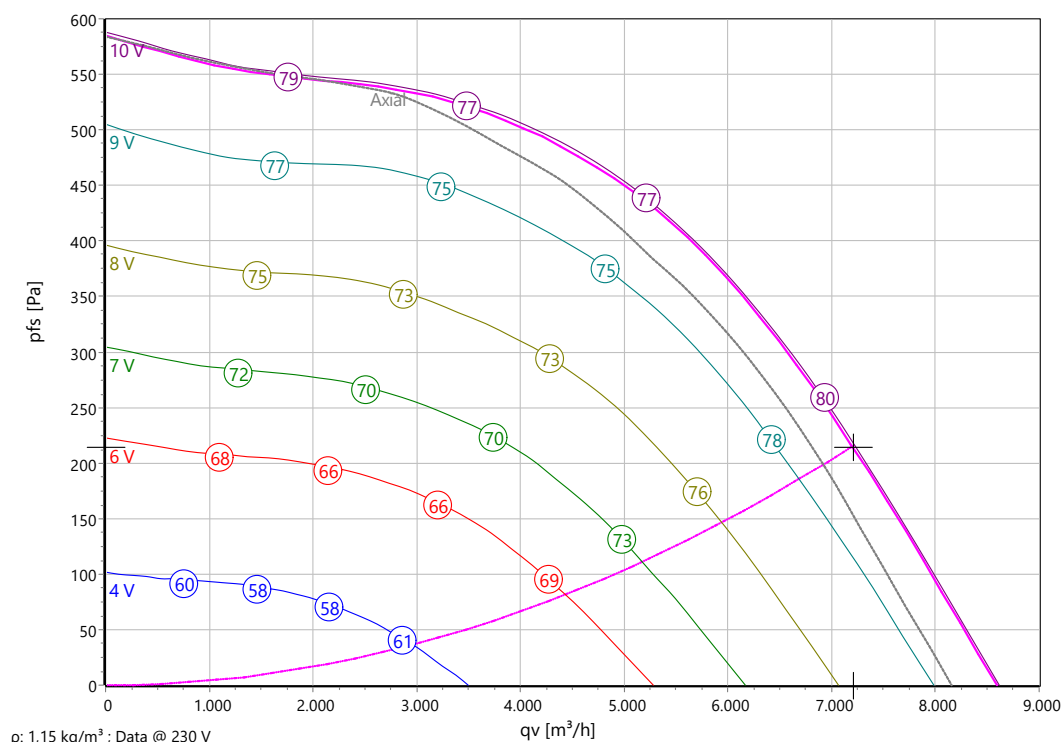




Type: **UNOR 80-500-G.5HF**
Open-loop control, 0-10 Volt
Part no.: F15-50016



Curve:



ErP-Data:

(EU) Nr. 1253/2014 (Lot6)		
q_v	5289	m³/h
p_{fs}	431	Pa
η_{fs}	59,2	%
P_{ed}	1,07	kW
n	1300	r/min
N	59	N
v	1,588	m/s
η_{fs} Lot11	61,7	%

Operating Point:

q_v	7200	m³/h
p_{fs}	215	Pa
p_{fd}	2,7	Pa
$\eta_{ed,fs}$	49	%
$\eta_{ed,tot}$	50	%
P_{ed}	0,877	kW
I	3,8	A
n	1296	r/min
$L_{wA,A,OUT}$	80	dB(A)
U_C	9,7	V
v	2,16	m/s
SFP	439	Ws/m³/h
FEI	1,59	
$t_{R,OP}$	48	°C
$p_{Düse}$	497	Pa

Intersections:

Curve	q_v [m³/h]	p_{fs} [Pa]	P_{ed} [kW]	I [A]	n_N [r/min]	$L_{wA,A,OUT}$ [dB(A)]
10 V	7221	216	0,884	3,8	1300	80
9 V	6690	186	0,704	3,1	1204	78
8 V	5939	146	0,498	2,2	1070	76
7 V	5178	111	0,338	1,6	935	73
6 V	4432	81	0,22	1,1	800	69
4 V	2955	37	0,077	0,5	533	61

Nominal Data:

U [V]	f [Hz]	Data @ [V]	P_{ed} [kW]	I_N [A]	n_N [r/min]	t_R [°C]	k_{10} [m²s/h]	Eff.-Rating	IP	m [kg]
1~200-277	50/60	230	1,07	4,72	1300	-25 .. +40	245	IE4	IP 54	84

