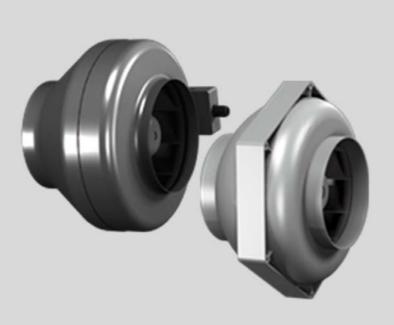


# Tube fans made of plastic or steel



Type Code	R S	S 315 L
Tube fans		
Plastic casing 8-angular		
Duct diameter		
Larger motor		
ublication - REAPL-Tube-July-2	014	



#### Tube fan

Tube fans represent a technically perfect solution, uniting the advantages of axial fans- straight airflow and easy installation with high pressure stability, low noise level and high efficiency of the radial fans.

#### Features and Construction: Steel tube fans

The casings of size R100 - R355 are manufactured of galvanized sheet steel. The fans are driven by an external rotor motor, protection class IP44/54 fitted in the centrifugal impeller

#### **Features and Construction: Plastic tube fans**

The sizes RS100L -RS 315L are equipped with an attractive, impact strong and hardly inflammable plastic casing with integrated IP44 terminal box and guide vane. The impeller up to RS315 is made of plastic. The impeller of the R315L is made of galvanized sheet steel.

#### **Electrical Connection: Steel / Plastic tube fans**

Electrical construction is according to VDE0530, insulation class F with additional moisture protection impregnation and thermal contacts which are connected in series with the windings of the motor. From size 355, the thermal contacts are lead out.

#### Installation tube fans

Rigid folded spiral-seam ducts (Spiro), flexible aluminum or plastic ducts with standardize diameter can be used.

#### Air performance curves

Performance curves and technical specifications are based upon tests carried out in accordance to AMCA standard 210 by an independence laboratory.

The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program. Performance certified is for installation type D - Ducted inlet, Ducted outlet. Performance rating do not include the effects of appurtenances (accessories).

The curves are valid for air with a density of 1.2kg/m3 at a temperature of  $20^{\circ}$ C. The curves in this catalogue shows the increase of the static and the dynamic pressure in Pascal (Pa) as a function of the airflow in cubic meter per hour (m³/h).

Comparatively standards are ISO 5801, BS 848 Part 1 and DIN 24163.

#### **Sound Level**

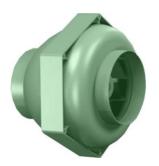
The sound ratings shown are based on tests and procedures performed in accordance with AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

The values shown are for inlet Lwi A sound power levels for installation type D: Ducted inlet, Ducted outlet. The ratings include the effects of duct end correction.



Rosenberg East Asia Pte Ltd certifies that the CIL fans - RS / R series model RS 200L, RS 250L, RS 315L & R355, shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA publication 211 and AMCA publication 311 and comply with the requirement of the AMCA Certified Ratings Program.





- + casing made of plastic
- + lower noise level
- + completely corrosion resistant
- + easy electrical connection via IP54 terminal box.
- insulation class F.
   motor protection by thermal contacts.
- + speed is 100% infinitely variable using auto transformers or electronic control
- + air performance tested to DIN 24163
- + sound tested in accordance to DIN 45635 part 38

Type: <b>RS 100</b>	L	Art. No. F00-10060			
U	230V (50Hz)	230V (50Hz) Δpfa min			
P1	0.033 Kw	ΔΙ	- %		
IN	0.14A	IA / 1N	1.5		
n (min-1)	2250	Class/ IP	F/ IP44		
C( uF 400V)	2 uF	W. diag	01.009		
tR	70 °C	Weight	2.4 kg		

## Sound levels:

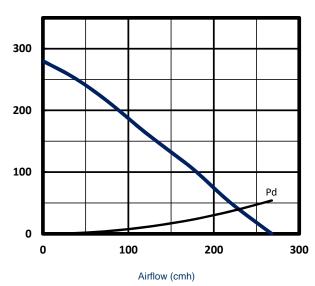
dB(A)-wei	ighted at		Frequency (Hz)								
V=0.5*	Vmax	63	125	250	500	1K	2K	4K	8K		
Casing	60	-	42	51	53	56	53	47	36		
Inlet	60	-	41	52	55	54	52	49	39		
Outlet	60	-	42	53	54	54	53	49	40		

Model RS100L is not licensed to bear the AMCA Certified Ratings Seal.

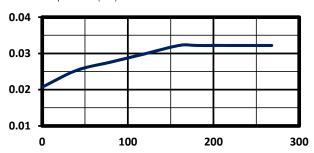
Performance is based on actual speed of test.

Speeds (RPM) shown is nominal.

