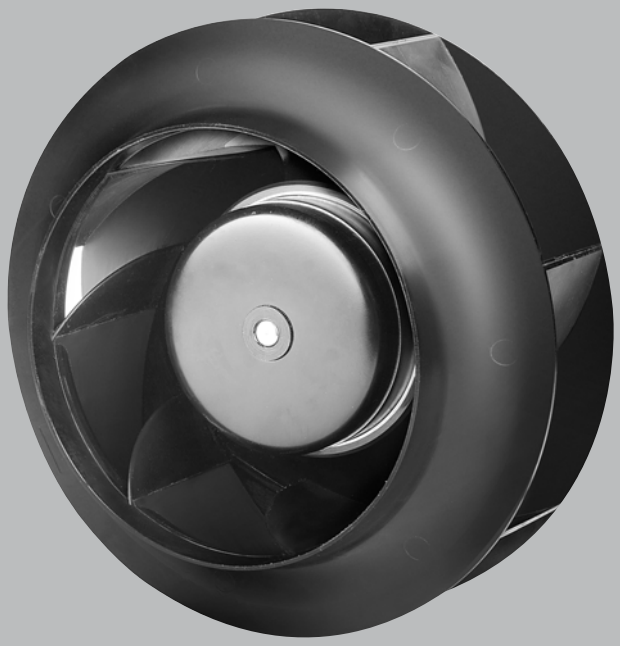


bmax™

New radial motorized backward wheel serie

SIMPLY AT THE TOP

Soler&Palau Ventilation Group

Summary

Introduction

BMAX™ is the new serie of motorized radial wheels of S&P

This new range is coming from the long experience and high tech knowhow of S&P in fan technology. Using the most advanced tools available for aerodynamic investigation and the high its own knowhow in electric/electronic motors, S&P got the highest efficient and lowest noise fan range of the category.

BMAX™ range had also a version with a revolutionary aerodynamic devide "LABI-SEAL" that used coupled with S&P inlet cone, designed specifically for these wheels, gives performances never seen before, increasing sensitively the efficiency and decreasing the noise at levels that others cannot achieve.

BMAX™ range has wheels, one piece moulded, in high strength reinforced polyamide plastic material coupled with different external rotor motor arrangements to meet the largest requirements.

BMAX™ wheel is lighter than the other solution, with large benefit in vibration reduction.

c UL us
E208518

Product features

- Sealed Ball Bearings.
- 20" (500 mm) Standard Lead Length.
- Clockwise Rotation Viewing Inlet.
- UL and cUL listed for Electrical Safety.
- All models have been independently tested for safety by Underwriters Laboratories, Inc.
- All models are fitted with an internal Thermal Overload Protection Device.

RADIAL WHEELS

From 160 to 250 mm diameter:
- Plastic material PA6+10GF.

Accessories
- Inlets (Original S&P inlets should be used for achieving the performances indicated in the datasheets).
- Capacitors for single-phase motors.
- Protection grilles.

Working conditions
All catalogued and product data-plate references of electrical Power/Amps and Rpm's correspond to the fan'smaximum permissible load, indicated as in catalogue. All airflow and electrical measurements shown have been measured in Soler & Palau's in-house, ENAC accredited, test laboratories. All fans have been tested with a bell mouth inlet plate condition and the results corrected to a motor constant operating temperature. The fan must not work beyond those values stated on nameplate and within conditions approved by the manufacturer.
- It is considered S1, continuous operation, working conditions.
- Any Control installed, must not allow extreme on/off switching.
- Except where stated, all motors are speed controllable by voltage regulation (either phase cutting or transformer).
- However, it is likely that some resonance vibration or magnetic noise may be noticed as a result.
- In any case, Soler&Palau recommend the use of sinusoidal output transformers.
- Soler&Palau cannot guarantee the proper compatibility between motors and third parts control devices.
- If thermal protection is available for the motor, this should be connected to offer maximum protection to the equipment.

STORAGE AND MAINTENANCE

- Store product in a clean and dry place, for a maximum period of 1 year as a maximum in order to guarantee its lifetime. Same applies to outdoor products.
- If outdoor fan is unused for an extended period of time, it is necessary to occasionally switch on in order to remove humidity inside the motor.
- For special applications or environments, there might be special maintenance instructions to be specified by manufacturer.

MECHANICAL CHARACTERISTICS

All Bmax motorized impellers are constructed with IP44 or with EN 60529 – category 2 standards. However, the IP rating must be tested in the appliance for which it is intended.
All Bmax motorized impellers models include sealed-for-life ball bearings assemblies of the closed type 2Z which have a normal temperature operating range between: -40º to +70ºC. The "Life Expectancy" (L10) of the bearings, +40,000 hours, has been tested with the motor shaft working in a horizontal position and with a maximum ambient air stream temperature set at +40ºC. For other specific operating conditions – please consult.
The admitted air stream temperature (Tmax and Tmin.) are indicated in the Technical Characteristic chart of each fan model.
Condensation holes are provided, to prevent any accumulation of condensation within the motor when operating in particularly humid conditions or when the surrounding environment experiences rapid temperature changes. These drainage holes have to be open when the fans are installed at their end position.

