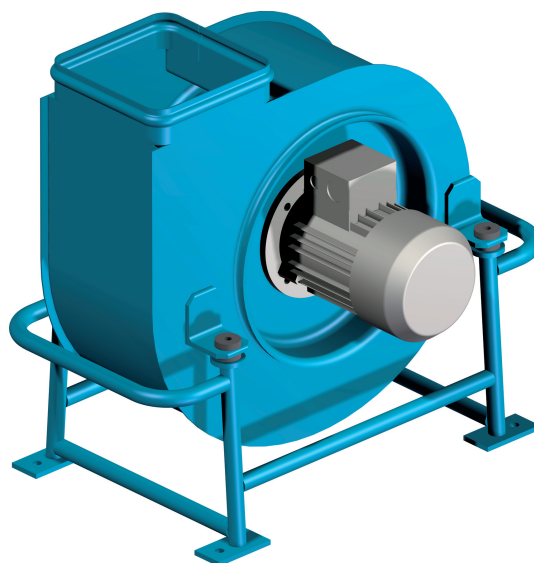




# MARINE CENTRIFUGAL FANS ALFA-16÷100 TYPE

ALFA-16÷100



## APPLICATION

Fans Alfa-16 100 type in standard design are destined to moving chemically neutral medium within ventilation systems and processing lines on seagoing vessels without any restriction with respect to operation area. Fans are designed for exchange air in holds, engine rooms, and closed compartments. Temperature of medium passing through fan should not exceed 318K (45°C) and dust content not more than 0,3g/m<sup>3</sup>. The Alfa fans are characterized by the power consumption curve suitably shaped to the capacity: the consumed power decreases after the capacity is increased above the point of optimum efficient, thus protecting the drive motor against overloading.

Special executions of fans:

- Alfa -16÷31 – of aluminum
- Alfa -16÷63 – under slung to ceiling. They may also be executed as of aluminum ones in sizes 16÷31,5

Except for mentioned versions following modifications for fans Alfa-16÷100 can be made:

- corrosion resistant version (1H18N9T) for moving medium which may cause corrosion

## CONSTRUCTION

The Alfa – type centrifugal fans are manufactured in 9 sizes: Alfa 16; 20; 25; 31,5; 40; 50; 63; 80 and 100. Each size may be executed in 8 positions of housing (figures): RD0, RD90, RD180, RD270, LG0, LG90, LG180 and LG270. Right (RD) figures are mirror reflections of left (LG) figures.

In standard execution impeller, casing and foot of fan are made of carbon steel of standard quality.

In corrosion resistant version impeller and fan casing are made of corrosion resistant steel.

In aluminum version impeller, fan casing and foot are made of cast aluminum alloy.

Fans Alfa-16÷100 are equipped in vibration dampers.

The fans Alfa type have direct drive (impeller is seated directly on motor shaft). Electric motor for fans are of inductive, three phase squirrel-cage marine type destined for 3x440V feeding voltage and frequency of 50 Hz.

The fans Alfa-25÷100 type may be also equipped in motors destined for 3x440V feeding voltage and frequency of 60 Hz.

Anticorrosion protection for standard executions – a coating made of set of marine type paints

## CHARACTERISTICS

The flow characteristics presents the total ram effect as the function of volumetric capacities for given sizes and rotational speed and air density 1,2 kg/m<sup>3</sup>

## ORDERING

When ordering, please state the following technical data: type and size of fan, version of execution, position of housing (figure), total ram effect, volumetric capacity, power, rotational speed of motor, supply voltage and frequency.



