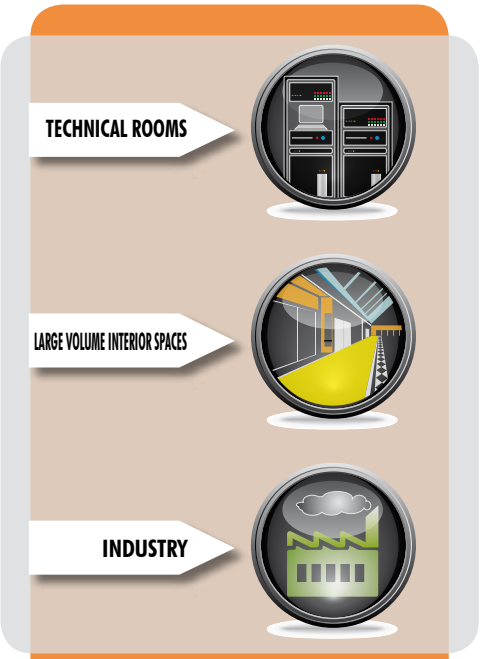
model HC

APPLICATIONS



TECHNICAL CHARACTERISTICS

OPERATING RANGE	Airflow m^3/h	from 1300 to 54000
	Pressure Pa	from 0 to 700
MIN. IMPELLER DIAM.	mm	250
MAX. IMPELLER DIAM.	mm	1000
MOTOR	Volt [±10%]	230 M / 230-400 T / 400-690 T
	Poles	2-4-6-8
	IP	55
MIN. FLUID TEMP.	°C	-25
MAX. FLUID TEMP.	°C	+60

SPECIFICATION CONDITION

Helical wall fan composed of aerofoil blade impeller made of fibreglass reinforced technopolymer, class F IP65 single phase or three phase motor, directly coupled to the impeller, square supporting air shroud made of sheet steel with powder coating baked on at 190° and protective mesh in compliance with UNE 100250, operating temperature from –20° to +60°, AER-SERVICE AFP-HC type; wall mounting by means of screws inserted through the fixing holes In the 4 corners.

HC
71-80-90-100 version with motor support structure modified for B5 mounting position

AFP SERIES

Wall-mounted helical fan

CONSTRUCTION CHARACTERISTICS

FRAME

The loading structure is composed of a carbon steel plate with polyester resin coating baked-on at 190°C; the corners of the plate are equipped with inserts to accept the anchor screws. The protective grille is made of carbon steel wire and sized and realised in compliance with UNE 100250; on models 71-80-90 and 100 the grille is a non-standard accessory.

IMPELLERS

The fans are equipped with an aerofoil bladed impeller with the pitch angle adjustable with the fan stopped, made of fibreglass reinforced polyamide 6 and mounted on an aluminium hub. The impeller is statically and dynamically balanced in compliance with UNI EN 1032.

MOTORS

The motors are manufactured in Italy and feature IP 55 protection with insulation class F. The impeller is directly coupled in compliance with UNEL-MEC standards; only single phase models from 45 to 63 feature IP 54 protection. The motor is connected to a 230 Volt single phase power supply, while, depending on the model, three-phase motors are connected to a 230/400 supply (for power ratings up to 4 kW) or 400/690 (for power ratings above 4 kW).
Air flow direction: motor-impeller.

HC
View of the motor with standardised dimensions to facilitate replacement

AERSERVICE SUPPLIES PRODUCTS AND SOLUTIONS TAKING ACCOUNT OF NATIONAL AND INTERNATIONAL NORMATIVE REFERENCES

UNI EN 1032:1998	Mechanical vibration - Examination of mobile machines in order to establish the magnitude of vibration transmitted to the whole body - General
2006/42 EC	Machine safety directive and subsequent amendments
2004/108/EC	EC Electromagnetic Compatibility
2006/95 EC	Low Voltage
D.L. 81/2008	Improvement of the safety and health of workers in the workplace
UNI EN 12101-3:2004	Smoke and heat control systems - Specification for powered smoke and heat exhaust ventilators
94/9/EC ATEX	For equipment and protective systems designed for use in potentially explosive atmospheres
UNI EN 13779:2008	Ventilation for non-residential buildings. Performance requirements for ventilation and room-conditioning systems
UNE 100165:2004	Climate control. Smoke extraction and ventilation in kitchens
UNI EN 13141-9	Ventilation for buildings - Performance testing of components/products for residential ventilation
UNI EN 15251:2008	Ventilation for buildings - Fire prevention measures for building air distribution systems

