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APPLICATION CONSIDERATIONS

The proper selection and application of power transmission products and components, including the related area of product safety, is the responsibility of the customer. Operating and performance requirements and potential associated issues will vary appreciably depending upon the use and application of such products and components. The scope of the technical and application information included in this publication is necessarily limited. Unusual operating environments and conditions, lubrication requirements, loading supports, and other factors can materially affect the application and operating results of the products and components and the customer should carefully review its requirements. Any technical advice or review furnished by Regal Beloit America, Inc. and/or its affiliates ("Regal") with respect to the use of products and components is given in good faith and without charge, and Regal assumes no obligation or liability for the advice given, or results obtained, all such advice and review being given and accepted at customer's risk.

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ATEX - IECEx

MOTORS FOR HAZARDOUS LOCATIONS



A COMPREHENSIVE RANGE OF MOTORS FOR HAZARDOUS AREAS

T Y P E O F M O T O R

M A I N O P T I O N S



FLAMEPROOF ELECTRIC MOTORS

**E3.../E4A... SERIES - IE3/IE4
GAS & DUST VERSION**

- According to standards:
 - IEC/EN 600079-0, 1, 7, 31
 - IEC 60034-1, 2, 5, 6, 7, 8, 9, 12, 14, 30
 - IEC 60072
- Ex db, Ex db eb, Ex tb, Ex tc
 - * Terminal box Ex db or Ex eb available
 - * Continuous duty or intermittent duty
- Atex category I M2, II2G, II2D, II2GD
- Gas group I, IIB, IIC
- Dust group IIIB, IIIC
- Temperature classes T3, T4, T5, T6
- Surface temperature classes (Dust) T150°C - T135°C - T125°C - T100°C - T85°C
- Protection IP55, IP56, IP65, IP66
- Frame size from 80 to 355 (IEC)
- Power 0,75 - 375 kW
- 400V, 50Hz (multi voltage 380-400-415V/50Hz and 460V/60Hz)
- Pole 2, 4, 6, 8
- Self-cooling (IC411); Forced cooling (IC416); Not ventilated (IC410); Totally enclosed air over (IC418)
- Premium efficiency IE3; Super-premium efficiency IE4 Available IE1/IE2 (A Series)
- Certified ATEX and IECEx
- Certified GMEE



FLAMEPROOF ELECTRIC MOTORS WITH BRAKE

**E3.../E4D SERIES - IE3/IE4
GAS & DUST VERSION**

- According to standards:
 - IEC/EN 600079-0, 1, 7, 31
 - IEC 60034-1, 2, 5, 6, 7, 8, 9, 12, 14, 30
 - IEC 60072
- Motor enclosure Ex db (flameproof) and brake in separate Ex db enclosure
- Terminal box Ex db or Ex eb available
- Multiple choice for brake torque available
- Continuous duty or intermittent duty
- Ex db, Ex db eb, Ex tb, Ex tc
- Atex category II2G, II2D, II2GD
- Gas group IIB, IIC
- Dust group IIIB, IIIC
- Temperature classes T3, T4, T5, T6
- Surface temperature classes (Dust) T150°C - T135°C - T125°C - T100°C - T85°C
- Protection IP55, IP56, IP65, IP66
- Frame size from 80 to 315 (IEC)
- Power 0,75 - 200 kW
- 400V, 50Hz (multi voltage 380-400-420V/50Hz and 460V/60Hz)
- Pole 2, 4, 6, 8 and dual speed motor (separate windings or Dahlander)
- Self-cooling (IC411); Forced cooling (IC416); Not ventilated (IC410); Totally enclosed air over (IC418)
- Premium efficiency IE3; Super-premium efficiency IE4 Available IE1/IE2
- Certified ATEX and IECEx
- Certified GMEE



NON SPARKING ELECTRIC MOTORS

**TCN SERIES - IE3/IE4
GAS & DUST VERSION**

- According to standards:
 - IEC/EN 600079-0, 15, 31
 - IEC 60034-1, 2, 5, 6, 7, 8, 9, 12, 14, 30
 - IEC 60072
- Ex -nA, Ex-tb, Ex-tc
- Atex category II3G, II3G/II2D, II3GD
- Gas group IIB, IIC
- Dust group IIIB, IIIC
- Temperature classes T3
- Max surface temperature (Dust) T200°C
- Protection IP55, IP56, IP65, IP66
- Frame size from 80 to 355 (IEC)
- Power 0,75 - 375 kW
- 400V, 50Hz and 460V/60Hz
- Pole 2, 4, 6, 8
- Self-cooling (IC411); Forced cooling (IC416); Not ventilated (IC410); Totally enclosed air over (IC418)
- Premium efficiency IE3; Super-premium efficiency IE4 Available IE1/IE2
- Certified ATEX and IECEx
- Certified GMEE



