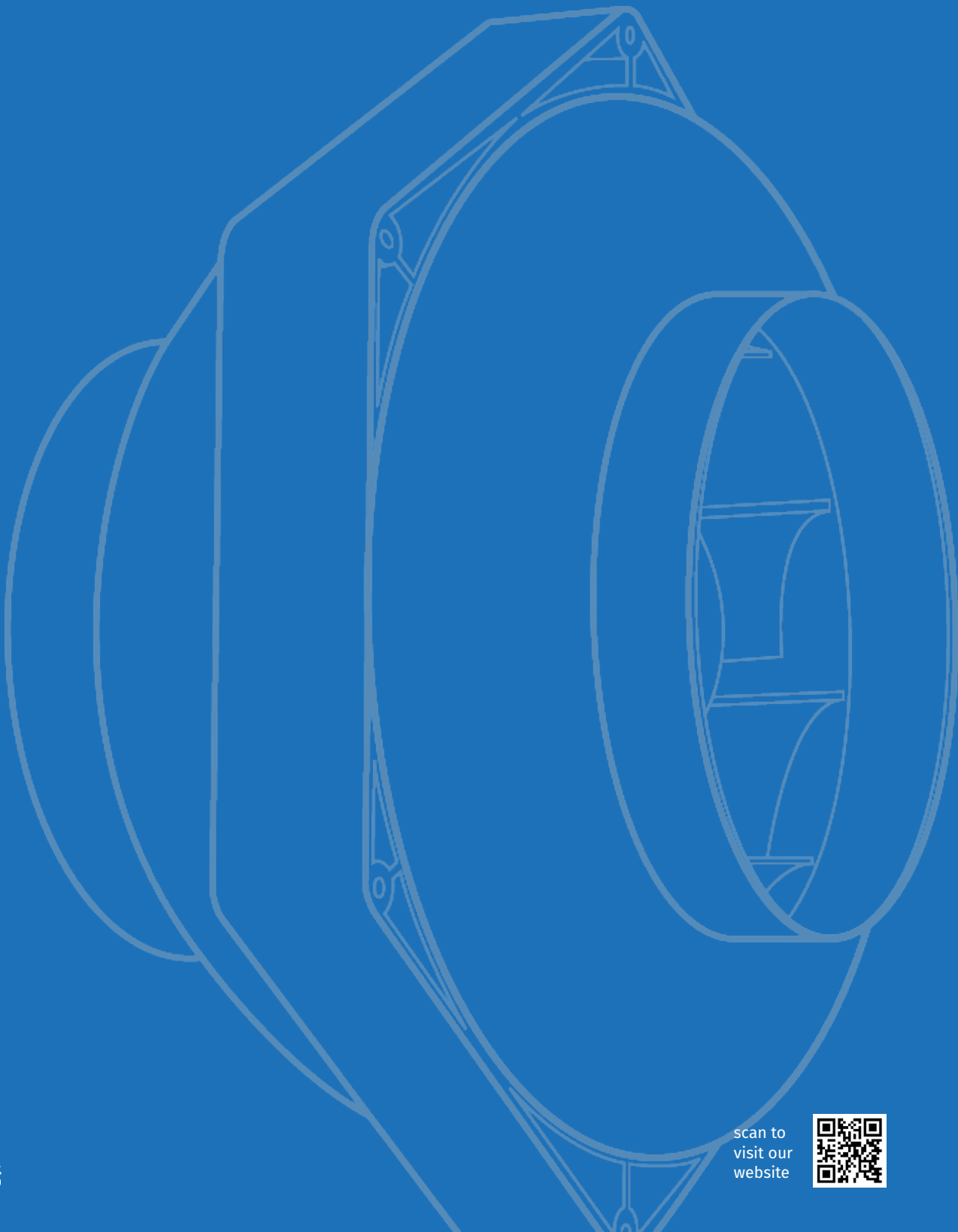


# RS In-Line Duct Fans

## AC Range

---

*A versatile and cost effective range of airflow and noise optimised in-line duct fans for simple and easy installation in circular duct runs. Available to buy online from stock.*



# Fan Integration Experts

*Axair are an independent UK distributor of industrial fans for OEM, commercial and industrial applications. Our team of technical engineers are experts in their field so your enquiry will always be handled by an experienced person who understands your application.*



**Our understanding of almost every ventilation system's requirements, enables us to select the most suitable industrial fan for any project."**

Over the last 30 years, Axair has built up its reputation of supplying the widest range of fans available from a single source.

As fan integration experts, our most valued quality lies in our understanding of almost every ventilation system's requirements, enabling us to select the most suitable industrial fan for any project.

Our in-house team of technical experts are available to answer any air movement question you have.

Contact our team on [sales@axair-fans.co.uk](mailto:sales@axair-fans.co.uk) to discuss your project in depth. We'll advise on possible fan integration options.

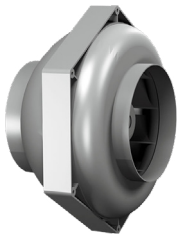


# RS In-Line Duct Fans

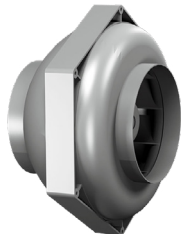
RS line duct fans are fitted with a high efficiency backward curved motorised impeller and powered by a 100% speed controllable and thermally protected external rotor motor with IP44 integrated connection box for compact, ingress protected installations. Anti-corrosion coated profiled blades and special guide vanes work to straighten the air flow for high flow rates and reduce noise turbulence, resulting in a highly efficient noise optimised fan component.

## AC Range

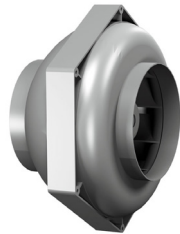
Buy Online



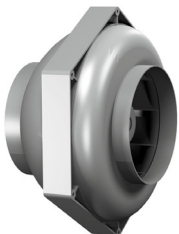
RS - 100L



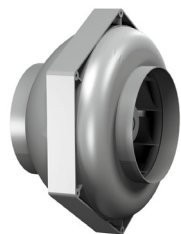
RS - 125L



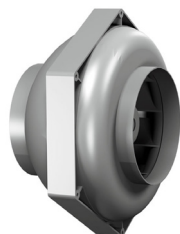
RS - 125L.3BF



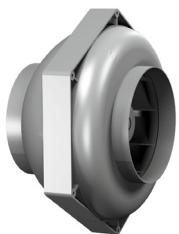
RS - 150



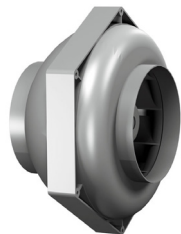
RS - 160



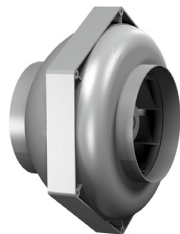
RS - 160L



RS - 200



RS - 250



RS - 315M.3EF

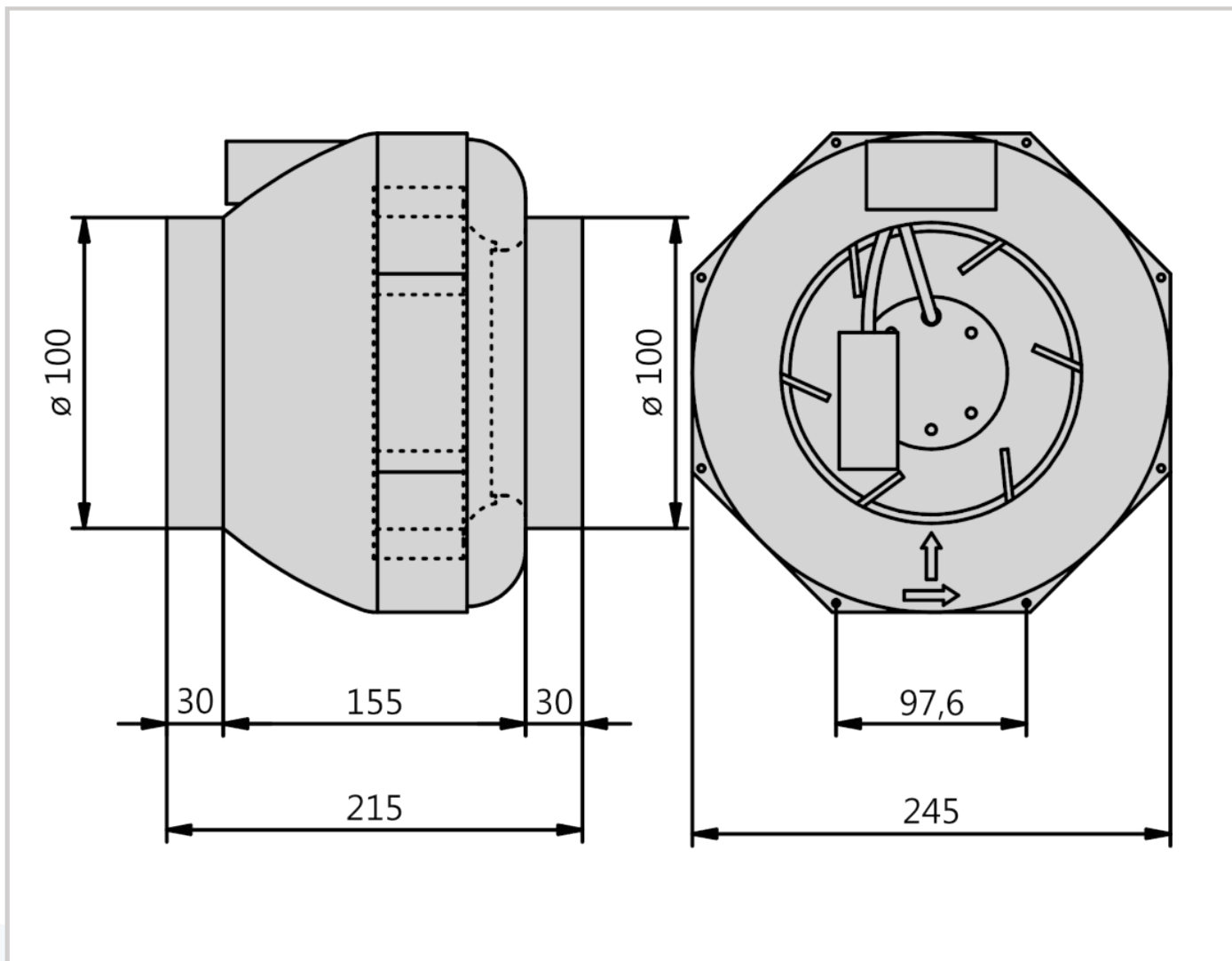
## Features

- Resilient Plastic Housing
- High Efficiency Impeller
- Standard Metric Spigot
- Thermally Protected Motor
- Integral Terminal Box
- IP44 Ingress Protection Motor
- Manufactured to ISO 9001
- Class F Insulated Motor
- G2.5 Precision Balanced Impeller
- Electronic Control Compatible

## Accessories

- Mounting Bracket
- Back Draught Damper
- Fast Clamp
- Spigot Guard
- Transformer Speed Controller
- Filter Box
- Flexible Ducting
- Electrical Isolator
- Gravity Louvre Shutter
- Electronic Speed Control

## RS - 100L Dimensions



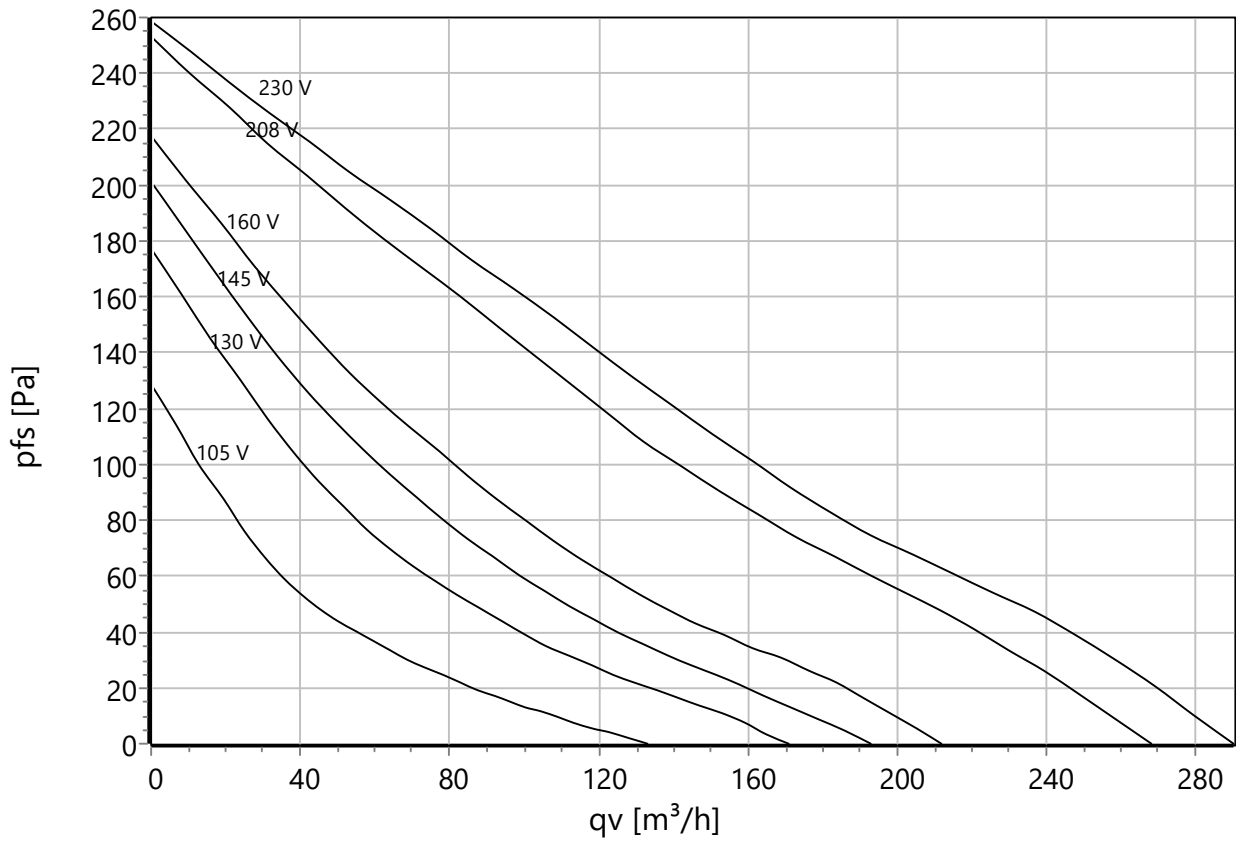
## Technical Data

U [V]	f [Hz]	C [μF]	P <sub>e</sub> [kW]	I <sub>N</sub> [A]	n <sub>N</sub> [r/min]	t <sub>R</sub> [°C]	k <sub>10</sub> [m <sup>2</sup> /h]	I <sub>A</sub> / I <sub>N</sub>	IP	m [kg]
1-230	50	1	0.029	0.13	2125	-20 .. +70	-	1.2	IP 44	2

## Sound Data

Frequency	Σ		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	Distances	1 m	4 m
LwA(D,in) [dB(A)]	2	-	-19	-8	-5	-6	-8	-11	-21	LpA(D,in) [dB(A)]	-5	-15
LwA(D,out) [dB(A)]		-	-18	-7	-6	-6	-7	-11	-20	LpA(D,out) [dB(A)]	-7	-17
LwA(D,cas) [dB(A)]	-9	-	-19	-9	-7	-4	-7	-13	-24	LpA(D,cas) [dB(A)]	-16	-26