TEST CONDITIONS

- The Bmax motorized impellers series technical data as shown in this catalogue has been obtained using the nominal voltage supply indicated in the Technical Characteristic chart. Pressure Performance.
- All Bmax motorized impellers fans have been tested for airflow performance in accordance with ISO 5801 and AMCA-210 standards, with dry air at 20ºC, 1,2 kg/m^3 density and at an atmospheric pressure of 760 mmHg.
- The airflow tests have been conducted with the fans mounted in conjunction with an optimised inlet cone. Sound Level Performance.
- The fans have been tested for sound level performance in accordance with ISO-13347-3 standards from the air inlet part of the fan and at the airflow / pressure point as indicated in the catalogue.

Data sheets

DC version

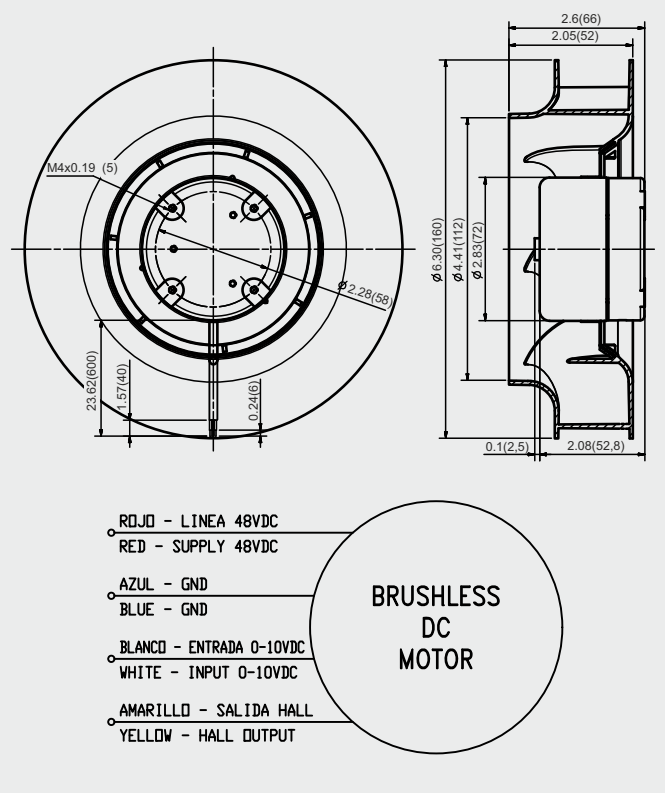
CRBB/1-160/052 M
48VDC

bmax

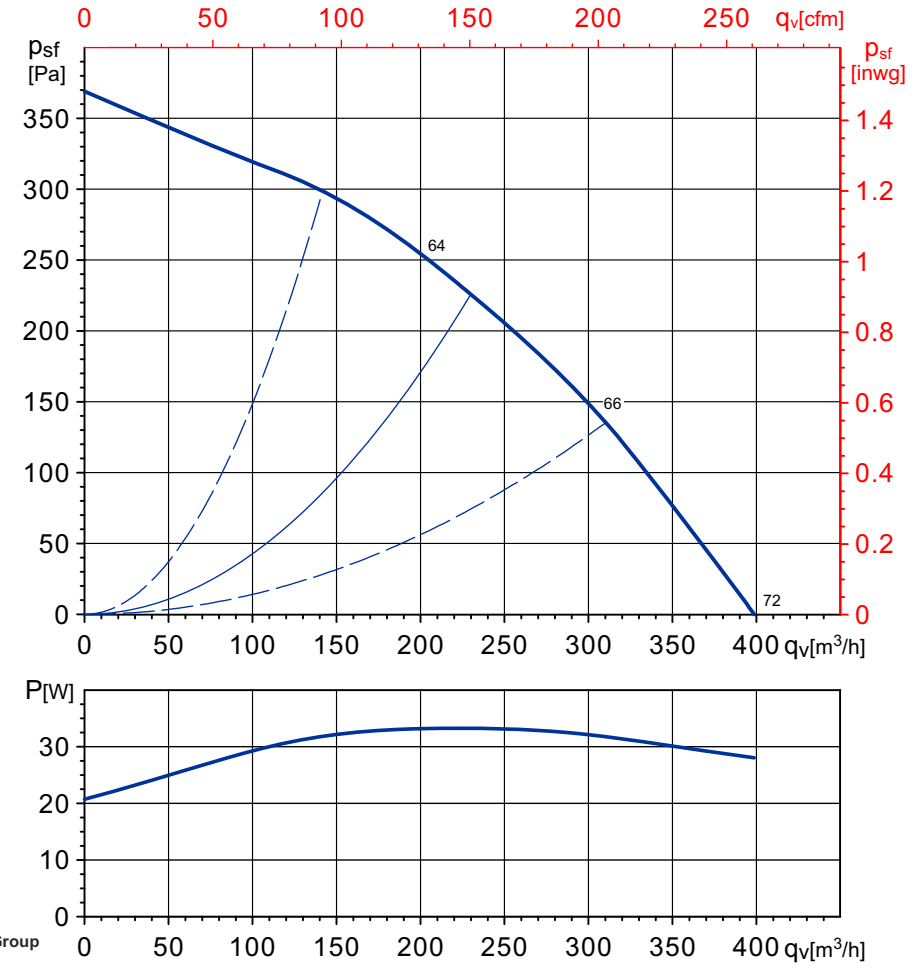
Características
Characteristics

Tensión *Voltage*	48VDC
Tipo motor *Motor type*	DC MOTOR - cl.B
Velocidad máxima *Maximum speed*	3150 RPM
Potencia absorbida máxima *Maximum absorbed power*	33 W
Intensidad absorbida máxima *Maximum absorbed current*	0,7 A
Material turbina *Wheel material*	Plastic
Temperatura del aire *Air temperature*	-4ºF<T<+122ºF -20ºC<T<+50ºC
