ALUMINUM AND CAST IRON SHAFT MOUNTED HELICAL

COMPACT - GEARS

NEMA CATALOGUE EDITION 2025

C-FACE NEMA

HYDRO·MEC

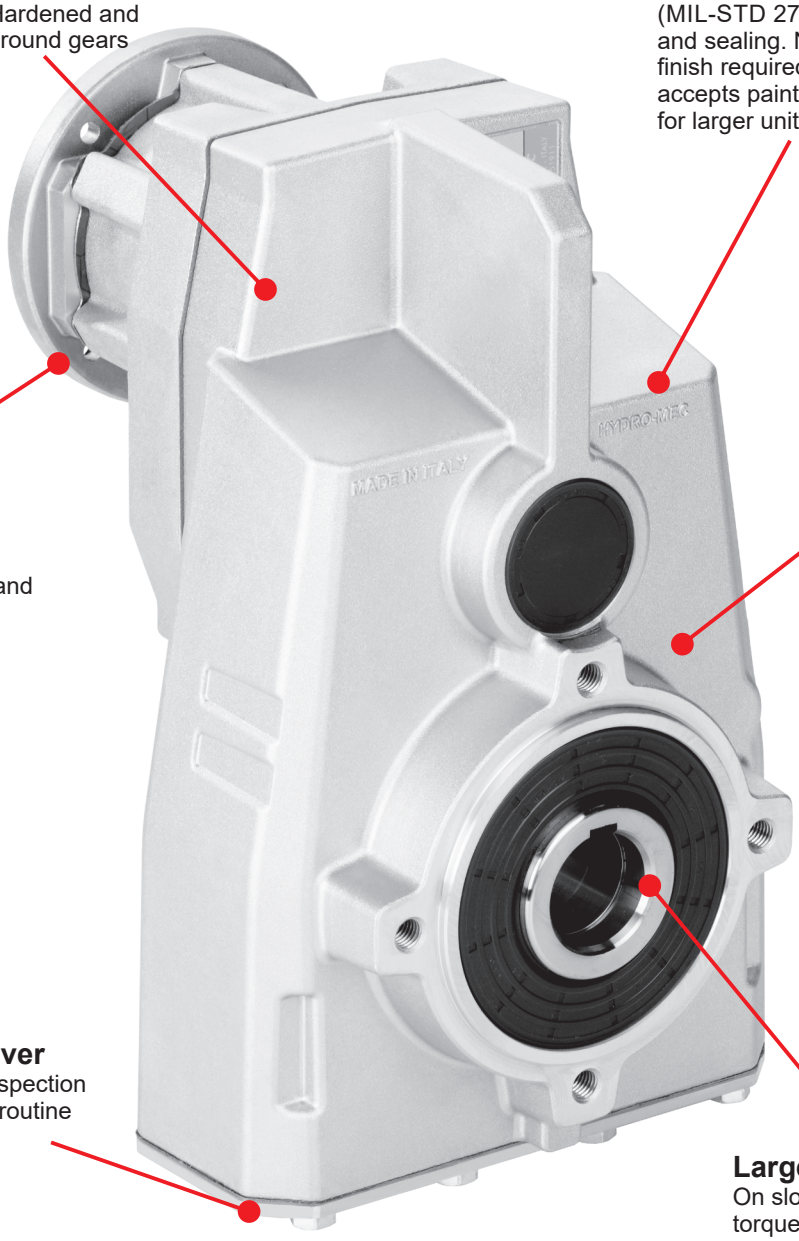
HIGH EFFICENCY GEARBOXES

Aluminum & cast iron shaft mounted gearboxes

A modular and compact product

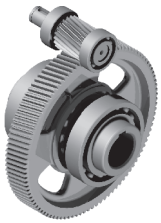
Gears
Hardened and ground gears

Alloy housing
Is vacuum impregnated (MIL-STD 276) for protection and sealing. No secondary finish required but readily accepts paint or cast iron for larger units.



Flange
Fully modular to IEC and Compact integrated motor.
NEMA C flange

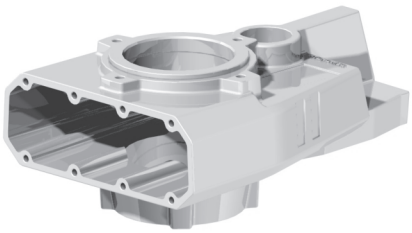
Large center distance

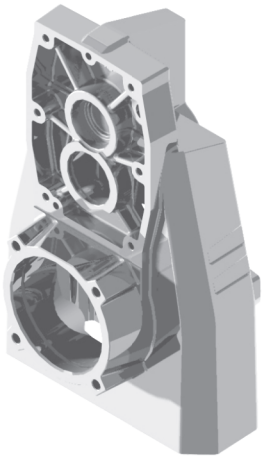


Removable inspection cover
Allows periodic inspection of gearing during routine maintenance

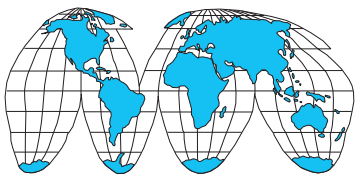
Large center distance
On slow gears for safe torque trasmission.

Single-piece aluminum / Cast Iron housing
Combines light weight with high tensile strength. Precision machined for alignment of bearings and gearing





Painting
Cast iron gearboxes are painted RAL 7046



World wide sales network.

Specific type datasheet on page...

On page / A pagina /Auf Seite / À la page / En la página

2 and 3 Stage

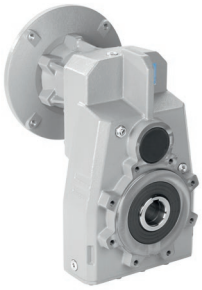
7-5	7-7	7-9	7-11

Types / Tipi / Tipos ⇨

FA42	**FA43**	**FA52**	**FA53**
2832lb in	2832lb in	4337lb in	4514lb in

On page / A pagina /Auf Seite / À la page / En la página

2 and 3 Stage



7-13	7-15	7-17	7-19	7-21	7-23

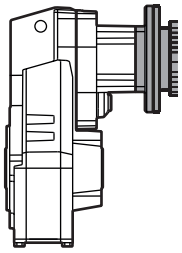
Types / Tipi / Tipos ⇨

FC62	**FC63**	**FC72**	**FC73**	**FC82**	**FC83**
5974lb in	5974lb in	7966lb in	7966lb in	18587lb in	18587lb in

CODIFICA / HOW TO ORDER / CODIFICACIÓN

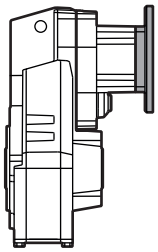
Type - Tipo - Typ	**Size** - Grandezza - Tomaño	**Mounting** - Montaggio Tipo de montaje	**Rapporto** - Ratio Relacion
M	**FA42**	**C**	**10.04**

Shaft mounted helical
Riduttori ad assi paralleli



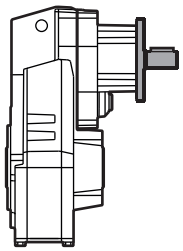
With IEC motor

M



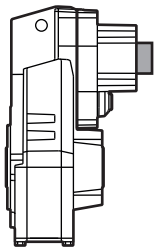
With motor flange

P



With male input shaft

R



Modular base

B

2 Stages Riduzioni Etapas

3 Stages Riduzioni Etapas

Aluminum / Alluminio Aluminio

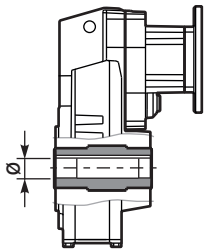
FA42
FA52

FA43
FA53

Cast Iron / Ghisa Fundicion

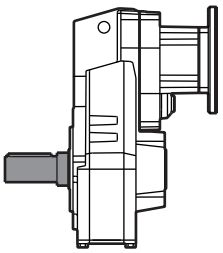
FC62
FC72
FC82

FC63
FC73
FC83



Hollow output shaft

C



Single output shaft

A

See technical data table

Vedi tabelle dati tecnici.

Ver tabla datos técnicos

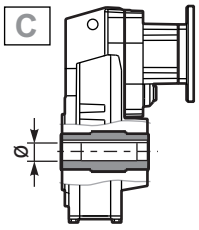
7

CODIFICA / HOW TO ORDER / CODIFICACIÓN

Output shaft
Albero uscita
Eje en salida

UF

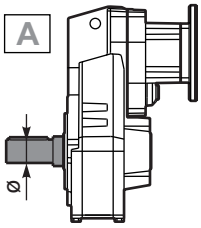
C



➡ **STANDARD**
⇨ Only on request for Q.ty
A richiesta per quantità

FA42 FA43
UF ➡ **ø1.250**
FA52 FA53
UG ➡ **ø1.375**
FC62 FC63 FC72 FC73
UH ➡ **ø1.500**
FC82 FC83
UL ➡ **ø2.000**

A

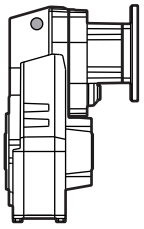


Single output shaft

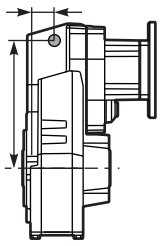
FA42 FA43
UD ⇨ ø1.000
FA52 FA53 FC62 FC63
UG ⇨ ø1.375
FC72 FC73
UI ⇨ ø1.625
FC82 FC83
UL ⇨ ø2.000

Type - Tipo
Typ

ST

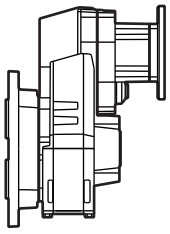


ST
Foro standard
Standard bore



Available torque arms, see our web site.
Bracci di reazione disponibili, vedi il nostro sito web.

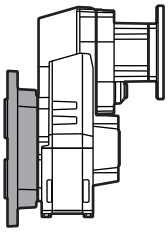
S..



-F
Whit output flange
con flangia uscita

Output flange
Flangia uscita
Brida en salida

N



N Senza flangia
Without flange

FA42 FA43
2 ➡ **ø6.299**
3 ⇨ ø7.874
4 ⇨ ø9.843
FA52 FA53 FC62 FC63
4 ➡ **ø9.843**
FC72 FC73
4 ➡ **ø9.843**
5 ⇨ ø11.811
FC82 FC83
5 ➡ **ø11.811**
6 ⇨ ø13.780

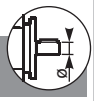
Motor size
Grandezza motore
Tamaño motor

-W

Flange
Flangia

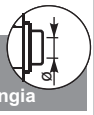
Nema
-W=56C
-X=143/5TC
-Y=182/4TC
AA=213/5TC
AB=254/6TC
AC=284/6TC
AD=324/6TC

Type R
Tipo R



FA43
-K ⇨ ø0.625
FA42 FA53 FC63 FC73
-K ⇨ ø0.625
-J ➡ ø0.750
FA52 FC62 FC72 FC83
-J ⇨ ø0.750
-N ➡ ø0.875

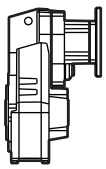
Without flange
Senza flangia



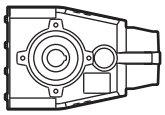
-M With coupling
Con giunto
FA43
-K ⇨ ø0.625
FA42 FA53 FC63 FC73
-K ⇨ ø0.625
-N ⇨ ø0.875
FA52 FC62 FC72
-K ⇨ ø0.625
-N ⇨ ø0.875
-S ⇨ ø1.125
FC82
-S ⇨ ø1.125
UA ⇨ ø1.375
UB ⇨ ø1.625

Mounting position
Posizione montaggio
Position de montaje

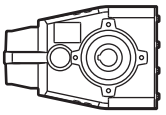
H1



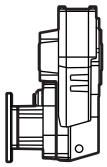
H1
STANDARD



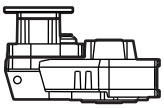
H4



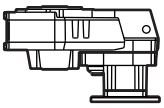
H3



H2



H5



H6

Specify only for vertical positions

Specificare solo per posizione verticale

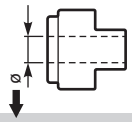
Input bore
Foro entrata
Eingangshohlwelle
Trou d'entree
Eje hueco de entrada

ST

ST
Nothing indication:
standard bore

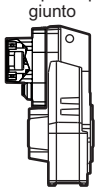
Nessuna indicazione:
foro standard

COUPLING



-W = ø0.625"
-X = ø0.875"
-Y = ø1.125"

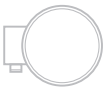
-0
Ready for input coupling
Predisposto per giunto



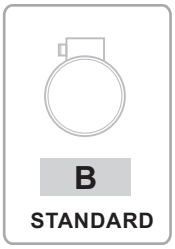
Terminal box position
Posizione morsettiera
Posición caja de bornes

With Type M specify terminal box position

Con tipo M specificare posizione morsettiera



A



B
STANDARD

C

D

7

FORMULE UTILI / USEFUL FORMULAS / FÓRMULAS ÚTILES

POTENZA RICHIESTA / REQUIRED POWER / POTENCIA NECESARIA

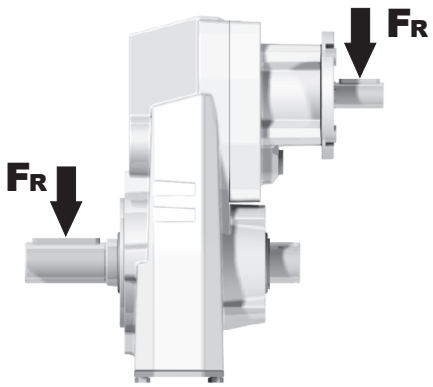
Lifting / sollevamento / elevactión	$\mathbf{P}\ [KW] = \frac{\mathbf{M}\ [Kg] \cdot \mathbf{g}\ [9.81] \cdot \mathbf{v}\ [m/s]}{\mathbf{1000}}$
Rotation / rotazione / rotaction	$\mathbf{P}\ [KW] = \frac{\mathbf{M}\ [Nm] \cdot \mathbf{n}\ [rpm]}{\mathbf{9550}}$
Linear movement / traslazione / translacion	$\mathbf{P}\ [KW] = \frac{\mathbf{F}\ [N] \cdot \mathbf{v}\ [m/s]}{\mathbf{1000}}$

TORQUE / COPPIA / PAR

	$\mathbf{M}\ [Nm] = \frac{\mathbf{9550} \cdot \mathbf{P}[KW]}{\mathbf{n}\ [rpm]}$
	$\mathbf{M}\ [lb\ in] = \frac{\mathbf{63030} \cdot \mathbf{P}[HP]}{\mathbf{n}\ [rpm]}$

RADIAL LOADS / CARICHI RADIALI / CARGA RADIAL Y AXIAL

- Radial load generated by external transmissions keyed onto input and/or output shafts.
- Forza radiale generata da organi di trasmissione calettati sugli alberi di ingresso e/o uscita.
- Cargas radiales, generada por transmisiones externas, aplicadas sobre los ejes de entrada y/o salida



$F_R\ [N] = \frac{M\ [Nm] \cdot 2000}{d\ [mm]} \cdot f_K$	$F_R\ [N] = \frac{M\ [lb\ in] \cdot 8.9}{d\ [in]} \cdot f_K$

M	Momento torcente / Output torque / Par torsion
d	Diametro primitivo / Diam. of driving element / Diámetro primitivo
f_K	Coefficiente di trasformazione / Factor / Coeficiente de transmisión **1.15** Ingranaggi / Gearwheels / Engranaje **1.25** Catena / Chain sprochets / Cadena **1.75** Cinghia Trapezoidale / Narrow v-belt pulley / Correa trapezoidal **2.50** Cinghia piatta / Flat-belt pulley / Correa plana

— If your application requires higher radial loads, contact our technical office. Higher load may be possible.
— Nel caso la vostra applicazione richieda carichi radiali superiori consultare il nostro ufficio tecnico, valori maggiori possono essere accettati.
— En el caso en que una aplicación exija una carga radial superior a la especificada en el catálogo, consultar a nuestra oficinas técnica.