HC

TECHNICAL CHARACTERISTICS

Model	Speed	Max. permissible current (A)			Absorbed power	Maximum airflow	Sound pressure level	Weight
HC	(RPM)	220-240V	380-415V	690V	(KW)	(m^3/h)	dB(A)	Kg
HC-25-2T/H	2760	0,83	0,48		0,12	2200	64	5
HC-25-2M/H	2760	1,10			0,12	2200	64	5
HC-25-4T/H	1450	0,60	0,35		0,10	1300	51	5
HC-25-4M/H	1450	0,63			0,10	1300	51	5
HC-31-2T/H	2780	1,38	0,80		0,18	3650	72	6
HC-31-2M/H	2780	1,85			0,18	3650	72	6
HC-31-4T/H	1430	0,64	0,37		0,10	2400	54	6
HC-31-4M/H	1430	0,75			0,10	2400	54	6
HC-31-4T/L	1455	0,65	0,38		0,08	1800	52	6
HC-31-4M/L	1455	0,67			0,10	1800	52	6
HC-35-2T/H	2830	2,25	1,30		0,37	6020	76	8
HC-35-4T/H	1360	0,72	0,42		0,10	3500	58	7
HC-35-4M/H	1360	0,87			0,10	3500	58	7
HC-35-4T/L	1440	0,64	0,37		0,10	2600	56	7
HC-35-4M/L	1440	0,67			0,10	2600	56	7
HC-40-4T/H	1400	1,82	1,05		0,25	5200	63	10
HC-40-4M/H	1340	2,20			0,25	5200	63	10
HC-40-4T/L	1335	0,70	0,41		0,10	4000	59	8
HC-40-4M/L	1335	1,01			0,10	4000	59	8
HC-40-6T/H	970	1,30	0,75		0,25	3700	55	10
HC-40-6M/H	970	1,30			0,25	3700	55	10
HC-45-4T/H	1380	2,08	1,20		0,37	7300	66	14
HC-45-4M/H	1375	3,10			0,37	7300	66	14
HC-45-4T/L	1400	1,82	1,05		0,25	5600	63	11
HC-45-4M/L	1355	2,15			0,25	5600	63	11
HC-45-6T/H	950	1,47	0,85		0,25	5200	57	14
HC-45-6M/H	950	1,50			0,25	5200	57	14
HC-50-4T/H	1380	2,94	1,70		0,55	10200	69	18
HC-50-4M/H	1350	5,02			0,55	10200	69	18
HC-50-4T/L	1400	1,82	1,05		0,25	7400	66	12
HC-50-4M/L	1340	2,30			0,25	7400	66	12
HC-50-6T/H	960	2,08	1,20		0,37	6300	59	18
HC-50-6M/H	960	2,50			0,37	6300	59	18
HC-56-4T/H	1440	4,68	2,70		1,10	13000	72	24
HC-56-4/8T/H	1440/710		2,90/1,30		1,10/0,25	13000/6500	72/57	24
HC-56-4T/L	1380	2,85	1,65		0,55	11050	70	18
HC-56-4M/L	1380	4,60			0,55	11050	70	18
HC-56-6T/H	940	2,25	1,30		0,37	8400	61	19
HC-56-6M/H	940	2,50			0,37	8400	61	19
HC-63-4T/H	1415	5,20	3,00		1,10	16450	74	26
HC-63-4/8T/H	1440/710	-	3,15/1,30		1,10/0,25	16450/8225	74/59	26
HC-63-4T/L	1430	3,84	2,22		0,75	14400	73	19
HC-63-4M/L	1430	4,78			0,55	14400	73	19
HC-63-6T/H	890	2,42	1,40		0,37	12400	64	21
HC-63-6M/H	890	3,00			0,37	12400	64	21
HC-71-4T/H	1450	6,41	3,70		1,50	22300	78	35
HC-71-4/8T/H	1420/700	-	3,50/1,50		1,50/0,37	22300/11150	78/63	35
HC-71-6T/H	950	3,91	2,26		0,75	17500	66	36
HC-71-6/12T/H	935/435	-	2,20/0,87		0,75/0,15	17500/8750	66/51	35
HC-71-6M/H	950	4,10			0,75	15600	65	36

