ELTA FANS

GL GAMMA BFC SERIES

Bushfire Compliant Centrifugal Roof Unit

GL GAMMA SERIES - BUSHFIRE CODE COMPLIANT

BUSHFIRE
CODE COMPLIANT

Description

The GL Gamma Series, with bushfire code compliance, has been developed for bushfire prone regions. They feature a high performance backward-curved centrifugal fan and a robust galvanised steel construction.

There are 8 sizes in the range extending from 315 to 710mm diameter.

Typical Applications

Suitable for applications requiring the combination of speed-controllable motors with an all metal construction. Designed for use in commercial kitchen exhaust systems in bushfire prone areas, see Additional Information.

Features

- Quick release toggle clamps provide easy access for cleaning and maintenance.
- Designed for vertical discharge applications.
- High quality bronze mesh provides ember protection.
- Speed-controllable with electronic or auto-transformer controllers (not on CE316VGL-BFC).
- Compact, low profile design.
- Choice of speeds available.
- High performance backward-curved centrifugal fan.
- Many 3-phase motors are 2-speed star/delta design.
- Can be mounted at angles up to 30°.
- Backdraft dampers are an optional extra, refer to page J-2 for details.
- Compliant to AS3959:2009 up to and including BAL-40.

Construction

Cowls are of galvanised steel.

Ember protection - bronze mesh with maximum of 2mm aperture.

Backward-curved centrifugal impellers.

Powder-coating is an optional extra.

Motor

Type - external rotor, squirrel cage induction motors.

Electricity supply - 230V, single or 415V three-phase, 50Hz.

Ball Bearing - sealed for life.

Speed-controllable using electronic or auto-transformer speed controllers (not CE316VGL-BFC).

Many 3-phase motors are 2-speed star/delta design.

See pages O-2/3 for details on these motors.

Internal Thermal Protection

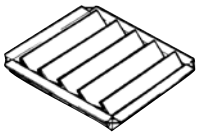
All motors are fitted with Internal Thermal Contacts as standard.

Testing

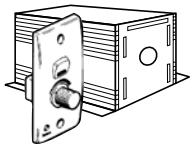
Airflow to ISO5801:1997

Noise tests to BS848:Part 2, 1985

Ancillary Equipment

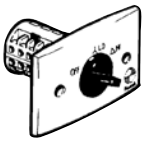


CBD - Backdraft shutter
Ref. Section J-2

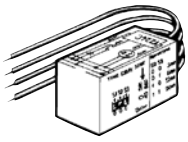


Speed controllers
Ref. Section M

VA - Speed controller
Ref. Section M



SD - Star/Delta switch
Ref. Section M



VZ - Run-on timer
Ref. Section M

Additional Information

Construction of buildings in bushfire prone areas

AS3959:2009, clause 6.6.5(b) “Roof penetrations” states: Openings in vented roof lights, roof ventilators or vent pipes shall be fitted with ember guards made from a mesh or perforated sheet with a maximum aperture of 2mm, made of corrosion-resistant steel, bronze or aluminium.

Backdraft dampers

Backdraft shutters are an optional extra, refer to page J-2 for details. The pressure loss across the shutter has to be added to the system pressure before making fan selections.

Kitchen Hood Exhaust Systems

AS/NZS1668.1:1998, Clause 11.2.5 states that, for commercial installations: “kitchen exhaust fan casings and cowls shall be manufactured from non-combustible materials that have a fusing temperature above 1000°C”.

Suggested Specification

The roof ventilators shall be of the GL Gamma Series with bushfire code compliance as designed and manufactured by Elta Fans.

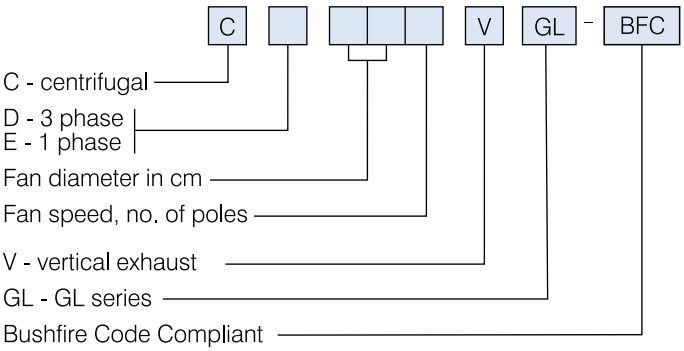
Impellers shall be of backward-curved centrifugal design and driven by speed-controllable external rotor motors with integral thermal protection.