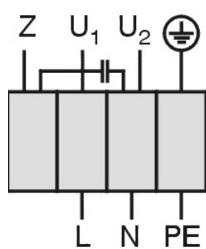
## RS - 100L Performance Curve



$\rho: 1.15 \text{ kg/m}^3$

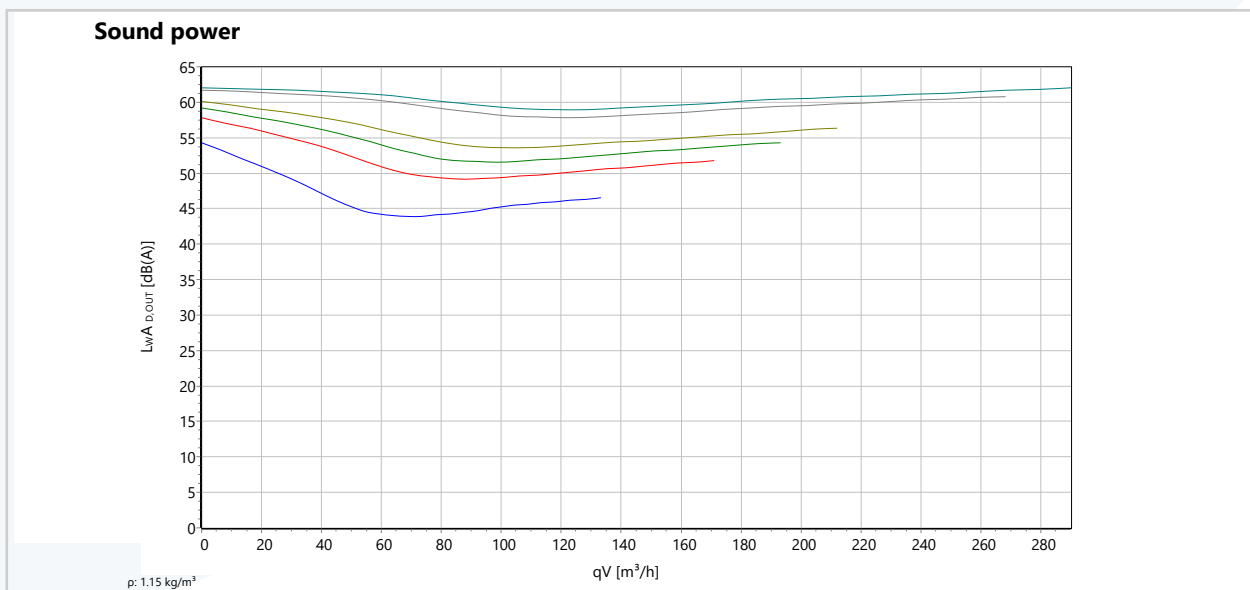
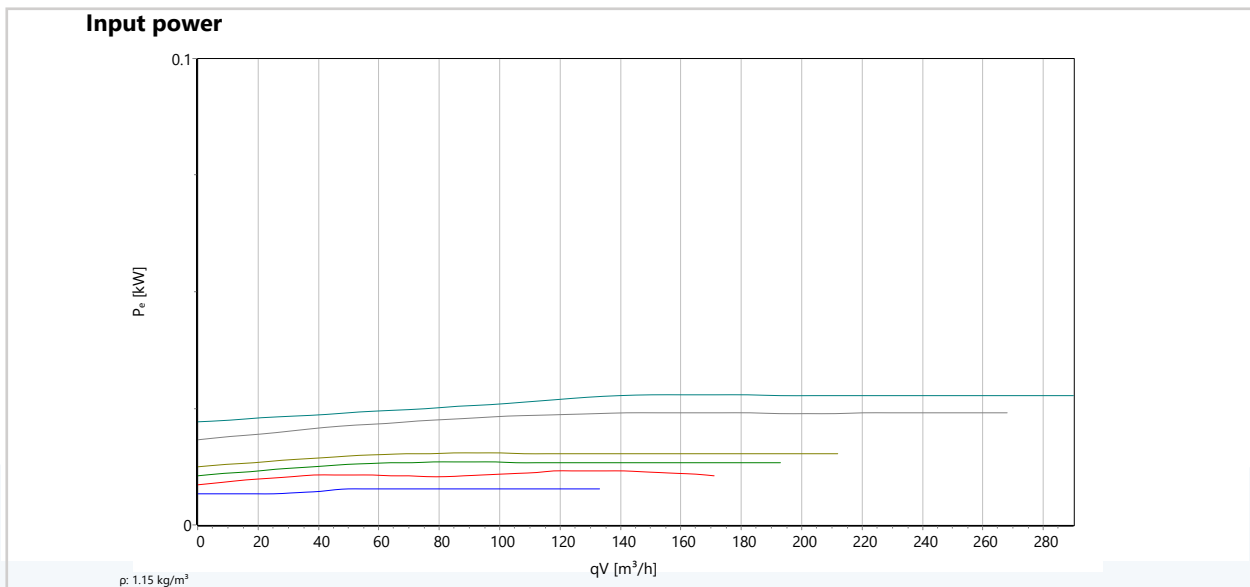
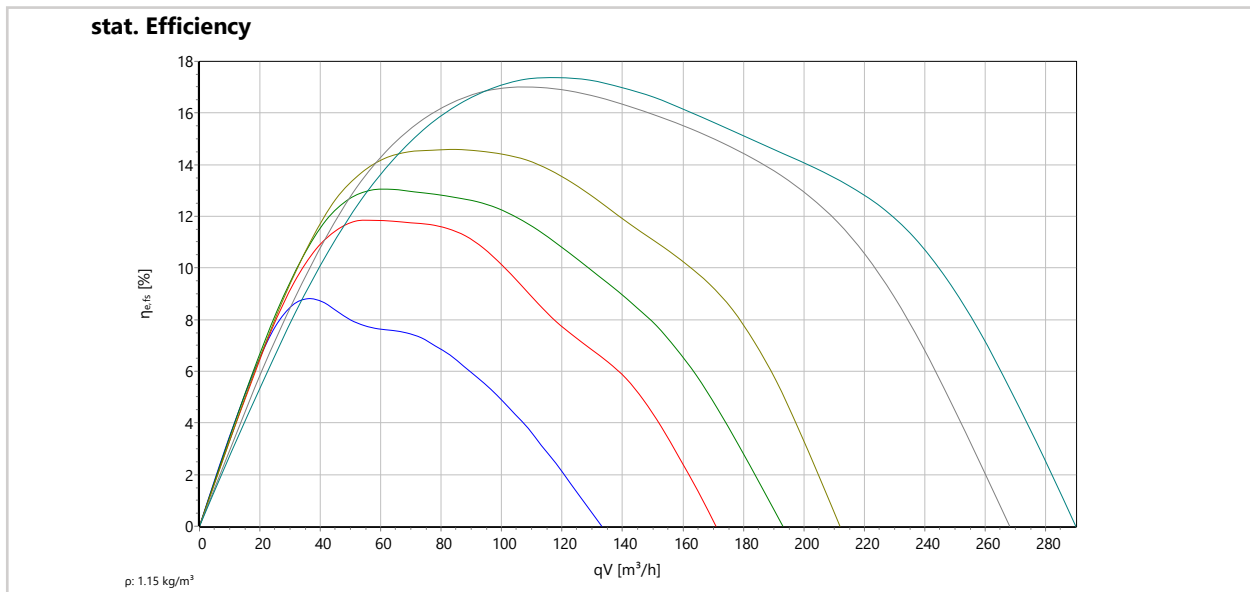
## Wiring Diagram

Single phase AC motor with operating capacitor and thermostatic switch. Thermostatic switch internal wired in series with windings.



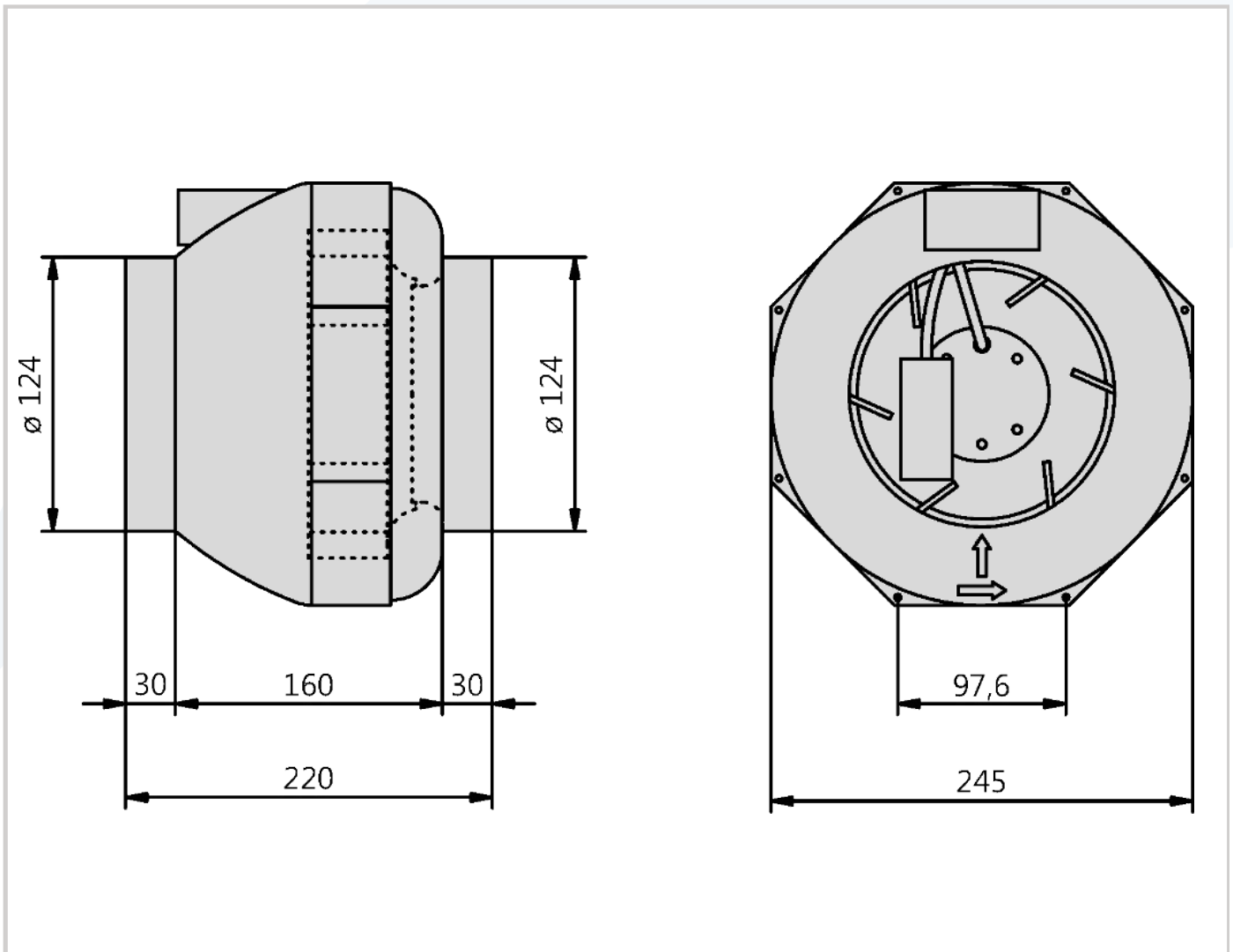
U<sub>1</sub> Blue  
 U<sub>2</sub> Black  
 Z Brown  
 PE Yellow-Green

## RS - 100L Performance Curves





## RS - 125L Dimensions



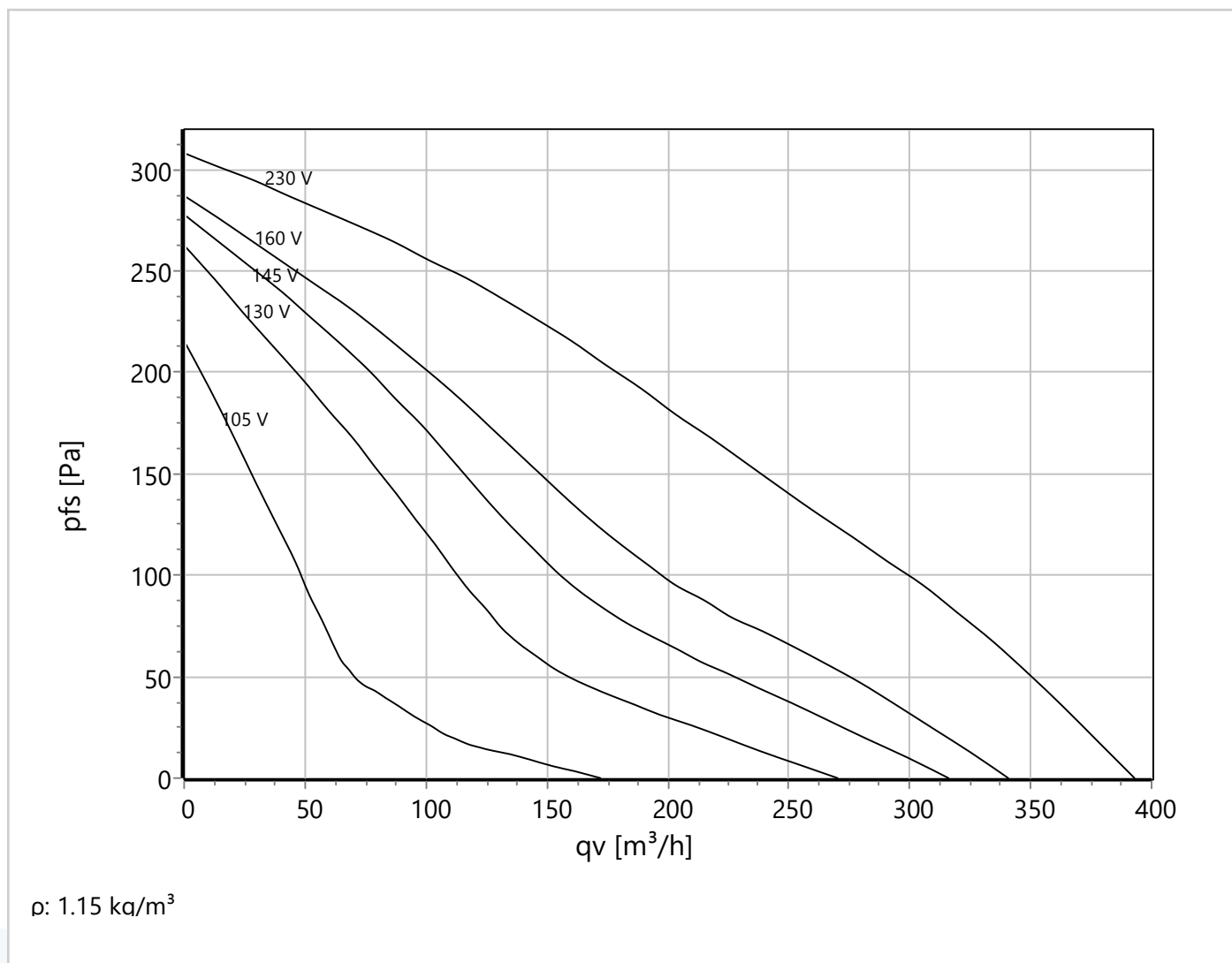
## Technical Data

U [V]	f [Hz]	C [μF]	P <sub>e</sub> [kW]	I <sub>N</sub> [A]	n <sub>N</sub> [r/min]	t <sub>R</sub> [°C]	k <sub>10</sub> [m <sup>2</sup> /h]	I <sub>A</sub> / I <sub>N</sub>	IP	m [kg]
1~230	50	1.5	0.042	0.19	2635	-20 .. +70	-	1.2	IP 44	2.5

## Sound Data

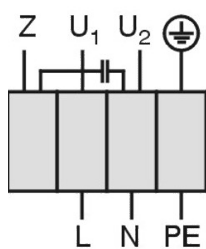
Frequency	Σ	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	Distances	1 m	4 m
LwA(D,in) [dB(A)]	3	-36	-23	-13	-7	-6	-5	-8	-16	LpA(D,in) [dB(A)]	-4	-14
LwA(D,out) [dB(A)]		-36	-20	-11	-7	-6	-6	-7	-18	LpA(D,out) [dB(A)]	-7	-17
LwA(D,cas) [dB(A)]	-13	-26	-14	-13	-10	-4	-5	-11	-20	LpA(D,cas) [dB(A)]	-20	-30

## RS - 125L Performance Curve



### Wiring Diagram

Single phase AC motor with operating capacitor and thermostatic switch. Thermostatic switch internal wired in series with windings.



- U<sub>1</sub> Blue
- U<sub>2</sub> Black
- Z Brown
- PE Yellow-Green

### ErP - Data

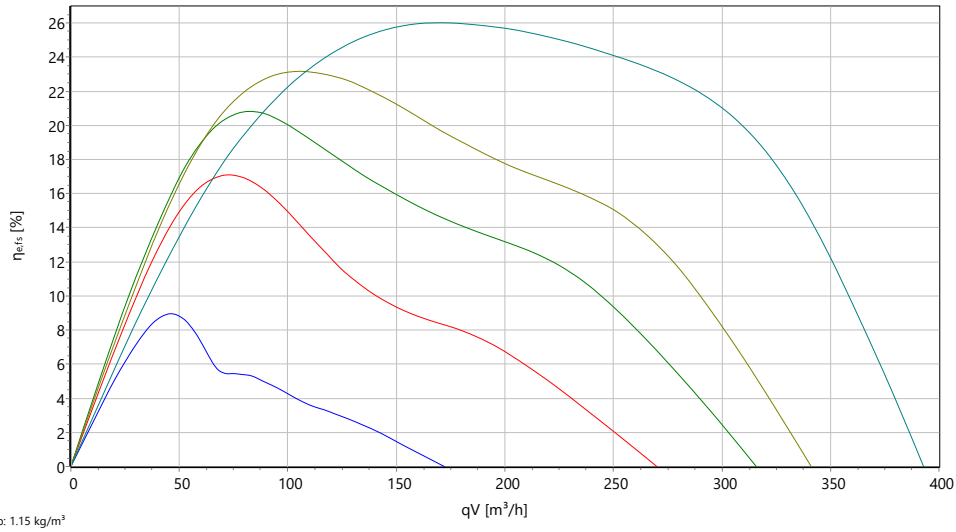
(EU) Nr. 1253/2014 (Lot6)

q <sub>v</sub>	175	m <sup>3</sup> /h
p <sub>fs</sub>	213	Pa
η <sub>fs</sub>	26.5	%
P <sub>e</sub>	0.039	kW
n	2676	r/min
N	47	N
v	4.379	m/s
η <sub>fs</sub> Lot11	0	%

