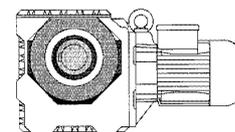


## 13 BS-series worm-geared motors



### 13.1 Description of worm-gear units

#### 13.1.1 Sizes

Bauer BS-series worm-geared motors are normally supplied in eight frame sizes and with torques of 25 to 1,000 Nm. Higher torques are available on request. The gear unit is accommodated in a sturdy cast housing.

#### 13.1.2 Efficiency

The efficiency of worm-geared motors depends on numerous factors, including lubrication, extent of wear, temperature and vibration. Calculated efficiency, therefore, is merely a guideline value. Please consult BAUER and state the boundary conditions if efficiency or self-locking capability are important factors for your application.

#### 13.1.3 Bauer service factors ( $f_B$ ) for worm-geared motors

Worm gears transmit torque by sliding friction only, which means that losses and temperature are inevitably higher than with helical-gear arrangements. Of the numerous factors influencing the total loading of a worm-gear unit, the most important include:

- Mean torque (rated torque)
- Daily operating hours
- Severity of torque peaks (shock classification)
- Frequency of torque peaks (switching duty)
- Ambient temperature

These factors can be represented in a simplified and practical manner by **service factors**. The tables and explanations below attempt to provide an objective description of the **shock classification**, rather than a classification of the driven machinery. Experience has shown that, in addition to the torque shocks caused by the driven machinery ( $M/M_N$ ), above all the power transmission components (clutches, chains etc.) plus the mass ratios play a decisive role in this.

See Danfoss Bauer special imprint SD32 for more information.

#### 13.1.3.1 Continuous operation without switching frequency $Z \leq 1/h$

**Factor  $f_1$**  for shock classification and operating time

Shock classification	Operating hours per day $t_d$ $\leq 10$ min	$\leq 1$ h	$> 1$ h	$> 4$ h	$> 8$ h	$> 16$ h
			$\leq 4$ h	$\leq 8$ h	$\leq 16$ h	$\leq 24$ h
I	0,7	0,8	0,9	1,0	1,25	1,4
II	0,9	1,0	1,12	1,25	1,6	1,8
III	1,25	1,4	1,6	1,8	2,2	2,5

## Series BS

### 13.1.3.2 Switching duty

**Factor  $f_2$**  or shock classification and switching frequency

Switching frequency in single- shift operation  $t_d \leq 8$  h/d

Shock classification	$1 < Z \leq 100$	$100 < Z \leq 1000$	$1000 < Z$
I	1,25	1,4	1,6
II	1,6	1,8	2,0
III	1,8	2,0	2,2

Switching frequency in multiple- shift operation  $t_d > 8$  h/d

Shock classification	$1 < Z \leq 100$	$100 < Z \leq 1000$	$1000 < Z$
I	1,4	1,6	1,8
II	1,8	2,0	2,2
III	2,0	2,2	2,5

### 13.1.3.3 Ambient temperature

**Factor  $f_3$**  for increased ambient temperature

AT	$-10^\circ\text{C} \dots +25^\circ\text{C}$	$>25^\circ\text{C}$	$>30^\circ\text{C}$	$>35^\circ\text{C}$	$>40^\circ\text{C}$	$>45^\circ\text{C}$	$>50^\circ\text{C}$	$>55^\circ\text{C}$
no Factor		1,1	1,2	1,3	1,4	1,5	1,6	Enquiry

### 13.1.3.4 DV-series wide range-voltage motors and energy-saving motors (eff 1)

Factors  $f_1$  and  $f_2$  (not  $f_3$ ) must be increased as follows depending on shock classification:

Shock classification I	x 1,2
Shock classification II	x 1,5
Shock classification III	x 1,8

### 13.1.3.5 Bauer service factor

Bauer service factor  $f_B =$  maximum value  $f_1, f_2, f_3$  (at daily operating hours  $> 1$ h)

For example: Shock classification II for  $Z = 100$  switching operations per hour and multiple-shift operation yields a service factor  $f_B = f_2 = 1,8$

### 13.1.3.6 Explanation of shock classification

#### Shock classification I:

Uniform without shock loads. All the following requirements must be satisfied:

- $FI \leq 1,3$
- $M/MN \leq 1,0$
- Shock-absorbing power transmission components (e.g. highly resilient, zero-play coupling,  $\varphi N \geq 5^\circ$ )

#### Shock classification II:

Moderate shock loads. At least one of the following conditions applies:

- $1,3 < FI \leq 2$
- $1 \leq M/MN \leq 1,4$
- Shock-neutral power transmission components (e.g. gear wheels, zero- playrigid coupling or resilient coupling with  $\varphi N < 5^\circ$ )

#### Shock classification III:

Heavy shock loads. At least one of the following conditions applies:

- $FI > 2$
- $1,4 < M/MN \leq 2,0$
- Shock-amplifying power transmission components (e.g. coupling with play or chain drive)

13.1.3.7

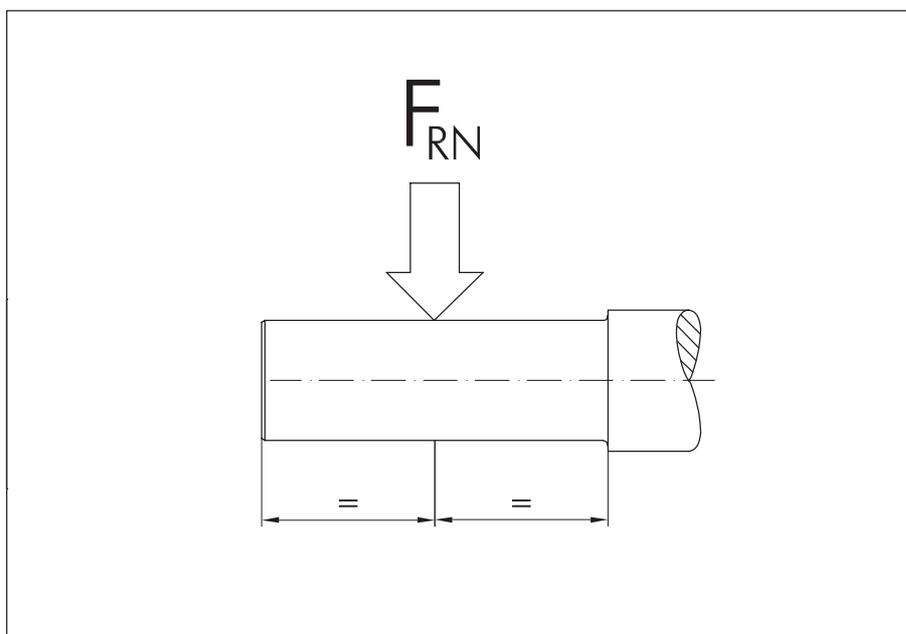
Key to abbreviations

Z	Switching duty number of switching operations per hour
$t_d$	Daily operating time in hours (h/d)
FI	Factor of inertia $FI = (J_{ext} + J_{rot})/J_{rot}$
$J_{ext}$	Mass moment of inertia of the machine to be driven, in relation to the motor's rotor shaft ( $kgm^2$ )
$J_{rot}$	Mass moment of inertia of the motor rotor ( $kgm^2$ )
$M/M_N$	Relative shock in relation to the rated torque
$\varphi_N$	Torsional offset of the resilient coupling under rated torque
UT	Ambient temperature ( $^{\circ}C$ )

**13.2 Selection tables, worm-geared motors**

**Key to abbreviations**

P	Rated output
$n_2$	Rated speed of the output shaft
i	Gear reduction ratio
$M_2$	Rated torque at the output shaft
$f_B$	Bauer Service factor
$F_{RN}$	Maximum permissible radial force with standard solid shaft (Code -.1 und -.2)



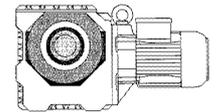
Use the selection tables to determine the size of geared motor required. The codes clearly define the type of gear unit and output shaft (see dimensional drawing 13.3).

The torques marked (\*) are maximum permissible torques for service factor  $f_B=1,0$ .

**Motor power overload protection**

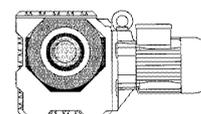
Motor-power ratings, particularly in conjunction with four-stage and multi-stage gear units, are more than ample in some instances. Consequently, and in much the same way as with low-power motors, rated current is not a measure of gear loading and cannot be used to protect the gear unit against overloading. It is advisable to provide gears at risk from excessive load or blockage with a protective mechanism (e. g., slip clutch, slip hub, shear pin or an alternative).

**P = 0.03 kW**



50 Hz			i	Type	m kg	F <sub>RN</sub> N	F <sub>RV</sub> N	60 Hz		
n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>						n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>
75	2.8	8.9	18.00	BS02-../D04LA4	3.5	1250	-	90	2.35	10.6
62	3.2	7.8	22.00	"	"	1250	-	74	2.7	9.3
50	3.6	6.9	27.00	"	"	1250	-	60	3.0	8.3
41	4.15	6.0	33.00	"	"	1250	-	49.5	3.45	7.2
31.5	5.6	4.3	43.00	"	"	1250	-	38	4.65	5.2
25	6.5	3.4	54.00	"	"	1250	-	30	5.4	4.1
19.5	7.4	2.7	70.00	"	"	1250	-	23.5	6.2	3.2
14.5	11.6	3.3	93.92	BS04-../D04LA4	3.9	2250	-	17.5	9.6	4.0
13.5	13.5	2.8	102.9	"	"	2250	-	16	11.4	3.3
12	13.6	2.8	117.0	"	"	2250	-	14	11.6	3.3
11	16.4	2.5	123.0	"	"	2250	-	13.5	13.3	3.1
9.8	18.1	2.3	138.4	"	"	2250	-	12	14.8	2.8
9.0	17.5	2.2	150.3	"	"	2250	-	11	14.3	2.7
8.5	20.5	1.8	160.1	"	"	2250	-	10.5	16.6	2.2
7.8	19.8	2.0	174.0	"	"	2250	-	9.4	16.4	2.4
6.2	24	1.65	220.0	"	"	2250	-	7.4	20.5	1.95
5.4	27.5	1.5	251.6	"	"	2250	-	6.5	22.5	1.8
4.5	32	1.35	300.7	"	"	2250	-	5.4	27	1.6
4.0	35.5	1.25	338.3	"	"	2250	-	4.8	29.5	1.5
3.5	40	1.15	391.3	"	"	2250	-	4.2	33	1.35
5.4	30.5	3.2	252.0	BS06-../D04LA4	8.4	3500	-	6.5	25.5	3.9
4.3	37.5	2.8	315.3	"	"	3500	-	5.2	31	3.4
3.8	42	2.6	358.9	"	"	3500	-	4.6	34.5	3.2
3.3	47.5	2.3	418.0	"	"	3500	-	3.9	40	2.8
2.9	70	1.35	474.8	BS06G04-../D04LA4	11	3500	-	3.5	58	1.6
2.5	79	1.25	552.6	"	"	3500	-	3.0	65	1.55
2.3	88	1.05	610.7	"	"	3500	-	2.7	75	1.25
2.0	101	0.93	704.7	"	"	3500	-	2.3	88	1.05
1.6	94*	1.0	847.0	"	"	3500	-	2.0	94	1.0
1.5	94*	1.0	939.6	"	"	3500	-	1.8	94	1.0
1.2	94*	1.0	1170	"	"	3500	-	1.4	94	1.0
0.9	94*	1.0	1503	"	"	3500	-	1.1	94	1.0
0.85	94*	1.0	1654	"	"	3500	-	1.0	94	1.0
0.75	94*	1.0	1914	"	"	3500	-	0.85	94	1.0
0.65	94*	1.0	2200	"	"	3500	-	0.75	94	1.0
0.49	94*	1.0	2768	"	"	3500	-	0.6	94	1.0
0.45	94*	1.0	3007	"	"	3500	-	0.55	94	1.0
0.41	94*	1.0	3308	"	"	3500	-	0.49	94	1.0
0.37	94*	1.0	3721	"	"	3500	-	0.44	94	1.0
0.32	94*	1.0	4304	"	"	3500	-	0.38	94	1.0
0.28	98*	1.0	4947	"	"	3500	-	0.33	98	1.0
0.25	98*	1.0	5442	"	"	3500	-	0.3	98	1.0
0.22	100*	1.0	6234	"	"	3500	-	0.26	100	1.0
2.5	67	2.8	544.8	BS10Z-../D04LA4	21	6000	-	3.0	56	3.4
2.2	72	2.6	638.7	"	"	6000	-	2.6	61	3.1
1.8	85	2.1	788.7	"	"	6000	-	2.1	73	2.5
1.5	101	1.55	905.6	"	"	6000	-	1.8	84	1.9
1.4	130	1.25	969.9	BS10G06-../D04LA4	25	6000	-	1.7	107	1.5
1.2	152	1.05	1166	"	"	6000	-	1.4	130	1.25
1.1	166	0.96	1342	"	"	6000	-	1.3	141	1.15
0.9	160*	1.0	1528	"	"	6000	-	1.1	160	1.0
0.85	160*	1.0	1668	"	"	6000	-	1.0	160	1.0
0.7	160*	1.0	1963	"	"	6000	-	0.85	160	1.0
0.6	160*	1.0	2348	"	"	6000	-	0.7	160	1.0
0.55	160*	1.0	2635	"	"	6000	-	0.65	160	1.0
0.47	160*	1.0	2875	"	"	6000	-	0.6	160	1.0
0.41	160*	1.0	3332	"	"	6000	-	0.49	160	1.0
0.38	160*	1.0	3635	"	"	6000	-	0.45	160	1.0
0.33	160*	1.0	4163	"	"	6000	-	0.39	160	1.0
0.29	160*	1.0	4776	"	"	6000	-	0.34	160	1.0
0.26	160*	1.0	5209	"	"	6000	-	0.32	160	1.0
0.23	164*	1.0	6019	"	"	6000	-	0.27	164	1.0
0.21	164*	1.0	6565	"	"	6000	-	0.25	164	1.0

## P = 0.03 kW

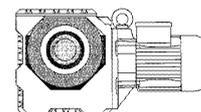


50 Hz			i	Type	m kg	F <sub>RN</sub> N	F <sub>RV</sub> N	60 Hz		
n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>						n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>
0.19	164*	1.0	7471	BS10G06-../D04LA4	"	6000	-	0.22	164	1.0
0.16	164*	1.0	8703	"	"	6000	-	0.19	164	1.0
1.7	111	2.4	831.7	BS20G06-../D04LA4	35	8000	-	2.0	94	2.9
1.4	135	2.0	1000	"	"	8000	-	1.7	111	2.4
1.1	171	1.6	1311	"	"	8000	-	1.3	145	1.85
0.9	210	1.3	1543	"	"	8000	-	1.1	171	1.6
0.85	220	1.25	1683	"	"	8000	-	1.0	189	1.45
0.7	270*	1.0	2014	"	"	8000	-	0.85	270	1.0
0.55	270*	1.0	2465	"	"	8000	-	0.7	270	1.0
0.48	270*	1.0	2857	"	"	8000	-	0.6	270	1.0
0.44	270*	1.0	3117	"	"	8000	-	0.55	270	1.0
0.38	270*	1.0	3570	"	"	8000	-	0.46	270	1.0
0.33	270*	1.0	4096	"	"	8000	-	0.4	270	1.0
0.28	270*	1.0	4910	"	"	8000	-	0.33	270	1.0
0.23	270*	1.0	5880	"	"	8000	-	0.28	270	1.0
0.19	275*	1.0	7363	"	"	8000	-	0.23	275	1.0
0.17	275*	1.0	8031	"	"	8000	-	0.21	275	1.0
0.15	280*	1.0	9220	"	"	8000	-	0.18	280	1.0
1.2	164	3.0	1176	BS30G06-../D04LA4	53	10000	-	1.4	141	3.5
0.95	205	2.4	1461	"	"	10000	-	1.2	164	3.0
0.9	215	2.3	1576	"	"	10000	-	1.1	179	2.7
0.75	260	1.9	1886	"	"	10000	-	0.9	215	2.3
0.6	325	1.5	2308	"	"	10000	-	0.75	260	1.9
0.55	355	1.4	2518	"	"	10000	-	0.65	300	1.65
0.47	420	1.15	2919	"	"	10000	-	0.6	325	1.5
0.41	480	1.0	3344	"	"	10000	-	0.49	400	1.25
0.38	490*	1.0	3647	"	"	10000	-	0.45	490	1.0
0.33	490*	1.0	4184	"	"	10000	-	0.39	490	1.0
0.28	510*	1.0	4905	"	"	10000	-	0.34	510	1.0
0.24	520*	1.0	5783	"	"	10000	-	0.29	520	1.0
0.22	520*	1.0	6308	"	"	10000	-	0.26	520	1.0
0.19	520*	1.0	7179	"	"	10000	-	0.23	520	1.0
0.17	520*	1.0	8362	"	"	10000	-	0.2	520	1.0

## P = 0.04 kW

50 Hz			i	Type	m kg	F <sub>RN</sub> N	F <sub>RV</sub> N	60 Hz		
n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>						n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>
127	2.45	10	10.67	BS02-../D04LA4	3.5	1250	-	152	2.05	12
100	2.95	8.5	13.50	"	"	1250	-	120	2.45	10
75	3.75	6.7	18.00	"	"	1250	-	90	3.1	8.1
62	4.3	5.8	22.00	"	"	1250	-	74	3.6	6.9
50	4.8	5.2	27.00	"	"	1250	-	60	4.0	6.3
41	5.5	4.5	33.00	"	"	1250	-	49.5	4.6	5.4
31.5	7.5	3.2	43.00	"	"	1250	-	38	6.2	3.9
25	8.7	2.5	54.00	"	"	1250	-	30	7.2	3.1
19.5	9.9	2.0	70.00	"	"	1250	-	23.5	8.2	2.4
21.5	11.1	3.2	64.06	BS04-../D04LA4	3.9	2250	-	25.5	9.4	3.8
19	13.2	2.9	71.18	"	"	2250	-	23	10.9	3.5
18	12.9	2.9	77.00	"	"	2250	-	21.5	10.8	3.5
14.5	15.5	2.5	93.92	"	"	2250	-	17.5	12.8	3.0
13.5	18.1	2.1	102.9	"	"	2250	-	16	15.2	2.5
12	18.1	2.1	117.0	"	"	2250	-	14	15.5	2.5
11	21.5	1.9	123.0	"	"	2250	-	13.5	17.8	2.3
9.8	24	1.75	138.4	"	"	2250	-	12	19.7	2.1
9.0	23	1.7	150.3	"	"	2250	-	11	19.1	2.0
8.5	27	1.35	160.1	"	"	2250	-	10.5	22	1.7
7.8	26	1.55	174.0	"	"	2250	-	9.4	21.5	1.85
6.2	32.5	1.25	220.0	"	"	2250	-	7.4	27	1.5
5.4	36.5	1.1	251.6	"	"	2250	-	6.5	30.5	1.35
4.5	43	1.0	300.7	"	"	2250	-	5.4	36	1.2

## P = 0.04 kW

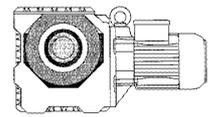


50 Hz			i	Type	m kg	F <sub>RN</sub> N	F <sub>RV</sub> N	60 Hz		
n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>						n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>
4.0	47.5	0.93	338.3	BS04-../D04LA4	"	2250	-	4.8	39.5	1.1
3.5	53	0.85	391.3	"	"	2250	-	4.2	44.5	1.0
7.9	30.5	2.9	171.0	BS06-../D04LA4	8.4	3500	-	9.5	25.5	3.5
6.2	36	2.7	220.0	"	"	3500	-	7.4	30	3.3
5.4	41	2.4	252.0	"	"	3500	-	6.5	34	2.9
4.3	50	2.1	315.3	"	"	3500	-	5.2	41.5	2.6
3.8	56	1.95	358.9	"	"	3500	-	4.6	46.5	2.4
3.3	63	1.75	418.0	"	"	3500	-	3.9	53	2.1
2.9	93	1.0	474.8	BS06G04-../D04LA4	11	3500	-	3.5	77	1.2
2.5	105	0.95	552.6	"	"	3500	-	3.0	87	1.15
2.3	117	0.8	610.7	"	"	3500	-	2.7	100	0.94
3.8	62	3.1	360.3	BS10Z-../D04LA4	21	6000	-	4.5	52	3.7
3.2	72	2.6	432.4	"	"	6000	-	3.8	61	3.1
2.5	90	2.1	544.8	"	"	6000	-	3.0	75	2.5
2.2	97	1.95	638.7	"	"	6000	-	2.6	82	2.3
1.8	114	1.6	788.7	"	"	6000	-	2.1	98	1.85
1.5	134	1.2	905.6	"	"	6000	-	1.8	112	1.4
1.4	174	0.92	969.9	BS10G06-../D04LA4	25	6000	-	1.7	143	1.1
1.2	200	0.8	1166	"	"	6000	-	1.4	174	0.92
1.8	114	2.7	763.4	BS20Z-../D04LA4	32	8000	-	2.2	93	3.3
1.7	148	1.8	831.7	BS20G06-../D04LA4	35	8000	-	2.0	126	2.1
1.4	180	1.5	1000	"	"	8000	-	1.7	148	1.8
1.1	225	1.2	1311	"	"	8000	-	1.3	193	1.4
1.4	188	2.6	1022	BS30G06-../D04LA4	53	10000	-	1.6	164	3.0
1.2	215	2.3	1176	"	"	10000	-	1.4	188	2.6
0.95	275	1.8	1461	"	"	10000	-	1.2	215	2.3
0.9	290	1.7	1576	"	"	10000	-	1.1	235	2.1
0.75	350	1.4	1886	"	"	10000	-	0.9	290	1.7
0.6	435	1.15	2308	"	"	10000	-	0.75	350	1.4
0.55	475	1.05	2518	"	"	10000	-	0.65	405	1.2

## P = 0.06 kW

50 Hz			i	Type	m kg	F <sub>RN</sub> N	F <sub>RV</sub> N	60 Hz		
n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>						n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>
295	1.7	8.8	4.60	BS02-../D04LA4	3.5	1000	-	355	1.42	10.5
250	2.0	10	5.40	"	"	1000	-	300	1.68	12
200	2.45	10	6.75	"	"	1000	-	240	2.05	12
164	2.9	8.6	8.25	"	"	1100	-	197	2.4	10
127	3.65	6.8	10.67	"	"	1250	-	152	3.05	8.2
100	4.45	5.6	13.50	"	"	1250	-	120	3.7	6.8
75	5.6	4.5	18.00	"	"	1250	-	90	4.7	5.3
62	6.4	3.9	22.00	"	"	1250	-	74	5.4	4.6
50	7.2	3.5	27.00	"	"	1250	-	60	6.0	4.2
41	8.3	3.0	33.00	"	"	1250	-	49.5	6.9	3.6
31.5	11.2	2.1	43.00	"	"	1250	-	38	9.3	2.6
25	13	1.7	54.00	"	"	1250	-	30	10.8	2.0
19.5	14.9	1.35	70.00	"	"	1250	-	23.5	12.4	1.6
18	16.2	2.5	75.00	BS03-../D05LA4	5.4	1950	-	22	13.2	3.0
35.5	11.1	3.3	38.42	BS04-../D04LA4	3.9	2250	-	42.5	9.3	4.0
28.5	13.6	2.8	47.86	"	"	2250	-	34	11.4	3.3
21.5	16.7	2.2	64.06	"	"	2250	-	25.5	14.1	2.6
19	19.9	1.9	71.18	"	"	2250	-	23	16.4	2.3
18	19.4	1.95	77.00	"	"	2250	-	21.5	16.2	2.3
14.5	23	1.65	93.92	"	"	2250	-	17.5	19.3	1.95
13.5	27	1.4	102.9	"	"	2250	-	16	22.5	1.7
12	27	1.4	117.0	"	"	2250	-	14	23	1.65
11	32.5	1.25	123.0	"	"	2250	-	13.5	26.5	1.55

## P = 0.06 kW

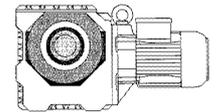


50 Hz			i	Type	m	F <sub>RN</sub>	F <sub>RV</sub>	60 Hz		
n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>						n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>
9.8	36	1.15	138.4	BS04-../D04LA4	"	2250	-	12	29.5	1.4
9.0	35	1.1	150.3	"	"	2250	-	11	28.5	1.35
8.5	41	0.9	160.1	"	"	2250	-	10.5	33	1.1
7.8	39.5	1.0	174.0	"	"	2250	-	9.4	32.5	1.25
6.2	48.5	0.82	220.0	"	"	2250	-	7.4	41	0.98
11.5	32	2.9	118.8	BS06-../D04LA4	8.4	3500	-	14	26.5	3.5
10.5	36.5	2.8	129.0	"	"	3500	-	13	29.5	3.5
9.2	40	2.7	146.8	"	"	3500	-	11.5	32	3.3
7.8	44	2.2	174.0	"	"	3500	-	9.4	36.5	2.7
6.2	54	1.8	220.0	"	"	3500	-	7.4	45.5	2.2
5.4	61	1.6	252.0	"	"	3500	-	6.5	51	1.95
4.3	75	1.4	315.3	"	"	3500	-	5.2	62	1.7
3.8	84	1.3	358.9	"	"	3500	-	4.6	69	1.6
3.3	95	1.15	418.0	"	"	3500	-	3.9	80	1.4
11.5	36.5	3.3	119.6	BS10-../D06LA4	23	6000	-	14	30	4.0
6.3	58	3.1	216.6	"	"	6000	-	7.5	48.5	3.7
5.4	67	2.7	254.0	BS10Z-../D06LA4	24	6000	-	6.4	57	3.2
4.5	78	2.4	302.5	"	"	6000	-	5.4	65	2.9
3.8	93	2.0	360.3	"	"	6000	-	4.5	78	2.4
3.2	109	1.75	432.4	"	"	6000	-	3.8	91	2.1
2.5	135	1.4	544.8	"	"	6000	-	3.0	112	1.7
2.2	145	1.3	638.7	"	"	6000	-	2.6	123	1.55
1.8	171	1.05	788.7	"	"	6000	-	2.1	147	1.2
3.2	109	3.0	430.8	BS20Z-../D06LA4	35	8000	-	3.8	91	3.6
2.6	121	3.0	539.7	"	"	8000	-	3.1	101	3.6
2.2	140	2.4	619.2	"	"	8000	-	2.7	114	2.9
1.8	171	1.8	763.4	"	"	8000	-	2.2	140	2.2
1.7	220	1.25	831.7	BS20G06-../D06LA4	38	8000	-	2.0	189	1.45
1.4	270	1.0	1000	"	"	8000	-	1.7	220	1.25
1.7	195	2.4	804.1	BS30Z-../D06LA4	54	10000	-	2.1	158	3.0
1.5	215	2.1	932.0	"	"	10000	-	1.8	181	2.5
1.4	280	1.75	1022	BS30G06-../D06LA4	56	10000	-	1.6	245	2.0
1.2	325	1.5	1176	"	"	10000	-	1.4	280	1.75
0.95	415	1.2	1461	"	"	10000	-	1.2	325	1.5
0.9	435	1.15	1576	"	"	10000	-	1.1	355	1.4
1.5	225	3.3	908.2	BS40Z-../D06LA4	68	15000	-	1.8	187	4.0
1.4	285	3.1	965.5	BS40G10-../D06LA4	73	15000	-	1.7	235	3.7
1.2	330	2.7	1180	"	"	15000	-	1.4	285	3.1
0.95	420	2.1	1499	"	"	15000	-	1.1	360	2.4
0.8	500	1.75	1785	"	"	15000	-	0.95	420	2.1
0.65	610	1.45	2126	"	"	15000	-	0.8	500	1.75
0.6	660	1.35	2304	"	"	15000	-	0.75	530	1.65
0.55	720	1.2	2552	"	"	15000	-	0.65	610	1.45
0.47	850	1.05	2902	"	"	15000	-	0.6	660	1.35

## P = 0.09 kW

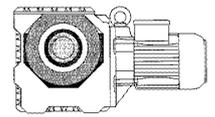
50 Hz			i	Type	m	F <sub>RN</sub>	F <sub>RV</sub>	60 Hz		
n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>						n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>
295	2.55	5.9	4.60	BS02-../D04LA4	3.5	1000	-	355	2.1	7.1
250	3.0	6.7	5.40	"	"	1000	-	300	2.5	8.0
200	3.65	6.8	6.75	"	"	1000	-	240	3.05	8.2
164	4.4	5.7	8.25	"	"	1100	-	197	3.65	6.8
127	5.5	4.5	10.67	"	"	1250	-	152	4.6	5.4
100	6.7	3.7	13.50	"	"	1250	-	120	5.5	4.5
75	8.4	3.0	18.00	"	"	1250	-	90	7.0	3.6
62	9.7	2.6	22.00	"	"	1250	-	74	8.1	3.1
50	10.8	2.3	27.00	"	"	1250	-	60	9.0	2.8
41	12.5	2.0	33.00	"	"	1250	-	49.5	10.4	2.4

