

Manufactured in accordance with TU 4861-033-64600223-13

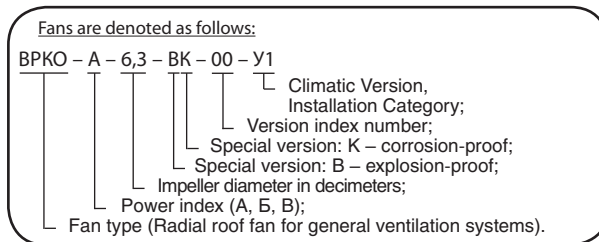
500 – 110000 m³/hour

Fans are designed for mounting on a roof as a part of general ventilation system.

Fans are used for operation in temperate (Y), tropical (T, TB, TC), or cold (ХЛ, УХЛ) climate conditions of 1st category of location according to GOST 15150.

Automatic Control System see p.182.

Explosion-proof and/or corrosion-proof version are available.



- 1 – Casing;
- 2 – Impeller;
- 3 – Motor;
- 4 – Housing;
- 5 – Inspection door;
- 6 – Chamber;
- 7 – Protection screen;
- 8 – Motor base.

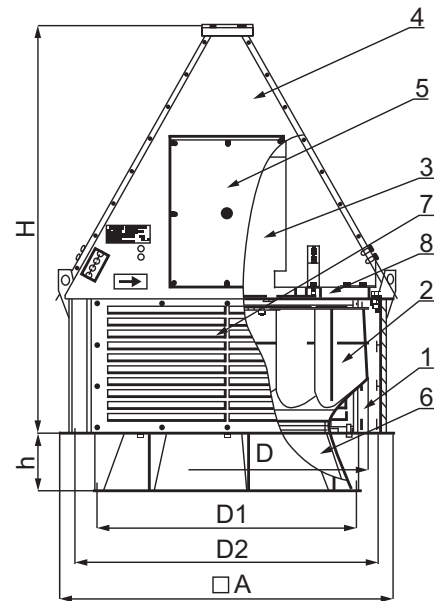


Fig. 1 Layout, Overall and Connection Dimensions [mm]

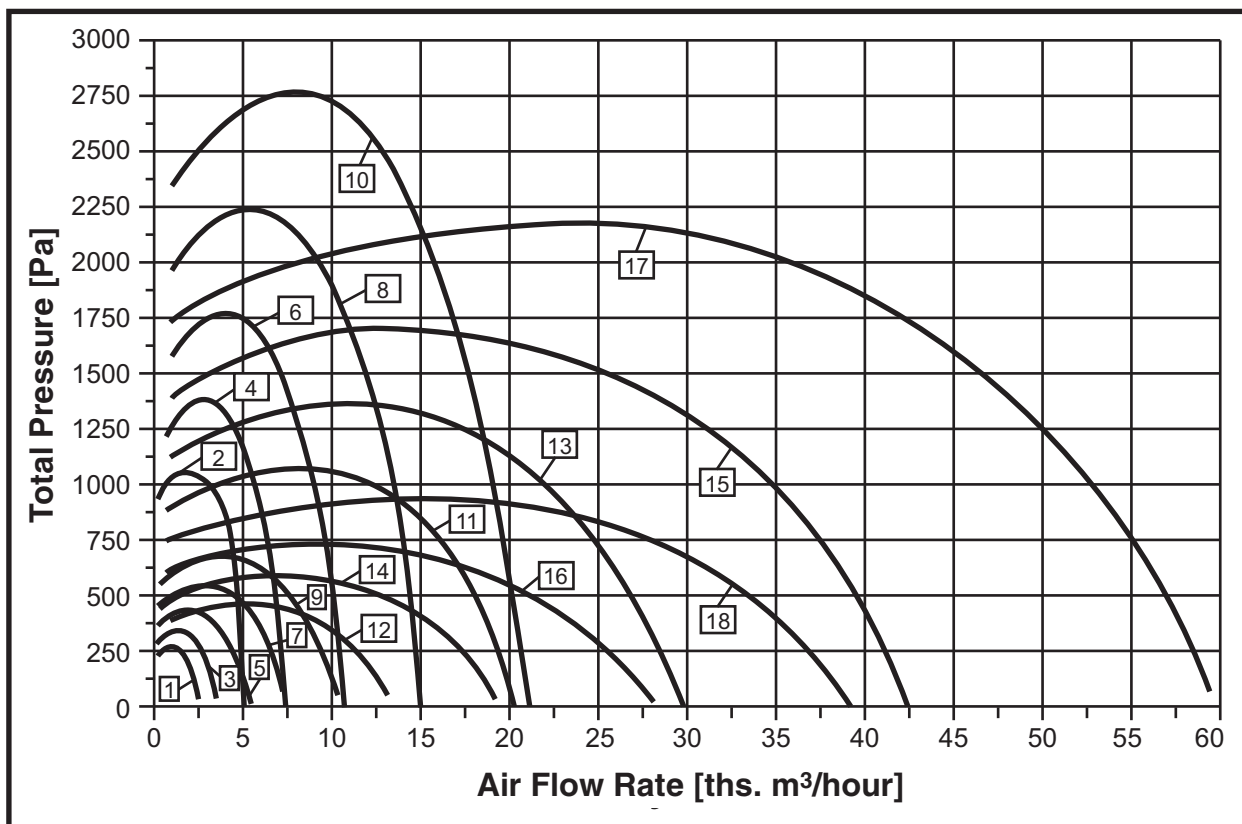
Fan Type	Dimensions [mm]							
	A	D	D1	D2	h	Hmax	d	n
BPKO-3,15	470	315	345	470	100	520	7	4
BPKO-3,55	560	355	385	585	100	620	7	4
BPKO-4	560	400	430	585	130	620	7	4
BPKO-4,5	650	450	480	665	130	680	7	6
BPKO-5	760	500	530	772	140	730	7	6
BPKO-6,3	780	630	660	772	200	920	10	6
BPKO-7,1	870	710	660	772	200	1160	10	6
BPKO-8	1050	800	830	1072	200	1200	10	8
BPKO-9	1100	900	940	1072	150	1300	10	8
BPKO-10	1300	1000	1040	1272	150	1550	10	8
BPKO-11,2	1350	1120	1165	1272	150	1700	12	12
BPKO-12,5	1550	1250	1295	1522	150	1850	12	12
BPKO-14	1680	1400	1295	1522	150	2000	12	12

