

Factory-Verified Replacement

MERYDOM 16307001

Certified for interchange with Kaydon 16307001. 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

16307001

REFERENCE

Kaydon 16307001

SERIES

XT Series

STRUCTURE

Four-point contact ball

OVERALL OD

773.608 mm

OVERALL ID

482.6 mm

OVERALL HEIGHT

92.075 mm

GEAR

External gear

No public model drawing is attached to this record. Submit the application and required interface format for final drawing confirmation.

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                        | 16307001                                              |
| Certified interchangeable with       | Kaydon 16307001                                       |
| Verification status                  | Level 3 - MERYDOM Engineering Verified                |
| Reviewed by                          | MERYDOM Engineering Department                        |
| Public record UID                    | LEUEOI4NB426FGVDKACXCYYI7V                            |
| MATERIALS                            |                                                       |
| Configurable ring material options   | 42CrMo / 50Mn                                         |
| Seal material                        | NBR - Nitrile rubber                                  |
| Configurable spacer material options | Engineering nylon / Brass                             |
| IDENTIFICATION                       |                                                       |
| Reference brand                      | Kaydon                                                |
| Reference series                     | XT Series                                             |
| Reference model                      | 16307001                                              |
| Bearing structure                    | Four-point contact ball                               |
| Gear arrangement                     | External gear                                         |
| DIMENSION                            |                                                       |
| Overall outside diameter (Do)        | 30.457 in   Metric reference: approximately 773.61 mm |
| Overall inside diameter (di)         | 19.000 in   Metric reference: approximately 483 mm    |
| Overall height (H)                   | 3.625 in   Metric reference: approximately 92.08 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.

| DIMENSION (CONTINUED)        |                                                                        |
|------------------------------|------------------------------------------------------------------------|
| Assembly weight (G)          | 330 lb   Metric reference: approximately 149.685 kg                    |
| MOUNTING                     |                                                                        |
| Outer ring bolt circle (Lo)  | 27.375 in   Metric reference: approximately 695.33 mm                  |
| Inner ring bolt circle (Li)  | 20.625 in   Metric reference: approximately 523.88 mm                  |
| GEAR                         |                                                                        |
| Gear pitch diameter (D2)     | 30.000 in   Metric reference: approximately 762 mm                     |
| Diametral pitch (Pd)         | 3.5                                                                    |
| Gear tooth count (z2)        | 105                                                                    |
| PERFORMANCE                  |                                                                        |
| Maximum gear tooth load (Fz) | 17400 lbf   Metric reference: approximately 77.4 kN                    |
| Moment load rating (Crm)     | 322000 ft lbf   Metric reference: approximately 436.57 kN m            |
| PERFORMANCE RATINGS          |                                                                        |
| Moment                       | 322000.0000000000 ft lbf   Metric reference: approximately 436.57 kN m |
| Gear Tooth                   | 17400.0000000000 lbf   Metric reference: approximately 77.4 kN         |
| MOUNTING INTERFACES          |                                                                        |
| Outer ring mounting          | 30 holes - 0.813                                                       |
| Inner ring mounting          | 29 holes - 0.813                                                       |
| GEAR INTERFACE               |                                                                        |
| Pitch system                 | DP                                                                     |
| Diametral pitch              | 3.5 DP                                                                 |
| Module reference             | 7.257143 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 INTERFACE (CONTINUED) |                        |
|----------------------------|------------------------|
| Number of teeth            | 105                    |
| SOURCE TRACEABILITY        |                        |
| Source document code       | KAYDON-CAT390          |
| Source file                | Kaydon_Catalog_390.pdf |
| PDF page                   | 82                     |
| Printed page               | 80                     |
| Source language            | EN-US                  |
| Original unit system       | Inch                   |

Source and Verification Traceability

|                                                                               |                                                                     |
|-------------------------------------------------------------------------------|---------------------------------------------------------------------|
| <div>PUBLIC RECORD UID</div> <div>LEUEOI4NB426FGVDKACXCYYI7V</div>            | <div>SOURCE DOCUMENT</div> <div>KAYDON-CAT390</div>                 |
| <div>SOURCE FILE</div> <div>Kaydon_Catalog_390.pdf</div>                      | <div>SOURCE LOCATION</div> <div>PDF page 82   Printed page 80</div> |
| <div>VERIFICATION</div> <div>Level 3 - MERYDOM Engineering<br/>Verified</div> | <div>REVIEWED BY</div> <div>MERYDOM Engineering Department</div>    |

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

Email: jovi@merydom.com | Email: andi@merydom.com | WhatsApp: +86 17705201170

Product page: <https://rotnex.com/products/slewing-bearing-replacements/kaydon/16307001/>

Trademark and legal notice: referenced brand and model names are used only for identification and cross-reference. MERYDOM is an independent manufacturer and is not affiliated with or endorsed by the referenced brand unless expressly stated.