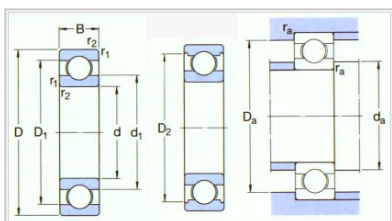


Metric Series

68 Series-689,689ZZ1,689VV,689DD



Designation	
With shielded	689
Open type	689ZZ1
With seal VV	689VV
With seal DD	689DD
Principal dimensions [mm]	
d	9
D	17
B	4
B1	5
r(min)	0.2
Basic load ratings(N)	
Cr	1330
Cor	665
Basic load ratings{kgf}	
Cr	136
Cor	68
Speed ratings(rpm)	
Grease	
ZZ	36000
D·D	24000
Oil	
Z	43000
Abutment and fillet dimensions (mm)	
da(min)	10.6
db(max)	11.5
Da(Max)	15.4
Db(min)	15.2
ra(max)	0.2
rb(max)	0.2
Weight(g)	
Open type	3.53
With shielded	4.43