

PDF technical sheet 30214A



Single row tapered roller bearings

Tapered roller bearing, pressed steel cage

Product definition	
d	2.7559 "
D	4.9213 "
B	0.9449 "
C	0.8268 "
T	1.0335 "
d1	3.7323 "
a	1.0197 "
rs min	0.0787 "
r1s min	0.0591 "
e	0.42
Y2	1.43
Y0	0.79
Mass	4.44 oz
ISO 355 reference	T3EB070
Brand	SNR



Product performance	
Dynamic load, C	140 kN
Rating life coefficient, A2	1
Static load, C0	175 kN
Fatigue limit load, Cu	21.30 kN
Nref	3,600 RPM
Nlim	5,800 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	6.60 Hz
Characteristic outer ring frequency, BPF0	8.57 Hz
Characteristic inner ring frequency, BPFI	11.43 Hz



Abutment dimensions

da max	3.1890 "
db min	3.1496 "
Da min	4.3307 "
Da max	4.5866 "
Db min	4.6457 "
Ca min	0.1575 "
Cb min	0.1969 "
ra max	0.0787 "
r1a max	0.0591 "

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	0	0.4	Y2

Equivalent static radial load

$$P_o = X_o.F_r + Y_o.F_a$$

X_o	Y_o
0.5	Y0

If $P_o \leq F_r$, then use $P_o = F_r$

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