DAIBEST DBS02

Pb Free RoHS ELV

These are oil-impregnated bearings of our own proprietary lubrication characteristics, in which lipophilic fibers and special filler material are uniformly dispersed within polyacetal plastic resin, a plastic bearing material offering excellent bearing characteristics.
Solid type – DBS02

Features

1.Can be used without oil supply
2.Superior load carrying characteristics and wear resistant properties
3.Low friction coefficient (μ=0.01 to 0.15) and excellent speed properties
4.Minimizes operating noise and free from stick slip phenomenon
5.Will not damage the surface of engaging component
6.Shaft misalignment tolerance is excellent.

Material: DBS02

POM + special filler material + lipophilic fibers + oil (oil-impregnation rate of 4% or higher)

Material Characteristics (typical values)

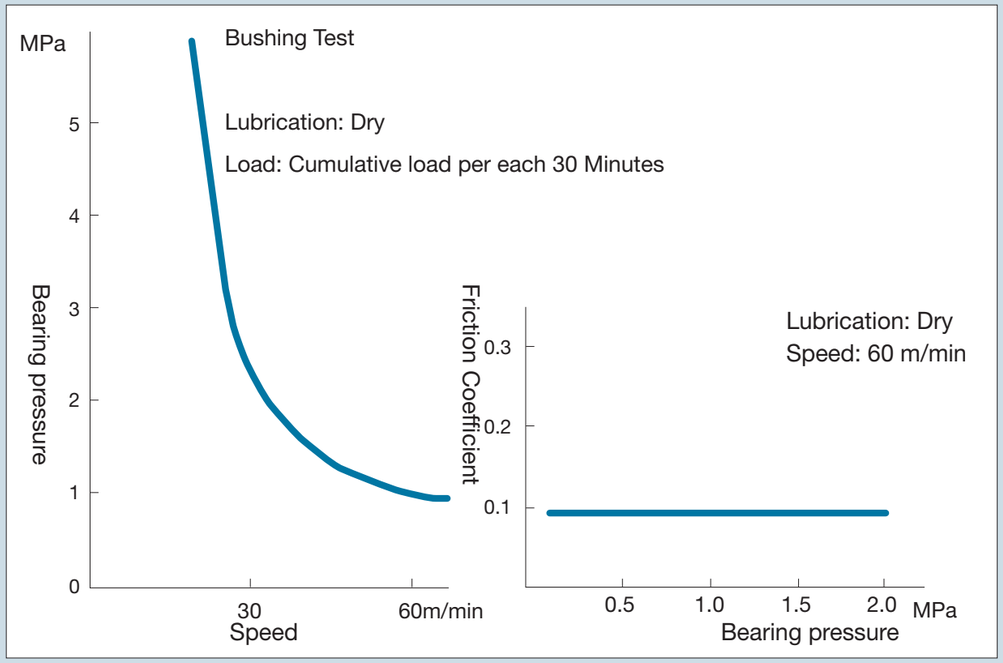
Specific gravity	Tensile strength (MPa)	Elongation (%)	Hardness (HRM)	Linear-expansion coefficient
1.47	60.8	60	80	9 – 13

Sliding Characteristics (typical vzalues)

Material	Friction coefficient(μ)	Rated maximum load (MPa)	Rated maximum speed (m/min)	Service temperature range(℃)
DBS02	0.01 – 0.15	9.6	60	-40 – 80

Bearing Characteristics and Test Data

• **DBS02**



Lubrication	No Oil supply
Allowable Max. Load MPa	9.6
Allowable Max. Speed m/min	60
Allowable Max. PV value MPa-m/min	30
Limit Service Temperature ℃	-40 – +80

When the bearing is used under lubrication the bearing properties will improve depending on the condition.

DBS DBS02 Bushing (Bushing Inner Diameter: 3 to 30 mm)

Designation of Part Number

DBS ○○ ○○
- ○○ Bushing Length
- ○○ Bushing Nominal I.D.
- DBS Product Symbol

DBS 0303

Please specify by part number.

