

PDF technical sheet 23940EMD1



Double row spherical roller bearings

Spherical roller bearing, one-piece machined cage, groove and lubrication holes on outer ring

Product definition	
d	7.8740 "
D	11.0236 "
B	2.3622 "
rs min	0.0827 "
Number of lubrication holes	4
b	0.3543 "
k	0.1969 "
e	0.18
Y1	3.76
Y2	5.59
Y0	3.67
Radial clearance class	CN
Brand	NTN



Product performance	
Dynamic load, C	766 kN
Static load, C0	1,190 kN
Fatigue limit load, Cu	102 kN
Nref	1,600 RPM
Nlim	2,400 RPM
Min operating temperature, Tmin	-40 °C
Max operating temperature, Tmax	392 °C
Characteristic cage frequency, FTF	0.46 Hz
Characteristic rolling element frequency, BSF	12.08 Hz
Characteristic outer ring frequency, BPF0	15.15 Hz
Characteristic inner ring frequency, BPF1	17.85 Hz



Abutment dimensions

da min	8.2756 "
Da max	10.6220 "
ra max	0.0787 "

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 .