## Pressure (Pa)

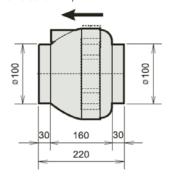


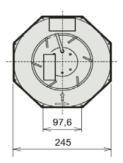
Motor Input Watt (kW)



## **Dimensions:**

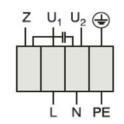
(all dimensions in mm)





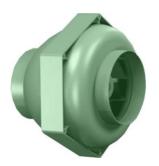
# Wiring diagram:

01.009



U₁ U₂ Z PE blue black brown





- + casing made of plastic
- + lower noise level
- + completely corrosion resistant
- + easy electrical connection via IP54 terminal box.
- insulation class F.
   motor protection by thermal contacts.
- + speed is 100% infinitely variable using auto transformers or electronic control
- + air performance tested to DIN 24163
- + sound tested in accordance to DIN 45635 part 38

Type: <b>RS 125</b>	L	Art. No. F00-12550			
U	U 230V (50Hz)		- Pa		
P1	P1 0.065 Kw		- %		
IN	0.30A	IA / 1N	1.5		
n (min-1)	2415	Class/ IP	F/ IP44		
C( uF 400V)	2 uF	W. diag	01.009		
tR	70 °C	Weight	2.4 kg		

## Sound levels:

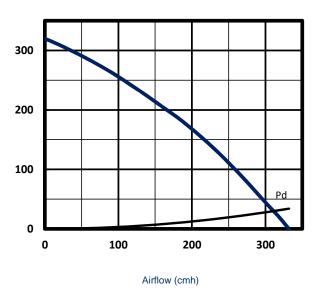
dB(A)-wei	ighted at		Frequency (Hz)							
V=0.5*	63	125	250	500	1K	2K	4K	8K		
Casing	51	-	33	42	44	47	44	38	27	
Inlet	63	-	43	55	58	57	56	51	41	
Outlet	61	-	42	53	55	56	54	49	40	

Model RS125L is not licensed to bear the AMCA Certified Ratings Seal.

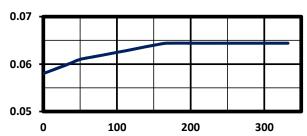
Performance is based on actual speed of test.

Speeds (RPM) shown is nominal.

## Pressure (Pa)

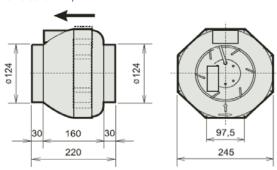


## Motor Input Watt (kW)



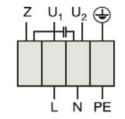
## **Dimensions:**

(all dimensions in mm)



# Wiring diagram:

01.009



U₁ U₂ Z PE blue black brown





- + casing made of plastic
- + lower noise level
- + completely corrosion resistant
- + easy electrical connection via IP54 terminal box.
- insulation class F.
   motor protection by thermal contacts.
- + speed is 100% infinitely variable using auto transformers or electronic control
- + air performance tested to DIN 24163

Type: <b>RS 160</b>	L	Art. No. F00-16060			
U	230V (50Hz)	Δpfa min	- Pa		
P1	0.115 Kw	ΔΙ	- %		
IN	0.49A	IA / 1N	1.5		
n (min-1)	2440	Class/ IP	F/ IP44		
C( uF 400V)	C( uF 400V) 3 uF		01.009		
tR	50 °C	Weight	3.2 kg		

## Sound levels:

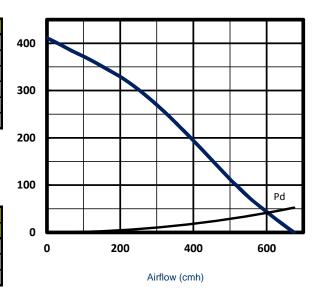
dB(A)-wei	ighted at		Frequency (Hz)								
V=0.5*	Vmax	63	125	250	500	1K	2K	4K	8K		
Casing	55	-	41	43	51	50	47	39	30		
Inlet	68	-	45	58	61	63	62	59	50		
Outlet	66	-	43	55	55	60	62	58	50		

Model RS160L is not licensed to bear the AMCA Certified Ratings Seal.

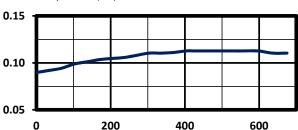
Performance is based on actual speed of test.

Speeds (RPM) shown is nominal.

