

YBBP Series Flameproof Variable- frequency Adjustable-speed Induction Motors



- Frame sizes: 80 to 355 Rated output: 0.18 to 315kW
- Insulation class: F Voltage: 380V
- Frequency range of 2P, 4P: 5-60Hz (frame size 225-355 of 2P and 355 4P);5-100Hz (frame size 80-200 2P)
- Frequency range of 6P, 8P, 10P: 5-100Hz

Applications: Ideal for the plant or workshop (Ex d II AT4, d II BT4) where dangerous explosive mixture of air with T1~T4 class II A II B flammable substance in the form of gas or vapor is present.

Features:

- Stepless adjustable speed operation in a wide range
- Good performance of the system, energy saving
- High-grade insulation material and special technological withstand high frequency pulse impact
- Separate fan for forced- ventilation

Performance Data

380V

50Hz

Model	Output kW	FLA	RPM	Eff.%	Power Factor	FLT N.m	dB(A)	Constant Torque Frequency Range Hz	Constant Output Frequency Range Hz
Synchronous speed 3000r/min									
YBBP80M1-2	0.75	1.83	2845	75.0	0.83	2.52	70	(3)5-50	50-100
YBBP80M2-2	1.1	2.55	2845	78.0	0.84	3.69	70		
YBBP90S-2	1.5	3.43	2840	79.0	0.84	5.04	74		
YBBP90L-2	2.2	4.85	2840	81.0	0.85	7.40	74		
YBBP100L-2	3	6.24	2860	83.0	0.88	10.0	78		
YBBP112M-2	4	8.13	2880	85.0	0.88	13.3	82		
YBBP132S1-2	5.5	11.0	2900	86.0	0.88	18.1	85		
YBBP132S2-2	7.5	14.9	2900	87.0	0.88	24.7	85		
YBBP160M1-2	11	21.5	2930	88.4	0.88	35.9	87		
YBBP160M2-2	15	28.6	2930	89.4	0.89	48.9	87		
YBBP160L-2	18.5	35.1	2930	90.0	0.89	60.3	87		
YBBP180M-2	22	41.0	2940	90.5	0.90	71.5	90		
YBBP200L1-2	30	55.4	2950	91.4	0.90	97.1	92		
YBBP200L2-2	37	67.9	2950	92.0	0.90	120	92		
YBBP225M-2	45	82.1	2960	92.5	0.90	145	94		

Performance Data

380V

50Hz

Model	Output kW	FLA	RPM	Eff.%	Power Factor	FLT N.m	dB(A)	Constant Torque Frequency Range Hz	Constant Output Frequency Range Hz	
Synchronous speed 3000r/min										
YBBP250M-2	55	99.8	2965	93.0	0.90	177	96	(3)5-50	50-60	
YBBP280S-2	75	134	2970	93.6	0.91	241	98			
YBBP280M-2	90	160	2970	93.9	0.91	289	98			
YBBP315S-2	110	195	2975	94.0	0.91	353	100			
YBBP315M-2	132	233	2975	94.5	0.91	424	100			
YBBP315L1-2	160	282	2975	94.6	0.91	514	100			
YBBP315L2-2	200	352	2975	94.8	0.91	642	100			
YBBP355S-2	200	352	2980	94.8	0.91	641	103			
YBBP355M-2	250	438	2980	95.2	0.91	801	103			
YBBP355L-2	315	551	2980	95.4	0.91	1009	103			
Synchronous speed 1500r/min										
YBBP80M1-4	0.55	1.57	1390	71.0	0.75	3.78	62	(3)5-50	50-100	
YBBP80M2-4	0.75	2.03	1390	73.0	0.77	5.15	62			
YBBP90S-4	1.1	2.85	1390	76.2	0.77	7.56	64			
YBBP90L-4	1.5	3.68	1390	78.5	0.79	10.3	64			
YBBP100L1-4	2.2	5.09	1410	81.0	0.81	14.9	68			
YBBP100L2-4	3	6.73	1410	82.6	0.82	20.3	68			
YBBP112M-4	4	8.80	1440	84.2	0.82	26.5	72			
YBBP132S-4	5.5	11.6	1440	86.0	0.84	36.5	76			
YBBP132M-4	7.5	15.4	1440	87.0	0.85	49.7	76			
YBBP160M-4	11	22.2	1460	88.4	0.85	72.0	79			
YBBP160L-4	15	30.0	1460	89.4	0.85	98.1	79			
YBBP180M-4	18.5	36.5	1470	90.5	0.85	120	83			
YBBP180L-4	22	43.1	1470	91.2	0.85	143	83			
YBBP200L-4	30	57.6	1470	92.0	0.86	195	85			
YBBP225S-4	37	69.9	1475	92.5	0.87	240	88			
YBBP225M-4	45	84.7	1475	92.8	0.87	291	88			
YBBP250M-4	55	103	1480	93.0	0.87	355	92			
YBBP280S-4	75	140	1480	93.8	0.87	484	94			
YBBP280M-4	90	167	1480	94.2	0.87	581	94			
YBBP315S-4	110	201	1480	94.5	0.88	710	96			
YBBP315M-4	132	240	1480	94.8	0.88	852	96			
YBBP315L1-4	160	288	1480	94.9	0.89	1032	96			
YBBP315L2-4	200	360	1480	94.9	0.89	1291	96			
YBBP355S-4	200	360	1490	94.9	0.89	1282	98			
YBBP355M-4	250	443	1490	95.2	0.90	1602	98			
YBBP355L-4	315	559	1490	95.2	0.90	2019	98			50-60

