



**coprel**



Professional industrial fans



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## Motors

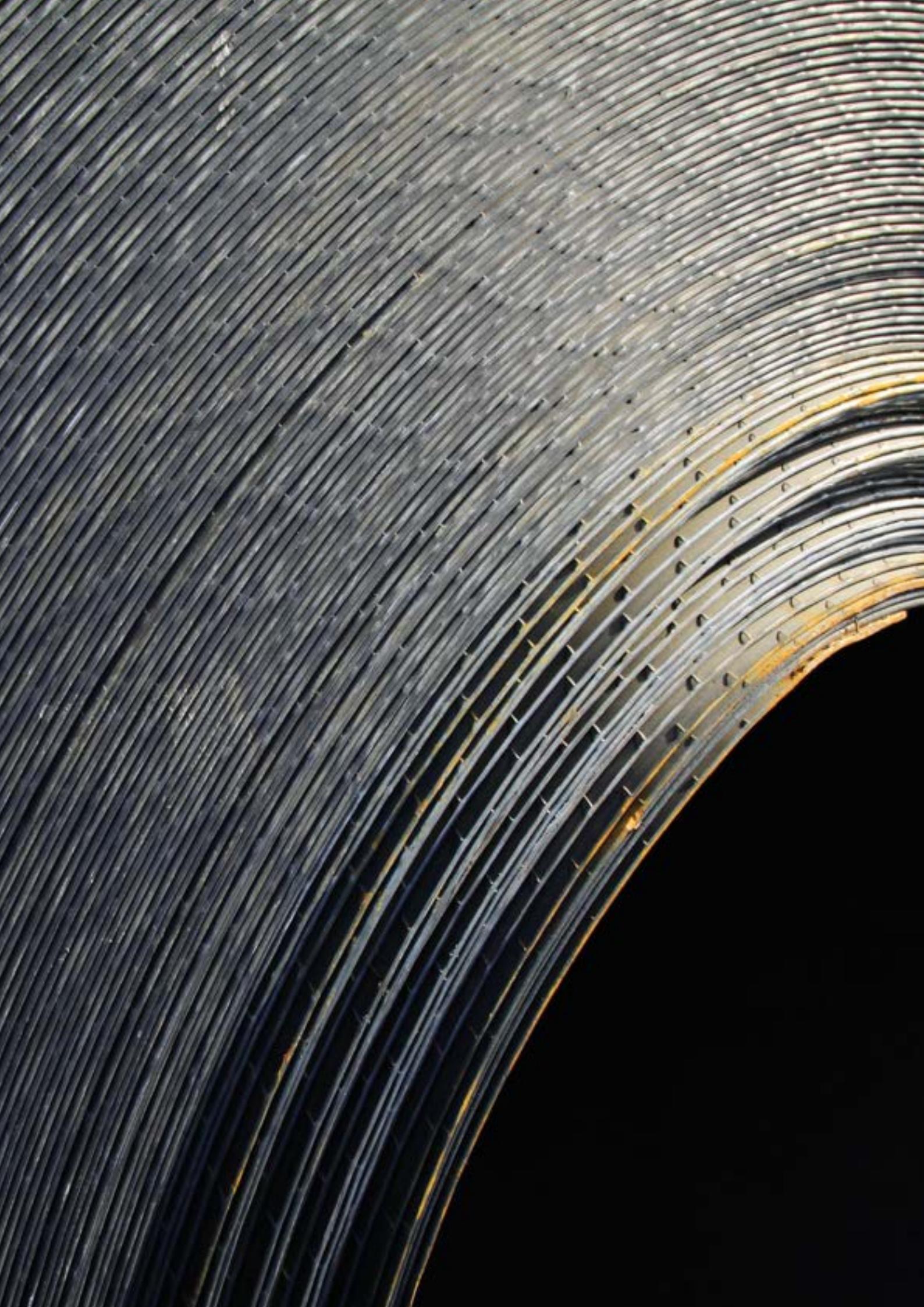
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## Since 1979

Set up in Milan in 1979, Coprel was born as a family business with the purpose to deliver some excellent air technology products made with an outstanding efficient raw material.

More than four decades later, Coprel stands out as one of the leading companies in the production and supply of electric motors, cross flow and axial fans, centrifugal blowers, gear motors and stirrers for different applications.

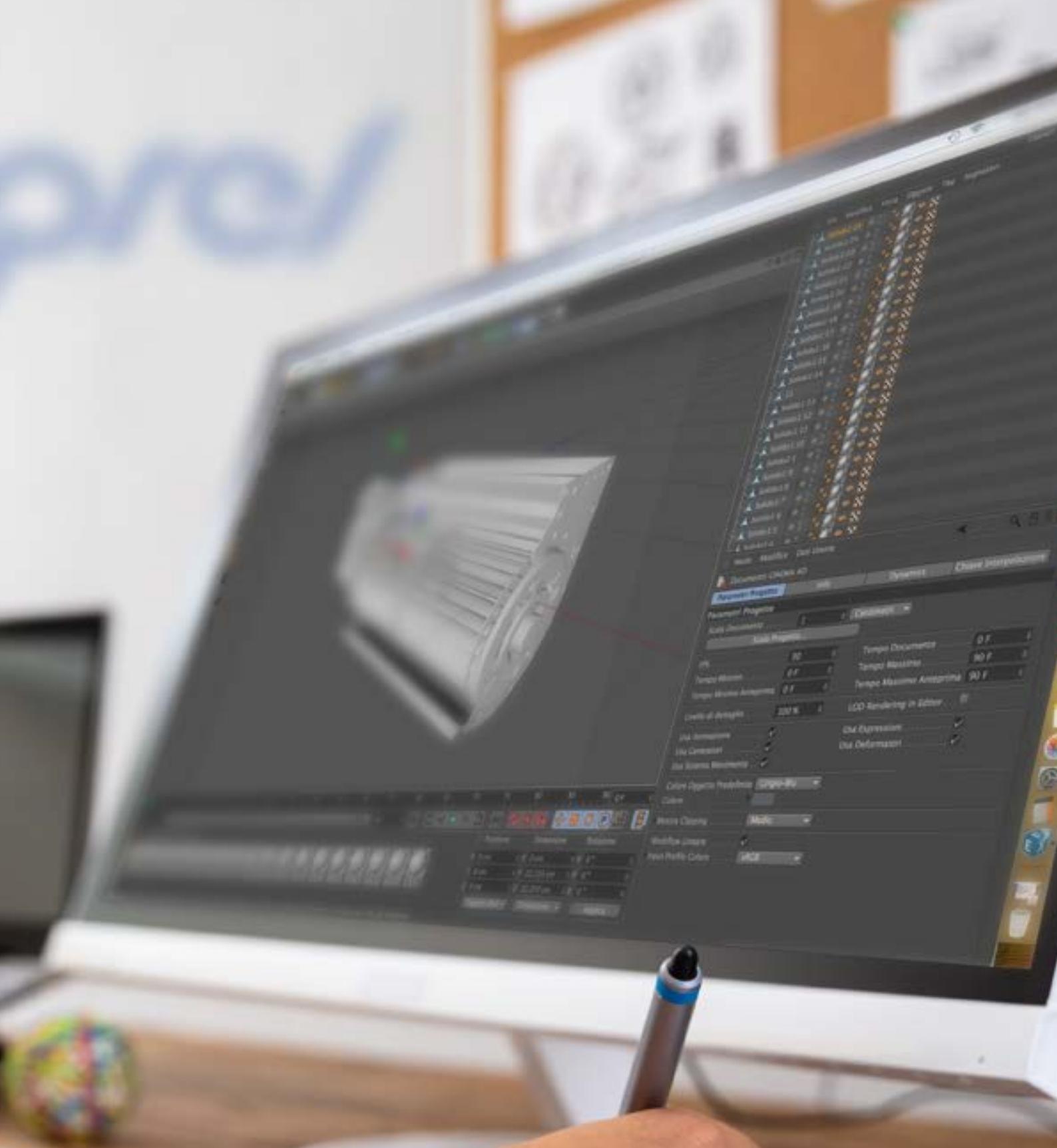
## 100% made in italy

All Coprel products are manufactured in its Milan factory, providing to worldwide customers quality and ideas that are 100% genuinely made in Italy.

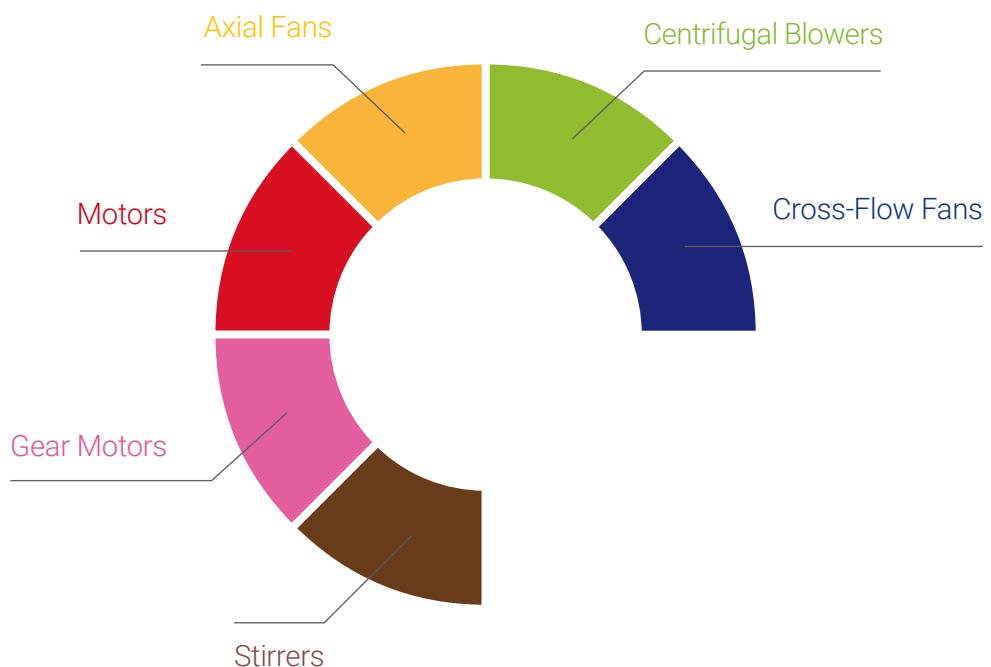
Nowadays, some of the world leading companies rely on Coprel for both standard and customized products as well as complete solutions, thanks to the expertise of its technical and commercial staff. With an accurate pre and post-sale counseling, for any current and future need, Coprel is your ideal partner to work with.

The air is filled with technology





## 6 product typologies Endless possibilities



## 100% made in Coprel

Coprel high technology standards are achieved through a versatile manufacturing flexibility and the elimination of waste, maximizing the personalization of the product, for a totally customer oriented, made-to-order solution.

## Brushless Motors

BL10

### Range

The Brushless motor BL10 was conceived and manufactured to grant an high energy-saving motorization, as an alternative to the classic shaded pole motor, to match all our fans.

Unlike the common brushless motors, our BL10 behaves similarly to shaded pole motors. Assembled with our fans, it offers an air flow that varies thanks to the pressure drop in the application.

### Advantages

The BL10 brushless motor boasts almost all the technical features of other motors granting:

- About 80% energy-saving as compared to shaded pole motors
- The use of a unique motor size
- A huge efficiency improvement
- About 70% performance



## Functionality

Coprel conceived 4 different drive versions (electronic boards) for the brushless motor control, that differ for their functionalities:

STANDARD	FIXED RPM	UPON REQUEST FIXED RPM	PROGRAMMABLE RPM
Standard version. External management of the parameters, speed control through PWM. Rotation managements only from external part, outcoming speed signal.	Fixed speed, Rotation managements only from external part, outcoming speed signal.	This version differs itself from fixed rpm for several programming options thanks to a microcontroller.	Motor current management to set the torque according to the load. External management of the direction or via microcontroller and outcoming speed signal.  Italian Patent n°102020000011230

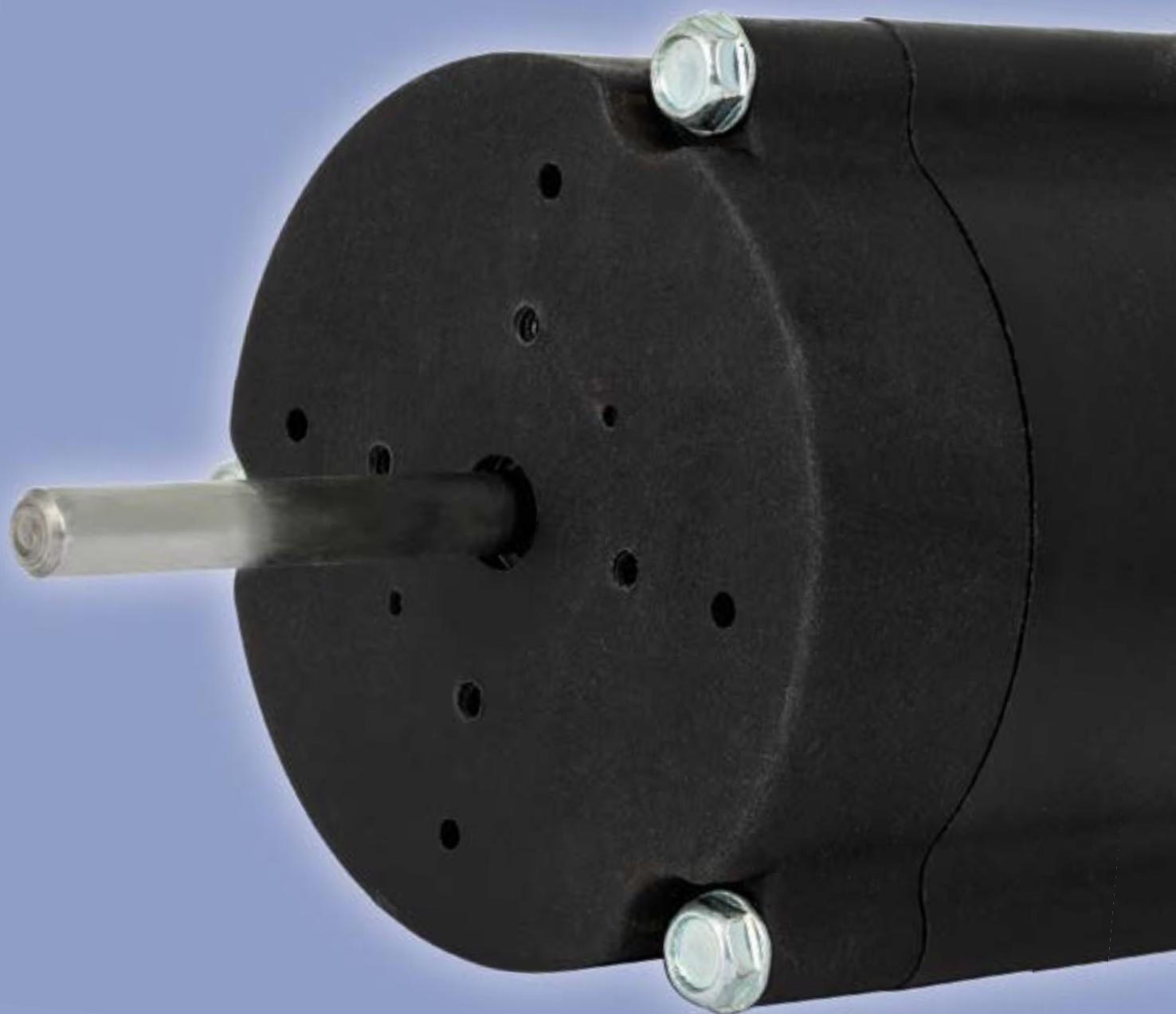
### PROGRAMMABLE RPM

This patented activation allows the substitution of the classic shaded pole motor fan without the implementation of an external control device, just an electrical connection needed.

Starting from Standard version until the Programmable rpm version the motor independence level increases reducing in the meantime the inlet parameters required.

Brushless Motors

BL10





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Brushless motors for many applications and in particular for refrigeration with IP65 insulation and Atex certification.

The several control typologies make it an ideal tool for standard use and even for special applications.

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5 - 18 W

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0,21 - 0,75 A

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85 - 370 m<sup>3</sup>/h

## Brushless Motors BL10

- Great versatility
- Simplified change of every motor
- Energy-saving
- Green energy
- Four drive versions for every use!



### Technical specification

- Electronic motor with 24VDC alimentation
- Rpm feedback
- Rotation setting
- Insulation class F
- Suitable for continue use with temperature -20°C / +70°C
- Electrical connection by cable length 100 cm
- Motor shaft Ø 6 mm
- Rpm setting through PWM 0-10 Volt @ 10kHz

### On request

- Fixed rpm
- RPM setting through 0-10 Volt signal
- RPM programmable according to the load
- Fixed sense of rotation
- Different cable length
- On request fixed rpm
- Possibility to set PWM with different voltage (3,3V/5V)

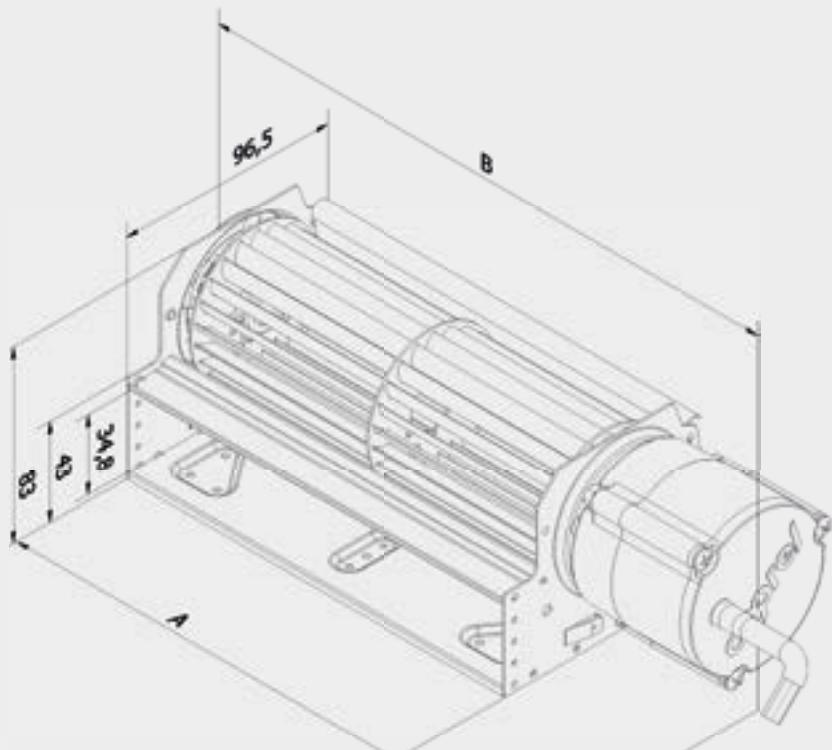
About 80% energy-saving as compared to shaded pole motors.

The BL10 motor can be used for all the fans of our supply.

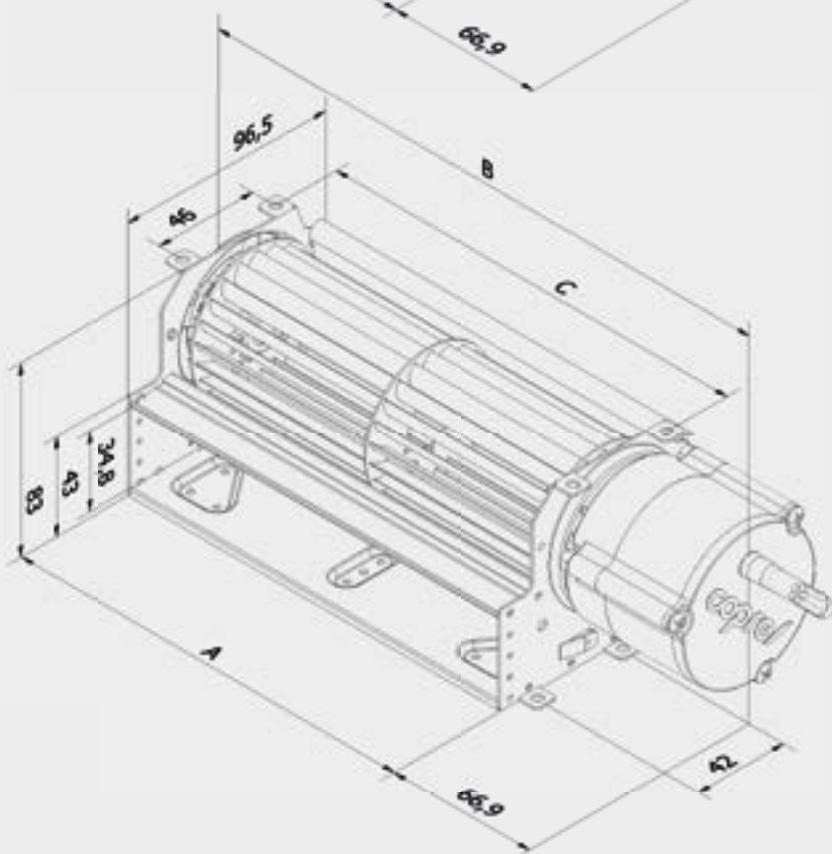


## Dimensions

TF - BL10



FF - BL10

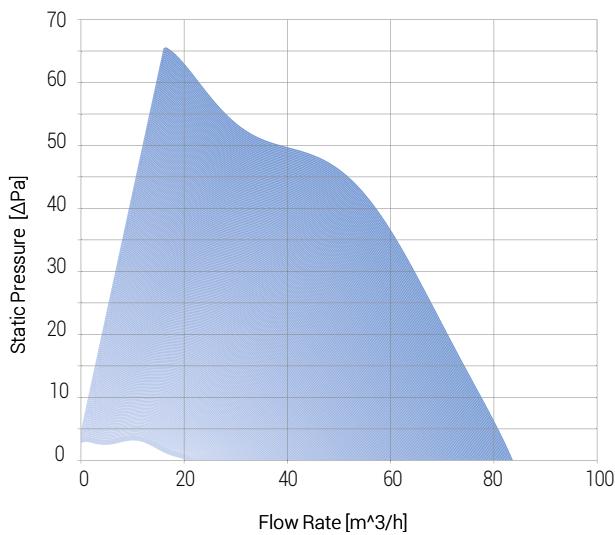


Model	Motor	Dimensions mm			Input Power (W)	Input Current (A)	RPM	Flow rate (m³/h)	Static pressure (ΔPa)
		A	B	C					
<b>TF / FF 90</b>	BL 10	94	172	103	5	0,21	2650	85	65
<b>TF / FF 120</b>	BL 10	124	202	133	8	0,33	2500	130	65
<b>TF / FF 180</b>	BL 10	184	262	192	13	0,54	2300	200	67
<b>TF / FF 240</b>	BL 10	244	322	253	15	0,63	2000	270	67
<b>TF / FF 270</b>	BL 10	274	352	283	16	0,67	1900	285	67
<b>TF / FF 300</b>	BL 10	304	382	313	17	0,71	1900	315	63
<b>TF / FF 360</b>	BL 10	364	442	373	18	0,75	1800	370	63

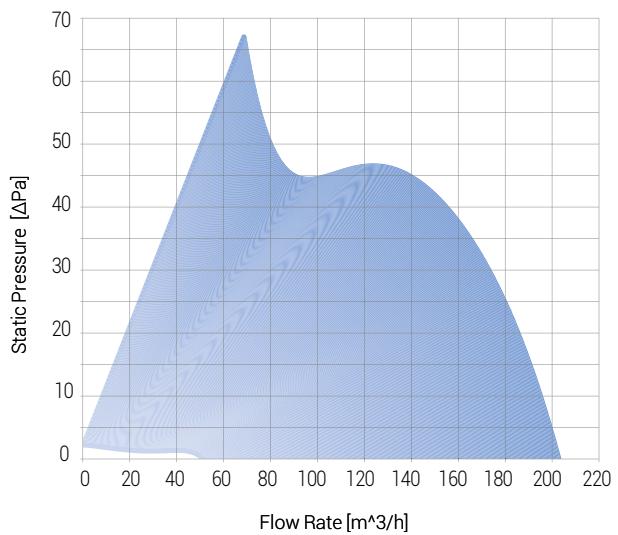
## Characteristic curves

MIN      MAX

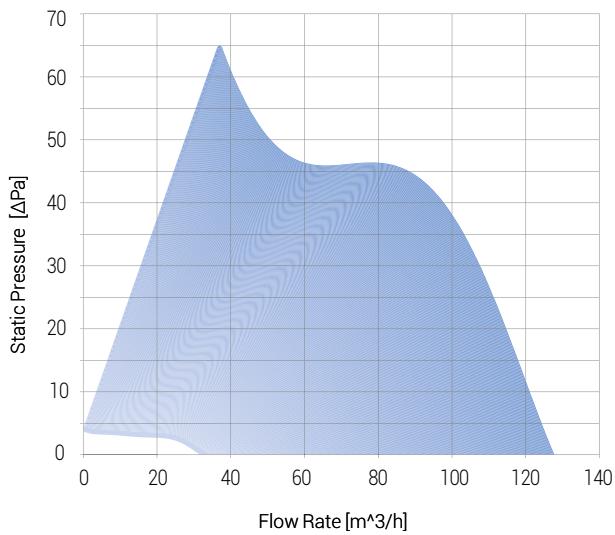
TF / FF 90



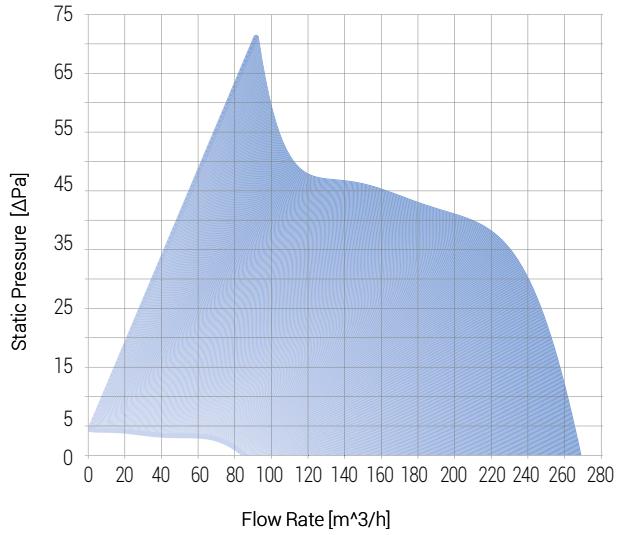
TF / FF 180



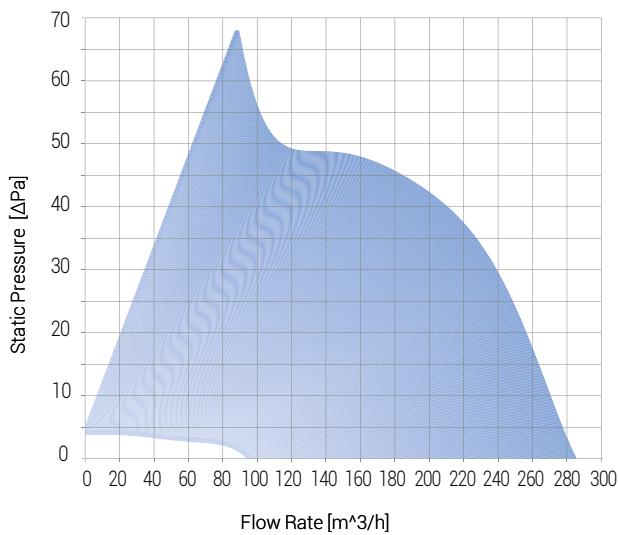
TF / FF 120



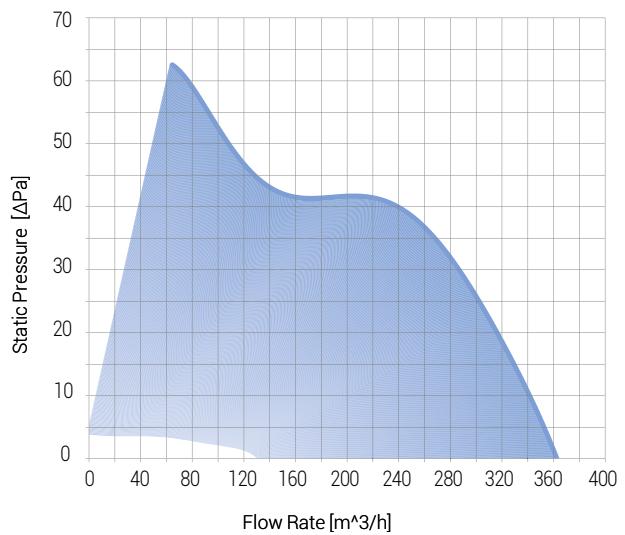
TF / FF 240



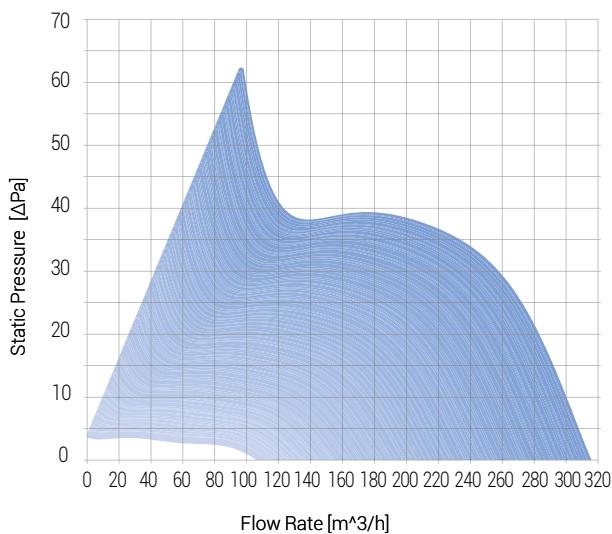
TF / FF 270



TF / FF 360



TF / FF 300



Brushless Motors

BL44





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Brushless motors for many applications and in particular  
for refrigeration with IP65 insulation and Atex certification.

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2 - 18 W

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0,03 - 0,15 A

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40 - 290 m<sup>3</sup>/h

Brushless Motors  
**BL44**

- Great versatility
- Simplified change of every motor
- Energy-saving
- Green energy



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### Technical specification

- Electronic motor with 230VAC alimentation
- Insulation class F
- Suitable for continue use with temperature -20°C / +70°C
- Electrical connection by cable length 150 cm
- Motor shaft Ø 4 mm

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### On request

- Different cable length
- Electronic motor with 230VAC alimentation

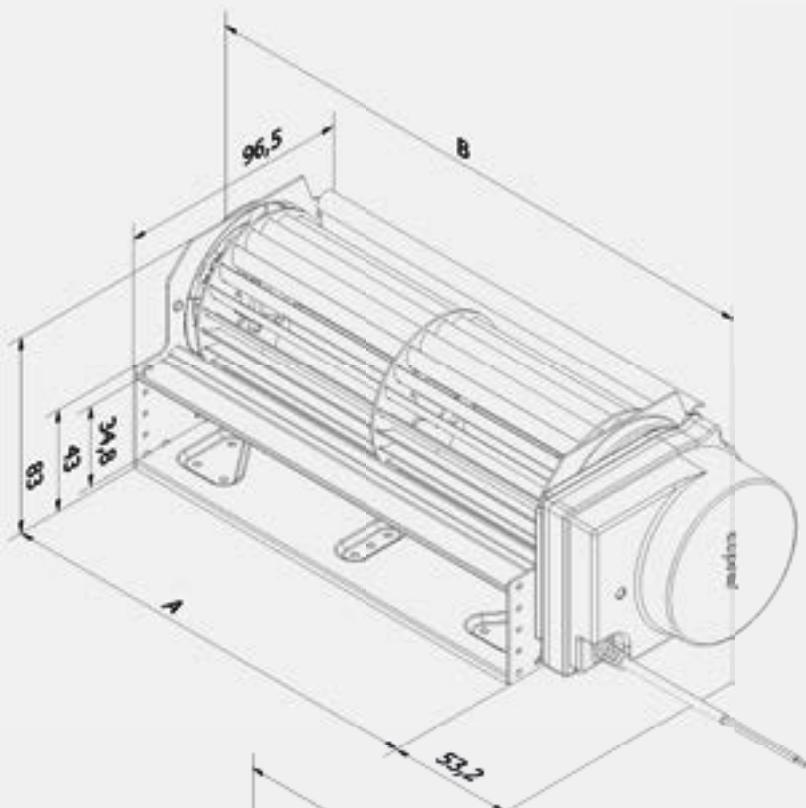
About 80% energy-saving as compared to shaded pole motors.

