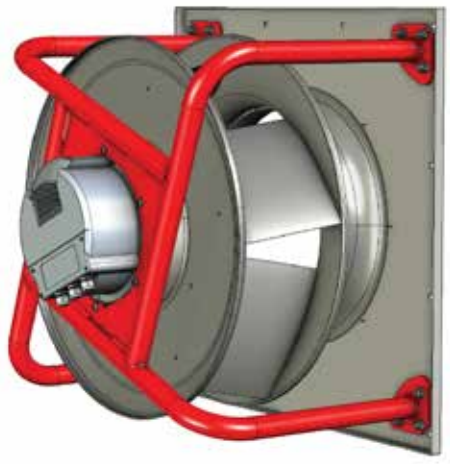
Apperance



Application

Various mechanical ventilation systems, air handling units, rooftop units, and others

Ventilation systems requiring low Specific Fan Power (SFP) together with smooth and precise airflow adjustment

Perfect solution to be combined into Fan-Array systems

Fitted for vertical and horizontal arrangement

Support to CAV/VAV systems (factory mounted static pressure probes on fan inlet vane + precisely determined K-factor)

Air performance according to ISO 5801, Installation Category: A, LwA according to ISO 13347.

General specification

Fan Set Model	SR-FS-A5-630-6.0
Rated Voltage	3×380-480 VAC / 50-60 Hz
Rated Current	9.0 A
Nominal Input Power	6.0kW
Revolutions: Min / Nominal	600 ÷ 1460 RPM
CAV K-factor	502.0
Storage temperature range	-30°C to 50°C
Operating temperatures range	-25°C to 40°C
Support plate material	Galvanized steel
Support brackets material	Red painted steel
Mass	73.0 kg
Installation position	Horizontal / Vertical shaft

