



LAFERT ELECTRIC MOTORS



**Stainless Steel Motors and Gearboxes
IP67 + IP69K**

Where Hygiene & Cleanliness is critical!

Lafert Stainless Steel IEC motors & gearboxes are designed and manufactured to operate in extreme conditions with high ambient temperatures, high humidity, steam & water. The motors & gearboxes can be hosed down with any cleaning solution & will remain in pristine condition.

The motors have a specially designed construction which avoids the use of through bolts or endshield bolts.

The outer surfaces of the motors are completely smooth to make it easier to clean and wash away any dirt, food scraps or debris that can accumulate around the motor & cause contamination of your end product resulting in loss of product & down time.

The motors can be manufactured in 304 (IP67) or 316 (IP69K) Grades of Stainless Steel.

The motors can be supplied in TENV (totally enclosed non-ventilated) construction with no fan or fan cowl, TEFC (Totally enclosed fan cooled) construction with a fan & stainless steel fan cowl, SEW specifications, NEMA specifications, B56 specs, reduced output, 240v & 415v.

The Lafert IP69K rated stainless steel worm gearbox is the perfect solution for use in wash-down situations.

The gearboxes range from size 30 up to size 111 and come with output shaft, flange & torque arm. Lafert wormbox range is interchangeable with the likes of Motovario, Transtecno, SEW EURODRIVE, SITI, Mechtric etc.

Lafert's stainless steel range includes an inline prestage gearbox offering a greater range of ratios.



		Powering the food industry
Hygienic Design		
	Dossier according to 84/96/EEC stored	
	IP69K	AISI 316L

SS MOTOR PERFORMANCE DATA

2 Pole 50Hz Stainless Steel Frames IE2 (EFF1) (MEPS2)

MOTOR TYPE	OUTPUT KW	FULL LOAD SPEED (RPM)	IFL 380V (AMPS)	IFL 400V (AMPS)	IFL 415V (AMPS)	EFFICIENCY @			POWER FACTOR @			FULL LOAD TORQUE Nm	IST IFL	TST TFL	TPU TFL	TM TFL	M of I J (kgm ²)	NOISE LEVEL Lp 1m dB(A)	NET WEIGHT (kg)
						100%FL	75%FL	50%FL	100%FL	75%FL	50%FL								
631-2	0.18	2815	0.44	0.42	0.4	76.6	77	74	0.8	0.78	0.68	0.59	5.2	2.7	2.1	3.2	0.00031	60	10.5
632-2	0.25	2795	0.62	0.59	0.57	75.3	76	73	0.81	0.79	0.73	0.88	4.8	2.5	2	2.8	0.0006	61	11.5
711-2	0.37	2875	0.84	0.8	0.77	79.3	78	75	0.84	0.81	0.73	1.27	5.9	2.2	1.7	3	0.0008	55	14
712-2	0.55	2865	1.3	1.2	1.2	79.1	77.5	74	0.84	0.81	0.73	1.86	5.8	2.3	1.7	2.9	0.0008	56	14.5
801-2	0.75	2885	1.6	1.5	1.4	85	85.5	82	0.84	0.81	0.73	2.45	6.6	2.5	2.1	3.2	0.0012	61	21
802-2	1.1	2885	2.3	2.2	2.1	84	84	81	0.85	0.84	0.78	3.63	5.9	2.3	1.9	2.7	0.0012	61	23.5
90S-2	1.5	2890	2.9	2.8	2.7	85.5	86	83	0.9	0.87	0.81	5	6.6	2.3	2.3	3.1	0.0039	65	29
90L-2	2.2	2890	4.4	4.2	4	85.5	86	83	0.88	0.85	0.78	7.3	6.6	2.9	2.3	3.3	0.0039	65	29
100L-2	3	2895	5.8	5.5	5.3	86.1	87	84	0.91	0.88	0.8	9.9	6.6	2.9	2.2	3.3	0.0055	70	30
112M1-2	4	2925	7.6	7.2	6.9	89.7	90	87	0.89	0.86	0.79	13	6.6	2.2	1.6	3.5	0.0109	74	30
112M2-2	5.5	2920	10.5	10	9.6	89.3	90	86	0.89	0.86	0.8	18	6.5	2.3	1.7	3.3	0.0109	78	32
132S1-2	5.5	2930	10.1	9.6	9.3	88.8	90.5	86	0.93	0.9	0.86	18	6.5	2.2	1.8	2.8	0.027	80	42
132S2-2	7.5	2920	13.7	13	12.5	89.5	90	87	0.93	0.9	0.84	24.6	6.5	2.1	1.6	2.7	0.027	81	44
132M-2	11	2915	19.7	18.7	18	90.2	90.5	87.5	0.94	0.91	0.85	35.9	6.4	2	1.6	2.8	0.031	82	48
160M1-2	11	2935	19.4	18.4	17.7	90.6	89	86	0.95	0.92	0.86	35.8	6.5	2.4	2.1	2.8	0.039	80	110
160M2-2	15	2935	26.2	24.9	24	91.4	89.5	87	0.95	0.92	0.86	48.8	6.2	2.4	2.1	2.8	0.039	81	110
160L-2	18.5	2925	32.3	30.7	29.6	91.5	91	88	0.95	0.92	0.86	60.4	6.6	2.1	1.8	2.7	0.05	81	130

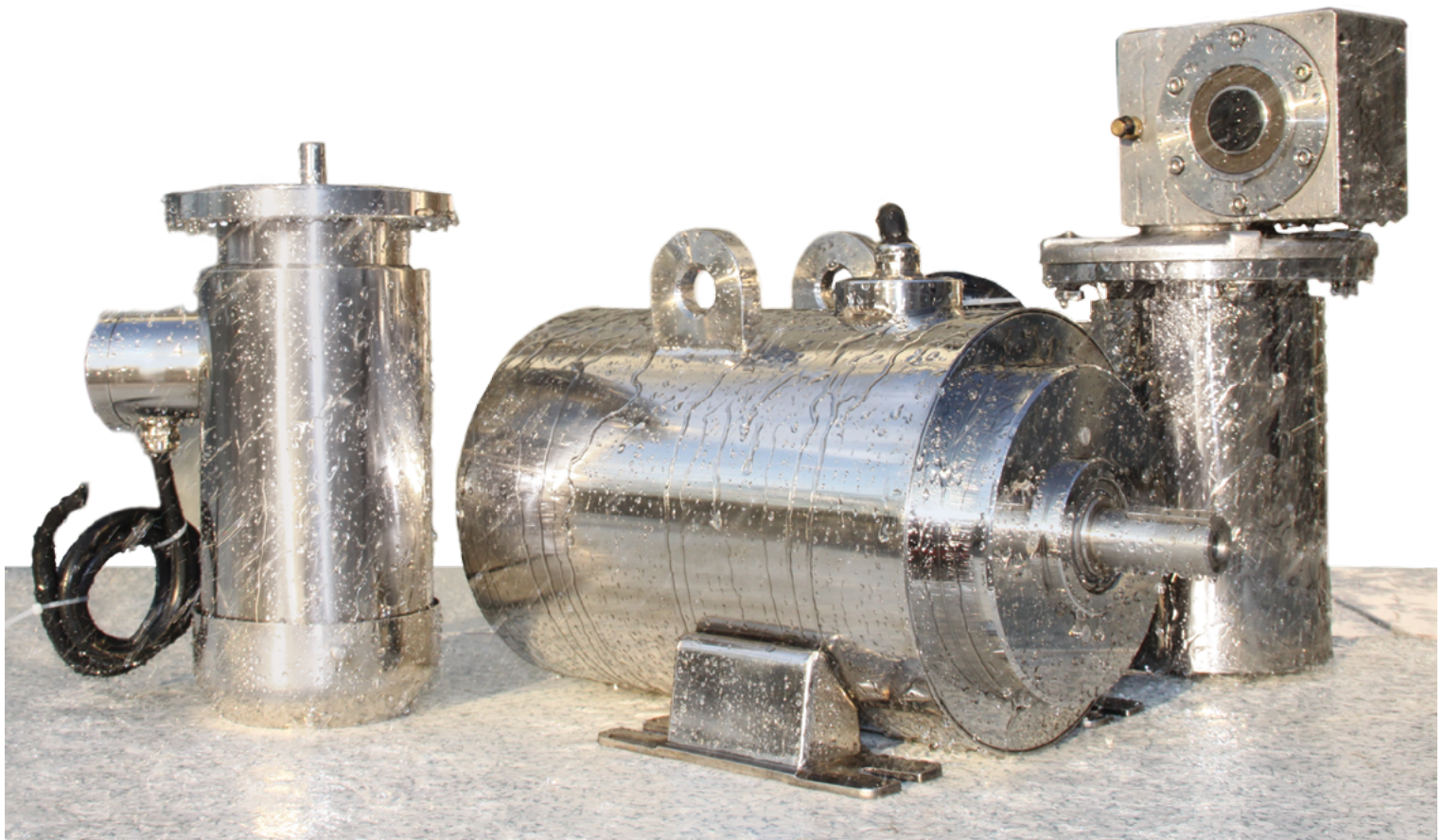
4 Pole 50Hz Stainless Steel Frames IE2 (EFF1) (MEPS2)