Performance Data

380V 50Hz

Model	Output kW	FLA	RPM	Eff.%	Power Factor	FLT N.m	dB(A)	Constant Torque Frequency Range Hz	Constant Output Frequency Range Hz
Synchronous speed 1000r/min									
YBBP80M1-6	0.37	1.27	885	63.0	0.70	3.99	61	(3)5-50	50-100
YBBP80M2-6	0.55	1.76	885	66.0	0.72	5.94	61		
YBBP90S-6	0.75	2.29	910	69.0	0.72	7.87	63		
YBBP90L-6	1.1	3.14	910	73.0	0.73	11.5	63		
YBBP100L-6	1.5	3.95	920	76.0	0.76	15.6	66		
YBBP112M-6	2.2	5.57	935	79.0	0.76	22.5	71		
YBBP132S-6	3	7.31	960	81.0	0.77	29.8	75		
YBBP132M1-6	4	9.39	960	83.0	0.78	39.8	75		
YBBP132M2-6	5.5	12.6	965	85.0	0.78	54.4	75		
YBBP160M-6	7.5	16.8	970	86.0	0.79	73.8	78		
YBBP160L-6	11	24.2	970	87.5	0.79	108	78		
YBBP180L-6	15	31.6	970	89.0	0.81	148	82		
YBBP200L1-6	18.5	37.6	980	90.0	0.83	180	84		
YBBP200L2-6	22	44.7	980	90.0	0.83	214	84		
YBBP225M-6	30	57.6	980	92.0	0.86	292	86		
YBBP250M-6	37	71.1	980	92.0	0.86	361	90		
YBBP280S-6	45	85.9	980	92.5	0.86	439	92		
YBBP280M-6	55	105	980	92.8	0.86	536	92		
YBBP315S-6	75	142	985	93.5	0.86	727	94		
YBBP315M-6	90	170	985	93.8	0.86	873	94		
YBBP315L1-6	110	207	985	94.0	0.86	1066	94		
YBBP315L2-6	132	245	985	94.2	0.87	1280	94		
YBBP355S-6	160	293	990	94.2	0.88	1543	96		
YBBP355M-6	200	365	990	94.5	0.88	1929	96		
YBBP355L-6	250	457	990	94.5	0.88	2412	96		
Synchronous speed 750r/min									
YBBP80M1-8	0.18	0.86	645	52.0	0.61	2.67	61	(3)5-50	50-100
YBBP80M2-8	0.25	1.13	645	55.0	0.61	3.70	61		
YBBP90S-8	0.37	1.44	670	63.0	0.62	5.27	63		
YBBP90L-8	0.55	2.07	670	64.0	0.63	7.84	63		
YBBP100L1-8	0.75	2.36	680	71.0	0.68	10.5	66		
YBBP100L2-8	1.1	3.32	680	73.0	0.69	15.4	66		
YBBP112M-8	1.5	4.40	690	75.0	0.69	20.8	71		
YBBP132S-8	2.2	5.80	705	79.0	0.73	29.8	75		
YBBP132M-8	3	7.71	705	81.0	0.73	40.6	75		
YBBP160M1-8	4	10.3	720	81.0	0.73	53.1	78		