* Not adjustable

TECHNICAL CHARACTERISTICS

Model HC	Speed (RPM)	Max. permissible current (A) 220-240V	380-415V	690V	Absorbed power (KW)	Maximum airflow (m^3/h)	Sound pressure level dB(A)	Weight Kg
HC-80-4T/H	1450	11,78	6,80		3,00	33000	82	55
HC-80-4/8T/H	1430/710	-	6,50/2,30		3,0/0,60	33000/16500	82/67	53
HC-80-4T/L	1450	6,41	3,70		1,50	25000	79	44
HC-80-6T/H	950	4,16	2,40		0,75	22000	71	45
HC-80-6/12T/H	935/435	-	2,40/0,87		0,75/0,15	22000/11000	71/56	44
HC-80-6T/L	950	2,96	1,71		0,55	19200	70	39
HC-90-4T/H	1450	15,24	8,80		4,00	43500	86	68
HC-90-4/8T/H	1430/710	-	8,80/2,90		4,00/0,80	43500/19800	86/69	74
HC-90-4T/L	1450	11,78	6,80		3,00	33800	83	63
HC-90-6T/H	950	7,62	4,40		1,50	33300	76	60
HC-90-6/12T/H	970/470	-	4,60/1,90		1,50/0,25	33300/16650	76/61	70
HC-90-6T/L	950	5,00	2,89		1,10	26200	73	55
HC-90-8T/H	720	3,26	1,88		0,55	19800	69	54
HC-100-4T/H	1450	-	11,90	6,90	5,50	54000	88	85
HC-100-4/8T/H	1460/725	-	12,50/4,10		5,50/1,10	54000/27000	88/73	95
HC-100-4T/L	1450	15,24	8,80		4,00	42500	84	71
HC-100-6T/H	950	7,62	4,40		1,50	37000	78	63
HC-100-6/12T/H	970/470	-	4,60/1,90		1,50/0,25	37000/18500	78/63	73
HC-100-6T/L	950	5,00	2,89		1,10	28100	76	58
HC-100-8T/H	720	4,23	2,44		0,75	27000	72	61

ACOUSTIC CHARACTERISTICS

Sound power spectrum Lw(A) in dB(A) versus frequency band in Hz

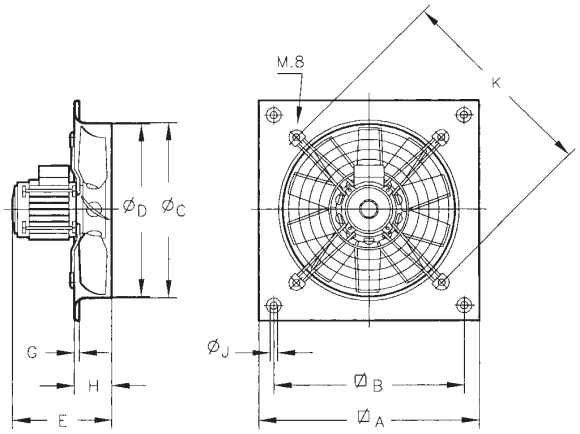
Model	63	125	250	500	1000	2000	4000	8000
25-2/H	38	48	65	65	73	69	62	53
25-4/H	25	35	52	52	60	56	49	40
31-2/H	46	56	73	73	81	77	70	61
31-4/H	28	38	55	55	63	59	52	43
31-4/L	26	36	53	53	61	57	50	41
35-2/H	50	60	77	77	85	81	74	65
35-4/H	32	42	59	59	67	63	56	47
35-4/L	30	40	57	57	65	61	54	45
40-4/H	28	45	57	65	70	70	66	59
40-4/L	29	45	55	59	66	66	62	55
40-6/H	20	37	49	57	62	62	58	51
45-4/H	33	50	63	70	75	76	71	64
45-4/L	36	51	61	66	72	73	69	62
45-6/H	24	41	54	61	66	67	62	55
50-4/H	36	53	66	73	78	79	74	67
50-4/L	39	54	64	69	75	76	72	65
50-6/H	26	43	56	63	68	69	64	57
56-4/H	39	56	69	76	81	82	77	70
56-6/H	28	45	58	65	70	71	66	59
56-8/H	24	41	54	61	66	67	62	55
56-4/L	43	58	68	73	79	80	76	69
63-4/H	43	60	73	80	85	86	81	74
63-6/H	33	50	63	70	75	76	71	64
63-8/H	28	45	58	65	70	71	66	59

