

Text for invitation to tender for EC centrifugal fan modules – RadiPac

EC centrifugal fans – RadiPac

Sizes 630 to 900 with increased corrosion protection

Direct-drive single inlet centrifugal fans with backwards-curved high-performance centrifugal impellers with radial diffusers, mounted on a GreenTech EC external rotor motor with integrated control electronics, with increased corrosion protection.

Impeller made of aluminum, with 7 backwards-curved, continuously welded blades; flow-optimized inlet ring made of galvanized sheet steel with pressure test nipple; painted black.

Motor impeller statically and dynamically balanced on two planes to balancing grade G 6.3 (motor size 200 to balancing grade G 4.0) 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. 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 with unaltered air performance.

Integrated electronics, low-noise commutation logic; 100 % open-loop speed control; all fans have an RS485/MODBUS RTU interface, and do not need to be installed with shielded cables; painted black.

Terminal box made of aluminum with easily accessible connection area with spring-loaded terminals, environment-resistant cable glands.

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

Fan satisfies the applicable EMC guidelines and requirements with regard to circuit feedback (for specific information, see the respective data sheet).

Documentation and marking conform to the applicable EU Directives.

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

Integrated protective devices:

- Alarm relay with zero-potential change-over contacts (250 V AC/2 A, $\cos \varphi = 1$)
- Locked-rotor protection
- Phase failure detection
- Soft start of motors
- Mains under-voltage detection
- Thermal overload protection for electronics and motor
- Short circuit protection

Optional:

- Other and specific requirements on request

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Technical data:

Fan types		K3G _____ - _____ - _____	
Air flow	q _v	= _____	m ³ /h, cfm
Stat. pressure increase	p _{fs}	= _____	Pa, in wg
Stat. overall efficiency	η _{es}	= _____	%
Operating speed	n	= _____	rpm
Motor type		= EC motor	
Type of control		= 0-100% speed control	
Motor efficiency class		= IE4	
Total power consumption	P _{ed}	= _____	kW
Specific fan power	SFP	= _____	kW/(m ³ /s)
Nominal voltage range	U _N	= _____	V
Mains frequency	f	= 50 / 60	Hz
Nominal current	I _N	= _____	A
Safety class		= IP54	
Sound power level	L _w A(A, in)	= _____ / L _w A(A, out) = _____	dB(A)
Sound pressure level (at 1 m)	L _p A(A, in)	= _____ / L _p A(A, out) = _____	dB(A)
Perm. ambient temperature	T	= _____ to _____	°C
Fan weight	m	= _____	kg

Refer to data sheet for dimensions and connections