LONGWELL®
Turn to Experts - HVAC&R

The Ventilation and Drive Technology Partner for Mission-Critical Environments.

Axial Fans for Data-Center Cooling & Cooling Towers

EC & AC Axial Fan Solutions

EC Series Ø710 / Ø800 / Ø900 · AC Series Ø500 / Ø630 / Ø800



EC series · illustrative photo



AC series · illustrative photo

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About Longwell

The Ventilation and Drive Technology Partner for Mission-Critical Environments.

1990	40,000 m²	1 million+	30+
Established	Floor space	Fans per year	Export countries

LONGWELL manufactures fans, blowers and motors for heating, ventilation, air conditioning and refrigeration. The range covers EC, DC and AC centrifugal fans, axial fans, cross-flow fans, forward-curved blowers and EC / BLDC motors.

Fan designs are developed with aerodynamic analysis and CFD simulation and checked in our own air-performance test chambers and noise laboratory before release.

Quality and Compliance

- Quality management to ISO 9001
- Environmental management to ISO 14001
- Products in this brochure: CE, RoHS, REACH

Testing

- Air-performance test chambers for P–Q curves
- Noise laboratory
- Dynamic balancing machines

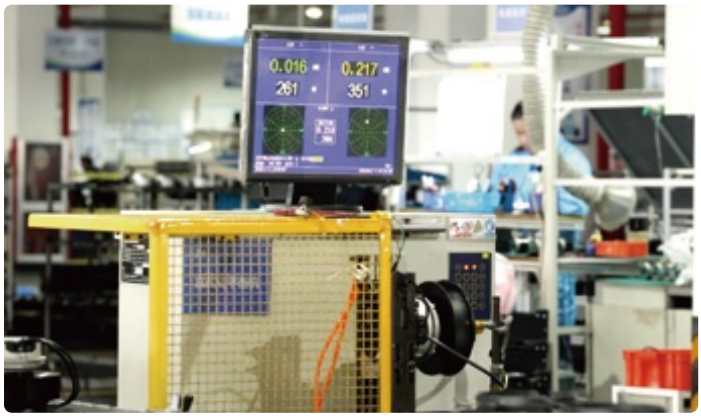
For data-center projects. Send the duty point, supply and mounting interface. LONGWELL replies with the matching model, its datasheet and P–Q curve, and offers customized designs for series projects.



Air-performance test chamber



Noise laboratory



Dynamic balancing



Axial fan production line

Catalogue

01	Cover
02	About Longwell
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04	EC Axial Fans · internal rotor
05–07	LWAE-710 / 800 / 900 Series
08	AC Axial Fans · cylindrical housing
09–11	LWAA-500 / 630 / 800 Series
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Mainly Application

Data-center heat rejection
Dry coolers and adiabatic coolers on chilled-water and liquid-cooling loops

Air-cooled condensers
Chillers and process cooling

Cooling towers and fluid coolers
Fan positions on small and medium cells

Quick Selection

Model (suction)	Size (mm)	Air Volume (m³/h)	Static Pressure (Pa, max.)	Power (W)	Motor · supply
LWAE3G710TS-5MKW-05-00	710	16,356	194	1,100	EC · 380–460 V 50/60 Hz
LWAE3G800TS-5MKW-10-00	800	26,656	235	1,500	EC · 380–460 V 50/60 Hz
LWAE3G900TS-5MKW-08-00	900	29,746	235	2,200	EC · 380–460 V 50/60 Hz
LWAA4D500S-7PYB-36-00	500	9,816		800	AC · 380 V 50 Hz
LWAA4D630S-7MYB-30-00	630	20,888		2,300	AC · 380 V 50 Hz
LWAA6D800S-7MYB-15-00	800	27,089		2,200	AC · 380 V 50 Hz

Each EC size is also available as a blowing version (TT) with the same data. Values per LONGWELL datasheets A0.

Selection. Choose the EC series where fan speed should follow the load (0–10 VDC / PWM) on 380–460 V 50/60 Hz supplies. Choose the AC series for fixed-speed duty on 3~ 380 V 50 Hz. Cooling-tower and adiabatic positions see water spray and high humidity: LONGWELL confirms the suitability of IP55 (EC) or IP54 (AC) for each installation.

ebm-papst (EBM) · ZIEHL-ABEGG (Z-A)

1:1 Replacement Solutions

Qualify a LONGWELL alternative for your existing fan position. We support one-for-one replacement assessment for maintenance, retrofit and second-source projects, starting with the exact installed model and application.

