Industrial Motors

Commercial &
Appliance Motors

Automation

Digital &
Systems

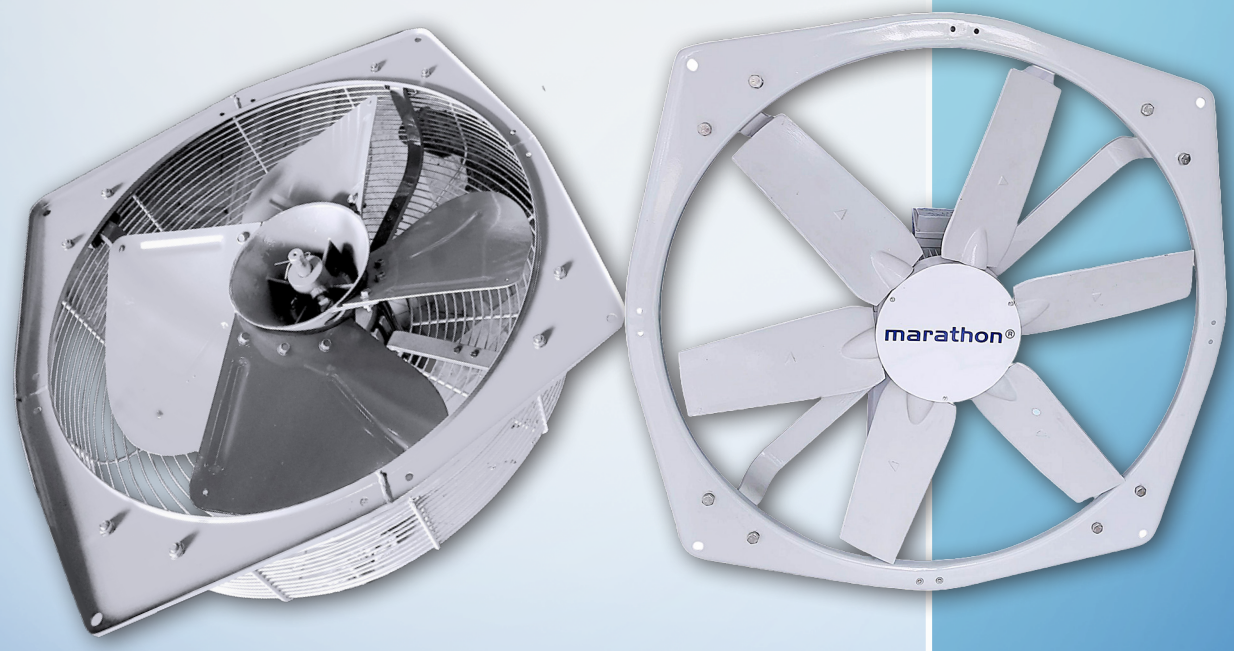
Energy

Transmission &
Distribution

Coatings

Marathon India Industrial Propeller Fans

May 2025
India



marathon™ WEG Group

Driving efficiency and sustainability

weg



MARATHON® ELECTRIC

Pioneer and acknowledged leader for fans in India introduces GPN/BVN/BVA & PE series fans.

These fans are backed by extensive knowledge of design and application engineering of last 50 years of India's largest manufacture of fans and aided by latest manufacturing facility using CNC machine tools.

The products included in this catalogue are available off the shelf from local dealers/ godowns located throughout the country. The plant is certified by BVQI for ISO9001quality management system.

All fans are CE®* certified.

MAJOR APPLICATIONS

These fans support applications such as:

1. Industrial Ventilation
2. Large Kitchen Ventilation
3. Transformer Cooling
4. Evaporative Air Cooler, Condenser Cooling, Chiller Application, Controlled Air Movement.

*CE is a trademark or tradename of European Unions.





GPN/BVN/BVA & PE SERIES FANS

STANDARDS

INDIAN	
Propeller type AC (Single & Three phase) Ventilating fans	IEC®*:60034 (FOR MOTOR) IS:12615 (FOR MOTOR) IS – 2312 (FOR FAN)
Degree of Protection	IS – 4691 IS/IEC : 60034 -5 : 2000

FEATURES

- 300 mm to 915 mm diameter
- Volume flow from 1200 m3 per hour to 28200 m3/ hour (CMH).
- Static pressure up to 150 pa (15mm WG)
- CE marked fan available for European market
- Extruded/pressure die cast shell with provision for accurate positioning of impeller assembly to derive best air performance under static pressure
- Unique fastening system with improved rigidity
- Maintenance free operation

SIZES

- 300, 380, 450, 610, 750 & 915 mm diameter
- 4, 6, 8 & 10 pole Motor

SUPPLY

- 230V/50 Hz/1 Ph
- 400V/50Hz/3 Ph
- 415V/50 - Hz / 3Ph

FAN PERFORMANCE

- Available installation options :
  1. Ring mounting - High air volume suitable for FAD condition - as standard.
  2. Diaphragm mounting - High air volume required under static pressure - Optional.

