

SEPTEMBER 2021

# MOTION

MV & LV Motors product

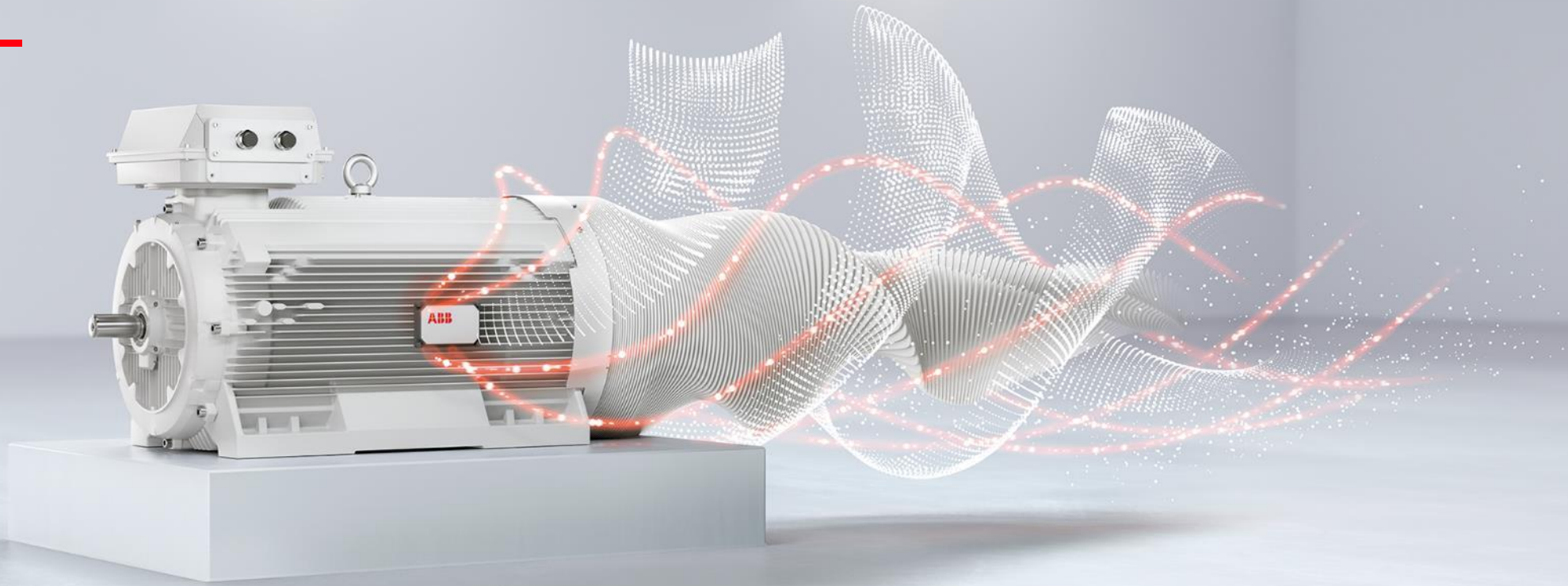
Presented by:

MOMG – EGABB team

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# Agenda

- Introduction.
- ABB's Operations and Organization setup.
- Motors' Technical operations.
- ABB market share and position.
- How to select correct motor for a certain application.
- Project life cycle.
- ABB optimizer online free tool.
- Motors' Variant codes.
- Project management and operations process in orders and projects handling.