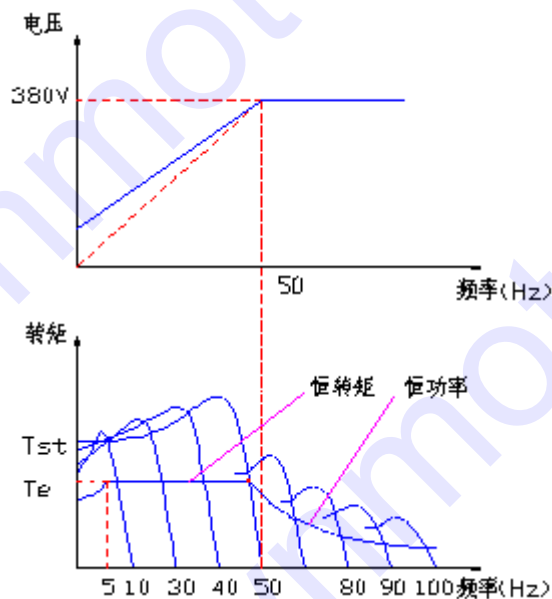
Performance Data

380V 50Hz

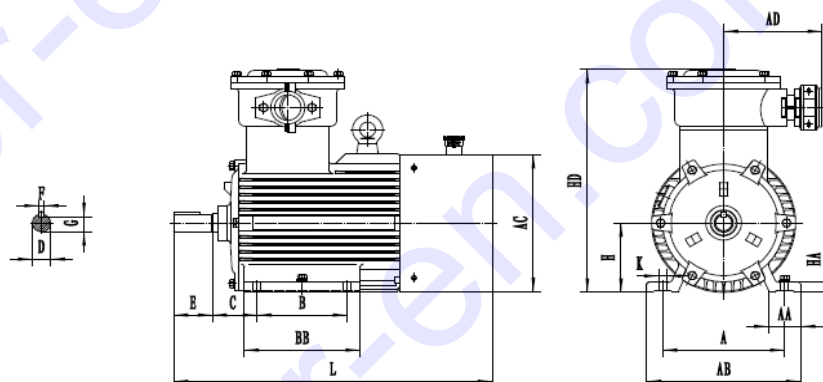
Model	Output kW	FLA	RPM	Eff.%	Power Factor	FLT N.m	dB(A)	Constant Torque Frequency Range Hz	Constant Output Frequency Range Hz
Synchronous speed 750r/min									
YBBP160M2-8	5.5	13.4	720	83.0	0.75	73.0	78	(3)5-50	50-100
YBBP160L-8	7.5	17.6	720	85.0	0.76	99.5	78		
YBBP180L-8	11	25.3	730	87.0	0.76	144	82		
YBBP200L-8	15	33.7	730	89.0	0.76	196	84		
YBBP225S-8	18.5	40.0	730	90.0	0.78	242	86		
YBBP225M-8	22	47.4	730	90.5	0.78	288	86		
YBBP250M-8	30	63.4	735	91.0	0.79	390	90		
YBBP280S-8	37	77.8	735	91.5	0.79	481	92		
YBBP280M-8	45	94.1	735	92.0	0.79	585	92		
YBBP315S-8	55	111	735	92.8	0.81	715	94		
YBBP315M-8	75	150	735	93.5	0.81	974	94		
YBBP315L1-8	90	180	735	93.8	0.81	1169	94		
YBBP315L2-8	110	217	735	94.0	0.82	1429	94		
YBBP355S-8	132	260	740	94.2	0.82	1704	96		
YBBP355M-8	160	315	740	94.2	0.82	2065	96		
YBBP355L-8	200	392	740	94.5	0.82	2581	96		
Synchronous speed 600r/min									
YBBP315S-10	45	99.6	590	91.5	0.75	728	92	(3)5-50	50-100
YBBP315M-10	55	121	590	92.0	0.75	890	92		
YBBP315L1-10	75	162	590	92.5	0.76	1214	92		
YBBP315L2-10	90	191	590	93.0	0.77	1457	92		
YBBP355M1-10	110	230	590	93.2	0.78	1780	94		
YBBP355M2-10	132	275	590	93.5	0.78	2137	94		
YBBP355L-10	160	333	590	93.5	0.78	2590	94		