Notes:

1) Dimensions are similar for all sizes of VRKO line. H_{max} dimension may exceed value specified in the table.

CHARACTERISTICS SUMMARY DIAGRAM

500 – 59000 m³/hour



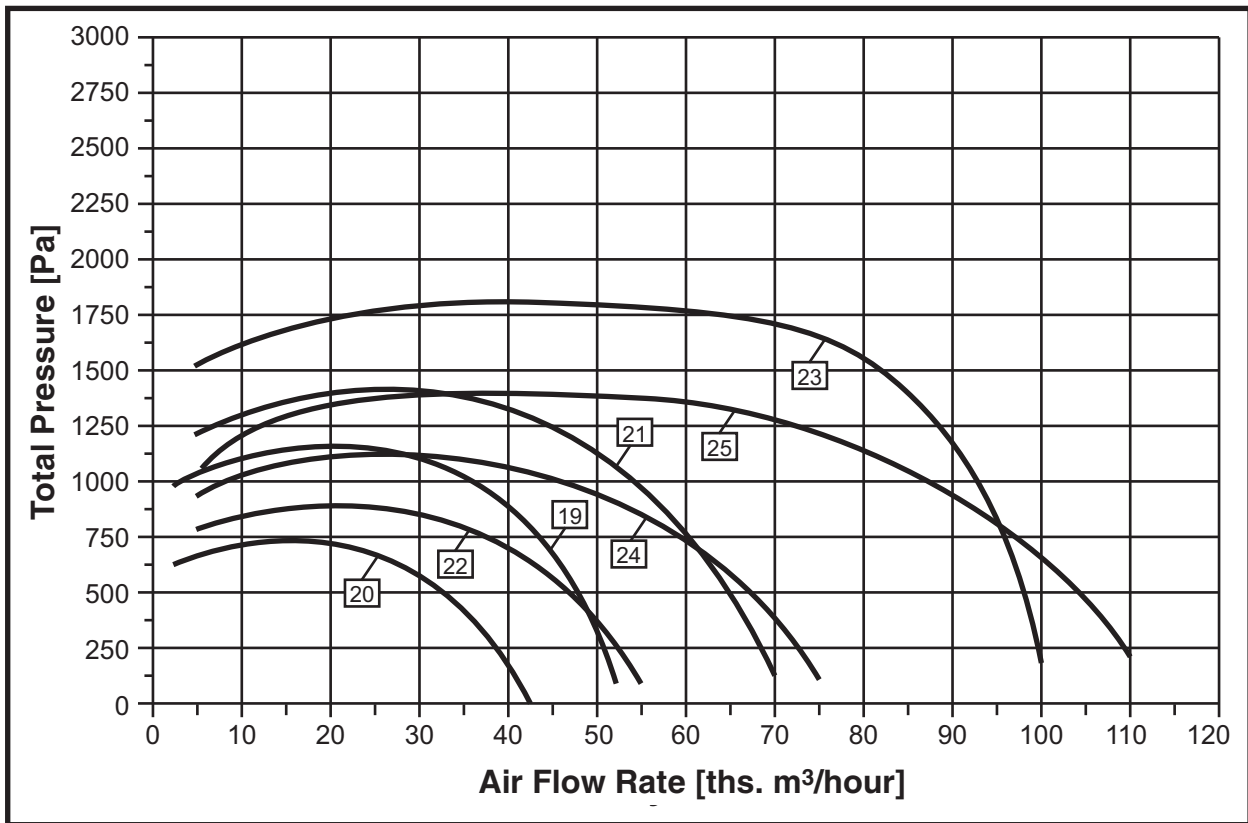
No.	Fan Model	Motor			Corrected sound power level L _{pA} [dBA]		Fan Weight [kg]
		Type	Rotation Speed [rpm]	Power [kW]	Inlet	Outlet	
1	BPKO-A-3,15-00	AIP 56 B4	1450	0,18	67	60	21
2	BPKO-A-3,15-01	AIP 80 A2	2950	1,5	81	73	27
3	BPKO-A-3,55-00	AIP 63 A4	1450	0,25	70	63	30
4	BPKO-A-3,55-01	AIP 80 B2	2950	2,2	86	78	36
5	BPKO-A-4-00	AIP 71 A4	1450	0,55	73	66	49
6	BPKO-A-4-01	AIP 100 L2	2950	5,5	91	83	59
7	BPKO-A-4,5-00	AIP 80 A4	1450	1,1	78	70	55
8	BPKO-A-4,5-01	AIP 132 M2	2950	11,0	94	87	69
9	BPKO-A-5-00	AIP 90 L4	1450	2,2	80	73	66
10	BPKO-A-5-01	AIP 160 M2	2950	18,5	88	80	80
11	BPKO-A-6,3-00	AIP 112 M4	1450	5,5	88	80	114
12	BPKO-A-6,3-01	AIP 90 L6	950	1,5	78	71	92
13	BPKO-A-7,1-00	AIP 132 M4	1450	11,0	93	85	200
14	BPKO-A-7,1-01	AIP 112 MA6	950	3,0	82	75	130
15	BPKO-A-8-00	AIP 160 M4	1450	18,5	97	89	226
16	BPKO-A-8-01	AIP 132 S6	950	5,5	86	79	172
17	BPKO-A-9-00	AIP 200 M4	1450	37,0	100	92	254
18	BPKO-A-9-01	AIP 160 S6	950	11,0	90	83	195

