



Unit: mm

Ball screw specification		
Shaft dia. x Lead / Direction of turn	12 × 10 / Right	
Ball recirculation	Return tube	
Ball dia. / Ball circle dia.	2.381 / 12.5	
Root dia.	10.0	
Effective turns of balls	2.5 × 1	
Accuracy grade / Axial play code	Ct7/S	
Basic load rating (N)	Dynamic C_d	3750
	Static C_0	6480
Axial play	0.010 or less	
Dynamic friction torque (N · cm)	~1.5	
Spacer ball	None	
Factory pre-packed grease	NSK grease LR3	
Internal spatial volume of nut (cm ³)	1.4	

Unit: mm

Ball screw No.	Stroke		Screw shaft length		
	Nominal	Maximum (L ₁ - Nut length)	L ₁	L ₂	L ₃
VFA1210C7S-410	250	260	310	365	410
VFA1210C7S-610	450	460	510	565	610

Lead accuracy			Shaft run-out**	Mass (Kg)	Permissible rotational speed N (min ⁻¹)	
T	e _p	v ₃₀₀			Supporting condition	
					Fixed - Simple support	Fixed - Free
0	0.085	0.052	0.100	0.56	3000	3000
0	0.155	0.052	0.160	0.73	3000	1300

Remarks 1. We recommend NSK support units WBK10-01A (square type, fixed support side), WBK12SF-01 (simple support side), and WBK10-11 (round type, fixed support side). WBK12SF-01 (on the simple support side) is a unit that supports the shaft outside surface by the bearing.
 2. NSK grease LR3 is recommended.
 3. Permissible rotational speed is determined by a d · n value and a critical speed. See page B509. Root diameter of screw shaft (dr) is 10.0 mm.