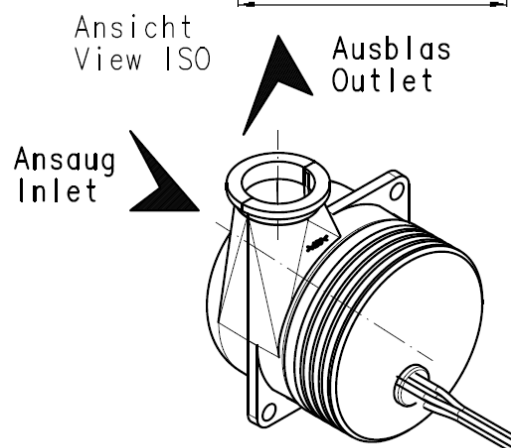
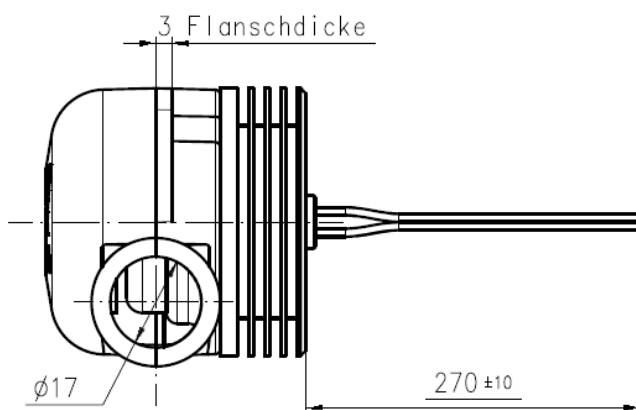
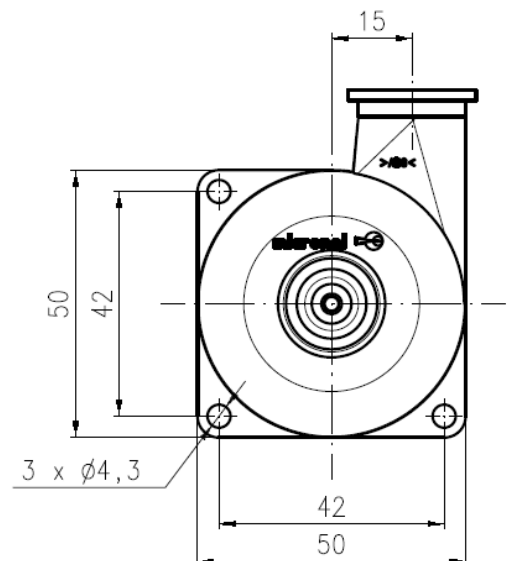
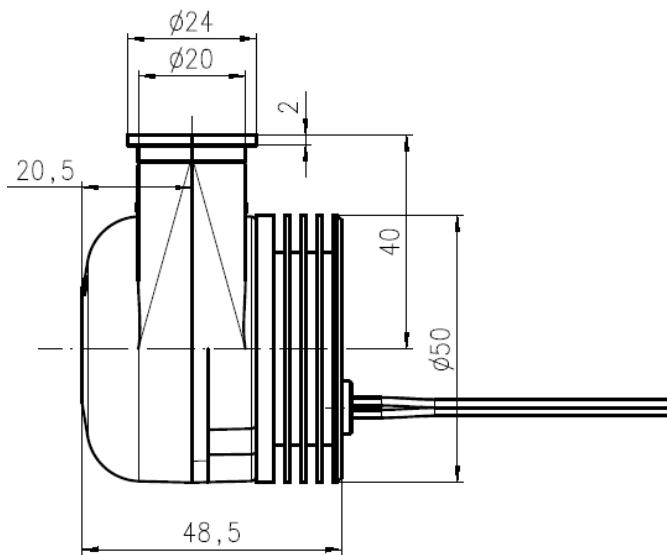
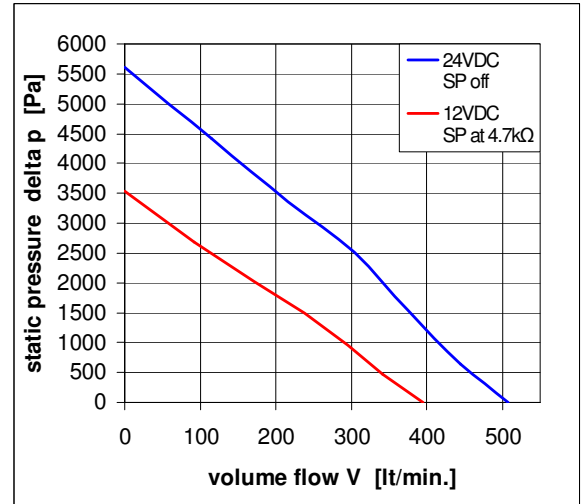
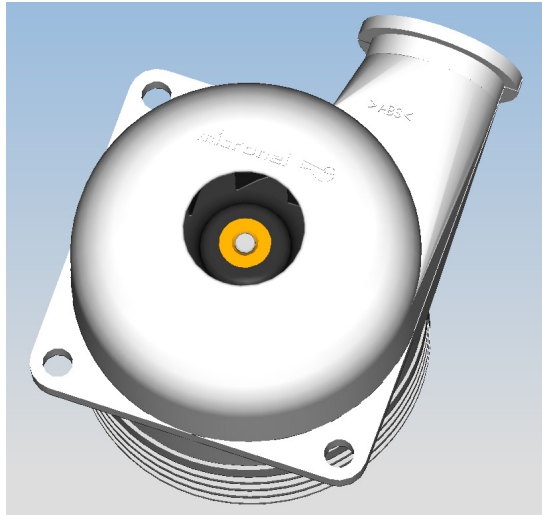