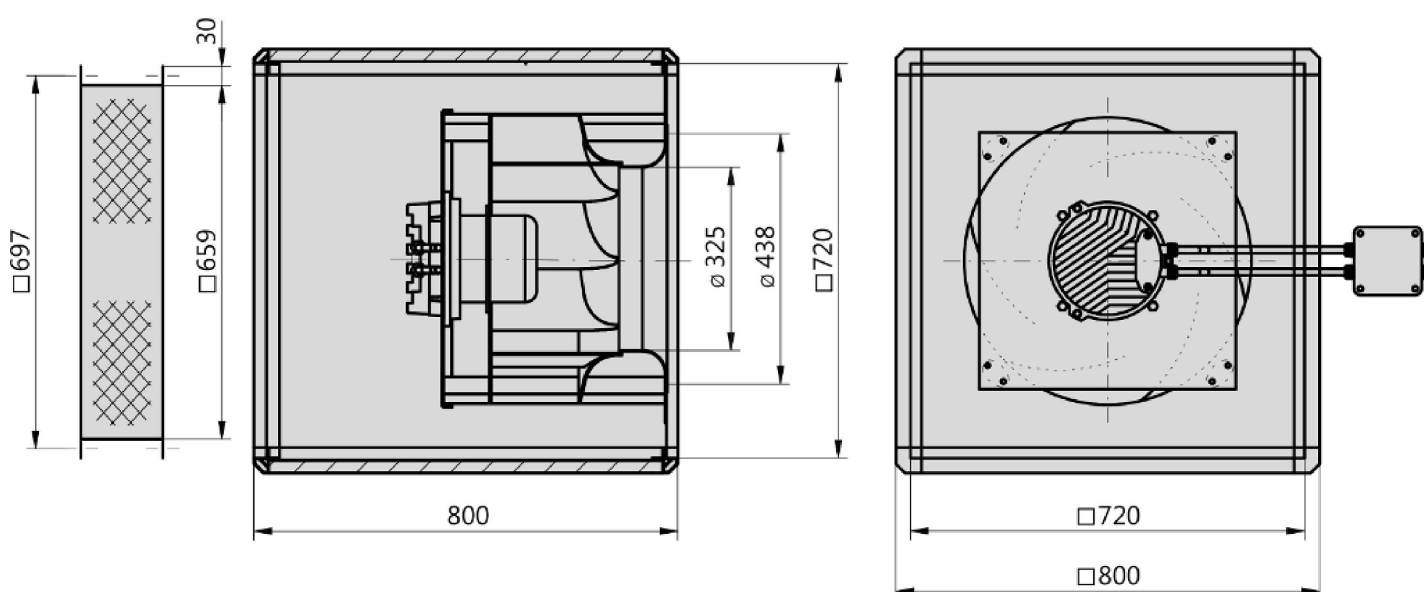
Sound Data:

Frequency	Σ		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	Distances	1 m	4 m
$L_{wA(A,in)}$ [dB(A)]	75	-	51	70	71	66	65	61	57	$L_{pA(A,in)}$ [dB(A)]	68	58
$L_{wA(A,out)}$ [dB(A)]	80	-	66	74	75	74	70	65	59	$L_{pA(A,out)}$ [dB(A)]	73	63
$L_{wA(D,cas)}$ [dB(A)]	62	-	58	59	51	41	35	30	26	$L_{pA(D,cas)}$ [dB(A)]	55	45