# ABB's Operations and Organization Setup



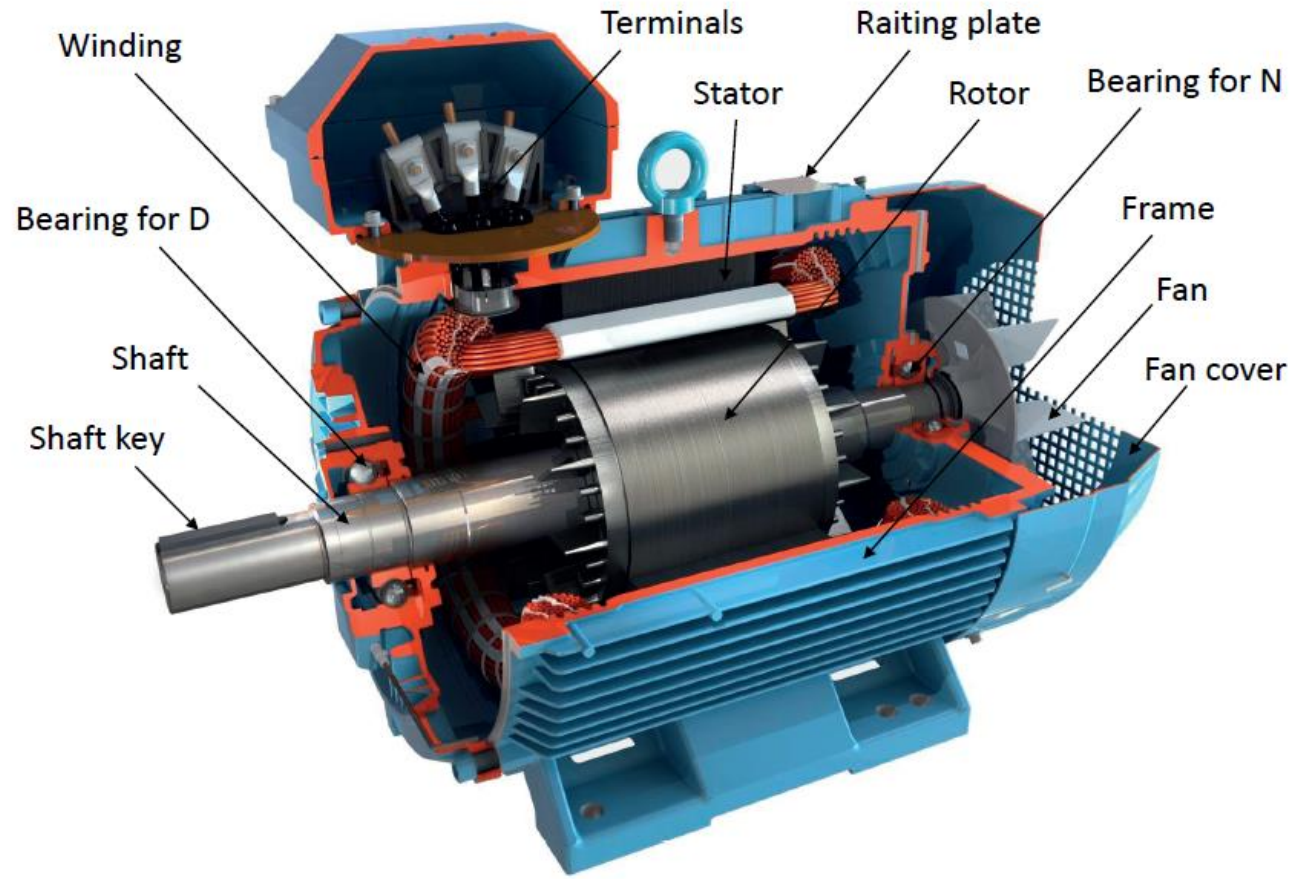
# Motors' Technical operations





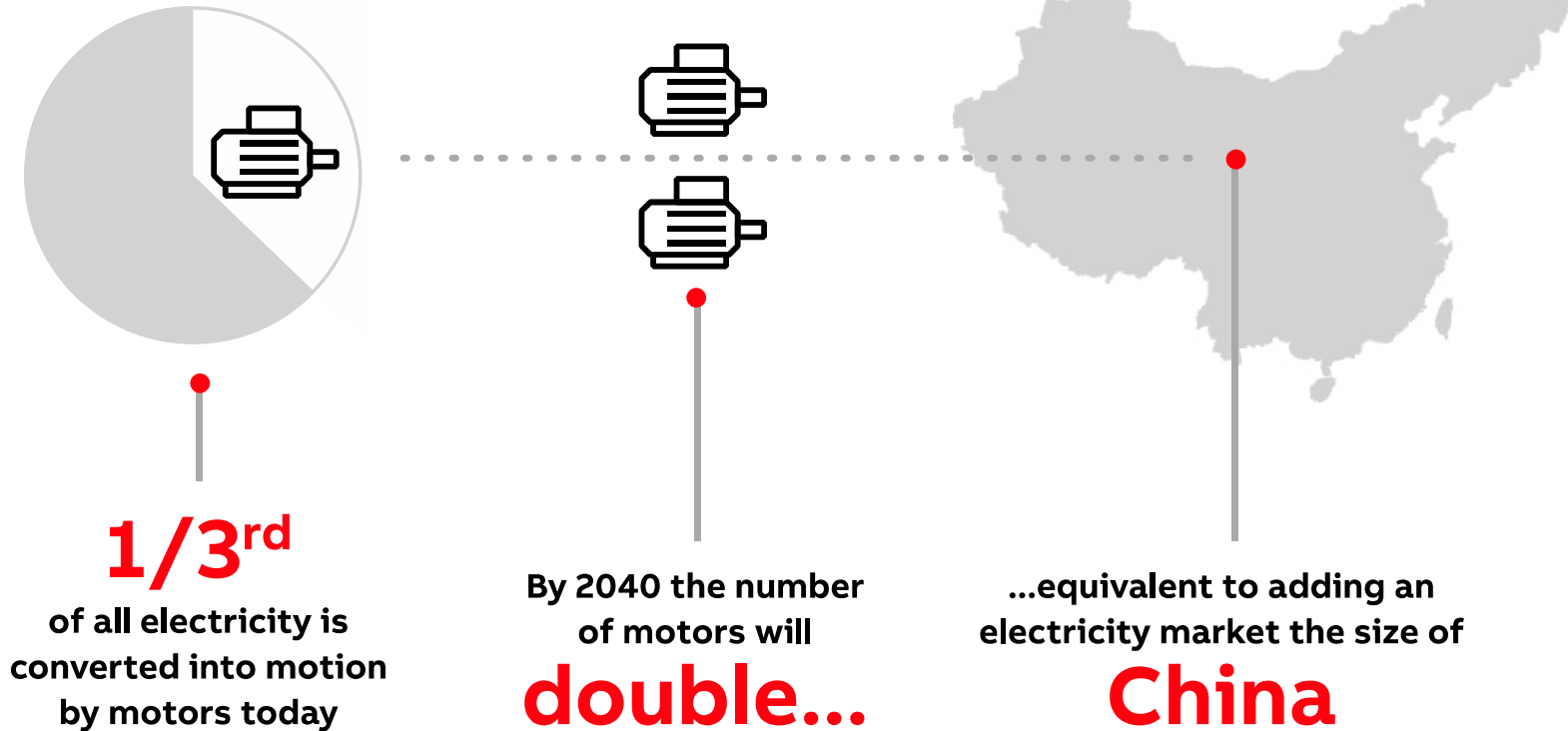
# Motor construction

The following is a cross-section of a three-phase induction motor and its main parts



# Global market and trends

The world is going electric



Improved energy efficiency is a must and we - the 14,000 people behind the Motors and Generators business - play a key role realizing it.

