



HPA

Plate Mounted Axial Flow Fan

HPA

Product Overview



- Fully speed controllable
- Integral IP54 terminal box and motor side guard
- Single phase 220V to 240V / 50Hz
- IP44 Protection
- Suitable for operating temperatures up to +55°C
- Available in **AC**

The HPA plate mounted axial fan has sickle shaped blades to reduce noise, is fully speed controllable and is corrosion protected.

Casing

Each HPA fan includes a pressed steel one piece bell mouth mounting plate, finished with a tough epoxy polyester paint finish in black (RAL9005).

Guard

Includes a welded steel wire finger guard to BS848 part 5, electroplated prior to a tough epoxy polyester paint finish in black (RAL9005).

Impeller

Impellers are also tough epoxy painted in black (RAL9005), providing excellent performance characteristics with low noise levels. The HPA impeller blades are pressed steel, welded to the rotor and dynamically balanced to ISO1940 Grade G6.3.

Motors

Motors are lightweight, high efficiency rotor motors, with sealed for life ball bearings, insulated to Class F, weatherproofed to IP44, with integral thermal overload protection. Electrical connection is made to the motor through an integrated IP54 terminal box, mounted on the back of the motor.

Quality Management

All units are tested to ISO 5801:1997 (airside performance) and BS 848 Pt 2:1985 (sound performance).

Warranty

Each HPA has a 12 month warranty.

Typical Applications

- Warehousing
- Restaurants
- Sports Halls
- Industrial Units
- Schools
- Kitchen Extract
- Agricultural Markets

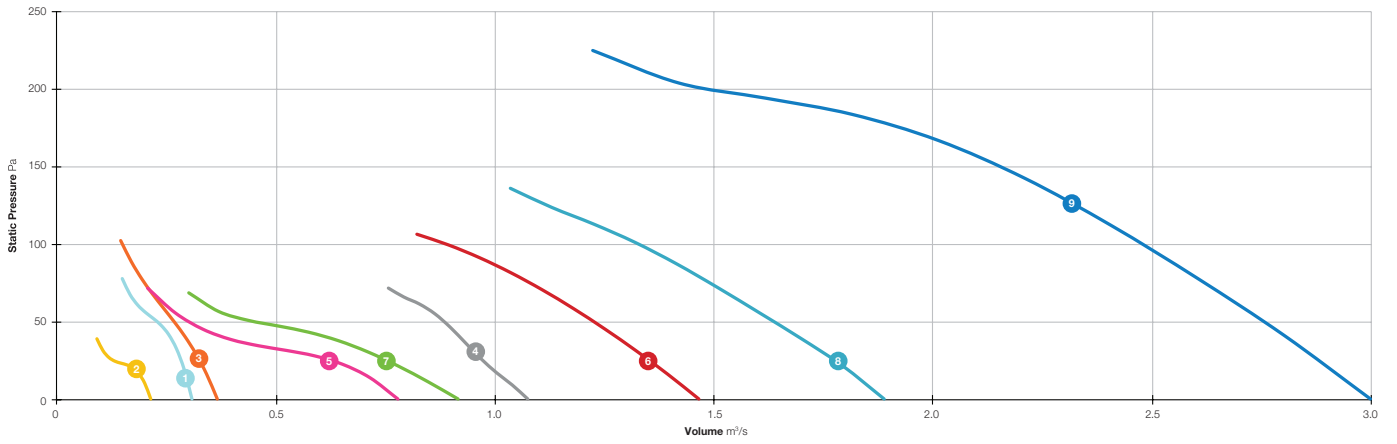
Contents

Page	Information
3	Performance Range Curves
4	Performance SFP & Electrical Data
6	Sound Data
8	Dimensional Data
9	Accessories
19	Notes

Product Coding

Code	Reference
HPA	Product Range
250	Diameter (250/315/350...)
/	
2	Number of Poles (2/4/6)
-	
1	Voltage Supply (Single Phase / Three Phase)
AC	Motor Type (AC/EC)
A - Z	Additional Coding (A - Z) Product Variants
e.g.	HPA250 / 2 - 1AC