performance curve at radial air flow

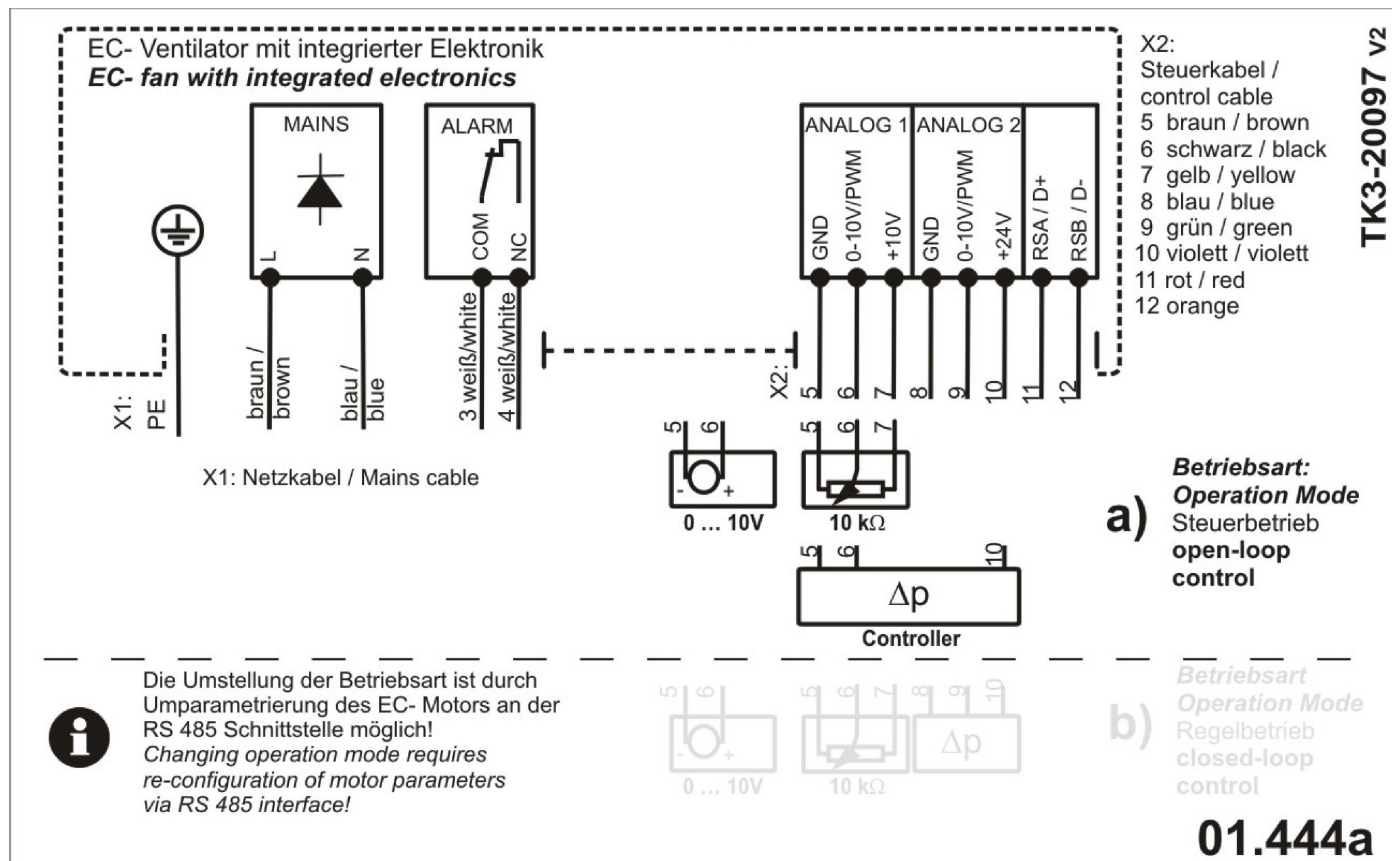


Type: **UNOR 80-500-G.5HF**
 Open-loop control, 0-10 Volt
 Part no.: F15-50016





Type: **UNOR 80-500-G.5HF**
 Open-loop control, 0-10 Volt
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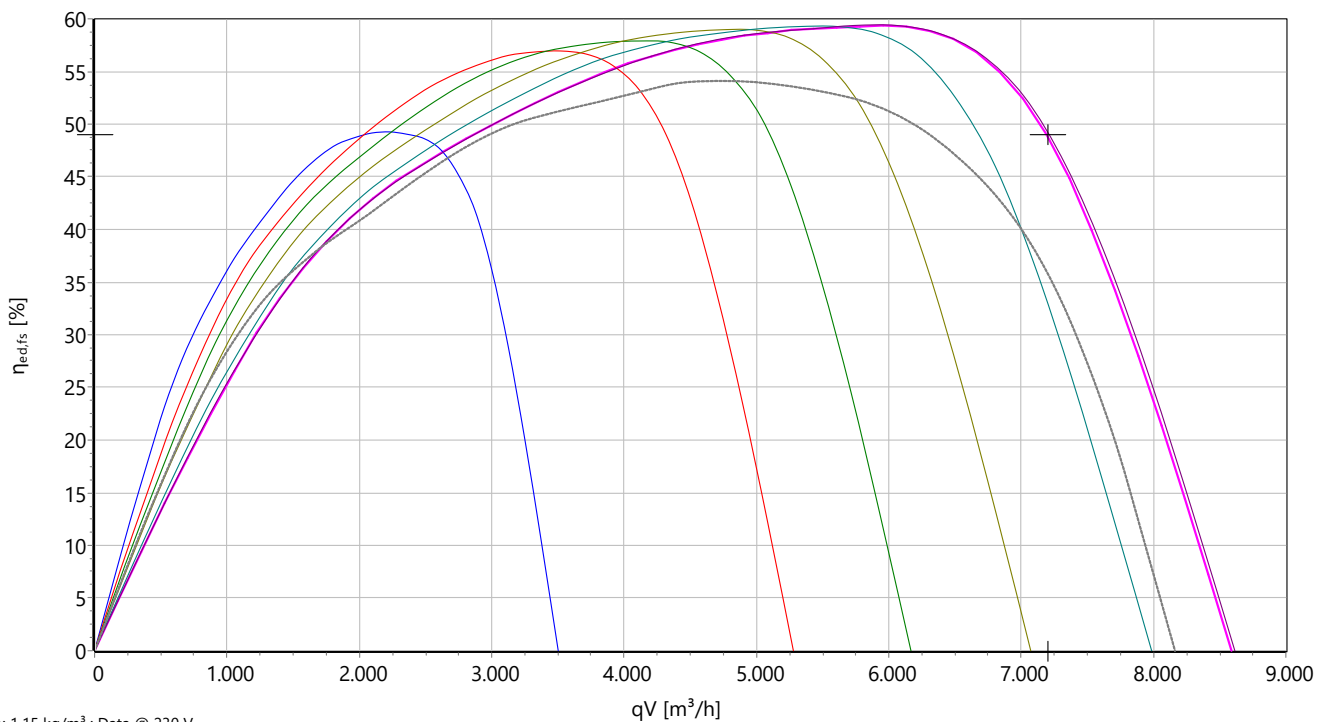