Peso *Weight*	1.76lbs (0,8 kg)
Código ventilador *Fan code number*	
Código motor *Motor code number*	

Dimensiones y conexiones
Dimensions and wiring



Curvas características / *Performance curves* (21/01/2013)



Norma de ensayo: **ISO 5801**
Caudal en **m³/h** y **cfm**
Presión estática en **Pa** y **inwg**
Potencia absorbida en **W**

*Test standard: **ISO 5801***
*Air volume in **m³/h** and **cfm***
*Static pressure in **Pa** and **inwg***
*Input Power in **W***

Soler&Palau Ventilation Group

CRBB/1-160/052 M
48VDC

Características
Characteristics

Model type	Input tension regul. (V)	Speed (rpm)	Maximum power absorbed (W)	Maximum current absorbed (A)	Maximum air volume (cfm(m³/h))
CRBB/1-160/052M	10	3150	33	0,7	235(400)

Características acústicas
Acoustic characteristics

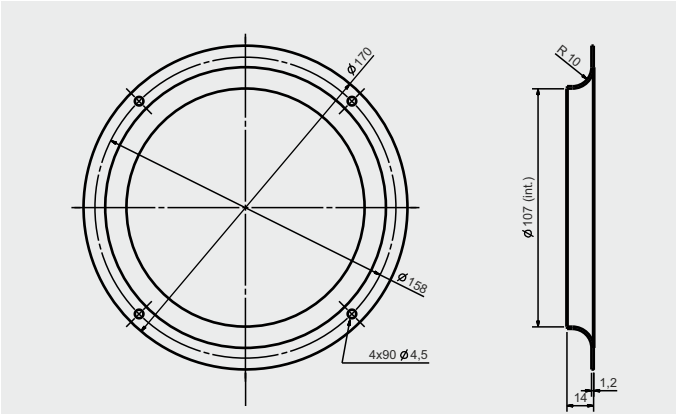
Espectro de potencia sonora en aspiración - *Sound power spectrum at the inlet*

Hz	63	125	250	500	1000	2000	4000	8000	LwA
L	41	48	56	61	67	68	63	62	**72**
M	39	42	51	58	59	61	60	55	**66**
H	45	44	55	56	58	59	55	47	**64**

Espectro de potencia sonora en descarga - *Sound power spectrum at the outlet*

Hz	63	125	250	500	1000	2000	4000	8000	LwA
L	49	44	56	64	69	73	70	61	**76**
M	46	41	52	58	61	67	66	53	**71**
H	45	43	56	57	60	65	60	48	**68**