B Output speed / Velocità in uscita / Velocidad de salida

Nominal power / Potenza nominale / Potencia nominal

Gear size / Grandezza riduttore / Tamaño reductor

Motor power / Potenza motore / Potencia motor

A Nominal torque / Momento torcente nominale / Par de torsión nominal

Flange code / Codice flangia / Código bridas

Input speed / Velocità in entrata / Velocidad de entrada

FA42 Compact gear 2832lb in

Rating - Aluminum
SHAFT MOUNTED HELICAL

▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1750 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [HP]	Output torque M_{2M} [lb in]	Service factor f.s.	Nominal power P_{1R} [HP]	Nominal torque M_{2R} [lb in]	Available NEMA motor flanges -W 56C	Available NEMA motor flanges -X 143/5 TC	Output Shaft	Output Shaft ø	Ratios code
209	**8.38**	2	580	3.4	6.87	1991			2821		01
174	**10.04**	2	694	3.1	6.12	2124			2818		02
142	**12.33**	2	853	2.7	5.40	2301			2813		03
115	**15.16**	2	1048	2.2	4.39	2301			1921		04

C Ratio / Rapporto / Relación

Transmitted torque / Momento torcente trasmesso / Par transmitido

Service factor / Fattore di servizio / Factor de servicio

Output shaft diam. / Diam. albero uscita / Diametro eje de salida

Notes / Note / Notas

fs

Type of load and starts per hour / Tipo di carico e avviamenti per ora		Oper. hours per day / Ore di funz. giorn. 3 h	10 h	24 h
Continuous or intermittent appl. with start / hour ≤ 10 / Applicazione cont. o interm. con n.ro operazioni/ora	Uniform / Uniforme	0.8	1	1.25
	Moderate / Moderato	1	1.25	1.5
	Heavy / Forte	1.25	1.5	1.75
Intermittent application with start / hour > 10 / Applicazione intermittente con n.ro operazioni/ora	Uniform / Uniforme	1	1.25	1.5
	Moderate / Moderato	1.25	1.5	1.75
	Heavy / Forte	1.5	1.75	2.15

D Motor flange available / Flange disponibili / Bridas disponibles

B) Mounting with reduction ring / Montaggio con boccola di riduzione / Montaje con casquillo de reducción

C) Motor flangeholes position/terminal box position / Posizione fori flangia/basetta motore / Posición agujeros brida / base motor

B) Available without reduction bushes / Disponibile anche senza boccola / Disponible tambien sin casquillo

A	Select required torque (according to service factor)	Seleziona la coppia desiderata (comprensiva del fattore di servizio)	Max. Drehmoment in Bezug zum Betriebsfaktor
B	Select ouput speed	Seleziona la velocità in uscita	Ausgewählte Abtriebsdrehzahl
C	On the same line of selected geared motor, you can find the gear ratio	Sulla riga corrispondente alla motorizzazione prescelta si può rilevare il rapporto di riduzione	Auf der gleichen Linie wie die ausgewählte Motorleistung steht auch die Getriebeuntersetzung
D	Select motor flange available (if requested)	Scegli la flangia disponibile (se richiesta)	Erhältliche Motorflansche (auf Anfrage)

▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1750 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [HP]	Output torque M_{2M} [lb in]	Service factor f.s.	Nominal power P_{1R} [HP]	Nominal torque M_{2R} [lb in]	Available NEMA motor flanges -W 56C	Available NEMA motor flanges -X 143/5 TC		Output Shaft ø	Ratios code
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142	**12.33**	2	853	2.7	**5.40**	**2301**			2813		03
115	**15.16**	2	1048	2.2	**4.39**	**2301**			1921		04
100	**17.57**	2	1215	2.0	**3.93**	**2390**			1721		05
96	**18.16**	2	1256	2.0	**4.09**	**2567**			1918		06
83	**21.05**	2	1455	1.9	**3.89**	**2832**			1718		07
78	**22.30**	2	1542	1.8	**3.67**	**2832**			1913		08
71	**24.70**	2	1708	1.7	**3.32**	**2832**			1518		09
68	**25.85**	2	1787	1.6	**3.17**	**2832**			1713	**standard ø1.250**	10
59	**29.49**	2	2039	1.4	**2.78**	**2832**			1318		11
58	**30.34**	2	2098	1.3	**2.70**	**2832**			1513		12
52	**33.60**	2	2324	1.0	**1.90**	**2213**			1021		13
48.3	**36.21**	2	2504	1.1	**2.26**	**2832**			1313		14
43.5	**40.25**	2	2783	1.0	**1.91**	**2655**			1018		15
35.4	**49.43**	1.5	2564	1.1	**1.66**	**2832**			1013		16
33.3	**52.53**	1	1816	1.3	**1.27**	**2301**			918		17
27.1	**64.51**	1	2231	1.2	**1.25**	**2788**			913		18
25.2	**69.37**	0.75	1799	0.9	**0.70**	**1682**			718		19
20.6	**85.19**	0.75	2208	0.9	**0.69**	**2036**			713		20

The dynamic efficiency is **0.96** for all ratios

Motor Flanges Available Flange Motore Disponibili

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

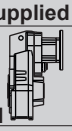
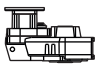
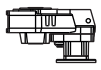
B) **Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione

C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

EN Unit **FA42** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
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 **FA42** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

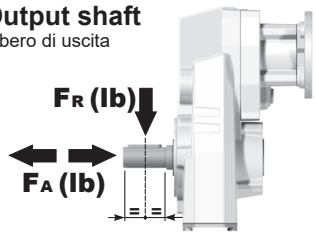
E El reductor tamaño **FA42** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	**For these mounting position specify in the order or add oil** Per queste posizioni specificare in fase d'ordine o aggiungere olio				
 **H1**	 **H4**	 **H3**	 **H2**	 **H5**	 **H6**
40.47 oz	24.64 oz	24.64 oz	24.64 oz	42.23 oz	28.16 oz
SHELL Omala S4 WE 320			**ENI** Telium VSF 320		

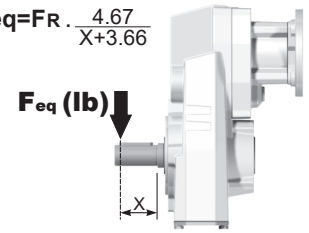
For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita



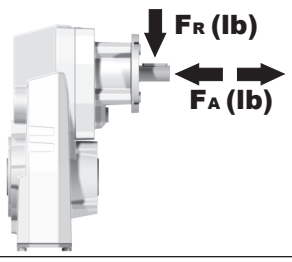
$F_{eq} = F_R \cdot \frac{4.67}{X+3.66}$



n_2 [min^{-1}]	FA	FR	n_2 [min^{-1}]	FA	FR	n_2 [min^{-1}]	FA	FR
300	67	337	**140**	88	438	**70**	110	550
250	72	359	**120**	92	461	**40**	133	663
200	79	393	**85**	103	517	**15**	180	899

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata

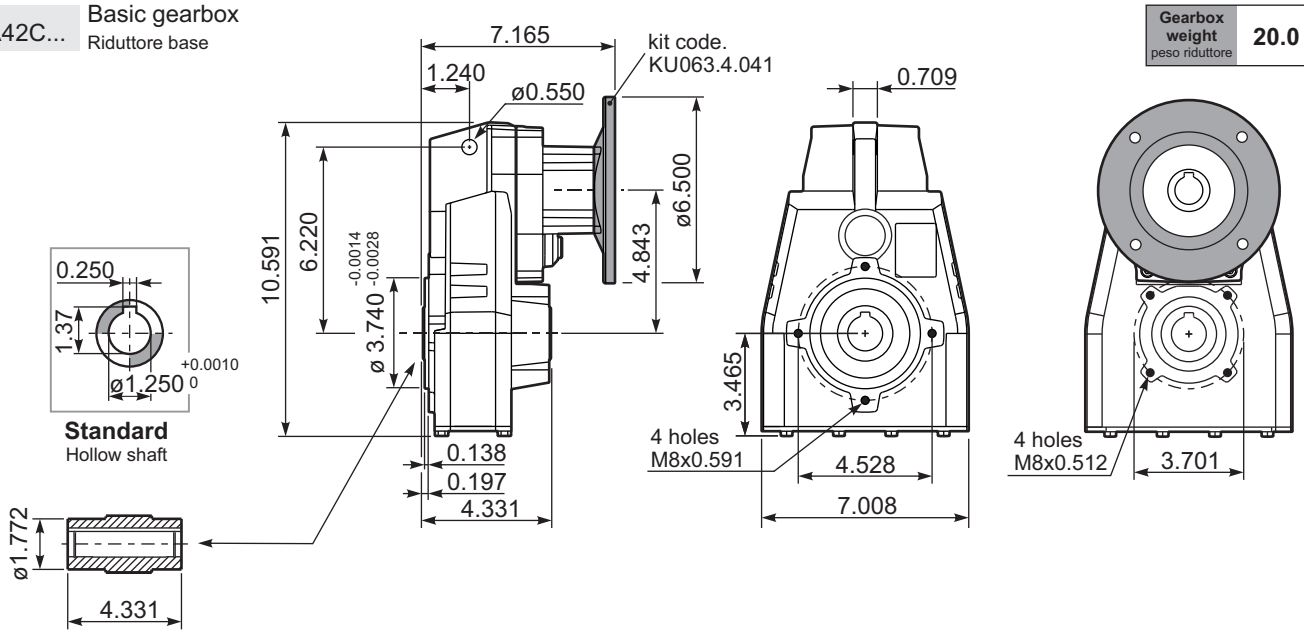


n_1	FA	FR
1750	54	270
1140	63	315

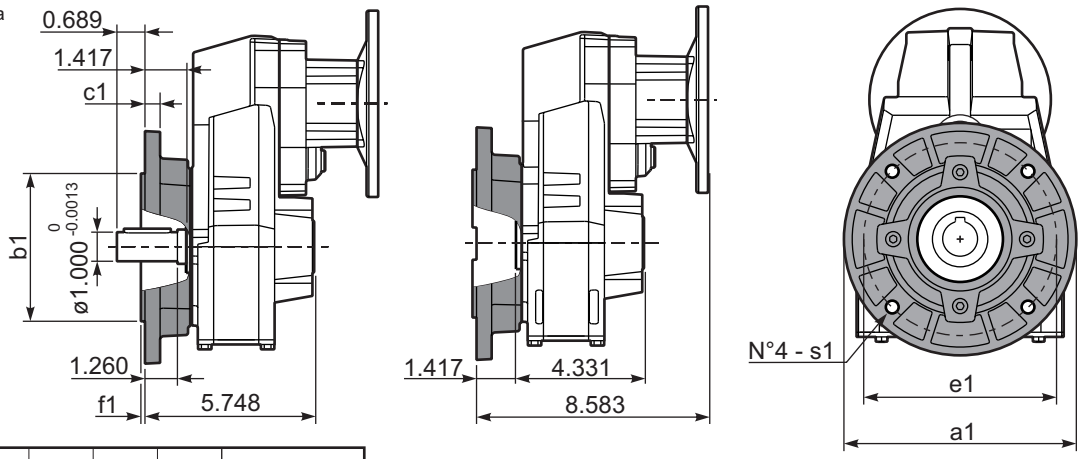
tab. 2

PFA42C... Basic gearbox
Riduttore base

Gearbox weight / peso riduttore: **20.0 lb**



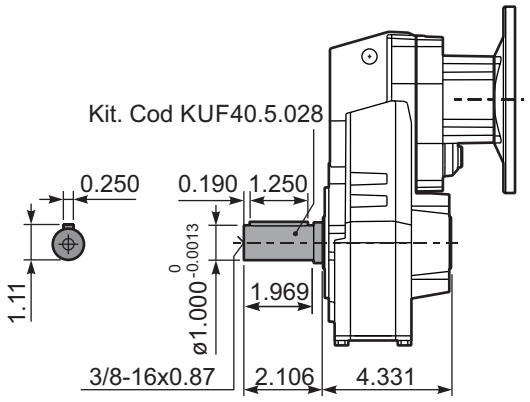
PFA42...-F... Output flange
Flangia uscita



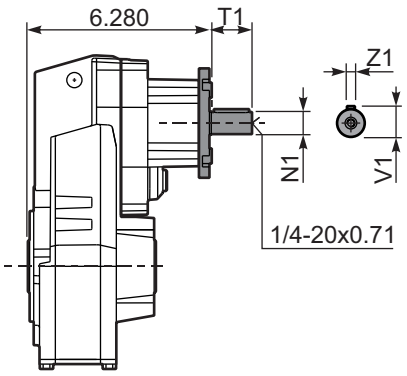
Available output flanges
Flange di uscita

a1 ø	b1	c1	e1	f1	s1	Kit code
6.299	4.331 -0.0014 -0.0028	0.394	5.118	0.118	0.354	KX5A.9.010
7.874	5.118 -0.0017 -0.0033	0.512	6.496	0.138	0.433	KX5A.9.011
9.843	7.087 -0.0017 -0.0033	0.551	8.465	0.157	0.551	KX5A.9.012

PFA42 A... Single output shaft
Albero uscita semplice



RFA42C... Input Shaft
Albero in entrata



Nema flanges	N1	T1	V1	Z1	kit code
Standard	0.750	1.97	0.83	0.188	KC40.5.070U
On request	0.625	1.57	0.71	0.188	KC40.5.069U

▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1750 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [HP]	Output torque M_{2M} [lb in]	Service factor f.s.	Nominal power P_{1R} [HP]	Nominal torque M_{2R} [lb in]	Available NEMA motor flanges -W 56C	Available NEMA motor flanges - -		Output Shaft ø	Ratios code
23.5	**74.33**	1	2517	1.1	**1.13**	**2832**			191313		01
21.2	**82.56**	1	2795	1.0	**1.01**	**2832**			151318		02
20.0	**87.48**	0.75	2221	1.3	**0.96**	**2832**			131713		03
17.3	**101.40**	0.75	2575	1.1	**0.83**	**2832**			151313		04
14.3	**122.57**	0.75	3112	0.9	**0.68**	**2832**			131313		05
12.6	**138.59**	0.5	2346	1.2	**0.60**	**2832**			101318		06
10.9	**160.82**	0.5	2722	1.0	**0.52**	**2832**			91713		07
10.3	**170.20**	0.5	2881	1.0	**0.49**	**2832**			101313		08
9.5	**183.48**	0.5	3106	0.9	**0.46**	**2832**			91318	**standard ø1.250**	09
8.2	**214.15**	0.33	2393	1.2	**0.39**	**2832**			71713		10
7.8	**225.33**	0.33	2517	1.1	**0.37**	**2832**			91313		11
7.2	**244.32**	0.33	2730	1.0	**0.34**	**2832**			71318		12
6.9	**254.15**	0.33	2840	1.0	**0.33**	**2832**			61713		13
6.0	**289.96**	0.25	2454	1.2	**0.29**	**2832**			61318		14
5.8	**300.05**	0.25	2540	1.1	**0.28**	**2832**			71313		15
4.9	**356.09**	0.25	3014	0.9	**0.23**	**2832**			61313		16

The dynamic efficiency is **0.94** for all ratios

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 **FA43** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
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 **FA43** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

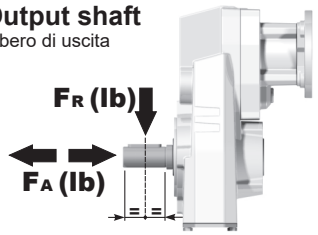
E El reductor tamaño **FA43** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	**For these mounting position specify in the order or add oil** Per queste posizioni specificare in fase d'ordine o aggiungere olio				
 **H1**	 **H4**	 **H3**	 **H2**	 **H5**	 **H6**
45.75 oz	24.64 oz	24.64 oz	24.64 oz	47.51 oz	31.68 oz
SHELL Omala S4 WE 320			**ENI** Telium VSF 320		

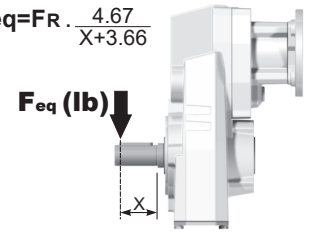
For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita



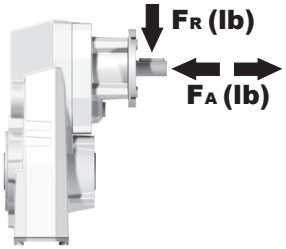
$F_{eq} = F_R \cdot \frac{4.67}{X+3.66}$



n_2 [min^{-1}]	FA	FR	n_2 [min^{-1}]	FA	FR	n_2 [min^{-1}]	FA	FR
300	67	337	**140**	88	438	**70**	110	550
250	72	359	**120**	92	461	**40**	133	663
200	79	393	**85**	103	517	**15**	180	899