MOTOR

- Totally enclosed air over type squirrel cage induction motors specially designed for minimum power consumption, to cater desired fan characters. Motors are provided with following features:
- Class B insulation (Class F/ Class H optional)
- Voltage/Frequency Variation:
  - Voltage Variation ± 10%
  - Frequency Variation ± 5%
- Temp. range : – 40°C to 50°C
- IP55 protection (IP65 & IP66 Optional)
- Tropicalization treatment
- Permanently lubricated double sealed bearing with expected L10 life of 40,000 hours

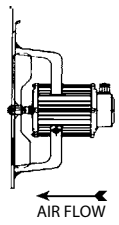
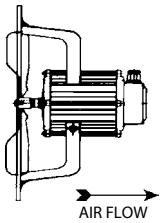
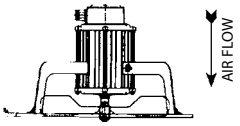
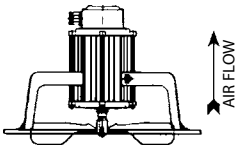
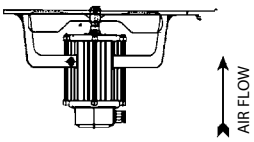
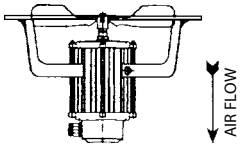
ACCESSORIES

The following accessories are also available as an extra features to our fans.

- Canopy
- Wire Guard

FORM OF RUNNING

Available Mounting Options

CONFIGURATION	TYPE OF RUNNING	DESCRIPTION
	FORM A	Horizontal shaft, Air flow from motor end to blade end.
	FORM B	Horizontal shaft, Blade reversed. Air flow from blade end to motor end.
	FORM C	Vertical shaft downward. Air flow from motor end to blade end.
	FORM D	Vertical shaft downward. Blade reversed. Air flow from blade end to motor end.
	FORM E	Vertical shaft upward. Air flow from motor end to blade end.
	FORM F	Vertical shaft upward. Blade reversed. Air flow from blade end to motor end.

FORM OF RUNNING

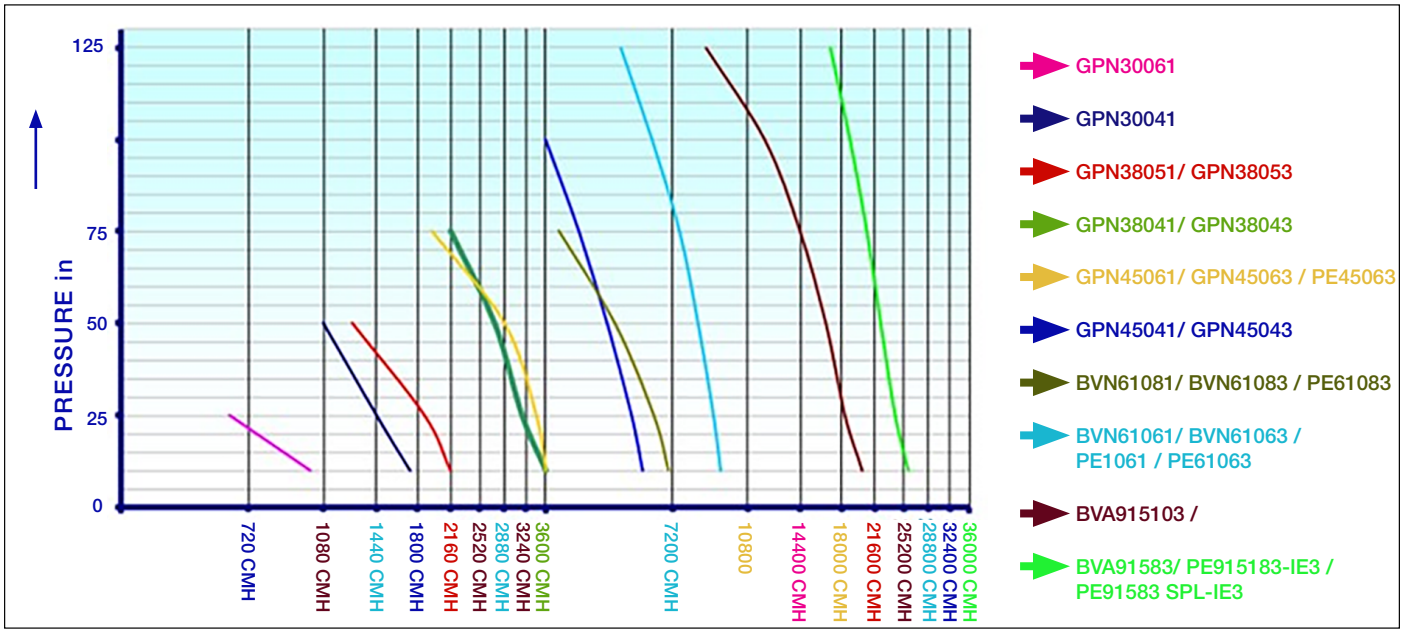
Manufactured in-house with care & expertise

