



# GORILLA HVLS

## Installation & Maintenance



**GORILLA**

# HVLS RANGE

High Volume Low Speed Fan



## Specific Manual

Carefully read the instructions contained in this manual.

**This Specific Manual MUST be read in conjunction with the "Installation, Operation and Maintenance General Manual".** Note: store the manual for future reference. We reserve the right to improve and make changes to the manual, products and accessories without any obligation to update previous productions and manuals.

### TYPE

High efficiency EC brushless motor ceiling fans specifically designed for industrial, civil and agriculture applications where high air volume and low rotation speed are needed.

### MAIN FEATURES

- Brushless motor 400Vac/3ph/50-60Hz, IP 65
- Speed controllable
- Suitable for S1 continuous service
- Embedded system
- Anodized extruded blades
- Gearless for silent operation
- Maintenance-free
- Key Safety features
- Simplified electrical wiring connection
- Strong and robust design and manufacturing

### FAN DATA

MODEL		HVLS 30	HVLS 40	HVLS 50	HVLS 60
No. Blades		5	5	5	5
Diameter	mm	3050	4050	5050	6050
Max Rotation Speed	r/min	140	80	70	50
Max Absorbed Power	kW	0.82	0.58	0.90	0.77
Max Current	A	2.0	1.5	2.2	1.9
Weight	kg	88	95	108	115
Max Thrust	N	68	62	100	146
Max Air Flow AMCA 230-99	cfm	60980	77311	122439	177216
	m <sup>3</sup> /h	03605	131352	208025	301092
	SPI <sup>(1)</sup>	28.5	15.9	15.6	9.2
Max Air Flow AMCA 230-15	cfm	43119	54667	86577	125311
	m <sup>3</sup> /h	73260	92880	147096	212904
	SPI <sup>(1)</sup>	40.3	22.5	22.0	13.0
Affected Diameter <sup>(2)</sup>	m	15	18	24	30
Operating Temperature	°C	-10 to +50	-10 to +50	-10 to +50	-10 to +50
ABSORBED POWER					
10 r/min	W	52	52	55	58
20 r/min	W	55	60	73	97
30 r/min	W	61	80	114	191
40 r/min	W	73	114	204	410
50 r/min	W	90	172	348	770
60 r/min	W	113	262	550	-
70 r/min	W	148	388	900	-
80 r/min	W	190	580	-	-
90 r/min	W	250	-	-	-
100 r/min	W	318	-	-	-
110 r/min	W	405	-	-	-
120 r/min	W	520	-	-	-
130 r/min	W	648	-	-	-
140 r/min	W	820	-	-	-

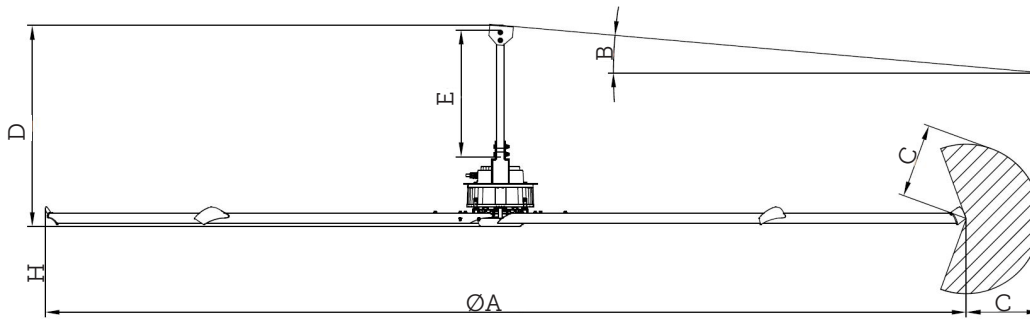
<sup>(1)</sup> max. airflow/max. absorbed power

<sup>(2)</sup> min. average air speed 0.8 m/s with testing layout in conformity with AMCA 230



