HVLS SERIES - X RANGE

Cooling and De-stratification Fan

HVLS SERIES - X RANGE

Description

Designed in Italy and built to the highest standards our X range of High Volume, Low Speed (HVLS) fan can save energy costs and increase productivity. The fan is designed to eliminate the build up of hot stagnant air by maintaining constant air movement. It creates a more comfortable indoor space for building occupants while lowering a building's running costs and reducing its carbon footprint. The X range can be controlled with our easy to use touchscreen controller. The range includes multiple sized fans so that it can be used in a wide range of applications.

Typical Applications

Retail spaces, shopping centres, health clubs, sport centres, schools, religious facilities, restaurants, theatres, stadiums, airports, distribution and manufacturing facilities, dairy/livestock barns and factories.

Features

- Engineered from industrial grade components of the highest quality.
- Anodised extruded blades provide strength while keeping the unit lightweight for increased efficiency.
- Aerodynamically shaped blade terminal for better performance and noise reduction.
- Gearless drive system makes for incredibly quiet operation.
- Made and tested in our European labs to ensure high quality operation.
- Powered with the latest EC brushless motor technology (400vac/3ph/50-60Hz). This enables the unit to equally destratify and distribute air in the most efficient and cost effective manner.
- Can be controlled with the easy to use touchscreen Aviator controller.
- Hub covers and impeller wingtips are available in green or black.
- Models available in 3, 4, 5, 6 and 7m diameters making the fan adaptable for all types of applications.
- Mounting bracket, 4 stabilising wires and main security wire included as standard.
- Motor rated IP65, suitable for S1 continuous service.
- Comes with a 5 year warranty as standard.

Construction

Main hub manufactured from powder coated steel. Hub flange and impeller blades manufactured from aluminium. Hub rods are constructed from galvanised steel. Coloured hub cover and impeller wingtips are made from polypropylene.

Motor

Electricity Supply: 400 vac, 3 phase, 50-60Hz.

Type: EC Motor, < 1kW (depending on impeller size).

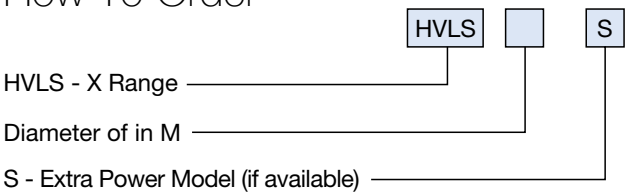
Internal Thermal Protection

Integral PTC sensor connected to the electronics.

Testing

Airflow testing in accordance to AMCA 230, refer to performance data for more information.

How To Order



Suggested Specification

The High Volume, Low Speed (HVLS) fans shall be of the X range as supplied by Elta Fans and be of the model numbers shown on the schedule/drawings.

Hub flange and impeller blades shall be made of aluminium, hub rods are to be constructed from galvanised steel. Motor shall be rated IP65.

Mounting bracket, 4 stabilising wires and main security wire included as standard.

All models shall be tested to AMCA 230.

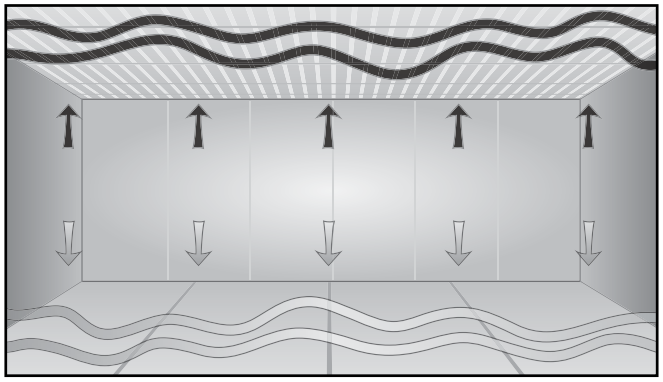
Destratification & Comfort

The X range can save energy costs and increase productivity while respecting the environment!

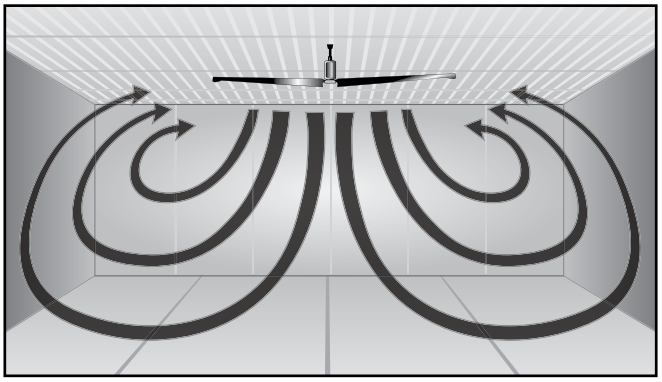
The X range of high velocity, low speed (HVLS) fans generate a gentle, slow moving airstream that covers a large area even when they are installed in a very high ceiling. They help create a more comfortable indoor space for building occupants while lowering a building's running costs and reducing its carbon footprint.