Notes:

- 1) Replacement of electric motor series (5AM, 5A, etc.) is allowed without sacrificing any parameter (rpm or power) specified in the table.
- 2) Fan weight is provided for reference only.

CHARACTERISTICS SUMMARY DIAGRAM

4000 – 110000 m³/hour



No.	Fan Model	Motor			Corrected sound power level L _{pA} [dBA]		Fan Weight [kg]
		Type	Rotation Speed [rpm]	Power [kW]	Inlet	Outlet	
19	BPKO-A-10-00	AIP 160 M6	950	18,5	95	87	238
20	BPKO-A-10-01	AIP 160 M8	745	11,0	87	80	210
21	BPKO-A-11,2-00	AIP 200 L6	950	30,0	98	90	225
22	BPKO-A-11,2-01	AIP 180 M8	745	15,0	90	83	215
23	BPKO-A-12,5-00	AIP 250 M6	950	55,0	102	94	267
24	BPKO-A-12,5-01	AIP 250 S8	745	37,0	95	87	235
25	BPKO-A-14-00	AIP 250 M8	745	45,0	100	93	280

Notes:

- 1) Replacement of electric motor series (5AI, 5A, etc.) is allowed without sacrificing any parameter (rpm or power) specified in the table.
- 2) Fan weight is provided for reference only.

Manufactured in accordance with TU 4861-014-64600223-13

200 – 18000 m³/hour

- ◆ Impeller with backward-curved blades
- ◆ Easy-to-clean impeller surface

Specially designed hood for reduction of output noise level.

Speed adjustment by switching multi-speed motor poles (optional) or using frequency converter.

Welded steel housing and impeller with powder paint coating.

Impeller is directly driven from industrial induction motor.

Built-in motor thermal protection (optional). Impeller dynamic balancing.

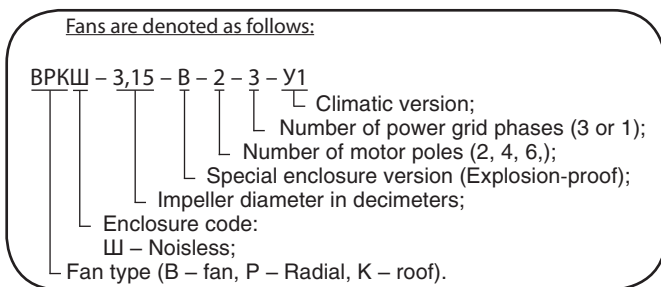
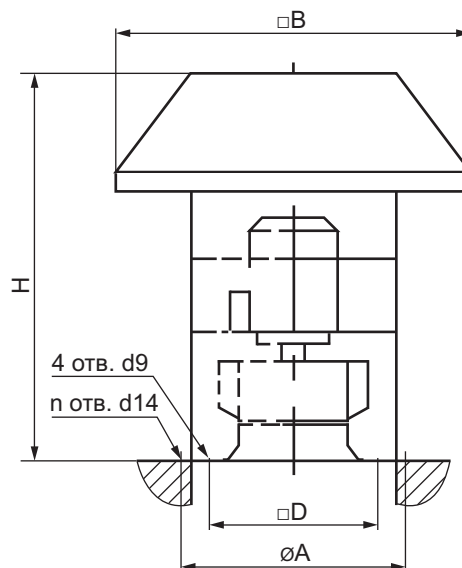
See page 159 for information on supplementary fans configuration and installation notes.