They shall be constructed from galvanised steel and be of vertical exhaust design.

Ember protection mesh shall be bronze or steel with openings a maximum of 2mm. The windband shall incorporate quick-release toggle clamps to provide easy access for cleaning and maintenance.

All data shall be based on tests on a complete assembled unit to ISO5801:1997 for airflow and BS848:Part 2, 1985 for noise.

How To Order



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Technical Data & Noise Levels

Model CD...VGL-BFC CE...VGL-BFC	Nom. Speed r/s	Avg dB(A) @ 3m Low Air Flow	High Airflow	CE.. 1 ph. kW	CE.. 1 ph. Amps*	CD.. 3 ph. kW	CD.. 3 ph. Amps*	In-duct Spectrum Corrections, dB** 63	125	250	500	1k	2k	4k	8k
314.	23	Inlet 47	48	0.15	0.66	**0.18**	**0.37**	35	29	21	18	10	10	8	2
316.†	15	Inlet 40	42	0.07	0.54	0.09	0.15	34	26	22	18	12	12	6	0
354.	23	Inlet 52	51	0.28	1.25	**0.19**	**0.51**	28	26	22	19	10	12	11	1
356.	15	Inlet 43	43	0.07	0.32	0.13	0.22	33	25	22	19	14	8	3	0
404.	23	Inlet 56	54	0.49	2.20	**0.45**	**1.40**	28	26	21	18	11	12	12	5
406.	15	Inlet 44	44	0.17	0.80	**0.23**	**0.73**	33	28	22	19	14	10	7	3
408.	11	Inlet 39	40	-	-	0.16	0.30	33	26	19	16	14	14	12	3
454.	23	Inlet 59	57	0.76	3.50	**0.77**	**1.47**	27	25	20	17	11	12	12	8
456.	15	Inlet 47	46	0.43	2.00	**0.44**	**0.90**	31	30	21	18	13	11	9	5
458.	11	Inlet 41	43	-	-	0.15	0.35	33	26	19	16	14	14	12	3
504.	23	Inlet 62	61	1.30	5.70	**1.39**	**2.70**	26	26	21	15	12	12	12	9
506.	15	Inlet 50	50	0.53	2.50	**0.65**	**1.20**	30	29	22	16	12	10	8	6
508.	11	Inlet 43	45	0.23	1.15	0.30	0.50	32	26	20	16	14	13	12	4
564.	23	Inlet 65	65	-	-	**2.16**	**4.10**	26	27	23	14	13	12	12	10
566.	15	Inlet 54	54	0.84	4.10	**0.69**	**1.45**	29	29	23	15	12	10	8	7
568.	11	Inlet 44	47	0.32	1.50	0.39	0.79	30	27	22	15	15	11	11	6
634.	23	Inlet 69	70	-	-	**4.30**	**7.35**	24	28	24	12	13	11	12	10
636.	15	Inlet 60	58	-	-	**1.10**	**2.20**	28	29	24	14	12	10	8	8
638.	11	Inlet 46	50	-	-	0.68	1.20	28	27	23	14	14	9	10	6
716.	15	Inlet 63	61	-	-	**2.20**	**4.30**	28	29	24	14	12	10	8	8
718.	11	Inlet 48	53	-	-	**0.66**	**2.00**	28	27	23	14	14	9	10	6
711.	9	Inlet 41	46	-	-	0.28	1.20	28	27	23	14	14	9	10	6