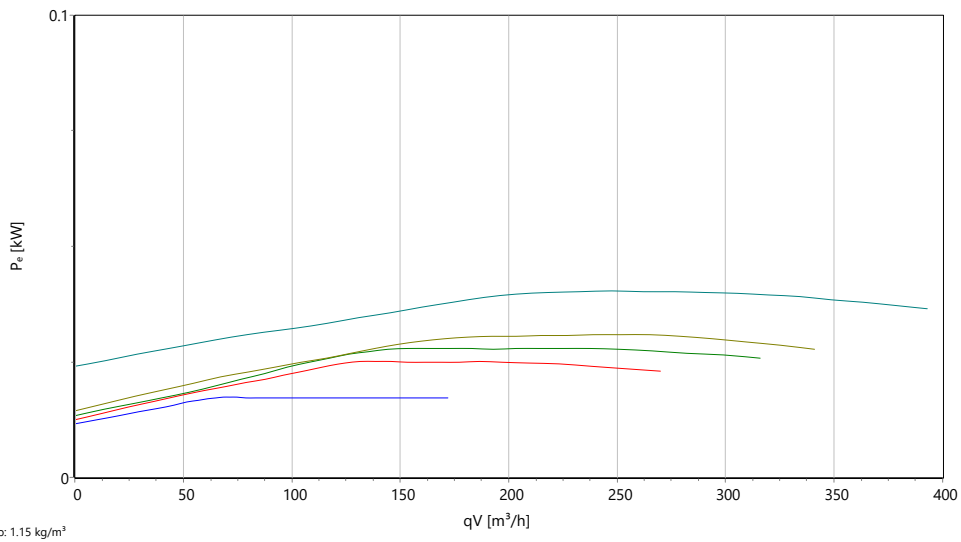


# RS - 125L Performance Curves

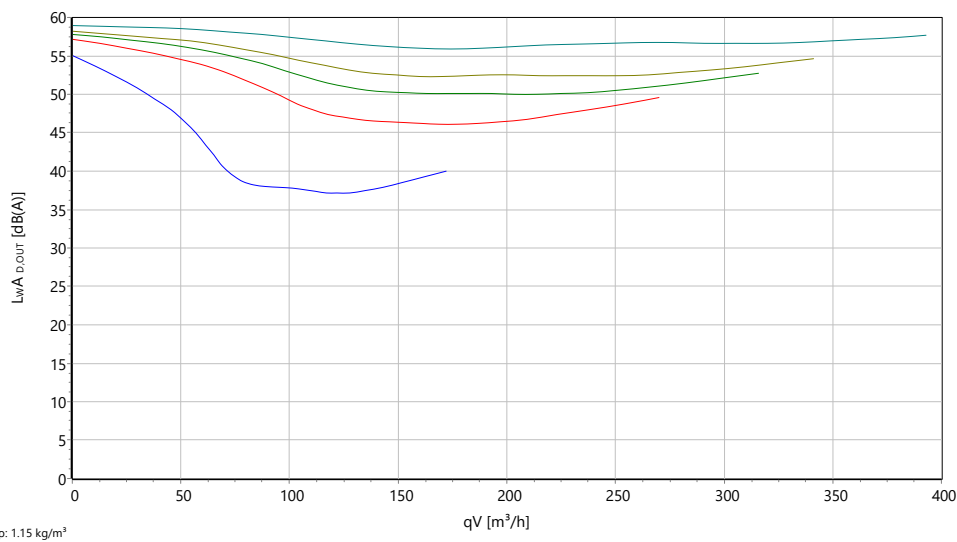
stat. Efficiency



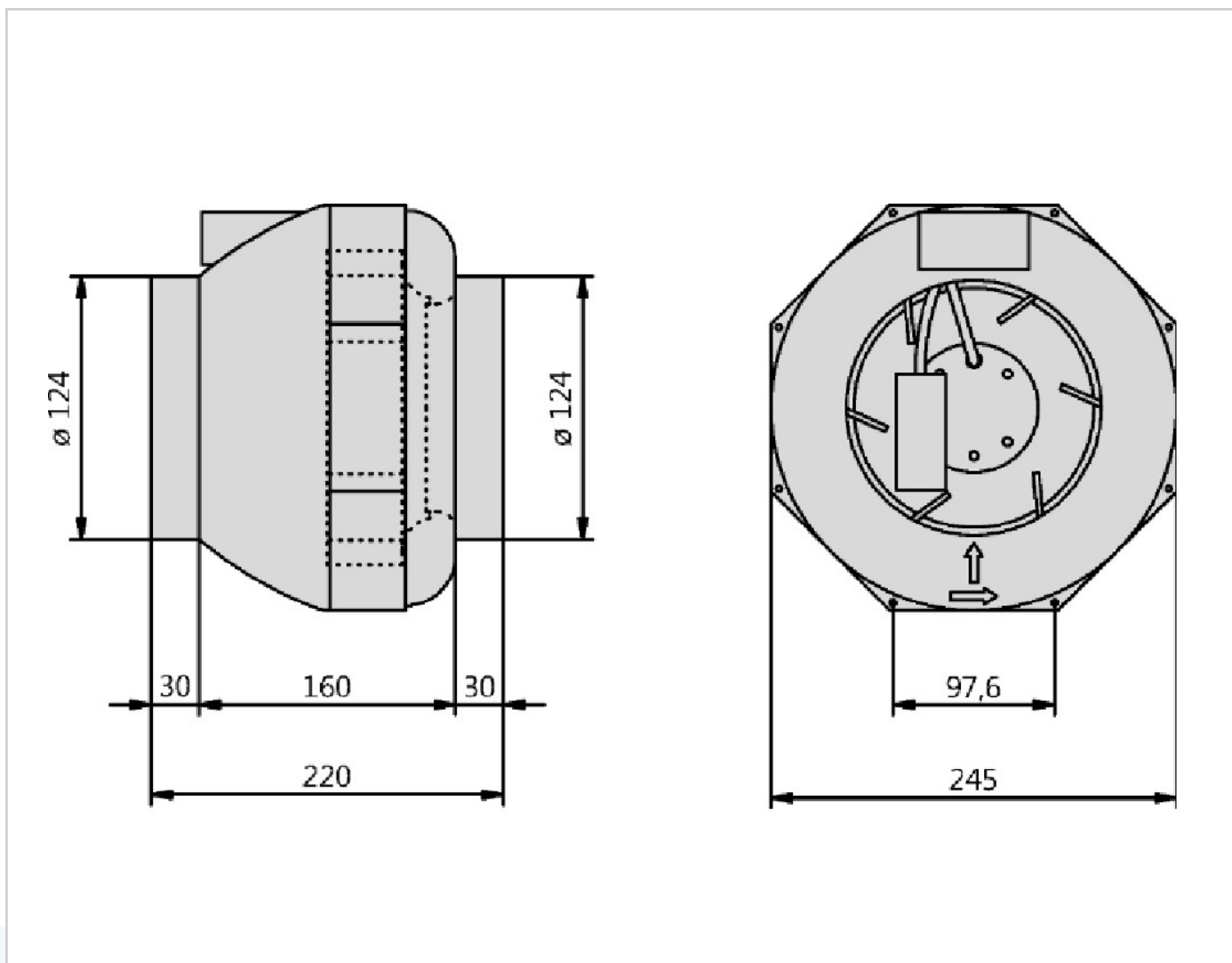
Input power



Sound power



## RS - 125L.3BF Dimensions



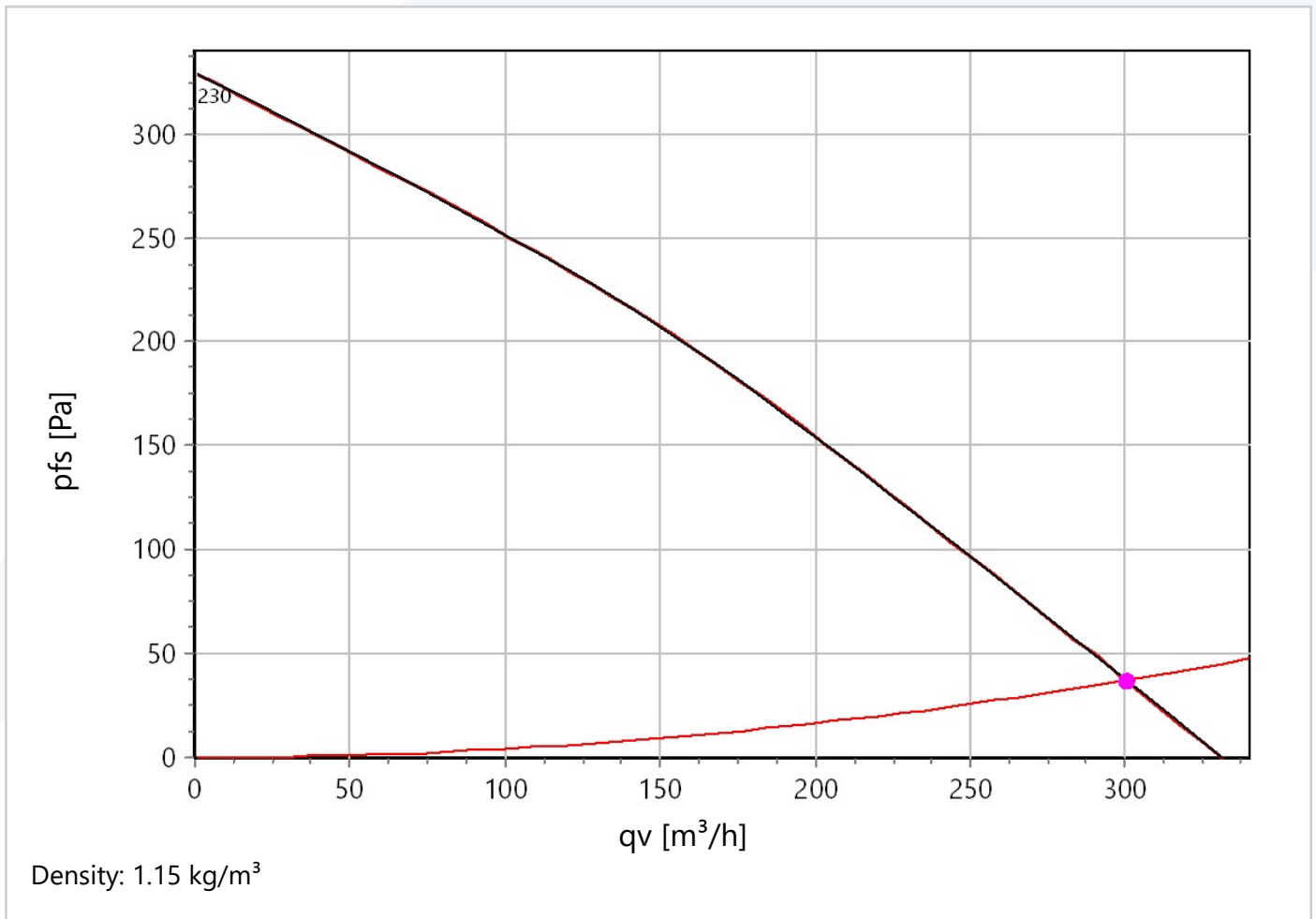
## Technical Data

U [V]	f [Hz]	P <sub>e</sub> [kW]	I <sub>N</sub> [A]	n <sub>N</sub> [1/min]	C [μF]	t <sub>r</sub> [°C]	k <sub>10</sub> [m <sup>2</sup> /h]	I <sub>λ</sub> / I <sub>N</sub>	IP	m [kg]
1~230	50	0.06	0.27	2380	1.5	70	-	1.6	IP 44	2.4

## Sound Data

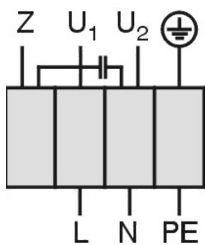
	Σ	63Hz	125Hz	250Hz	500Hz	1KHz	2KHz	4KHz	8KHz
L <sub>w</sub> (D,in) [dB(A)]	62	62	42	54	57	56	55	50	40
L <sub>w</sub> (D,out) [dB(A)]	58	58	39	50	52	53	51	46	37
L <sub>w</sub> (D,cas) [dB(A)]	48	48	30	39	41	44	41	35	24

## RS - 125L.3BF Performance Curve



## Wiring Diagram

Single phase AC motor with operating capacitor and thermostatic switch. Thermostatic switch internal wired in series with windings.



U<sub>1</sub> Blue  
 U<sub>2</sub> Black  
 Z Brown  
 PE Yellow-Green

## Operating Point

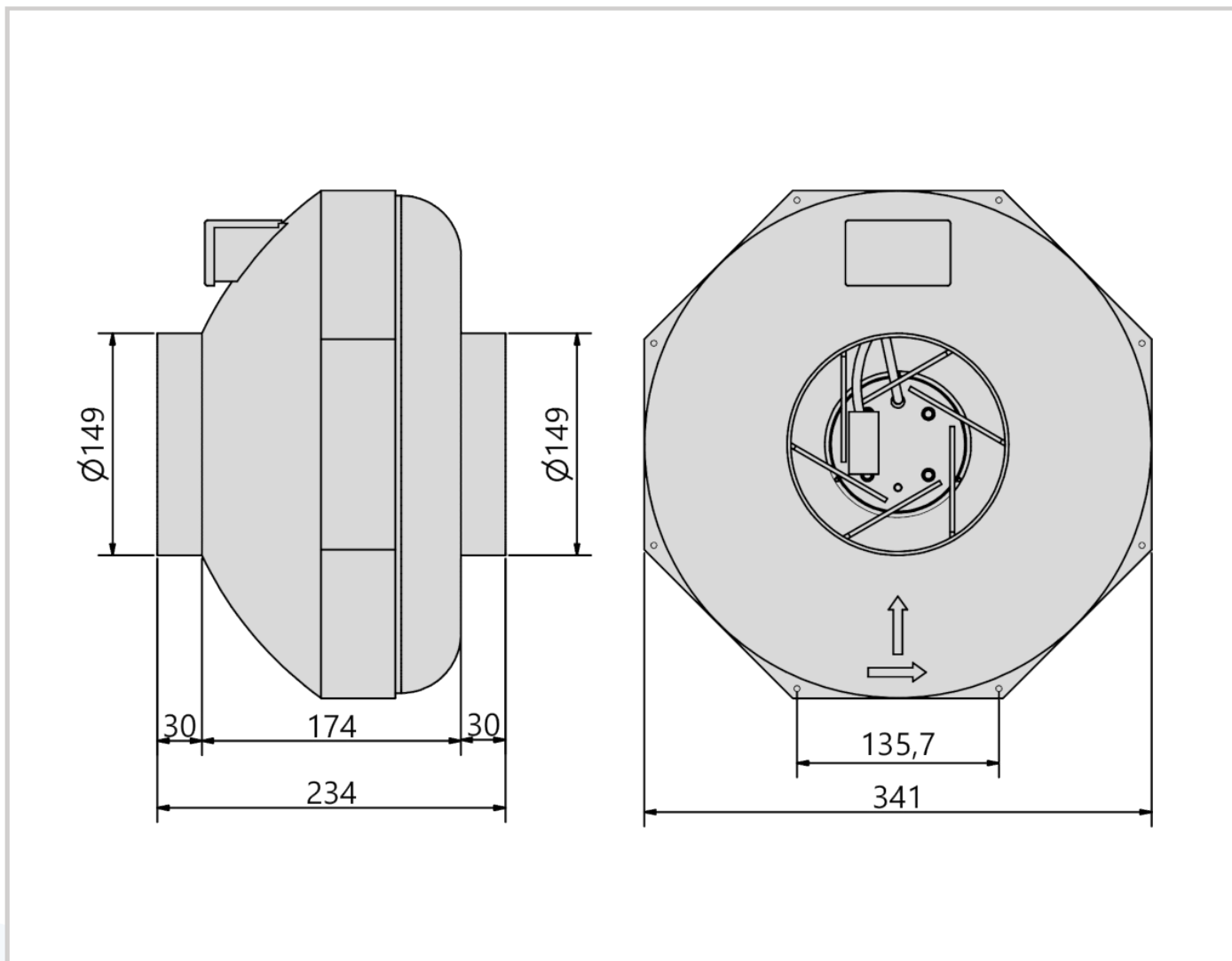
q <sub>v</sub>	301	m <sup>3</sup> /h
p <sub>fs</sub>	38	Pa
p <sub>rd</sub>	40	Pa
η <sub>e,fs</sub>	6	%
η <sub>e,tot</sub>	12	%
P <sub>e</sub>	0.0576	kW
I	0.26	A
n	2383	1/min
L <sub>W</sub> A <sub>D,out</sub>	58	dB(A)
U	230	V
SFP	690	Ws/m <sup>3</sup>
v	6.78	m/s