**GORILLA**

**DIMENSIONS**



MODEL	HVLS 30	HVLS 40	HVLS 50	HVLS 60
ØA (fan diameter) [mm]	3050	4050	5050	6050
B (max ceiling slope) [°]	5	5	5	5
C (min safety distance from side obstruction) [mm]	350	450	550	550
D (fan height with standard downrod) [mm]	1270	1270	1270	1270
E (standard downrod length) [mm]	800	800	800	800
H (min fan installation height) [mm]	2700	2700	2700	2700

**FAN COMPONENTS**

The fan is delivered split into two kits, each one in its own crate:

- MOTOR KIT, which includes:
  - main body (1).
  - standard 800mm length downrod (2).
  - 2x ceiling fixing brackets (3).
  - 2 fixings sets:
  - 4x M12 bolts (4), 4x locknuts (5), 4x standard washers (6) and 4x spring washers (7) for fan fixing to the ceiling.
  - 10x M8 flange bolts (8), 10x locknuts (9) and 10x spring washers (10) for blades fixing to main body.
  - plastic components set: hub cover (11), 5x M4 bolts (12), 5x plastic blade terminals (13) and 10x screws (14).
  - electric cables with plugs (15).
  - security wires set: 1x Ø5mm security wire with one ring (16), 2x Ø5mm wire with two rings (17), 2x clamp (18) for the security wire, 2x 7mm snap-hook (19), 1x shackle (20) for the security wire, 4x Ø3mm stabilizing wires with turnbuckle (21), 5x 5mm snap-hooks (22) and 8x clamp (23) for the stabilizing wires.
- BLADES KIT, which includes five blades (24).

**WARNING: SPECIAL PRECAUTIONS**

In addition to the precautions indicated in the "Installation, Operation and Maintenance General Manual" special attention should be paid to the following warning notes. **The installer and the building owner are responsible to ensure the safety of the fan mounting system and that the fan installation is correct, in compliance with any national and local regulations.**

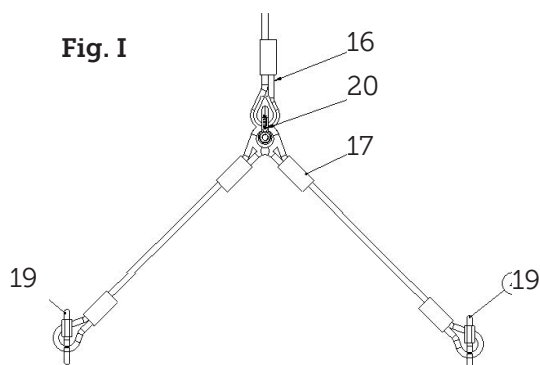
- **Fixing:** check/inspect all the fixing annually and re-tighten as necessary.
- **Windy conditions:** fans should not operate in case of wind and should not be installed in places where it is frequently windy.
- **Weight:** it is recommended that the building structure is capable to bear approx. Twice the weight of the fan. In case of any doubt a professional structural engineer should perform an evaluation before purchasing the fan.
- **Torque:** the building structure should be capable to bear a torque of at least 350Nm.
- **Key safety features:** make sure that all the supplied key safety features are used to install the fan to provide a comprehensive protection of people, animals, equipment and property.

**INSTALLATION**

- Decide on the position the fan is to be sited keeping in consideration as follows:
  - The minimum distance from the floor to the lowest point of the fan is 2,7m (H size in the dimension drawing). As necessary a different length downrod (400mm or 1500mm) can be supplied as accessory upon request;
  - The minimum distance from the fan blade to the side wall of similar obstruction is indicated in the dimension drawing (C size);
  - If possible avoid mounting the fan directly below lights to prevent any strobe effect caused by the moving blades;