Performance
Airflow at the required pressure, speed, noise and operating conditions.

Installation
Mounting holes, overall envelope, clearances and airflow direction.

Electrical & control
Voltage, frequency, connector pinout, control signal and feedback.

Send: the full model code or nameplate, duty point and installation drawing.
Receive: a proposed LONGWELL model, P–Q curve, dimensional drawing and a list of any required adaptations.

Direct-fit status requires model-specific engineering review and sample validation. Any required adaptations are agreed before approval.

Brand names identify comparison targets only; no affiliation or endorsement is implied.

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EC Axial Fans

Internal-rotor EC motor · square mounting panel

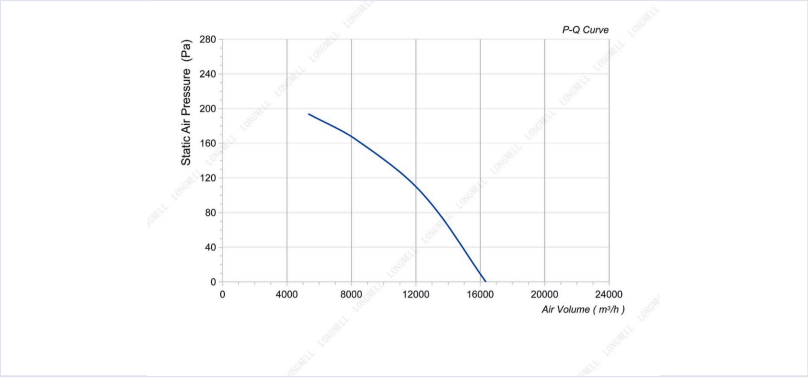
- Ø710 / Ø800 / Ø900 mm, suction and blowing
- Air volume 16,356–29,746 m³/h
- Static pressure up to 235 Pa
- 3~ 380–460 V, 50/60 Hz, IP55
- Speed control 0–10 VDC / PWM, soft start



Illustrative photo

LWAE-710 Series

EC axial fan · internal-rotor EC motor · square mounting panel with guard



P–Q curve at rated speed, 10 V control signal



Illustrative photo

Product Characteristic

- Motor type: EC, internal rotor
- Insulation class: F
- Frequency: 50/60 Hz
- Speed control: 0–10 VDC / PWM
- Mounting panel: 850 × 850 mm, hole pitch 810 mm
- Life: 20,000 h (L10) at 40 °C
- Type of protection: IP55
- Rated voltage: 3~ 380–460 V
- Temperature: -40 °C ~ +60 °C
- Soft start: < 30 s to full speed
- Depth: 300 mm incl. 40 mm panel
- Installation: Horizontal or vertical installation
- Protection: Current limiting protection, Over-temperature protection, Locked-rotor protection, Over/Under voltage protection, Open phase protection

CE | RoHS | REACH

EBM / Z-A Replacement Model-specific validation required

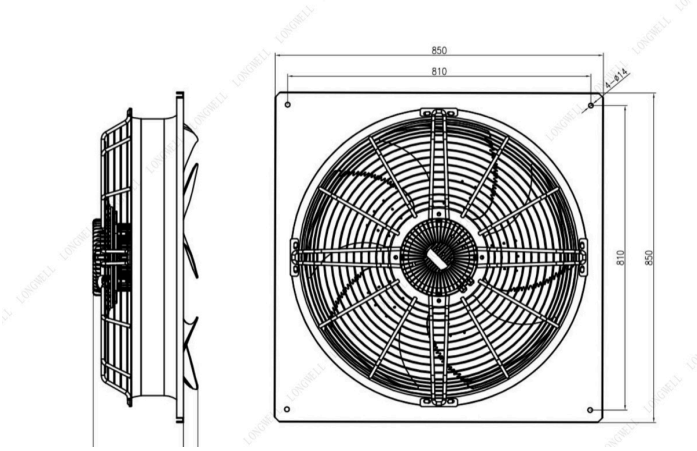
Technical Specifications

Model	Airflow	Voltage (V)	Frequency (Hz)	Current (A)	Power (W)	Speed (RPM)	Air Volume (m³/h)	Static Pressure (Pa, max.)
LWAE3G710TS-5MKW-05-00	Suction	3~380	50/60	2.2	1,100	960	16,356	194
LWAE3G710TT-5MKW-05-00	Blowing	3~380	50/60	2.2	1,100	960	16,356	194