The X range can be controlled with the easy to use Aviator controller or a Building Management System.

Tel **+603 7846 0340** Fax **+603 7842 1132** Email **info@eltafans.asia** Website **eltafans.asia**



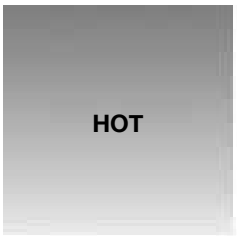
Uneven room temperature with hot and cold air pockets.



Area with an even room temperature after destratification.

Summer Comfort

In summer, an efficient and continuous air circulation provided by a HVLS fan, creates a natural evaporative cooling effect for occupants. It also eliminates hot and cool spots in the building by improving the internal environment, making the air-conditioning system work less and preventing large internal atmospheric losses each time doors and windows are opened.

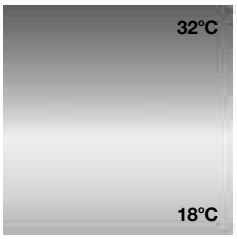


Without HVLS

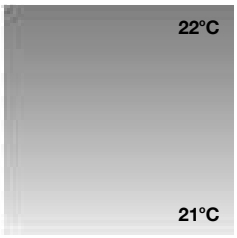
With HVLS

Winter Destratification

In winter, warm heated air rises to the highest point of an enclosed area, thereby causing cooler air to reside at floor level. Traditionally temperatures have been maintained at floor level by continued and prolonged use of heaters, resulting in high energy consumption. Our X Range fan increases comfort for occupants and reduces energy costs by distributing warm air down from the ceiling towards floor level and therefore maintaining an even temperature throughout.



Without HVLS

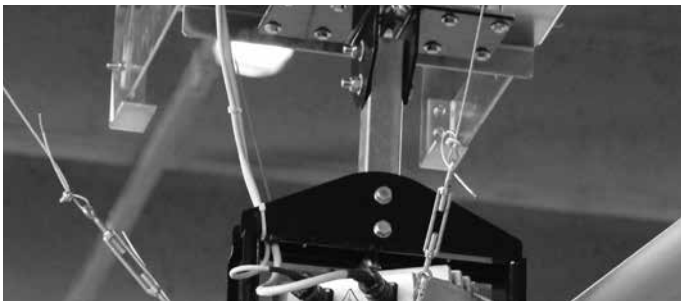


With HVLS

HVLS SERIES - X RANGE

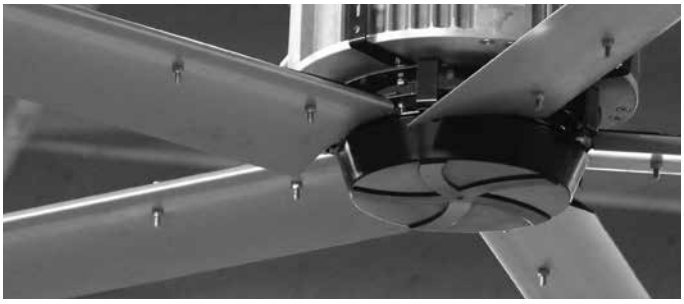
Features

High efficiency EC brushless motor.
400vac/3ph/50-60Hz, IP65 Suitable for S1 continuous service.
Embedded electronic system.
Gearless for silent operation.



Strong main security wire.
Additional stabilising wires.
Hub safety ring.
Heavy duty construction.

Robust anodised extruded blades.
Special design airfoil.
Aerodynamically shaped blade terminal for better performance and noise reduction.



Plastic hub cover for better aesthetics and dust protection.

