

## 6.5.13 Type VL 260 – Type V with flange for motor mounting



### Characteristics

Characteristic	Standard	Option
<b>Toothing</b>	Bevel gear set, spiral-toothed	See chapter 6.2.1
<b>Gear ratio</b>	1:1 to 6:1	
<b>Housing / Flanges</b>	Grey cast iron	
<b>Threaded mounting hole</b>	On all housing surfaces without flange and on all flanges.	See chapter 6.2.3
<b>Shaft</b>	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
<b>Hollow shaft</b>	Material 1 C45, shafts greased Fit with ISO 7 tolerance with parallel keyway: according to DIN 6885 Sheet 1	See chapter 4.6.3
<b>Radial shaft seal ring</b>	NBR, form A	See chapter 4.8
<b>Ambient temperature</b>	-10°C to +90°C. The values of the performance tables are valid for +20°C	See chapter 4.9.3
<b>Circumferential backlash</b>	< 30 arcmin	See chapter 6.2.10
<b>Protection class</b>	IP 54	See chapter 4.5
<b>Corrosion protection</b>	Prime coat; layer thickness > 40 µm	See chapter 4.4.1
<b>Bearing life L10h</b>	more than 15,000h	See chapter 4.9.1
<b>Oil change intervals</b>	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
<b>Lubricants</b>	Synthetic lubricants	See chapter 6.2.8
<b>Flange</b>	Suited for the mounting of IEC motors	
<b>Coupling</b>	Three-piece claw coupling	

## Performance data

n <sub>1</sub> [rpm]	1:1		1.5:1			2:1			3:1			4:1			5:1			6:1						
	n <sub>2</sub> [rpm]	P <sub>1N</sub> [kW]	T <sub>2N</sub> [Nm]	n <sub>2</sub> [rpm]	P <sub>1N</sub> [kW]	T <sub>2N</sub> [Nm]	n <sub>2</sub> [rpm]	P <sub>1N</sub> [kW]	T <sub>2N</sub> [Nm]	n <sub>2</sub> [rpm]	P <sub>1N</sub> [kW]	T <sub>2N</sub> [Nm]	n <sub>2</sub> [rpm]	P <sub>1N</sub> [kW]	T <sub>2N</sub> [Nm]	n <sub>2</sub> [rpm]	P <sub>1N</sub> [kW]	T <sub>2N</sub> [Nm]	n <sub>2</sub> [rpm]	P <sub>1N</sub> [kW]	T <sub>2N</sub> [Nm]			
3000				2000	189.58	860	1500	133.92	810	1000	85.97	780	750	57.87	700	600	46.29	700	500	27.27	495			
2400				1600	158.72	900	1200	112.43	850	800	72.39	821	600	51.58	780	480	40.21	760	400	23.12	524			
1500	1500	157.07	950	1000	104.71	950	750	78.53	950	500	49.60	900	375	37.20	900	300	29.10	880	250	16.36	594			
1000	1000	115.73	1,050	667	73.50	1,000	500	57.87	1,050	333	36.34	990	250	28.93	1,050	200	21.82	990	167	12.93	702			
750	750	96.72	1,170	500	55.11	1,000	375	48.36	1,170	250	28.93	1,050	188	22.73	1,100	150	18.19	1,100	125	10.91	792			
500	500	72.75	1,320	333	36.70	1,000	250	33.07	1,200	167	20.43	1,110	125	16.26	1,180	100	13.23	1,200	83	8.06	878			
250	250	42.44	1,540	167	18.40	1,000	125	16.53	1,200	83	11.16	1,220	63	8.61	1,250	50	7.11	1,290	42	4.35	940			
50	50	9.64	1,750	33	3.64	1,000	25	3.31	1,200	17	2.55	1,360	13	1.82	1,320	10	1.47	1,330	8	0.87	951			

P <sub>1Nt</sub> [kW]	42.0	42.0	42.0	42.0	42.0	42.0	42.0
T <sub>2max</sub> [Nm]	2310	1000	1200	1940	1940	1910	1730

