

- Roof fans EC motor
- Vertical discharge
- Motor in air stream



Roof Exhaust Units type ARFV-S EC

Roof fan with EC motor, with or without constant pressure

Application

- These fans are designed for direct or ducted ventilation in residential, commercial and industrial buildings
- Variable flow ventilation systems (eg can be combined with VAV valves) for optimum energy consumption (only for ARFV-S ECCP models)

Composition

- Octagonal housing made of seawater resistant aluminium AlMg3
- Turbine with backward-curved blades made of galvanized steel sheet up to type 280 and aluminum for all others, balanced G6.3 according to DIN ISO 1940
- EC motor with internal electronic thermal protection
- Flow regulation:
 - Constant speed control (0-10V control) for models ARFV-S EC 31
 - Constant pressure control for models ARFV-S ECCP 31
- Voltage: 230Vac 1ph and 400Vac 3ph
- Insulation class F (excluding ARFV-S 355 EC (CP) = B)
- Protection class:
 - Motor: IP55 (excluding ARFV-S 190-250 EC (CP) = IP54, ARFV-S 280 EC (CP) = IP30)
 - Terminal box: IP44 (excluding ARFV-S 250 EC(CP) = IP54, ARFV-S 190 EC (CP) = none)
 - Complete roof fan: IPX4 (excluding ARFV-S 190 EC (CP))
- Tiltable motor section
- Integrated safety switch
- Integrated thermal contact
- Maintenance-free, long-life ball bearings

Accessories

- Roof socket, type **RAC-I**
- Roof socket, type **RC-I**
- Adapter plate, type **RAP**
- Backdraught shutter, type **RAS**
- Flexible connector, type **RFC**
- Matching flange, type **RIF**
- Potentiometer, type **ESCP010**
- 3-position switch, type **MSS-D**