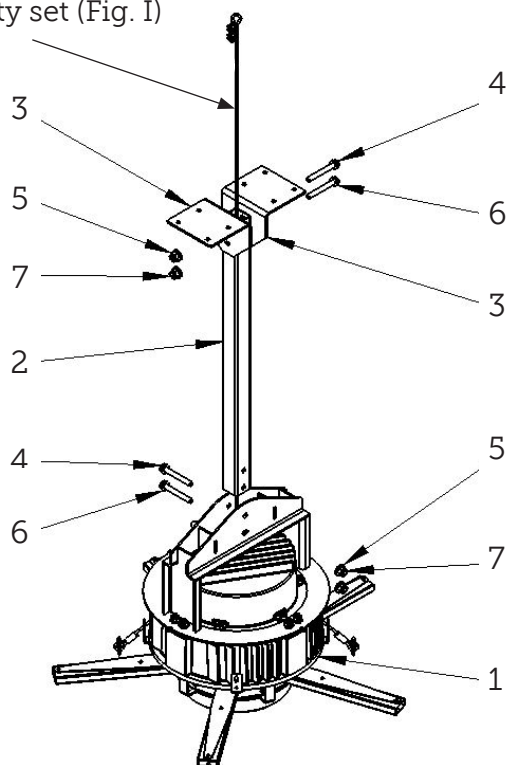
- In any installation where fire sprinklers are placed, fan should not interfere with their operation.
- Fan should not be placed near to supply air outlet or exhausting inlets of other HVAC equipment which could decrease the fan capacity and compromise the indoor air quality as well as the occupants' comfort:
  - supply air outlet should deliver air away from the unit;
  - exhaust fan inlets or other return air point which could create negative pressure should not be located within 1,5 times the fan diameter.
- When mounting the fan, mark the floor with a large crosshatched circle to alert people of the overhead fan location.

- Assemble the security set using the Ø5mm security wire (16), the shackle (20), the Ø5mm wires with rings (17) and the 7mm snap-hooks (19).
- Insert the security wire (16) and electric cables (15) into the downrod (2), fix the downrod to the main body (1) and to the brackets (3) by means of the M12 bolts (4), the M12 standard washers (6), the M12 spring washers (7) and the M12 locknuts (5). Connect the electric cable plugs to the motor.

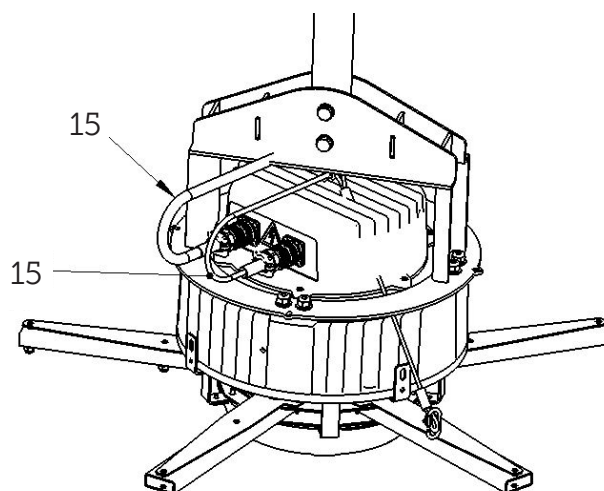


**Fig. II**

Security set (Fig. I)



