2	940	5,36	2,2	2,3	80	28
132M	APAL-6-00300-c-0-2	3	960	6,82	2	2,2	82	44
132M	APAL-6-00400-c-0-2	4	960	8,74	2,1	2,3	86	51
132M	APAL-6-00550-c-0-2	5,5	960	12,2	2,2	2,4	86	62
160M	APAL-6-00750-c-2-2	7,5	970	15,2	2,3	2,6	88	103
160L	APAL-6-01100-c-2-2	11	970	21,9	2,4	2,9	88	129
180L	APAL-6-01500-c-2-2	15	965	26,5	2,5	2,6	90	181
200L	APAL-6-01850-c-2-2	18,5	975	35,4	2,3	2,5	90	219
200L	APAL-6-02200-c-2-2	22	975	41,4	2,3	2,4	91	228
225S/M	APAL-6-03000-c-2-2	30	985	54,2	2,6	2,7	92	366
250S/M	APAL-6-03700-c-2-2	37	980	66,4	2,7	2,6	92	440
280S/M	APAL-6-04500-c-2-2	45	985	84,5	2,4	2,6	93	610
280S/M	APAL-6-05500-c-2-2	55	985	100	2,3	2,5	94	655
315S/M	APAL-6-07500-c-2-2	75	985	136	2,3	2,5	94	775
315S/M	APAL-6-09000-c-2-2	90	985	163	2,1	2,3	94	818
315S/M	APAL-6-11000-c-2-2	110	985	200	2,3	2,4	95	990

1) Correction factors

The current values in the tables are applicable to motors wound for 400 V. All motors can be used for voltages between 380 and 415 V.

Motors with voltage code c=1 can be connected in D to operate in the range of 220–240 V.

Motors with voltage code c=2 can be connected in Y to operate in the range of 660–690 V.

The correction factors on the current in the range of 400 V will then be: 220–240 V = 1.73 and 660–690 V = 0.58.

The motors can also be wound for 500 V, and the voltage code is then c=5. The correction factor on the current at 400 V is then 0.8.

The speeds, efficiencies and power factors are applicable at 230, 400, 690 and 500 V.

Code suffix for voltage **(c)**  
 1 = 220–240 V delta/380–415 VY  
 2 = 380–415 V delta/660–690 VY

Temperature sensors in the stator winding, code suffix **(d)**  
 0 = without  
 1 = with bimetal temperature contacts  
 2 = with thermistor

Motor versions, code suffix **(e)**  
 2 = Fläkt Woods accepted motor

# Motor Data – Single-speed Motors, 50 Hz

8 poles = 750 r/min

Motor size IEC	Ordering code	Rated output, kW	Speed, r/min	At rated output <sup>1)</sup> Current at 400 V, ca A	$\frac{M_{st}}{M}$	$\frac{M_{max}}{M}$	Efficiency, $\eta$ %	Weight, kg
71	APAL-8-00012-c-0-2	0,12	685	0,66	1,9	2,1	47	9
80	APAL-8-00018-c-0-2	0,18	700	0,77	1,8	1,9	54	11
80	APAL-8-00025-c-0-2	0,25	700	0,92	1,8	1,8	62	12
90S/L	APAL-8-00037-c-0-2	0,37	685	1,49	2,3	2,4	62	16
90S/L	APAL-8-00055-c-0-2	0,55	690	2,17	2,2	2,1	62	18
100L	APAL-8-00075-c-0-2	0,75	705	2,42	2	2,1	71	22
100L	APAL-8-00110-c-0-2	1,1	700	3,39	1,5	2,1	72	26
112M	APAL-8-00150-c-0-2	1,5	710	4,08	2,4	2,9	82	35
132M	APAL-8-00220-c-0-2	2,2	715	5,27	2,4	2,7	82	59
132M	APAL-8-00300-c-0-2	3	710	7,38	2,3	2,4	82	62
160M	APAL-8-00400-c-2-2	4	730	10,2	2,3	3,1	86	105
160M	APAL-8-00550-c-2-2	5,5	730	13,7	2,4	3,2	85	114
160L	APAL-8-00750-c-2-2	7,5	725	17,6	2	2,5	86	127
180L	APAL-8-01100-c-2-2	11	725	21,4	2,3	2,5	88	175
200L	APAL-8-01500-c-2-2	15	725	32,9	2	2,1	89	217
225S/M	APAL-8-01850-c-2-2	18,5	735	35,4	2,1	2,5	90	341
225S/M	APAL-8-02200-c-2-2	22	730	42,4	2,2	2,2	91	365
250S/M	APAL-8-03000-c-2-2	30	730	56,8	2,1	2,4	92	440
280S/M	APAL-8-03700-c-2-2	37	735	70,6	2	2	92	607
280S/M	APAL-8-04500-c-2-2	45	740	88,2	1,9	2	92	643
315S/M	APAL-8-05500-c-2-2	55	735	104	1,9	2	93	745
315S/M	APAL-8-07500-c-2-2	75	740	141	1,6	2	94	876
315S/M	APAL-8-09000-c-2-2	90	740	166	2,1	2,2	94	970