Ex-e increased safety stainless steel terminal box



Brake enclosure



Oversized terminal box



Totally enclosed fan ventilated

MECHANICAL

- Special flanges and shafts
- Without terminal box with plate (cables gland, or seal joints and conduit)
- Locked bearings, roller bearings or special bearings
- Terminal box on side
- SPM probe (vibrations measurement)
- Double ended shafts
- Cable gland fitted to terminal box
- Condensation drain valve
- Grade A or B vibration
- Rain cap or sun shield water shredding disk
- Low noise
- Auxiliary terminal box
- Low (-60°C) temperature motors

ELETRICAL

- Special voltage and frequency
- Three phase 2 speeds
- Single phase with permanent capacitor
- Motors for tropical climates
- Electrical special designs
- Class H insulation
- Suitable for frequency converter drives

ACCESSORIES

- Forced ventilation (IC416)
- Encoders (100 - 10000 ppr)
- Bearing sensors
- Bimetallic thermal protection (NC, NO), thermistors (PTC), platinum resistor(PT100)
- Anti-condensation heaters

BRAKES

- AC disc brakes
- DC disc brakes
- Brake hand release
- Braking when not energized

ENGINEERING SERVICES

- Start-up behavior analysis
- Superimposed curve (motor + driven machine)
- Load test and thermal test as per IEC 60034-2-1 (Dynamic method)
- Insulation test
- ATEX, IEC Ex and UL approved for thermal test
- Bureau Veritas and Korean Register approved



MARATHON™ INDIA - INDUSTRIAL SYSTEMS PRODUCT RANGE

SEPTEMBER 2022 | INDIA



Marathon™ Low Voltage Motors



TerraMAX™ SCA - IE2 Motors

- Frame Sizes: IEC®* 80 - IEC 355
- Power Rating: 0.37 kW to 375 kW
- Power Supply: AC 3 Phase 415V, 50Hz
- Pole: 2 to 8
- Protection: IP55 (IS 4691)
- Insulation Class: Class F with temperature rise limited to class B



TerraMAX TCA - IE3 Motors

- Frame Sizes: IEC 80 - IEC 355
- Power Rating: 0.37 kW to 375 kW
- Power Supply: AC 3 Phase 415V, 50Hz
- Pole: 2 to 8
- Protection: IP55 (IS 4691)
- Insulation Class: Class F with temperature rise limited to class B



TerraMAX QCA - IE4 Motors

- Frame Sizes: IEC 80 - IEC 355
- Power Rating: 0.37 kW to 355 kW
- Power Supply: AC 3 Phase 415V, 50Hz
- Pole: 2 to 6
- Protection: IP55 (IS 4691)
- Insulation Class: Class F with temperature rise limited to class B



Challenger IE2 Motors

- Frame Sizes: IEC 80 - IEC 355
- Power Rating: 0.37 kW to 375 kW
- Power Supply: AC 3 Phase 415V, 50Hz
- Pole: 2 to 8
- Protection: IP55 (IS 4691)
- Insulation Class: Class F with temperature rise limited to class B
- Special features available on demand: Brake, Force cooling, encoder mounting, Multi-speed, Type Ex ec, Higher pole 10/12, Intermittent duty



Flame Proof Motors IE1 / IE2

- Frame Sizes: IEC 80 - IEC 355
- Power Rating: 0.37 kW to 315 kW
- Power Supply: AC 3 Phase 415V, 50Hz
- Pole: 2 to 8
- Protection: IP55 (IS 4691)
- Insulation Class: Class F with temperature rise limited to class B
- Gas Group - I , IIA & IIB for entire range and IIC for frame 80 to 160



Smoke Spill Motors IE2 / IE3

- Frame Sizes: IEC 80 - IEC 280
- Power Rating: 0.37 kW to 90 kW
- Power Supply: AC 3 Phase 415V, 50Hz
- Pole: 2 to 8
- Protection: IP55 (IS 4691)
- Insulation Class: Class H
- Thermal capacity under abnormal condition: 400 / 300 / 250 degree centigrade for 2 hours



PTSC - I SPDP Squirrel Cage Motors

- Frame Sizes: IEC 160 - IEC 355
- Power Rating: 11 kW to 375 kW
- Power Supply: AC 3 Phase 415V, 50Hz
- Pole: 2 to 8
- Protection: IP21, IP23 (IS 4691)
- Insulation Class: Class F with temperature rise limited to class B



PTSC - I (Fire Fighting) SPDP Squirrel Cage Motors

- Frame Sizes: IEC 180 - IEC 250
- Power Rating: 30 kW to 110 kW
- Power Supply: AC 3 Phase 415V, 50Hz
- Pole: 2
- Protection: IP21, IP23 (IS 4691)
- Insulation Class: Class F with temperature rise limited to class B



KD Crane Duty Motors (Lower Frame)

- Frame Sizes: IEC 80 - IEC 250
- Power Rating: 0.75 kW to 55 kW
- Power Supply: AC 3 Phase 415V, 50Hz
- Pole: 4 to 8
- Protection: IP55 (IS 4691)
- Insulation Class: Class F
- Meets efficiency requirement as per IS:12615-2018