The BL44 motor can be used for all the cross-flow fans of our supply.

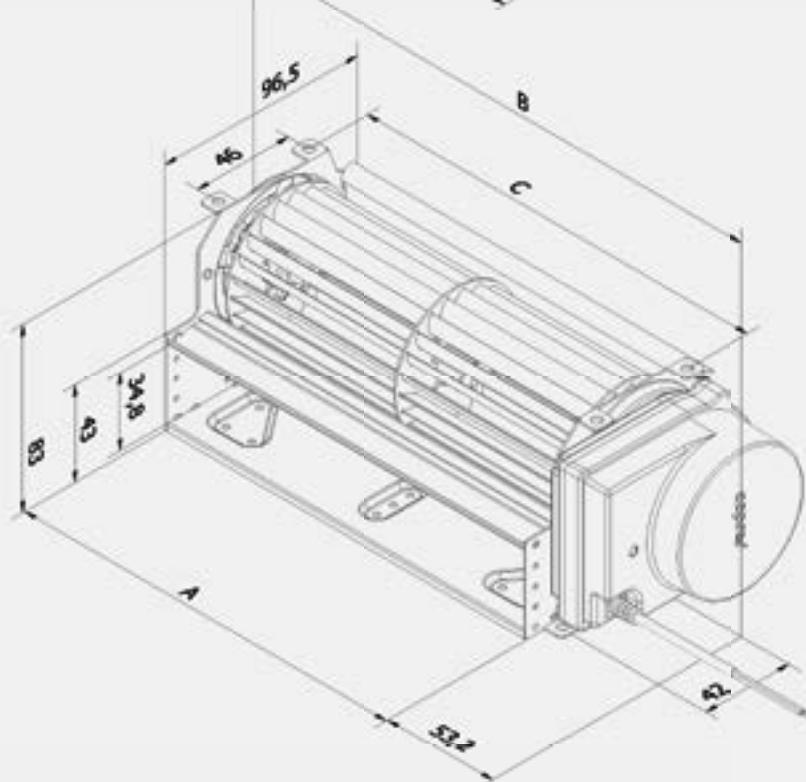


## Dimensions

TF - BL44



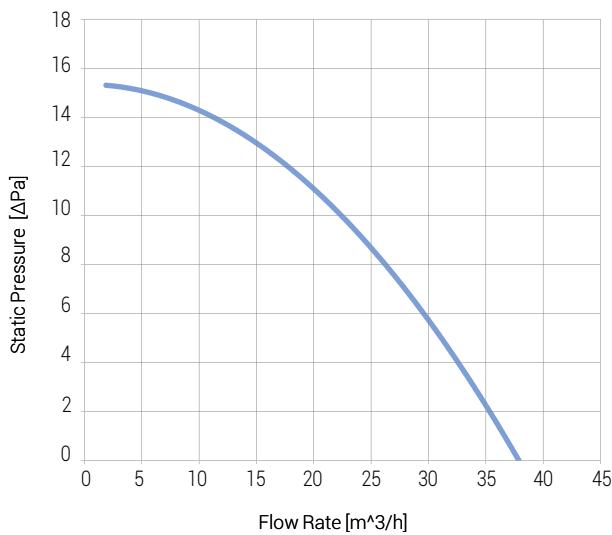
FF - BL44



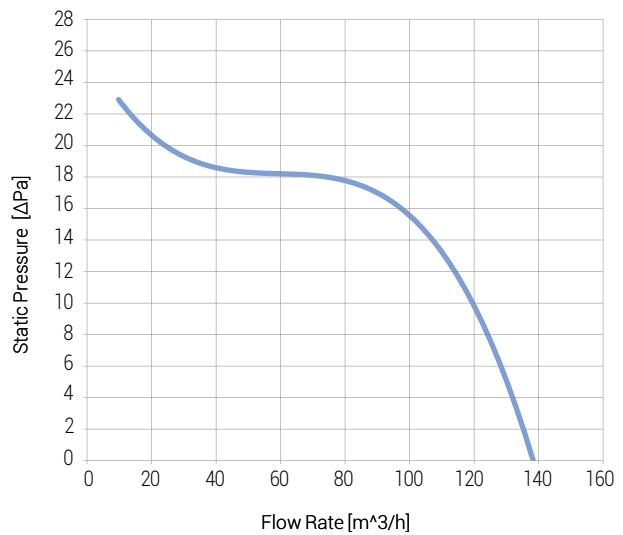
Model	Motor	Dimensions mm			Input Power (W)	Input Current (A)	RPM	Flow rate (m³/h)	Static pressure (ΔPa)
		A	B	C					
<b>TF / FF 90</b>	BL 44	94	160	103	2	0,03	1600	40	15
<b>TF / FF 120</b>	BL 44	124	190	133	4	0,04	1600	80	18
<b>TF / FF 180</b>	BL 44	184	250	192	6	0,06	1600	140	22
<b>TF / FF 240</b>	BL 44	244	310	253	10	0,09	1600	200	22
<b>TF / FF 270</b>	BL 44	274	340	283	13	0,1	1600	235	22
<b>TF / FF 300</b>	BL 44	304	370	313	15	0,13	1600	270	22
<b>TF / FF 360</b>	BL 44	364	430	373	18	0,15	1600	290	22

## Characteristic curves

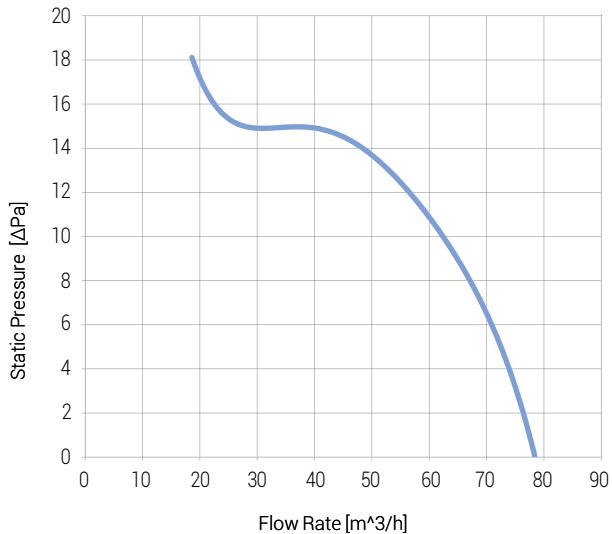
TF / FF 90



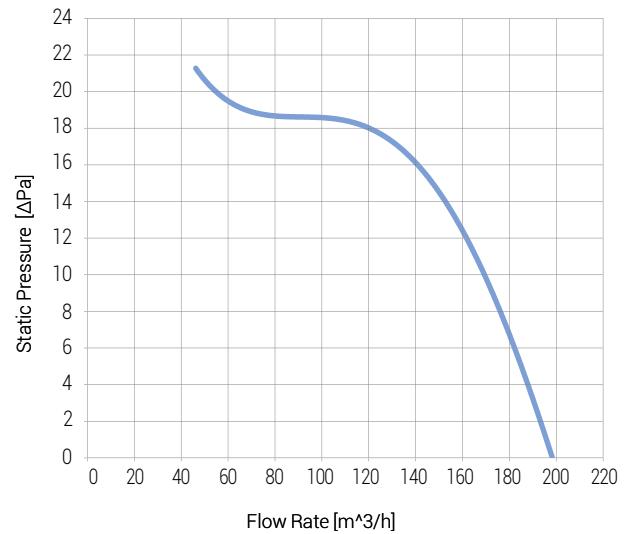
TF / FF 180



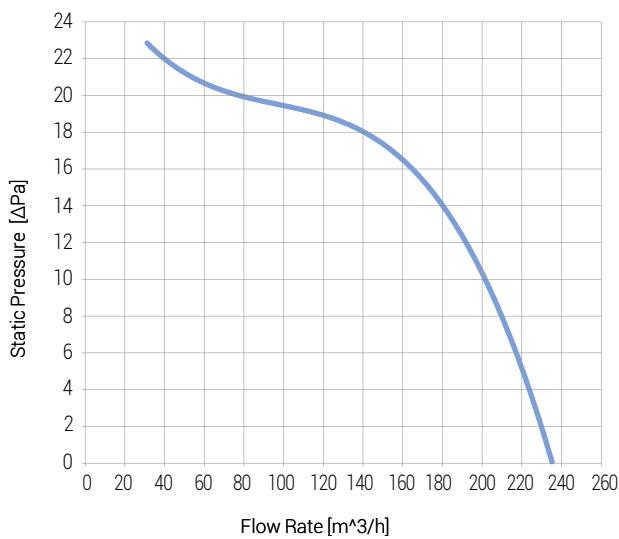
TF / FF 120



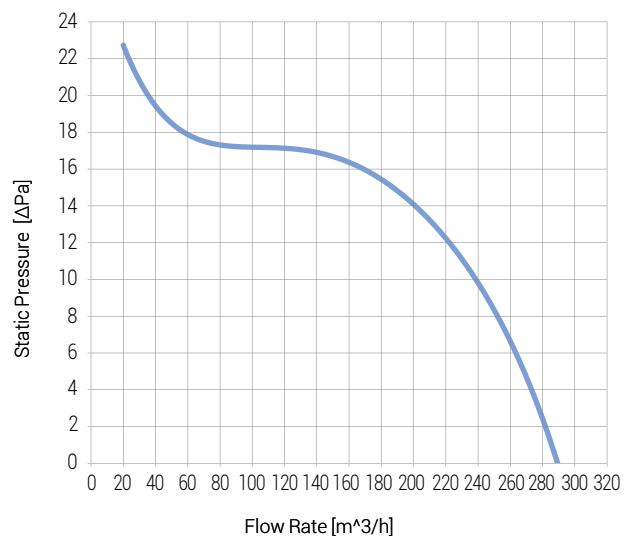
TF / FF 240



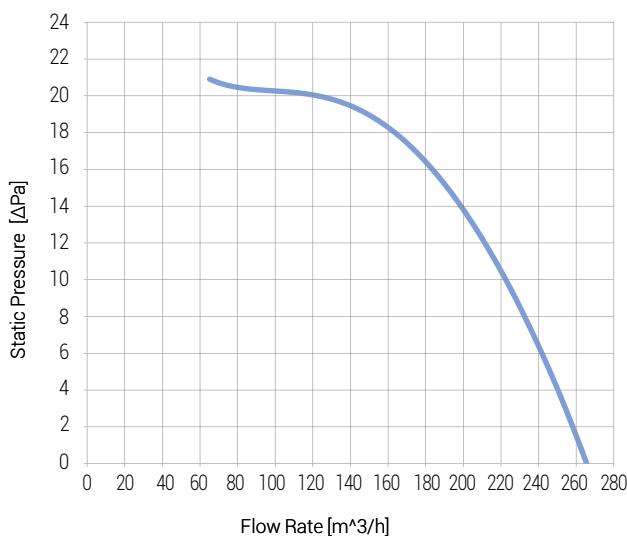
TF / FF 270



TF / FF 360



TF / FF 300



Cross-Flow Fans

TF45



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Cross-Flow Fans are particularly indicated for uses where, in limited space, high air volume is required with low noise and regular air-flow.

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18,3 - 48 W

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0,14 - 0,35 A

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80 - 284 m<sup>3</sup>/h

# Cross-Flow Fans

## TF45

- Impedance protected motor
- Low power consumption
- Minimum noise level
- Small size



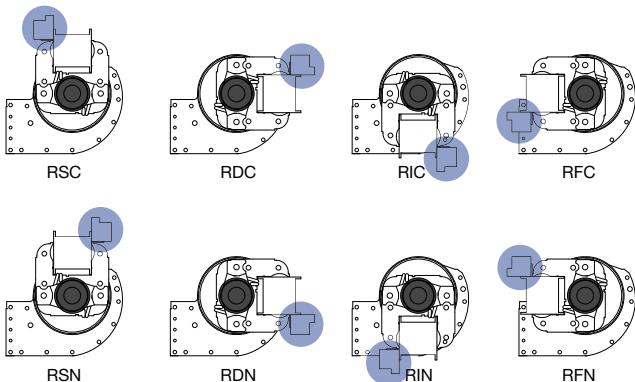
### Technical specifications

- Single phase, 2-shaded poles, impedance protected motor, built according to the CE mark requirements, in compliance with EN 60335-1 standard, with self-aligning and self lubricating sleeve bearings with big oil reservoir.
- Motor with minimum 130° "B" insulation class.
- Suitable for continuous operation in ambient temperature from -10 °C to +50 °C.
- Electrical connection by 6,3 x 0,8 mm, radial or axial, male faston-type connectors, directly fixed on coil.
- Ø 45 mm aluminum impeller with forward curved constant thickness blades with intermediate reinforcement discs.
- Housing made of pre-galvanized metal sheet, thanks to the high aeraulic efficiency it guarantees an excellent yield in terms of air flow, static pressure and low noise level.

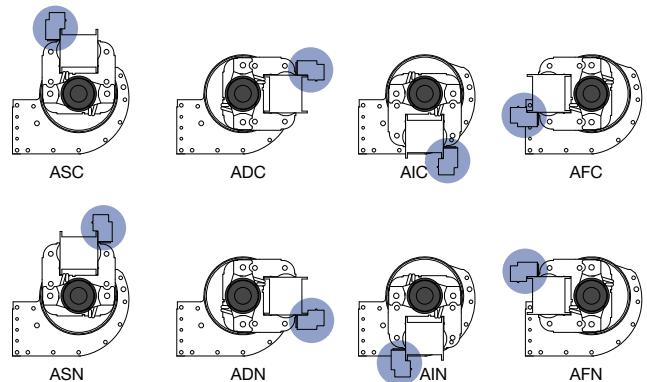
### On request

- Version with IMQ - CSV approved motor.
- Motor with different powers and insulation classes: 155° "F" - 180° "H".
- Supply voltage from 12V to 400V 50/60 Hz.
- Version with dual voltage and/or double speed.
- Electrical connection by different cable lengths.
- Motor coil winding with IP55 protection.
- Protection against dust and/or humidity.
- Thermal protector or thermal fuse.
- Housing with cataphoresis coating.
- HT version for operation from -30 °C to 100 °C.
- Built in compliance with UL - CSA standards.
- Version fitted with ball bearings.
- Cooling fan on the motor.
- Version built to customers design.

### Motor position - Radial Faston



### Motor position - Axial Faston





## Product Identification Code

<b>TF</b>	Standard housing.
<b>R</b>	Motor position: <b>R</b> = motor on the right of the air outlet. <b>L</b> = motor on the left of the air outlet.  L  R
<b>45</b>	Fan blade dimension.
<b>240</b>	Fan blade nominal length: 120 - 180 - 240 - 300 - 360 mm.
<b>20</b>	Motor stack height: 15 - 20 - 30 - 35 mm.
<b>T</b>	Thermal protection: <b>T</b> = thermal protector. <b>F</b> = thermal fuse. <b>Blank</b> = impedance protected.

\* **IV version**

Impregnated coil through dip-coating using epoxy transparent paint (standard stator coil dip-coating process).

\* **IM version**

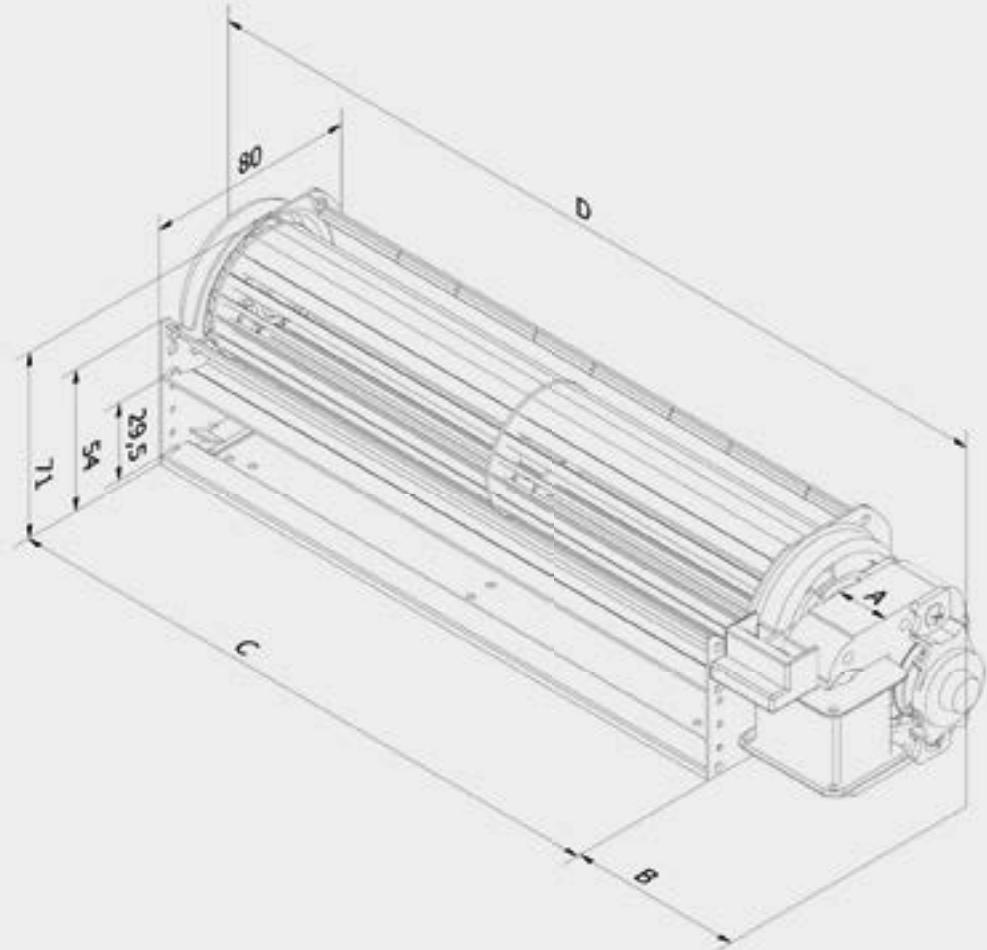
Impregnated coil through dip-coating using transparent epoxy paint with silicone applied on contacts at the end of winding, three-pole wire and coil covered by a nylon cap. The coil is not drowned in the resin but visible; caution should be paid when mounting the motor so that the cap open part faces downward to prevent its filling up with condensate.

<b>1</b>	Coil winding code.
<b>A</b>	Electrical connection: <b>R</b> = radial faston-type connectors. <b>A</b> = axial faston-type connectors. <b>C</b> = cables.
<b>SN</b>	Motor position.
<b>HT</b>	On request: <b>HT</b> = high-temperature version. <b>IV-IM</b> = low temperature with high relative humidity up to 92%. * <b>INC</b> = coil insulation with IP55 protection. *
<b>BB</b>	On request: <b>BB</b> = ball bearings on motor.
<b>230</b>	Supply voltage.
<b>50</b>	Rated frequency.

\* **INC version**

Coil with IP55 protection, the coil is completely drowned into the epoxy resin.

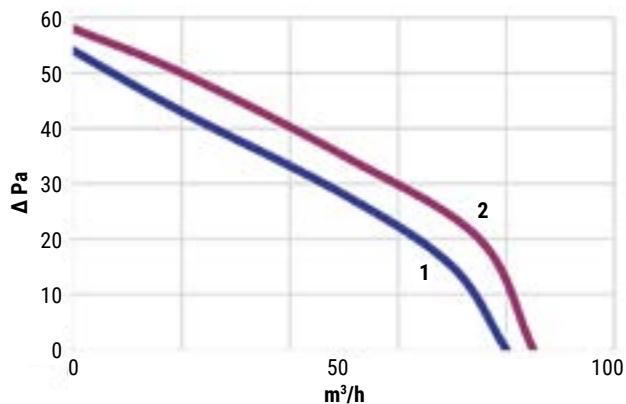
## Dimensions



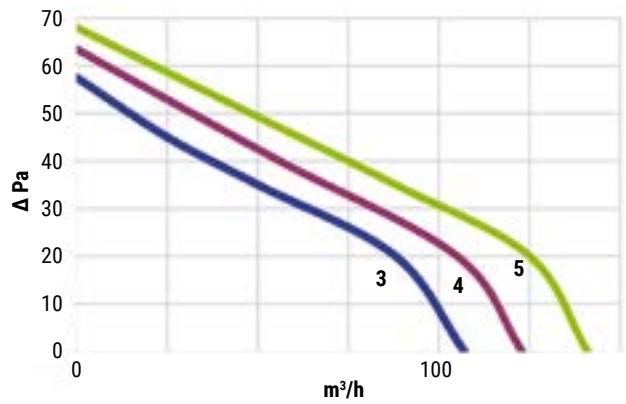
Model	Motor	A	Dimensions mm			D	Input Power (W)	Input Current (A)	RPM	Flow rate (m³/h)	Static pressure (ΔPa)	Curve n°
TF45 - 120/15	15-10	15	61,3	122	200	21,5	0,150	2300	80	54	1	
TF45 - 120/20	20-1	20	66,3	122	205	22	0,163	2450	85	58	2	
TF45 - 180/15	15-3	15	61,3	182	260	24	0,174	1850	107	57,5	3	
TF45 - 180/20	20-1	20	66,3	182	265	24	0,175	2040	123	63,5	4	
TF45 - 180/30	30-3	30	71,3	182	275	29	0,203	2500	141	68	5	
TF45 - 240/15	15-10	15	61,3	242	320	23,62	0,155	1370	110	52	6	
TF45 - 240/20	20-1	20	66,3	242	325	25,73	0,187	1670	132	63	7	
TF45 - 240/30	30-1	30	71,3	242	335	36,80	0,273	2450	192	68	8	
TF45 - 300/15	15-3	15	61,3	302	380	25,4	0,183	1238	131	45	9	
TF45 - 300/20	20-1	20	66,3	302	385	26,3	0,192	1390	149	50	10	
TF45 - 300/30	30-1	30	71,3	302	395	40	0,285	2250	265	60	11	
TF45 - 360/15	15-1	15	61,3	362	440	18,3	0,144	1140	146	43	12	
TF45 - 360/20	20-1	20	66,3	362	445	23,55	0,177	1270	161	50	13	
TF45 - 360/30	30-1	30	71,3	362	455	40	0,292	1850	246	59	14	
TF45 - 360/35	35-2	35	76,3	362	460	48	0,350	2230	284	61	15	

## Characteristic curves

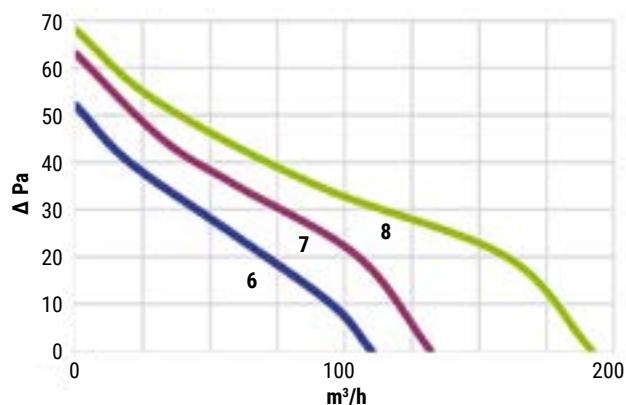
TF45 - 120



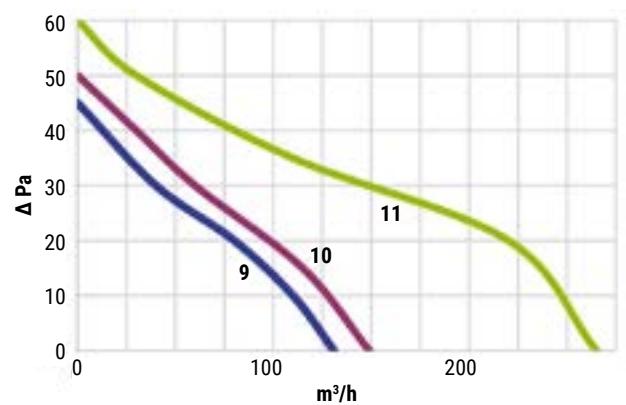
TF45 - 180



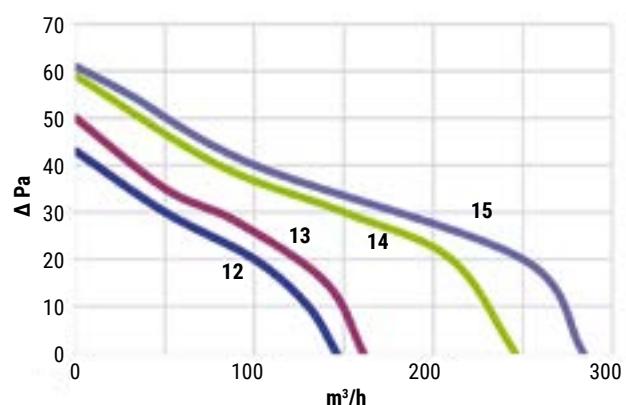
TF45 - 240



TF45 - 300

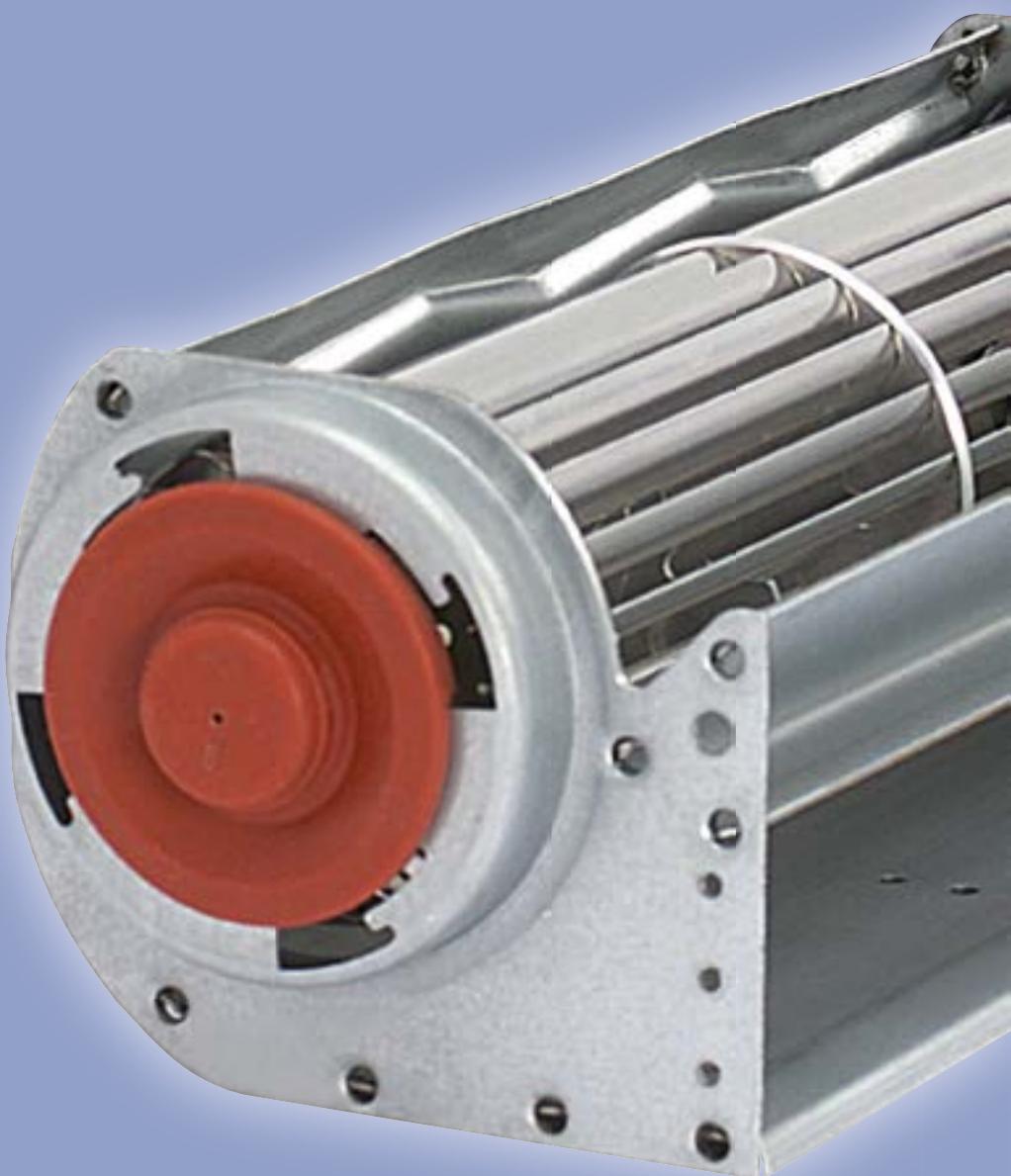


TF45 - 360



Cross-Flow Fans

# TFD45



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Double Cross-Flow Fans are particularly indicated for uses where,  
in limited space, high air volume is required with low noise  
and regular air-flow.

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19 - 51 W

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0,13 - 0,37 A

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105 - 328 m<sup>3</sup>/h

# Cross-Flow Fans

## TFD45

- Impedance protected motor
- Low power consumption
- Minimum noise level
- Small size



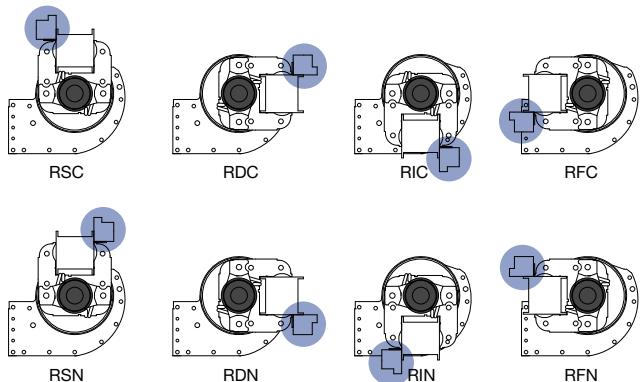
### Technical specifications

- Single phase, 2-shaded poles, impedance protected motor, built according to the CE mark requirements, in compliance with EN 60335-1 standard, with self-aligning and self lubricating sleeve bearings with big oil reservoir.
- Motor with minimum 130° "B" insulation class.
- Suitable for continuous operation in ambient temperature from -10 °C to +50 °C.
- Electrical connection by 6,3 x 0,8 mm, radial or axial, male faston-type connectors, directly fixed on coil.
- Ø 45 mm aluminum impeller with forward curved constant thickness blades with intermediate reinforcement discs.
- Housing made of pre-galvanized metal sheet, thanks to the high aeraulic efficiency it guarantees an excellent yield in terms of air flow, static pressure and low noise level.

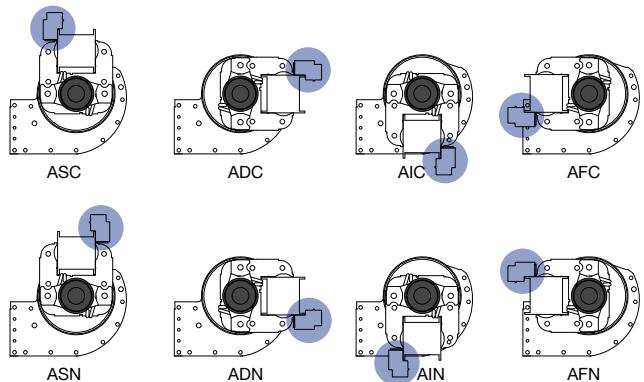
### On request

- Version with IMQ - CSV approved motor.
- Motor with different powers and insulation classes: 155° F" - 180° "H".
- Supply voltage from 12V to 400V 50/60 Hz.
- Version with dual voltage and/or double speed.
- Electrical connection by means of different cable lengths.
- Motor coil winding with IP55 protection.
- Protection against dust and/or humidity.
- Thermal protector or thermal fuse.
- Housing with cataphoresis coating.
- HT version for operation from -30 °C to 100 °C.
- Built in compliance with UL-CSA standards.
- Version fitted with ball bearings.
- Version built to customers design.