## 1) Correction factors

The current values in the tables are applicable to motors wound for 400 V. All motors can be used for voltages between 380 and 415 V.

Motors with voltage code c=1 can be connected in D to operate in the range of 220–240 V.

Motors with voltage code c=2 can be connected in Y to operate in the range of 660–690 V.

The correction factors on the current in the range of 400 V will then be: 220–240 V = 1.73 and 660–690 V = 0.58.

The motors can also be wound for 500 V, and the voltage code is then c=5. The correction factor on the current at 400 V is then 0.8.

The speeds, efficiencies and power factors are applicable at 230, 400, 690 and 500 V.

### Code suffix for voltage (c)

1 = 220–240 V delta/380–415 VY

2 = 380–415 V delta/660–690 VY

### Temperature sensors in the stator winding, code suffix (d)

0 = without

1 = with bimetal temperature contacts

2 = with thermistor

### Motor versions, code suffix (e)

2 = Fläkt Woods accepted motor

# Motor Data – Two-speed Motors, 50 Hz

2/4 poles = 3000/1500 r/min – One stator winding (Dahlander)

Motor size		Ordering code <b>ARAL-2-</b>	No. of motor poles	Rated output, kW	Speed, r/min	At rated output <sup>1)</sup> Current at 400 V, ca A	$\frac{I_{st}^{1)}$	$\frac{M_{st}}$	$\frac{M_{max}}$	Efficiency, $\eta$ %	Power factors, $\cos \varphi$	Weight, kg
IEC	ABB Motors											
71	M2VA 71 B	00055-c-d-0	2 4	0,55 0,12	2700 1470	1,3 0,75	3,8 3,4	1,4 2,2	1,5 2,3	67 55	0,91 0,42	6,5
80	M2VA 80 A	00075-c-d-0	2 4	0,75 0,15	2850 1430	1,8 0,65	4,9 3,9	2,2 2,4	2,3 2,5	73 52	0,83 0,65	9
80	M2VA 80 B	00110-c-d-0	2 4	1,1 0,25	2840 1430	2,6 0,9	4,9 3,9	2,2 2,2	2,3 2,3	73 60	0,84 0,67	11
90 S	M2AA 90 S	00150-c-d-0	2 4	1,5 0,33	2860 1460	3,3 1,1	5,2 3,9	1,8 1,1	2,4 2,1	77 66	0,87 0,67	13
90 L	M2AA 90 L	00220-c-d-0	2 4	2,2 0,45	2860 1460	4,6 1,4	5,9 4,4	2,1 1,2	2,6 2,3	80 73	0,88 0,65	16
100 L	M2AA 100 LB	00350-c-d-0	2 4	3,5 0,7	2880 1470	7 2	6,2 4,8	2,1 1,2	2,6 3	80 77	0,91 0,65	25
112 M	M2AA 112 M	00451-c-d-0	2 4	4,5 1	2875 1450	8,4 2,4	7 6	1,8 1,9	2,3 2,8	83 80	0,93 0,76	32
132 S	M2AA 132 S	00620-c-d-0	2 4	6,2 1,3	2880 1455	11,8 3,5	7 6,5	2 2,6	2,6 3,3	84 80	0,91 0,67	42
132 M	M2AA 132 M	00830-c-d-0	2 4	8,3 1,7	2875 1455	15,4 4,2	7,4 6,6	2,5 2,7	2,7 3,3	84 82	0,93 0,71	56
160 M	M2AA 160MA	01000-c-d-0	2 4	10 2	2910 1465	19 4,8	5,9 6,1	1,5 2,4	2,3 2,8	85 83,5	0,89 0,73	73
160 M	M2AA 160 M	01600-c-d-0	2 4	16 3,2	2915 1465	28,5 7	6,6 6,3	1,8 2,5	2,4 2,8	87,5 86,5	0,92 0,76	94
160 L	M2AA 160 L	01950-c-d-0	2 4	19,5 4,5	2930 1465	36 9,7	7,6 6,4	2,3 2,5	2,9 2,8	89 88	0,89 0,77	100
180 M	M2AA 180 M	02150-c-d-0	2 4	21,5 4,7	2935 1465	38 10	7 5,3	2,1 2,1	2,6 2,3	90 88	0,91 0,77	137
180 L	M2AA 180 L	02600-c-d-0	2 4	26 5,2	2940 1470	47 11	6,9 5,8	2,3 2,4	2,6 2,4	90,5 89,5	0,89 0,75	151
200 ML	M2AA 200 MLA	03200-c-d-0	2 4	32 8	2940 1465	58 16	7,1 6,2	2 2	2,5 2,2	90 89	0,89 0,85	180
200 ML	M2AA 200 MLB	03900-c-d-0	2 4	39 10	2950 1475	69 19	7,4 6,2	2 2	2,6 2,3	91,5 91	0,89 0,85	205
200 ML	M2AA 200 MLC	04200-c-d-0	2 4	42 11	2950 1470	75 23	7,7 5,6	2,2 2,1	3 2,5	92,5 91	0,89 0,77	205
225 SM	M2AA 225 SMB	04500-c-d-0	2 4	45 13	2955 1475	76 25	7,4 5,3	2 2	2,6 2,1	93 91,5	0,92 0,82	235
225 SM	M2AA 225 SMC	05500-c-d-0	2 4	55 15	2955 1475	94 29	7,3 5,4	2 2	2,6 2,2	93,5 92,5	0,91 0,82	260
250 SM	M2AA 250 SMB	07500-c-d-0	2 4	75 25	2955 1475	125 48	8,9 5,5	2,3 2	3,1 2,2	94,5 93	0,92 0,82	330