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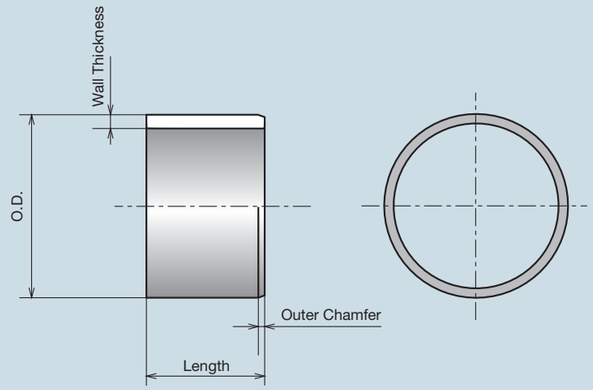

(Unit: mm)

Bushing I.D.	Recommended Dimension Mating Part		Bushing Dimensions															Bushing I.D.
	Houshing I.D.	Shaft Dia.	O.D.	Wall Thickness	Part Number & Bushing Length Tolerance $^{0}_{-0.3}$													
					3	4	5	6	8	10		12	15	20	25	30	40	
3	ϕ5H7 $^{+0.012}_{0}$	ϕ3h7 $^{0}_{-0.010}$	ϕ5 $^{+0.210}_{+0.072}$	1.0 $^{-0.015}_{-0.046}$	**0303**		**0305**											3
4	ϕ6H7 $^{+0.012}_{0}$	ϕ4h7 $^{0}_{-0.012}$	ϕ6 $^{+0.210}_{+0.072}$	1.0 $^{-0.023}_{-0.078}$		**0404**		**0406**										4
5	ϕ7H7 $^{+0.015}_{0}$	ϕ5h7 $^{0}_{-0.012}$	ϕ7 $^{+0.270}_{+0.095}$	1.0 $^{-0.025}_{-0.085}$			**0505**		**0508**	**0510**								5
6	ϕ8H7 $^{+0.015}_{0}$	ϕ6h7 $^{0}_{-0.012}$	ϕ8 $^{+0.270}_{+0.095}$	1.0 $^{-0.025}_{-0.085}$			**0605**	**0606**	**0608**	**0610**								6
8	ϕ10H7 $^{+0.015}_{0}$	ϕ8h7 $^{0}_{-0.015}$	ϕ10 $^{+0.270}_{+0.095}$	1.0 $^{-0.025}_{-0.085}$				**0806**	**0808**	**0810**		**0812**	**0815**					8
10	ϕ12H7 $^{+0.018}_{0}$	ϕ10h7 $^{0}_{-0.015}$	ϕ12 $^{+0.340}_{+0.108}$	1.0 $^{-0.025}_{-0.085}$					**1008**	**1010**		**1012**	**1015**					10
12	ϕ14H7 $^{+0.018}_{0}$	ϕ12h7 $^{0}_{-0.018}$	ϕ14 $^{+0.340}_{+0.108}$	1.0 $^{-0.025}_{-0.085}$						**1210**		**1212**	**1215**	**1220**				12
14	ϕ16H7 $^{+0.018}_{0}$	ϕ14h7 $^{0}_{-0.018}$	ϕ16 $^{+0.340}_{+0.108}$	1.0 $^{-0.025}_{-0.085}$						**1410**			**1415**	**1420**				14
15	ϕ17H7 $^{+0.018}_{0}$	ϕ15h7 $^{0}_{-0.018}$	ϕ17 $^{+0.340}_{+0.108}$	1.0 $^{-0.025}_{-0.085}$						**1510**			**1515**	**1520**				15
16	ϕ18H7 $^{+0.018}_{0}$	ϕ16h7 $^{0}_{-0.018}$	ϕ18 $^{+0.340}_{+0.108}$	1.0 $^{-0.025}_{-0.085}$									**1615**	**1620**	**1625**			16
18	ϕ20H7 $^{+0.021}_{0}$	ϕ18h7 $^{0}_{-0.018}$	ϕ20 $^{+0.450}_{+0.121}$	1.0 $^{-0.025}_{-0.085}$									**1815**	**1820**	**1825**			18
20	ϕ23H7 $^{+0.021}_{0}$	ϕ20h7 $^{0}_{-0.021}$	ϕ23 $^{+0.450}_{+0.121}$	1.5 $^{-0.027}_{-0.087}$						**2010**			**2015**	**2020**	**2025**	**2030**		20
22	ϕ25H7 $^{+0.021}_{0}$	ϕ22h7 $^{0}_{-0.021}$	ϕ25 $^{+0.450}_{+0.121}$	1.5 $^{-0.027}_{-0.087}$										**2220**		**2230**		22
25	ϕ28H7 $^{+0.021}_{0}$	ϕ25h7 $^{0}_{-0.021}$	ϕ28 $^{+0.450}_{+0.121}$	1.5 $^{-0.027}_{-0.087}$										**2520**	**2525**	**2530**		25
28	ϕ32H7 $^{+0.025}_{0}$	ϕ28h7 $^{0}_{-0.021}$	ϕ32 $^{+0.550}_{+0.131}$	2.0 $^{-0.030}_{-0.090}$										**2820**	**2825**	**2830**		28
30	ϕ34H7 $^{+0.025}_{0}$	ϕ30h7 $^{0}_{-0.021}$	ϕ34 $^{+0.550}_{+0.131}$	2.0 $^{-0.030}_{-0.090}$										**3020**		**3030**	**3040**	30