MOTOR TYPE	OUTPUT KW	FULL LOAD SPEED (RPM)	IFL 380V (AMPS)	IFL 400V (AMPS)	IFL 415V (AMPS)	EFFICIENCY @			POWER FACTOR @			FULL LOAD TORQUE Nm	IST IFL	TST TFL	TPU TFL	TM TFL	M of I J (kgm ²)	NOISE LEVEL Lp 1m dB(A)	NET WEIGHT (kg)
						100%FL	75%FL	50%FL	100%FL	75%FL	50%FL								
631-4	0.12	1440	0.34	0.32	0.31	69.3	66	61	0.78	0.75	0.66	0.88	3.2	1.9	1.5	2.2	0.0005	47	10.5
632-4	0.18	1370	0.54	0.51	0.49	72.1	72	69	0.71	0.63	0.49	1.27	3.8	2.5	2	2.8	0.0006	48	11.5
711-4	0.25	1420	0.67	0.64	0.62	76.3	77	74	0.74	0.66	0.55	1.67	4.5	2.2	2	2.9	0.0014	60	111
712-4	0.37	1415	1	0.95	0.92	76	76.5	73	0.74	0.67	0.55	2.55	4.6	2.4	2.1	2.8	0.0014	61	11.5
801-4	0.55	1420	1.4	1.3	1.3	79.7	80	76	0.76	0.69	0.54	3.7	5.1	2.6	2.2	2.8	0.0023	61	20.5
802-4	0.75	1425	1.9	1.8	1.7	81.5	82	72	0.75	0.72	0.51	5	5.9	3.3	3	2.8	0.0023	62	22.5
90S-4	1.1	1445	2.5	2.4	2.3	83.7	83	80	0.8	0.76	0.64	7.35	6	2.5	2.1	3.1	0.0062	60	29
90L-4	1.5	1425	3.2	3	2.9	84.2	85	81	0.85	0.79	0.65	10	5.6	2.3	2	2.7	0.0062	62	29
100L1-4	2.2	1445	4.7	4.5	4.3	86.6	87	83	0.81	0.78	0.7	14.5	6.3	2.4	2.2	3.1	0.0096	61	30
100L2-4	3	1440	6.4	6.1	5.9	86.5	84.5	79	0.83	0.8	0.72	19.9	5.8	2.3	2.1	2.7	0.0096	62	30
112M-4	4	1455	8.4	8	7.7	88.3	86	82	0.82	0.8	0.7	26.3	6.5	2.4	2.1	3	0.0214	63	31
132S-4	5.5	1455	10.6	10.1	9.7	90.1	91	88	0.87	0.84	0.72	36.1	6.5	2.3	1.9	2.8	0.044	68	45
132M1-4	7.5	1455	14.1	13.4	12.9	90.5	90	87	0.89	0.86	0.74	49.3	6.6	2.2	1.7	2.9	0.051	69	53
132M2-4	11	1460	20.5	19.5	18.8	91.5	91	88	0.89	0.86	0.74	71.8	6.5	2.5	2.2	3.3	0.07	71	62
160M-4	11	1470	20.6	19.6	18.9	91.8	91	88	0.88	0.85	0.78	71.3	6.5	1.9	1.6	2.8	0.075	72	115
160L-4	15	1470	27.7	26.3	25.3	92.4	91	88.5	0.89	0.86	0.78	97.8	6.5	1.8	1.6	2.8	0.093	74	132

SS MOTOR PERFORMANCE DATA

6 Pole 50Hz Stainless Steel Frames IE2 (EFF1) (MEPS2)

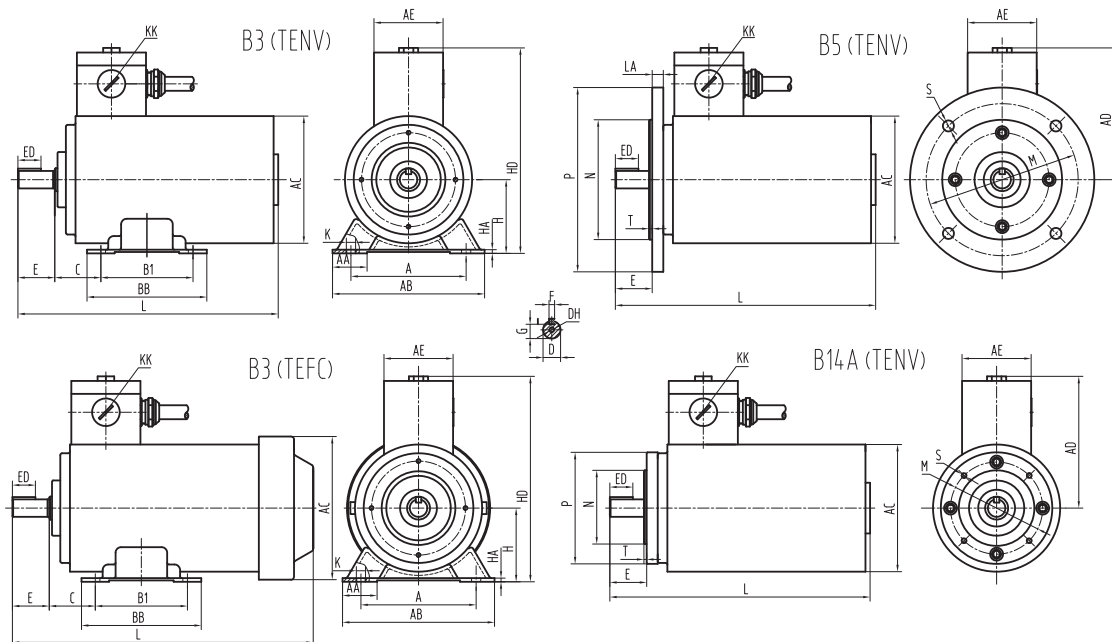
MOTOR TYPE	OUTPUT KW	FULL LOAD SPEED (RPM)	IFL 380V (AMPS)	IFL 400V (AMPS)	IFL 415V (AMPS)	EFFICIENCY @			POWER FACTOR @			FULL LOAD TORQUE Nm	IST IFL	TST TFL	TPU TFL	TM TFL	M of I J (kgm ²)	NOISE LEVEL Lp 1m dB(A)	NET WEIGHT (kg)
						100%FL	75%FL	50%FL	100%FL	75%FL	50%FL								
711-6	0.18	925	0.59	0.56	0.54	71.3	70	66	0.65	0.61	0.49	1.86	3.6	2.1	2	3	0.0016	50	14
712-6	0.25	915	0.81	0.77	0.74	69.9	68	65	0.67	0.62	0.52	2.65	3.4	2.4	2.1	2.8	0.0021	51	16
801-6	0.37	935	1.01	0.96	0.93	77.1	77.5	74	0.72	0.69	0.6	3.8	3.9	2.1	1.8	2.7	0.003	53	22
802-6	0.55	935	1.47	1.4	1.35	77.9	77	72	0.72	0.69	0.6	5.6	4.1	2.2	2	2.7	0.0041	54	26
90S-6	0.75	930	1.8	1.7	1.6	78.5	77	73	0.79	0.76	0.68	7.7	4	1.9	1.6	2.1	0.012	56	32
90L-6	1.1	935	2.6	2.5	2.4	80.6	81	77	0.78	0.75	0.66	11.3	4.8	2.3	1.8	2.4	0.012	57	38
100L-6	1.5	950	3.6	3.4	3.3	83.5	82	79	0.76	0.73	0.63	15.1	5	2.2	1.9	2.4	0.0091	60	24
112M-6	2.2	970	4.9	4.7	4.5	87.1	86	80	0.78	0.75	0.65	21.7	6.4	2.2	2	3.1	0.027	63	33
132S-6	3	950	6.7	6.4	6.2	87.3	85	79	0.77	0.74	0.64	30.2	2.7	1.7	1.5	2.4	0.051	66	41
132M1-6	4	940	9.1	8.6	8.3	87	87.5	84	0.77	0.74	0.64	40.6	4.7	1.9	1.5	2.5	0.051	67	41
132M2-6	5.5	950	12.3	11.7	11.3	88.9	87	83	0.76	0.73	0.65	55.3	5.1	2	1.7	2.7	0.073	69	59
160M-6	7.5	975	14.6	13.9	13.4	90.6	88	85	0.86	0.82	0.7	73.3	5.7	1.7	1.5	2.6	0.096	71	119
160L-6	11	980	21.6	20.5	19.8	90.9	89	85.5	0.85	0.81	0.69	107	6.5	2.3	2.1	2.9	0.096	73	119



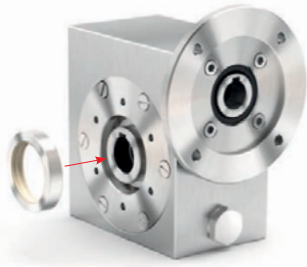
STAINLESS STEEL MOTORS DIMENSIONS

Frame	A	AA	AB	BB	HA	B	B1	C	D	DH	E	F	G	H	HD	K	KK		AC	
																	METRIC	TENV	TEFC	
63	100	32	132	110	4	80	N/A	40	11	M3	23	4	8.5	63	190	7	2-M20 × 1.5	119	133	
71	112	30	140	120	4	90	N/A	45	14	M4	30	5	11	71	205	7	2-M20 × 1.5	129	150	
80	125	37.5	165	130	4	100	N/A	50	19	M6	40	6	15.5	80	230	10	M20 × 1.5 / M25 × 1.5	139	165	
90	140	40	180	165	4	100	125	56	24	M6	50	8	20	90	250	10	M20 × 1.5 / M25 × 1.5	164	190	
100	160	45	205	180	4	140	N/A	63	28	M10	60	8	24	100	280	12	M20 × 1.5 / M32 × 1.5	186	210	
112	190	60	250	180	5	140	N/A	70	28	M10	60	8	24	112	315	13	M25 × 1.5 / M32 × 1.5	220	240	
132	216	60	276	218	5	140	178	89	38	M12	80	10	33	132	350	13	M25 × 1.5 / M32 × 1.5	261	280	
160	254	65	300	299	6	210	254	108	42	M16	110	12	37	160	420	15	M25 × 1.5 / M40 × 1.5	300	330	