Noise performance is defined in accordance with GOST 31353.3-2007 and represented by values of corrected sound power level L_{pA} in dBA. Estimation of sound pressure level L at certain distance from a fan see on Page 56.

Automatic Control System see p.182.

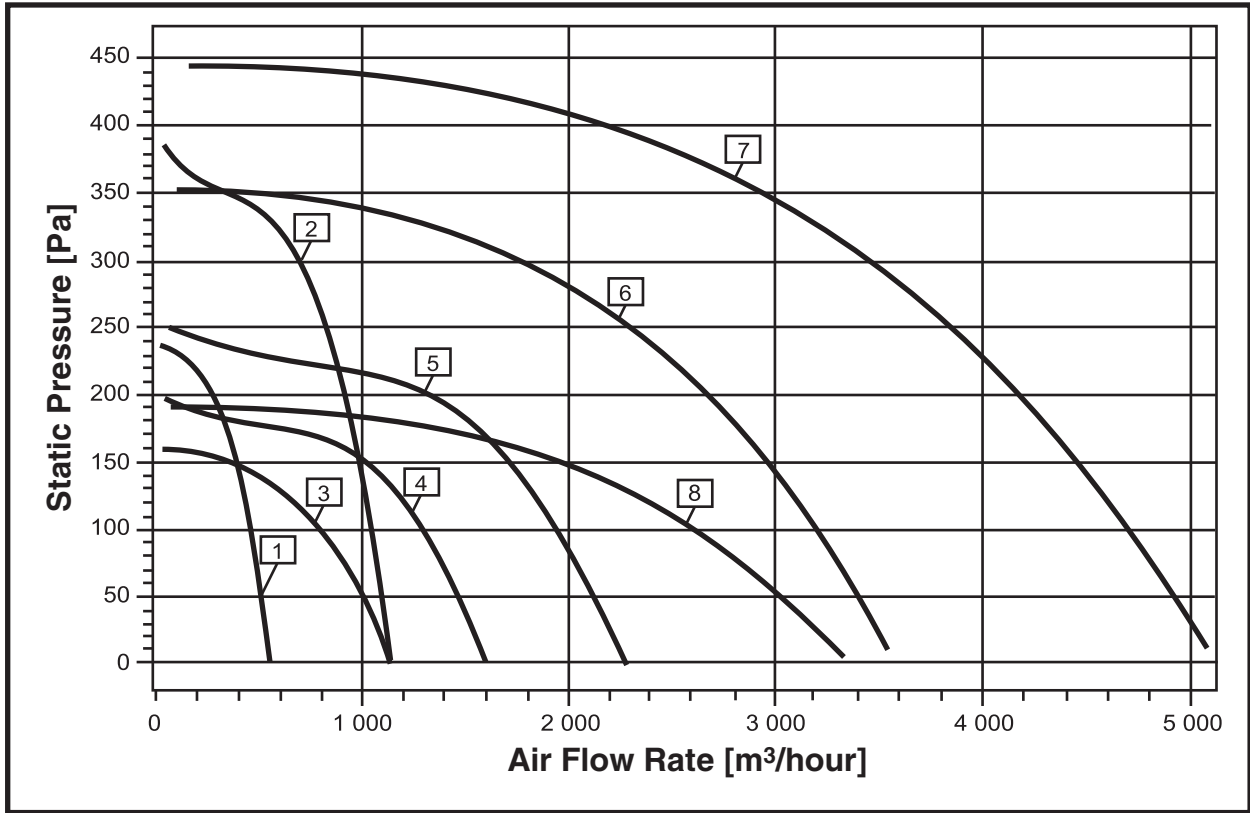
Explosion-proof version is available.



No.	Fan Model	Dimensions [mm]				
		A	D	B	H	n
1	BPKШ-1,6-2	470	220	460	450	4
2	BPKШ-2-2	470	245	510	510	4
3	BPKШ-2,5-4	585	300	730	615	4
4	BPKШ-2,8-4	615	300	730	650	4
5	BPKШ-3,15-4	665	375	780	725	8
6	BPKШ-3,55-4	655	375	925	750	8
7	BPKШ-4-6	772	375	985	840	8
8	BPKШ-4-4	772	375	985	840	8
9	BPKШ-4,5-6	772	470	1055	895	8
10	BPKШ-4,5-4	772	470	1055	895	8
11	BPKШ-5-6	1188	470	1200	1000	4
12	BPKШ-5-4	1188	470	1200	1000	4
13	BPKШ-5,6-6	1072	580	1390	1175	8
14	BPKШ-5,6-4	1072	580	1390	1175	8
15	BPKШ-6,3-6	1072	730	1610	1250	8
16	BPKШ-6,3-4	1072	730	1610	1250	8