Order example■ **ARFV-S 220 ECCP 42**

ARFV-S = Type of fan

220 = Size

EC = EC motor

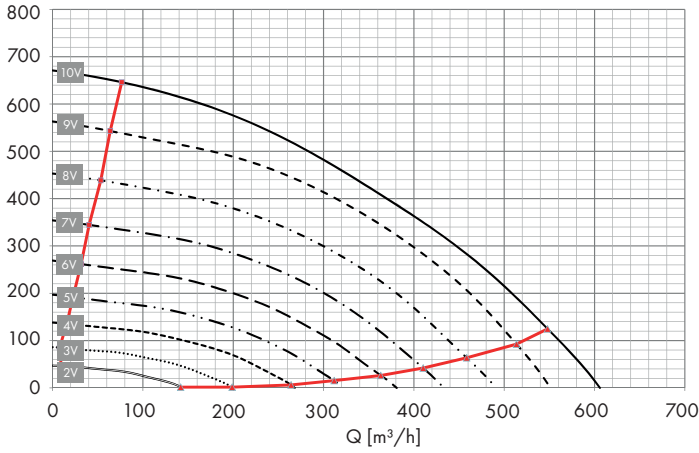
CP = Constant pressure control

42= version

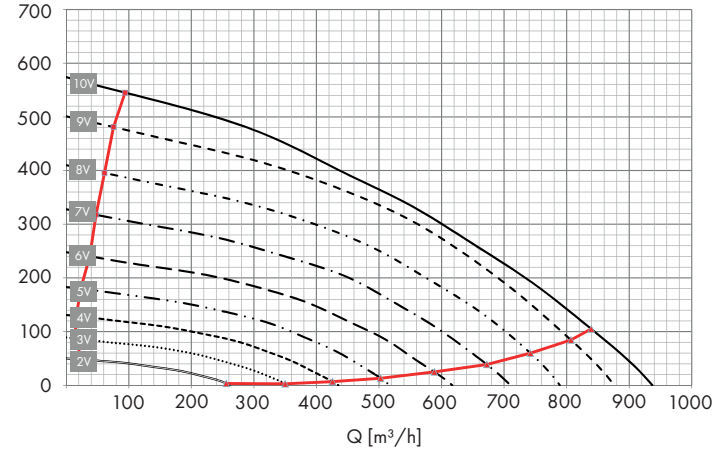
	Air performance data									
	Q [m ³ /h]									
	50 Pa	100 Pa	150 Pa	200 Pa	250 Pa	300 Pa	400 Pa	500 Pa	600 Pa	700 Pa
ARFV-S 190 EC(CP) 42	639	619	594	561	522	480	405	330	260	198
ARFV-S 220 EC(CP) 42	890	840	790	740	668	600	435	230	-	-
ARFV-S 250 EC(CP) 41	1110	1052	988	919	844	774	630	464	280	-
ARFV-S 280 EC(CP) 31	1910	1855	1785	1690	1580	1480	1265	1050	800	600
ARFV-S 355 EC(CP) 31	2439	2170	1920	1645	1390	1067	505	-	-	-
ARFV-S 400 EC(CP) 31	4193	3954	3696	3464	3204	2951	2471	1981	1484	1078
ARFV-S 450 EC(CP) 31	5241	4866	4467	4072	3699	3360	2714	1891	1200	-
ARFV-S 500 EC(CP) 31	7795	7569	7287	6998	6705	6394	5842	5320	4588	3900
ARFV-S 560 EC(CP) 31	11787	11659	11427	11185	10923	10650	10026	9336	8614	7756
ARFV-S 630 EC(CP) 41	13896	13681	13403	13103	12797	12450	11596	10576	9518	8330