## Set Point

2KHz	4KHz	8KHz
55	50	40
51	46	37
41	35	24

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## RS - 150 Dimensions



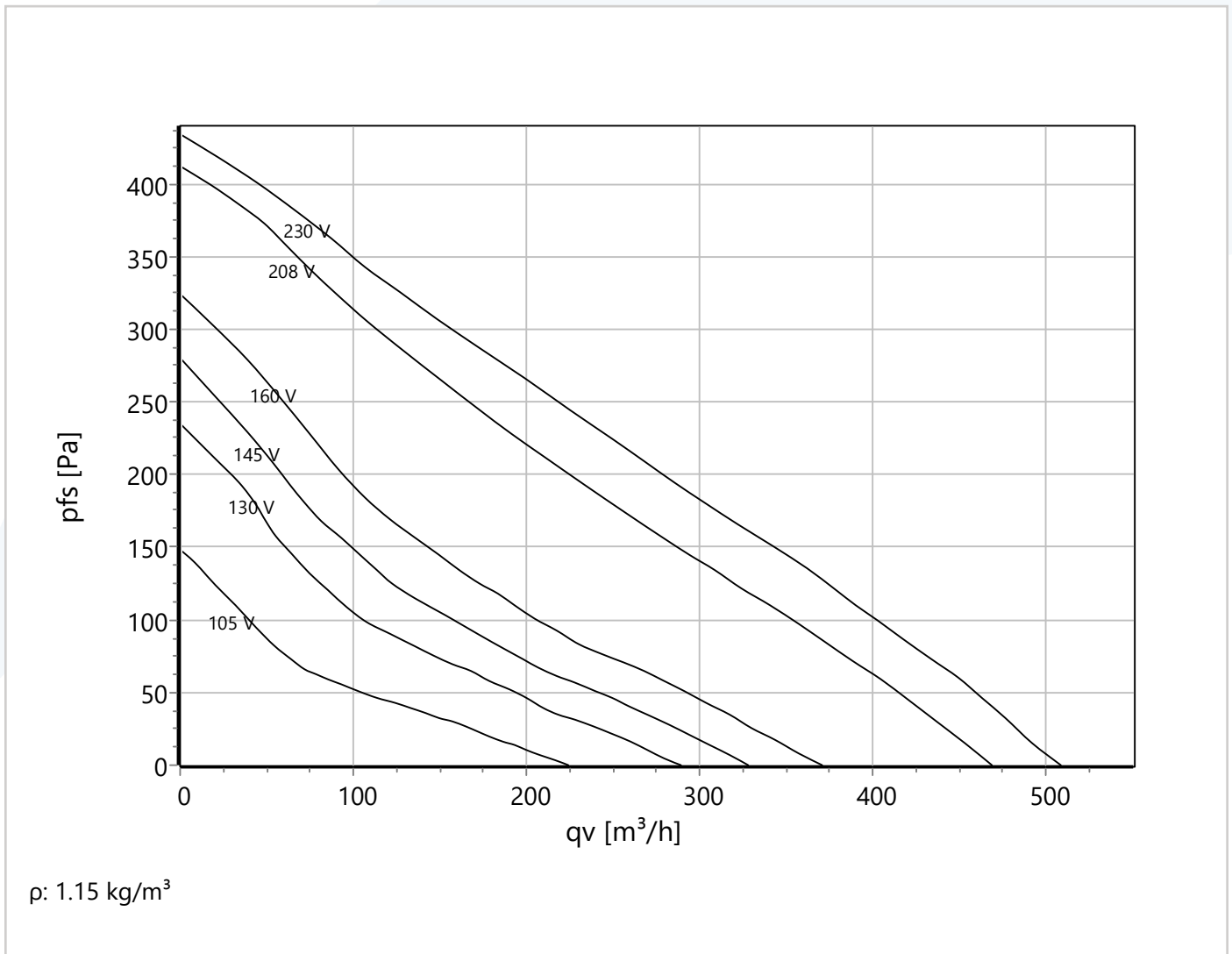
## Technical Data

U [V]	f [Hz]	C [ $\mu$ F]	P <sub>e</sub> [kW]	I <sub>N</sub> [A]	n <sub>N</sub> [r/min]	t <sub>r</sub> [°C]	k <sub>10</sub> [m <sup>2</sup> /h]	I <sub>A</sub> / I <sub>N</sub>	IP	m [kg]
1~230	60	2	0.068	0.3	2475	-20 .. +70	-	1.5	IP 44	2.7
	50		0.054	0.24	2345					

## Sound Data

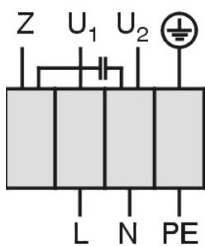
Frequency	$\Sigma$	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	Distances	1 m	4 m
LwA(D,in) [dB(A)]	2	-38	-20	-7	-6	-6	-7	-10	-22	LpA(D,in) [dB(A)]	-5	-15
LwA(D,out) [dB(A)]		-38	-20	-9	-9	-5	-5	-10	-20	LpA(D,out) [dB(A)]	-7	-17
LwA(D,cas) [dB(A)]	-15	-29	-13	-9	-7	-5	-6	-13	-22	LpA(D,cas) [dB(A)]	-22	-32

## RS - 150 Performance Curve



## Wiring Diagram

Single phase AC motor with operating capacitor and thermostatic switch. Thermostatic switch internal wired in series with windings.

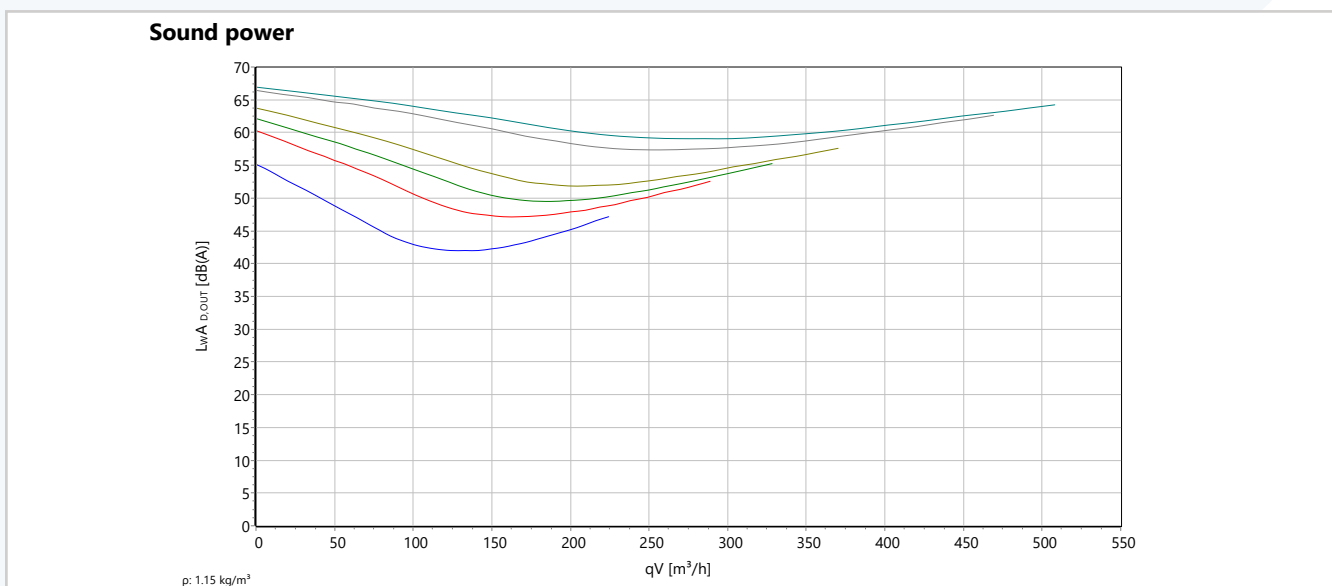
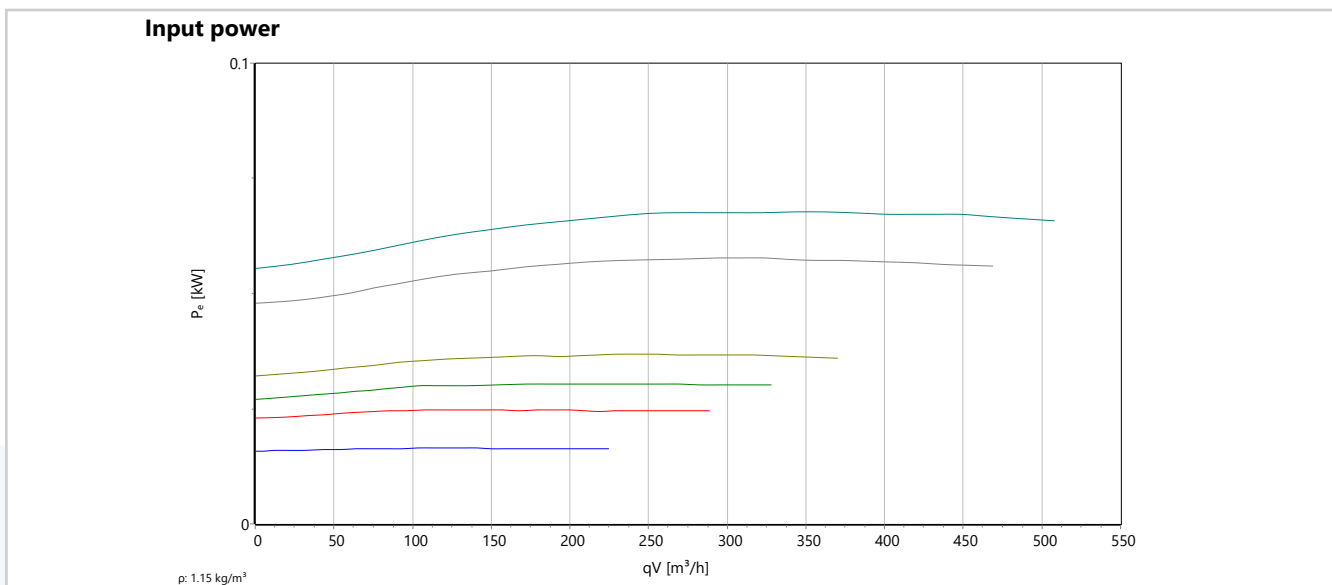
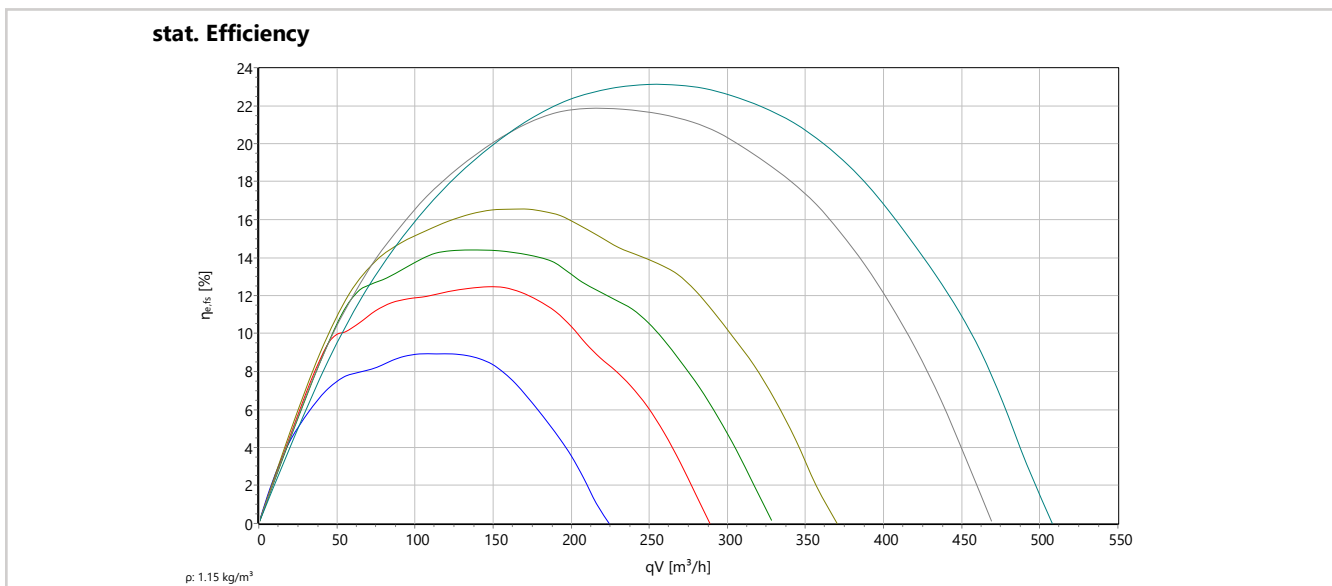


U<sub>1</sub> Blue  
 U<sub>2</sub> Black  
 Z Brown  
 PE Yellow-Green

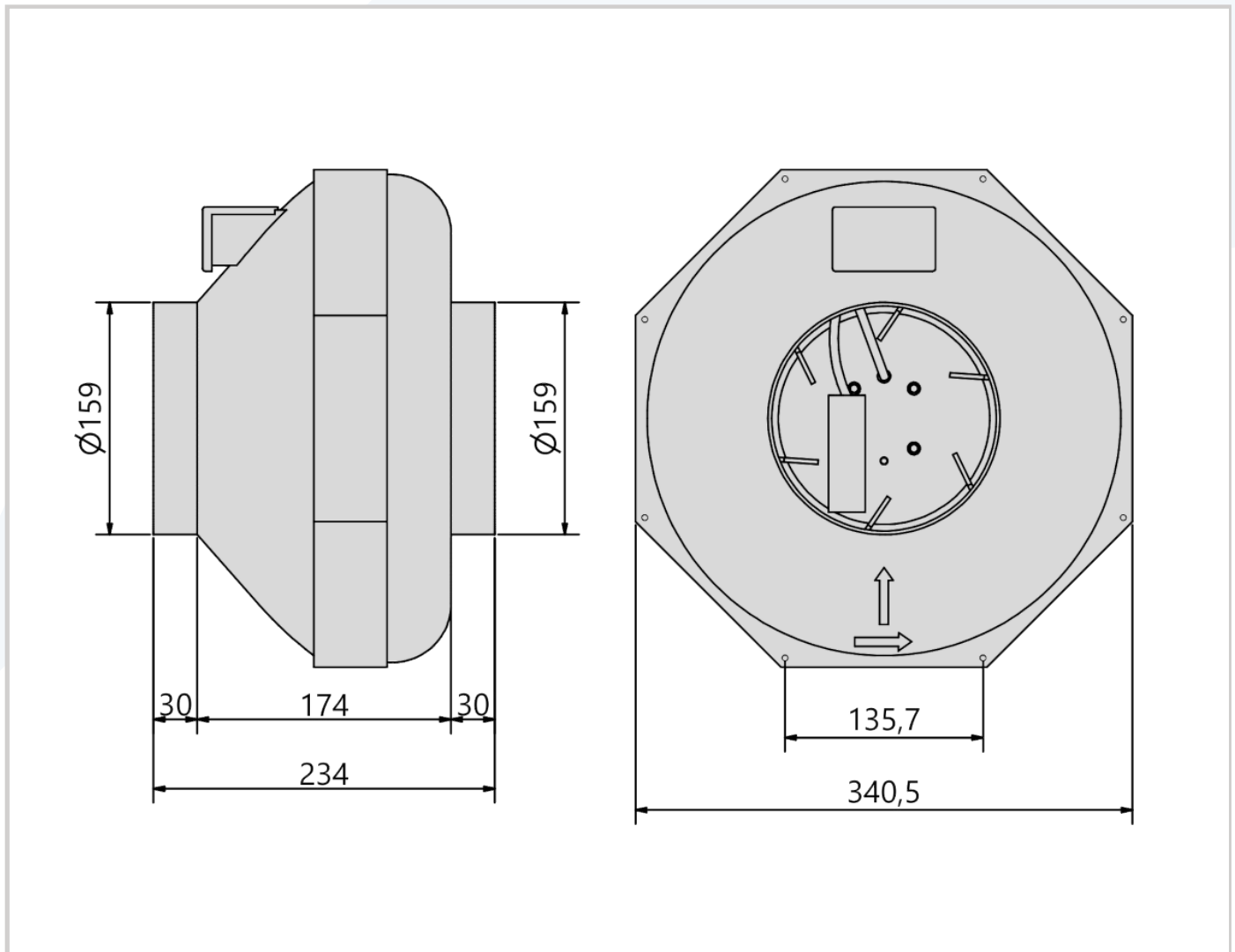
## ErP - Data

(EU) Nr. 1253/2014 (Lot6)		
q <sub>v</sub>	278	m <sup>3</sup> /h
p <sub>fs</sub>	171	Pa
η <sub>fs</sub>	24.6	%
P <sub>e</sub>	0.054	kW
n	2356	r/min
N	43	N
v	4.388	m/s
η <sub>fs</sub> Lot11	0	%

