

Spindle ball bearing HY S 6210 E TA P4+

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Components

Bearing designation:	HY S 6210 E TA
Bearing design:	S
Series / size:	6210
Ball material:	Ceramic
Cage:	TA
Seal:	2RZ upon request
Precision:	P4+ (UP+ Upon request)
Main dimensions [d x D x B]:	50 x 90 x 20 mm

Load data

Static load capacity	C_{0r} : 34000 N
Dynamic load capacity	C_r : 45000 N
Fatigue load limit	C_U : 1287 N
Speed limit	n_{grease} : 19500 1/min
Speed limit	n_{oil} : 26000 1/min
Light preload	L: 380 N
Axial rigidity	C_{ax} : 195 N/ μ m
Medium preload	M: 1140 N
Axial rigidity	C_{ax} : 298 N/ μ m
Heavy preload	S: 2280 N
Axial rigidity	C_{ax} : 396 N/ μ m
Spring preload	Ff: 2440 N (for n_{max})

Geometrical Data

Bore diameter	d: 50 mm	Oiling nozzle position	d_7 : 66.7 mm
Outer diameter	D: 90 mm	Pitch circle diameter	d_m : 70 mm
Width of single bearing	B: 20 mm	Inner diameter of outer ring	D_1 : 76.9 mm
Ball diameter	D_w : 12.7 mm	Undercut of associated component	$r_{a max}$: 1 mm
Number of balls	Z: 15	Undercut of associated component (open side)	$r_{b max}$: 0.6 mm
Chamfer (min)	$r_{1,2 min}$: 1.1 mm	Abutment diameter inner ring	$d_{a,b min}$: 57.4 mm
Chamfer (min), open side	$r_{3,4 min}$: 0.6 mm	Abutment diameter outer ring	$D_{a,b max}$: 84.1 mm
Outer diameter of inner ring	d_1 : 62.5 mm	Inner diameter of outer ring (open side)	D_2 : 82.9 mm
Outer diameter of inner ring (open side)	d_2 : -	Bearing weight	m: 0.39 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.