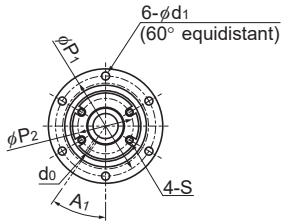
BNS-V Low-Inertia Type: Linear-Rotary Motion No Preload

DN value	100,000



Ball screw unit

Ball screw unit

Model No.	Screw shaft outer diameter	Screw shaft inner diameter	Lead	Ball screw dimensions										
				Basic load rating		Ball center-to-center diameter	Thread minor diameter	Outer diameter	Flange diameter	Overall length	D_3			
				Ca	C_0a			D	D_1	L_1	h7	AE	BE	H
	d	db	Ph	kN	kN	dp	dc	g6						
BNS 1616V	16	11	16	4.6	6.8	16.65	13.7	42	54	38	32.5	31	31	4
BNS 2020V	20	14	20	7.3	11.7	20.75	17.5	48	64	45	39.5	37	36	6
BNS 2525V	25	18	25	8	14.4	25.35	22.1	56	72	55	43.5	42	41.6	6

Ball spline

Model No.	Ball spline dimensions											
	Basic load rating		Static permissible moment	Basic torque rating		Outer diameter	Flange diameter	Overall length	D_6			
	C	C_0	M_A	C_T	C_{0T}	D_7	D_5	L_2	h7	AE_1	BE_1	H_1
	kN	kN	N·m	N·m	N·m	g6						
BNS 1616V	8.4	13.4	77.4	42.9	68.6	42	54	46.4	32.5	27.5	28	4
BNS 2020V	10.5	18.6	144	66.4	117.2	48	64	59	36	31.5	32	6
BNS 2525V	15.9	26.2	230	125.3	207	56	72	67	43.5	39.5	40	6

Notes: For K hollow shaft, please refer to the db dimension for the inner bore diameter of the shaft.
A solid shaft is also available upon request. See "Ball Spline" **A3-120** for details.

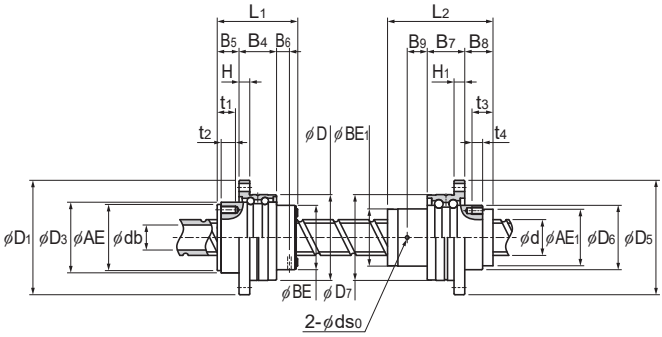
Model number coding

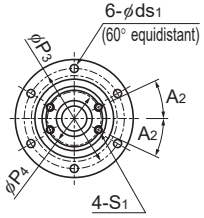
BNS2020V +500L C5

- BNS2020V: Model number
- +500L: Overall shaft length (in mm)
- C5: Accuracy symbol[1]

[1] See **A15-12**.

Download data from the THK Online Services website. https://www.thk.com/





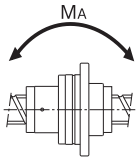
Ball spline

Unit: mm

B4	B5	P1	P2	S	t1	t2	d1	B6	d0	A1	Support bearing basic load rating Ca kN	Support bearing basic load rating C0a kN	Nut inertial moment kg·m²	Screw shaft inertial moment kg·m²/mm	Nut mass kg	Shaft mass kg/m	Permissible rotational speed min⁻¹
18	9.7	48	25.5	M3	8.2	6	3.4	5.8	2	35°	6.7	8.6	2.00×10^{-5}	3.21×10^{-8}	0.21	0.8	5,000
21	12.2	56	31	M4	10.2	8	4.5	7.2	2	35°	7.3	10.6	6.50×10^{-5}	8.04×10^{-8}	0.39	1.21	4,810
21	13.2	64	36	M5	10.2	8	4.5	15.3	3	35°	9.7	13.4	1.02×10^{-4}	1.91×10^{-7}	0.51	1.79	3,940

Unit: mm

B7	B8	P3	P4	S1	t3	t4	ds1	A2	B9	ds0	Support bearing basic load rating Ca kN	Support bearing basic load rating C0 kN	Nut inertial moment kg·m²	Nut mass kg
18	13	48	25	M3	11.5	6	3.4	20°	5	2	5.2	5.1	1.80×10^{-5}	0.19
21	15.8	56	30	M4	11.8	6	4.5	25°	5.4	2	6.7	6.4	4.20×10^{-5}	0.33
21	19.2	64	36	M5	15.2	8	4.5	25°	7.6	3	7.4	7.8	9.80×10^{-5}	0.49



Options⇒A15-355