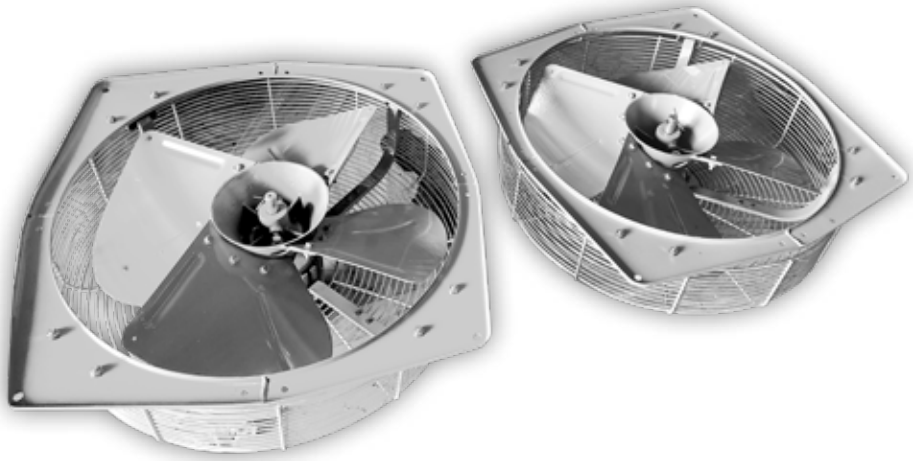
marathon®
Motors

PRODUCT CATALOG

INDUSTRIAL PROPELLER FANS

MARCH 2022 | INDIA



RegalRexnord™

MARATHON® ELECTRIC

Pioneer and acknowledged leader for fans in India introduces GPN/BVN/BVA 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 ISO9001 quality management system.

All fans are CE®* certified.

MAJOR APPLICATIONS

These fans support applications such as Industrial Ventilation, Large Kitchen Ventilation, Transformer Cooling, Evaporative Air Cooler, Condenser Cooling, Controlled Air Movement.

*CE is a trademark or tradename of European Unions and is not owned by or under the control of Regal Rexnord Corporation

GPN/BVN/BVA SERIES FANS

STANDARDS

INDIAN		EUROPEAN STANDARD (CE®* MARKING)	
Propeller type AC Ventilating fans	IEC®*:60034 (FOR MOTOR) IEC:12615 (FOR MOTOR) IS – 2312 (FOR FAN)	Safety Requirements	EN 60 335 –1 EN 60 335 – 2 – 80
Evaporative air cooler (desert cooler)	IS – 3315		
Degree of Protection	IS – 4691 IS/IEC : 60034 -5 : 2000	EMI/EMC	EN 50 082 – 2 EN 50 081 – 2

FEATURES

- 300 mm to 915 mm diameter
- Volume flow from 1200 m3 per hour to 28000 m3 per hour.
- Static pressure upto 150 pa (15mm WG)
- SN series fan 60 Hz are available
- 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 & 915 mm diameter
- 4, 6, 8 & 10 pole Motor

SUPPLY

- 230V/50 Hz/1 Ph
- 400V/50Hz/3 Ph
- 415V/50 - Hz / 3Ph
- 115V/230V/60Hz/1 Ph
- 230V/460V/60Hz/3 Ph

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 characteres. 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

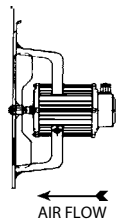
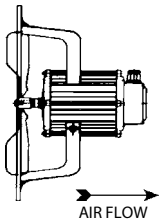
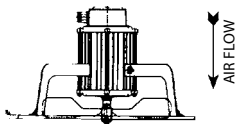
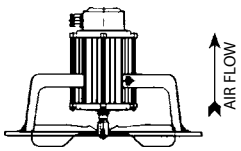
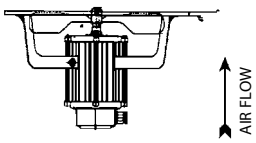
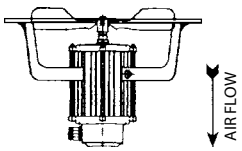
The following accessories are also available as an extra features to our fans.