## RS - 150 Performance Curves



## RS - 160 Dimensions



## Technical Data

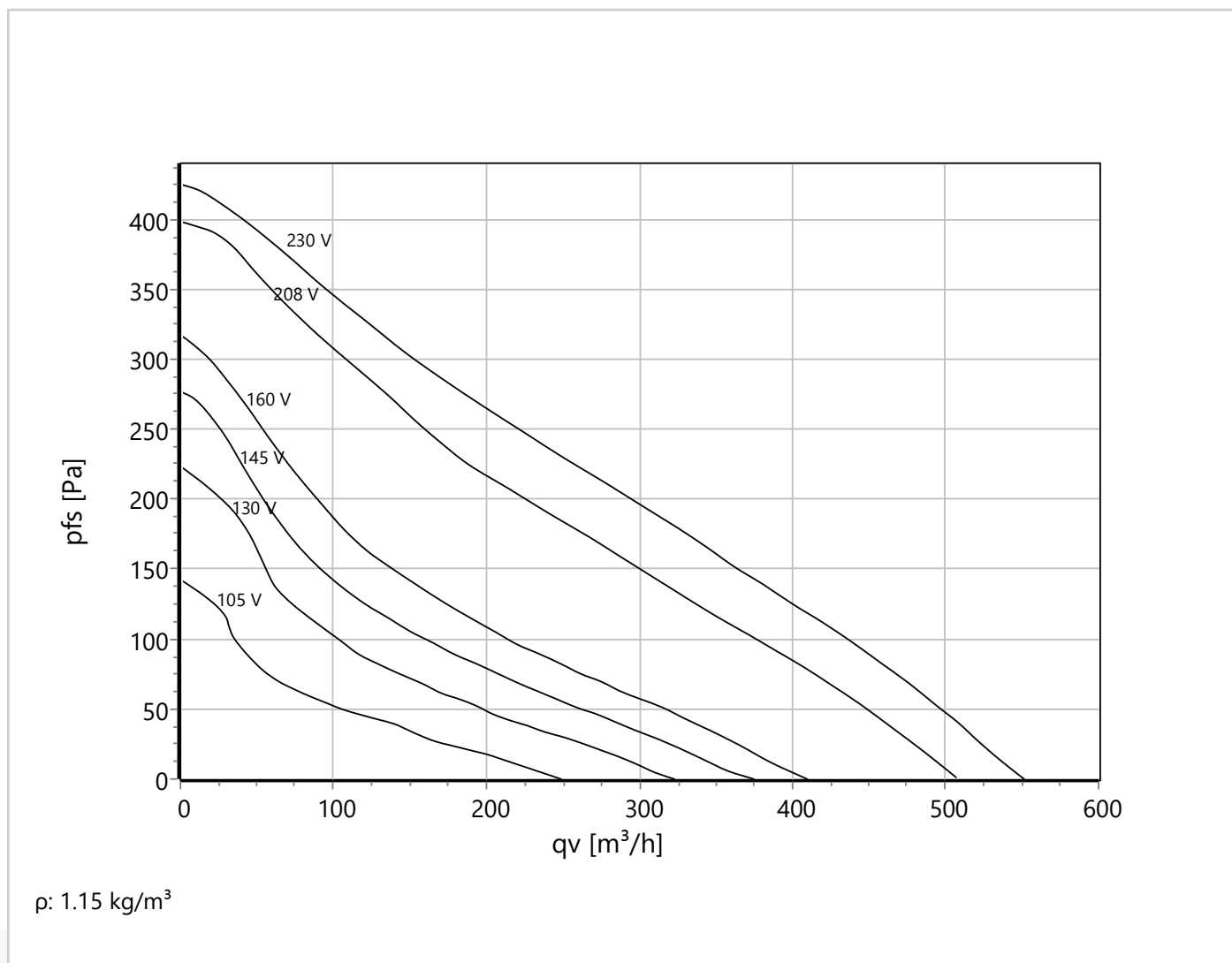
U [V]	f [Hz]	C [ $\mu$ F]	P <sub>e</sub> [kW]	I <sub>N</sub> [A]	n <sub>N</sub> [r/min]	t <sub>r</sub> [°C]	k <sub>10</sub> [m <sup>2</sup> s/h]	I <sub>A</sub> / I <sub>N</sub>	IP	m [kg]
1~230	60	2	0.068	0.3	2475	-20 .. +70	-	1.5	IP 44	2.7
	50		0.053	0.24	2380					

## Sound Data

Frequency	$\Sigma$	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	Distances	1 m	4 m
LwA(D,in) [dB(A)]	1	-43	-24	-10	-8	-6	-6	-7	-14	LpA(D,in) [dB(A)]	-6	-16
LwA(D,out) [dB(A)]		-38	-20	-9	-9	-7	-5	-7	-17	LpA(D,out) [dB(A)]	-7	-17
LwA(D,cas) [dB(A)]	-18	-24	-9	-7	-8	-6	-7	-13	-20	LpA(D,cas) [dB(A)]	-25	-35

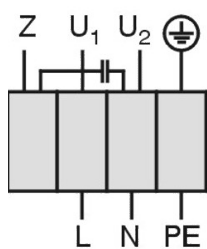


## RS - 160 Performance Curve



### Wiring Diagram

Single phase AC motor with operating capacitor and thermostatic switch. Thermostatic switch internal wired in series with windings.



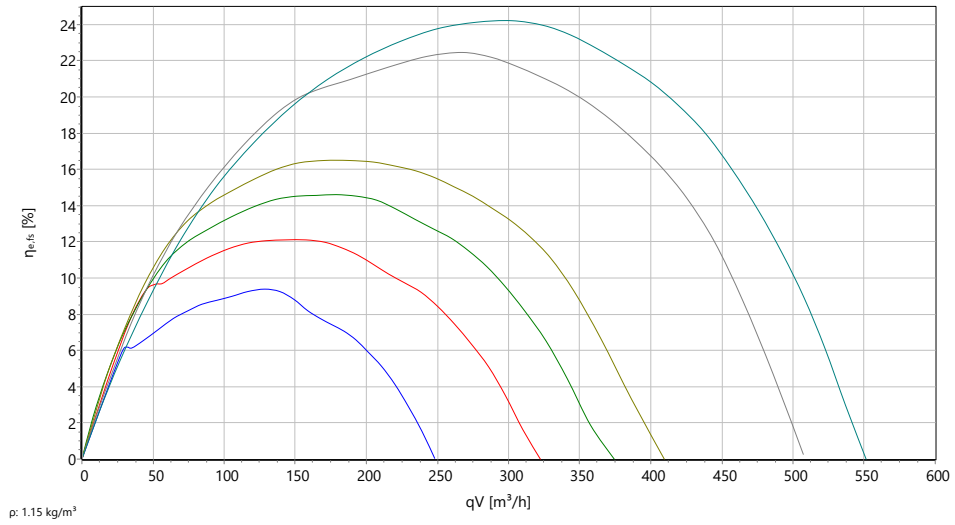
- U<sub>1</sub> Blue
- U<sub>2</sub> Black
- Z Brown
- PE Yellow-Green

### ErP - Data

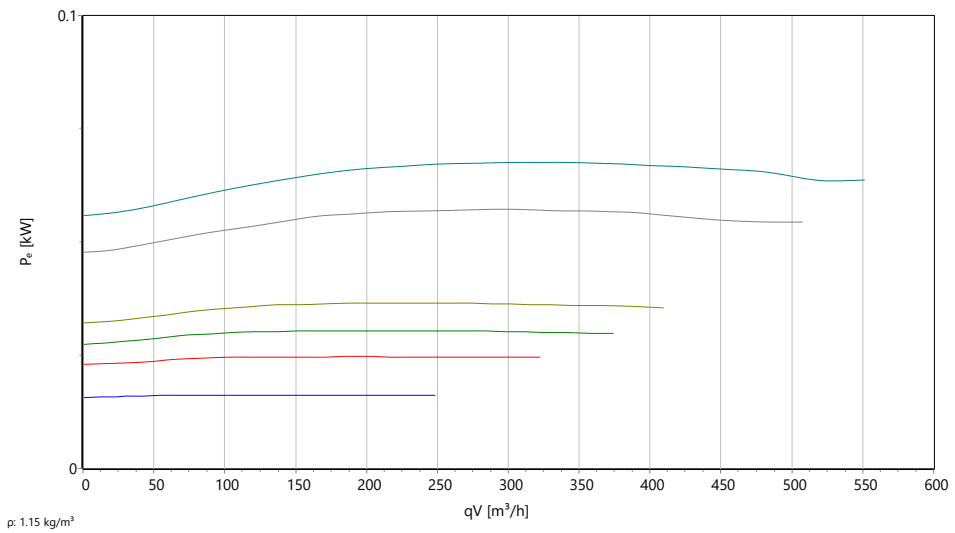
(EU) Nr. 1253/2014 (Lot6)		
q <sub>v</sub>	287	m <sup>3</sup> /h
p <sub>fs</sub>	172	Pa
η <sub>fs</sub>	25.5	%
P <sub>e</sub>	0.054	kW
n	2333	r/min
N	44	N
v	3.966	m/s
η <sub>fs</sub> Lot11	0	%

# RS - 160 Performance Curves

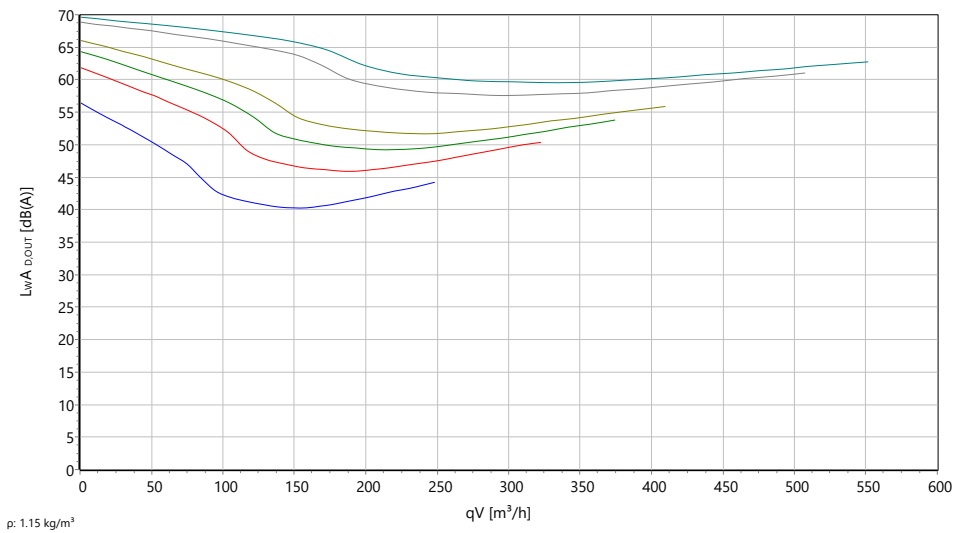
stat. Efficiency



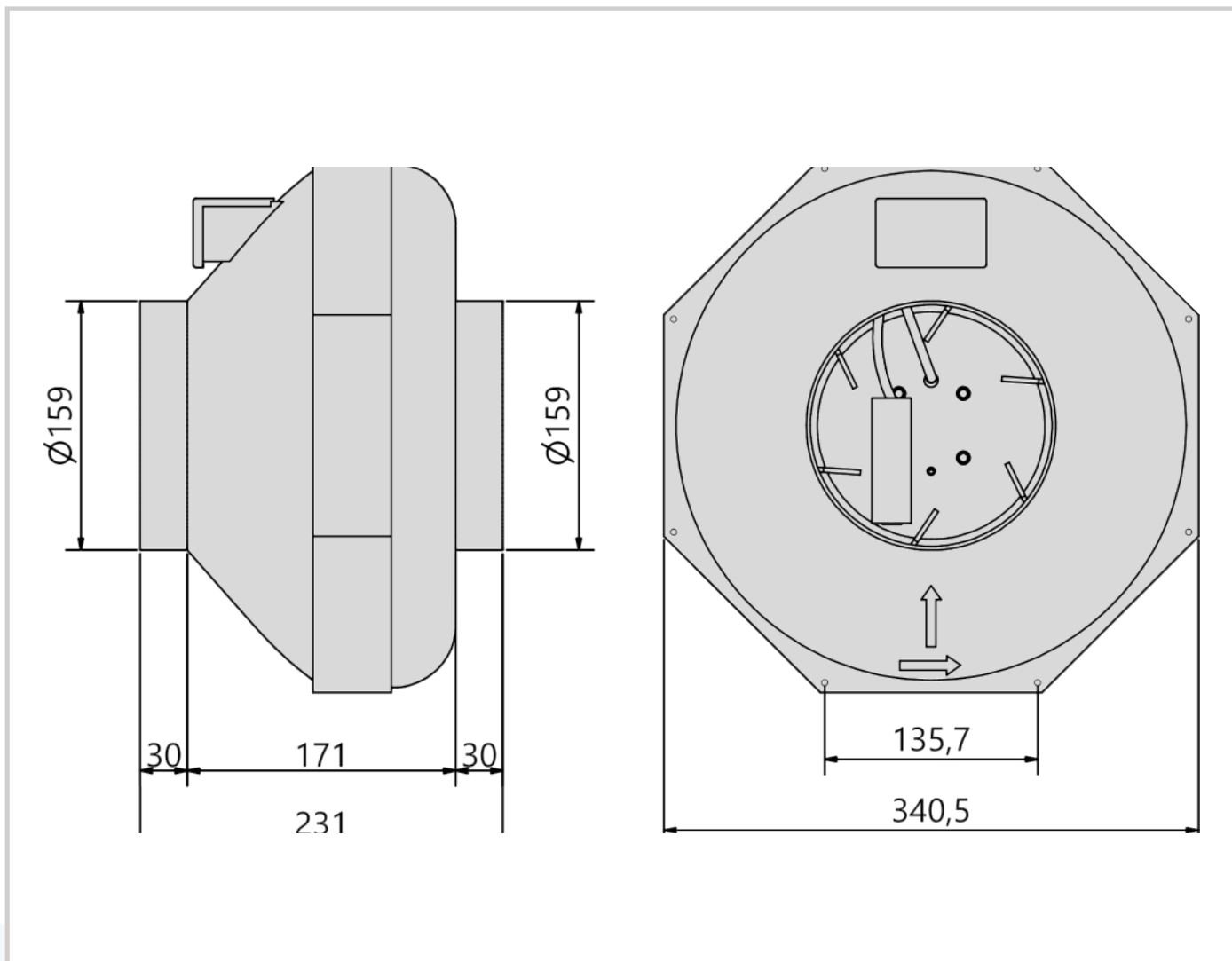
Input power



Sound power



## RS - 160L Dimensions



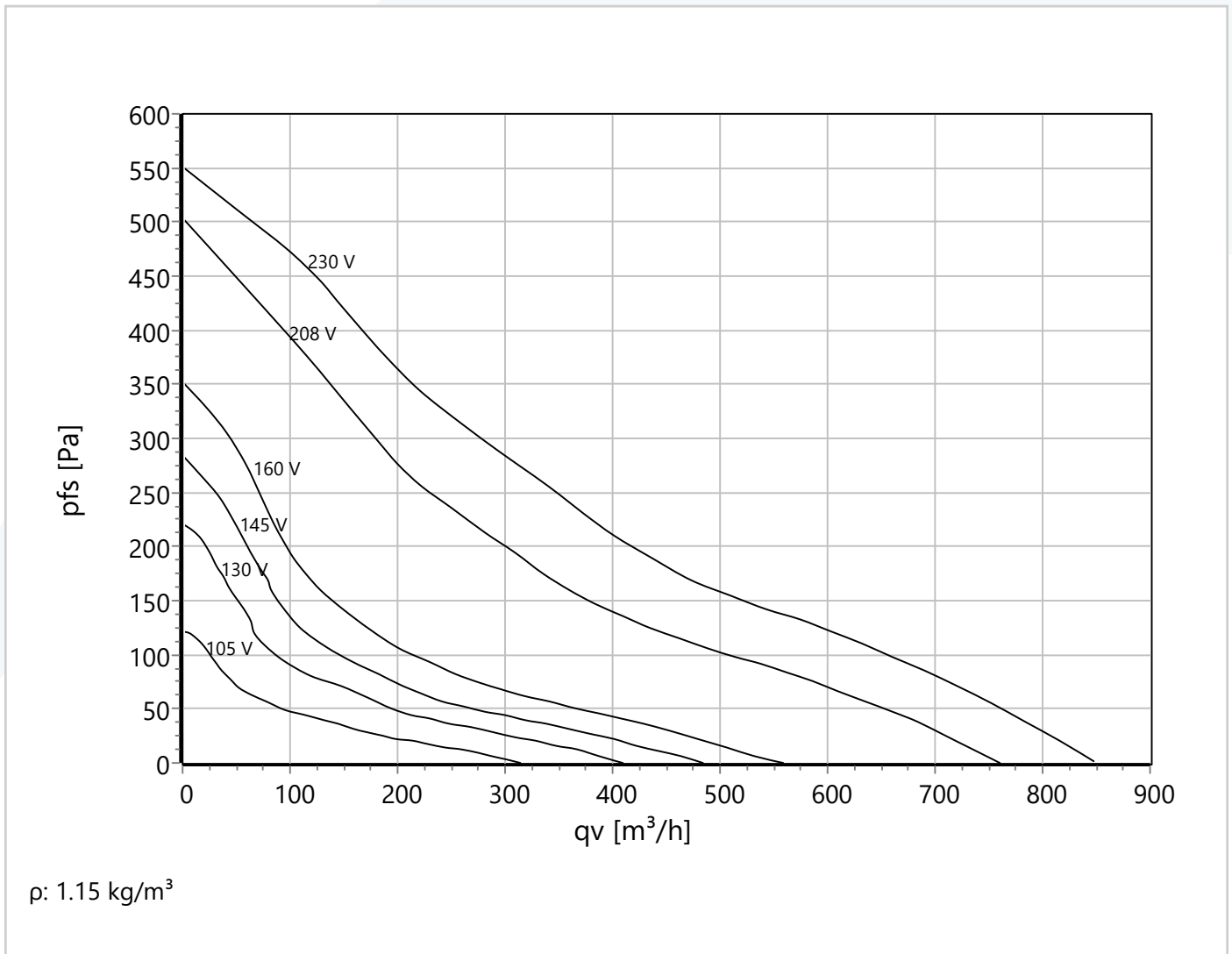
## Technical Data

U [V]	f [Hz]	C [µF]	P <sub>e</sub> [kW]	I <sub>N</sub> [A]	n <sub>N</sub> [r/min]	t <sub>R</sub> [°C]	k <sub>10</sub> [m <sup>2</sup> /h]	I <sub>A</sub> / I <sub>N</sub>	IP	m [kg]
1~230	60	2	0.12	0.52	2300	-20 .. +70	-	1.2	IP 44	3.1
	50		0.095	0.41	2410					

## Sound Data

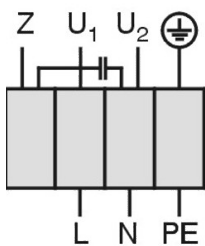
Frequency	Σ	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	Distances	1 m	4 m
LwA(D,in) [dB(A)]	1	-44	-24	-11	-7	-5	-6	-9	-17	LpA(D,in) [dB(A)]	-6	-16
LwA(D,out) [dB(A)]		-41	-20	-9	-7	-6	-6	-9	-15	LpA(D,out) [dB(A)]	-7	-17
LwA(D,cas) [dB(A)]	-14	-33	-13	-12	-6	-5	-6	-12	-15	LpA(D,cas) [dB(A)]	-21	-31

## RS - 160L Performance Curve



## Wiring Diagram

Single phase AC motor with operating capacitor and thermostatic switch. Thermostatic switch internal wired in series with windings.