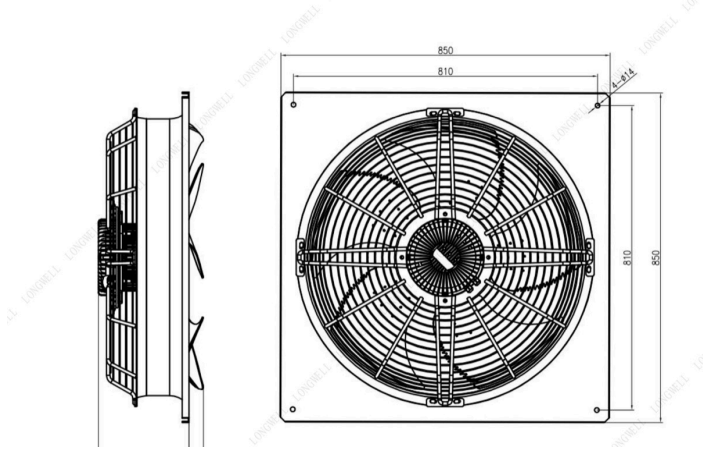
Suction and blowing versions share electrical and performance data.

Product Drawing (mm)

Suction · LWAE3G710TS-5MKW-05-00

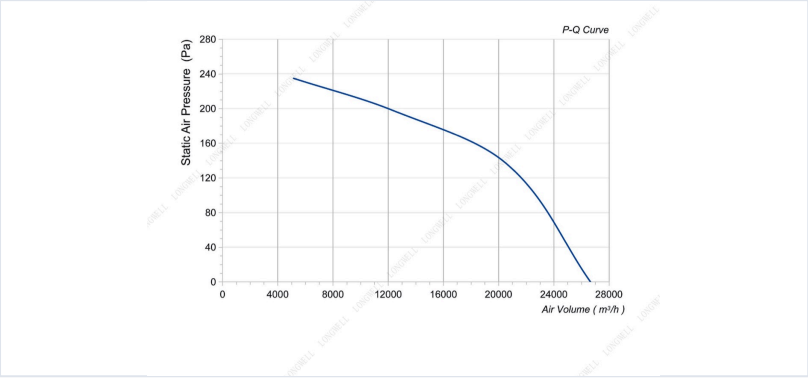


Blowing · LWAE3G710TT-5MKW-05-00



LWAE-800 Series

EC axial fan · internal-rotor EC motor · square mounting panel with guard



P–Q curve at rated speed, 10 V control signal



Illustrative photo

Product Characteristic

- Motor type: EC, internal rotor
- Insulation class: F
- Frequency: 50/60 Hz
- Speed control: 0–10 VDC / PWM
- Mounting panel: 970 × 970 mm, hole pitch 896 mm
- Life: 20,000 h (L10) at 40 °C
- Type of protection: IP55
- Rated voltage: 3~ 380–460 V
- Temperature: -40 °C ~ +60 °C
- Soft start: < 30 s to full speed
- Depth: 307 mm incl. 40 mm panel
- Installation: Horizontal or vertical installation
- Protection: Current limiting protection, Over-temperature protection, Locked-rotor protection, Over/Under voltage protection, Open phase protection

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EBM / Z-A Replacement Model-specific validation required