- Louvre Shutters
- Wall Cowl
- Wire Guard
- RE Unit

*The following trademarks are not owned by or under the control of Regal Rexnord Corporation: CE is a trademark or tradename of European Unions; IEC is a trademark or tradename of International Electrotechnical Commission.

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

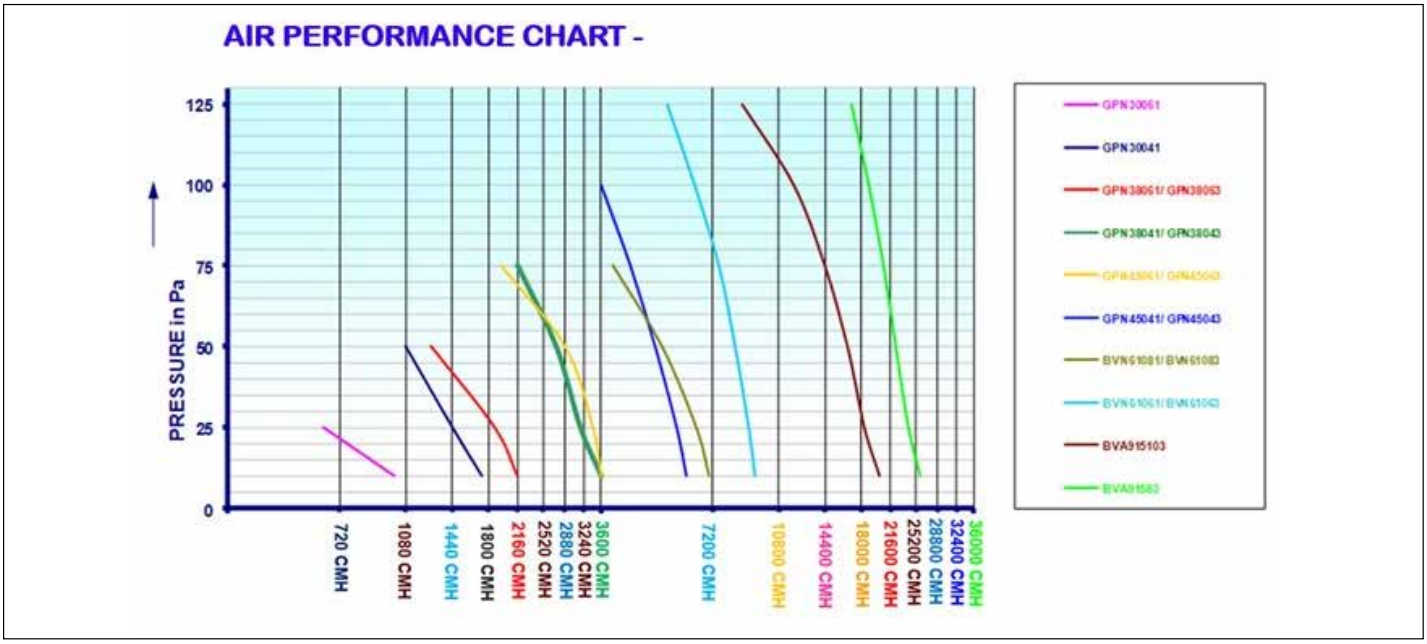
Each and every fan is assembled, balanced, tested and packed in the factory through a structured in-process quality control system.

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	400	85	0.2	2500	65 dBA
GPN38041		AF45	SINGLE	1400	230	180	0.82	4200	72 dBA
GPN38043		AF45	THREE	1400	400	180	0.4	4200	72 dBA
GPN45061	450	AF55	SINGLE	900	230	132	0.6	4500	67 dBA
GPN45063		AF55	THREE	900	400	132	0.3	4500	67 dBA
GPN45041		AF55	SINGLE	1400	230	372	1.75	7000	79 dBA
GPN45043		AF55	THREE	1400	400	372	0.82	7000	79 dBA
BVN61063	610	BF80	THREE	900	400	500	1.0	10450	65 dBA
BVN61061		BF80	SINGLE	900	230	500	2.3	10450	65 dBA
BVN61081		BF80	SINGLE	700	230	240	1.1	7900	61 dBA
BVN61083		BF80	THREE	700	400	240	0.5	7900	61 dBA
BVA91583	915	CF83	THREE	700	400	1200	2.5	28000	79 dBA
BVA915103		CF83	THREE	550	400	700	1.5	22100	70 dBA