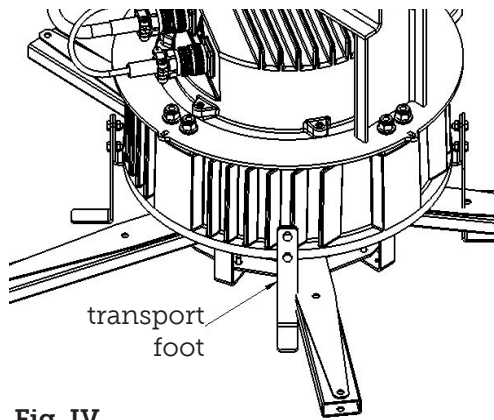
**Fig. III**



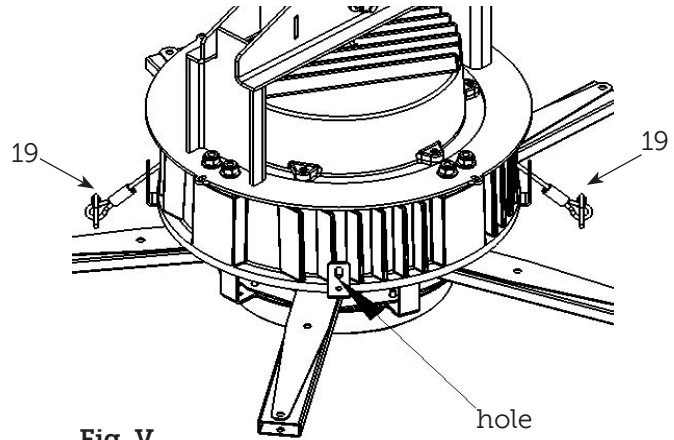


**GORILLA**

- Remove the four transport feet from the main body by unscrewing the bolts and hook the snap-hooks (19) of the security wire to two of the holes.

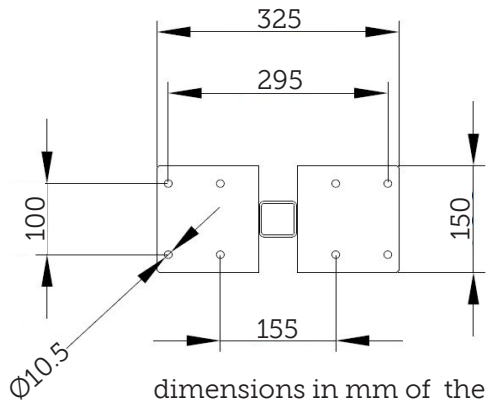


**Fig. IV**



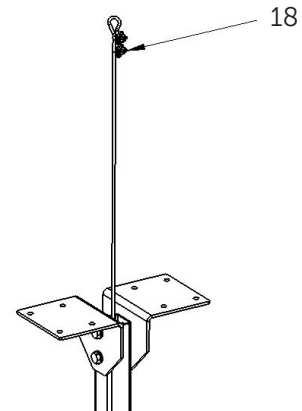
**Fig. V**

- Fix the assembly to the ceiling / beam through the 8 holes on the brackets (3); fix the security wire to the ceiling / beam using the clamps (18). Wall fixing screws/plugs are not supplied.



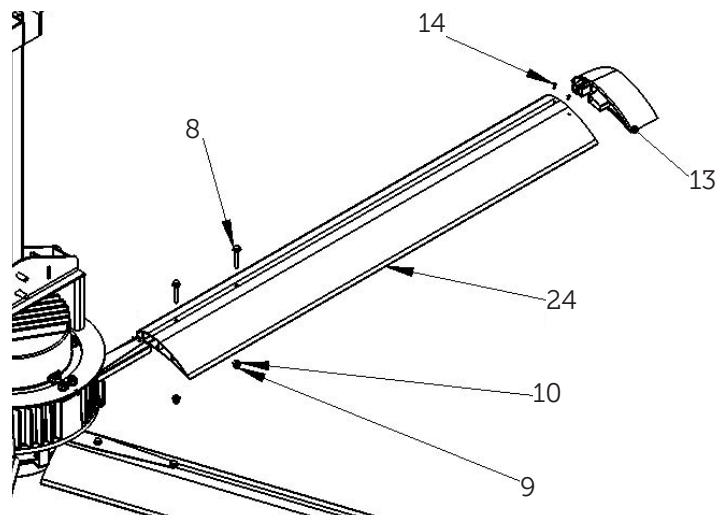
**Fig. VI**

dimensions in mm of the bracket (3)