## Pressure (Pa)

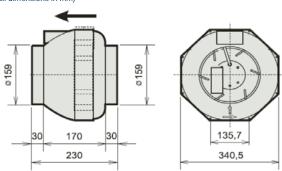


## Motor Input Watt (kW)



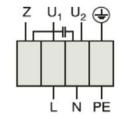
## **Dimensions:**

(all dimensions in mm)



# Wiring diagram:

01.009



U₁ U₂ Z PE blue black brown







- + casing made of plastic
- lower noise level
- completely corrosion resistant
- easy electrical connection via IP54 terminal box.
- insulation class F. motor protection by thermal contacts.
- speed is 100% infinitely variable using auto transformers or electronic control
- performance certified is for installation type D ducted inlet, ducted outlet
- performance ratings do not include the effects of appurtenances (accessories).

#### Static Pressure (Pa)

Type: <b>RS 200</b>	L	Art. No. F00-20060			
U	U 230V (50Hz)		- Pa		
P1	P1 0.160 Kw		9 %		
IN	0.70A	IA / 1N	1.7		
n (min-1)	2540	Class/ IP	F/ IP44		
C( uF 400V)	C( uF 400V) 5 uF		01.009		
tR	55 °C	Weight	3.7 kg		

#### Sound levels:

**Technical Data:** 

LwA woighted		Frequency (Hz)								
LwA-weighted	63	125	250	500	1K	2K	4K	8K		
@ 0Pa 853cmh	59	71	70	73	69	68	66	53		
@ 104Pa 709cmh	58	71	68	71	68	67	64	51		
@ 213Pa 529cmh	56	69	66	70	66	65	61	51		
@ 321Pa 349cmh	58	70	68	72	67	65	60	53		

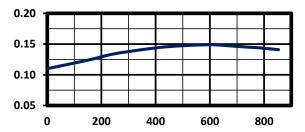
Values shown are for inlet Lwi A sound power levels for installation type D - ducted inlet, ducted outlet. Ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International standard 301.

Performance is based on actual speed of test. Speeds (RPM) shown is nominal.

500									
400									
300									
200									
100									
									Pd
0 (	)	20	00	40	00	60	00	80	00

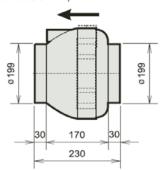
Airflow (cmh)

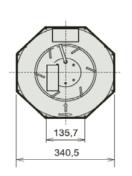
#### Motor Input Watt (kW)



# **Dimensions:**

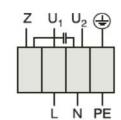
(all dimensions in mm)





# Wiring diagram:

01.009



U<sub>2</sub> Z brown PE

yellow-green

blue

black







- + casing made of plastic
- + lower noise level
- + completely corrosion resistant
- + easy electrical connection via IP54 terminal box.
- insulation class F.
   motor protection by thermal contacts.
- speed is 100% infinitely variable using auto transformers or electronic control
- performance certified is for installation type D ducted inlet , ducted outlet
- performance ratings do not include the effects of appurtenances (accessories).

## Static Pressure (Pa)

Type: <b>RS 250</b>	L	Art. No. F00-25060			
U	230V (50Hz)	Δpfa min	- Pa		
P1	0.16 Kw	ΔΙ	14 %		
IN	0.65A	IA / 1N	1.8		
n (min-1)	2560	Class/ IP	F/ IP44		
C( uF 400V)	5 uF	W. diag	01.009		
tR	tR 55 °C		3.7 kg		
-		·			

#### Sound levels:

**Technical Data:** 

LwA-weighted	Frequency (Hz)								
	63	125	250	500	1K	2K	4K	8K	
@ 0Pa 918cmh	53	67	71	65	66	70	65	53	
@ 130Pa 720cmh	54	68	68	63	64	64	61	49	
@ 234Pa 536cmh	55	67	67	63	63	61	58	48	
@ 327Pa 360cmh	55	69	70	66	65	62	58	50	

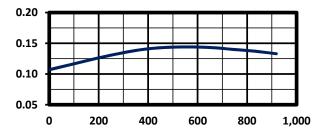
Values shown are for inlet Lwi A sound power levels for installation type D - ducted inlet, ducted outlet. Ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International standard 301.

Performance is based on actual speed of test. Speeds (RPM) shown is nominal.

500											1
400											
300											
200											
100										Pd	
0	)	20	00	40	00	60	00	80	00		000

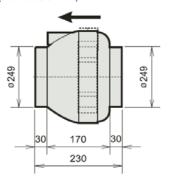
Airflow (cmh)

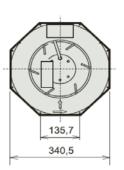
## Motor Input Watt (kW)



## **Dimensions:**

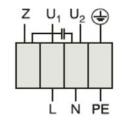
(all dimensions in mm)





# Wiring diagram:

01.009



U₁ U₂ Z PE blue black brown







- + casing made of plastic
- + lower noise level
- + completely corrosion resistant
- + easy electrical connection via IP54 terminal box.
- insulation class F.
   motor protection by thermal contacts.
- + speed is 100% infinitely variable using auto transformers or electronic control
- + performance certified is for installation type D ducted inlet , ducted outlet
- + performance ratings do not include the effects of appurtenances ( accessories).