# IEC Low voltage motors

## Manufacturing locations

### Sweden, Vasteras

Manufacturing of active components, traction

### Finland, Vaasa

M3BP, M3AA, M3JP, M3KP, M3HP, M3GP, M3JM

All frequency controlled, special

### China, Shanghai

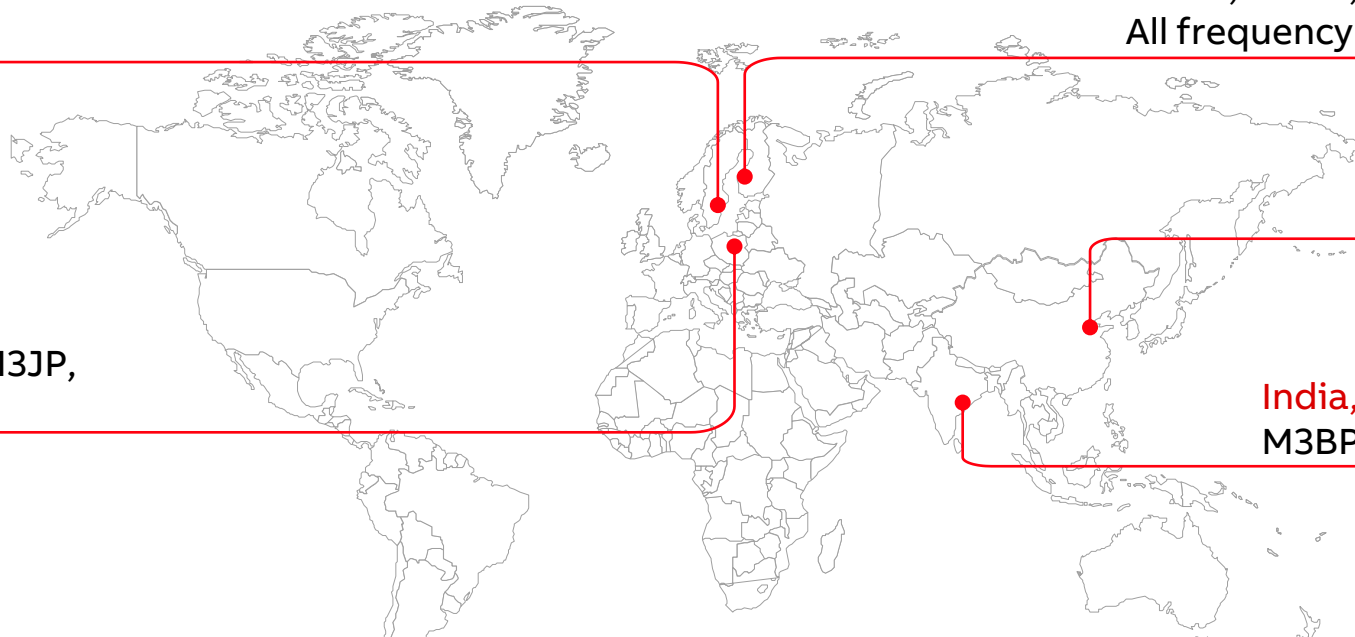
M3BP, M2BAX, M3AA, M3JP,..., traction

### Poland, Lodz

M3BP, M3AA, M2AA, M2BAX, M3JP, M3KP, M3GP

### India, Faridabad, Bangalore

M3BP, M2BAX



Global footprint, close to IEC LV market



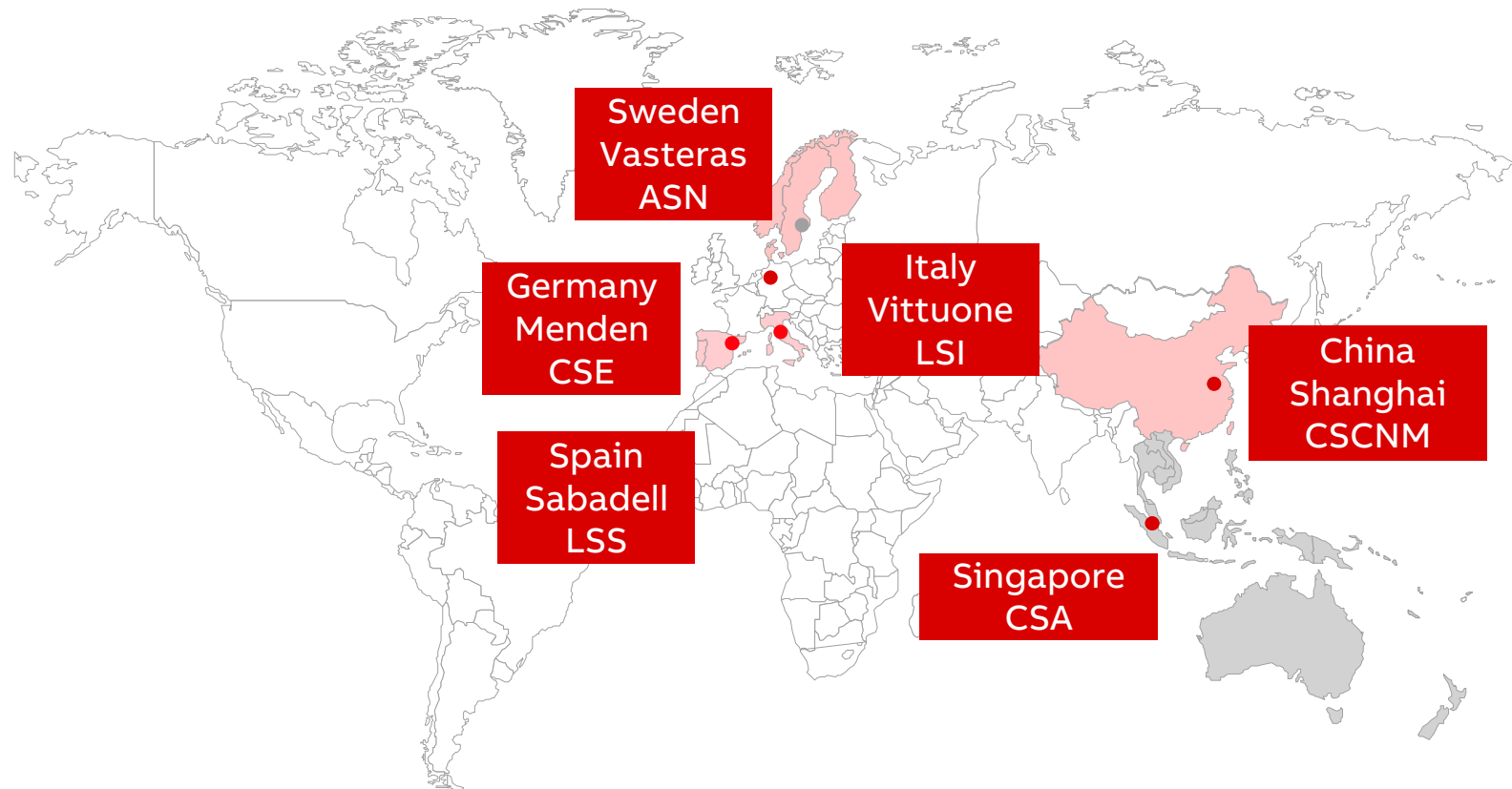
# IEC Low voltage motors

## Stocks and logistic centers

**CS** - Central stock serves multiple countries inside region and consolidates export shipments out from the region

**AS** - Area stock serves selected countries inside the region

**LS** - Local stock serves a single country



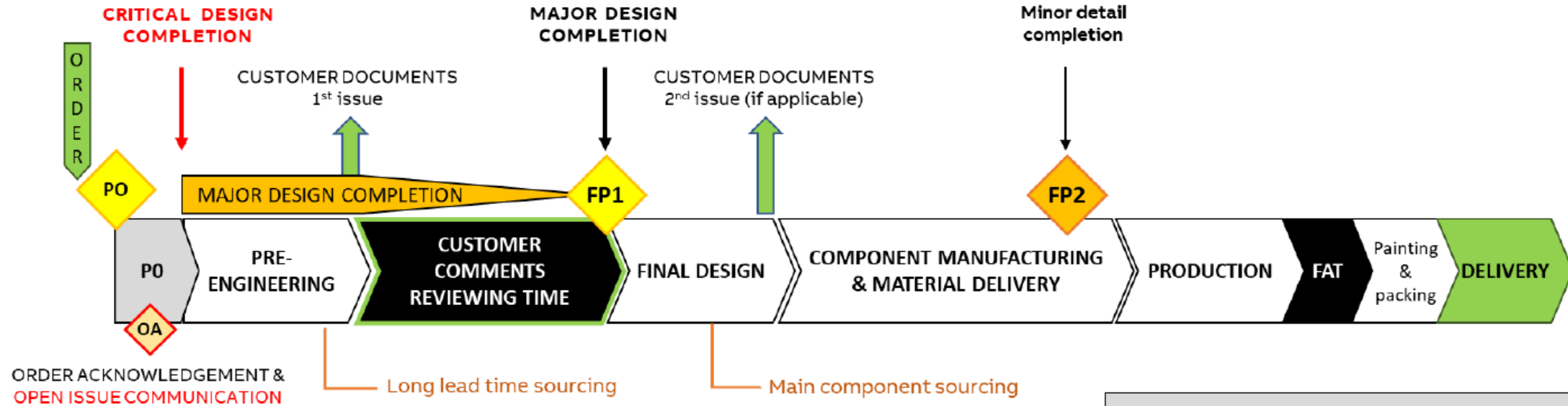


# How to select correct motor for a certain application (live Example)



# Project's life cycle

# Project life cycle



Recommended lead time is Cuusamo minimum lead time plus customer comments reviewing time, including handling time in LSU's. Agree with customer chain how much time is needed for reviewing time and set up an open issue target date (Freezing point 1)