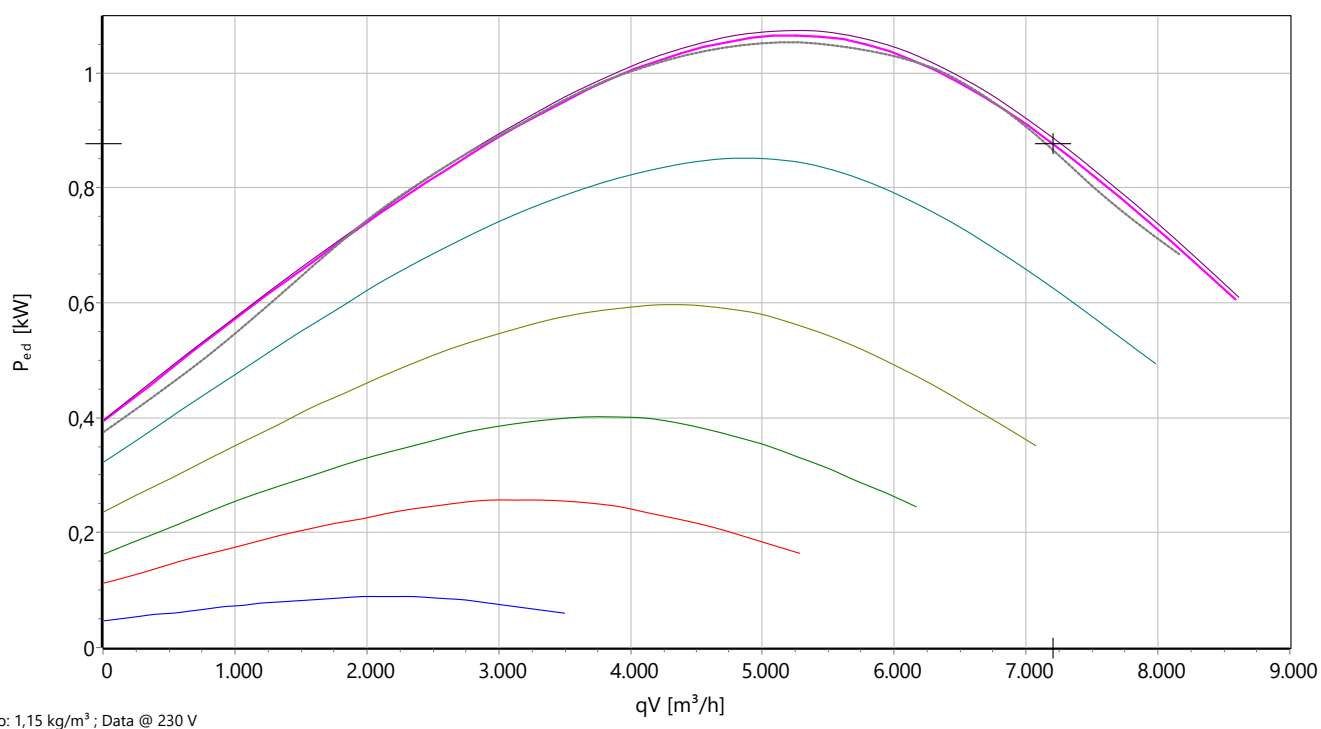
Type: **UNOR 80-500-G.5HF**
Open-loop control, 0-10 Volt
Part no.: F15-50016