### Motor position - Radial Faston



### Motor position - Axial Faston





## Product Identification Code

<b>TFD</b>	Standard housing.
<b>45</b>	Fan blade dimension.
<b>120</b>	Fan blade nominal length: 120 - 180 - 240 - 300 mm.
<b>35</b>	Motor stack height: 15 - 20 - 30 - 35 mm.
<b>T</b>	Thermal protection: <b>T</b> = thermal protector. <b>F</b> = thermal fuse. <b>Blank</b> = impedance protected.
<b>1</b>	Coil winding code.
<b>R</b>	Electrical connection: <b>R</b> = radial faston-type connectors. <b>A</b> = axial faston-type connectors. <b>C</b> = cables.

\* **IV version**

Impregnated coil through dip-coating using epoxy transparent paint  
(standard stator coil dip-coating process).

\* **IM version**

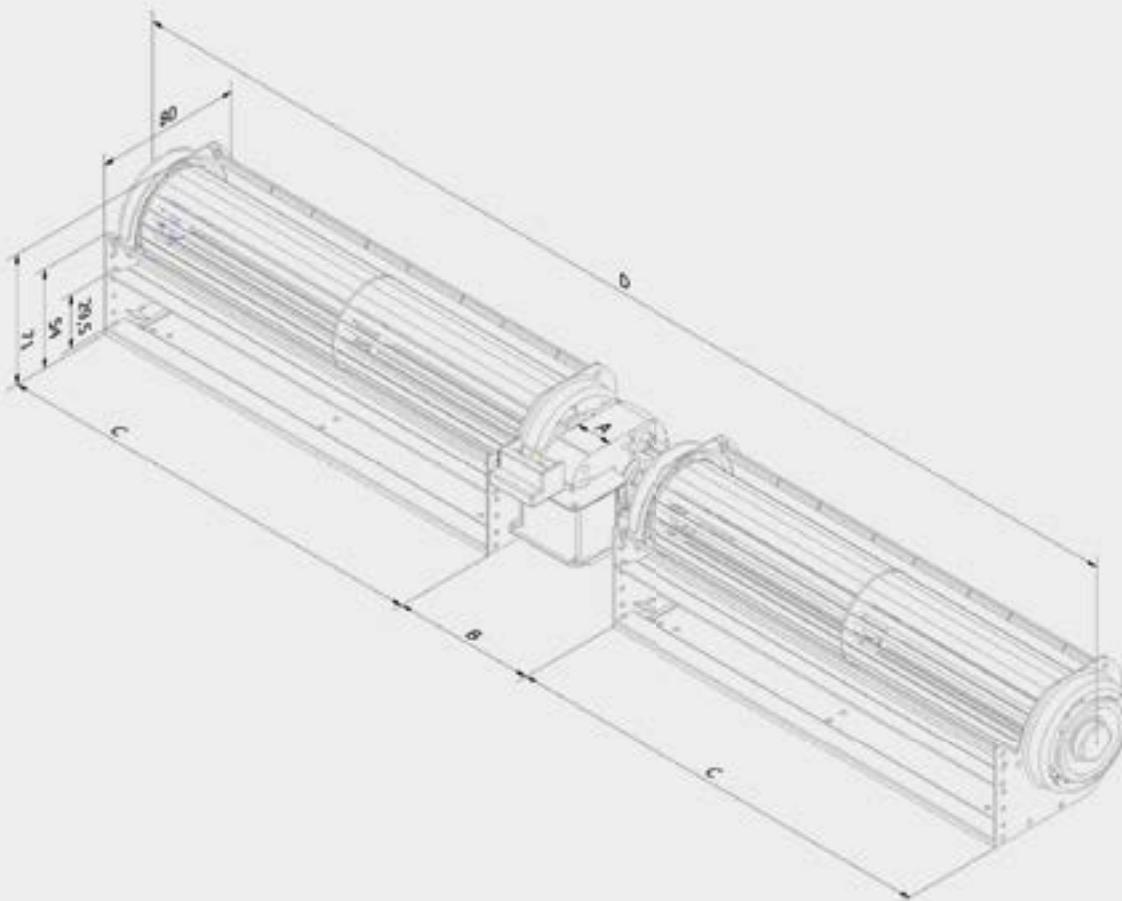
Impregnated coil through dip-coating using transparent epoxy paint  
with silicone applied on contacts at the end of winding, three-pole wire  
and coil covered by a nylon cap. The coil is not drowned in the resin but  
visible; caution should be paid when mounting the motor so that the cap  
open part faces downward to prevent its filling up with condensate.

<b>FN</b>	Motor position.
<b>HT</b>	On request: <b>HT</b> = high-temperature version. <b>IV-IM</b> = low temperature with high relative humidity up to 92%. * <b>INC</b> = coil insulation with IP55 protection. *
<b>BB</b>	On request: <b>BB</b> = ball bearings on motor.
<b>230</b>	Supply voltage.
<b>50</b>	Rated frequency.

\* **INC version**

Coil with IP55 protection, the coil is completely drowned into the epoxy resin.

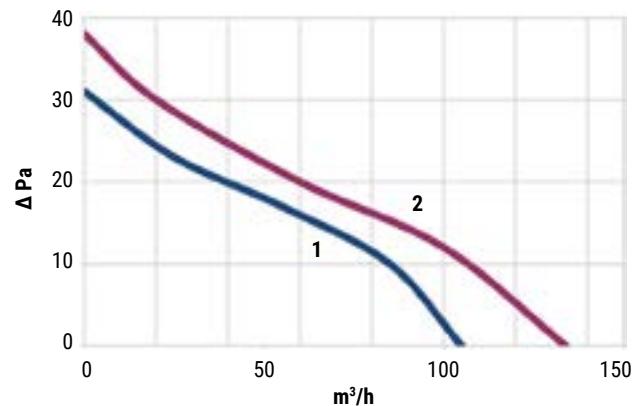
## Dimensions



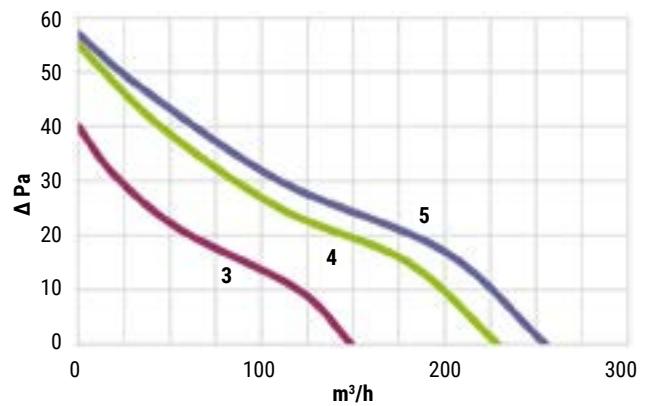
Model	Motor	Dimensions mm				Input Power (W)	Input Current (A)	RPM	Flow rate (m³/h)	Static pressure (ΔPa)	Curve n°
		A	B	C	D						
TFD45 - 120/15	15-1	15	73	122	350	19	0,13	1560	105	31	1
TFD45 - 120/20	20-1	20	78	122	355	23	0,17	2000	134	38	2
TFD45 - 180/20	20-1	20	78	182	475	24	0,18	1430	149	40	3
TFD45 - 180/30	30-1	30	88	182	485	37	0,27	2150	229	55	4
TFD45 - 180/35	35-1	35	93	182	490	45	0,34	2300	255	57	5
TFD45 - 240/30	30-1	30	88	242	605	39	0,29	1750	278	42	6
TFD45 - 240/35	35-1	35	93	242	610	48	0,36	1950	315	43	7
TFD45 - 300/30	30-1	30	88	302	725	40	0,30	1450	282	47	8
TFD45 - 300/35	35-1	35	93	302	730	51	0,37	1700	328	48	9

## Characteristic curves

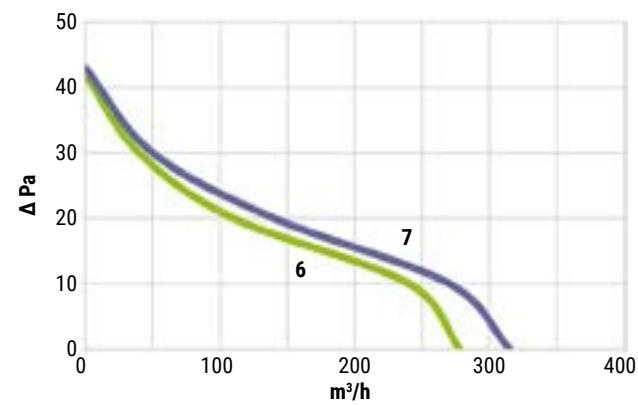
TFD45 - 120



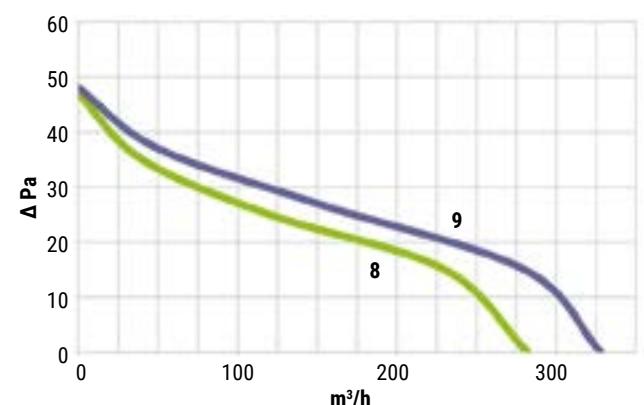
TFD45 - 180



TFD45 - 240

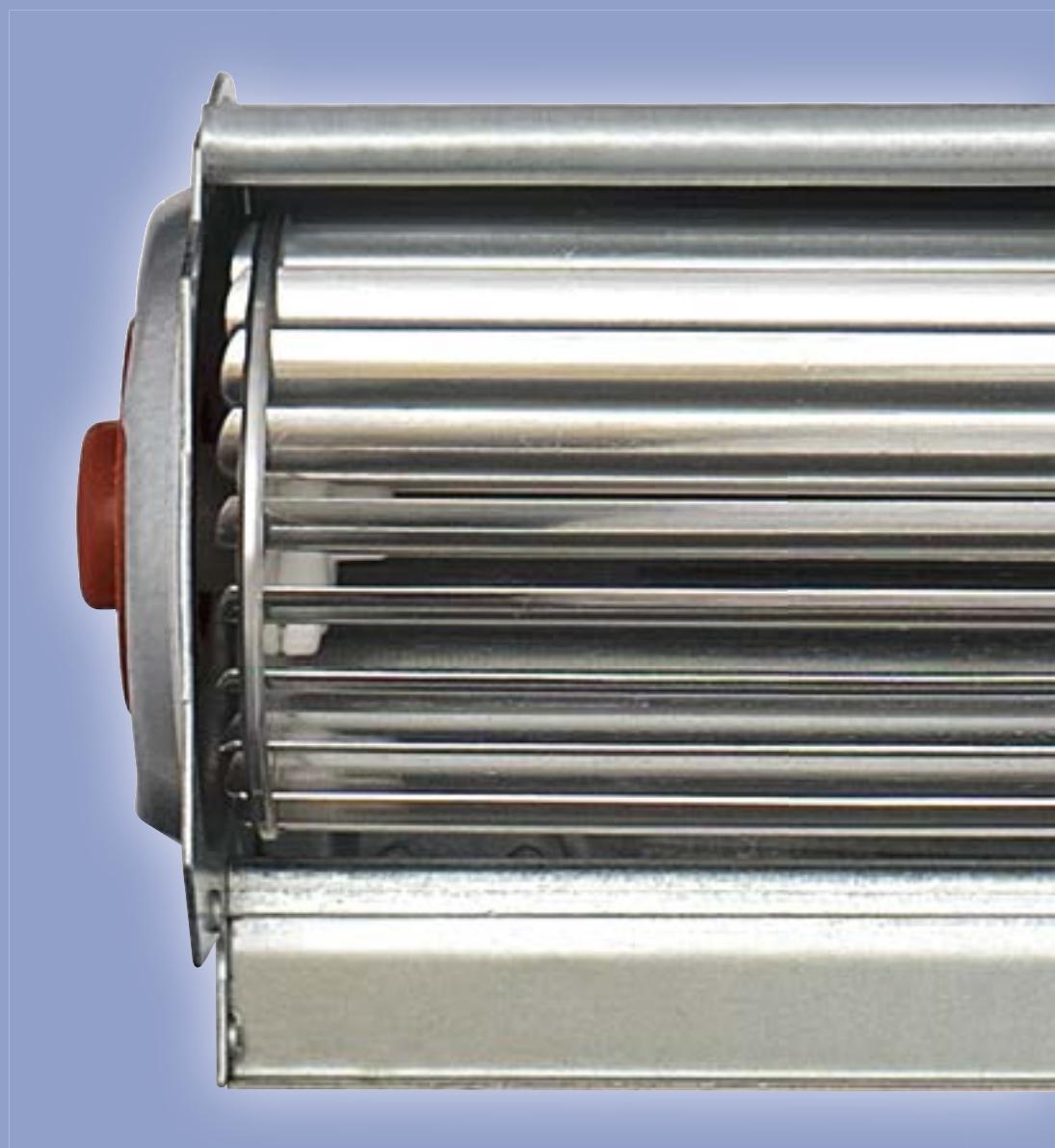


TFD45 - 300



Cross-Flow Fans

TF/FF



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Cross-Flow Fans are particularly indicated for uses where, in limited space, high air volume is required with low noise and regular air-flow.

The FF series provides an additional fixing option through 4 + 4 extensions placed directly on the side.

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16 - 54 W

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0,13 - 0,42 A

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80 - 364 m<sup>3</sup>/h

## Cross-Flow Fans TF/FF

- Impedance protected motor
- Low power consumption
- Minimum noise level
- Small size



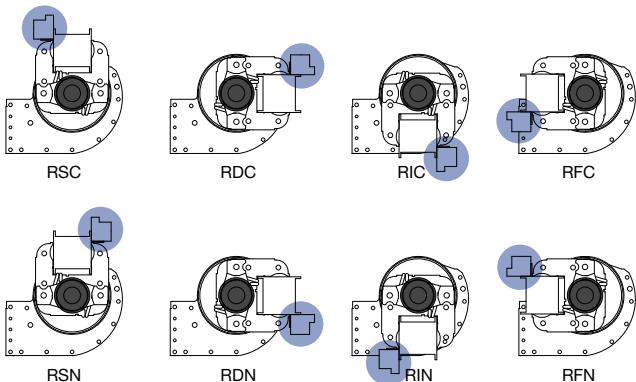
### Technical specifications

- Single phase, 2-shaded poles, impedance protected motor, built according to the CE mark requirements, in compliance with EN 60335-1 standard, with self-aligning and self lubricating sleeve bearings with big oil reservoir.
- Motor with minimum 130° "B" insulation class.
- Suitable for continuous operation in ambient temperature from -10 °C to +50 °C.
- Electrical connection by 6,3 x 0,8 mm, radial or axial, male faston-type connectors, directly fixed on coil.
- Ø 60 mm aluminum impeller with forward curved constant thickness blades with intermediate reinforcement discs.
- Housing made of pre-galvanized metal sheet, thanks to the high aeraulic efficiency it guarantees an excellent yield in terms of air flow, static pressure and low noise level.

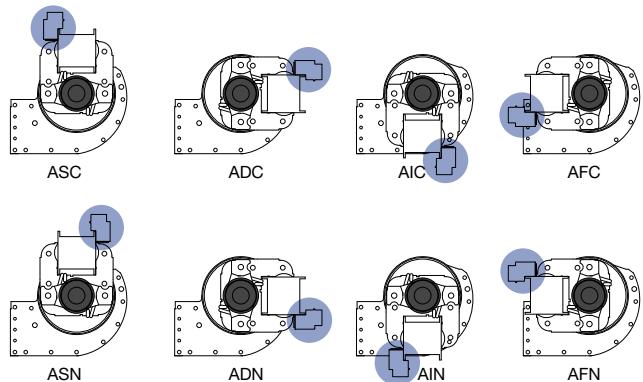
### On request

- Version with IMQ - CSV approved motor.
- Motor with different powers and insulation classes: 155° "F" - 180° "H".
- Supply voltage from 12V to 400V 50/60 Hz.
- Version with dual voltage and/or double rotation speed.
- Electrical connection by means of different cable lengths.
- Motor coil winding with IP55 protection.
- Protection against dust and/or humidity.
- Thermal protector or thermal fuse.
- Housing with cataphoresis coating.
- HT version for operation from -30 °C to 100 °C.
- Built in compliance with UL-CSA standards.
- Version fitted with ball bearings.
- Cooling fan on the motor.
- Version built to customers design.

### Motor position - Radial Faston



### Motor position - Axial Faston





## Product Identification Code

<b>TF</b>	<b>TF</b> = standard housing. <b>FF</b> = housing with "ears".	<b>A</b>	Electrical connection: <b>R</b> = radial faston-type connectors. <b>A</b> = axial faston-type connectors. <b>C</b> = cables.
<b>R</b>	Motor position: <b>R</b> = motor on the right of the air outlet. <b>L</b> = motor on the left of the air outlet.  	<b>SN</b>	Motor position.
<b>240</b>	Fan blade nominal length: 90 - 120 - 180 - 240 - 270 - 300 - 360 - 420 - 480 mm.	<b>HT</b>	On request: <b>HT</b> = high-temperature version. <b>IV-IM</b> = low temperature with high relative humidity up to 92%. * <b>INC</b> = coil insulation with IP55 protection. *
<b>20</b>	Motor stack height: 15 - 20 - 30 - 35 - 40 mm.	<b>BB</b>	On request: <b>BB</b> = ball bearings on motor. <b>BBBLV</b> = ball bearings on motor and impeller.
<b>T</b>	Thermal protection: <b>T</b> = thermal protector. <b>F</b> = thermal fuse. <b>Blank</b> = impedance protected.	<b>VR</b>	On request: <b>VR</b> = fitted with cooling fan on motor side.
<b>1</b>	Coil winding code.	<b>230</b>	Supply voltage.
		<b>50</b>	Rated frequency.

\* **IV version**

Impregnated coil through dip-coating using epoxy transparent paint (standard stator coil dip-coating process).

\* **IM version**

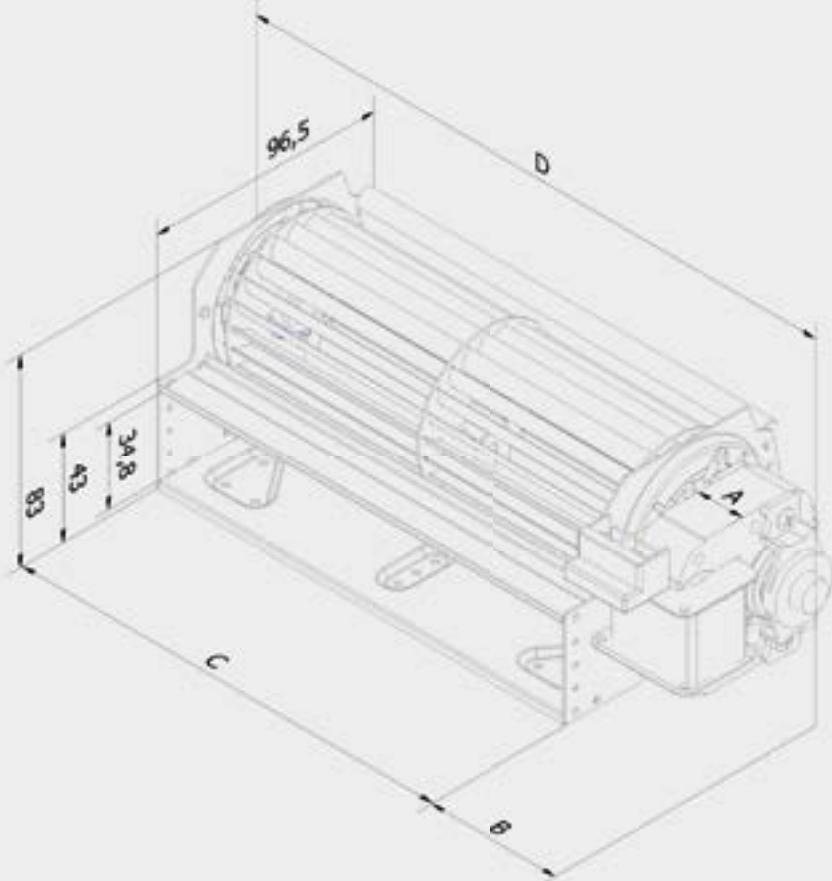
Impregnated coil through dip-coating using transparent epoxy paint with silicone applied on contacts at the end of winding, three-pole wire and coil covered by a nylon cap. The coil is not drowned in the resin but visible; caution should be paid when mounting the motor so that the cap open part faces downward to prevent its filling up with condensate.

\* **INC version**

Coil with IP55 protection, the coil is completely drowned into the epoxy resin.

## Dimensions

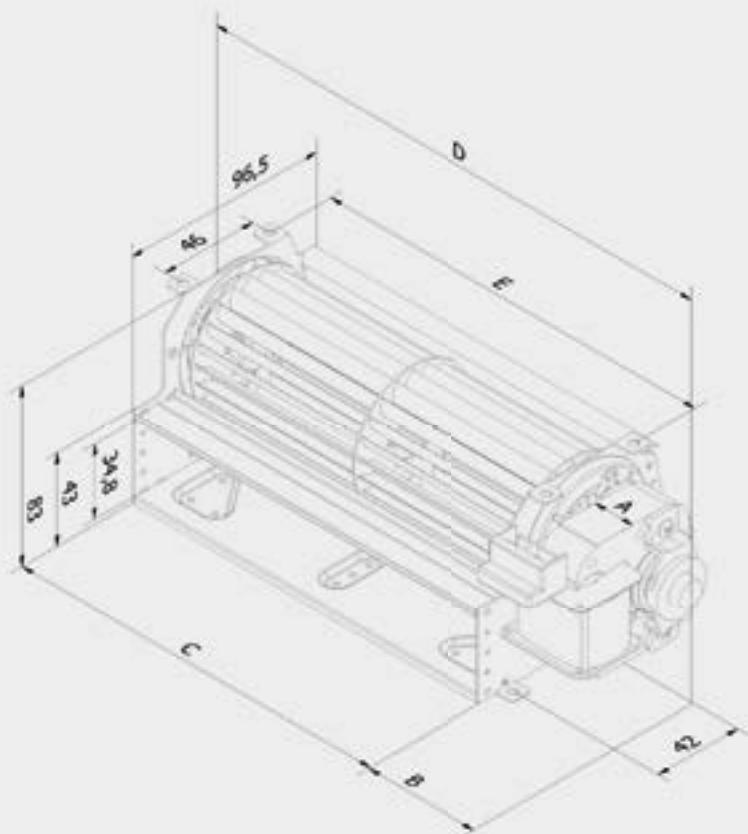
TF



Model	Motor	Dimensions mm				Input Power (W)	Input Current (A)	RPM	Flow rate (m³/h)	Static pressure (ΔPa)	Curve n°
		A	B	C	D						
TF 90/15	15-1	15	51,2	94	157	16	0,13	2250	80	53	1
TF 90/20	20-1	20	56,2	94	162	20	0,15	2550	92	59	2
TF 120/15	15-1	15	51,2	124	187	18	0,14	1800	101	49	3
TF 120/20	20-1	20	56,2	124	192	22	0,16	2250	127	60	4
TF 180/15	15-1	15	51,2	184	247	19	0,15	1250	107	48	5
TF 180/20	20-1	20	56,2	184	252	23	0,17	1700	144	62	6
TF 180/30	30-1	30	66,2	184	262	35	0,25	2450	212	73	7
TF 180/35	35-1	35	71,2	184	267	41	0,31	2550	234	75	8
TF 240/20	20-1	20	56,2	244	312	24	0,18	1200	149	55	9
TF 240/30	30-1	30	66,2	244	322	37	0,27	2200	262	78	10
TF 240/35	35-1	35	71,2	244	327	45	0,33	2350	283	80	11
TF 270/20	20-1	20	56,2	274	342	24	0,18	1150	163	42	12
TF 270/30	30-1	30	66,2	274	352	39	0,28	1950	280	78	13
TF 270/35	35-1	35	71,2	274	357	46	0,34	2150	313	80	14
TF 300/20	20-1	20	56,2	304	372	24	0,18	1150	171	45	15
TF 300/30	30-1	30	66,2	304	382	40	0,29	1750	268	77	16
TF 300/40	40-1	40	76,2	304	392	48	0,37	2400	348	80	17
TF 360/20	20-1	20	56,2	364	432	24	0,18	950	183	40	18
TF 360/30	30-1	30	66,2	364	442	40	0,30	1350	262	78	19
TF 360/40	40-1	40	76,2	364	452	53	0,40	1900	325	78	20
TF 420/30	30-1	30	66,2	424	502	41	0,31	1200	271	70	21
TF 420/40	40-1	40	76,2	424	512	54	0,42	1600	359	76	22
TF 480/30	30-1	30	66,2	484	562	40	0,30	1150	283	62	23
TF 480/40	40-1	40	76,2	484	572	54	0,42	1250	364	69	24

## Dimensions

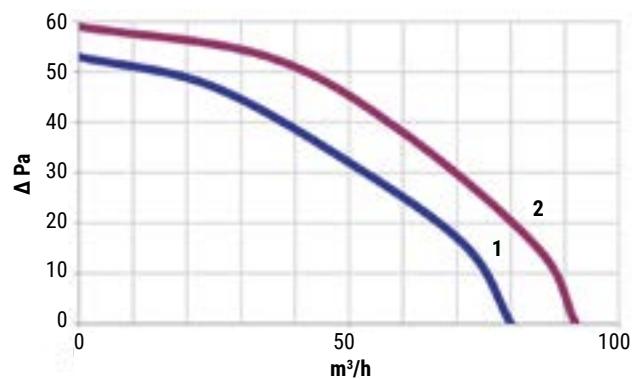
**FF**



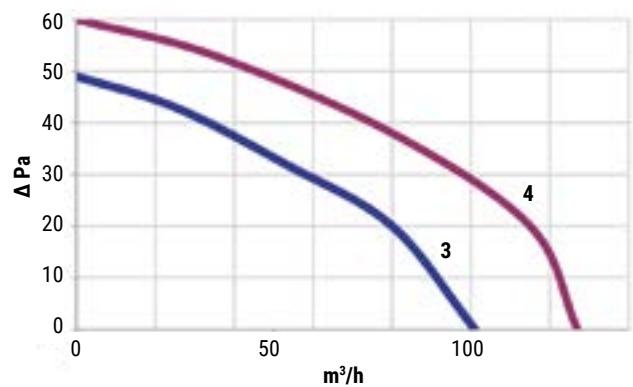
Model	Motor	Dimensions mm					Input Power (W)	Input Current (A)	RPM	Flow rate (m³/h)	Static pressure (ΔPa)	Curve n°
		A	B	C	D	E						
<b>FF 90/15</b>	15-1	15	51,2	94	157	103	16	0,13	2250	80	53	1
<b>FF 90/20</b>	20-1	20	56,2	94	162	103	20	0,15	2550	92	59	2
<b>FF 120/15</b>	15-1	15	51,2	124	187	133	18	0,14	1800	101	49	3
<b>FF 120/20</b>	20-1	20	56,2	124	192	133	22	0,16	2250	127	60	4
<b>FF 180/15</b>	15-1	15	51,2	184	247	193	19	0,15	1250	107	48	5
<b>FF 180/20</b>	20-1	20	56,2	184	252	193	23	0,17	1700	144	62	6
<b>FF 180/30</b>	30-1	30	66,2	184	262	193	35	0,25	2450	212	73	7
<b>FF 180/35</b>	35-1	35	71,2	184	267	193	41	0,31	2550	234	75	8
<b>FF 240/20</b>	20-1	20	56,2	244	312	253	24	0,18	1200	149	55	9
<b>FF 240/30</b>	30-1	30	66,2	244	322	253	37	0,27	2200	262	78	10
<b>FF 240/35</b>	35-1	35	71,2	244	327	253	45	0,33	2350	283	80	11
<b>FF 270/20</b>	20-1	20	56,2	274	342	283	24	0,18	1150	163	42	12
<b>FF 270/30</b>	30-1	30	66,2	274	352	283	39	0,28	1950	280	78	13
<b>FF 270/35</b>	35-1	35	71,2	274	357	283	46	0,34	2150	313	80	14
<b>FF 300/20</b>	20-1	20	56,2	304	372	313	24	0,18	1150	171	45	15
<b>FF 300/30</b>	30-1	30	66,2	304	382	313	40	0,29	1750	268	77	16
<b>FF 300/40</b>	40-1	40	76,2	304	392	313	48	0,37	2400	348	80	17
<b>FF 360/20</b>	20-1	20	56,2	364	432	373	24	0,18	950	183	40	18
<b>FF 360/30</b>	30-1	30	66,2	364	442	373	40	0,30	1350	262	78	19
<b>FF 360/40</b>	40-1	40	76,2	364	452	373	53	0,40	1900	325	78	20
<b>FF 420/30</b>	30-1	30	66,2	424	502	433	41	0,31	1200	271	70	21
<b>FF 420/40</b>	40-1	40	76,2	424	512	433	54	0,42	1600	359	76	22
<b>FF 480/30</b>	30-1	30	66,2	484	562	493	40	0,30	1150	283	62	23
<b>FF 480/40</b>	40-1	40	76,2	484	572	493	54	0,42	1250	364	69	24