The torque characteristic under the condition of V/f control

The voltage needs to be compensated to increase the torque at low frequency when the motor is operated under the condition of V/f control with constant torque output.

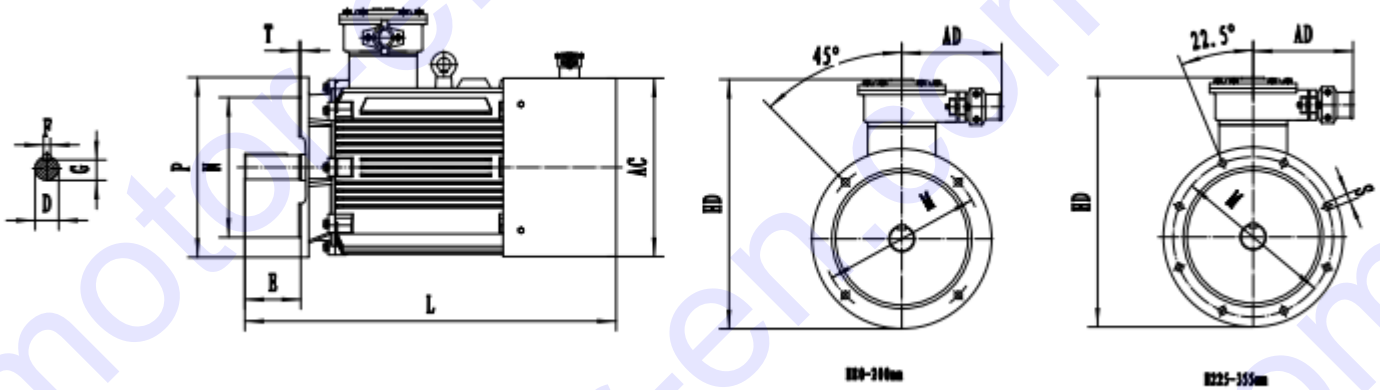


B3(Horizontal Foot Mounted Only)