**P = 0.09 kW**



50 Hz			i	Type	m kg	F <sub>RN</sub> N	F <sub>RV</sub> N	60 Hz		
n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>						n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>
31.5	16.9	1.4	43.00	<b>BS02-../D04LA4</b>	"	1250	-	38	14	1.7
25	19.5	1.15	54.00	"	"	1250	-	30	16.3	1.35
19.5	22	0.91	70.00	"	"	1250	-	23.5	18.6	1.1
27	18.4	3.0	50.00	<b>BS03-../D05LA4</b>	5.4	1950	-	32.5	15.3	3.6
22	20.5	2.3	62.00	"	"	1950	-	26.5	17.1	2.8
18	24	1.65	75.00	"	"	1950	-	22	19.9	2.0
56	11.6	2.9	24.25	<b>BS04-../D04LA4</b>	3.9	2250	-	67	9.7	3.5
52	11.7	3.2	26.21	"	"	2250	-	62	9.8	3.9
43	13.9	2.7	31.50	"	"	2250	-	52	11.5	3.3
35.5	16.7	2.2	38.42	"	"	2250	-	42.5	13.9	2.7
28.5	20.5	1.85	47.86	"	"	2250	-	34	17.1	2.2
21.5	25	1.45	64.06	"	"	2250	-	25.5	21	1.7
19	29.5	1.3	71.18	"	"	2250	-	23	24.5	1.55
18	29	1.3	77.00	"	"	2250	-	21.5	24	1.6
14.5	34.5	1.1	93.92	"	"	2250	-	17.5	28.5	1.35
13.5	40.5	0.94	102.9	"	"	2250	-	16	34	1.1
12	40.5	0.94	117.0	"	"	2250	-	14	34.5	1.1
11	49	0.84	123.0	"	"	2250	-	13.5	40	1.05
21.5	27	3.0	64.06	<b>BS06-../D04LA4</b>	8.4	3500	-	25.5	22.5	3.6
19	32	2.9	71.18	"	"	3500	-	23	26.5	3.5
18	31.5	2.7	77.00	"	"	3500	-	21.5	26.5	3.2
15	40	2.5	90.00	"	"	3500	-	18	33	3.0
13.5	43.5	2.3	103.1	"	"	3500	-	16	37	2.7
11.5	48.5	1.95	118.8	"	"	3500	-	14	39.5	2.4
10.5	54	1.95	129.0	"	"	3500	-	13	44	2.4
9.2	60	1.75	146.8	"	"	3500	-	11.5	48.5	2.2
7.8	66	1.5	174.0	"	"	3500	-	9.4	54	1.8
6.2	81	1.2	220.0	"	"	3500	-	7.4	68	1.45
5.4	92	1.1	252.0	"	"	3500	-	6.5	76	1.3
4.3	113	0.94	315.3	"	"	3500	-	5.2	94	1.15
3.8	126	0.87	358.9	"	"	3500	-	4.6	104	1.05
11.5	55	2.2	119.6	<b>BS10-../D06LA4</b>	23	6000	-	14	45	2.7
10.5	52	3.2	130.3	"	"	6000	-	12.5	44	3.7
8.9	61	2.7	152.7	"	"	6000	-	11	50	3.3
7.2	76	2.2	188.6	"	"	6000	-	8.6	63	2.7
6.3	87	2.1	216.6	"	"	6000	-	7.5	73	2.5
5.4	101	1.8	254.0	<b>BS10Z-../D06LA4</b>	24	6000	-	6.4	85	2.1
4.5	118	1.6	302.5	"	"	6000	-	5.4	98	1.95
3.8	140	1.35	360.3	"	"	6000	-	4.5	118	1.6
3.2	163	1.15	432.4	"	"	6000	-	3.8	137	1.4
2.5	200	0.95	544.8	"	"	6000	-	3.0	169	1.1
2.2	215	0.88	638.7	"	"	6000	-	2.6	185	1.05
6.0	91	3.2	225.6	<b>BS20-../D06LA4</b>	34	8000	-	7.2	76	3.8
5.3	103	2.9	257.8	<b>BS20Z-../D06LA4</b>	35	8000	-	6.3	87	3.4
4.5	120	2.5	300.1	"	"	8000	-	5.4	100	3.0
3.8	140	2.3	359.9	"	"	8000	-	4.6	115	2.8
3.2	163	2.0	430.8	"	"	8000	-	3.8	137	2.4
2.6	181	2.0	539.7	"	"	8000	-	3.1	152	2.4
2.2	210	1.55	619.2	"	"	8000	-	2.7	171	1.95
1.8	255	1.2	763.4	"	"	8000	-	2.2	210	1.5
1.7	330	0.82	831.7	<b>BS20G06-../D06LA4</b>	38	8000	-	2.0	280	0.96
3.8	167	2.4	359.6	<b>BS30Z-../D06LA4</b>	54	10000	-	4.6	138	2.9
3.0	183	3.3	457.3	"	"	10000	-	3.6	152	3.9
2.6	210	2.9	539.3	"	"	10000	-	3.1	177	3.4
2.1	245	2.4	651.0	"	"	10000	-	2.5	205	2.8
1.7	290	1.65	804.1	"	"	10000	-	2.1	235	2.0
1.5	325	1.4	932.0	"	"	10000	-	1.8	270	1.65
1.4	420	1.15	1022	<b>BS30G06-../D06LA4</b>	56	10000	-	1.6	370	1.3
1.2	490	1.0	1176	"	"	10000	-	1.4	420	1.15

## P = 0.09kW

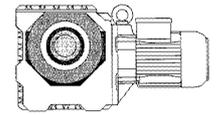


50 Hz			i	Type	m	F <sub>RN</sub>	F <sub>RV</sub>	60 Hz		
n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>						n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>
1.9	270	2.8	736.5	BS40Z-../D06LA4	68	15000	-	2.2	230	3.3
1.5	335	2.2	908.2	"	"	15000	-	1.8	280	2.7
1.4	425	2.1	965.5	BS40G10-../D06LA4	73	15000	-	1.7	350	2.5
1.2	500	1.75	1180	"	"	15000	-	1.4	425	2.1
0.95	630	1.4	1499	"	"	15000	-	1.1	540	1.65
0.8	750	1.15	1785	"	"	15000	-	0.95	630	1.4

## P = 0.12kW

50 Hz			i	Type	m	F <sub>RN</sub>	F <sub>RV</sub>	60 Hz		
n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>						n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>
295	3.4	4.4	4.60	BS02-../D04LA4	3.5	1000	-	355	2.8	5.4
250	4.0	5.0	5.40	"	"	1000	-	300	3.35	6.0
200	4.9	5.1	6.75	"	"	1000	-	240	4.1	6.1
164	5.8	4.3	8.25	"	"	1100	-	197	4.85	5.2
127	7.3	3.4	10.67	"	"	1250	-	152	6.1	4.1
100	8.9	2.8	13.50	"	"	1250	-	120	7.4	3.4
75	11.3	2.2	18.00	"	"	1250	-	90	9.4	2.7
62	12.9	1.95	22.00	"	"	1250	-	74	10.8	2.3
50	14.4	1.75	27.00	"	"	1250	-	60	12	2.1
41	16.7	1.5	33.00	"	"	1250	-	49.5	13.8	1.8
31.5	22.5	1.05	43.00	"	"	1250	-	38	18.6	1.3
25	26	0.85	54.00	"	"	1250	-	30	21.5	1.0
41	17	3.2	33.00	BS03-../D05LA4	5.4	1950	-	49.5	14.1	3.9
35	20.5	2.7	39.00	"	"	1950	-	42	17.4	3.2
27	24.5	2.2	50.00	"	"	1950	-	32.5	20	2.8
22	27.5	1.75	62.00	"	"	1950	-	26.5	22.5	2.1
18	32	1.25	75.00	"	"	1950	-	22	26.5	1.5
83	10.6	3.3	16.31	BS04-../D04LA4	3.9	1970	-	100	8.8	4.0
65	13.3	2.8	20.96	"	"	2100	-	78	11.1	3.3
56	15.5	2.2	24.25	"	"	2250	-	67	12.9	2.6
52	15.6	2.4	26.21	"	"	2250	-	62	13.1	2.9
43	18.6	2.0	31.50	"	"	2250	-	52	15.4	2.5
35.5	22	1.7	38.42	"	"	2250	-	42.5	18.6	2.0
28.5	27	1.4	47.86	"	"	2250	-	34	22.5	1.7
21.5	33.5	1.05	64.06	"	"	2250	-	25.5	28	1.3
19	39.5	0.96	71.18	"	"	2250	-	23	32.5	1.15
18	38.5	0.99	77.00	"	"	2250	-	21.5	32.5	1.15
14.5	46.5	0.82	93.92	"	"	2250	-	17.5	38.5	0.99
28	29	3.0	48.60	BS06-../D04LA4	8.4	3500	-	33.5	24.5	3.6
23.5	34.5	2.6	58.15	"	"	3500	-	28	29	3.1
21.5	36	2.2	64.06	"	"	3500	-	25.5	30.5	2.6
19	42.5	2.2	71.18	"	"	3500	-	23	35	2.7
18	42.5	2.0	77.00	"	"	3500	-	21.5	35.5	2.4
15	53	1.85	90.00	"	"	3500	-	18	44.5	2.2
13.5	58	1.7	103.1	"	"	3500	-	16	49	2.0
11.5	64	1.45	118.8	"	"	3500	-	14	53	1.75
10.5	73	1.4	129.0	"	"	3500	-	13	59	1.75
9.2	80	1.35	146.8	"	"	3500	-	11.5	64	1.65
7.8	88	1.1	174.0	"	"	3500	-	9.4	73	1.35
6.2	109	0.9	220.0	"	"	3500	-	7.4	91	1.1
5.4	123	0.8	252.0	"	"	3500	-	6.5	102	0.97
16.5	51	2.9	84.36	BS10-../D06LA4	23	5300	-	19.5	43	3.5
13.5	54	3.0	103.4	"	"	5600	-	16	45.5	3.5
11.5	73	1.65	119.6	"	"	6000	-	14	60	2.0
10.5	69	2.4	130.3	"	"	6000	-	12.5	58	2.8
8.9	82	2.0	152.7	"	"	6000	-	11	66	2.5
7.2	101	1.7	188.6	"	"	6000	-	8.6	85	2.0
6.3	116	1.55	216.6	"	"	6000	-	7.5	97	1.85

## P = 0.12 kW

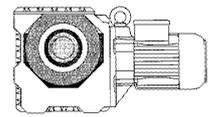


50 Hz			i	Type	m	F <sub>RN</sub>	F <sub>RV</sub>	60 Hz		
n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>						n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>
5.4	135	1.35	254.0	BS10Z-../D06LA4	24	6000	-	6.4	114	1.6
4.5	157	1.2	302.5	"	"	6000	-	5.4	131	1.45
3.8	186	1.0	360.3	"	"	6000	-	4.5	157	1.2
3.2	215	0.88	432.4	"	"	6000	-	3.8	183	1.05
8.5	88	3.1	159.4	BS20-../D06LA4	34	8000	-	10.5	72	3.8
7.4	102	2.7	183.0	"	"	8000	-	8.9	84	3.3
6.0	122	2.4	225.6	"	"	8000	-	7.2	101	2.9
5.3	138	2.1	257.8	BS20Z-../D06LA4	35	8000	-	6.3	116	2.5
4.5	160	1.9	300.1	"	"	8000	-	5.4	133	2.3
3.8	186	1.7	359.9	"	"	8000	-	4.6	154	2.1
3.2	215	1.55	430.8	"	"	8000	-	3.8	183	1.8
2.6	240	1.5	539.7	"	"	8000	-	3.1	200	1.85
2.2	280	1.2	619.2	"	"	8000	-	2.7	225	1.45
1.8	340	0.91	763.4	"	"	8000	-	2.2	280	1.1
3.8	220	1.8	359.6	BS30Z-../D06LA4	54	10000	-	4.6	184	2.1
3.5	210	2.8	390.2	"	"	10000	-	4.2	177	3.3
3.0	240	2.5	457.3	"	"	10000	-	3.6	200	3.0
2.6	280	2.1	539.3	"	"	10000	-	3.1	235	2.6
2.1	325	1.8	651.0	"	"	10000	-	2.5	275	2.1
1.7	390	1.2	804.1	"	"	10000	-	2.1	315	1.5
1.5	435	1.05	932.0	"	"	10000	-	1.8	360	1.25
1.4	560	0.88	1022	BS30G06-../D06LA4	56	10000	-	1.6	490	1.0
2.3	300	3.0	612.1	BS40Z-../D06LA4	68	15000	-	2.7	255	3.6
1.9	360	2.1	736.5	"	"	15000	-	2.2	310	2.4
1.5	450	1.65	908.2	"	"	15000	-	1.8	375	2.0
1.4	570	1.55	965.5	BS40G10-../D06LA4	73	15000	-	1.7	470	1.85
1.2	660	1.35	1180	"	"	15000	-	1.4	570	1.55
0.95	840	1.05	1499	"	"	15000	-	1.1	720	1.2

## P = 0.18 kW

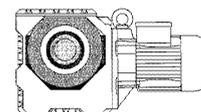
50 Hz			i	Type	m	F <sub>RN</sub>	F <sub>RV</sub>	60 Hz		
n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>						n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>
295	5.1	2.9	4.60	BS02-../D05LA4	5.3	1000	-	355	4.25	3.5
250	6.0	3.3	5.40	"	"	1000	-	300	5.0	4.0
200	7.3	3.4	6.75	"	"	1000	-	240	6.1	4.1
164	8.8	2.8	8.25	"	"	1100	-	197	7.3	3.4
127	11	2.3	10.67	"	"	1250	-	152	9.2	2.7
100	13.4	1.85	13.50	"	"	1250	-	120	11.1	2.3
75	16.9	1.5	18.00	"	"	1250	-	90	14.1	1.75
62	19.4	1.3	22.00	"	"	1250	-	74	16.2	1.55
50	21.5	1.15	27.00	"	"	1250	-	60	18	1.4
41	25	1.0	33.00	"	"	1250	-	49.5	20.5	1.2
72	18.1	3.0	19.00	BS03-../D05LA4	5.4	1950	-	86	15.1	3.6
54	21.5	2.6	25.00	"	"	1950	-	65	18.2	3.0
41	25.5	2.2	33.00	"	"	1950	-	49.5	21	2.6
35	31	1.75	39.00	"	"	1950	-	42	26	2.1
27	36.5	1.5	50.00	"	"	1950	-	32.5	30.5	1.8
22	41	1.15	62.00	"	"	1950	-	26.5	34	1.4
18	48.5	0.82	75.00	"	"	1950	-	22	39.5	1.0
126	10.6	3.0	10.73	BS04-../D05LA4	5.8	1600	-	151	8.8	3.6
104	12.7	2.6	13.09	"	"	1760	-	124	10.6	3.1
83	15.9	2.2	16.31	"	"	1970	-	100	13.2	2.7
65	20	1.85	20.96	"	"	2100	-	78	16.7	2.2
56	23	1.5	24.25	"	"	2250	-	67	19.4	1.75
52	23	1.65	26.21	"	"	2250	-	62	19.6	1.95
43	27.5	1.4	31.50	"	"	2250	-	52	23	1.65
35.5	33	1.1	38.42	"	"	2250	-	42.5	27.5	1.35
28.5	41	0.93	47.86	"	"	2250	-	34	34	1.1

**P = 0.18 kW**



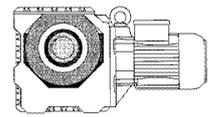
50 Hz			i	Type	m kg	F <sub>RN</sub> N	F <sub>RV</sub> N	60 Hz		
n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>						n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>
56	24.5	3.1	24.25	BS06-../D05LA4	10	2600	-	67	20.5	3.8
52	24	3.2	26.21	"	"	3000	-	62	20	3.9
43	29	2.8	31.50	"	"	3200	-	52	24	3.3
33	37.5	2.3	41.29	"	"	3500	-	39.5	31	2.8
28	44	2.0	48.60	"	"	3500	-	33.5	36.5	2.4
23.5	51	1.8	58.15	"	"	3500	-	28	43.5	2.1
21.5	54	1.5	64.06	"	"	3500	-	25.5	45.5	1.75
19	64	1.45	71.18	"	"	3500	-	23	53	1.75
18	63	1.35	77.00	"	"	3500	-	21.5	53	1.6
15	80	1.25	90.00	"	"	3500	-	18	66	1.5
13.5	87	1.15	103.1	"	"	3500	-	16	74	1.35
11.5	97	0.97	118.8	"	"	3500	-	14	79	1.2
10.5	109	0.95	129.0	"	"	3500	-	13	88	1.2
9.2	121	0.88	146.8	"	"	3500	-	11.5	97	1.1
28.5	45	3.2	47.59	BS10-../D06LA4	23	4050	-	34.5	37	3.9
24	53	2.8	57.12	"	"	4350	-	28.5	44.5	3.4
22.5	51	2.9	60.74	"	"	4550	-	27	42.5	3.5
19	66	2.4	71.96	"	"	5000	-	23	55	2.9
16.5	77	1.95	84.36	"	"	5300	-	19.5	65	2.3
13.5	81	2.0	103.4	"	"	5600	-	16	68	2.4
11.5	110	1.1	119.6	"	"	6000	-	14	90	1.35
10.5	104	1.6	130.3	"	"	6000	-	12.5	88	1.85
8.9	123	1.35	152.7	"	"	6000	-	11	100	1.65
7.2	152	1.1	188.6	"	"	6000	-	8.6	127	1.35
6.3	174	1.05	216.6	"	"	6000	-	7.5	146	1.25
5.4	200	0.9	254.0	BS10Z-../D06LA4	24	6000	-	6.4	171	1.05
4.5	235	0.81	302.5	"	"	6000	-	5.4	197	0.96
13	87	3.1	106.3	BS20-../D06LA4	34	7600	-	15.5	73	3.7
11	103	2.6	127.3	"	"	8000	-	13	87	3.1
8.5	133	2.1	159.4	"	"	8000	-	10.5	108	2.5
7.4	153	1.85	183.0	"	"	8000	-	8.9	127	2.2
6.0	183	1.6	225.6	"	"	8000	-	7.2	152	1.9
5.3	205	1.45	257.8	BS20Z-../D06LA4	35	8000	-	6.3	174	1.7
4.5	240	1.25	300.1	"	"	8000	-	5.4	200	1.5
3.8	280	1.15	359.9	"	"	8000	-	4.6	230	1.4
3.2	325	1.0	430.8	"	"	8000	-	3.8	275	1.2
2.6	360	1.0	539.7	"	"	8000	-	3.1	300	1.2
6.3	180	2.9	216.4	BS30-../D06LA4	51	10000	-	7.5	151	3.4
5.2	215	2.6	261.6	BS30Z-../D06LA4	54	10000	-	6.2	182	3.1
4.5	245	2.4	306.6	"	"	10000	-	5.3	210	2.8
3.8	330	1.2	359.6	"	"	10000	-	4.6	275	1.45
3.5	315	1.85	390.2	"	"	10000	-	4.2	265	2.2
3.0	365	1.65	457.3	"	"	10000	-	3.6	305	1.95
2.6	420	1.45	539.3	"	"	10000	-	3.1	350	1.7
2.1	490	1.2	651.0	"	"	10000	-	2.5	410	1.4
1.7	580	0.82	804.1	"	"	10000	-	2.1	470	1.0
4.7	270	2.6	287.7	BS40Z-../D06LA4	68	15000	-	5.7	220	3.3
3.1	345	2.9	446.8	"	"	15000	-	3.7	290	3.4
2.6	415	2.7	520.8	"	"	15000	-	3.2	335	3.3
2.3	455	2.0	612.1	"	"	15000	-	2.7	385	2.4
1.9	540	1.4	736.5	"	"	15000	-	2.2	465	1.65
1.5	670	1.1	908.2	"	"	15000	-	1.8	560	1.35
1.4	850	1.05	965.5	BS40G10-../D06LA4	73	15000	-	1.7	700	1.25
1.2	1000	0.88	1180	"	"	15000	-	1.4	850	1.05

**P = 0.25 kW**



50 Hz			i	Type	m kg	F <sub>RN</sub> N	F <sub>RV</sub> N	60 Hz		
n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>						n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>
295	7.1	2.1	4.60	<b>BS02-../D05LA4</b>	5.3	1000	-	355	5.9	2.5
250	8.4	2.4	5.40	"	"	1000	-	300	7.0	2.9
200	10.2	2.5	6.75	"	"	1000	-	240	8.5	2.9
164	12.2	2.0	8.25	"	"	1100	-	197	10.1	2.5
127	15.4	1.6	10.67	"	"	1250	-	152	12.8	1.95
100	18.6	1.35	13.50	"	"	1250	-	120	15.5	1.6
75	23.5	1.05	18.00	"	"	1250	-	90	19.6	1.3
62	26.5	0.94	22.00	"	"	1250	-	74	22.5	1.1
50	30	0.83	27.00	"	"	1250	-	60	25	1.0
100	18.6	3.0	13.50	<b>BS03-../D05LA4</b>	5.4	1600	-	120	15.5	3.5
72	25	2.2	19.00	"	"	1950	-	86	21	2.6
54	30.5	1.8	25.00	"	"	1950	-	65	25	2.2
41	35.5	1.55	33.00	"	"	1950	-	49.5	29	1.9
35	43.5	1.25	39.00	"	"	1950	-	42	36	1.55
27	51	1.1	50.00	"	"	1950	-	32.5	42.5	1.3
22	57	0.84	62.00	"	"	1950	-	26.5	47.5	1.0
225	8.2	3.2	6.13	<b>BS04-../D05LA4</b>	5.8	1320	-	265	7.0	3.7
152	12.2	2.5	8.93	"	"	1500	-	182	10.2	2.9
126	14.7	2.2	10.73	"	"	1600	-	151	12.3	2.6
104	17.6	1.9	13.09	"	"	1760	-	124	14.8	2.2
83	22	1.6	16.31	"	"	1970	-	100	18.3	1.9
65	27.5	1.35	20.96	"	"	2100	-	78	23	1.6
56	32	1.05	24.25	"	"	2250	-	67	27	1.25
52	32.5	1.15	26.21	"	"	2250	-	62	27	1.4
43	38.5	0.99	31.50	"	"	2250	-	52	32	1.2
35.5	46	0.8	38.42	"	"	2250	-	42.5	38.5	0.96
82	23	3.1	16.56	<b>BS06-../D05LA4</b>	10	2400	-	98	19.4	3.7
69	27.5	2.7	19.82	"	"	2500	-	82	23	3.3
56	34	2.3	24.25	"	"	2600	-	67	28.5	2.7
52	33.5	2.3	26.21	"	"	3000	-	62	28	2.8
43	40.5	2.0	31.50	"	"	3200	-	52	33.5	2.4
33	52	1.65	41.29	"	"	3500	-	39.5	43.5	2.0
28	61	1.45	48.60	"	"	3500	-	33.5	51	1.75
23.5	72	1.25	58.15	"	"	3500	-	28	60	1.5
21.5	75	1.05	64.06	"	"	3500	-	25.5	63	1.25
19	89	1.05	71.18	"	"	3500	-	23	73	1.3
18	88	0.97	77.00	"	"	3500	-	21.5	74	1.15
15	111	0.88	90.00	"	"	3500	-	18	92	1.05
13.5	122	0.82	103.1	"	"	3500	-	16	102	0.98
40.5	44.5	3.0	33.55	<b>BS10-../D06LA4</b>	23	3550	-	48.5	37	3.6
34	52	2.7	39.96	"	"	3800	-	41	43.5	3.2
28.5	62	2.3	47.59	"	"	4050	-	34.5	51	2.8
24	73	2.1	57.12	"	"	4350	-	28.5	61	2.5
22.5	71	2.1	60.74	"	"	4550	-	27	59	2.5
19	92	1.75	71.96	"	"	5000	-	23	76	2.1
16.5	107	1.4	84.36	"	"	5300	-	19.5	90	1.65
13.5	113	1.4	103.4	"	"	5600	-	16	95	1.7
10.5	145	1.15	130.3	"	"	6000	-	12.5	122	1.35
8.9	171	0.96	152.7	"	"	6000	-	11	138	1.2
7.2	210	0.81	188.6	"	"	6000	-	8.6	177	0.96
19.5	91	3.3	70.30	<b>BS20-../D06LA4</b>	34	6300	-	23.5	76	3.9
18	87	3.1	76.18	"	"	6600	-	21.5	73	3.7
15.5	101	2.7	88.67	"	"	7000	-	18.5	85	3.2
13	121	2.2	106.3	"	"	7600	-	15.5	101	2.7
11	143	1.9	127.3	"	"	8000	-	13	121	2.2
8.5	185	1.5	159.4	"	"	8000	-	10.5	150	1.85
7.4	210	1.35	183.0	"	"	8000	-	8.9	177	1.6
6.0	250	1.15	225.6	"	"	8000	-	7.2	210	1.4
5.3	285	1.05	257.8	<b>BS20Z-../D06LA4</b>	35	8000	-	6.3	240	1.25
4.5	330	0.91	300.1	"	"	8000	-	5.4	275	1.1
3.8	385	0.83	359.9	"	"	8000	-	4.6	320	1.0

## P = 0.25 kW

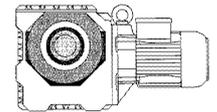


50 Hz			i	Type	m	F <sub>RN</sub>	F <sub>RV</sub>	60 Hz		
n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>						n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>
9.0	177	3.1	151.1	BS30-../D06LA4	51	9500	-	11	145	3.7
7.3	215	2.5	186.7	"	"	10000	-	8.7	181	3.0
6.3	250	2.1	216.4	"	"	10000	-	7.5	210	2.5
5.2	300	1.85	261.6	BS30Z-../D06LA4	54	10000	-	6.2	250	2.2
4.5	340	1.7	306.6	"	"	10000	-	5.3	290	2.0
3.8	460	0.86	359.6	"	"	10000	-	4.6	380	1.05
3.5	440	1.35	390.2	"	"	10000	-	4.2	365	1.6
3.0	500	1.2	457.3	"	"	10000	-	3.6	420	1.45
2.6	580	1.05	539.3	"	"	10000	-	3.1	490	1.2
2.1	680	0.85	651.0	"	"	10000	-	2.5	570	1.0
6.9	255	2.7	197.1	BS40Z-../D06LA4	68	15000	-	8.3	210	3.3
5.5	270	3.3	249.6	"	"	15000	-	6.5	230	3.9
4.7	375	1.9	287.7	"	"	15000	-	5.7	305	2.3
4.5	330	3.2	302.1	"	"	15000	-	5.4	275	3.9
3.8	395	2.7	356.8	"	"	15000	-	4.6	325	3.3
3.1	485	2.0	446.8	"	"	15000	-	3.7	405	2.4
2.6	570	1.95	520.8	"	"	15000	-	3.2	470	2.3
2.3	630	1.45	612.1	"	"	15000	-	2.7	530	1.7
1.9	750	1.0	736.5	"	"	15000	-	2.2	650	1.15
1.5	930	0.8	908.2	"	"	15000	-	1.8	780	0.95

## P = 0.3 kW

50 Hz			i	Type	m	F <sub>RN</sub>	F <sub>RV</sub>	60 Hz		
n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>						n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>
295	8.5	1.75	4.60	BS02-../D07LA4	9.3	1000	-	355	7.1	2.1
250	10	2.0	5.40	"	"	1000	-	300	8.4	2.4
200	12.3	2.0	6.75	"	"	1000	-	240	10.2	2.5
164	14.6	1.7	8.25	"	"	1100	-	197	12.2	2.0
127	18.4	1.35	10.67	"	"	1250	-	152	15.4	1.6
100	22	1.15	13.50	"	"	1250	-	120	18.6	1.35
75	28	0.89	18.00	"	"	1250	-	90	23.5	1.05
100	22	2.5	13.50	BS03-../D07LA4	9.4	1600	-	120	18.6	3.0
72	30	1.85	19.00	"	"	1950	-	86	25	2.2
54	36.5	1.5	25.00	"	"	1950	-	65	30	1.85
41	42.5	1.3	33.00	"	"	1950	-	49.5	35	1.55
35	52	1.05	39.00	"	"	1950	-	42	43.5	1.25
27	61	0.9	50.00	"	"	1950	-	32.5	51	1.1
225	9.9	2.6	6.13	BS04-../D07LA4	9.8	1320	-	265	8.4	3.1
152	14.7	2.0	8.93	"	"	1500	-	182	12.2	2.5
126	17.7	1.8	10.73	"	"	1600	-	151	14.7	2.2
104	21	1.55	13.09	"	"	1760	-	124	17.7	1.85
83	26.5	1.3	16.31	"	"	1970	-	100	22	1.6
65	33	1.1	20.96	"	"	2100	-	78	27.5	1.35
56	38.5	0.88	24.25	"	"	2250	-	67	32	1.05
52	39	0.97	26.21	"	"	2250	-	62	32.5	1.15
43	46.5	0.82	31.50	"	"	2250	-	52	38.5	0.99
96	24	2.8	14.07	BS06-../D07LA4	14	2200	-	116	20	3.4
82	27.5	2.6	16.56	"	"	2400	-	98	23	3.1
69	33	2.3	19.82	"	"	2500	-	82	27.5	2.7
56	40.5	1.9	24.25	"	"	2600	-	67	34	2.3
52	40	1.95	26.21	"	"	3000	-	62	33.5	2.3
43	48.5	1.65	31.50	"	"	3200	-	52	40	2.0
33	62	1.4	41.29	"	"	3500	-	39.5	52	1.65
28	73	1.2	48.60	"	"	3500	-	33.5	61	1.45
23.5	86	1.05	58.15	"	"	3500	-	28	72	1.25
21.5	90	0.89	64.06	"	"	3500	-	25.5	76	1.05
19	107	0.88	71.18	"	"	3500	-	23	88	1.05
18	106	0.8	77.00	"	"	3500	-	21.5	89	0.96

## P = 0.3 kW

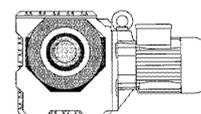


50 Hz			i	Type	m	F <sub>RN</sub>	F <sub>RV</sub>	60 Hz		
n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>						n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>
52	42.5	3.1	26.42	BS10-../D07LA4	26	3250	-	62	36	3.6
40.5	53	2.5	33.55	"	"	3550	-	48.5	44.5	3.0
34	63	2.2	39.96	"	"	3800	-	41	52	2.7
28.5	75	1.95	47.59	"	"	4050	-	34.5	62	2.3
24	88	1.7	57.12	"	"	4350	-	28.5	74	2.0
22.5	85	1.75	60.74	"	"	4550	-	27	71	2.1
19	111	1.45	71.96	"	"	5000	-	23	92	1.75
16.5	128	1.15	84.36	"	"	5300	-	19.5	108	1.4
13.5	135	1.2	103.4	"	"	5600	-	16	114	1.4
10.5	174	0.94	130.3	"	"	6000	-	12.5	146	1.1
8.9	205	0.8	152.7	"	"	6000	-	11	166	0.99
23	93	3.0	58.74	BS20-../D07LA4	36	5900	-	28	76	3.7
19.5	110	2.7	70.30	"	"	6300	-	23.5	91	3.3
18	105	2.6	76.18	"	"	6600	-	21.5	87	3.1
15.5	121	2.2	88.67	"	"	7000	-	18.5	102	2.6
13	145	1.85	106.3	"	"	7600	-	15.5	121	2.2
11	171	1.6	127.3	"	"	8000	-	13	145	1.85
8.5	220	1.25	159.4	"	"	8000	-	10.5	180	1.55
7.4	255	1.1	183.0	"	"	8000	-	8.9	210	1.35
6.0	305	0.95	225.6	"	"	8000	-	7.2	250	1.15
5.3	345	0.86	257.8	BS20Z-../D07LA4	38	8000	-	6.3	290	1.0
16.5	133	3.1	83.48	BS30-../D07LA4	54	6800	-	19.5	113	3.6
11	177	2.9	125.2	"	"	8700	-	13	149	3.5
9.0	210	2.6	151.1	"	"	9500	-	11	174	3.1
7.3	255	2.1	186.7	"	"	10000	-	8.7	215	2.5
6.3	300	1.75	216.4	"	"	10000	-	7.5	250	2.1
5.2	360	1.55	261.6	BS30Z-../D07LA4	56	10000	-	6.2	300	1.85
4.5	410	1.4	306.6	"	"	10000	-	5.3	350	1.65
3.5	530	1.1	390.2	"	"	10000	-	4.2	440	1.35
3.0	610	0.98	457.3	"	"	10000	-	3.6	500	1.2
2.6	700	0.86	539.3	"	"	10000	-	3.1	590	1.0
6.9	305	2.3	197.1	BS40Z-../D07LA4	70	15000	-	8.3	255	2.7
5.5	325	2.8	249.6	"	"	15000	-	6.5	275	3.3
4.7	450	1.6	287.7	"	"	15000	-	5.7	370	1.95
4.5	400	2.7	302.1	"	"	15000	-	5.4	330	3.2
3.8	470	2.3	356.8	"	"	15000	-	4.6	390	2.8
3.1	580	1.7	446.8	"	"	15000	-	3.7	485	2.0
2.6	690	1.6	520.8	"	"	15000	-	3.2	560	1.95
2.3	750	1.2	612.1	"	"	15000	-	2.7	640	1.4
1.9	900	0.84	736.5	"	"	15000	-	2.2	780	0.97

