

Spindle ball bearing HY S 6211 E TA P4+

08.05.2024



Components

Bearing designation:	HY S 6211 E TA
Bearing design:	S
Series / size:	6211
Ball material:	Ceramic
Cage:	TA
Seal:	2RZ upon request
Precision:	P4+ (UP+ Upon request)
Main dimensions [d x D x B]:	55 x 100 x 21 mm

Load data

Static load capacity	C_{0r} : 42500 N
Dynamic load capacity	C_r : 55500 N
Fatigue load limit	C_U : 1611 N
Speed limit	n_{grease} : 17625 1/min
Speed limit	n_{oil} : 23500 1/min
Light preload	L: 470 N
Axial rigidity	C_{ax} : 217 N/ μ m
Medium preload	M: 1400 N
Axial rigidity	C_{ax} : 329 N/ μ m
Heavy preload	S: 2800 N
Axial rigidity	C_{ax} : 438 N/ μ m
Spring preload	Ff: 3050 N (for n_{max})

Geometrical Data

Bore diameter	d: 55 mm	Oiling nozzle position	d_f : 73.8 mm
Outer diameter	D: 100 mm	Pitch circle diameter	d_m : 77.5 mm
Width of single bearing	B: 21 mm	Inner diameter of outer ring	D_1 : 85.8 mm
Ball diameter	D_w : 14.288 mm	Undercut of associated component	$r_{a \max}$: 1.5 mm
Number of balls	Z: 15	Undercut of associated component (open side)	$r_{b \max}$: 1 mm
Chamfer (min)	$r_{1,2 \min}$: 1.5 mm	Abutment diameter inner ring	$d_{a,b \min}$: 63.8 mm
Chamfer (min), open side	$r_{3,4 \min}$: 1 mm	Abutment diameter outer ring	$D_{a,b \max}$: 93 mm
Outer diameter of inner ring	d_1 : 69 mm	Inner diameter of outer ring (open side)	D_2 : 92 mm
Outer diameter of inner ring (open side)	d_2 : -	Bearing weight	m: 0.51 kg
		Contact angle	Alpha 0: 25°



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