stat. Efficiency



Input power

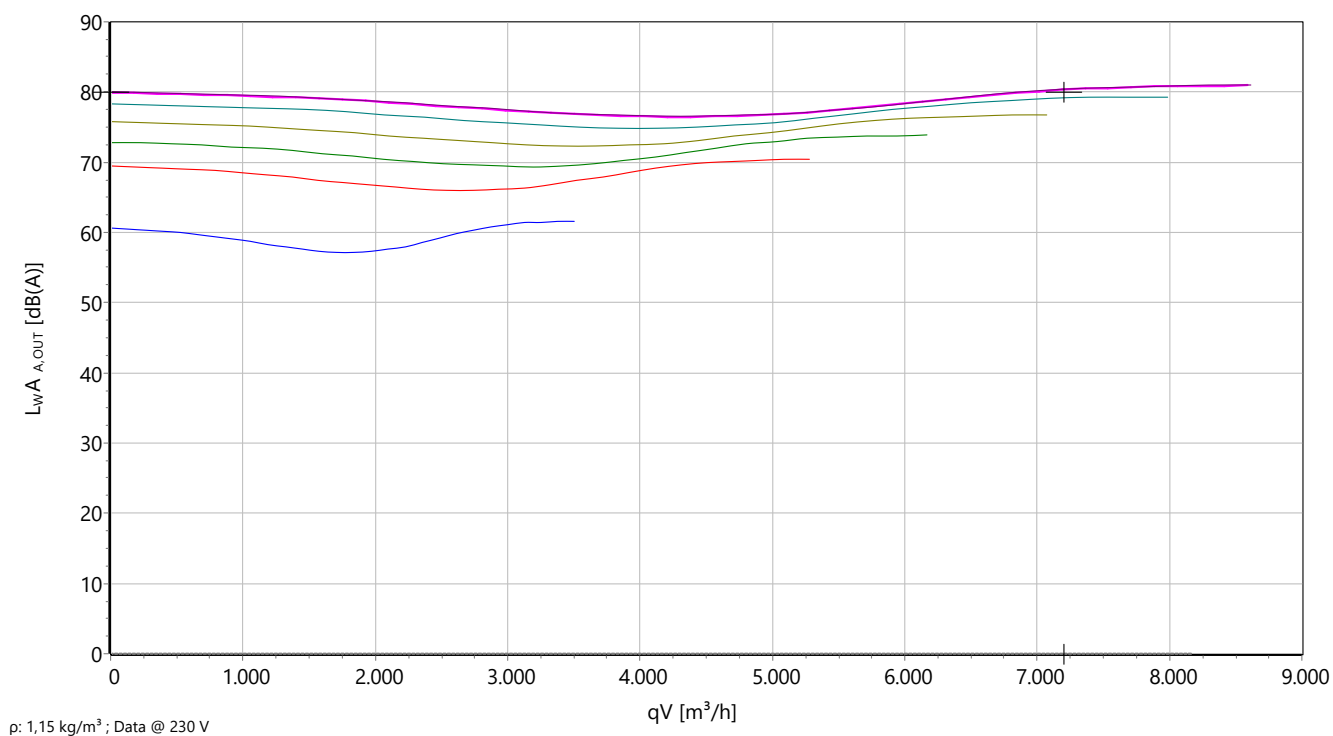




Type: **UNOR 80-500-G.5HF**
 Open-loop control, 0-10 Volt
 Part no.: F15-50016



Sound power