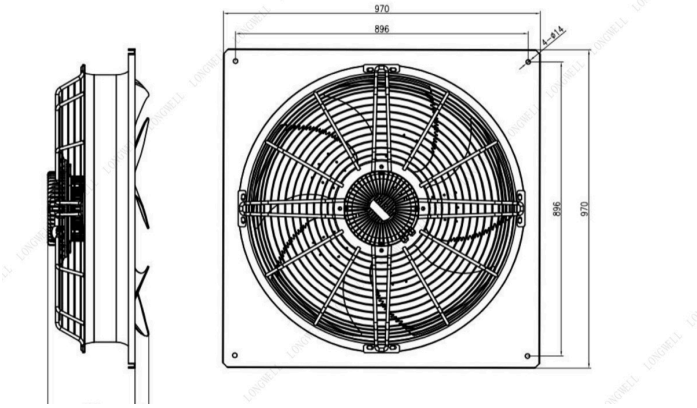
Technical Specifications

Model	Airflow	Voltage (V)	Frequency (Hz)	Current (A)	Power (W)	Speed (RPM)	Air Volume (m³/h)	Static Pressure (Pa, max.)
LWAE3G800TS-5MKW-10-00	Suction	3~380	50/60	3.2	1,500	960	26,656	235
LWAE3G800TT-5MKW-10-00	Blowing	3~380	50/60	3.2	1,500	960	26,656	235

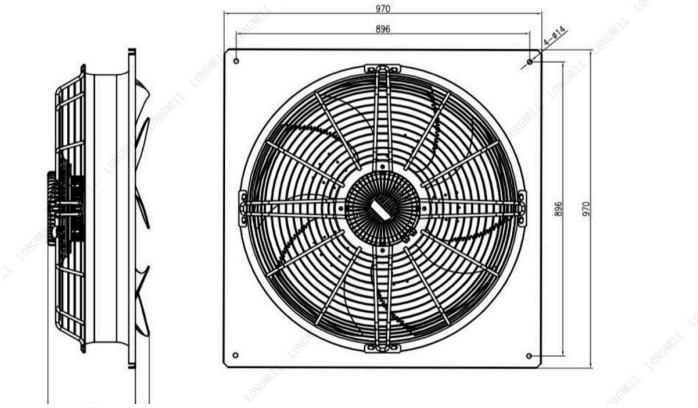
Suction and blowing versions share electrical and performance data.

Product Drawing (mm)

Suction · LWAE3G800TS-5MKW-10-00

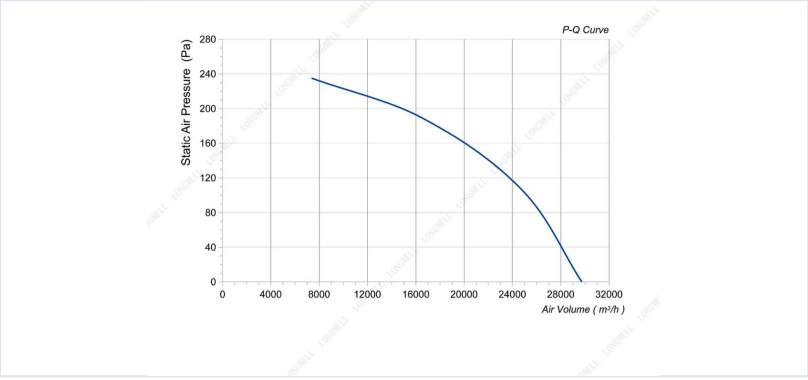


Blowing · LWAE3G800TT-5MKW-10-00



LWAE-900 Series

EC axial fan · internal-rotor EC motor · square mounting panel with guard



P–Q curve at rated speed, 10 V control signal



Illustrative photo

Product Characteristic

- Motor type: EC, internal rotor
- Insulation class: F
- Frequency: 50/60 Hz
- Speed control: 0–10 VDC / PWM
- Mounting panel: 1080 × 1080 mm, hole pitch 1010 mm
- Life: 20,000 h (L10) at 40 °C
- Type of protection: IP55
- Rated voltage: 3~ 380–460 V
- Temperature: -40 °C ~ +60 °C
- Soft start: < 30 s to full speed
- Depth: 340 mm incl. 40 mm panel
- Installation: Horizontal or vertical installation
- Protection: Current limiting protection, Over-temperature protection, Locked-rotor protection, Over/Under voltage protection, Open phase protection