## Characteristic curves

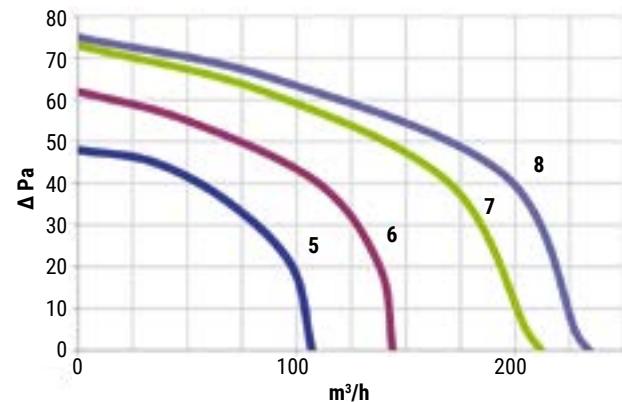
TF/FF - 90



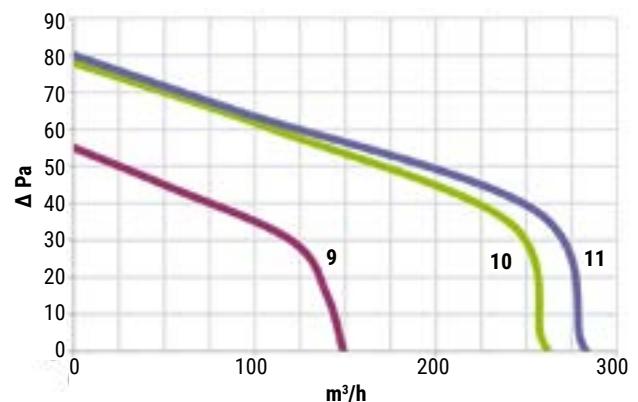
TF/FF - 120



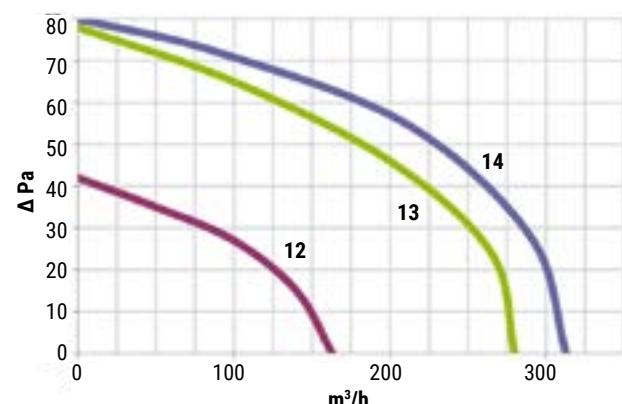
TF/FF - 180



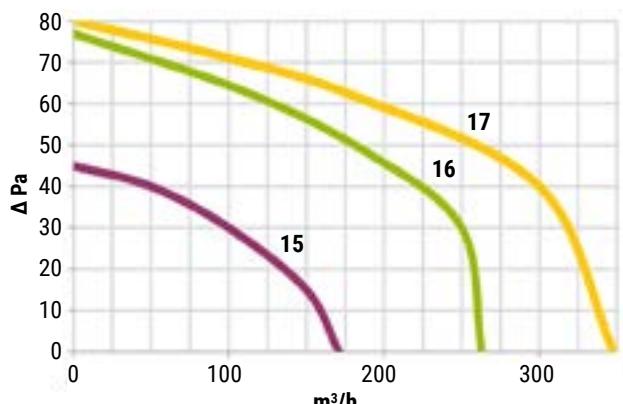
TF/FF - 240



TF/FF - 270

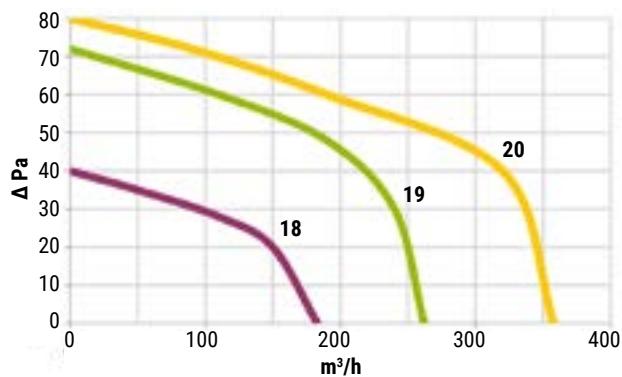


TF/FF - 300

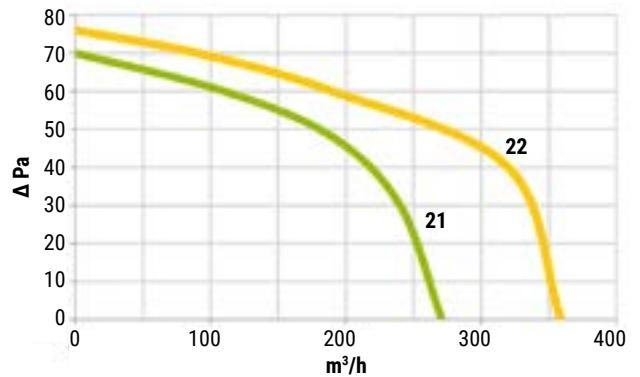


## Characteristic curves

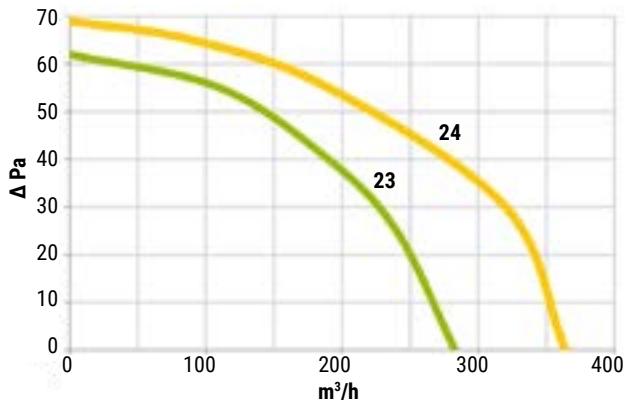
TF/FF - 360



TF/FF - 420

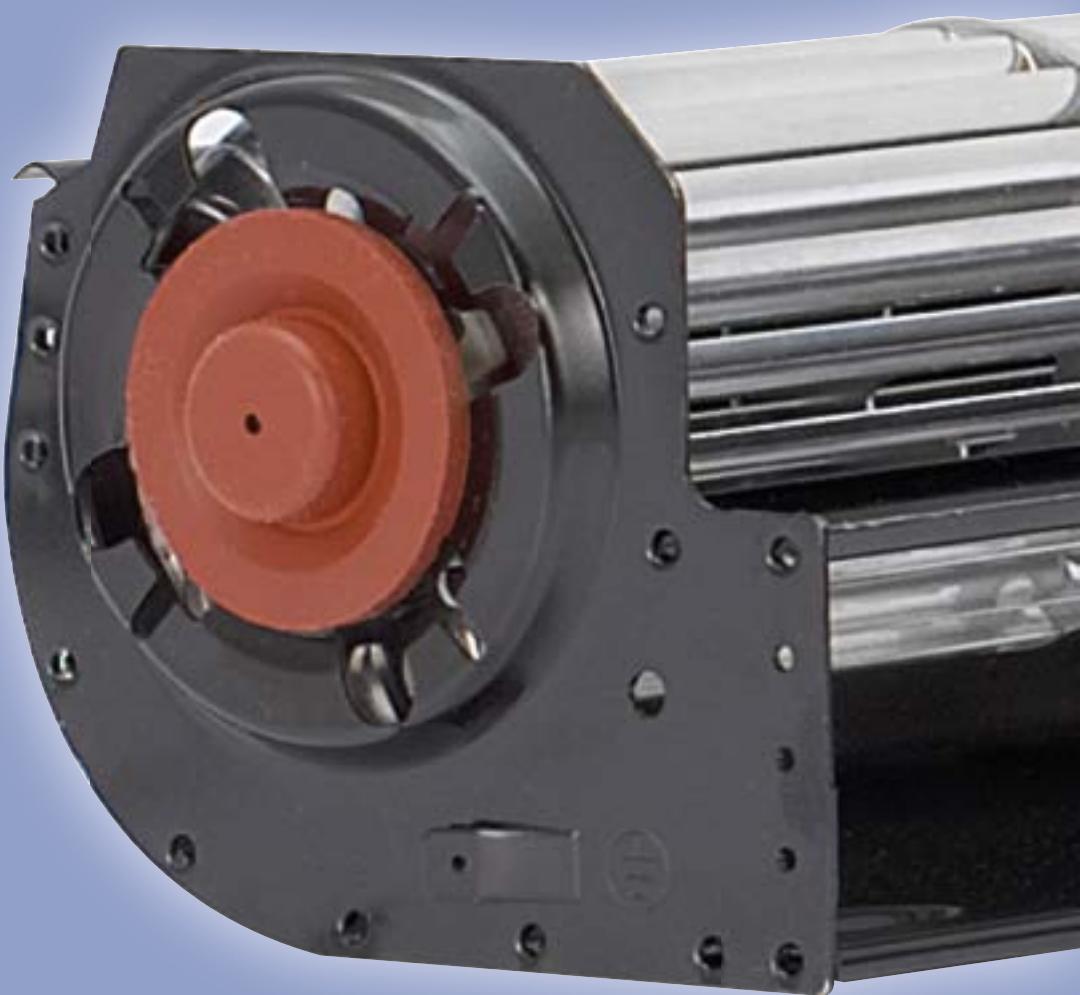


TF/FF - 480



Cross-Flow Fans

# TFD/FFD



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Cross-Flow Fans are particularly indicated for uses where, in limited space, high air volume is required with low noise and regular air-flow.

The FFD series provides an additional fixing option through 4 + 4 extensions placed directly on the side.

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23 - 55 W

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0,18 - 0,43 A

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168 - 382 m<sup>3</sup>/h



- Impedance protected motor
- Low power consumption
- Minimum noise level
- Small size



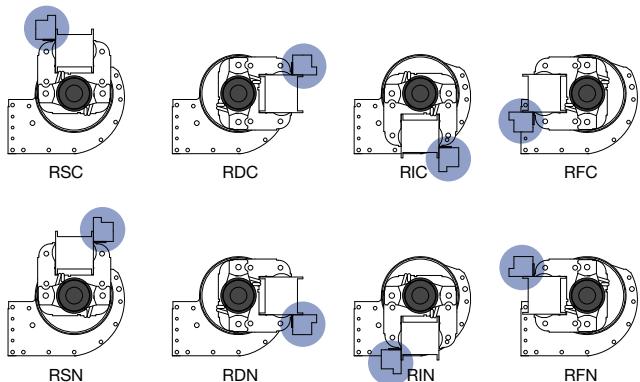
## Technical specifications

- Single phase, 2-shaded poles, impedance protected motor, built according to the CE mark requirements, in compliance with EN 60335-1 standard, with self-aligning and self lubricating sleeve bearings with big oil reservoir.
- Motor with minimum 130° "B" insulation class.
- Suitable for continuous operation in ambient temperature from -10 °C to +50 °C.
- Electrical connection by 6,3 x 0,8 mm, radial or axial, male faston-type connectors, directly fixed on coil.
- Ø 60 mm aluminum impeller with forward curved constant thickness blades with intermediate reinforcement discs.
- Housing made of pre-galvanized metal sheet, thanks to the high aeraulic efficiency it guarantees an excellent yield in terms of air flow, static pressure and low noise level.

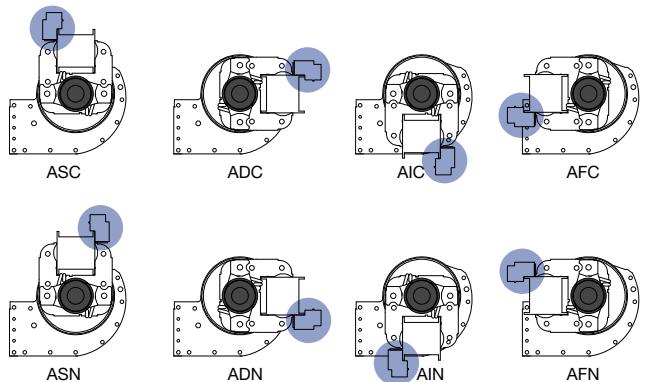
## On request

- Version with IMQ - CSV approved motor.
- Motor with different powers and insulation classes: 155° "F" - 180° "H".
- Supply voltage from 12V to 400V 50/60 Hz.
- Version with dual voltage and/or double speed.
- Electrical connection by means of different cable lengths.
- Motor coil winding with IP55 protection.
- Protection against dust and/or humidity.
- Thermal protector or thermal fuse.
- Housing with cataphoresis coating.
- HT version for operation from -30 °C to 100 °C.
- Built in compliance with UL - CSA standards.
- Version fitted with ball bearings.
- Version built to customers design.

## Motor position - Radial Faston



## Motor position - Axial Faston





## Product Identification Code

<b>TFD</b>	<b>TFD</b> = standard housing. <b>FFD</b> = housing with "ears".
<b>180</b>	Fan blade nominal length: 90 - 120 - 180 - 240 - 270 - 300 - 360 mm.
<b>35</b>	Motor stack height: 15 - 20 - 30 - 35 - 40 mm.
<b>T</b>	Thermal protection: <b>T</b> = thermal protector. <b>F</b> = thermal fuse. <b>Blank</b> = impedance protected.
<b>1</b>	Coil winding code.
<b>R</b>	Electrical connection: <b>R</b> = radial faston-type connectors. <b>A</b> = axial faston-type connectors. <b>C</b> = cables.

### \* IV version

Impregnated coil through dip-coating using epoxy transparent paint (standard stator coil dip-coating process).

### \* IM version

Impregnated coil through dip-coating using transparent epoxy paint with silicone applied on contacts at the end of winding, three-pole wire and coil covered by a nylon cap. The coil is not drowned in the resin but visible; caution should be paid when mounting the motor so that the cap open part faces downward to prevent its filling up with condensate.

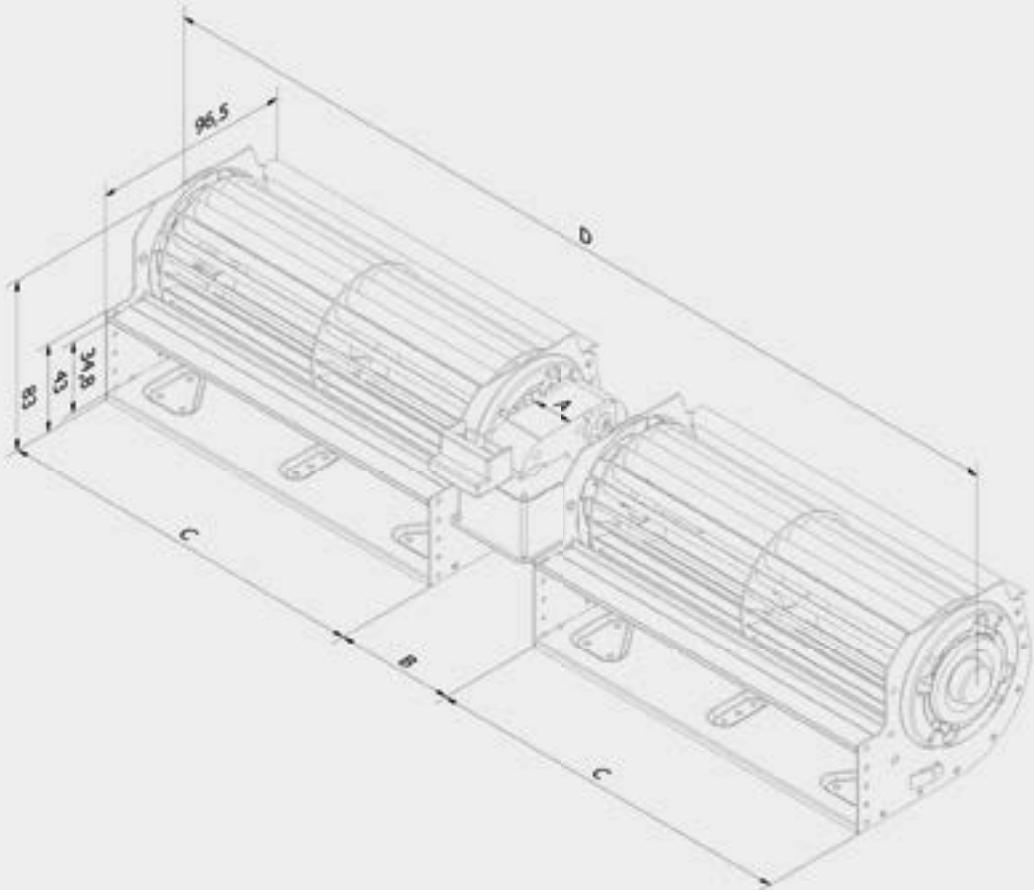
<b>FN</b>	Motor position.
<b>HT</b>	On request: <b>HT</b> = high-temperature version. <b>IV-IM</b> = low temperature with high humidity up to 92%. * <b>INC</b> = coil insulation with IP55 protection. *
<b>BBBLV</b>	On request: <b>BB</b> = ball bearings on motor. <b>BBBLV</b> = ball bearings on motor and impeller.
<b>230</b>	Supply voltage.
<b>50</b>	Rated frequency.

### \* INC version

Coil with IP55 protection, the coil is completely drowned into the epoxy resin.

## Dimensions

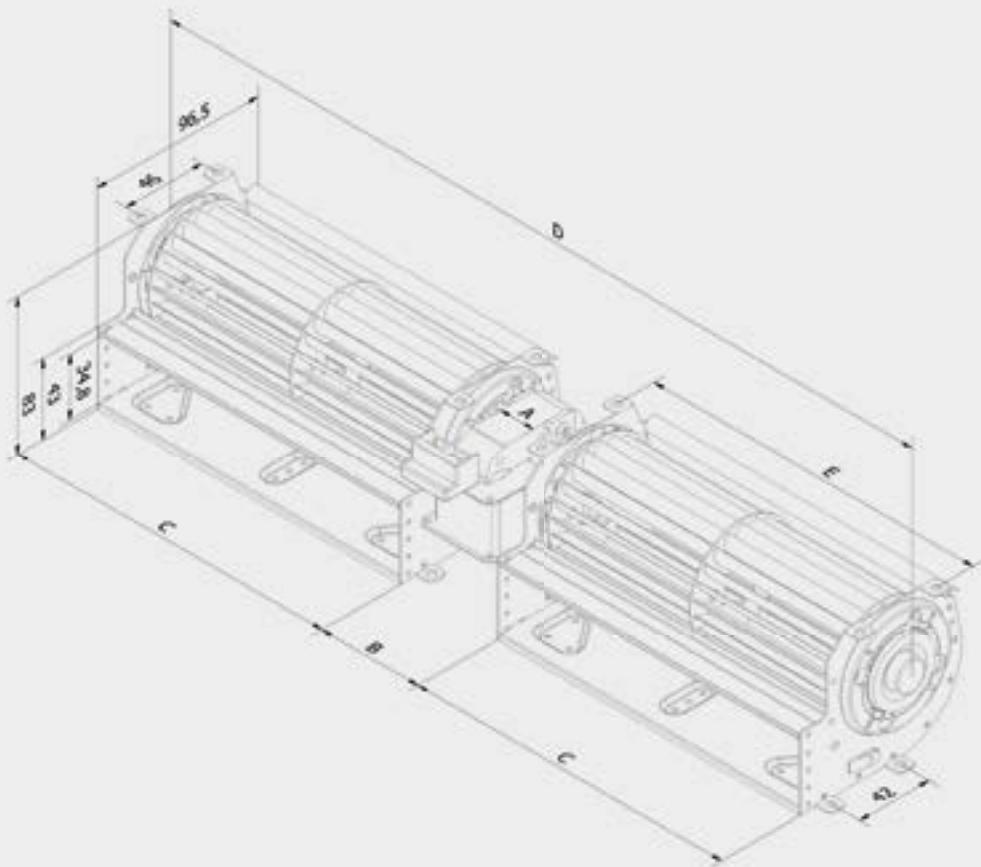
### TFD



Model	Motor	Dimensions mm				Input Power (W)	Input Current (A)	RPM	Flow rate (m³/h)	Static pressure (ΔPa)	Curve n°
		A	B	C	D						
<b>TFD 180/20</b>	20-1	20	58,4	184	450	23	0,18	990	168	38	1
<b>TFD 180/30</b>	30-1	30	68,4	184	460	38	0,29	1645	280	63	2
<b>TFD 180/35</b>	35-1	35	73,4	184	465	47	0,35	1880	331	69	3
<b>TFD 240/30</b>	30-1	30	68,4	244	580	38	0,29	1170	283	62	4
<b>TFD 240/35</b>	35-1	35	73,4	244	585	49	0,37	1320	320	65	5
<b>TFD 240/40</b>	40-1	40	78,4	244	590	55	0,43	1460	335	69	6
<b>TFD 270/30</b>	30-1	30	68,4	274	640	39	0,29	1090	307	58	7
<b>TFD 270/40</b>	40-1	40	78,4	274	650	52	0,42	1270	343	65	8
<b>TFD 300/30</b>	30-1	30	68,4	304	700	39	0,29	1060	333	51	9
<b>TFD 300/40</b>	40-1	40	78,4	304	710	52	0,41	1120	347	67	10
<b>TFD 360/30</b>	30-1	30	68,4	364	820	39	0,30	940	359	44	11
<b>TFD 360/40</b>	40-1	40	78,4	364	830	52	0,42	1020	382	65	12

## Dimensions

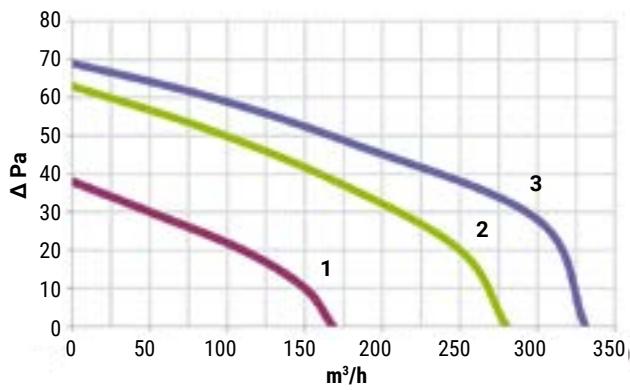
FFD



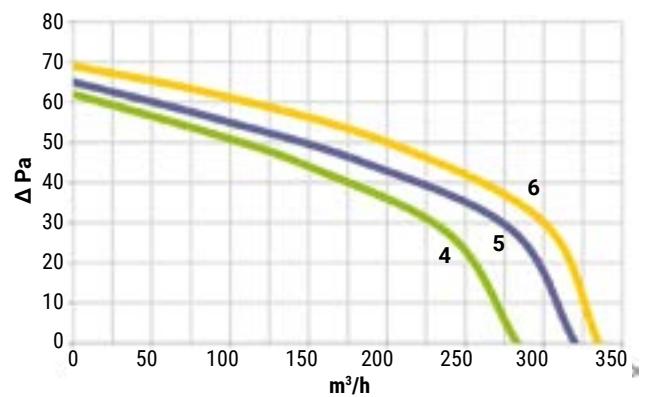
Model	Motor	Dimensions mm					Input Power (W)	Input Current (A)	RPM	Flow rate (m³/h)	Static pressure (ΔPa)	Curve n°
		A	B	C	D	E						
FFD 180/20	20-1	20	58,4	184	450	193	23	0,18	990	168	38	1
FFD 180/30	30-1	30	68,4	184	460	193	38	0,29	1645	280	63	2
FFD 180/35	35-1	35	73,4	184	465	193	47	0,35	1880	331	69	3
FFD 240/30	30-1	30	68,4	244	580	253	38	0,29	1170	283	62	4
FFD 240/35	35-1	35	73,4	244	585	253	49	0,37	1320	320	65	5
FFD 240/40	40-1	40	78,4	244	590	253	55	0,43	1460	335	69	6
FFD 270/30	30-1	30	68,4	274	640	283	39	0,29	1090	307	58	7
FFD 270/40	40-1	40	78,4	274	650	283	52	0,42	1270	343	65	8
FFD 300/30	30-1	30	68,4	304	700	313	39	0,29	1060	333	51	9
FFD 300/40	40-1	40	78,4	304	710	313	52	0,41	1120	347	67	10
FFD 360/30	30-1	30	68,4	364	820	373	39	0,30	940	359	44	11
FFD 360/40	40-1	40	78,4	364	830	373	52	0,42	1020	382	65	12

## Characteristic curves

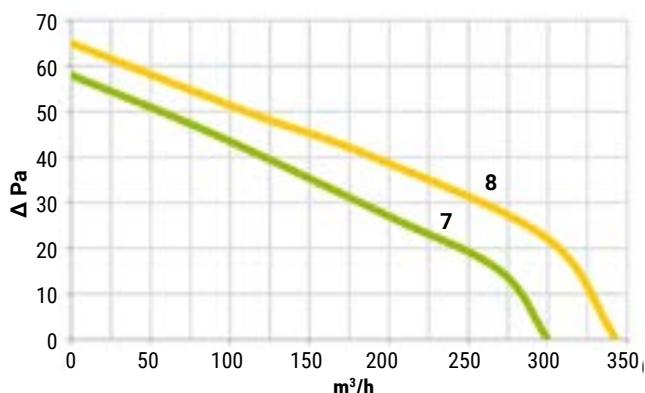
TFD/FFD - 180



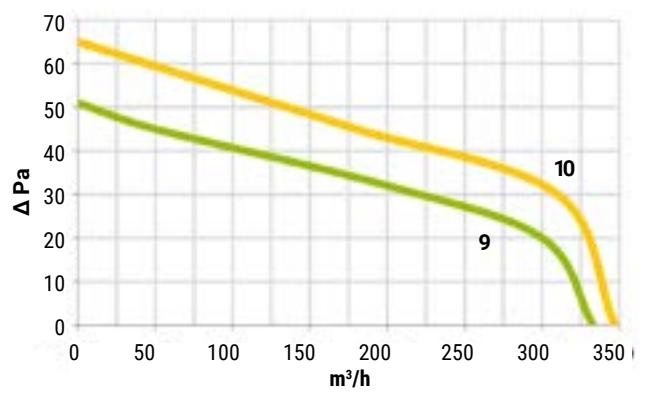
TFD/FFD - 240



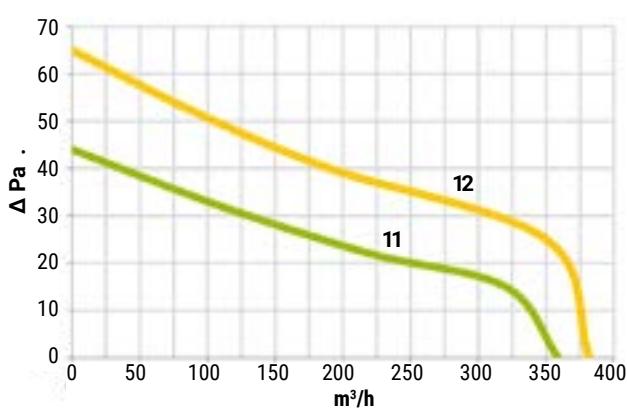
TFD/FFD - 270



TFD/FFD - 300



TFD/FFD - 360





Cross-Flow Fans

TF/FF65



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Cross-Flow Fans are particularly indicated for uses where,  
in limited space, high air volume is required with low noise  
and regular air-flow.

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41 - 56 W

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0,31 - 0,44 A

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175 - 300 m<sup>3</sup>/h

# Cross-Flow Fans TF/FF65

- Impedance protected motor
- Low power consumption
- Minimum noise level
- Small size



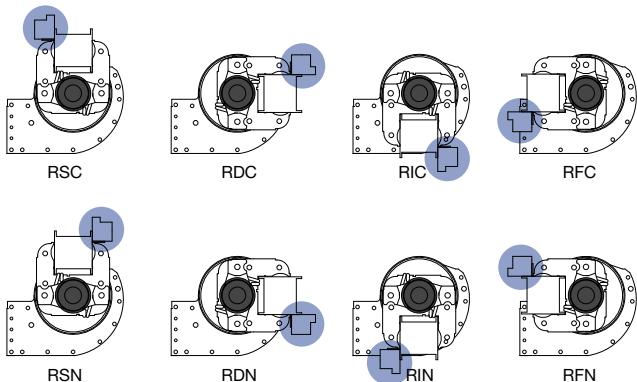
## Technical specifications

- Single phase, 2-shaded poles, impedance protected motor, built according to the CE mark requirements, in compliance with EN 60335-1 standard, with self-aligning and self lubricating sleeve bearings with big oil reservoir.
- Motor with minimum 130° "B" insulation class.
- Suitable for continuous operation in ambient temperature from -10 °C to +50 °C.
- Electrical connection by 6,3 x 0,8 mm, radial or axial, male faston-type connectors, directly fixed on coil.
- Ø 65 mm aluminum impeller with forward curved constant thickness blades with intermediate reinforcement discs.
- Housing made of pre-galvanized metal sheet, thanks to the high aeraulic efficiency it guarantees an excellent yield in terms of air flow, static pressure and low noise level.

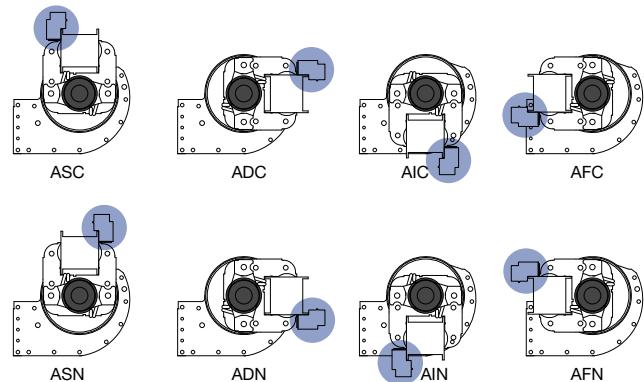
## On request

- Version with IMQ - CSV approved motor.
- Motor with different powers and insulation classes: 155° "F" - 180° "H".
- Supply voltage from 12V to 400V 50/60 Hz.
- Version with dual voltage and/or double speed.
- Electrical connection by means of different cable lengths.
- Motor coil winding with IP55 protection.
- Protection against dust and/or humidity.
- Thermal protector or thermal fuse.
- Housing with cataphoresis coating.
- HT version for operation from -30 °C to 100 °C.
- Built in compliance with UL - CSA standards.
- Version fitted with ball bearings.
- Cooling fan on the motor.
- Version built to customers design.

## Motor position - Radial Faston



## Motor position - Axial Faston





## Product Identification Code

<b>TF</b>	<b>TF</b> = standard housing. <b>FF</b> = housing with "ears".
<b>R</b>	Motor position: <b>R</b> = motor on the right of the air outlet. <b>L</b> = motor on the left of the air outlet.  
<b>65</b>	Fan blade dimension.
<b>180</b>	Fan blade nominal length: 180 - 240 - 270 - 300 - 360 mm.
<b>35</b>	Motor stack height: 20 - 30 - 40 mm.
<b>T</b>	Thermal protection: <b>T</b> = thermal protector. <b>F</b> = thermal fuse. <b>Blank</b> = impedance protected.
<b>1</b>	Coil winding code.

<b>R</b>	Electrical connection: <b>R</b> = radial faston-type connectors. <b>A</b> = axial faston-type connectors. <b>C</b> = cables.
<b>FN</b>	Motor position.
<b>HT</b>	On request: <b>HT</b> = high-temperature version. <b>IV-IM</b> = low temperature with high humidity up to 92%. * <b>INC</b> = coil insulation with IP55 protection. *
<b>BB</b>	On request: <b>BB</b> = ball bearings on motor.
<b>VR</b>	On request: <b>VR</b> = fitted with cooling fan on motor side.
<b>230</b>	Supply voltage.
<b>50</b>	Rated frequency.

### \* IV version

Impregnated coil through dip-coating using epoxy transparent paint (standard stator coil dip-coating process).

### \* IM version

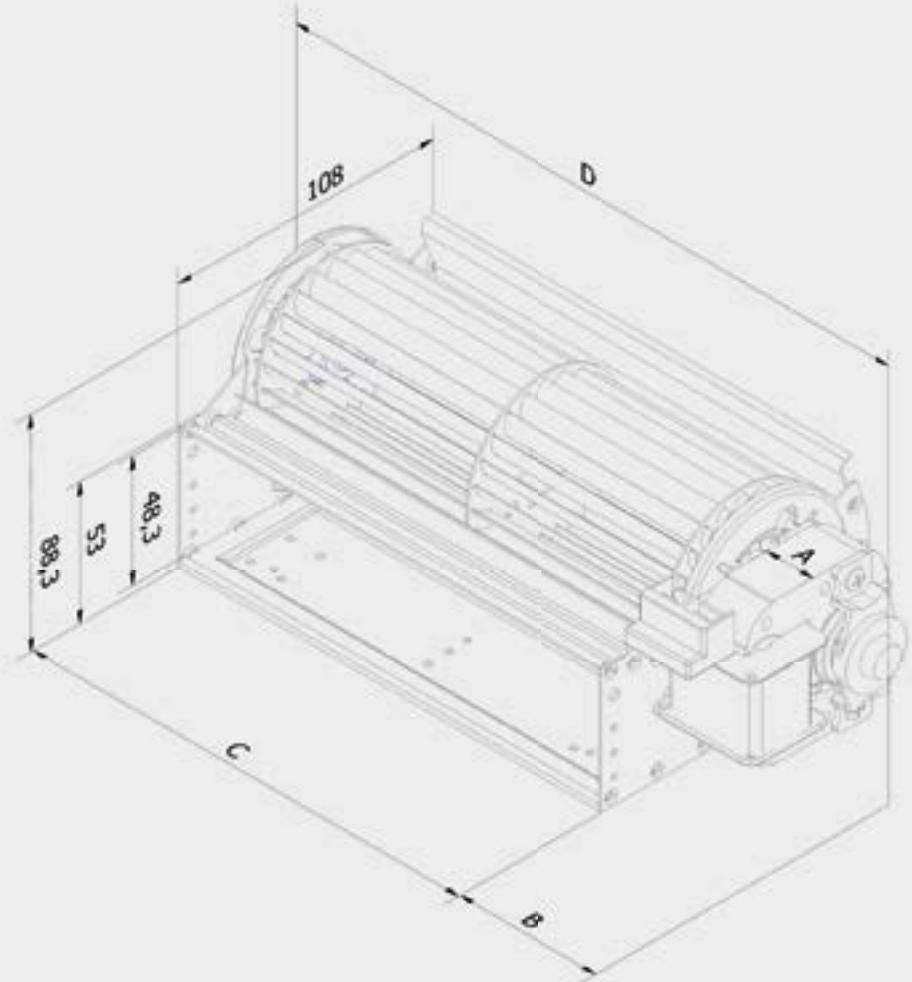
Impregnated coil through dip-coating using transparent epoxy paint with silicone applied on contacts at the end of winding, three-pole wire and coil covered by a nylon cap. The coil is not drowned in the resin but visible; caution should be paid when mounting the motor so that the cap open part faces downward to prevent its filling up with condensate.