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata

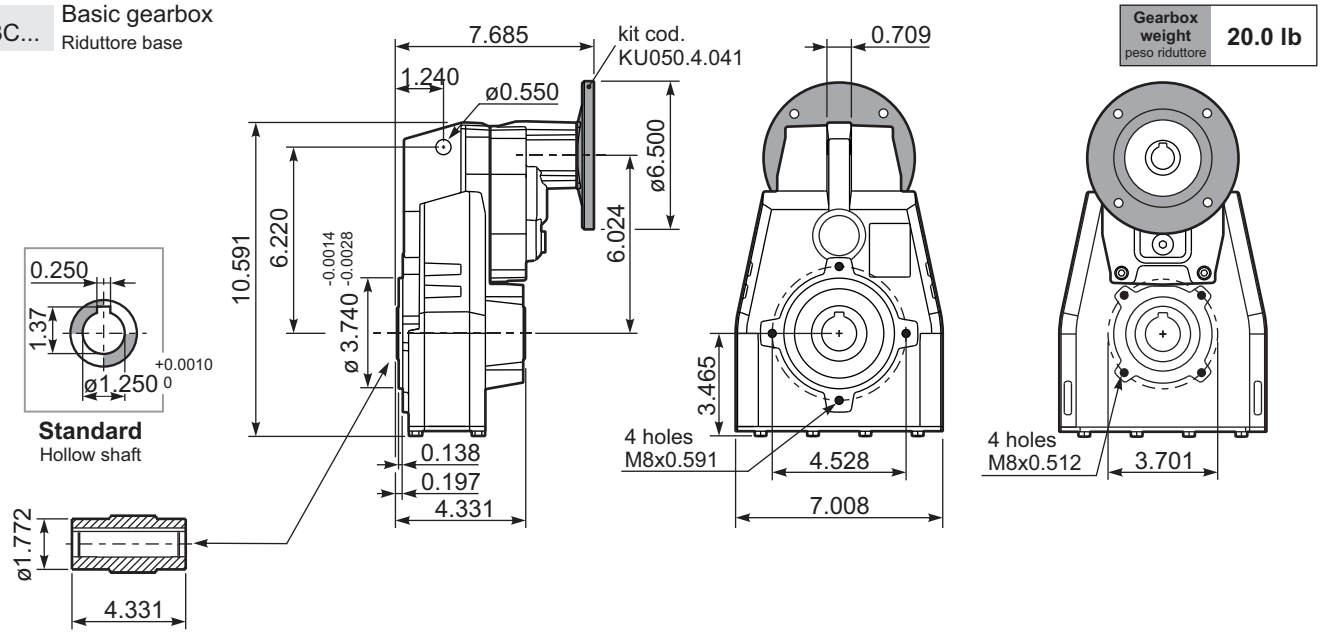


n_1	FA	FR
1750	31	157
1140	36	180

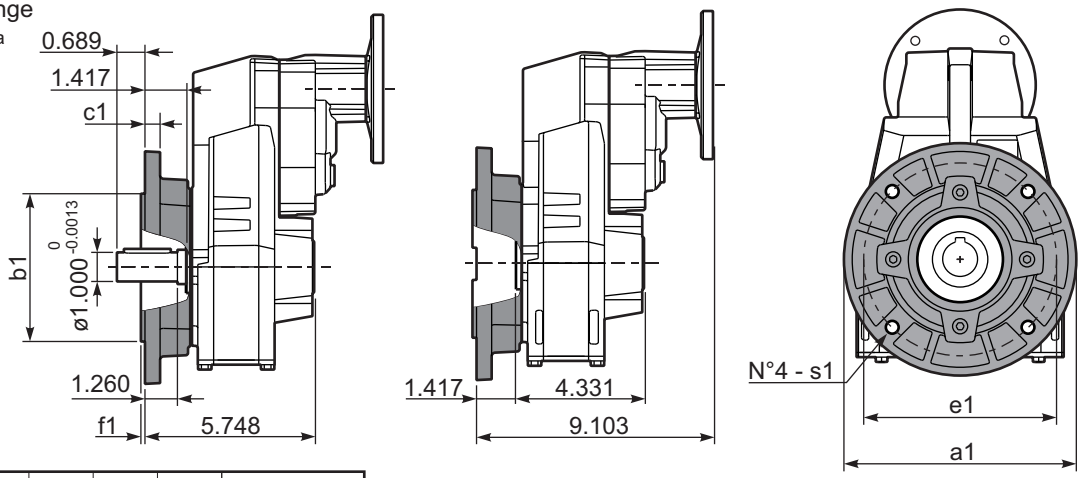
tab. 2

PFA43C... Basic gearbox
Riduttore base

Gearbox weight / peso riduttore: **20.0 lb**



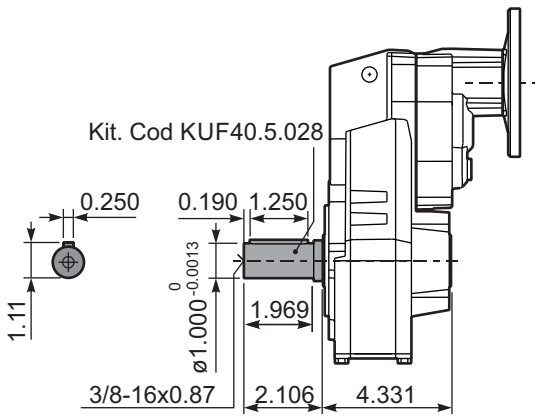
PFA43...**-F**... Output flange
Flangia uscita



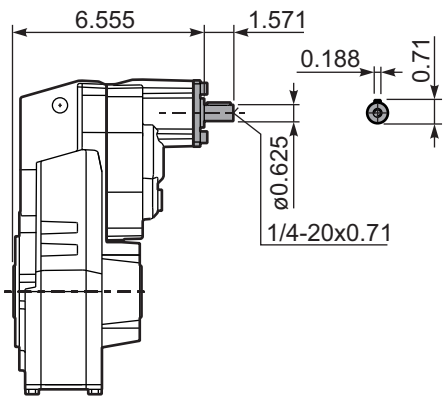
Available output flanges
Flange di uscita

a1 ø	b1	c1	e1	f1	s1	Kit code
6.299	4.331 -0.0014 -0.0028	0.394	5.118	0.118	0.354	KX5A.9.010
7.874	5.118 -0.0017 -0.0033	0.512	6.496	0.138	0.433	KX5A.9.011
9.843	7.087 -0.0017 -0.0033	0.551	8.465	0.157	0.551	KX5A.9.012

PFA43 **A**... Single output shaft
Albero uscita semplice



RFA43C... Input Shaft
Albero in entrata



7

▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1750 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [HP]	Output torque M_{2M} [lb in]	Service factor f.s.	Nominal power P_{1R} [HP]	Nominal torque M_{2R} [lb in]	Available NEMA motor flanges -W 56C	-X 143/5TC	-Y 182/4TC	AA 213/5TC		Output Shaft ø	Ratios code
266	**6.57**	10	2272	1.1	10.91	2478					3018		01
232	**7.56**	10	2613	1.0	9.82	2567					3016		02
198	**8.82**	10	3050	0.9	9.29	2832					3014		03
141	**12.39**	7.5	3212	1.2	9.30	3983					2018		04
123	**14.24**	7.5	3693	1.1	8.09	3983					2016		05
104	**16.75**	7.5	4343	1.0	7.18	4160					1618		06
91	**19.25**	7.5	4993	0.9	6.51	4337					1616		07
80	**21.78**	5	3765	1.2	5.76	4337					1318	**standard ø1.375**	08
70	**25.04**	5	4329	1.0	5.01	4337					1316		09
60	**29.23**	5	5053	0.9	4.29	4337					1314		10
57	**30.65**	3	3179	1.4	4.09	4337					1116		11
48.9	**35.78**	3	3711	1.2	3.51	4337					1114		12
45.4	**38.55**	3	3999	1.1	3.25	4337					818		13
39.5	**44.32**	3	4597	0.9	2.83	4337					816		14
33.8	**51.74**	2	3578	1.2	2.42	4337					814		15
28.7	**61.03**	2	4220	1.0	2.01	4248					616		16
24.6	**71.25**	1.5	3695	1.2	1.76	4337					614		17

The dynamic efficiency is **0.96** for all ratios

Motor Flanges Available / Flange Motore Disponibili

B) **Supplied with Reduction Bushing** / Fornito con Bussola di Riduzione

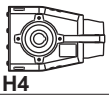
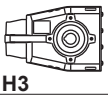
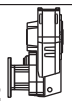
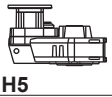
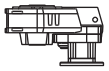
B) **Available on Request without reduction bushing** / Disponibile a Richiesta senza Bussola di Riduzione

C) **Motor Flange Holes Position** / Posizione Fori Flangia Motore

EN Unit **FA52** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
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 **FA52** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

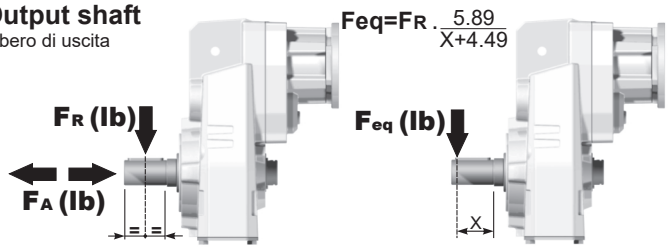
E El reductor tamaño **FA52** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	**For these mounting position specify in the order or add oil** Per queste posizioni specificare in fase d'ordine o aggiungere olio				
 **H1**	 **H4**	 **H3**	 **H2**	 **H5**	 **H6**
65.11 oz	40.47 oz	40.47 oz	45.75 oz	73.91 oz	45.75 oz
SHELL Omala S4 WE 320			**ENI** Telium VSF 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



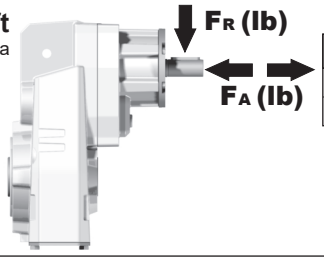
n_2	FA	FR
300	90	449
250	94	472
200	99	494

n_2	FA	FR
140	103	517
120	112	562
85	124	618

n_2	FA	FR
70	130	652
40	175	876
15	256	1281

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata

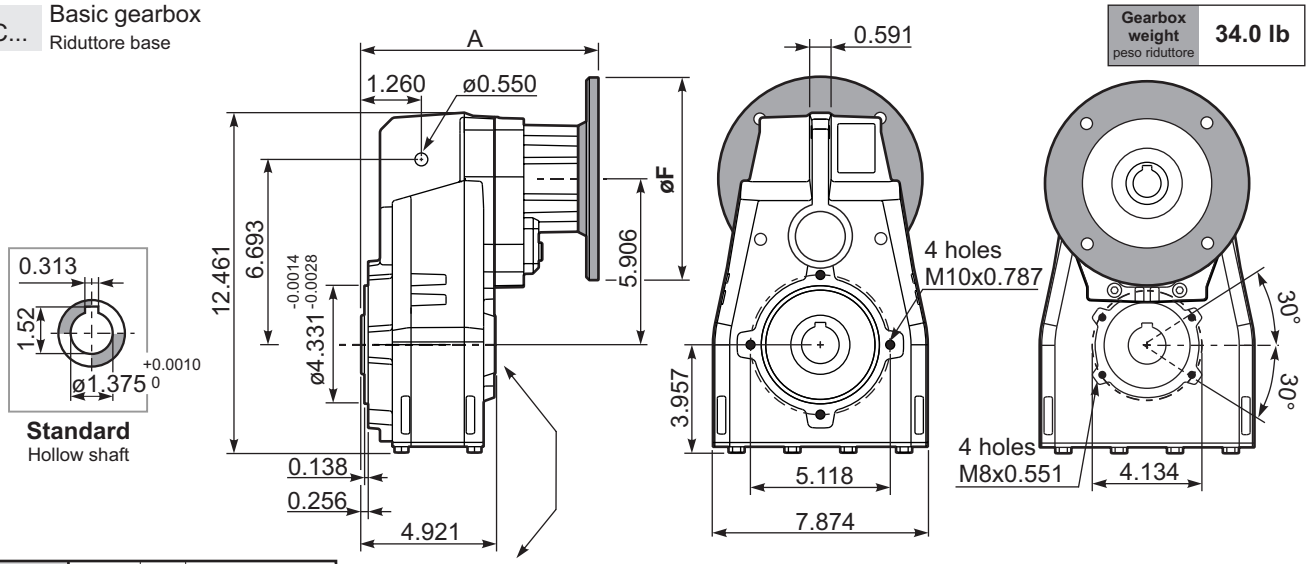


n_1	FA	FR
1750	90	449
1140	99	494

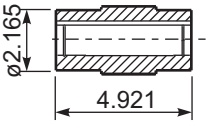
tab. 2

PFA52C... Basic gearbox
Riduttore base

Gearbox weight peso riduttore	34.0 lb

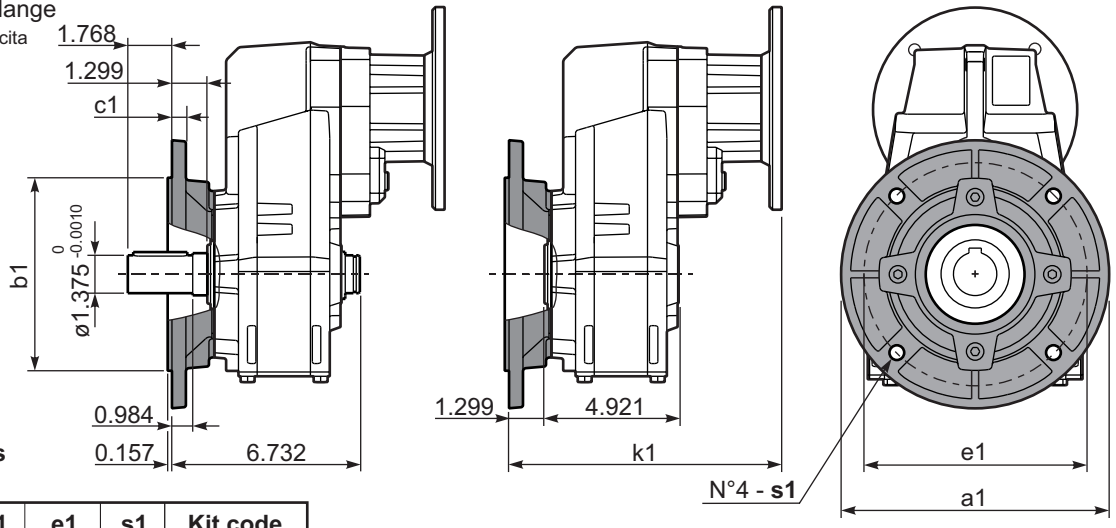


Nema flange	A	øF	kit code
56C-143/5TC	9.195	6.50	KU085.4.041
182/4TC	9.898	8.88	KU085.4.042
213/5TC	10.413	8.88	KUC50.4.041



PFA52...-F... Output flange
Flangia uscita

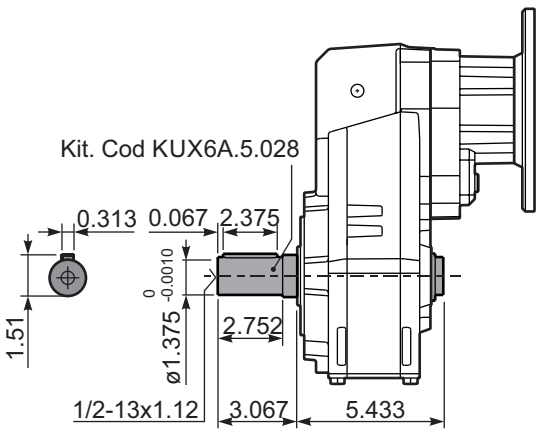
Nema flange	k1
56C-143/5TC	10.492
182/4TC	11.197
213/5TC	11.712



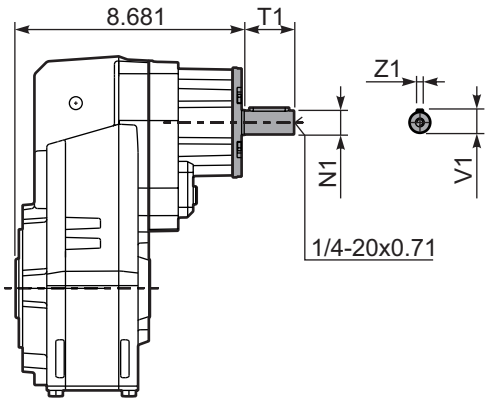
Available output flanges
Flange di uscita

a1 ø	b1	c1	e1	s1	Kit code
9.843	7.087 -0.0017 -0.0033	0.512	8.465	0.551	KF60.9.011
-	-	-	-	-	-

PFA52A... Single output shaft
Albero uscita semplice



RFA52C... Input Shaft
Albero in entrata



Nema flanges	N1	T1	V1	Z1	kit code
Standard	0.875	1.97	0.96	0.188	KC50.5.070U
On request	0.750	1.97	0.83	0.188	KC50.5.069U

▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1750 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [HP]	Output torque M_{2M} [lb in]	Service factor f.s.	Nominal power P_{1R} [HP]	Nominal torque M_{2R} [lb in]	Available NEMA motor flanges -W 56C	Available NEMA motor flanges -X 143/5 TC		Output Shaft ø	Ratios code
28.3	**61.89**	2	4191	1.1	**2.15**	**4514**			191318		01
24.6	**71.16**	2	4819	0.9	**1.87**	**4514**			191316		02
21.2	**82.48**	1.5	4189	1.1	**1.62**	**4514**			171316		03
18.2	**96.29**	1.5	4890	0.9	**1.38**	**4514**			171314		04
17.4	**100.51**	1.5	5104	0.9	**1.33**	**4514**			131318		05
15.1	**115.56**	1	3912	1.2	**1.15**	**4514**			131316		06
13.9	**125.96**	1	4265	1.1	**1.06**	**4514**			190816		07
13.0	**134.91**	1	4568	1.0	**0.99**	**4514**			131314		08
11.9	**147.05**	1	4979	0.9	**0.91**	**4514**			190814		09
10.3	**170.44**	0.75	4328	1.0	**0.78**	**4514**			170814	**standard ø1.375**	10
9.5	**184.15**	0.75	4676	1.0	**0.72**	**4514**			101314		11
8.5	**205.87**	0.75	5228	0.9	**0.65**	**4514**			91316		12
7.3	**240.34**	0.5	4069	1.1	**0.55**	**4514**			91314		13
6.3	**279.22**	0.5	4727	1.0	**0.48**	**4514**			100816		14
5.4	**325.97**	0.33	3642	1.2	**0.41**	**4514**			100814		15
4.8	**364.41**	0.33	4071	1.1	**0.37**	**4514**			90816		16
4.1	**425.43**	0.33	4753	0.9	**0.31**	**4514**			90814		17
3.6	**481.19**	0.25	4073	1.1	**0.28**	**4514**			70816		18
3.1	**561.76**	0.25	4755	0.9	**0.24**	**4514**			70814		19

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available Flange Motore Disponibili

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

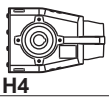
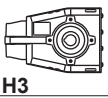
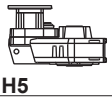
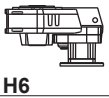
B) **Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione

C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

EN Unit **FA53** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
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 **FA53** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

E El reductor tamaño **FA53** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

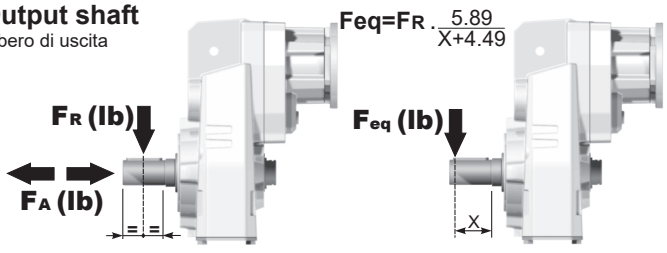
Standard supplied	**For these mounting position specify in the order or add oil** Per queste posizioni specificare in fase d'ordine o aggiungere olio				
 **H1**	 **H4**	 **H3**	 **H2**	 **H5**	 **H6**
75.67 oz	43.99 oz	43.99 oz	51.03 oz	82.71 oz	51.03 oz
SHELL Omala S4 WE 320			**ENI** Telium VSF 320		

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

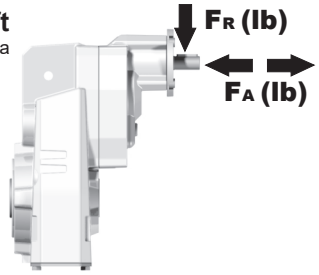
$$Feq = FR \cdot \frac{5.89}{X+4.49}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	90	449	**140**	103	517	**70**	130	652
250	94	472	**120**	112	562	**40**	175	876
200	99	494	**85**	124	618	**15**	256	1281

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata

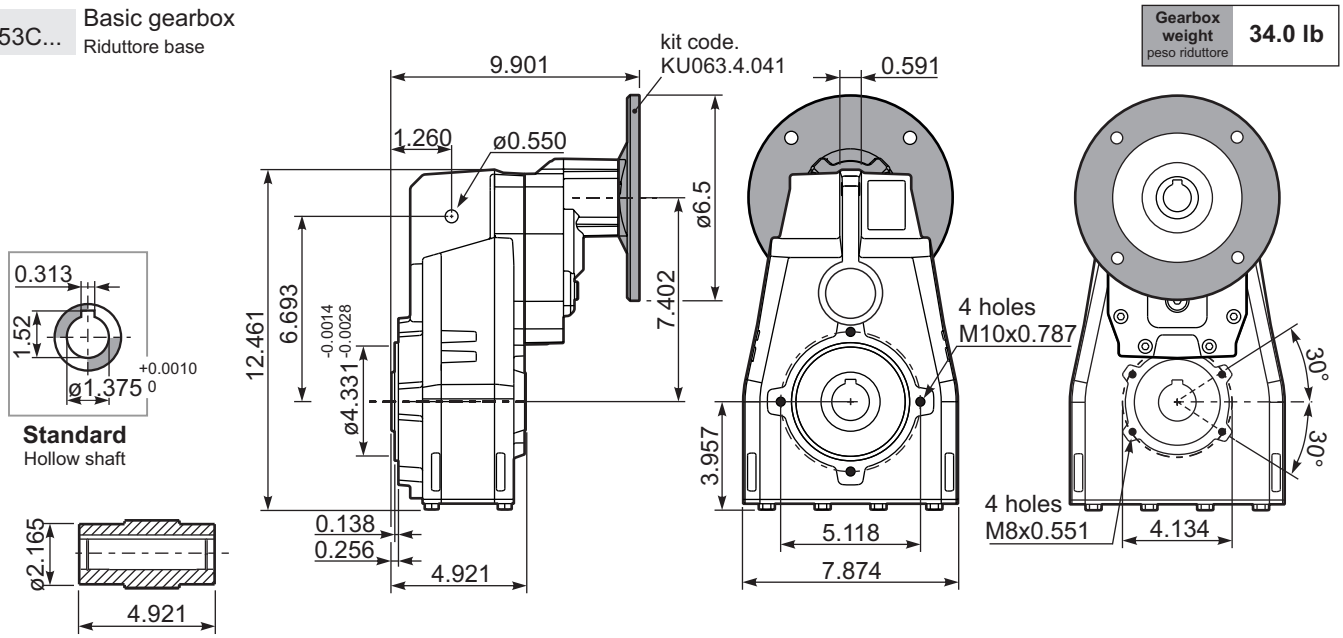


n_1	FA	FR
1750	54	270
1140	63	315

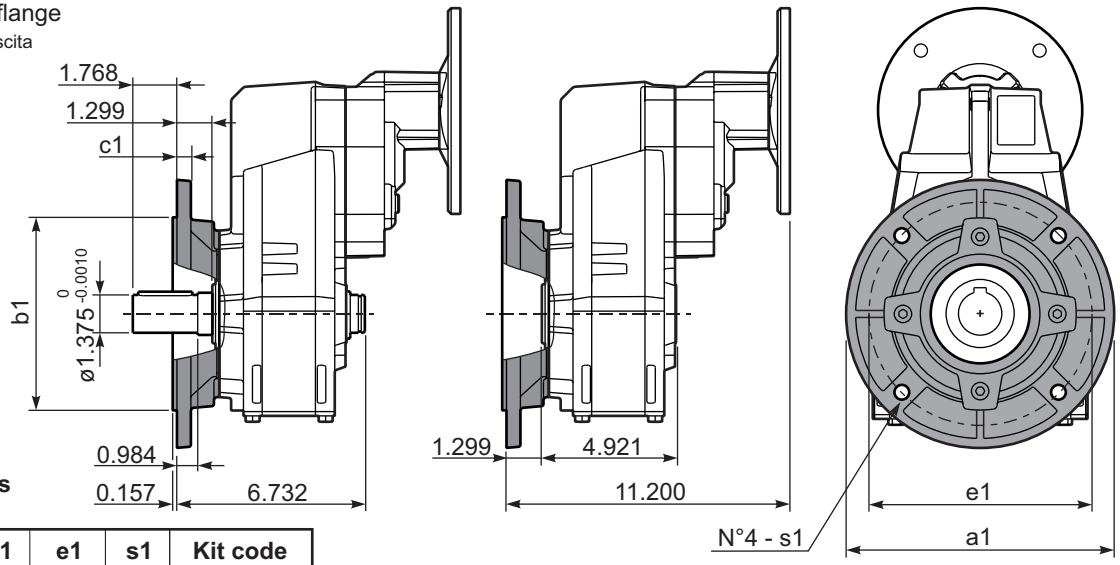
tab. 2

PFA53C... Basic gearbox
Riduttore base

Gearbox weight peso riduttore	34.0 lb



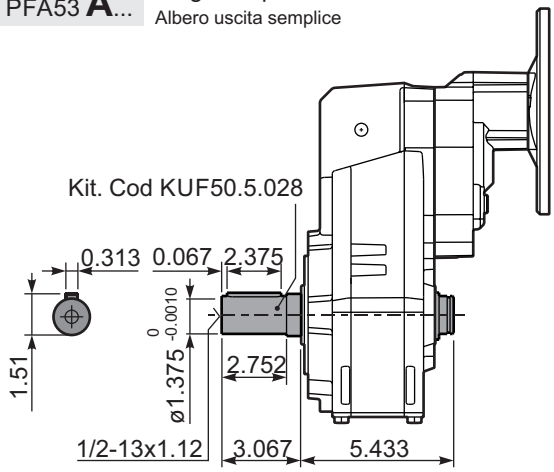
PFA53...-F... Output flange
Flangia uscita



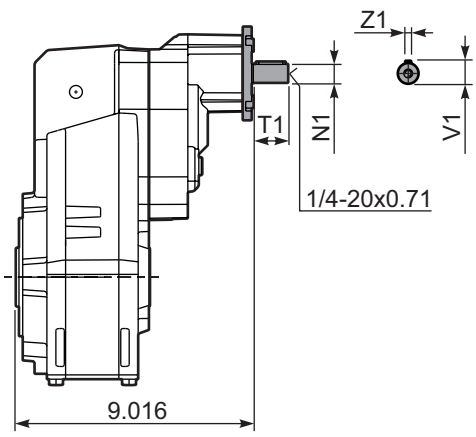
Available output flanges
Flange di uscita

a1 ø	b1	c1	e1	s1	Kit code
9.843	7.087 -0.0017 -0.0033	0.512	8.465	0.551	KF60.9.011
-	-	-	-	-	-

PFA53 A... Single output shaft
Albero uscita semplice



RFA53C... Input Shaft
Albero in entrata



Nema flanges	N1	T1	V1	Z1	kit code
Standard	0.750	1.97	0.83	0.188	KC40.5.070U
On request	0.625	1.57	0.71	0.188	KC40.5.069U

▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1750 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [HP]	Output torque M_{2M} [lb in]	Service factor f.s.	Nominal power P_{1R} [HP]	Nominal torque M_{2R} [lb in]	Available NEMA motor flanges -W 56C	-X 143/5TC	-Y 182/4TC	AA 213/5TC		Output Shaft ø	Ratios code
266	**6.57**	10	2272	1.5	14.80	3363					3018		01
232	**7.56**	10	2613	1.3	13.21	3452					3016		02
198	**8.82**	10	3050	1.2	11.90	3629					3014		03
141	**12.39**	10	4283	1.2	11.99	5133					2018		04
123	**14.24**	10	4924	1.1	10.79	5310					2016		05
104	**16.75**	10	5790	1.0	10.16	5886					1618		06
91	**19.25**	10	6657	0.9	8.97	5974					1616		07
80	**21.78**	7.5	5647	1.1	7.93	5974					1318	**standard ø1.500**	08
70	**25.04**	7.5	6493	0.9	6.90	5974					1316		09
60	**29.23**	5	5053	1.2	5.91	5974					1314		10
57	**30.65**	5	5298	1.1	5.64	5974					1116		11
48.9	**35.78**	5	6186	1.0	4.83	5974					1114		12
45.4	**38.55**	3	3999	1.3	3.85	5133					818		13
39.5	**44.32**	3	4597	1.3	3.84	5886					816		14
33.8	**51.74**	3	5367	1.1	3.34	5974					814		15
28.7	**61.03**	2	4220	1.0	2.01	4248					616		16
24.6	**71.25**	2	4927	1.0	2.01	4956					614		17

The dynamic efficiency is **0.96** for all ratios

Motor Flanges Available Flange Motore Disponibili

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

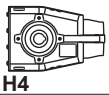
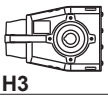
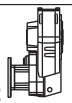
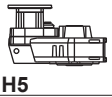
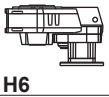
B) **Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione

C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

EN Unit **FC62** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
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 **FC62** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

E El reductor tamaño **FC62** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

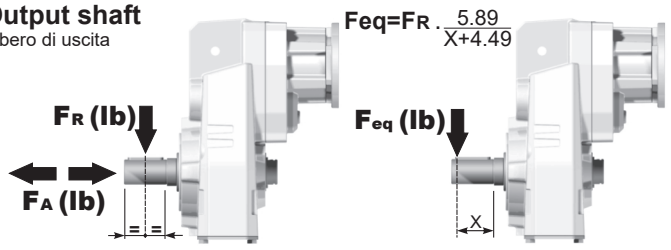
Standard supplied	**For these mounting position specify in the order or add oil** Per queste posizioni specificare in fase d'ordine o aggiungere olio				
 H1	 H4	 H3	 H2	 H5	 H6
72.15 oz	44.00 oz	44.00 oz	49.27 oz	77.43 oz	49.27 oz
SHELL Omala S4 WE 320			**ENI** Telium VSF 320		

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

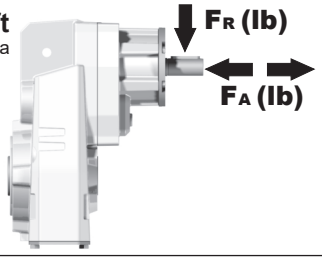
$$Feq = FR \cdot \frac{5.89}{X+4.49}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	135	674	**140**	162	809	**70**	211	1057
250	144	719	**120**	166	832	**40**	274	1371
200	155	778	**85**	193	967	**15**	292	1461

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata

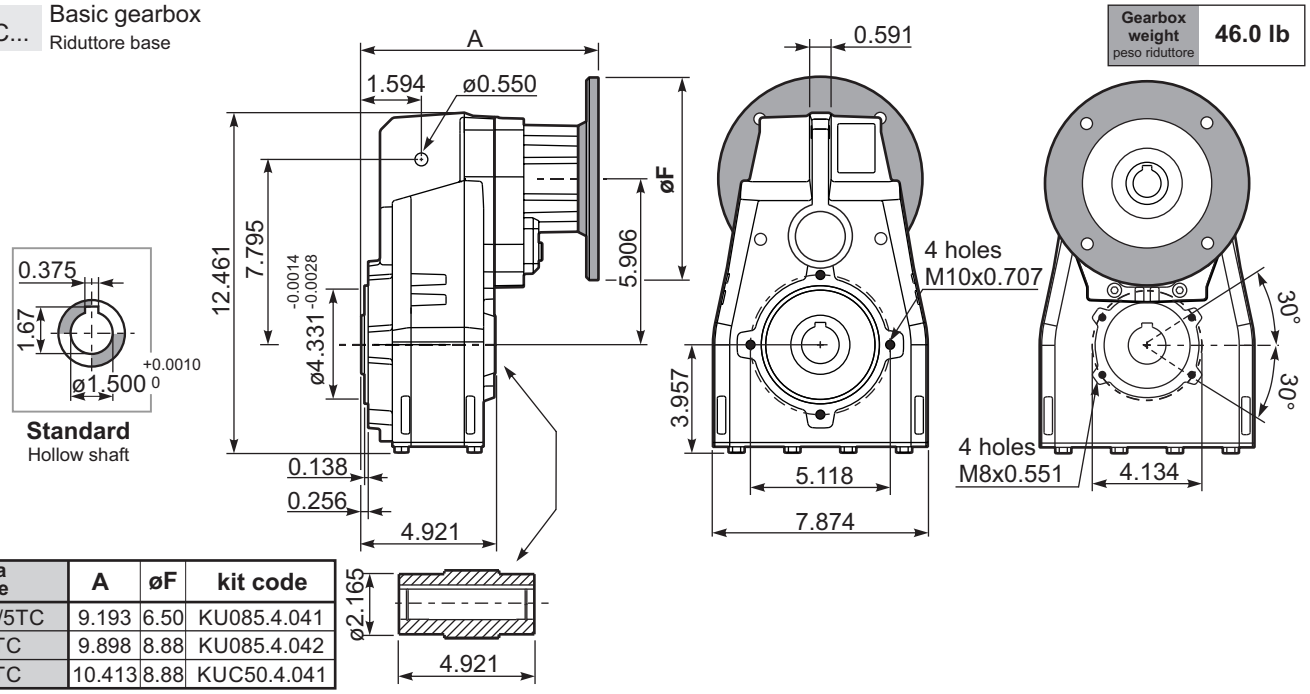


n_1	FA	FR
1750	101	506
1140	112	562

tab. 2

PFC62C... Basic gearbox
Riduttore base

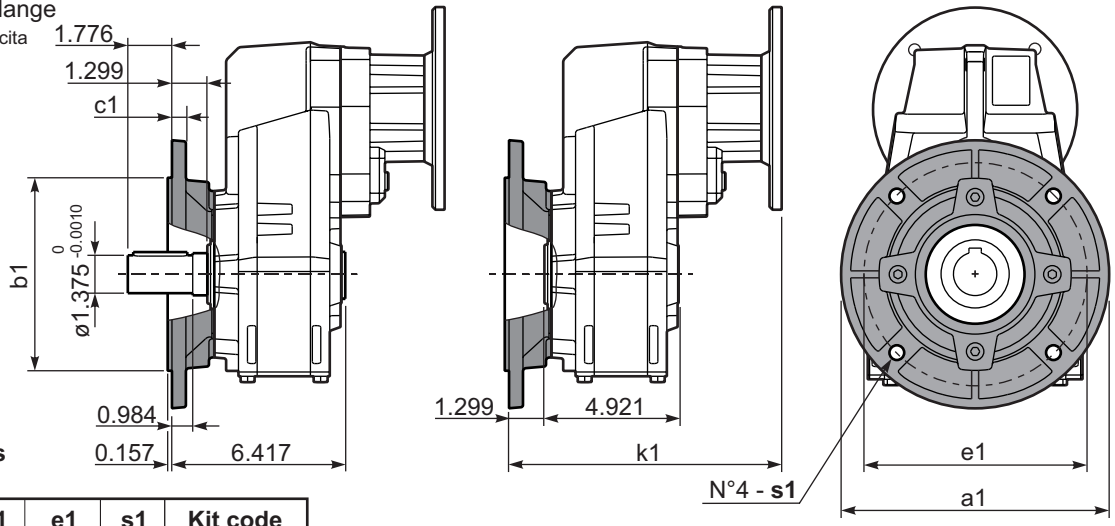
Gearbox weight peso riduttore	46.0 lb



Nema flange	A	øF	kit code
56C-143/5TC	9.193	6.50	KU085.4.041
182/4TC	9.898	8.88	KU085.4.042
213/5TC	10.413	8.88	KUC50.4.041