Model	63	125	250	500	1000	2000	4000	8000
63-4/L	48	63	73	78	84	85	81	74
71-4/H	47	64	77	84	89	90	85	78
71-6T/H	35	52	65	72	77	78	73	66
71-6M/H	34	51	64	71	76	77	72	65
71-8/H	32	49	62	69	74	75	70	63
71-12/H	20	37	50	57	62	63	58	51
80-4/H	60	81	88	93	96	92	85	74
80-6/H	49	70	77	82	85	81	74	63
80-8/H	45	66	73	78	81	77	70	59
80-12/H	34	55	62	67	70	66	59	48
80-4/L	57	78	85	90	93	89	82	71
80-6/L	48	69	76	81	84	80	73	62
90-4/H	64	85	92	97	100	96	89	78
90-6/H	54	75	82	87	90	86	79	68
90-8/H	47	68	75	80	83	79	72	61
90-12/H	39	60	67	72	75	71	64	53
90-4/L	61	82	89	94	97	93	86	75
90-6/L	51	72	79	84	87	83	76	85
100-4/H	68	88	96	101	103	100	93	82
100-6/H	58	78	86	91	93	90	83	72
100-8/H	52	72	80	85	87	84	77	66
100-12/H	43	63	71	76	78	75	68	57
100-4/L	64	84	92	97	99	96	89	78
100-6/L	56	76	84	89	91	88	81	70

The indicated values show, by means of sound pressure and sound power level (dB(A)) measurements taken in free field conditions at a distance equivalent to twice the size of the fan plus the impeller diameter, from a minimum of 1.5 m.

HC

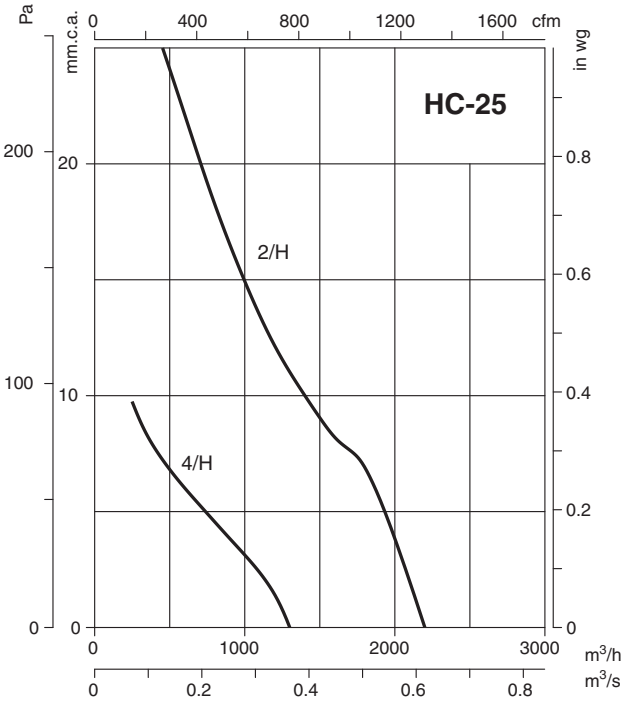
DIMENSIONS (mm)

