



# M<sub>2</sub> = 8500 Nm

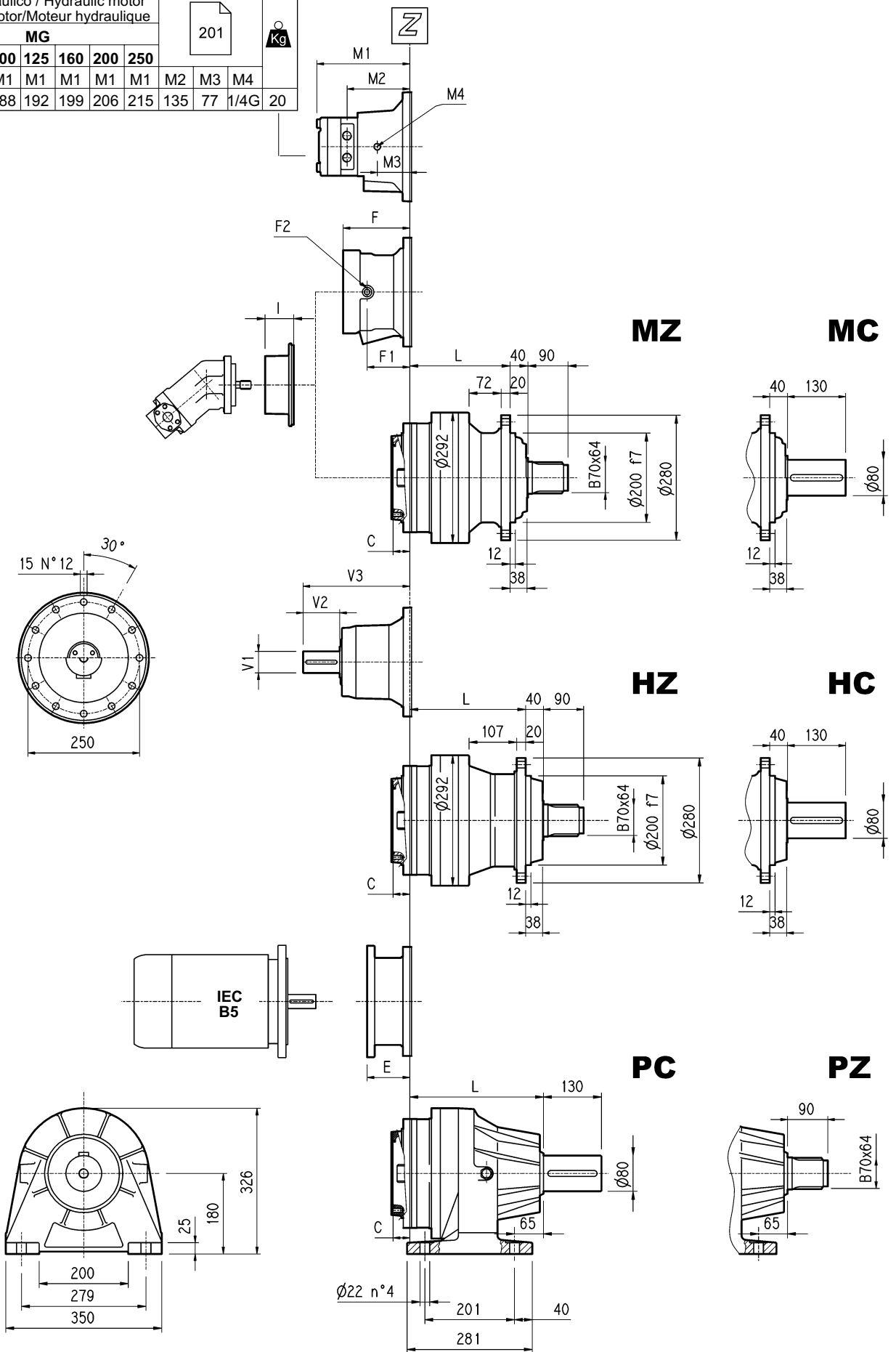
# 306R

	i	M <sub>n2</sub> [Nm]						P <sub>1</sub>	P <sub>t</sub>	n <sub>1</sub>	n <sub>1max</sub>	M <sub>b</sub>	
		n <sub>2</sub> ·h	n <sub>2</sub> ·h	n <sub>2</sub> ·h	n <sub>2</sub> ·h	n <sub>2</sub> ·h	n <sub>2</sub> ·h						
	1:	10 000	25 000	50 000	100 000	500 000	1 000 000						
<b>R2</b>	9.23	4 650	4 050	3 600	3 200	2 000	1 600	35	18	1 800	3 800	440	4L
	10.9	5 300	4 650	4 150	3 600	2 200	1 800	35	18	1 800	3 800	440	4L
	13.7	6 500	5 600	5 100	4 200	2 600	2 100	35	18	1 800	3 800	440	4L
	15.9	7 300	6 400	5 700	4 700	2 900	2 350	35	18	1 800	3 800	440	4L
	19.2	7 000	5 900	5 500	5 400	3 300	2 700	35	18	1 800	3 800	400	4K
<b>R3</b>	33.2	7 600	7 300	7 300	7 300	4 700	3 800	35	14	2 000	4 000	260	4F
	39.2	8 300	7 900	7 700	7 500	5 100	4 150	34	14	2 000	4 000	260	4F
	46.3	10 000	9 600	9 400	9 300	5 800	4 700	35	14	2 000	4 000	260	4F
	58.1	9 300	9 100	9 100	9 100	5 700	4 600	27	14	2 000	4 000	260	4F
	67.5	7 500	7 400	7 400	7 400	4 600	3 750	19	14	2 000	4 000	260	4F
	72.9	9 500	8 500	7 800	7 800	5 700	4 600	21	14	2 000	4 000	160	4D
	84.7	9 300	8 500	7 800	7 800	5 400	4 400	18	14	2 000	4 000	160	4D
	98.5	8 500	7 200	6 500	6 500	5 700	4 650	14	14	2 000	4 000	100	4B
	119	8 500	7 200	6 500	6 500	5 700	4 650	11.8	14	2 000	4 000	100	4B
	144	7 000	5 900	5 500	5 500	4 700	3 850	8.3	14	2 000	4 000	100	4B
	<b>R4</b>	158	10 000	9 600	9 400	8 800	5 400	4 400	15.0	12	2 000	4 000	100
168		8 100	7 700	7 700	7 500	5 000	4 100	14.0	12	2 000	4 000	100	4B
181		8 900	8 700	8 700	7 400	4 550	3 700	14.4	12	2 000	4 000	100	4B
214		10 000	9 600	9 400	8 300	5 100	4 150	13.8	12	2 000	4 000	50	4A
230		7 500	7 400	7 400	7 400	4 650	3 750	9.5	12	2 000	4 000	50	4A
249		9 500	8 500	7 800	7 800	5 700	4 600	11.3	12	2 000	4 000	50	4A
289		9 300	8 500	7 800	7 800	5 400	4 400	9.5	12	2 000	4 000	50	4A
312		7 500	7 400	7 400	7 400	4 650	3 750	7.3	12	2 000	4 000	50	4A
377		6 800	6 800	6 800	6 800	4 850	3 950	5.5	12	2 000	4 000	50	4A
420		9 500	8 500	7 800	7 800	5 700	4 600	7.1	12	2 000	4 000	50	4A
455		8 500	7 200	6 500	6 500	5 700	4 650	6.2	12	2 000	4 000	50	4A
488		9 300	8 500	7 800	7 800	5 400	4 400	6.1	12	2 000	4 000	50	4A
550		7 000	5 900	5 500	5 500	4 700	3 850	4.4	12	2 000	4 000	50	4A
590		7 000	5 900	5 500	5 500	4 700	3 850	3.5	12	2 000	4 000	50	4A
665		7 000	5 900	5 500	5 500	4 700	3 850	3.7	12	2 000	4 000	50	4A
830		7 000	5 900	5 500	5 500	4 700	3 850	3.1	12	2 000	4 000	50	4A

$$M_{2max} = 1.2 \cdot M_{n2} \quad (n_2 \cdot h = 10\,000)$$

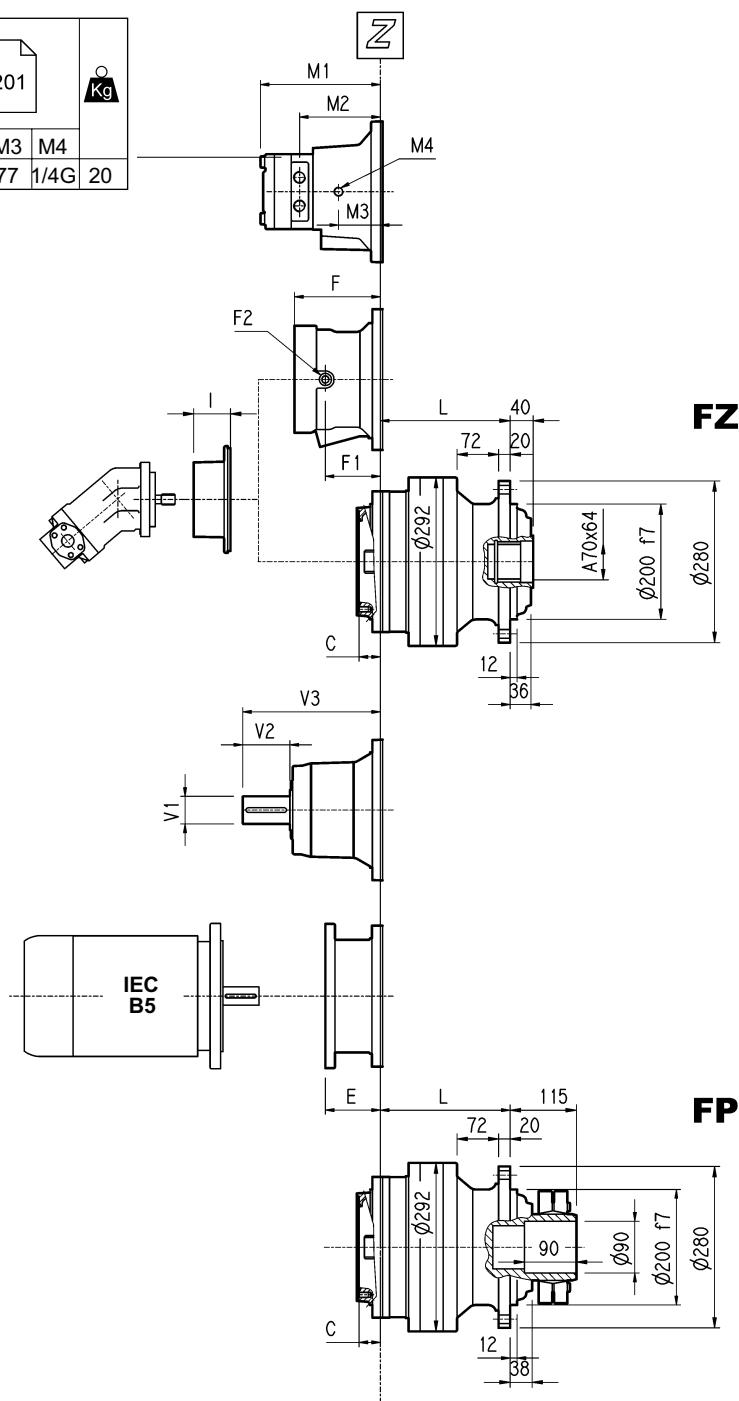
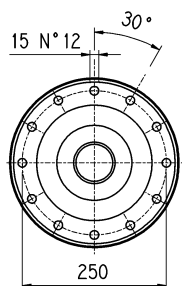
# 306L

		Motore idraulico / Hydraulic motor Hydraulikmotor/Moteur hydraulique										201	Kg
		MG											
cm <sup>3</sup>		50	80	100	125	160	200	250	M2	M3	M4		
		M1	M1	M1	M1	M1	M1	M1	M2	M3	M4		
306L2	-	184	188	192	199	206	215	135	77	1/4G	20		



# 306L

		Motore idraulico / Hydraulic motor Hydraulikmotor/Moteur hydraulique							201			Kg
		MG										
cm <sup>3</sup>	50	80	100	125	160	200	250	M2	M3	M4		
	M1	M1	M1	M1	M1	M1	M1	M2	M3	M4		
306L2	-	184	188	192	199	206	215	135	77	1/4G	20	