**NOTE:** If major items remain open on Freezing point 1 date and no other agreement have been made, production unit engineering can't complete the design and possible effects on delivery time must be evaluated.

Cuusamo minimum LT [Weeks]		Agreed comments reviewing time [Weeks]		Recommended minimum LT [Weeks]
12	+	2	=	14
12	+	4	=	16
16	+	2	=	18
16	+	4	=	20
22	+	4	=	26
22	+	8	=	30





**ABB optimizer online free tool.**





# Motors' Variant Codes

# Variant Codes

Variant codes specify additional options and features to the standard motor. The desired features are listed as three-digit variant codes in the motor order. Note also that there are variants that cannot be used together.

Most of the variant codes apply to IE2, IE3, and IE4 motors. However, confirm the availability of variants for IE3 and IE4 motors with your ABB sales office before making an order.

Code/Variants	Frame size															
	71	80	90	100	112	132	160	180	200	225	250	280	315	355	400	450
<b>Administration</b>																
529 Customer witnessed visual inspection of complete order line.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
530 Two-year extension on standard warranty	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
531 Sea freight packing	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
533 Wooden sea freight packing	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
590 Mounting of customer supplied part other than coupling.	-	•	•	•	•	•	•	•	•	•	•	•	•	•	•	-
683 Prepared for ABB Ability Smart Sensor	-	-	-	-	-	-	•	•	•	•	•	•	•	•	•	•
684 ABB Ability Smart sensor mounted	-	-	-	-	-	-	•	•	•	•	•	•	•	•	•	•

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# Product portfolio PG IEC LV Motors

The language of IEC LV Motors

Type designation

A          B          C          D          E          F  
**M3BP 280 SMA 4 B3**

A = Motor type

B = Frame size

C = Mounting hole distance

D = Length of stator package

E = Pole number

F = Mounting

Product code

1    2    3    4    5                  6 7 8 9  
**3GBP 282 210 – ADK 701**

1 = Identity number dedicated to LV motors (3G)

2 = Motor enclosure (BP, LP, AA, BJ etc.)