**Miniatur Radial Gebläse**  
**Miniature Radial Blower**  
**Ventilateur miniature radial**

**U51DL-012KK-4**  
 SP at 4.7kΩ

**U51DL-024KK-4**  
 SP off



## Technische Daten

## Technical data

## Caractéristiques techniques

### Motor

Bürstenloser und sensorloser  
3-Phasen Motor mit integrierter Treiber  
Elektronik

Standardluftdichte 1.2kg/m<sup>3</sup>

### Motor


























Brushless and sensorless 3-Phase  
motor with integrated driver electronic

Standard air density 1.2kg/m<sup>3</sup>

### Moteur

Moteur à 3 phases, sans brosses et capteur,  
avec électronique intégré.

Densité de l'air standard 1,2 kg/m<sup>3</sup>

			U51DL-012KK-4 Data at SP 4.7kΩ	U51DL-024KK-4 Data at SP off
	U <sub>N</sub>	V	12	24
	U	V	10 - 16	12 - 28
	I <sub>N freeblowing</sub>	mA	1'840	1'770
	I <sub>N work. point</sub>	mA	1'780	1'690
	I <sub>N static</sub>	mA	960	1'070
	I <sub>block</sub>	mA	3A peak	3A peak
	P <sub>N work. point</sub>	W	21.3	40
	n <sub> freeblowing</sub>	min <sup>-1</sup>	34'480	45'980
	n <sub> work. point</sub>	min <sup>-1</sup>	34'930	45'720
	n <sub> static</sub>	min <sup>-1</sup>	43'720	55'560
	V <sub> freeblowing</sub>	l/min	395	510
	V <sub> work. point</sub>	l/min	240	300
	p <sub> work. point</sub>	Pa	1'490	2'500
	p <sub> static</sub>	Pa	3'540	5'600
	LpA <sub>(WP)</sub>	dB(A)	-	-
	MTTF <sub>(WP)</sub>	hr	15'000 / 25°C	
	T	°C/°F	-20...+50 / -5...+122	
	m	gr/oz	120 / 4.23	
	Leads	mm/inch	270 / 10.6 (AWG24)	
	Housing Material		ABS UL-94HB	
	Sleeve Bearing		N/A	
	Ball Bearing		•	
	Tacho		•	
	Speed control	sc	•	
	<b>Warning</b>		Max. allowed temperature on heat sink surface: 75°C	



### Blower limits and warning



- Max. allowed temperature on heat sink surface:	75° C
- Minimum airflow	50 l/min
- Maximum speed	51'000 min-1
- Maximum current at ambient temp. 25°C / 77°F	2'000 mA
- Maximum current at ambient temp. 50°C / 77°F	1'700 mA
- Heat sink temperature increase at 24 V, freeblowing	20 K
- Heat sink temperature increase at 24 V, static pressure	26 K
- Heat sink temperature increase at 12 V, freeblowing	20 K
- Heat sink temperature increase at 12 V, static pressure	23 K



- **Read instruction manual before use**
- **Handle only in currentless condition**

### Power supply requirement

**U51DL-012KK-4**  
Ripple voltage < 5%  
**3000 mA**

**U51DL-024KK-4**  
Ripple voltage < 5%  
**3000 mA**

### Blower Features

- Unique miniature blower in very compact design
- High efficient brushless, sensorless motor with integrated driver
- Powerful airflow and pressure performance
  
- Integrated speed control input
- FG Frequency generator output
- ON /OFF control by logic signal
- Locked rotor protection
- Polarity protection
- Integrated thermal protection (IC temp. > 165°C switch off)