Accesorios de montaje
Mounting accessories

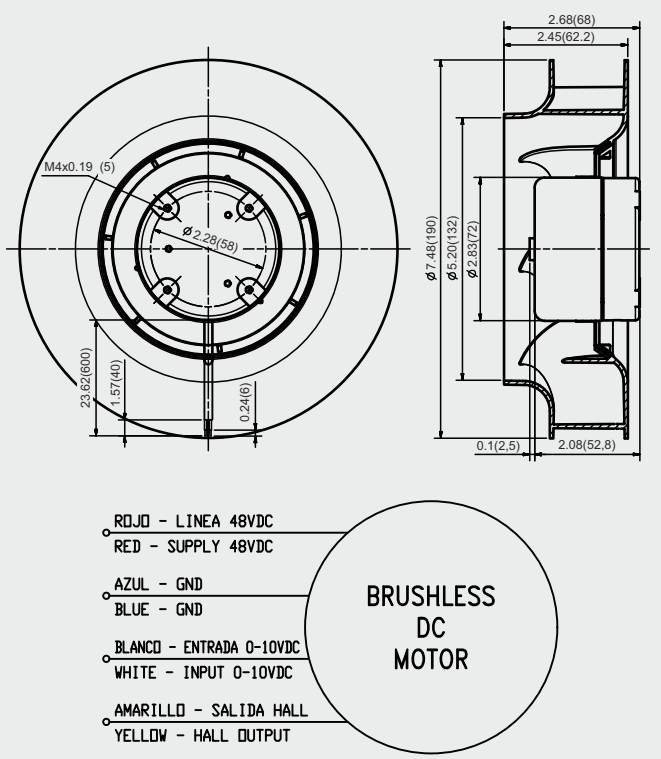


CRBB/1-190/060 M
24VDC

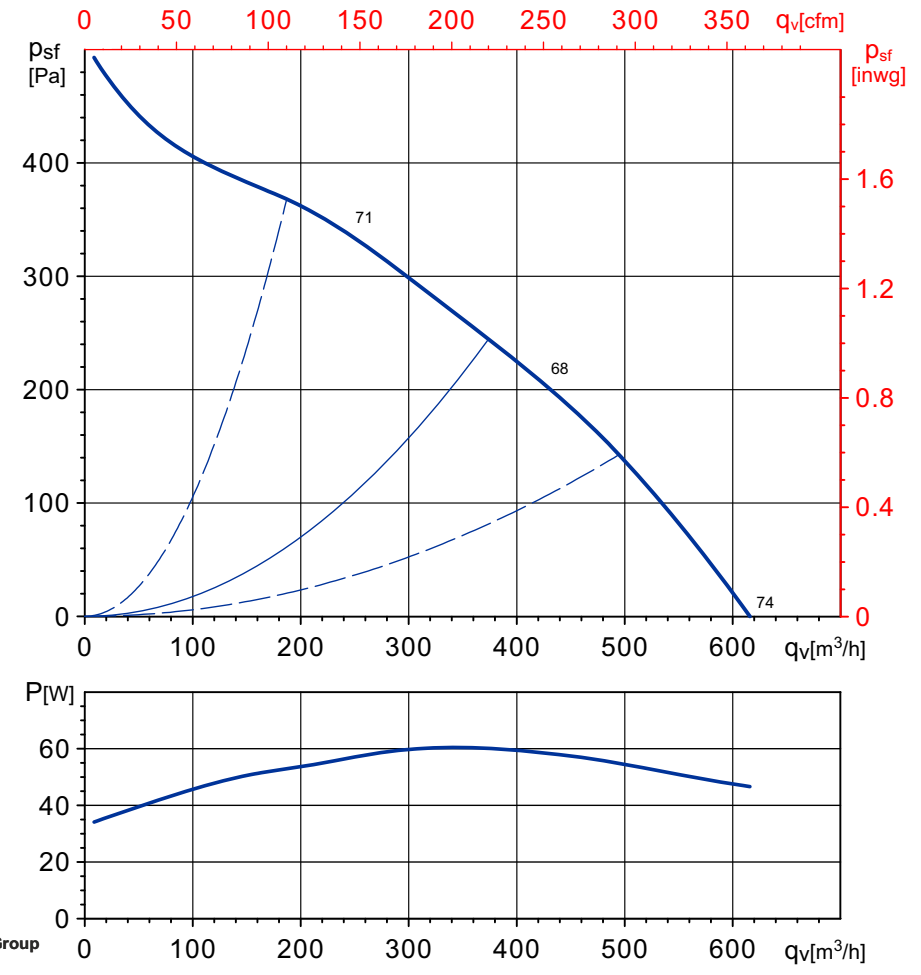
Características
Characteristics

Tensión *Voltage*	24VDC
Tipo motor *Motor type*	DC MOTOR - cl.B
Velocidad máxima *Maximum speed*	2912 RPM
Potencia absorbida máxima *Maximum absorbed power*	59 W
Intensidad absorbida máxima *Maximum absorbed current*	2,4 A
Material turbina *Wheel material*	Plastic
Temperatura del aire *Air temperature*	-4ºF<T<+122ºF -20ºC<T<+50ºC
Peso *Weight*	1.76lbs (0,8 kg)
Código ventilador *Fan code number*	
Código motor *Motor code number*	

Dimensiones y conexiones
Dimensions and wiring



Curvas características / *Performance curves* (09/07/2013)



Norma de ensayo: **ISO 5801**
Caudal en **m³/h** y **cfm**
Presión estática en **Pa** y **inwg**
Potencia absorbida en **W**

*Test standard: **ISO 5801***
*Air volume in **m³/h** and **cfm***
*Static pressure in **Pa** and **inwg***
*Input Power in **W***

Soler&Palau Ventilation Group

CRBB/1-190/060 M
24VDC

Características
Characteristics

Model type	Input tension regul. (V)	Speed (rpm)	Maximum power absorbed (W)	Maximum current absorbed (A)	Maximum air volume (cfm(m³/h))
CRBB/1-190/060M	10	2912	59	2,4	365(620)

Características acústicas
Acoustic characteristics

Espectro de potencia sonora en aspiración - *Sound power spectrum at the inlet*

Hz	63	125	250	500	1000	2000	4000	8000	LwA
L	37	49	61	65	68	68	66	62	**74**
M	36	47	56	58	61	62	62	51	**68**
H	40	52	63	64	65	64	59	52	**71**