Frame	AD	AE	ED	L				M		N		P		S		T	
				SS TENV	SS TEFC	SSP TENV	SSP TEFC	B5	B14A	B5	B14A	B5	B14A	B5	B14A	B5	B14A
63	128	Φ65	13	245	285	265	300	115	75	95	60	140	95	10	M5	3.5	2.5
71	135	Φ65	20	280	325	290	335	130	85	110	70	160	108	10	M6	3.5	2.5
80	150	Φ75	25	295	330	323	360	165	100	130	80	200	120	12	M6	3.5	3
90	160	Φ75	40	345	385	355	395	165	115	130	95	200	140	12	M8	3.5	3
100	185	Φ85	45	400	450	400	450	215	130	180	110	250	160	15	M8	4	3.5
112	203	Φ85	45	425	480	425	480	215	130	180	110	250	160	15	M8	4	3.5
132	215	Φ85	63	555	617	555	617	265	165	230	130	300	200	15	M10	4	4
160	260	Φ100	90	655	720	655	720	300	-	250	-	350	-	19	-	5	-



STAINLESS STEEL GEARBOXES



**Twin viton seals with stainless steel shield
IP69K certified**

*Anelli di tenuta in viton con schermo protettivo in acciaio inox;
Certificazione IP69K*



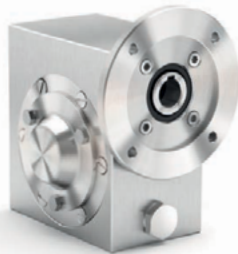
**Mounting holes on both side
of the housing for universal mounting**

Fori di montaggio in entrambi i lati della cassa



**Output shaft in AISI 316L and special cover
for full seals protection**

*Mozzo e albero in uscita in AISI 316L e coperchietto protettivo
per anelli paraolio*



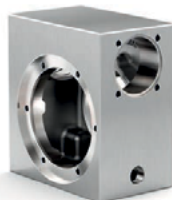
New cover with O-ring

*Nuovo coperchietto protettivo per anelli paraolio chiuso con
o-ring*



**Removable hollow shaft with key for safe
torque transmissions**

Albero cavo removibile con chiavetta mozzo/corona



High tech housing finishing

Finitura speciale sulla cassa

I30 Stainless Steel - Gear 21Nm

Rating - Stainlesssteel WORM GEARBOXES



■ QUICK SELECTION / Selezione veloce							input speed (n ₁) = 1400 min ⁻¹						
Output Speed n ₂ [min ⁻¹]	Ratio i	Motor power P _{1M} [kW]	Output torque M _{2M} [Nm]	Service factor f.s.	Nominal power P _{1R} [kW]	Nominal torque M _{2R} [Nm]	B5 motor flanges not available		Available B14 motor flanges		Dynamic efficiency RD	Tooth Module [mm]	Ratios code
							-	-	-O	-P			
280	5	0.18	5	3.3	0.60	17	-	-	56	63	82	1.26	01
200	7	0.18	7	2.4	0.44	17	-	-	B-C		80	1.44	02
140	10	0.18	10	1.8	0.32	17	-	-	B-C		78	1.44	03
93	15	0.18	13	1.4	0.25	19	-	-	B-C		73	1.44	04
70	20	0.18	17	1.1	0.20	19	-	-	B-C		70	1.09	05
47	30	0.12	15	1.4	0.17	21	-	-	B-C		62	1.44	06
35	40	0.12	19	1.1	0.13	20	-	-	B-C		57	1.09	07
23	61	0.09	19	1.1	0.10	20	-	-	B-C		50	0.72	08
17.5	80	0.09	16	1.0	0.06	16	-	-	B-C		48	0.56	09

* The nominal power should be reduced if the ambient temperature is $\geq 30^{\circ}\text{C}$, or when a cooler gearbox is required.

* Diminuire la potenza nominale in caso di temperatura ambiente $\geq 30^{\circ}\text{C}$ o se è richiesta una bassa temperatura di utilizzo del riduttore.

■ Motor Flanges Available
Flange Motore Disponibili

⊗ B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

⊗ B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

⊗ C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit I30 is supplied with synthetic oil, providing "long life" lubrication.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo I30 viene fornito lubrificato a vita con olio sintetico.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Für die Lebensdauerschmierung ist das Getriebe der Größe I30 mit synthetischem Öl befüllt.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type I30 est fourni lubrifié à vie avec de l'huile synthétique.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño I30 se suministra, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

■ LUBRICATION I30 Oil Quantity 0.06 Lt.

AGIP Telium VSF 320

SHELL Omala S4 WE 320

For all details on lubrication and plugs check our website

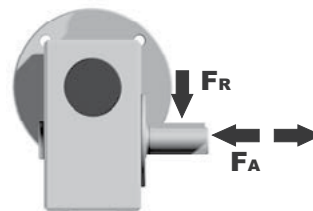
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

■ RADIAL AND AXIAL LOADS

Output shaft

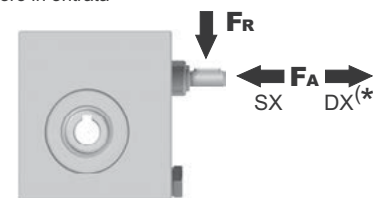
Albero di uscita



n ₂ [min ⁻¹]	FA [N]	FR [N]
200	120	600
150	140	700
100	160	800
75	180	900
50	200	1000
25	250	1250
15	280	1400

Input shaft

albero in entrata



n ₁ [min ⁻¹]	FA [N]	FR [N]
1400	20	100

*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

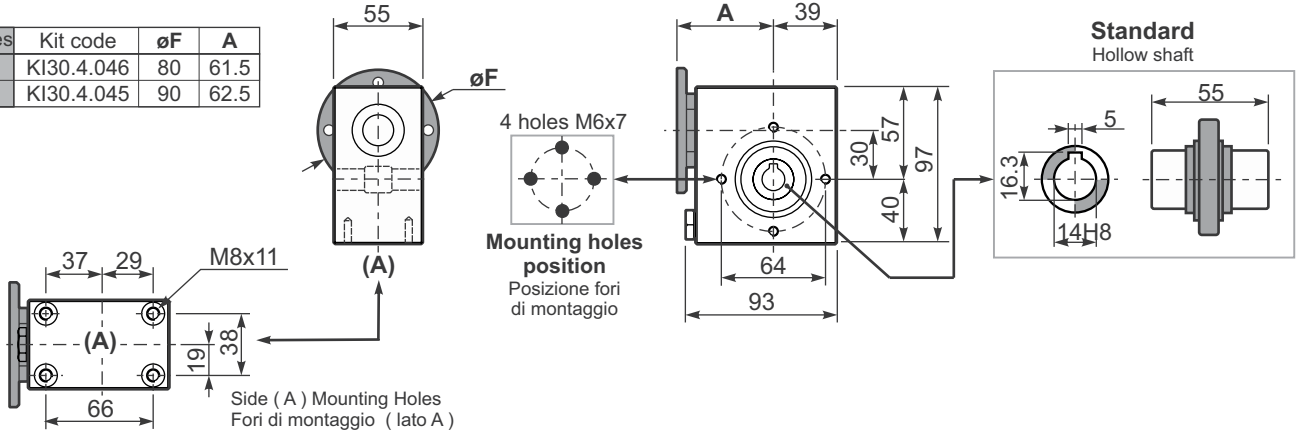
I30 Stainless Steel - Gear 21Nm

3D dimensions on the Web

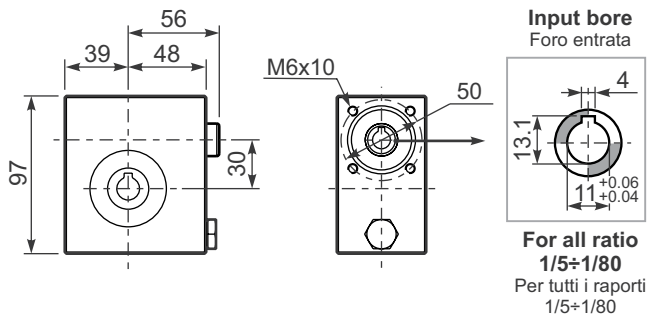
Gearbox weight
peso riduttore **2.5 kg**

PI30UN... Basic wormbox
Riduttore base

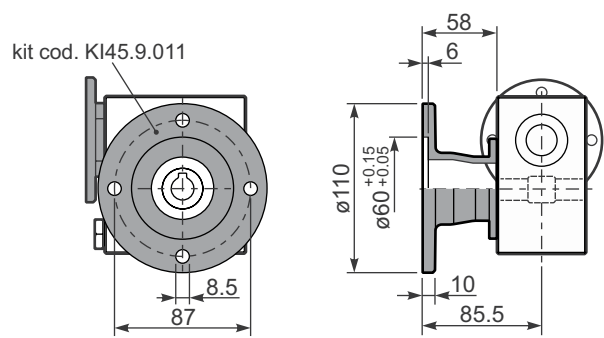
M. flanges	Kit code	øF	A
56B14	KI30.4.046	80	61.5
63B14	KI30.4.045	90	62.5



