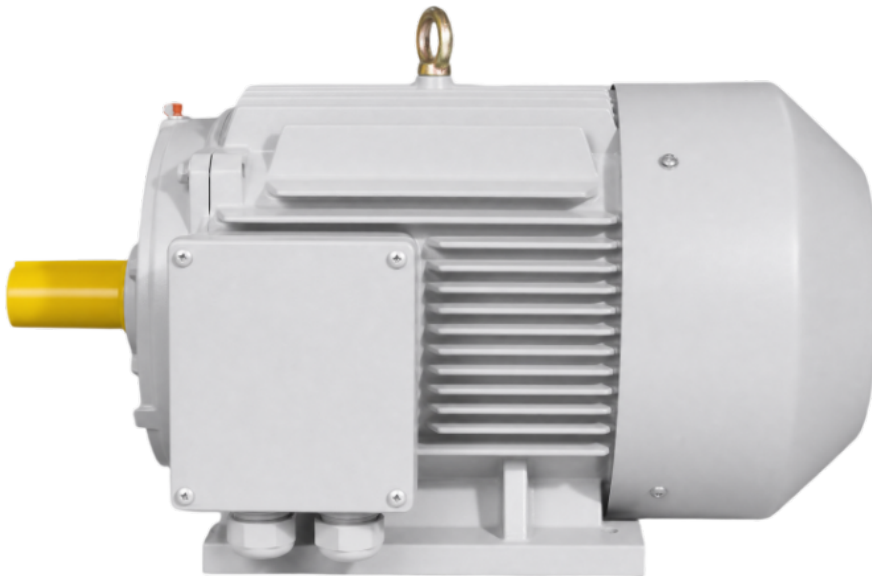


EXPLOSION-PROTECTED SERIES

YFBX3

YFBX3 SERIES HIGH EFFICIENCY DUST EXPLOSION-PROOF THREE-PHASE INDUCTION MOTOR

Totally enclosed dust explosion-proof induction motor for combustible dust atmospheres, at grade 3 of GB 18613—2020.

**0.55–315** kW

RATED OUTPUT

H80–H355FRAME CENTRE
HEIGHT**Grade 3**

GB 18613—2020 (IE3)

Ex tb

TYPE OF PROTECTION

SERIES

YFBX3

REVISION

A01

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DESCRIPTION

The YFBX3 series is a totally enclosed, high-efficiency motor protected against dust ignition by enclosure. Efficiency meets grade 3 of GB 18613—2020. It is safe in use, compact, efficient and reliable, with low noise and low weight.

TECHNICAL SPECIFICATION

Explosion-protection marking	Ex tb IIIC T135 °C Db
Poles	2, 4, 6, 8 and 10
Altitude	Not exceeding 1,000 m (3,280 ft)
Ambient temperature	−15 °C to +40 °C (5 °F to 104 °F)
Duty type	S1, continuous duty
Mounting arrangements	IM B3 (foot), IM B5 (flange), IM B35 (foot and flange)

STANDARDS

GB/T 3836.1-2021	Explosive atmospheres — Part 1: equipment, general requirements
GB/T 3836.31-2021	Explosive atmospheres — Part 31: equipment protected by enclosure “t” against dust ignition
Q/1083 SLJ 033-2022	YFBX3 series high efficiency dust explosion-proof three-phase induction motors, frames 80 to 355
GB 18613—2020	Energy efficiency grade 3, equivalent to IE3

MODEL DESIGNATION

The type designation is formed as follows, shown for **YFBX3-80M1-2**.

YFBX3	80	M1	2
SERIES	FRAME	LENGTH	POLES
Series code	Frame centre height, mm	Frame length and core length	Number of poles

TYPICAL APPLICATIONS

- Explosive dust atmospheres (Ex tb IIIC T135 °C Db)
- Grain handling
- Coal handling
- Chemical and pharmaceutical plant

NOTES

DIMENSIONS

The brochure prints the mounting arrangements for this series but no dimension schedule of its own. Dimensions are issued on request.

RATED DATA

Values are for 50 Hz operation at the rated voltage stated above. Ratings are continuous (duty type S1).