KS Crane Duty Slipring Motors

- Frame Sizes: IEC 112 - IEC 560
- Power Rating: 2 kW to 450 kW
- Power Supply: AC 3 Phase 415V, 50Hz
- Pole: 6 to 10
- Protection: IP55 (IS 4691)
- Insulation Class: Class F with temperature rise limit to Class B



RW/CW SPDP Slipring Motors

- RW Frame Sizes: RW89 to RW 168
- CW Frame Sizes: IEC 450 TO IEC 710
- Power Rating: 90kW to 2000 kW
- Power Supply: AC 3 Phase 415V, 50 Hz
- Pole: 6 to 12
- Protection: IP21, IP23 (IS 4691)
- Insulation Class: Class F with temperature rise limited to class B



TerraMAX SCV - Crane Duty Motor

- Frame Sizes: IEC 80 - IEC 355
- Power Rating: 0.75 kW to 315 kW
- Power Supply: AC 3 Phase 415V, 50Hz
- Pole: 4 to 8
- Protection: IP55 (IS 4691)
- Insulation Class: Class F
- Meets efficiency requirement as per IS:12615-2018

Voltage variation: +/- 10%, Frequency variation +/- 5 % and combined Variation 10%

*IEC is a trademark or trade name of International Electrotechnical Commission and not owned by Regal Rexnord Corporation.

Notes: For higher rating contact Regal Rexnord office.

Marathon™ Medium Voltage



MV Motors - CACA

- Frame: IEC®* 315 to IEC 710
- Power Rating: upto 5 MW
- Voltage: 3.3KV / 6.6KV / 11KV
- Frequency: 50Hz +- 5%
- Pole: 2 to 14



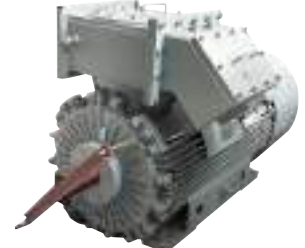
MV Motors - TEFC

- Frame: IEC 280 to IEC 560
- Power Rating: upto 1.5 MW
- Voltage: 3.3KV / 6.6KV / 11KV
- Frequency: 50Hz +- 5%
- Pole: 2 to 14



MV Motors - CACW

- Frame: IEC 315 to IEC 710
- Power Rating: upto 5 MW
- Voltage: 3.3KV / 6.6KV / 11KV
- Frequency: 50Hz +- 5%
- Pole: 2 to 14



MV Motors - Flame Proof (Ex d)

- Frame: IEC 280 to IEC 450
- Power Rating: upto 750 kW
- Voltage: 3.3KV / 6.6KV
- Frequency: 50Hz +- 5%
- Pole: 2 to 8



MV Motors - TETV

- Frame: IEC 400 TO IEC 1000
- Power Rating: upto 4 MW
- Voltage: 3.3KV / 6.6KV
- Frequency: 50Hz +- 5%
- Pole: 2 to 14



MV Motors - CACA SLIP RING

- Frame: IEC 315 to IEC 710
- Power Rating: upto 3 MW
- Voltage: 3.3KV / 6.6KV / 11KV
- Frequency: 50Hz +- 5%
- Pole: 4 to 8



MV Motors - SPDP

- Frame: IEC 315 to IEC 710
- Power Rating: upto 5 MW
- Voltage: 3.3KV / 6.6KV / 11KV
- Frequency: 50Hz +- 5%
- Pole: 2 to 14

Marathon Fans



Propeller Fan

- Air Flow: 1200 m³/hr to 28000 m³/hr
- Sweep Dia: 12" to 36"
- Voltage: 415V+-10%
- Frequency: 50 Hz±5%
- Static Pressure: Free Flow



Axial Flow Fan

- Air Flow: 1000 m³/hr to 300000 m³/hr
- Sweep Dia: 12" to 75"
- Voltage: 415V+-10%
- Frequency: 50 Hz±5%
- Static Pressure: Free Flow to 135 mm wg



Centrifugal Fan

- Air flow: 1000 m³/hr to 250000 m³/hr
- Impeller dia: 250mm to 2000mm
- Voltage: 415V+-10%
- Frequency: 50 Hz±5%
- Static pressure: 7.5 mm wg to 900 mm wg



Mancooler Fan

- Sweep range: 480 mm to 1200 mm
- Air flow: 22000 m³/hr to 74500 m³/hr
- Static pressure: Free Air Delivery (F.A.D.)

Voltage variation: +/- 10%, Frequency variation +/- 5 % and combined Variation 10%

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Marathon™ Genesis

Regal Rexnord Brands and Global Presence



marathon™ Motors

Industrial Systems Regal Rexnord

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TOTAL

173 Sites
29,400 Associates

AMERICA 80 Sites 18,300 Associates	EUROPE 32 Sites 2,400 Associates
ASIA PACIFIC 54 Sites 6,500 Associates	OTHER 7 Sites 2,200 Associates

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