PE SERIES FAN

MODEL NO	DRAWING NO	MOTOR IS	MOTOR TYPE	SWEEP	INPUT VOLTAGE	INPUT WATT	CURRENT	SPEED	AIR DELIVERY	IP	dBA
PE 91583-IE3	CE0718.03	IEC:60034	CF83	915	415 V	994 W	2.2 A	710 RPM	28200 CMH	IP:65	76
PE 91583-IE2	CE0717.00	IEC:60034	CF83	915	415 V	1032 W	2.32 A	704 RPM	28100 CMH	IP:65	77
PE 915103	CE0724.00	IS:2312	CF83	915	415 V	625 W	1.48 A	560 RPM	22100 CMH	IP:65	69
PE61083-IE3	CE0716.00	IEC:60034	BF80	610	415 V	186 W	0.46 A	710 RPM	8200 CMH	IP:65	66
PE61083-IE2	CE0715.00	IEC:60034	BF80	610	415 V	199 W	0.49 A	700 RPM	8050 CMH	IP:65	67
PE61063H-IE2	CE0720.00	IEC:60034	BF80	610	415 V	424 W	0.99 A	910 RPM	10450 CMH	IP:65	65
PE61063-IE2	CE0700.01	IEC:60034	BF80	610	415 V	500 W	1.1 A	900 RPM	10450 CMH	IP:65	68

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

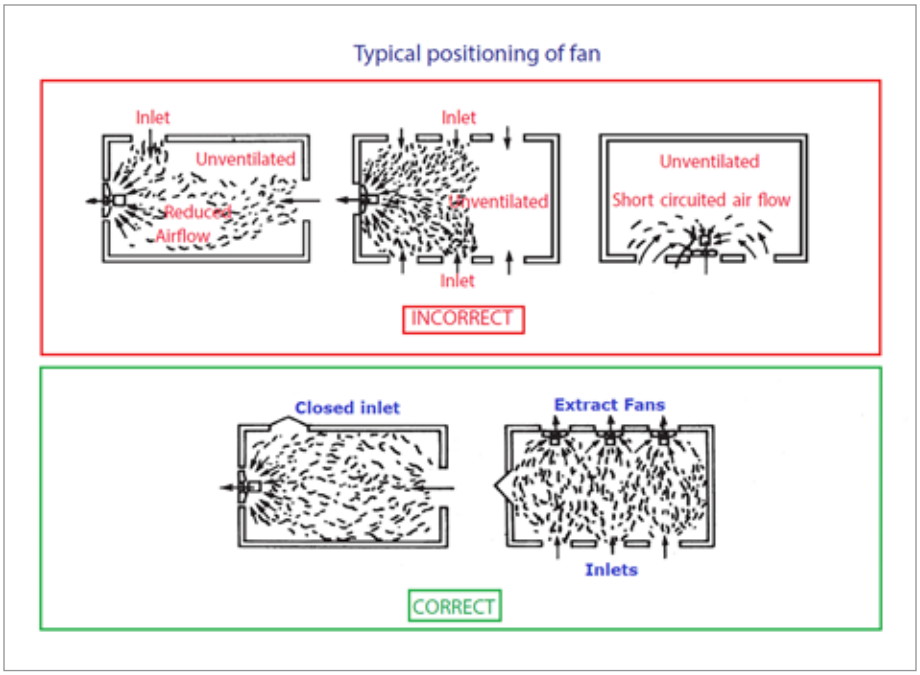
SITUATION	RECOMMENDED AIR CHANGES PER HOUR	SIZE OF	AIR CHANGES PER HOUR	TYPICAL EXAMPLE		
				AIR FLOW (m^3/ hr.)	QTY (Nos.)	MODEL
INDUSTRIAL						
Laboratories	4 - 6	10m x 8m x 4m = 320m^3	6	6 x 320 = 1,920	2 Nos.	GPN 30061
Factories/ Workshops	6-10	30m x 20 m x 8 m = 4800m^3	10	10 x 4800 = 48,000	7 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
Kitchens (Domestic) and Toilets	13 - 30	3.5 mx 4m x 4m = 56m^3	30	30 x 56 = 1,680	1 No.	GPN 30041
Photographics Dark Rooms	20 -30	4m x 3m x 4m = 48m^3	25	25 x 48 = 1,200	1No.	GPN 38061