Selection curves

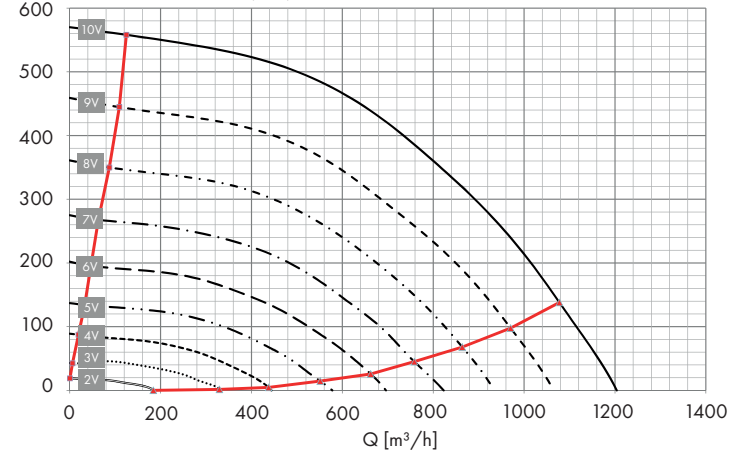
Ps [Pa] ARFV-S 190 EC (CP) 30



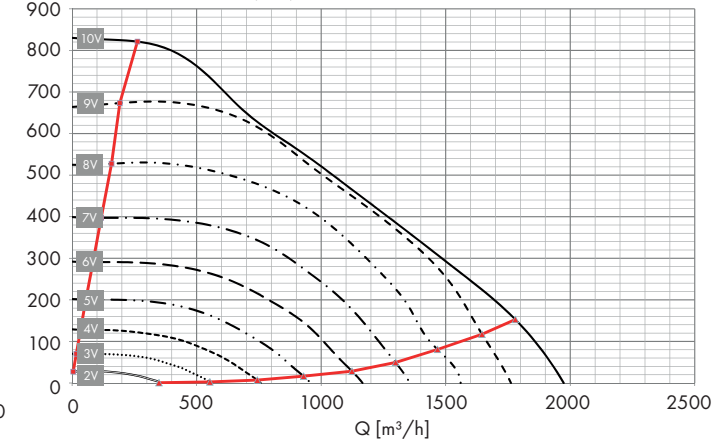
Ps [Pa] ARFV-S 220 EC (CP) 30



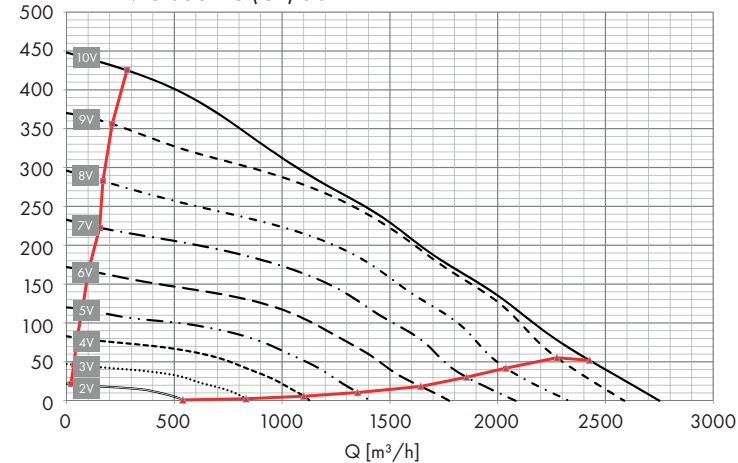
Ps [Pa] ARFV-S 250 EC (CP) 30



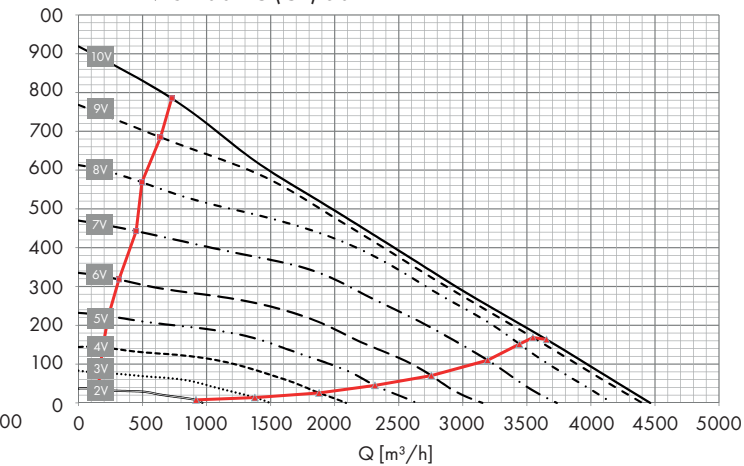
Ps [Pa] ARFV-S 280 EC (CP) 30



Ps [Pa] ARFV-S 355 EC (CP) 30

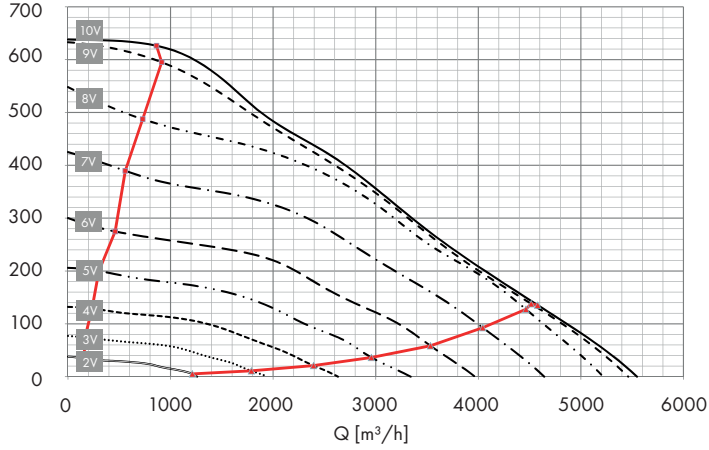


Ps [Pa] ARFV-S 400 EC (CP) 30

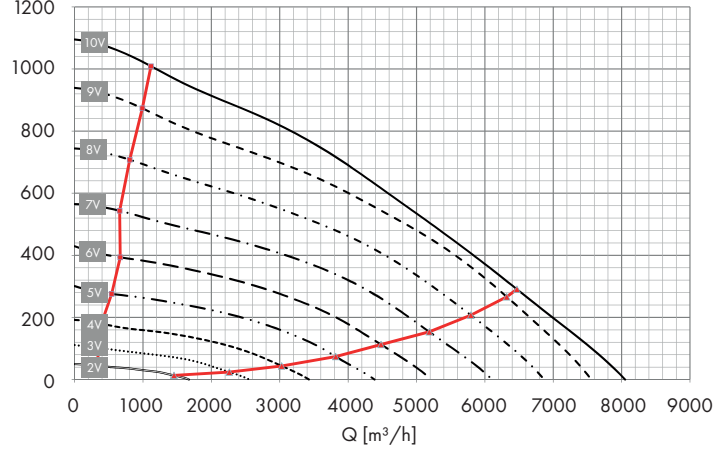


Selection curves

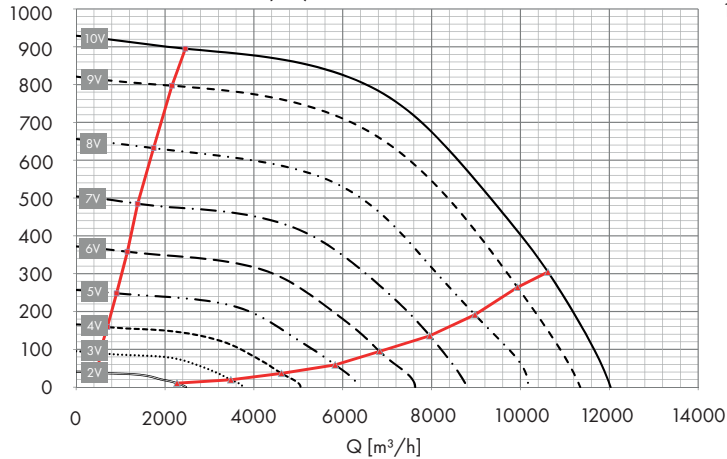
Ps [Pa] ARFV-S 450 EC (CP) 30



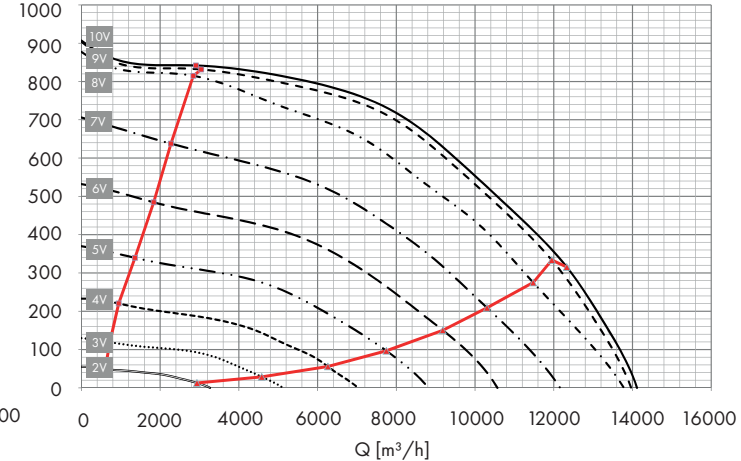
Ps [Pa] ARFV-S 500 EC (CP) 30



Ps [Pa] ARFV-S 560 EC (CP) 30

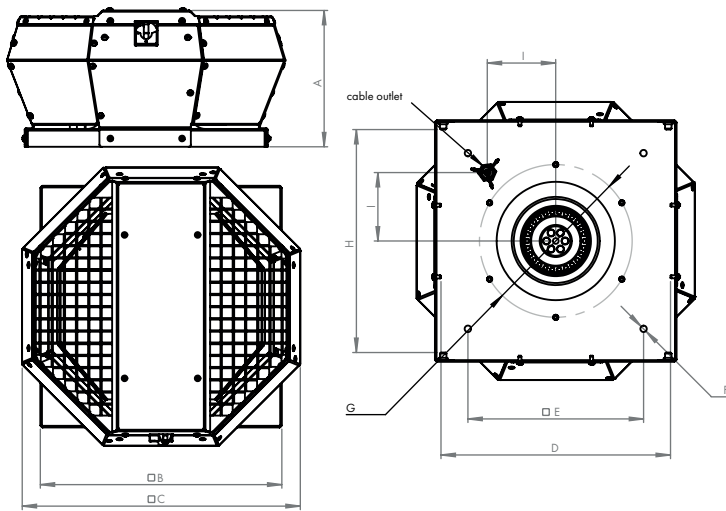


Ps [Pa] ARFV-S 630 EC (CP) 30



Technical data												
	U [V]	P [W]	I [A]	SC _p **	η _t	T _m [°C]	T _u [°C]	T _o [°C]	n [rpm]	Lwa [dB(A)]		
										Lwa 5	Lwa 6	Lwa 2
ARFV-S 190 EC(CP) 42	1 x 230	114	0.9	ESCP010	42.1	50	50	-20	4010	81	82	-
