

Basic load rating of radial ball bearings

Main Menu



Input

BRG-NO = 6305 bearing number
 TYPE = Deep groove, Angular
 DA = 10.319 [mm] ball diameter
 Z = 8 number of balls
 SI = 1 number of rows
 SDM = 44.500 [mm] PCD
 ALPHA0 = 0deg 0min 0.00sec initial contact angle
 SFI = 0.5049 inner ring groove radius / ball diameter
 SFE = 0.5301 outer ring groove radius / ball diameter
 LAMBDA = 0.950 reduction factor
 SFH = 1.000 hardness factor of c
 SF0H = 1.000 hardness factor of c0

Figures from ISO (SFI = 0.5200, SFE = 0.5200)

Output

SGAMMA = 0.2319 $DA * \cos(\text{ALPHA0}) / \text{SDM}$
 SK = 1.65 factor
 SFC = 6.0428 factor for calculating basic dynamic load rating
 SK0I = 1.3457 factor for calculating basic static load rating
 SK0E = 2.5612 factor for calculating basic static load rating

Cr = 2097.93 2100.0 [kgf] Basic dynamic load rating
 C0r = 1146.33 1150.0 [kgf] Basic static load rating
 Cr = 20573.70 20600.0 [N] Basic dynamic load rating
 C0r = 11241.66 11200.0 [N] Basic static load rating
 Cr = 4625.15 4650.0 [lbf] Basic dynamic load rating
 C0r = 2527.22 2530.0 [lbf] Basic static load rating