



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: IP54 (excluding ARFV-S 250 EC (CP) and ARFV-S 280 EC (CP) = IP33)
 - Terminal box: IP44 (excluding ARFV-S 190 EC (CP))
 - Complete roof fan: IPX4 (excluding ARFV-S 190 EC (CP))
- Tiltable motor section (version 31)
- 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 **MTP010**
- 3-position switch, type **MSS-D**

Roof fans

Order example

■ ARFV-S 220 EC 30

ARFV-S = Type of fan

220 = Size

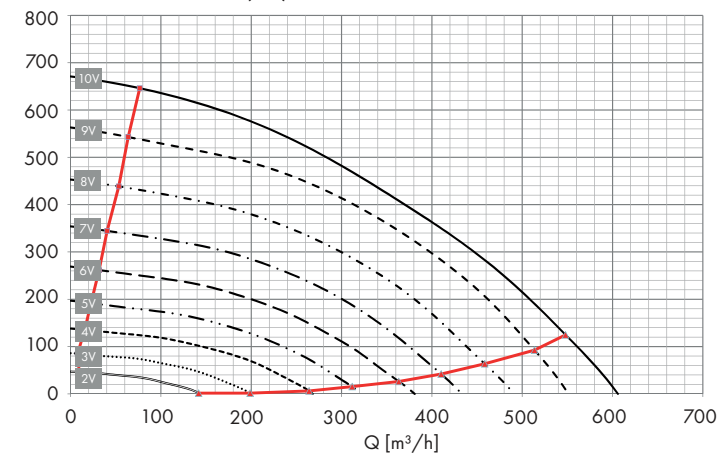
EC = EC motor

30 = version

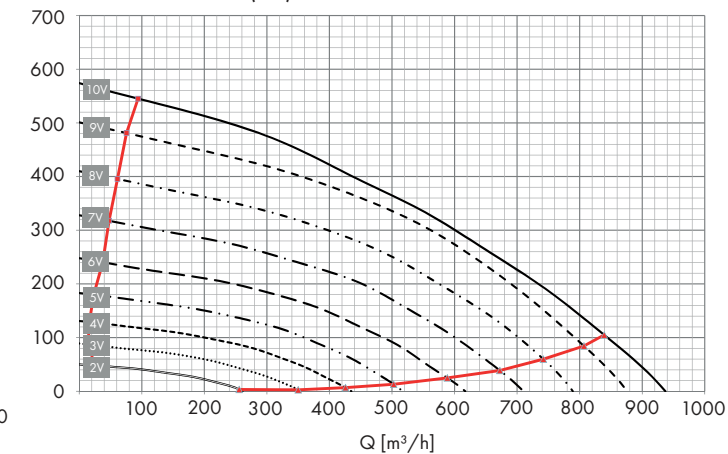
Air performance data										
	Q [m³/h]									
	50 Pa	100 Pa	150 Pa	200 Pa	250 Pa	300 Pa	400 Pa	500 Pa	600 Pa	700 Pa
ARFV-S 190 EC(CP) 31	585	560	535	507	479	445	369	280	160	-
ARFV-S 220 EC(CP) 31	890	840	790	740	668	600	435	230	-	-
ARFV-S 250 EC(CP) 31*	1162	1114	1060	1010	955	884	732	511	-	-
ARFV-S 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) 31	13896	13681	13403	13103	12797	12450	11596	10576	9518	8330