ARFV-S 220 EC(CP) 42	1 x 230	113	0.9	ESCP010	44.8	60	60	-30	2930	73	76	-
ARFV-S 250 EC(CP) 41	1 x 230	167	1.4	ESCP010	43.1	60	60	-30	2800	76	79	-
ARFV-S 280 EC(CP) 31	1 x 230	268	1.9	ESCP010	52.6	55	55	-30	2940	86	83	-
ARFV-S 355 EC(CP) 31	1 x 230	165	1.4	ESCP010	56	60	60	-30	1545	75	76	-
ARFV-S 400 EC(CP) 31	1 x 230	503	2.3	ESCP010	53	50	50	-30	1980	77	82	-
ARFV-S 450 EC(CP) 31	1 x 230	509	2.3	ESCP010	55.3	50	50	-30	1515	77	81	-
ARFV-S 500 EC(CP) 31	3 x 400	1331	2.1	ESCP010	55.8	50	50	-30	1640	81	87	-
ARFV-S 560 EC(CP) 31	3 x 400	2263	3.5	ESCP010	62.6	60	60	-30	1540	88	90	-
ARFV-S 630 EC(CP) 41	3 x 400	2707	4.1	ESCP010	54.5	40	40	-30	1300	82	87	-

- SC_p = Potentiometer 0-10V
 - ** Potentiometer only applicable to models without constant pressure control
- η_t = Maximum total efficiency
- T_m = Maximum ambient/medium temperature
- T_u = Maximum ambient temperature
- T_o = Minimum operating temperature
- Lwa 5 = Sound power level @inlet
- Lwa 6 = Sound power level @outlet
