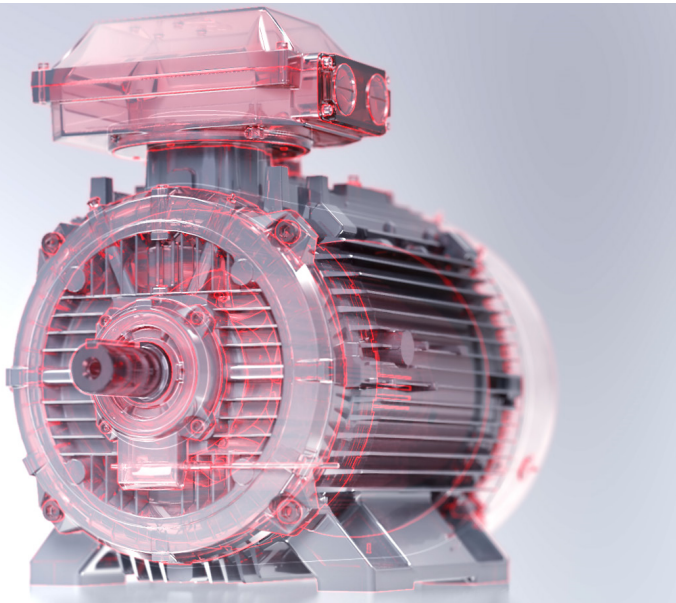


Discover the power of “cool” SynRM motors

ABB IEC Low Voltage motors



Unlocking the Benefits of SynRM Technology: A recent study reveals the low bearing temperatures achieved by the ABB SynRM motor. Lower temperatures play a crucial role in increasing energy and cost efficiency, as well as promoting sustainability.

Optimizing Bearing Performance with SynRM Motors

Through comprehensive testing of both SynRM and induction motors together with a drive, compelling evidence regarding bearing temperature emerges. These findings strongly support the statement that the **bearing temperature** at D-end of a SynRM motor is typically 5-15°C **lower** compared to an induction motor operated with a drive.

Extend Bearing Lifetime

The consequential impact of this temperature differential is either to maintain the existing grease intervals and get an extended bearing lifetime, or leverage the temperature margin to get longer re-greasing intervals.

Elevate Efficiency and Reliability

Lower temperatures increase the reliability, prolong the motor lifetime, and reduce the need for maintenance. Lower energy usage and maintenance needs also result in a lower total cost of ownership, increasing not only energy efficiency but also cost efficiency.

Lower bearing temperatures are an important factor in reducing life-cycle costs because bearing failures account for about 70% of unplanned motor outages.

Moreover, maintaining optimal operating temperatures not only enhances the motor’s performance but also contributes to a **more sustainable operation**.



Lower temperature



Extended bearing lifetime



Longer re-greasing intervals



Save money - less lubrication rounds

Lubrication plate comparison

As a result of the latest test data, lubrication intervals have been adjusted accordingly. This update is reflected in the lubrication plate for SynRM motors as well as in the table presented in the most recent [SynRM catalog](#).

Below, a side-by-side comparison of the new lubrication plate on the left and the previous version on the right. There is a substantial enhancement in re-greasing intervals at 1500 rpm, from 9600 hours to an impressive 16000 hours.



ABB REGREASING INSTRUCTIONS					
Bearings		6316/C3  6316/C3VL0241			
Amount of grease		40 g  40 g			
Greased in factory with MOBIL UNIREX N2					
Mounting	AMB. temp.	1500 r/min	1000 r/min	r/min	r/min
Hor	25	16000	23100		
Hor	40	8000	11600		
Vert	25	8000	11600		
Vert	40	4000	5800		
Regreasing interval in duty hours					
The following or similar high performance grease can be used:					
Mobil	Unirex N2 / N3	Shell	Gadus S5 V 100 2		
Total	Multis Complex S2 A	Mobil	Mobilith SHC 100		
Kluber	Kluberplex BEM 41-132	FAG	Arcanol TEMP110		
Do not exceed the motor max. speed					2357834-2
See respective "Motor manual"					



ABB REGREASING INSTRUCTIONS					
Bearings		6316/C3  6316/C3VL0241			
Amount of grease		40 g  40 g			
Greased in factory with MOBIL UNIREX N2					
Mounting	AMB. temp.	1800 r/min	1500 r/min	1000 r/min	0-900 r/min
Hor	25	7800	9600	13900	15000
Hor	40	3900	4800	6900	7500
Vert	25	3900	4800	6900	7500
Vert	40	1900	2400	3500	3800
Regreasing interval in duty hours					
The following or similar high performance grease can be used:					
Mobil	Unirex N2 / N3	Shell	Gadus S5 V 100 2		
Total	Multis Complex S2 A	Mobil	Mobilith SHC 100		
Kluber	Kluberplex BEM 41-132	FAG	Arcanol TEMP110		
Do not exceed the motor max. speed					4510743541-10
See respective "Motor manual"					

ABB SynRM motors are engineered for ultra-premium IE5 efficiency, with up to 40% lower losses than regular motors.