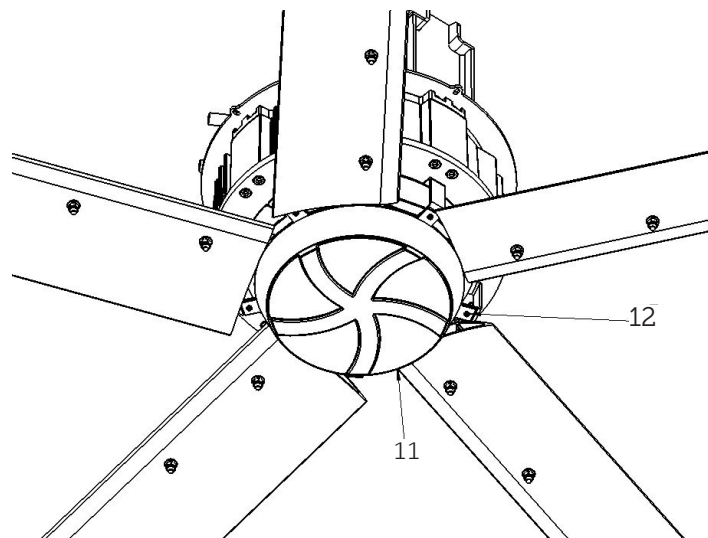
**Fig. VII**

- Insert the blade (24) over the blade root, lock it with the M8 flange bolts (8), M8 spring washers (10) and M8 locknuts (9). Mount the plastic terminal (13) using the relevant screws (14);



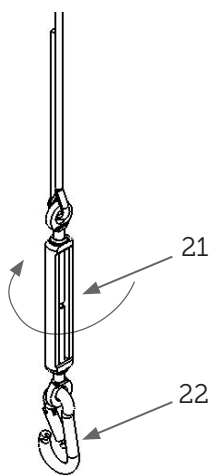
**Fig. VIII**

- Mount the plastic cover (11) under the hub using the M4 bolts (12). In case water is used for washing, drill a hole in the plastic cover for water drainage.

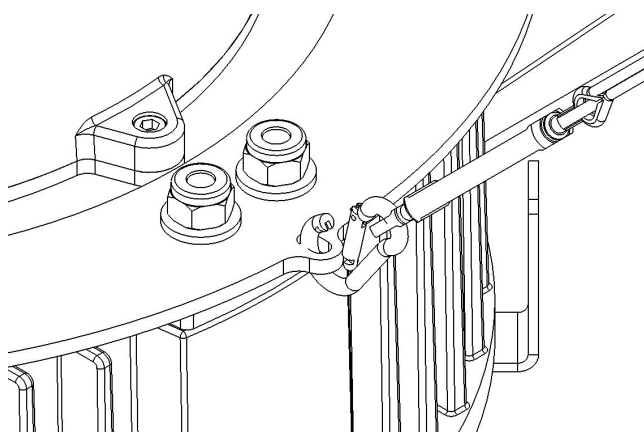


**Fig. IX**

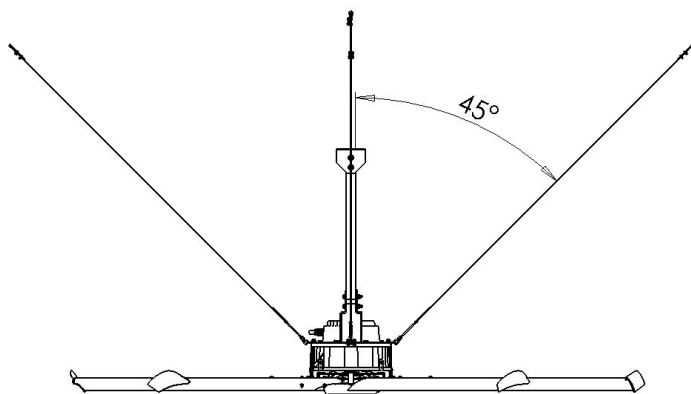
- Stabilize the fan with the 4x Ø3mm stabilizing wires (21) hooked with the 5mm snap-hook (22) to the motor support holes. Securely fix the other end of the stabilizing wires to the ceiling using the clamps (23). Wall plugs/screws not supplied;
- With the aid of a spirit level placed against the downrod, tighten the turnbuckles by hand in a crisscross pattern while periodically checking to ensure that the fan is level.
- Tighten the turnbuckles until the fan unit is stable in the level position.