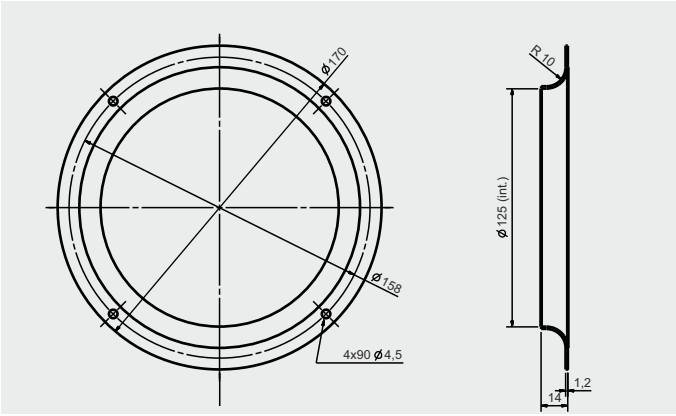
Espectro de potencia sonora en descarga - *Sound power spectrum at the outlet*

Hz	63	125	250	500	1000	2000	4000	8000	LwA
L	37	48	62	65	71	75	72	63	**78**
M	36	46	55	59	64	69	68	53	**73**
H	40	52	63	65	68	71	65	55	**74**

Norma de ensayo: **ISO 5801**
Espectros de potencia sonora en **dB(A)**

*Test standard: **ISO 5801***
*Sound power spectrum in **dB(A)***

Accesorios de montaje
Mounting accessories



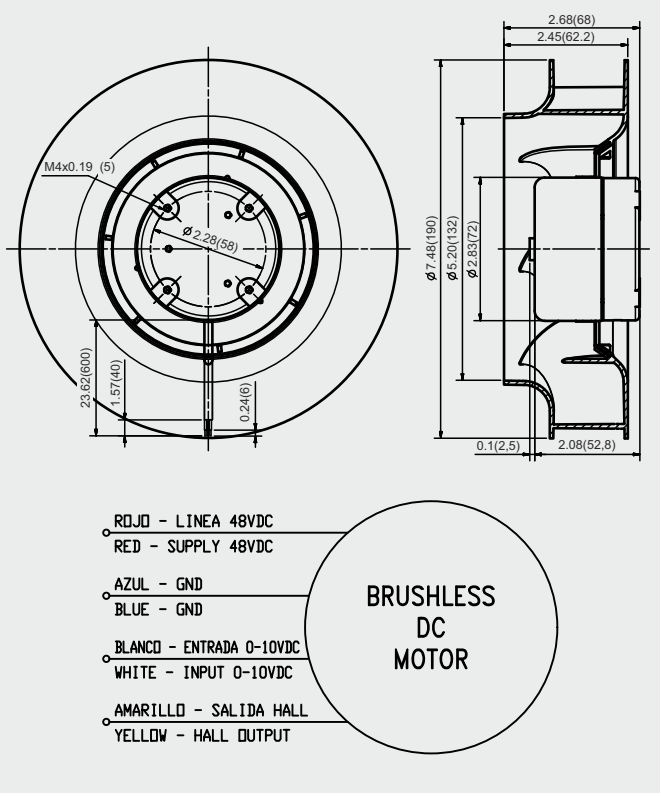
Soler&Palau Ventilation Group

CRBB/1-190/060 M
48VDC

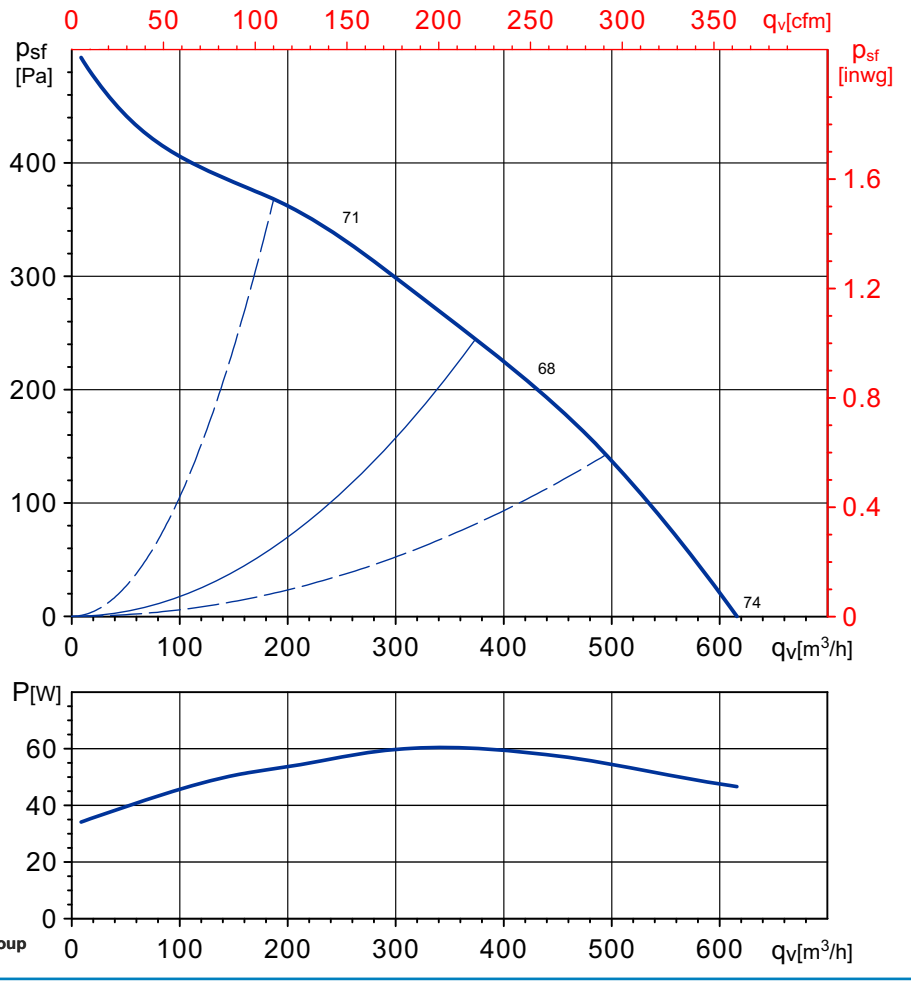
Características
Characteristics

Tensión *Voltage*	48VDC
Tipo motor *Motor type*	DC MOTOR - cl.B
Velocidad máxima *Maximum speed*	3029 RPM
Potencia absorbida máxima *Maximum absorbed power*	61 W
Intensidad absorbida máxima *Maximum absorbed current*	1,2 A
Material turbina *Wheel material*	Plastic
Temperatura del aire *Air temperature*	-4ºF<T<+122ºF -20ºC<T<+50ºC
Peso *Weight*	1.76lbs (0,8 kg)
Código ventilador *Fan code number*	
Código motor *Motor code number*	

Dimensiones y conexiones
Dimensions and wiring



