

Spindle ball bearing HY S 6008 E TA P4+

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Components

Bearing designation:	HY S 6008 E TA
Bearing design:	S
Series / size:	6008
Ball material:	Ceramic
Cage:	TA
Seal:	2RZ optional (with grease)
Precision:	P4+ (UP+ Upon request)
Main dimensions [d x D x B]:	40 x 68 x 15 mm

Load data

Static load capacity	C_{0r} : 16500 N
Dynamic load capacity	C_r : 20900 N
Fatigue load limit	C_U : 625 N
Speed limit	n_{grease} : 25500 1/min
Speed limit	n_{oil} : 34000 1/min
Light preload	L: 180 N
Axial rigidity	C_{ax} : 144 N/ μ m
Medium preload	M: 530 N
Axial rigidity	C_{ax} : 218 N/ μ m
Heavy preload	S: 1100 N
Axial rigidity	C_{ax} : 293 N/ μ m
Spring preload	Ff: 1180 N (for n_{max})

Geometrical Data

Bore diameter	d: 40 mm	Oiling nozzle position	d_T : 51.8 mm
Outer diameter	D: 68 mm	Pitch circle diameter	d_m : 54 mm
Width of single bearing	B: 15 mm	Inner diameter of outer ring	D_1 : 59 mm
Ball diameter	D_w : 7.938 mm	Undercut of associated component	$r_{a \max}$: 1 mm
Number of balls	Z: 18	Undercut of associated component (open side)	$r_{b \max}$: 0.6 mm
Chamfer (min)	$r_{1,2 \min}$: 1 mm	Abutment diameter inner ring	$d_{a,b \min}$: 45.2 mm
Chamfer (min), open side	$r_{3,4 \min}$: 0.6 mm	Abutment diameter outer ring	$D_{a,b \max}$: 63.7 mm
Outer diameter of inner ring	d_1 : 49.2 mm	Inner diameter of outer ring (open side)	D_2 : 62.1 mm
Outer diameter of inner ring (open side)	d_2 : -	Bearing weight	m: 0.165 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.