1)  $\frac{I_{st}}{I}$  = Ratio of motor starting current to full-load current

Code suffix for voltage **(c)**  
 2 = 380-400 V (sizes 112-132)  
 400 V (sizes 160-315)  
 4 = 400-415 V (sizes 71-100)  
 415 V (sizes 160-315)

Temperature sensors in the stator winding, code suffix **(d)**  
 0 = without  
 1 = with bimetal temperature contacts  
 2 = with thermistor

# Motor Data – Two-speed Motors, 50 Hz

4/6 poles = 1500/1000 r/min – Two separate windings

Motor size IEC	ABB Motors	Ordering code <b>ATAL-4-</b>	No. of motor poles	Rated output, kW	Speed, r/min	At rated output <sup>1)</sup> Current at 400 V, ca A	$I_{st}^{1)}$	$M_{st}$	$M_{max}$	Efficiency, $\eta$ %	Power factors, $\cos \phi$	Weight, kg
							I	M	M			
71	M2VA 71 B	00030-c-d-0	4 6	0,3 0,1	1350 900	0,9 0,6	2,8 2	1 1,05	1,1 1,15	54 30	0,86 0,79	6,5
80	M2VA 80 A	00045-c-d-0	4 6	0,45 0,15	1390 945	1,2 0,7	3,2 3	1,6 1,5	1,7 1,6	65 42	0,85 0,75	10
80	M2VA 80 B	00075-c-d-0	4 6	0,75 0,22	1400 955	1,9 0,9	3,3 3,2	1,7 1,6	1,8 1,7	67 48	0,86 0,74	10,5
90 S	M2AA 90 S	00100-c-d-0	4 6	1 0,3	1400 940	2,5 1,2	4,3 2,6	1,8 1	2,2 1,7	73 53	0,83 0,7	13
90 L	M2AA 90 L	00150-c-d-0	4 6	1,5 0,45	1400 930	3,5 1,6	4,3 2,9	1,7 1	2,1 1,8	72 52	0,84 0,73	16
100 L	M2AA 100 LA	00200-c-d-0	4 6	2 0,6	1430 960	4,5 2	5 3,3	1,8 1	2,4 1,9	77 62	0,85 0,72	20
100 L	M2AA 100 LB	00250-c-d-0	4 6	2,5 0,8	1430 960	5,5 2,5	5,6 3,5	2 1,1	2,5 2	79 68	0,84 0,71	23
112 M	M2AA 112 M	00300-c-d-0	4 6	3 1	1445 975	6,3 3,1	6 4	1,3 1	2,3 2,2	82 67	0,84 0,68	33
132 S	M2AA 132 S	00450-c-d-0	4 6	4,5 1,5	1460 985	9,2 5,1	6,5 4,2	1,5 1	2,3 2,2	83 67	0,85 0,64	48
132 M	M2AA 132 M	00600-c-d-0	4 6	6 2	1460 980	12 5,6	7,1 4,5	1,8 1,3	2,5 2	84 71	0,86 0,73	59
160 M	M2AA 160 M	01050-c-d-0	4 6	10,5 3,5	1460 965	21 8,6	6,4 4,1	2 1,3	2,5 1,7	87 75,5	0,84 0,78	94