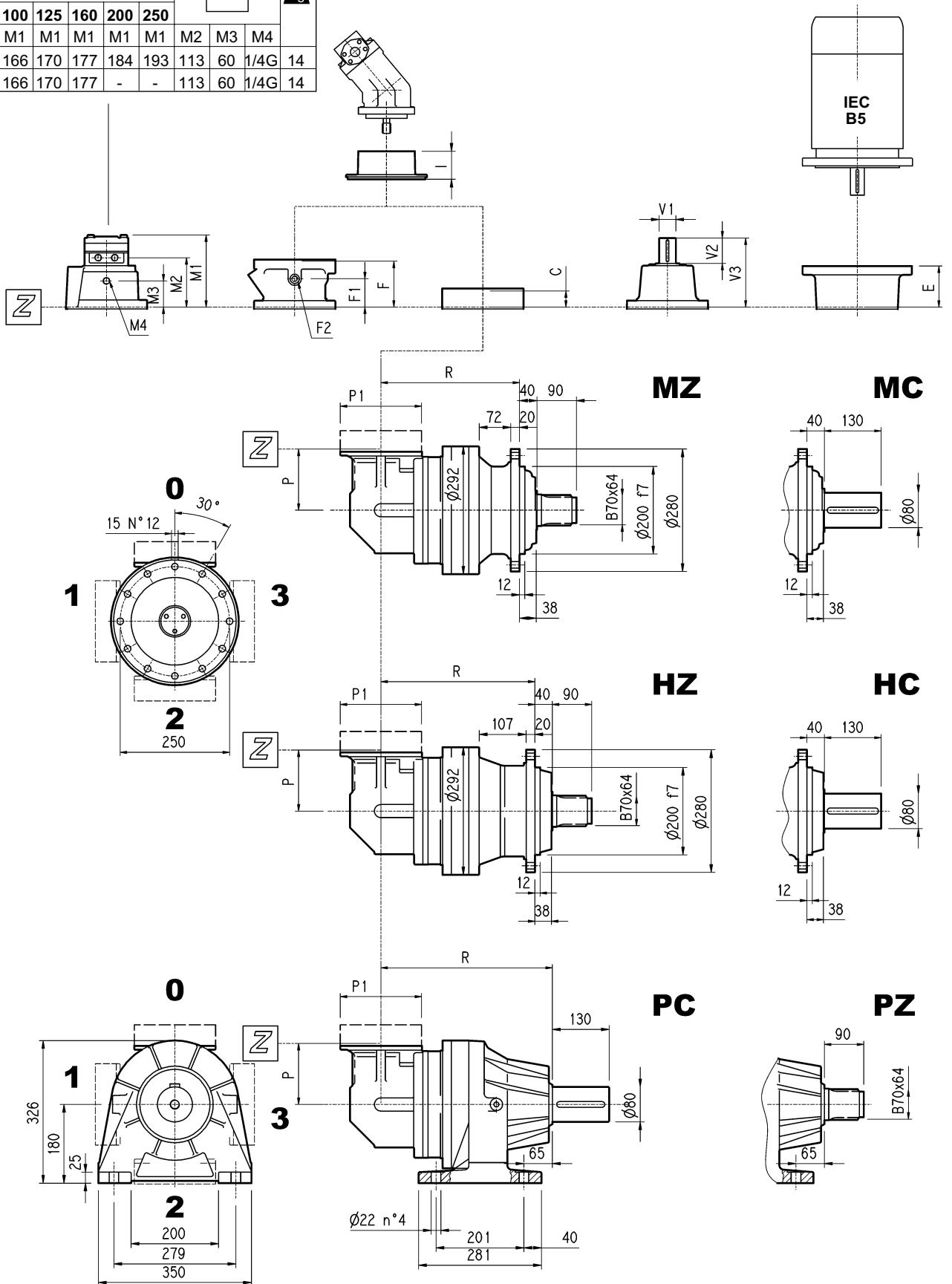
VERSIONE FP	COPPIA MAX. TRASMISSIBILE	12 000 Nm
FP VERSION	MAX. TRANSMISSIBLE TORQUE	
VERSION FP	MAX. ÜBERTR. MOMENT	
VERSION FP	COUPLE MAX. TRANSMISSIBLE	

	L				Kg				C	Entrata Input Antrieb Entrée	I	F	F1	F2	Tipo Type Typ Type	Entrata Input Antrieb Entrée	Kg
	MZ	MC	FZ	FP	HZ	HC	PC	PZ									
306 L1	160	160	195	235	65	65	70	80	45	B	195	147	1/4 G	6	B	28	
306 L2	225	225	260	300	74	74	79	89	37	A	145	95	1/4 G	5	A	16	
306 L3	278	278	313	353	78	78	83	93	37	A	105	65	1/4 G	4	A	10	
306 L4	331	331	366	406	82	82	87	97	37	A	191	105	65	1/4 G	4	A	10

	V1	V2	V3	Kg	V1	V2	V3	Kg	E										
									IEC 71	IEC 80	IEC 90	IEC 100	IEC 112	IEC 132	IEC 160	IEC 180	IEC 200	IEC 225	IEC 250
306 L1	60	105	307	23											152	152	182	212	193
306 L2	48	82	239	15										114	144	144	174		
306 L3	24	36	137.5	6	38	58	158	7	65	84	84	94	94	114	144				
306 L4	24	36	137.5	6	38	58	158	7	65	84	84	94	94	114	144				

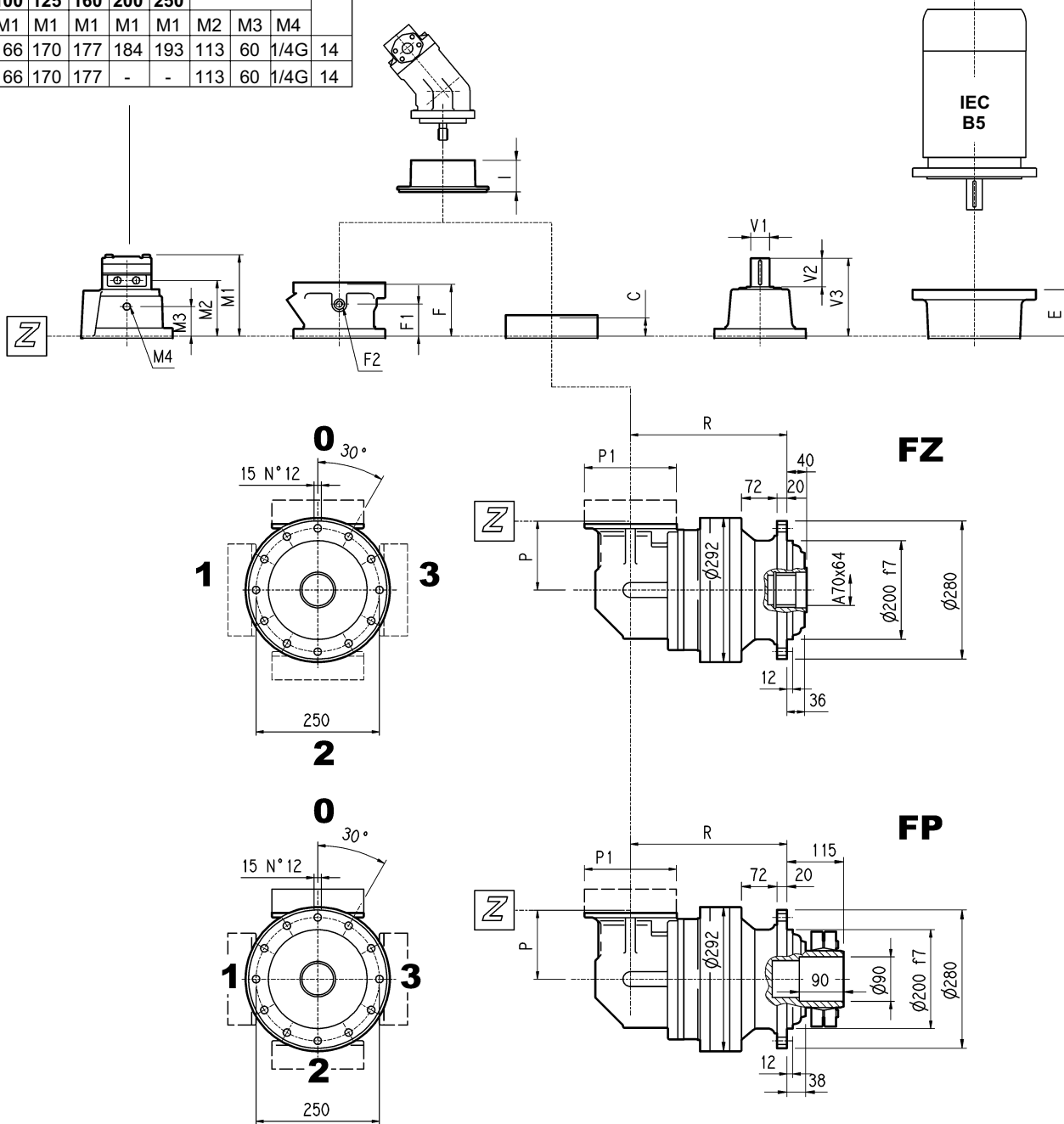
# 306R

		Motore idraulico / Hydraulic motor Hydraulikmotor/Moteur hydraulique						201			Kg
cm <sup>3</sup>		MG						M2	M3	M4	
50	80	100	125	160	200	250					
M1	M1	M1	M1	M1	M1	M1	M2	M3	M4		
306R2	-	162	166	170	177	184	193	60	1/4G	14	
306R3	156	162	166	170	177	-	-	113	60	1/4G	14



# 306R

		Motore idraulico / Hydraulic motor Hydraulikmotor/Moteur hydraulique							201			Kg
		MG										
cm <sup>3</sup>	50	80	100	125	160	200	250	M2	M3	M4		
	M1	M1	M1	M1	M1	M1	M1	M2	M3	M4		
306R2	-	162	166	170	177	184	193	113	60	1/4G	14	
306R3	156	162	166	170	177	-	-	113	60	1/4G	14	



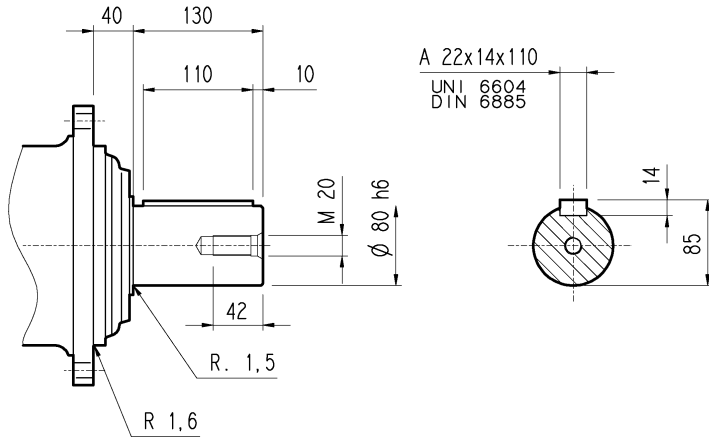
VERSIONE FP	COPPIA MAX. TRASMISSIBILE	12 000 Nm
FP VERSION	MAX. TRANSMISSIBLE TORQUE	
VERSION FP	MAX. ÜBERTR. MOMENT	
VERSION FP	COUPLE MAX. TRANSMISSIBLE	

	R				P	P1	Kg				C	Entrata Input Antrieb Entrée	I	F	F1	F2	Tipo Type Typ Type	Entrata Input Antrieb Entrée	Kg
	MZ MC	FZ FP	HZ HC	PC PZ			MZ MC	FZ FP	HZ HC	PC PZ									
306 R2	297	297	332	372	140	186	89	89	94	104	37	A	105	65	1/4 G	4	A	10	
306 R3	317	317	352	392	140	186	85	85	90	100	37	A	105	65	1/4 G	4	A	10	
306 R4	370	370	405	445	122	186	79	79	84	94	37	A	105	65	1/4 G	4	A	10	

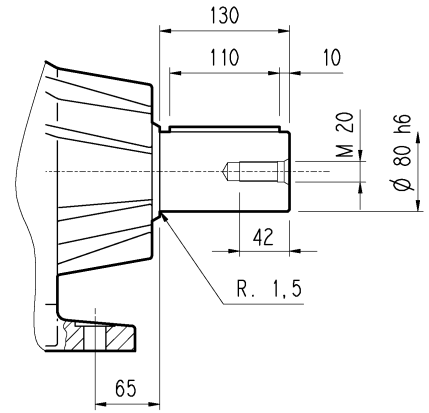
	V1	V2	V3	Kg	V1	V2	V3	Kg	E						
									IEC 71	IEC 80	IEC 90	IEC 100	IEC 112	IEC 132	IEC 160
306 R2	24	36	137.5	6	38	58	158	7	65	84	84	94	94	114	144
306 R3	24	36	137.5	6	38	58	158	7	65	84	84	94	94	114	144
306 R4	24	36	137.5	6	38	58	158	7	65	84	84	94	94	114	144