Installation

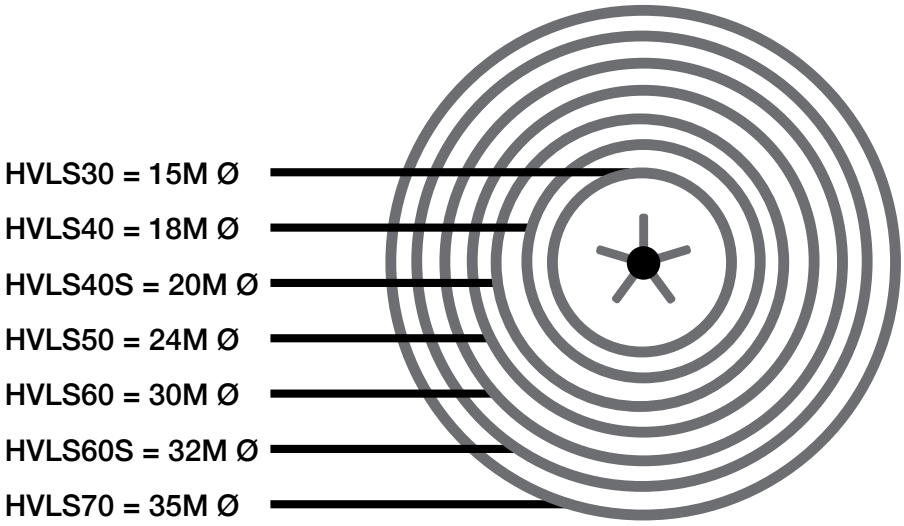
The distance between the lowest part of the HVLS fan and the floor must be 2.7m. If necessary, a different length downrod (400m or 1500m) can be supplied on request.

The installation of the HVLS fan is quick and simple so you can easily fit out your entire facility. To maintain the efficiency of the fan and comfort of your workers, the fan should not be placed near a supply air outlet or exhausting inlet of other HVAC equipment.

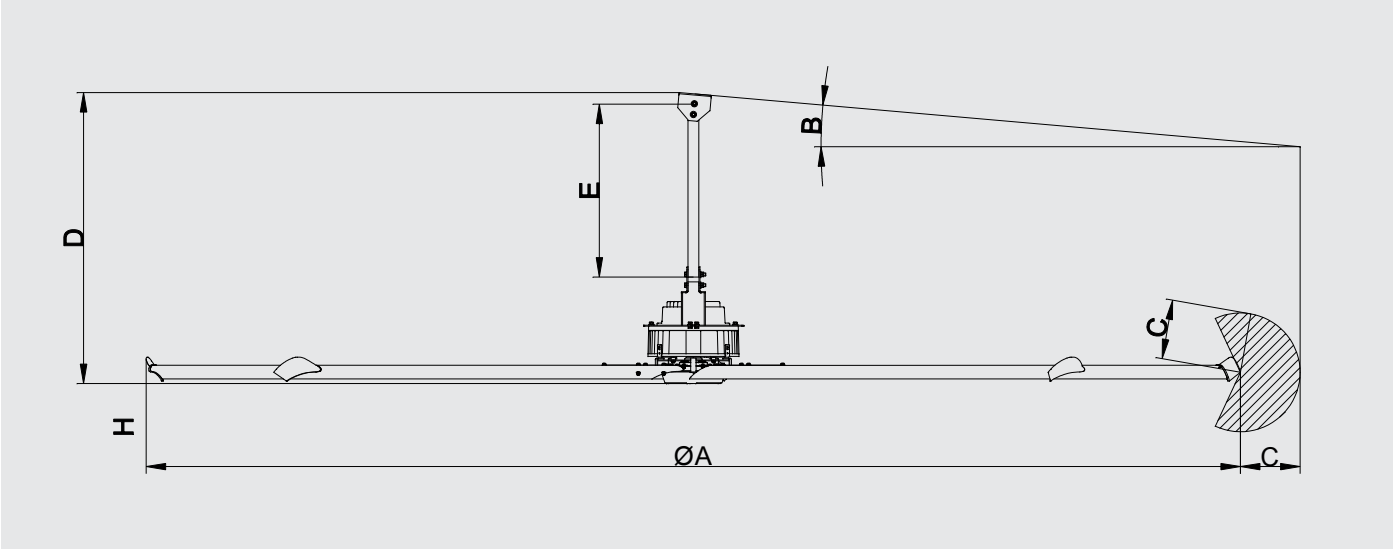
Tel **+603 7846 0340** Fax **+603 7842 1132** Email **info@eltafans.asia** Website **eltafans.asia**

Area Of Impact

Select the right fan for the application. The larger the fan, the larger the area of impact.



Dimensions



Technical Data

Model	UM	HVLS30	HVLS40	HVLS40S	HVLS50	HVLS60	HVLS60S	HVLS70
ØA (fan diameter)	mm	3050	4050	4050	5050	6050	6050	7050
B (max ceiling slope)	°	5	5	5	5	5	5	5
C (min safety distance from side obstruction)	mm	350	450	450	550	550	550	650
D (fan height with standard downrod)	mm	1270	1270	1270	1270	1270	1270	1270
E (standard downrod length)	mm	800	800	800	800	800	800	800
F (min fan installation height)	mm	2700	2700	2700	2700	2700	2700	2700

