



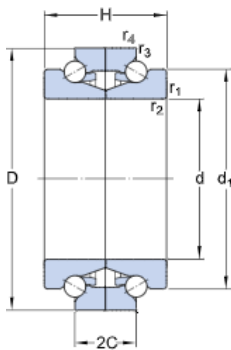
## BTW 70 CTN9/SP

Angular contact thrust ball bearings,  
double direction, super-precision

Bearing data  
[Tolerances](#),  
P4C, SP, UP

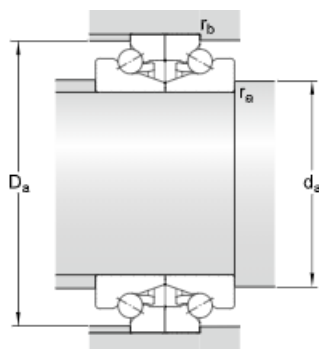
Principles of bearing  
selection and application  
[Chamfer dimensions](#),  
[Seat tolerances for standard  
conditions](#),  
shafts, housings, shafts, housings,  
[Initial grease fill](#)

### Technical specification



#### DIMENSIONS

d	70 mm
D	110 mm
H	48 mm
$d_1$	93.5 mm
2C	24 mm
$r_{1,2}$	min. 1.1 mm
$r_{3,4}$	min. 0.6 mm



#### ABUTMENT DIMENSIONS

$d_a$	min. 85 mm
$D_a$	min. 103.4 mm
$D_a$	max. 105 mm
$r_a$	max. 1 mm
$r_b$	max. 0.6 mm

## CALCULATION DATA

Basic dynamic load rating	C	39 kN
Basic static load rating	C <sub>0</sub>	112 kN
Fatigue load limit	P <sub>u</sub>	5.3 kN
Attainable speed for grease lubrication		6 700 r/min
Attainable speed for oil-air lubrication		8 000 r/min
Contact angle	α	60 °
Preload		515 N
Static axial stiffness		673 N/μm
Reference grease quantity	G <sub>ref</sub>	7.4 cm

## MASS

Mass bearing	1.36 kg
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## More information

<p>Product details</p> <ul style="list-style-type: none"> <li><a href="#">Designs and variants</a></li> <hr/> <li><a href="#">Markings on bearings</a></li> <hr/> <li><a href="#">Bearing data</a></li> <hr/> <li><a href="#">Preload, clearance, and stiffness</a></li> <hr/> <li><a href="#">Loads</a></li> <hr/> <li><a href="#">Attainable speeds</a></li> <hr/> <li><a href="#">Mounting</a></li> <hr/> <li><a href="#">Designation system</a></li> <hr/> </ul>	<p>Engineering information</p> <ul style="list-style-type: none"> <li><a href="#">Principles of bearing selection and application</a></li> <hr/> <li><a href="#">General bearing knowledge</a></li> <hr/> <li><a href="#">Bearing selection process</a></li> <hr/> <li><a href="#">Bearing failure and how to prevent it</a></li> <hr/> </ul>	<p>Tools</p> <ul style="list-style-type: none"> <li><a href="#">SimPro Quick</a></li> <hr/> <li><a href="#">SimPro Spindle</a></li> <hr/> <li><a href="#">Engineering Calculator</a></li> <hr/> <li><a href="#">LubeSelect for SKF greases</a></li> <hr/> <li><a href="#">Heater selection tool</a></li> <hr/> </ul>
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