Performance Range Curves



- 1 HPA250 / 2-1A
- 2 HPA250 / 4-1A
- 3 HPA315 / 4-1A

- 4 HPA400 / 4-1A
- 5 HPA400 / 6-1A
- 6 HPA450 / 4-1A

- 7 HPA450 / 6-1A
- 8 HPA500 / 4-1A
- 9 HPA630 / 4-1A

Performance, SFP & Electrical Data

Single Phase 220V to 240V / 50Hz

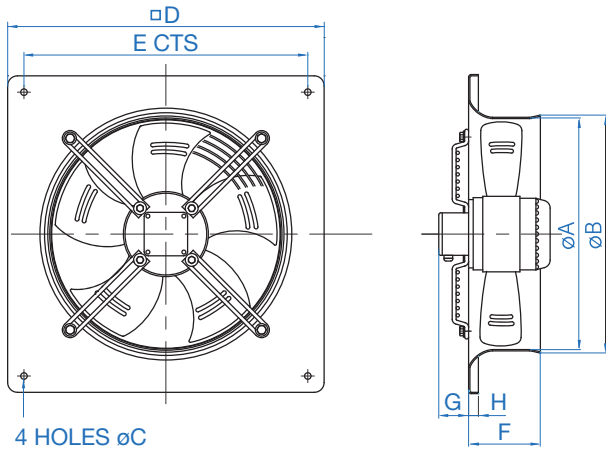
Product Code	Speed r/min	Airflow SFP	Airflow m³/s @ Static Pressure Pa									At Best Efficiency Point			Elec. Data	Speed Control		dBA @ 3m Inlet
			0	25	50	75	100	125	150	175	200	Overall Eff %	FMEG N	Input kW		FLC	Elec.	
HPA250/2-1A	2760	m³/s	0.308	0.283	0.229	0.154	-	-	-	-	-	15.4	<125W	0.075	0.37	EL21	TC12	51
		W/(L/s)	0.22	0.25	0.33	0.53	-	-	-	-	-							
HPA250/4-1A	1458	m³/s	0.215	0.131	-	-	-	-	-	-	-	7.4	<125W	0.049	0.23	EL21	TC12	46
		W/(L/s)	0.22	0.37	-	-	-	-	-	-	-							
HPA315/4-1A	1377	m³/s	0.364	0.324	0.266	0.200	0.150	-	-	-	-	15.3	<125W	0.095	0.50	EL21	TC12	49
		W/(L/s)	0.21	0.25	0.34	0.50	0.72	-	-	-	-							
HPA400/4-1A	1395	m³/s	1.076	0.972	0.883	-	-	-	-	-	-	29.2	N40	0.185	0.86	EL21	TC12	59
		W/(L/s)	0.15	0.18	0.20	-	-	-	-	-	-							
HPA400/6-1A	934	m³/s	0.779	0.628	0.301	-	-	-	-	-	-	15.3	<125W	0.109	0.56	EL21	TC12	49
		W/(L/s)	0.13	0.17	0.39	-	-	-	-	-	-							
HPA450/4-1A	1339	m³/s	1.466	1.352	1.226	1.080	0.890	-	-	-	-	30.6	N40	0.287	1.34	EL31	TC12	59
		W/(L/s)	0.16	0.18	0.21	0.25	0.33	-	-	-	-							
HPA450/6-1A	919	m³/s	0.915	0.751	0.447	-	-	-	-	-	-	23.7	<125W	0.104	0.53	EL21	TC12	51
		W/(L/s)	0.10	0.13	0.24	-	-	-	-	-	-							
HPA500/4-1A	1339	m³/s	1.888	1.775	1.636	1.490	1.328	1.118	-	-	-	33.3	N42	0.413	1.97	EL31	TC14	63
		W/(L/s)	0.17	0.19	0.22	0.26	0.30	0.39	-	-	-							
HPA630/4-1A	1346	m³/s	2.999	2.882	2.755	2.620	2.478	2.326	2.154	1.928	1.490	35.4	N41	0.940	5.56	EL101	TC18	78
		W/(L/s)	0.24	0.26	0.28	0.31	0.34	0.38	0.43	0.50	0.73							

The overall A-scale sound pressure level is at a distance of three meters with spherical propagation. It is expressed in dB re 20µPa and is presented for comparative purposes only, as in practice the semi reverberant nature of any installation and directivity effects can give a different value. Overall static efficiency, r/min and FMEG values are as per ISO 12759 installation category "A" (without guard grill).