CE | RoHS | REACH

EBM / Z-A Replacement Model-specific validation required

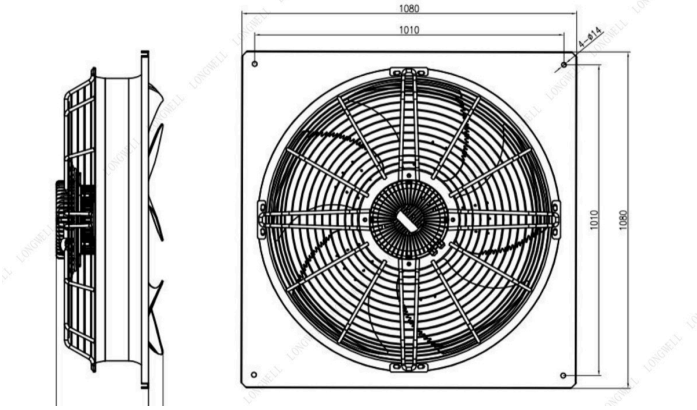
Technical Specifications

Model	Airflow	Voltage (V)	Frequency (Hz)	Current (A)	Power (W)	Speed (RPM)	Air Volume (m³/h)	Static Pressure (Pa, max.)
LWAE3G900TS-5MKW-08-00	Suction	3~380	50/60	4	2,200	960	29,746	235
LWAE3G900TT-5MKW-08-00	Blowing	3~380	50/60	4	2,200	960	29,746	235

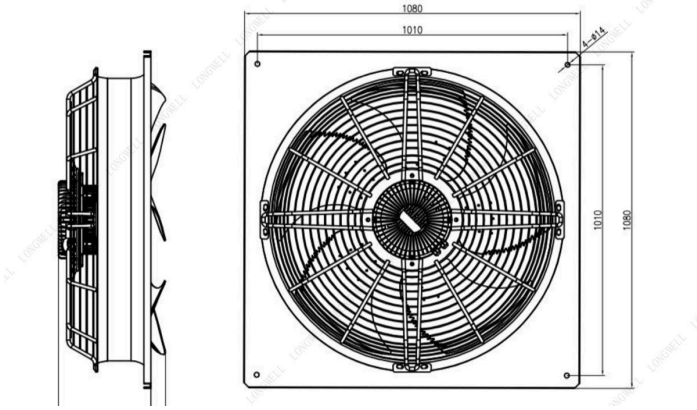
Suction and blowing versions share electrical and performance data.

Product Drawing (mm)

Suction · LWAE3G900TS-5MKW-08-00



Blowing · LWAE3G900TT-5MKW-08-00



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AC Axial Fans

Cylindrical duct housing · three-phase motors

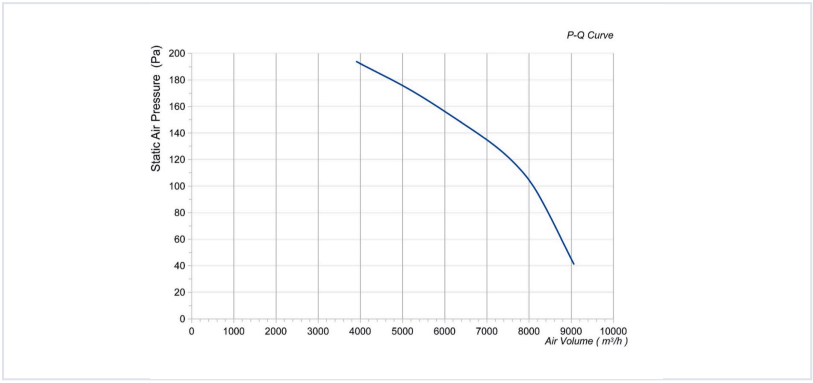
- Ø500 / Ø630 / Ø800 mm, suction
- Air volume 9,816–27,089 m³/h
- 4- and 6-pole, 3~ 380 V 50 Hz, IP54
- Built-in thermal protector



Illustrative photo

LWAA-500 Series

AC axial fan · 4-pole three-phase motor · cylindrical duct housing



P–Q curve at rated speed



Illustrative photo

Product Characteristic

- Motor type: AC asynchronous, 4-pole, three-phase
- Insulation class: F
- Frequency: 50 Hz
- Housing: Cylindrical duct housing, outer 650 mm
- Life: 30,000 h (L10) at 40 °C
- Duty: S1, horizontal or vertical installation
- Protection: Built-in thermal protector: disconnects at 150–160 °C, resets at 100–130 °C
- Type of protection: IP54
- Rated voltage: 3~ 380 V (342–418 V)
- Temperature: -40 °C ~ +60 °C
- Depth: 226 mm
- Bearings: Maintenance-free deep-groove ball bearings
- Airflow: Suction