# 306L - 306R

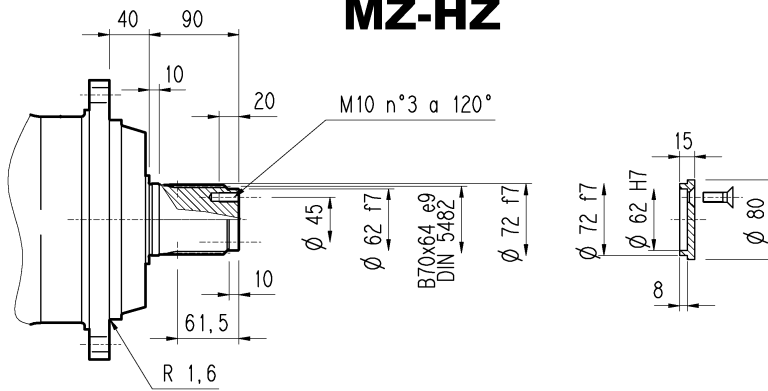
## MC-HC



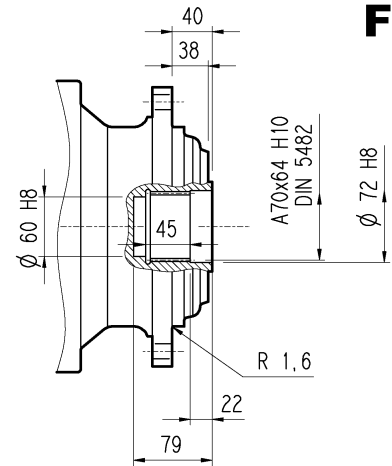
## PC



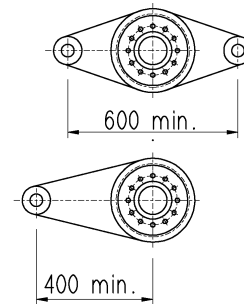
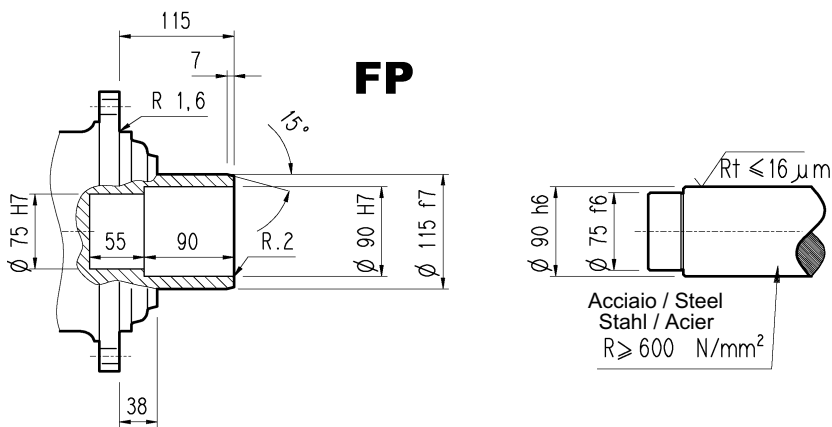
## MZ-HZ



## FZ



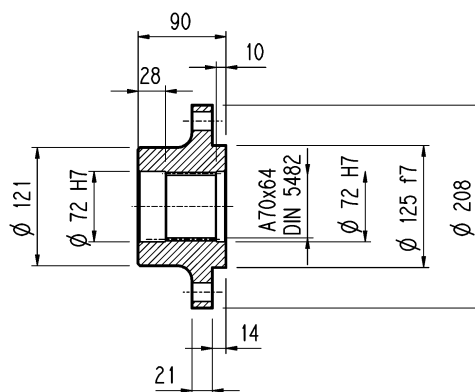
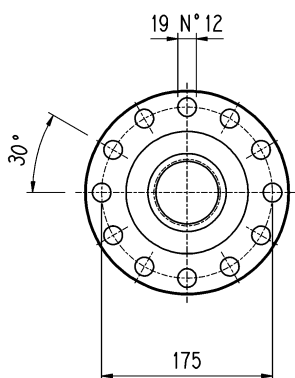
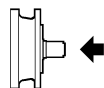
## FP



VERSIONE FP	COPPIA MAX. TRASMISSIBILE	<b>12 000 Nm</b>
FP VERSION	MAX. TRANSMISSIBLE TORQUE	
VERSION FP	MAX. ÜBERTR. MOMENT	
VERSION FP	COUPLE MAX. TRANSMISSIBLE	

Flangia / Flange  
Flansch / Brides

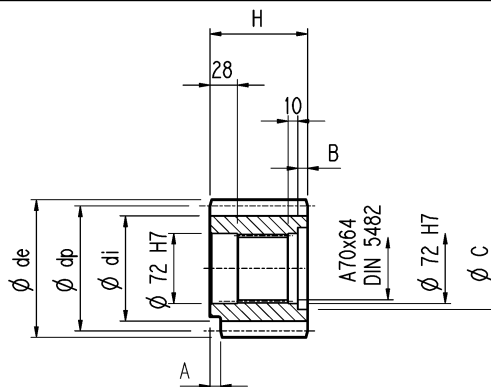
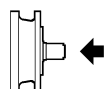
306L - 306R



WOA

Materiale : Acciaio C40  
Material : Steel C40  
Material : Stahl C40  
Màterial : Acier C40

Pignoni per rotazione / Output pinions  
Ritzel / Pignons

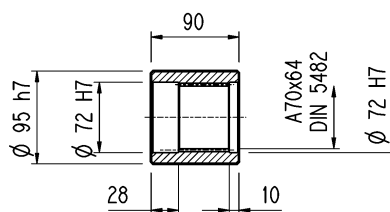
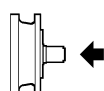


P...

Codice Code	m	z	x	dp	di	de	H	A	B	C	★
PFF1	8	15	0	120	100	134	90	0	0	0	■
PFF2	8	15	0.500	120	108	141	90	0	0	0	■
PHB	10	11	0.500	110	95	136	90	10	0	0	■
PHC1	10	12	0.450	120	104	145	90	0	0	0	■
PHC2	10	12	0.320	120	100	144.2	90	0	0	0	■
PHC3	10	12	0.350	120	101	144	90	0	0	0	■
PHD1	10	13	0.950	130	124	165	90	0	0	0	■
PHD2	10	13	0.500	130	115	159	90	0	0	0	■
PHE1	10	14	0	140	115	160	90	0	0	0	■
PHE2	10	14	0.500	140	125	166	90	0	0	0	□
PHF	10	15	0	150	127	167	90	24	0	0	■
PHH	10	17	0.480	170	154	197.5	90	10	0	0	■
PHM	10	20	0	200	175	220	90	10	0	0	□

★	Materiale/Material/Material/Màterial
■	Acciaio 39NiCrMo3 Bonificato Steel 39NiCrMo3 hardened and tempered Vergüteter Stahl 39NiCrMo3 Acier bonifié 39NiCrMo3
□	Acciaio 18NiCrMo5 Cementato e temprato Steel 18NiCrMo5 Case hardened Einsatzstahl 18NiCrMo5 Einsatzgehärtet Acier cementé et tempré 18NiCrMo5

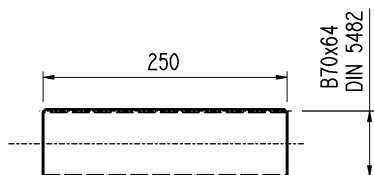
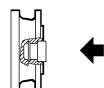
Manicotti lisci / Sleeve couplings  
Naben / Manchons lisses a cannelure interieure



MOA

Materiale : Acciaio 16CrNi4  
Material : Steel 16CrNi4  
Material : Stahl 16CrNi4  
Màterial : Acier 16CrNi4

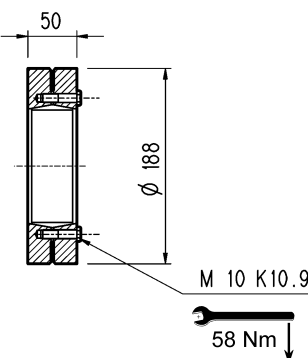
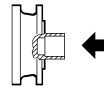
Barre scanalate / Splined bars  
Vielkeilwellen / Barre cannelée



B0A

Mat. acciaio 18NiCrMo5 UNI 5331 da cementare e temprare 50-55 HRC  
Case hardening steel 18NiCrMo5 UNI 5331  
must be case hardened 50-55 HRC  
Material: Einsatzstahl 18NiCrMo5 UNI 5331  
muss einsatzgehärtet werden 50-55 HRC  
Acier 18 NiCrMo5 UNI 5331 doit être cémenté trempé 50-55 HRC

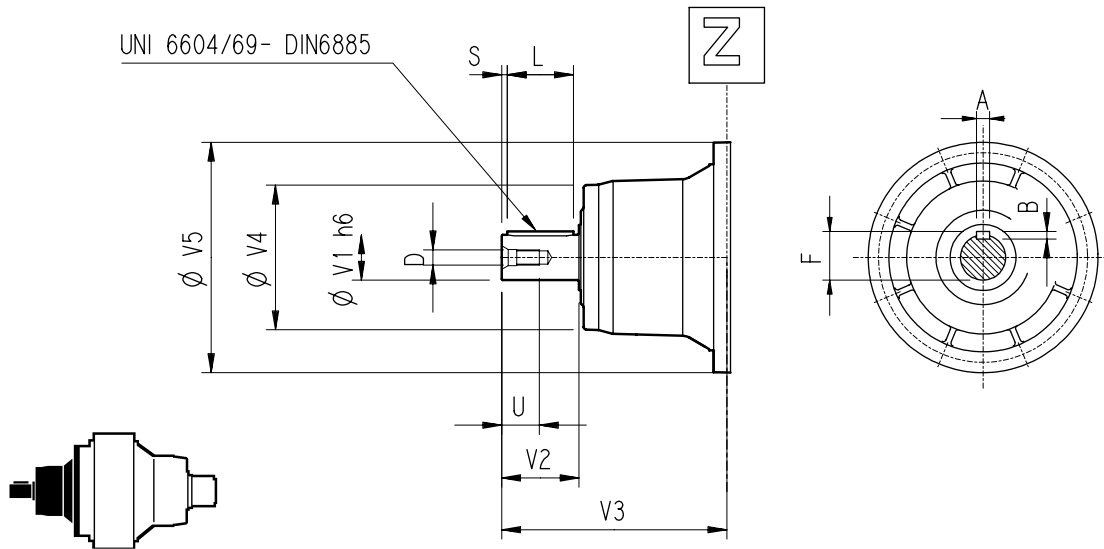
Giunto ad attrito / Shrink disc  
Schrumpfscheibe / Frette de serrage



G0A

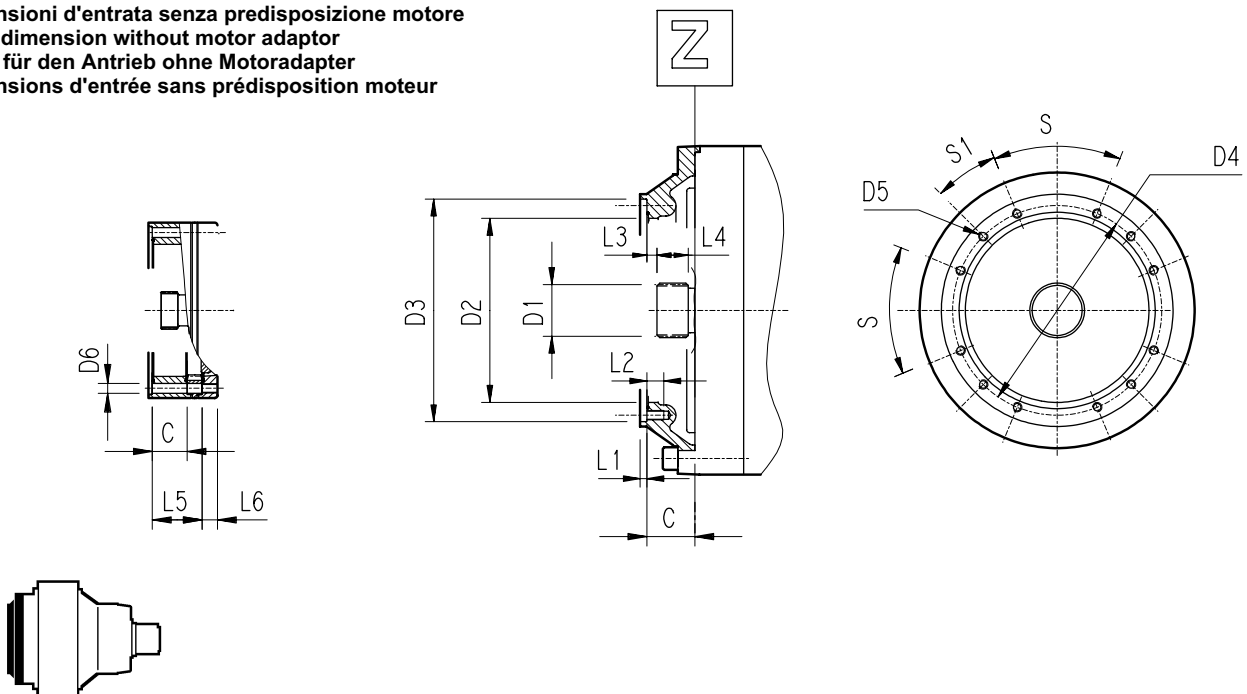
# 306L - 306R

Alberi veloci / Input shaft  
Antriebswellen / Arbres d'entrée



	CODE	V1	V2	V3	V4	V5	A	B	F	L	S	D	U
<b>306 L1</b>	V06B	60	105	307	155	292	18	11	64	90	7.5	M16	36
<b>306 L2</b>	V05B	48	82	239	155	245	14	9	51.5	70	6	M16	36
<b>306 L3</b>	V01A	24	36	137.5	120	186	8	7	27	30	3	M8	19
	V01B	38	58	158	120	186	10	8	41	50	4	M12	28
<b>306 L4</b>	V01A	24	36	137.5	120	186	8	7	27	30	3	M8	19
	V01B	38	58	158	120	186	10	8	41	50	4	M12	28
<b>306 R2-R3-R4</b>	V01A	24	36	137.5	120	186	8	7	27	30	3	M8	19
	V01B	38	58	158	120	186	10	8	41	50	4	M12	28