## Permissible radial force F<sub>r2</sub> and axial force F<sub>a2</sub> on shaft N<sub>2</sub>

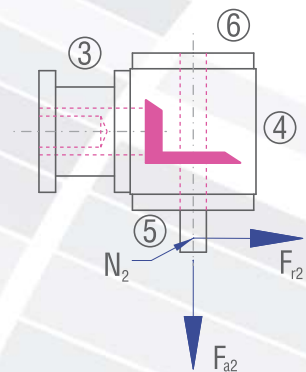
n <sub>2</sub> [rpm]	3000		1000		500		250		100		50	
T <sub>2N</sub> [Nm]	F <sub>r</sub> [N]	F <sub>a</sub> [N]	F <sub>r</sub> [N]	F <sub>a</sub> [N]	F <sub>r</sub> [N]	F <sub>a</sub> [N]	F <sub>r</sub> [N]	F <sub>a</sub> [N]	F <sub>r</sub> [N]	F <sub>a</sub> [N]	F <sub>r</sub> [N]	F <sub>a</sub> [N]
< 950	8500	4250	13000	6500	16000	8000	18000	9000	22000	11000	28000	14000
> 950	7080	3540	10830	5415	13330	6665	15000	7500	18330	9165	23330	11665

## Inertia moments/mass

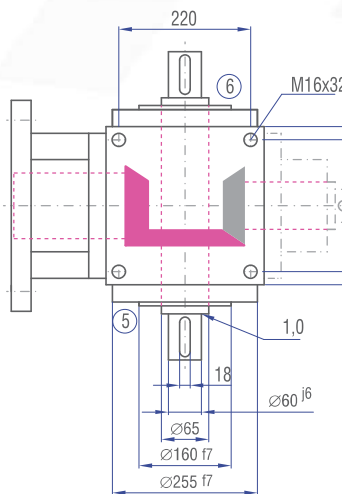
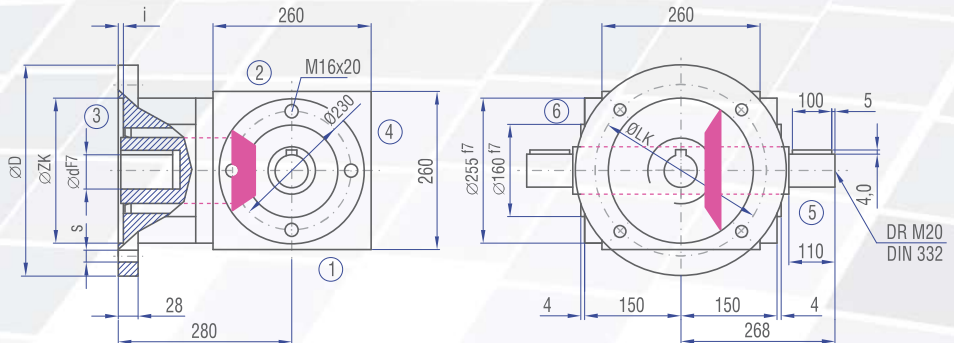
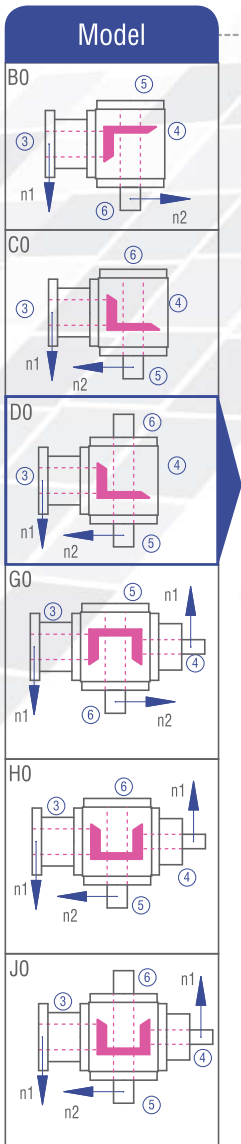
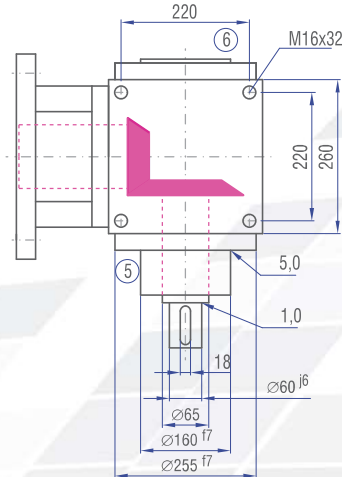
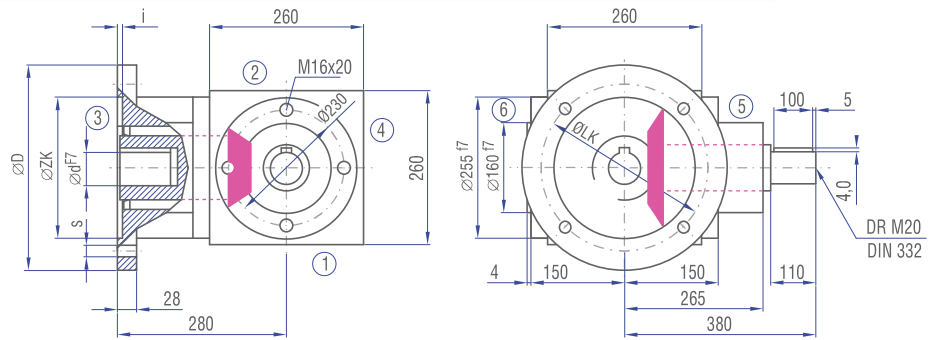
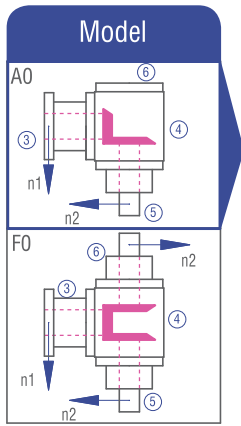
Inertia moment J<sub>1</sub> related to the fast-rotating shaft (N<sub>1</sub>)