## P = 0.37 kW

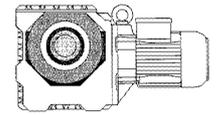
50 Hz			i	Type	m	F <sub>RN</sub>	F <sub>RV</sub>	60 Hz		
n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>						n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>
295	10.5	1.45	4.60	BS02-../D07LA4	9.3	1000	-	355	8.7	1.7
250	12.4	1.6	5.40	"	"	1000	-	300	10.3	1.95
200	15.1	1.65	6.75	"	"	1000	-	240	12.6	2.0
164	18	1.4	8.25	"	"	1100	-	197	15	1.65
127	22.5	1.1	10.67	"	"	1250	-	152	19	1.3
100	27.5	0.91	13.50	"	"	1250	-	120	22.5	1.1
100	27.5	2.0	13.50	BS03-../D07LA4	9.4	1600	-	120	22.5	2.4
72	37	1.5	19.00	"	"	1950	-	86	31	1.75
54	45	1.2	25.00	"	"	1950	-	65	37.5	1.45
41	52	1.05	33.00	"	"	1950	-	49.5	43.5	1.25
35	64	0.86	39.00	"	"	1950	-	42	53	1.05
225	12.2	2.1	6.13	BS04-../D07LA4	9.8	1320	-	265	10.4	2.5
152	18.1	1.65	8.93	"	"	1500	-	182	15.1	2.0
126	21.5	1.5	10.73	"	"	1600	-	151	18.2	1.75

**P = 0.37 kW**



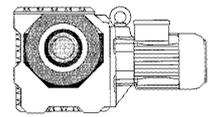
50 Hz			i	Type	m kg	F <sub>RN</sub> N	F <sub>RV</sub> N	60 Hz		
n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>						n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>
104	26	1.25	13.09	<b>BS04-../D07LA4</b>	"	1760	-	124	21.5	1.55
83	32.5	1.1	16.31	"	"	1970	-	100	27	1.3
65	41	0.9	20.96	"	"	2100	-	78	34	1.1
152	18.8	3.3	8.93	<b>BS06-../D07LA4</b>	14	1710	-	182	15.7	3.9
126	22.5	2.9	10.73	"	"	1850	-	151	18.9	3.4
96	29.5	2.3	14.07	"	"	2200	-	116	24.5	2.8
82	34	2.1	16.56	"	"	2400	-	98	28.5	2.5
69	40.5	1.85	19.82	"	"	2500	-	82	34	2.2
56	50	1.55	24.25	"	"	2600	-	67	42	1.85
52	49.5	1.55	26.21	"	"	3000	-	62	41.5	1.85
43	59	1.35	31.50	"	"	3200	-	52	49.5	1.6
33	77	1.1	41.29	"	"	3500	-	39.5	64	1.35
28	90	0.98	48.60	"	"	3500	-	33.5	75	1.15
23.5	106	0.86	58.15	"	"	3500	-	28	89	1.0
63	44.5	2.8	21.61	<b>BS10-../D07LA4</b>	26	3000	-	75	37.5	3.3
52	53	2.5	26.42	"	"	3250	-	62	44	3.0
40.5	66	2.0	33.55	"	"	3550	-	48.5	55	2.5
34	77	1.8	39.96	"	"	3800	-	41	64	2.2
28.5	92	1.6	47.59	"	"	4050	-	34.5	76	1.9
24	108	1.4	57.12	"	"	4350	-	28.5	91	1.65
22.5	105	1.45	60.74	"	"	4550	-	27	87	1.7
19	137	1.15	71.96	"	"	5000	-	23	113	1.4
16.5	158	0.95	84.36	"	"	5300	-	19.5	134	1.1
13.5	167	0.96	103.4	"	"	5600	-	16	141	1.15
32.5	82	3.3	42.08	<b>BS20-../D07LA4</b>	36	5200	-	38.5	69	3.9
28	94	2.9	48.98	"	"	5500	-	33.5	79	3.4
27	87	3.1	50.44	"	"	5700	-	32.5	72	3.8
23	115	2.4	58.74	"	"	5900	-	28	94	3.0
19.5	135	2.2	70.30	"	"	6300	-	23.5	112	2.7
18	129	2.1	76.18	"	"	6600	-	21.5	108	2.5
15.5	150	1.8	88.67	"	"	7000	-	18.5	126	2.1
13	179	1.5	106.3	"	"	7600	-	15.5	150	1.8
11	210	1.3	127.3	"	"	8000	-	13	179	1.5
8.5	270	1.0	159.4	"	"	8000	-	10.5	220	1.25
7.4	315	0.89	183.0	"	"	8000	-	8.9	260	1.1
6.8	330	0.85	201.4	<b>BS20Z-../D07LA4</b>	38	8000	-	8.1	275	1.0
16.5	164	2.5	83.48	<b>BS30-../D07LA4</b>	54	6800	-	19.5	139	2.9
15	162	3.0	90.59	"	"	7700	-	18	135	3.6
13	184	2.8	106.2	"	"	8200	-	15.5	155	3.3
11	215	2.4	125.2	"	"	8700	-	13	184	2.8
9.0	260	2.1	151.1	"	"	9500	-	11	215	2.5
7.3	315	1.7	186.7	"	"	10000	-	8.7	265	2.0
6.3	370	1.4	216.4	"	"	10000	-	7.5	310	1.7
5.2	445	1.25	261.6	<b>BS30Z-../D07LA4</b>	56	10000	-	6.2	375	1.5
4.5	510	1.15	306.6	"	"	10000	-	5.3	430	1.35
3.5	650	0.91	390.2	"	"	10000	-	4.2	540	1.1
3.0	750	0.8	457.3	"	"	10000	-	3.6	620	0.97
6.9	375	1.85	197.1	<b>BS40Z-../D07LA4</b>	70	15000	-	8.3	315	2.2
5.5	400	2.3	249.6	"	"	15000	-	6.5	340	2.6
4.7	550	1.3	287.7	"	"	15000	-	5.7	455	1.55
4.5	490	2.2	302.1	"	"	15000	-	5.4	410	2.6
3.8	580	1.85	356.8	"	"	15000	-	4.6	480	2.3
3.1	710	1.4	446.8	"	"	15000	-	3.7	600	1.65
2.6	850	1.3	520.8	"	"	15000	-	3.2	690	1.6
2.3	930	0.98	612.1	"	"	15000	-	2.7	790	1.15

**P = 0.55 kW**



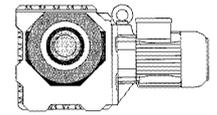
50 Hz			i	Type	m kg	F <sub>RN</sub> N	F <sub>RV</sub> N	60 Hz		
n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>						n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>
305	15.1	2.6	4.60	<b>BS03-../D08MA4</b>	10	1070	-	370	12.4	3.2
235	19.6	2.2	6.00	"	"	1170	-	280	16.5	2.7
175	25.5	1.9	8.00	"	"	1320	-	210	21.5	2.2
140	31.5	1.65	10.00	"	"	1450	-	168	26	2.0
104	39	1.4	13.50	"	"	1600	-	125	32.5	1.7
74	53	1.05	19.00	"	"	1950	-	89	44.5	1.25
56	64	0.86	25.00	"	"	1950	-	68	53	1.05
210	20	2.8	6.67	<b>BS06-../D08MA4</b>	16	1550	-	255	16.6	3.4
157	27	2.3	8.93	"	"	1710	-	189	22.5	2.8
131	32	2.0	10.73	"	"	1850	-	157	27	2.4
100	42.5	1.6	14.07	"	"	2200	-	120	35	1.95
85	49	1.45	16.56	"	"	2400	-	102	41	1.75
71	59	1.25	19.82	"	"	2500	-	85	49	1.55
58	72	1.05	24.25	"	"	2600	-	70	60	1.3
54	71	1.1	26.21	"	"	3000	-	65	58	1.35
44.5	86	0.93	31.50	"	"	3200	-	54	71	1.15
113	37	2.9	12.49	<b>BS10-../D08MA4</b>	27	2400	-	135	31	3.5
83	50	2.4	16.92	"	"	2700	-	100	42	2.9
65	64	1.95	21.61	"	"	3000	-	78	53	2.4
53	77	1.7	26.42	"	"	3250	-	64	64	2.0
46	78	1.65	30.63	"	"	3550	-	55	65	2.0
42	95	1.4	33.55	"	"	3550	-	51	78	1.75
35.5	110	1.25	39.96	"	"	3800	-	42.5	92	1.5
29.5	133	1.1	47.59	"	"	4050	-	35.5	110	1.3
25	155	0.97	57.12	"	"	4350	-	29.5	131	1.15
23.5	149	1.0	60.74	"	"	4550	-	28	125	1.2
19.5	199	0.8	71.96	"	"	5000	-	23.5	165	0.97
51	80	3.1	27.86	<b>BS20-../D08MA4</b>	37	4450	-	61	67	3.7
46	82	3.0	30.63	"	"	4750	-	55	68	3.7
43	94	2.9	32.87	"	"	4750	-	52	77	3.5
35	108	2.4	40.25	"	"	5300	-	42	90	2.9
33.5	119	2.3	42.08	"	"	5200	-	40	99	2.7
29	135	2.0	48.98	"	"	5500	-	34.5	114	2.4
28	125	2.2	50.44	"	"	5700	-	33.5	105	2.6
24	164	1.7	58.74	"	"	5900	-	29	135	2.1
20	196	1.55	70.30	"	"	6300	-	24	164	1.85
18.5	187	1.45	76.18	"	"	6600	-	22.5	154	1.75
16	215	1.25	88.67	"	"	7000	-	19	182	1.5
13.5	255	1.05	106.3	"	"	7600	-	16	215	1.25
11	315	0.86	127.3	"	"	8000	-	13.5	255	1.05
28	144	3.1	50.04	<b>BS30-../D08MA4</b>	55	5900	-	34	118	3.8
24	168	2.7	58.64	"	"	6900	-	29	139	3.3
20	183	2.6	71.17	"	"	7000	-	24	153	3.1
17	235	1.75	83.48	"	"	6800	-	20.5	197	2.1
15.5	230	2.1	90.59	"	"	7700	-	19	190	2.6
13.5	260	1.95	106.2	"	"	8200	-	16	220	2.3
11.5	310	1.7	125.2	"	"	8700	-	13.5	260	2.0
9.3	375	1.45	151.1	"	"	9500	-	11.5	305	1.75
7.5	460	1.2	186.7	"	"	10000	-	9.0	385	1.4
6.5	530	0.98	216.4	"	"	10000	-	7.8	440	1.2
5.4	640	0.88	261.6	<b>BS30Z-../D08MA4</b>	58	10000	-	6.5	530	1.05
11.5	305	3.2	126.0	<b>BS40-../D08MA4</b>	68	14900	-	13.5	260	3.8
9.5	355	2.7	148.1	"	"	15000	-	11.5	295	3.3
7.9	430	1.9	178.2	"	"	15000	-	9.5	355	2.3
6.4	510	1.55	219.7	"	"	15000	-	7.7	425	1.85
5.7	580	1.55	249.6	<b>BS40Z-../D08MA4</b>	71	15000	-	6.8	485	1.85
4.9	790	0.91	287.7	"	"	15000	-	5.9	650	1.1
4.7	700	1.55	302.1	"	"	15000	-	5.6	590	1.8
4.0	820	1.3	356.8	"	"	15000	-	4.8	680	1.6
3.2	1030	0.96	446.8	"	"	15000	-	3.8	870	1.15
2.7	1220	0.9	520.8	"	"	15000	-	3.3	1000	1.1

**P = 0.75 kW**



50 Hz			i	Type	m kg	F <sub>RN</sub> N	F <sub>RV</sub> N	60 Hz		
n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>						n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>
305	20.5	1.95	4.60	BS03-../D08LA4	12	1070	-	370	17	2.4
235	26.5	1.65	6.00	"	"	1170	-	280	22.5	1.95
175	35	1.35	8.00	"	"	1320	-	210	29	1.65
140	42.5	1.2	10.00	"	"	1450	-	168	35.5	1.45
104	53	1.05	13.50	"	"	1600	-	125	44.5	1.25
210	27.5	2.0	6.67	BS06-../D08LA4	17	1550	-	255	22.5	2.5
157	36.5	1.7	8.93	"	"	1710	-	189	30.5	2.0
131	44	1.5	10.73	"	"	1850	-	157	36.5	1.8
100	58	1.15	14.07	"	"	2200	-	120	48	1.4
85	67	1.05	16.56	"	"	2400	-	102	56	1.3
71	80	0.94	19.82	"	"	2500	-	85	67	1.1
54	96	0.8	26.21	"	"	3000	-	65	80	0.96
113	50	2.2	12.49	BS10-../D08LA4	28	2400	-	135	42	2.6
83	69	1.75	16.92	"	"	2700	-	100	57	2.1
65	88	1.4	21.61	"	"	3000	-	78	73	1.7
53	105	1.25	26.42	"	"	3250	-	64	87	1.5
46	107	1.2	30.63	"	"	3550	-	55	89	1.45
42	129	1.05	33.55	"	"	3550	-	51	106	1.25
35.5	151	0.93	39.96	"	"	3800	-	42.5	126	1.1
29.5	182	0.8	47.59	"	"	4050	-	35.5	151	0.96
83	69	3.2	16.92	BS20-../D08LA4	39	3700	-	100	58	3.8
63	92	2.5	22.23	"	"	4100	-	76	76	3.0
51	109	2.3	27.86	"	"	4450	-	61	91	2.7
46	112	2.2	30.63	"	"	4750	-	55	93	2.7
43	128	2.1	32.87	"	"	4750	-	52	106	2.5
35	147	1.75	40.25	"	"	5300	-	42	122	2.1
33.5	162	1.65	42.08	"	"	5200	-	40	136	2.0
29	185	1.45	48.98	"	"	5500	-	34.5	155	1.75
28	171	1.6	50.44	"	"	5700	-	33.5	143	1.9
24	220	1.25	58.74	"	"	5900	-	29	185	1.5
20	265	1.15	70.30	"	"	6300	-	24	220	1.35
18.5	255	1.05	76.18	"	"	6600	-	22.5	210	1.3
16	295	0.92	88.67	"	"	7000	-	19	245	1.1
42	139	3.0	33.55	BS30-../D08LA4	56	5200	-	51	115	3.7
37	145	2.9	37.92	"	"	5500	-	44.5	120	3.5
36	161	2.7	39.31	"	"	5500	-	43	134	3.2
28	196	2.3	50.04	"	"	5900	-	34	162	2.8
24	225	2.0	58.64	"	"	6900	-	29	190	2.4
20	250	1.9	71.17	"	"	7000	-	24	205	2.3
17	320	1.3	83.48	"	"	6800	-	20.5	265	1.55
15.5	315	1.55	90.59	"	"	7700	-	19	260	1.9
13.5	360	1.4	106.2	"	"	8200	-	16	300	1.7
11.5	420	1.25	125.2	"	"	8700	-	13.5	360	1.45
9.3	510	1.05	151.1	"	"	9500	-	11.5	415	1.3
7.5	630	0.86	186.7	"	"	10000	-	9.0	520	1.05
20.5	265	2.8	69.60	BS40-../D08LA4	69	11800	-	24.5	225	3.3
16.5	295	3.1	86.33	"	"	12900	-	19.5	250	3.6
13	365	2.6	108.1	"	"	14000	-	16	295	3.2
11.5	415	2.4	126.0	"	"	14900	-	13.5	355	2.8
9.5	490	2.0	148.1	"	"	15000	-	11.5	400	2.4
7.9	580	1.4	178.2	"	"	15000	-	9.5	490	1.65
6.4	700	1.15	219.7	"	"	15000	-	7.7	580	1.35
5.7	790	1.15	249.6	BS40Z-../D08LA4	73	15000	-	6.8	660	1.35
4.7	960	1.1	302.1	"	"	15000	-	5.6	800	1.35
4.0	1120	0.96	356.8	"	"	15000	-	4.8	940	1.15

**P = 1.1 kW**

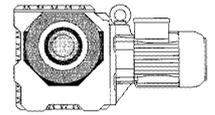


50 Hz			i	Type	m	F <sub>RN</sub>	F <sub>RV</sub>	60 Hz		
n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>						n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>
113	74	1.45	12.49	<b>BS10-../D09SA4</b>	32	2400	-	135	62	1.75
83	101	1.2	16.92	"	"	2700	-	100	84	1.45
65	129	0.97	21.61	"	"	3000	-	78	107	1.15
53	154	0.84	26.42	"	"	3250	-	64	128	1.0
46	157	0.83	30.63	"	"	3550	-	55	131	0.99
110	77	2.6	12.77	<b>BS20-../D09SA4</b>	42	3350	-	132	64	3.1
83	102	2.2	16.92	"	"	3700	-	100	85	2.6
63	135	1.7	22.23	"	"	4100	-	76	111	2.1
51	160	1.55	27.86	"	"	4450	-	61	134	1.85
46	164	1.5	30.63	"	"	4750	-	55	137	1.8
43	188	1.45	32.87	"	"	4750	-	52	155	1.75
35	215	1.2	40.25	"	"	5300	-	42	180	1.45
33.5	235	1.15	42.08	"	"	5200	-	40	199	1.35
29	270	1.0	48.98	"	"	5500	-	34.5	225	1.2
28	250	1.1	50.44	"	"	5700	-	33.5	210	1.3
24	325	0.86	58.74	"	"	5900	-	29	270	1.05
67	130	2.9	20.94	<b>BS30-../D09SA4</b>	60	4300	-	81	107	3.6
52	167	2.4	27.07	"	"	4750	-	63	138	2.9
46	171	2.3	30.63	"	"	5000	-	55	143	2.8
42	205	2.0	33.55	"	"	5200	-	51	168	2.5
37	210	2.0	37.92	"	"	5500	-	44.5	177	2.4
36	235	1.85	39.31	"	"	5500	-	43	197	2.2
28	285	1.6	50.04	"	"	5900	-	34	235	1.9
24	335	1.35	58.64	"	"	6900	-	29	275	1.65
20	365	1.3	71.17	"	"	7000	-	24	305	1.55
17	475	0.86	83.48	"	"	6800	-	20.5	390	1.05
15.5	465	1.05	90.59	"	"	7700	-	19	380	1.3
13.5	520	0.98	106.2	"	"	8200	-	16	445	1.15
11.5	620	0.84	125.2	"	"	8700	-	13.5	520	1.0
29.5	275	3.0	47.69	<b>BS40-../D09SA4</b>	73	9600	-	35.5	230	3.6
23.5	315	2.7	60.38	"	"	11200	-	28	265	3.2
20.5	390	1.9	69.60	"	"	11800	-	24.5	330	2.3
19.5	375	2.3	73.09	"	"	12100	-	23	315	2.8
16.5	435	2.1	86.33	"	"	12900	-	19.5	370	2.4
13	540	1.75	108.1	"	"	14000	-	16	435	2.2
11.5	610	1.6	126.0	"	"	14900	-	13.5	520	1.9
9.5	710	1.35	148.1	"	"	15000	-	11.5	590	1.65
7.9	860	0.95	178.2	"	"	15000	-	9.5	710	1.15

**P = 1.5 kW**

50 Hz			i	Type	m	F <sub>RN</sub>	F <sub>RV</sub>	60 Hz		
n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>						n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>
113	101	1.05	12.49	<b>BS10-../D09LA4</b>	36	2400	-	135	84	1.3
83	138	0.87	16.92	"	"	2700	-	100	114	1.05
110	105	1.9	12.77	<b>BS20-../D09LA4</b>	46	3350	-	132	87	2.3
83	139	1.6	16.92	"	"	3700	-	100	116	1.9
63	184	1.25	22.23	"	"	4100	-	76	152	1.5
51	215	1.15	27.86	"	"	4450	-	61	183	1.35
46	220	1.15	30.63	"	"	4750	-	55	187	1.35
43	255	1.05	32.87	"	"	4750	-	52	210	1.3
35	290	0.9	40.25	"	"	5300	-	42	245	1.05
33.5	320	0.84	42.08	"	"	5200	-	40	270	1.0
106	112	3.0	13.29	<b>BS30-../D09LA4</b>	64	3600	-	127	93	3.6
83	143	2.5	16.92	"	"	3950	-	100	118	3.1
67	177	2.1	20.94	"	"	4300	-	81	146	2.6
52	225	1.8	27.07	"	"	4750	-	63	188	2.1
46	230	1.75	30.63	"	"	5000	-	55	195	2.1
42	275	1.55	33.55	"	"	5200	-	51	230	1.85

## P = 1.5 kW

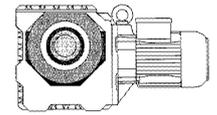


50 Hz			i	Type	m kg	F <sub>RN</sub> N	F <sub>RV</sub> N	60 Hz		
n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>						n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>
37	290	1.45	37.92	BS30-../D09LA4	"	5500	-	44.5	240	1.75
36	320	1.35	39.31	"	"	5500	-	43	265	1.6
28	390	1.15	50.04	"	"	5900	-	34	320	1.4
24	455	1.0	58.64	"	"	6900	-	29	380	1.2
20	500	0.96	71.17	"	"	7000	-	24	415	1.15
46	230	3.3	30.63	BS40-../D09LA4	77	8700	-	55	192	3.9
42	270	2.9	33.35	"	"	8300	-	51	220	3.5
37	280	2.8	38.13	"	"	9400	-	44.5	230	3.4
35	320	2.5	40.37	"	"	9000	-	42	265	3.0
29.5	375	2.2	47.69	"	"	9600	-	35.5	310	2.7
23.5	430	2.0	60.38	"	"	11200	-	28	360	2.4
20.5	530	1.4	69.60	"	"	11800	-	24.5	450	1.65
19.5	510	1.75	73.09	"	"	12100	-	23	435	2.0
16.5	590	1.55	86.33	"	"	12900	-	19.5	500	1.8
13	730	1.3	108.1	"	"	14000	-	16	590	1.6
11.5	830	1.2	126.0	"	"	14900	-	13.5	710	1.4
9.5	980	0.99	148.1	"	"	15000	-	11.5	800	1.2

## P = 2.2 kW

50 Hz			i	Type	m kg	F <sub>RN</sub> N	F <sub>RV</sub> N	60 Hz		
n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>						n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>
110	154	1.3	12.77	BS20-../D09XA4	50	3350	-	132	128	1.55
83	205	1.05	16.92	"	"	3700	-	100	170	1.3
63	270	0.85	22.23	"	"	4100	-	76	220	1.05
106	164	2.0	13.29	BS30-../D09XA4	68	3600	-	127	137	2.4
83	210	1.7	16.92	"	"	3950	-	100	174	2.1
67	260	1.45	20.94	"	"	4300	-	81	215	1.75
52	335	1.2	27.07	"	"	4750	-	63	275	1.45
46	340	1.2	30.63	"	"	5000	-	55	285	1.4
42	410	1.0	33.55	"	"	5200	-	51	335	1.25
37	425	0.99	37.92	"	"	5500	-	44.5	350	1.2
36	470	0.91	39.31	"	"	5500	-	43	395	1.1
83	215	3.1	16.92	BS40-../D09XA4	81	6400	-	100	178	3.8
67	255	2.8	21.06	"	"	6900	-	80	215	3.3
54	315	2.3	26.18	"	"	7500	-	65	265	2.8
46	335	2.2	30.63	"	"	8700	-	55	280	2.7
42	400	1.95	33.35	"	"	8300	-	51	325	2.4
37	410	1.9	38.13	"	"	9400	-	44.5	340	2.3
35	470	1.7	40.37	"	"	9000	-	42	395	2.0
29.5	550	1.5	47.69	"	"	9600	-	35.5	460	1.8
23.5	630	1.35	60.38	"	"	11200	-	28	530	1.6
20.5	780	0.95	69.60	"	"	11800	-	24.5	660	1.15
19.5	750	1.15	73.09	"	"	12100	-	23	630	1.4
16.5	870	1.05	86.33	"	"	12900	-	19.5	740	1.2
13	1080	0.88	108.1	"	"	14000	-	16	870	1.1
11.5	1220	0.8	126.0	"	"	14900	-	13.5	1040	0.94

## P = 3 kW



50 Hz			i	Type	m kg	F <sub>RN</sub> N	F <sub>RV</sub> N	60 Hz		
n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>						n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>
107	220	1.5	13.29	BS30-../D11SA4	71	3600	-	129	184	1.8
84	280	1.3	16.92	"	"	3950	-	102	230	1.55
68	345	1.1	20.94	"	"	4300	-	82	285	1.35
53	445	0.9	27.07	"	"	4750	-	64	370	1.1
46.5	460	0.87	30.63	"	"	5000	-	56	380	1.05
109	220	2.8	13.03	BS40-../D11SA4	89	5800	-	132	184	3.3
84	285	2.4	16.92	"	"	6400	-	102	235	2.9
68	345	2.1	21.06	"	"	6900	-	82	285	2.5
55	425	1.75	26.18	"	"	7500	-	66	355	2.1
46.5	455	1.65	30.63	"	"	8700	-	56	375	2.0
43	530	1.45	33.35	"	"	8300	-	52	440	1.75
37.5	550	1.4	38.13	"	"	9400	-	45	460	1.7
35.5	630	1.25	40.37	"	"	9000	-	42.5	530	1.5
30	740	1.1	47.69	"	"	9600	-	36	620	1.35
24	840	1.0	60.38	"	"	11200	-	28.5	710	1.2
19.5	1020	0.86	73.09	"	"	12100	-	23.5	850	1.05

## P = 4 kW

50 Hz			i	Type	m kg	F <sub>RN</sub> N	F <sub>RV</sub> N	60 Hz		
n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>						n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>
107	295	1.15	13.29	BS30-../D11MA4	77	3600	-	129	245	1.35
84	375	0.96	16.92	"	"	3950	-	102	310	1.15
68	465	0.82	20.94	"	"	4300	-	82	385	0.99
109	295	2.1	13.03	BS40-../D11MA4	95	5800	-	132	245	2.5
84	385	1.75	16.92	"	"	6400	-	102	315	2.1
68	460	1.55	21.06	"	"	6900	-	82	380	1.85
55	560	1.3	26.18	"	"	7500	-	66	470	1.55
46.5	600	1.25	30.63	"	"	8700	-	56	500	1.5
43	710	1.1	33.35	"	"	8300	-	52	580	1.35
37.5	740	1.05	38.13	"	"	9400	-	45	610	1.3
35.5	850	0.94	40.37	"	"	9000	-	42.5	710	1.15
30	990	0.84	47.69	"	"	9600	-	36	820	1.0

## P = 5.5 kW

50 Hz			i	Type	m kg	F <sub>RN</sub> N	F <sub>RV</sub> N	60 Hz		
n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>						n <sub>2</sub> 1/min	M <sub>2</sub> Nm	f <sub>B</sub>
107	405	0.82	13.29	BS30-../D11LA4	89	3600	-	129	335	0.99
109	405	1.5	13.03	BS40-../D11LA4	107	5800	-	132	335	1.85
84	530	1.25	16.92	"	"	6400	-	102	435	1.55
68	630	1.15	21.06	"	"	6900	-	82	520	1.35
55	780	0.95	26.18	"	"	7500	-	66	650	1.15
46.5	830	0.9	30.63	"	"	8700	-	56	690	1.1
43	970	0.8	33.35	"	"	8300	-	52	800	0.98



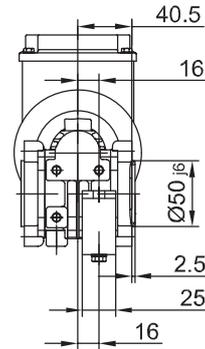
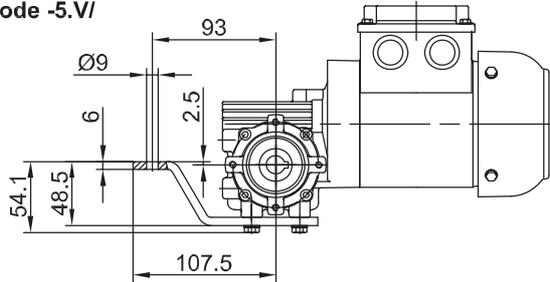


Three-phase Worm Geared Motors  
 Drehstrom-Schnecken-Getriebemotoren  
 Motoréducteurs triphasés à roue et vis

## BS02

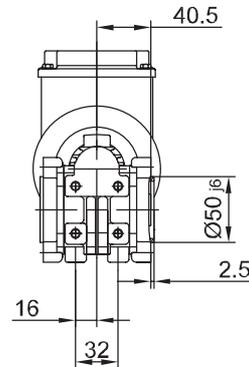
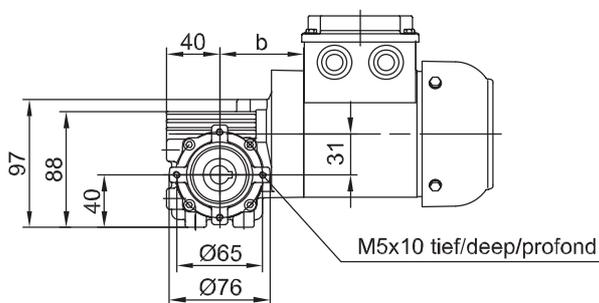
Drehmomentstütze vorne/ torque arm at front/ bras de réaction à l'avant

Code -5.V/



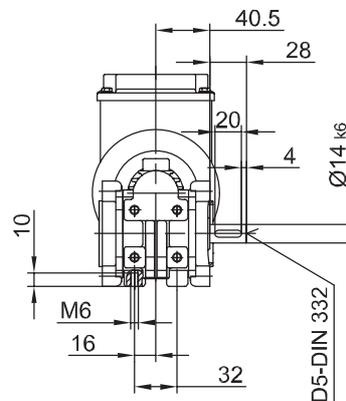
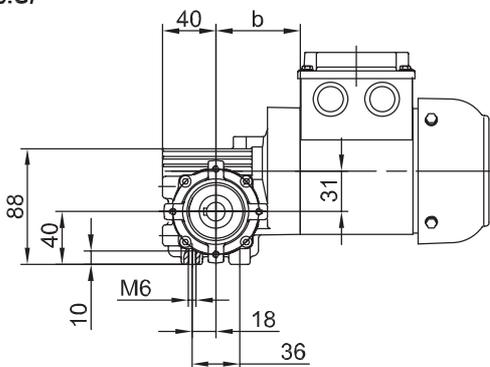
Flansch mit Gewindelöchern vorne/ flange with tapped holes at front/ bride avec trous taraudés à l'avant

Code -7.V/



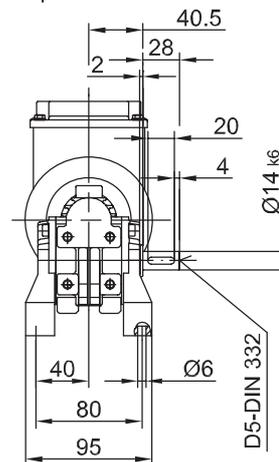
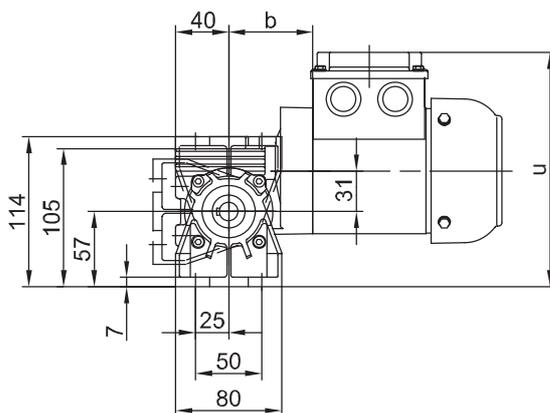
Fuss mit Gewindelöchern unten/ foot with tapped holes at bottom/ fixation à pied avec trous taraudés en bas

Code -6.U/



Fuss mit Durchgangslöchern unten/ foot with clearance holes at bottom/ fixation à pied avec trous débouchants en bas