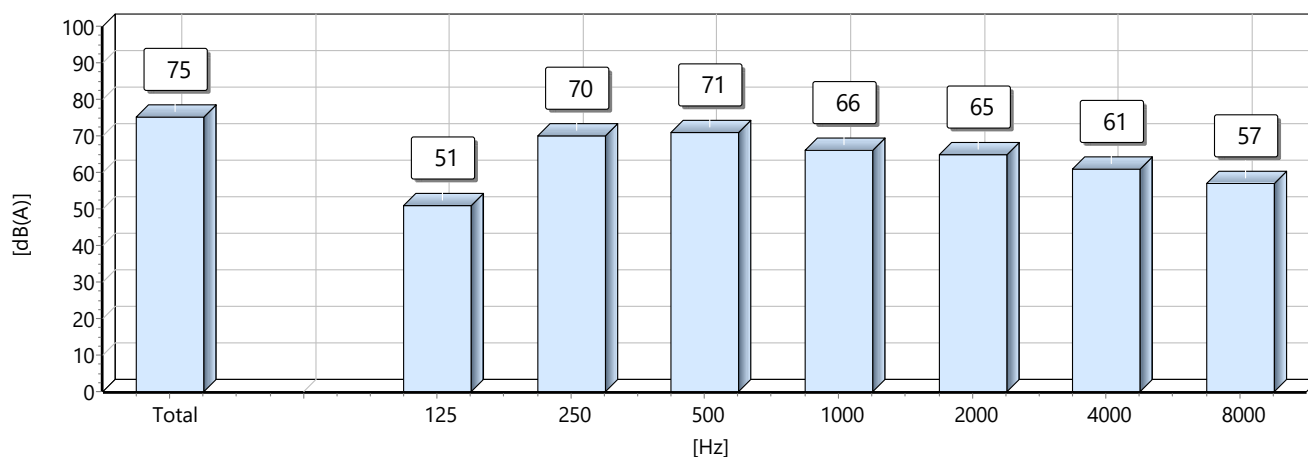




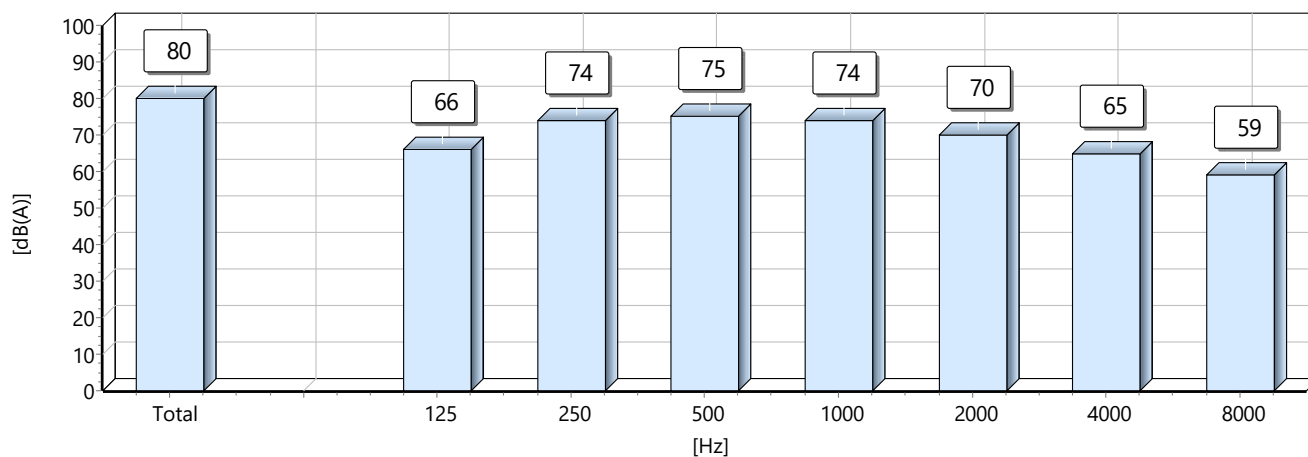
Type: **UNOR 80-500-G.5HF**
Open-loop control, 0-10 Volt
Part no.: F15-50016



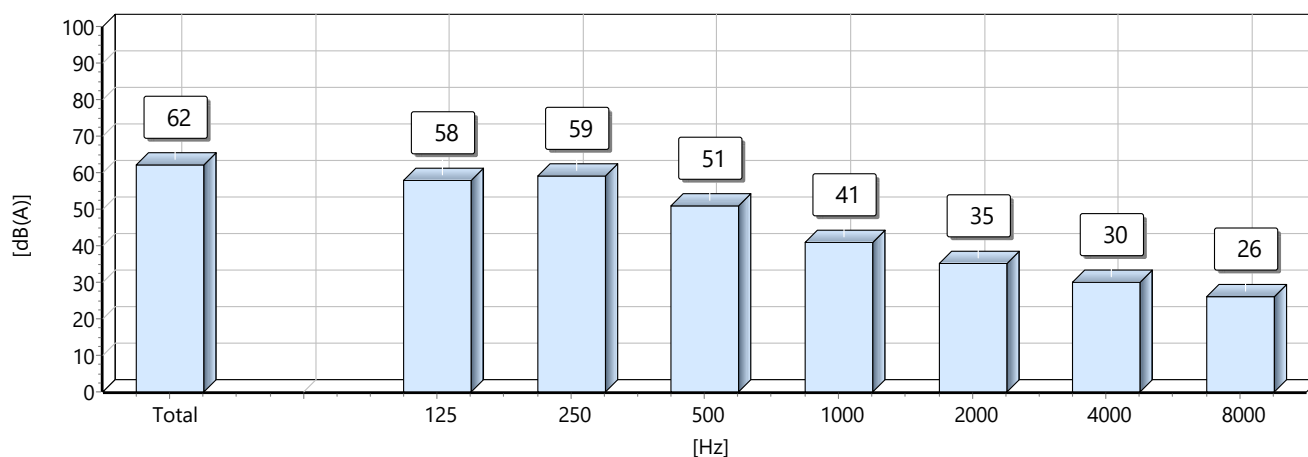
LwA(in)