160 L	M2AA 160 L	01450-c-d-0	4 6	14,5 4,5	1460 970	28 11	6,9 4,6	2,2 1,5	2,6 1,9	88,5 77	0,85 0,76	117
180 M	M2AA 180 M	01601-c-d-0	4 6	16 5	1470 980	31 12,5	6,3 4,6	1,9 1,5	2,5 2	89 78	0,83 0,73	137
180 L	M2AA 180 L	02001-c-d-0	4 6	20 6,5	1470 980	39 16	7,2 5	2,4 1,8	2,7 2	90 79,5	0,83 0,74	161
200 ML	M2AA 200 MLA	02300-c-d-0	4 6	23 7,2	1475 985	43 15	7,7 7,8	1,6 1,9	2,8 2,9	89,5 84	0,88 0,87	175
200 ML	M2AA 200 MLB	03000-c-d-0	4 6	30 9	1470 985	54 18	7,7 7,9	1,6 1,7	2,7 2,5	90 83,5	0,90 0,89	200
225 SM	M2AA 225 SMB	03400-c-d-0	4 6	34 11	1470 985	60 21	7,7 6,7	1,5 1,3	2,7 2,3	91 85	0,91 0,89	225
225 SM	M2AA 225 SMC	04200-c-d-0	4 6	42 14	1475 985	75 27	8,4 6,8	1,7 1,4	3 2,3	91,5 89	0,89 0,89	255
250 SM	M2AA 250 SMB	06300-c-d-0	4 6	63 18,5	1475 985	110 40	7,5 7,3	2,4 3	2,7 2,6	93,5 87	0,89 0,79	335
280 SM	M2CA 280 SMA	07700-c-d-0	4 6	77 25	1486 991	144 54	7,6 7,7	2,4 3,2	2,9 2,7	93,9 89,3	0,83 0,76	490
280 M	M2CA 280 MB	09000-c-d-0	4 6	90 28	1485 991	161 58	7,4 7,7	2,3 3,2	2,7 2,8	94,2 89,8	0,86 0,78	550
315 SM	M2CA 315 SMA	11000-c-d-0	4 6	110 32	1489 992	199 67	6,6 6,5	1,9 2,8	2,6 2,9	95,2 91,2	0,85 0,78	730
315 M	M2CA 315 MB	12500-c-d-0	4 6	125 37	1488 992	219 75	6,6 6,4	1,9 2,9	2,4 2,8	95,5 92,2	0,86 0,79	850
315 L	M2CA 315 LA	15000-c-d-0	4 6	150 44	1488 991	260 88	6,6 6,4	1,9 3	2,4 2,7	95,7 92,6	0,87 0,79	970

1)  $\frac{I_{st}}{I}$  = Ratio of motor starting current to full-load current

Code suffix for voltage **(c)**  
 2 = 380-400 V (storlekar 112-132)  
 400 V (storlekar 160-250)  
 4 = 400-415 V (storlekar 71-100)  
 415 V (storlekar 160-250)

Temperature sensors in the stator winding, code suffix **(d)**  
 0 = without  
 1 = with bimetal temperature contacts  
 2 = with thermistor