CE | RoHS | REACH

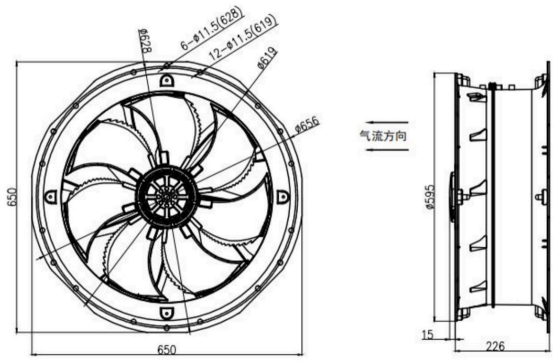
EBM / Z-A Replacement Model-specific validation required

Technical Specifications

Model	Voltage (V)	Frequency (Hz)	Current (A)	Power (W)	Speed (RPM)	Air Volume (m³/h)	Air Volume (CFM)	Noise [dB(A)]
LWAA4D500S-7PYB-36-00	3~380	50	1.6	800	1,380	9,816	5,774	73

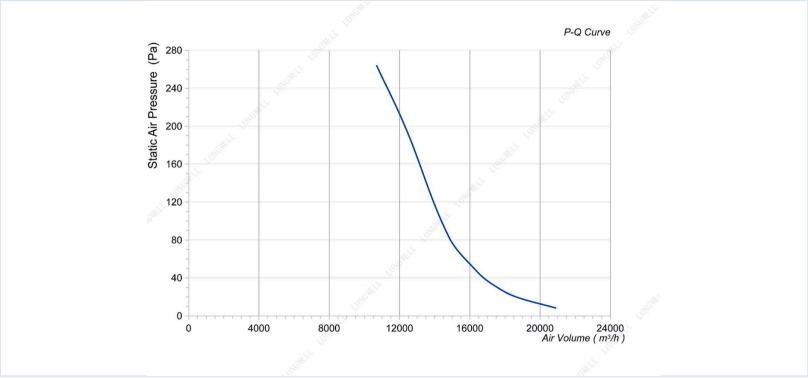
Product Drawing (mm)

Suction · LWAA4D500S-7PYB-36-00



LWAA-630 Series

AC axial fan · 4-pole three-phase motor · cylindrical duct housing



P–Q curve at rated speed



Illustrative photo

Product Characteristic

- Motor type: AC asynchronous, 4-pole, three-phase
- Insulation class: F
- Frequency: 50 Hz
- Housing: Cylindrical duct housing, outer 788 mm
- Life: 30,000 h (L10) at 40 °C
- Duty: S1, horizontal or vertical installation
- Protection: Built-in thermal protector: disconnects at 150–160 °C, resets at 100–130 °C
- Type of protection: IP54
- Rated voltage: 3~ 380 V (342–418 V)
- Temperature: -40 °C ~ +60 °C
- Depth: 334 mm
- Bearings: Maintenance-free deep-groove ball bearings
- Airflow: Suction

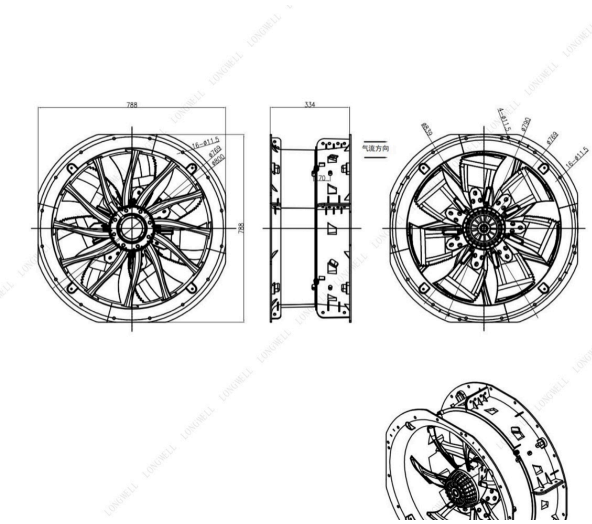
CE RoHS REACH | **EBM / Z-A Replacement** Model-specific validation required