### \* INC version

Coil with IP55 protection, the coil is completely drowned into the epoxy resin.

## Dimensions

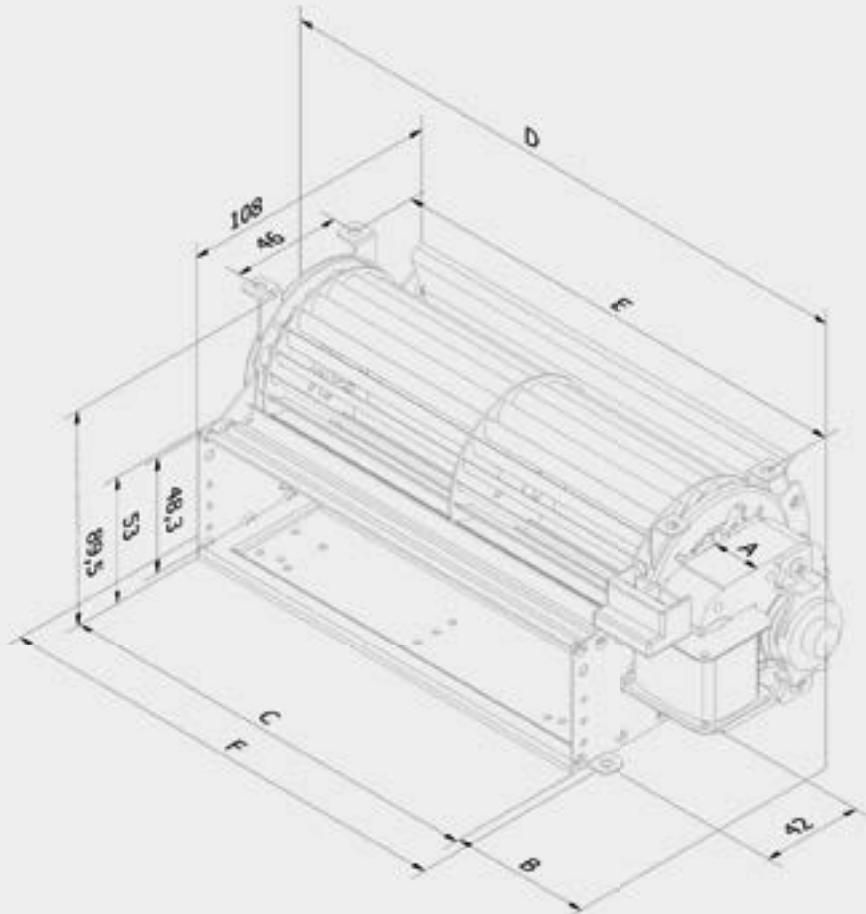
### TF65



Model	Motor	Dimensions mm				Input Power (W)	Input Current (A)	RPM	Flow rate (m³/h)	Static pressure (ΔPa)	Curve n°
		A	B	C	D						
TF65 - 180/30	30-1	30	68,7	182	265	41	0,31	2050	190	75	1
TF65 - 180/40	40-1	40	78,7	182	275	50	0,40	2400	225	85	2
TF65 - 240/30	30-1	30	68,7	242	325	42	0,32	1400	175	80	3
TF65 - 240/35	35-1	35	73,7	242	330	51	0,39	1850	230	85	4
TF65 - 240/40	40-1	40	78,7	242	335	52	0,41	2100	260	90	5
TF65 - 270/35	35-1	35	73,7	272	360	53	0,41	1500	220	83	6
TF65 - 270/40	40-1	40	78,7	272	365	55	0,43	1600	250	85	7
TF65 - 300/30	30-1	30	68,7	302	385	43	0,33	1240	200	70	8
TF65 - 300/40	40-1	40	78,7	302	395	56	0,44	1500	300	85	9
TF65 - 360/30	30-1	30	68,7	362	445	44	0,33	1050	225	65	10
TF65 - 360/40	40-1	40	78,7	362	455	56	0,44	1300	265	75	11

## Dimensions

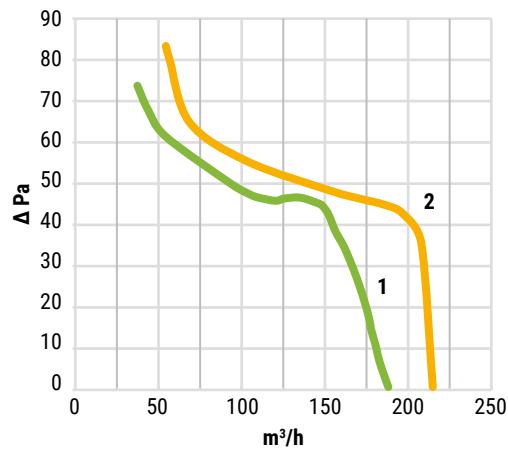
### FF65



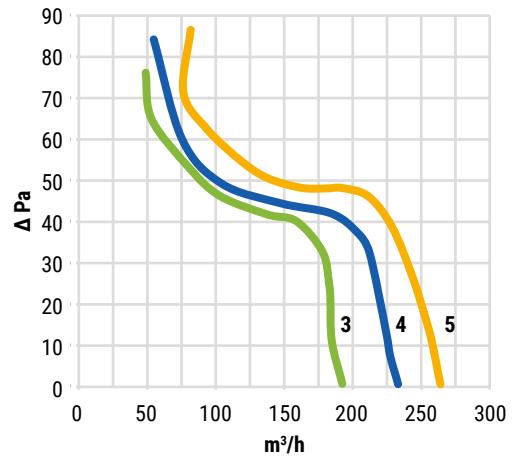
Model	Motor	Dimensions mm						Input Power (W)	Input Current (A)	RPM	Flow rate (m³/h)	Static pressure (ΔPa)	Curve n°
		A	B	C	D	E	F						
FF65 - 180/30	30-1	30	68,7	182	265	200	191	41	0,31	2050	190	75	1
FF65 - 180/40	40-1	40	78,7	182	275	200	191	50	0,40	2400	225	85	2
FF65 - 240/30	30-1	30	68,7	242	325	260	251	42	0,32	1400	175	80	3
FF65 - 240/35	35-1	35	73,7	242	330	260	251	51	0,39	1850	230	85	4
FF65 - 240/40	40-1	40	78,7	242	335	260	251	52	0,41	2100	260	90	5
FF65 - 270/35	35-1	35	73,7	272	360	290	281	53	0,41	1500	220	83	6
FF65 - 270/40	40-1	40	78,7	272	365	290	281	55	0,43	1600	250	85	7
FF65 - 300/30	30-1	30	68,7	302	385	320	311	43	0,33	1240	200	70	8
FF65 - 300/40	40-1	40	78,7	302	395	320	311	56	0,44	1500	300	85	9
FF65 - 360/30	30-1	30	68,7	362	445	380	371	44	0,33	1050	225	65	10
FF65 - 360/40	40-1	40	78,7	362	455	380	371	56	0,44	1300	265	75	11

## Characteristic curves

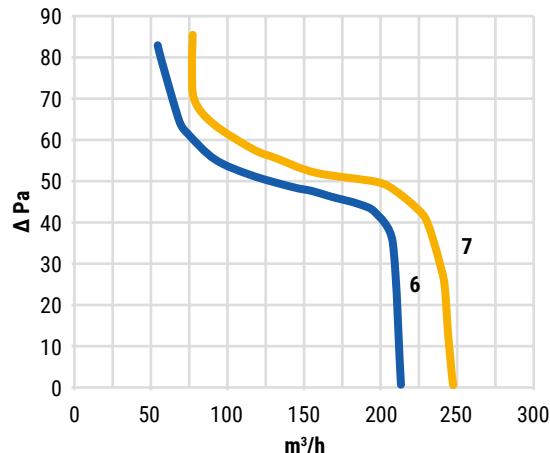
TF/FF65 - 180



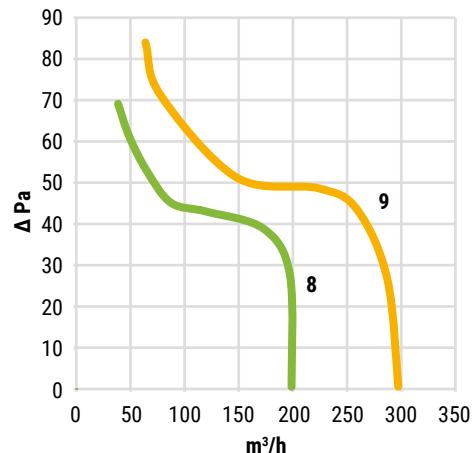
TF/FF65 - 240



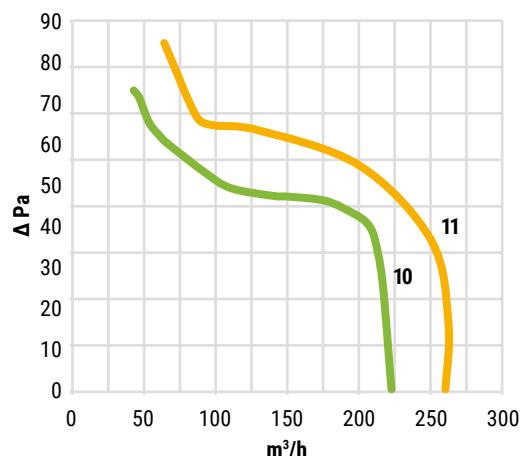
TF/FF65 - 270



TF/FF65 - 300



TF/FF65 - 360





Cross-Flow Fans

TF/FF80



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Cross-Flow Fans are particularly indicated for uses where, in limited space, high air volume is required with low noise and regular air-flow.

On request without mounting feet (TF).

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50 - 55 W

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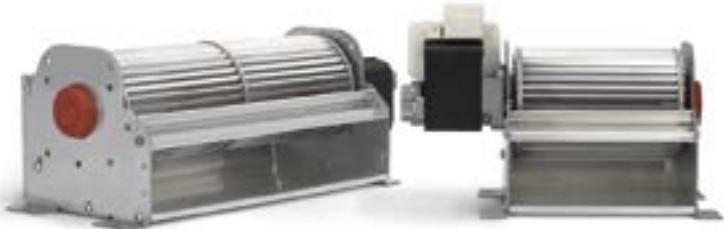
0,40 - 0,44 A

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240 - 295 m<sup>3</sup>/h

# Cross-Flow Fans TF/FF80

- Impedance protected motor
- Low power consumption
- Minimum noise level
- Small size



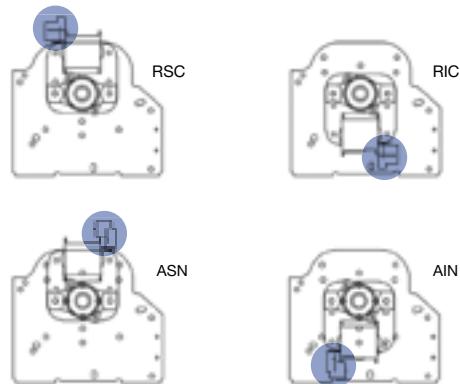
## Technical specifications

- Single phase, 2-shaded poles, impedance protected motor, built according to the CE mark requirements, in compliance with EN 60335-1 standard, fitted with n° 3 ball bearings type 626ZZ, n° 2 for motor side and n° 1 for impeller side.
- Motor with minimum 155° "F" insulation class.
- Suitable for continuous operation in ambient temperature from -10 °C to +50 °C.
- Electrical connection by 6,3 x 0,8 mm, radial or axial, male faston-type connectors, directly fixed on coil.
- Ø 80 mm aluminum impeller with forward curved constant thickness blades with intermediate reinforcement discs.
- Housing made of extruded aluminium and pre-galvanized metal sheet.

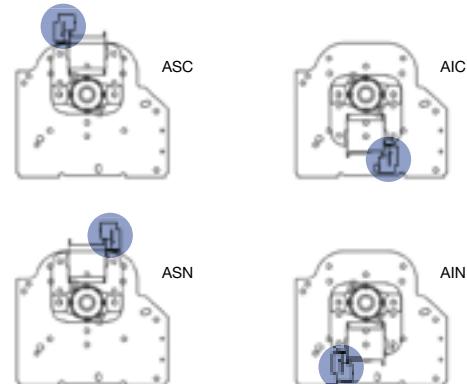
## On request

- Motor with different powers and insulation classes.
- Supply voltage from 24V to 400V 50/60 Hz.
- Version with dual voltage and/or double speed.
- Electrical connection by means of different cable lengths.
- Protection against dust and/or humidity.
- Thermal protector or thermal fuse.
- HT version with "H" 180 °C motor insulation class, suitable for continuous operation in ambient temperature from -10 °C to +70 °C.
- Built in compliance with UL - CSA standards.
- Cooling fan on the motor.
- Version built to customers design.

## Motor position - Radial Faston



## Motor position - Axial Faston





## Product Identification Code

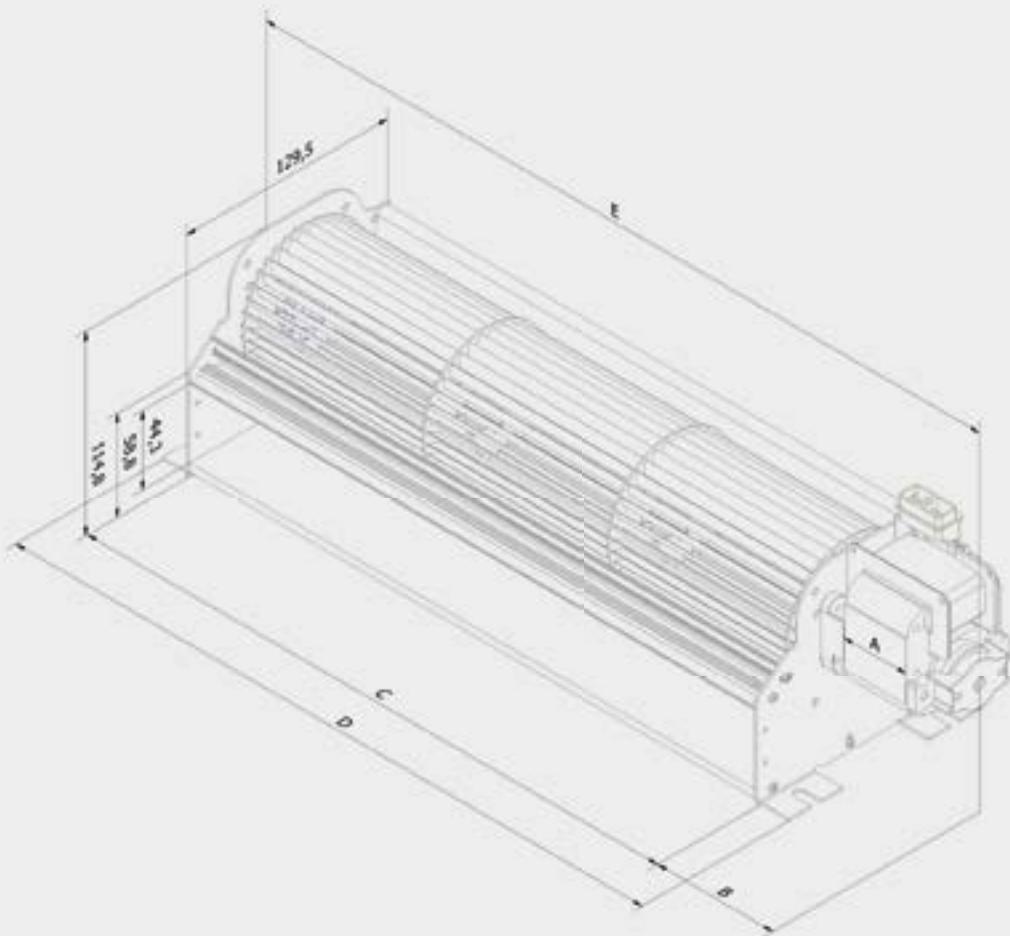
<b>FF</b>	<b>FF</b> = standard housing. <b>TF</b> = housing without ears.	<b>R</b>	Electrical connection: <b>R</b> = radial faston-type connectors. <b>A</b> = axial faston-type connectors. <b>C</b> = cables.
<b>R</b>	Motor position: <b>R</b> = motor on the right of the air outlet. <b>L</b> = motor on the left of the air outlet.	<b>FN</b>	Motor position.
<b>80</b>	Fan blade dimension.	<b>HT</b>	On request: <b>HT</b> = high-temperature version. <b>IV</b> = low temperature with high humidity up to 92%. * <b>INC</b> = coil insulation with IP55 protection. *
<b>180</b>	Fan blade nominal length: 240 - 270 - 300 - 360 mm.	<b>BBBLV</b>	On request: <b>BBBLV</b> = ball bearings on motor and impeller.
<b>35</b>	Motor stack height: 40 mm.	<b>VR</b>	On request: <b>VR</b> = fitted with cooling fan on motor side.
<b>T</b>	Thermal protection: <b>T</b> = thermal protector. <b>F</b> = thermal fuse. <b>Blank</b> = impedance protected.	<b>230</b>	Supply voltage.
<b>1</b>	Coil winding code.	<b>50</b>	Rated frequency.

\* **IV** version

Impregnated coil through dip-coating using epoxy transparent paint  
(standard stator coil dip-coating process).

## Dimensions

### FF80

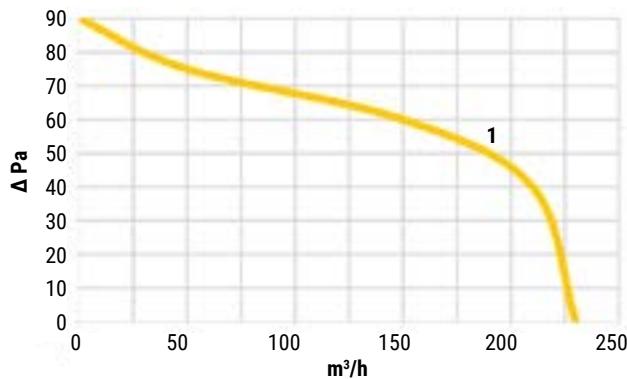


Model	Motor	Dimensions mm					Input Power (W)	Input Current (A)	RPM	Flow rate (m³/h)	Static pressure (ΔPa)	Curve n°
		A	B	C	D	E						
FF80 - 240/40	40-2	40	74,2	240	285	341	50	0,40	960	240	80	1
FF80 - 270/40	40-2	40	74,2	270	315	371	52	0,40	900	255	78	2
FF80 - 300/40	40-2	40	74,2	300	345	401	52	0,42	860	275	77	3
FF80 - 360/40	40-2	40	74,2	360	405	461	55	0,44	850	295	75	4

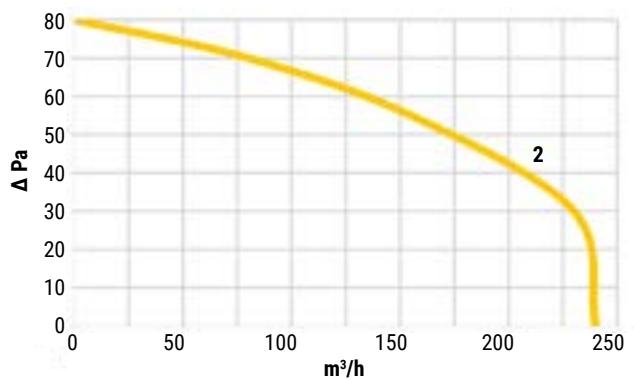
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## Characteristic curves

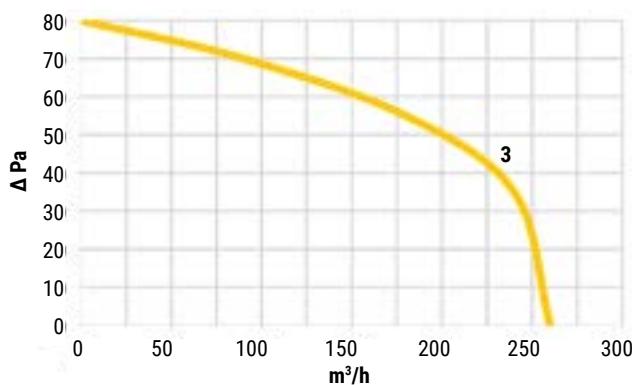
TF/FF80 - 240



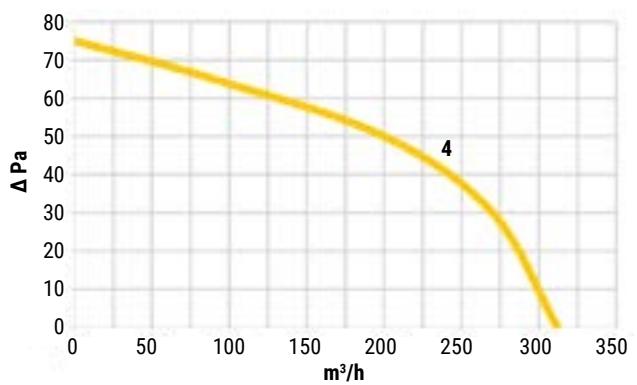
TF/FF80 - 270



TF/FF80 - 300



TF/FF80 - 360



Centrifugal Blowers

RS



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The RS (single suction) series Centrifugal Blowers are designed for **conditioning, heating, refrigeration applications** where high static pressures are required combined with high yields.

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24 - 41 W

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0,18 - 0,29 A

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70 - 150 m<sup>3</sup>/h

## Centrifugal Blowers RS

- Impedance protected motor
- Low power consumption
- Minimum noise level
- Small size



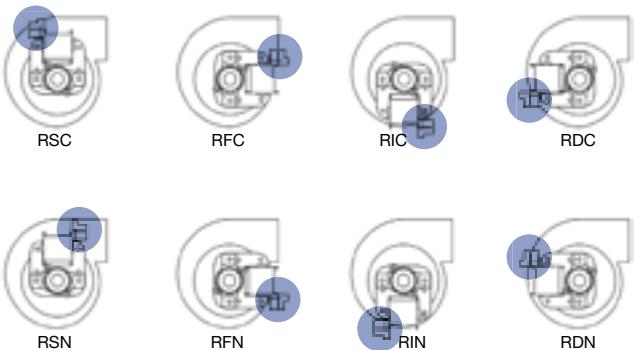
### Technical specifications

- Single phase, 2-shaded poles, impedance protected motor, built according to the CE mark requirements, in compliance with EN 60335-1 standard, with self-aligning and self lubricating sleeve bearings with big oil reservoir.
- Motor with minimum 130° "B" insulation class.
- Suitable for continuous operation in ambient temperature from -10 °C to +50 °C.
- Electrical connection by 6,3 x 0,8 mm, radial or axial, male faston-type connectors, directly fixed on coil.
- Single suction Ø 76 - Ø 85 mm aluminum impeller with forward curved constant thickness blades.
- Housing made of pre-galvanized metal sheet, thanks to the high aeraulic efficiency it guarantees an excellent yield in terms of air flow, static pressure and low noise level.

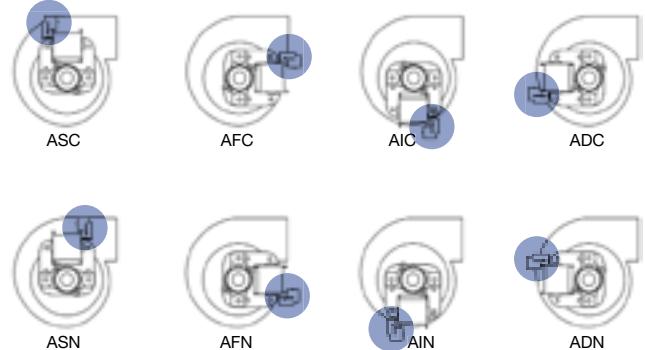
### On request

- Version with IMQ - CSV approved motor.
- Motor with different powers and insulation classes: 155° "F" - 180° "H".
- Supply voltage from 12V to 400V 50/60 Hz.
- Version with dual voltage and/or double speed.
- Electrical connection by means of different cable lengths.
- Motor coil winding with IP55 protection.
- Protection against dust and/or humidity.
- Thermal protector or thermal fuse.
- HT version for operation from -30 °C to 100 °C.
- Built in compliance with UL - CSA standards.
- Fan blades of various diameters and heights.
- Version fitted with ball bearings.
- Version built to customers design.

### Motor position - Radial Faston



### Motor position - Axial Faston





## Product Identification Code

<b>RS</b>	Series.	<b>DN</b>	Motor position.
<b>R</b>	Motor position: <b>R</b> = motor on the right of the air outlet. <b>L</b> = motor on the left of the air outlet.	<b>HT</b>	On request: <b>HT</b> = high-temperature version. <b>IV-IM</b> = low temperature with high humidity up to 92%. * <b>INC</b> = coil insulation with IP55 protection. *
<b>97/50</b>	Impeller diameter and height.	<b>BB</b>	On request: <b>BB</b> = ball bearings on motor.
<b>P.40</b>	Motor type.	<b>VR</b>	On request: <b>VR</b> = fitted with cooling fan on motor side. <b>VRC</b> = fitted with cooling fan between motor and blower.
<b>T</b>	Thermal protection: <b>T</b> = thermal protector. <b>F</b> = thermal fuse. <b>Blank</b> = impedance protected.	<b>230</b>	Supply voltage.
<b>1</b>	Coil winding code.	<b>50</b>	Rated frequency.
<b>R</b>	Electrical connection: <b>R</b> = radial faston-type connectors. <b>A</b> = axial faston-type connectors. <b>C</b> = cables.		

### \* IV version

Impregnated coil through dip-coating using epoxy transparent paint (standard stator coil dip-coating process).

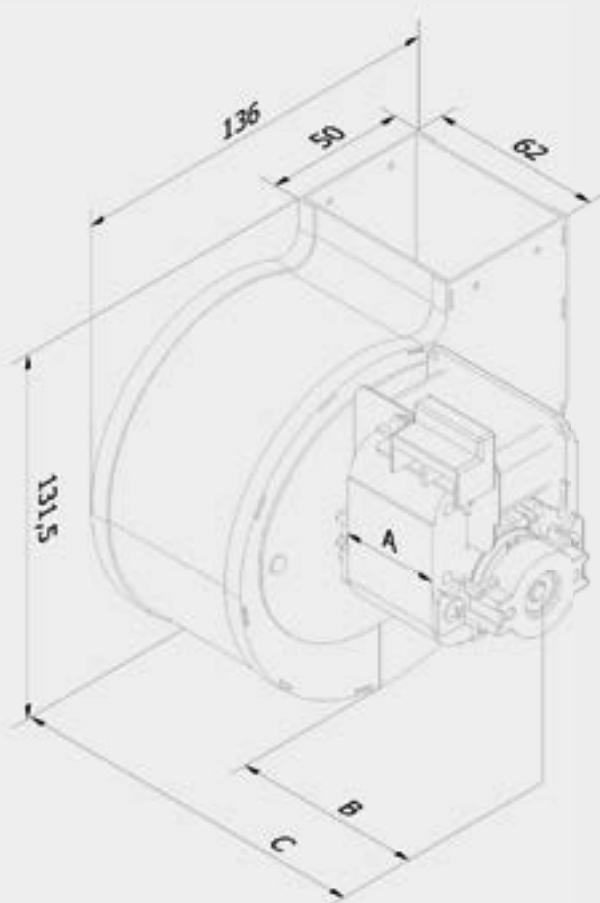
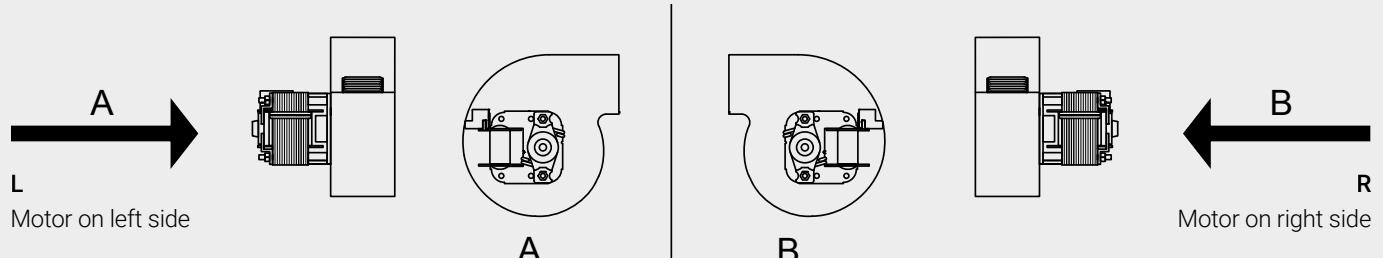
### \* IM version

Impregnated coil through dip-coating using transparent epoxy paint with silicone applied on contacts at the end of winding, three-pole wire and coil covered by a nylon cap. The coil is not drowned in the resin but visible; caution should be paid when mounting the motor so that the cap open part faces downward to prevent its filling up with condensate.

### \* INC version

Coil with IP55 protection, the coil is completely drowned into the epoxy resin.

## Dimensions

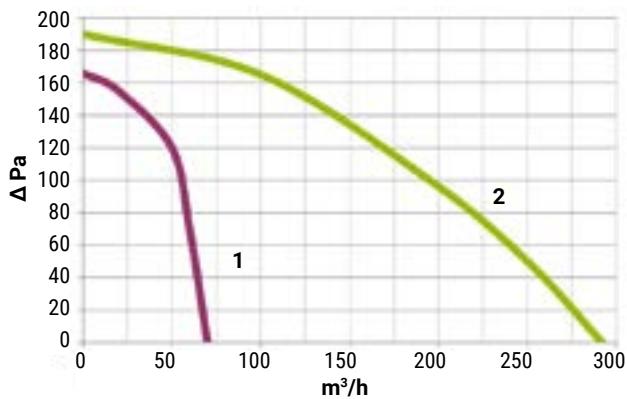


Model	Motor	Dimensions mm			Input Power (W)	Input Current (A)	RPM	Flow rate (m³/h)	Static pressure (ΔPa)	Curve n°
		A	B	C						
<b>RS 76/42</b>	20-1	20	73	115	24	0,18	1300	70	166	1
<b>RS 76/42</b>	30-1	30	63	125	37	0,26	2180	116	190	2
<b>RS 85/42</b>	35-1	35	68	130	41	0,29	2300	150	170	3

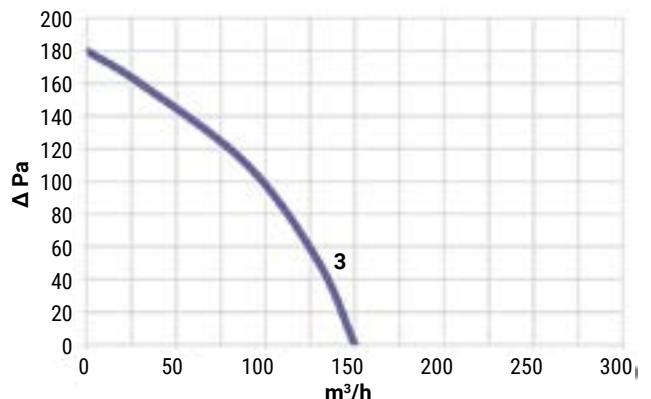
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## Characteristic curves

RS 76/42



RS 85/42



Centrifugal Blowers

DD



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The DD Centrifugal Blowers (double suction) and DDD Centrifugal Blowers (quadruple suction with central motor), are designed for **conditioning, heating, refrigeration applications**, where good air-flow levels, static pressure and low noise level are required.