Code -1.U/

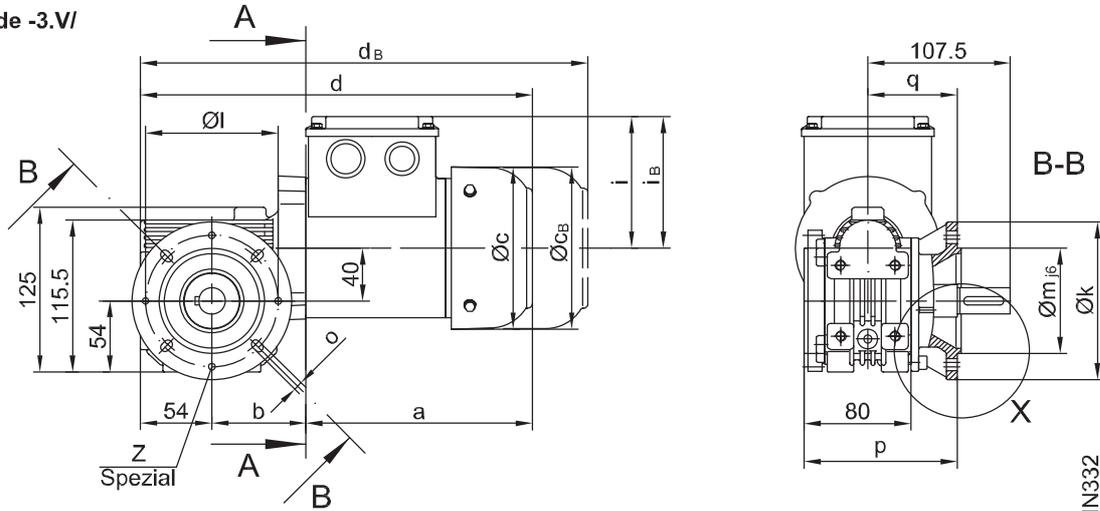


Three-phase Worm Geared Motors  
 Drehstrom-Schnecken-Getriebemotoren  
 Motoréducteurs triphasés à roue et vis

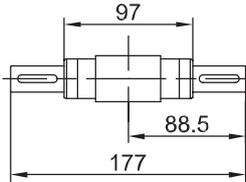
## BS03

Flansch mit Durchgangslöchern vorne/ flange with clearance holes at front/  
 bride avec trous débouchants à l'avant

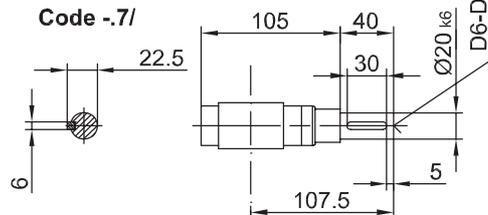
Code -3.V/



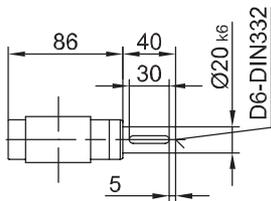
Code -3/



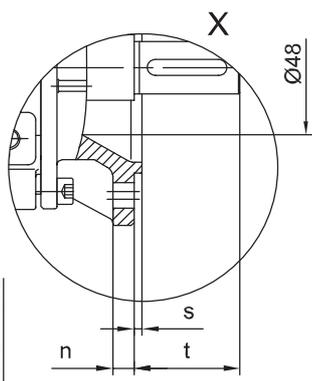
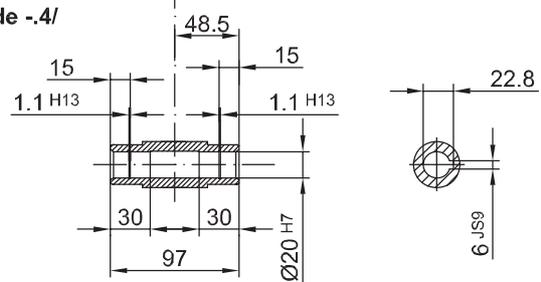
Code -7/



Code -1/

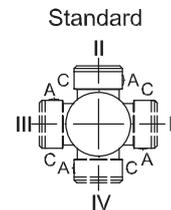


Code -4/



Flanschmasse/ Flange dimensions/ cotes de la bride

BS03	k	l	m	n	o	p	q	s	t	z
Standard/ -37V/	120	100	80	8	6.6	115	67.5	3	40	-
Spezial/ -37V/	120	100	80	8	6.6	115	67.5	3	40	4xM6



A-A

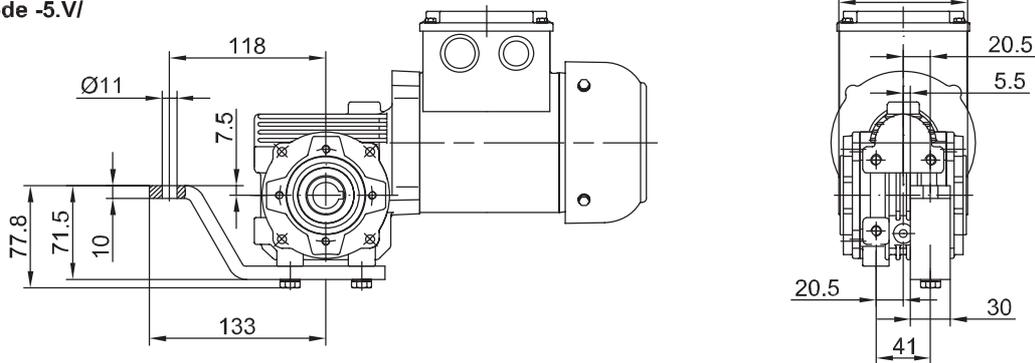
Typ/ Type/ Type	a	b	c	d	u	v	i	Ausführung mit Bremse/ with brake/ avec frein						
								i <sub>B</sub>	E003		E004		E008	
									c <sub>B</sub>	d <sub>B</sub>	c <sub>B</sub>	d <sub>B</sub>	c <sub>B</sub>	d <sub>B</sub>
BS03-../D05..	170	71	123	296	213	70	100	100	123	338				
BS03-../D06..	170	71	123	296	213	70	100	100	123	338				
BS03-../D07..	190	71	123	316	213	70	100	100	123	358	123	358		
BS03-../D08..	200	115	156	369	228	-	115	115					166	444

Three-phase Worm Geared Motors  
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## BS03

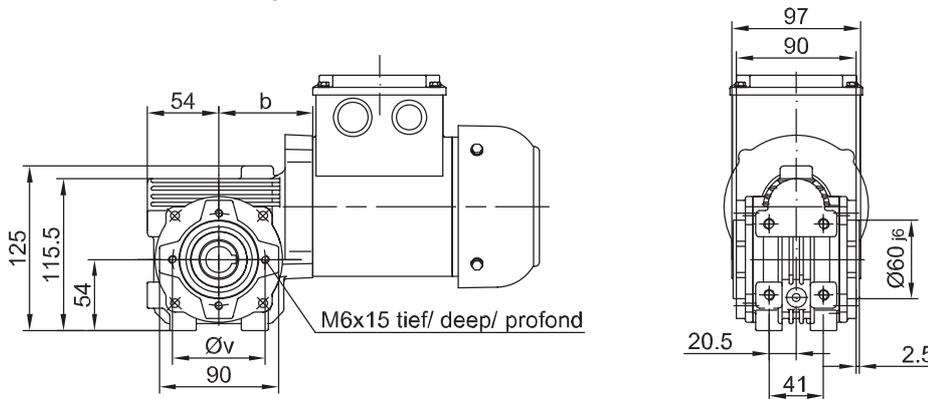
Drehmomentstütze vorne/ torque arm at front/ bras de réaction à l'avant

Code -5.V/



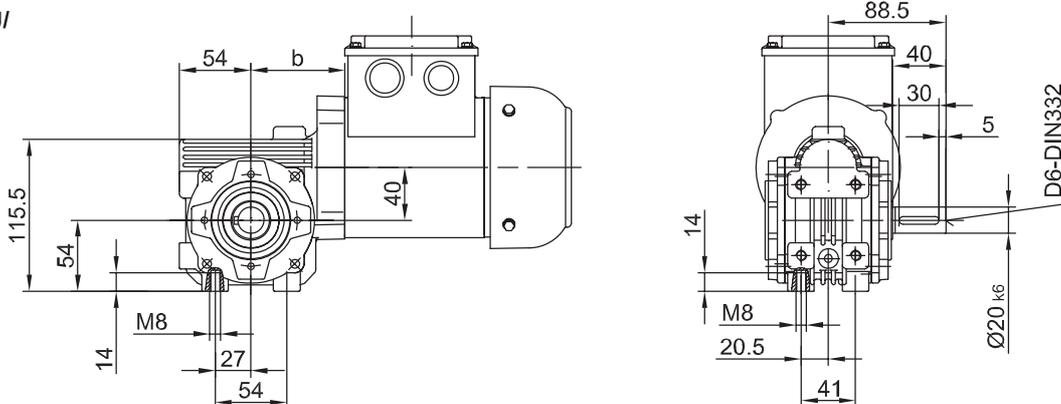
Flansch mit Gewindelöchern vorne/ flange with tapped holes at front/ bride avec trous taraudés à l'avant

Code -7.V/



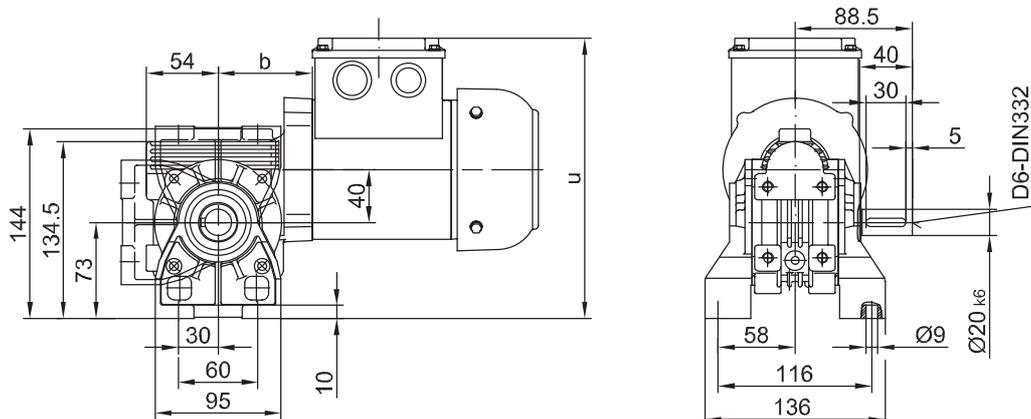
Fuss mit Gewindelöchern unten/ foot with tapped holes at bottom/ fixation à pied avec trous taraudés en bas

Code -6.U/



Fuss mit Durchgangslöchern unten/ foot with clearance holes at bottom/ fixation à pied avec trous débouchants en bas

Code -1.U/

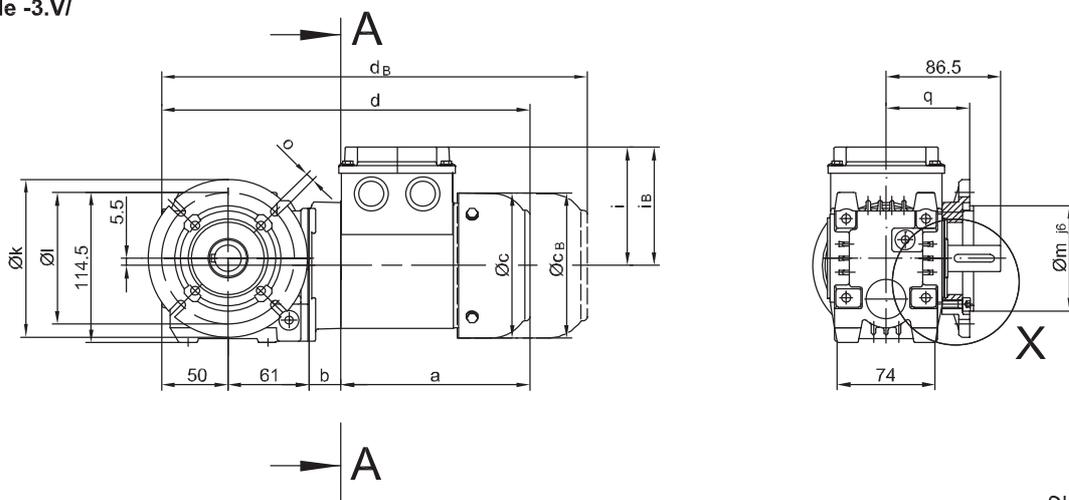


Three-phase Worm Geared Motors  
Drehstrom-Schnecken-Getriebemotoren  
Motoréducteurs triphasés à roue et vis

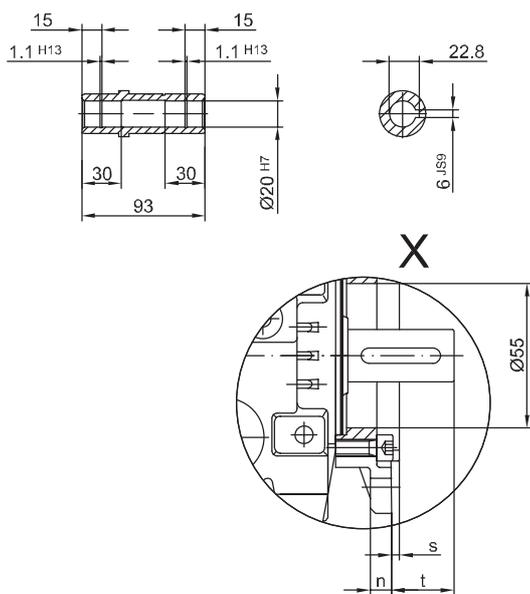
## BS04

Flansch mit Durchgangslöchern vorne/ flange with clearance holes at front/  
bride avec trous débouchants à l'avant

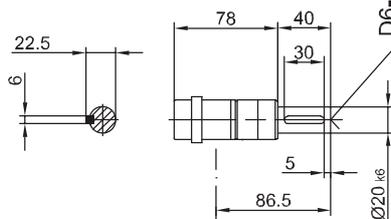
Code -3.V/



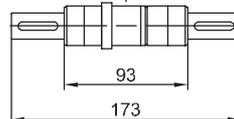
Code -4/



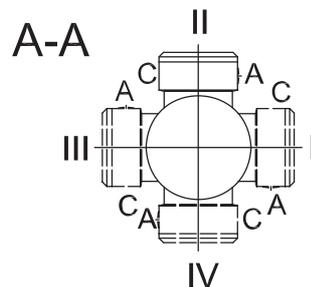
Code -1/



Code -3/



Standard



Flanschmasse/ Flange dimensions/ cotes de la bride

BS04	k	l	m	n	o	p	q	s	t
Standard/ -3.V/	120	100	80	8	6.6	110.5	63	3	23.5

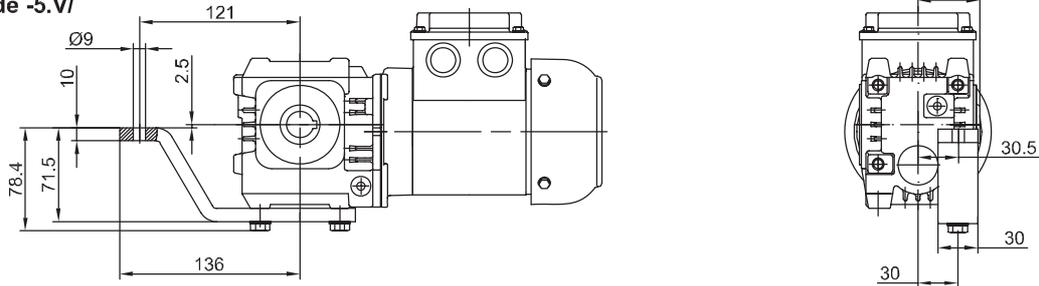
Typ/ Type/ Type	a	b	c	d	i	Ausführung mit Bremse/ with brake/ avec frein									
						i <sub>B</sub>	E003		E004						
							c <sub>B</sub>	d <sub>B</sub>	c <sub>B</sub>	d <sub>B</sub>					
BS04-../D04..	143	24	111	278	90	90	111	321							
BS04-../D05..	170	26	123	308	100	100	123	350							
BS04-../D06..	170	26	123	308	100	100	123	350							
BS04-../D07..	190	26	123	328	100	100	123	370	123	370					

Three-phase Worm Geared Motors  
 Drehstrom-Schnecken-Getriebemotoren  
 Motoréducteurs triphasés à roue et vis

## BS04

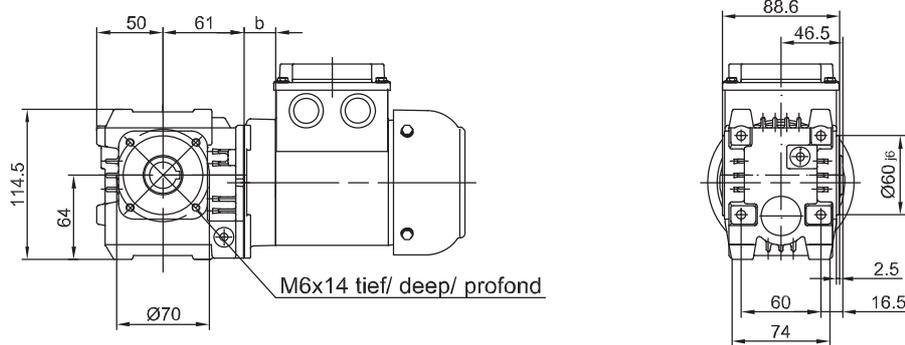
Drehmomentstütze vorne/ torque arm at front/ bras de réaction à l'avant

**Code -5.V/**



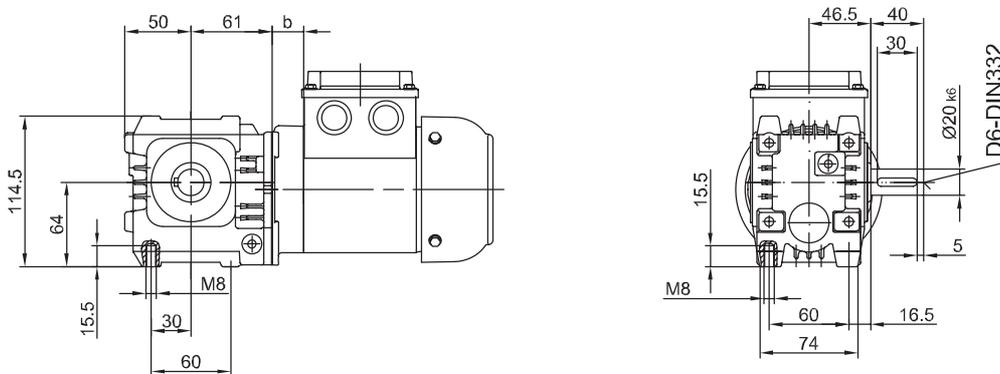
Flansch mit Gewindelöchern vorne/ flange with tapped holes at front/ bride avec trous taraudés à l'avant

**Code -7.V/**



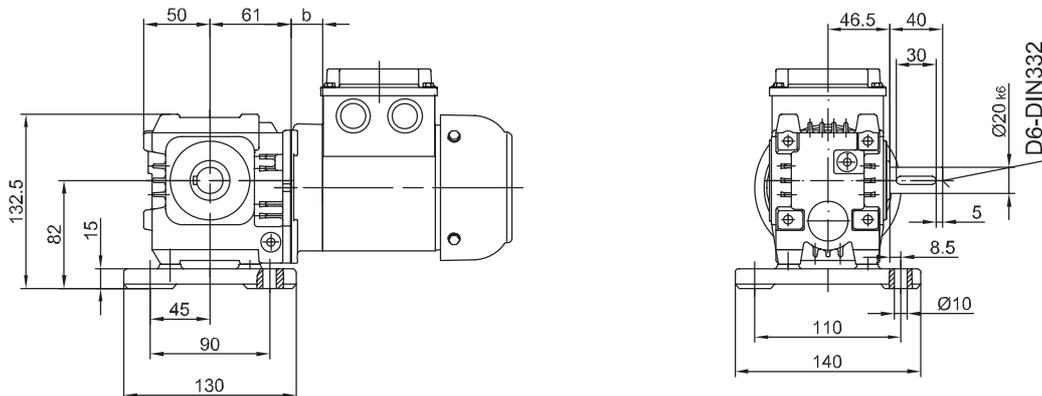
Fuss mit Gewindelöchern unten/ foot with tapped holes at bottom/ fixation à pied avec trous taraudés en bas

**Code -6.U/**



Fuss mit Durchgangslöchern unten/ foot with clearance holes at bottom/ fixation à pied avec trous débouchants en bas

**Code -1.U/**

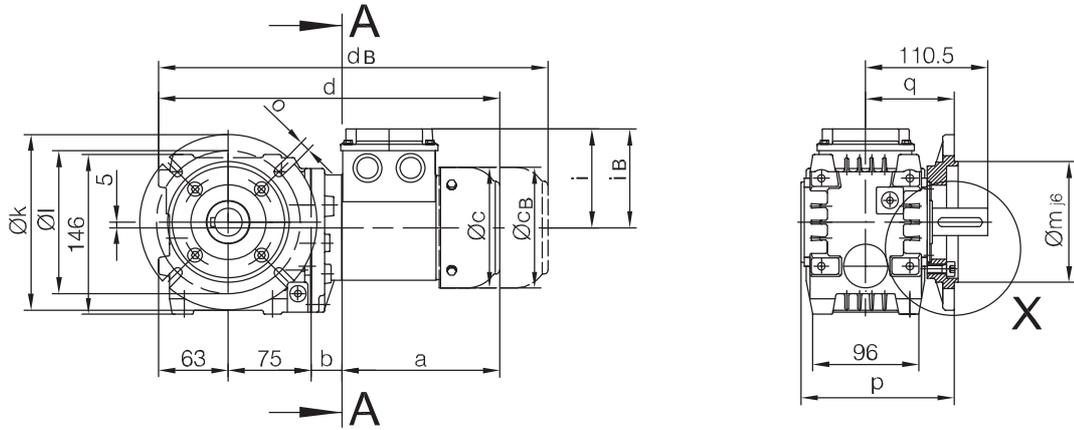


Three-phase Worm Geared Motors  
 Drehstrom-Schnecken-Getriebemotoren  
 Motorréducteurs triphasés à roue et vis

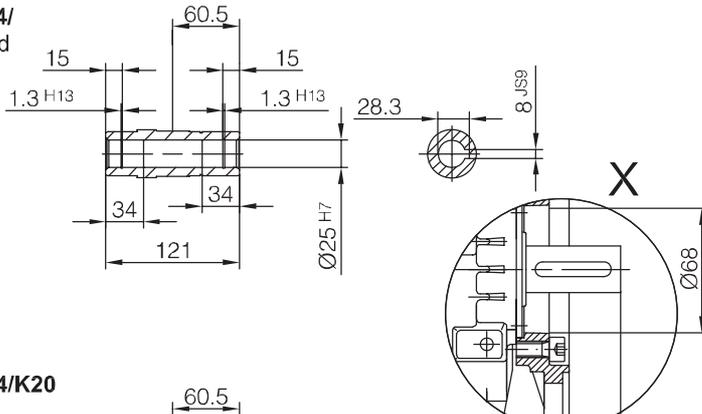
## BS06

Flansch mit Durchgangslöchern vorne/ flange with clearance holes at front/  
 bride avec trous débouchants à l'avant

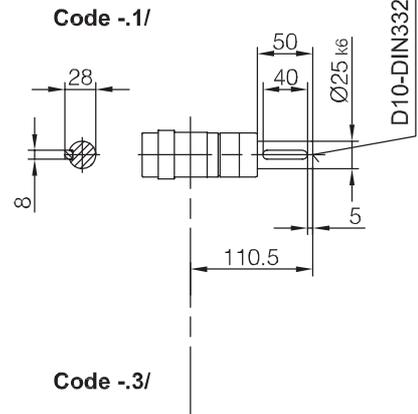
(Code -4.VI)



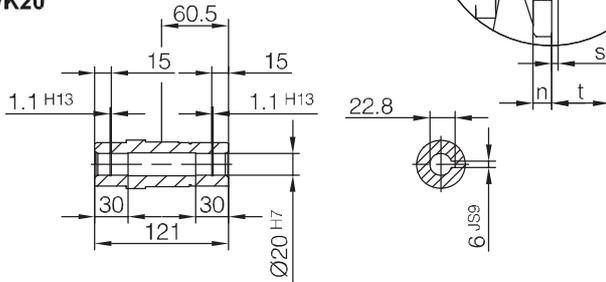
Code -4/  
 Standard



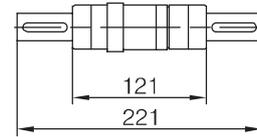
Code -1/



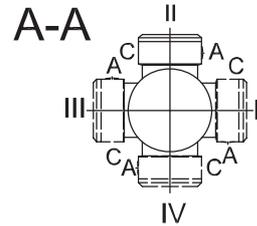
Code -4/K20



Code -3/



Standard



Flanschmasse/ Flange dimensions/ cotes de la bride

BS06	k	l	m	n	o	p	q	s	t
Standard/ -3./	140	115	95	10	9	138.5	80	3	30.5
gross/ big/ grande -4./	160	130	110	10	9	138.5	80	3.5	30.5

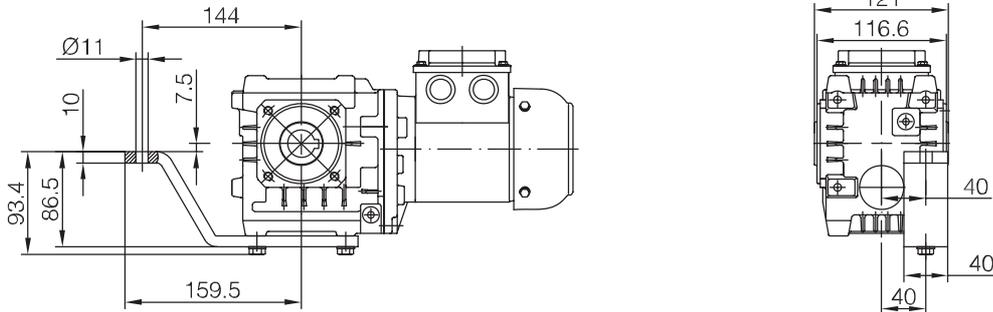
Typ/ Type/ Type	a	b	c	d	i	Ausführung mit Bremse/ with brake/ avec frein								
						i <sub>B</sub>	E003		E004		E008			
							c <sub>B</sub>	d <sub>B</sub>	c <sub>B</sub>	d <sub>B</sub>	c <sub>B</sub>	d <sub>B</sub>		
BS06-../D04..	143	28	111	309	90	90	111	352						
BS06-../D05..	170	30	123	339	100	100	123	381						
BS06-../D06..	170	30	123	339	100	100	123	381						
BS06-../D07..	190	30	123	359	100	100	123	401	123	401				
BS06-../D08..	200	74	156	412	115	115					166	487		

Three-phase Worm Geared Motors  
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## BS06

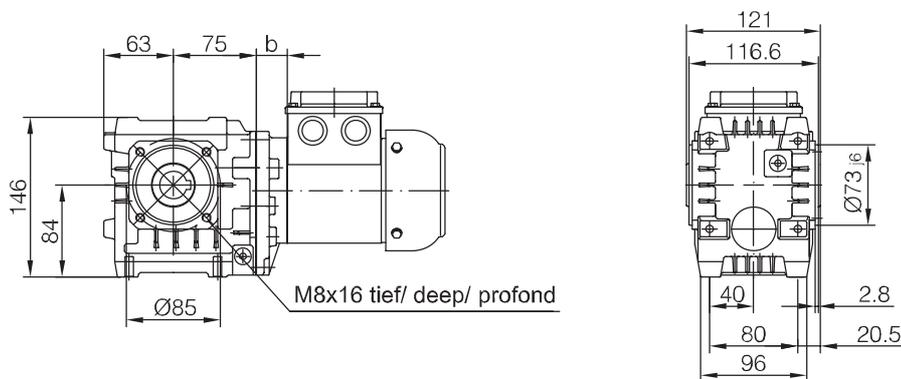
Drehmomentstütze vorne/ torque arm at front/ bras de réaction à l'avant

**Code -5.V/**



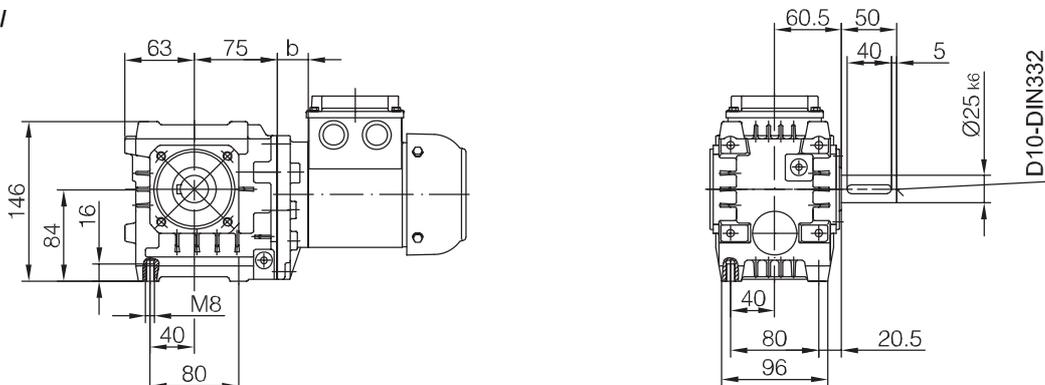
Flansch mit Gewindelöchern vorne/ flange with tapped holes at front/ bride avec trous taraudés à l'avant

**Code -7.V/**



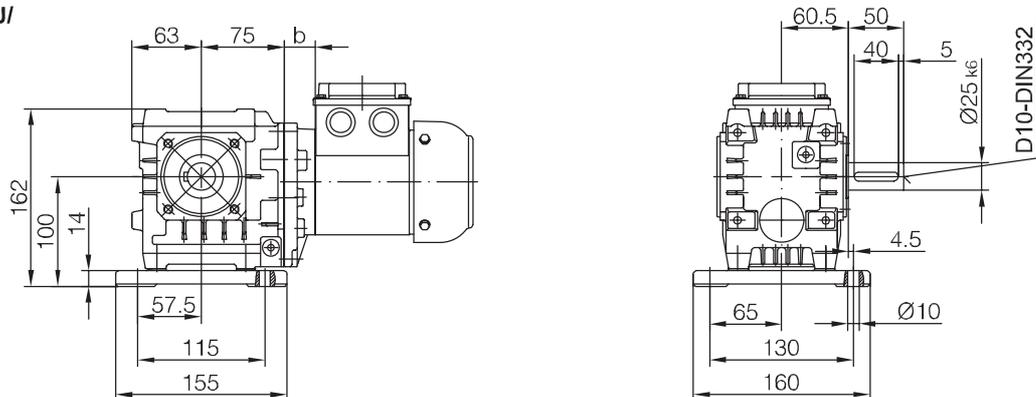
Fuss mit Gewindelöchern unten/ foot with tapped holes at bottom/ fixation à pied avec trous taraudés en bas

**Code -6.U/**



Fuss mit Durchgangslöchern unten/ foot with clearance holes at bottom/ fixation à pied avec trous débouchants en bas