# Motor Data – Two-speed Motors, 50 Hz

4/8 poles = 1500/750 r/min – One stator winding (Dahlander)

Motor size IEC	ABB Motors	Ordering code <b>ARAL-4-</b>	No. of motor poles	Rated output, kW	Speed, r/min	At rated output <sup>1)</sup> Current at 400 V, ca A	$\frac{I_{st}}{I}$ <sup>1)</sup>	$\frac{M_{st}}{M}$	$\frac{M_{max}}{M}$	Efficiency, $\eta$ %	Power factors, $\cos \varphi$	Weight, kg
71	M2VA 71 B	00037-c-d-0	4 8	0,37 0,09	1360 700	1,1 0,48	3,1 1,7	1,3 1,8	1,4 1,9	58 19	0,84 0,52	6,5
80	M2VA 80 A	00055-c-d-0	4 8	0,55 0,11	1410 690	1,7 0,6	3,6 2,4	1,9 1,6	2 1,7	62 40	0,74 0,65	9
80	M2VA 80 B	00075-c-d-0	4 8	0,75 0,2	1410 690	2,1 1	3,7 2,4	2 1,6	2,1 1,7	69 46	0,76 0,64	10,5
90 S	M2AA 90 S	00110-c-d-0	4 8	1,1 0,26	1410 700	2,8 1,2	4,2 2,4	1,8 1,2	2,3 1,9	73 53	0,80 0,63	13
90 L	M2AA 90 L	00170-c-d-0	4 8	1,7 0,35	1390 700	4,0 1,6	4,5 2,5	2,2 1,5	2,6 2,1	74 57	0,82 0,57	16
100 L	M2AA 100 LA	00230-c-d-0	4 8	2,3 0,5	1415 715	5,2 1,9	4,6 2,7	1,8 1,2	2,4 1,9	76 63	0,84 0,6	20
100 L	M2AA 100 LB	00280-c-d-0	4 8	2,8 0,6	1430 720	6,4 2,2	5,2 3	2 1,2	2,6 2,2	81 68	0,82 0,58	23
112 M	M2AA 112 M	00350-c-d-0	4 8	3,5 0,7	1430 720	7 2,5	6,8 4,4	1,6 1,7	2,5 2,7	81 71	0,89 0,58	32
132 S	M2AA 132 S	00500-c-d-0	4 8	5 1	1450 725	9,9 3,3	6,4 3,6	1,5 1	2,3 2	83 74	0,87 0,59	48
132 M	M2AA 132 M	00680-c-d-0	4 8	6,8 1,4	1460 730	13,7 5,1	7,6 3,6	2 1,4	2,8 2,7	85 73	0,84 0,55	59
160 M	M2AA 160 M	01050-c-d-0	4 8	10,5 2,2	1460 735	21 7,4	6,9 3,7	2,2 1,5	2,7 2,3	87,5 79	0,84 0,54	94
160 L	M2AA 160 L	01550-c-d-0	4 8	15,5 2,7	1460 735	30 9,5	6,9 3,9	2,2 1,7	2,6 2,6	88,5 79,5	0,85 0,51	117
180 M	M2AA 180 M	01700-c-d-0	4 8	17 3,4	1470 730	33 11	5,8 4,3	1,7 1,2	2,3 1,9	88,5 78	0,85 0,56	137
180 L	M2AA 180 L	02200-c-d-0	4 8	22 4,4	1475 735	43 15	6,7 3,9	2 1,7	2,6 2,3	89,5 79	0,83 0,53	161
200 ML	M2AA 200 MLA	02900-c-d-0	4 8	29 6,5	1470 730	54 17	6,9 4,2	2,2 1,9	2,4 1,9	90,5 86	0,86 0,64	180
200 ML	M2AA 200 MLB	03300-c-d-0	4 8	33 8	1475 730	61 21	7,8 4,2	2,6 1,9	2,6 1,8	91,5 86,5	0,86 0,64	205
225 SM	M2AA 225 SMB	04200-c-d-0	4 8	42 10	1480 740	85 27	7,8 5	2,5 2,2	3 2,3	92 89,5	0,78 0,61	265
225 SM	M2AA 225 SMC	05000-c-d-0	4 8	50 11	1465 735	91 28	7,3 4,7	2,3 2	2,5 2	92,5 89,5	0,87 0,65	265
250 SM	M2AA 250 SMB	06000-c-d-0	4 8	60 15	1475 735	104 34	7,9 4,7	2,6 2,1	2,7 2	93 90	0,86 0,70	335
280 S	M2CA 280 SA	06500-c-d-0	4 8	65 15	1484 743	121 38	7,5 5,3	2,7 2,8	2,9 2,3	93,2 90	0,84 0,63	445
280 SM	M2CA 280 SMA	08000-c-d-0	4 8	80 20	1486 743	150 50	8,5 5,4	3,3 2,9	3,4 2,6	93,8 91,5	0,83 0,63	490
280 M	M2CA 280 MB	09000-c-d-0	4 8	90 23	1486 742	164 56	8,8 5,4	3,6 2,8	3,5 2,6	94,1 91,8	0,85 0,64	550
315 SM	M2CA 315 SMA	11000-c-d-0	4 8	110 22	1487 744	197 56	6,8 4,9	1,9 2,1	2,6 2,5	94,6 92,5	0,85 0,62	730
315 M	M2CA 315 MB	13200-c-d-0	4 8	132 26	1486 746	235 65	6,8 4,8	2 2	2,6 2,4	94,9 93	0,86 0,64	850
315 L	M2CA 315 LA	16000-c-d-0	4 8	160 32	1486 743	283 80	7 4,8	2,1 2,1	2,7 2,5	95,2 93,4	0,86 0,64	970