LwA(out)



LwA(cas)



Unobox

Boxfan with flexible outlet

The housing supporting frames are double chamber aluminium profiles with corners made of plastic and double skinned galvanized steel panels insulated with non -flammable, noise and temperature insulating fiberglass mats. One side of the casing is open as standard. Wall thickness 20mm, $K=1,25 \text{ W/m}^2\text{K}$. As standard, the casing is open opposite to the inlet side. The removable side panels ensure highest possible flexibility of the air flow direction at the installation site. Impeller of the E-series (Revolution) made of black, UV -stabilized and long glass fibre reinforced Polypropylene (PP) with 7 backward curved, profiled blades and narrow efficiency optimized circumferential diffusor. Sound and weight optimized. Corrosion resistant and compact design. Air Flow orientated behaviour. Energy saving EC external - rotor motor exceeds IE4 / Super Premium Efficiency. Maintenance free ball bearings, closed on both sides with long-term lubrication. Magnets without rare earth elements. Motor coated black and/or die casted aluminum. Protection Class IP54 and insulation class F. 1 -phase types with cable for supply and controlling and integrated active PFC (Power Factor Correction). 3 -phase types with integrated terminal box and environmental resistant cable glands (3x M20x1,5). 100% speed controllable with integrated Motor Protection. ModBus RTU Interface integrated. Busconfiguration possible on site by customer. Soft Start. Potential -free Alarm Contact and integrated 24V Supply for Accessories. Applicable in all common energy grids. Low noise commutation. Motorized Impeller statically and dynamically balanced according to DIN ISO 21940 -11 at least with quality level G6.3. The electrical connection is mounted by a terminal box (loose). Air volume control is possible over an 0 -10V Signal (accessory).

Fan complies with the guidelines required (Machinery -, EMC- and Low Voltage Directive) to comply with installation and conformity declaration as well as CE marking.

Operating Point Data:

Airflow
7200 m³/h
ext. Pressure
215 Pa
Input power
0,877 kW
Current
3,8 A
Speed
1296 r/min
Sound power level
80 Lw(A)
Medium temperature
48 °C

Nominal Data:

Voltage
1~200-277 V
Frequency
50/60 Hz
Input power
1,07 kW
Current
4,72 A
Speed
1300 r/min
Medium temperature

40 °C
Protection Mode
IP 54
Efficiency Class
IE4
K-Factor
245
Weight
84 kg
Dimensions
800 mm / 800 mm / 800 mm

Contact:

Rosenberg Ventilatoren GmbH
Maybachstraße 1
D - 74653 Künzelsau - Gaisbach
www.rosenberg-gmbh.com

Type:

UNOR 80-500-G.5HF

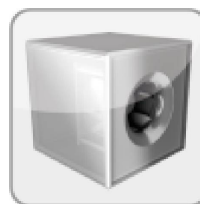
Article-No.:

F15-50016

UNOBOX...G - EC-Box fan

Supply air or extract air fans

- installation in any positions possible
- casing with two chambers aluminum profile
- discharge in any direction possible
- energy saving with EC motors



Description:

The Rosenberg EC-Unoboxes are designed to handle air volumes from 800 m³/h to 19.000 m³/h. Typical applications are in apartments, shops, supermarkets, repair shops, warehouses, garages etc. and other areas of slight air contamination.

Application areas:

Garage / Offices / Bars / Greenhouses / Skyscrapers / Hotels / Industrial buildings / Basement rooms / Playschool / Cinemas / Parking facilities / Warehouses / Nursing homes / Schools / Sports halls / Supermarkets / Workshops / Residential houses / Fitness centers / Inflatables

Air Outlet:

Rosenberg Unoboxes are delivered with axial air flow direction through the casing. Should a different direction be required, this is easily possible by removing a side panel and mounting it to the front end.