- The sound power levels are measured according to DIN 45635 part 2 & 38



	Dimensions									
	A [mm]	B [mm]	C [mm]	D* [mm]	E [mm]	F [mm]	G [mm]	H* [mm]	I [mm]	[kg]
ARFV-S 190 EC(CP) 42	190	337	388	320	245	4x Ø 9	Ø 213 - (6x) M6	305	94	5
ARFV-S 220 EC(CP) 42	190	337	388	320	245	4x Ø 9	Ø 213 - (6x) M6	305	94	5.5
ARFV-S 250 EC(CP) 41	190	337	388	320	245	4x Ø 9	Ø 213 - (6x) M6	305	94	5.8
ARFV-S 280 EC(CP) 31	249	437	541	420	330	4x Ø 9	Ø 286 - (6x) M6	405	135	8.4
ARFV-S 355 EC(CP) 31	333	598	745	580	450	4x Ø 9	Ø 438 - (6x) M6	565	193	16.5
ARFV-S 400 EC(CP) 31	333	598	745	580	450	4x Ø 9	Ø 438 - (6x) M6	565	193	19.5
ARFV-S 450 EC(CP) 31	418	670	860	652	535	4x Ø 9	Ø 438 - (6x) M6	637	220	26
ARFV-S 500 EC(CP) 31	418	670	860	652	535	4x Ø 9	Ø 438 - (6x) M6	637	220	26
ARFV-S 560 EC(CP) 31	521	931	1165	913	750	4x Ø 9	Ø 438 - (6x) M6	898	310	34
ARFV-S 630 EC(CP) 41	521	931	1165	913	750	4x Ø 9	Ø 605 - (8x) M8	898	310	55

* Tolerance 0-2 mm

Dimensions

Go to 'downloads' to see all technical drawings and dimensions