**Code -1.U/**

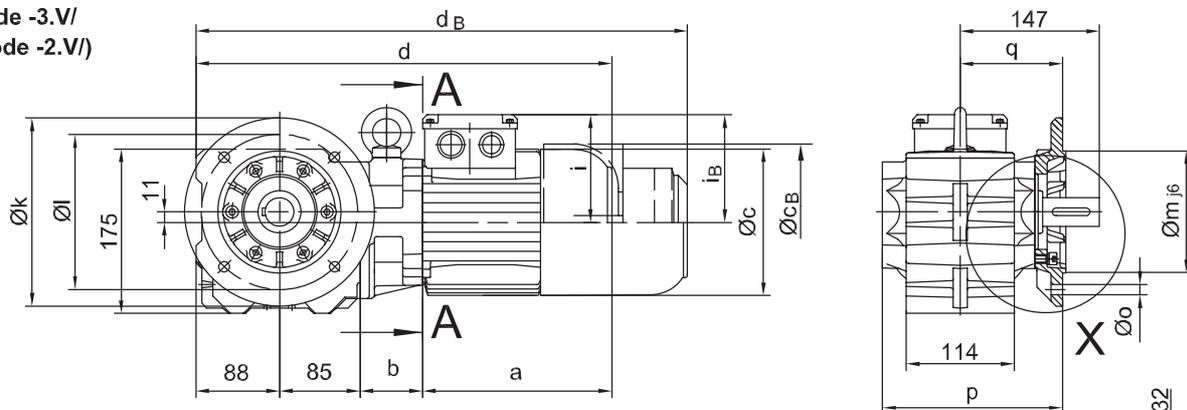


Three-phase Worm Geared Motors  
 Drehstrom-Schnecken-Getriebemotoren  
 Motoréducteurs triphasés à roue et vis

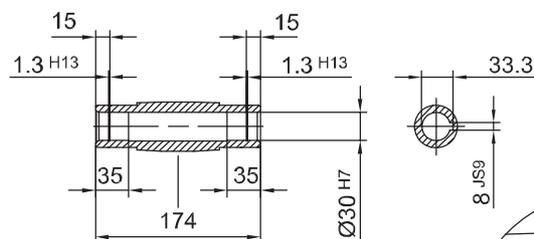
## BS10 - BS10Z

Flansch mit Durchgangslöchern vorne/ flange with clearance holes at front/  
 bride avec trous débouchants à l'avant

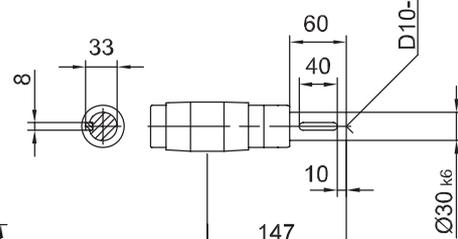
Code -3.V/  
 (Code -2.V/)



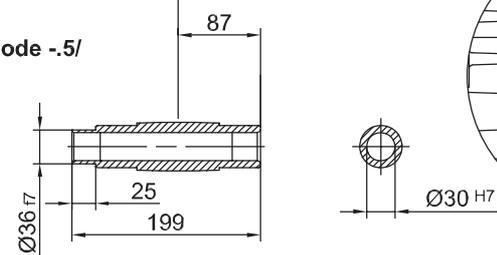
Code -4/



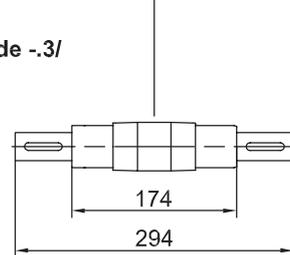
Code -1/



Code -5/

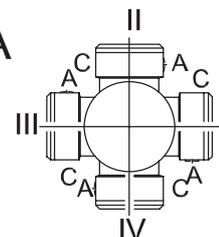


Code -3/



Standard

A-A



Flanschmaße/ Flange dimensions/ cotes de la bride

BS10(Z)	k	l	m	n	o	p	q	s	t
Standard/ -3.V/	200	165	130	12	11	190	108	3.5	39
klein/ small/ petite -2.V/	160	130	110	10	9	183	101	3.5	46

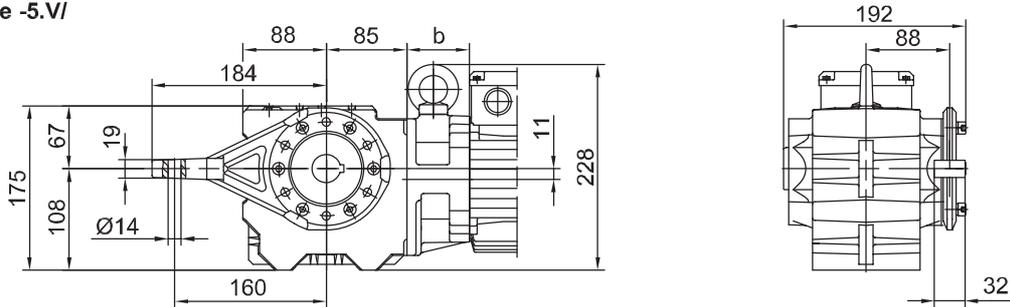
Typ/ Type/ Type	a	b	c	d	i	Ausführung mit Bremse/ with brake/ avec frein														
						E003		E004		E008		Z008		Z015						
						c <sub>B</sub>	d <sub>B</sub>	c <sub>B</sub>	d <sub>B</sub>	c <sub>B</sub>	d <sub>B</sub>	c <sub>B</sub>	d <sub>B</sub>	c <sub>B</sub>	d <sub>B</sub>					
BS10Z-../D04..	143	86	111	402	90	90	111	445												
BS10-../D05..	170	62	123	406	100	100	123	448												
BS10Z-../D05..	170	88	123	432	100	100	123	474												
BS10-../D06..	170	62	123	406	100	100	123	448												
BS10Z-../D06..	170	88	123	432	100	100	123	474												
BS10-../D07..	190	62	123	426	100	100	123	468	123	468										
BS10Z-../D07..	190	88	123	452	100	100	123	494	123	494										
BS10-../D08..	200	66	156	439	115	115					166	514								
BS10Z-../D08..	200	132	156	505	115	115					166	580								
BS10-../D09..	251	80.5	181	504	124	124					192	584	192	598	192	604				

Three-phase Worm Geared Motors  
 Drehstrom-Schnecken-Getriebemotoren  
 Motoréducteurs triphasés à roue et vis

## BS10 - BS10Z

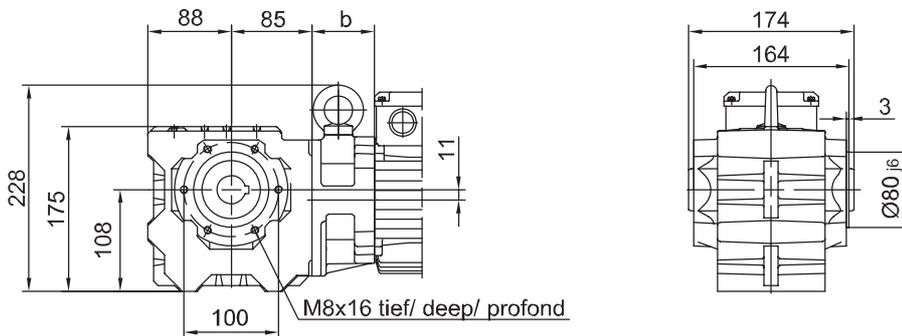
Drehmomentstütze vorne/ torque arm at front/ bras de réaction à l'avant

**Code -5.V/**



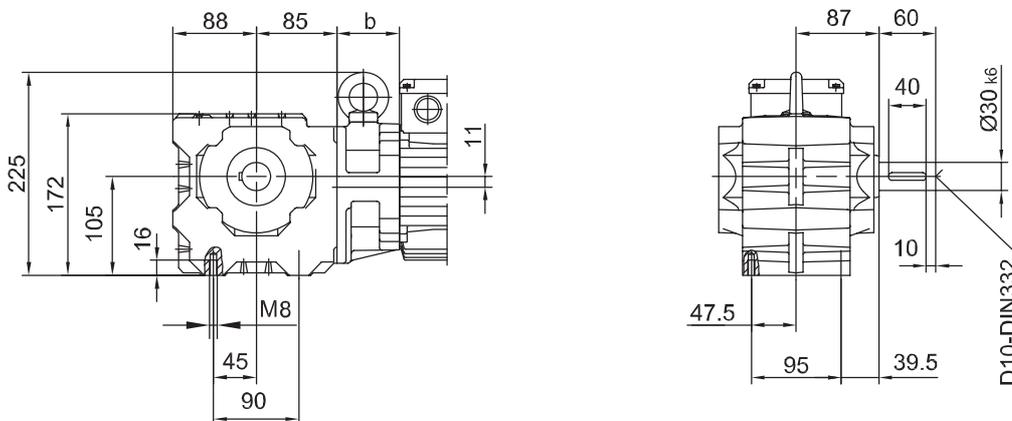
Flansch mit Gewindelöchern vorne/ flange with tapped holes at front/ bride avec trous taraudés à l'avant

**Code -7.V/**



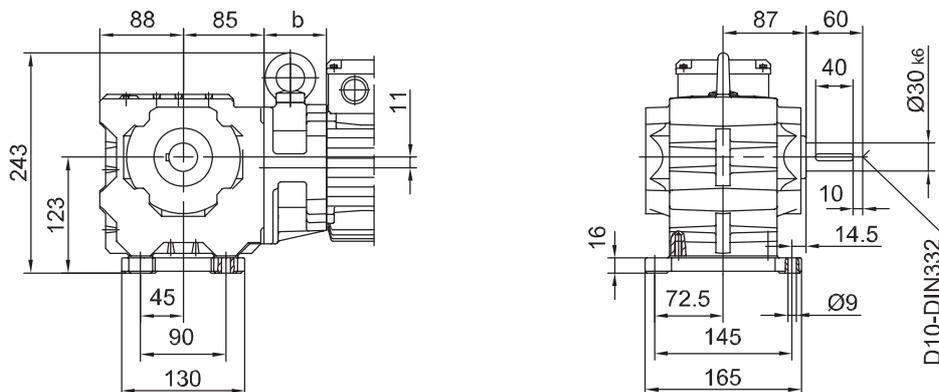
Fuss mit Gewindelöchern unten/ foot with tapped holes at bottom/ fixation à pied avec trous taraudés en bas

**Code -6.U/**



Fuss mit Durchgangslöchern unten/ foot with clearance holes at bottom/ fixation à pied avec trous débouchants en bas

**Code -1.U/**

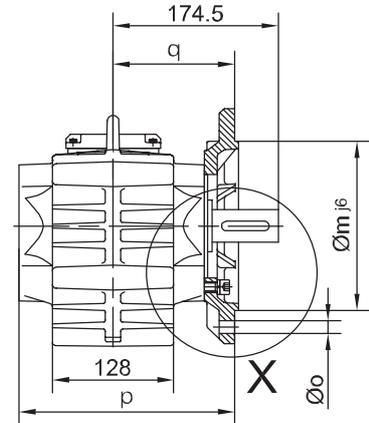
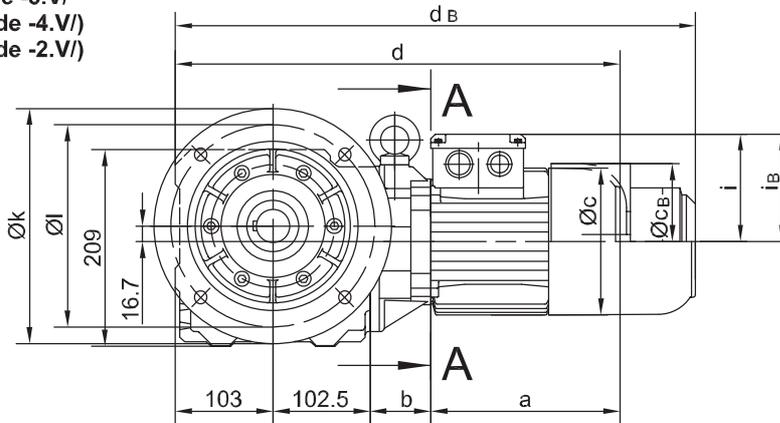


Three-phase Worm Geared Motors  
 Drehstrom-Schnecken-Getriebemotoren  
 Motorréducteurs triphasés à roue et vis

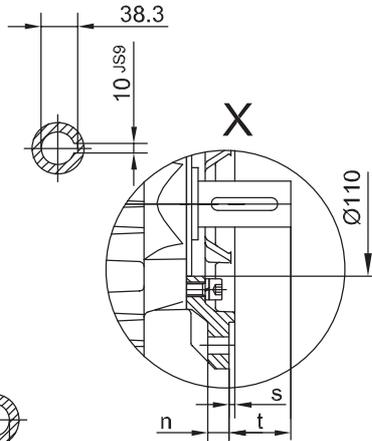
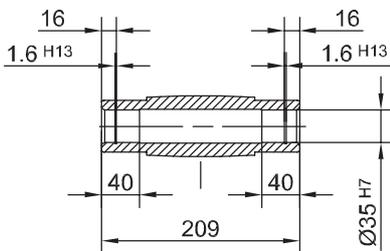
## BS20 - BS20Z

Flansch mit Durchgangslöchern vorne/ flange with clearance holes at front/  
 bride avec trous débouchants à l'avant

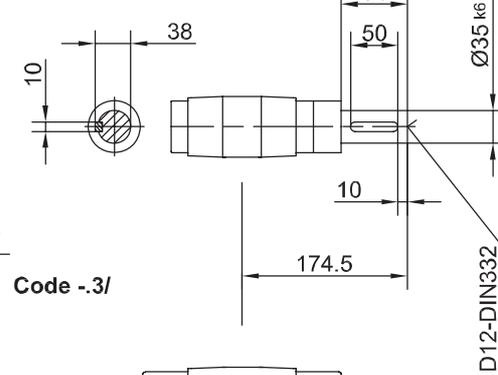
Code -3.V/  
 (Code -4.V/)  
 (Code -2.V/)



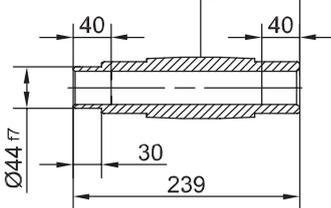
Code -4/



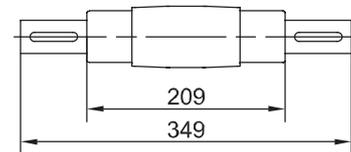
Code -1/



Code -5/



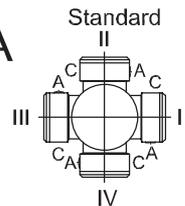
Code -3/



Flanschmasse/ Flange dimensions/ cotes de la bride

BS20(Z)	k	l	m	n	o	p	q	s	t
Standard/ -3.V/	250	215	180	16	13.5	227.5	128	4	46.5
klein/ small/ petite -2.V/	200	165	130	12	11	224.5	125	3.5	49.5
gross/ big/ grande -4.V/	300	265	230	20	13.5	233.5	134	4	40.5

A-A



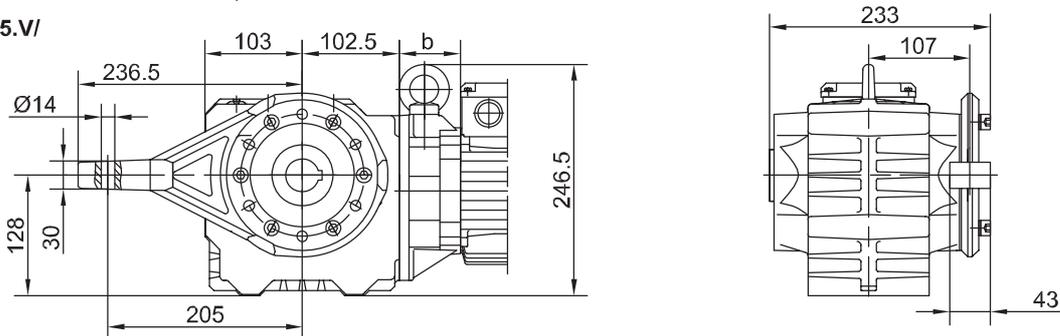
Typ/ Type/ Type	a	b	c	d	i	Ausführung mit Bremse/ with brake/ avec frein													
						i <sub>B</sub>	E003		E004		E008		Z008		Z015				
							c <sub>B</sub>	d <sub>B</sub>											
BS20Z-../D04..	143	100	111	448	90	90	111	492											
BS20-../D05..	170	60	123	436	100	100	123	478											
BS20Z-../D05..	170	102	123	478	100	100	123	520											
BS20-../D06..	170	60	123	436	100	100	123	478											
BS20Z-../D06..	170	102	123	478	100	100	123	520											
BS20-../D07..	190	60	123	456	100	100	123	498	123	498									
BS20Z-../D07..	190	102	123	498	100	100	123	540	123	540									
BS20-../D08..	200	64	156	469	115	115					166	544							
BS20Z-../D08..	200	146	156	552	115	115					166	626							
BS20-../D09..	251	78.5	181	535	124	124					192	614	192	628	192	634			

Three-phase Worm Geared Motors  
 Drehstrom-Schnecken-Getriebemotoren  
 Motoréducteurs triphasés à roue et vis

## BS20 - BS20Z

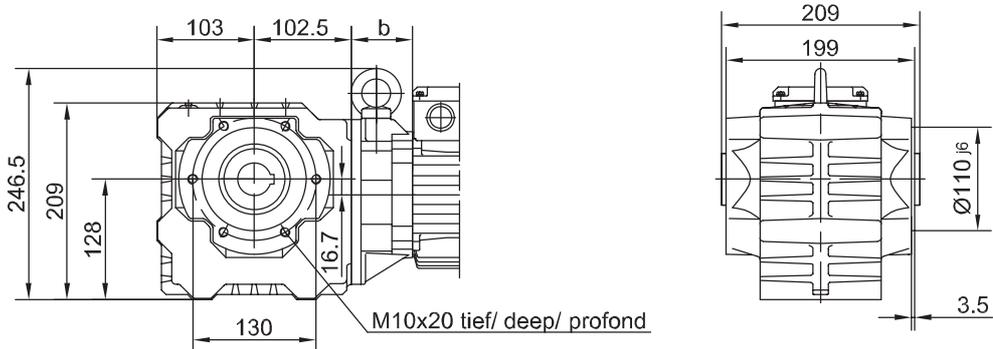
Drehmomentstütze vorne/ torque arm at front/ bras de réaction à l'avant

Code -5.V/



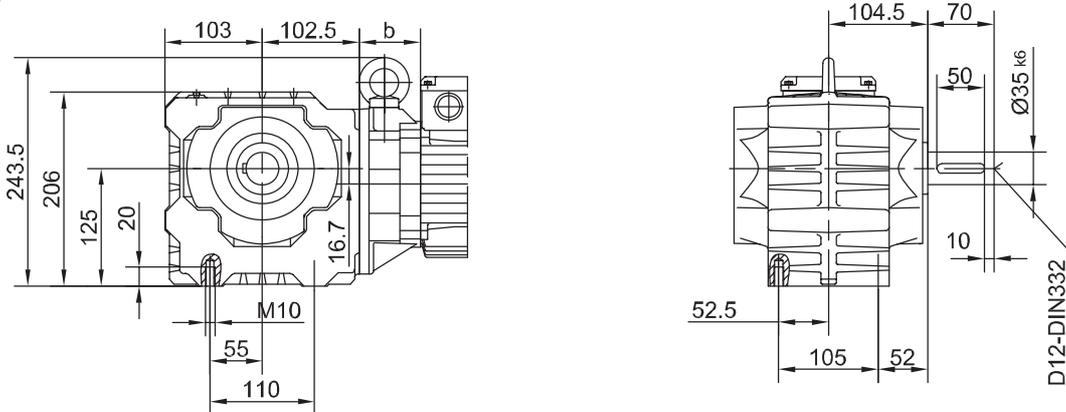
Flansch mit Gewindelöchern vorne/ flange with tapped holes at front/ bride avec trous taraudés à l'avant

Code -7.V/



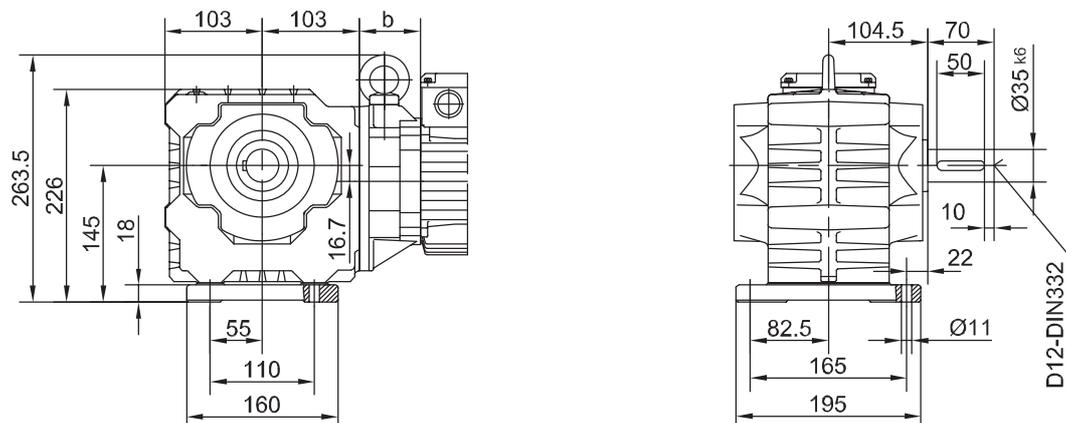
Fuss mit Gewindelöchern unten/ foot with tapped holes at bottom/ fixation à pied avec trous taraudés en bas

Code -6.U/



Fuss mit Durchgangslöchern unten/ foot with clearance holes at bottom/ fixation à pied avec trous débouchants en bas

Code -1.U/

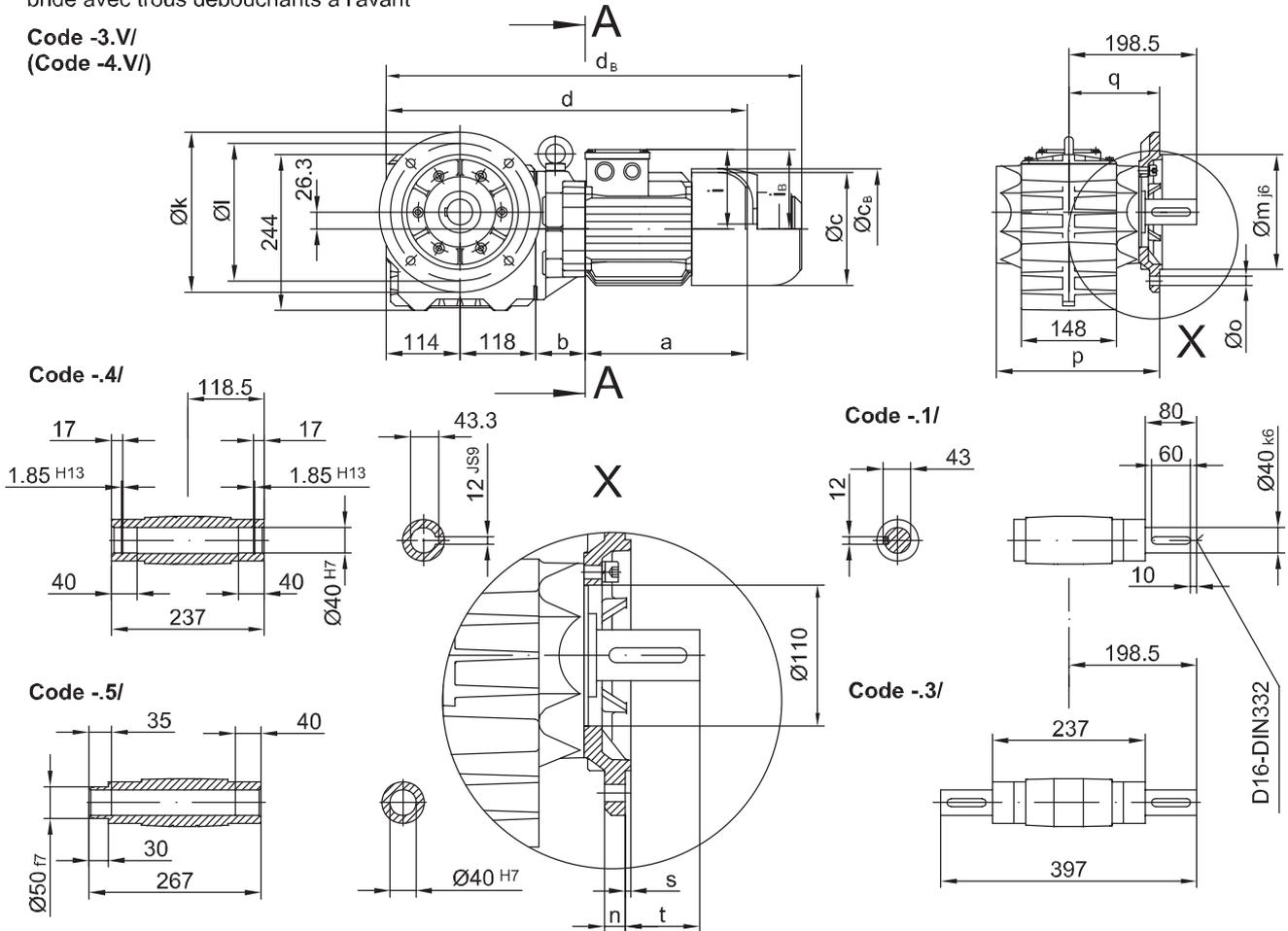


Three-phase Worm Geared Motors  
 Drehstrom-Schnecken-Getriebemotoren  
 Motorréducteurs triphasés à roue et vis

## BS30 - BS30Z

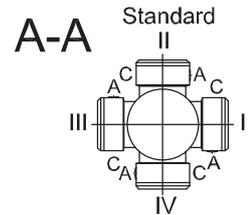
Flansch mit Durchgangslöchern vorne/ flange with clearance holes at front/  
 bride avec trous débouchants à l'avant

Code -3.V/  
 (Code -4.V)



Flanschmasse/ Flange dimensions/ cotes de la bride

BS30(Z)	k	l	m	n	o	p	q	s	t
Standard/ -3.V/	250	215	180	16	13.5	253.5	141	4	57.5
gross/ big/ grande -4.V/	300	265	230	20	13.5	259.5	147	4	51.5



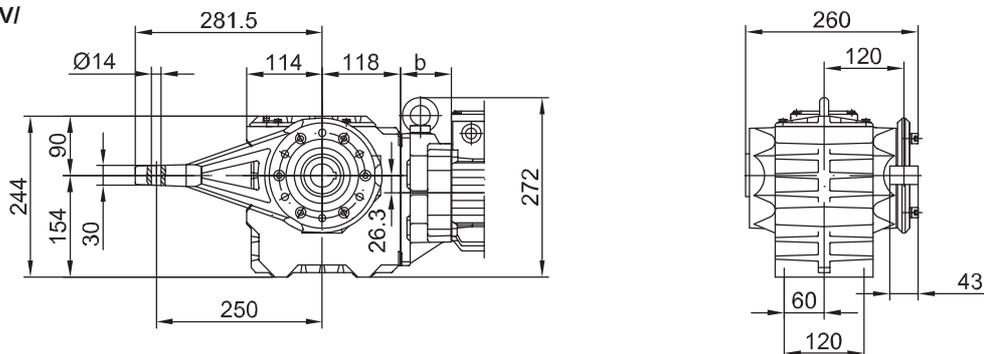
Typ/ Type/ Type	a	b	c	d	i	Ausführung mit Bremse/ with brake/ avec frein											
						E003		E004		E008		Z008		Z015		E075	
						c <sub>B</sub>	d <sub>B</sub>	c <sub>B</sub>	d <sub>B</sub>	c <sub>B</sub>	d <sub>B</sub>	c <sub>B</sub>	d <sub>B</sub>	c <sub>B</sub>	d <sub>B</sub>	c <sub>B</sub>	d <sub>B</sub>
BS30-../D05..	170	58	123	461	100	100	123	503									
BS30Z-../D05..	170	133.5	123	536	100	100	123	578									
BS30-../D06..	170	58	123	461	100	100	123	503									
BS30Z-../D06..	170	133.5	123	536	100	100	123	578									
BS30-../D07..	190	58	123	481	100	100	123	523	123	523							
BS30Z-../D07..	190	133.5	123	556	100	100	123	598	123	598							
BS30-../D08..	200	62	156	494	115	115				166	568						
BS30Z-../D08..	200	137.5	156	570	115	115				166	644						
BS30-../D09..	251	77	181	560	124	124				192	639	192	653	192	659		
BS30Z-../D09..	251	152	181	635	124	124				192	714	192	728	192	734		
BS30-../D11..	319	83	228	634	181	181								231	736.5	231	766.5

Three-phase Worm Geared Motors  
 Drehstrom-Schnecken-Getriebemotoren  
 Motoréducteurs triphasés à roue et vis

## BS30 - BS30Z

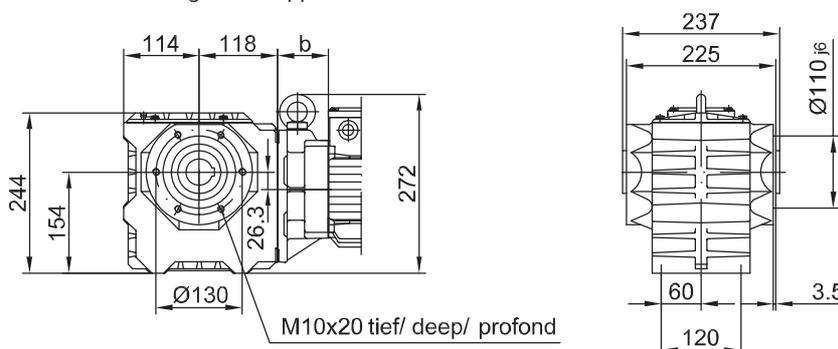
Drehmomentstütze vorne/ torque arm at front/ bras de réaction à l'avant

**Code -5.V/**



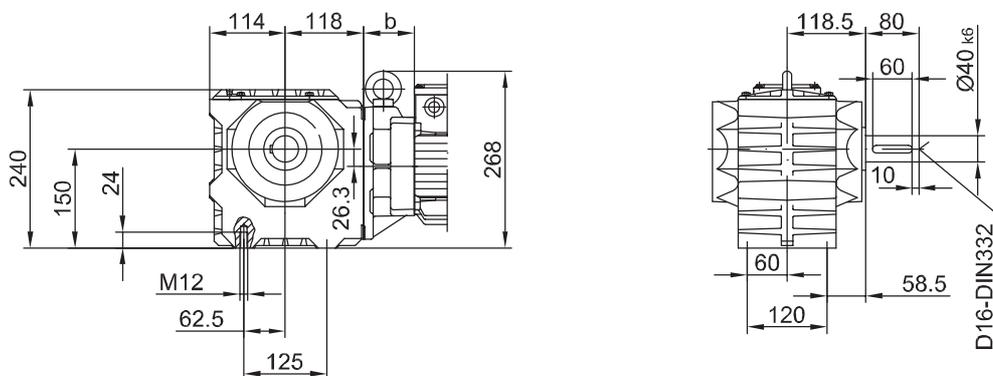
Flansch mit Gewindelöchern vorne/ flange with tapped holes at front/ bride avec trous taraudés à l'avant