CHARACTERISTICS SUMMARY DIAGRAM

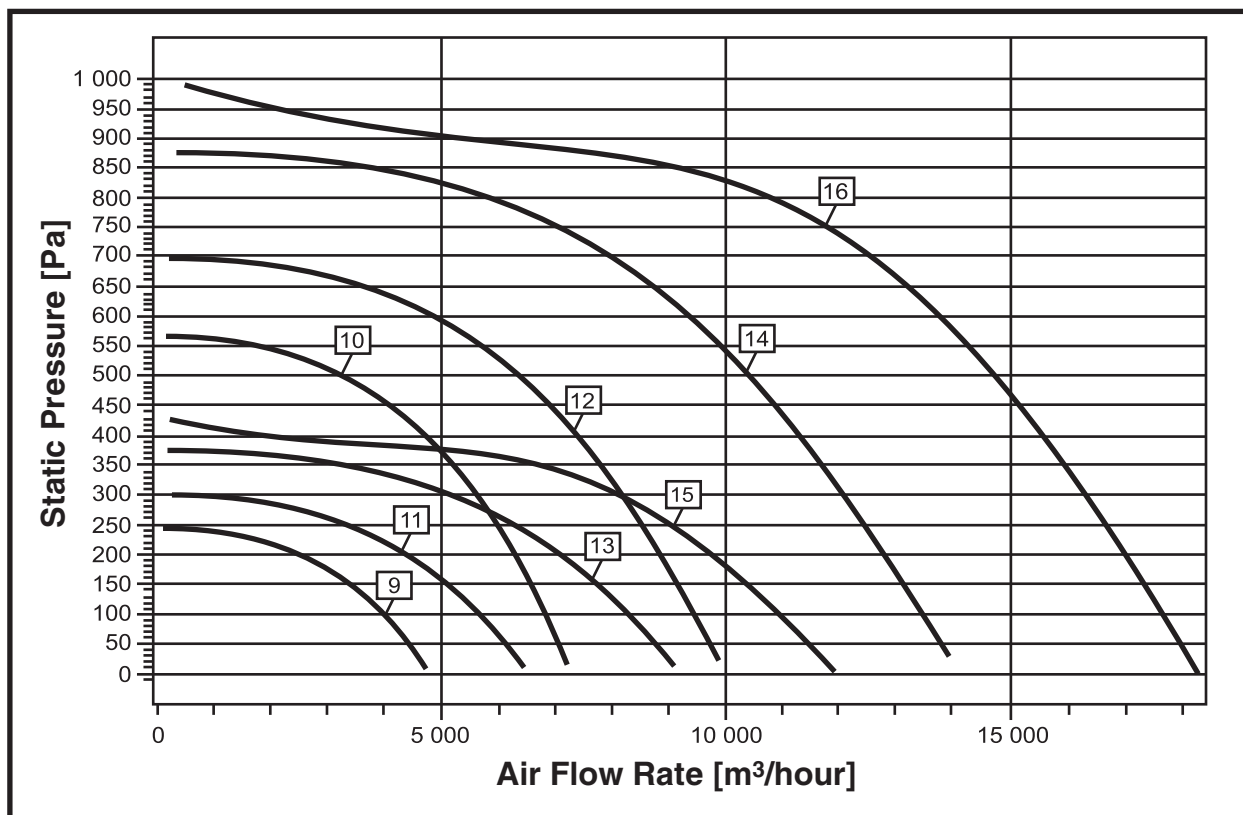
200 – 4800 m³/hour



No.	Fan Model	Electric Motor			Adjusted Sound Power Level L _{pA} [dB(A)]		Fan weight [kg]
		Type	Rotation Speed [rpm]	Power [kW]	At the Inlet	At the Outlet	
1	ВРКШ-1,6-2-3 ВРКШ-1,6-2-1	АИС56А2/ АИСЕ56А2	2900	0.09	64	57	21
2	ВРКШ-2-2-3 ВРКШ-2-2-1	АИР56В2/ АИРЕ56С2	2900	0.25	71	63	27
3	ВРКШ-2,5-4-3 ВРКШ-2,5-4-1	АИС56В4/ АИСЕ56В4	1450	0.09	62	55	30
4	ВРКШ-2,8-4-3 ВРКШ-2,8-4-1	АИР56В4/ АИРЕ56В4	1450	0.18	66	58	36
5	ВРКШ-3,15-4-3 ВРКШ-3,15-4-1	АИР63А4/ АИРЕ63В4	1450	0.25	70	62	49
6	ВРКШ-3,55-4-3 ВРКШ-3,55-4-1	АИР71А4/ АИРЕ71В4	1450	0.55	73	66	59
7	ВРКШ-4-4-3	АИР71В4	1450	0.75	77	69	69
8	ВРКШ-4-6-3	АИР63В6	950	0.25	68	61	55