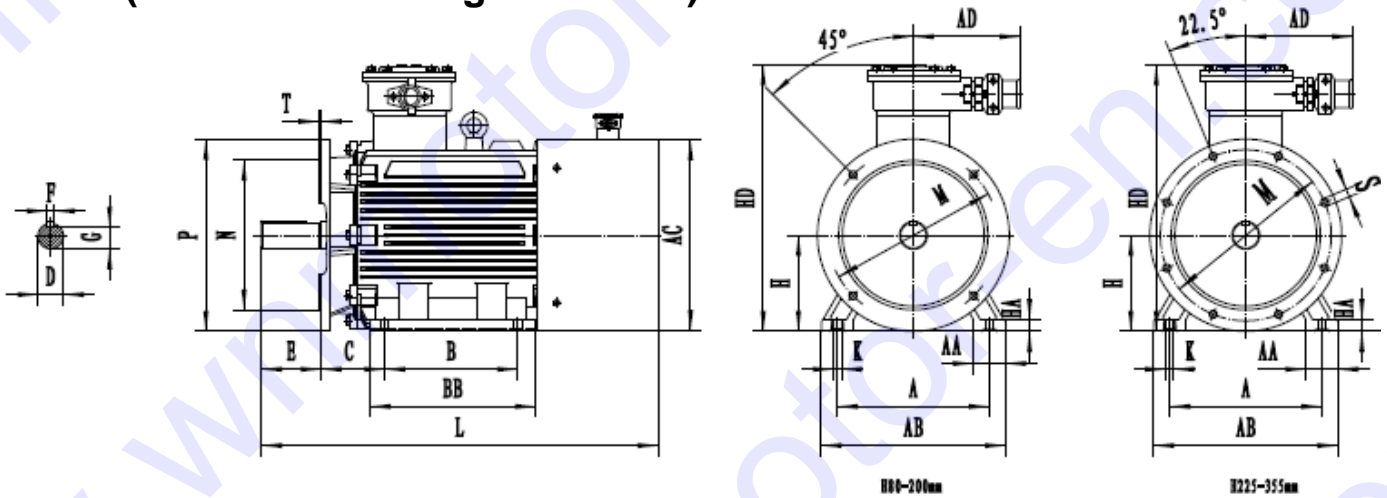


Frame	Poles	Mounting Dimension									Overall Dimension																		
		A	B	C	D	E	F	G	H	K	AA	BB	HA	AB	AC	AD	HD	L											
80M	2,4,6,8	125	100	50	19	40	6	15.5	80	10	34	150	10	160	165	180	290	430											
90S	2,4,6,8	140	100	56	24	50	8	20	90	10	36	140	14	180	180	180	320	455											
90L			125															165	485										
100L	2,4,6,8	160	140	63	28	60	8	24	100	12	40	190	14	200	205	180	345	540											
112M	2,4,6,8	190		70					112		50		180					16	245	230	200	360	570						
132S	2,4,6,8	216	140	89	38	80	10	33	132	12	60	190	18	280	290	200	410	510											
132M			178									230						550											
160M	2,4,6,8	254	210	108	42	110	12	37	160	15	70	255	25	330	325	220	485	790											
160L			254									300						830											
180M	2,4,6,8	279	241	121	48	110	14	42.5	180	15	70	315	22	355	360	220	525	810											
180L			279									350						830											
200L	2,4,6,8	318	305	133	55	110	16	49	200	19	70	370	25	390	400	250	645	880											
225S	4,8	356	286	149	60	140	18	53	225	19	75	355	28	435	450	250	690	920											
225M	2		311		55	110	16	49				400						890											
	4,6,8		311		60	140	18	53				400						945											
250M	2	406	349	168	60	140	18	53	250	24	80	420	30	490	510	300	710	1160											
	4,6,8				65			58																					
280S	2	457	368	190	65	140	18	58	280	24	90	458	35	545	550	300	775	1240											
280M	4,6,8				75			67.5																					
	2		419		65			58																					
	4,6,8				75			67.5																					
315S	2	508	406	216	65	140	18	58	315	28	120	570	45	630	630	400	950	1310											
	4,6,8,10				80	170	22	71										1340											
315M	2		457		65	140	18	58										680	45	630	630	400	950	1340					
	4,6,8,10		457		80	170	22	71																1450					
315L	2	508	406	216	65	140	18	58	315	28	120	680	45	630	630	400	950	1520											
	4,6,8,10				80	170	22	71										1450											
355S	2	610	500		254	75	140	20										67.5	355	28	120	640	50	730	720	500	1040	1690	
	4,6,8,10					95	170	25										86										1570	
355M	2		560	500		254	75	140	20	67.5	355	28	120	700	50	730	720	500										1040	1770
	4,6,8,10						95	170	25	86																			1650
355L	2	630	500	254	75		140	20	67.5	355									28	120	770	50	730	720	500	1040	1870		
	4,6,8,10				95		170	25	86																		1750		

B5 (Footless and B5 Flange Mounted)



B35 (Foot and B5 Flange Mounted)