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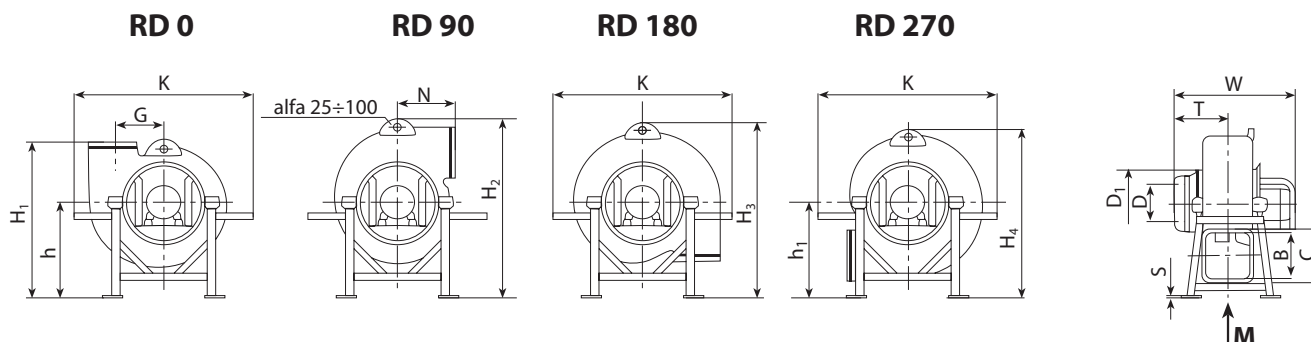


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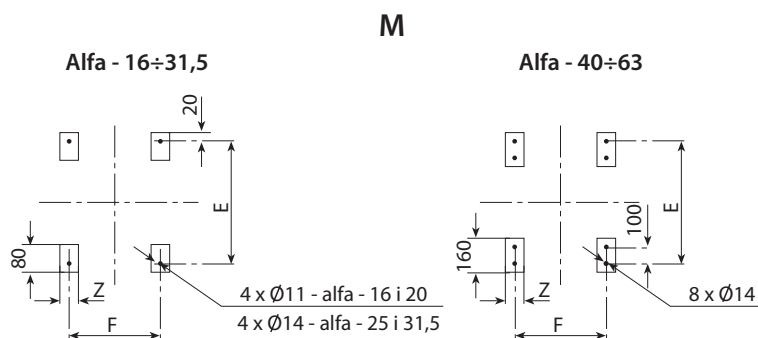


# MARINE CENTRIFUGAL FANS

## ALFA-16÷100



The fan size	h	h <sub>1</sub>	G	N	T	W	K	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	H <sub>4</sub>	D	D <sub>1</sub>	B	C	E	F	S	Z
Alfa-16	250	-	141	206	145	370	504	456	473	452	425	160	200	140	158	405	250	6	40
Alfa-20	300	-	174	245	170	420	614	545	576	543	516	200	250	180	198	455	300		
Alfa-25	400	-	218	293	196	434÷514	776	693	790	748	713	250	315	224	242	545	355	8	50
Alfa-31,5	500	-	276	355	232	474÷582	952	855	975	923	880	315	400	280	298	640	450		
Alfa-40	560	630	351	465	295	580÷650	1410	1025	1165	1200	1115	400	500	355	375	840	560		
Alfa-50	670	750	435	561	333	670÷770	1335	1231	1410	1325	1335	500	630	450	470	980	670		
Alfa-63	900	-	552	681	400	812÷992	1720	1581	1805	1705	1615	630	800	560	582	1250	900	12	80



The fan size	Impeller		Weight of fan without motor
	Weight	GD <sup>2</sup>	
	kg	Nm <sup>2</sup>	kg
Alfa-16	2,0	0,4	12,5
Alfa-20	2,7	1,0	22,0
Alfa-25	4,6	2,3	38,0
Alfa-31,5	6,4	5,1	56,0
Alfa-40	13,5	19,7	95,0
Alfa-50	21,0	40,0	138,0
Alfa-63	40,0	128,0	340,0



