

# Tender specification for EC axial fans – AxiBlade

## Sizes 800 to 910

### **Direct-drive EC axial fans - AxiBlade with high-performance axial impeller, mounted on a GreenTech EC external rotor motor with integrated control electronics.**

Square full nozzle with integrated diffuser, corrosion-resistant sendzimir galvanized sheet steel, coated with black plastic RAL 9005, optimized inlet ring and optional integrated discharge vanes, aerodynamically optimized guard grill in accordance with DIN EN ISO 13857, made of steel, coated with black plastic RAL 9005.

Profiled blade geometry with winglets at the blade tips; impeller made of highly resistant composite material. Motor impeller statically and dynamically balanced on two planes to balancing grade G 6.3 in accordance with DIN ISO 1940.

GreenTech EC external rotor motor surpasses efficiency class IE4, magnets with no rare earths, maintenance-free ball bearings with long-term lubrication, theoretical nominal service life of at least 40,000 hours of operation, installation with horizontal and vertical motor shaft, soft start, integrated current limitation, extended voltage input 3~380-480 V, 50/60 Hz, fan can be used with all standard power supply networks without any change in air performance. See data sheet for installation position and temperature range.

Compact electronics; no time-consuming installation work involving shielded wiring; extremely low-noise commutation logic; 100% open-loop speed control, RS485/MODBUS RTU interface; pre-set operating parameters, RFID wireless parameterization, integrated LED status indicator.

Connection via easy-to-install robust integrated terminal box, environmentally resistant cable glands.

Any work required for isolation from structure-borne noise is to be performed by the customer.

Fan satisfies the applicable EMC guidelines and requirements with regard to circuit feedback; documentation and marking conform to the applicable EU Directives.

Reliable performance data, air performance measurements with guard grill on intake-side chamber test rig according to ISO 5801 and DIN 24163, sound measurements with guard grill in anechoic rooms according to DIN EN ISO 3745.

Conformity with standard EN 61800-5-1; CE, as well as extensive approvals as per UL 1004-7 + 60730; C22.2 No.77 + CAN/CSA-E60730-1 and EAC.

### **Integrated protective devices:**

- Alarm relay with floating contacts (250 V AC/2 A,  $\cos \varphi = 1$ )
- Locked-rotor protection
- Phase failure detection
- Soft start of motors
- Line undervoltage detection
- Thermal overload protection for electronics and motor
- Short-circuit protection
- Motor current limitation
- Degree of protection: IP 55 (according to EN 60529)

### **Optional:**

- Other and specific requirements on request

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**Technical data:**

**Fan types**

Air flow	q <sub>v</sub>	= _____	m <sup>3</sup> /h
Static pressure increase	p <sub>fs</sub>	= _____	Pa
Overall static efficiency	η <sub>es</sub>	= _____	%
Operating speed	n	= _____	rpm
Motor type		= EC motor	
Type of control		= Closed-loop speed control, 0-100%	
Motor efficiency class		= IE4	
Total power consumption	P <sub>ed</sub>	= _____	kW
Specific fan power	SFP	= _____	kW/(m <sup>3</sup> /s)
Nominal voltage range	U <sub>N</sub>	= _____	V
Line frequency	f	= 50 / 60	Hz
Nominal current	I <sub>N</sub>	= _____	A
Protection class		= IP55	
Sound power level	L <sub>w</sub> A(A, in)	= _____ / L <sub>w</sub> A(A, out) = _____	dB(A)
Sound pressure level (at 1 m)	L <sub>p</sub> A(A, in)	= _____ / L <sub>p</sub> A(A, out) = _____	dB(A)
Perm. ambient temperature	T	= _____ to _____	°C
Weight of fan	m	= _____	kg

**Product photo**

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**Refer to data sheet for technical data, dimensions and connections**