Dimensional Data

Single Phase

Product Code	A	B	C	D	E	F	G	H	Weight kg
HPA250	260	280	7	370	320	90	60	15	3.0
HPA315	315	335	10	430	380	90	60	15	3.3
HPA400	410	430	10	540	490	110	60	15	7.2
HPA450	460	480	10	575	535	110	60	15	7.2
HPA500	510	530	10	655	615	115	60	15	9.5
HPA630	640	660	10	805	750	125	60	15	15.0



*Impeller rotor.
Dimensions are in mm.

Single Phase

Product Code	AC Electronic Controller	Louvre Shutter	Transformer Controller
HPA250/2-1A	149-EL31	064-0250-C	149-TC12
HPA250/4-1A	149-EL31	064-0250-C	149-TC12
HPA315/4-1A	149-EL31	064-0315-C	149-TC12
HPA400/4-1A	149-EL31	064-0400-C	149-TC12
HPA400/6-1A	149-EL31	064-0400-C	149-TC12
HPA450/4-1A	149-EL31	064-0450-C	149-TC12
HPA450/6-1A	149-EL31	064-0450-C	149-TC12
HPA500/4-1A	149-EL31	064-0500-C	149-TC14
HPA630/4-1A	149-EL101	064-0630-C	149-TC18

3 SPEED SWITCH

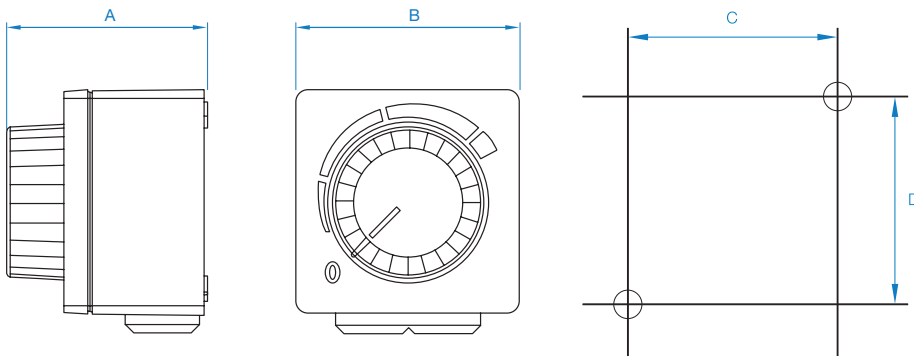
Accessories

- 3 step switch MTS
- Surface and flush mounting
- Maximum ambient temperature 50°C
- VDE
- Protection class IP44



Single Phase 220V to 240V / 50Hz or 60Hz

Product Code	ID	A	B	C	D	Weight kg
149-MTS10	128145	74	83	66.5	66.5	0.2



	U_{max}	Hz	I_{max}	P_{max}
CE	250V~	50Hz	4A	-
RU	120V~ 240V	60Hz 60Hz	-	1hp 2hp

Legend

- I_{max} Maximum operating current
 U_{max} Maximum Voltage
 P_{max} Maximum power

Dimensions are in mm.

AC ELECTRONIC CONTROLLER

Accessories

- Stepless speed control allows precise fan speed selection
- Provides easy adjustment of fan duty for commissioning purposes
- TK versions offer means of motor protection via motor thermal contact
- IP51 enclosure
- Stepless speed control
- Minimum and maximum speed pre-set facility
- Suitable for operating temperatures up to 40°C
- Fitted motor protection fuse
- Suitable for two or three wire control