**Code -7.V/**



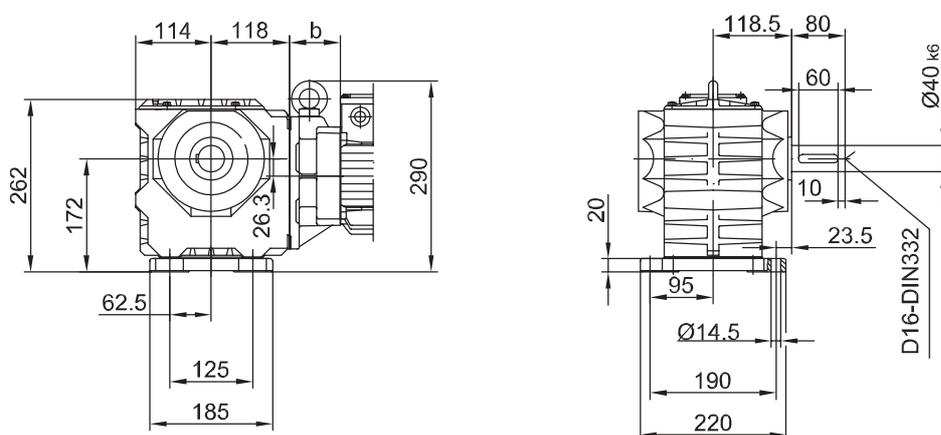
Fuss mit Gewindelöchern unten/ foot with tapped holes at bottom/ fixation à pied avec trous taraudés en bas

**Code -6.U/**



Fuss mit Durchgangslöchern unten/ foot with clearance holes at bottom/ fixation à pied avec trous débouchants en bas

**Code -1.U/**

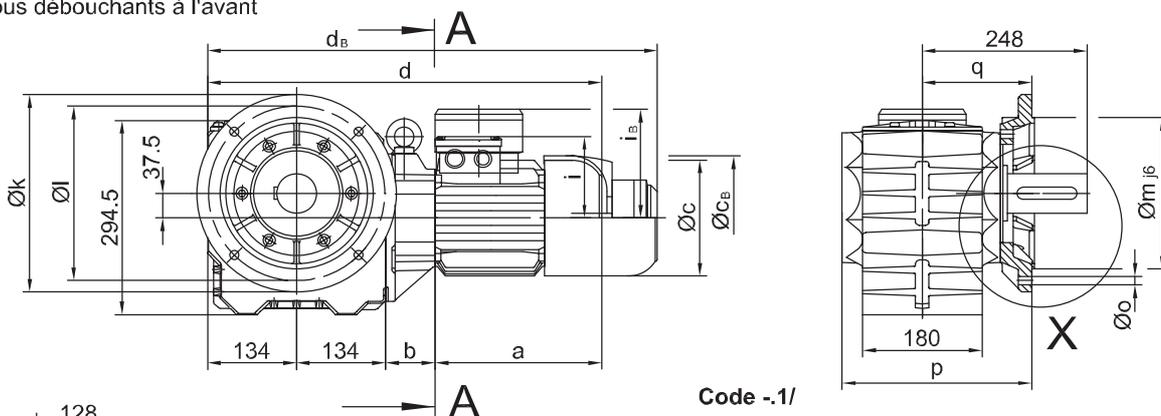


Three-phase Worm Geared Motors  
 Drehstrom-Schnecken-Getriebemotoren  
 Motoréducteurs triphasés à roue et vis

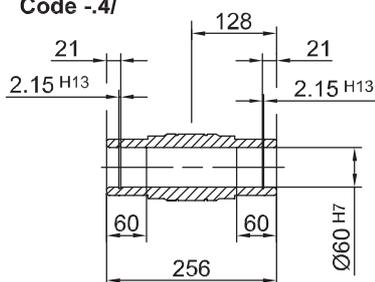
## BS40 - BS40Z

Flansch mit Durchgangslöchern vorne/ flange with clearance holes at front/  
 bride avec trous débouchants à l'avant

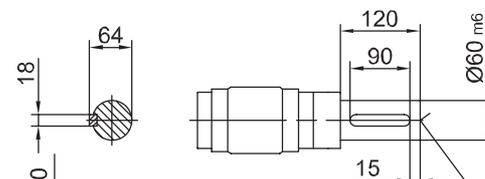
Code -3.V/



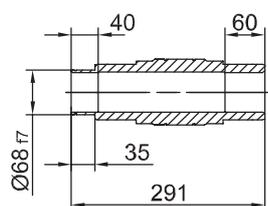
Code -4/



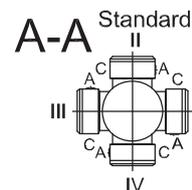
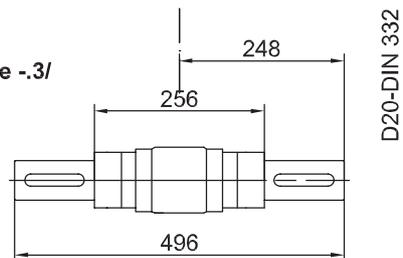
Code -1/



Code -5/



Code -3/



Flanschmasse/ Flange dimensions/ cotes de la bride

BS40(Z)	k	l	m	n	o	p	q	s	t
Standard/ -3./	300	265	230	20	13.5	286	165	4	83

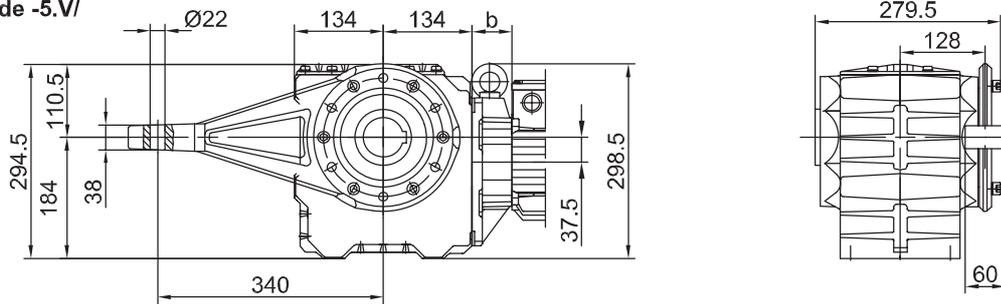
Typ/ Type/ Type	a	b	c	d	i	Ausführung mit Bremse/ with brake/ avec frein												
						i <sub>B</sub>	E003		E004		E008		Z008		Z015		E075	
							c <sub>B</sub>	d <sub>B</sub>										
BS40Z-../D05..	170	138.5	123	577	100	100	123	619										
BS40Z-../D06..	170	138.5	123	577	100	100	123	619										
BS40Z-../D07..	190	138.5	123	597	100	100	123	639	123	639								
BS40-../D08..	200	60	156	528	115	115					166	603						
BS40Z-../D08..	200	143.5	156	610	115	115					166	686						
BS40-../D09..	251	74.5	181	593	124	124					192	673	192	687	192	693		
BS40Z-../D09..	251	157	181	676	124	124					192	755	192	769	192	775		
BS40-../D11..	319	81	228	668	181	181								231	771	231	801	

Three-phase Worm Geared Motors  
 Drehstrom-Schnecken-Getriebemotoren  
 Motorréducteurs triphasés à roue et vis

## BS40 - BS40Z

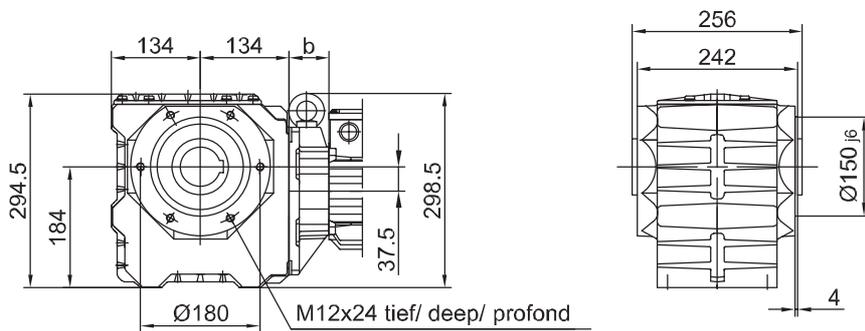
Drehmomentstütze vorne/ torque arm at front/ bras de réaction à l'avant

**Code -5.V/**



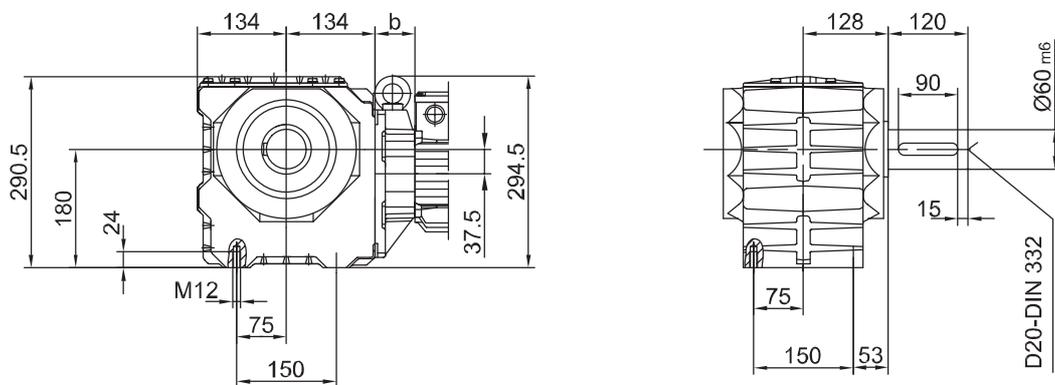
Flansch mit Gewindelöchern vorne/ flange with tapped holes at front/ bride avec trous taraudés à l'avant

**Code -7.V/**



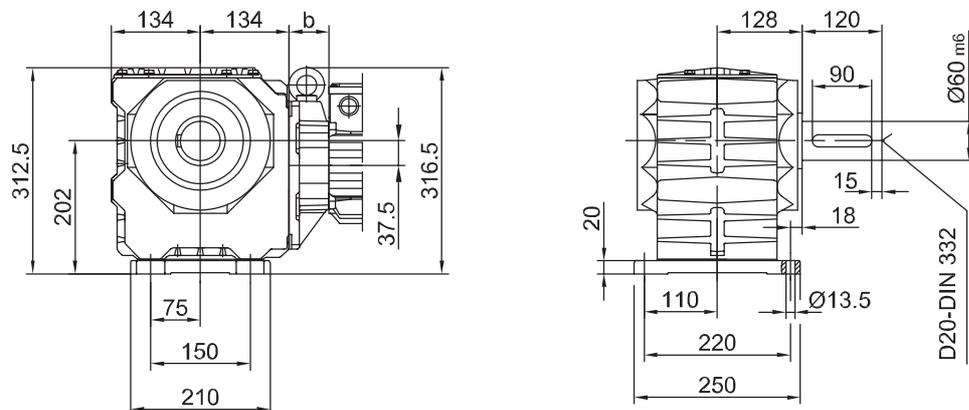
Fuss mit Gewindelöchern unten/ foot with tapped holes at bottom/ fixation à pied avec trous taraudés en bas

**Code -6.U/**



Fuss mit Durchgangslöchern unten/ foot with clearance holes at bottom/ fixation à pied avec trous débouchants en bas

**Code -1.U/**

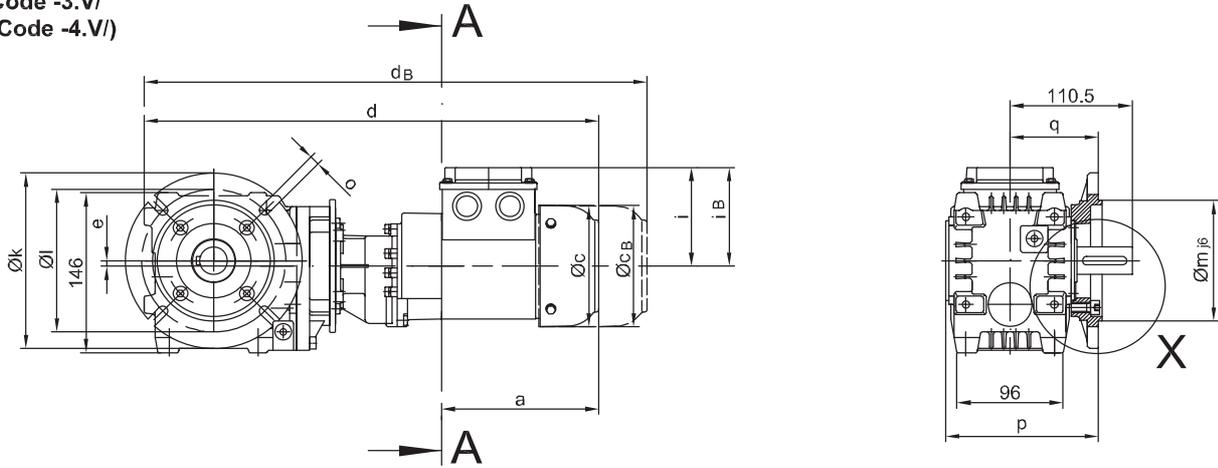


Three-phase Worm Geared Motors  
 Drehstrom-Schnecken-Getriebemotoren  
 Motoréducteurs triphasés à roue et vis

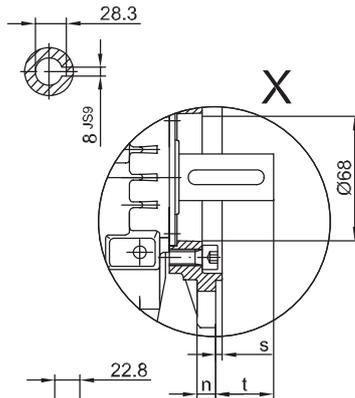
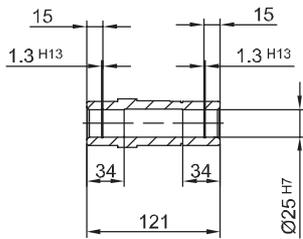
## BS06G04

Flansch mit Durchgangslöchern vorne/ flange with clearance holes at front/  
 bride avec trous débouchants à lavant

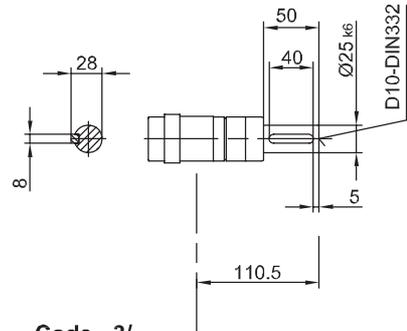
Code -3.V/  
 (Code -4.V)



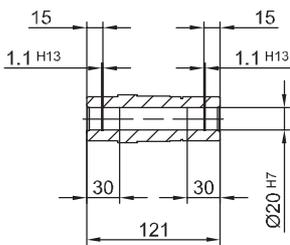
Code -4/  
 Standard



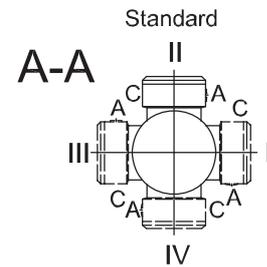
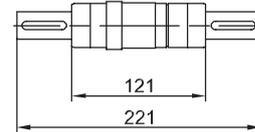
Code -1/



Code -4/K20



Code -3/



Flanschmasse/ Flange dimensions/ cotes de la bride

BS06	k	l	m	n	o	p	q	s	t
Standard/ -3./	140	115	95	10	9	138.5	80	3	30.5
gross/ big/ grande -4./	160	130	110	10	9	138.5	80	3.5	30.5

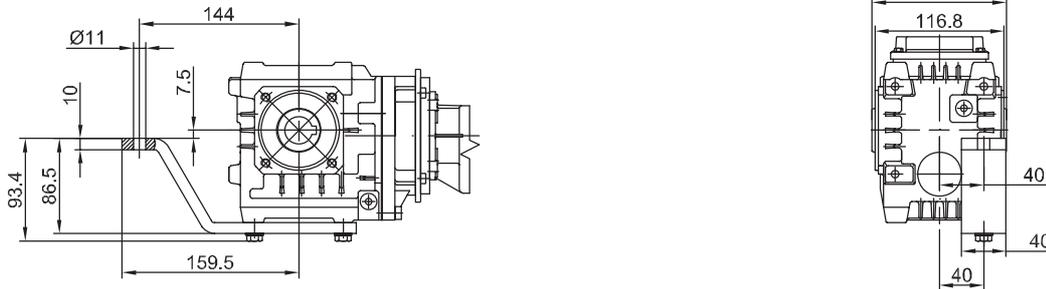
Typ/ Type/ Type	a	b	c	d	e	i	Ausführung mit Bremse/ with brake/ avec frein								
							i <sub>B</sub>	E003							
								c <sub>B</sub>	d <sub>B</sub>						
BS06G04-../D04..	143	131	111	412	5	90	90	111	455						

Three-phase Worm Geared Motors  
 Drehstrom-Schnecken-Getriebemotoren  
 Motoréducteurs triphasés à roue et vis

## BS06G04

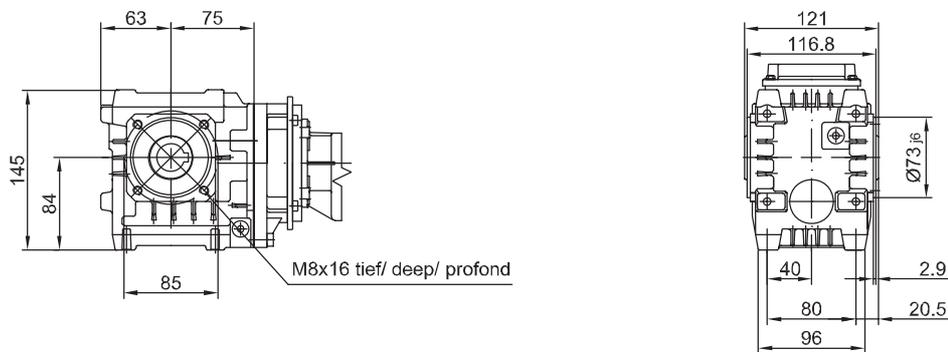
Drehmomentstütze vorne/ torque arm at front/ bras de réaction à l'avant

**Code -5.V/**



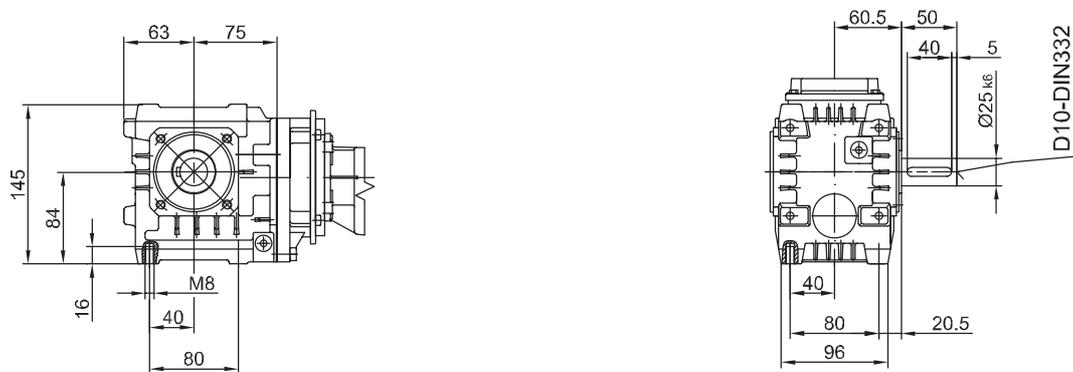
Flansch mit Gewindelöchern vorne/ flange with tapped holes at front/ bride avec trous taraudés à l'avant

**Code -7.V/**



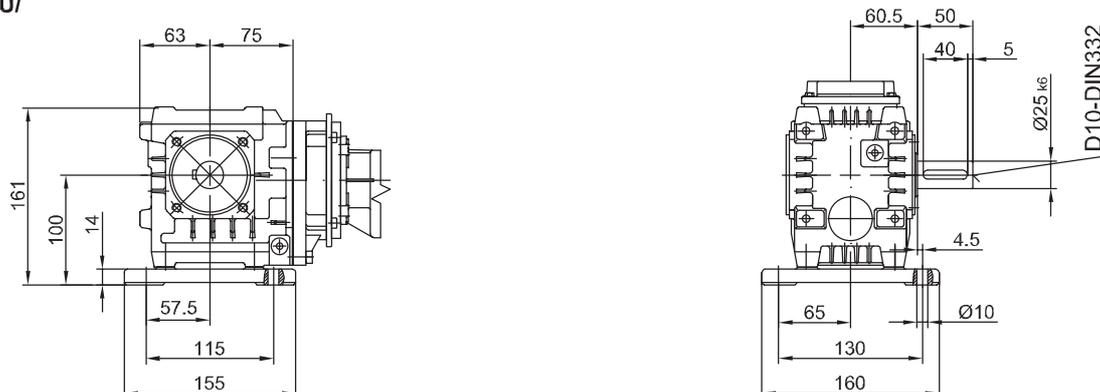
Fuss mit Gewindelöchern unten/ foot with tapped holes at bottom/ fixation à pied avec trous taraudés en bas

**Code -6.U/**



Fuss mit Durchgangslöchern unten/ foot with clearance holes at bottom/ fixation à pied avec trous débouchants en bas

**Code -1.U/**

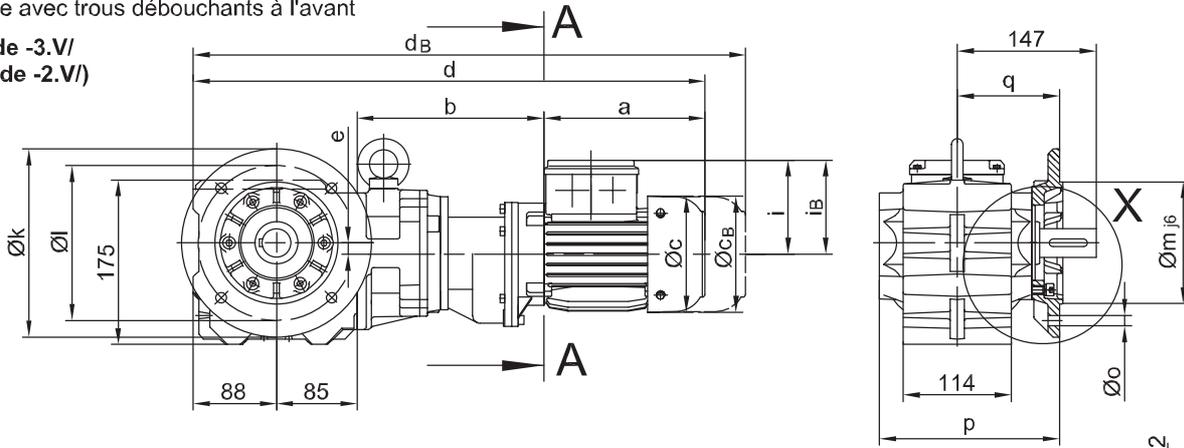


Three-phase Worm Geared Motors  
 Drehstrom-Schnecken-Getriebemotoren  
 Motoréducteurs triphasés à roue et vis

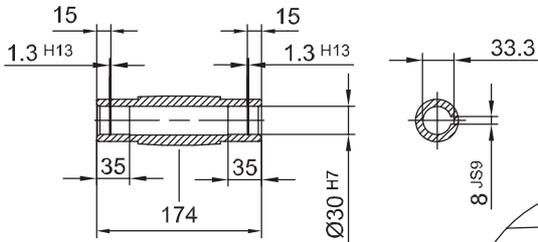
## BS10G06

Flansch mit Durchgangslöchern vorne/ flange with clearance holes at front/  
 bride avec trous débouchants à l'avant

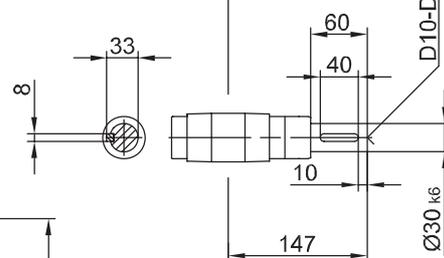
Code -3.V/  
 (Code -2.V/)



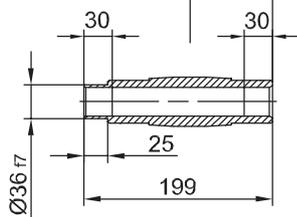
Code -4/



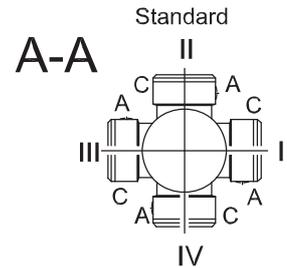
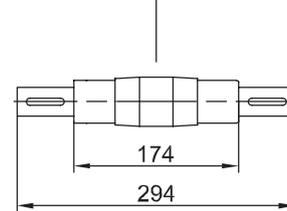
Code -1/



Code -5/



Code -3/



Flanschmasse/ Flange dimensions/ cotes de la bride

BS10G..	k	l	m	n	o	p	q	s	t
Standard/ -3.V/	200	165	130	12	11	190	108	3.5	39
klein/ small/ petite -2.V/	160	130	110	10	9	183	101	3.5	46

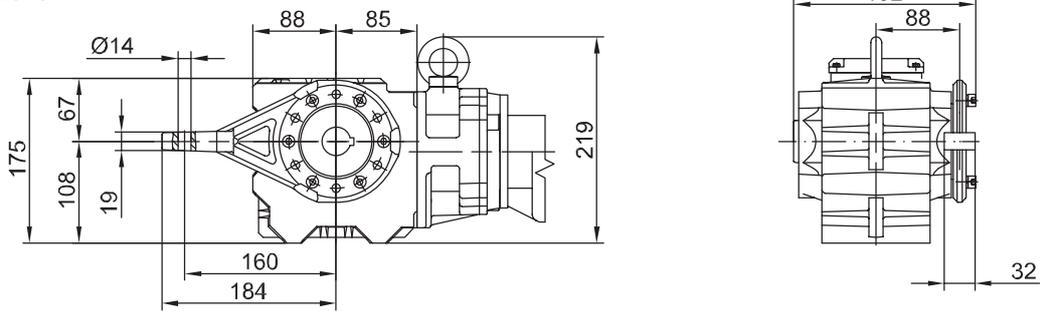
Typ/ Type/ Type	a	b	c	d	e	i	Ausführung mit Bremse/ with brake/ avec frein						
							$i_B$	E003		E004		E008	
								$c_B$	$d_B$	$c_B$	$d_B$	$c_B$	$d_B$
BS10G06-../D04..	143	195	111	511	12	90	90	111	554				
BS10G06-../D05..	170	197	123	541	12	100	100	123	583				
BS10G06-../D06..	170	197	123	541	12	100	100	123	583				
BS10G06-../D07..	190	197	123	561	12	100	100	123	603	123	603		
BS10G06-../D08..	200	241	156	614	12	115	115				166	689	

Three-phase Worm Geared Motors  
 Drehstrom-Schnecken-Getriebemotoren  
 Motoréducteurs triphasés à roue et vis

## BS10G06

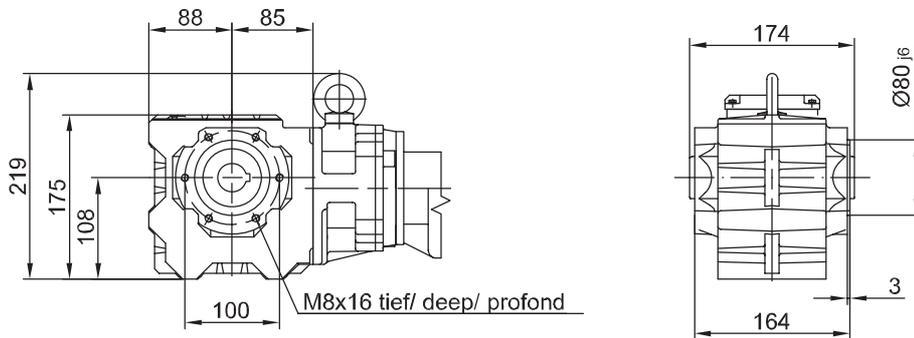
Drehmomentstütze vorne/ torque arm at front/

**Code -5.V/**



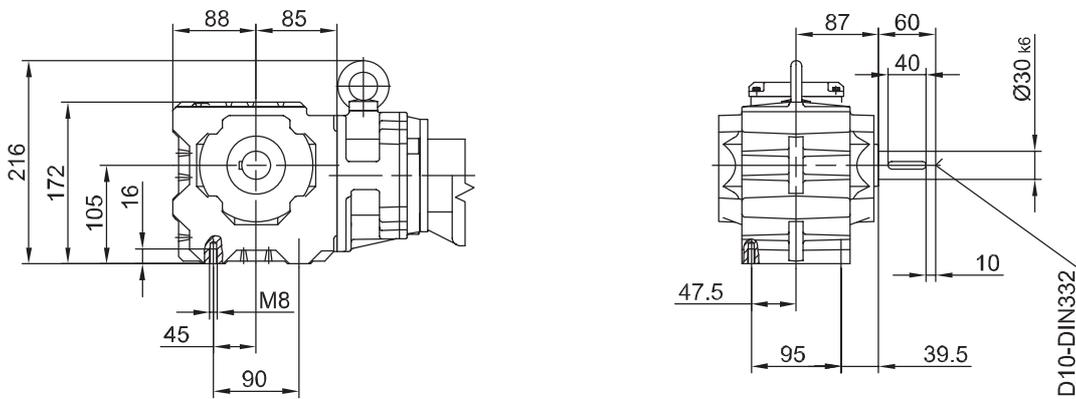
Flansch mit Gewindelöchern vorne/ flange with tapped holes at front/ bride avec trous taraudés à l'avant

**Code -7.V/**



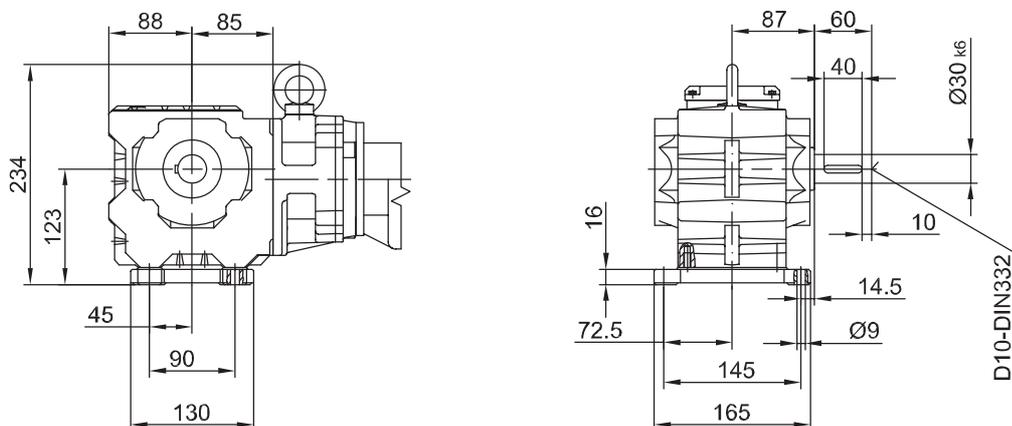
Fuss mit Gewindelöchern unten/ foot with tapped holes at bottom/ fixation à pied avec trous taraudés en bas

**Code -6.U/**



Fuss mit Durchgangslöchern unten/ foot with clearance holes at bottom/ fixation à pied avec trous débouchants en bas