Selection curves

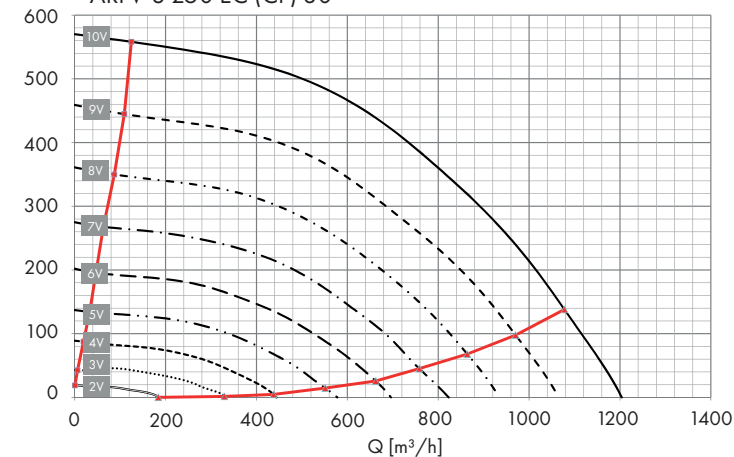
ARFV-S 190 EC (CP) 30



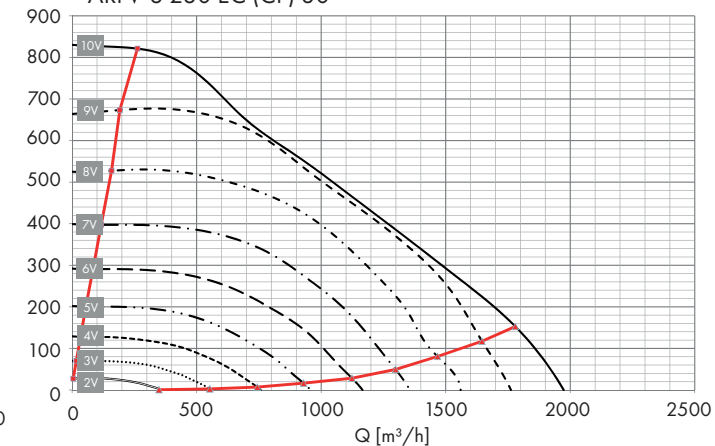
ARFV-S 220 EC (CP) 30



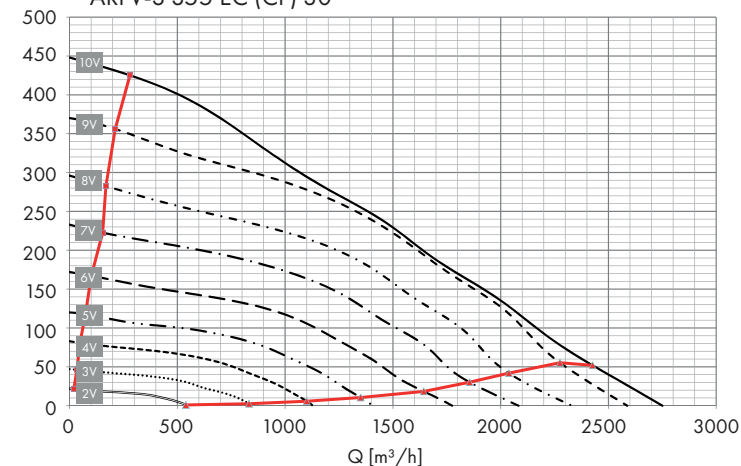
ARFV-S 250 EC (CP) 30