PFC62...-F... Output flange
Flangia uscita

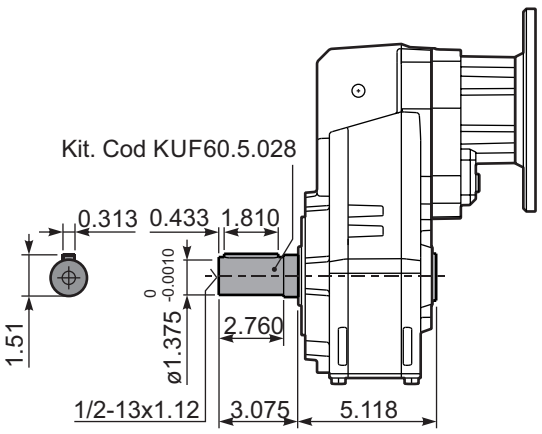
Nema flange	k1
56C-143/5TC	10.492
182/4TC	11.197
213/5TC	11.712



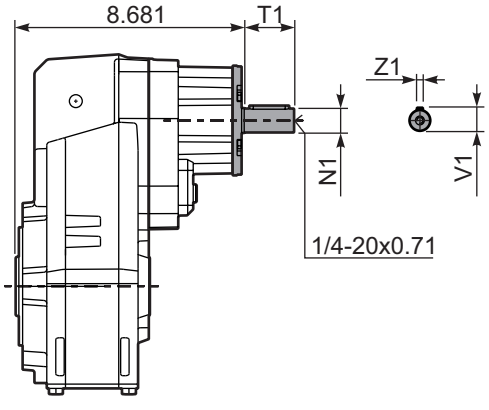
Available output flanges
Flange di uscita

a1 ø	b1	c1	e1	s1	Kit code
9.843	7.087 -0.0017 -0.0033	0.512	8.465	0.551	KF60.9.011
-	-	-	-	-	-

PFC62A... Single output shaft
Albero uscita semplice



RFC62C... Input Shaft
Albero in entrata



Nema flanges	N1	T1	V1	Z1	kit code
Standard	0.875	1.97	0.96	0.188	KC50.5.070U
On request	0.750	1.97	0.83	0.188	KC50.5.069U

▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1750 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [HP]	Output torque M_{2M} [lb in]	Service factor f.s.	Nominal power P_{1R} [HP]	Nominal torque M_{2R} [lb in]	Available NEMA motor flanges -W 56C	Available NEMA motor flanges -X 143/5 TC		Output Shaft ø	Ratios code
28.3	**61.89**	2	4191	1.4	**2.85**	**5974**			191318		01
24.6	**71.16**	2	4819	1.2	**2.48**	**5974**			191316		02
21.2	**82.48**	2	5585	1.1	**2.14**	**5974**			171316		03
18.2	**96.29**	1.5	4890	1.2	**1.83**	**5974**			171314		04
17.4	**100.51**	1.5	5104	1.2	**1.76**	**5974**			131318		05
15.1	**115.56**	1.5	5869	1.0	**1.53**	**5974**			131316		06
13.9	**125.96**	1.5	6397	0.9	**1.38**	**5886**			190816		07
13.0	**134.91**	1.5	6851	0.9	**1.31**	**5974**			131314		08
11.9	**147.05**	1	4979	1.2	**1.20**	**5974**			190814		09
10.3	**170.44**	1	5770	1.0	**1.04**	**5974**			170814	**standard ø1.500**	10
9.5	**184.15**	1	6235	1.0	**0.96**	**5974**			101314		11
8.5	**205.87**	0.75	5228	1.1	**0.86**	**5974**			91316		12
7.3	**240.34**	0.75	6103	1.0	**0.73**	**5974**			91314		13
6.3	**279.22**	0.5	4727	1.2	**0.62**	**5886**			100816		14
5.4	**325.97**	0.5	5518	1.1	**0.54**	**5974**			100814		15
4.8	**364.41**	0.5	6169	1.0	**0.48**	**5886**			90816		16
4.1	**425.43**	0.33	4753	1.3	**0.41**	**5974**			90814		17
3.6	**481.19**	0.33	5376	1.1	**0.36**	**5886**			70816		18
3.1	**561.76**	0.33	6276	1.0	**0.31**	**5974**			70814		19

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available Flange Motore Disponibili

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

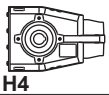
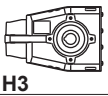
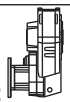
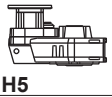
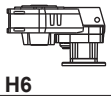
B) **Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione

C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

EN Unit **FC63** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
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 **FC63** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

E El reductor tamaño **FC63** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

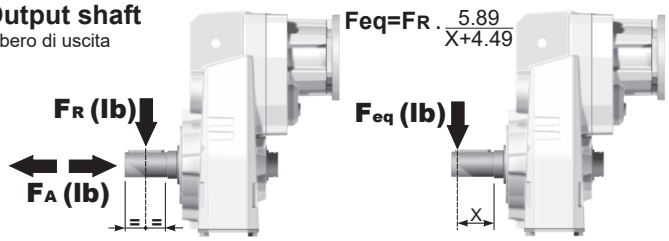
Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio				
 H1	 H4	 H3	 H2	 H5	 H6
80.95 oz	47.51 oz	47.51 oz	54.55 oz	86.23 oz	54.55 oz
SHELL Omala S4 WE 320			**ENI** Telium VSF 320		

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

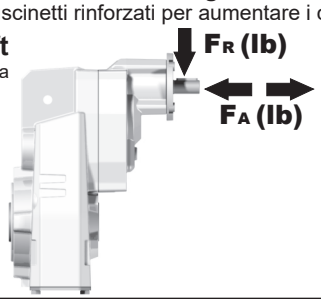
$F_{eq} = F_R \cdot \frac{5.89}{X+4.49}$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	135	674	**140**	162	809	**70**	211	1056
250	144	719	**120**	166	831	**40**	274	1370
200	155	777	**85**	193	966	**15**	292	1460

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata

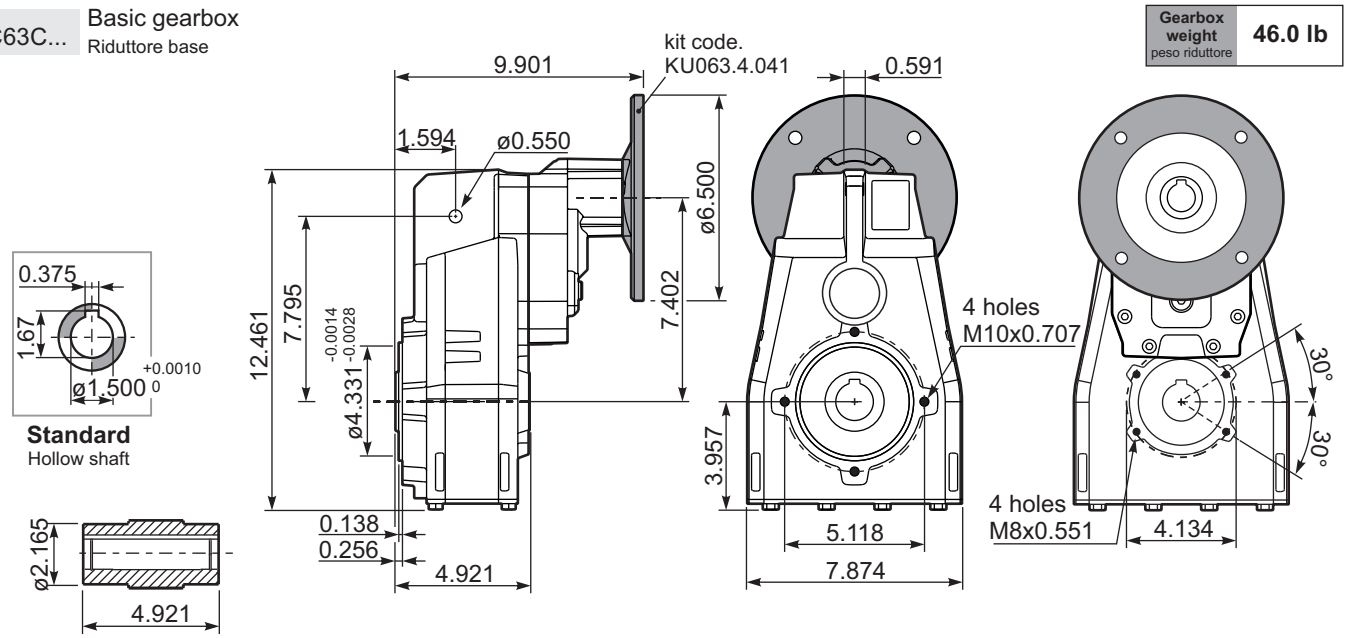


n_1	FA	FR
1750	90	449
1140	99	494

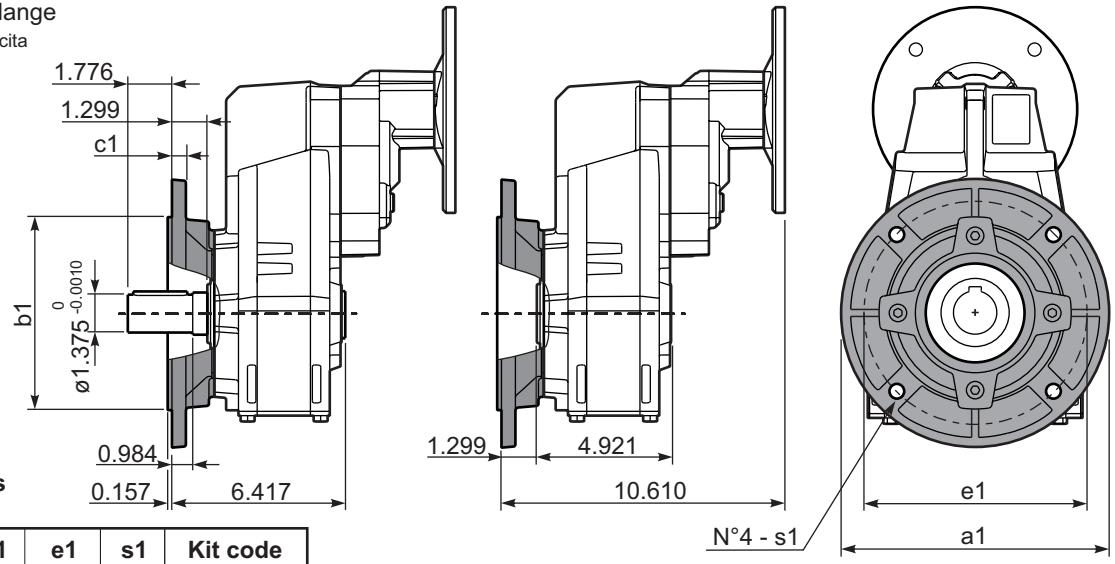
tab. 2

PFC63C... Basic gearbox
Riduttore base

Gearbox weight peso riduttore	46.0 lb



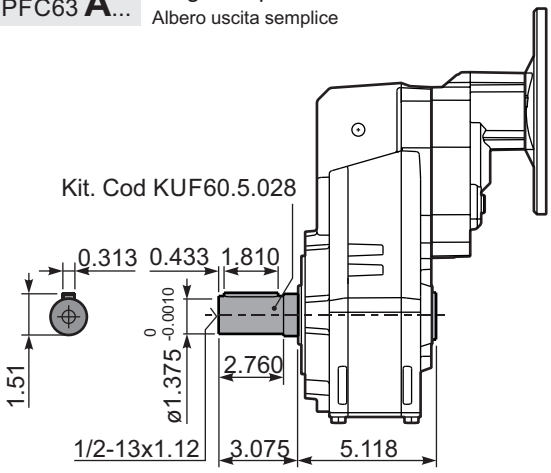
PFC63...-F... Output flange
Flangia uscita



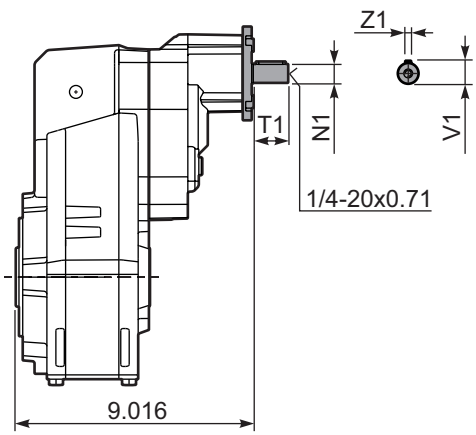
Available output flanges
Flange di uscita

a1 ø	b1	c1	e1	s1	Kit code
9.843	7.087 -0.0017 -0.0033	0.512	8.465	0.551	KF60.9.011
-	-	-	-	-	-

PFC63A... Single output shaft
Albero uscita semplice



RFC63C... Input Shaft
Albero in entrata



Nema flanges	N1	T1	V1	Z1	kit code
Standard	0.750	1.97	0.83	0.188	KC40.5.070U
On request	0.625	1.57	0.71	0.188	KC40.5.069U

▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1750 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [HP]	Output torque M_{2M} [lb in]	Service factor f.s.	Nominal power P_{1R} [HP]	Nominal torque M_{2R} [lb in]	Available NEMA motor flanges -W 56C	-X 143/5TC	-Y 182/4TC	AA 213/5TC		Output Shaft ø	Ratios code
218	**8.02**	10	2772	1.7	16.60	4602					3018		01
191	**9.18**	10	3175	1.6	16.45	5222					3016		02
164	**10.68**	10	3692	1.6	16.30	6019					3014		03
116	**15.11**	10	5224	1.3	13.13	6859					2018		04
101	**17.30**	10	5983	1.3	13.09	7833					2016		05
87	**20.13**	10	6959	1.1	11.45	7966					2014		06
75	**23.39**	10	8089	1.0	9.85	7966					1616		07
64	**27.21**	7.5	7056	1.1	8.47	7966					1614	**standard ø1.500**	08
58	**30.42**	7.5	7889	1.0	7.57	7966					1316		09
49.5	**35.38**	5	6117	1.3	6.51	7966					1314		10
47.0	**37.24**	5	6438	1.2	6.15	7921					1116		11
40.4	**43.31**	5	7488	1.1	5.32	7966					1114		12
37.2	**47.02**	3	4877	1.3	3.84	6240					818		13
32.5	**53.85**	3	5586	1.3	3.85	7169					816		14
27.9	**62.63**	3	6497	1.2	3.68	7966					814		15
23.6	**74.16**	2	5128	1.0	2.02	5178					616		16
20.3	**86.25**	2	5964	1.0	2.02	6019					614		17

The dynamic efficiency is **0.96** for all ratios

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 **FC72** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
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 **FC72** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti.
Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

E El reductor tamaño **FC72** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, 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.