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29 - 60 W

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0,17 - 0,46 A

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90 - 280 m<sup>3</sup>/h

## Centrifugal Blowers

DD

- Impedance protected motor
- Low power consumption
- Minimum noise level
- Small size



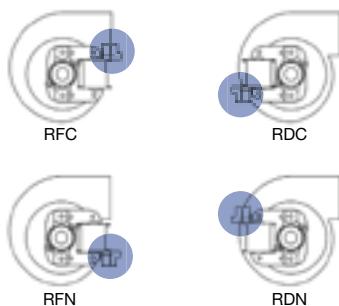
## Technical specifications

- Single phase, 2-shaded poles, impedance protected motor, built according to the CE mark requirements, in compliance with EN 60335-1 standard, with self-aligning and self lubricating sleeve bearings with big oil reservoir.
- Motor with minimum 130° "B" insulation class.
- Suitable for continuous operation in ambient temperature from -10 °C to +50 °C.
- Electrical connection by 6,3 x 0,8 mm, radial or axial, male faston-type connectors, directly fixed on coil.
- Double suction Ø 67 - Ø 76 mm aluminum impeller with forward curved constant thickness blades and internal reinforcement discs.
- Housing made of pre-galvanized metal sheet, thanks to the high aeraulic efficiency it guarantees an excellent yield in terms of air flow, static pressure and low noise level.

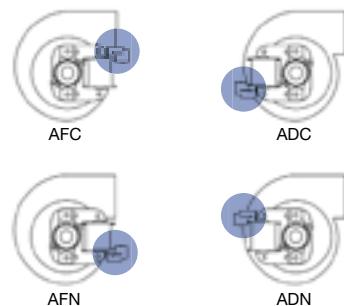
## On request

- Version with IMQ - CSV approved motor.
- Quadruple suction version: DDD model (two housings with central motor).
- Motor with different powers and insulation classes: 155° "F" - 180° "H".
- Supply voltage from 12V to 400V 50/60 Hz.
- Version with dual voltage and/or double speed.
- Electrical connection by axial male faston-type connectors and/or different cable lengths.
- Motor coil winding with IP55 protection.
- Protection against dust and/or humidity.
- Thermal protector or thermal fuse.
- HT version for operation from -30 °C to 100 °C.
- Built in compliance with UL - CSA standards.
- Version fitted with ball bearings.
- Version built to customers design.

## Motor position - Radial Faston



## Motor position - Axial Faston





## Product Identification Code

<b>DD</b>	Series. <b>DD</b> = single.
<b>R</b>	<b>D</b> = motor central position with double blower. <b>R</b> = motor on the right of the air outlet. <b>L</b> = motor on the left of the air outlet.
<b>67/76</b>	Impeller diameter and height.
<b>P.30</b>	Motor type.
<b>T</b>	Thermal protection: <b>T</b> = thermal protector. <b>F</b> = thermal fuse. <b>Blank</b> = impedance protected.
<b>1</b>	Coil winding code.
<b>R</b>	Electrical connection: <b>R</b> = radial faston-type connectors. <b>A</b> = axial faston-type connectors. <b>C</b> = cables.

\* **IV version**

Impregnated coil through dip-coating using epoxy transparent paint (standard stator coil dip-coating process).

\* **IM version**

Impregnated coil through dip-coating using transparent epoxy paint with silicone applied on contacts at the end of winding, three-pole wire and coil covered by a nylon cap. The coil is not drowned in the resin but visible; caution should be paid when mounting the motor so that the cap open part faces downward to prevent its filling up with condensate.

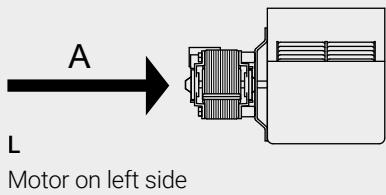
<b>DN</b>	Motor position.
<b>HT</b>	On request: <b>HT</b> = high-temperature version. <b>IV-IM</b> = low temperature with high humidity up to 92%. * <b>INC</b> = coil insulation with IP55 protection. *
<b>BB</b>	On request: <b>BB</b> = ball bearings on motor.
<b>VR</b>	On request: <b>VR</b> = fitted with cooling fan on motor side.
<b>230</b>	Supply voltage.
<b>50</b>	Rated frequency.

\* **INC version**

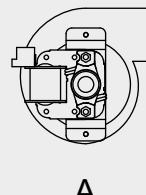
Coil with IP55 protection, the coil is completely drowned into the epoxy resin.

## Dimensions

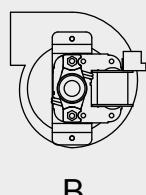
DD



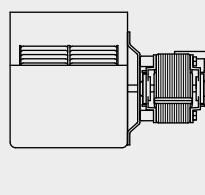
Motor on left side



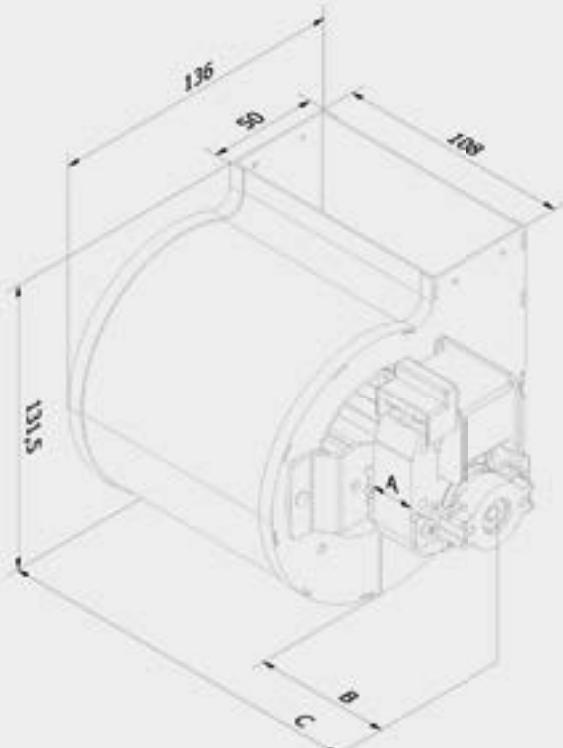
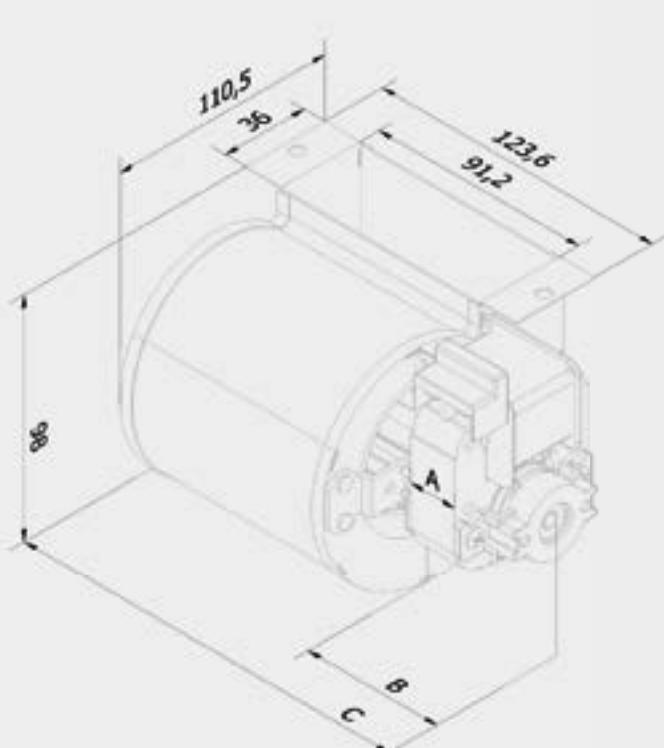
A



B



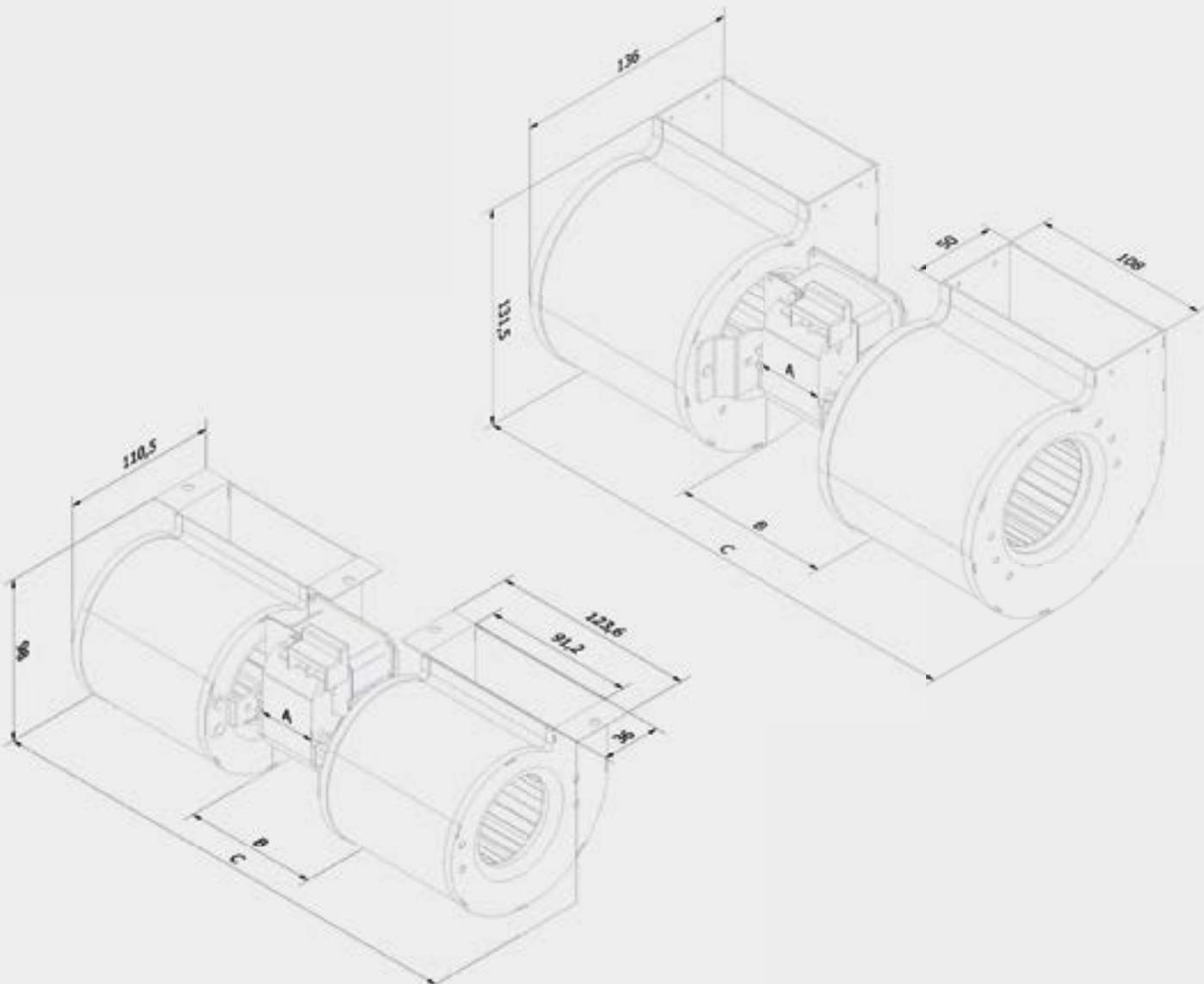
Motor on right side



Model	Motor	Dimensions mm			Input Power (W)	Input Current (A)	RPM	Flow rate (m³/h)	Static pressure (ΔPa)	Curve n°
		A	B	C						
DD 67/76	20-3	20	58,8	167	29	0,22	1700	96	96	1
DD 67/76	30-1	30	68,8	177	35	0,27	2350	140	107	2
DD 76/86	20-1	20	62,8	171	23	0,17	1000	90	120	3
DD 76/86	30-1	30	72,8	181	41	0,30	1560	155	148	4
DD 76/86	40-13	40	82,8	191	56	0,42	2280	234	164	5

## Dimensions

### DDD

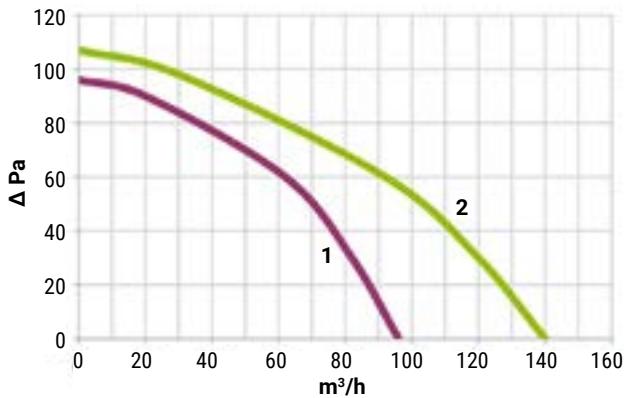


Model	Motor	Dimensions mm			Input Power (W)	Input Current (A)	RPM	Flow rate (m³/h)	Static pressure (ΔPa)	Curve n°
		A	B	C						
DDD 67/76	35-1	35	80,8	297	45	0,32	1900	207	105	1
DDD 76/86	40-13	40	93,8	310	60	0,46	1500	280	158	2

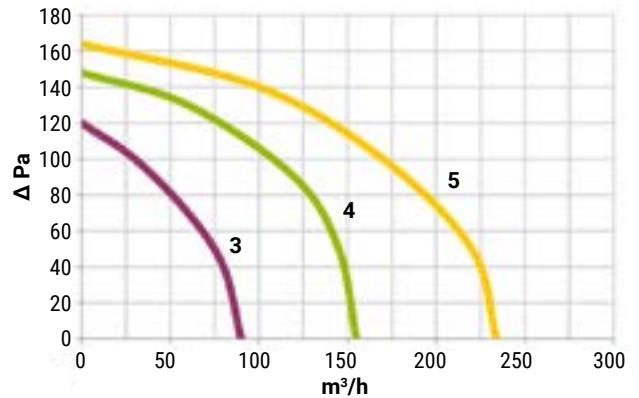
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## Characteristic curves

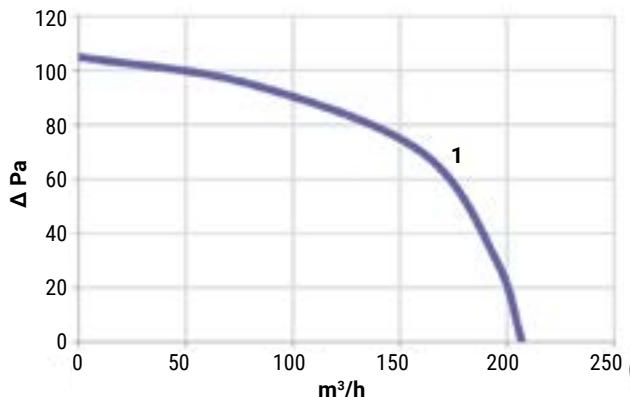
DD 67/76



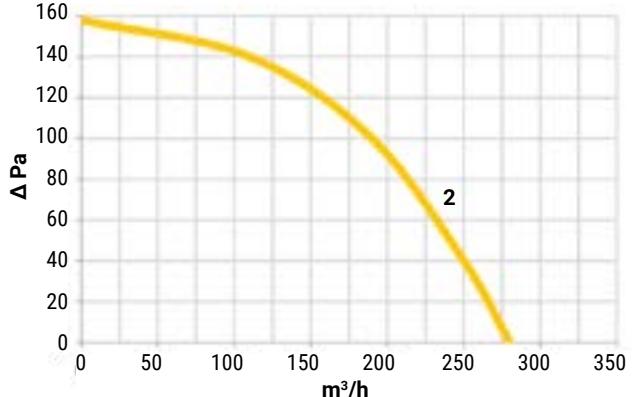
DD 76/86



DDD 67/76



DDD 76/86





Centrifugal Blowers

CRT05



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Centrifugal Blowers are ideal for:

- Clean air or slightly dusty smoke (not abrasive) intake.
- Cooling in general.

They are used in all industrial applications where small air volumes are required with limited pressure.

---

18

W

---

0,14

A

---

36

$m^3/h$

# Centrifugal Blowers CRT05

- Impedance protected motor
- Low power consumption
- Minimum noise level
- Small size



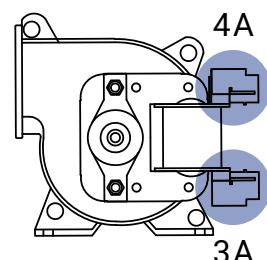
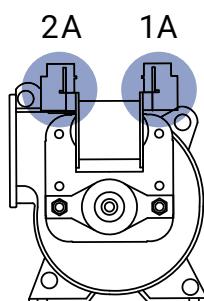
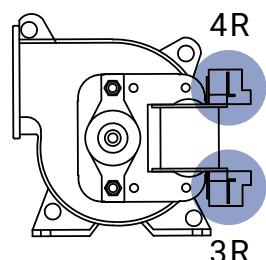
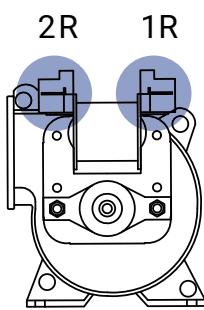
## Technical specifications

- Single phase, 2-shaded poles, impedance protected motor, built according to the CE mark requirements, in compliance with EN 60335-1 standard, with self-aligning and self lubricating sleeve bearings with big oil reservoir.
- Motor with minimum 130° "B" insulation class.
- Suitable for continuous operation in ambient temperature from -10 °C to +50 °C.
- Electrical connection by 6,3 x 0,8 mm, radial or axial, male faston-type connectors, directly fixed on coil.
- Single suction Ø 55 mm impeller with forward curved constant thickness blades, made of black nylon reinforced with fiber glass.
- Housing made of black nylon reinforced with fiber glass, with different coupling flanges on the suction side.

## On request

- Version with IMQ - CSV approved motor.
- Motor with different powers and insulation classes: 155° "F" - 180° "H".
- Supply voltage from 12V to 400V 50/60 Hz.
- 115V/60 Hz version, UL-CSA approved, FILE E204506, 105° "A" insulation class.
- Version with dual voltage and/or double speed.
- Electrical connection by means of different cable lengths.
- Motor coil winding with IP55 protection.
- Protection against dust and/or humidity.
- Thermal protector or thermal fuse.
- Version built to customers design.

## Faston position and electrical connection



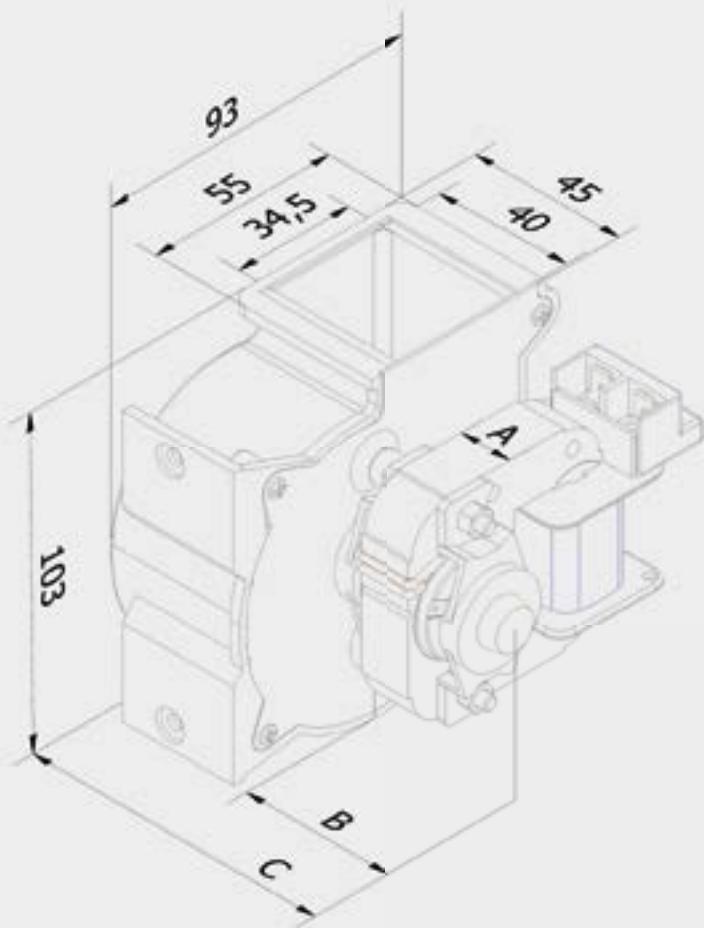


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## Product Identification Code

<b>CRT</b>	Series.
<b>05/N36</b>	Model.
<b>1P</b>	Version.
<b>4R</b>	Faston position.
<b>230</b>	Supply voltage.
<b>50</b>	Rated frequency.

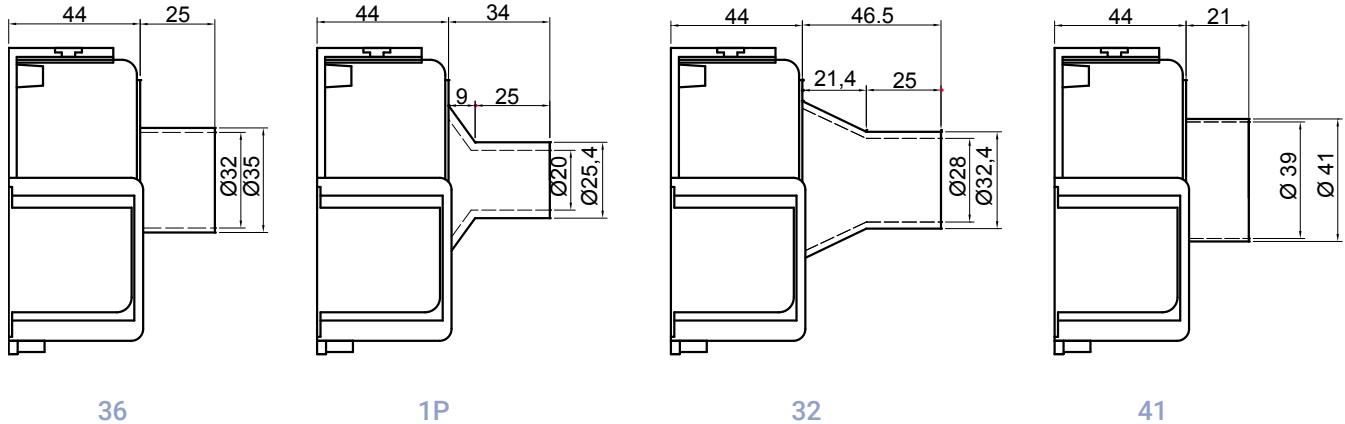
## Dimensions



Model	Motor	Dimensions mm			Input Power (W)	Input Current (A)	RPM	Flow rate (m³/h)	Static pressure (ΔPa)	Curve n°
		A	B	C						
CRT05 / N36	15-10	15	44,5	90	18	0,14	2650	36	54	1

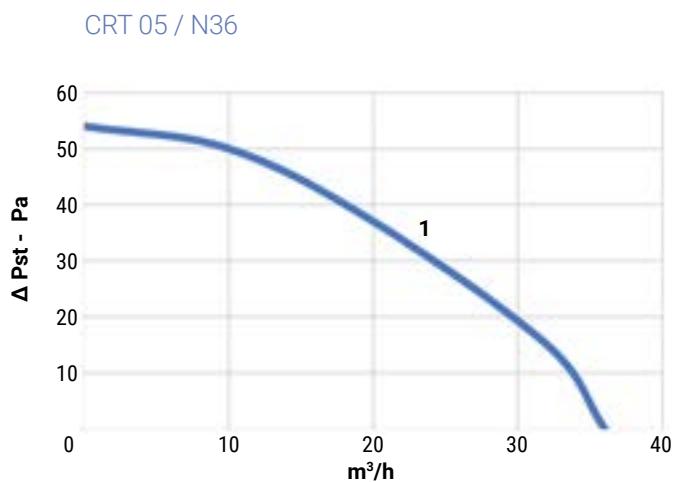
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## Versions




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## Characteristic curve



Centrifugal Blowers

CRT07



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Centrifugal Blowers are ideal for:

- Clean air or slightly dusty smoke (not abrasive) intake.
- Cooling in general.

They are used in all industrial applications where small air volumes are required with limited pressure.

---

16 - 32 W

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0,12 - 0,25 A

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60 - 91 m<sup>3</sup>/h

# Centrifugal Blowers

## CRT07

## CRTP

- Impedance protected motor
- Low power consumption
- Minimum noise level
- Small size



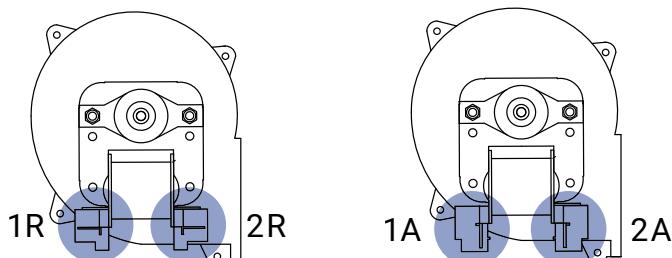
### Technical specifications

- Single phase, 2-shaded poles, impedance protected motor, built according to the CE mark requirements, in compliance with EN 60335-1 standard, with self-aligning and self lubricating sleeve bearings with big oil reservoir.
- Motor with minimum 130° "B" insulation class.
- Suitable for continuous operation in ambient temperature from -10 °C to +50 °C.
- Electrical connection by 6,3 x 0,8 mm, radial or axial, male faston-type connectors, directly fixed on coil.
- Single suction Ø 74,5 mm impeller with forward curved constant thickness blades, made of black nylon reinforced with fiber glass.
- Housing made of die-cast aluminium.

### On request

- Version with IMQ - CSV approved motor.
- Motor with different powers and insulation classes: 155° "F" - 180° "H".
- Supply voltage from 12V to 400V 50/60 Hz.
- Version with dual voltage and/or double speed.
- Electrical connection by means of different cable lengths.
- Motor coil winding with IP55 protection.
- Aluminium impeller with forward curved blades.
- Protection against dust and/or humidity.
- Thermal protector or thermal fuse.
- Built in compliance with UL - CSA standards.
- Housing made of black nylon reinforced with fibreglass, CRTP072 code.
- Version fitted with ball bearings.
- Version built to customers design.

### Faston position and electrical connection



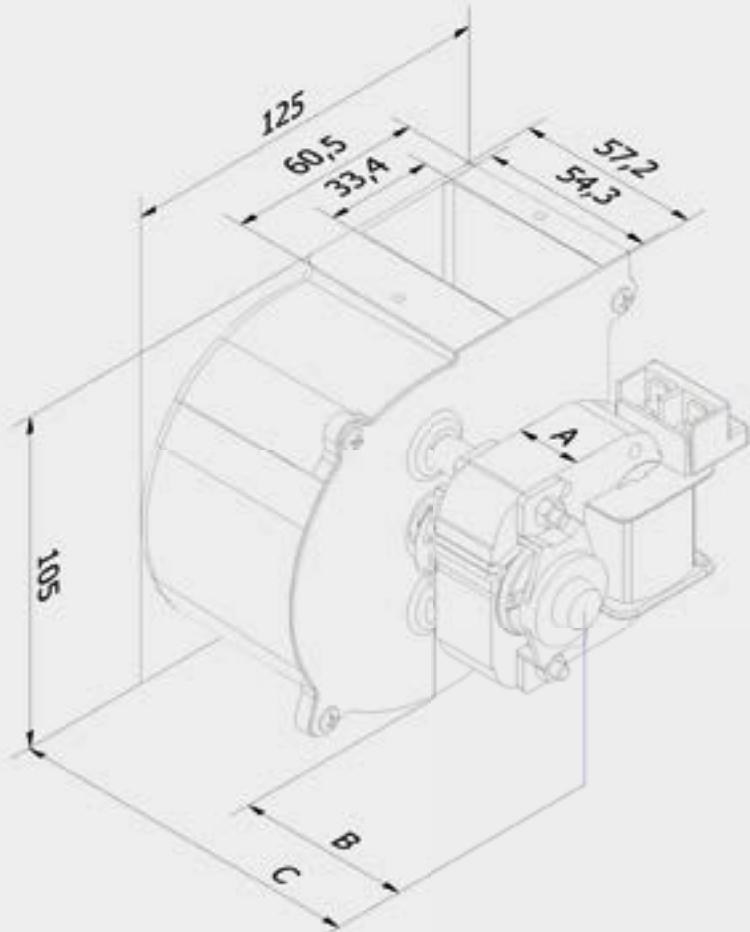


## Product Identification Code

<b>CRT</b>	Series: <b>CRT</b> = aluminium housing. <b>CRTP</b> = nylon housing.
<b>072</b>	Model.
<b>T</b>	Thermal protection: <b>T</b> = thermal protector. <b>F</b> = thermal fuse. <b>Blank</b> = impedance protected.
<b>1</b>	Coil winding code.
<b>2R</b>	Faston position and type.
<b>BB</b>	On request: <b>BB</b> = ball bearings on motor.
<b>VR</b>	On request: <b>VR</b> = fitted with cooling fan on motor side.
<b>VA</b>	On request: <b>VA</b> = aluminium fan.
<b>CM</b>	Motor cover.
<b>230</b>	Supply voltage.
<b>50</b>	Rated frequency.