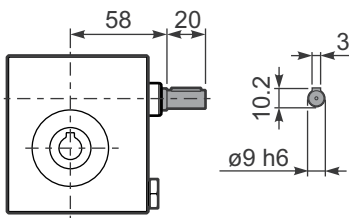
B130UN... Modular base
Base modulare



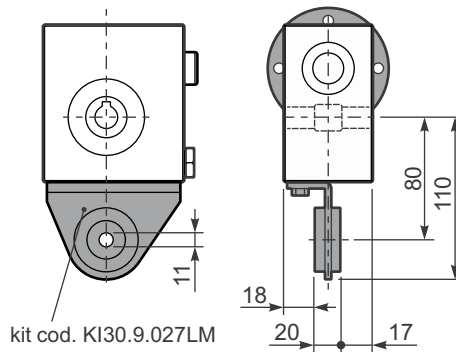
PI30FL... Output flange
Flangia uscita



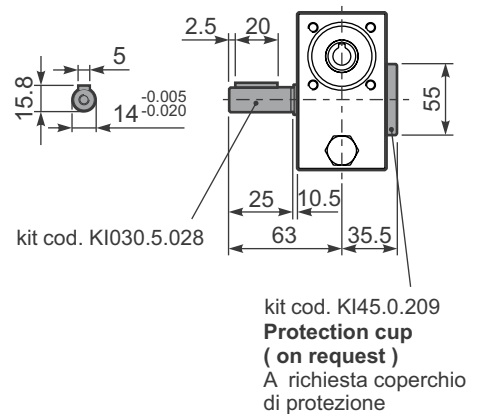
R130UN... Input shaft
Albero in entrata



PI30BR... Reaction arm
Braccio di reazione



PI30.....S... Single Shaft
Albero lento semplice



I45 Stainless Steel - Gear 41Nm

Rating - Stainlesssteel WORM GEARBOXES



■ QUICK SELECTION / Selezione veloce							input speed (n_1) = 1400 min ⁻¹						
Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	B5 motor flanges not available		Available B14 motor flanges		Dynamic efficiency RD	Tooth Module [mm]	 Ratios code
							-	-	-P	-Q			
200	7	0.37	14	2.2	0.80	30	-	-	B-C		80	2.2	01
140	10	0.37	20	1.5	0.57	30	-	-	B-C		79	2.2	02
100	14	0.37	27	1.1	0.41	30	-	-	B-C		77	2.4	03
67	21	0.37	36	1.2	0.43	41	-	-	B-C		67	1.6	04
50	28	0.25	31	1.3	0.33	41	-	-	B-C		65	2.5	05
38	37	0.25	40	1.0	0.26	41	-	-	B-C		63	1.8	06
30	46	0.25	46	0.9	0.22	41	-	-	B-C		59	1.5	07
23	60	0.18	41	1.0	0.18	41	-	-	B-C		56	1.2	08
20	70	0.12	31	1.0	0.12	30	-	-	B-C		54	1.0	09
13.7	102	0.12	41	0.7	0.09	29	-	-	B-C		49	0.72	10

* The nominal power should be reduced if the ambient temperature is $\geq 30^\circ\text{C}$, or when a cooler gearbox is required.

* Diminuire la potenza nominale in caso di temperatura ambiente $\geq 30^\circ\text{C}$ o se è richiesta una bassa temperatura di utilizzo del riduttore.

Motor Flanges Available Flange Motore Disponibili
 B) Supplied with Reduction Bushing Fornito con Bussola di Riduzione
 B) Available on Request without reduction bushing Disponibile a Richiesta senza Bussola di Riduzione
 C) Motor Flange Holes Position Posizione Fori Flangia Motore

EN Unit I45 is supplied with synthetic oil, providing "long life" lubrication..
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo I45 viene fornito lubrificato a vita con olio sintetico.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Für die Lebensdauerschmierung ist das Getriebe der Größe I45 mit synthetischem Öl befüllt.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type I45 est fourni lubrifié à vie avec de l'huile synthétique.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño I45 se suministra, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard			On request		
B3	B6	B7	B8	V5	V6
0.15 LT	0.15 LT	0.20 LT	0.15 LT	0.15 LT	0.15 LT
AGIP Telium VSF 320			SHELL Omala S4 WE 320		

For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

■ RADIAL AND AXIAL LOADS			
Output shaft Albero di uscita			
	n_2 [min ⁻¹]	FA [N]	FR [N]
	200	180	900
	150	200	1000
	100	220	1100
	75	240	1200
	50	260	1400
	25	300	1800
15	400	2000	
Input shaft albero in entrata			
	n_1 [min ⁻¹]	FA [N]	FR [N]
	1400	42	210

*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

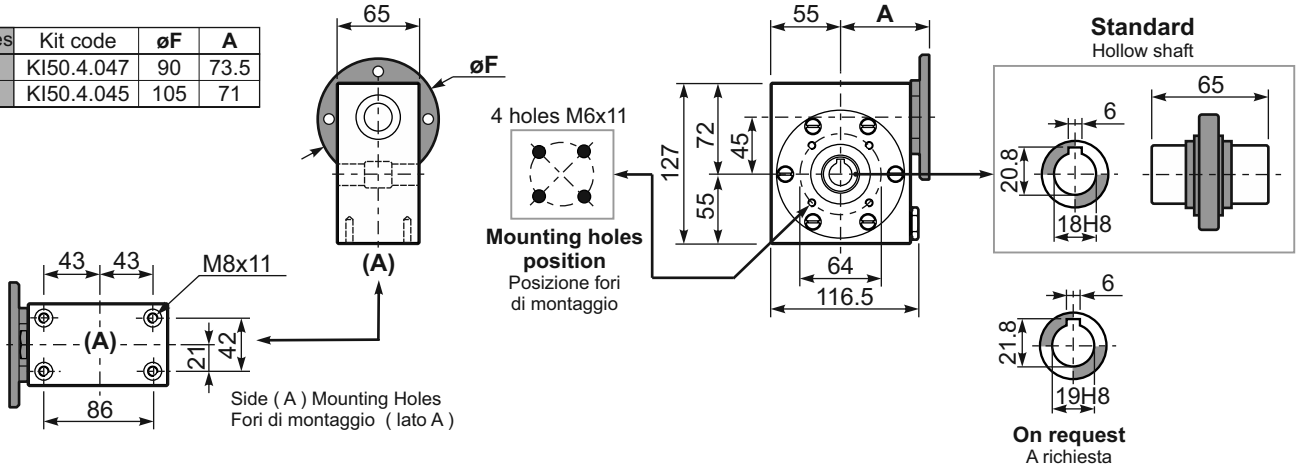
I45 Stainless Steel - Gear 41Nm

3D dimensions on the Web

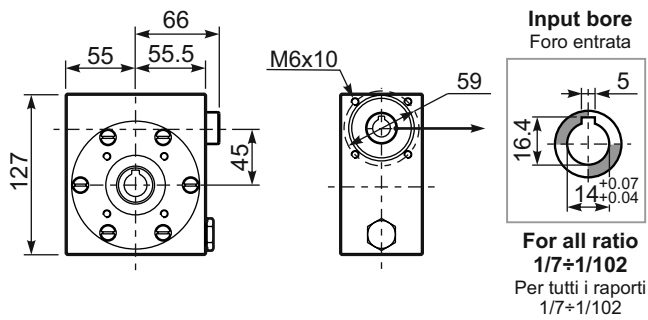
PI45**UN**... Basic wormbox
Riduttore base

Gearbox weight
peso riduttore **5.0 kg**

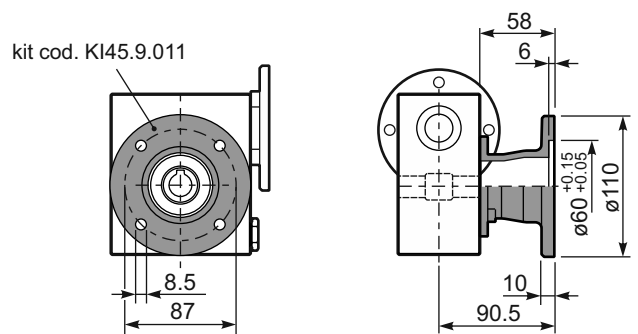
M. flanges	Kit code	øF	A
63B14	KI50.4.047	90	73.5
71B14	KI50.4.045	105	71



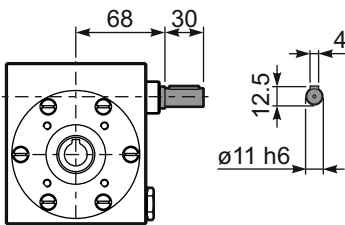
BI45UN... Modular base
Base modulare



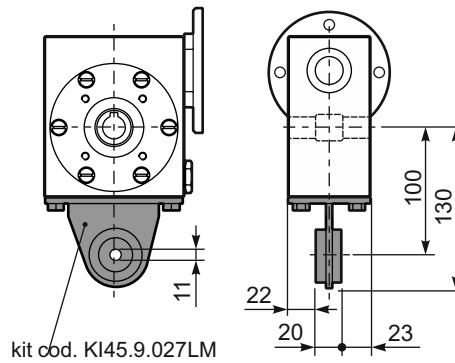
PI45**FL**... Output flange
Flangia uscita