3 = Frame size (08 = 80, 28 = 280, 31 = 315 etc.)

4 = Pole pair number (1 = 2 pole, 2 = 4 pole etc.)

5 = Running number

6 = Mounting (A = foot mounted, B = flange mounted etc.)

7 = Voltage/frequency rating (e.g. D = 400 VD, 415 VD, 690 VY 50 Hz)

8 = Design code (A, B, C, D, E, F, G, H, J, K, L)

9 = Variant code number (when applicable)

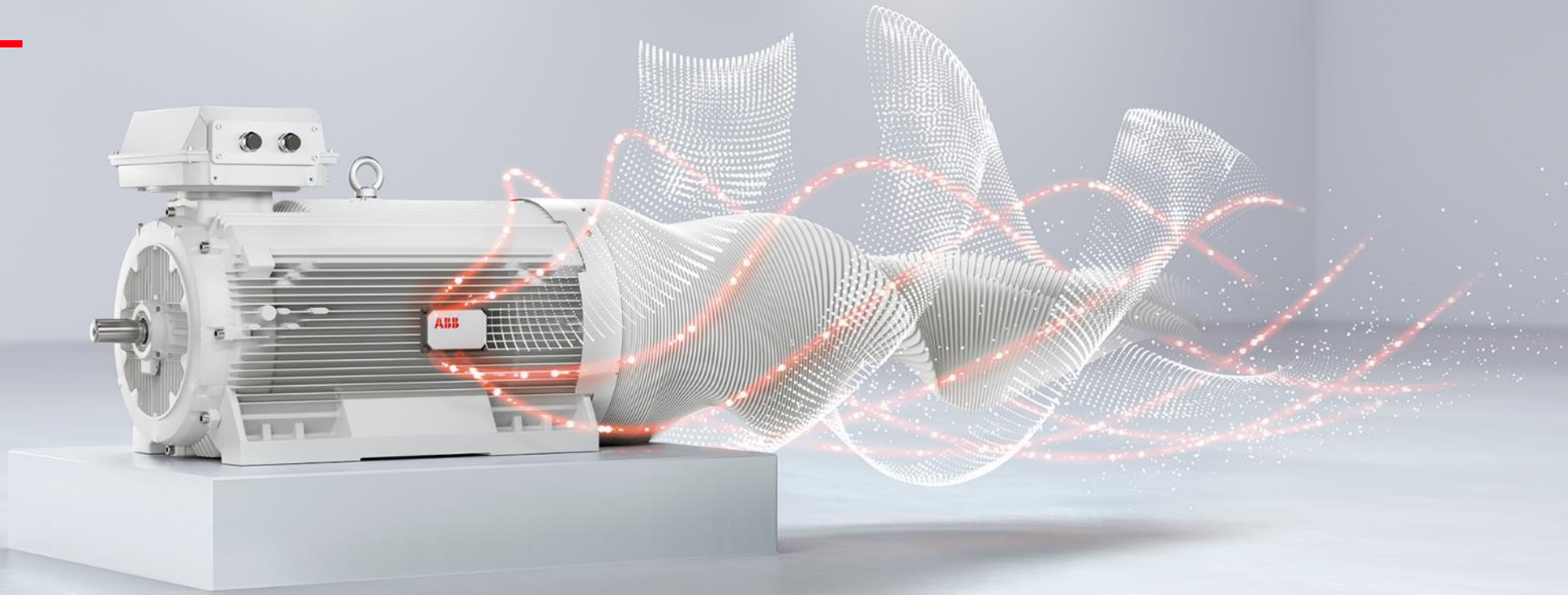
OMS Product code

**3BP3**



**PM process**





# ABB smart Sensors

[\(6\) ABB Ability Smart Sensor. Condition monitoring solution for low voltage motors – YouTube](#)



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# Thank you for your participation

## Questions & Answer

We will be happy to answer all your questions!

**ABB**