H1	H4	H3	H2	H5	H6
123.18 oz	66.87 oz	66.87 oz	63.35 oz	126.70 oz	66.87 oz
SHELL Omala S2 GX 460			**ENI** Blasia 460		

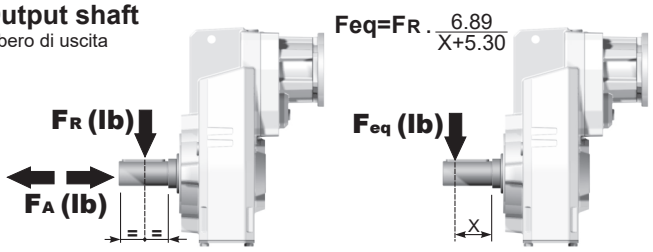
For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

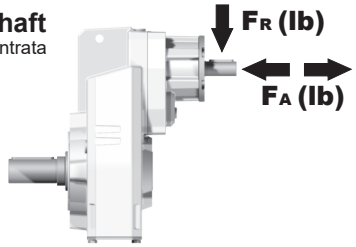
$$Feq = FR \cdot \frac{6.89}{X+5.30}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	166	831	**140**	193	966	**70**	229	1146
250	180	899	**120**	202	1011	**40**	292	1460
200	186	932	**85**	218	1090	**15**	382	1910

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

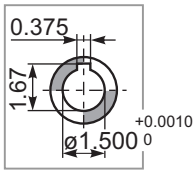
Input shaft
Albero in entrata



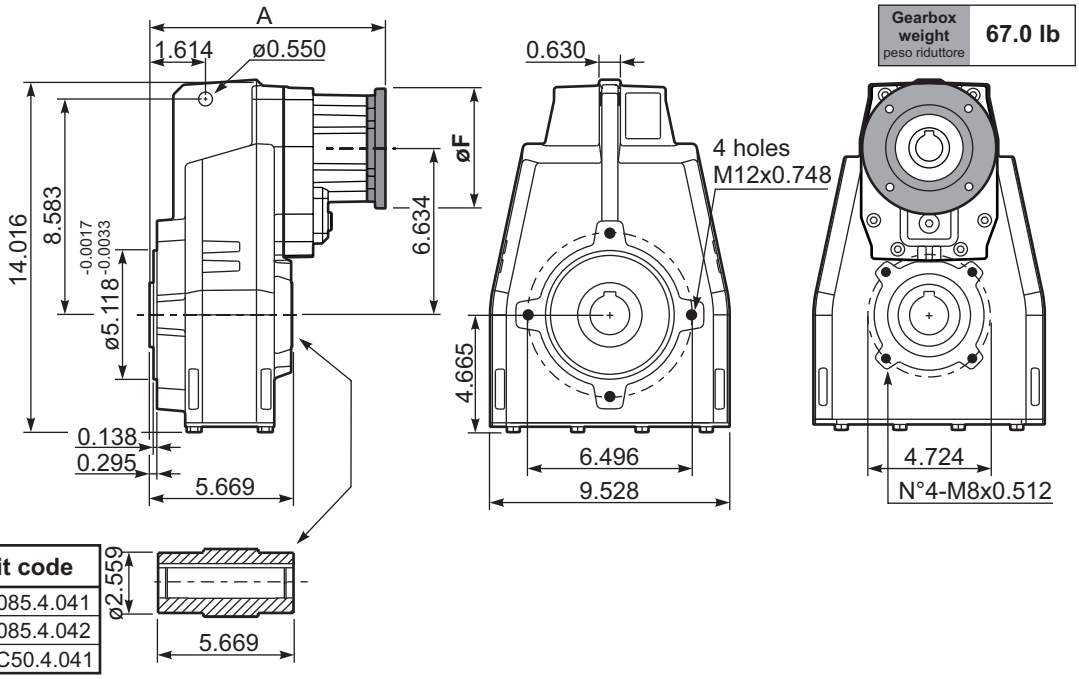
n_1	FA	FR
1750	101	506
1140	112	562

tab. 2

PFC72C... Basic gearbox
Riduttore base



Standard
Hollow shaft

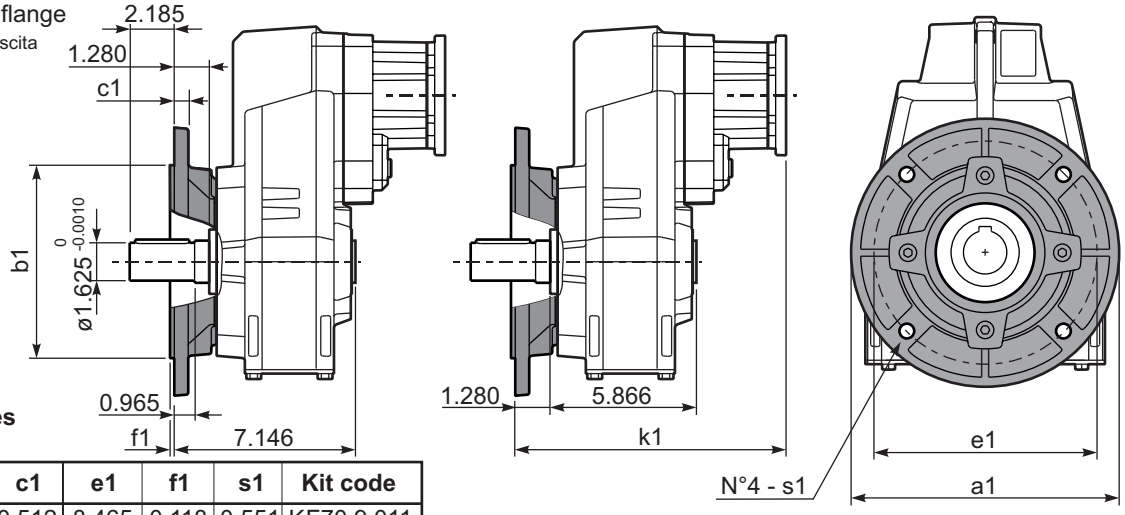


Gearbox weight peso riduttore	67.0 lb

Nema flange	A	øF	kit code
56C-143/5TC	9.646	6.50	KU085.4.041
182/4TC	10.350	8.88	KU085.4.042
213/5TC	10.866	8.88	KUC50.4.041

PFC72...-F... Output flange
Flangia uscita

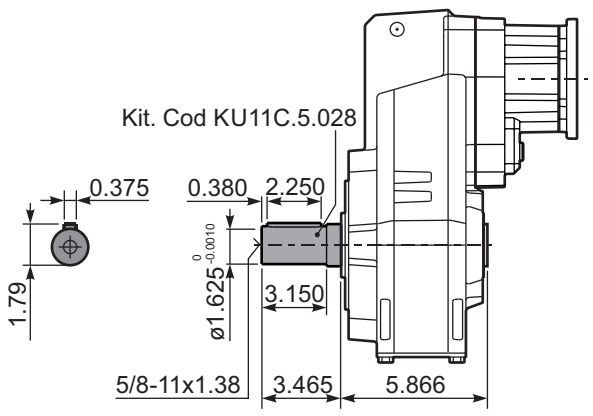
Nema flange	k1
56C-143/5TC	10.925
182/4TC	11.630
213/5TC	12.146



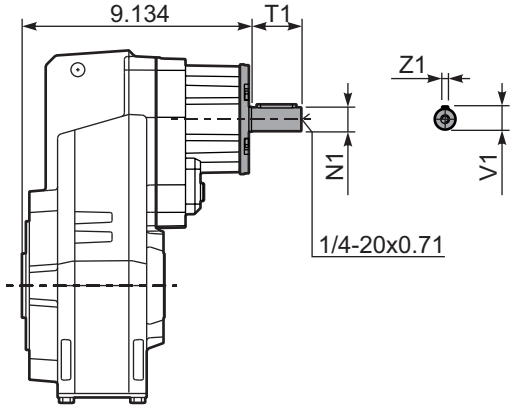
Available output flanges
Flange di uscita

a1 ø	b1	c1	e1	f1	s1	Kit code
9.843	7.087 -0.0017 -0.0033	0.512	8.465	0.118	0.551	KF70.9.011
11.811	9.055 -0.0020 -0.0038	0.630	10.433	0.157	0.551	KF70.9.012
-	-	-	-	-	-	-

PFC72 A... Single output shaft
Albero uscita semplice



RFC72C... Input Shaft
Albero in entrata



Nema flanges	N1	T1	V1	Z1	kit code
Standard	0.875	1.97	0.96	0.188	KC50.5.070U
On request	0.750	1.97	0.83	0.188	KC50.5.069U

▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1750 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [HP]	Output torque M_{2M} [lb in]	Service factor f.s.	Nominal power P_{1R} [HP]	Nominal torque M_{2R} [lb in]	Available NEMA motor flanges -W 56C	Available NEMA motor flanges -X 143/5 TC		Output Shaft ø	Ratios code
23.2	**75.50**	2	5112	1.4	**2.86**	**7302**			191318		01
20.2	**86.47**	2	5855	1.4	**2.72**	**7966**			191316		02
17.5	**100.22**	2	6786	1.2	**2.35**	**7966**			171316		03
15.0	**116.56**	2	7893	1.0	**2.02**	**7966**			171314		04
12.8	**136.82**	1.5	6948	1.1	**1.72**	**7966**			151314		05
11.4	**153.05**	1.5	7773	0.9	**1.38**	**7169**			190816		06
10.7	**163.31**	1.5	8294	1.0	**1.44**	**7966**			131314		07
9.8	**178.01**	1.5	9040	0.9	**1.32**	**7966**			190814		08
9.1	**191.67**	1	6489	1.2	**1.23**	**7966**			101316		09
8.5	**206.32**	1	6985	1.1	**1.14**	**7966**			170814	**standard ø1.500**	10
7.9	**222.92**	1	7547	1.1	**1.06**	**7966**			101314		11
7.2	**242.18**	1	8199	1.0	**0.97**	**7966**			150814		12
7.0	**250.15**	1	8469	0.9	**0.94**	**7966**			91316		13
6.1	**289.08**	0.75	7340	1.1	**0.81**	**7966**			130814		14
5.3	**330.31**	0.75	8387	0.9	**0.70**	**7877**			71316		15
4.4	**394.59**	0.5	6680	1.2	**0.60**	**7966**			100814		16
3.4	**514.99**	0.5	8718	0.9	**0.46**	**7966**			90814		17
2.6	**680.03**	0.33	7598	1.0	**0.35**	**7966**			70814		18

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available Flange Motore Disponibili

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

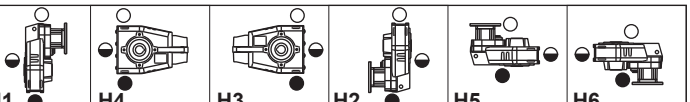
B) **Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione

C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

EN Unit **FC73** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
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 **FC73** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

E El reductor tamaño **FC73** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, 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.



H1	H4	H3	H2	H5	H6
124.94 oz	68.63 oz	68.63 oz	68.63 oz	131.98 oz	70.39 oz

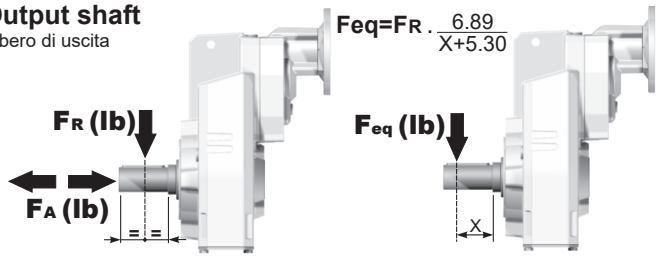
SHELL Omala S2 GX 460	**ENI** Blasia 460

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

$$Feq = FR \cdot \frac{6.89}{X+5.30}$$



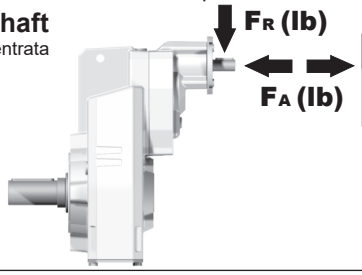
n_2	FA	FR
300	166	831
250	180	899
200	186	932

n_2	FA	FR
140	193	966
120	202	1011
85	218	1090

n_2	FA	FR
70	229	1146
40	292	1460
15	382	1910

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

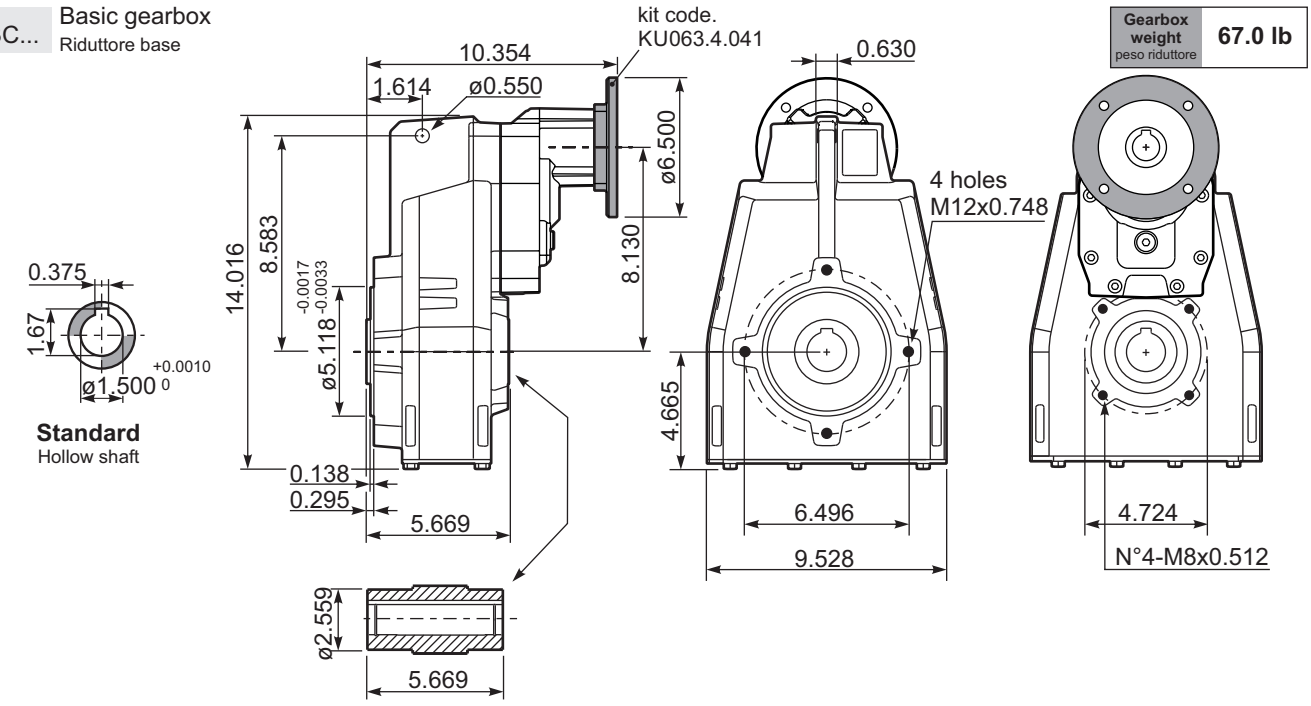
Input shaft
Albero in entrata



n_1	FA	FR
1750	90	449
1140	99	494

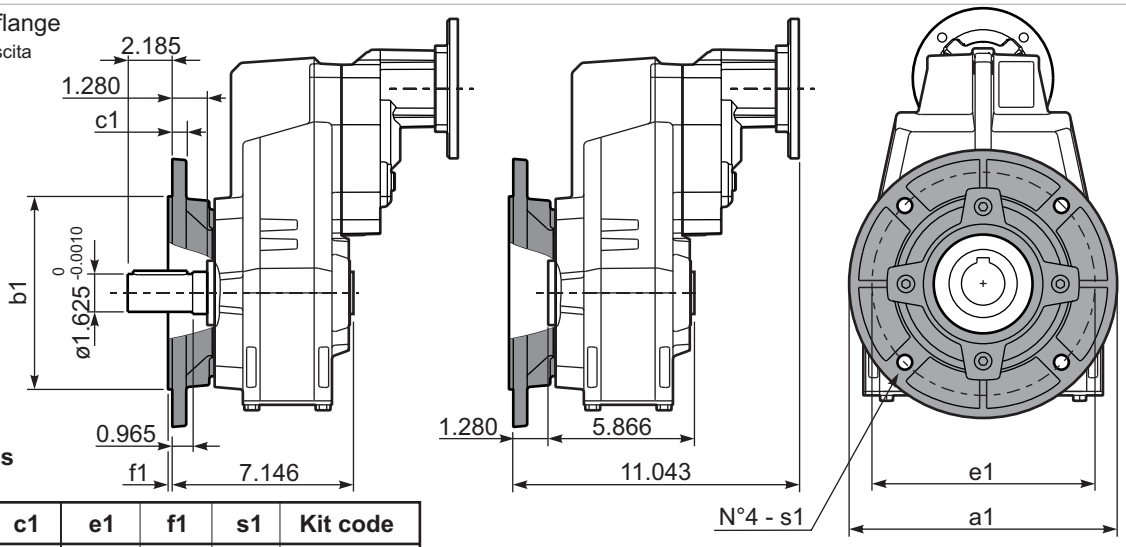
tab. 2

PFC73C... Basic gearbox
Riduttore base



Gearbox weight peso riduttore	67.0 lb

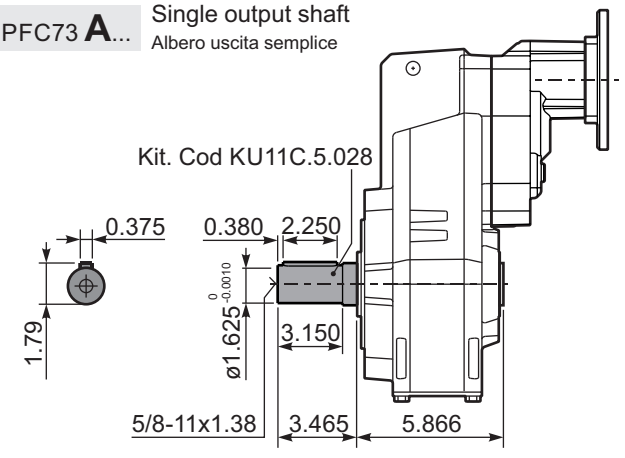
PFC73...-F... Output flange
Flangia uscita