## Dimensions

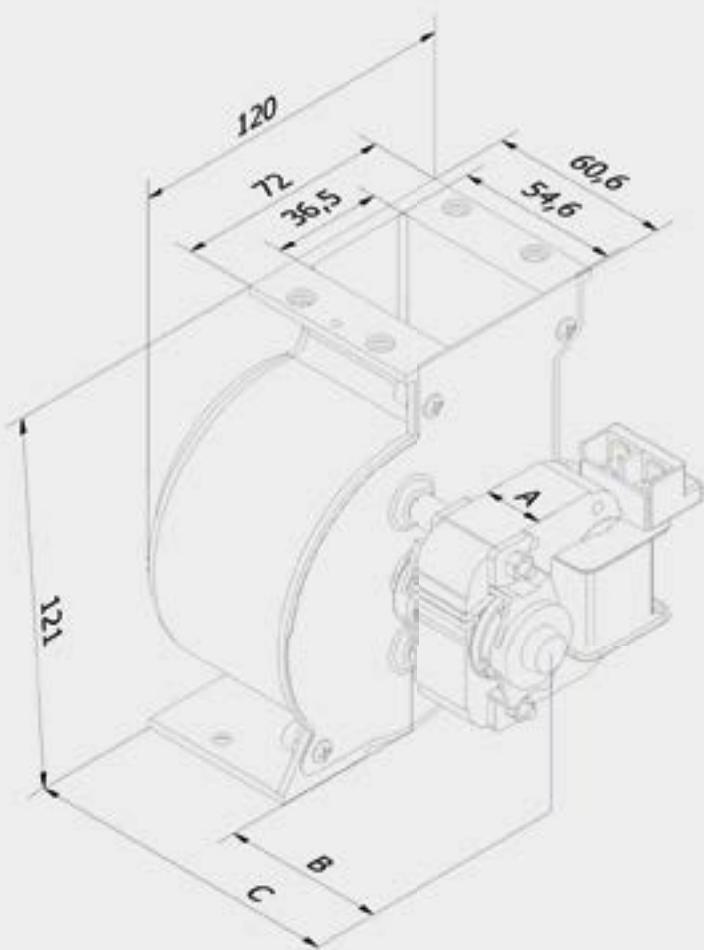
### CRT



Model	Motor	Dimensions mm			Fan blade	Input Power (W)	Input Current (A)	RPM	Flow rate (m³/h)	Static pressure (ΔPa)	Curve n°
		A	B	C							
<b>CRT 07</b>	15-1	15	49,2	110	Ø 74,5 x 45,9 mm - Nylon	16	0,12	2250	71	83	1
<b>CRT 07 VA</b>	15-1	15	49,2	110	Ø 76 x 42 mm - Aluminium	18	0,13	1580	60	101	2
<b>CRT 072</b>	20-1	20	54,2	115	Ø 74,5 x 45,9 mm - Nylon	19	0,14	2560	85	87	3
<b>CRT 072 VA</b>	20-1	20	54,2	115	Ø 76 x 42 mm - Aluminium	21	0,16	2085	79	106	4
<b>CRT 073</b>	30-1	30	64,2	125	Ø 74,5 x 45,9 mm - Nylon	28	0,22	2760	88	95	5
<b>CRT 073 VA</b>	30-1	30	64,2	125	Ø 76 x 42 mm - Aluminium	32	0,25	2550	91	116	6

## Dimensions

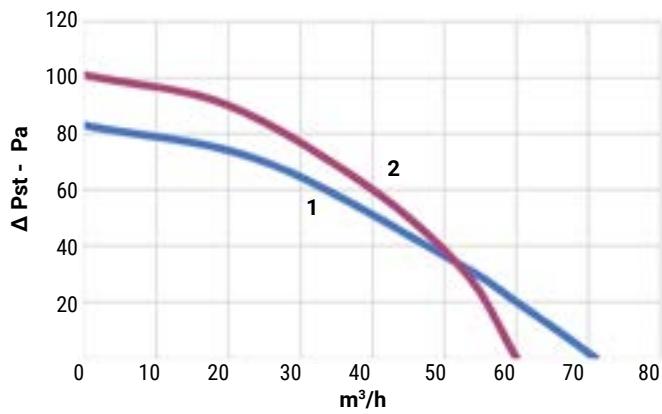
### CRTP



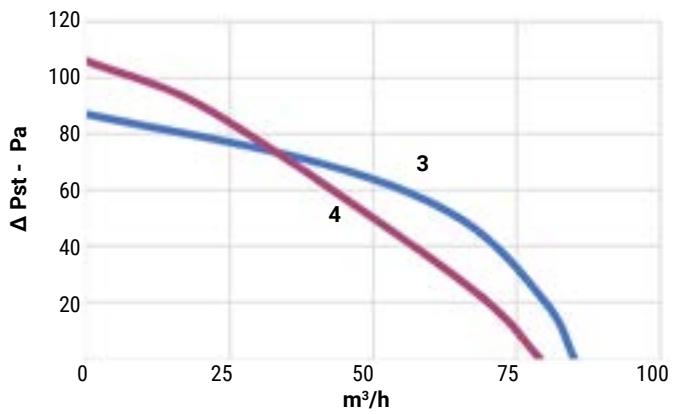
Model	Motor	Dimensions mm			Fan blade	Input Power (W)	Input Current (A)	RPM	Flow rate (m³/h)	Static pressure (ΔPa)	Curve n°
		A	B	C							
<b>CRTP 072</b>	20-2	20	54,5	115	Ø 74,5 x 45,9 mm - Nylon	27	0,24	2500	71	74	7

## Characteristic curves

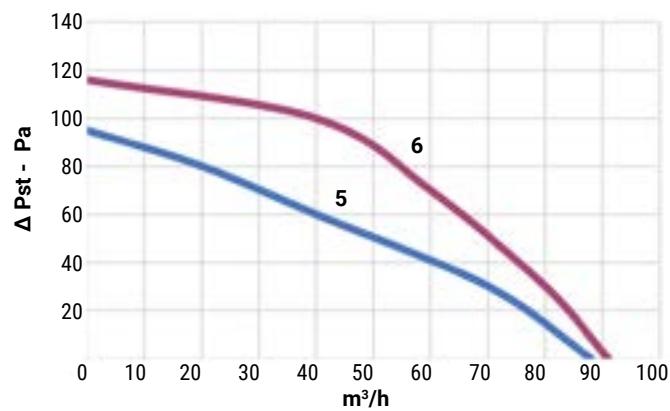
CRT 07



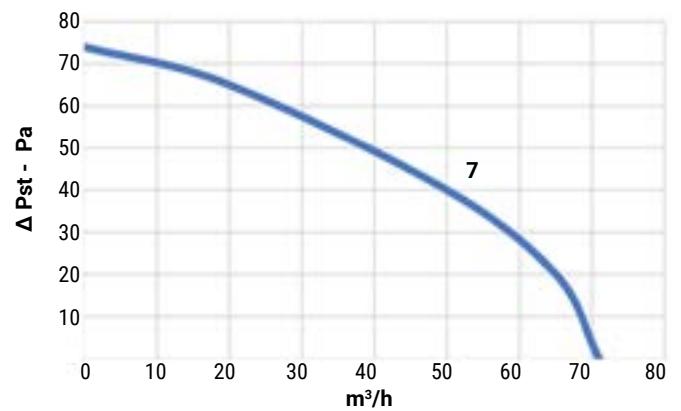
CRT 072



CRT 073



CRTP 072





Centrifugal Blowers

CRT010



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Centrifugal Blowers are ideal for:

- Clean air or slightly dusty smoke (not abrasive) intake.
- Cooling in general.

They are used in all industrial applications where small air volumes are required with limited pressure.

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53 - 54 W

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0,40 - 0,42 A

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181 - 231 m<sup>3</sup>/h

## Centrifugal Blowers CRT010

- Impedance protected motor
- Low power consumption
- Minimum noise level
- Small size



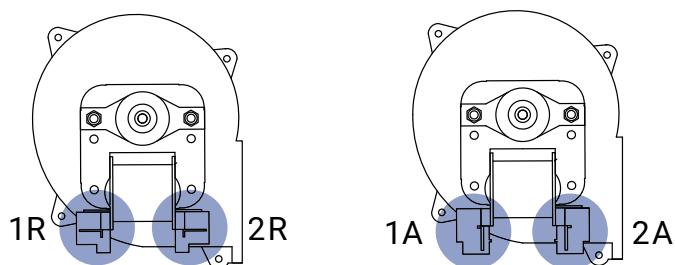
### Technical specifications

- Single phase, 2-shaded poles, impedance protected motor, built according to the CE mark requirements, in compliance with EN 60335-1 standard, with self-aligning and self lubricating sleeve bearings with big oil reservoir.
- Motor with minimum 130° "B" insulation class.
- Suitable for continuous operation in ambient temperature from -10 °C to +50 °C.
- Electrical connection by 6,3 x 0,8 mm, radial or axial, male faston-type connectors, directly fixed on coil.
- Single suction Ø 100 mm impeller with forward curved constant thickness blades, made of black nylon reinforced with fiber glass.
- Housing made of black nylon reinforced with fibreglass.

### On request

- Motor with different powers and insulation classes: 155° "F" - 180° "H".
- Aluminium housing.
- Ø 97 mm Aluminium impeller.
- Supply voltage from 12V to 400V 50/60 Hz.
- Version with dual voltage and/or double speed.
- Electrical connection by means of different cable lengths.
- Motor coil winding with IP55 protection.
- Protection against dust and/or humidity.
- Thermal protector or thermal fuse.
- HT version for operation in high temperature.
- Motor cover made of nylon reinforced with fibreglass.
- Version fitted with ball bearings.
- Version built to customers design.

### Faston position and electrical connection

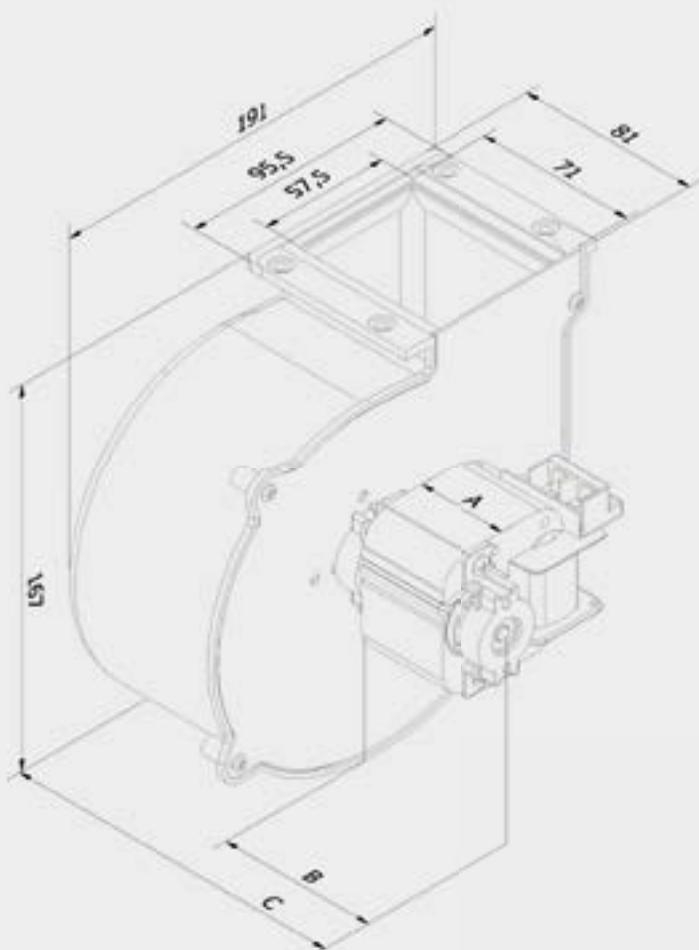




## Product Identification Code

<b>CRT</b>	Series: <b>CRT</b> = nylon housing. <b>CRTA</b> = aluminium housing.
<b>010/40</b>	Model.
<b>T</b>	Thermal protection: <b>T</b> = thermal protector. <b>F</b> = thermal fuse. <b>Blank</b> = impedance protected.
<b>1</b>	Coil winding code.
<b>2R</b>	Faston position and type.
<b>BB</b>	On request: <b>BB</b> = ball bearings on motor.
<b>VR</b>	On request: <b>VR</b> = fitted with cooling fan on motor side.
<b>VA</b>	On request: <b>VA</b> = aluminium fan.
<b>CM</b>	Motor cover.
<b>230</b>	Supply voltage.
<b>50</b>	Rated frequency.

## Dimensions

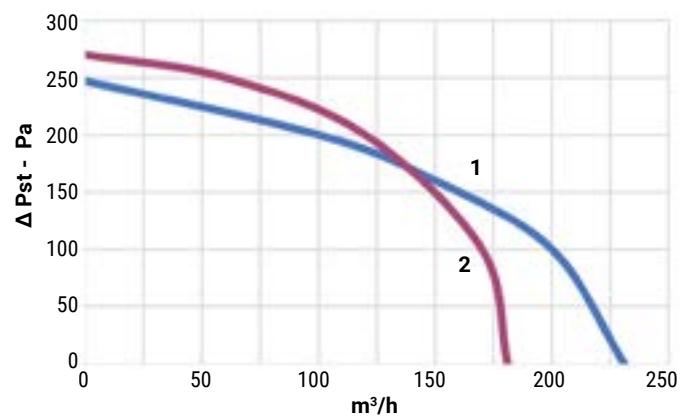


Model	Motor	Dimensions mm			Fan blade	Input Power (W)	Input Current (A)	RPM	Flow rate (m³/h)	Static pressure (ΔPa)	Curve n°
		A	B	C							
<b>CRT 010</b>	40-1	40	115	152	Ø 100 x 50 mm - Nylon	53	0,40	1750	231	247	1
<b>CRT 010 VA</b>	40-1	40	115	152	Ø 97 x 52 mm - Aluminium	54	0,42	1250	181	270	2

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## Characteristic curves

CRT010



Axial Fans

AX/SA



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The Axial Fans, used especially in the refrigeration sector,  
are suitable for use when reduced space is required with  
high air volumes and medium-low pressure.

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15 - 54 W

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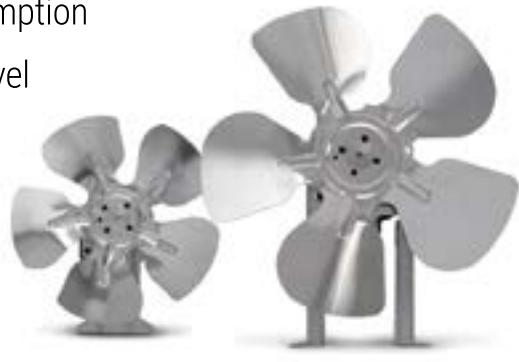
0,13 - 0,40 A

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90 - 900 m<sup>3</sup>/h



- Impedance protected motor
- Low power consumption
- Minimum noise level
- Small size



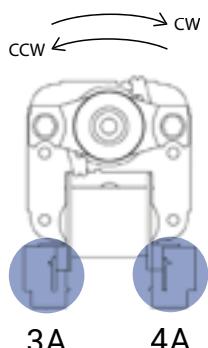
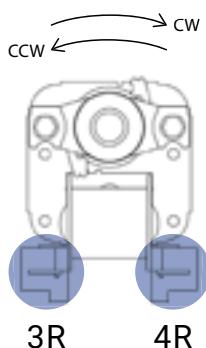
## Technical specifications

- Single phase, 2-shaded poles, impedance protected motor, built according to the CE mark requirements, in compliance with EN 60335-1 standard, with self-aligning and self lubricating sleeve bearings with big oil reservoir.
- Motor with minimum 130° "B" insulation class.
- Suitable for continuous operation in ambient temperature from -10 °C to +50 °C.
- Electrical connection by 6,3 x 0,8 mm, radial or axial, male faston-type connectors, directly fixed on coil.
- Fan blade made of nylon reinforced with fibreglass or aluminium.
- Motor support bracket made of galvanized metal sheet.

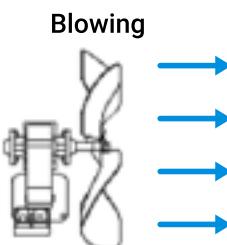
## On request

- Version with IMQ - CSV approved motor.
- Motor with different powers and insulation classes: 155° "F" - 180° "H".
- Supply voltage from 12V to 400V 50/60 Hz.
- Version with dual voltage and/or double speed.
- Electrical connection by different cable lengths.
- Motor coil winding with IP55 protection.
- Protection against dust and/or humidity.
- Thermal protector or thermal fuse.
- Built in compliance with UL - CSA standards.
- Fans blades of various diameters and inclinations.
- Without the support bracket.
- Spacers of various lengths and/or protruding screws for fan wall mounting.
- Motor cover made of black nylon reinforced with fibreglass.
- SA type bracket for use with fan blades 200 mm and 230 mm diameter.
- Version fitted with ball bearings.
- Version built to customers design.

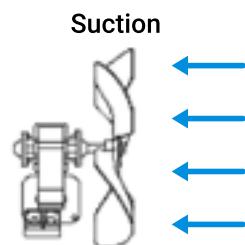
## Faston position and rotation



## Fan blade action



The overall dimensions  
of the motor reduce fan  
performance



We recommend  
the suction version



## Product Identification Code

<b>AX</b>	AX or SA series.
<b>017/B</b>	Model.
<b>T</b>	Thermal protection: <b>T</b> = thermal protector. <b>F</b> = thermal fuse. <b>Blank</b> = impedance protected.
<b>1</b>	Coil winding code.
<b>3</b>	Faston position.
<b>R</b>	Electrical connection: <b>R</b> = radial faston-type connectors. <b>A</b> = axial faston-type connectors. <b>C</b> = cables.
<b>A</b>	Rotation: <b>O</b> = clockwise. <b>A</b> = anticlockwise.

**\* IV version**

Impregnated coil through dip-coating using epoxy transparent paint (standard stator coil dip-coating process).

**\* IM version**

Impregnated coil through dip-coating using transparent epoxy paint with silicone applied on contacts at the end of winding, three-pole wire and coil covered by a nylon cap. The coil is not drowned in the resin but visible; caution should be paid when mounting the motor so that the cap open part faces downward to prevent its filling up with condensate.

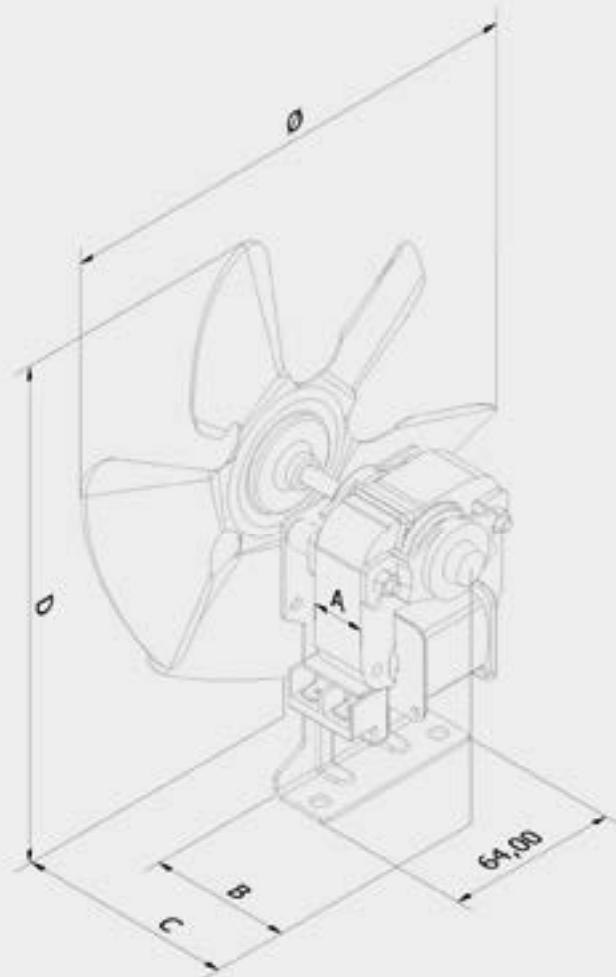
<b>A</b>	Action: <b>A</b> = suction. <b>P</b> = blowing.
<b>IV</b>	On request: <b>HT</b> = high-temperature version. <b>IV-IM</b> = low temperature with high humidity up to 92%. * <b>INC</b> = coil insulation with IP55 protection. *
<b>230</b>	Supply voltage.
<b>50</b>	Rated frequency.

**\* INC version**

Coil with IP55 protection, the coil is completely drowned into the epoxy resin.

## Dimensions

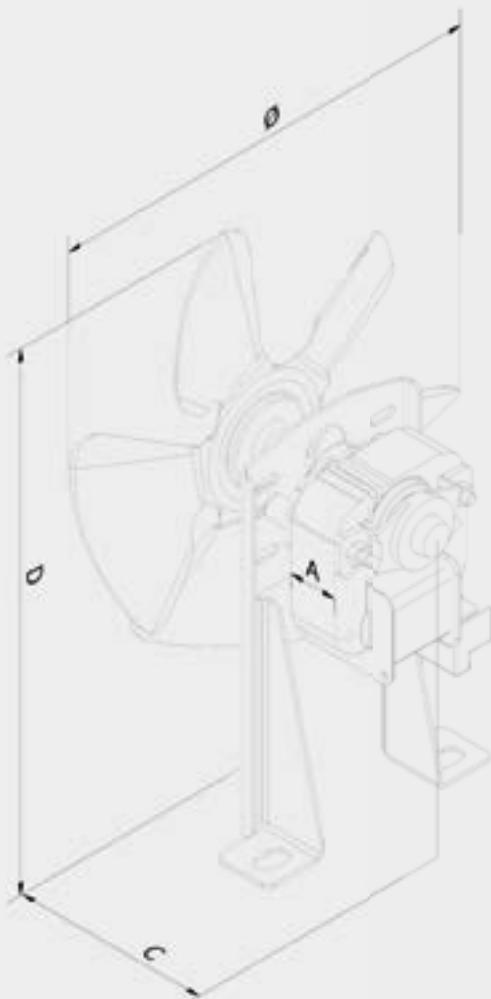
**AX**



Model	Motor	A	Dimensions mm			Fan blade	Input Power (W)	Input Current (A)	RPM	Flow rate (m³/h)
			B	C	D					
<b>AX 09 NY</b>	P15-1	15	48	76	144	Ø 96 mm - Nylon	15	0,13	2700	90
<b>AX 010</b>	P15-1	15	48	76	146	Ø 100 mm - Aluminium	16	0,13	2600	110
<b>AX 010 NY</b>	P15-1	15	48	76	144	Ø 96 mm - Nylon	16	0,14	2550	130
<b>AX 013 NY</b>	P15-1	15	48	76	161	Ø 130 mm - Nylon	17	0,14	2450	140
<b>AX 013</b>	P15-1	15	48	76	161	Ø 130 mm - Aluminium	17	0,14	1750	240
<b>AX 013/B</b>	P20-1	20	53	81	161	Ø 130 mm - Aluminium	22	0,16	2150	340
<b>AX 015</b>	P15-1	15	48	76	173	Ø 154 mm - Aluminium	18	0,15	1400	300
<b>AX 015/B</b>	P20-1	20	53	81	173	Ø 154 mm - Aluminium	24	0,18	1800	350
<b>AX 017</b>	P15-1	15	48	76	181	Ø 170 mm - Aluminium	19	0,16	1100	310
<b>AX 017/B</b>	P20-1	20	53	81	181	Ø 170 mm - Aluminium	25	0,18	1350	350
<b>AX 017/C</b>	P30-1	30	63	91	181	Ø 170 mm - Aluminium	39	0,30	2330	500

## Dimensions

**SA**



Model	Motor	Dimensions mm			Fan blade	Input Power (W)	Input Current (A)	RPM	Flow rate (m³/h)
		A	C	D					
<b>SA 020/B</b>	P20-1	20	81	225	Ø 200 mm / 26°	25	0,19	1000	520
<b>SA 020/C</b>	P30-1	30	91	225	Ø 200 mm / 26°	40	0,31	1350	700
<b>SA 020/D</b>	P35-1	35	96	225	Ø 200 mm / 26°	54	0,39	1750	900
<b>SA 023/C</b>	P30-1	30	91	240	Ø 230 mm / 22°	42	0,32	1050	610
<b>SA 023/D</b>	P35-1	35	96	240	Ø 230 mm / 22°	54	0,40	1350	780

Axial Fans

MA



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The Axial Fans, used especially in the refrigeration sector,  
are suitable for use when reduced space is required with  
high air volumes and medium-low pressure.

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8,5 W

---

0,057 A

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100 m<sup>3</sup>/h

## Axial Fans MA

- Impedance protected motor
- Low power consumption
- Minimum noise level
- Small size



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## Technical specifications

- Single-phase, 2-shaded poles type M12 motor, 130 "B" insulation class, impedance protected motor, CSV IMQ approved with IPX2 protection class, mounted on 2 silicone-lubricated ball bearings, ensuring long life, low noise operation and excellent performance even in extremely unfavourable temperatures.
- Suitable for continuous operation in ambient temperature from -30 °C to + 40 °C.
- Electrical connection (power + ground) using 3 2.8 x 0.5 mm male Faston-type connectors.
- Motor protected by housing made of nylon.  
Ring made of nylon, built into the motor housing available with faceted or whole external diameter (MAP or MAPS).  
Ring made of galvanized metal sheet painted with epoxy powder, available with faceted or whole external diameter (MAF or MAFS).
- Aluminium fan blade Ø 96 mm, with n° 4 blades 26° pitch, suction or blowing.
- Aluminium fan blade Ø 96 mm, with n° 2 blades 26° pitch, suction or blowing.

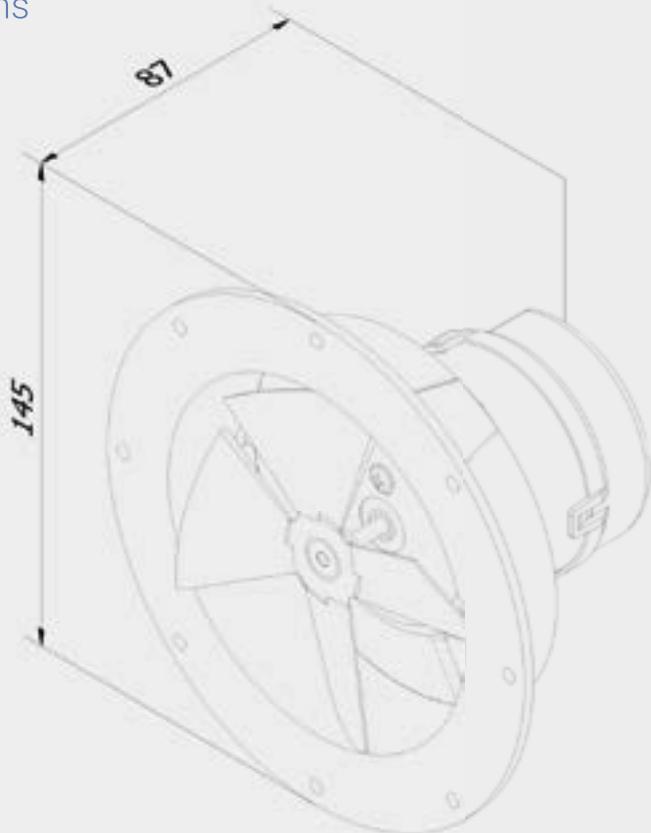
---

## On request

- Supply voltage from 12V to 400V 50/60 Hz.
- 3 x 0,75 mm three-pole power cables, with moulded plug and different lengths.
- Protection against dust and/or humidity.
- Built in compliance with UL - CSA standards.
- Ø 96 mm fan blade made of nylon with fibreglass, 4 blades.
- Version built to customers design.

## Dimensions

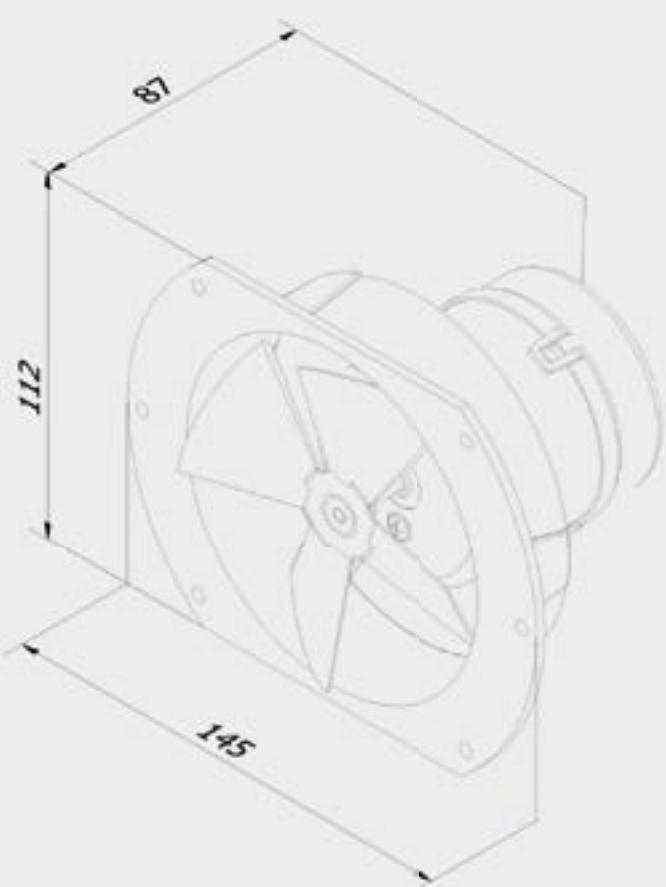
**MAP 12**



### Technical specifications

Voltage/frequency	V/Hz	230/50-60
Input current	A	0,057
Input power	W	8,50
Revolutions	RPM	2700
Air-flow rate	m <sup>3</sup> /h	100
Insulation class	-	130°
Dielectric strength test	V x 3 sec.	1500
Leakage current	mA	0,45

**MAPS 12**

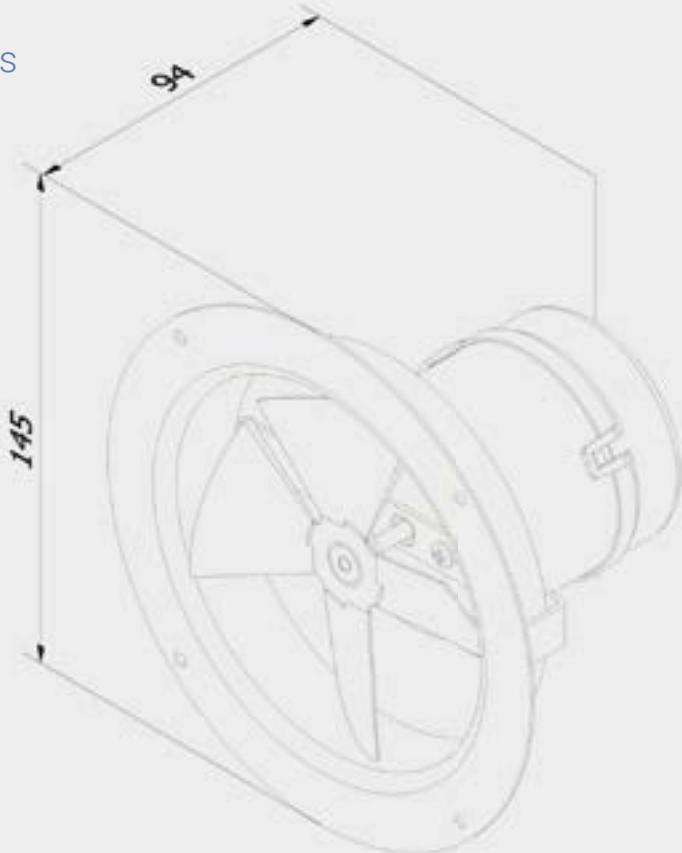


### Technical specifications

Voltage/frequency	V/Hz	230/50-60
Input current	A	0,057
Input power	W	8,50
Revolutions	RPM	2700
Air-flow rate	m <sup>3</sup> /h	100
Insulation class	-	130°
Dielectric strength test	V x 3 sec.	1500
Leakage current	mA	0,45

## Dimensions

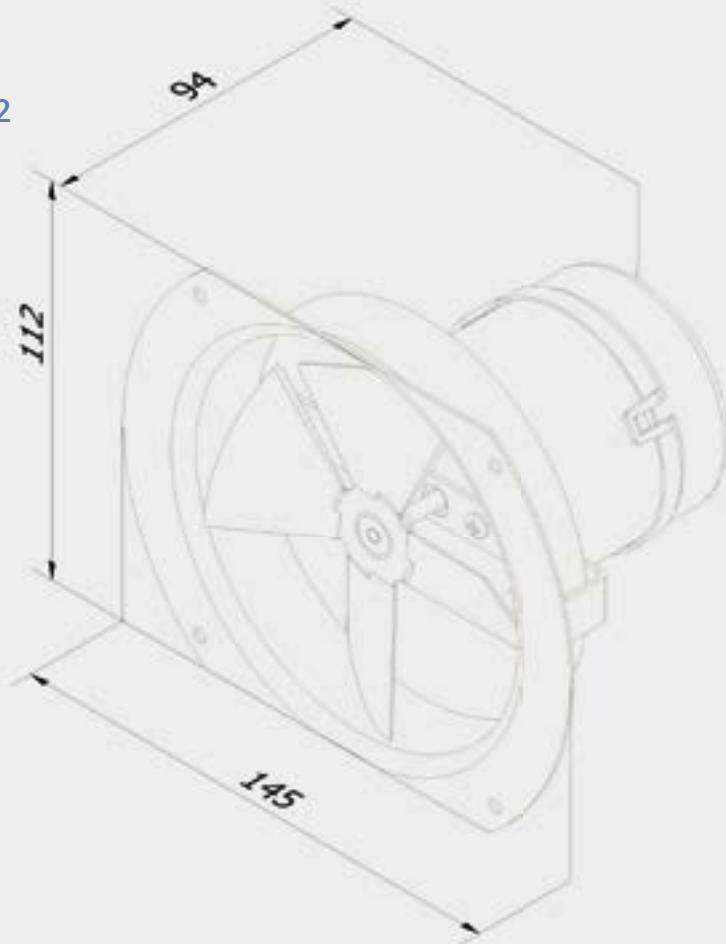
MAF 12



### Technical specifications

Voltage/frequency	V/Hz	230/50-60
Input current	A	0,057
Input power	W	8,50
Revolutions	RPM	2700
Air-flow rate	m <sup>3</sup> /h	100
Insulation class	-	130°
Dielectric strength test	V x 3 sec.	1500
Leakage current	mA	0,45

