

ULTAGE



SEALED
SPHERICAL ROLLER BEARINGS

Performance - Economical - Environmental protection

NTN® **SNR**®

www.ntn-snr.com



With You

NTN-SNR adds sealed bearings to its ULTAGE range of high performance spherical roller bearings.



Identified by the suffix EE, these high performance and sealed bearings of the ULTAGE range are designed to operate in harsh environments and on equipment requiring extended maintenance intervals.

The new series is suitable for applications as diverse as steel industry, paper making industry, mines and quarry conveyors, textile, handling equipment as well as elevator transmissions.



Advantages of the sealed series

Increased service life

- High-Performance of the ULTAGE series.
- Use of greases suitable for high loads.
- Effectiveness of seals guaranteed by constant contact pressure of the seal lip even in case of misalignment.
- Effective protection of seals against pollution or contamination of the lubricant, the main causes of bearing failure.



Reduced maintenance costs

- Extended maintenance intervals
- Reduced grease usage
- Eliminate the need for expensive lubrication systems



Reduction in the environmental impact

- Reduced consumption of grease
- Cleaner handling during assembly and removal
- No contamination of equipment due to grease leaks



Material of seals and operating temperature:

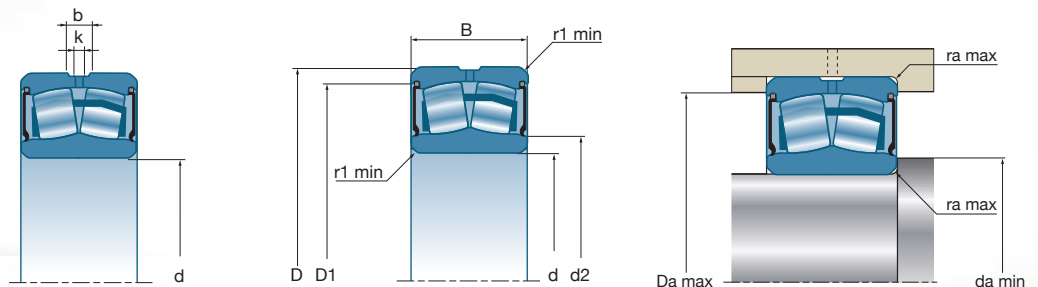
The operating temperature of a sealed spherical roller bearing is linked to the grease and the material of seals.

Material of seal	Colour	Suffix	Operating temperatures
Nitrile NBR	Red	EE	-20°C to 110°C
Fluoroelastomer FPM*	Black	EE3**	-20°C to 180°C

* Precautions for use of fluoroelastomer seals:

Fluoroelastomers are very stable up to 180°C, the maximum operating temperature of bearings. Beyond 300°C, fluoroelastomers may emit noxious gases or vapours. Special precautions must be respected if the bearings are accidentally exposed to temperatures beyond 300°C.

** Versions EE3 available on request



Overall dimensions			ULTAGE	Designations	Load limit fatigue C_u kN	Basic capacity		Calcul factor				Limit speed tr/min
d	D	B				Cylindrical bore	Dynamic C	Static C_0	e	Y_1	Y_2	
mm												
25	52	23	*	10X22205EAW33EE	4,7	57,3	46,1	0,34	2	2,98	1,96	3900
30	62	25	*	10X22206EAW33EE	6,65	75,7	64,5	0,31	2,15	3,2	2,1	3200
35	72	28	*	10X22207EAW33EE	8,8	100	92	0,31	2,21	3,29	2,16	2600
40	80	28	*	10X22208EAW33EE	11,2	116	105	0,27	2,47	3,67	2,41	2300
45	85	28	*	10X22209EAW33EE	12,7	121	113	0,26	2,64	3,93	2,58	2100
50	90	28	*	10X22210EAW33EE	14,5	130	124	0,24	2,84	4,23	2,78	2000
50	90	28	*	10X22210EAW33EEL	14,5	130	124	0,24	2,84	4,23	2,78	2000
55	100	31	*	10X22211EAW33EE	18	155	148	0,23	2,95	4,4	2,89	1800
55	100	31	*	10X22211EAW33EEL	18	155	148	0,23	2,95	4,4	2,89	1800
60	110	34	*	10X22212EAW33EE	22,1	187	181	0,24	2,84	4,23	2,78	1600
60	110	34	*	10X22212EAW33EEL	22,1	187	181	0,24	2,84	4,23	2,78	1600
65	120	38	*	10X22213EAW33EE	26,2	226	224	0,24	2,79	4,15	2,73	1500
65	120	38	*	10X22213EAW33EEL	26,2	226	224	0,24	2,79	4,15	2,73	1500
70	125	38	*	10X22214EAW33EE	28,8	235	240	0,22	3,01	4,48	2,94	1400
70	125	38	*	10X22214EAW33EEL	28,8	235	240	0,22	3,01	4,48	2,94	1400
75	130	38	*	10X22215EAW33EE	30,3	244	249	0,22	3,14	4,67	3,07	1300
75	130	38	*	10X22215EAW33EEL	30,3	244	249	0,22	3,14	4,67	3,07	1300
80	140	40	*	10X22216EAW33EE	34,5	278	287	0,22	3,14	4,67	3,07	1200
80	140	40	*	10X22216EAW33EEL	34,5	278	287	0,22	3,14	4,67	3,07	1200
85	150	44	*	10X22217EAW33EE	38,8	324	330	0,22	3,07	4,57	3	1200
85	150	44	*	10X22217EAW33EEL	38,8	324	330	0,22	3,07	4,57	3	1200
90	160	48	*	10X22218EAW33EE	43,3	384	398	0,23	2,9	4,31	2,83	1100
90	160	48	*	10X22218EAW33EEL	43,3	384	398	0,23	2,9	4,31	2,83	1100
95	170	51	*	10X22219EAW33EE	47,9	416	417	0,23	2,95	4,4	2,89	1100
100	180	55	*	10X22220EAW33EE	53	472	495	0,24	2,84	4,23	2,78	1000

Bearings available in cylindrical bore (tapered bore on request)

All clearances available in stock or on request.

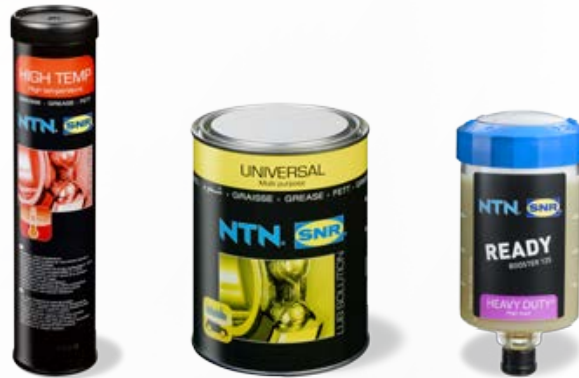
Version without groove and lubrication hole W33 are available on request. For other series and dimensions, particularly width according to ISO 15: 1998, contact your NTN-SNR representative.

*NTN-SNR Ultage bearing

Reduced maintenance:

NTN-SNR sealed spherical roller bearings do not require maintenance under normal operating conditions. In cases of high speed and temperature relubrication may be necessary. In the standard version, the bearings are delivered with a groove and lubrication holes (suffix W33) that allow for relubrication.

Please consult our experts who will define the relubrication conditions specific to your application.