Dimensioni d'entrata senza predisposizione motore  
Input dimension without motor adaptor  
Maße für den Antrieb ohne Motoradapter  
Dimensions d'entrée sans prédisposition moteur



	C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Entrata Input Antrieb Entrée
<b>306 L1</b>	45	58x53 DIN5482	195	236 H7	222	M10 n°12	/	4	18	11	22	/	/	45°	22.5°	B
<b>306 L2</b>	37	40x36 DIN5482	140	178 H7	165	M10 n°8	0	4	18	9	18	0	0	45°	45°	A
<b>306 L3</b>	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	/	9	18	53	18	45°	45°	A
<b>306 L4</b>	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	/	9	18	106	18	45°	45°	A
<b>306 R2-R3-R4</b>	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	/	9	18	37	18	45°	45°	A



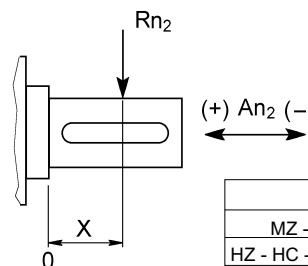
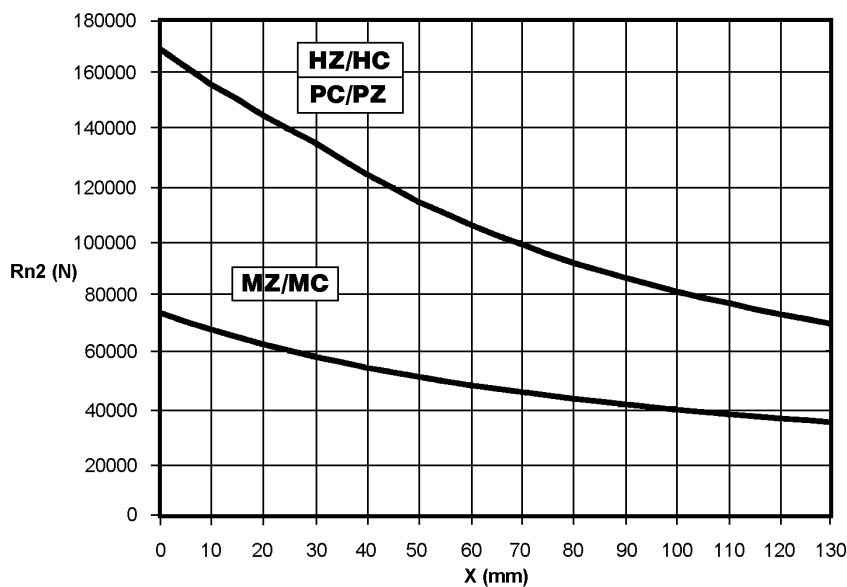
# 306L - 306R

Carichi radiali ed assiali ammessi sull'albero lento per un valore di  $Fh_2 : n_2 \cdot h = 10\ 000$

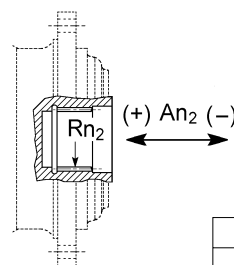
Permissible radial and axial loads on output shaft with  $Fh_2 : n_2 \cdot h = 10\ 000$

An der Ausgangswelle zulässige Radiallasten und Axialkräfte für einen Wert von  $Fh_2 : n_2 \cdot h = 10\ 000$

Charges radiales et axiales admises sur l'arbre lent pour une valeur de  $Fh_2 : n_2 \cdot h = 10\ 000$



	An <sub>2</sub> (+)	An <sub>2</sub> (-)
MZ - MC	70 000	44 000
HZ - HC - PC - PZ	120 000	60 000



	Rn <sub>2</sub>	An <sub>2</sub> (+/-)
FZ	35 000	35 000

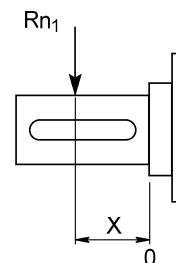
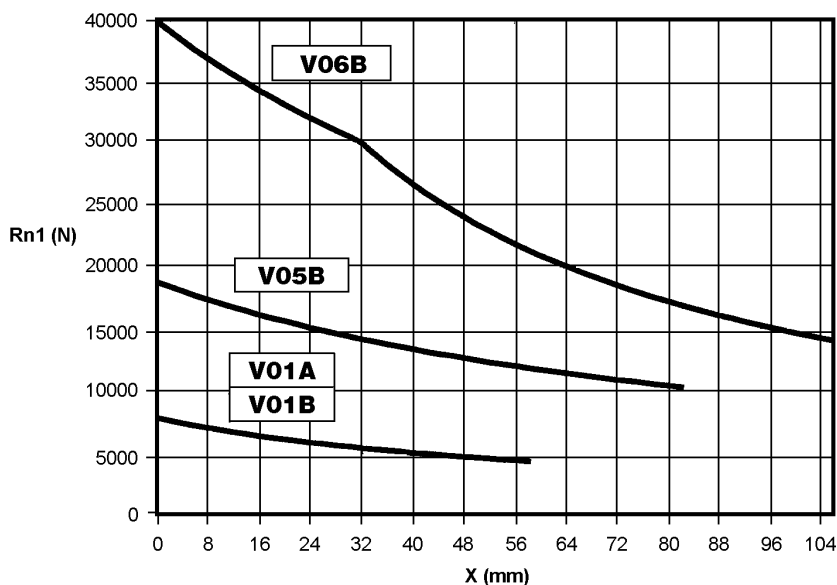
Fattore $f_{h_2}$ correttivo per carichi sugli alberi Load corrective factor $f_{h_2}$ on shafts Korrektionsfaktor $f_{h_2}$ für wellenbelastungen Facteur de correction $f_{h_2}$ pour charges sur les arbres	$Fh_2 = n_2 \cdot h$						
	$f_{h_2}$	10 000	25 000	50 000	100 000	500 000	1 000 000
	MZ - MC - FZ	1	0.74	0.58	0.46	0.27	0.21
	HZ - HC - PC - PZ	1	0.76	0.61	0.50	0.31	0.25

Carichi radiali ammissibili sull'albero veloce per un valore di  $Fh_1 : n_1 \cdot h = 250\ 000$

Permissible radial loads on input shaft with  $Fh_1 : n_1 \cdot h = 250\ 000$

An der Antriebswelle zulässige Radiallasten für einen Wert von  $Fh_1 : n_1 \cdot h = 250\ 000$



Charges radiales admises sur l'arbre d'entrée pour une valeur de  $Fh_1 : n_1 \cdot h = 250\ 000$



Fattore $f_{h_1}$ correttivo per carichi sugli alberi Load corrective factor $f_{h_1}$ on shafts Korrektionsfaktor $f_{h_1}$ für wellenbelastungen Facteur de correction $f_{h_1}$ pour charges sur les arbres	$Fh_1 = n_1 \cdot h$						
	$f_{h_1}$	250 000	500 000	1 000 000	2 000 000	5 000 000	10 000 000
		1	0.79	0.63	0.50	0.37	0.29

# 307L



# M<sub>2</sub> = 12500 Nm

	i	M <sub>n2</sub> [Nm]						P <sub>1</sub>	P <sub>t</sub>	n <sub>1</sub>	n <sub>1max</sub>	M <sub>b</sub>	
		n <sub>2</sub> ·h	n <sub>2</sub> ·h	n <sub>2</sub> ·h	n <sub>2</sub> ·h	n <sub>2</sub> ·h	n <sub>2</sub> ·h						
<b>L1</b>	3.43	9 000	9 000	9 000	9 000	8 000	6 500	100	22	1 500	2 500	3 200	6L
	4.09	15 000	13 800	12 900	12 500	7 900	6 400	100	22	1 500	2 500	3 200	6L
	5.25	14 000	12 000	10 700	10 500	7 700	6 200	100	22	1 500	2 500	3 200	6L
	6.23	11 000	9 600	8 700	8 700	7 700	6 200	100	22	1 500	2 500	2 100	6G
<b>L2</b>	12.3	9 000	9 000	9 000	9 000	8 000	6 500	60	18	1 800	3 800	1 000	5K
	14.7	15 000	13 800	12 900	12 500	7 900	6 400	60	18	1 800	3 800	800	5G
	17.4	15 000	13 800	12 900	12 500	7 900	6 400	60	18	1 800	3 800	1 000	5K
	21.8	15 000	13 800	12 900	12 500	7 900	6 400	60	18	1 800	3 800	800	5G
	25.4	14 500	13 800	12 900	12 500	7 900	6 400	60	18	1 800	3 800	630	5E
	28.0	14 000	12 000	10 700	10 500	7 700	6 200	60	18	1 800	3 800	500	5C
	30.7	12 300	12 300	12 300	12 300	7 800	6 300	60	18	1 800	3 800	500	5C
	32.6	14 000	12 000	10 700	10 500	7 700	6 200	56	18	1 800	3 800	500	5C
	38.6	11 000	9 600	8 700	8 700	7 700	6 200	39	18	1 800	3 800	400	5B
	46.7	11 000	9 600	8 700	8 700	7 700	6 200	33	18	1 800	3 800	400	5B
<b>L3</b>	51.3	15 000	13 800	12 900	12 500	7 900	6 400	30	11	2 000	4 000	330	4H
	60.5	15 000	13 800	12 900	12 500	7 900	6 400	30	11	2 000	4 000	330	4H
	74.1	15 000	13 800	12 900	12 500	7 900	6 400	30	11	2 000	4 000	260	4F
	80.6	14 000	12 000	10 700	10 500	7 700	6 200	27	11	2 000	4 000	260	4F
	93.0	15 000	13 800	12 900	12 500	7 900	6 400	26	11	2 000	4 000	260	4F
	100	15 000	13 800	12 900	12 500	7 900	6 400	25	11	2 000	4 000	260	4F
	113	14 000	12 000	10 700	10 500	7 700	6 200	20	11	2 000	4 000	160	4D
	126	15 000	13 800	12 900	12 500	7 900	6 400	20	11	2 000	4 000	160	4D
	139	14 000	12 000	10 700	10 500	7 700	6 200	17.1	11	2 000	4 000	160	4D
	153	11 000	9 600	8 700	8 700	7 700	6 200	12.3	11	2 000	4 000	160	4D
	162	14 000	12 000	10 700	10 500	7 700	6 200	15.1	11	2 000	4 000	100	4B
	177	12 300	12 300	12 300	12 300	7 800	6 300	12.0	11	2 000	4 000	100	4B
	202	14 000	12 000	10 700	10 500	7 700	6 200	11.9	11	2 000	4 000	100	4B
	223	11 000	9 600	8 700	8 700	7 700	6 200	9.0	11	2 000	4 000	100	4B
	239	11 000	9 600	8 700	8 700	7 700	6 200	8.5	11	2 000	4 000	50	4A
	284	14 000	12 000	10 700	10 500	7 700	6 200	9.3	11	2 000	4 000	50	4A
336	11 000	9 600	8 700	8 700	7 700	6 200	6.4	11	2 000	4 000	50	4A	
<b>L4</b>	349	15 000	13 800	12 900	12 500	7 900	6 400	12.9	7.5	2 000	4 000	50	4A
	406	14 000	12 000	10 700	10 500	7 700	6 200	10.2	7.5	2 000	4 000	50	4A
	465	14 000	12 000	10 700	10 500	7 700	6 200	9.7	7.5	2 000	4 000	50	4A
	509	15 000	13 800	12 900	12 500	7 900	6 400	8.4	7.5	2 000	4 000	50	4A
	579	15 000	13 800	12 900	12 500	7 900	6 400	7.8	7.5	2 000	4 000	50	4A
	654	14 000	12 000	10 700	10 500	7 700	6 200	6.9	7.5	2 000	4 000	50	4A
	722	15 000	13 800	12 900	12 500	7 900	6 400	6.2	7.5	2 000	4 000	50	4A
	801	14 000	12 000	10 700	10 500	7 700	6 200	5.6	7.5	2 000	4 000	50	4A
	906	15 000	13 800	12 900	12 500	7 900	6 400	5.0	7.5	2 000	4 000	50	4A
	999	14 000	12 000	10 700	10 500	7 700	6 200	4.5	7.5	2 000	4 000	50	4A
	1 149	11 000	9 600	8 700	8 700	7 700	6 200	3.6	7.5	2 000	4 000	50	4A
	1 274	12 300	12 300	12 300	12 300	7 800	6 300	3.5	7.5	2 000	4 000	50	4A
	1 380	11 000	9 600	8 700	8 700	7 700	6 200	3.1	7.5	2 000	4 000	50	4A
	1 605	11 000	9 600	8 700	8 700	7 700	6 200	2.7	7.5	2 000	4 000	50	4A
	1 723	11 000	9 600	8 700	8 700	7 700	6 200	2.5	7.5	2 000	4 000	50	4A
2 041	14 000	12 000	10 700	10 500	7 700	6 200	2.2	7.5	2 000	4 000	50	4A	
2 423	11 000	9 600	8 700	8 700	7 700	6 200	1.9	7.5	2 000	4 000			