2 POLES — SYNCHRONOUS SPEED 3000 R/MIN, 50 HZ

TYPE	RATED OUTPUT kW	RATED SPEED r/min	EFFICIENCY %	POWER FACTOR cos φ	RATED CURRENT A
YFBX3-80M1-2	0.75/1	2855	80.7	0.83	1.7
YFBX3-80M2-2	1.1/1.5	2855	82.7	0.83	2.4
YFBX3-90S-2	1.5/2	2880	84.2	0.84	3.2
YFBX3-90L-2	2.2/3	2880	85.9	0.85	4.6
YFBX3-100L-2	3/4	2890	87.1	0.87	6.0
YFBX3-112M-2	4/5.5	2905	88.1	0.88	7.8
YFBX3-132S1-2	5.5/7.5	2920	89.2	0.88	10.6
YFBX3-132S2-2	7.5/10	2915	90.1	0.89	14.2
YFBX3-160M1-2	11/15	2940	91.2	0.89	20.6
YFBX3-160M2-2	15/20	2940	91.9	0.89	27.9
YFBX3-160L-2	18.5/25	2940	92.4	0.89	34.2
YFBX3-180M-2	22/30	2950	92.7	0.89	40.5
YFBX3-200L1-2	30/40	2950	93.3	0.89	54.9
YFBX3-200L2-2	37/50	2950	93.7	0.89	67.4
YFBX3-225M-2	45/60	2965	94.0	0.89	81.7
YFBX3-250M-2	55/75	2970	94.3	0.89	99.6
YFBX3-280S-2	75/100	2975	94.7	0.89	135
YFBX3-280M-2	90/125	2975	95.0	0.89	162
YFBX3-315S-2	110/150	2980	95.2	0.89	197
YFBX3-315M-2	132/180	2980	95.4	0.89	236
YFBX3-315L1-2	160/200	2980	95.6	0.89	286

2 POLES — SYNCHRONOUS SPEED 3000 R/MIN, 50 HZ (CONTINUED)

TYPE	RATED OUTPUT kW	RATED SPEED r/min	EFFICIENCY %	POWER FACTOR cos φ	RATED CURRENT A
YFBX3-315L2-2	200/270	2980	95.8	0.89	356
YFBX3-355M-2	250/340	2980	95.8	0.90	441
YFBX3-355L-2	315/430	2980	95.8	0.90	555

4 POLES — SYNCHRONOUS SPEED 1500 R/MIN, 50 HZ

TYPE	RATED OUTPUT kW	RATED SPEED r/min	EFFICIENCY %	POWER FACTOR cos φ	RATED CURRENT A
YFBX3-80M1-4	0.55/0.75	1420	80.8	0.75	1.4
YFBX3-80M2-4	0.75/1	1420	82.5	0.75	1.8
YFBX3-90S-4	1.1/1.5	1425	84.1	0.75	2.6
YFBX3-90L-4	1.5/2	1425	85.3	0.75	—
YFBX3-100L1-4	2.2/3	1440	86.7	0.81	4.8
YFBX3-100L2-4	3/4	1440	87.7	0.82	6.3
YFBX3-112M-4	4/5.5	1455	88.6	0.82	8.4
YFBX3-132S-4	5.5/7.5	1460	89.6	0.82	—
YFBX3-132M-4	7.5/10	1455	90.4	0.83	15.2
YFBX3-160M-4	11/15	1465	91.4	0.85	21.5
YFBX3-160L-4	15/20	1465	92.1	0.85	29.1
YFBX3-180M-4	18.5/25	1470	92.6	0.86	35.3
YFBX3-180L-4	22/30	1470	93.0	0.86	41.8
YFBX3-200L-4	30/40	1475	93.6	0.87	56.0
YFBX3-225S-4	37/50	1480	93.9	0.87	68.8
YFBX3-225M-4	45/60	1480	94.2	0.87	83.4
YFBX3-250M-4	55/75	1480	94.6	0.88	100
YFBX3-280S-4	75/100	1485	95.0	0.88	136
YFBX3-280M-4	90/125	1485	95.2	0.89	161
YFBX3-315S-4	110/150	1485	95.4	0.89	197
YFBX3-315M-4	132/180	1485	95.6	0.89	236
YFBX3-315L1-4	160/200	1485	95.8	0.89	285
YFBX3-315L-4	185/250	1485	95.9	0.89	329
YFBX3-315L2-4	200/270	1490	96.0	0.89	356
YFBX3-355M1-4	220/295	1490	96.0	0.89	391
YFBX3-355M-4	250/340	1490	96.0	0.89	445
YFBX3-355L-4	315/430	1490	96.0	0.89	560

6 POLES — SYNCHRONOUS SPEED 1000 R/MIN, 50 HZ

TYPE	RATED OUTPUT kW	RATED SPEED r/min	EFFICIENCY %	POWER FACTOR cos φ	RATED CURRENT A
YFBX3-80M1-6	0.37/0.5	930	73.5	0.70	1.1
YFBX3-80M2-6	0.55/0.75	930	77.2	0.72	1.5
YFBX3-90S-6	0.75/1	940	78.9	0.72	2.0
YFBX3-90L-6	1.1/1.5	940	81.0	0.73	2.8
YFBX3-100L-6	1.5/2	950	82.5	0.74	3.7
YFBX3-112M-6	2.2/3	950	84.3	0.74	5.4
YFBX3-132S-6	3/4	975	85.6	0.74	7.2
YFBX3-132M1-6	4/5.5	975	86.8	0.74	9.5
YFBX3-132M2-6	5.5/7.5	975	88.0	0.75	12.7
YFBX3-160M-6	7.5/10	970	89.1	0.78	16.4
YFBX3-160L-6	11/15	970	90.3	0.78	23.7
YFBX3-180L-6	15/20	980	91.2	0.81	30.9
YFBX3-200L1-6	18.5/25	980	91.7	0.81	37.8
YFBX3-200L2-6	22/30	980	92.2	0.82	44.2
YFBX3-225M-6	30/40	985	92.9	0.81	60.6
YFBX3-250M-6	37/50	985	93.3	0.84	71.7
YFBX3-280S-6	45/60	985	93.7	0.86	84.8
YFBX3-280M-6	55/75	985	94.1	0.86	103
YFBX3-315S-6	75/100	990	94.6	0.85	142
YFBX3-315M-6	90/125	990	94.9	0.84	172
YFBX3-315L1-6	110/150	990	95.1	0.85	207
YFBX3-315L2-6	132/180	990	95.4	0.86	244
YFBX3-355M-6	160/200	990	95.6	0.87	292
YFBX3-355M2-6	185/250	990	95.7	0.87	338
YFBX3-355L-6	200/270	990	95.8	0.87	365
YFBX3-355L1-6	250/340	990	95.8	0.87	456