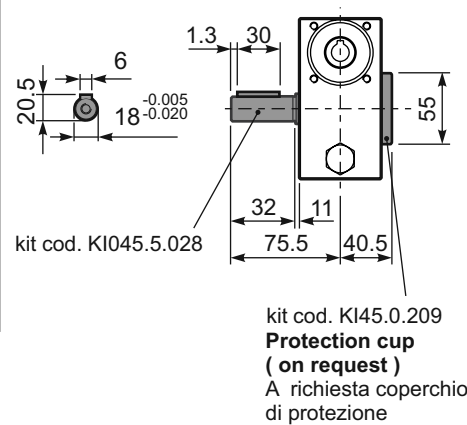
RI45UN... Input shaft
Albero in entrata



PI45**BR**... Reaction arm
Braccio di reazione



PI45.....**S**... Single Shaft
Albero lento semplice



150 Stainless Steel - Gear 72Nm



Rating - Stainlesssteel WORM GEARBOXES

■ QUICK SELECTION / Selezione veloce							input speed (n_1) = 1400 min ⁻¹							
Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	B5 motor flanges not available		Available B14 motor flanges			Dynamic efficiency RD	Tooth Module [mm]	Ratios code
							-	-	-P	-Q	-R			
200	7	0.75	29	1.9	1.5	57	-	-	63	71	80	82	2.5	01
140	10	0.75	41	1.5	1.1	62	-	-	B-C	B		80	2.4	02
100	14	0.75	57	1.2	0.90	68	-	-	B-C	B		79	2.6	03
78	18	0.55	51	1.2	0.67	62	-	-	B-C	B		75	2.0	04
54	26	0.55	67	1.0	0.54	66	-	-	B-C	B		69	2.7	05
47	30	0.55	79	0.9	0.50	72	-	-	B-C	B		70	2.5	12
39	36	0.37	63	1.2	0.43	72	-	-	B-C			69	2.1	06
33	43	0.37	72	1.0	0.35	68	-	-	B-C			66	1.8	07
23	60	0.25	59	1.0	0.26	62	-	-	B-C			58	1.3	08
21	68	0.25	66	0.9	0.22	58	-	-	B-C			57	1.2	09
17.5	80	0.18	53	1.1	0.19	57	-	-	B-C			54	1.0	10
14	100	0.12	41	1.3	0.15	51	-	-	B-C			50	0.8	11

* The nominal power should be reduced if the ambient temperature is $\geq 30^\circ\text{C}$, or when a cooler gearbox is required.

* Diminuire la potenza nominale in caso di temperatura ambiente $\geq 30^\circ\text{C}$ o se è richiesta una bassa temperatura di utilizzo del riduttore.

■ Motor Flanges Available
Flange Motore Disponibili

⊕ B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

⊕ B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione



C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **I50** is supplied with synthetic oil, providing "long life" lubrication.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **I50** viene fornito lubrificato a vita con olio sintetico.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Für die Lebensdauerschmierung ist das Getriebe der Größe **I50** mit synthetischem Öl befüllt.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **I50** est fourni lubrifié à vie avec de l'huile synthétique.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **I50** se suministra, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard			On request		
B3	B6	B7	B8	V5	V6
0.22 LT	0.22 LT	0.28 LT	0.22 LT	0.22 LT	0.22 LT
AGIP Telium VSF 320			SHELL Omala S4 WE 320		

For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

■ RADIAL AND AXIAL LOADS				
Output shaft Albero di uscita		n_2 [min ⁻¹]	F_A [N]	F_R [N]
		200	240	1200
		150	280	1400
		100	300	1500
		75	340	1700
		50	380	1900
		25	480	2500
		15	560	2800
Input shaft albero in entrata		n_1 [min ⁻¹]	F_A [N]	F_R [N]
		1400	76	380

*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

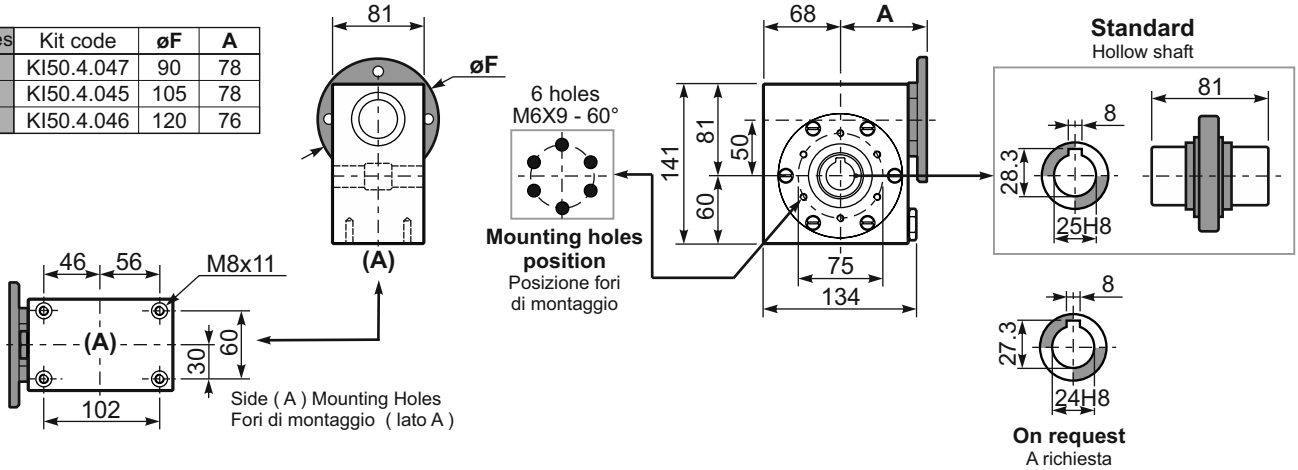
150 Stainless Steel - Gear 72Nm

3D dimensions on the Web

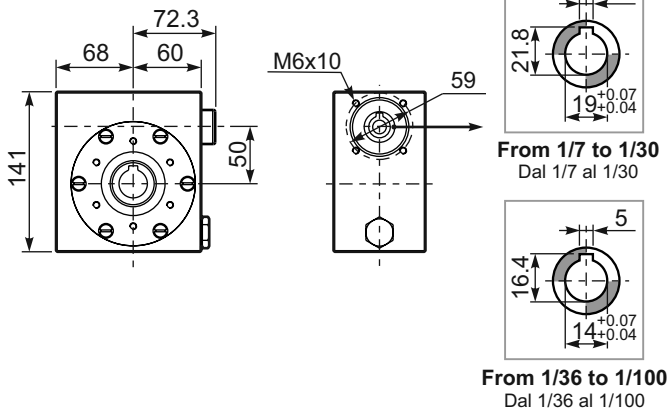
PI50**UN**... Basic wormbox
Riduttore base

Gearbox weight
peso riduttore **7.3 kg**

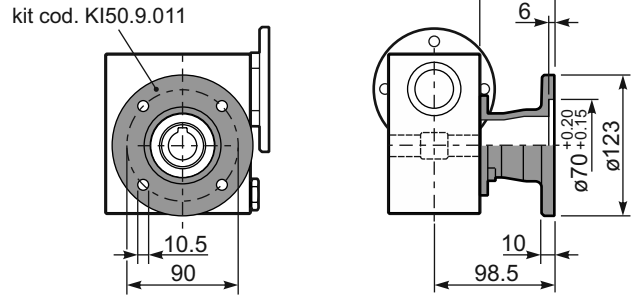
M. flanges	Kit code	øF	A
63B14	KI50.4.047	90	78
71B14	KI50.4.045	105	78
80B14	KI50.4.046	120	76



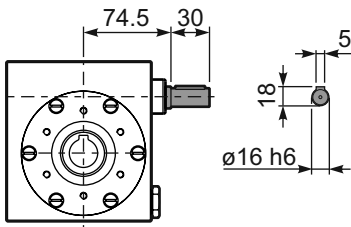
B150UN... Modular base
Base modulare



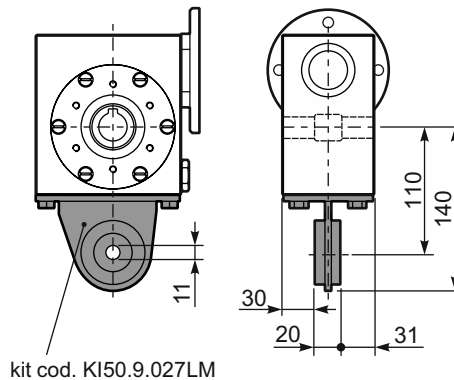
PI50**FL**... Output flange
Flangia uscita



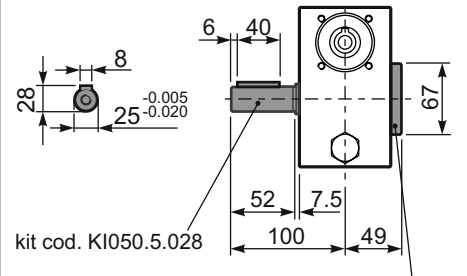
R150UN... Input shaft
Albero in entrata



PI50**BR**... Reaction arm
Braccio di reazione



PI50...**S**... Single Shaft
Albero lento semplice



kit cod. KI50.0.209
Protection cup (on request)
A richiesta coperchio di protezione