$$M_{2max} = 1.2 \cdot M_{n2} \quad (n_2 \cdot h = 10\,000)$$

# M<sub>2</sub> = 12500 Nm

# 307R

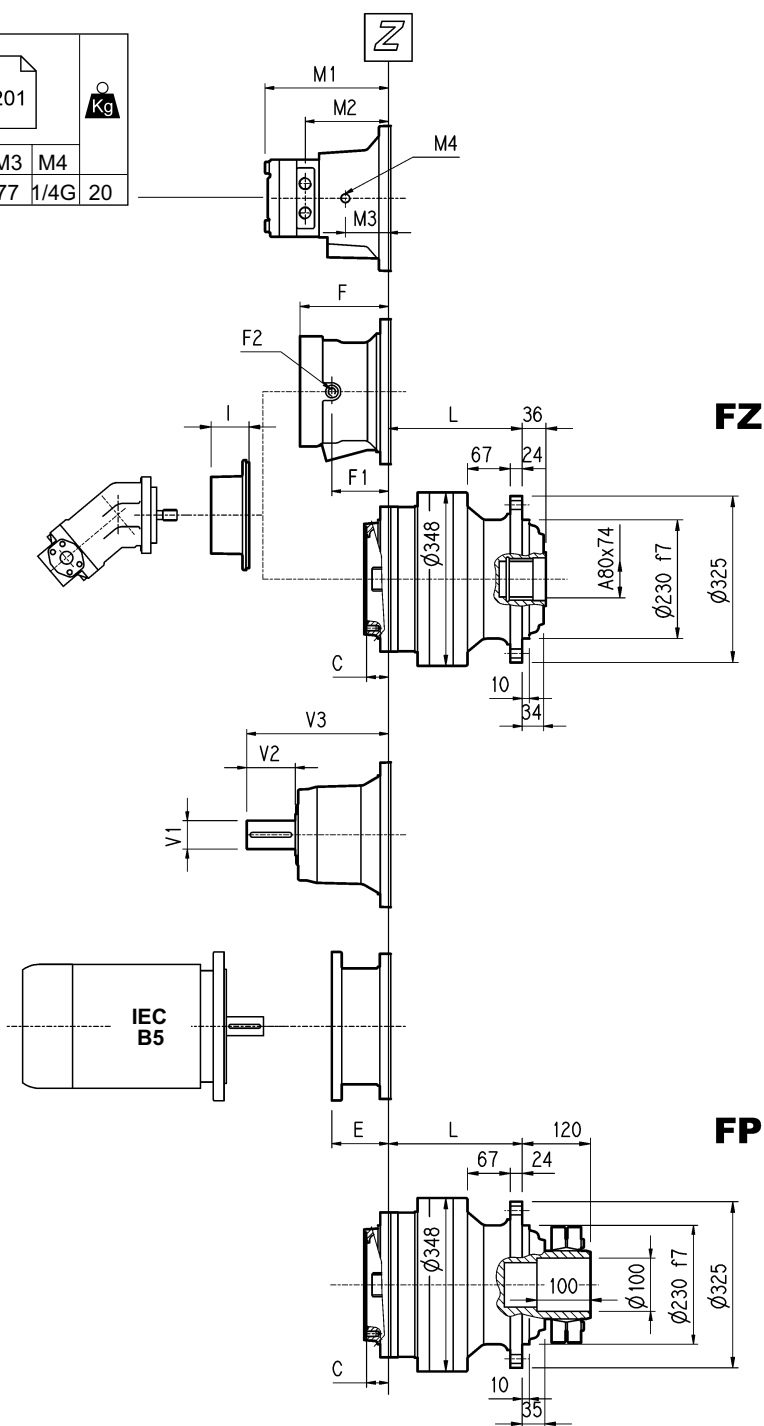
	i	M <sub>n2</sub> [Nm]						P <sub>1</sub> [kW]	P <sub>t</sub> [kW]	n <sub>1</sub> [min <sup>-1</sup> ]	n <sub>1max</sub> [min <sup>-1</sup> ]	M <sub>b</sub> [Nm]	
		n <sub>2</sub> ·h	n <sub>2</sub> ·h	n <sub>2</sub> ·h	n <sub>2</sub> ·h	n <sub>2</sub> ·h	n <sub>2</sub> ·h						
		1:	10 000	25 000	50 000	100 000	500 000						
<b>R2</b>	13.0	9 000	8 500	7 600	6 800	5 300	4 250	85	35	1 800	3 800	1 000	5K
	15.5	11 400	9 800	8 800	7 900	5 900	4 850	85	35	1 800	3 800	1 000	5K
	19.8	14 000	12 000	10 700	9 700	7 100	5 700	85	35	1 800	3 800	800	5G
	23.5	11 000	9 600	8 700	8 700	7 700	6 200	62	35	1 800	3 800	500	5C
<b>R3</b>	31.6	9 000	9 000	9 000	7 400	4 550	3 700	35	20	2 000	4 000	400	4K
	37.7	14 800	12 600	10 300	8 300	5 100	4 150	35	20	2 000	4 000	440	4L
	44.6	15 000	13 800	11 500	9 400	5 800	4 700	35	20	2 000	4 000	400	4K
	55.9	15 000	13 800	12 900	11 000	6 800	5 500	35	20	2 000	4 000	330	4H
	65.0	14 500	13 800	12 900	12 200	7 500	6 100	35	20	2 000	4 000	260	4F
	71.8	14 000	12 000	10 700	10 500	7 700	6 200	30	20	2 000	4 000	260	4F
	78.6	12 300	12 300	12 300	12 300	7 800	6 300	27	20	2 000	4 000	260	4F
	83.4	14 000	12 000	10 700	10 500	7 700	6 200	26	20	2 000	4 000	260	4F
	99.0	11 000	9 600	8 700	8 700	7 700	6 200	17.9	20	2 000	4 000	160	4D
	120	11 000	9 600	8 700	8 700	7 700	6 200	15.3	20	2 000	4 000	160	4D
<b>R4</b>	152	15 000	13 800	12 900	12 500	7 900	6 400	15.0	14	2 000	4 000	100	4B
	165	14 000	12 000	10 700	10 500	7 700	6 200	15.0	14	2 000	4 000	100	4B
	191	15 000	13 800	12 900	12 500	7 900	6 400	15.0	14	2 000	4 000	100	4B
	206	15 000	13 800	12 900	12 500	7 900	6 400	15.0	14	2 000	4 000	100	4B
	232	14 000	12 000	10 700	10 500	7 700	6 200	15.0	14	2 000	4 000	100	4B
	258	15 000	13 800	12 900	12 500	7 900	6 400	15.0	14	2 000	4 000	100	4B
	284	14 000	12 000	10 700	10 500	7 700	6 200	14.9	14	2 000	4 000	100	4B
	313	11 000	9 600	8 700	8 700	7 700	6 200	10.8	14	2 000	4 000	50	4A
	331	14 000	12 000	10 700	10 500	7 700	6 200	13.1	14	2 000	4 000	50	4A
	344	14 000	12 000	10 700	10 500	7 700	6 200	12.7	14	2 000	4 000	50	4A
	363	12 300	12 300	12 300	12 300	7 800	6 300	10.4	14	2 000	4 000	50	4A
	413	14 000	12 000	10 700	10 500	7 700	6 200	10.9	14	2 000	4 000	50	4A
	457	11 000	9 600	8 700	8 700	7 700	6 200	7.8	14	2 000	4 000	50	4A
	490	11 000	9 600	8 700	8 700	7 700	6 200	7.4	14	2 000	4 000	50	4A
581	14 000	12 000	10 700	10 500	7 700	6 200	7.8	14	2 000	4 000	50	4A	
690	11 000	9 600	8 700	8 700	7 700	6 200	7.4	14	2 000	4 000	50	4A	

$$M_{2max} = 1.2 \cdot M_{n2} \quad (n_2 \cdot h = 10\,000)$$



# 307L

Motore idraulico / Hydraulic motor Hydraulikmotor/Moteur hydraulique											201	
MG												
cm <sup>3</sup>	50	80	100	125	160	200	250	M2	M3	M4		
	M1	M1	M1	M1	M1	M1	M1	M2	M3	M4		
307L2	-	-	188	192	199	206	215	135	77	1/4G	20	



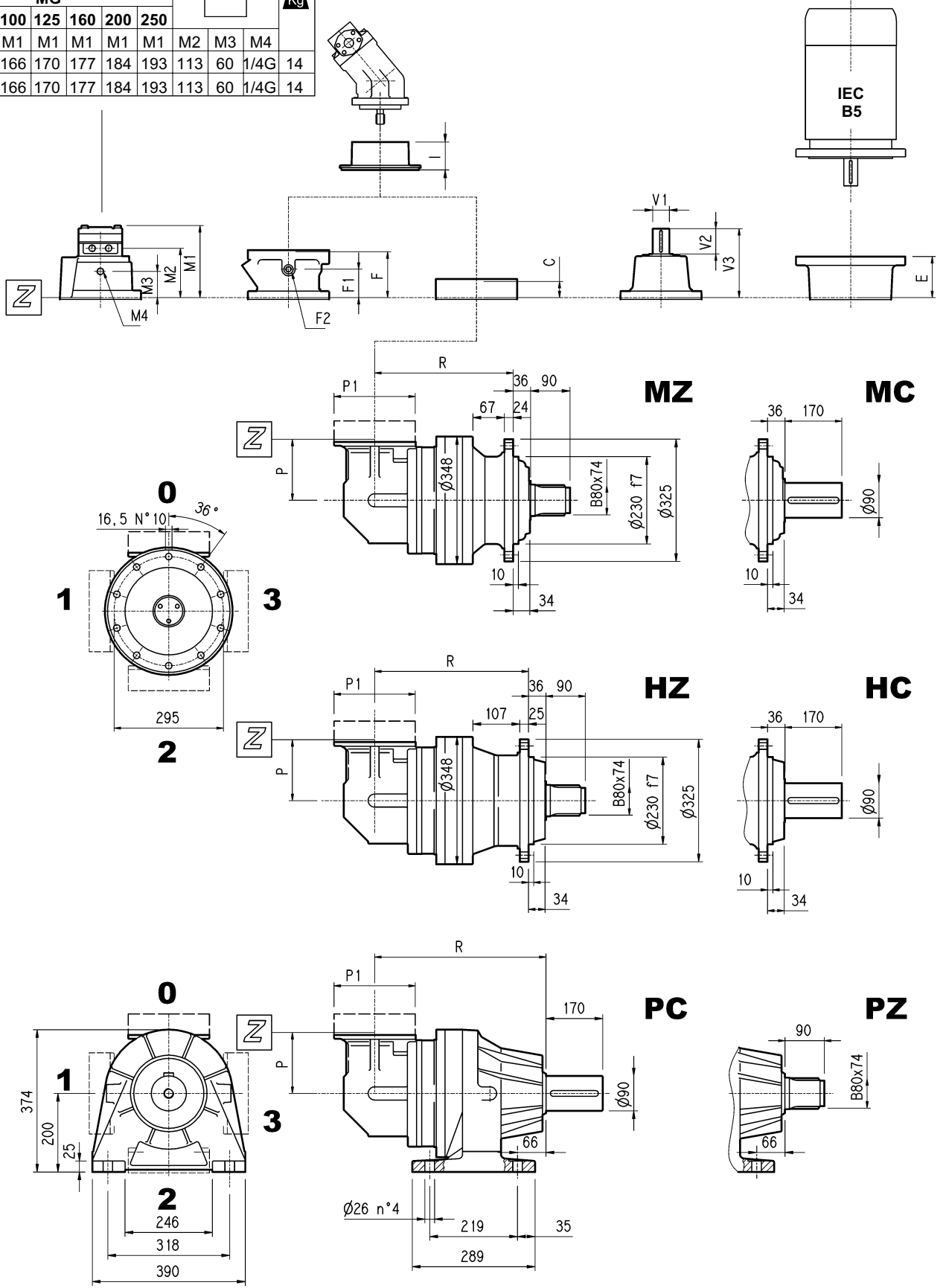
VERSIONE FP FP VERSION VERSION FP VERSION FP	COPPIA MAX. TRASMISSIBILE MAX. TRANSMISSIBLE TORQUE MAX. ÜBERTR. MOMENT COUPLE MAX. TRANSMISSIBLE	<b>18 000 Nm</b>
---	---	------------------

	L								C	Entrata Input Antrieb Entrée	I	F	F1	F2	Tipo Type Typ Type	Entrata Input Antrieb Entrée	
	MZ MC	FZ FP	HZ HC	PC PZ	MZ MC	FZ FP	HZ HC	PC PZ									
307 L1	165	165	210	246	95	85	105	120	51	B		201	153	1/4 G	6	B	28
307 L2	254	254	299	335	107	97	117	132	37	A		145	95	1/4 G	5	A	16
307 L3	319	319	364	400	114	104	124	139	37	A		105	65	1/4 G	4	A	10
307 L4	372	372	417	453	118	108	128	143	37	A		191	105	65	1/4 G	4	A

	V1	V2	V3		V1	V2	V3		E										
									IEC 71	IEC 80	IEC 90	IEC 100	IEC 112	IEC 132	IEC 160	IEC 180	IEC 200	IEC 225	IEC 250
307 L1	80	130	315	35	60	105	313	28								195	186	216	215
307 L2	48	82	239	15								114	144						
307 L3	24	36	137.5	6	38	58	158	7	65	84	84	94	94	114	144				
307 L4	24	36	137.5	6	38	58	158	7	65	84	84	94	94	114	144				

