

PDF technical sheet

23280BL1K

Double row spherical roller bearings

Spherical roller bearing, with central rib on inner ring, 2-part machined cage centred on inner ring, groove and lubrication holes on outer ring, tapered bore 1:12

Product definition	
d	15.7480 "
D	28.3465 "
B	10.0787 "
d2	19.7244 "
D1	24.0591 "
rs min	0.2362 "
Number of lubrication holes	8
b	1.2992 "
k	0.7874 "
Associated sleeve reference	H3280
e	0.37
Y1	1.81
Y2	2.69
Y0	1.77
Radial clearance class	CN
Brand	NTN

Product performance	
Dynamic load, C	5,850 kN
Static load, C0	10,600 kN
Fatigue limit load, Cu	636 kN
Nref	370 RPM
Nlim	750 RPM
Min operating temperature, Tmin	-40 °C
Max operating temperature, Tmax	248 °C
Characteristic cage frequency, FTF	0.43 Hz
Characteristic rolling element frequency, BSF	6.90 Hz
Characteristic outer ring frequency, BPF0	8.19 Hz
Characteristic inner ring frequency, BPFI	10.81 Hz

Abutment dimensions

da min	16.7717 "
db min	16.8110 "
Ce min	0.5906 "
Da max	27.3228 "
ra max	0.1969 "

Calculation factors

Equivalent dynamic radial load

$$P = X.F_r + Y.F_a$$

$F_a / F_r \leq e$		$F_a / F_r > e$	
X	Y	X	Y
1	Y1	0.67	Y2

Equivalent static radial load

$$P_0 = X_0.F_r + Y_0.F_a$$

X_0	Y_0
1	Y0

The values for e, Y1, Y2 and Y0 are shown in the above table .