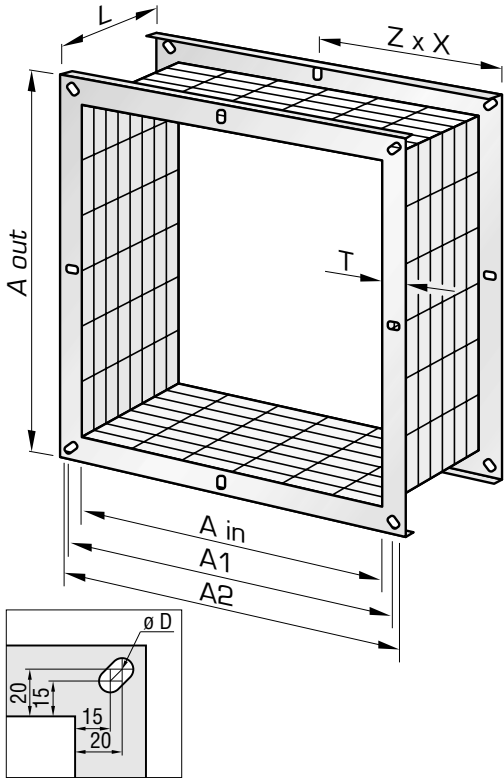
1)  $\frac{I_{st}}{I}$  = Ratio of motor starting current to full-load current

**Code suffix for voltage (c)**  
 2 = 380-400 V (sizes 112-132) / 400 V (sizes 160-250)  
 4 = 400-415 V (sizes 71-100) / 415 V (sizes 160-250)

**Temperature sensors in the stator winding, code suffix (d)**  
 0 = without  
 1 = with bimetal temperature contacts  
 2 = with thermistor

# Accessories

**Flexible connection**  
**GTLZ-21-5-ccc-1-0** Flexible connection, outlet,  
 two flanges

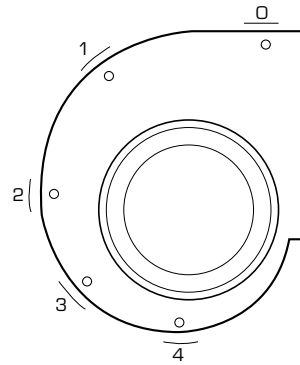


Size	A in	A1	A2	A out	Z	X	L	T	ø D
<b>022</b>	288	318	328	348	2	159	118	30	9
<b>025</b>	322	352	362	382	2	176	118	30	9
<b>031</b>	404	434	444	464	2	217	118	30	9
<b>035</b>	453	483	493	513	2	242	118	30	9
<b>040</b>	507	537	547	567	4	134	118	30	9
<b>045</b>	569	599	609	629	4	150	147	30	9
<b>050</b>	638	668	677	698	4	167	149	30	9
<b>056</b>	715	745	754	775	4	186	149	30	9
<b>063</b>	801	831	840	861	4	208	149	30	9
<b>071</b>	898	928	937	958	5	232	149	30	9