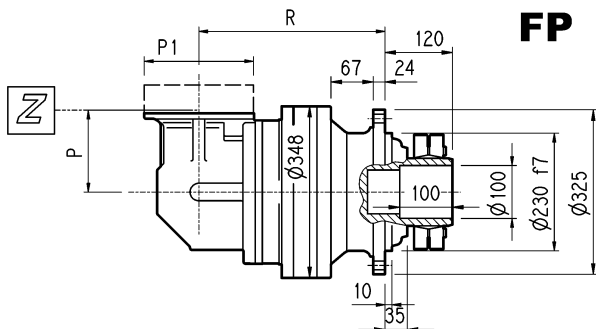
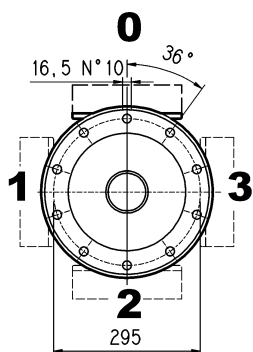
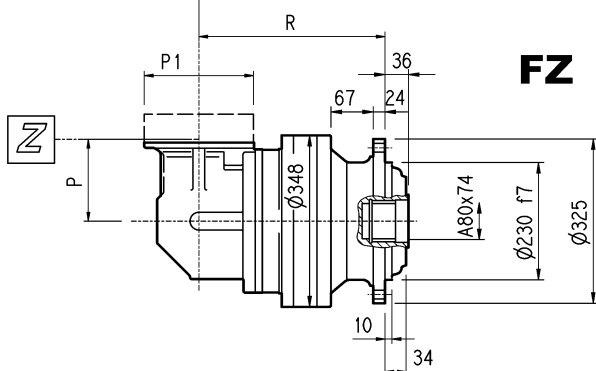
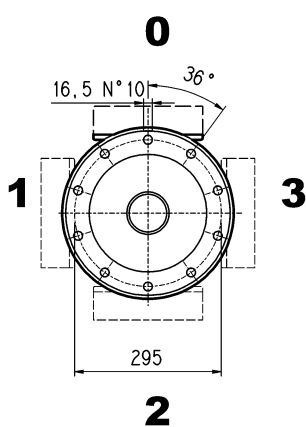
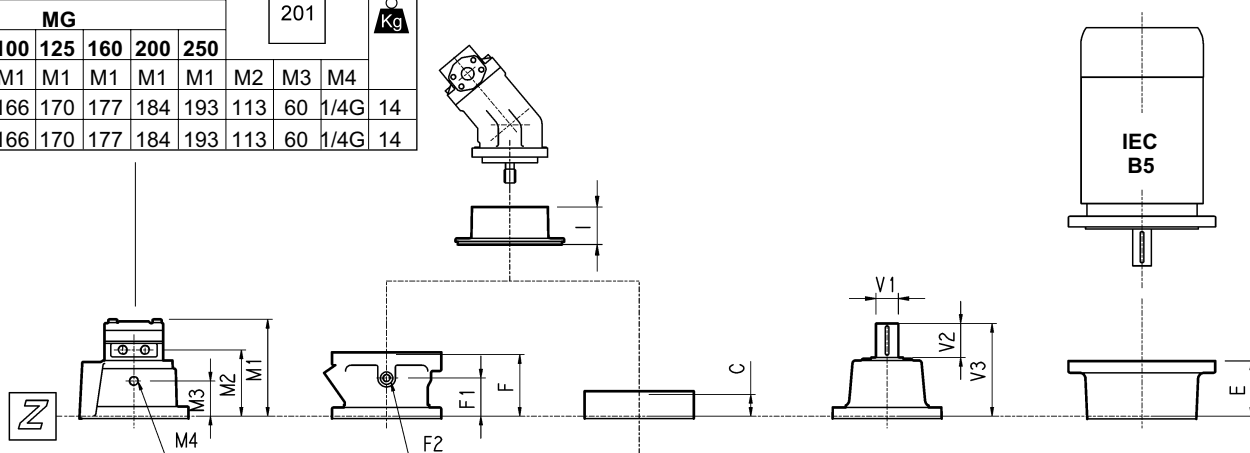
# 307R

cm <sup>3</sup>	Motore idraulico / Hydraulic motor Hydraulikmotor/Moteur hydraulique						201	Kg			
	MG										
	50	80	100	125	160	200			250		
	M1	M1	M1	M1	M1	M1	M2	M3	M4		
<b>307R2</b>	-	-	166	170	177	184	193	113	60	1/4G	14
<b>307R3</b>	-	162	166	170	177	184	193	113	60	1/4G	14



# 307R

		Motore idraulico / Hydraulic motor Hydraulikmotor/Moteur hydraulique						201			Kg
		MG									
cm <sup>3</sup>	50	80	100	125	160	200	250	M2	M3	M4	
	M1	M1	M1	M1	M1	M1	M1				
307R2	-	-	166	170	177	184	193	113	60	1/4G	14
307R3	-	162	166	170	177	184	193	113	60	1/4G	14



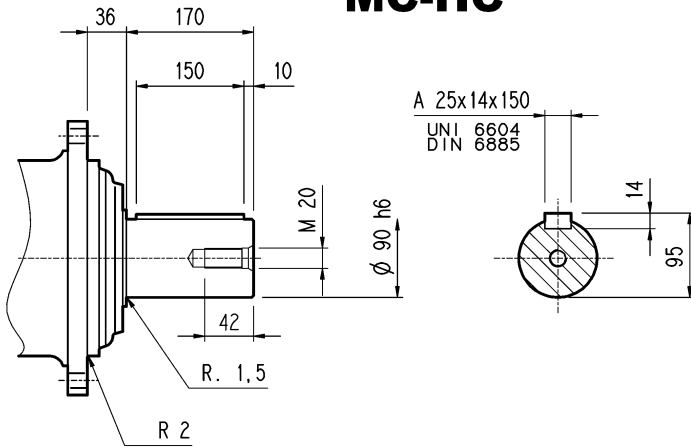
VERSIONE FP	COPPIA MAX. TRASMISSIBILE	18 000 Nm
FP VERSION	MAX. TRANSMISSIBLE TORQUE	
VERSION FP	MAX. ÜBERTR. MOMENT	
VERSION FP	COUPLE MAX. TRASMISSIBILE	

	R				P	P1	Kg				C	Entrata Input Antrieb Entrée	I	F	F1	F2	Tipo Type Typ Type	Entrata Input Antrieb Entrée	Kg
	MZ MC	FZ FP	HZ HC	PC PZ			MZ MC	FZ FP	HZ HC	PC PZ									
307 R2	284	284	329	365	225	245	145	135	155	170	37	A	145	95	1/4 G	5	A	16	
307 R3	346	346	391	427	140	186	127	117	137	152	37	A	105	65	1/4 G	4	A	10	
307 R4	411	411	456	492	122	186	128	118	138	153	37	A	105	65	1/4 G	4	A	10	

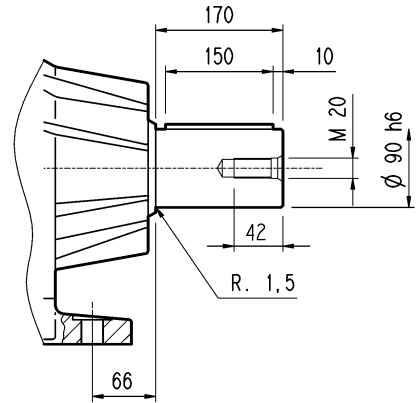
	V1	V2	V3	Kg	V1	V2	V3	Kg	E									
									IEC 71	IEC 80	IEC 90	IEC 100	IEC 112	IEC 132	IEC 160	IEC 180	IEC 200	
307 R2	48	82	239	15										114	144			
307 R3	24	36	137.5	6	38	58	158	7	65	84	84	94	94	114	144			
307 R4	24	36	137.5	6	38	58	158	7	65	84	84	94	94	114	144			

# 307L - 307R

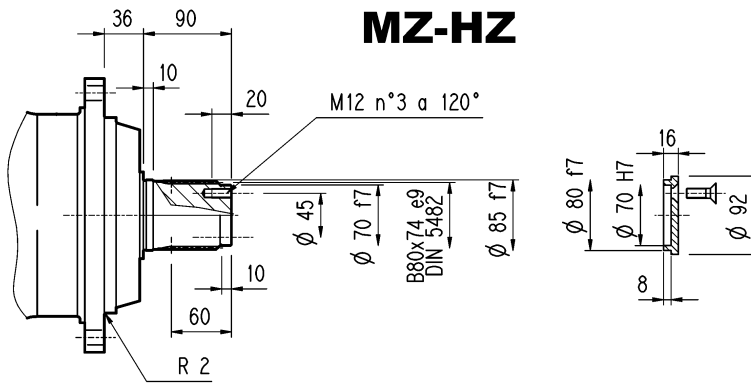
## MC-HC



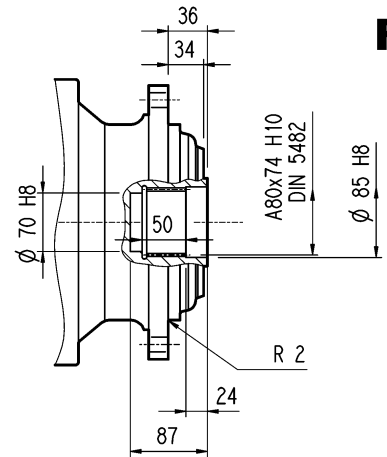
## PC



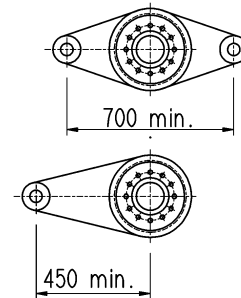
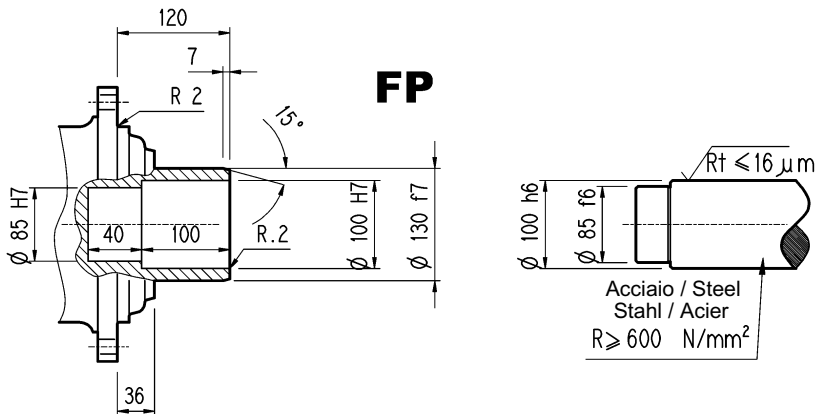
## MZ-HZ



## FZ



## FP



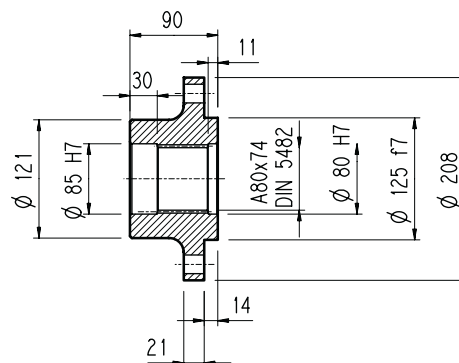
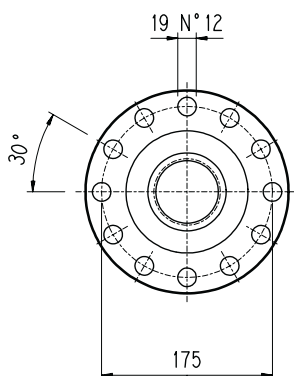
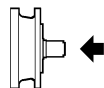
VERSIONE FP	COPPIA MAX. TRASMISSIBILE	<b>18 000 Nm</b>
FP VERSION	MAX. TRANSMISSIBLE TORQUE	
VERSION FP	MAX. ÜBERTR. MOMENT	
VERSION FP	COUPLE MAX. TRANSMISSIBLE	



Flangia / Flange  
Flansch / Brides

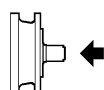
307L - 307R

WOA



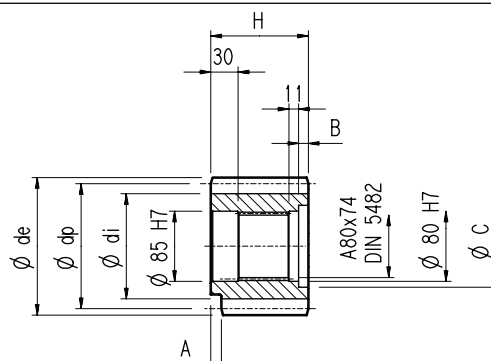
Materiale : Acciaio C40  
Material : Steel C40  
Material : Stahl C40  
Màterial : Acier C40

Pignoni per rotazione / Output pinions  
Ritzel / Pignons



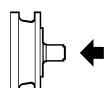
P...