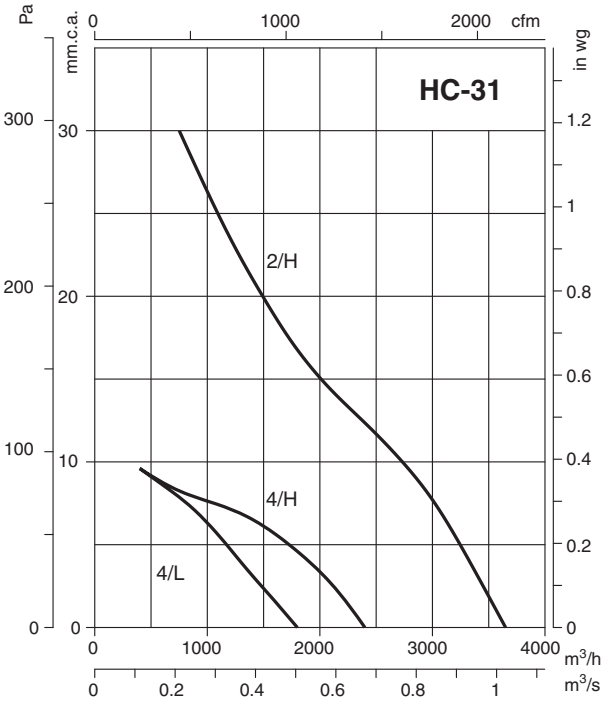


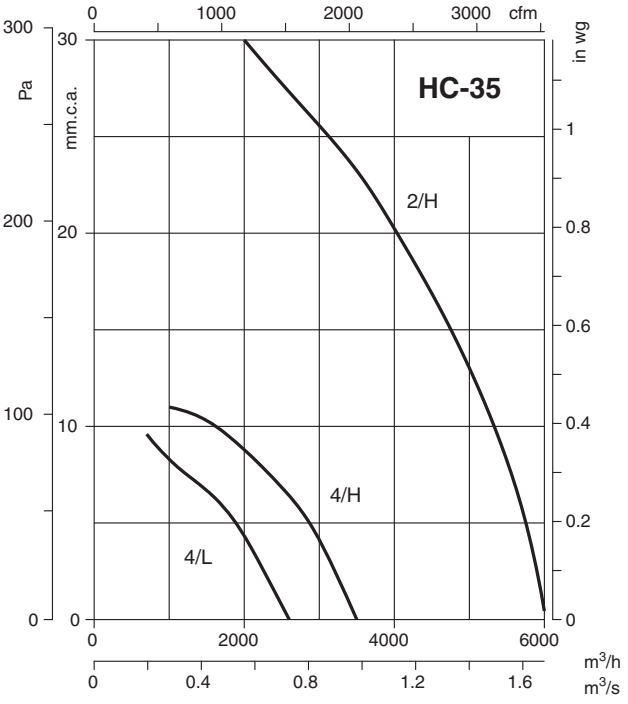
Model	ØA	ØB	ØC	ØD	E	G	H	ØJ	K
HC-25	330	275	262	260	237	11	56	8,5	310
HC-31	400	336	310,5	308	204	11	75	10,5	380
HC-35-2	465	390	362,5	360	245	11	86	10,5	450
HC-35-4	465	390	362,5	360	215	11	86	10,5	450
HC-40-4.../H	532	452	412,5	410	266	11	97,5	10,5	500
HC-40-4.../L	532	452	412,5	410	226	11	97,5	10,5	500
HC-40-6.../H	532	452	412,5	410	286	11	97,5	10,5	500
HC-45-4T/H	596	504	462,5	460	283	11	105	10,5	560
HC-45-4M/H	596	504	462,5	460	276	11	105	10,5	560
HC-45-4.../L	596	504	462,5	460	274	11	105	10,5	560
HC-45-6.../H	596	504	462,5	460	316	11	105	10,5	560
HC-50-4T/H	665	562	516,5	514	293	11	115	10,5	640
HC-50-4M/H	665	562	516,5	514	310	11	115	10,5	640
HC-50-4.../L	665	562	516,5	514	284	11	115	10,5	640
HC-50-6.../H	665	562	516,5	514	342	11	115	10,5	640
HC-56-4T/H	710	630	563	560	386	15	115	10,5	721
HC-56-4T/L	710	630	563	560	293	15	115	10,5	721
HC-56-4M/L	710	630	563	560	293	15	115	10,5	721
HC-56-6.../H	710	630	563	560	345	15	115	10,5	721
HC-63-4T/H	800	710	638	635	411	15	140	10,5	820
HC-63-4.../L	800	710	638	635	325	15	140	10,5	820
HC-63-6.../H	800	710	638	635	370	15	140	10,5	820
HC-71-4T/H	850	810	715	711	423	20	170	14,5	-
HC-71-6T/H	850	810	715	711	395	20	170	14,5	-
HC-71-4TMH	850	810	715	711	395	20	170	14,5	-
HC-80-4T/H	970	910	801	797	488	20	210	14,5	-
HC-80-4T/L	970	910	801	797	458	20	210	14,5	-
HC-80-6T/H	970	910	801	797	430	20	210	14,5	-
HC-80-6T/L	970	910	801	797	475	20	210	14,5	-
HC-90-4T/H	1170	1110	918	914	511	20	210	14,5	-
HC-90-4T/L	1170	1110	918	914	488	20	210	14,5	-
HC-90-6T/H	1170	1110	918	914	492	20	210	14,5	-
HC-90-6T/L	1170	1110	918	914	455	20	210	14,5	-
HC-90-8T/H	1170	1110	918	914	471	20	210	14,5	-
HC-100-4T/H	1170	1110	1003	999	548	20	220	14,5	-
HC-100-4T/L	1170	1110	1003	999	521	20	220	14,5	-
HC-100-6T/H	1170	1110	1003	999	502	20	220	14,5	-
HC-100-6T/L	1170	1110	1003	999	465	20	220	14,5	-
HC-100-8T/H	1170	1110	1003	999	508	20	220	14,5	-