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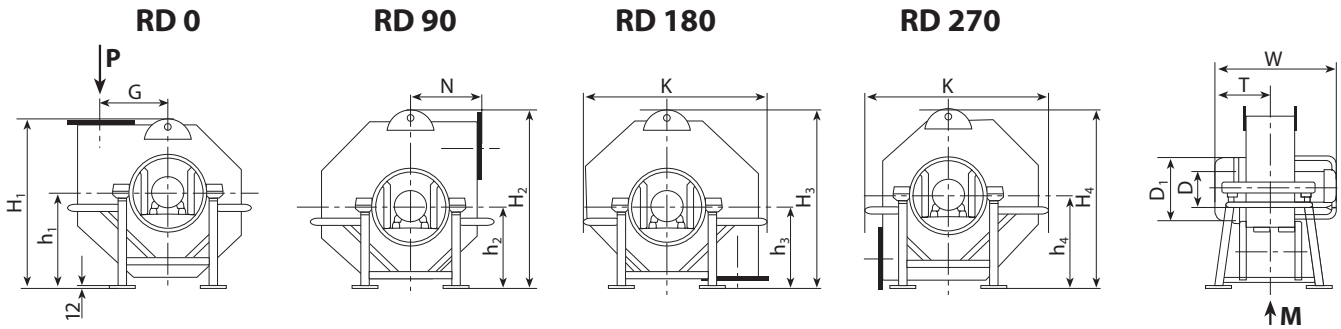


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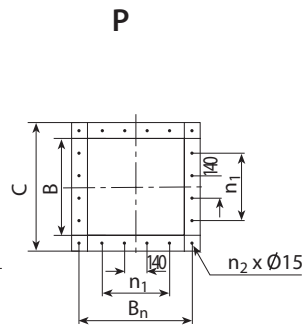
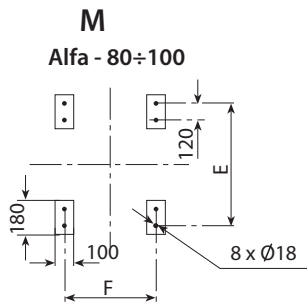


# MARINE CENTRIFUGAL FANS

# ALFA-16÷100



The fan size	G	N	T	W	K	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	h <sub>4</sub>	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	H <sub>4</sub>	D	D <sub>1</sub>	E	F
Alfa-80	700	796	592	1180÷1235	2090	1020	920	920	1200	1890	2070	1940	2110	800	1000	1480	1080
Alfa-100	830	936	710	1450÷1550	2440	1180	1000	1000	1450	2213	2375	2225	2495	1000	1250	1770	1225



The fan size	B	B <sub>n</sub>	C	n <sub>1</sub>	n <sub>2</sub>	Impeller		Weight of fan without motor
						Weight	GD <sup>2</sup>	
						kg	Nm <sup>2</sup>	kg
Alfa-80	710	780	838	3	20	78,0	410,0	702
Alfa-100	850	920	978	5	28	152,5	1270,0	975



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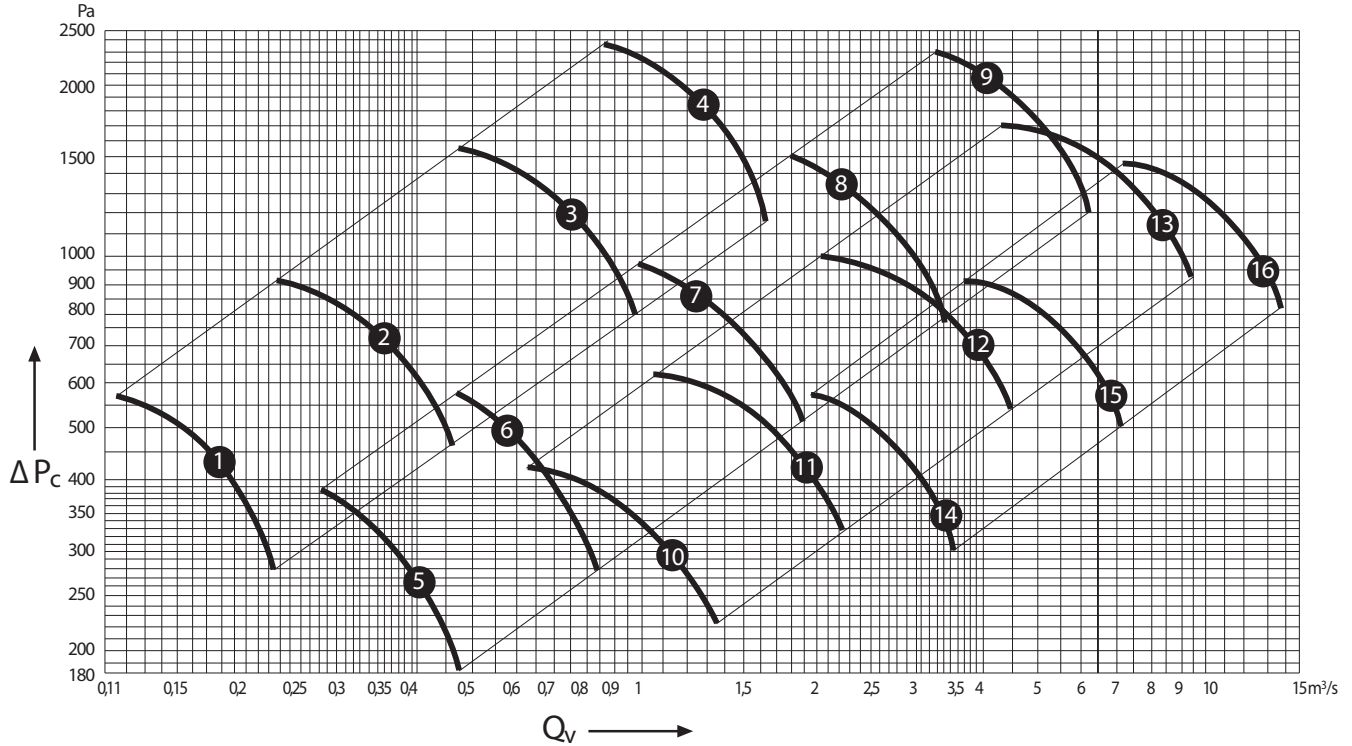
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# MARINE CENTRIFUGAL FANS