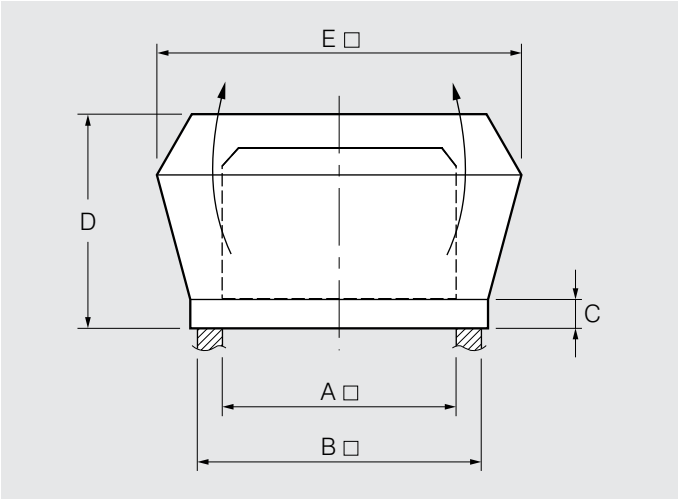
Electrical data in **bold** type refers to fans fitted with 2-speed star/delta motors as standard.

* Amperages shown are a guide only, refer to our Sales Department for accurate figures at time of order.

** Add the In-Duct Spectrum Corrections to the closest dB(A) level shown on the fan curve to obtain the In-Duct Sound Power Levels on the Inlet Side of the unit.

† The CE316VGL is not speed controllable.

Dimensions



Model CD...VGL-BFC CE...VGL-BFC	Dimensions, mm A□	B□	C	D	E	Approx. weight kg.	Approx. volume m³
314	310	410	50	310	520	16	0.10
316							
354	400	500	50	420	670	26	0.22
356							
404	400	500	50	420	670	26	0.22
406							
408							
454	620	720	60	525	900	49	0.50
456							
458							
504	620	720	60	525	900	57	0.50
506						51	
508							
564	620	720	60	525	900	65	0.50
566						56	
568							
634	710	810	60	665	1160	97	1.03
636						78	
638							
716	710	810	60	665	1160	95	1.03
718						83	
711							

