

6.4.12 Type VS 260 – Type V with step-up ratio

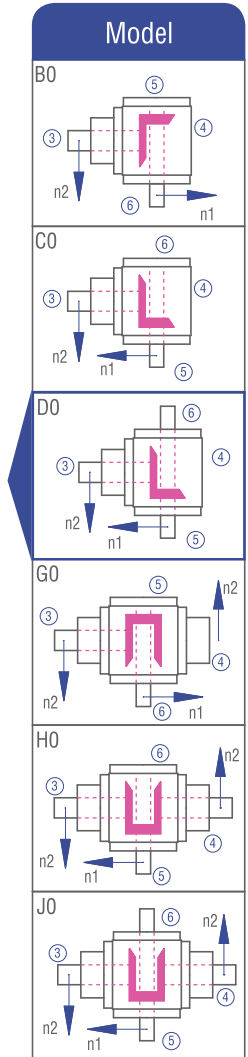
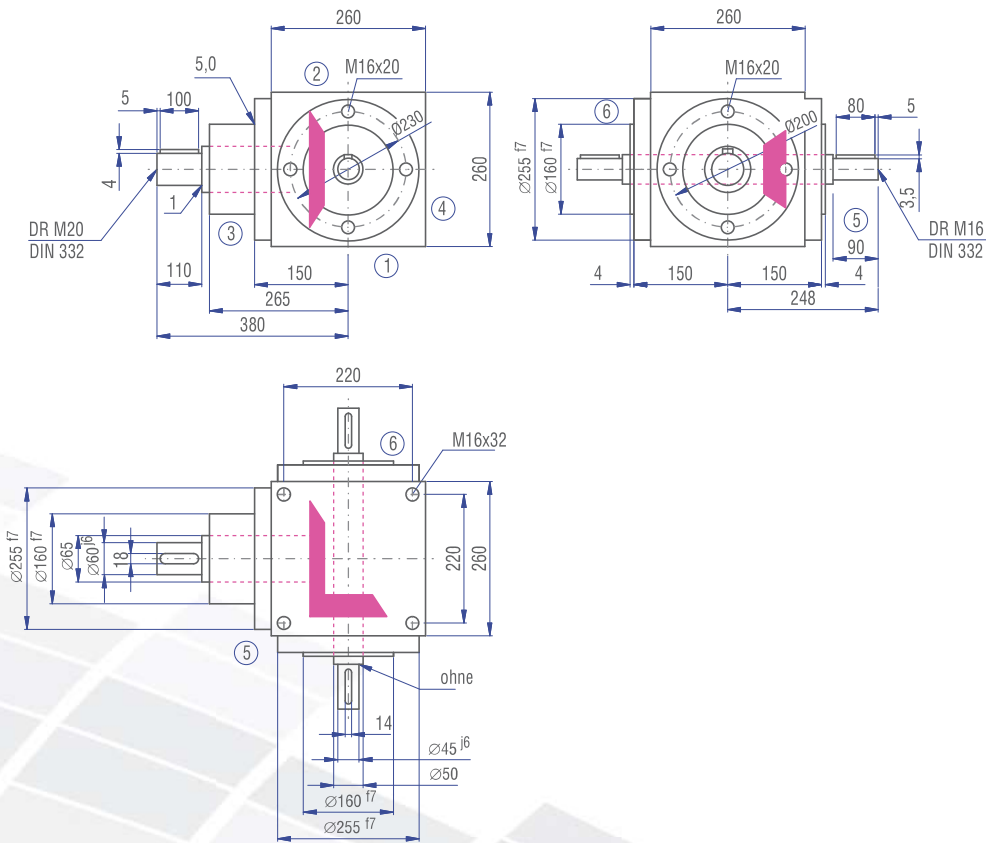


Characteristics

Characteristic	Standard	Option
Toothing	Bevel gear set, spiral-toothed	See chapter 6.2.1
Gear ratio	1.5:1 to 2:1	
Housing / Flanges	Grey cast iron; steel	
Threaded mounting holes	On all housing surfaces without flange and on all flanges.	See chapter 6.2.3
Shaft	Material 1 C45, shaft ends greased Fit with ISO 6 tolerance with parallel keyway: according to DIN 6885 Sheet 1	See chapter 4.6.2
Hollow shaft	Not deliverable	
Radial shaft seal ring	NBR, form A	See chapter 4.8
Ambient temperature	-10°C to +90°C. The values of the performance tables are valid for +20°C	See chapter 4.9.3
Circumferential backlash	< 30 arcmin	See chapter 6.2.10
Protection class	IP 54	See chapter 4.5
Corrosion protection	Prime coat; layer thickness > 40 µm	See chapter 4.4.1
Bearing life L10h	more than 15,000h	See chapter 4.9.1
Oil change intervals	Not required if the oil temperature is kept < 90°C The lifetime of the bearings can be increased by the factor 1.5 if the oil is changed after the first 500 service hours and then every 5000 service hours.	See chapter 6.2.8
Lubricant	Synthetic lubricants	See chapter 6.2.8

Performance data

n ₁ [rpm]	1.5:1			2:1		
	n ₂ [rpm]	P _{1N} [kW]	T _{2N} [Nm]	n ₂ [rpm]	P _{1N} [kW]	T _{2N} [Nm]
3000	2000	189.58	860	1500	133.92	810
2400	1600	158.72	900	1200	112.43	850
1500	1000	104.71	950	750	78.53	950
1000	667	73.50	1,000	500	57.87	1,050
750	500	55.11	1,000	375	48.36	1,170
500	333	36.70	1,000	250	33.07	1,200
250	167	18.40	1,000	125	16.53	1,200
50	33	3.64	1,000	25	3.31	1,200
P _{1Nt} [kW]	42.0			42.0		
T _{2max} [Nm]	1000			1200		



Permissible radial force F_{r2} and axial force F_{a2} on shaft N_2

n_2 [rpm]	1500		1000		500		250		100		50	
T_{2N} [Nm]	F_r [N]	F_a [N]	F_r [N]	F_a [N]	F_r [N]	F_a [N]	F_r [N]	F_a [N]	F_r [N]	F_a [N]	F_r [N]	F_a [N]
< 750	4600	2300	5150	2575	7200	3600	9450	4725	11250	5625	13100	6550
> 750	3832	1916	4290	2145	6000	3000	7876	3938	9376	4688	10918	5459

Permissible radial force F_{r1} and axial force F_{a1} on shaft N_1

n_1 [rpm]	3000		1000		500		250		100		50	
T_{1N} [Nm]	F_r [N]	F_a [N]	F_r [N]	F_a [N]	F_r [N]	F_a [N]	F_r [N]	F_a [N]	F_r [N]	F_a [N]	F_r [N]	F_a [N]
< 650	7010	3505	10900	5450	13000	6500	15000	7500	18000	9000	22000	11000
> 650	5840	2920	9080	4540	10800	5400	12500	6250	15000	7500	18000	9000

Inertia moments/mass

Inertia moment J_2 related to the slowly rotating shaft (N_2)

Model	Inertia moment [kgcm ²]	
	1.5:1	2:1
B0	810.000	751.000
C0	810.000	751.000
D0	818.000	763.000
G0	1344.000	1366.000
H0	1344.000	1366.000
J0	1354.000	1378.000

Mass ca. [kg]
83.0
83.0
84.5
107.0
107.0
108.5