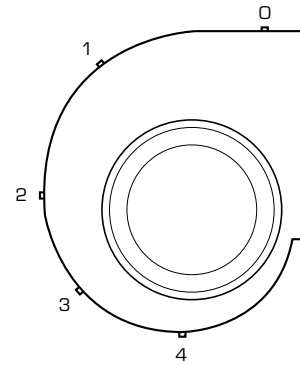
**Protective screen**  
**GTLZ-23-5-ccc-1-0** Protective, outlet

**Counterflange**  
**GTLZ-24-5-ccc-1-0** Counterflange, outlet

**Inspection cover**  
**GTLZ-32-5-ccc-d-0** Inspections cover  
 Mounted on the back plate of the fan. Made of galvanised  
 sheet steel.  
 d = location on fan casing, 0-4, see illustration



**Drain**  
**GTLZ-34-5-ccc-d-0** Drain  
 Mounted on the back plate of the fan. Made of galvanised  
 sheet steel.  
 d = location on fan casing, 0-4, see illustration



## Accessories

### Painting

GTLZ-60-5-ccc-d-0 Painted finish, inner and outer surfaces

d = 1 Epoxy powder painting 60 µm, color: AM 8043, dark grey.

d = 2 Epoxy powder painting 100 µm, color: AM 8043, dark grey.

d = 3 Wet-painted finish in three layers 250 µm, color: AM 8043, dark grey.

d = 1 Epoxy-powder painting, 60 µm.

The fan casing, impeller and bearing bracket as well as accessories are coated with 60 µm thick epoxy powder and baked. The colour is AM 8043, dark grey. All bolts and nuts are made of stainless steel.

Painting process:

- Alkali degreasing
- Iron phosphate pre-treatment
- Flushing with +40 °C water
- Drying at 150 °C
- Powder painting, 60 µm coat in one layer
- Drying at 215 °C

Epoxy powder is well suited for coating objects that are subject to mechanical and chemical stress. It is an excellent rust-inhibitor and can withstand acids, alkaline solutions, greases and solvents.

d = 2 Epoxy-powder painting, 100 µm.

The fan casing, impeller and bearing bracket as well as accessories are coated with 100 µm thick epoxy powder and baked. The colour is AM 8043, dark grey. All bolts and nuts are made of stainless steel. The coating process and epoxy powder are the same as in version d = 1; the coat is 100 µm thick in one layer.

d = 3 Wet painting 250 µm, finish in three coats.

The fan casing and bearing bracket as well as accessories are painted with 250 µm thick epoxy in 3 layers. The color is AM 8043, dark grey. The impeller is coated with 100 µm thick epoxy powder. All bolts and nuts are made of stainless steel.

### Air flow measurement

Double inlet GT-fans can be equipped with an airflow sensor for the measurement of airflows. The measurement method is based on differential pressure between pressure on inlet cone on specified place and the reference pressure upstream of the inlet cone. The pressure difference is calibrated for each fan size.

$$Q_V = \frac{1}{k} \times \sqrt{\Delta p_m}$$

where  $Q_V$  = air flow (m<sup>3</sup>/s)  
 $\Delta p_m$  = differential pressure reading  
 k = k-factor for specific fan

The corresponding air flow related to the differential pressure can easily be read by means of manometer (not included into the delivery).

The accuracy of the air flow sensor is depending on the air flow conditions inside the air handling unit. The accuracy of +- 5 % can be achieved by calibration under the final operating conditions. Without calibration the accuracy is +- 7-10 %.

The k-factors are valid for air density 1.2 kg/m<sup>3</sup>.

GTLZ-80-5-ccc-1-1 Air flow measurement device for GTLF

GTLZ-81-5-ccc-1-1 Air flow measurement device for GTLB

GTLZ-82-5-ccc-1-1 Air flow measurement device for GTHB

For sizes 112 – 140 can be supplied with GTLZ-52 type air flow measurement device. The measurement method is based on the differential pressure in the device.

GTLZ-52-5-ccc-1-0 Air flow measurement device for GTHB, size 112 – 140.