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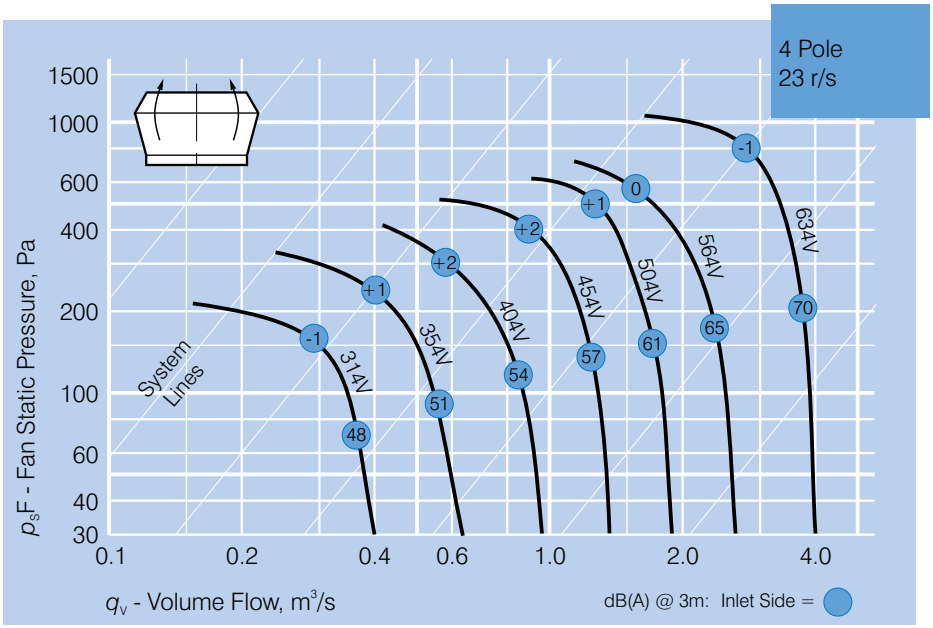
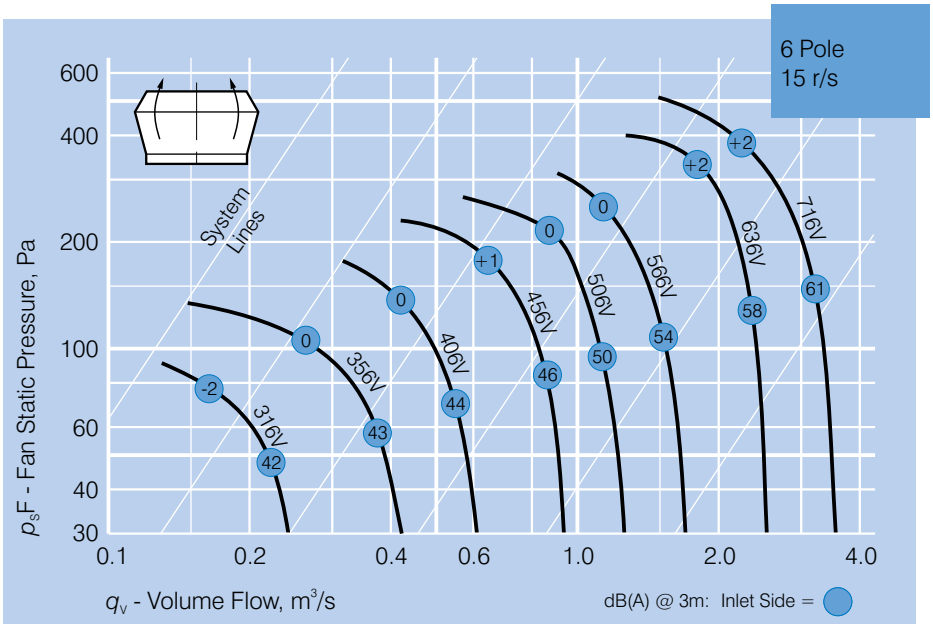
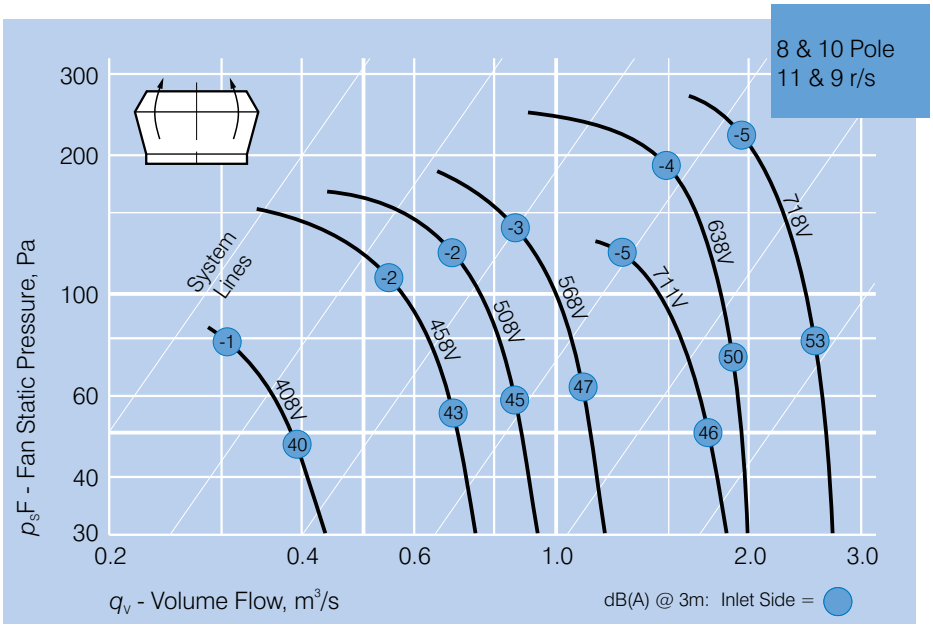
Additional Information

Performance curves shown are based on nominal speeds.

As motor speeds may vary from one manufacturer to another, and from one motor type to another, variations in performance can result.







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CD/E..VGL-BFC-30-08-2019 Issue A