Classification of the fan series:

NRVU = Non Residential Ventilation Units

UVU = Unidirectional Ventilation Units

Casing:

The housing supporting frames are double chamber aluminum profiles with corners made of plastic and double skinned (20mm) galvanized steel panels insulated with non -inflammable, noise and temperature insulating fiberglass mats. One side of the casing is open as standard.

Impeller:

The impellers are balanced dynamically together with the external rotor motors at two levels according to quality level G2.5/G6.3 to DIN ISO 21940-11.

Up to size 560:

Backward curved centrifugal impellers made of plastic

From size 630:

High efficiency backward curved centrifugal impellers made of aluminum

Motors:

The EC motors used are characterized by a very high degree of efficiency, even in partial load ranges, as well as good controlling and regulation behavior. They are easy to connect, individually preconfigured, compact in design and show a high power density. The implementation of additional functions (e.g. air flow and pressure control) is possible. All motors are speed controllable in the range 0 -100%.

Integrated Motor Protection:

The motor protection is integrated with Rosenberg EC motors. All necessary parameters, such as temperature, blocked rotor, over and undervoltage and power are continuously checked and monitored via an intelligent failure management.

Electrical connection:

1~230 V variant:

The electrical connection can be made by a terminal box (supplied loose).

3~230 V and 400 V variant:

The electrical connection can be made by a integrated terminal box on the EC motor.

Installation:

Direction of rotation:

Direction of rotation is clockwise, viewed from the inlet side.

WARNING: Counter-clockwise operation will cause overload damage to the motor!

Air volume control:

For more information see accessories!

Open-loop control:

For example with a Potentiometer 0-10V signal

Closed-loop control:

For example with a Temperature controller 0-10V

Scope of delivery:

- EC-Unobox (Uno...G)
- Terminal box, loose (at 230 Volt variant)

- Documentation

Important notes:

Air performance curves:

The air performance curves have been established using the intake test method in the test chamber according to DIN EN ISO 5801. They show pressure increase as a function of the volume flow. Performance curves were recorded in installation type A.

Noise levels:

The circled values printed in the performance curve diagrams show the "A" weighted **LWA(out)** sound power level (fan outlet). The "A" weighted sound power level at fan inlet, **LWA(in)** and the enclosure power level **LWA(cas)** according to DIN 45635, part 38 or ISO 13347-3 and DIN EN ISO 3744/ 3745 are determined as follows:

Uno 50-315-G.4EA:	LWA(in) = LWA(out) - 3 dB LWA(cas) = LWA(out) - 17 dB
Uno 50-355-G.4FF:	LWA(in) = LWA(out) - 3 dB LWA(cas) = LWA(out) - 17 dB
Uno 67-400-G.5FA:	LWA(in) = LWA(out) - 3 dB LWA(cas) = LWA(out) - 15 dB
Uno 67-450-G.5HF:	LWA(in) = LWA(out) - 3 dB LWA(cas) = LWA(out) - 15 dB
Uno 67-450-G.5FA:	LWA(in) = LWA(out) - 3 dB LWA(cas) = LWA(out) - 15 dB
Uno 80-500-G.6FF:	LWA(in) = LWA(out) - 3 dB LWA(cas) = LWA(out) - 15 dB
Uno 80-560-G.6IF:	LWA(in) = LWA(out) - 4 dB LWA(cas) = LWA(out) - 17 dB
Uno 102-630-G.6IF:	LWA(in) = LWA(out) - 4 dB LWA(cas) = LWA(out) - 17 dB
Uno 102-710-G.6NA:	LWA(in) = LWA(out) - 4 dB LWA(cas) = LWA(out) - 17 dB

The "A" weighted sound pressure level L_{pA} at a distance of 1 metre is calculated approximately by deducting 7 dB(A) from the "A" weighted sound power level. It is important to note that the reflection and room characteristic as well as natural frequencies influence the sound pressure levels a different way. The relative octave sound power level L_{WArel} at octave medium frequency you can find on the table on each fan type page.

Erp-Information:

Rosenberg fans have a specific (pressure-) ratio < 1,05 (pressure < 5000 Pa).

Service life:

For maximum service life of Rosenberg products please beware of the maintenance hints on the manual for each product type.

Recycling and disposal:

For recycling and disposal of Rosenberg products comply with applicable locally requirements and regulations.

