Spindle ball bearing HY S 619/7 C TA P4+

24.11.2026



Components

Bearing designation:	HY S 619/7 C TA
Bearing design:	S
Series / size:	619/7
Ball material:	Ceramic
Cage:	TA
Precision:	P4+
Main dimensions [d x D x B]:	7 x 17 x 5 mm

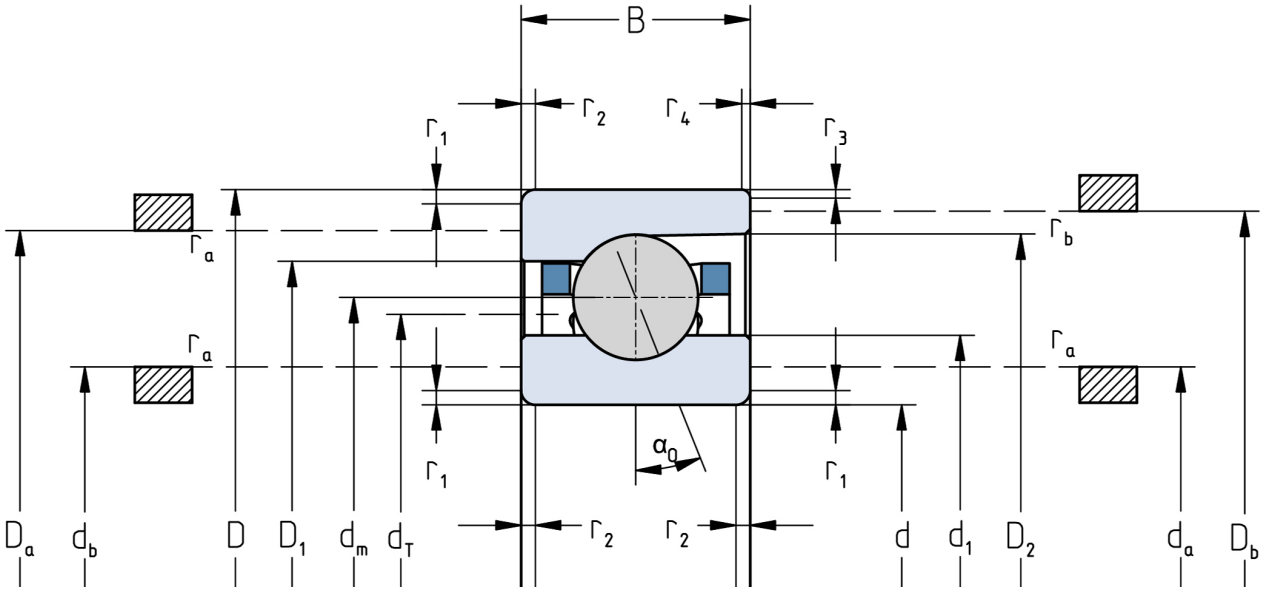
Load data

Static load capacity	C_{0r}:	635 N
Dynamic load capacity	C_r:	1510 N
Fatigue load limit	C_U:	24 N
Speed limit	n_{grease}:	135000 1/min
Speed limit	n_{oil}:	180000 1/min
Light preload	L:	8 N
Axial rigidity	C_{ax}:	10 N/µm
Medium preload	M:	23 N
Axial rigidity	C_{ax}:	16 N/µm
Heavy preload	S:	46 N
Axial rigidity	C_{ax}:	22 N/µm
Spring preload	Ff:	25 N (for n_{max})

Geometrical Data

Bore diameter	d:	7 mm
Outer diameter	D:	17 mm
Width of single bearing	B:	5 mm
Ball diameter	D_w:	2.381 mm
Number of balls	Z:	11
Chamfer (min)	$r_{1,2\ min}$:	0.3 mm
Chamfer (min), open side	$r_{3,4\ min}$:	0.3 mm
Outer diameter of inner ring	d_1:	10 mm
Outer diameter of inner ring (open side)	d_2:	-

Oiling nozzle position	d_T:	10.9 mm
Pitch circle diameter	d_m:	11.8 mm
Inner diameter of outer ring	D_1:	13.6 mm
Undercut of associated component	$r_{a\ max}$:	0.3 mm
Undercut of associated component (open side)	$r_{b\ max}$:	0.3 mm
Abutment diameter inner ring	$d_{a,b\ min}$:	8.6 mm
Abutment diameter outer ring	$D_{a,b\ max}$:	15.7 mm
Inner diameter of outer ring (open side)	D_2:	14.2 mm
Bearing weight	m:	0.005 kg
Contact angle	Alpha 0:	15°



The given speed limits apply to individual bearings with spring preload. Correction factors must be considered for all properties which deviate from this.