**Code -1.U/**

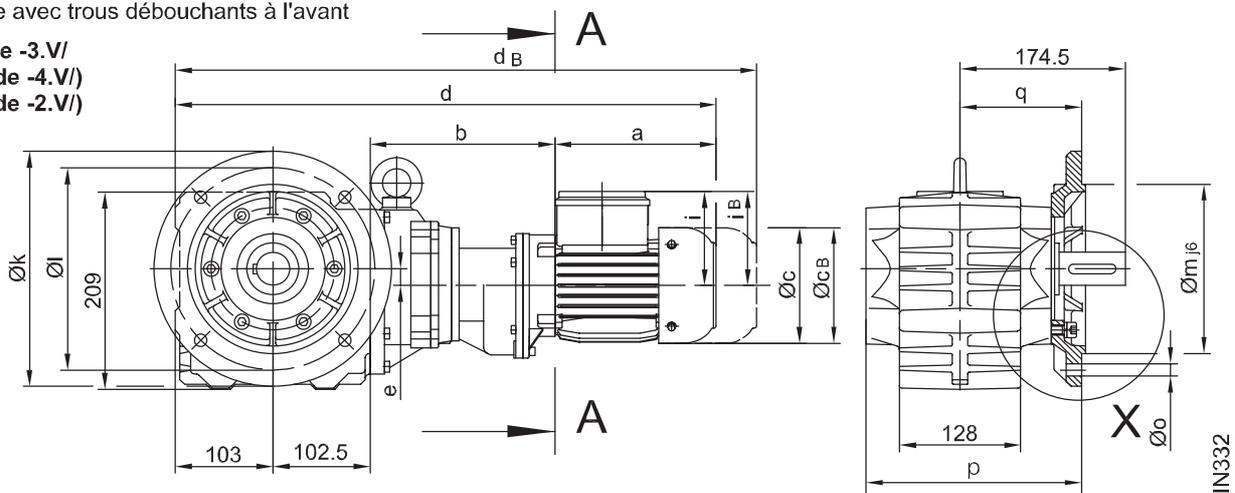


Three-phase Worm Geared Motors  
 Drehstrom-Schnecken-Getriebemotoren  
 Motorréducteurs triphasés à roue et vis

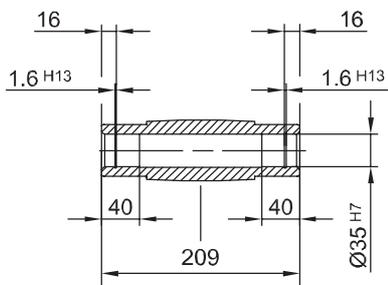
## BS20G06

Flansch mit Durchgangslöchern vorne/ flange with clearance holes at front/  
 bride avec trous débouchants à l'avant

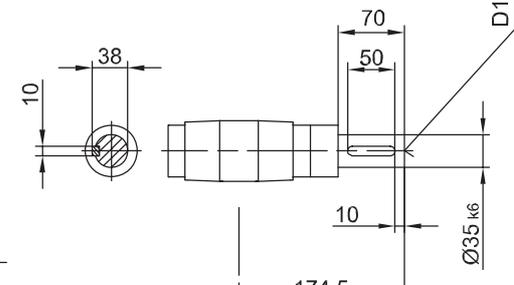
Code -3.V/  
 (Code -4.V/)  
 (Code -2.V/)



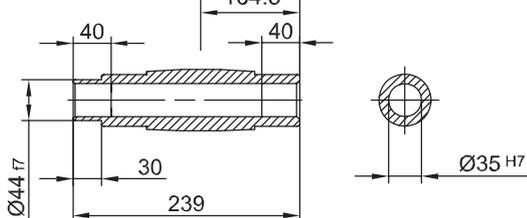
Code -4/



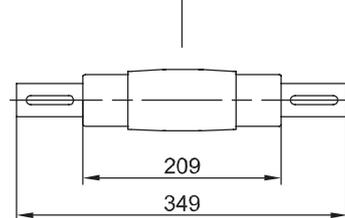
Code -1/



Code -5/

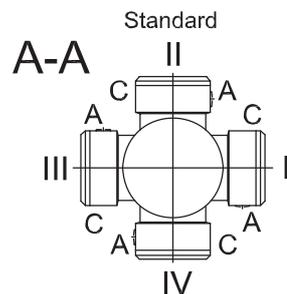


Code -3/



Flanschmasse/ Flange dimensions/ cotes de la bride

BS20G..	k	l	m	n	o	p	q	s	t
Standard/ -3.V/	250	215	180	16	13.5	227.5	128	4	46.5
klein/ small/ petite -2.V/	200	165	130	12	11	224.5	125	3.5	49.5
gross/ big/ grande -4.V/	300	265	230	20	13.5	233.5	134	4	40.5



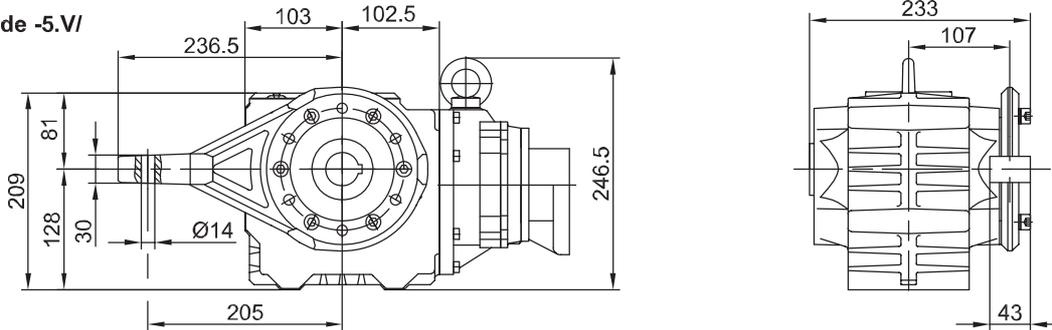
Typ/ Type/ Type	a	b	c	d	e	i	i <sub>B</sub>	Ausführung mit Bremse/ with brake/ avec frein									
								E003		E004		E008					
								c <sub>B</sub>	d <sub>B</sub>	c <sub>B</sub>	d <sub>B</sub>	c <sub>B</sub>	d <sub>B</sub>				
BS20G06-../D04..	143	193	111	541	18	90	90	111	585								
BS20G06-../D05..	170	195	123	571	18	100	100	123	613								
BS20G06-../D06..	170	195	123	571	18	100	100	123	613								
BS20G06-../D07..	190	195	123	591	18	100	100	123	633	123	633						
BS20G06-../D08..	200	239	156	644	18	115	115					166	719				

Three-phase Worm Geared Motors  
 Drehstrom-Schnecken-Getriebemotoren  
 Motoréducteurs triphasés à roue et vis

## BS20G06

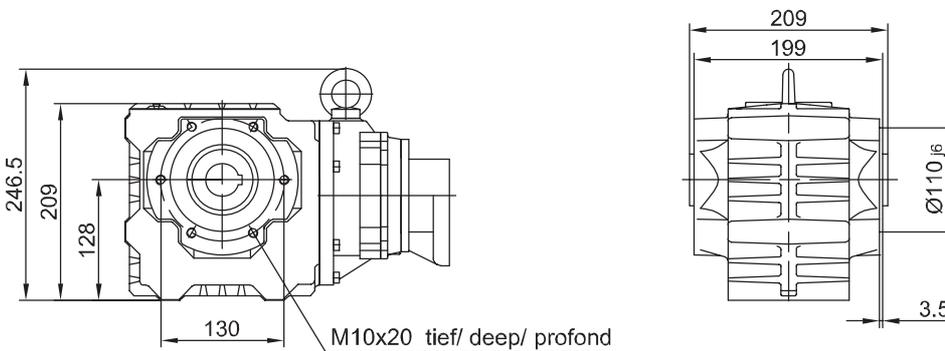
Drehmomentstütze vorne/ torque arm at front/

Code -5.V/



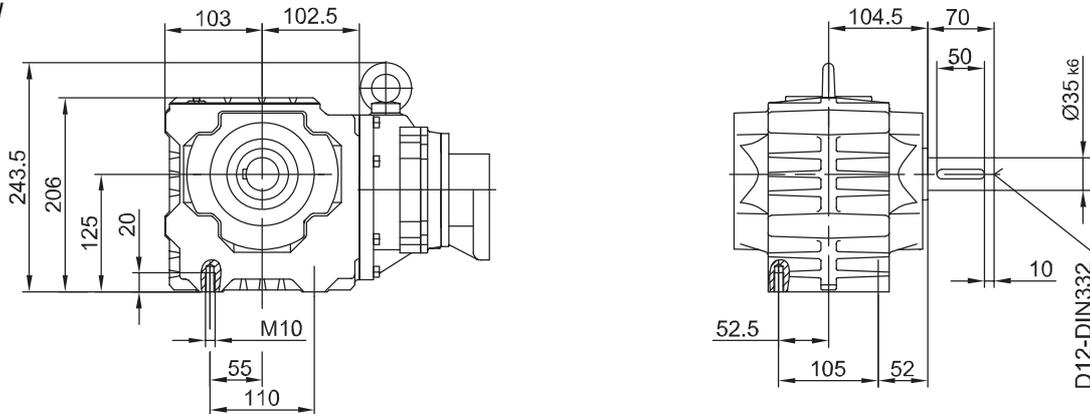
Flansch mit Gewindelöchern vorne/ flange with tapped holes at front/ bride avec trous taraudés à l'avant

Code -7.V/



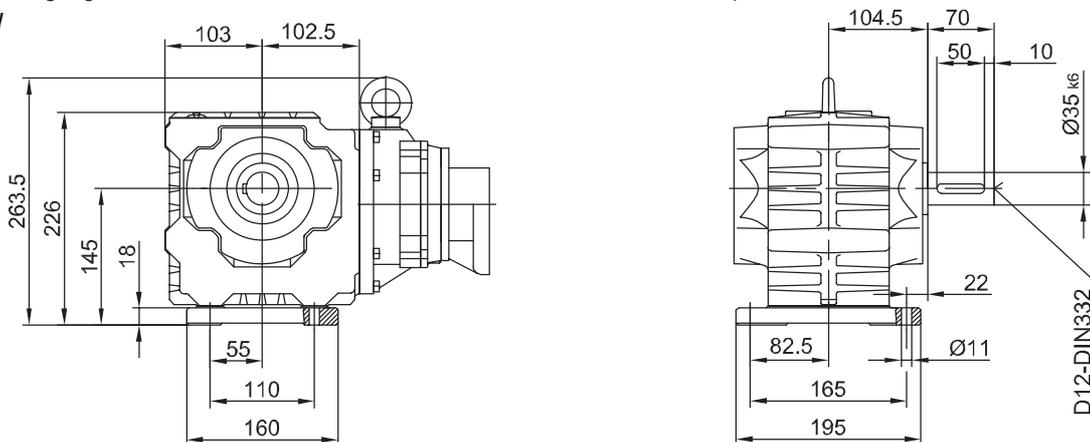
Fuss mit Gewindelöchern unten/ foot with tapped holes at bottom/ fixation à pied avec trous taraudés en bas

Code -6.U/



Fuss mit Durchgangslöchern unten/ foot with clearance holes at bottom/ fixation à pied avec trous débouchants en bas

Code -1.U/

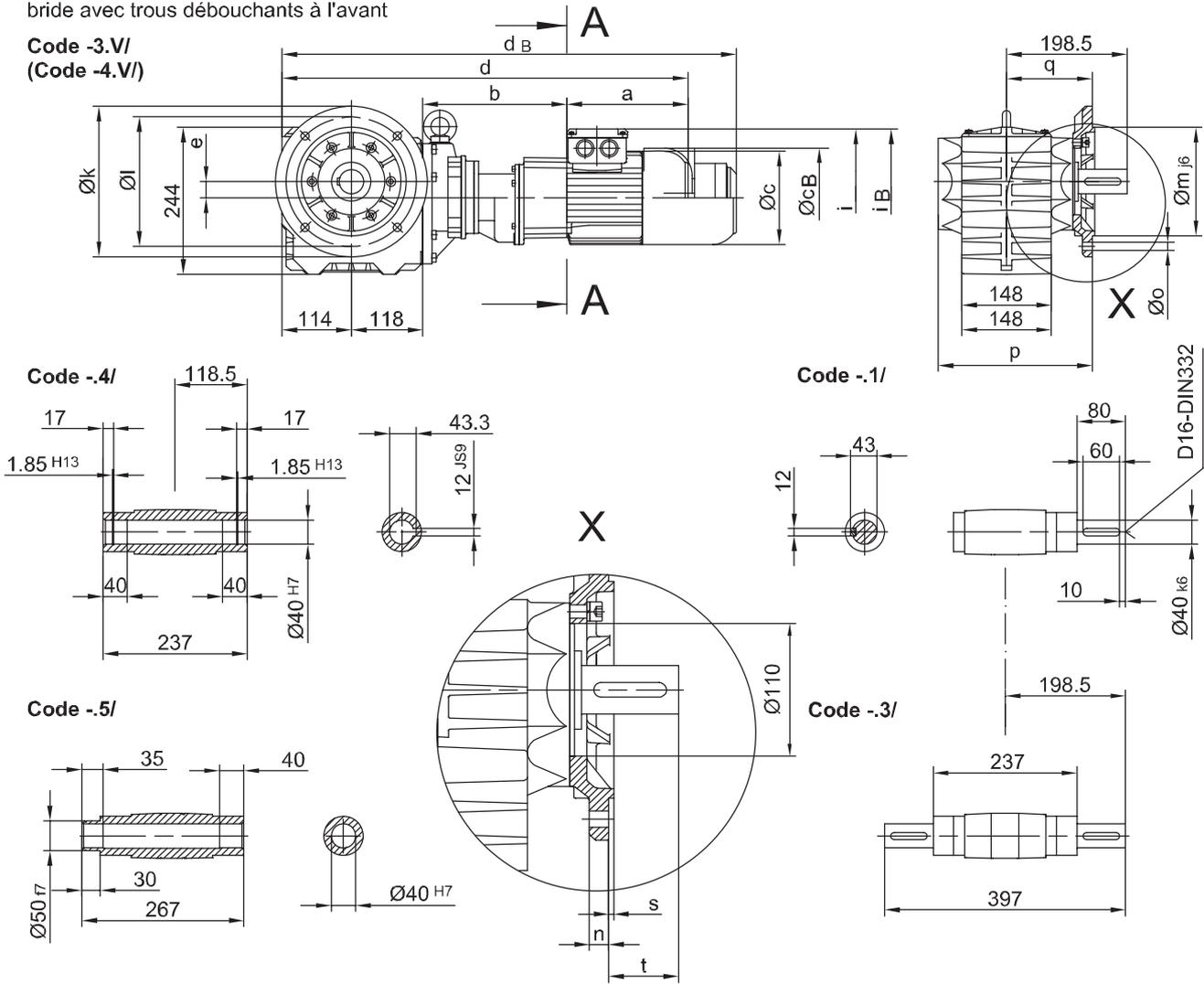


Three-phase Worm Geared Motors  
 Drehstrom-Schnecken-Getriebemotoren  
 Motoréducteurs triphasés à roue et vis

## BS30G06

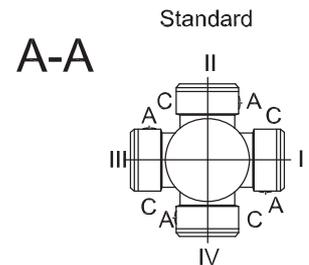
Flansch mit Durchgangslöchern vorne/ flange with clearance holes at front/  
 bride avec trous débouchants à l'avant

Code -3.V/  
 (Code -4.V/)



Flanschmasse/ Flange dimensions/ cotes de la bride

BS30G..	k	l	m	n	o	p	q	s	t
Standard/ -3.V/	250	215	180	16	13.5	253.5	141	4	57.5
gross/ big/ grande -4.V/	300	265	230	20	13.5	259.5	147	4	51.5



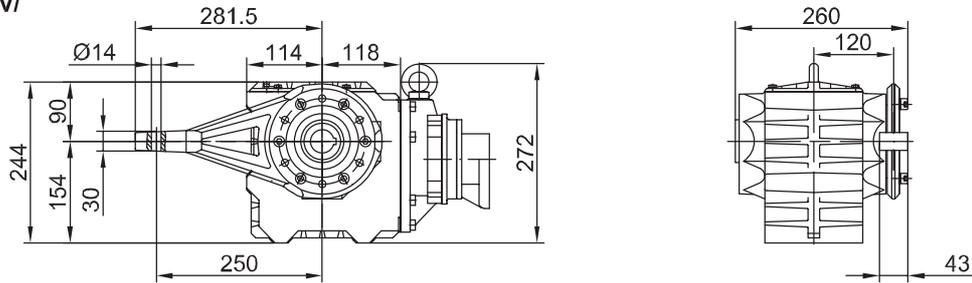
Typ/ Type/ Type	a	b	c	d	e	i	Ausführung mit Bremse/ with brake/ avec frein										
							$i_B$	E003		E004		E008					
								$c_B$	$d_B$	$c_B$	$d_B$	$c_B$	$d_B$				
BS30G06-../D04..	143	191	111	566	27	90	90	111	609								
BS30G06-../D05..	170	193	123	596	27	100	100	123	638								
BS30G06-../D06..	170	193	123	596	27	100	100	123	638								
BS30G06-../D07..	190	193	123	616	27	100	100	123	658	123	658						
BS30G06-../D08..	200	237	156	669	27	115	115					166	744				

Three-phase Worm Geared Motors  
 Drehstrom-Schnecken-Getriebemotoren  
 Motoréducteurs triphasés à roue et vis

## BS30G06

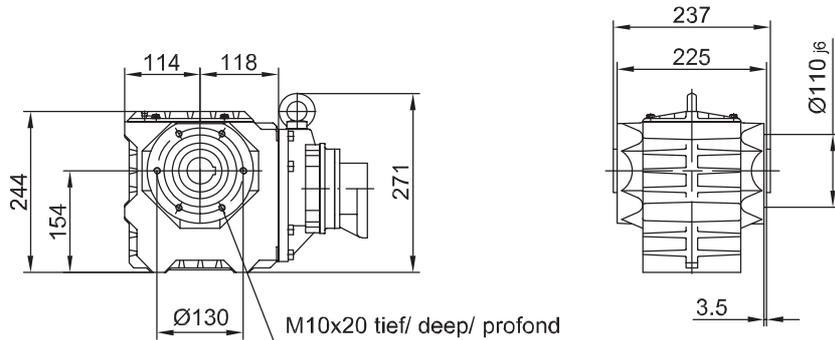
Drehmomentstütze vorne/ torque arm at front/ bras de réaction à l'avant

Code -5.V/



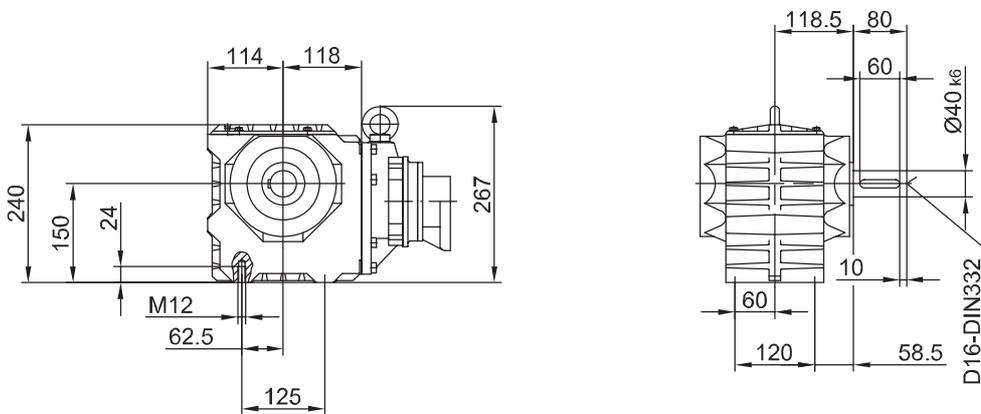
Flansch mit Gewindelöchern vorne/ flange with tapped holes at front/ bride avec trous taraudés à l'avant

Code -7.V/



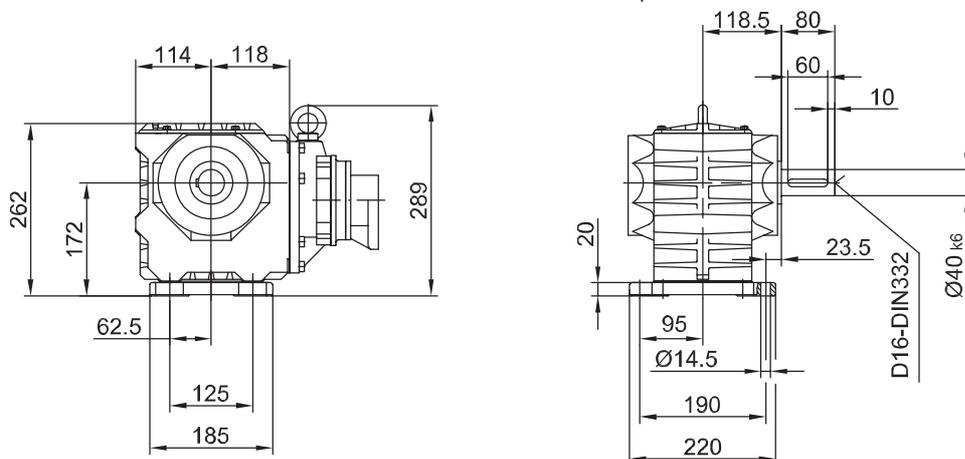
Fuss mit Gewindelöchern unten/ foot with tapped holes at bottom/ fixation à pied avec trous taraudés en bas

Code -6.U/



Fuss mit Durchgangslöchern unten/ foot with clearance holes at bottom/ fixation à pied avec trous débouchants en bas

Code -1.U/

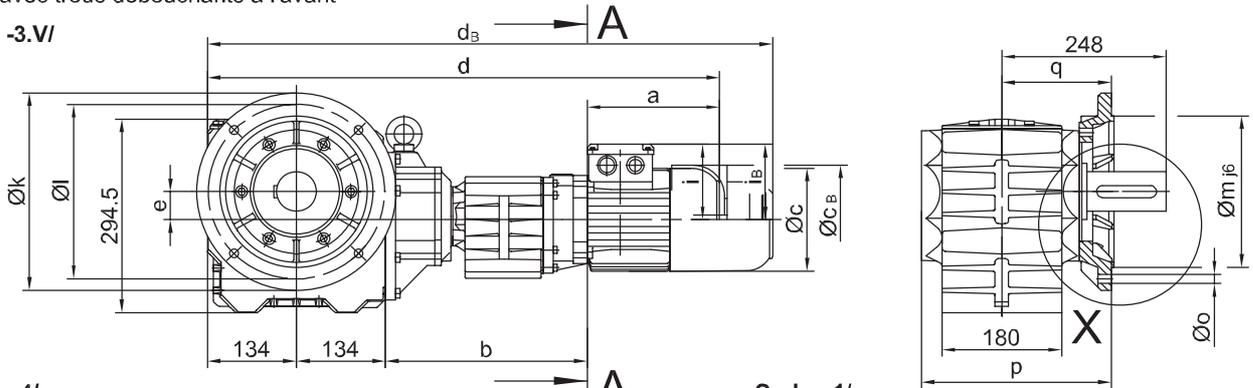


Three-phase Worm Geared Motors  
 Drehstrom-Schnecken-Getriebemotoren  
 Motoréducteurs triphasés à roue et vis

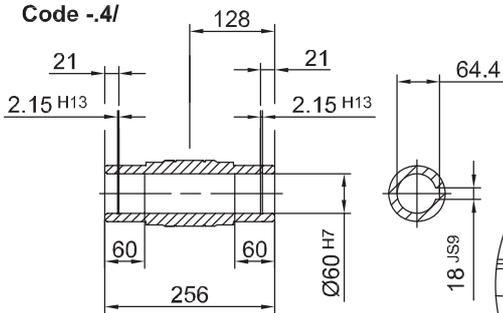
## BS40G10

Flansch mit Durchgangslöchern vorne/ flange with clearance holes at front/  
 bride avec trous débouchants à l'avant

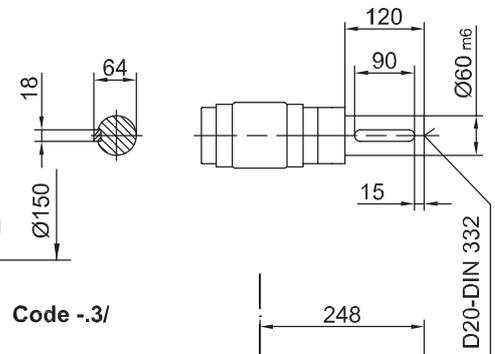
Code -3.V/



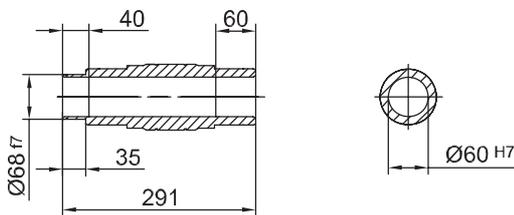
Code -4/



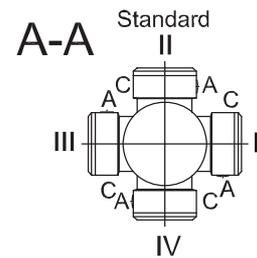
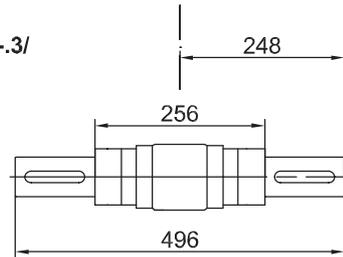
Code -1/



Code -5/



Code -3/



Flanschmasse/ Flange dimensions/ cotes de la bride

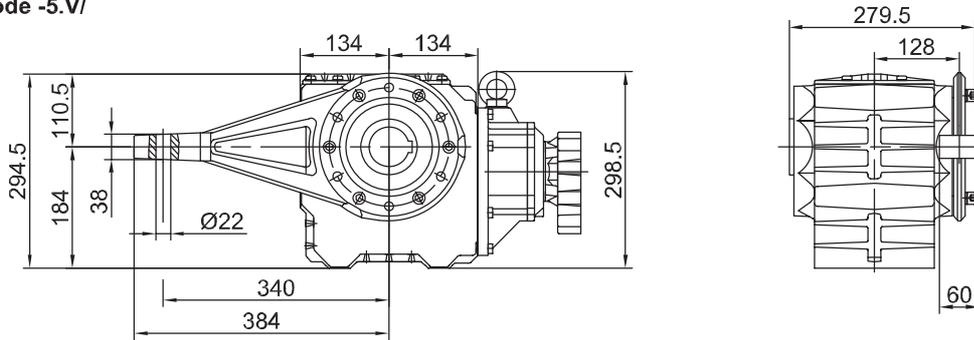
BS40G..	k	l	m	n	o	p	q	s	t
Standard/ -3.V/	300	265	230	20	13.5	286	165	4	83

Typ/ Type/ Type	a	b	c	d	e	i	i <sub>B</sub>	Ausführung mit Bremse/ with brake/ avec frein										
								E003		E004		E008		Z008		Z015		
								c <sub>B</sub>	d <sub>B</sub>	c <sub>B</sub>	d <sub>B</sub>	c <sub>B</sub>	d <sub>B</sub>	c <sub>B</sub>	d <sub>B</sub>	c <sub>B</sub>	d <sub>B</sub>	
BS40G10-../D05..	170	300	123	739	43	100	100	123	781									
BS40G10-../D06..	170	300	123	739	43	100	100	123	781									
BS40G10-../D07..	190	300	123	759	43	100	100	123	801	123	801							
BS40G10-../D08..	200	304	156	772	43	115	115					166	847					
BS40G10-../D09..	251	318.5	181	837	43	124	124					192	917	192	931	192	937	

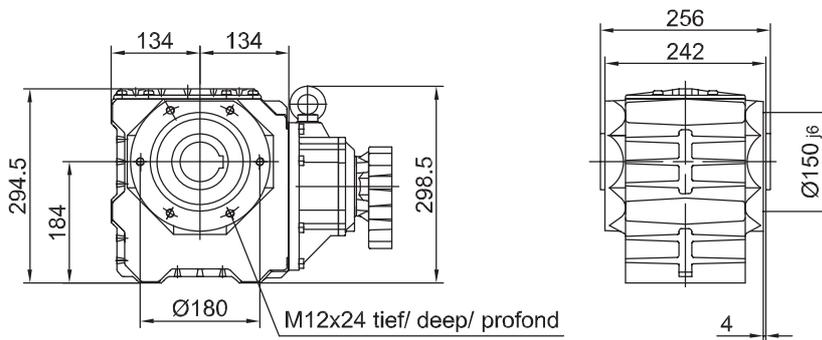
Three-phase Worm Geared Motors  
 Drehstrom-Schnecken-Getriebemotoren  
 Motoréducteurs triphasés à roue et vis

## BS40G10

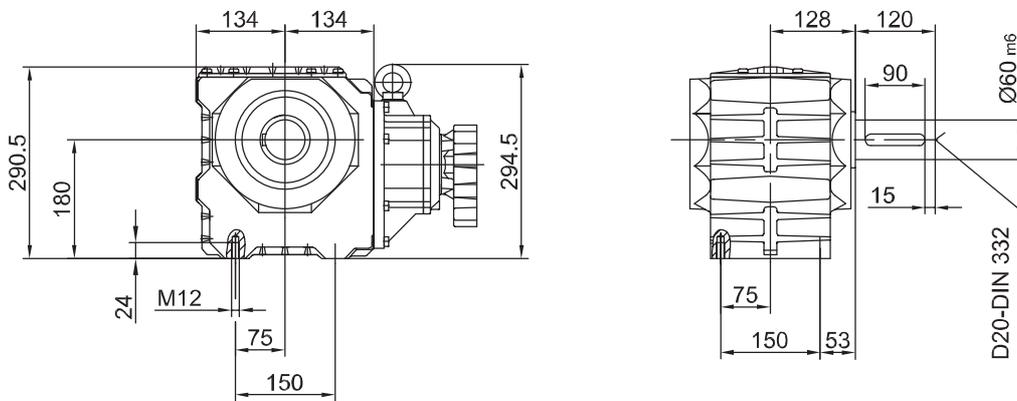
Drehmomentstütze vorne/ torque arm at front/ bras de réaction à l'avant  
**Code -5.V/**



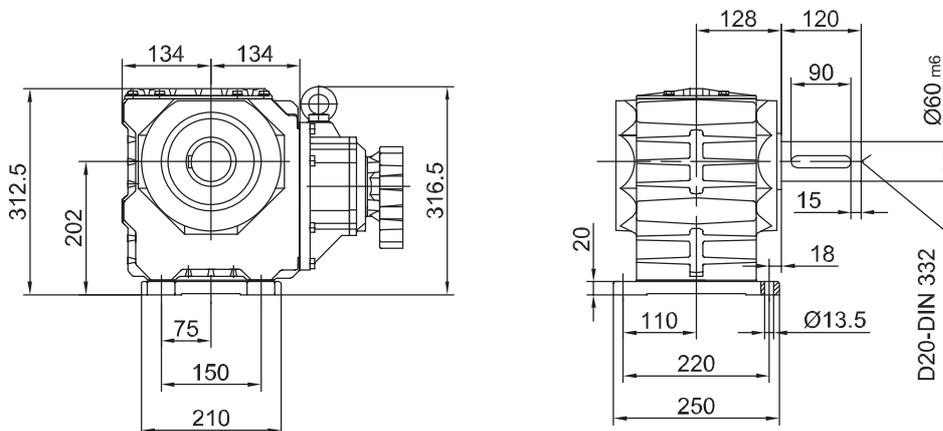
Flansch mit Gewindelöchern vorne/ flange with tapped holes at front/ bride avec trous taraudés à l'avant  
**Code -7.V/**



Fuss mit Gewindelöchern unten/ foot with tapped holes at bottom/ fixation à pied avec trous taraudés en bas  
**Code -6.U/**



Fuss mit Durchgangslöchern unten/ foot with clearance holes at bottom/ fixation à pied avec trous débouchants en bas  
**Code -1.U/**



## Series BS

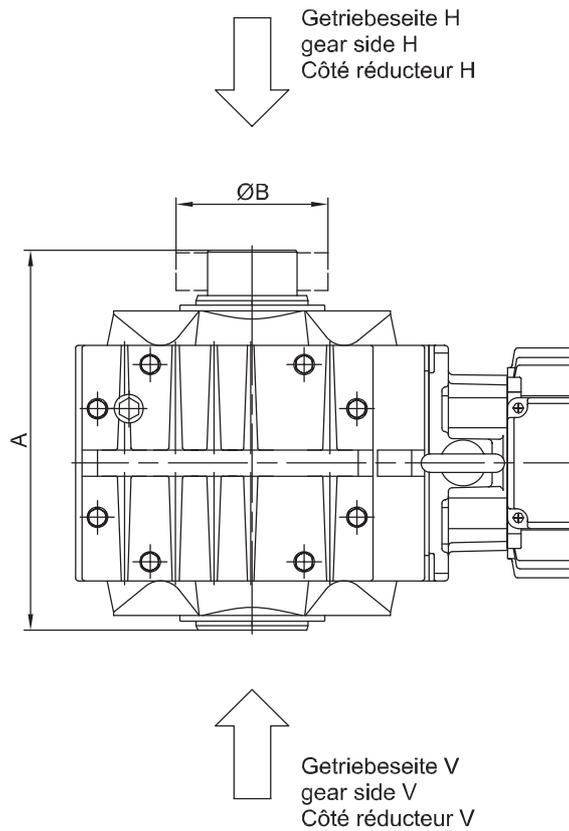
### 13.4 Accessories for worm-geared motors

#### 13.4.1 Shrink disc couplings

##### 13.4.1.1

Geared motor with SSV shrink disc

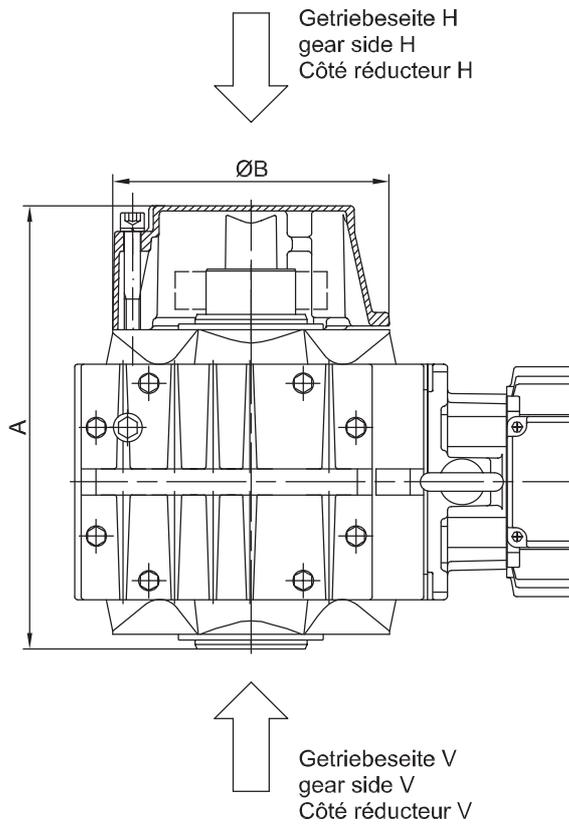
(Code BS10-.5/...)  
(Code BS10Z-.5/...)



