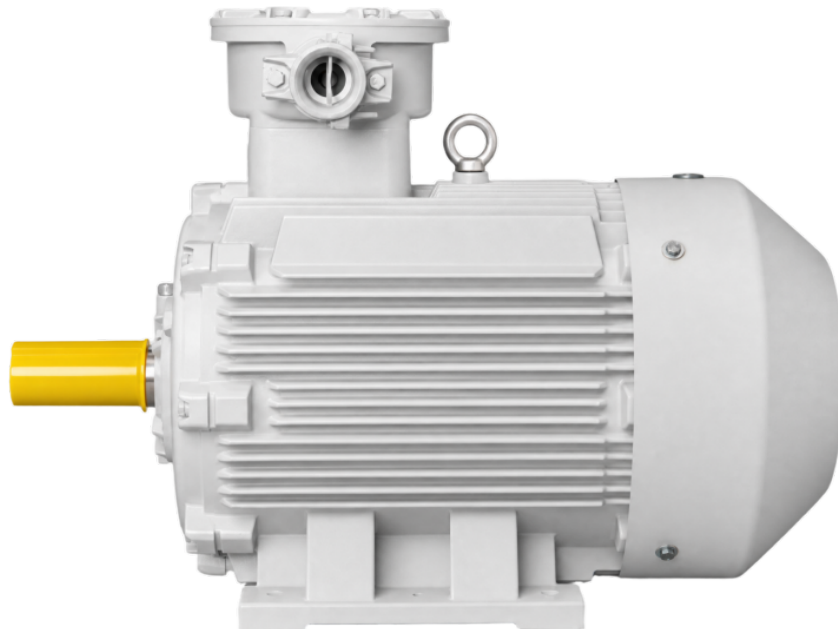


EXPLOSION-PROTECTED SERIES

YBX5

YBX5 SERIES HIGH EFFICIENCY FLAMEPROOF THREE-PHASE INDUCTION MOTOR

Totally enclosed flameproof three-phase induction motor for gas atmospheres in plant, at grade 1 of GB 18613—2020.

**22–110** kW

RATED OUTPUT

H200–H280FRAME CENTRE
HEIGHT**Grade 1**

GB 18613—2020 (IE5)

Ex db

TYPE OF PROTECTION

SERIES

YBX5

REVISION

A01

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DESCRIPTION

The YBX5 series is a totally enclosed, high-efficiency flameproof induction motor. Efficiency meets grade 1 of GB 18613—2020, the highest of that standard's three grades — YBX3 is grade 3 and YBX4 grade 2.

TECHNICAL SPECIFICATION

Explosion-protection marking	Ex db IIB T4 Gb (plant)
Poles	2, 4, 6 and 8
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 3836.2-2021	Explosive atmospheres — Part 2: equipment protected by flameproof enclosure “d”
GB 18613—2020	Energy efficiency grade 1, equivalent to IE5

MODEL DESIGNATION

The type designation is formed as follows, shown for **YBX5-200L1-2**.

YBX5	200	L1	2
SERIES	FRAME	LENGTH	POLES
Series code	Frame centre height, mm	Frame length and core length	Number of poles

TYPICAL APPLICATIONS

- Group IIB gas atmospheres in plant
- Petrochemical plant
- Chemical plant

NOTES

SCOPE COMPARED WITH YBX3 AND YBX4

The brochure gives this series a plant marking only — no mining mark — and a narrower frame range than YBX3 and YBX4, which run H80 to H355. No series technical-conditions standard number is printed for it.

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
YBX5-200L1-2	30	2975	95.5	0.89	53.6
YBX5-200L2-2	37	2975	95.8	0.89	65.9
YBX5-225M-2	45	2980	96.0	0.89	80.0
YBX5-250M-2	55	2980	96.2	0.89	97.6
YBX5-280S-2	75	2980	96.5	0.89	133
YBX5-280M-2	90	2980	96.6	0.89	159
YBX5-280M1-2	110	2980	96.8	0.89	194

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
YBX5-200L-4	30	1490	95.9	0.87	54.6
YBX5-225S-4	37	1490	96.1	0.87	67.2
YBX5-225M-4	45	1490	96.3	0.87	81.6
YBX5-250M-4	55	1485	96.5	0.88	98.4
YBX5-280S-4	75	1490	96.7	0.88	134
YBX5-280M-4	90	1490	96.9	0.89	159
YBX5-280M1-4	110	1490	97.0	0.89	194

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
YBX5-200L1-6	18.5	990	94.6	0.81	36.7
YBX5-200L2-6	22	990	94.9	0.82	43.0
YBX5-225M-6	30	990	95.3	0.82	58.3
YBX5-250M-6	37	990	95.6	0.84	70.0
YBX5-280S-6	45	990	95.8	0.86	83.0
YBX5-280M-6	55	990	96.0	0.86	101
YBX5-280M1-6	75	990	96.3	0.85	139

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
YBX5-200L-8	15	740	92.9	0.75	32.7
YBX5-225S-8	18.5	740	93.3	0.75	40.2
YBX5-225M-8	22	740	93.6	0.76	47.0
YBX5-250M-8	30	740	94.1	0.77	62.9
YBX5-280S-8	37	740	94.4	0.78	76.3
YBX5-280M-8	45	740	94.7	0.78	92.6

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

Principal dimensions are given below. The complete dimension schedule, including tolerances and flange details, is issued on request.

PRINCIPAL OUTLINE AND MOUNTING DIMENSIONS (MM)

FRAME	AB(MM)	AC(MM)	HD(MM)	L(MM)
200L	388	420	610	900
225S	—	470	670	—
250M	486	540	770	1040
280S	542	600	835	1085(1150)
280MA/280MB	—	—	—	—

MANUFACTURER

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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.