Curvas características / *Performance curves* (09/07/2013)



Norma de ensayo: **ISO 5801**
Caudal en **m³/h** y **cfm**
Presión estática en **Pa** y **inwg**
Potencia absorbida en **W**

*Test standard: **ISO 5801***
*Air volume in **m³/h** and **cfm***
*Static pressure in **Pa** and **inwg***
*Input Power in **W***

Soler&Palau Ventilation Group

CRBB/1-190/060 M
48VDC

Características
Characteristics

Model type	Input tension regul. (V)	Speed (rpm)	Maximum power absorbed (W)	Maximum current absorbed (A)	Maximum air volume (cfm(m³/h))
CRBB/1-190/060M	10	3030	61	1,2	365(620)

Características acústicas
Acoustic characteristics

Espectro de potencia sonora en aspiración - *Sound power spectrum at the inlet*

Hz	63	125	250	500	1000	2000	4000	8000	LwA
L	37	49	61	65	68	68	66	62	**74**
M	36	47	56	58	61	62	62	51	**68**
H	40	52	63	64	65	64	59	52	**71**

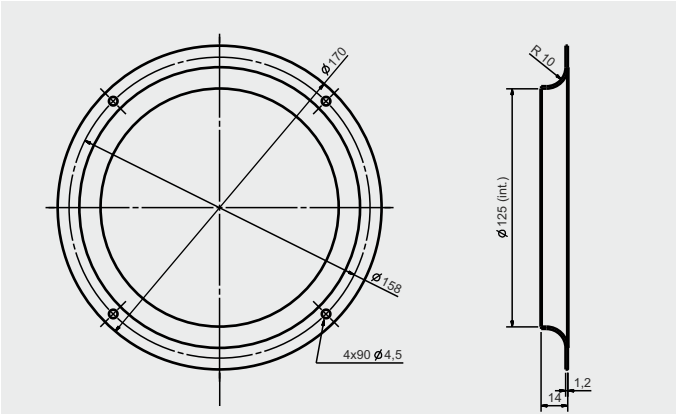
Espectro de potencia sonora en descarga - *Sound power spectrum at the outlet*

Hz	63	125	250	500	1000	2000	4000	8000	LwA
L	37	48	62	65	71	75	72	63	**78**
M	36	46	55	59	64	69	68	53	**73**
H	40	52	63	65	68	71	65	55	**74**