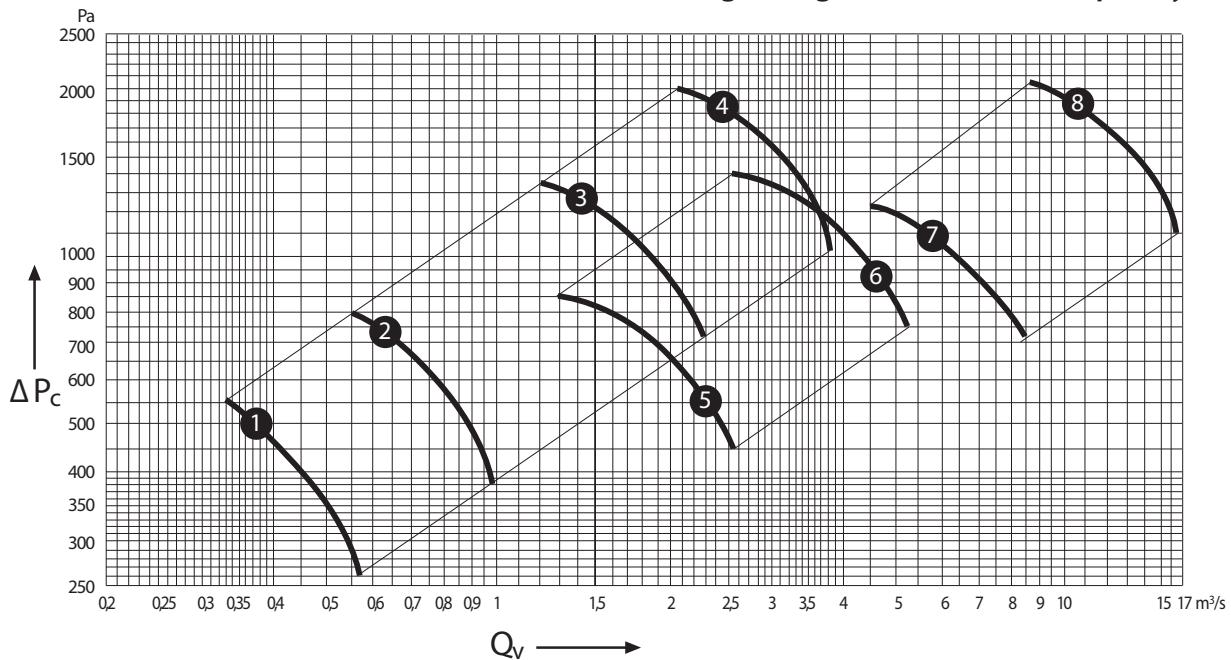
# ALFA-16÷100

## Alfa-16÷100 characteristics with motors for feeding voltages of 380 V and frequency of 50 Hz.



- |   |  |   |   |
|---|--|---|---|
| <b>1</b> Alfa-16 / 0,25kW - 2780 r.p.m. | <b>5</b> Alfa-25 / 0,25kW - 1400 r.p.m.  | <b>9</b> Alfa-63 / 16,6kW - 1420 r.p.m. | <b>13</b> Alfa-80 / 17,5kW - 985 r.p.m. |
| <b>2</b> Alfa-20 / 0,55kW - 2820 r.p.m. | <b>6</b> Alfa-31,5 / 0,5kW - 1420 r.p.m. | <b>10</b> Alfa-40 / 0,75kW - 920 r.p.m. | <b>14</b> Alfa-63 / 2,2kW - 720 r.p.m.  |
| <b>3</b> Alfa-25 / 2,2kW - 2845 r.p.m.  | <b>7</b> Alfa-40 / 2,8kW - 1425 r.p.m.   | <b>11</b> Alfa-50 / 14kW - 9500 r.p.m.  | <b>15</b> Alfa-80 / 10kW - 730 r.p.m.   |
| <b>4</b> Alfa-31,5 / 4kW - 2915 r.p.m.  | <b>8</b> Alfa-50 / 5kW - 1455 r.p.m.     | <b>12</b> Alfa-63 / 5kW - 970 r.p.m.    | <b>16</b> Alfa-100 / 22kW - 735 r.p.m.  |

## Alfa-25÷100 characteristics with motors for feeding voltages of 440 V and frequency of 50 Hz.



- |  |  |  |                                       |
|--|--|--|---------------------------------------|
| <b>1</b> Alfa-25 / 1,3kW - 1715 r.p.m.   | <b>3</b> Alfa-40 / 3,5kW - 1720 r.p.m. | <b>5</b> Alfa-50 / 3,4kW - 1160 r.p.m. | <b>7</b> Alfa-80 / 12kW - 880 r.p.m.  |