	m	z	x	dp	di	de	H	A	B	C	★
PFG	8	16	0.500	128	117	149.5	90	0	0	0	□
PHC	10	12	0.450	120	104	145	90	0	0	0	□
PHE	10	14	0.320	140	121	162.5	116	13	26	95	□
PHF	10	15	0.150	150	130	171.5	107	20	17	100	□
PHG	10	16	0.500	160	145	186	90	0	0	0	■
PHH1	10	17	0	170	145	190	90	0	0	0	■
PHH2	10	17	0.500	170	154	198	90	0	0	0	■
PLD	12	13	0.500	156	138	192	102	0	12	95	□
PLE	12	14	0.500	168	150	199.2	90	0	0	0	□
PLI	12	18	0.500	216	198	249.6	107	7	17	95	□
PLT	12	26	0	312	282	336	90	10	0	0	■



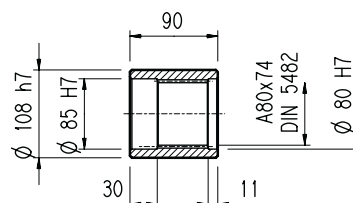
★	Materiale/Material/Material/Màterial
□	Acciaio 39NiCrMo3 Bonificato Steel 39NiCrMo3 hardened and tempered Vergüteter Stahl 39NiCrMo3 Acier bonifié 39NiCrMo3
■	Acciaio 18NiCrMo5 Cementato e temprato Steel 18NiCrMo5 Case hardened Einsatzstahl 18NiCrMo5 Einsatzgehärtet Acier cementé et tempré 18NiCrMo5

Manicotti lisci / Sleeve couplings  
Naben / Manchons lisses a cannelure interieure



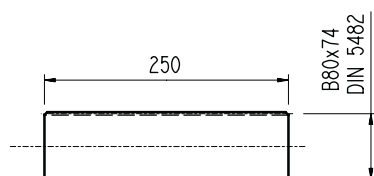
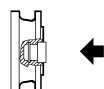
MOA

Materiale : Acciaio 16CrNi4  
Material : Steel 16CrNi4  
Material : Stahl 16CrNi4  
Màterial : Acier 16CrNi4



Barre scanalate / Splined bars  
Vielkeilwellen / Barre cannelée

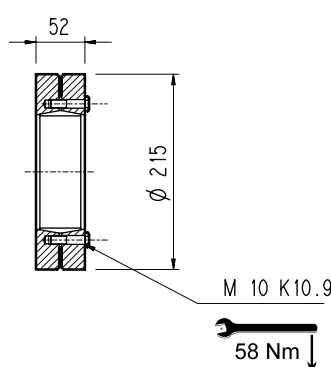
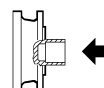
B0A



Mat. acciaio 18NiCrMo5 UNI 5331 da cementare e temprare 50-55 HRC  
Case hardening steel 18NiCrMo5 UNI 5331  
must be case hardened 50-55 HRC  
Material: Einsatzstahl 18NiCrMo5 UNI 5331  
muss einsatzgehärtet werden 50-55 HRC  
Acier 18 NiCrMo5 UNI 5331 doit être cémenté trempé 50-55 HRC

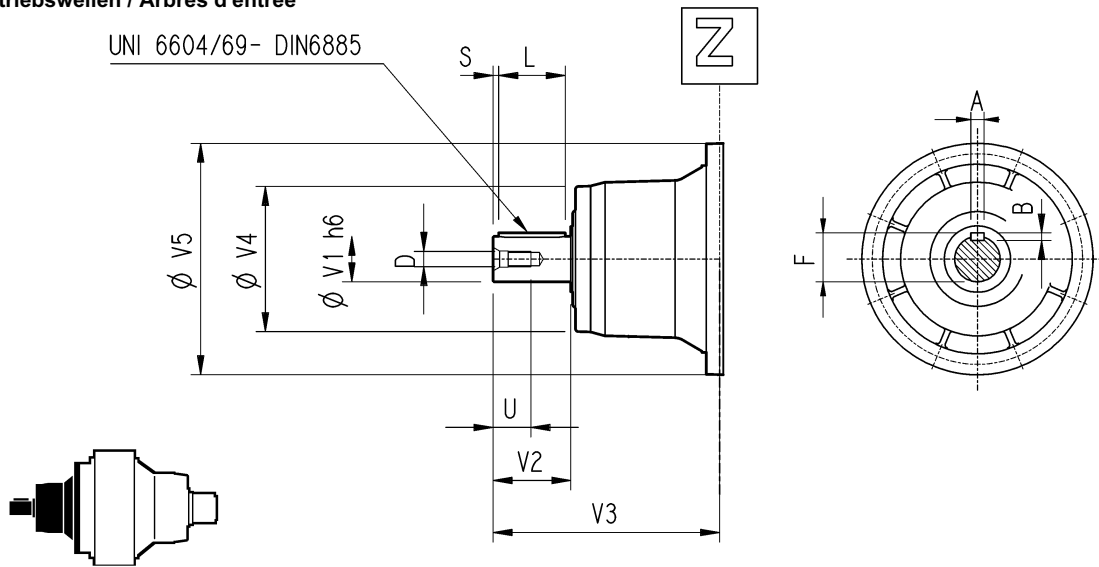
Giunto ad attrito / Shrink disc  
Schrumpfscheibe / Frette de serrage

G0A



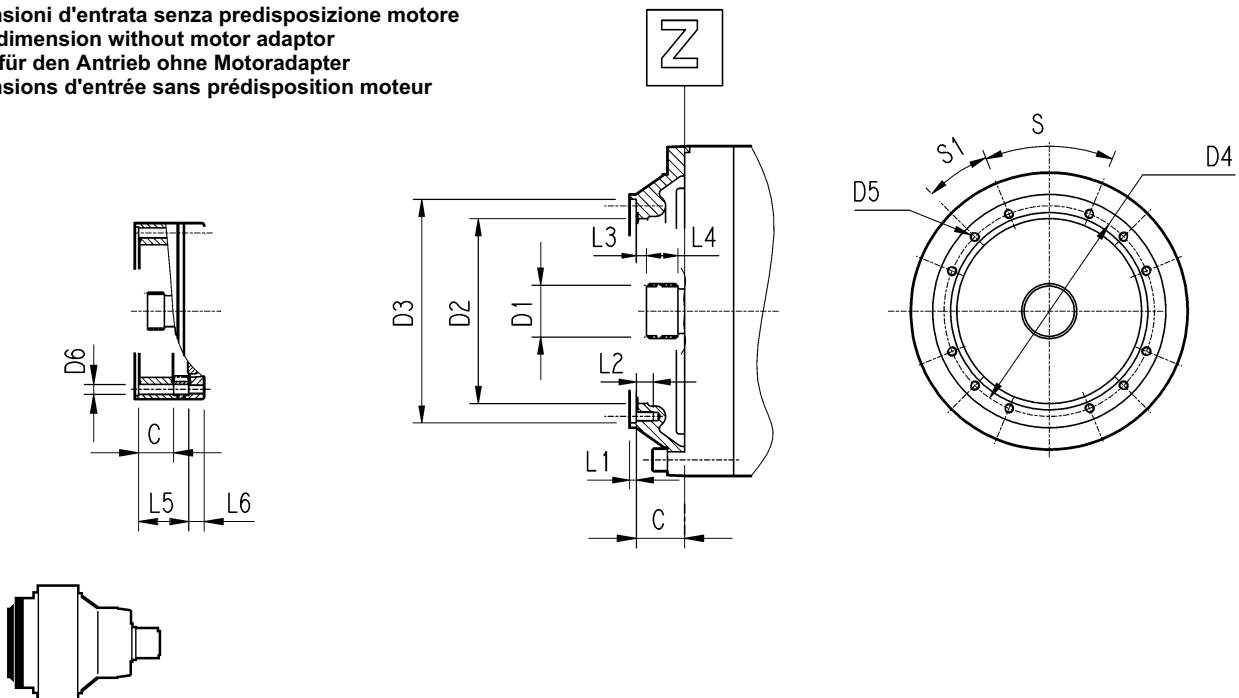
# 307L - 307R

Alberi veloci / Input shaft  
Antriebswellen / Arbres d'entrée



	CODE	V1	V2	V3	V4	V5	A	B	F	L	S	D	U
307 L1	V07B	80	130	315	200	345	22	14	85	110	10	M16	36
	V07A	60	105	313	155	345	18	11	64	90	7.5	M16	36
307 L2	V05B	48	82	239	155	245	14	9	51.5	70	6	M16	36
307 L3	V01A	24	36	137.5	120	186	8	7	27	30	3	M8	19
	V01B	38	58	158	120	186	10	8	41	50	4	M12	28
307 L4	V01A	24	36	137.5	120	186	8	7	27	30	3	M8	19
	V01B	38	58	158	120	186	10	8	41	50	4	M12	28
307 R2	V05B	48	82	239	155	245	14	9	51.5	70	6	M16	36
307 R3-R4	V01A	24	36	137.5	120	186	8	7	27	30	3	M8	19
	V01B	38	58	158	120	186	10	8	41	50	4	M12	28

Dimensioni d'entrata senza predisposizione motore  
Input dimension without motor adaptor  
Maße für den Antrieb ohne Motoradapter  
Dimensions d'entrée sans prédisposition moteur



	C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Entrata Input Antrieb Entrée
307 L1	51	58x53 DIN 5482	195	236 H7	222	M10 n°12	/	4	18	11	22	/	/	45°	22.5°	B
307 L2	37	40x36 DIN 5482	140	178 H7	165	M10 n°8	0	4	18	9	18	0	0	45°	45°	A
307 L3	37	40x36 DIN 5482	140	178 H7	165	M10 n°8	11	4	0	9	18	65	18	45°	45°	A
307 L4	37	40x36 DIN 5482	140	178 H7	165	M10 n°8	11	4	0	9	18	118	18	45°	45°	A
307 R2	37	40x36 DIN 5482	140	178 H7	165	M10 n°8	11	4	18	9	18	0	0	45°	45°	A
307 R3-R4	37	40x36 DIN 5482	140	178 H7	165	M10 n°8	11	4	/	9	18	37	18	45°	45°	A

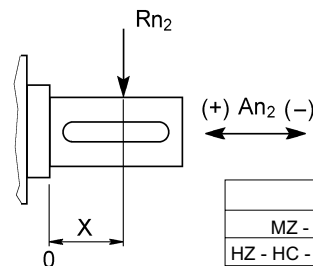
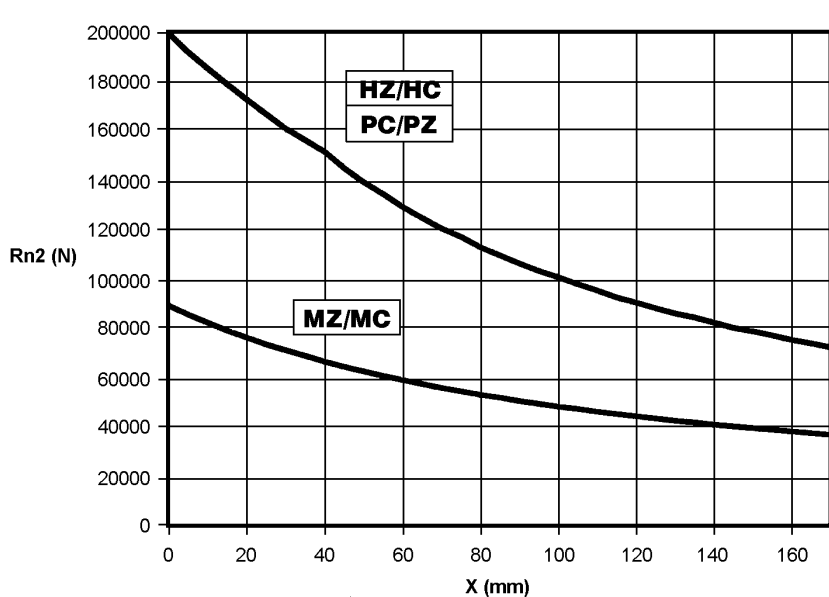
# 307L - 307R

Carichi radiali ed assiali ammissibili sull'albero lento per un valore di  $F_{h_2} : n_2 \cdot h = 10\ 000$

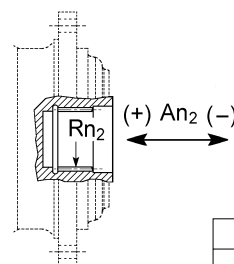
Permissible radial and axial loads on output shaft with  $F_{h_2} : n_2 \cdot h = 10\ 000$

An der Ausgangswelle zulässige Radiallasten und Axialkräfte für einen Wert von  $F_{h_2} : n_2 \cdot h = 10\ 000$

Charges radiales et axiales admissibles sur l'arbre lent pour une valeur de  $F_{h_2} : n_2 \cdot h = 10\ 000$



	An <sub>2</sub> (+)	An <sub>2</sub> (-)
MZ - MC	90 000	50 000
HZ - HC - PC - PZ	160 000	80 000



