



Single inlet centrifugal fans BSP Series

Serial BSP

BSP 900

Range of belt driven single inlet centrifugal fans, designed for emergency smoke extraction in fire conditions and certified F400-120. The fans are also suitable for supply or exhaust applications in commercial and industrial buildings. Sizes of this series are in accordance with AMCA standard 99-0098-76 and DIN323R20.

Operating limit

Each fan type has its maximum operating speed and power due to its mechanical design. The operating limit of BSP series is adjusted to meet the requirement of class I limit as defined in AMCA standard 99-2408-69.

Motor

Foot-mounted motor (B3), IP55, Class F insulation
Electrical supplies: <dd>Three phase 230/400V-50Hz up to 3kW.
<dd>Three phase 400V-50Hz for higher power motors.
1 speed motor are speed controllable by inverter.

Wheel

The wheel of BSP series has backward curved blades manufactured in cold rolled sheet steel with polyester powder coating finish.

Housing

For all sizes except 1250 and above, the housing is manufactured in galvanized sheet steel with the housing fixed to the side plates in "pittsburg lock" form system. Housing for 1250 and 1400 are manufactured in mild steel finished with polyester powder coating.

Frame

The frame is manufactured with galvanized angular bars for type "C".
For type "T", they are manufactured with sections of steel and finished with polyester powder coating.

Type C (models from 315 to 630)

This type has a frame fitted on both sides of the fan which gives better strength and rigidity. It allows mounting in four different orientations, either CW or CCW rotation.

Type T (models from 710 to 1400)

<dd>This type has a welded frame giving increased stiffness and rigidity required for higher operating performance, either CW or CCW rotation.

On request

2 speed motors.
Epoxy paint.
Inspection door and drain hole.



Technical data

Technical characteristics

Before making any electrical connection ensure that the voltage and frequency of the mains electrical supply matches that of the fan data plate label.
Explosion proof types only work at an ambient temperature between -30°C and +40°C.

| Model | Minimum motor power (kW) | Maximum motor power (kW) | N. min (r.p.m.) | N. max (r.p.m.) | Maximum temperature in continuous operation (°C) | Weight (Kg) |
|-------|--------------------------|--------------------------|-----------------|-----------------|--|-------------|
| 315 | 0,25 | 3 | 1400 | 3100 | 85 | 19 |
| 355 | 0,25 | 4 | 1200 | 2800 | 85 | 25 |
| 400 | 0,55 | 4 | 1300 | 2500 | 85 | 33 |
| 450 | 0,55 | 5,5 | 1000 | 2200 | 85 | 42 |
| 500 | 0,75 | 5,5 | 900 | 1950 | 85 | 55 |
| 560 | 0,75 | 7,5 | 800 | 1800 | 85 | 76 |
| 630 | 0,75 | 7,5 | 700 | 1500 | 85 | 101 |
| 710 | 1,1 | 11 | 600 | 1350 | 100 | 189 |
| 800 | 1,1 | 15 | 500 | 1200 | 100 | 228 |
| 900 | 1,5 | 15 | 500 | 1050 | 100 | 285 |
| 1000 | 3 | 18,5 | 500 | 950 | 100 | 338 |
| 1120 | 3 | 22 | 400 | 850 | 100 | 575 |
| 1250 | 3 | 30 | 350 | 780 | 100 | 769 |
| 1400 | 5,5 | 45 | 350 | 680 | 100 | 1048 |

Reference

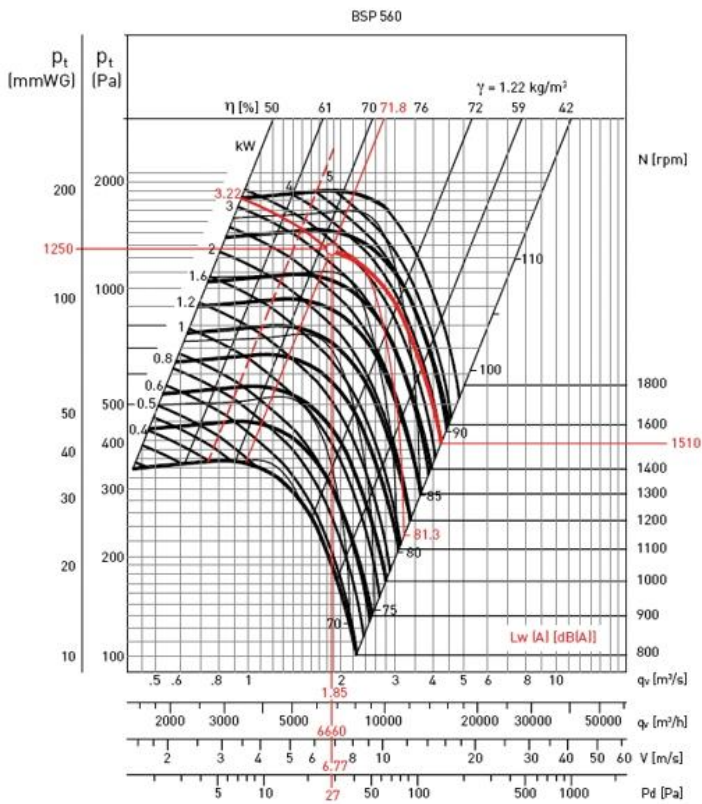
| | | | | | | | | | | | | | | |
|--------------|---|--------------|---|------------|---|----------------|---|--------------|---|------------|---|--------------|---|--------------------------|
| B S P | - | 8 0 0 | - | T M | - | 1 1 k W | - | 9 0 0 | - | 9 0 | - | C C W | - | 4 0 0 V - 8 8 H z |
| 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 |

- 1 - : Serie.
- 2 - : Impeller diameter (mm).
- 3 - : Fan type.
- 4 - : Motor power (kW).
- 5 - : Fan speed [r.p.m.].
- 6 - : Orientation (°).
- 7 - : Rotation type.
- 8 - : Electrical supply.

Curve - Example of selection

- Airflow: $q_v = 6660 \text{ m}^3/\text{h}$
- Outlet velocity: $V = 6.77 \text{ m/s}$
- Dynamic pressure: $P_d = 27 \text{ Pa}$
- Total pressure: $p_t = 1250 \text{ Pa}$
- Fan speed: $N = 1510 \text{ rpm}$
- Absorbed power: $W = 3.22 \text{ kW}$
- Total efficiency: $\eta = 71.8 \%$
- Sound power level: $L_w(A) = 81.3 \text{ dB(A)}$

- Performance shown is for installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. Power rating kW does not include drive losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301. Values shown are for inlet Lw(A) sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.



Orientation

