

## EQUIPMENT

# EMS50

- Fan housing and venturi made of strong galvanised sheet-steel
- Each motor is individually tested for 100% quality control
- Central hub and v-belt pulley are made from die-cast aluminium
- Welded wire guards divided into two parts ensure easy maintenance
- Propeller is statically and dynamically balanced
- Special threaded bushes on fan's side panels permit the fan to be easily hung
- Every fan is individually checked for quality

# EMS50

## Air recirculator



Photo shows fully equipped fan EMS50.

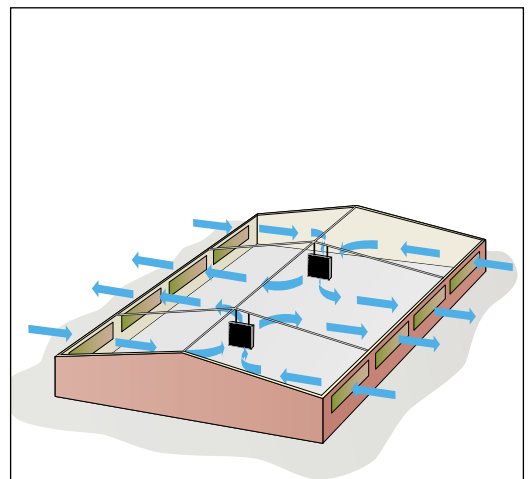
EMS50 is the ideal air recirculation fan whenever extra high air movement capacity is required. The unique propeller design is self-cleaning and allows the highest efficiency to be reached.

The square fan housing and air conveyor (venturi) are made of a strong galvanised sheet-steel. The 6-blade propeller is statically and dynamic balanced for low noise and low vibration. The propeller is available in stainless steel, galvanised steel and pre-coated and galvanised steel.

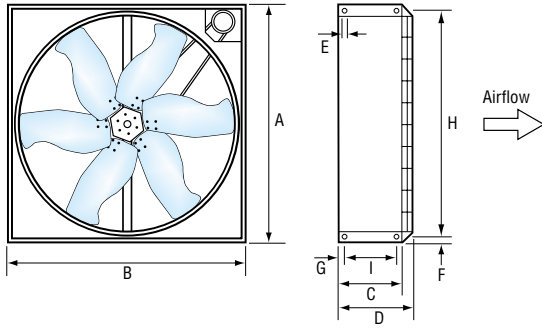
To improve aerodynamic efficiency, the fan has been developed in Munters euroemme's R&D lab. The test chamber has been built according to ANSI/AMCA 210-85 Figure 15 specifications. Construction details and airtightness have been verified by personnel of the BESS Lab at the Agricultural Engineering Department, University of Illinois – USA.

### Propeller

The propeller is attached to a large v-belt pulley in which is embedded a double ball bearing protected against water. The belt transmission ensures low propeller rpm, which ensures high efficiency, low energy consumption as well as low noise.

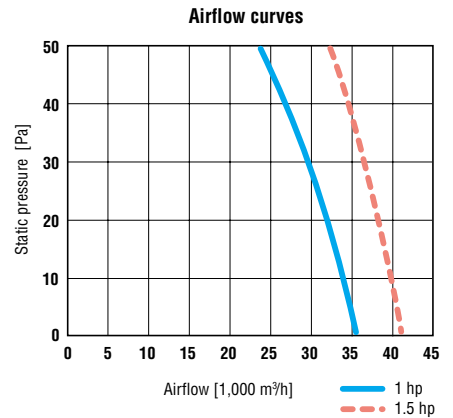


The principle of the climate controlled environment.



Dimensions [mm]				
Main				
A	B	C	D	
1,380	1,380	355	425	
For mounting				
E	F	G	H	I
M8	30	25	1,315	300

D depth refers to the fan with supplementary CE shutter safety mesh.



Curves refer to EMS50 3Ph 50 Hz single speed motor.