Note: Dimensions are subject to change without prior notice.

DBS DBS02 Flanged Bushing (Bushing Inner Diameter: 3 to 35 mm)

Designation of Part Number

DBS ○○ ○○ - ○○ F
- F — Flanged Bushing
- ○○ — Flange O.D.
- ○○ — Bushing Length
- ○○ — Bushing Nominal I.D.
- DBS — Product Symbol

DBS 0303-8F

Please specify by part number.

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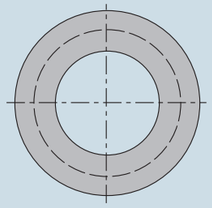

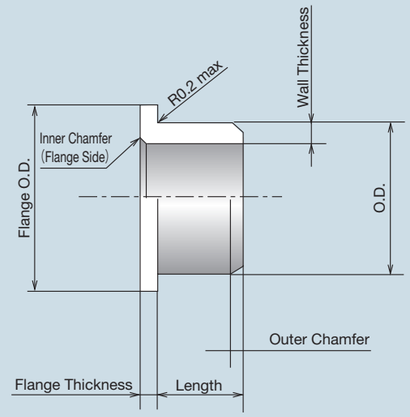

(Unit: mm)

Bushing I.D.	Recommended Dimension Mating Part		Bushing Dimensions				Part Number & Bushing Length Tolerance $^{0}_{-0.3}$														Bushing I.D.
	Houshing I.D.	Shaft Dia.	Flange O.D.	Flange Thickness	O.D.	Wall Thickness	3	4	5	6		7	8	10	12	15	20	25	30	40	
3	ϕ5H7 $^{+0.012}_{0}$	ϕ3h7 $^{0}_{-0.010}$	ϕ8 ±0.25	1.0 $^{0}_{-0.1}$	ϕ5 $^{+0.210}_{+0.072}$	1.0 $^{-0.015}_{-0.070}$	**0303-8F**														3
4	ϕ6H7 $^{+0.012}_{0}$	ϕ4h7 $^{0}_{-0.012}$	ϕ9 ±0.25	1.0 $^{0}_{-0.1}$	ϕ6 $^{+0.210}_{+0.072}$	1.0 $^{-0.023}_{-0.078}$		**0404-9F**		**0406-9F**											4
5	ϕ7H7 $^{+0.015}_{0}$	ϕ5h7 $^{0}_{-0.012}$	ϕ10 ±0.25	1.0 $^{0}_{-0.1}$	ϕ7 $^{+0.270}_{+0.095}$	1.0 $^{-0.025}_{-0.085}$		**0504-10F**	**0505-10F**			**0507-10F**									5
6	ϕ8H7 $^{+0.015}_{0}$	ϕ6h7 $^{0}_{-0.012}$	ϕ12 ±0.25	1.0 $^{0}_{-0.1}$	ϕ8 $^{+0.270}_{+0.095}$	1.0 $^{-0.025}_{-0.085}$			**0605-12F**	**0606-12F**			**0608-12F**								6
7	ϕ9H7 $^{+0.015}_{0}$	ϕ7h7 $^{0}_{-0.015}$	ϕ13 ±0.25	1.0 $^{0}_{-0.1}$	ϕ9 $^{+0.270}_{+0.095}$	1.0 $^{-0.025}_{-0.085}$			**0705-13F**			**0707-13F**									7
8	ϕ10H7 $^{+0.015}_{0}$	ϕ8h7 $^{0}_{-0.015}$	ϕ15 ±0.25	1.0 $^{0}_{-0.1}$	ϕ10 $^{+0.270}_{+0.095}$	1.0 $^{-0.025}_{-0.085}$	**0803-15F**			**0806-15F**			**0808-15F**	**0810-15F**							8
10	ϕ12H7 $^{+0.018}_{0}$	ϕ10h7 $^{0}_{-0.015}$	ϕ18 ±0.25	1.0 $^{0}_{-0.1}$	ϕ12 $^{+0.340}_{+0.108}$	1.0 $^{-0.025}_{-0.085}$				**1006-18F**			**1008-18F**	**1010-18F**	**1012-18F**	**1015-18F**					10