CHARACTERISTICS SUMMARY DIAGRAM

1000 – 18000 m³/hour



No.	Fan Model	Electric Motor			Adjusted Sound Power Level L _{pA} [dB(A)]		Fan weight [kg]
		Type	Rotation Speed [rpm]	Power [kW]	At the Inlet	At the Outlet	
9	ВРКШ-4,5-6-3	AIP71B6	950	0.55	71	64	66
10	ВРКШ-4,5-4-3	AIP80B4	1450	1.5	80	73	80
11	ВРКШ-5-6-3	AIP80A6	950	0.75	75	67	92
12	ВРКШ-5-4-3	AIP90L4	1450	2.2	84	76	114
13	ВРКШ-5,6-6-3	AIP80B6	950	1.1	78	71	130
14	ВРКШ-5,6-4-3	AIP100L4	1450	4	87	80	179
15	ВРКШ-6,3-6-3	AIP100L6	950	2.2	82	74	172
16	ВРКШ-6,3-4-3	AIP132S4	1450	7.5	91	83	226

Manufactured in accordance with TU 4861-014-64600223-13

3500 – 48000 m³/hour

Noiseless fans are used for removal of air and other gas mixtures from building in temperate (Y), tropical (T, TB, TC), or cold (XЛ, YXЛ) climate conditions of the 1st category of location according to GOST 15150.

Noise performance is defined according to GOST 31353.3-2007 and represented by values of corrected sound power level L_{pA} in dBA. To define sound pressure level L on a certain distance from fan see p.56.

Automatic Control System see p.182.

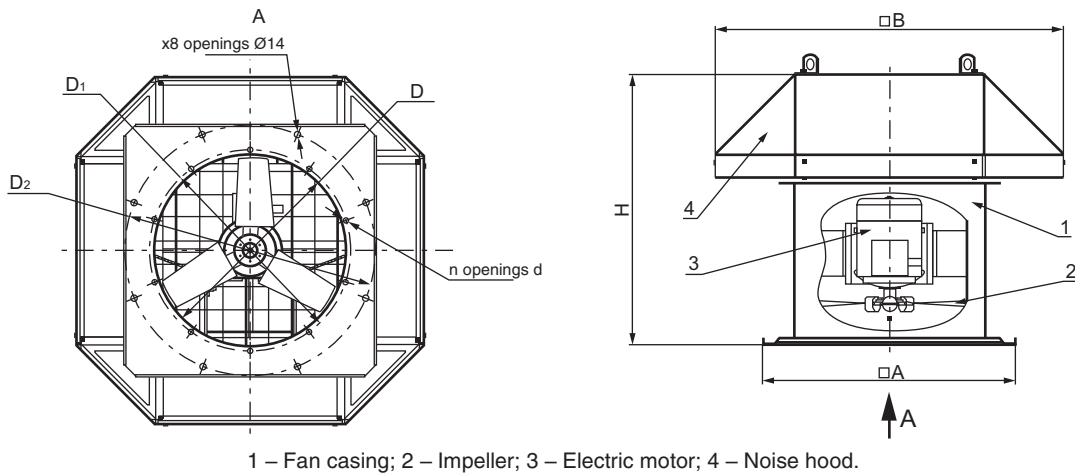
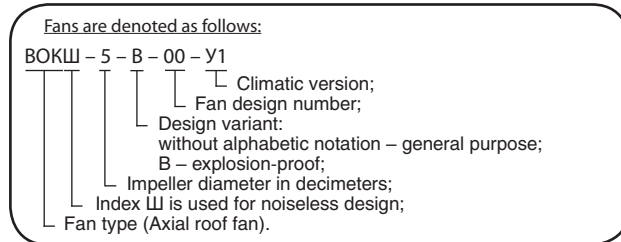
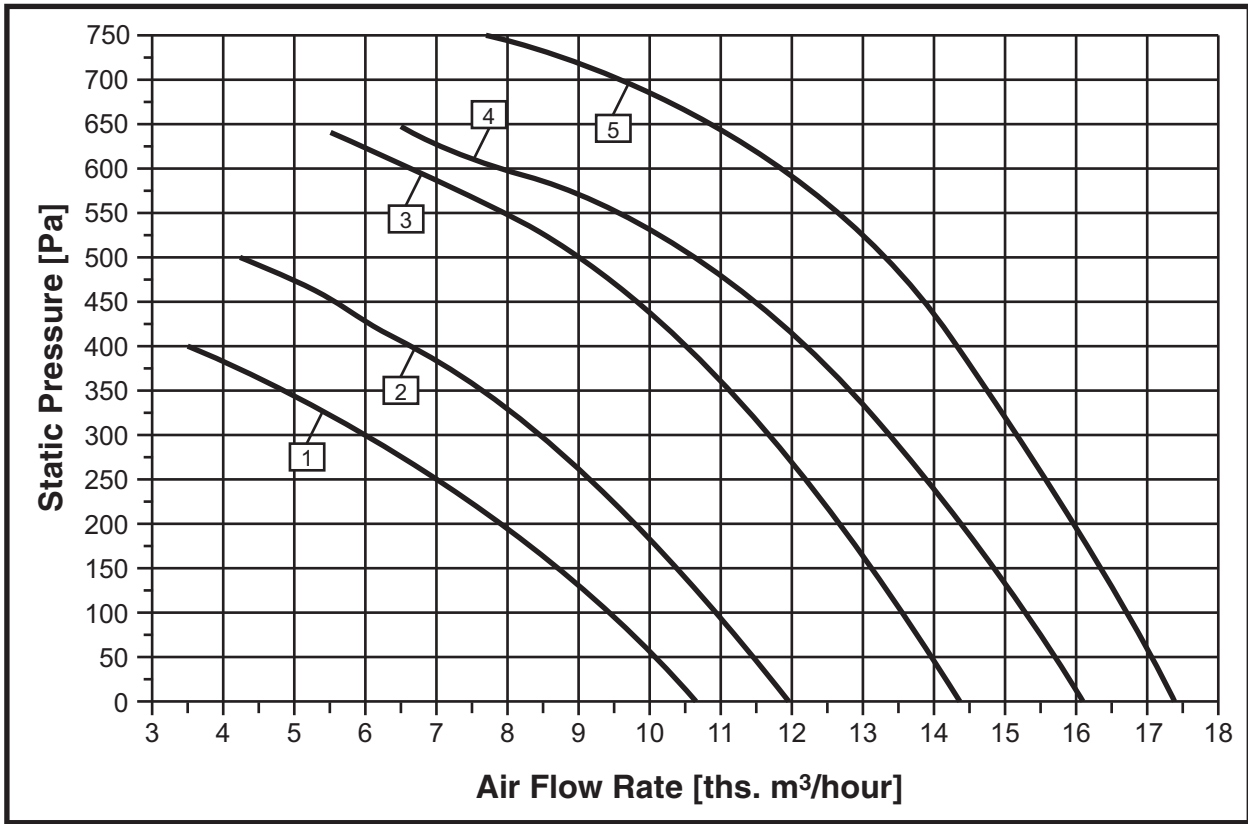