#### Static Pressure (Pa)

Type: <b>RS 315</b>	L	Art. No. F00-31560				
U	230V (50Hz)	Δpfa min	- Pa			
P1	0.30 Kw	ΔΙ	- %			
IN	1.30A	IA / 1N	1.7			
n (min-1)	2390	Class/ IP	F/ IP44			
C( uF 400V)	8 uF	W. diag	01.009			
tR	45 °C	Weight	5.8 kg			

#### Sound levels:

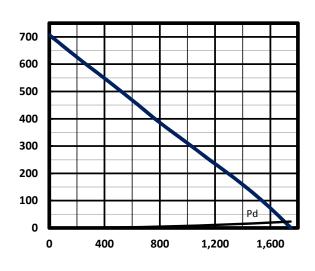
**Technical Data:** 

LwA-weighted	Frequency (Hz)								
LwA-weighteu	63	125	250	500	1K	2K	4K	8K	
@ 0Pa 1750cmh	58	60	67	73	75	76	75	75	
@ 285Pa 1066cmh	59	62	66	67	69	69	71	64	
@ 417Pa 720cmh	61	69	72	70	68	67	67	59	
@ 563Pa 360cmh	64	78	82	76	74	71	69	61	

Values shown are for inlet Lwi A sound power levels for installation type D - ducted inlet, ducted outlet. Ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International standard 301.

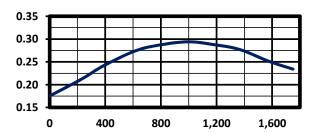
Performance is based on actual speed of test.

Speeds (RPM) shown is nominal.



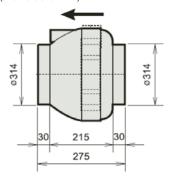
Airflow (cmh)

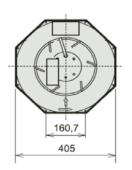
#### Motor Input Watt (kW)



## **Dimensions:**

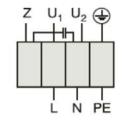
(all dimensions in mm)





# Wiring diagram:

01.009



U<sub>1</sub> U<sub>2</sub> Z PE blue black brown







- + casing made of galvanized sheet steel
- + easy installation in any position
- + easy electrical connection via IP54 terminal box.
- + insulation class F.
- + motor protection by thermal contacts
- + speed is 100% infinitely variable using auto transformers or electronic control
- + performance certified is for installation type D ducted inlet, ducted outlet
- + performance ratings do not include the effects of appurtenances ( accessories).

Type: <b>R 355</b>		Art. No. F00-35510				
U	230V (50Hz)	Δpfa min	- Pa			
P1	0.26 Kw	ΔΙ	11 %			
IN	1.15A	IA / 1N	1.9			
n (min-1)	1290	Class/ IP	F/ IP54			
C( uF 400V)	5 uF	W. diag	01.024			
tR	45 °C	Weight	13.5 kg			

#### Sound levels:

LwA-weighted	Frequency (Hz)									
LWA-Weighteu	63	125	250	500	1K	2K	4K	8K		
@ 0Pa 0.613m <sup>3</sup> /s	66	67	69	67	65	63	63	45		
@ 72Pa 0.504m³/s	66	66	69	67	65	63	63	45		
@ 142Pa 0.382m <sup>3</sup> /s	63	64	64	61	58	53	55	40		
@ 213Pa 0.245m <sup>3</sup> /s	70	67	67	63	59	54	50	43		

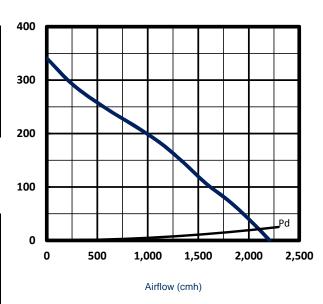
Values shown are for inlet Lwi A sound power levels for installation type D

- ducted inlet, ducted outlet. Ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International standard 301.

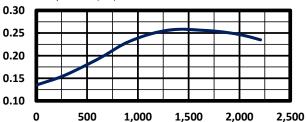
Performance is based on actual speed of test.

Speeds (RPM) shown is nominal.

#### Static Pressure (Pa)

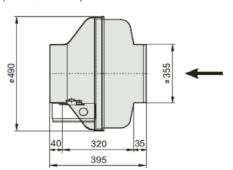


## Motor Input Watt (kW)



## **Dimensions:**

(all dimensions in mm)



## Wiring diagram:

01.024 brown U<sub>1</sub> TB TB Z<sub>2</sub>  $U_2$ blue  $Z_1$ black orange TB white PE yellow-green ТВ ТВ N PE clockwise