Norma de ensayo: **ISO 5801**
Espectros de potencia sonora en **dB(A)**

*Test standard: **ISO 5801***
*Sound power spectrum in **dB(A)***

Accesorios de montaje
Mounting accessories



Soler&Palau Ventilation Group

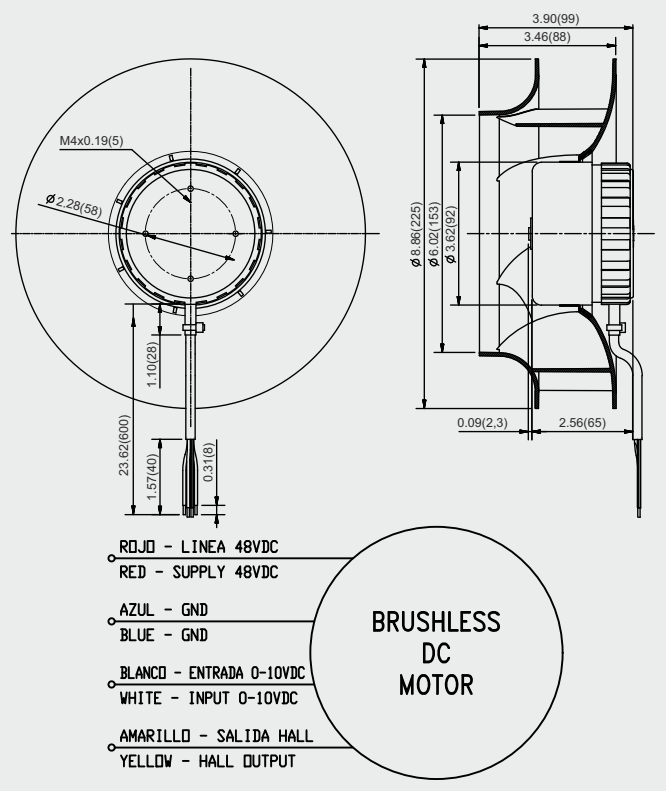
CRBB/1-225/088 M
48VDC

bmax

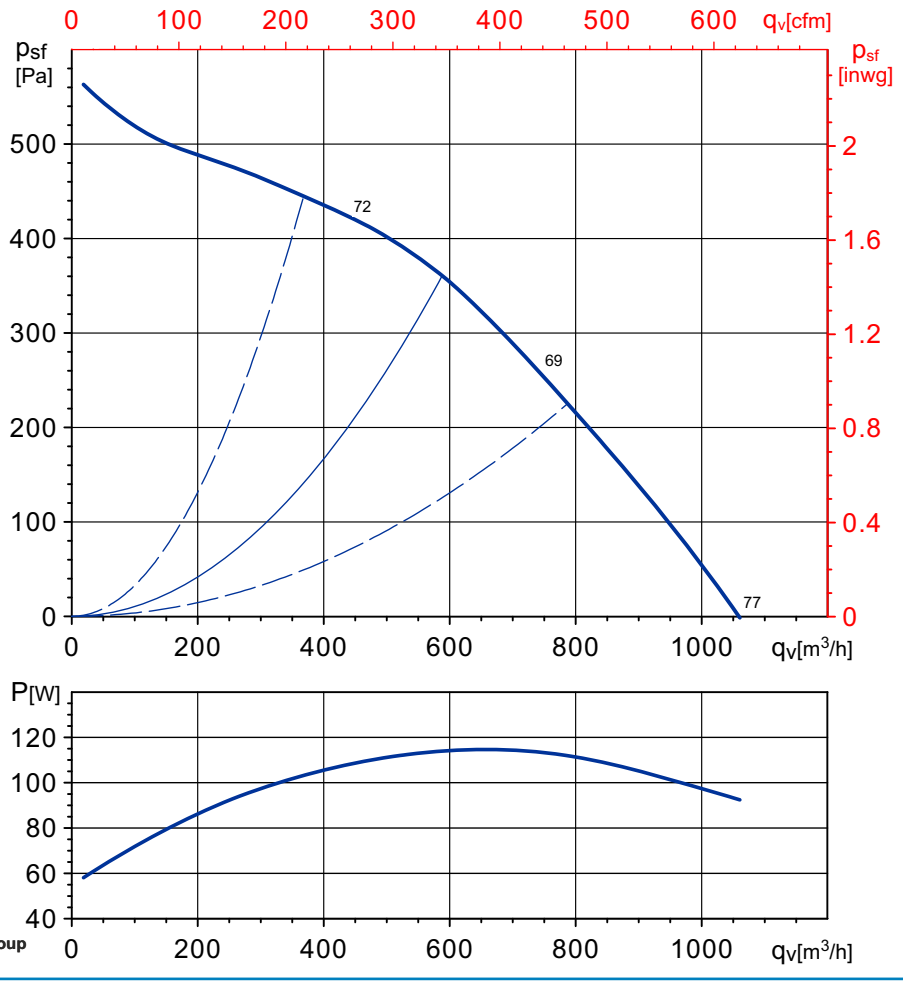
Características
Characteristics

Tensión *Voltage*	48VDC
Tipo motor *Motor type*	DC MOTOR - cl.B
Velocidad máxima *Maximum speed*	2646 RPM
Potencia absorbida máxima *Maximum absorbed power*	115 W
Intensidad absorbida máxima *Maximum absorbed current*	2,3 A
Material turbina *Wheel material*	Plastic
Temperatura del aire *Air temperature*	-4ºF<T<+122ºF -20ºC<T<+50ºC
Peso *Weight*	3.09 lbs (1,4 kg)
Código ventilador *Fan code number*	
Código motor *Motor code number*	

Dimensiones y conexiones
Dimensions and wiring



Curvas características / *Performance curves* (10/07/2013)



Norma de ensayo: **ISO 5801**
Caudal en **m³/h** y **cfm**
Presión estática en **Pa** y **inwg**
Potencia absorbida en **W**