8 POLES — SYNCHRONOUS SPEED 750 R/MIN, 50 HZ

TYPE	RATED OUTPUT kW	RATED SPEED r/min	EFFICIENCY %	POWER FACTOR cos φ	RATED CURRENT A
YFBX3-80M1-8	0.18/0.25	680	58.7	0.61	0.8
YFBX3-80M2-8	0.25/0.35	680	64.1	0.61	1.0
YFBX3-90S-8	0.37/0.5	695	69.3	0.65	1.3
YFBX3-90L-8	0.55/0.75	695	73.0	0.65	1.8
YFBX3-100L1-8	0.75/1	715	75.0	0.67	2.3
YFBX3-100L2-8	1.1/1.5	715	77.7	0.69	3.1
YFBX3-112M-8	1.5/2	700	79.7	0.71	4.0

8 POLES — SYNCHRONOUS SPEED 750 R/MIN, 50 HZ (CONTINUED)

TYPE	RATED OUTPUT kW	RATED SPEED r/min	EFFICIENCY %	POWER FACTOR cos φ	RATED CURRENT A
YFBX3-132S-8	2.2/3	715	81.9	0.71	5.8
YFBX3-132M-8	3/4	715	83.5	0.73	7.5
YFBX3-160M1-8	4/5.5	720	84.8	0.73	10.0
YFBX3-160M2-8	5.5/7.5	720	86.2	0.74	13.1
YFBX3-160L-8	7.5/10	720	87.3	0.75	17.4
YFBX3-180L-8	11/15	730	88.6	0.76	24.8
YFBX3-200L-8	15/20	730	89.6	0.76	33.5
YFBX3-225S-8	18.5/25	735	90.1	0.76	41.0
YFBX3-225M-8	22/30	735	90.6	0.78	47.3
YFBX3-250M-8	30/40	735	91.3	0.79	63.2
YFBX3-280S-8	37/50	740	91.8	0.79	77.5
YFBX3-280M-8	45/60	740	92.2	0.79	93.9
YFBX3-315S-8	55/75	740	92.5	0.81	112
YFBX3-315M-8	75/100	740	93.2	0.81	151
YFBX3-315L1-8	90/125	740	93.5	0.82	178
YFBX3-315L2-8	110/150	740	93.7	0.82	218
YFBX3-355M1-8	132/180	740	94.0	0.82	260
YFBX3-355M2-8	160/200	740	94.3	0.82	314
YFBX3-355L-8	200/270	740	94.6	0.83	387

10 POLES — SYNCHRONOUS SPEED 600 R/MIN, 50 HZ

TYPE	RATED OUTPUT kW	RATED SPEED r/min	EFFICIENCY %	POWER FACTOR cos φ	RATED CURRENT A
YFBX3-355S-10	90/125	590	92.9	0.77	191
YFBX3-355M1-10	110/150	590	93.1	0.78	230
YFBX3-355M2-10	132/180	590	93.5	0.78	275
YFBX3-355L-10	160/200	590	93.5	0.78	333
YFBX3-355L1-10	185/250	590	93.5	0.78	385

MOUNTING ARRANGEMENTS

The series is supplied in the following arrangements to IEC 60034-7. Letters on the drawings are the dimension symbols used in the outline and mounting dimension schedule.

ABOUT THESE DRAWINGS

The drawings show a representative frame for each arrangement and are not to scale. Dimensions for a specific frame size are given in the outline and mounting dimension schedule.

OUTLINE AND MOUNTING DIMENSIONS

The series is supplied in the IM B3 (foot), IM B5 (flange), IM B35 (foot and flange) mounting arrangements. The full outline and mounting dimension schedule for each frame — including flange details and tolerances — is issued on request and is not reproduced in this datasheet.

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Ratings and dimensions in this datasheet are taken from the LEADGO product brochure and are subject to change without prior notice as a result of continuous product development. Confirm the applicable data with the manufacturer before ordering or before modifying an existing installation.