Fig.1: Overall and connection dimensions of VOKSh series fans.

Fan Model	Dimensions [mm]							n
	A	B	H	D	D ₁	D ₂	d	
BOKШ-5-00	670	925	696	504	530	665	8	10
BOKШ-5-01	670	925	696	504	530	665	8	10
BOKШ-5-02	670	925	696	504	530	665	8	10
BOKШ-5-03	670	925	696	504	530	665	8	10
BOKШ-5-04	670	925	696	504	530	665	8	10
BOKШ-8-00	1040	1200	940	810	850	1072	10	12
BOKШ-8-01	1040	1200	940	810	850	1072	10	12
BOKШ-8-02	1040	1200	940	810	850	1072	10	12
BOKШ-8-03	1040	1200	940	810	850	1072	10	12
BOKШ-10-00	1280	1620	840	1010	1040	1272	10	16
BOKШ-10-01	1280	1620	840	1010	1040	1272	10	16
BOKШ-10-02	1280	1620	960	1010	1040	1272	10	16
BOKШ-10-03	1280	1620	960	1010	1040	1272	10	16
BOKШ-10-04	1280	1620	960	1010	1040	1272	10	16
BOKШ-10-05	1280	1620	960	1010	1040	1272	10	16

CHARACTERISTICS SUMMARY DIAGRAM

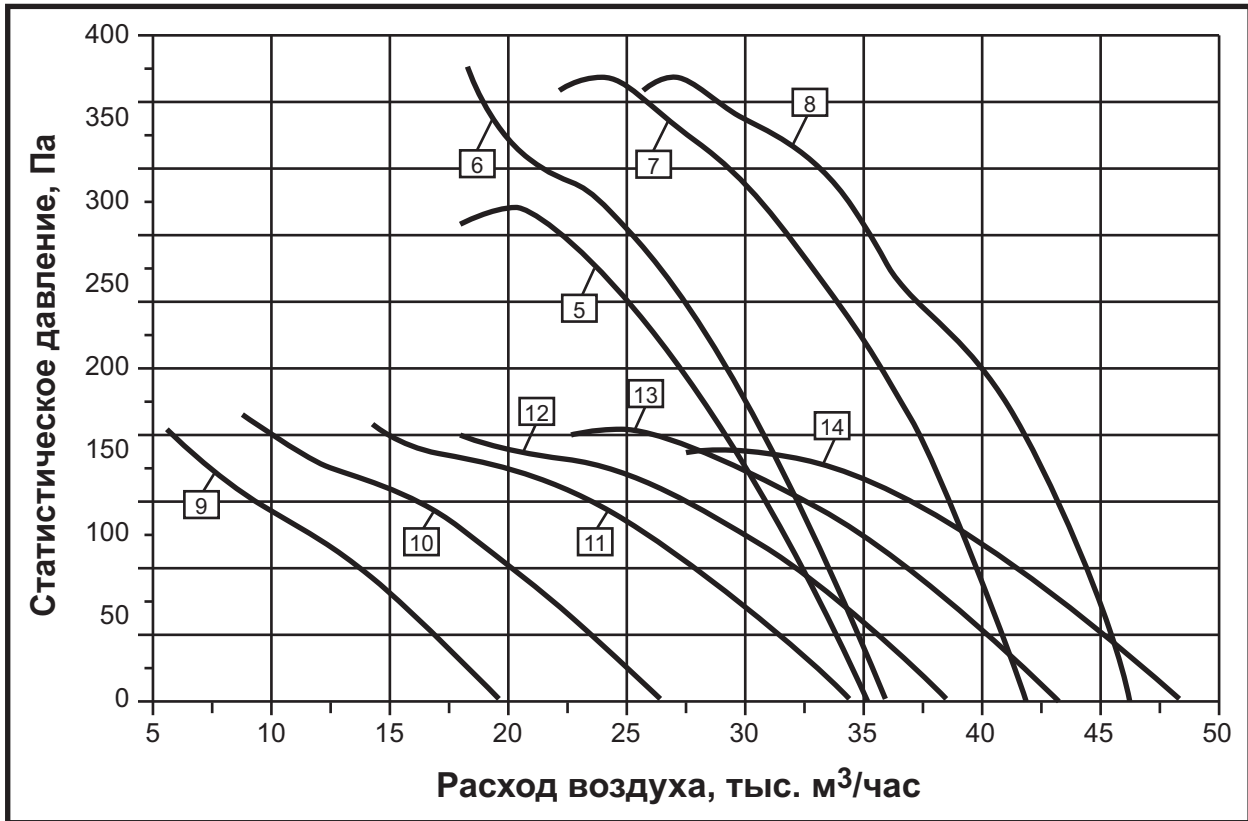
3500 – 16000 m³/hour



No.	Fan Model	Motor			Corrected sound power level L _{pA} [dBA]		Fan Weight [kg]
		Type	Rotation speed [rpm]	Power [kW]	Inlet	Outlet	
1	ВКШ-5-00	AIP71B2	2900	1,1	87	80	42,5
2	ВКШ-5-01	AIP80A2	2900	1,5	90	82	45
3	ВКШ-5-02	AIP80B2	2900	2,2	89	82	47
4	ВКШ-5-03	AIP90L2	2900	3	87	79	49
5	ВКШ-5-04	AIP100S2	2900	4,0	92	86	53

CHARACTERISTICS SUMMARY DIAGRAM

5500 – 48000 m³/hour



No.	Fan Model	Motor			Corrected sound power level L _{pA} [dBA]		Fan Weight [kg]
		Type	Rotation speed [rpm]	Power [kW]	Inlet	Outlet	
5	ВОКШ-8-00	AIP100L4	1450	4	87	80	120