	R <sub>n2</sub>	An <sub>2</sub> (+/-)
FZ	45 000	45 000

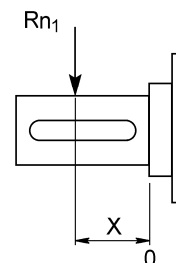
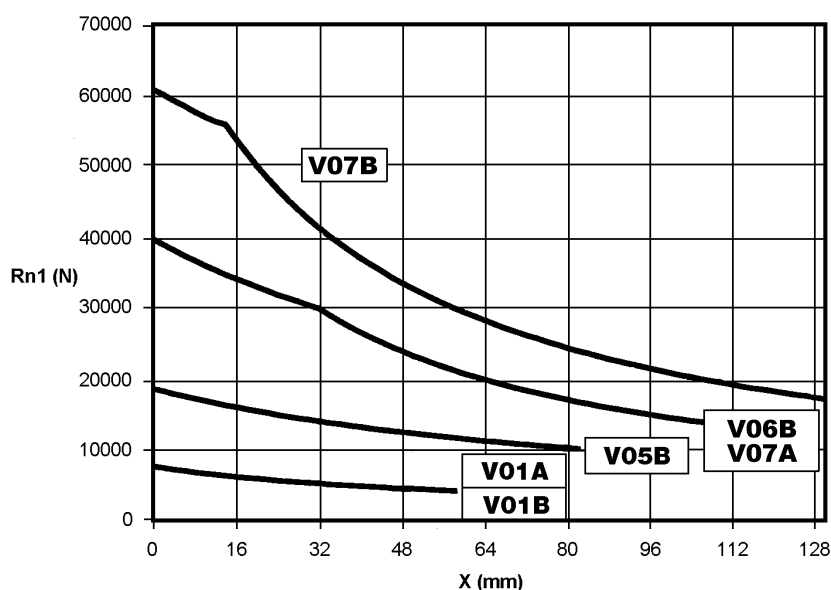
Fattore $f_{h_2}$ correttivo per carichi sugli alberi Load corrective factor $f_{h_2}$ on shafts Korrektionsfaktor $f_{h_2}$ für wellenbelastungen Facteur de correction $f_{h_2}$ pour charges sur les arbres	$F_{h_2} = n_2 \cdot h$						
		10 000	25 000	50 000	100 000	500 000	1 000 000
$f_{h_2}$	MZ - MC - FZ	1	0.74	0.58	0.46	0.27	0.21
	HZ - HC - PC - PZ	1	0.76	0.61	0.50	0.31	0.25

Carichi radiali ammissibili sull'albero veloce per un valore di  $F_{h_1} : n_1 \cdot h = 250\ 000$

Permissible radial loads on input shaft with  $F_{h_1} : n_1 \cdot h = 250\ 000$

An der Antriebswelle zulässige Radiallasten für einen Wert von  $F_{h_1} : n_1 \cdot h = 250\ 000$



Charges radiales admises sur l'arbre d'entrée pour une valeur de  $F_{h_1} : n_1 \cdot h = 250\ 000$



Fattore $f_{h_1}$ correttivo per carichi sugli alberi Load corrective factor $f_{h_1}$ on shafts Korrektionsfaktor $f_{h_1}$ für wellenbelastungen Facteur de correction $f_{h_1}$ pour charges sur les arbres	$F_{h_1} = n_1 \cdot h$						
		250 000	500 000	1 000 000	2 000 000	5 000 000	10 000 000
$f_{h_1}$	1	0.79	0.63	0.50	0.37	0.29	

# 309L



# M<sub>2</sub> = 18500 Nm

	i	M <sub>n2</sub> [Nm]						P <sub>1</sub> [kW]	Pt [kW]	n <sub>1</sub> [min <sup>-1</sup> ]	n <sub>1max</sub> [min <sup>-1</sup> ]	M <sub>b</sub> [Nm]	
		n <sub>2</sub> ·h	n <sub>2</sub> ·h	n <sub>2</sub> ·h	n <sub>2</sub> ·h	n <sub>2</sub> ·h	n <sub>2</sub> ·h						
		10 000	25 000	50 000	100 000	500 000	1 000 000						
<b>L1</b>	3.43	13 000	13 000	13 000	13 000	11 200	9 100	130	25	1 500	2 000	3 200	6L
	4.09	22 500	20 600	19 000	16 800	10 400	8 400	130	25	1 500	2 000	3 200	6L
	5.25	21 000	18 100	16 200	16 000	10 700	8 700	130	25	1 500	2 000	3 200	6L
	6.23	17 000	14 400	13 000	13 000	10 400	8 500	130	25	1 500	2 000	3 200	6L
<b>L2</b>	12.3	13 000	13 000	13 000	13 000	8 700	7 000	60	18	1 800	3 800	1 000	5K
	14.7	17 200	16 700	16 700	13 800	8 500	6 900	60	18	1 800	3 800	1 000	5K
	17.4	21 300	20 600	19 000	15 600	9 600	7 800	60	18	1 800	3 800	1 000	5K
	21.8	18 000	17 500	17 500	15 200	9 400	7 600	60	18	1 800	3 800	1 000	5K
	25.4	14 500	14 300	14 300	14 300	9 200	7 500	60	18	1 800	3 800	800	5G
	28.0	21 000	18 100	16 200	16 000	10 700	8 700	60	18	1 800	3 800	800	5G
	30.7	12 300	12 300	12 300	12 300	7 800	6 300	60	18	1 800	3 800	630	5E
	32.6	18 300	18 100	16 200	16 000	10 700	8 700	60	18	1 800	3 800	630	5E
	38.6	17 000	14 400	13 000	13 000	10 400	8 500	57	18	1 800	3 800	500	5C
	46.7	17 000	14 400	13 000	13 000	10 400	8 500	49	18	1 800	3 800	400	5B
<b>L3</b>	51.3	17 200	16 700	16 700	13 800	8 500	6 900	30	11	2 000	4 000	400	4K
	60.5	21 300	20 600	19 000	15 500	9 500	7 700	30	11	2 000	4 000	400	4K
	74.1	21 300	20 600	19 000	15 500	9 500	7 700	30	11	2 000	4 000	260	4F
	80.6	21 000	18 100	16 200	16 000	10 000	8 200	30	11	2 000	4 000	260	4F
	93.0	18 000	17 500	17 500	15 200	9 400	7 600	30	11	2 000	4 000	260	4F
	100	21 300	20 600	18 000	14 600	9 000	7 300	30	11	2 000	4 000	260	4F
	113	18 300	18 100	16 200	16 000	10 700	8 700	28	11	2 000	4 000	260	4F
	126	18 000	17 500	17 500	15 200	9 400	7 600	24	11	2 000	4 000	260	4F
	139	18 300	18 100	16 200	16 000	10 700	8 700	23	11	2 000	4 000	160	4D
	162	21 000	18 100	16 200	16 000	10 700	8 700	23	11	2 000	4 000	160	4D
	177	12 300	12 300	12 300	12 300	7 800	6 300	12.0	11	2 000	4 000	160	4D
	202	21 000	18 100	16 200	16 000	10 700	8 700	15.0	11	2 000	4 000	100	4B
	223	17 000	14 400	13 000	13 000	10 400	8 500	14.1	11	2 000	4 000	100	4B
	239	17 000	14 400	13 000	13 000	10 400	8 500	13.3	11	2 000	4 000	100	4B
284	15 800	15 800	15 800	15 000	9 200	7 500	10.0	11	2 000	4 000	100	4B	
336	17 000	14 400	13 000	13 000	10 400	8 500	10.0	11	2 000	4 000	100	4B	
<b>L4</b>	349	21 300	20 600	19 000	15 500	9 500	7 700	18.0	7.5	2 000	4 000	100	4B
	411	13 000	13 000	13 000	11 500	7 100	5 800	9.4	7.5	2 000	4 000	50	4A
	465	21 000	18 100	16 200	16 000	10 000	8 200	14.3	7.5	2 000	4 000	50	4A
	513	13 000	13 000	13 000	11 500	7 100	5 800	7.5	7.5	2 000	4 000	50	4A
	579	21 300	20 600	18 000	14 600	9 000	7 300	10.9	7.5	2 000	4 000	50	4A
	654	18 300	18 100	16 200	16 000	10 700	8 700	9.5	7.5	2 000	4 000	50	4A
	722	21 300	20 600	18 000	14 600	9 000	7 300	8.7	7.5	2 000	4 000	50	4A
	801	18 300	18 100	16 200	16 000	10 700	8 700	8.0	7.5	2 000	4 000	50	4A
	906	18 000	17 500	17 500	15 200	9 400	7 600	7.1	7.5	2 000	4 000	50	4A
	999	18 300	18 100	16 200	16 000	10 700	8 700	6.6	7.5	2 000	4 000	50	4A
	1 149	17 000	14 400	13 000	13 000	10 400	8 500	5.6	7.5	2 000	4 000	50	4A
	1 274	12 300	12 300	12 300	12 300	7 800	6 300	3.6	7.5	2 000	4 000	50	4A
	1 380	17 000	14 400	13 000	13 000	10 400	8 500	4.8	7.5	2 000	4 000	50	4A
	1 605	17 000	14 400	13 000	13 000	10 400	8 500	4.1	7.5	2 000	4 000	50	4A
1 723	17 000	14 400	13 000	13 000	10 400	8 500	3.9	7.5	2 000	4 000	50	4A	
2 041	15 800	15 800	15 800	15 000	9 200	7 500	3.0	7.5	2 000	4 000	50	4A	
2 423	17 000	14 400	13 000	13 000	10 400	8 500	2.7	7.5	2 000	4 000	50	4A	

$$M_{2max} = 1.2 \cdot M_{n2} \quad (n_2 \cdot h = 10\,000)$$

# M<sub>2</sub> = 18500 Nm

# 309R

	i	M <sub>n2</sub> [Nm]						P <sub>1</sub> [kW]	P <sub>t</sub> [kW]	n <sub>1</sub> [min <sup>-1</sup> ]	n <sub>1max</sub> [min <sup>-1</sup> ]	M <sub>b</sub> [Nm]	
		n <sub>2</sub> ·h	n <sub>2</sub> ·h	n <sub>2</sub> ·h	n <sub>2</sub> ·h	n <sub>2</sub> ·h	n <sub>2</sub> ·h						
		10 000	25 000	50 000	100 000	500 000	1 000 000						
<b>R2</b>	13.0	9 800	8 500	7 600	6 800	5 300	4 300	85	35	1 800	3 800	1 000	5K
	15.5	11 400	9 800	8 800	7 900	5 900	4 800	85	35	1 800	3 800	1 000	5K
	19.8	14 000	12 100	10 800	9 700	7 100	5 700	85	35	1 800	3 800	1 000	5K
	23.5	16 200	14 000	12 500	11 200	8 000	6 500	85	35	1 800	3 800	800	5G
<b>R3</b>	31.6	12 800	11 000	9 100	7 400	4 550	3 700	35	20	2 000	4 000	440	4L
	37.7	14 800	12 600	10 300	8 300	5 100	4 200	35	20	2 000	4 000	440	4L
	44.6	17 100	14 100	11 500	9 400	5 800	4 700	35	20	2 000	4 000	400	4K
	55.9	18 000	16 600	13 500	11 000	6 800	5 500	35	20	2 000	4 000	400	4K
	65.0	14 500	14 300	14 300	12 200	7 500	6 100	35	20	2 000	4 000	260	
	71.8	21 000	18 100	16 100	13 100	8 100	6 500	35	20	2 000	4 000	330	4H
	78.6	12 300	12 300	12 300	12 300	7 800	6 300	27	20	2 000	4 000	260	4F
	83.4	18 300	18 100	16 200	14 500	9 000	7 300	35	20	2 000	4 000	260	4F
	99.0	17 000	14 400	13 000	13 000	10 100	8 200	27	20	2 000	4 000	260	4F
	120	17 000	14 400	13 000	13 000	10 400	8 500	23	20	2 000	4 000	160	4D
<b>R4</b>	152	21 300	20 600	18 000	14 600	9 000	7 300	15.0	14	2 000	4 000	160	4D
	165	21 000	18 100	16 200	15 100	9 300	7 500	15.0	14	2 000	4 000	160	4D
	191	18 000	17 500	17 500	15 200	9 400	7 600	15.0	14	2 000	4 000	160	4D
	206	21 300	20 600	18 000	14 600	9 000	7 300	15.0	14	2 000	4 000	160	4D
	232	18 300	18 100	16 200	16 000	10 700	8 700	15.0	14	2 000	4 000	100	4B
	258	18 000	17 500	17 500	15 200	9 400	7 600	15.0	14	2 000	4 000	100	4B
	284	18 300	18 100	16 200	16 000	10 700	8 700	15.0	14	2 000	4 000	100	4B
	313	17 000	14 400	13 000	13 000	10 400	8 500	15.0	14	2 000	4 000	100	4B
	331	21 000	18 100	16 200	16 000	10 700	8 700	15.0	14	2 000	4 000	100	4B
	363	12 300	12 300	12 300	12 300	7 800	6 300	10.4	14	2 000	4 000	100	4B
	413	21 000	18 100	16 200	16 000	10 700	8 700	15.0	14	2 000	4 000	100	4B
	457	17 000	14 400	13 000	13 000	10 400	8 500	12.3	14	2 000	4 000	50	4A
	490	17 000	14 400	13 000	13 000	10 400	8 500	11.6	14	2 000	4 000	50	4A
	581	15 800	15 800	15 800	15 000	9 200	7 500	8.7	14	2 000	4 000	50	4A
690	17 000	14 400	13 000	13 000	10 400	8 500	8.7	14	2 000	4 000	50	4A	

$$M_{2max} = 1.2 \cdot M_{n2} \quad (n_2 \cdot h = 10\,000)$$

# 309L