Each and every fan is assembled, balanced, tested and packed in the factory through a structured in-process quality control system.

All major components which contributes to predetermined consistent performance are manufactured in the factory. The pressure die cast brackets and extruded shells are machined by CNC lathe to maintain high degree of accuracy and best output from motor.

Fan performance also depends on Impeller contour. Impellers are manufactured in-house by high precision tools using accurately curved press tools to maintain desired blade angle. Each Impeller is balance by Dynamic Balancing machine.

AIR PERFORMANCE CHART - 50HZ



VENTILATION REQUIREMENT

Ventilation implies fresh air supply or extraction of air. The rate of ventilation conveniently measured in cubic meter per hour should be sufficient to satisfy the following requirements.

- Extraction of Air
- Supply of Fresh Air
- Combination of both of extraction and supply

RECOMMENDED AIR CHANGES

No hard and fast rules can be laid down for rates of air changes, the recommendation given in following table may be considered as a general guide.

TYPICAL SITUATION	AIR CHANGES PER HOUR
Residences	1 - 2
Churches	
Storage Areas	
Libraries	2 - 4
Banks	
Class Rooms	
Offices	4 - 6
Assembly Halls	
Laboratories	
Cleaners	
Hospital ward ant Treatment Rooms	6 - 8
Lavatories, Bathroom and Bars	
Theatres	6 - 10
Cinemas	
Carages	
Workshops	

TYPICAL SITUATION	AIR CHANGES PER HOUR
Cafe	8 - 12
Canteens	
Dance Halls	
Restaurants	10 - 15
Domestic Kitchen	
Laundries	
Canteen Kitchen	15 - 30
Bakeries	
Dyers	
Boiler Houses	15 - 30
Engine Rooms	
Swimming Baths	
Paint Shops	30 - 60
Foundries	
Furnace Room	

PERFORMANCE DATA - 50Hz

MODEL	SWEEP (MM)	MOTOR	PHASE	SPEED (RPM)	VOLTAGE (V)	INPUT (W)	CURRENT (AMPS)	FREE AIR FLOW (m^3/ hr.)	NOISE LEVEL @ 3 M DISTANCE
GPN30061	300	AF30	SINGLE	900	230	50	0.22	1200	58 dBA
GPN30041		AF30	SINGLE	1400	230	80	0.36	2000	62 dBA
GPN38061	380	AF45	SINGLE	900	230	85	0.41	2500	65 dBA
GPN38063		AF45	THREE	900	415	85	0.2	2500	65 dBA
GPN38041		AF45	SINGLE	1400	230	180	0.82	4200	72 dBA
GPN38043		AF45	THREE	1400	415	180	0.4	4200	72 dBA
GPN45061	450	AF55	SINGLE	900	230	132	0.6	4500	67 dBA
GPN45063		AF55	THREE	900	415	132	0.3	4500	67 dBA
GPN45041		AF55	SINGLE	1400	230	372	1.75	7000	79 dBA
GPN45043		AF55	THREE	1400	415	372	0.82	7000	79 dBA
BVN61063	610	BF80	THREE	900	415	500	1.0	10450	65 dBA
BVN61061		BF80	SINGLE	900	230	500	2.3	10450	65 dBA
BVN61083		BF80	THREE	700	415	240	0.5	7900	61 dBA
BVA91583	915	CF83	THREE	700	415	1200	2.5	28000	79 dBA
BVA915103		CF83	THREE	550	415	700	1.5	22100	70 dBA