I63 Stainless Steel - Gear 147Nm

Rating - Stainlesssteel WORM GEARBOXES



■ QUICK SELECTION / Selezione veloce							input speed (n ₁) = 1400 min ⁻¹							
Output Speed n ₂ [min ⁻¹]	Ratio i	Motor power P _{1M} [kW]	Output torque M _{2M} [Nm]	Service factor f.s.	Nominal power P _{1R} [kW]	Nominal torque M _{2R} [Nm]	B5 motor flanges not available		Available B14 motor flanges			Dynamic efficiency RD	Tooth Module [mm]	Ratios code
							-	-	-Q	-R	-T			
200	7	1.8	71	1.8	3.2	125	-	-	71	80	90	83	3.1	01
140	10	1.8	99	1.4	2.4	134	-	-	B-C	B-C		81	3.1	02
93	15	1.5	121	1.1	1.7	138	-	-	B-C	B-C		79	3.1	03
74	19	1.1	111	1.2	1.4	138	-	-	B-C	B-C		78	2.6	04
58	24	1.1	135	1.0	1.2	142	-	-	B-C	B-C		75	2.0	05
47	30	1.1	167	0.9	0.96	146	-	-	B-C	B-C		74	3.2	06
39	36	0.75	125	1.2	0.88	147	-	-	B-C	B-C		68	2.7	07
31	45	0.55	111	1.2	0.67	135	-	-	B-C	C		66	2.1	08
23	60	0.55	140	0.9	0.51	130	-	-	B-C	C		62	1.6	12
21	67	0.55	151	0.8	0.45	124	-	-	B-C	C		60	1.5	09
17.5	80	0.37	115	1.0	0.38	119	-	-	B-C	C		57	1.3	10
14.9	94	0.37	123	1.0	0.36	119	-	-	B-C	C		52	1.1	11

* The nominal power should be reduced if the ambient temperature is ≥ 30°C, or when a cooler gearbox is required.

* Diminuire la potenza nominale in caso di temperatura ambiente ≥ 30°C o se è richiesta una bassa temperatura di utilizzo del riduttore.

■ Motor Flanges Available
Flange Motore Disponibili

⊗ B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

⊗ B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

⊗ C) Motor Flange Holes Position
Posizione Fori Flangia Motore







EN Unit I63 is supplied with synthetic oil, providing "long life" lubrication.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo I63 viene fornito lubrificato a vita con olio sintetico.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Für die Lebensdauerschmierung ist das Getriebe der Größe I63 mit synthetischem Öl befüllt.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type I63 est fourni lubrifié à vie avec de l'huile synthétique.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

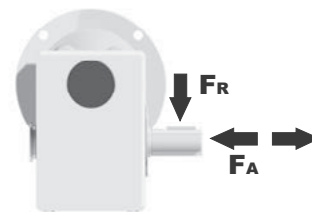
E El reductor tamaño I63 se suministra, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard	On request				
					
B3	B6	B7	B8	V5	V6
0.60 LT	0.60 LT	0.82 LT	0.60 LT	0.60 LT	0.60 LT
AGIP Telium VSF 320			SHELL Omala S4 WE 320		

For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

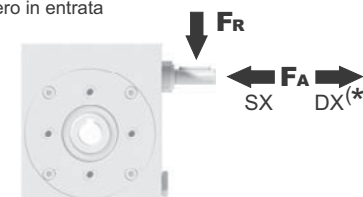
■ RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita



n ₂	FA	FR
200	360	1800
150	400	2000
100	460	2300
75	500	2500
50	600	3000
25	700	3800
15	800	4000

Input shaft
albero in entrata



n ₁ [min ⁻¹]	FA [N]	FR [N]
1400	90	450

*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

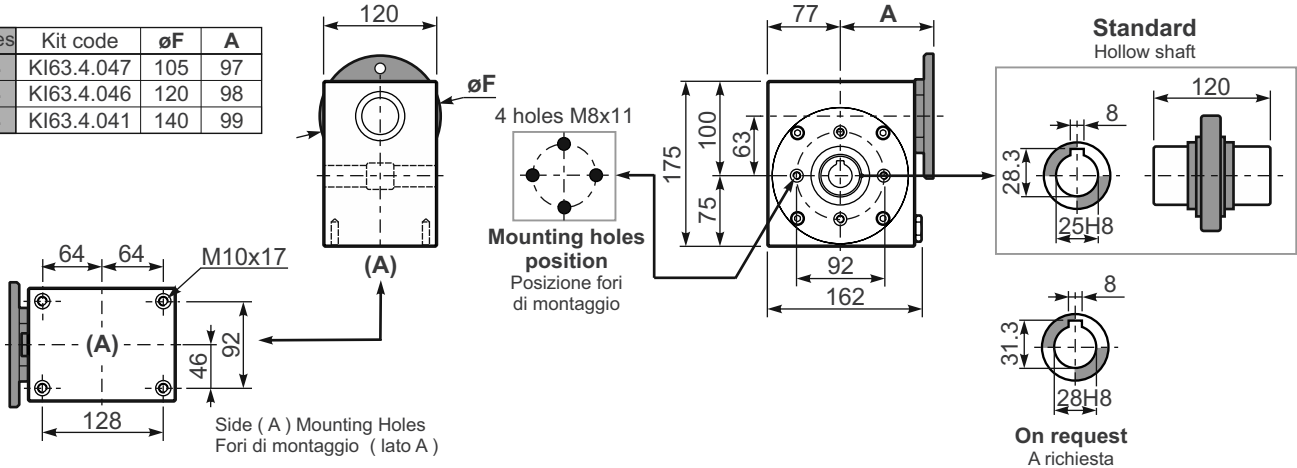
I63 Stainless Steel - Gear 147Nm

3D dimensions on the Web

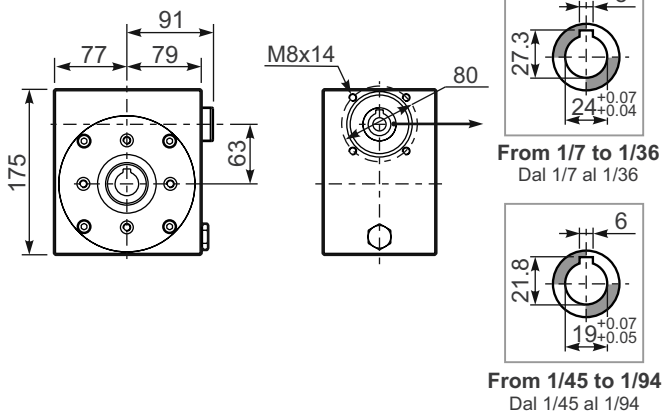
Gearbox weight
peso riduttore **14.6 kg**

PI63**UN**... Basic wormbox
Riduttore base

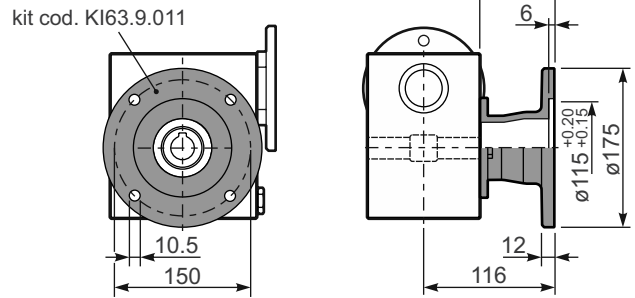
M. flanges	Kit code	øF	A
71B14	KI63.4.047	105	97
80B14	KI63.4.046	120	98
90B14	KI63.4.041	140	99



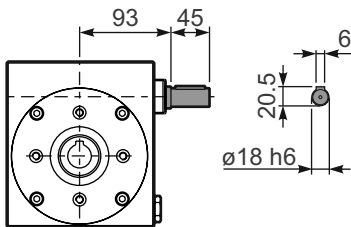
B163UN... Modular base
Base modulare



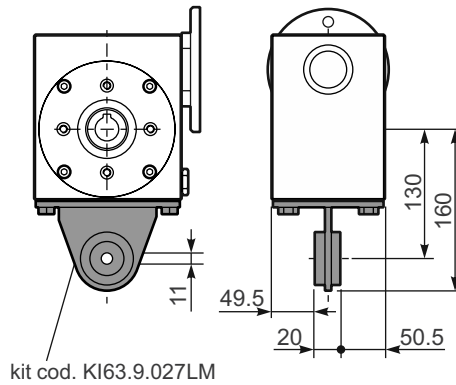
PI63**FL**... Output flange
Flangia uscita



R163UN... Input shaft
Albero in entrata



PI63**BR**... Reaction arm
Braccio di reazione

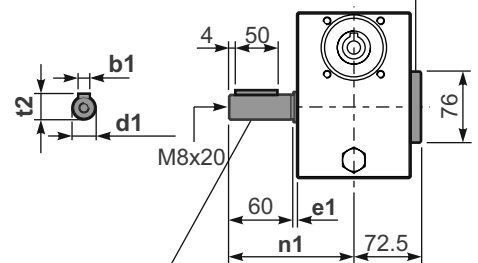


PI63...**S**... Single Shaft
Albero lento semplice

kit cod. KI63.0.209

Protection cup (on request)

A richiesta coperchio di protezione



kit cod. KI063.5.028

kit cod. KI070.5.028 On request

	b1	e1	d1	n1	t2
Standard	8	3.2	25 ^{-0.005} -0.020	121.9	28
On request	8	3.5	28 ^{-0.005} -0.020	122.2	31

185 Stainless Steel - Gear 347Nm

Rating - Stainlesssteel WORM GEARBOXES



■ QUICK SELECTION / Selezione veloce							input speed (n_1) = 1400 min ⁻¹					
Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges		Available B14 motor flanges	Dynamic efficiency RD	Tooth Module [mm]	 Ratios code
							-D	-E	-U			
							80	90	100-112			
200	7	4.0	168	1.5	6.1	257	B	B		88	4.23	01
140	10	4.0	218	1.3	5.2	284	B	B		80	4.2	02
100	14	3.0	223	1.4	4.1	305	B	B		78	4.5	03
70	20	2.2	237	1.2	2.7	294	B	B		79	3.4	04
64	22	2.2	258	1.1	2.5	294	B	B		78	3.1	05
50	28	2.2	315	1.1	2.4	347	B	B		75	4.7	06
37	38	1.5	276	1.2	1.8	336	B	B		71	3.5	07
30	46	1.5	320	1.0	1.5	326	B	B		68	3.1	08
27	52	1.1	258	1.1	1.2	289	B	B		66	2.7	09
21	67	1.1	327	0.9	0.97	289	B	B		65	2.1	10
18.9	74	0.75	220	1.2	0.91	268	B	B		58	1.9	11
14.6	96	0.55	191	1.3	0.70	242	B	B		53	1.5	12

* The nominal power should be reduced if the ambient temperature is $\geq 30^\circ\text{C}$, or when a cooler gearbox is required.