| <b>2</b> Alfa-31,5 / 1,3kW - 1715 r.p.m. | <b>4</b> Alfa-50 / 8kW - 1755 r.p.m.   | <b>6</b> Alfa-63 / 8kW - 1150 r.p.m.   | <b>8</b> Alfa-100 / 35kW - 885 r.p.m. |



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# MARINE CENTRIFUGAL FANS

## ALFA-16÷100

The fan size	Electric motor type	Power	Rotation speed	Supply voltage	Frequency	Weight
		kW	rpm	V	Hz	kg
Alfa-16	mSKg63-2B	0,25	2780	380	50	4,4
Alfa-20	mSKg71-2B	0,55	2820			6,2
Alfa-25	mSKg71-4A	0,25	1400			5,2
	mSSKg90S-4	1,3	1715	440	60	18,5
	mSSKg90L-2	2,2	2845	380	50	22,0
Alfa-31,5	mSKg80-4A	0,5	1420	440	60	7,8
	mSSKg90S-4	1,3	1715			18,5
	mSSKg112M-2	4,0	2915			41,0
Alfa-40	mSSg90S-6	0,75	920	380	50	17,5
	mSSg100L-4B	2,8	1425	440	60	32,0
		3,5	1720			
Alfa-50	mSSg100L-6	1,4	950			
	mSSg132S-6	3,4	1160	440	60	49,0
	mSSg132S-4	5,0	1455	380	50	54,0
	mSSg132M-4	8,0	1755	440	60	66,0
Alfa-63	mSSg132S-8	2,2	720	380	50	53,0
	mSSg132M-6B	5,0	970			66,0
	mSSg160M-6	8,0	1150	440	60	105,0
	mSSg180M-4	16,6	1470	380	50	165,0
Alfa-80	mSSg180L-8	10,0	730	440	60	
		12,0	880	380	50	250,0
Alfa-100	m2Sg200L-6A	17,5	985	380	50	315,0
	m2Sg225M-8	22,0	735			420,0
	m2Sg250M-8	35,0	885	440	60	

It is reserved the right of technical changes introducing



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