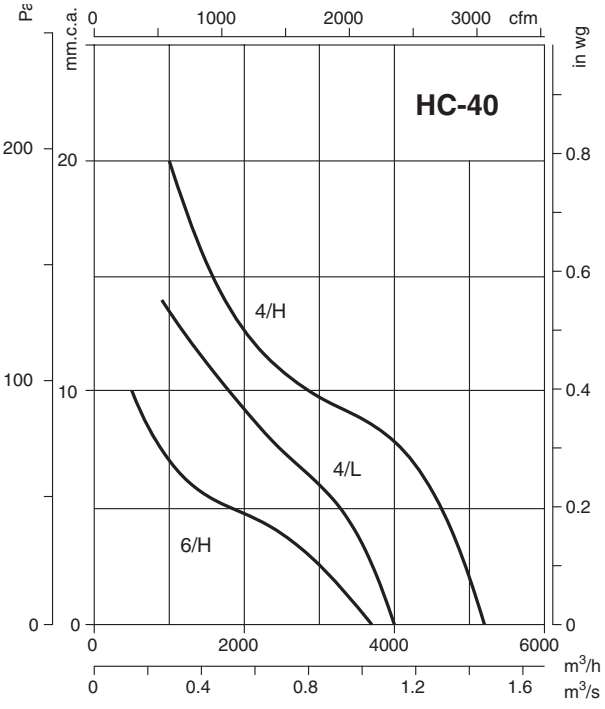
OPERATING CURVES

Q = airflow in m^3/h and m^3/s Pa = static pressure in mmH_2O and Pa





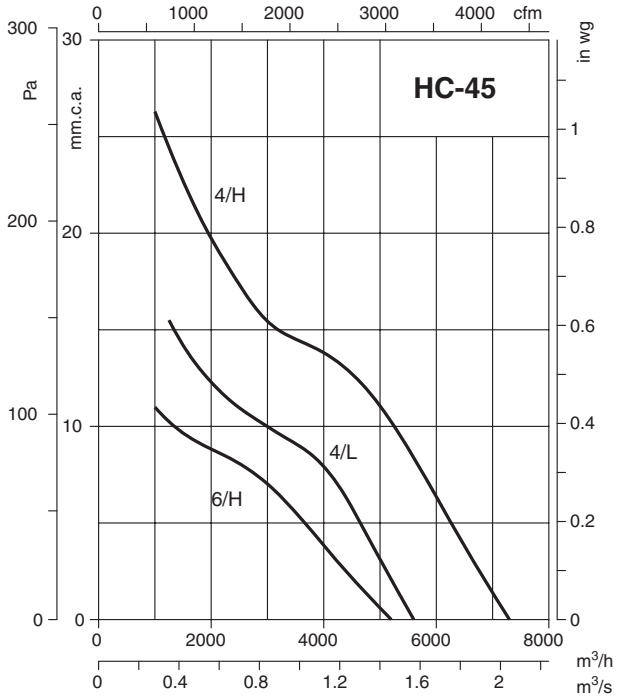


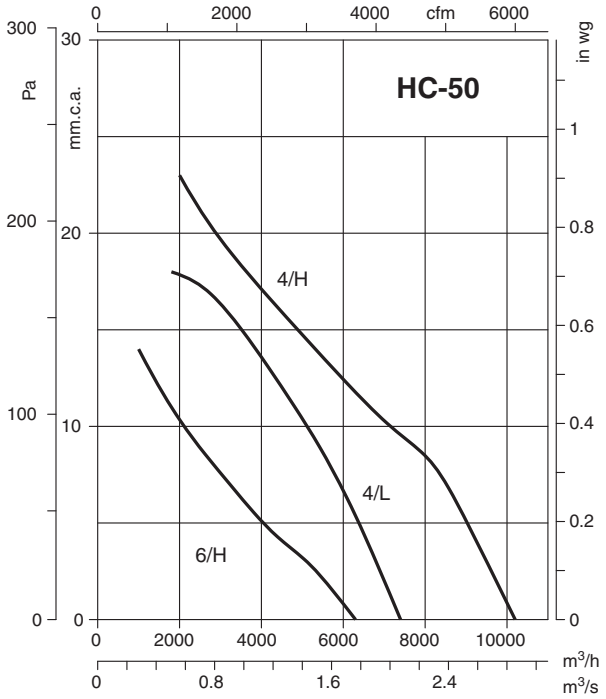


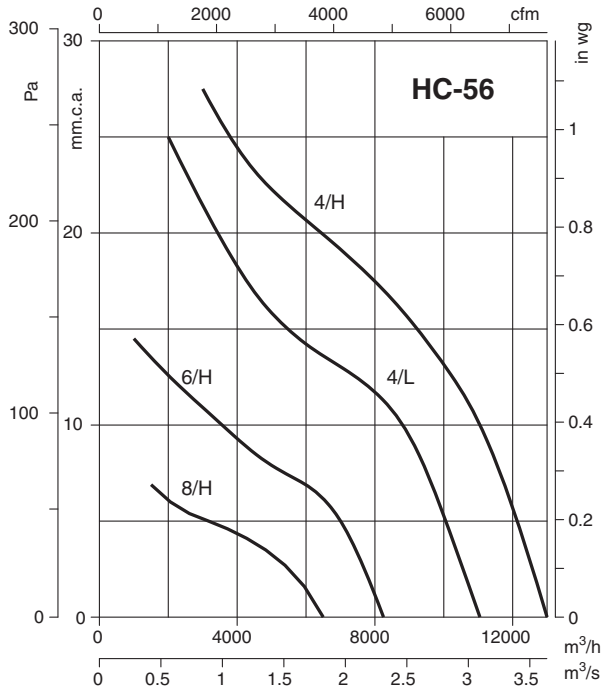
HC

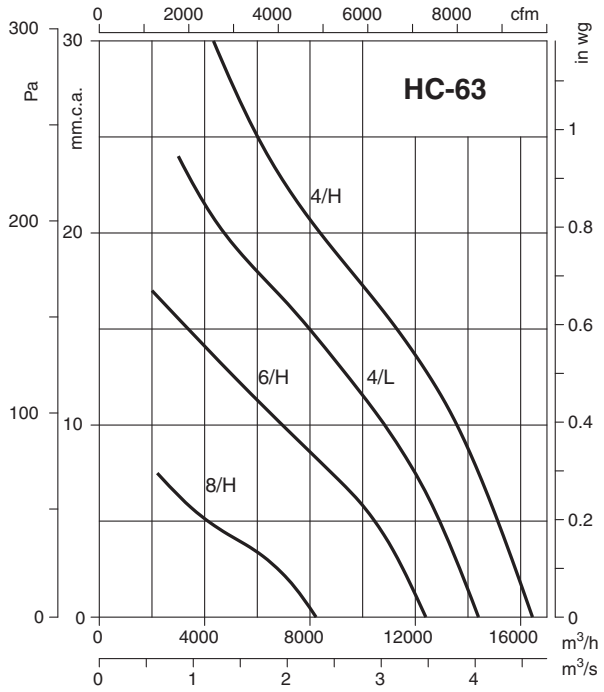
OPERATING CURVES

Q = airflow in m^3/h and m^3/s Pa = static pressure in mmH_2O and Pa



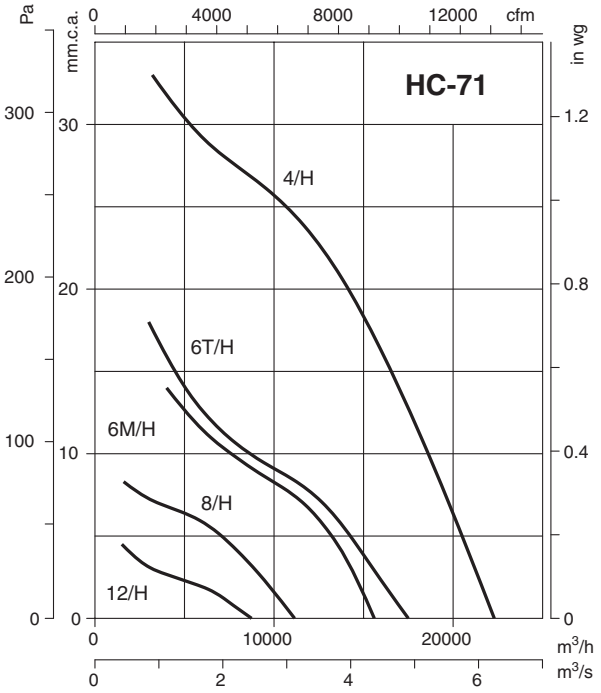


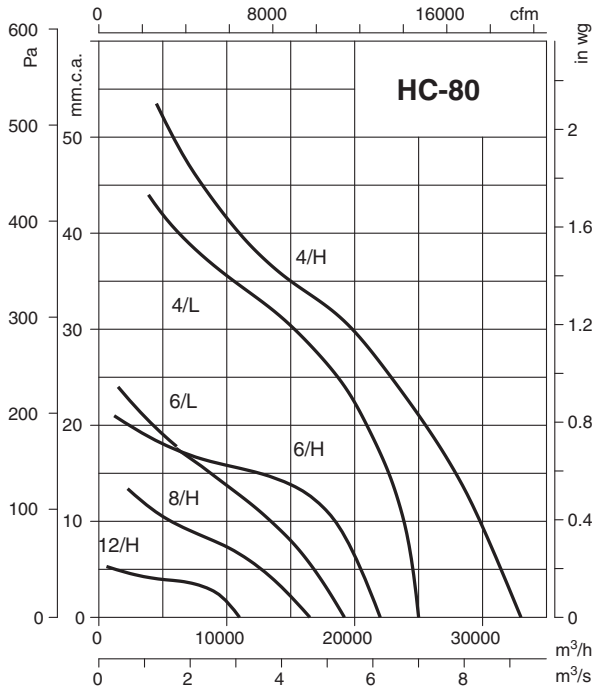


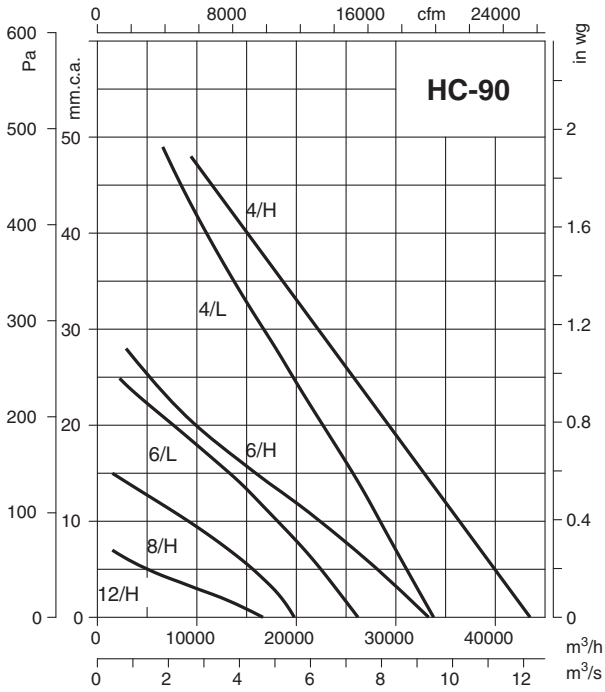