12	ϕ14H7 $^{+0.018}_{0}$	ϕ12h7 $^{0}_{-0.018}$	ϕ20 ±0.25	1.0 $^{0}_{-0.1}$	ϕ14 $^{+0.340}_{+0.108}$	1.0 $^{-0.025}_{-0.085}$				**1206-20F**			**1208-20F**	**1210-20F**	**1212-20F**	**1215-20F**					12
14	ϕ16H7 $^{+0.018}_{0}$	ϕ14h7 $^{0}_{-0.018}$	ϕ22 ±0.25	1.0 $^{0}_{-0.1}$	ϕ16 $^{+0.340}_{+0.108}$	1.0 $^{-0.025}_{-0.085}$								**1410-22F**	**1412-22F**	**1415-22F**	**1420-22F**				14
15	ϕ17H7 $^{+0.018}_{0}$	ϕ15h7 $^{0}_{-0.018}$	ϕ23 ±0.25	1.0 $^{0}_{-0.1}$	ϕ17 $^{+0.340}_{+0.108}$	1.0 $^{-0.025}_{-0.085}$								**1510-23F**	**1512-23F**	**1515-23F**	**1520-23F**				15
16	ϕ18H7 $^{+0.018}_{0}$	ϕ16h7 $^{0}_{-0.018}$	ϕ24 ±0.25	1.0 $^{0}_{-0.1}$	ϕ18 $^{+0.340}_{+0.108}$	1.0 $^{-0.025}_{-0.085}$								**1610-24F**		**1615-24F**	**1620-24F**				16
18	ϕ20H7 $^{+0.021}_{0}$	ϕ18h7 $^{0}_{-0.018}$	ϕ26 ±0.25	1.0 $^{0}_{-0.1}$	ϕ20 $^{+0.450}_{+0.121}$	1.0 $^{-0.025}_{-0.085}$								**1810-26F**	**1812-26F**	**1815-26F**	**1820-26F**				18
20	ϕ23H7 $^{+0.021}_{0}$	ϕ20h7 $^{0}_{-0.021}$	ϕ31 ±0.25	1.5 $^{0}_{-0.15}$	ϕ23 $^{+0.450}_{+0.121}$	1.5 $^{-0.027}_{-0.087}$								**2010-31F**		**2015-31F**	**2020-31F**	**2025-31F**			20
22	ϕ25H7 $^{+0.021}_{0}$	ϕ22h7 $^{0}_{-0.021}$	ϕ33 ±0.25	1.5 $^{0}_{-0.15}$	ϕ25 $^{+0.450}_{+0.121}$	1.5 $^{-0.027}_{-0.087}$								**2210-33F**		**2215-33F**	**2220-33F**	**2225-33F**			22
25	ϕ28H7 $^{+0.021}_{0}$	ϕ25h7 $^{0}_{-0.021}$	ϕ36 ±0.25	1.5 $^{0}_{-0.15}$	ϕ28 $^{+0.450}_{+0.121}$	1.5 $^{-0.027}_{-0.087}$								**2510-36F**		**2515-36F**	**2520-36F**	**2525-36F**	**2530-36F**		25
30	ϕ34H7 $^{+0.025}_{0}$	ϕ30h7 $^{0}_{-0.021}$	ϕ42 ±0.25	2.0 $^{0}_{-0.15}$	ϕ34 $^{+0.550}_{+0.131}$	2.0 $^{-0.030}_{-0.090}$											**3020-42F**		**3030-42F**	**3040-42F**	30
35	ϕ39H7 $^{+0.025}_{0}$	ϕ35h7 $^{0}_{-0.025}$	ϕ49 ±0.25	2.0 $^{0}_{-0.15}$	ϕ39 $^{+0.550}_{+0.131}$	2.0 $^{-0.030}_{-0.090}$											**3520-49F**		**3530-49F**	**3540-49F**	35

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