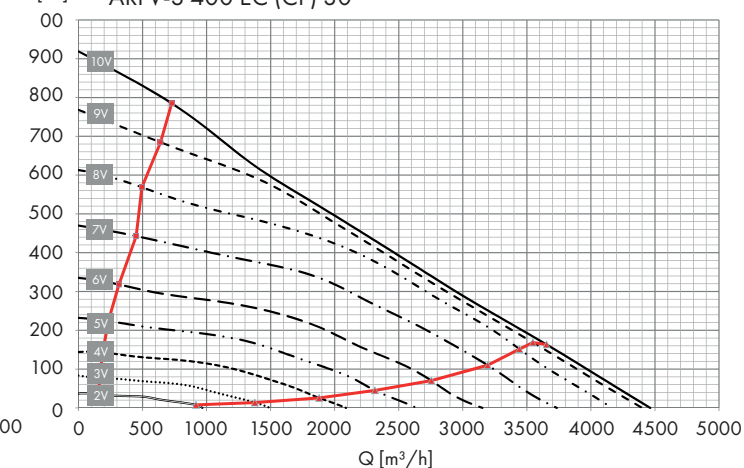
ARFV-S 280 EC (CP) 30

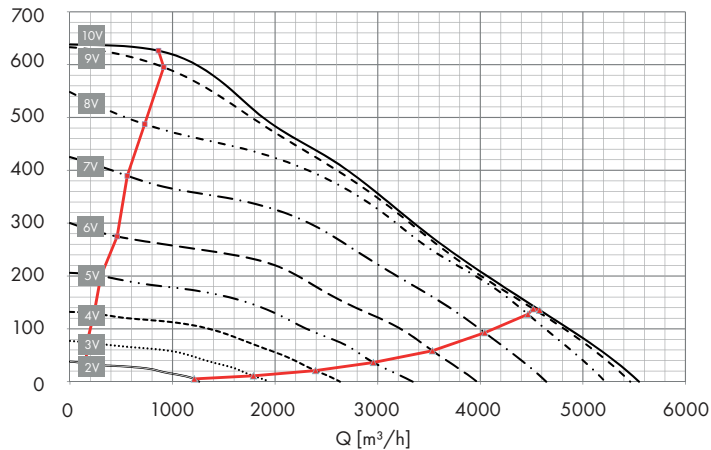
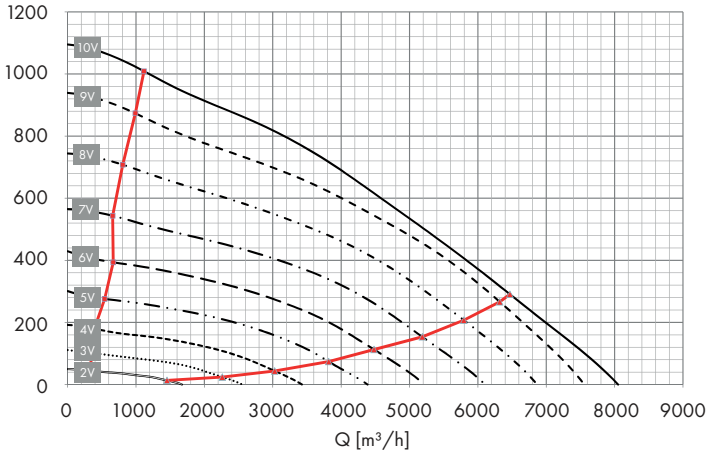
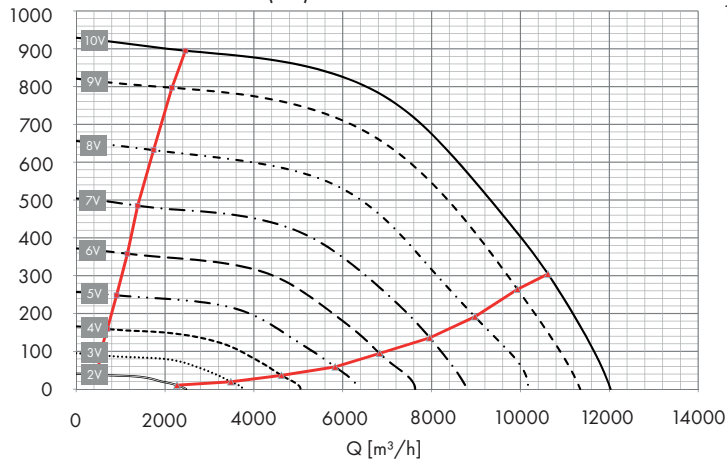
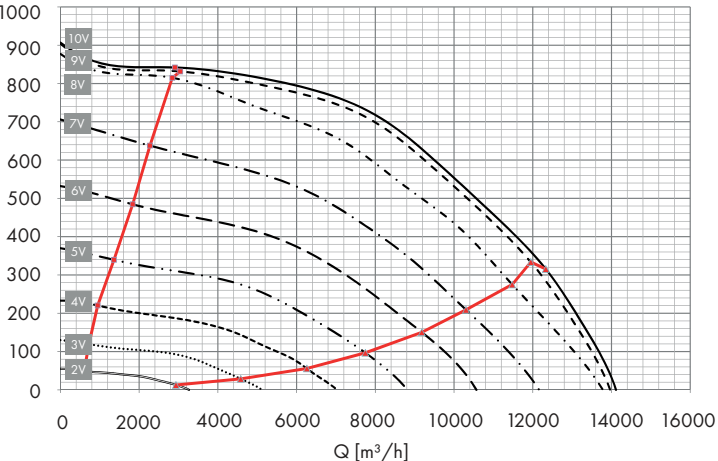