*Test standard: **ISO 5801***
*Air volume in **m³/h** and **cfm***
*Static pressure in **Pa** and **inwg***
*Input Power in **W***

Soler&Palau Ventilation Group

CRBB/1-225/088 M
48VDC

Características
Characteristics

Model type	Input tension regul. (V)	Speed (rpm)	Maximum power absorbed (W)	Maximum current absorbed (A)	Maximum air volume (cfm(m³/h))
CRBB/1-225/088M	10	2650	115	2,3	624(1060)

Características acústicas
Acoustic characteristics

Espectro de potencia sonora en aspiración - *Sound power spectrum at the inlet*

Hz	63	125	250	500	1000	2000	4000	8000	LwA
L	41	55	62	69	74	70	65	69	**77**
M	38	48	62	61	64	61	60	55	**69**
H	42	51	64	67	67	63	59	51	**72**

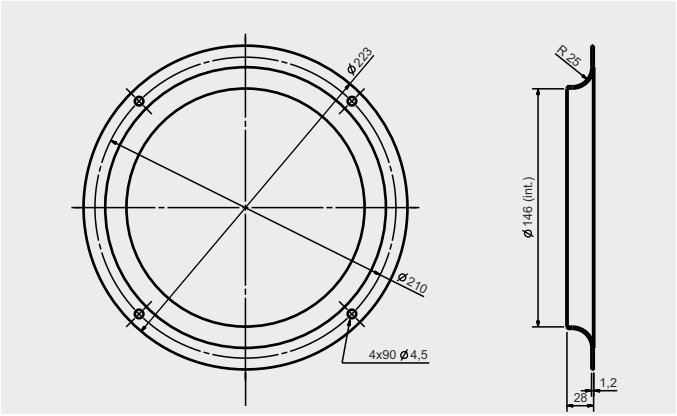
Espectro de potencia sonora en descarga - *Sound power spectrum at the outlet*

Hz	63	125	250	500	1000	2000	4000	8000	LwA
L	40	53	66	71	77	77	71	71	**82**
M	39	48	60	62	67	68	63	56	**72**
H	42	52	66	69	71	70	61	55	**76**

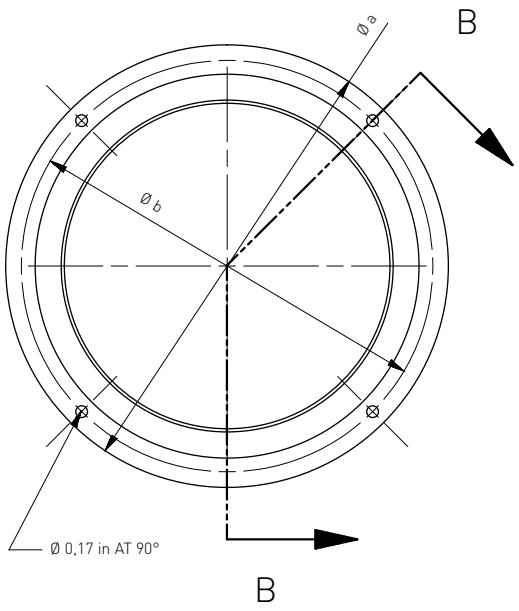
Norma de ensayo: **ISO 5801**
Espectros de potencia sonora en **dB(A)**

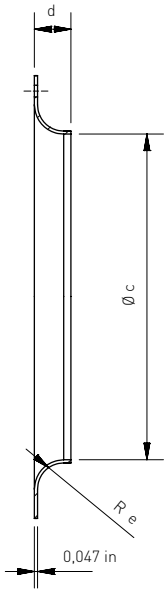
*Test standard: **ISO 5801***
*Sound power spectrum in **dB(A)***

Accesorios de montaje
Mounting accessories

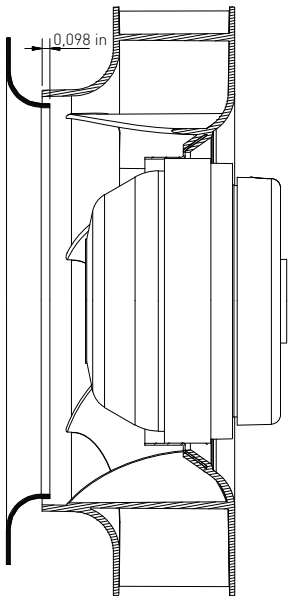


Inlet cone 160/250





SECCION B-B



Description	a		b		c		d		e	
	in	mm	in	mm	in	mm	in	mm	in	mm
INLET CONE 160	6,69	170	6,22	158	4,21	107	0,55	14	0,39	10
INLET CONE 190	6,69	170	6,22	158	4,92	125	0,55	14	0,39	10
INLET CONE 220	9,92	252	9,64	245	5,98	152	0,78	20	0,78	22
INLET CONE 225	8,78	223	8,26	210	5,74	146	1,10	28	0,98	25
INLET CONE 250	10	255	9,44	240	6,45	164	1,22	31	1,10	28

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Soler&Palau Ventilation Group