* Diminuire la potenza nominale in caso di temperatura ambiente $\geq 30^\circ\text{C}$ o se è richiesta una bassa temperatura di utilizzo del riduttore.

Motor Flanges Available Flange Motore Disponibili
 B) Supplied with Reduction Bushing Fornito con Bussola di Riduzione
 B) Available on Request without reduction bushing Disponibile a Richiesta senza Bussola di Riduzione
 C) Motor Flange Holes Position Posizione Fori Flangia Motore

EN Unit I85 is supplied with synthetic oil, providing "long life" lubrication. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo I85 viene fornito lubrificato a vita con olio sintetico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Für die Lebensdauerschmierung ist das Getriebe der Größe I85 mit synthetischem Öl befüllt. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type I85 est fourni lubrifié à vie avec de l'huile synthétique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño I85 se suministra, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard			On request		
B3	B6	B7	B8	V5	V6
1.40 LT	1.40 LT	1.70LT	1.40 LT	1.40 LT	1.40 LT
AGIP Telium VSF 320			SHELL Omala S4 WE 320		

For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

■ RADIAL AND AXIAL LOADS				
Output shaft Albero di uscita		n_2 [min ⁻¹]	F_A [N]	F_R [N]
		200	500	2500
		150	580	2900
		100	600	3000
		75	700	3500
		50	800	4000
		25	1000	5000
		15	1160	5800
Input shaft albero in entrata		n_1 [min ⁻¹]	F_A [N]	F_R [N]
		1400	160	809

*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

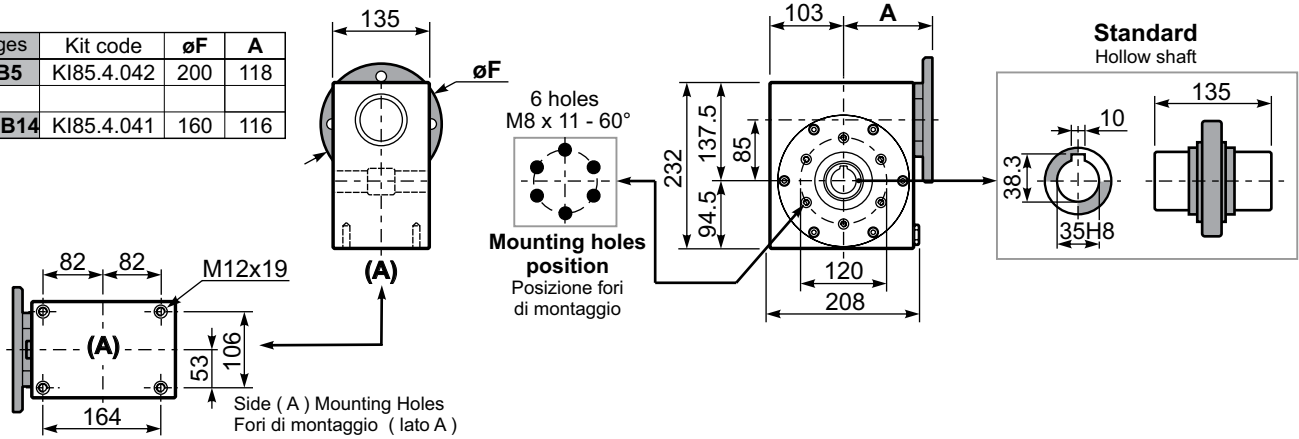
185 Stainless Steel - Gear 347Nm

3D dimensions on the Web

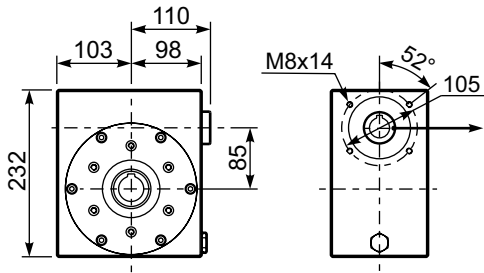
Gearbox weight
peso riduttore **23.3 kg**

PI85UN... Basic wormbox
Riduttore base

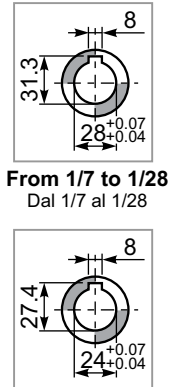
M. flanges	Kit code	øF	A
80-90B5	KI85.4.042	200	118
100-112B14	KI85.4.041	160	116



BI85UN... Modular base
Base modulare



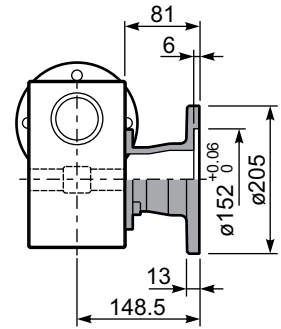
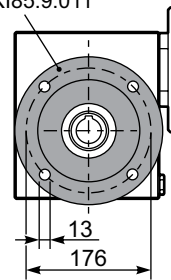
Input bore
Foro entrata



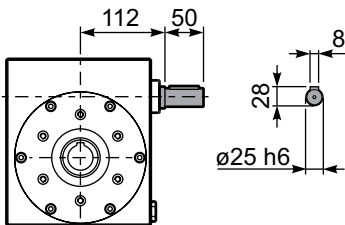
From 1/38 to 1/96
Dal 1/38 al 1/96

PI85FL... Output flange
Flangia uscita

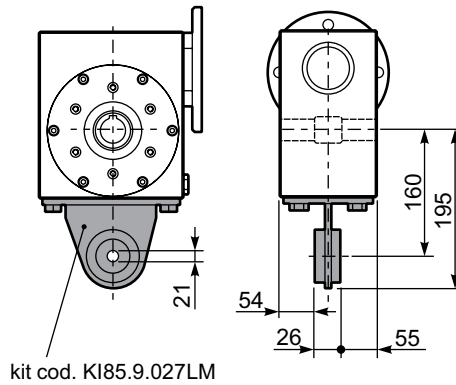
kit cod. KI85.9.011



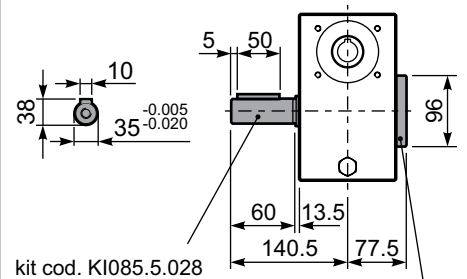
RI85UN... Input shaft
Albero in entrata



PI85BR... Reaction arm
Braccio di reazione



PI85.....S... Single Shaft
Albero lento semplice



kit cod. KI85.0.209
Protection cup
(on request)
A richiesta coperchio di protezione

I11 Stainless Steel - Gear 651Nm



Rating - Stainlesssteel WORM GEARBOXES

■ QUICK SELECTION / Selezione veloce							input speed (n_1) = 1400 min ⁻¹					
Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges		Available B14 motor flanges	Dynamic efficiency RD	Tooth Module [mm]	 Ratios code
							-D	-E	-U			
200	7	4.0	168	2.9	11.5	483	B	B		88	5.5	01
140	10	4.0	235	2.2	9.0	525	B	B		86	5.4	02
88	16	4.0	358	1.5	6.0	536	B	B		82	5.3	03
70	20	4.0	447	1.2	4.9	546	B	B		82	4.5	04
61	23	3.0	377	1.4	4.1	515	B	B		80	3.9	05
47	30	3.0	467	1.4	4.2	651	B	B		76	5.6	06
37	38	3.0	583	1.1	3.3	641	B	B		75	4.7	07
31	45	2.2	493	1.2	2.7	599	B	B		73	4.0	08
26	53	2.2	557	1.1	2.5	620	B	B		70	3.5	09
22	64	1.5	452	1.2	1.8	536	B			69	2.9	10
16.7	84	1.1	410	1.2	1.3	494	B			65	2.2	11
14.1	99	1.1	446	1.1	1.2	483	B			60	1.9	12

* The nominal power should be reduced if the ambient temperature is $\geq 30^\circ\text{C}$, or when a cooler gearbox is required.

* Diminuire la potenza nominale in caso di temperatura ambiente $\geq 30^\circ\text{C}$ o se è richiesta una bassa temperatura di utilizzo del riduttore.