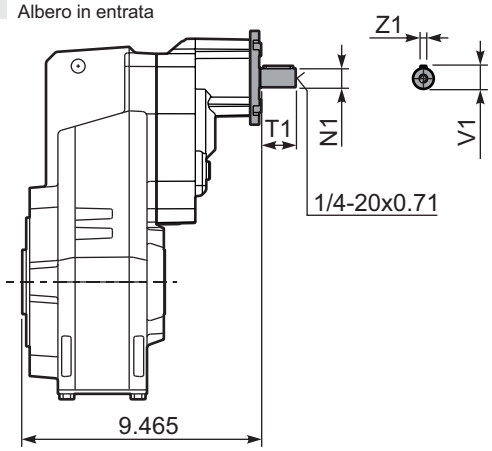
Available output flanges
Flange di uscita

a1 ø	b1	c1	e1	f1	s1	Kit code
9.843	7.087 -0.0017 -0.0033	0.512	8.465	0.118	0.551	KF70.9.011
11.811	9.055 -0.0020 -0.0038	0.630	10.433	0.157	0.551	KF70.9.012
-	-	-	-	-	-	-

PFC73 A... Single output shaft
Albero uscita semplice



RFC73C... Input Shaft
Albero in entrata



Nema flanges	N1	T1	V1	Z1	kit code
Standard	0.750	1.97	0.83	0.188	KC40.5.070U
On request	0.625	1.57	0.71	0.188	KC40.5.069U

▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1750 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [HP]	Output torque M_{2M} [lb in]	Service factor f.s.	Nominal power P_{1R} [HP]	Nominal torque M_{2R} [lb in]	Available NEMA motor flanges -Y 182/4TC	AA 213/5TC	AB 254/6TC		Output Shaft ø	Ratios code
293	**5.98**	20	4135	2.1	**42.81**	**8851**				3015		01
246	**7.10**	20	4910	2.1	**42.36**	**10400**				3013		02
203	**8.63**	20	5966	2.0	**40.06**	**11949**				3011		03
155	**11.27**	20	7794	1.7	**34.07**	**13276**				2015		04
131	**13.38**	20	9253	1.6	**32.52**	**15046**				2013		05
115	**15.24**	20	10537	1.6	**31.92**	**16816**				1615		06
108	**16.26**	20	11244	1.7	**33.06**	**18587**				2011		07
97	**18.09**	20	12511	1.5	**29.71**	**18587**				1613	**standard ø2.000**	08
88	**19.82**	20	13703	1.3	**26.61**	**18233**				1315		09
80	**21.98**	20	15202	1.2	**24.45**	**18587**				1611		10
74	**23.53**	20	16269	1.1	**22.85**	**18587**				1313		11
72	**24.25**	20	16773	1.0	**20.47**	**17170**				1115		12
61	**28.80**	20	19914	0.9	**18.67**	**18587**				1113		13
50	**34.99**	15	18148	1.0	**15.36**	**18587**				1111		14
42.0	**41.64**	10	14399	1.2	**12.05**	**17347**				813		15
34.6	**50.60**	10	17469	1.1	**10.62**	**18587**				811		16

The dynamic efficiency is **0.96** for all ratios

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 **FC82** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
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 **FC82** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti.
Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

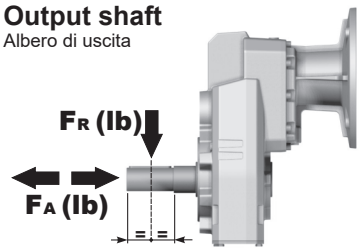
E El reductor tamaño **FC82** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, 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.

H1	H4	H3	H2	H5	H6
200.61 oz	126.70 oz	126.70 oz	126.70 oz	232.29 oz	158.38 oz
SHELL Omala S2 GX 460			**ENI** Blasia 460		

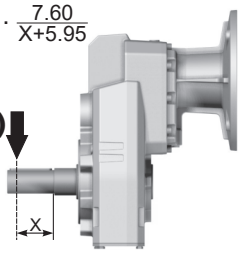
For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita



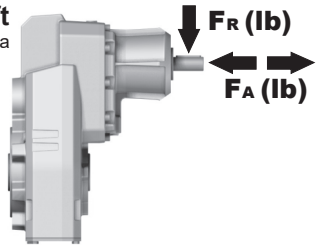
$F_{eq} = F_R \cdot \frac{7.60}{X+5.95}$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	207	1033	**140**	252	1258	**70**	315	1573
250	225	1123	**120**	256	1281	**40**	404	2022
200	238	1191	**85**	292	1460	**15**	539	2696

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata

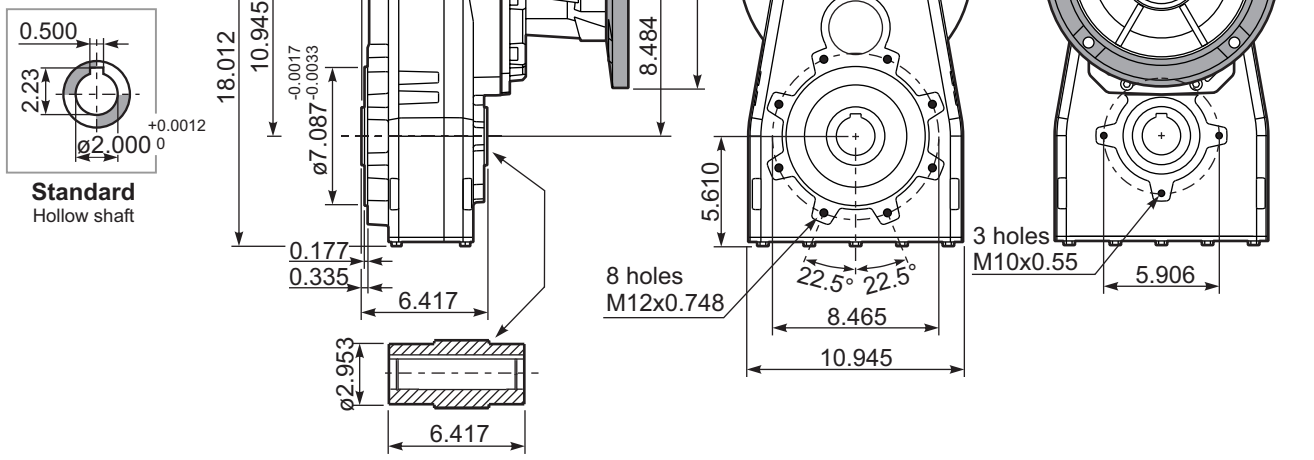


n_1	FA	FR
1750	157	786
1140	189	944

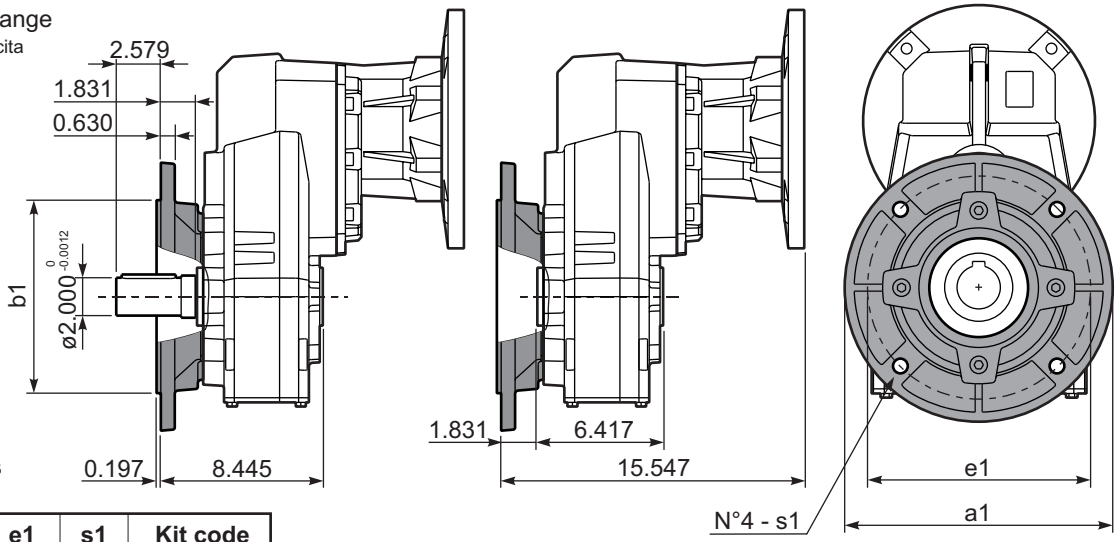
tab. 2

PFC82C... Basic gearbox
Riduttore base

Gearbox weight peso riduttore	182.0 lb



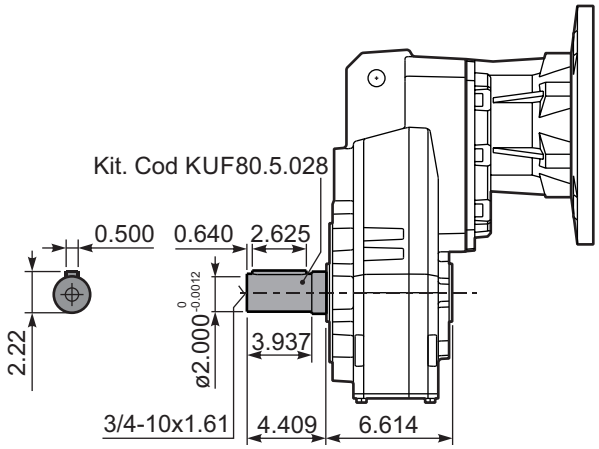
PFC82...**-F**... Output flange
Flangia uscita



Available output flanges
Flange di uscita

a1 ø	b1	e1	s1	Kit code
11.811	9.055 -0.0020 -0.0038	10.433	0.551	KF80.9.011
13.780	9.843 -0.0020 -0.0038	11.811	0.709	KF80.9.012

PFC82 **A**... Single output shaft
Albero uscita semplice



7

▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1750 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [HP]	Output torque M_{2M} [lb in]	Service factor f.s.	Nominal power P_{1R} [HP]	Nominal torque M_{2R} [lb in]	Available NEMA motor flanges -W 56C	-X 143/5TC	-Y 182/4TC	AA 213/5TC		Output Shaft ø	Ratios code
36.0	**48.55**	10	16436	1.1	11.31	18587					201315		01
30.4	**57.64**	10	19515	1.0	9.52	18587					201313		02
26.7	**65.64**	7.5	16667	1.1	8.36	18587					161315		03
25.0	**70.04**	7.5	17784	1.0	7.84	18587					201311		04
22.5	**77.93**	7.5	19789	0.9	7.04	18587					161313		05
20.5	**85.36**	7.5	21674	0.9	6.43	18587					131315		06
18.5	**94.70**	5	16030	1.2	5.80	18587					161311		07
17.3	**101.35**	5	17156	1.1	5.42	18587					131313	**standard ø2000**	08
14.2	**123.15**	5	20846	0.9	4.46	18587					131311		09
11.6	**150.73**	3	15310	1.2	3.64	18587					111311		10
9.8	**179.39**	3	18220	1.0	3.06	18587					81313		11
8.0	**217.98**	2	14760	1.3	2.52	18587					81311		12
7.1	**247.03**	2	16727	1.0	2.06	17259					61313		13
5.8	**300.17**	1.5	15244	1.2	1.83	18587					61311		14

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available Flange Motore Disponibili

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

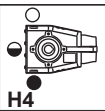
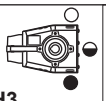
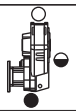
B) **Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione

C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

EN Unit **FC83** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
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 **FC83** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

E El reductor tamaño **FC83** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, 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.

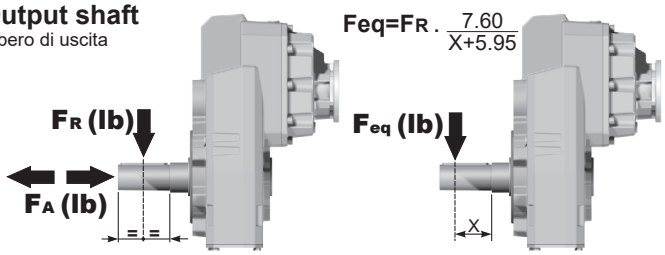
 H1	 H4	 H3	 H2	 H5	 H6
204.13 oz	137.26 oz	137.26 oz	137.26 oz	239.33 oz	172.46 oz
SHELL Omala S2 GX 460			**ENI** Blasia 460		

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

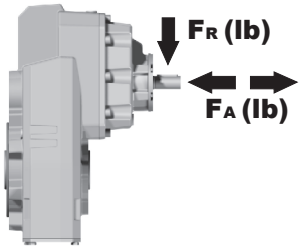
$$Feq = FR \cdot \frac{7.60}{X+5.95}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	207	1033	**140**	252	1258	**70**	315	1573
250	225	1123	**120**	256	1281	**40**	404	2022
200	238	1191	**85**	292	1460	**15**	539	2696