6	ВОКШ-8-01	AIP112M4	1450	5,5	89	84	128
7	ВОКШ-8-02	AIP132S4	1450	7,5	91	84	137
8	ВОКШ-8-03	AIP132M4	1450	11	93	86	145
9	ВОКШ-10-00	AIP80A6	950	0,75	85	78	105
10	ВОКШ-10-01	AIP80B6	950	1,1	84	77	107
11	ВОКШ-10-02	AIP100L6	950	2,2	83	76	137
12	ВОКШ-10-03	AIP100L6	950	2,2	83	76	137
13	ВОКШ-10-04	AIP112A6	950	3	84	77	144
14	ВОКШ-10-05	AIP112B6	950	4	85	78	153

Noise Performance

Noise characteristics are defined in accordance with GOST 31353.3-2007 and represented by the dBA values of corrected sound-power levels L_{pA} on delivery side and suction side in motor maximum efficiency mode. Sound power levels are 2-3dBA higher on the mode close to the fan maximum performance.

Sound-power level L_{pi} in octave bands with geometric mean frequencies, when rotation speed is constant, is defined as follows: $L_{pi} = L_{pA} + \Delta L_{pi}$.

ΔL_{pi} values are specified in the following table:

Octave bandwidth [Hz]	63	125	250	500	1000	2000	4000	8000
ΔL_{pi} [dB] (at the inlet)	-11	-6	0	-1	-9	-10	-10,5	-18
ΔL_{pi} [dB] (at the outlet)	-3	2	-2	-5	-3	-10,5	-15,5	-19

Sound pressure level L at certain distance from fan may be calculated using the following equation (SNiP 23-03-2003 Noise protection):

$$L = L_{pA} - 8 - 20\lg(r) = L_{pA} - dL,$$

where: r – distance from fan [m];
 dL – correction value [dBA].

dL correction value versus distance from fan curve is presented on the figure below:

