

**MERYDOM 231.21.0575.013**

Certified for interchange with Rothe Erde  
231.21.0575.013. This document consolidates the public  
product record, complete published specifications,  
technical media, source traceability and engineering  
confirmation notes.

**LEVEL 3 - MERYDOM ENGINEERING VERIFIED**

Reviewed by MERYDOM Engineering Department. Final application approval must confirm loads, duty cycle, mounting rigidity, bolt capacity, lubrication and operating conditions.

MERYDOM MODEL  
231.21.0575.013

REFERENCE

**Rothe Erde 231.21.0575.013**

**SERIES**  
**23 Series**

## STRUCTURE

### Rolamento perfilado

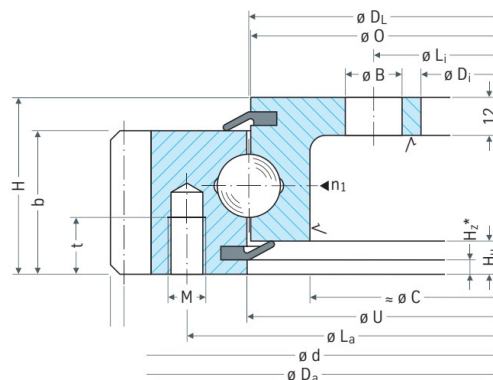
OVERALL OD  
**640.8 mm**

OVERALL ID  
435 mm

OVERALL HEIGHT  
**56 mm**

## Engrenagem externa

## Published Technical Drawing



page-051-outline.png

## Complete Product Data

All values below are generated from the current public verified replacement record. Source values are retained and metric references are shown where available.

| MERYDOM CERTIFIED PRODUCT            |                                        |
|--------------------------------------|----------------------------------------|
| Product brand                        | MERYDOM                                |
| MERYDOM model                        | 231.21.0575.013                        |
| Certified interchangeable with       | Rothe Erde 231.21.0575.013             |
| Verification status                  | Level 3 - MERYDOM Engineering Verified |
| Reviewed by                          | MERYDOM Engineering Department         |
| Public record UID                    | N527CALQX2WQEOXBTE6UHQ5I6H             |
| MATERIALS                            |                                        |
| Configurable ring material options   | 42CrMo / 50Mn                          |
| Seal material                        | NBR - Nitrile rubber                   |
| Configurable spacer material options | Engineering nylon / Brass              |
| IDENTIFICATION                       |                                        |
| Reference brand                      | Rothe Erde                             |
| Reference series                     | 23 Series                              |
| Reference model                      | 231.21.0575.013                        |
| Bearing structure                    | Rolamento perfilado                    |
| Gear arrangement                     | Engrenagem externa                     |
| DIMENSION                            |                                        |
| Raceway diameter (DL)                | 544 mm                                 |
| Overall outside diameter (Da)        | 640,8 mm                               |
| Overall inside diameter (Di)         | 435 + 0,10 mm                          |

## Complete Product Data

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| DIMENSION (CONTINUED)                                     |               |
|-----------------------------------------------------------|---------------|
| Overall height (H)                                        | 56 mm         |
| Catalog diameter O (O)                                    | 542,5 mm      |
| Catalog diameter U (U)                                    | 547 + 0,11 mm |
| Catalog diameter C (C)                                    | 505 mm        |
| Lower ring offset Hu (Hu)                                 | 10,5 mm       |
| Assembly weight (Weight)                                  | 39,5 kg       |
| Combined axial/radial bearing play range (Y_axial_radial) | 0 to 0,03 mm  |
| MOUNTING                                                  |               |
| Outer ring bolt circle (La)                               | 585 mm        |
| Outer ring mounting-hole count (na)                       | 14            |
| Metric bolt nominal size (M)                              | 12 mm         |
| Thread depth (t)                                          | 20 mm         |
| Inner ring bolt circle (Li)                               | 462 mm        |
| Inner ring mounting-hole count (ni)                       | 14            |
| Inner ring mounting-hole diameter (B_inner)               | 18 mm         |
| GEAR                                                      |               |
| Gear pitch diameter (d)                                   | 630 mm        |
| Gear module (m)                                           | 6 mm          |
| Gear tooth count (z)                                      | 105           |
| Tip-height modification product k m (k*m)                 | -0,6 mm       |

Complete Product Data

All values below are generated from the current public verified replacement record. Source values are retained and metric references are shown where available.

|                                               |                                                              |
|-----------------------------------------------|--------------------------------------------------------------|
| GEAR (CONTINUED)                              |                                                              |
| Minimum gear face width (bmin)                | 45,5 mm                                                      |
| PERFORMANCE                                   |                                                              |
| Permitted circumferential force, normal (X1)  | 14,2 kN                                                      |
| Permitted circumferential force, maximum (X2) | 28,4 kN                                                      |
| MISCELLANEOUS                                 |                                                              |
| Grease nipple count (n1)                      | 4                                                            |
| PERFORMANCE RATINGS                           |                                                              |
| Catalog Reference X1                          | 14,2 kN   Not simultaneous with other listed dynamic ratings |
| Catalog Reference X2                          | 28,4 kN   Not simultaneous with other listed dynamic ratings |
| MOUNTING INTERFACES                           |                                                              |
| Outer ring mounting                           | 14 holes - M 12                                              |
| Inner ring mounting                           | 14 holes - B_inner 18                                        |
| GEAR INTERFACE                                |                                                              |
| Pitch system                                  | module                                                       |
| Module reference                              | 6 mm                                                         |
| Number of teeth                               | 105                                                          |
| SOURCE TRACEABILITY                           |                                                              |
| Source document code                          | ROTHE_ERDE_CATALOG_2023                                      |
| Source file                                   | Rothe Erde.pdf                                               |
| PDF page                                      | 51                                                           |
| Printed page                                  | 96-97                                                        |

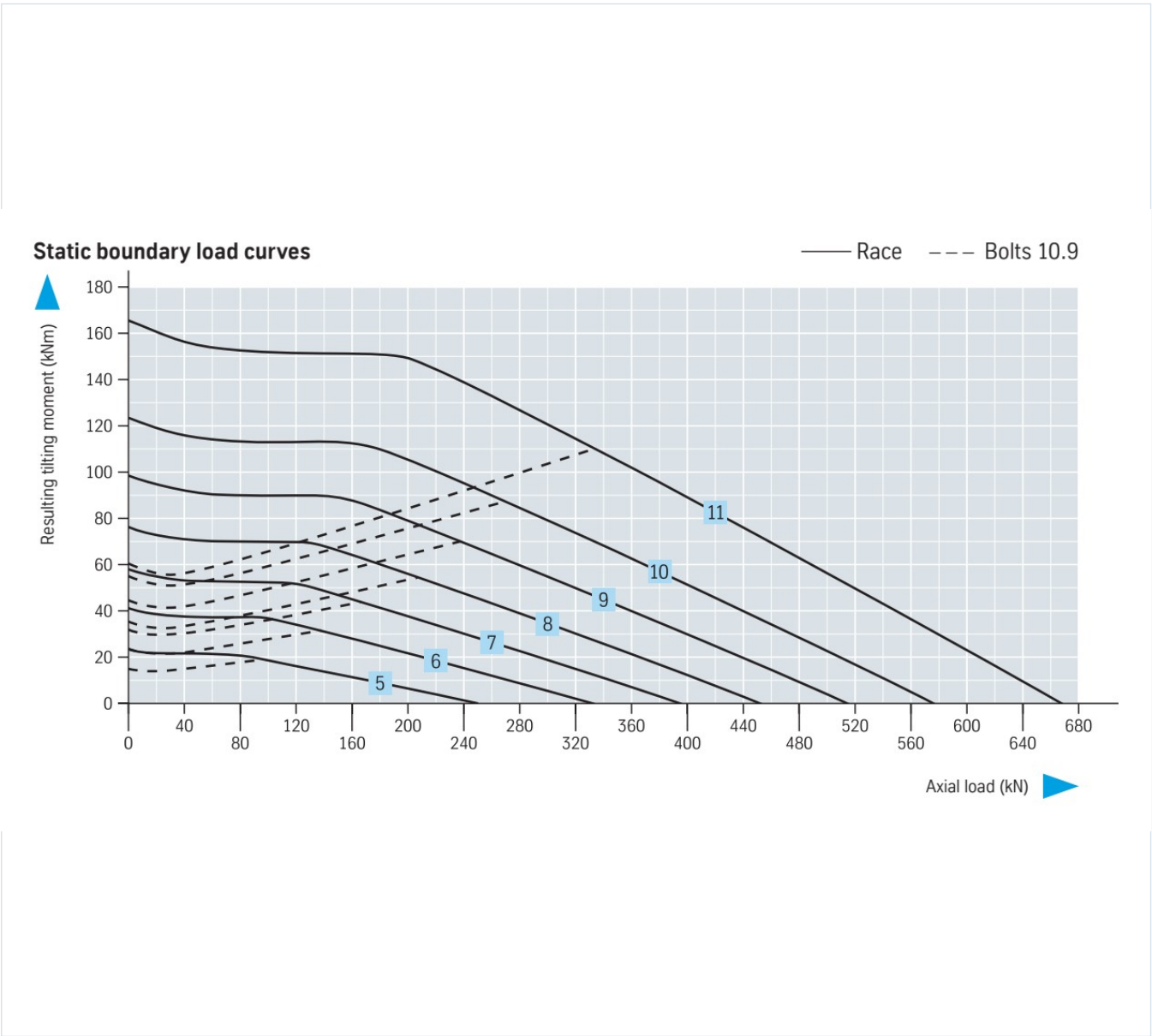
Complete Product Data

All values below are generated from the current public verified replacement record. Source values are retained and metric references are shown where available.

| SOURCE TRACEABILITY (CONTINUED) |                                                                                                         |
|---------------------------------|---------------------------------------------------------------------------------------------------------|
| Source language                 | EN                                                                                                      |
| Original unit system            | Metric                                                                                                  |
| PUBLISHED TECHNICAL MEDIA       |                                                                                                         |
| Load Curve Chart                | page-051-load-curves.png   SHA-256:<br>cb84a886c2f4b9b27a468fdc3ed7a1a8043b1913153bd533142f7198e570c1e6 |
| Outline Drawing                 | page-051-outline.png   SHA-256:<br>cf246ebdbb9fc0841f122d1da18eb9c9777d2a3b027846d6d0c66fe26fe8e9a4     |

Published Load / Performance Chart

Use the published chart as a preliminary selection aid only. The model legend, curve family and source document must be reviewed together with the operating load case.



page-051-load-curves.png | SHA-256: cb84a886c2f4b9b27a468fdc3ed7a1a8043b1913153bd533142f7198e570c1e6

Engineering note: final approval must also consider mounting rigidity, bolt capacity, duty cycle, lubrication, temperature, environment and installation conditions.

## Source and Verification Traceability

**PUBLIC RECORD UID****N527CALQX2WQEOXBTE6UHQ5I6H****SOURCE DOCUMENT****ROTHE\_ERDE\_CATALOG\_2023****SOURCE FILE****Rothe Erde.pdf****SOURCE LOCATION****PDF page 51 | Printed page 96-97****VERIFICATION****Level 3 - MERYDOM Engineering  
Verified****REVIEWED BY****MERYDOM Engineering Department**

## Engineering Confirmation Boundary

- 1 Confirm the exact model designation and all installation-envelope dimensions.
- 2 Confirm mounting-hole quantity, bolt circle, hole specification, bolt grade and preload.
- 3 Confirm gear arrangement, pitch system, tooth count, backlash and mating-pinion data.
- 4 Confirm axial, radial and moment loads, load combinations, duty cycle and required life.
- 5 Confirm support flatness and stiffness, lubrication, sealing, temperature and environment.
- 6 Final drawing revision, manufacturing tolerances and documentation package are confirmed with the quotation.

### Request Price, Delivery and Final Engineering Confirmation

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