# Product Code

## CENTRIMASTER GT-5

### Centrifugal fan

**GTLB-a-bbb-c-dd-ee**  
**GTHB-a-bbb-c-dd-ee**  
**GTLF-a-bbb-c-dd-ee**

LB = centrifugal fan with backward-curved blades (sizes 022 – 100)

HB = centrifugal fan with backward-curved blades in reinforced version (sizes 080 – 140, sizes 035-071 available to special order)

LF = centrifugal fans with forward-curved blades (sizes 022 – 071)

Fan type (a) \_\_\_\_\_  
 5 = double inlet fan for belt drive

Size (bbb) \_\_\_\_\_  
 022, 025, 028, 031, 035, 040, 045, 050, 056, 063, 071, 080, 090, 100, 112, 125, 140

Version (c) \_\_\_\_\_  
 1 = normal version

Handing and discharge direction (dd) \_\_\_\_\_  
 First d: 1 = right-hand  
 2 = left-hand  
 Second d: 1 = 0°  
 3 = 90°  
 5 = 180°  
 7 = 270°

Motor placement and generatio (ee) \_\_\_\_\_  
 First e: 0 = motor behind fan  
 Second e: 0 = first generation

**Belt drive GTLB / GTHB** **GTRB-5-bbb-1-dddd**  
**Belt drive GTLF** **GTRF-5-bbb-1-dddd**

Fan size (bbb) \_\_\_\_\_  
 Fan speed, r/min (dddd) \_\_\_\_\_  
 (If a two-speed motor is used, specify the higher speed.)

**Motor** **APAL-a-bbbbbb-c-d-2**  
**ARAL-a-bbbbbb-c-d**  
**ATAL-a-bbbbbb-c-d**

See labels on pages 71 - 77  
 Select the number of motor poles as follows:  
 Fan speed < 750 r/min = 6-pole motor  
 Fan speed 751-2344 r/min = 4-pole motor  
 Fan speed > 2345 r/min = 2-pole motor

### Accessories

**GTLZ-aa-b-ccc-d-e**  
 (aa) Type of accessory  
 (b) 5 = Accessory for the GT..-5  
 (ccc) Fan size  
 (d) 1 = to be supplied with fan (specify d = 0 if you are placing an order for individual accessories only). See the ordering code as well.  
 (e) Generation digit.

**Flexible connection, discharge** **GTLZ-21-5-ccc-1-0**  
 Fan size (ccc) \_\_\_\_\_

**Protective screen, discharge** **GTLZ-23-5-ccc-1-0**  
 Fan size (ccc) \_\_\_\_\_

**Counter flange, discharge** **GTLZ-24-5-ccc-1-0**  
 Fan size (ccc) \_\_\_\_\_

**Inspection cover** **GTLZ-32-5-ccc-d-0**  
 Fan size (ccc) \_\_\_\_\_  
 Location (d) \_\_\_\_\_

**Drain** **GTLZ-34-5-ccc-d-0**  
 Fan size (ccc) \_\_\_\_\_  
 Location (d) \_\_\_\_\_

**Anti-vibration mountings** **GTLZ-42-5-ccc-d-0**  
 Fan size (ccc) \_\_\_\_\_  
 Mounting set (d) \_\_\_\_\_

**Painted finish, inner and outer surfaces** **GTLZ-60-5-ccc-d-0**  
 Fan size (ccc) \_\_\_\_\_  
 Version (d) \_\_\_\_\_  
 1 = 60 µm  
 2 = 100 µm  
 3 = 250 µm

**Air flow measurement device for GTLF-5** **GTLZ-80-5-ccc-1-1**  
 Fan size (ccc) \_\_\_\_\_

**Air flow measurement device for GTLB-5** **GTLZ-81-5-ccc-1-1**  
 Fan size (ccc) \_\_\_\_\_

**Air flow measurement device for GTHB-5** **GTLZ-82-5-ccc-1-1**  
 Fan size (ccc) \_\_\_\_\_

**Air flow measurement device for GTHB-5, size 112–140** **GTLZ-52-5-ccc-1-0**  
 Fan size (ccc) \_\_\_\_\_

**Protective screen for fan inlet is included in the fan code**







**Fläkt Woods Oy**, Kalevantie 39, FI-205 20 Turku, Finland

t 358-20-442 300 f 358-20-442 3016  
w [www.flaktwoods.com](http://www.flaktwoods.com)