■ Motor Flanges Available
Flange Motore Disponibili

⊗ B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

⊗ B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

⊗ C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit I11 is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo I11 viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Für die Lebensdauerschmierung ist das Getriebe der Größe I11 mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type I11 est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño I11 se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard			On request		
B3	B6	B7	B8	V5	V6
3.50 LT	2.50 LT	2.50 LT	2.10 LT	1.60 LT	1.60 LT
AGIP Telium VSF 320			SHELL Omala S4 WE 320		

For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

■ RADIAL AND AXIAL LOADS			
Output shaft Albero di uscita			
	n_2 [min ⁻¹]	FA [N]	FR [N]
	200	600	2900
	150	700	3300
	100	750	3600
	75	800	4000
	50	920	4600
	25	1200	6000
15	1400	7000	
Input shaft albero in entrata			
	n_1 [min ⁻¹]	FA [N]	FR [N]
	1400	228	1140

*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

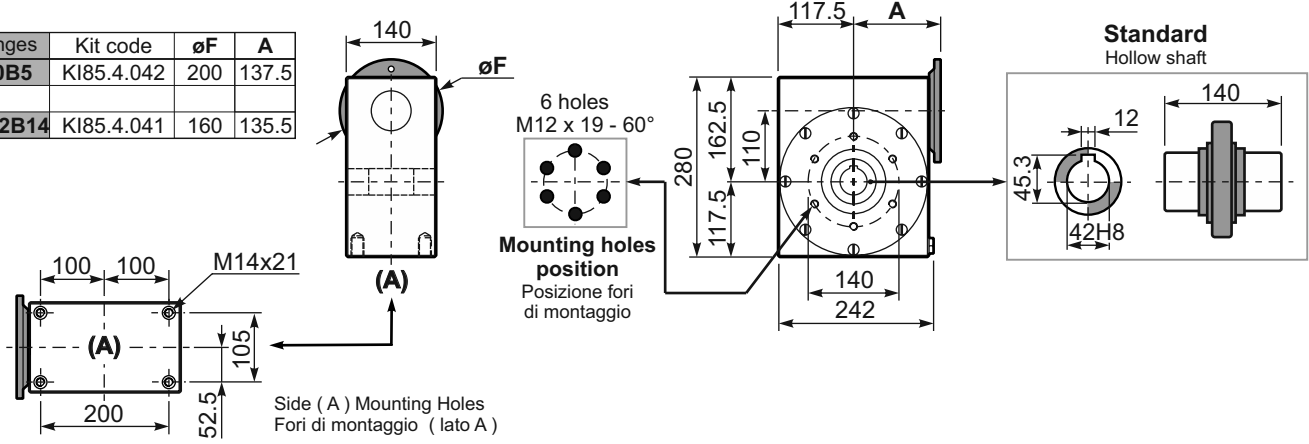
I11 Stainless Steel - Gear 651Nm

3D dimensions on the Web

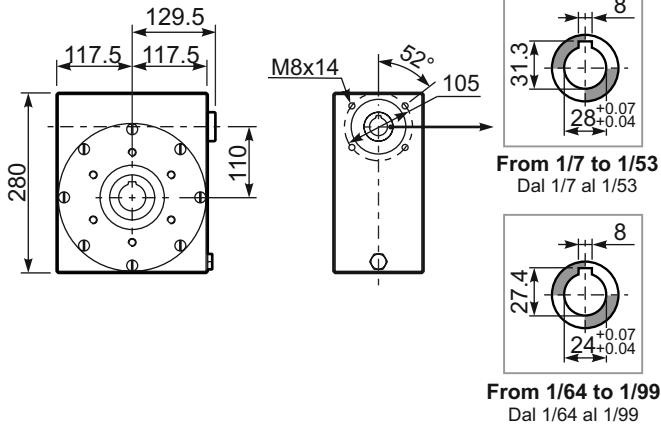
Gearbox weight
peso riduttore **38.5 kg**

PI11UN... Basic wormbox
Riduttore base

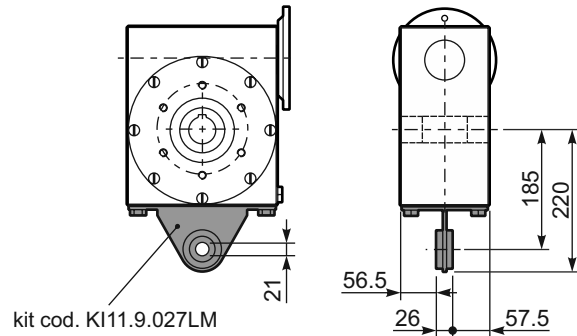
M. flanges	Kit code	øF	A
80-90B5	KI85.4.042	200	137.5
100-112B14	KI85.4.041	160	135.5



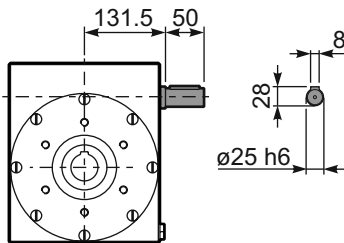
B111UN... Modular base
Base modulare



PI11BR... Reaction arm
Braccio di reazione



R111UN... Input shaft
Albero in entrata



411I One Step - 38Nm

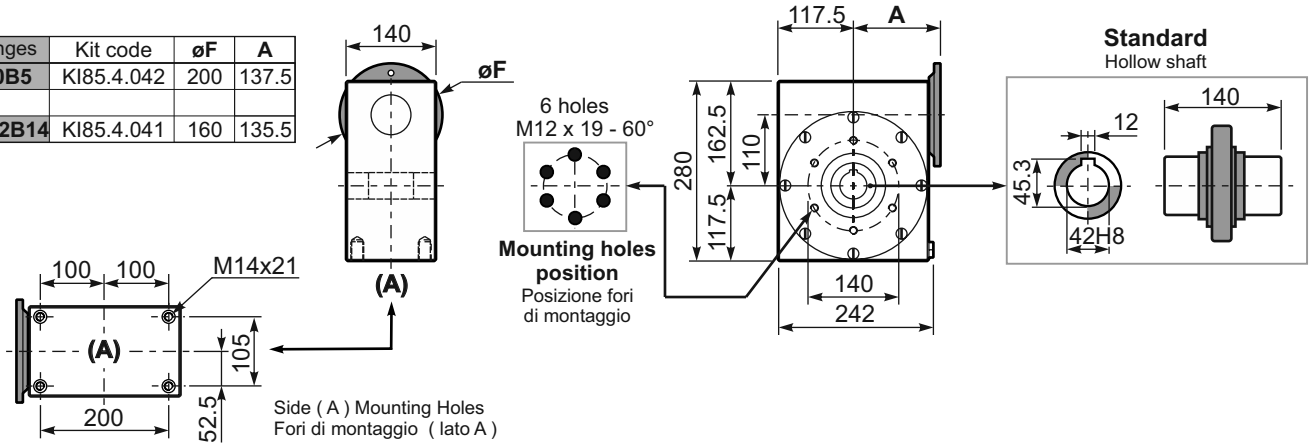
Rating - Stainlesssteel ONE STEP GEARBOXES



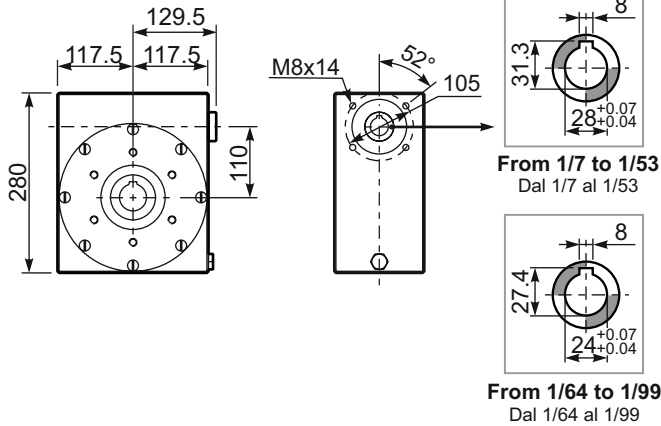
Gearbox weight
peso riduttore **38.5 kg**

PI11UN... Basic wormbox
Riduttore base

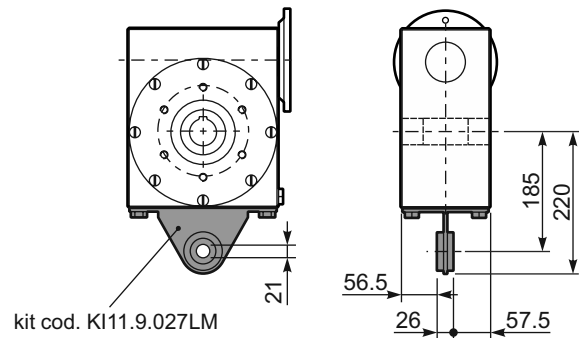
M. flanges	Kit code	øF	A
80-90B5	KI85.4.042	200	137.5
100-112B14	KI85.4.041	160	135.5



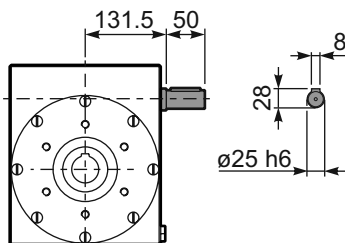
B111UN... Modular base
Base modulare



PI11BR... Reaction arm
Braccio di reazione



R111UN... Input shaft
Albero in entrata







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