## Motor specifications

EMS50 Code	Nominal power		Type phases	Speed	Frequency [hz]	Voltage [V]	Current [A]	rpm
	[W]	[hp]						
a	735	1.0	1	single	50	230	5	1,380
b	735	1.0	1	multi*	50	230	5	1,380
c	735	1.0	1	single	60	220-240	5.7	1,700
d	735	1.0	3	single	50	230/400	3.5/2	1,400
e	735	1.0	3	single	60	230/400	3.5/2	1,700
f	880	1.2	3	multi*	50	230/400	4.3/2.5	1,380
g	880	1.2	3	multi*	60	230/400	4.3/2.5	1,600
h	1,100	1.5	1	single	50	230	7.3	1,400
i	1,100	1.5	1	single	60	220-240	7.3	1,700
k	1,100	1.5	3	single	50	230/400	5.2/3	1,400
l	1,100	1.5	3	multi*	50	230/400	5.2/3	1,380
m	1,100	1.5	3	single	60	230/400	5.2/3	1,700
n	1,100	1.5	3	multi*	60	230/400	5.2/3	1,670

\* Multi speed motors must be regulated with auto-transformer which is not supplied.

## Technical specifications

	1 and 1.2 hp	1.5 hp
Weight of fully equipped fan <sup>1</sup>	[kg] 66	68
Nominal propeller speed	[rpm] 365	430
Airflow at 0 Pa <sup>1</sup>	[m <sup>3</sup> /h] [cfm] 35,650 [20,980]	41,200 [24,250]
Specific performance at 0 Pa <sup>1</sup>	[m <sup>3</sup> /Wh] [cfmhv] 30.7 [18.1]	25.0 [14.7]
Propeller diameter	[mm] [inch] 1,270 [50]	
Number of blades	6	
Max. operating temperature	[°C] [°F] 50 [122]	
IEC protective class of electric motor	IP55	
Electric motor winding insulation grade	F	

<sup>1</sup>All values refer to 3 phases 50 Hz single speed motor.

N.B. Airflow data are measured at standard condition (20 °C, 1013 hPa).

EMS50 is developed and produced by Munters euroemme S.p.A., Italy.



Munters Europe AB, HumiCool Division, Kung Hans Väg 8, P.O. Box 434, SE-191 24 Sollentuna, Sweden. Phone +46 (0)8-626 63 00, Fax +46 (0)8-754 56 66.

Munters euroemme S.p.A., Strada Piani 2, IT-18027 Chiusavecchia, Italy. Phone +39 0183-52 11, Fax +39 0183-521 333.

www.munters.com

**Austria** via sales organization in Germany, **Denmark** via sales organization in Sweden, **Finland** Munters Oy, Phone +358 (0)9-83 86 0330, Fax +358 (0)9-83 86 0336, **France** Munters France S.A., Phone +33 (0)1-34 11 57 50, Fax +33 (0)1-34 11 57 51, **Germany** Munters Euroform GmbH, Phone +49 (0)241-89 000, Fax +49 (0)241-89 00 199, **Italy** Munters euroemme S.p.A., Phone +39 0183-52 11, Fax +39 0183-521 333, **Kingdom of Saudi Arabia and Middle East** Hawa Munters, c/o Hawa United Cooling Syst. Co. Ltd., Phone +966 (0)1-477 15 14, Fax +966 (0)1-476 09 36, **Norway** via sales organization in Sweden, **South Africa and Sub-Sahara Countries** Munters (Pty) Ltd, Phone +27 (0)11-971 9700, Fax +27 (0)11-971 9701, **Spain** Munters Spain S.A., Phone +34 91-640 09 02, Fax +34 91-640 11 32, **Sweden** Munters Europe AB, Phone +46 (0)8-626 63 00, Fax +46 (0)8-754 56 66, **Switzerland** via sales organization in Germany, **United Kingdom** Munters Ltd, Phone +44 (0)845-644 3980, Fax +44 (0)845-644 3981, **Export & Other countries** Munters Europe AB, Phone +46 (0)8-626 63 00, Fax +46 (0)8-754 56 66, **Region Americas** Munters Corporation, Phone +1 (0)978-241 1100, Fax +1 (0)978-241 1219, **Region Asia** Munters K.K., Phone +81 (0)3-5970 0021, Fax +81 (0)3-5970 3197.

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