POSITIONING OF FAN

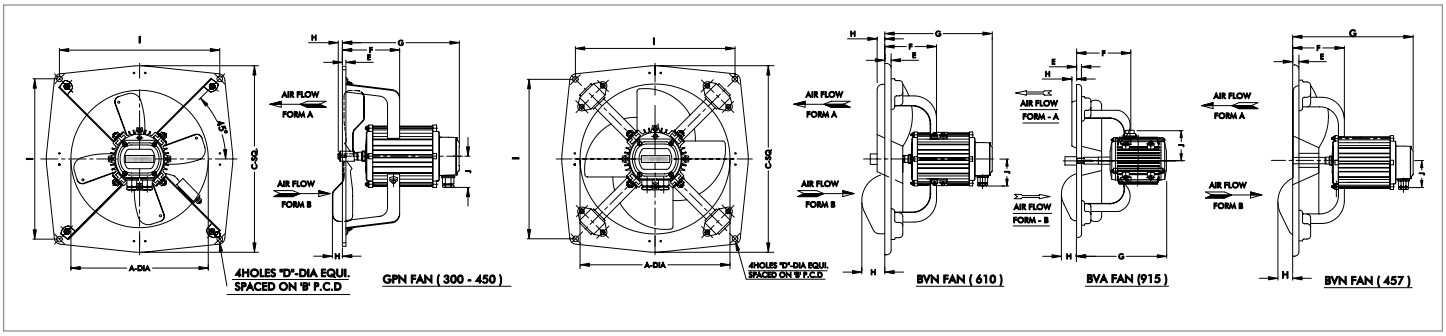
The fans should be positioned so that the fresh air drawn inside will permeate the entire room. Fans should not be installed in close proximity to doors or windows which maybe left open. In such cases, the air movement would be short circuited between the fans The dimension and weights given are standard.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



GPA AND BVN/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. Any changes required for a definite application, may be refered to the Factory.

Certificate of Compliance

We hereby declare that the technical file of product complied with the requirement of directives low voltage directive 2014/35/EU

Manufacturer

Name : MARATHON ELECTRIC MOTORS (INDIA) LTD.

Address : MARATHON ELECTRIC MOTORS (INDIA) LTD., 1, TARATALA ROAD, KOLKATA, WEST BENGAL, INDIA

Product : **"GPN/BVN/BVA/MTCF/EXPELAIR SERIES FAN'S"**

Complies with the requirements applicable to it

The Certification body has performed an audit of the above product quality system covering the design, manufacture and final inspection of the certified product. The quality system has been assessed, approved and is subject to continuous surveillance according to the directives low voltage directive 2014/35/EU

This certificate is issued under the following conditions:

It applies only to the quality system maintained in the manufacture of above referenced models and it does not substitute the design or type-examination procedures, if requested.

- The certificate remains valid until the manufacturing conditions or the quality systems are changed.
- The certificate validity isconditioned by positive results of surveillance audits.
- After fulfilling the relevant EU legislation, the manufacturer shall affix CE Mark to each device, of the above referenced models.
- The CE mark as shown below can be used, under the responsibility of the manufacturer, after completion of an EC Declaration of conformity and compliance with all relevant EC Directives. The statement is based on a single evaluation of one sample of above mentioned product. It does not imply an assessment of the whole production.

Certificate No. CE-MESL-20-241324

Certificate can be verified at www.gaafs.us

Date of Certification	**24th December 2020**
1st Surveillance Due	**23rd December 2021**
2nd Surveillance Due	**23rd December 2022**
Certificate Expiry (Subject to the company maintaining its system to the required standard)	**23rd December 2023**

Registered

Authorized Signatory

CERTIFIED Certification

CE

QVA Certification

CAB Address : Maryland Avenue, SW Washington, D.C. 20202

Validity of this certificate is subject to annual surveillance audits to be done successfully

This certificate is the property of QVA Certification and shall be return immediately on request

QVA Certification is and independent Systems Products and Personal assessment Body. QVA Certification is accredited by GAAFS.US

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Motors

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