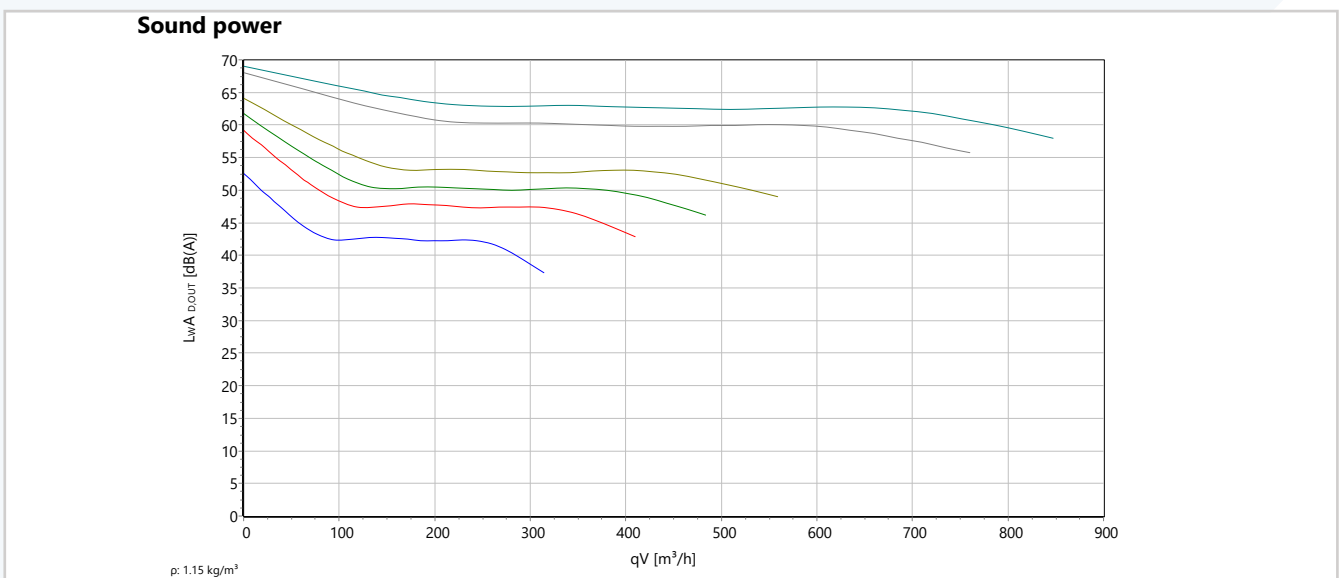
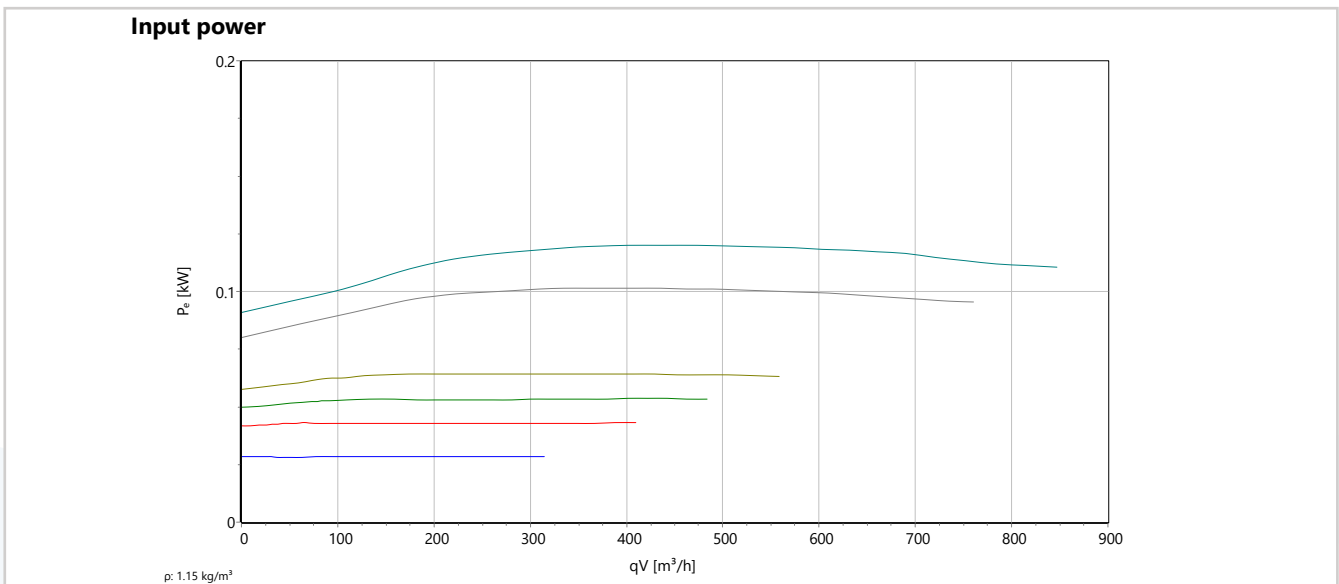
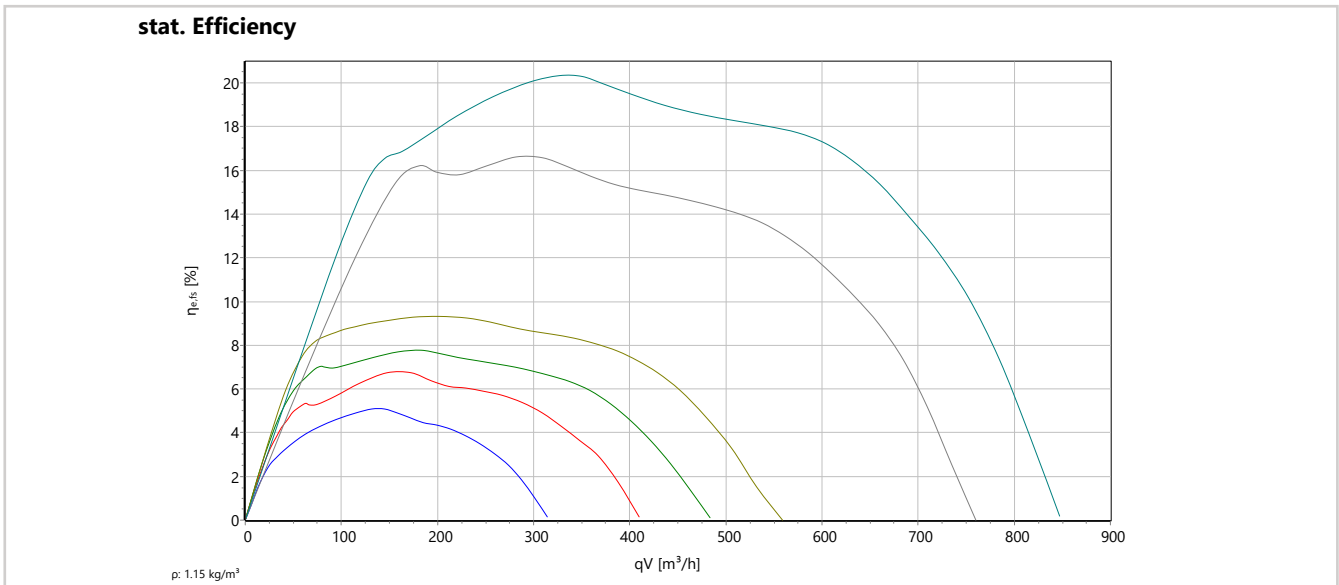


U<sub>1</sub> Blue  
 U<sub>2</sub> Black  
 Z Brown  
 PE Yellow-Green

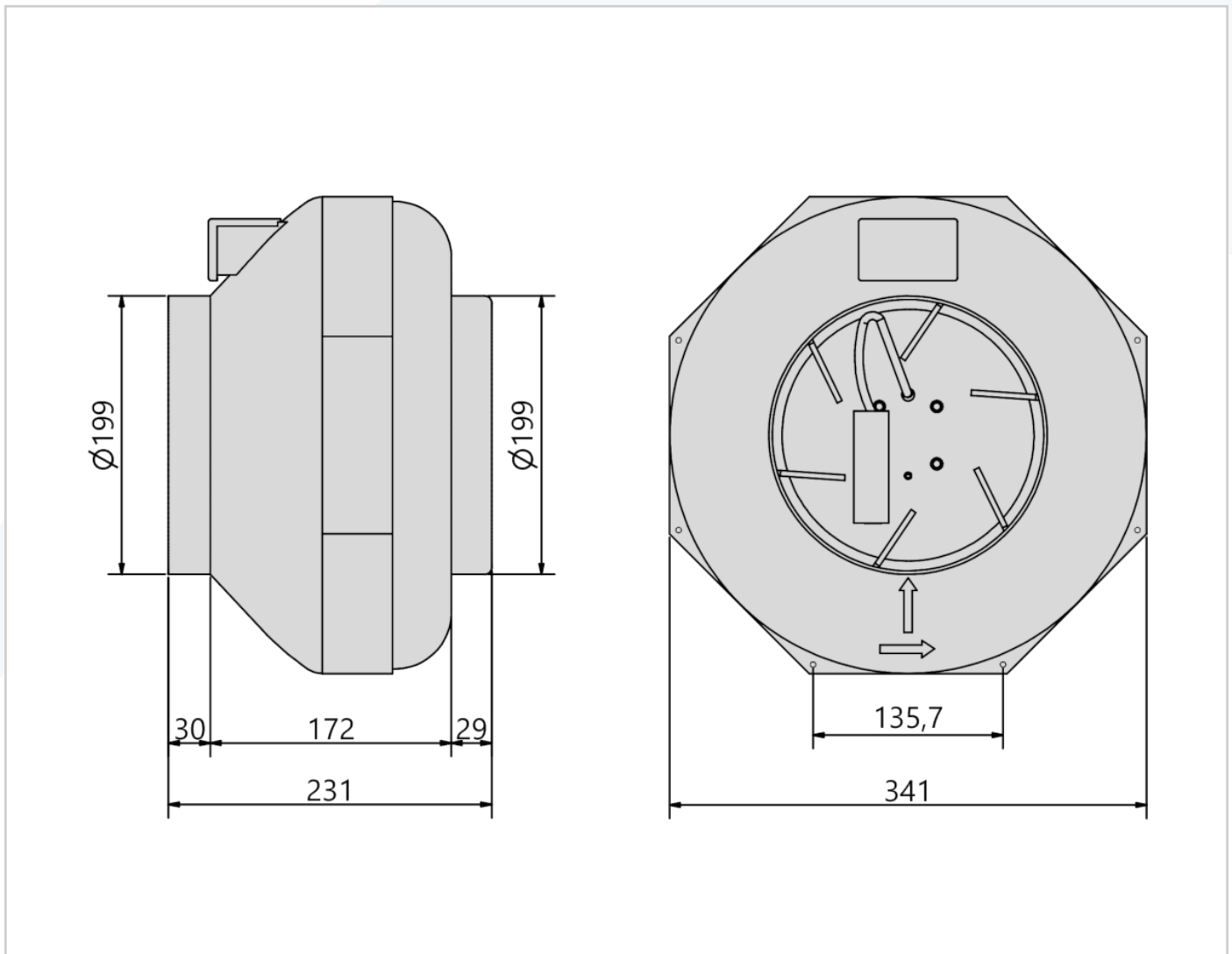
## ErP - Data

(EU) Nr. 1253/2014 (Lot6)		
q <sub>v</sub>	365	m <sup>3</sup> /h
p <sub>fs</sub>	264	Pa
η <sub>fs</sub>	28.6	%
P <sub>e</sub>	0.094	kW
n	2408	r/min
N	43	N
v	5.044	m/s
η <sub>fs</sub> Lot11	0	%

## RS - 160L Performance Curves



## RS - 200 Dimensions



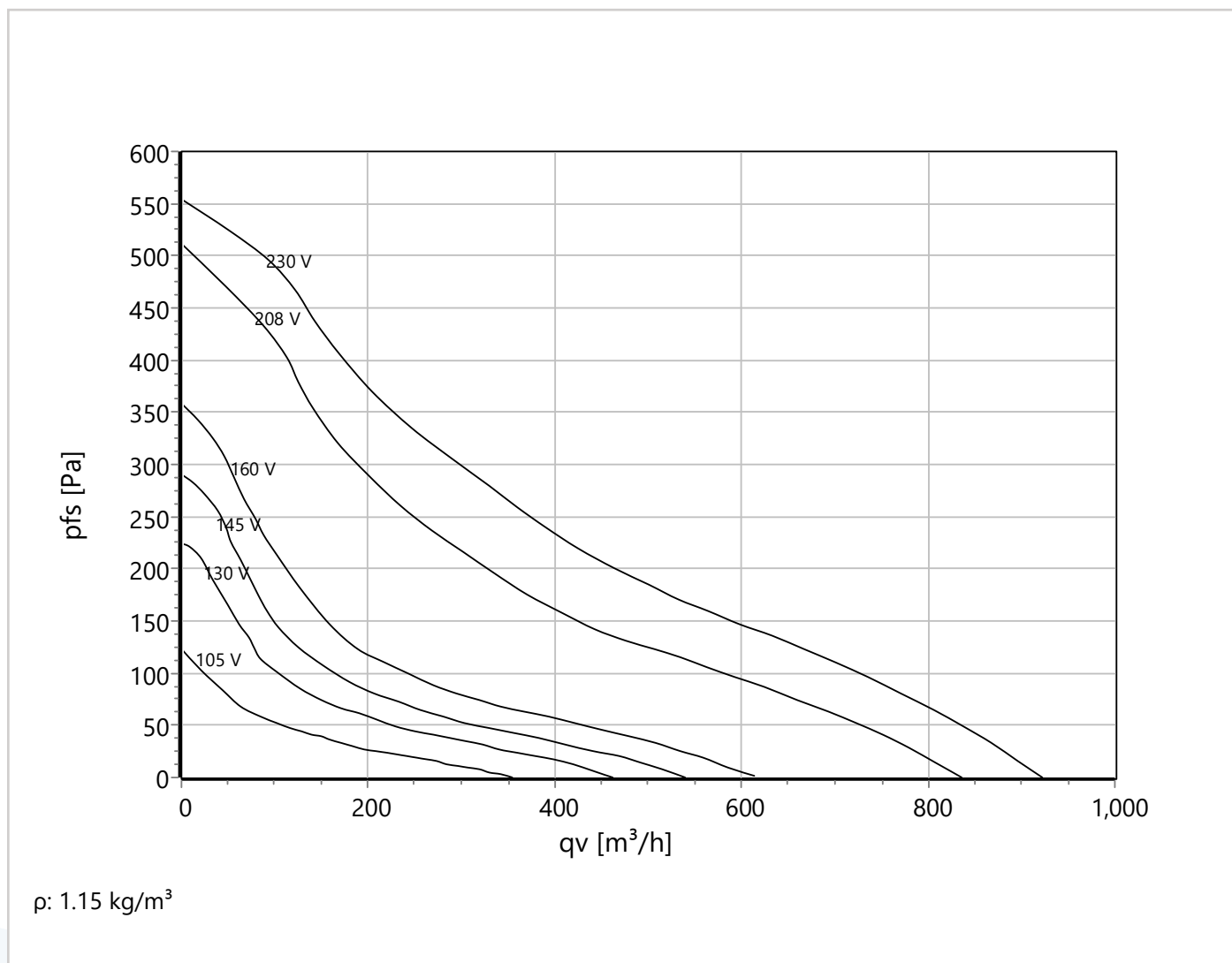
## Technical Data

U [V]	f [Hz]	C [ $\mu$ F]	P <sub>e</sub> [kW]	I <sub>N</sub> [A]	n <sub>N</sub> [r/min]	t <sub>r</sub> [°C]	k <sub>10</sub> [m <sup>2</sup> s/h]	I <sub>A</sub> / I <sub>N</sub>	IP	m [kg]
1~230	60	2	0.12	0.52	2290	-20 .. +70	-	1.2	IP 44	3.4
	50		0.095	0.41	2365					

## Sound Data

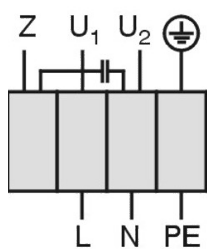
Frequency	$\Sigma$	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	Distances	1 m	4 m
LwA(D,in) [dB(A)]	2	-27	-14	-11	-6	-5	-6	-13	-20	LpA(D,in) [dB(A)]	-5	-15
LwA(D,out) [dB(A)]		-39	-19	-10	-9	-6	-5	-8	-15	LpA(D,out) [dB(A)]	-7	-17
LwA(D,cas) [dB(A)]	15	-29	-11	-10	-6	-5	-7	-14	-21	LpA(D,cas) [dB(A)]	8	-2

## RS - 200 Performance Curve



### Wiring Diagram

Single phase AC motor with operating capacitor and thermostatic switch. Thermostatic switch internal wired in series with windings.



