



BTW 140 CM/SP

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

Bearing data

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

Principles of bearing

selection and application

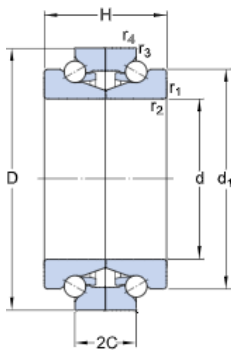
[Chamfer dimensions,](#)

[Seat tolerances for standard conditions,](#)

shafts, housings, shafts, housings,

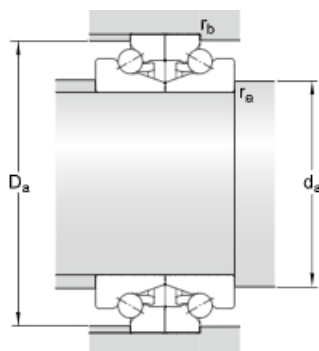
[Initial grease fill](#)

Technical specification



DIMENSIONS

d	140 mm
D	210 mm
H	84 mm
d_1	180.8 mm
2C	42 mm
$r_{1,2}$	min. 2.1 mm
$r_{3,4}$	min. 1 mm



ABUTMENT DIMENSIONS

d_a	min. 166 mm
D_a	min. 197.7 mm
D_a	max. 200 mm
r_a	max. 2 mm
r_b	max. 1 mm

CALCULATION DATA

Basic dynamic load rating	C	106 kN
Basic static load rating	C ₀	375 kN
Fatigue load limit	P _u	13.2 kN
Attainable speed for grease lubrication		3 200 r/min
Attainable speed for oil-air lubrication		3 800 r/min
Contact angle	α	60 °
Preload		940 N
Static axial stiffness		1 089 N/μm
Reference grease quantity	G _{ref}	45.3 cm

MASS

Mass bearing	8.6 kg
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More information

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