HVLS SERIES - X RANGE

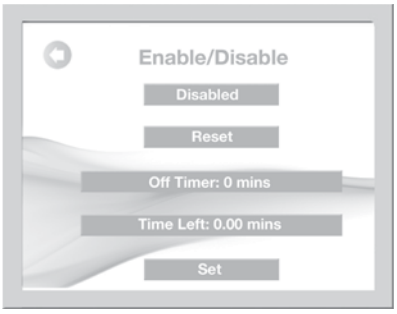
Model	UM	HVLS30	HVLS40	HVLS40S	HVLS50	HVLS60	HVLS60S	HVLS70
Number of blades	-	5	5	5	5	5	5	5
Diameter	m	3.05	4.05	4.05	5.05	6.05	6.05	7.05
Max rotation speed	rpm	140	80	95	70	50	58	40
Max absorbed power	kW	0.82	0.58	0.77	0.90	0.77	0.96	0.63
Max current	A	2.0	1.5	1.85	2.2	1.9	2.18	1.53
Weight	kg	88	95	102	108	115	128	135
Max thrust (1)	N	68	62	79	100	146	175	133
Max airflow AMCA 230-99	cfm	60980	77311	87267	122439	177216	193733	197103
	m^3/h	103605	131352	148266	208025	301092	329152	334878
	SPI(1)	28.5	15.9	18.7	15.6	9.2	10.5	6.8
Max airflow AMCA 230-15	cfm	43119	54667	61707	86577	125311	137195	139373
	m^3/h	73260	92880	104840	147096	212904	233094	236795
	SPI(1)	40.3	22.5	26.4	22.0	13.0	14.8	9.6
Affected diameter (2)	m	15	18	20	24	30	32	35
Operating temperature	°C	-10/+50	-10/+50	-10/+50	-10/+50	-10/+50	-10/+50	-10/+50
Absorbed Power								
10rpm	W	52	52	50	55	58	58	61
20rpm	W	55	60	56	73	97	90	120
30rpm	W	61	80	77	114	191	170	280
40rpm	W	73	114	107	204	410	329	628
50rpm	W	90	172	166	348	770	595	-
60rpm	W	113	262	243	550	-	960(4)	-
70rpm	W	148	388	350	900	-	-	-
80rpm	W	190	580	482	-	-	-	-
90rpm	W	250	-	669	-	-	-	-
100rpm	W	318	-	770(3)	-	-	-	-
110rpm	W	405	-	-	-	-	-	-
120rpm	W	520	-	-	-	-	-	-
130rpm	W	648	-	-	-	-	-	-
140rpm	W	820	-	-	-	-	-	-

(1) max. absorbed power/max. airflow
(2) min. average air speed 0.8 m/s with testing layout in conformity with AMCA 230
(3) Absorbed power at 95 rpm
(4) Absorbed power at 58 rpm

Price and lead times available on request for the HVLS40S, HVLS60S & HVLS70.

Tel **+603 7846 0340** Fax **+603 7842 1132** Email **info@eltafans.asia** Website **eltafans.asia**

AVIATOR TOUCHSCREEN CONTROLLER



Description

The Aviator touchscreen controller is designed to manage a mini-network of our high volume, low speed EC fans. This multi-fan control system features a wall mounted 9 cm LCD touchscreen display that communicates to each fan individually from a central location. It can alter the fan speed in real time by simply increasing or decreasing the percentage value on the display. Each fan can be individually turned on or off by touching the relevant power button icon.

Features

- The Aviator can control up to 4 HVLS fans from one convenient digital controller.
- Controller is incredibly user friendly with an easy to read, touchscreen display that allows you to operate individual fans with just a tap of your finger.
- The communication between the HVLS fans is established by ‘daisy chaining’ the fans together via a discreet RS485 cable.

Run-on Timer

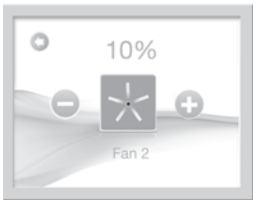
The Aviator digital controller also features an adjustable run-on timer for applications that require the fans to continue running for a pre-set period. Particularly suitable for sports centres and working environments where the HVLS fans are required to operate to a set time.

How To Order

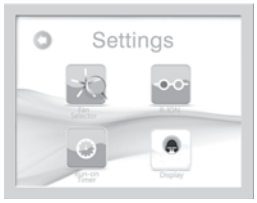
HVLS-Touch1-EF-2 (For use with 1 to 2 fans)

HVLS-Touch1-EF-4 (For use with 3 to 4 fans)

Fan Selection



Fan Speed Adjustment



User Settings

Elta Fans Malaysia Sdn Bhd

Tel **+603 7846 0340**
Fax **+603 7842 1132**
Email **info@eltafans.asia**

No. 147, Jalan TUDM Kampung
Baru Subang, 40150 Shah Alam,
Selangor West Malaysia, Malaysia

eltafans.asia

HVLS-30-08-2019 Issue A