- U<sub>1</sub> Blue
- U<sub>2</sub> Black
- Z Brown
- PE Yellow-Green

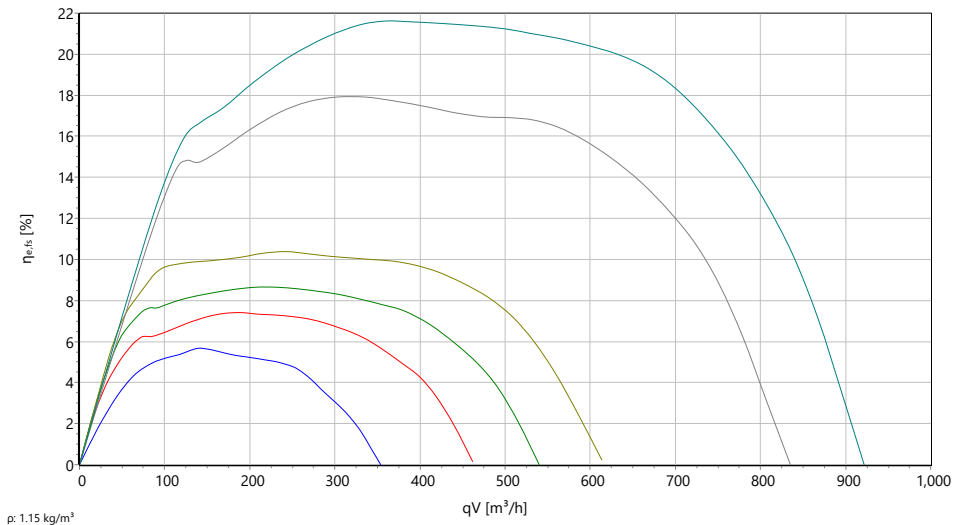
### ErP - Data

(EU) Nr. 1253/2014 (Lot6)		
q <sub>v</sub>	439	m <sup>3</sup> /h
p <sub>fs</sub>	231	Pa
η <sub>fs</sub>	29.7	%
P <sub>e</sub>	0.095	kW
n	2363	r/min
N	44	N
v	3.884	m/s
η <sub>fs</sub> Lot11	0	%

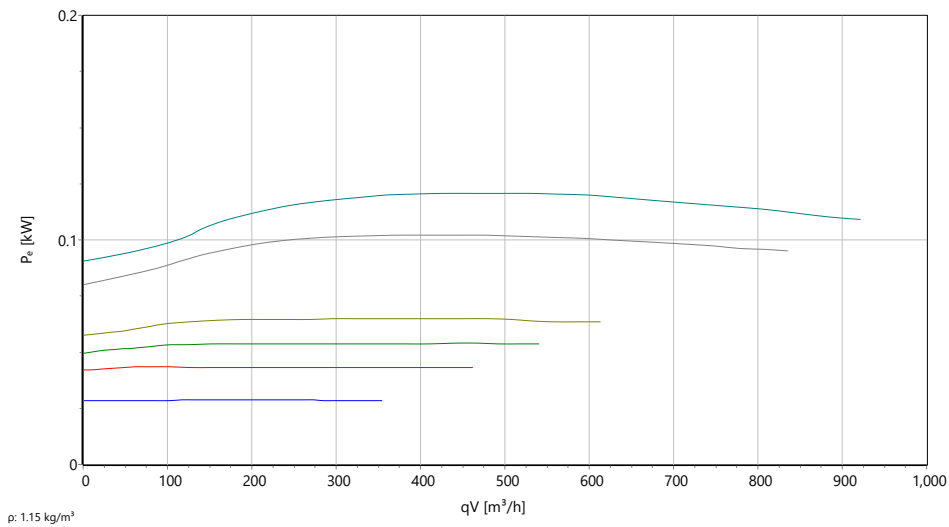


# RS - 200 Performance Curves

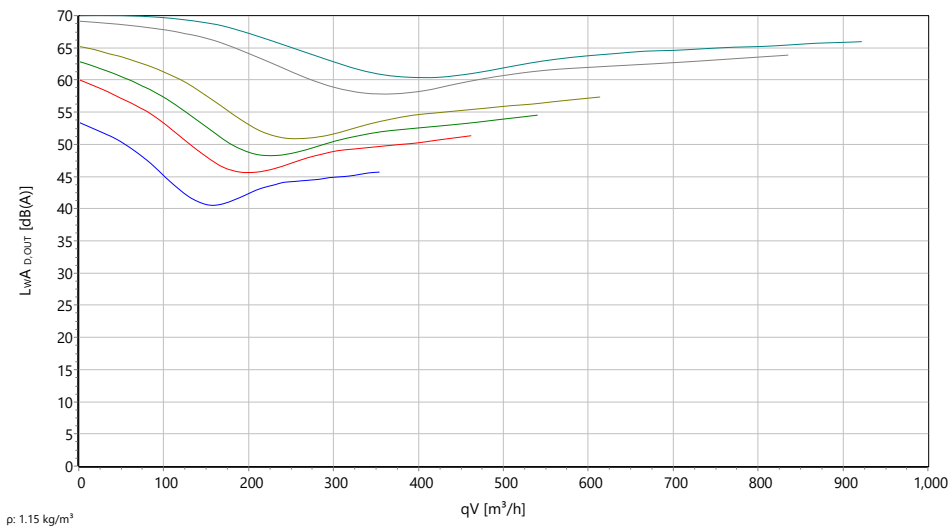
stat. Efficiency



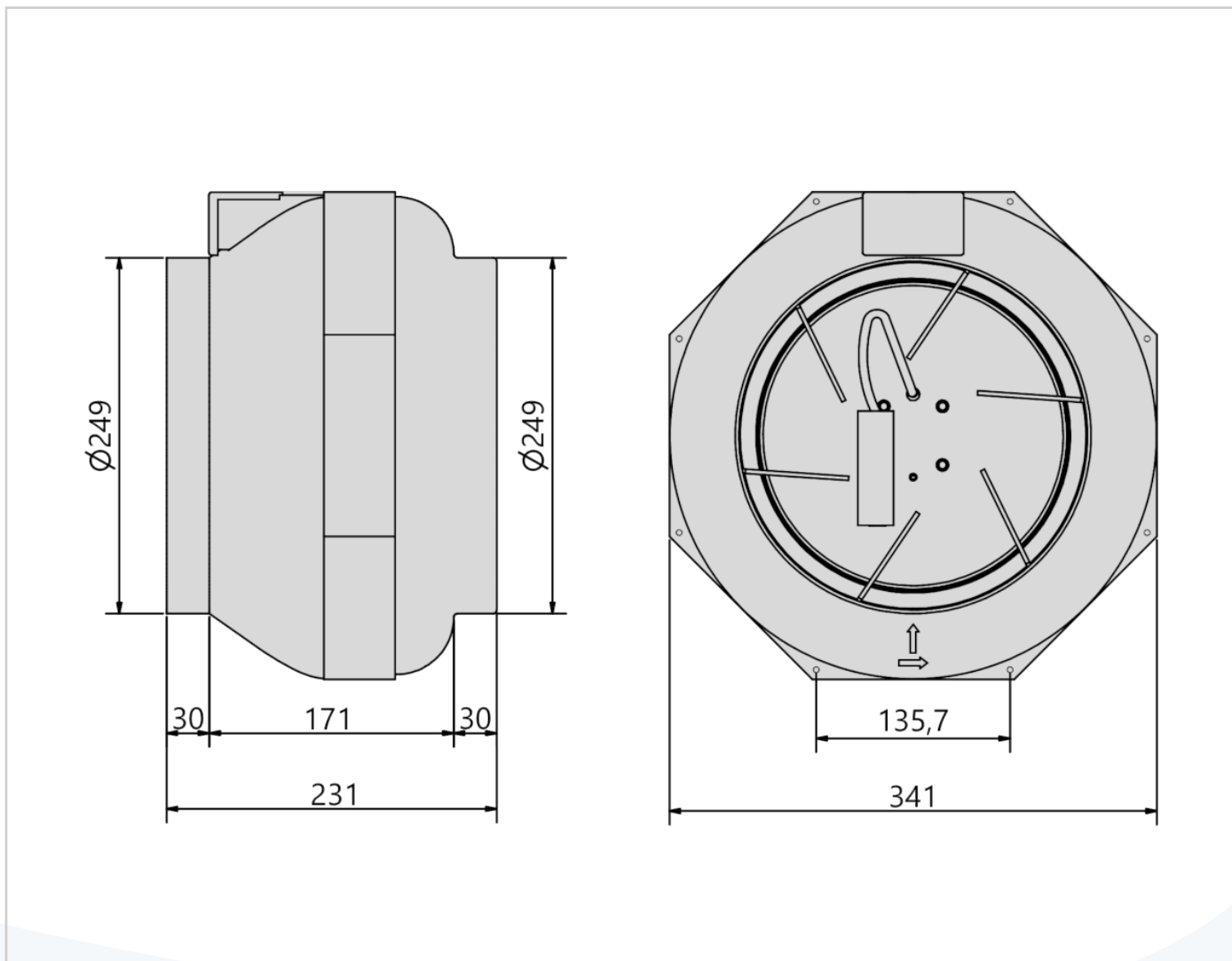
Input power



Sound power



## RS - 250 Dimensions



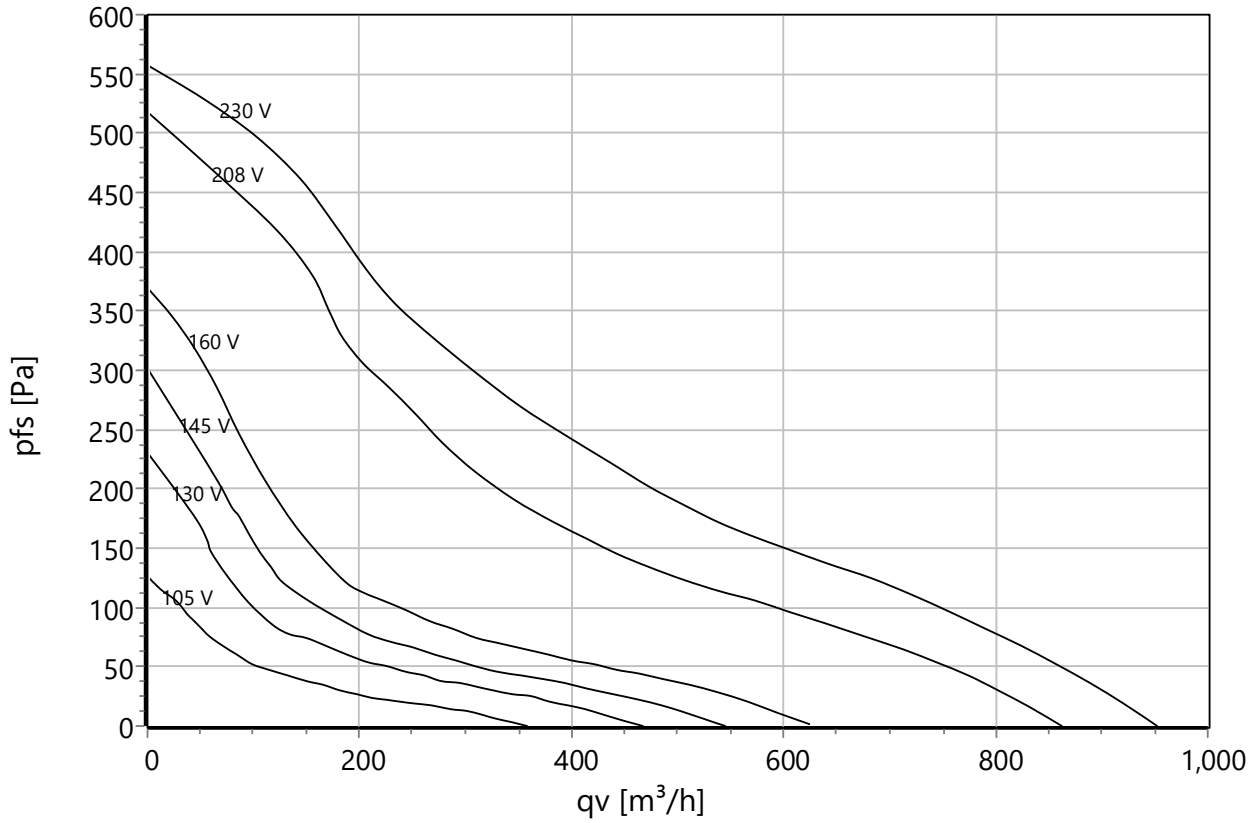
## Technical Data

U [V]	f [Hz]	C [ $\mu$ F]	P <sub>e</sub> [kW]	I <sub>N</sub> [A]	n <sub>N</sub> [r/min]	t <sub>R</sub> [°C]	k <sub>10</sub> [m <sup>2</sup> /h]	I <sub>A</sub> / I <sub>N</sub>	IP	m [kg]
1~230	60	2	0.123	0.53	2250	-20 .. +70	-	1.2	IP 44	3.4
	50		0.098	0.43	2360					

## Sound Data

Frequency	$\Sigma$	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	Distances	1 m	4 m
LwA(D,in) [dB(A)]	2	-41	-23	-8	-7	-7	-5	-10	-17	LpA(D,in) [dB(A)]	-5	-15
LwA(D,out) [dB(A)]		-38	-20	-9	-8	-6	-5	-10	-14	LpA(D,out) [dB(A)]	-7	-17
LwA(D,cas) [dB(A)]	-15	-27	-14	-11	-6	-5	-6	-13	-20	LpA(D,cas) [dB(A)]	-22	-32

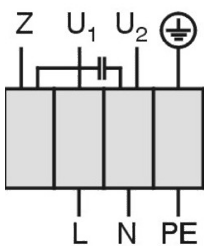
## RS - 250 Performance Curve



$\rho: 1.15 \text{ kg/m}^3$

## Wiring Diagram

Single phase AC motor with operating capacitor and thermostatic switch. Thermostatic switch internal wired in series with windings.



U<sub>1</sub> Blue  
 U<sub>2</sub> Black  
 Z Brown  
 PE Yellow-Green

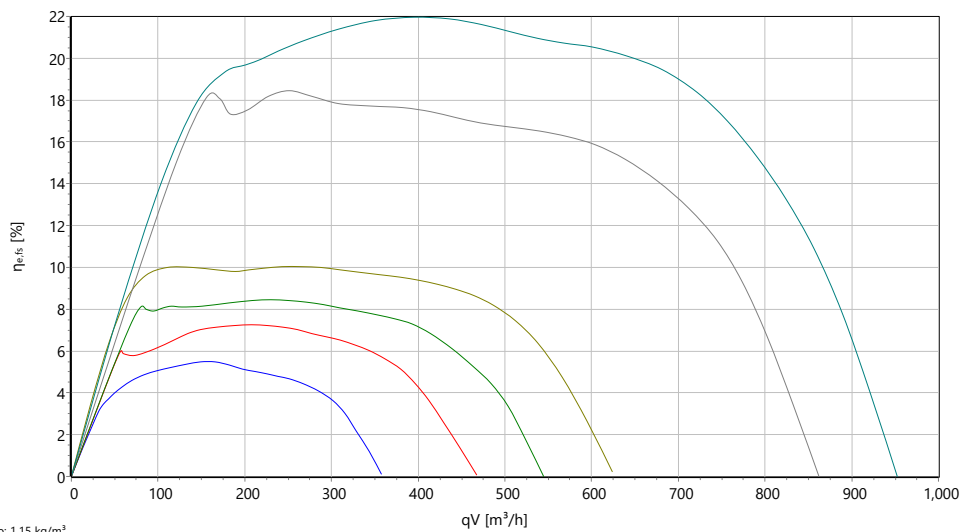
## ErP - Data

(EU) Nr. 1253/2014 (Lot6)		
q <sub>v</sub>	432	m <sup>3</sup> /h
P <sub>fs</sub>	255	Pa
η <sub>fs</sub>	31.6	%
P <sub>e</sub>	0.097	kW
n	2375	r/min
N	46	N
v	2.449	m/s
η <sub>fs</sub> Lot11	0	%