FAN MANUFACTURING STANDARD IS-2312

MODEL NO	MOTOR IS	MOTOR TYPE	SWEEP	INPUT VOLTAGE	INPUT WATT	CURRENT	SPEED	AIR DELIVERY	IP	dB(A) @3m
PE 91583-IE3	IS:12615 / IEC:60034	IE3	915	415 V	994 W	2.2 A	710 RPM	28200 CMH	IP 65	72-77
PE 91583 SPL-IE3	IS:12615 / IEC:60034	IE3	915	415 V	700 W	1.8 A	710 RPM	22000 CMH	IP 65	70-74
PE 915103	IS:2312	HE	915	415 V	625 W	1.48 A	560 RPM	22100 CMH	IP 65	68-72
PE61063-IE3	IS:12615 / IEC:60034	IE3	610	415 V	460 W	0.95 A	740 RPM	11500 CMH	IP 65	64-68
PE61083-IE3	IS:12615 / IEC:60034	IE3	610	415 V	186 W	0.48 A	710 RPM	8200 CMH	IP 65	60-64
PE61061	IS:2312	HE	610	230 V	440 W	2.2 A	910 RPM	10450 CMH	IP 65	65-69
PE45063-IE3	IS:12615 / IEC:60034	IE3	450	415 V	132 W	0.4 A	900 RPM	4500 CMH	IP 65	59-63

FAN SELECTION

The procedure of estimating the rate of ventilation is to multiply the total interior space by the number of air change per hour for the respective space given in Fan selection guide. This gives the rate of air movement required in cubic meter per hour. Thus ventilation on the basis of the air change requirement is calculated as follows:

Air movement per hour = length x width x height of the building x recommended air changes per hour

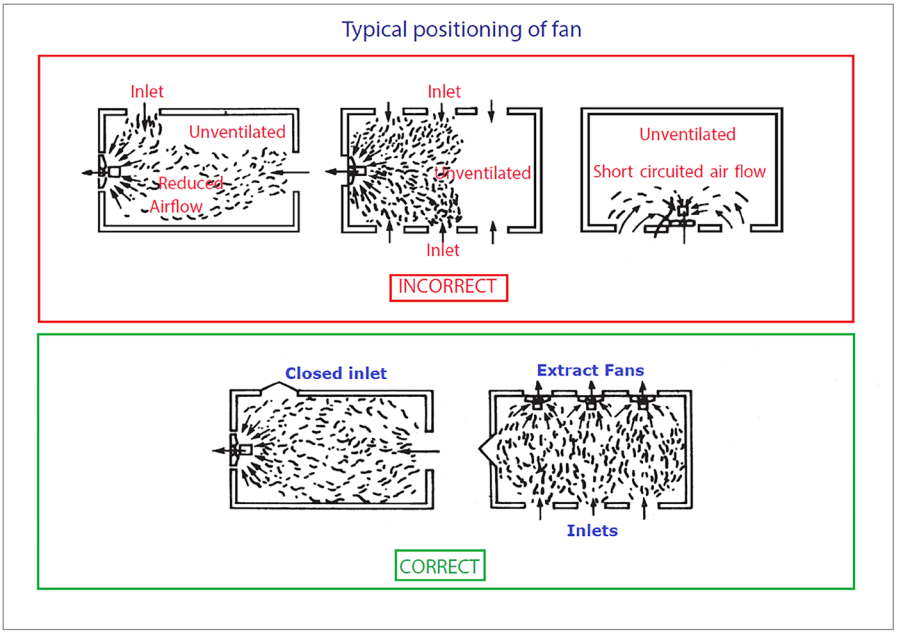
SITUATION	RECOMMENDED AIR CHANGES PER HOUR	SIZE OF	AIR CHANGES PER HOUR	TYPICAL EXAMPLE		
				AIR FLOW (m^3/ hr.)	QTY (Nos.)	MODEL
INDUSTRIAL						
Laboratories	4 - 6	10m x 8m x 4m = 320m^3	6	6 x 320 = 1,920	2 Nos.	GPN 30061
Factories/ Workshops	6-10	30m x 20 m x 8 m = 4800m^3	10	10 x 4800 = 48,000	7 Nos.	GPN 45043
Boiler Houses	15-30	20m x 15 m x 10m = 3000m^3	30	30 x 3000 = 90,000	9/ 14 Nos.	BVN 61063/ GPN 45043
Foundries	30-60	30m x 10m x 8m = 2400m^3	50	50 x 2400 = 1,20,000	12/ 18 Nos.	BVN 61063/ GPN 45043
COMMERCIAL						
Banks	2 - 4	20m x 20m x 4m = 1600m^3	4	4 x 1600 = 6,400	3 Nos.	GPN 38061
Assembly Halls	4 - 6	15m x 20m x 4m = 1200m^3	6	6 x 1200 = 7,200	3 Nos.	GPN 38061
Offices	4 - 8	10m x 10m x 4m = 400m^3	8	8 x 400 = 3,200	2 Nos.	GPN 38061
Hospital (General Ward)	6 - 8	20m x 15m x 8m = 2400m^3	8	8 x 2400 = 19,200	8 Nos.	GPN 38061
Cinemas/ Theatres	6 - 10	30m x 20m x 10m = 6000m^3	10	10 x 6000 = 60,000	14 Nos.	GPN 45061
Canteens/ Restaurants	8 - 14	20m x 10m x 8m = 1600m^3	12	12 x 1600 = 19,200	5 Nos.	GPN 38041