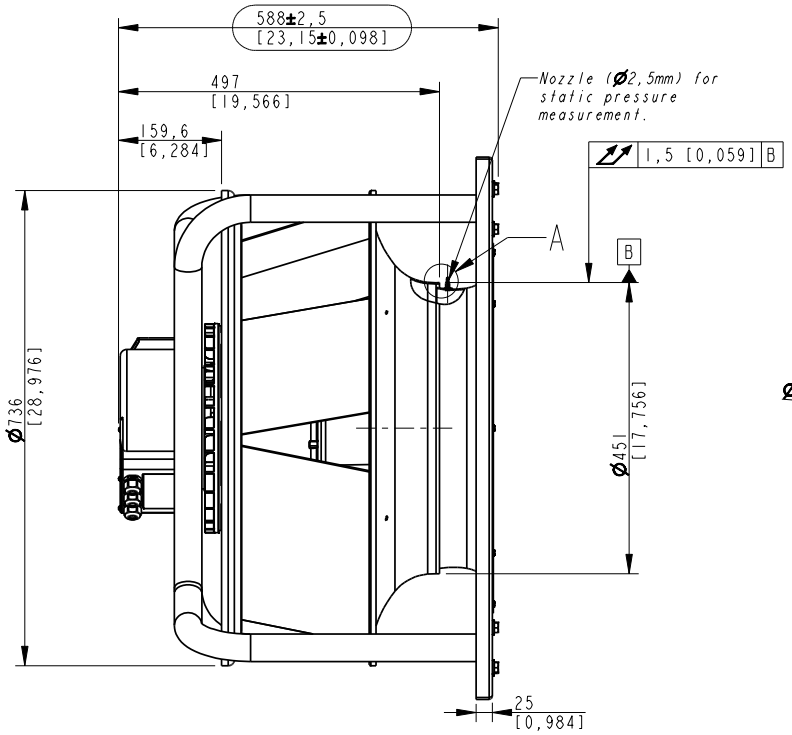
Motor

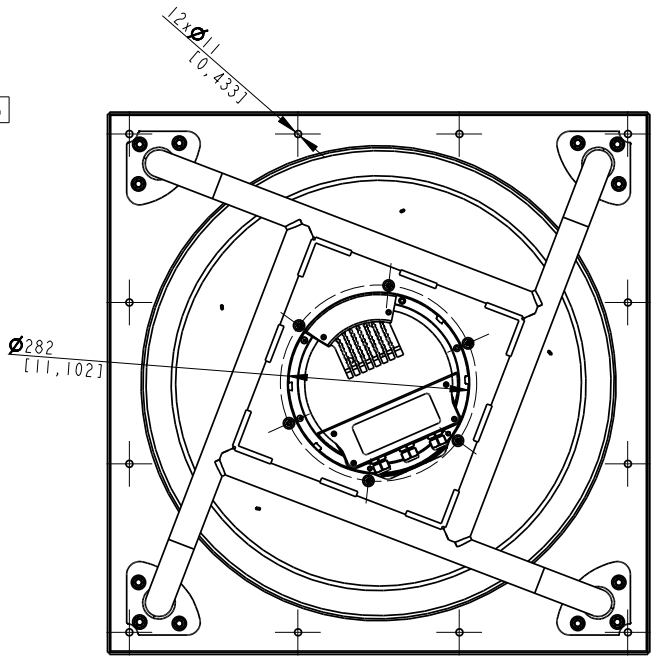
Type	Electronically Comutated, Brushless DC
Efficiency Class	IE4
Housing	Die-cast aluminum
Protection Degree	IP 54
Overload protection	Inbuilt thermal limit
Speed Control	0~10VDC / Modbus RTU
Bearings	Ball type, Maintenance Free, Permanently Lubricated
Bearings service life L_{10}	71 200 (40 °C) / 35 600 (max. work. temperature)
Insulation class	F

Impeller

Fan Impeller Size	630 mm
Blade design / No of blades	Aerofoil / 5
Spinning direction	Clockwise, wieved from air inlet
Impeller material	Aluminum
Inlet funnel material	Hot-dip galvanized steel
Balance grade	G 6,3 (ISO 1940-1) and BV-3 (ANSI S2.19-1989)

Installation Dimensions





Information according to (EU) 327/2011 (ERP 2018)

Commission Regulation (EU) 327/2011	Requirements for fans driven by motors with an electric input power between 125 W and 500 kW.

1	**Overall efficiency η_{es}**	65.4%
2	**Measurement category**	A
3	**Efficiency Category**	Static
4	**Efficiency grade N: Actual / Req. 2015**	78.6%
5	**Variable speed drive**	Yes
9	**Power consumption Ped**	5.91 kW
	Air flow qv	13 536 m³/h
	Pressure increase pfs	1 063.0
10	**Speed (rpm) n**	1 450
11	**Specific ratio**	1.01

Complience with Standards

ISO 5801:2017	„Fans – Performance testing using standardized airways"
ANSI/AMCA Standard 210-16	Laboratory Methods of Testing Fans for Certified Aerodynamic Performance Rating
ANSI/AMCA Standard 300-14	Reverberant Room Method for Sound Testing of Fans
AMCA Standard 205-10	Energy Efficiency Classification for Fans
ANSI/AMCA Standard 208-18	Calculation of the Fan Energy Index