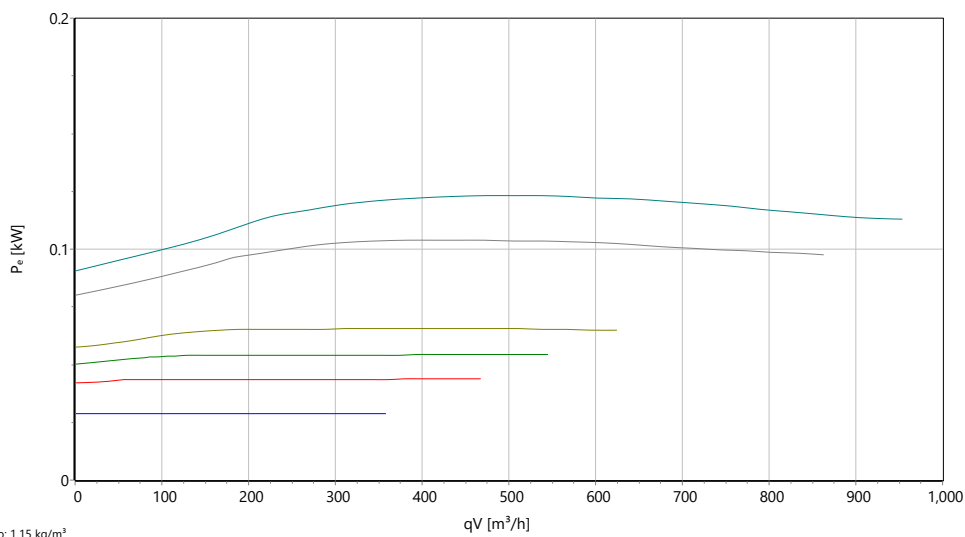
Buy Online

## RS - 250 Performance Curves

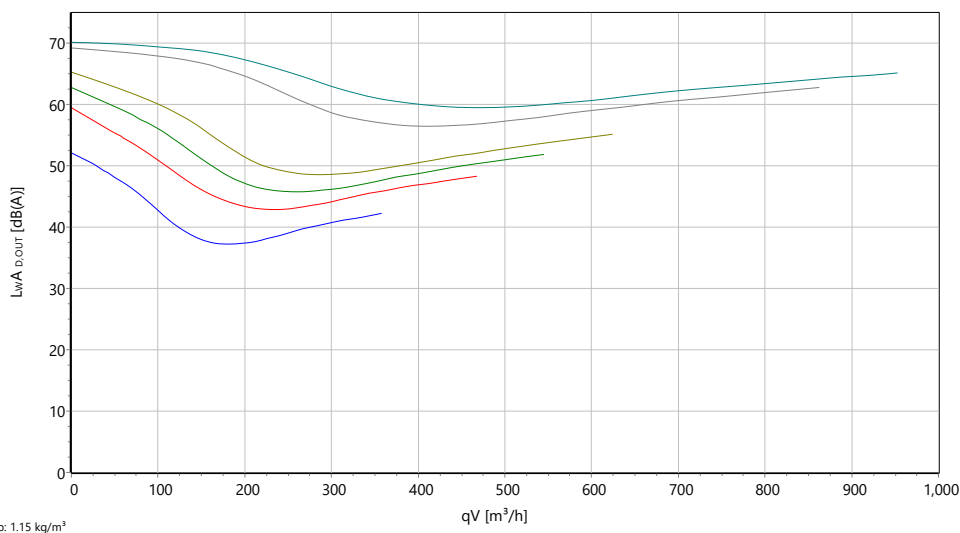
stat. Efficiency



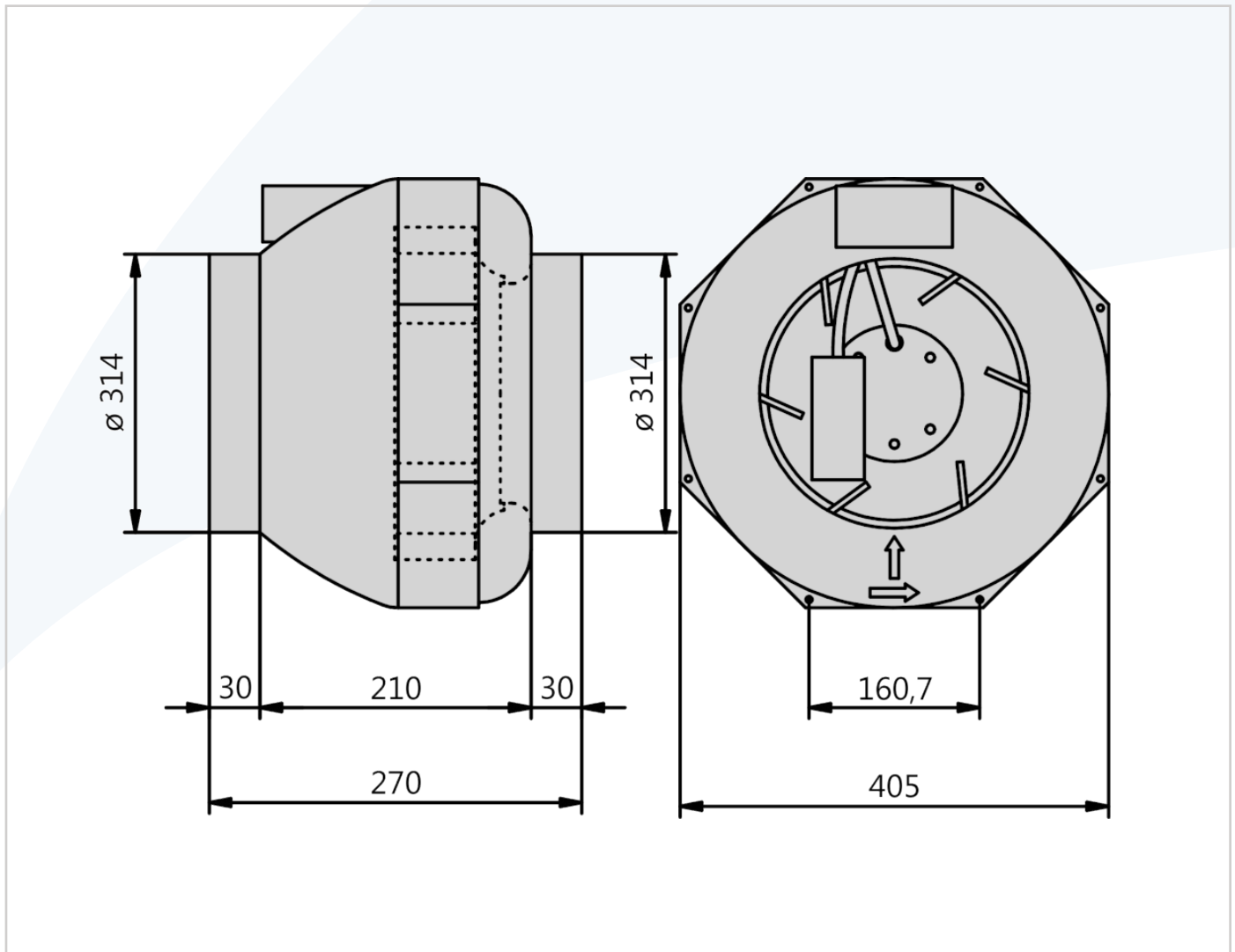
Input power



Sound power



## RS - 315.3EF Dimensions



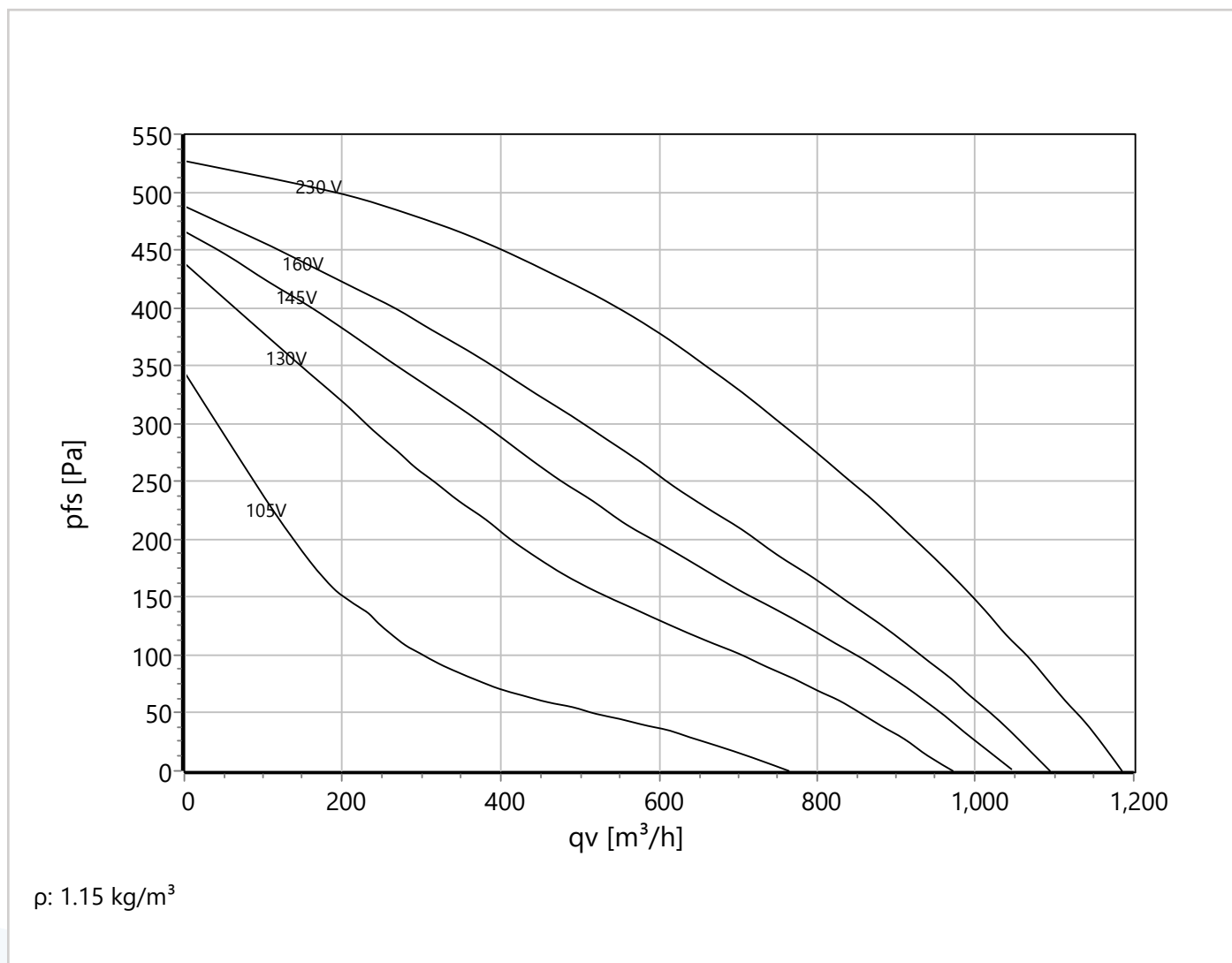
## Technical Data

U [V]	f [Hz]	C [ $\mu$ F]	$P_e$ [kW]	$I_N$ [A]	$n_N$ [r/min]	$t_r$ [ $^{\circ}$ C]	$k_{10}$ [m <sup>2</sup> s/h]	$I_A / I_N$	IP	m [kg]
1~230	50	6	0.17	0.75	2700	-20 .. +70	-	2	IP 44	5.4

## Sound Data

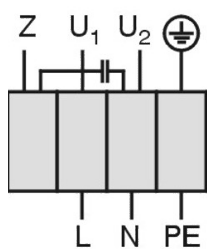
Frequency	$\Sigma$	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	Distances	1 m	4 m
LwA(D,in) [dB(A)]	2	-33	-14	-8	-6	-5	-9	-11	-16	LpA(D,in) [dB(A)]	-5	-15
LwA(D,out) [dB(A)]		-33	-15	-9	-7	-6	-6	-9	-18	LpA(D,out) [dB(A)]	-7	-17
LwA(D,cas) [dB(A)]	-17	-26	-10	-9	-6	-6	-7	-12	-25	LpA(D,cas) [dB(A)]	-24	-34

## RS - 315.3EF Performance Curve



### Wiring Diagram

Single phase AC motor with operating capacitor and thermostatic switch. Thermostatic switch internal wired in series with windings.



- U<sub>1</sub> Blue
- U<sub>2</sub> Black
- Z Brown
- PE Yellow-Green

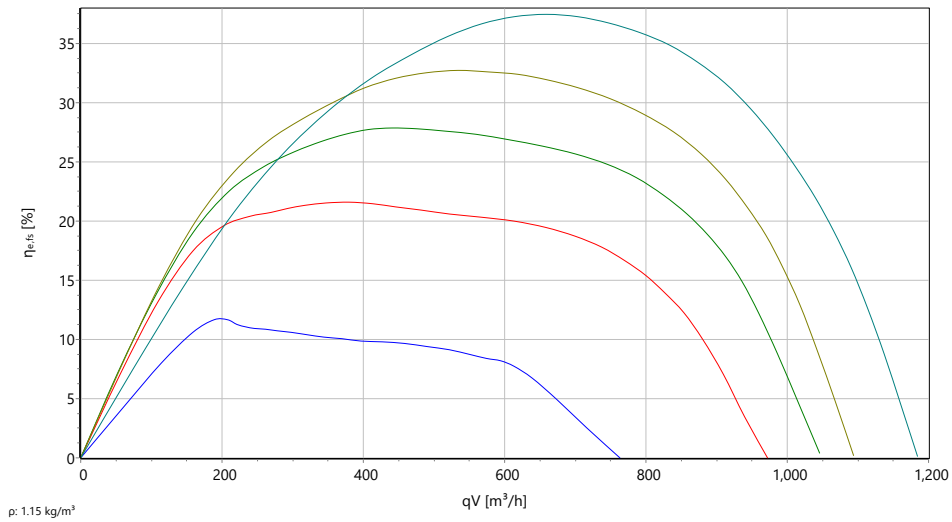
01.009

### ErP - Data

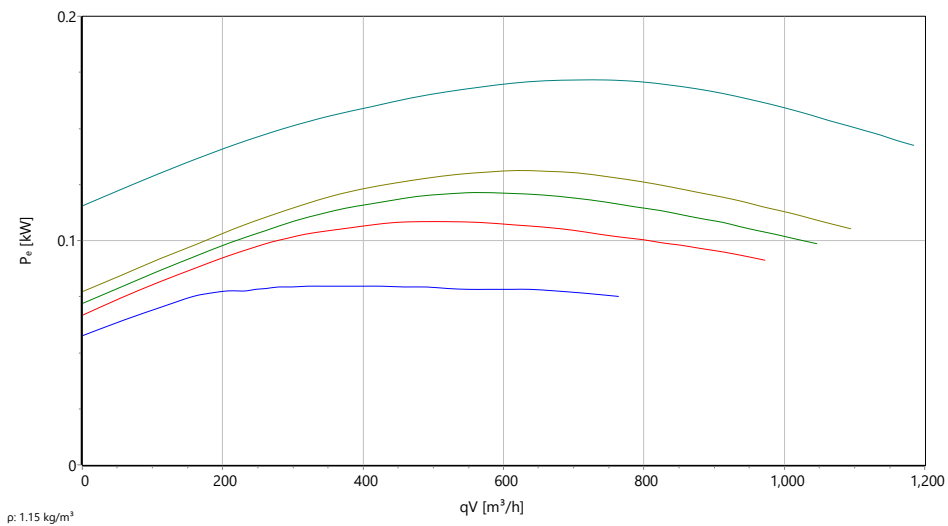
(EU) Nr. 1253/2014 (Lot6)		
q <sub>v</sub>	619	m <sup>3</sup> /h
p <sub>fs</sub>	369	Pa
η <sub>fs</sub>	37.3	%
P <sub>e</sub>	0.17	kW
n	2703	r/min
N	48	N
v	2.207	m/s
η <sub>fs</sub> Lot11	46.6	%

## RS - 315.3EF Performance Curves

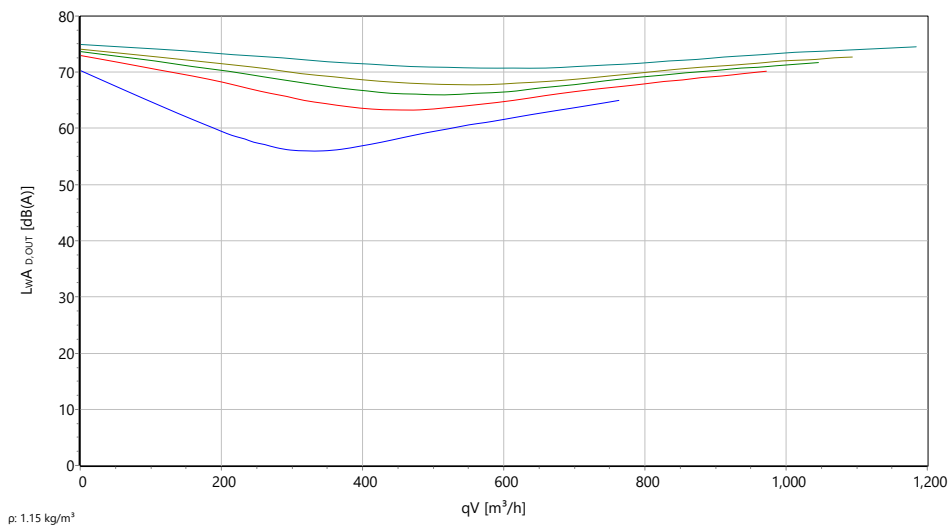
stat. Efficiency



Input power



Sound power





# Accessories

*Our 'RS' inline duct fans can be combined with the additional accessories featured below. For further information or support with your fan selection, speak to one of our technical engineers.*



**Mounting Bracket**



**Back Draught Damper**



**Fast Clamp**



**Spigot Guard**



**Transformer Speed Controller**



**Flexible Ducting**



**Electrical Isolator**



**Gravity Louvre Shutter**



**Filter Box**



**Electronic Speed Regulator**



## Contact Us

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*Whatever your issue, concern or question, contact our industrial team using the below contact details. Alternatively, visit our website and open a live chat to start discussions.*

**01782 349 430**

**[sales@axair-fans.co.uk](mailto:sales@axair-fans.co.uk)**