**Fig. X**



**Fig. XI**



**Fig. XII**



**Fig. XIII**

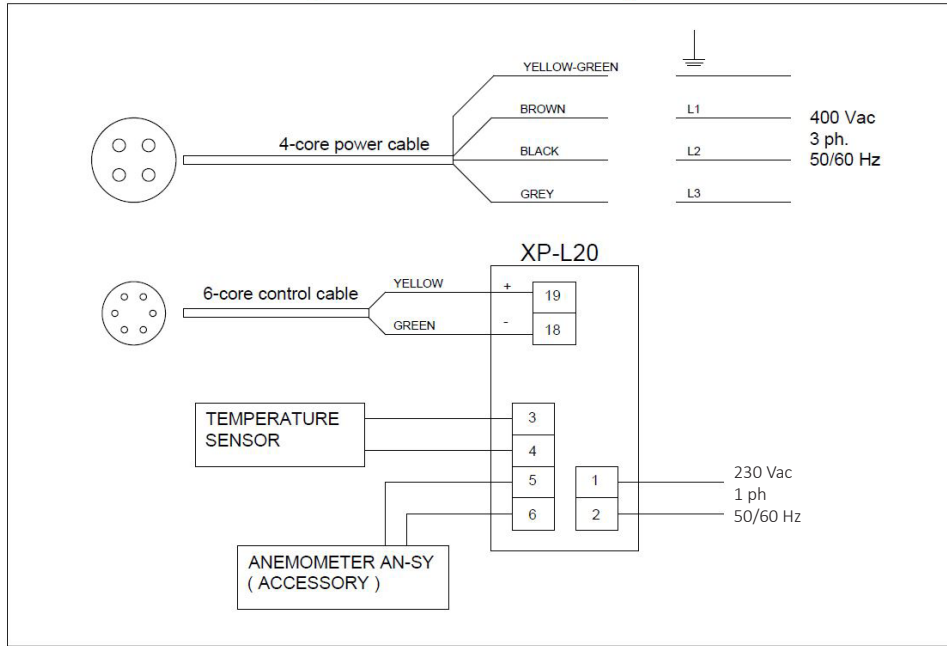


# GORILLA

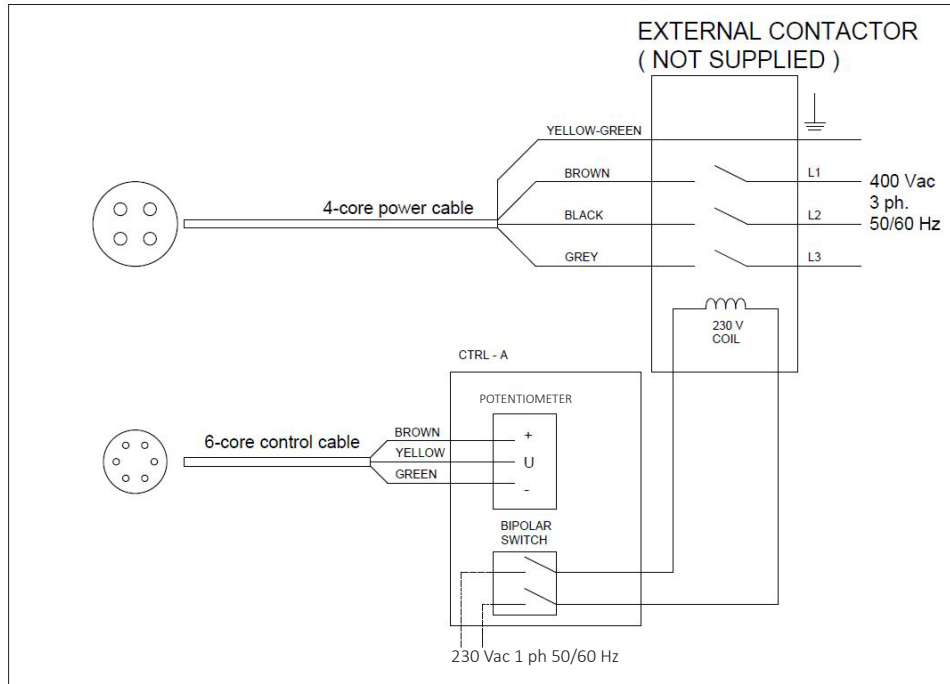
## WIRING DIAGRAMS

- Make sure that the mains supply to the unit is disconnected before performing any installation, service, maintenance or electrical work!
- The installation and service of the unit and complete ventilation system must be performed by an authorized installer and in accordance with local rules and regulations.
- Fan must be earthed.

### WITH XP-L20 (ACCESSORY)



### WITH CTRL-A (ACCESSORY)



## CLEANING

- The unit (IP65) can be washed with water jets. In this case it is recommended to drill a hole under the plastic cover for water drainage.

# UE DECLARATION OF CONFORMITY/INCORPORATION

Manufacturer:

**AERAULIQA SRL**

**Via Corsica, 10 – 25125 Brescia - ITALY**

## UE DECLARATION OF CONFORMITY



We herewith declare that the following range:

### **GORILLA HVLS series ceiling fans**

on the basis of its design and construction as partly completed machines brought onto the market, is designed in compliance within relevant health and safety requirements of the following Directives:

**2014/35/UE - Low Voltage Directive (LVD)**

**2014/30/UE – Electromagnetic Compatibility (EMC)**

**2009/125/EC – Energy Related Products (ErP)**

in the event that alterations are made to the machinery without prior consent with the manufacturer, this declaration becomes invalid.

This declaration is issued under the sole responsibility of the manufacturer.

## UE DECLARATION OF INCORPORATION

In accordance with the Machinery Directive 2006/42/EC.

We herewith declare that the following range:

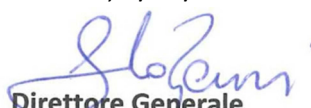