Technical Specifications

Model	Voltage (V)	Frequency (Hz)	Current (A)	Power (W)	Speed (RPM)	Air Volume (m³/h)	Air Volume (CFM)	Noise [dB(A)]
LWAA4D630S-7MYB-30-00	3~380	50	4.4	2,300	1,380	20,888	12,287	86

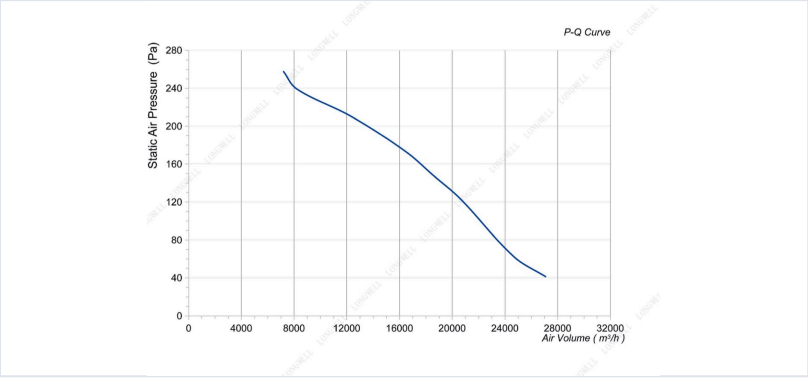
Product Drawing (mm)

Suction · LWAA4D630S-7MYB-30-00



LWAA-800 Series

AC axial fan · 6-pole three-phase motor · cylindrical duct housing



P–Q curve at rated speed



Illustrative photo

Product Characteristic

Motor type:	AC asynchronous, 6-pole, three-phase	Type of protection:	IP54
Insulation class:	F	Rated voltage:	3~ 380 V (342–418 V)
Frequency:	50 Hz	Temperature:	-40 °C ~ +60 °C
Housing:	Cylindrical duct housing, outer 952 mm	Depth:	340 mm
Life:	30,000 h (L10) at 40 °C	Bearings:	Maintenance-free deep-groove ball bearings
Duty:	S1, horizontal or vertical installation	Airflow:	Suction
Protection:	Built-in thermal protector: disconnects at 150–160 °C, resets at 100–130 °C		

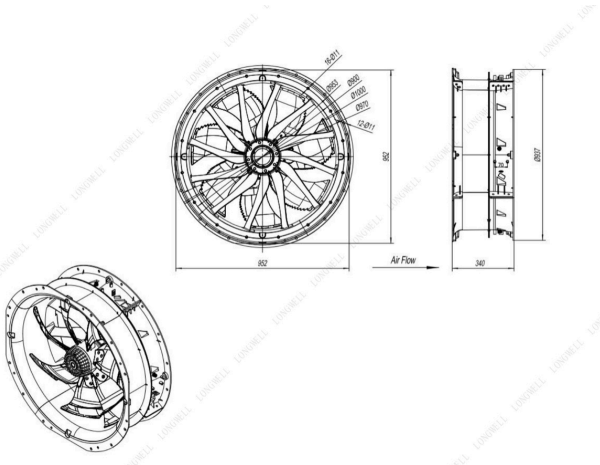
CE RoHS REACH | **EBM / Z-A Replacement** Model-specific validation required

Technical Specifications

Model	Voltage (V)	Frequency (Hz)	Current (A)	Power (W)	Speed (RPM)	Air Volume (m³/h)	Air Volume (CFM)	Noise [dB(A)]
LWAA6D800S-7MYB-15-00	3~380	50	3.8	2,200	920	27,089	15,935	83

Product Drawing (mm)

Suction · LWAA6D800S-7MYB-15-00



LONGWELL®
Turn to Experts - HVAC&R

Send us your duty point

Airflow, static pressure, supply voltage and frequency, mounting interface and environment.
LONGWELL engineering sales replies with the model, its datasheet and P–Q curve.

Planning an ebm-papst (EBM) or ZIEHL-ABEGG (Z-A) replacement?
Send the full model code or nameplate and installation drawing for a 1:1 replacement assessment.
Direct-fit status requires model-specific engineering review and sample validation.

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