Model	Inertia moment [kgcm <sup>2</sup> ]						
	1:1	1.5:1	2:1	3:1	4:1	5:1	6:1
A0	826.100	347.183	202.675	136.373	115.804	105.534	100.558
B0	839.340	209.512	289.735	168.511	135.694	118.264	109.454
C0	839.340	209.512	289.735	168.511	135.694	118.264	109.454
D0	853.750	424.806	293.338	103.557	136.594	118.840	109.854
EON	840.590	454.512	296.298	171.400	137.319	119.304	110.176
EOS	904.240	482.801	312.210	178.470	141.296	121.849	111.944
FO	1233.20	528.117	304.450	181.607	141.248	121.818	111.867
GO	1246.44	334.512	382.235	208.361	157.024	139.264	129.954
HO	1246.44	334.512	382.235	208.361	157.024	139.264	129.954
JO	1260.85	549.806	385.838	143.407	157.924	139.840	130.354
KON	1247.69	579.512	388.798	211.250	158.649	140.304	130.676
KOS	1311.34	607.801	404.710	218.320	162.626	142.849	132.444

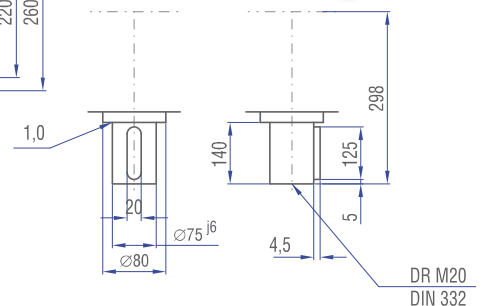
Mass [kg]
100.0
100.0
100.0
103.0
97.0
99.9
120.0
124.0
124.0
127.0
121.0
123.9



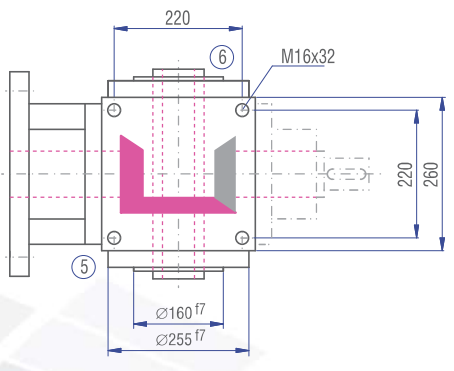
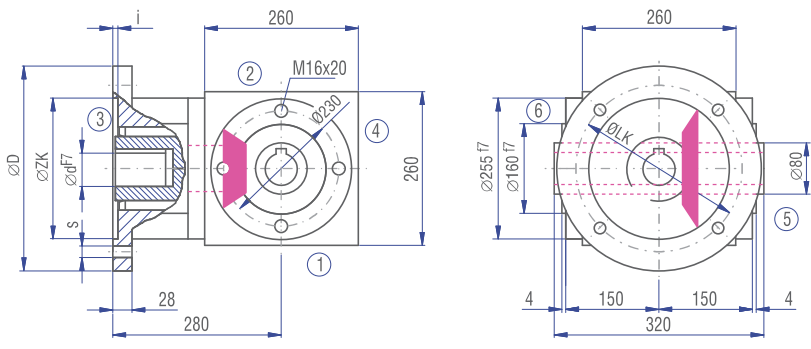
# 6.5.13 Type VL 260 – Type V with flange for motor mounting