POSITIONING OF FAN

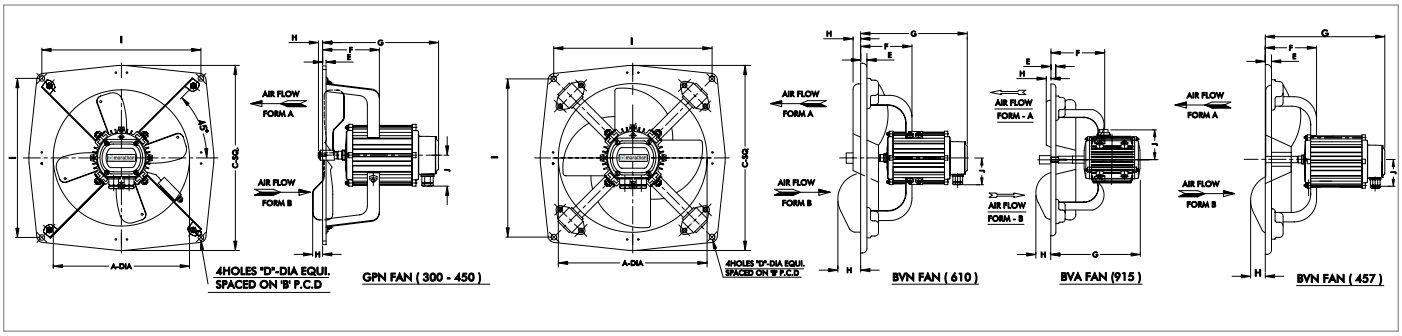
The fans should be positioned so that the fresh air drawn inside will permeate the entire room. Fans should not be installed in close proximity to doors or windows which maybe left open. In such cases, the air movement would be short circuited between the fans The dimension and weights given are standard. Any changes required for a definite application, may be referred to the Factory and adjacent inlets, and other parts of the room would remain non-ventilated.

RECOMMENDATION REGARDING POSITIONING OF INDUSTRIAL FAN

1. Install the exhaust fan in a window or wall farthest from the door. Replacement air will then flow over the whole of the occupied space.
2. Services are provided for effective selection of our fans.
3. Annual maintenance services are also provided.
4. In kitchen the best place for the exhaust fan will be in the wall adjacent to, but not directly above the cooker - the chief source of steam.
5. In large occupied spaces, the most effective ventilation will be obtained, when several small fans are installed instead of one or two large fans.



GPN, BVN AND BVA SERIES



PART NO.	BRAND	SWEEP	A	B	C	D	E	F	G	H		I	J	APPROX. WT. (KG)
										FORM A	FORM B			
6	BVA	915	952	1181	1060	17	19	234	436	7	15	835	165	65
5	BVN	610	635	844	715	11	12.5	196.5	359	4	36	596	74	24
4	BVN	457	482	635	546	11	12.5	151	284	-	7	449	61	14
3	GPN	450	482	635	546	11	12.5	129.5	234	3.5	13.5	449	61	10.1
2	GPN	380	406	530	467	9.5	9.5	116.5	220	13	29	374	61	9.3
1	GPN	300	330	447	384	9.5	9.5	101.5	195	23	41	316	61	7.1

Notes :
The dimension and weights given are standard. For any changes required for a definite application, please refer to the Marathon Electric team.

The scope of WEG Group solutions
is not limited to products and solutions
presented in this catalogue.
To see our portfolio, contact us.

For WEG's worldwide
operations visit our website

www.weg.net

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