MAFS 12



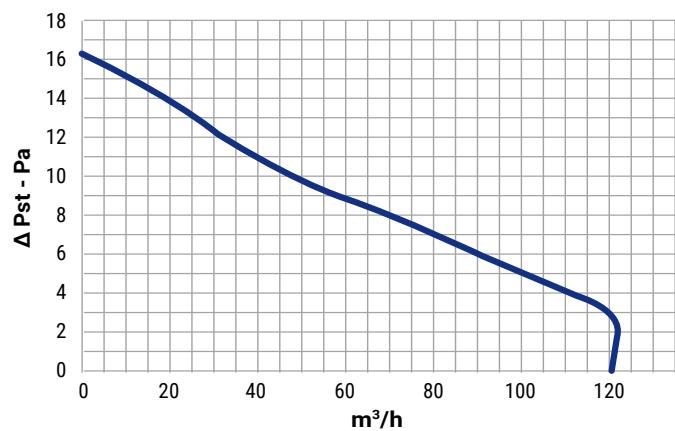
### Technical specifications

Voltage/frequency	V/Hz	230/50-60
Input current	A	0,057
Input power	W	8,50
Revolutions	RPM	2700
Air-flow rate	m <sup>3</sup> /h	100
Insulation class	-	130°
Dielectric strength test	V x 3 sec.	1500
Leakage current	mA	0,45

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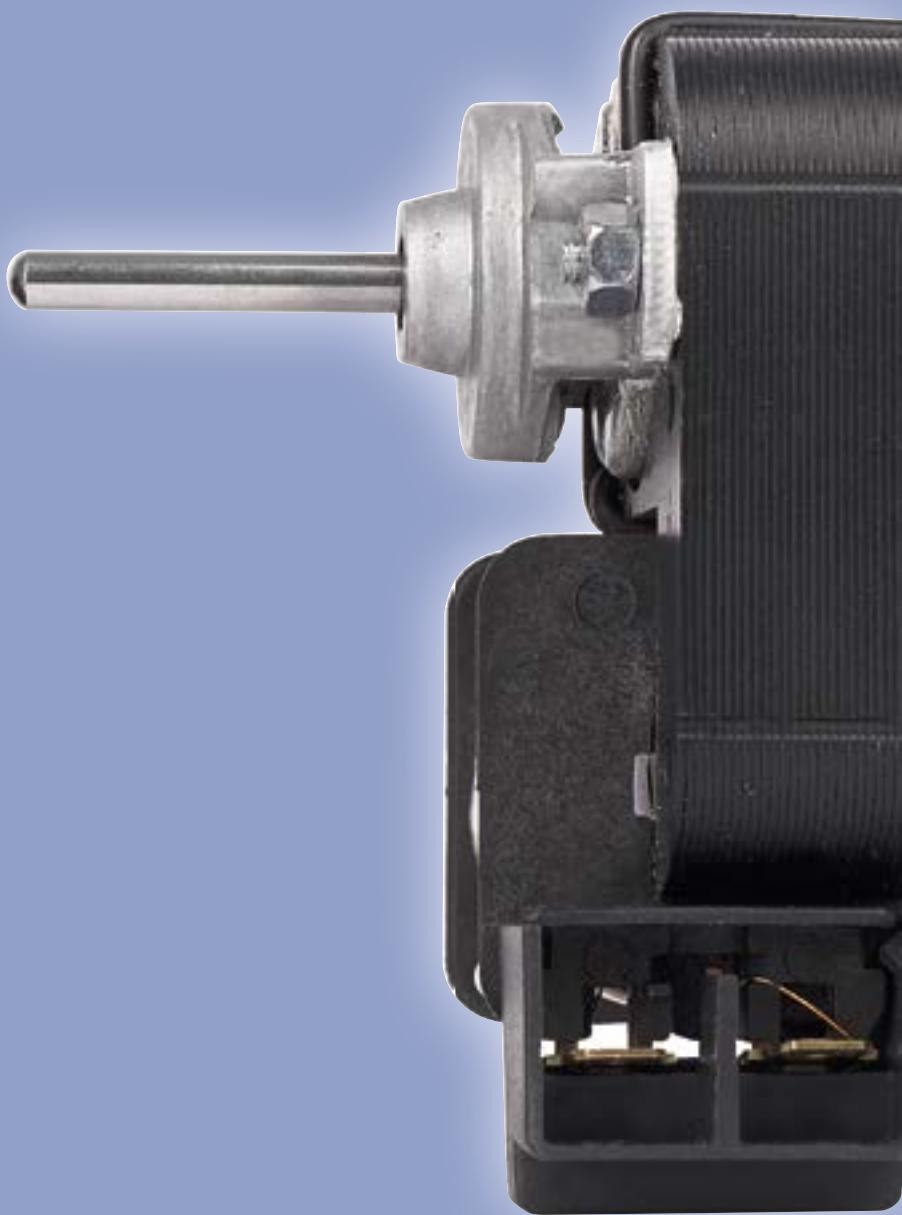
## Characteristic curve

MAP - MAPS - MAF - MAFS



Motors

P



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Single-phase 2 shaded poles Motors for various applications.  
These motors are extremely cheap and strong,  
with an irreversible rotation direction; they do not produce  
radio interference.

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14 - 48 W

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0,12 - 0,36 A

# Motors

## P

- Impedance protected motor
- Low power consumption
- Minimum noise level
- Small size



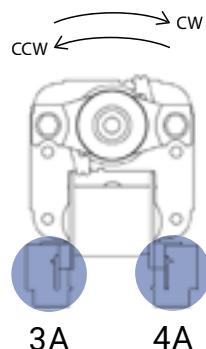
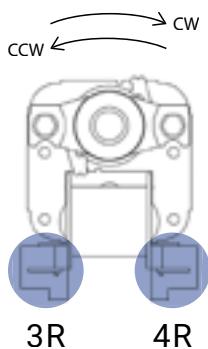
### Technical specifications

- Single phase, 2-shaded poles, impedance protected motor, built according to the CE mark requirements, in compliance with EN 60335-1 standard, with self-aligning and self lubricating sleeve bearings with big oil reservoir.
- Motor with minimum 130° "B" insulation class.
- Suitable for continuous operation in ambient temperature from -10 °C to +50 °C.
- Electrical connection by 6,3 x 0,8 mm, radial or axial, male faston-type connectors, directly fixed on coil.
- 61 x 61 mm stator lamination.
- 4,5 mm or 6 mm diameter driving shafts.

### On request

- Version with IMQ - CSV approved motor.
- Motor with different powers and insulation classes: 155° "F" - 180° "H".
- Supply voltage from 12V to 400V 50/60 Hz.
- Version with dual voltage and/or double speed.
- Electrical connection by different cable lengths.
- Motor coil winding with IP55 protection.
- Protection against dust and/or humidity.
- Thermal protector or thermal fuse.
- Stator with cataphoresis coating.
- Built in compliance with UL - CSA standards.
- End-shields with different shapes.
- Spacers of various lengths and/or protruding screws for motor wall mounting.
- Cooling fan.
- 61x 64 mm stator lamination (E series), 10 to 40 mm motor stack height, of different powers.
- Driving shaft built to customers design.
- Version fitted with ball bearings.
- Version built to customers design.

### Faston position and rotation





## Product Identification Code

<b>P</b>	Series.
<b>20</b>	Motor stack height: 10 - 15 - 20 - 25 - 30 - 35 - 40 mm.
<b>T</b>	Thermal protection: <b>T</b> = thermal protector. <b>F</b> = thermal fuse. <b>Blank</b> = impedance protected.
<b>1</b>	Winding code.
<b>3</b>	Faston position.
<b>R</b>	Electrical connection: <b>R</b> = radial faston-type connectors. <b>A</b> = axial faston-type connectors. <b>C</b> = cables.

<b>A</b>	Rotation: <b>O</b> = clockwise. <b>A</b> = counterclockwise.
<b>BB</b>	On request: <b>BB</b> = ball bearings.
<b>IV</b>	On request: <b>HT</b> = high-temperature version. <b>IV-IM</b> = low temperature with high humidity up to 92%. * <b>INC</b> = coil insulation with IP55 protection. *
<b>VR</b>	On request: <b>VR</b> = fitted with cooling fan.
<b>230</b>	Supply voltage.
<b>50</b>	Rated frequency.

### \* IV version

Impregnated coil through dip-coating using epoxy transparent paint (standard stator coil dip-coating process).

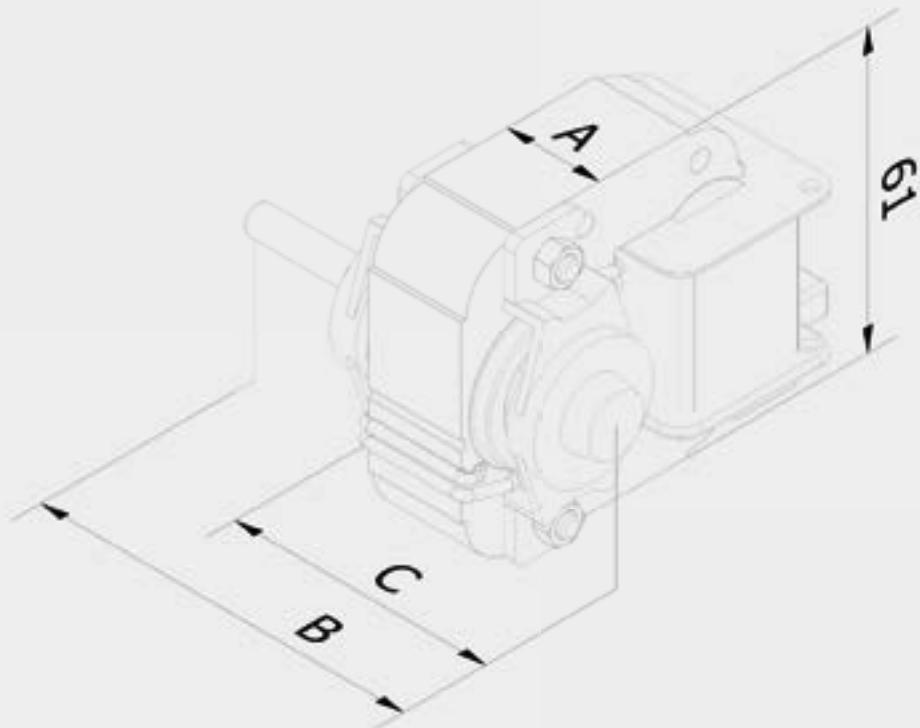
### \* IM version

Impregnated coil through dip-coating using transparent epoxy paint with silicone applied on contacts at the end of winding, three-pole wire and coil covered by a nylon cap. The coil is not drowned in the resin but visible; caution should be paid when mounting the motor so that the cap open part faces downward to prevent its filling up with condensate.

### \* INC version

Coil with IP55 protection, the coil is completely drowned into the epoxy resin.

## Dimensions

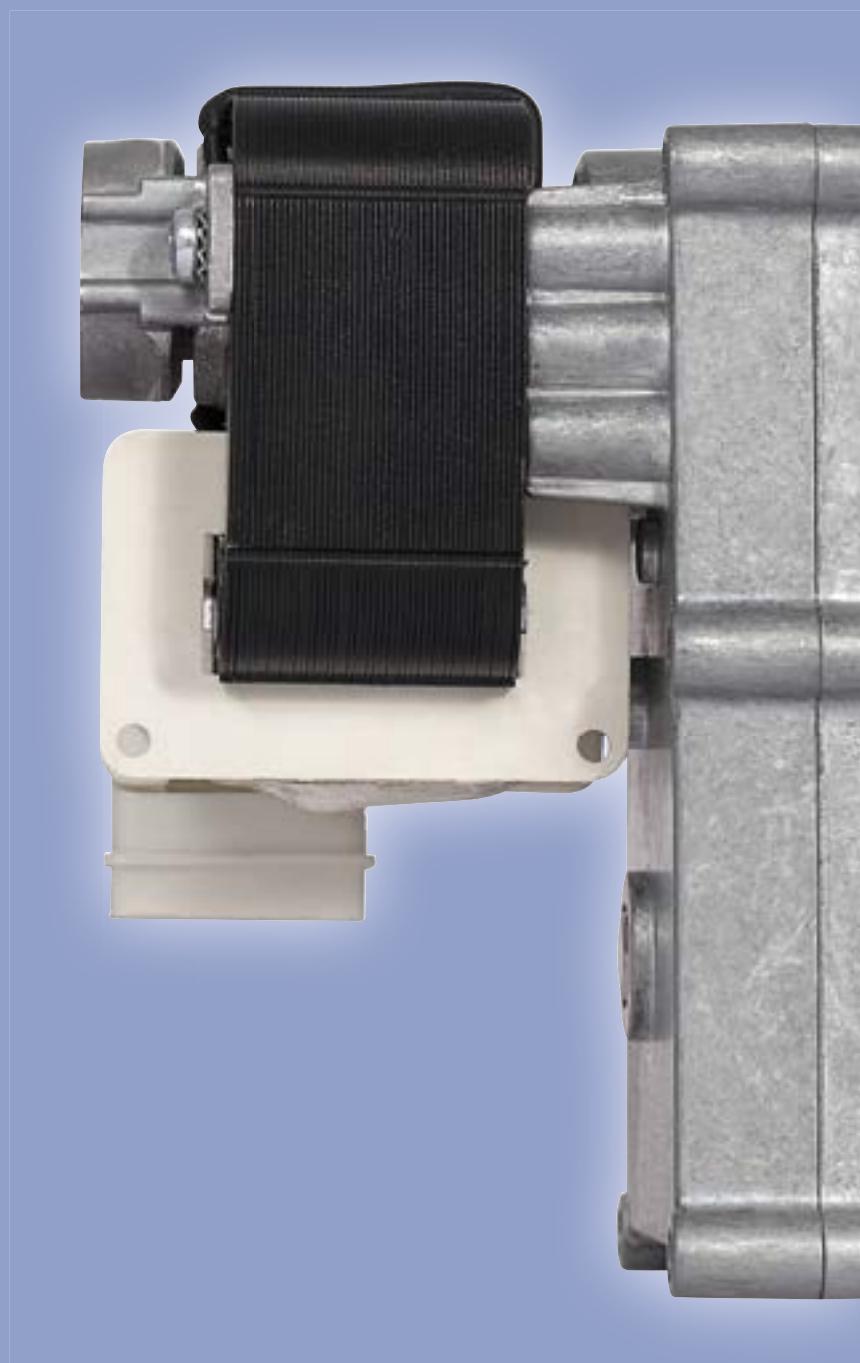


Model	Dimensions mm (min - max)			Input Power (W)	Input Current (A)	Voltage	Frequency
	A	B	C				
P 10-1	10	63 - 203	37,4 - 44	17	0,17	230	50
P 15-1	15	63 - 203	42,4 - 49	14	0,12	230	50
P 20-1	20	63 - 203	47,4 - 54	17,8	0,15	230	50
P 25-1	25	63 - 203	52,4 - 59	28,6	0,26	230	50
P 30-1	30	63 - 203	57,4 - 64	28	0,23	230	50
P 35-1	35	83 - 203	62,4 - 69	37	0,30	230	50
P 40-1	40	83 - 203	67,4 - 74	48	0,36	230	50



Gear Motors

MTR



---

This Gear Motors unit is designed and manufactured in Italy using Italian components, has a strong and reliable 2 shaded poles motor in AC with 2 sealed ball bearings, a special shaped gear box that assure low noise, 1<sup>st</sup> class quality gears, first one in special plastic compound plus others in carbonitrided sinterized steel assure long and low noise working.

Is suitable for industrial and professional use in various applications as:  
pellets burners, pellets stove, Horeca and vending appliances, etc.

---

22 - 37 W

---

1,3 - 5,6 Rpm

# Gear Motors

## MTR

- Impedance protected motor
- Low power consumption
- Minimum noise level
- Small size



### Technical specifications

- Max. torque 15 Nm.
- CW rotation, seeing the motorshaft projecting side.
- Single phase, 2-shaded poles, impedance protected motor, built according to the CE mark requirements, in compliance with EN 60335-1 standard, with self-aligning and self lubricating sleeve bearings with big oil reservoir.
- Type "C" as standard motor shaft.
- The gear motor unit can be fixed through n° 6 holes for M4 screws (as standard) or by n° 6 holes for M5 screws on demand.
- Insulation class motor 155° "F".
- Suitable for continuous operation in ambient temperature from -5 °C to +70 °C.
- Electrical connection by 6,3 x 0,8 mm, radial or axial, male faston-type connectors, directly fixed on coil.

### On request

- 6,3 x 0,8 mm earth tag.
- Different shape of motorshaft, custom motorshaft, female motorshaft.
- Protection against dust and/or humidity.
- CCW rotation.
- Hall sensor on the motor.
- Cooling fan blade.
- Version built to customers design.

### Regulations

All models are built in conformity with following standards:

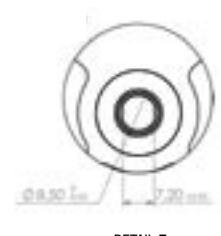
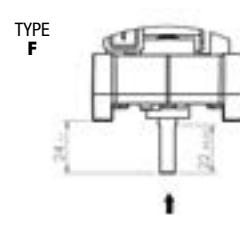
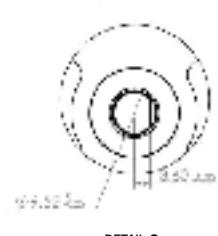
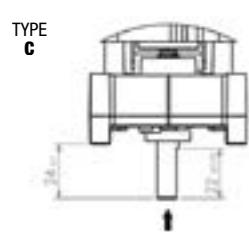
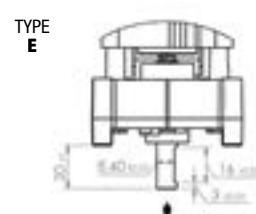
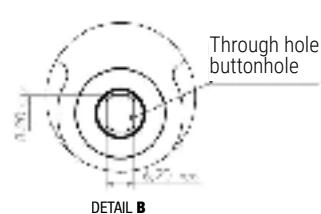
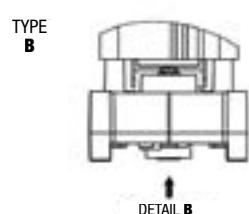
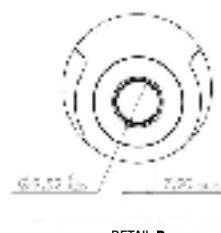
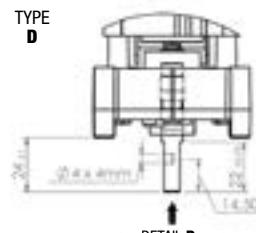
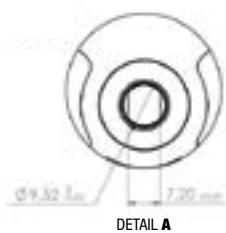
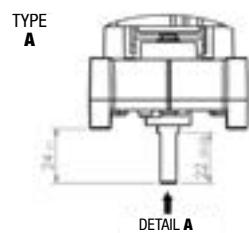
- 2014/35/UE - Low Voltage Directive.
- 2014/30/UE - Electromagnetic Compatibility (EMC) Directive.
- EN 60034-1:2010 - Rotating electrical machines.

### Product Identification Code

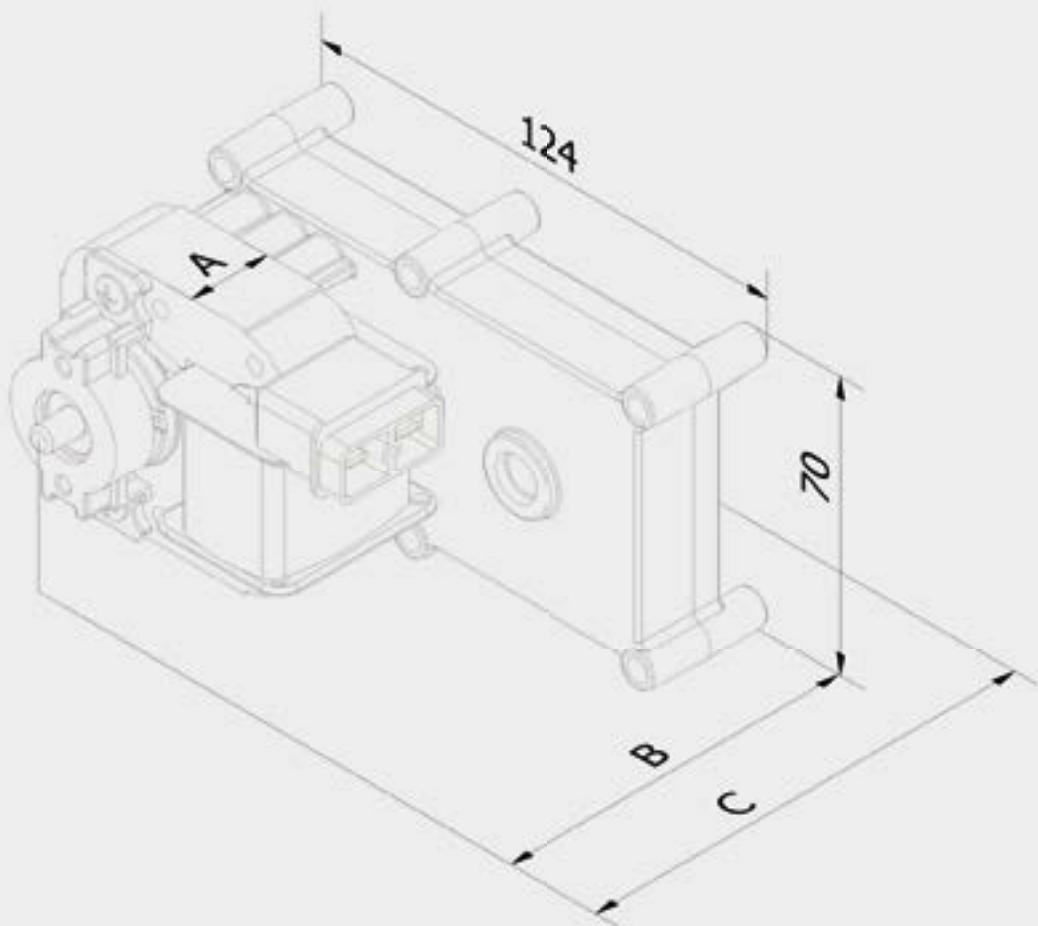
<b>MTR</b>	Series.
<b>1,3</b>	RPM 1,3 - 1,5 - 2 - 3 - 4 - 5,6
<b>P.20</b>	Motor type P.20 – P.30
<b>T</b>	Thermal protection: T = thermal protector. Blank = impedance protected.
<b>28</b>	Winding code.
<b>VR</b>	On request: VR = fitted with cooling fan on motor side.
<b>A</b>	Motor rotation, on request: O = clockwise. A = counterclockwise.
<b>3A</b>	Type and faston position.
<b>O</b>	End shaft rotation, on request: O = clockwise. A = counterclockwise.
<b>C</b>	Shaft type.
<b>230</b>	Supply voltage.
<b>50</b>	Rated frequency.



## Alternative motor shaft



## Dimensions

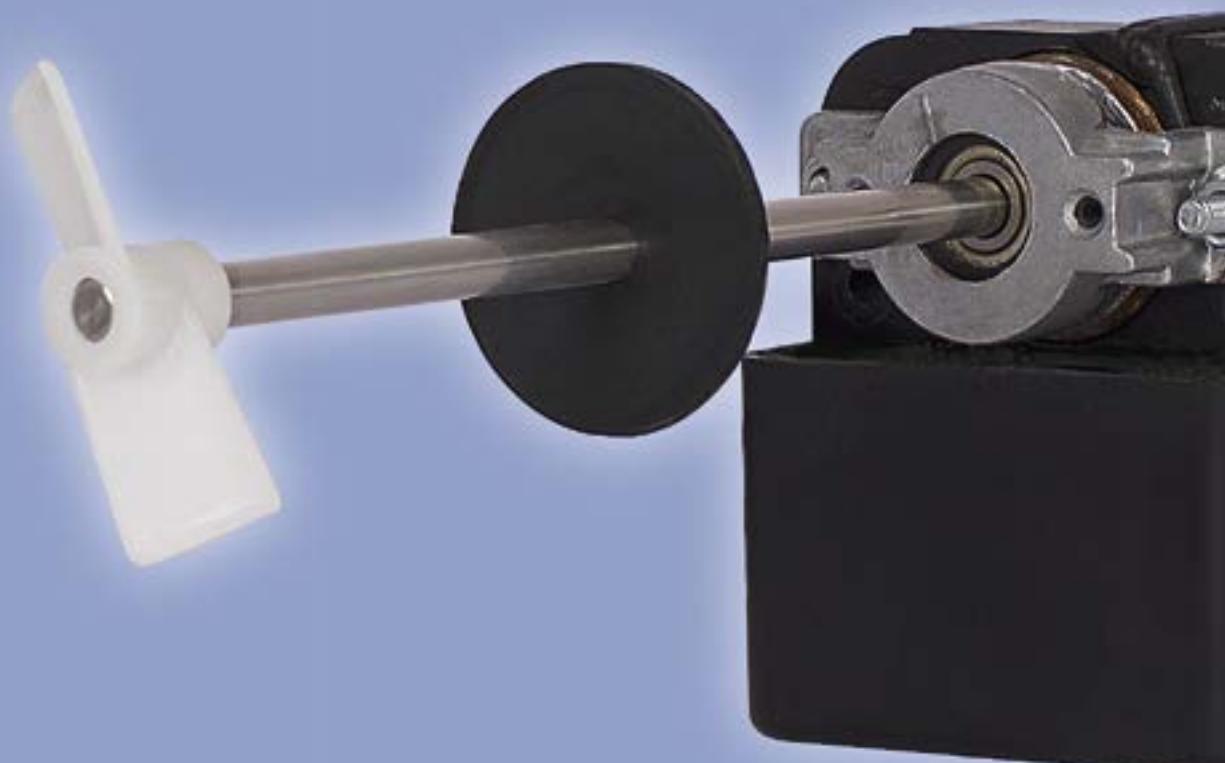


Model	Dimensions mm			Power absorption free load (W)	Power absorption with load (W)	Power absorption stalled rotor (W)	Thermal protection	RPM
	A	B	C					
MTR 1,3 - P 20	20	87	111	22	28	33	Impedance protected	1,3
MTR 1,5 - P 20	20	87	111	22	28	33		1,5
MTR 2,0 - P 20	20	87	111	22	28	33		2
MTR 3,0 - P 30T	30	90	114	29	35	50	130 °C Thermal protected	3
MTR 4,0 - P 30T	30	109	133	29	35	50		4
MTR 5,6 - P 30T	30	109	133	37	47	70		5,6



Stirrers

MIX



---

Liquid Stirrers are designed for stirring low-density liquids.

The very low noise and the completely insulated coil ensure optimal operation; the stirrer can be combined with submersible centrifugal pumps.

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17 - 40 W

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0,14 - 0,33 A

## Technical features

### Regulations

All models are built in conformity with following standards:

- 2014/35/UE - Low Voltage Directive.
- 2014/30/UE - Electromagnetic Compatibility (EMC) Directive.
- EN 60034-1:2010 - Rotating electrical machines.

### Approved certificate



Cross-Flow Fans		TF45	TFD45	TF/FF	TFD/FFD	TF/FF65	TF/FF80
Model		15	9	24 + 24	12 + 12	11 + 11	4 + 4
Watt	W	18,3 / 48	19 / 51	16 / 54	23 / 55	41 / 56	50 / 55
Input current	A	0,14 / 0,35	0,13 / 0,37	0,13 / 0,42	0,18 / 0,43	0,31 / 0,44	0,40 / 0,44
Voltage / Frequency	V/Hz	12-400 / 50-60	12-400 / 50-60	12-400 / 50-60	12-400 / 50-60	12-400 / 50-60	12-400 / 50-60
Free inlet revolutions	RPM	1140 / 2500	1430 / 2300	950 / 2550	940 / 1880	1050 / 2400	850 / 960
Fan	Ø mm	45	45	60	60	65	80
Nominal length	mm	120 / 360	120 / 300	90 / 480	90 / 360	180 / 360	240 / 360
Flow rate	m³/h	80 / 284	105 / 328	80 / 364	168 / 382	190 / 300	240 / 295
Operating temperature	°C	-10 / +50	-10 / +50	-10 / +50	-10 / +50	-10 / +50	-10 / +50
Static pressure	ΔPa	43 / 68	31 / 57	40 / 80	38 / 69	65 / 90	75 / 80
Insulation class		130°/155°/180°	130°/155°/180°	130°/155°/180°	130°/155°/180°	130°/155°/180°	180°

Centrifugal Blowers		RS	DD/DDD	CRT05/N36	CRT07 - CRTP	CRT010
Model		3	5 + 2	1	6 + 1	2
Watt	W	24 / 41	29 / 60	18	16 / 32	53 / 54
Input current	A	0,18 / 0,29	0,17 / 0,46	0,14	0,12 / 0,25	0,40 / 0,42
Voltage / Frequency	V/Hz	12-400 / 50-60	12-400 / 50-60	12-400 / 50-60	12-400 / 50-60	12-400 / 50-60
Free inlet revolutions	RPM	1300 / 2300	1000 / 2350	2650	1580 / 2760	1250 / 1750
Fan	Ø mm	76 / 85	67 / 76	55	74,5	100
Flow rate	m³/h	70 / 150	96 / 280	36	60 / 91	181 / 231
Operating temperature	°C	-10 / +50	-10 / +50	-10 / +50	-10 / +50	-10 / +50
Static pressure	ΔPa	166 / 190	96 / 164	54	74 / 116	247 / 270
Insulation class		130°/155°/180°	130°/155°/180°	105°/130°/155°/180°	130°/155°/180°	130°/155°/180°

Axial Fans		AX/SA	MA
Model		11 + 5	4
Watt	W	15 / 54	8,5
Input current	A	0,13 / 0,40	0,057
Voltage / Frequency	V/Hz	12-400 / 50-60	12-400 / 50-60
Free inlet revolutions	RPM	1000 / 2700	2700
Fan	Ø mm	96 / 230	96
Flow rate	m³/h	90 / 900	100
Operating temperature	°C	-10 / +50	-30 / +40
Insulation class		130°/155°/180°	130°

Motors		P
Model		7
Watt	W	14 / 48
Input current	A	0,12 / 0,36
Voltage / Frequency	V/Hz	12-400 / 50-60
Operating temperature	°C	-10 / +50
Insulation class		130°/155°/180°

Gear Motors		MTR
Model		6
Watt	W	22 / 37
Voltage / Frequency	V/Hz	12-400 / 50-60
Final revolutions	RPM	1,3 / 5,6
Operating temperature	°C	-5 / +70
Insulation class		155°/180°

Stirrers		MIX
Model		5
Watt	W	17 / 40
Input current	A	0,14 / 0,33
Voltage / Frequency	V/Hz	12-400 / 50-60
Insulation class		130°/155°

Our technical and commercial departments can advise you on the version that most suits your application needs.

All Coprel motors and fans are manufactured in our factory in Milan, Italy.

Dimension and specification data may change. Change can be made any time, as we may deem necessary.

**Coprel srl**

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Communication Design  
**GattoandPartners**  
Milan - Italy