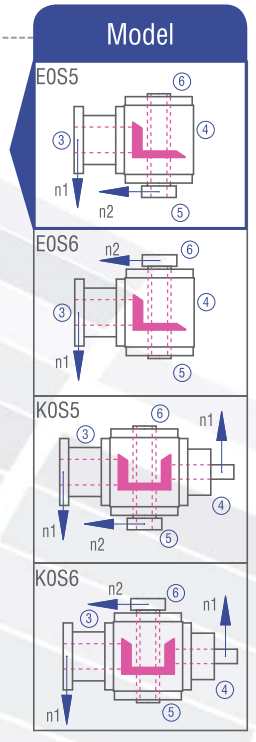
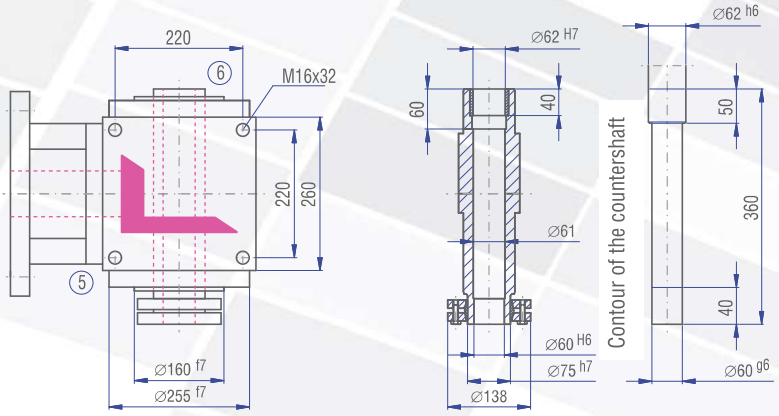
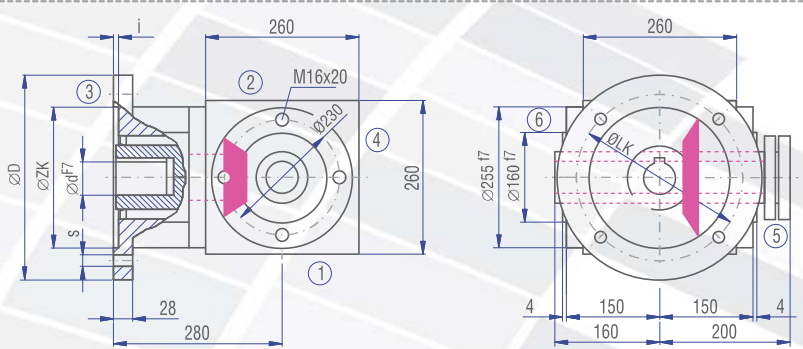
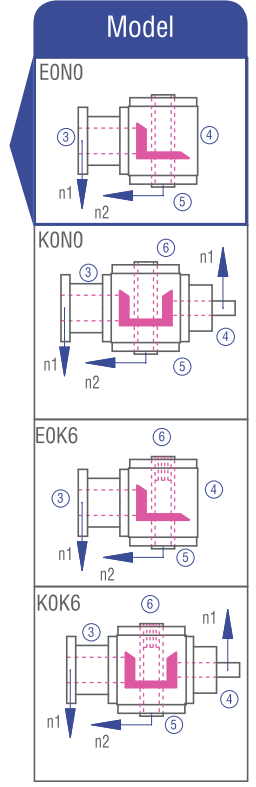
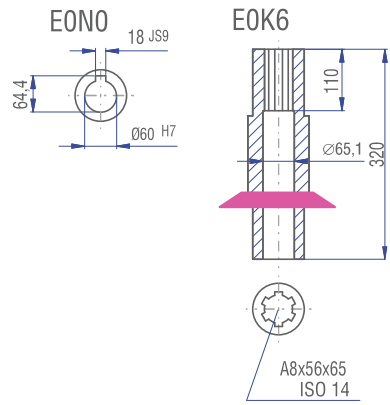
## Implementation VV



IEC motor	Model	Shaft (dxl)	D [mm]	LK [mm]	ZK [mm]	s [mm]	i [mm]
132	B5	38x80	300	265	230	14	5
160	B5	42x110	350	300	250	18	6
180	B5	48x110	350	300	250	18	6
200	B5	55x110	400	350	300	18	6



### Implementation



The dimensions of the Models not shown can be figured by mirroring available dimensions.  
The shaft dimensions on side 4 follow from the dimensions of type A0.