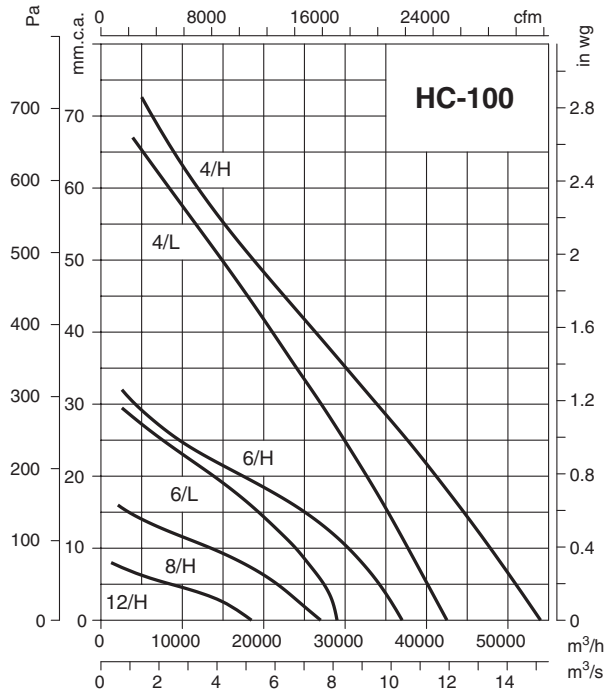
OPERATING CURVES

Q = airflow in m^3/h and m^3/s Pa = static pressure in mmH_2O and Pa









HC

REFERENCE CODE

HC	25	2	T / H	I	E

HC

Impeller diameter (cm)

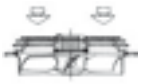
Number of motor poles

2 = 2900 RPM 50 Hz
4 = 1400 RPM 50 Hz
6 = 900 RPM 50 Hz
8 = 750 RPM 50 Hz
12 = 500 RPM 50 Hz

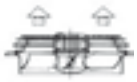
T = Three-phase
M= Single phase

Blade angle
H = high
B = low

Airflow
I = intake
motor → impeller



A = Suction
impeller → motor



Fan execution

E = standard execution

E 

F = motor impeller grille assembly

F 

G = motor impeller assembly

G 

ACCESSORIES


INT


C2V


AR


RM

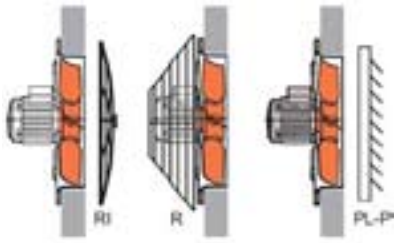

RAP


RFT


PL-P


RI


R



KEY

INT	ON/OFF switch
C2V	Dual speed selector
AR	Soft starter for three-phase motors
RM	Electronic speed regulator
RAP	Automatic electronic speed regulator
RFT	Inverter drive for 400V three-phase motors
PL-P	Plastic overpressure damper
RI	Protective grill for helical fan outlet
R	Protective grill for helical fan inlet