ARFV-S 355 EC (CP) 30



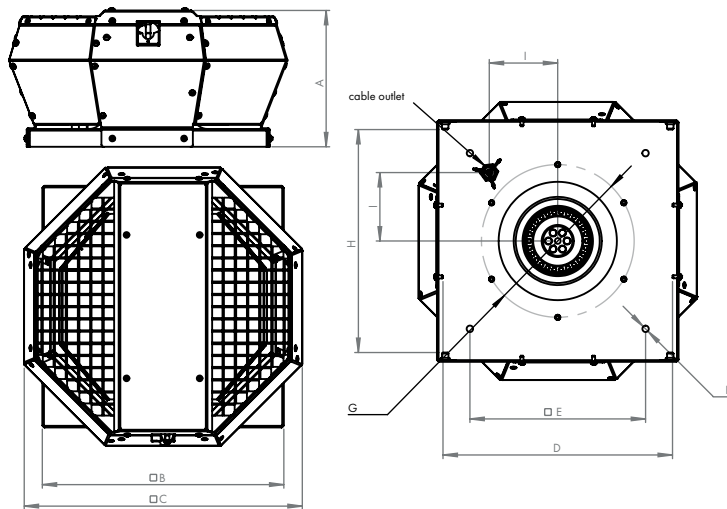
ARFV-S 400 EC (CP) 30



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]	fn [Hz]	P [W]	I [A]	n _{max} [rpm]	SCT	T _{max}	T _{min}	Lwa 5	Lwa 6
ARFV-S 190 EC(CP) 31	1~230	50	99	0.8	3630	MSS-D/MTP010*	60	-30	78	79
ARFV-S 220 EC(CP) 31	1~230	50	113	0.9	2930	MSS-D/MTP010*	60	-30	73	76
ARFV-S 250 EC(CP) 31*	1~230	50	179	1.5	2730	MSS-D/MTP010*	60	-30	80	81
ARFV-S 250 EC(CP) 41	1~230	50	167	1.4	2800	MSS-D/MTP010*	60	-30	76	79
ARFV-S 280 EC(CP) 31	1~230	50	268	1.9	2940	MSS-D/MTP010*	55	-30	86	83
ARFV-S 355 EC(CP) 31	1~230	50	165	1.4	1545	MSS-D/MTP010*	60	-25	75	76
ARFV-S 400 EC(CP) 31	1~230	50	503	2.3	1980	MSS-D/MTP010*	50	-25	77	82
ARFV-S 450 EC(CP) 31	1~230	50	509	2.3	1515	MSS-D/MTP010*	50	-30	77	81
ARFV-S 500 EC(CP) 31	3~400	50	1331	2.1	1640	MSS-D/MTP010*	50	-25	81	87
ARFV-S 560 EC(CP) 31	3~400	50	2263	3.5	1540	MSS-D/MTP010*	60	-25	88	90
ARFV-S 630 EC(CP) 31	3~400	50	2627	4	1340	MSS-D/MTP010*	55	-25	87	89

- SC_T = Transformer controller
- * Potentiometer MTP010 only applicable to models without constant pressure control
- η_t = Maximum total efficiency
- T_{max}: Maximum ambient/medium temperature
- T_{min}: Minimum operating temperature
- t_o = Minimum operating temperature
- Lwa 2 = Sound power level environment
- 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) 31	190	337	388	320	245	4x Ø 9	Ø 213 - (6x) M6	305	94	5
ARFV-S 220 EC(CP) 31	190	337	388	320	245	4x Ø 9	Ø 213 - (6x) M6	305	94	5.5
ARFV-S 250 EC(CP) 31*/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 605 - (8x) M8	898	310	34
ARFV-S 630 EC(CP) 31	521	931	1165	913	750	4x Ø 9	Ø 605 - (8x) M8	898	310	55

* Tolerance 0-2

Dimensions

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