

Text for invitation to tender for EC centrifugal fans – RadiFit

EC centrifugal fans – RadiFit
Sizes 250 to 400

Direct-drive dual-inlet centrifugal fans with backward-curved high-performance centrifugal impellers mounted on a GreenTech EC external rotor motor with add-on control electronics.

Scroll housing made of galvanised sheet steel with bolted-on adjustable mounting bracket, optimised step diffuser in discharge for low-noise operation, connection flange on pressure side.

Aluminium impeller with 7 backward-curved, offset, continuously welded blades. Flow-optimised inlet nozzle made of galvanised sheet steel.

Motorised impeller balanced in two planes (static and dynamic) as per DIN ISO 1940 to balance quality G 6.3.

GreenTech EC external rotor motor surpasses efficiency class IE4, magnets without use of rare earths, maintenance-free ball bearings with long-term lubrication, theoretical nominal service life of at least 40,000 operating hours, soft start, integrated current limitation, wide input voltage range 3-phase 380-480 V, 50/60 Hz, fan suitable for use with all standard power supply systems with no effect on air performance. Motorised impeller isolated from surroundings with specially designed vibration-absorbing elements, compact electronics, aluminium housing, low-noise commutation logic; 100% speed control; PID controller; RS485/MODBUS RTU interface, no need for shielded wiring.

Readily accessible connection area with spring terminals, cable entry can be moved through 180 degrees, environment-resistant cable glands.

Fan satisfies the relevant EMC regulations and requirements with regard to circuit feedback; documentation and marking conform to the applicable EU directives.

Reliable performance data, air performance measurements on inlet-side chamber test rig in accordance with ISO 5801 and DIN 24163, noise measurements in low-reflection acoustic test chamber as per DIN EN ISO 3745.

Integrated protective devices:

- Alarm relay with floating contacts (250 V AC/2 A, $\cos \varphi = 1$)
- Locked-rotor protection
- Phase failure detection
- Motor soft start
- Mains undervoltage detection
- Excess temperature protection for electronics and motor
- Short circuit protection

Optional:

- Different requirements on request

Subject to change / As at 2015/04/01

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Technical data:

Fan types		D3G _____ - _____ - _____	
Air flow	q_v	= _____	m ³ /h
Stat. pressure increase	p_{fs}	= _____	Pa
Stat. overall efficiency	η_{es}	= _____	%
Operating speed	n	= _____	min ⁻¹
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
Ingress protection		= 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 mass	m	= _____	kg

Product photo



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Refer to data sheet for dimensions and connections

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