

ELECTRIC MOTORS OF BAO4 TYPE



Asynchronous three-phase blown explosion-proof electric motors of BAO4 types with a cage rotor are intended to operate in the mines dangerous for gas and dust, and in explosive zones of premises and external installations.

Operating mode: long S1 from a network, frequency of 50 Hz

Executions on explosion protection: 1ExdIIBT4; PBExdI; PB-4B - BAO4-450, 560, 630; 1ExdIICT5 - BAO4-560 - PBExdI; PB-4B - BAO4Y-630

Climatic modification type: Y2; Y5; T2; T5

Design on a way of installation: IM 1001

Protection type for: the cases and terminal boxes – IP 54
the casing of the outside fan – IP 20

Way of cooling: ICA 0151 - BAO4-560-4,6,8; BAO4-560LA, LB-2; BAO4-630; BAO4Y-630; ICA 0141 - BAO4-450; BAO4-560S, M-2

BAO4 electric motors have left, BAO4Y – the right direction of rotation.

The insulation of the stator winding belongs to a heat resistance class "F"

Electric motors are completed **with the device of the temperature control YKT-2**, at customer's request with the device YKT-9.

Symbol structure:

BAO	Explosion-proof asynchronous blown
4	Series number
AT	For coal pumps
450, 560, 630	Dimension (height of rotation axis, mm)
S, M, L, LA, LB	nominal length of a bed
2, 4, 6, 8	Number of pole ends
Y2;Y5;T2;T5	Climatic modification type

Standard size	Power, kw	Voltage, V	Rotational speed (synchr.), rpm	Mass, kg
BAO4-450 S-2	200	6000	3000	1720
BAO4-450 M-2	250			1930
BAO4-450 LA-2	315			2060
BAO4-450 LB-2	400			2300
BAO4-450 S-4	200		1500	1870
BAO4-450 M-4	250			2000
BAO4-450 LA-4	315			2190
BAO4-450 LB-4	400			2650
BAO4-450 M-6	200		1000	2350
BAO4-450 LA-6	250			2570
BAO4-450 LB-6	315			2650
BAO4-450 LA-8	200			750
BAO4-450 LB-8	250		2650	

Standard size	Power, kw	Voltage, V	Rotational speed (synchr.), rpm	Mass, kg	
BAO4-560 S-2	500		3000	3000	
BAO4-560 M-2	630			3100	
	800			4600	
BAO4-560 LA-2	800			4700	
BAO4-560 LB-2	1000			4850	
BAO4-560 S-4	500	10000	1500	2850	
	400			3050	
BAO4-560 M-4	630	6000		3300	
	500	10000		3350	
BAO4-560 LA-4	800	6000		4000	
	630	10000		4050	
BAO4-560 LB-4	1000	6000		4500	
	800	10000		4550	
BAO4-560 S-6	400	6000		1000	3400
BAO4-560 M-6	500				3800
BAO4-560 LA-6	630		4000		
BAO4-560 LB-6	800		4750		
BAO4-560 S-8	315		750	3200	
BAO4-560 M-8	400			3400	
BAO4-560 LA-8	500			4200	
BAO4-560 LB-8	630			5100	
BAO4-630 S-4	1250	10000	1500	6100	
	1000			6150	
BAO4-630 M-4	1600	6000		6350	
	1250	10000		7250	
BAO4-630 L-4	2000	6000		8800	

Standard size	Power, kW	Voltage, V	Rotational speed (synchr.), rpm	Mass, kg
BAO4-450 S-2	200	6000	3000	1720
BAO4-450 M-2	250			1930
BAO4-450 LA-2	315			2060
BAO4-450 LB-2	400			2300
BAO4-450 S-4	200		1500	1870
BAO4-450 M-4	250			2000
BAO4-450 LA-4	315			2190
BAO4-450 LB-4	400			2650
BAO4-450 M-6	200		1000	2350
BAO4-450 LA-6	250			2570
BAO4-450 LB-6	315			2650
BAO4-450 LA-8	200			750
BAO4-450 LB-8	250		2650	

The basic advantages of electric motors of BAO4 type over analogues:

- ✓ increase of starting characteristics level;
- ✓ decrease in active parts local overheats;
- ✓ increase of mechanical durability of a construction due to application of ribbed steel cases (for part of constructions - outside ribbing, and for the rest – inside of the case), providing reliability of stator package fixing in a bed and improved heat transfer;
- ✓ decrease in level of vibration and acoustic noise;
- ✓ increase in durability of a shaft due to application of better steel hire;
- ✓ maintenance of the stationary temperature control with application of special devices in explosion-nproof version:
 - **YKT-2 device**– bearings (2 points) – for all electric motor versions.
 - **YKT-9 device**– bearings (2 points), the stator winding and core (6 points), the stator case (1 point) – for engines on special request of the customer.
- ✓ application of entire insulation panel in a terminal box;
- ✓ provision with the stationary vibration control (on customer's request);
- ✓ application of SKF (Sweden) bearings for electric motors with rotational speed 3000 rpm, and on electric motors with power more than 1000 kW. On customer's request, the above-stated bearings are established on electric motors of any standard sizes.

The electric motors of BAO4 type are interchangeable with electric motors of BAO2 and BAO types according to mounting and installation dimensions.

Electric motors are distinguished with high reliability, simplicity and convenience in service and operation, long service life.