### **GORILLA HVLS series ceiling fans**

on the basis of its design and construction of partly completed machines, is designed in compliance with the Essential Health and Safety Requirements (EHSRs) of ANNEX I, sections 1.1.2 (Safety integration), 1.1.5 (Handling), 1.4.1 (Protective devices), 1.5.1 (Electricity) of **EC Machinery Directive 2006/42/EC**.

The machinery is incomplete and must not be put into service until such time as the machinery which is partly complete is to be incorporated and has been assessed and declared in conformity with the provisions of the Machinery Directive 2006/42/EC.

We undertake to transmit, upon reasoned request by appropriate national authorities, relevant information on the partly completed machinery identified above.

Montichiari, 1/10/2016

  
**Direttore Generale**  
**Ing. Guido Banzi**



Warehouse - Offices: via Mario Calderara 39/41, 25018 Montichiari (Bs) - Registered office: via Corsica 10, 25125 Brescia  
C.F. e P.IVA/VAT 03369930981 - REA BS-528635 - Tel: +39 030 674681 - Fax: +39 030 6872149

**[www.gorillafans.com](http://www.gorillafans.com)**

Engineered and manufactured in Italy by an Elta Group company.

We reserve the right to modify/make improvements to products and/or this instruction manual at any time and without prior notice.

## Building Services

Tel **+44 (0) 1384 275800**  
Fax **+44 (0) 1384 275810**  
Email **bs@eltafans.co.uk**

46 Third Avenue, Pensnett Trading Estate, Kingswinford,  
West Midlands, DY6 7US United Kingdom

## Applied Technology & Building Services Export

Tel **+44 (0) 1489 566500**  
Fax **+44 (0) 1489 566555**  
Email **at@eltafans.co.uk / export@eltafans.co.uk**

17 Barnes Wallis Road, Segensworth East Industrial Estate,  
Fareham, Hampshire, PO15 5ST United Kingdom

**eltafans.com**



BS EN ISO 9001:2015 FM 556465