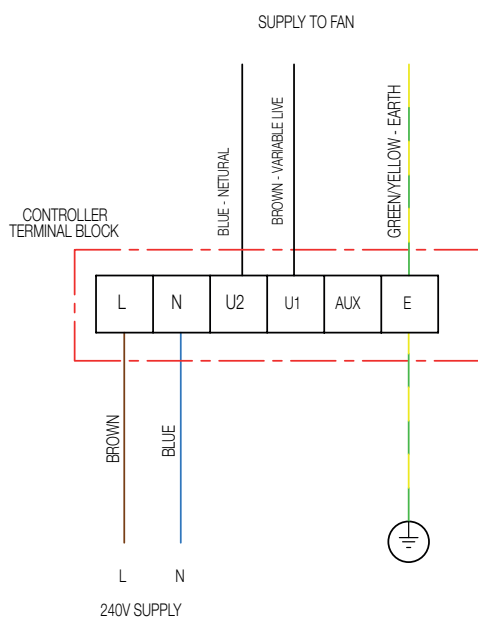


Overview

TK versions are for use with fans fitted with thermal cut-out protection. In the event of the thermal cut-out, opening the controller will switch off and the trip indicator will be illuminated. Units are complete with illuminated on/off and start button. The start button must be pressed to start the controller once on/off switch is in the on position.

Single Phase 220V to 240V / 50Hz

Product Code	Max Peak Current Amps	Weight kg	IP Rating
149-EL31	3	0.35	IP51
149-EL61	6	0.40	IP51
149-EL101	10	0.80	IP51



For controllers with TK function add suffix TK. This option is not available with the EL101.

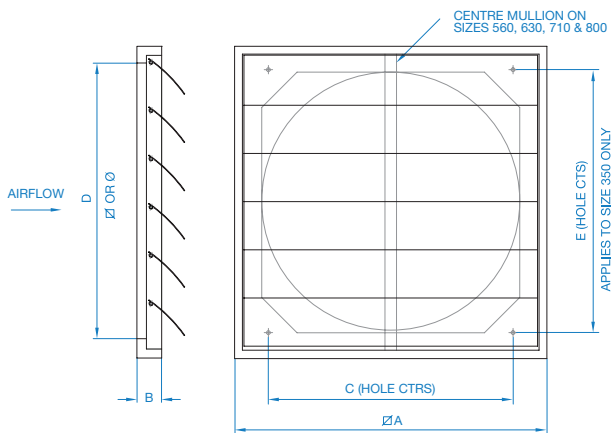
LOUVRE SHUTTER

Accessories

- Durable, light grey polypropylene
- Opens automatically with airflow
- Mount independently of fan (ideally downstream)



Product Code	A	B	C	øD	∅ D	E	Weight kg
064-0250-C	298	26	235	260	-	-	0.5
064-0315-C	348	26	274	310	-	-	0.5
064-0350-C	398	26	298	360	-	323	1.0
064-0400-C	460	26	364	423	-	-	1.0
064-0450-C	502	30	404	460	-	-	1.5
064-0500-C	548	30	452	510	-	-	2.0
064-0560-C	610	30	530	-	568	-	2.0
064-0630-C	696	30	627	-	655	-	3.0



Dimensions are in mm.

TRANSFORMER CONTROLLER

Accessories

- IP40 enclosure
- Five speed stepped control
- Illuminated on/off switch (single phase units only)
- Fitted Motor Protection type D MCB (single phase units only)
- Suitable for operating temperatures up to 40°C
- Ideal for environments where noise is a primary consideration as these controls do not create magnetic hum associated with some step-less forms of speed control



Features & Benefits

A range of transformer voltage controllers used to provide five speed step control of single phase or three phase motors where the peak current of the motor does not exceed the rating of the controller. Speed control is via selector switch. Single phase units are complete with illuminated on/off switch.

Single Phase 220V to 240V / 50Hz

Product Code	Max Peak Current Amps	Weight kg	IP Rating
149-TC12	2	3	IP40
149-TC14	4	4	IP40
149-TC18	8	6	IP40

Building Services

Tel **+44 (0) 1384 275800**
Fax **+44 (0) 1384 275810**
Email **info@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

HPA-11-2018 Issue A



BS EN ISO 9001:2015 FM 556465