Frame	Poles	Mounting Dimension															Overall Dimension																
		A	B	C	D	E	F	G	H	K	M	N	P	R	S	T	Hole s	AA	BB	HA	AB	AC	AD	HD	L								
80M	2,4,6,8	125	100	50	19	40	6	15.5	80	10	165	130	200	0	12	3.5	4	34	150	10	160	165	180	290	430								
90S	2,4,6,8	140	100	56	24	50	8	20	90	10	165	130	200	0	12	3.5	4	36	140	14	180	180	180	320	455								
90L			125																165						485								
100L	2,4,6,8	160	140	63	28	60	8	24	100	12	215	180	250	0	15	4	4	40	190	14	200	205	180	345	540								
112M	2,4,6,8	190		70					112									50								180	16	245	230	200	360	570	
132S	2,4,6,8	216	140	89	38	80	10	33	132	12	265	230	300	0	15	4	4	60	190	18	280	290	200	410	510								
132M			178																230						550								
160M	2,4,6,8	254	210	108	42	110	12	37	160	15	300	250	350	0	19	5	4	70	255	20	330	325	220	485	790								
160L			254																300						830								
180M	2,4,6,8	279	241	121	48	110	14	42.5	180	15	300	250	350	0	19	5	4	70	315	22	355	360	250	525	810								
180L			279																350						830								
200L	2,4,6,8	318	305	133	55	110	16	49	200	19	350	300	400	0	19	5	4	70	370	25	390	400	250	645	880								
225S	4,8	356	286	149	60	140	18	53	225	19	400	350	450	0	19	5	8	75	355	28	435	450	250	690	920								
225M	2		311		55	110	16	49											400						350	450	0	19	5	8	75	400	890
	4,6,8		60		140	18	53	400											350						450	0	19	5	8	75	400	945	

250M	2	406	349	168	60	140	18	53	250	24	500	450	550	0	19	5	8	80	420	30	490	510	270	710	1160
	4,6,8				65			58																	
280S	2	457	368	190	65	140	18	58	280	24	500	450	550	0	19	5	8	90	458	35	545	550	280	775	1240
	4,6,8				75			67.5																	
280M	2	419			65	140	18	58	280	24	500	450	550	0	19	5	8	90	509						1270
	4,6,8				75			67.5																	
315S	2	406			65	140	18	58	315	28	600	550	660	0	24	6	8	120	570						1310
	4,6,8,10				80			71																	
315M	2	508	457	216	65	140	18	58	315	28	600	550	660	0	24	6	8	120	680	45	630	630	400	950	1340
	4,6,8,10				80			71																	
315L	2	508			65	140	18	58	315	28	600	550	660	0	24	6	8	120	680						1520
	4,6,8,10				80			71																	
355S	2	500			75	140	20	67.5	355	28	740	680	800	0	24	6	8	116	640						1690
	4,6,8,10				95			86																	
355M	2	610	560	254	75	140	20	67.5	355	28	740	680	800	0	24	6	8	116	700	50	730	720	500	1040	1770
	4,6,8,10				95			86																	
355L	2	630			75	140	20	67.5	355	28	740	680	800	0	24	6	8	116	770						1870
	4,6,8,10				95			86																	

Specifications of cooling blower

Motor	Frame	80	90	100	112	132	160	180	200	225	250	280	315	355
Cooling Fan	Power (W)	35	50	65	70	80	90	100	180	180	370	370	800	800
	Voltage	Standard voltage is 380V, but blower of other voltage can be also customized.												

Note: Power here is indicative only. Specifications are subject to the physical product.

Conventional mounting type and suitable frame size are given in following table (with “√”)

Frame	basic type			derived type											
	B3	B5	B35	V1	V3	V5	V6	B6	B7	B8	V15	V36	B14	B34	V18
80~112	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
132~160	√	√	√	√	√	√	√	√	√	√	√	√	-	-	-
180~280	√	√	√	√	-	-	-	-	-	-	-	-	-	-	-
315~355	√	-	√	√	-	-	-	-	-	-	-	-	-	-	-

If there is no other request in the order or agreement, terminal box position at top of the frame is regarded as standard; data above may be changed without prior notice.