Typ/Type/Type	SSV Gerwah	SSV STÜWE	A	B
BS10	PSV5001 36x72	HSD 36-22x36	199	72
BS20	PSV5001 44x80	HSD 44-22x44	239	80
BS30	PSV5001 50x90	HSD 50-22x50	267	90
BS40	PSV5001 68x115	HSD 68-22x68	291	115

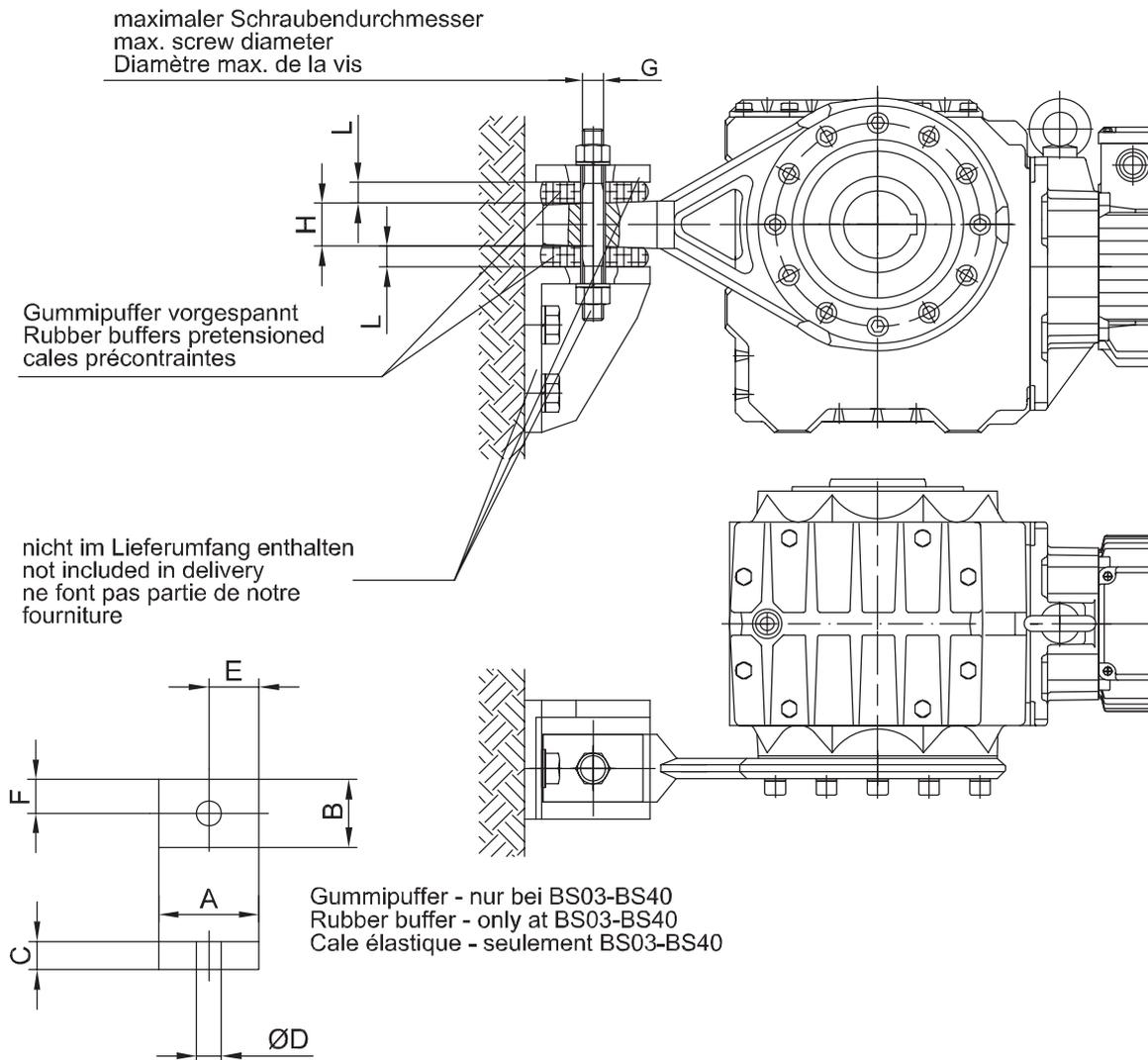
13.4.1.2  
Geared motor with SSV cover

(Code BS10-.5A/...)  
(Code BS10Z-.5A/...)



Typ/Type/Type	SSV Gerwah	SSV STÜWE	A	B
BS10	PSV5001 36x72	HSD 36-22x36	221	120
BS20	PSV5001 44x80	HSD 44-22x44	286	160
BS30	PSV5001 50x90	HSD 50-22x50	313	160
BS40	PSV5001 68x115	HSD 68-22x68	340	210

## 13.4.2 Rubber buffer for torque restraint



Werkstoff: Naturkautschuk  
Härte 50±5 Shore A

Material: Natural rubber  
Hardness 50±5 Shore A

Matière: Caoutchouc naturel  
Dureté 50±5 Shore A

Abmessungen des Querlochs:  
Siehe Maßbild des jeweiligen Getriebes

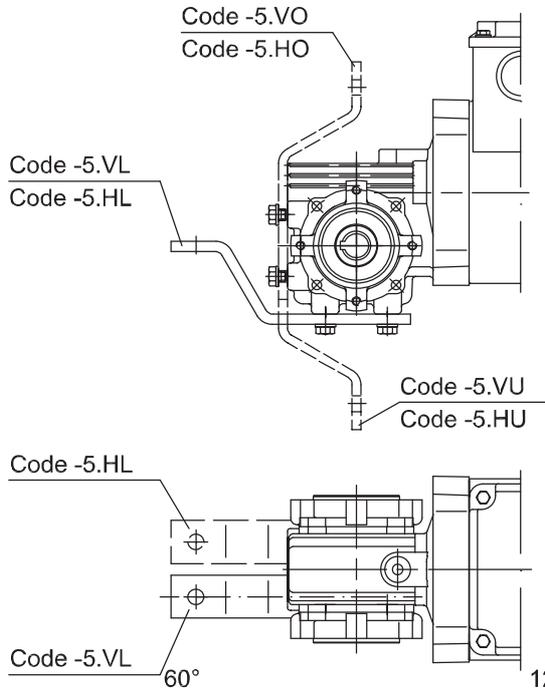
Dimensions of the transverse hole:  
see dimensioned sketch of the respective  
shaft mounted gearbox

Dimensions du trou transversal  
consulter les croquis cotés  
des réducteurs respectifs

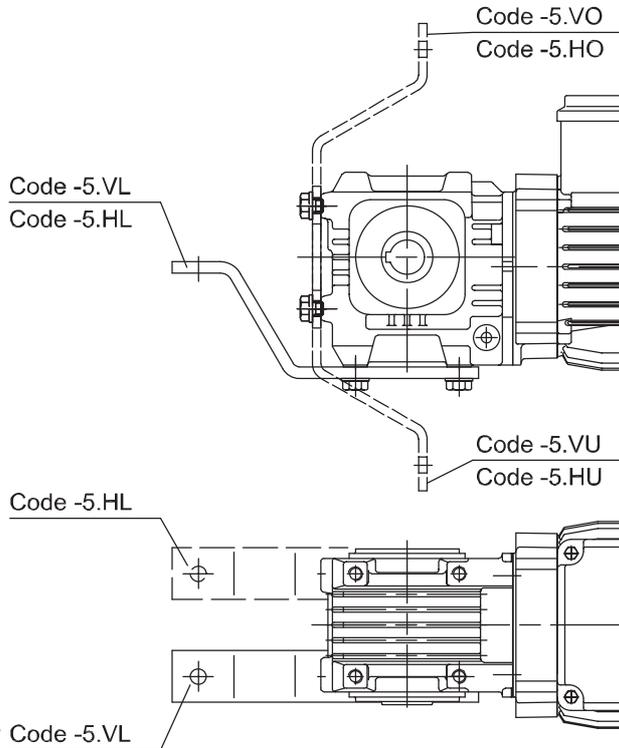
Getriebe Gear Réducteur	Pos.	Maße (mm) Dimensions (mm) Dimensions(mm)								
		A	B	C	D	E	F	G	H	L
BS02	-	-	-	-	-	-	-	M8	6	-
BS03	Pos.0	30	30	12	12	15	15	M8	10	10.5
BS04	Pos.0	30	30	12	12	15	15	M8	10	10.5
BS06	Pos.0	30	30	12	12	15	15	M10	10	10
BS10	Pos.1	48	32	15	14	24	16	M10	19	13
BS20	Pos.2	63	43	20	14	31.5	21.5	M10	30	17.5
BS30	Pos.2	63	43	20	14	31.5	21.5	M10	30	17
BS40	Pos.3	88	60	25	22	44	30	M18	38	22

### 13.4.3 Position of the torque arm

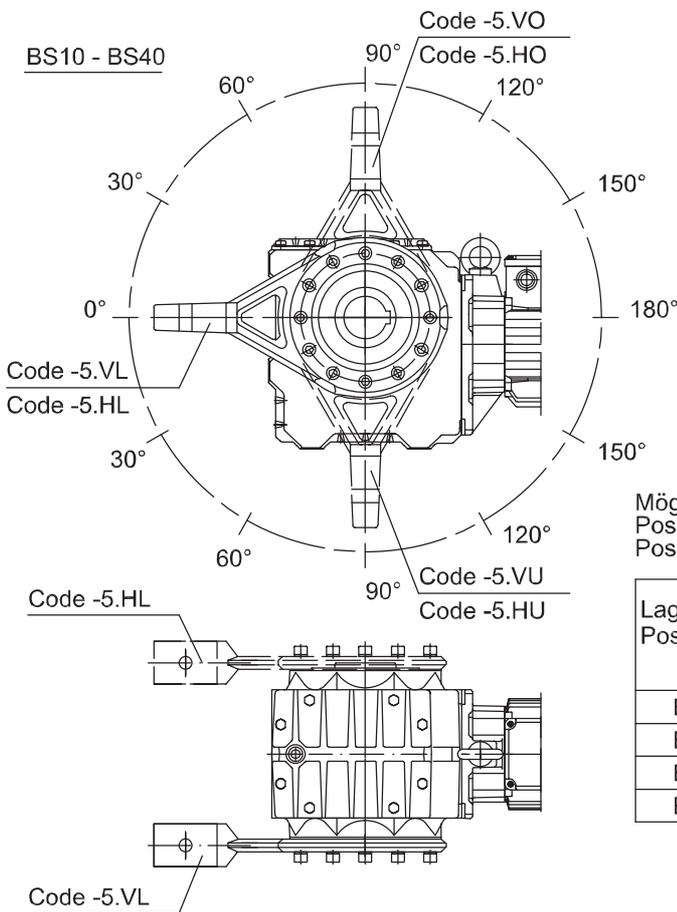
BS02 / BS03



BS04 / BS06



BS10 - BS40



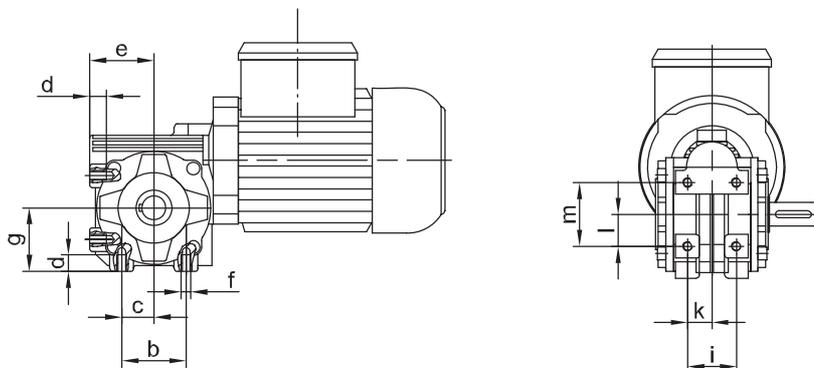
Mögliche Lagen.  
Possible locations.  
Positions possibles

Lage Position	VL / HL		VO / HO VU / HU			VR / HR	
	0°	30°	60°	90°	120°		
BS10	0°	30°	60°	90°	120°	150°	-
BS20	0°	30°	60°	90°	120°	150°	-
BS30	0°	30°	60°	90°	120°	150°	-
BS40	0°	30°	60°	90°	120°	150°	-

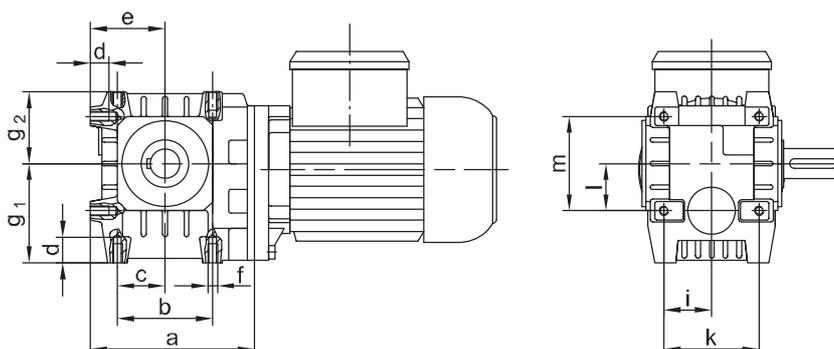
For mounting information refer to 5.6

**13.5 Additional dimensional drawings for worm-geared motors**

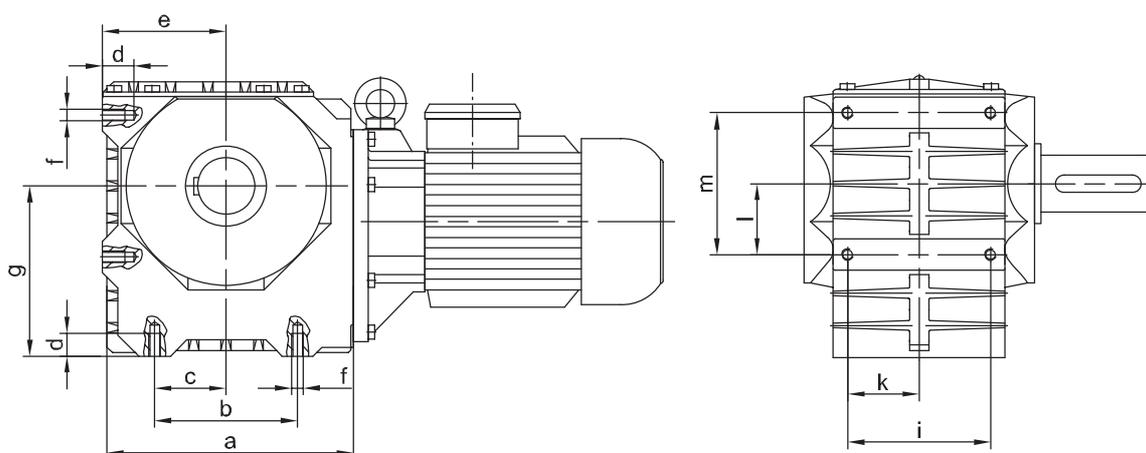
**13.5.1 Threaded foot, left**



Typ/Type/Type	a	b	c	d	e	f	g	-	i	k	l	m
BS02	-	36	18	10	40	M6	40	-	32	16	18	36
BS03	-	54	27	14	54	M8	54	-	41	20.5	27	54

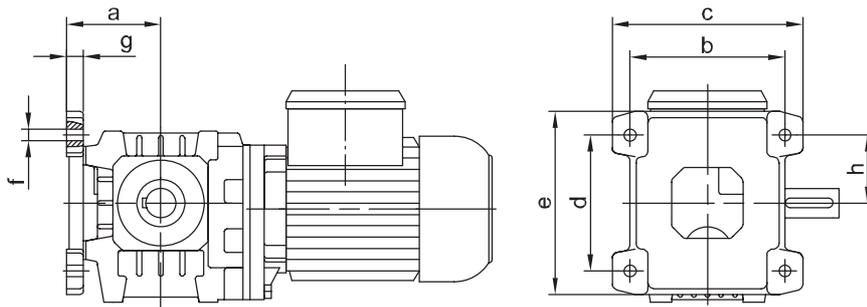


Typ/Type/Type	a	b	c	d	e	f	g <sub>1</sub>	g <sub>2</sub>	i	k	l	m
BS04	111	60	30	15.5	50	M8	64	49.5	30	60	30	60
BS06	138	80	40	16	63	M8	84	61	40	80	40	80

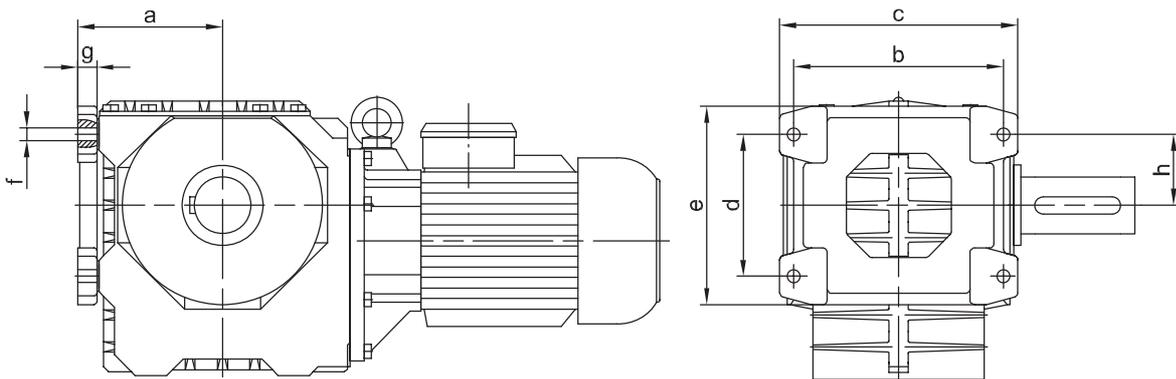


Typ/Type/Type	a	b	c	d	e	f	g	-	i	k	l	m
BS10-BS10Z	170	90	45	16	85	M8	105	-	95	47.5	45	90
BS20-BS20Z	202.5	110	55	20	100	M10	125	-	105	52.5	55	110
BS30-BS30Z	228	125	62.5	24	110	M12	150	-	120	60	62.5	125
BS40-BS40Z	264	150	75	24	130	M12	180	-	150	75	75	150

## 13.5.2 Foot plate, left



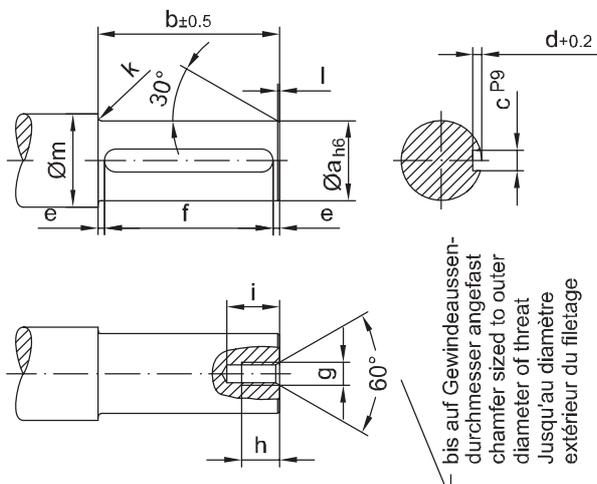
Typ/Type/Type	a	b	c	d	e	f	g	h
BS04	68	110	140	90	130	10	15	45
BS06	79	130	160	115	155	10	14	57.5



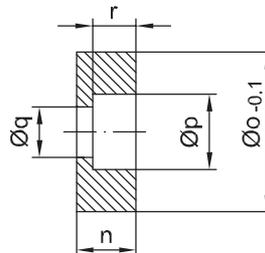
Typ/Type/Type	a	b	c	d	e	f	g	h
BS10-BS10Z	103	145	165	90	130	Ø9	16	72.5
BS20-BS20Z	120	165	195	110	160	Ø11	18	55
BS30-BS30Z	132	190	220	125	185	Ø13.5	20	62.5
BS40-BS40Z	152	220	250	150	210	Ø13.5	20	75

### 13.5.3 Tools for installing worm gear with hollow shaft and keyway

Pos.1 Wellenzapfen/ shaft/ arbre



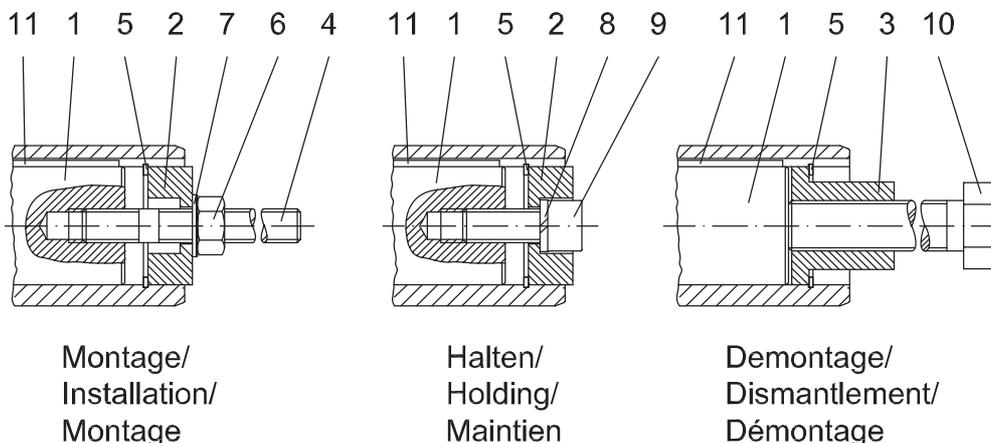
\* Pos.2 Scheibe/ disc/ rondelle



✓<sup>x</sup> , Kanten gebrochen/ edges cut/ chanfrein

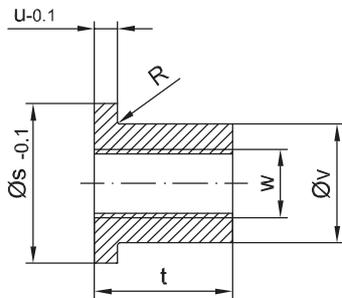
Werkstoff/ material/ Matière : C45 DIN 17200

Typ Type Type	Masse/ dimensions/ Dimensions																
	Pos.1 Wellenzapfen/ shaft / arbre												Pos.2 Scheibe/ disc/ rondelle				
	a	b	c	d	e	f	g	h	i	k	l	m	n	o	p	q	r
BS03	20	75	6	3.5	6	63 <sup>+0.3</sup>	M6	16	21	2	1.5	28	13.5	19.8	11	6.6	6.5
BS04	20	71	6	3.5	7.5	56 <sup>+0.3</sup>	M6	16	21	2	1.5	28	13.5	19.8	11	6.6	6.5
BS06	25	99	8	4	9.5	80 <sup>+0.3</sup>	M8	18	24	2.5	1.5	33	13.5	24.8	15	9	8.5
BS10	30	152	8	4	6	140 <sup>+0.5</sup>	M10	20	26	3	1.5	38	15	29.8	18	11	10
BS20	35	186	10	5	13	160 <sup>+0.5</sup>	M10	20	26	3	1.5	43	16	34.8	18	11	10
BS30	40	212	12	5	6	200 <sup>+0.5</sup>	M12	22	29	3	2	48	18	39.8	20	13.5	12
BS40	60	227	18	7	13.5	200 <sup>+0.5</sup>	M20	38	46	3.5	2	68	24	59.8	33	22	18

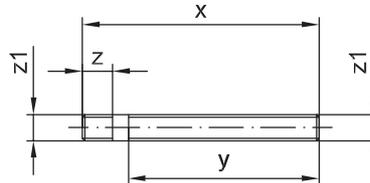


Die dargestellten Teile werden zur Montage benötigt. NUR \* gekennzeichneten Teile sind im Montagehilfeset enthalten.  
The parts shown are necessary for assembly. ONLY \* specified parts are enclosed in the assembly kit.  
Les pièces montrées ne sont pas de notre fourniture. SEULES celles marquées \* sont disponibles dans le kit de montage.

Pos.3 Hülse/ sleeve/ Entretoise



Pos.4 Gewindebolzen/ stud bolt  
Tige filetée



Werkstoff: Stahl, Zugfestigkeit  $\geq 1000\text{N/mm}^2$   
 Gewinde gerollt  
 Material: Steel, tensile strength  $\geq 1000\text{N/mm}^2$   
 threads rolled  
 Matière: acier, résistant à la traction  $\geq 1000\text{N/mm}^2$   
 Filetage roulé

$\sqrt{x}$ , Kanten gebrochen/ edges cut/ chanfrein  
 Werkstoff/ material/ Matière: C45 DIN 17200

Typ Type Type	Masse/ dimensions/ Dimensions										* Sicherungsring DIN 472 retainer ring circlips	Sechskantmutter DIN 934-8 hexagon nut Ecou 6 pans	Scheibe DIN 125-St disc Rondelle	Federring DIN 7980 lock washer Rondelle élastique	* Zylinderschraube DIN 912-8 Fillister head screw Vis	Sechskantschraube DIN EN 24017-8.8 hexagon bolt Vis tête hexagonale	Passfedler DIN 6885 key Clavette							
	Pos.3 Hülse/ sleeve/ Entretoise						Pos.4 Gewindebolzen stud bolt / Tige filetée											Pos.5	Pos.6	Pos.7	Pos.8	Pos.9	Pos.10	Pos.11
	s	t	u	v	w	R	x	y	z	z1														
BS03	19.8	24	5	11	M8	-	120	90	18	M6	20x1.0	M6	6.4	6	M6x25	M8x110	A 8x7x63							
BS04	19.8	24	5	11	M8	-	120	90	18	M6	20x1.0	M6	6.4	6	M6x25	M8x110	A 8x7x56							
BS06	19.8	24	5	15.4	M12	0.8	150	120	20	M8	25x1.2	M8	8.4	8	M8x30	M12x140	A 8x7x80							
BS10	29.8	28	5	19.8	M14	0.8	210	175	23	M10	30x1.2	M10	10.5	10	M10x30	M14x190	A 8x7x140							
BS20	34.9	28	5	23	M14	-	250	215	23	M10	35x1.5	M10	10.5	10	M10x35	M14x230	A10x8x160							
BS30	39.9	40	6	27.7	M20	0.8	280	240	28	M12	40x1.75	M12	13	12	M12x35	M20x270	A 12x8x200							
BS40	59.8	60	6	44	M30	-	320	260	45	M20	60x2.0	M20	21	20	M20x50	M30x310	A 18x11x200							

Die dargestellten Teile werden zur Montage benötigt. NUR \* gekennzeichneten Teile sind im Montagehilfeset enthalten.  
 The parts shown are necessary for assembly. ONLY \* specified parts are enclosed in the assembly kit.  
 Les pièces montrées ne sont pas de notre fourniture. SEULES celles marquées \* sont disponibles dans le kit de montage.

Optional/ En option:

Typ / Type	Bestelltext / Order Text / Texte de commande
BS03	Id.Nr.4104013 Montagehilfe "halten"/ Assembly tool "holding"/ Kit de montage "maintien"
BS04	Id.Nr.4104013 Montagehilfe "halten"/ Assembly tool "holding"/ Kit de montage "maintien"
BS06	Id.Nr.4103921 Montagehilfe "halten"/ Assembly tool "holding"/ Kit de montage "maintien"
BS10	Id.Nr.4103939 Montagehilfe "halten"/ Assembly tool "holding"/ Kit de montage "maintien"
BS20	Id.Nr.4103947 Montagehilfe "halten"/ Assembly tool "holding"/ Kit de montage "maintien"
BS30	Id.Nr.4103955 Montagehilfe "halten"/ Assembly tool "holding"/ Kit de montage "maintien"
BS40	Id.Nr.4103971 Montagehilfe "halten"/ Assembly tool "holding"/ Kit de montage "maintien"