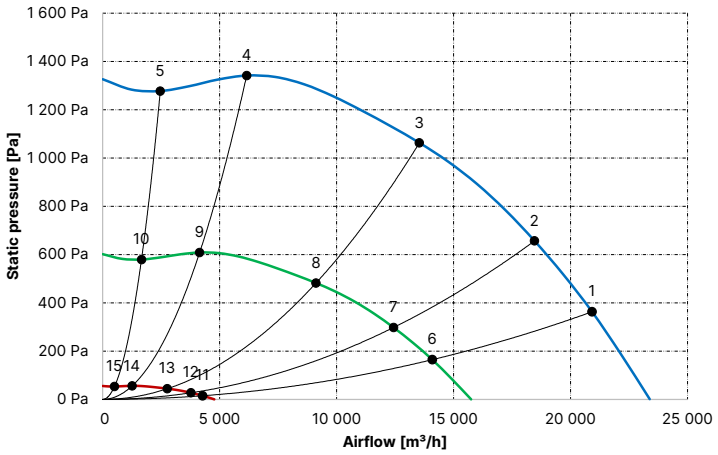
AMCA Fan Efficiency Grade

Fan Efficiency Grade (FEG), AMCA 205-10	80

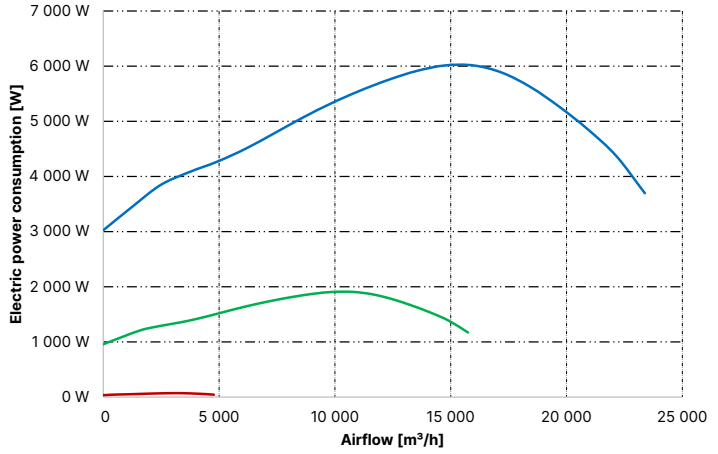
Measured Points

Point #	n RPM	V [m³/h]	dP [Pa]	I[A] [A]	EPC [kW]	L_pA_{in} dB(A)	L_wA_{in} dB(A)	L_wA_{out} dB(A)	FEI
1	1 470	20 919	363	7.9	4.85	82.7	90.7	95.2	1.07
2	1 470	18 458	657	9.0	5.62	79.4	87.4	92.3	1.37
3	1 470	13 536	1 063	9.4	5.91	75.3	83.3	90.7	1.49
4	1 470	6 153	1 342	7.4	4.50	81.4	89.4	94.1	1.10
5	1 470	2 461	1 277	6.5	3.84	84.1	92.1	97.7	0.52
6	1 035	14 088	165	3.1	1.54	74.1	82.1	86.6	1.26
7	1 035	12 431	298	3.5	1.78	70.8	78.8	83.7	1.47
8	1 035	9 116	482	3.6	1.87	66.7	74.7	82.1	1.52
9	1 035	4 144	608	3.0	1.43	72.8	80.8	85.5	1.14
10	1 035	1 657	579	2.7	1.22	75.6	83.6	89.1	0.58
11	600	4 269	15	1.0	0.06	48.2	56.2	60.7	4.77
12	600	3 767	27	1.0	0.07	44.9	52.9	57.8	4.07
13	600	2 762	44	1.0	0.07	40.8	48.8	56.1	3.34
14	600	1 256	56	1.0	0.05	46.9	54.9	59.6	2.51
15	600	502	53	1.0	0.04	49.6	57.6	63.2	1.61

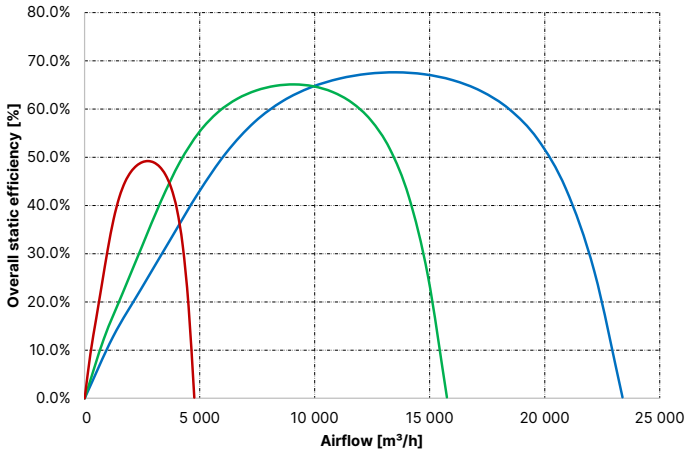
dP = f(V)



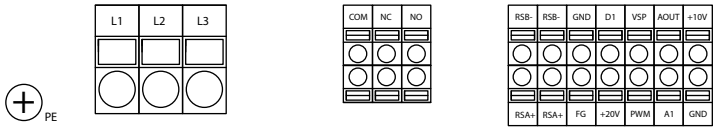
EPC = f(V)



η_{es} = f(V)



Power supply and control connections



Protective Earth	
PE	Protective Earth

Power Supply	
L1	Power supply L1 – 3×380-480V AC 50/60Hz
L2	Power supply L2 – 3×380-480V AC 50/60Hz
L3	Power supply L3 – 3×380-480V AC 50/60Hz
PE	Protective Earth

Relay	
NO	Status relay, floating state contact, no failure mode
NC	Status relay, floating state contact, failure mode
COM	Status relay, floating state contact, public connection

Control interface	
+10V	Voltage output, maximum output current 10mA
GND	Reference ground potential for control interface
A1	Analog Input 1, 4-20mA
AOUT	Cascaded 0-10V output
PWM	Digital input, PWM duty cycle 0-100%
VSP	Analog Input 2, 0-10V
+20V	Voltage output, maximum output current 20mA
D1	High and low level input recognition, reserved
FG	Speed feedback
GND	Reference ground potential for control interface
RSB-	RS485, RSB, MODBUS RTU
RSA+	RS485, RSA, MODBUS RTU
RSB-	RS485, RSB, MODBUS RTU

SWISS ROTORS