Designations	Mass	Number of holes	Dimensions						Fitting dimensions			
			b	k	r ₁ min	d ₂	D ₁	d _a min	d _a max	D _a max	r _a max	
												mm
10X22205EAW33EE	0,21	3	3	1,5	1	28,6	47,7	28,6	28,6	47,7	1	
10X22206EAW33EE	0,33	3	4,4	2	1	35,2	56,4	35,2	35,2	56,4	1	
10X22207EAW33EE	0,51	3	4,9	2	1,1	42,8	65,1	42	42,8	65,1	1	
10X22208EAW33EE	0,62	3	5,4	2,5	1,1	47,8	73,9	47	47,8	73,9	1	
10X22209EAW33EE	0,66	3	5,8	2,5	1,1	52,4	78,7	52	52,4	78,7	1	
10X22210EAW33EE	0,70	3	5,8	2,5	1,1	57,1	82,2	57	57,1	83	1	
10X22210EAW33EEL	0,70	3	5,8	2,5	1,1	57,1	82,2	57	57,1	83	1	
10X22211EAW33EE	0,98	3	6,4	3	1,5	63,4	93,9	63,4	63,4	93,9	1,5	
10X22211EAW33EEL	0,98	3	6,4	3	1,5	63,4	93,9	63,4	63,4	93,9	1,5	
10X22212EAW33EE	1,33	3	6,9	3	1,5	69,2	102,5	69	69,2	102,5	1,5	
10X22212EAW33EEL	1,33	3	6,9	3	1,5	69,2	102,5	69	69,2	102,5	1,5	
10X22213EAW33EE	1,77	3	7,8	3,5	1,5	75,3	116,4	74	75,3	116,4	1,5	
10X22213EAW33EEL	1,77	3	7,8	3,5	1,5	75,3	116,4	74	75,3	116,4	1,5	
10X22214EAW33EE	1,89	3	7,4	3,5	1,5	81,2	117,1	79	81,2	117,1	1,5	
10X22214EAW33EEL	1,89	3	7,4	3,5	1,5	81,2	117,1	79	81,2	117,1	1,5	
10X22215EAW33EE	1,95	3	7,4	3,5	1,5	85,1	121,6	84	85,1	121,6	1,5	
10X22215EAW33EEL	1,95	3	7,4	3,5	1,5	85,1	121,6	84	85,1	121,6	1,5	
10X22216EAW33EE	2,50	3	7,9	3,5	2	91,3	131,5	91	91,3	131,5	2	
10X22216EAW33EEL	2,50	3	7,9	3,5	2	91,3	131,5	91	91,3	131,5	2	
10X22217EAW33EE	2,98	3	7,9	3,5	2	97,2	140,8	96	97,2	140,8	2	
10X22217EAW33EEL	2,98	3	7,9	3,5	2	97,2	140,8	96	97,2	140,8	2	
10X22218EAW33EE	3,71	3	10,2	4,5	2	101,9	147,4	101	101,9	149	2	
10X22218EAW33EEL	3,71	3	10,2	4,5	2	101,9	147,4	101	101,9	149	2	
10X22219EAW33EE	4,51	3	9,9	4,5	2,1	107,3	156,4	107	107,3	158	2	
10X22220EAW33EE	5,58	3	11,2	5	2,1	114,4	166,4	112	114,4	168	2	



Technical characteristics

Load capacities:

Identical to the open bearings of the ULTAGE series

Speeds:

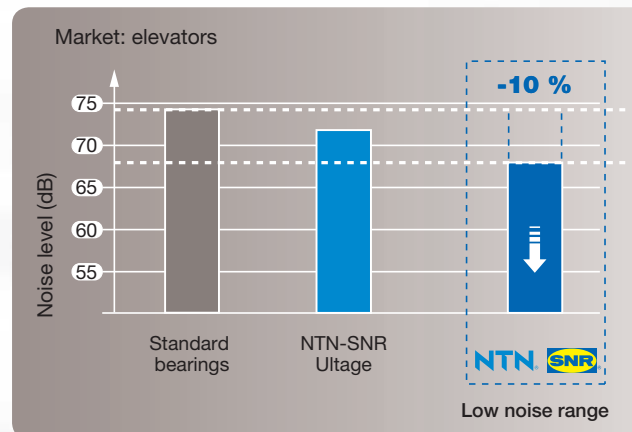
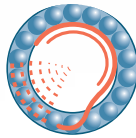
According to a general principle, the limiting operating speeds for sealed spherical roller bearings are lower than those of open bearings. They depend on operating conditions (load, temperature), type of seal, quality and quantity of grease used. For normal operating conditions, the limit speeds are provided in the product table.

Misalignment:

Constant contact pressure of the seal even in case of misalignment. NTN-SNR sealed spherical roller bearings accept misalignments of up to 0.5° without performance deterioration.

Low noise bearing: suffix L

Certain applications, such as the power transmission in elevators, for example, are particularly demanding in terms of the noise the bearings make. NTN-SNR also proposes, on request, sealed spherical roller bearings with low vibration levels, identified by the suffix L. Their optimised geometrical and functional characteristics offer significant improvement in terms of noise level.



Dimensions:

The dimensions of sealed spherical roller bearings comply with ISO15:1998. Only the width has been increased for the integration of seals.

Lubrication:

In the standard version, the bearing is filled up to 30% with a grease suitable for high loads. Depending on your application, special qualities and quantities of grease can be provided.



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