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata

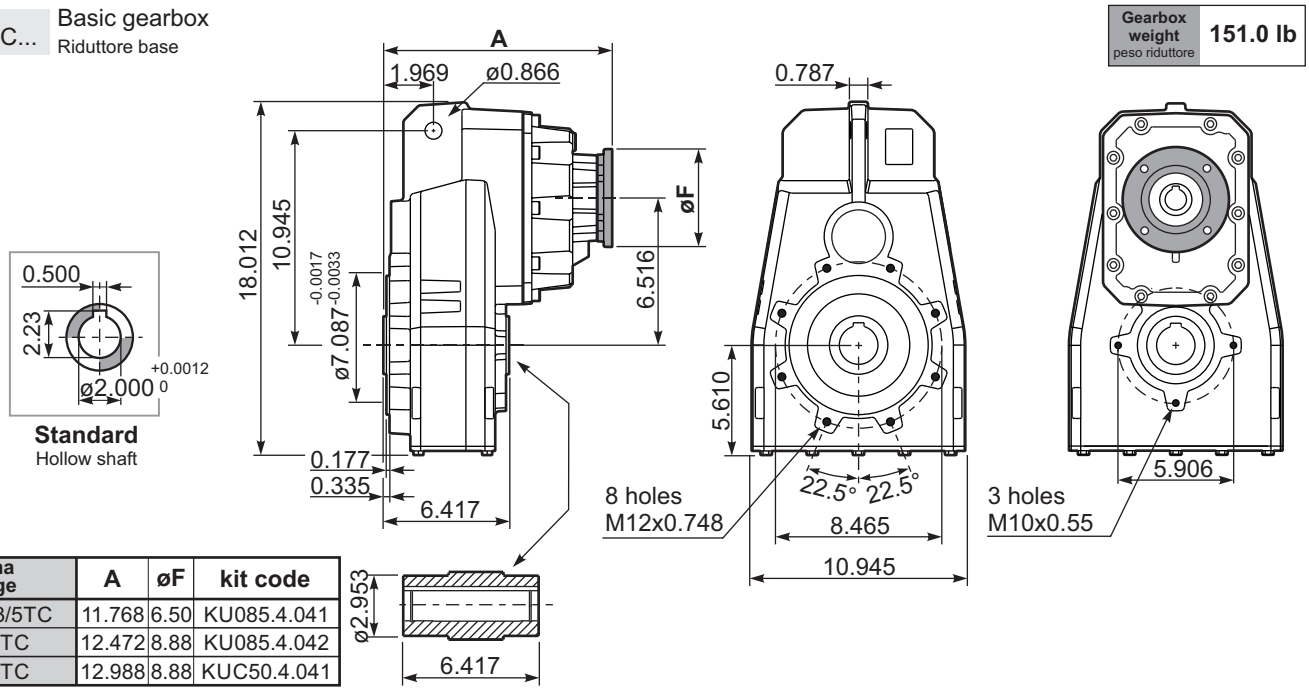


n_1	FA	FR
1750	101	506
1140	112	562

tab. 2

PFC83C... Basic gearbox
Riduttore base

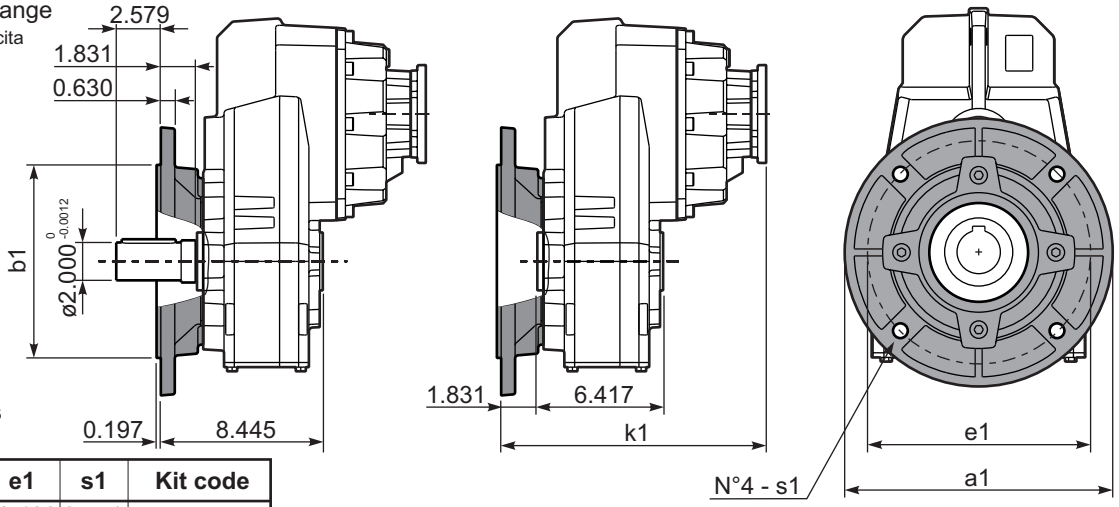
Gearbox weight peso riduttore	151.0 lb



Nema flange	A	øF	kit code
56C-143/5TC	11.768	6.50	KU085.4.041
182/4TC	12.472	8.88	KU085.4.042
213/5TC	12.988	8.88	KUC50.4.041

PFC83...-F... Output flange
Flangia uscita

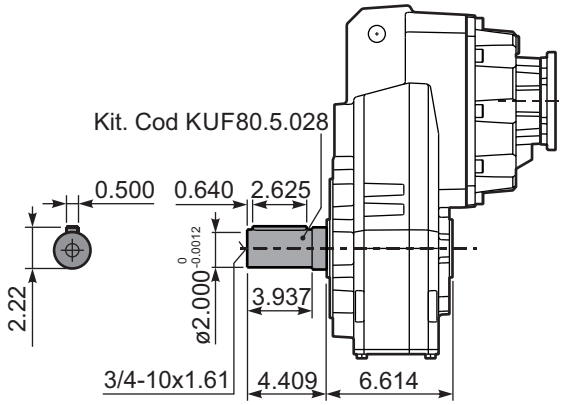
Nema flange	k1
56C-143/5TC	13.599
182/4TC	14.303
213/5TC	14.819



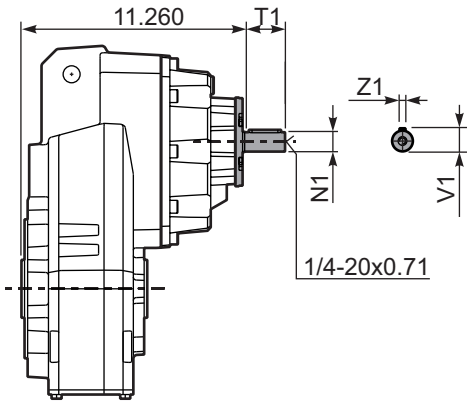
Available output flanges
Flange di uscita

a1 ø	b1	e1	s1	Kit code
11.811	9.055 -0.0020 -0.0038	10.433	0.551	KF80.9.011
13.780	9.843 -0.0020 -0.0038	11.811	0.709	KF80.9.012

PFC83 A... Single output shaft
Albero uscita semplice



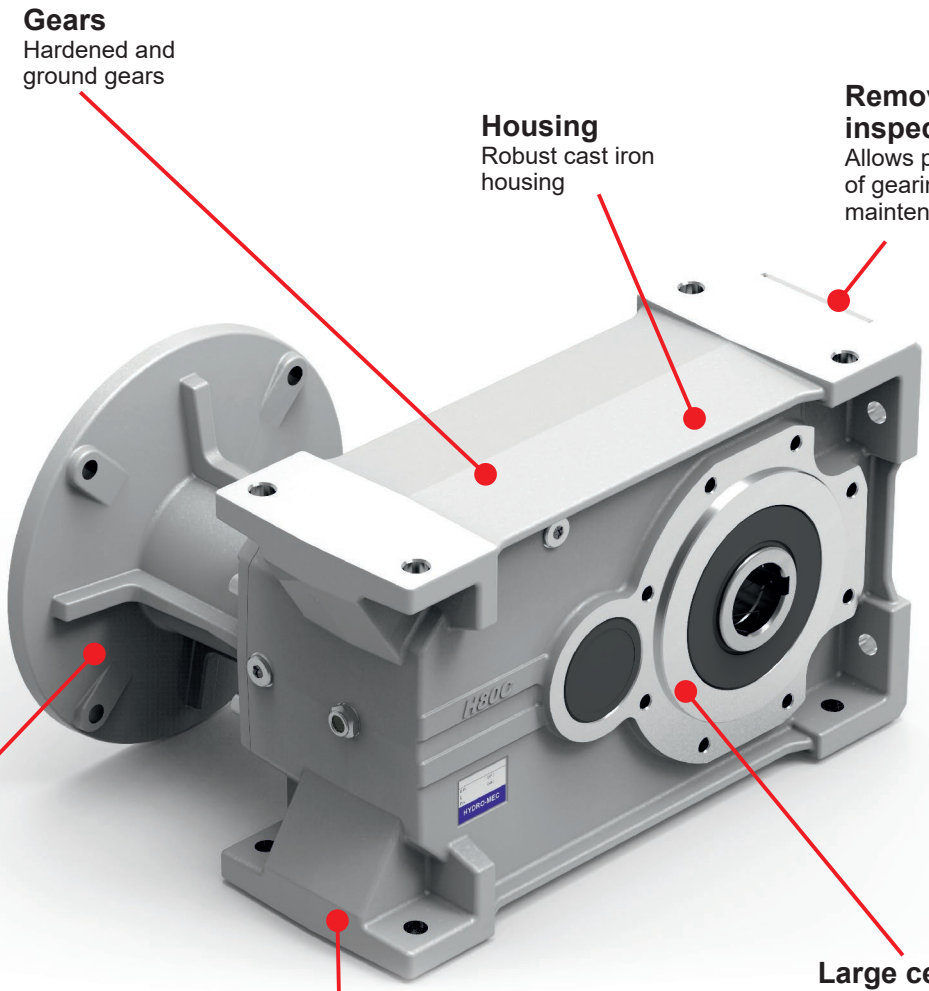
RFC83C... Input Shaft
Albero in entrata



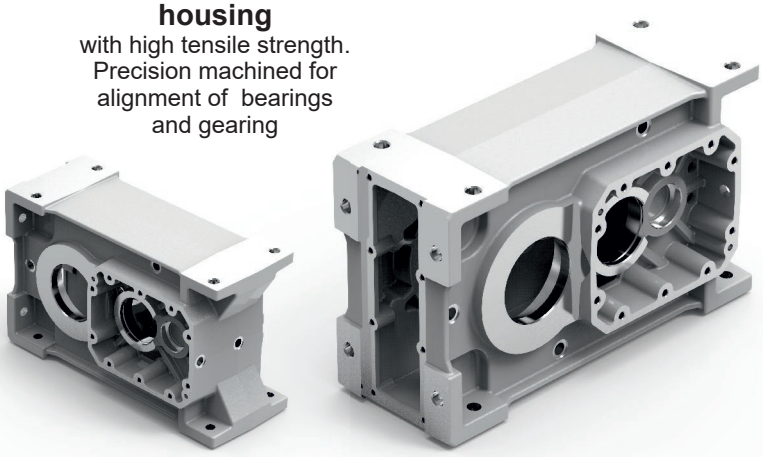
Nema flanges	N1	T1	V1	Z1	kit code
Standard	0.875	1.97	0.96	0.188	KC50.5.070U
On request	0.750	1.97	0.83	0.188	KC50.5.069U

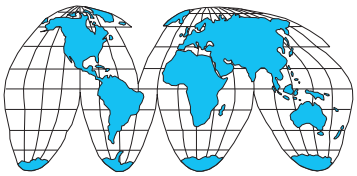
Cast iron parallel shaft gearboxes

A modular and compact product



Single-piece Cast Iron housing
with high tensile strength. Precision machined for alignment of bearings and gearing

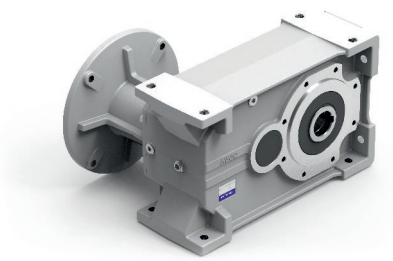




World wide sales network.

Specific type datasheet on page...

2 and 3 Stage



Types / Tipi / Tipen / Types / Tipos

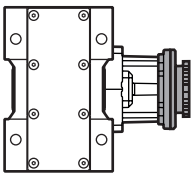
On page / A pagina / Auf Seite / À la page / En la página

8-5	8-7	8-9	8-11	8-13	8-15
H62C 5974lb in	**H63C** 5974lb in	**H72C** 7966lb in	**H73C** 7966lb in	**H82C** 18587lb in	**H83C** 18587lb in

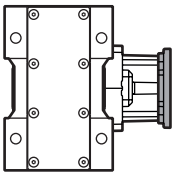
CODIFICA / HOW TO ORDER / CODIFICACIÓN

Type Tipo Tipo	**Size** Grandezza Tamaño	**Mounting** Montaggio Tipo de montaje	**Ratio** Rapporto Relacion	**Output shaft** Albero uscita Eje en salida
M	**H62C**	**C**	**12.39**	**-UH**

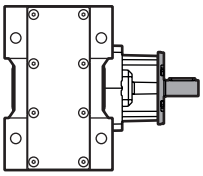
Parallel shaft helical
Riduttori ad assi paralleli



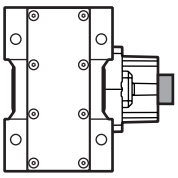
With IEC motor
M



With motor flange
P



With male input shaft
R



Modular base
B

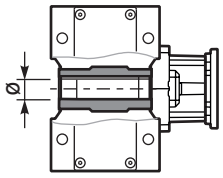
2 Stages
Riduzioni
Etapas

3 Stages
Riduzioni
Etapas

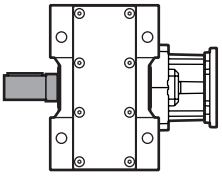
Cast Iron/Ghisa/Fundicion

H62C
H72C
H82C

H63C
H73C
H83C



Hollow output shaft
C



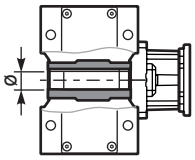
Single output shaft
A

See technical data table

Vedi tabelle dati tecnici.

Ver tabla datos técnicos

C



STANDARD
Only on request for Q.ty
A richiesta per quantità

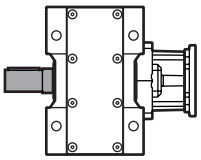
H62C H63C
H72C H73C

UH ➡ **ø1.500**

H82C H83C

UL ➡ **ø2.000**

A



Single output shaft

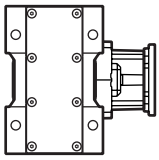
UG H62/3C ⇨ ø1.375
UI H72/3C ⇨ ø1.625
UL H82/3C ⇨ ø2.000

8

CODIFICA / HOW TO ORDER / CODIFICACIÓN

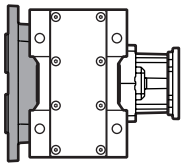
Type
Tipo
Tipo

-N



-N

Senza flangia
Without flange

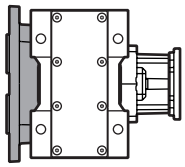


-F

Whit output flange
con flangia uscita

Output flange
Flangia uscita
Brida en salida

N



N Senza flangia
Without flange

H62C H63C

4 ➡ **ø9.843**

H72C H73C

4 ➡ **ø9.843**
5 ⇨ ø11.811

H82C H83C

5 ➡ **ø11.811**
6 ⇨ ø13.780

Motor size
Grandezza motore
Tamaño motor

-Y

Flange
Flangia

-W=56C
-X=143/5TC
-Y=182/4TC
AA=213/5TC
AB=254/6TC
AC=284/6TC
AD=324/6TC

Type R
Tipo R

H63C H73C

-K ⇨ ø0.625
-J ø0.750

H62C
H72C H83C

-J ⇨ ø0.750
-N ø0.875

Without flange
Senza flangia

-M With coupling
Con giunto

H63C H73C

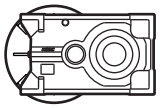
-K ⇨ ø0.625
-N ⇨ ø0.875

H62C
H72C H83C

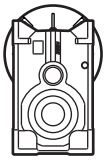
-K ⇨ ø0.625
-N ⇨ ø0.875
-S ⇨ ø1.125

Mounting position
Posizione montaggio
Position de montaje

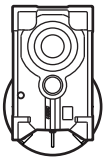
B3



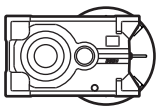
B3
STANDARD



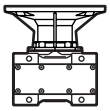
B6



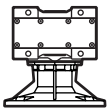
B7



B8



V5



V6

V8

Input bore
Foro entrata
Eje hueco de entrada

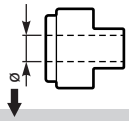
ST

ST

Nothing
indication:
standard bore

Nessuna
indicazione:
foro standard

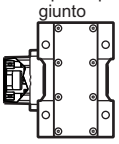
COUPLING



-W = ø0.625"
-X = ø0.875"
-Y = ø1.125"

-0

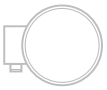
Ready for input
coupling
Predisposto per
giunto



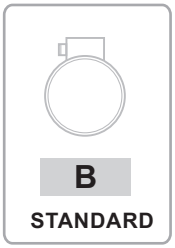
Terminal box position
Posizione morsettiera
Posición caja de bornes

With Type M specify terminal box position

Con tipo M specificare posizione morsettiera



A



B
STANDARD

C

D

8

POTENZA RICHIESTA / REQUIRED POWER / POTENCIA NECESARIA

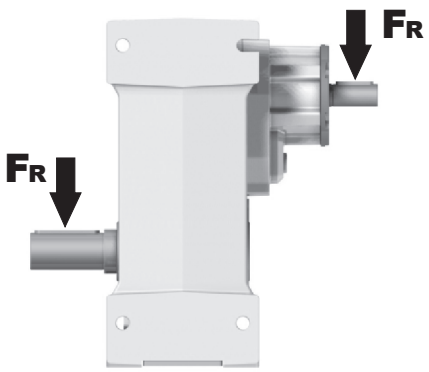
Lifting / sollevamento / elevactión	$\mathbf{P}\ [KW] = \frac{\mathbf{M}\ [Kg] \cdot \mathbf{g}\ [9.81] \cdot \mathbf{v}\ [m/s]}{\mathbf{1000}}$
Rotation / rotazione / rotaction	$\mathbf{P}\ [KW] = \frac{\mathbf{M}\ [Nm] \cdot \mathbf{n}\ [rpm]}{\mathbf{9550}}$
Linear movement / traslazione / translacion	$\mathbf{P}\ [KW] = \frac{\mathbf{F}\ [N] \cdot \mathbf{v}\ [m/s]}{\mathbf{1000}}$

TORQUE / COPPIA / PAR

	$\mathbf{M}\ [Nm] = \frac{\mathbf{9550} \cdot \mathbf{P}[KW]}{\mathbf{n}\ [rpm]}$
	$\mathbf{M}\ [lb\ in] = \frac{\mathbf{63030} \cdot \mathbf{P}[HP]}{\mathbf{n}\ [rpm]}$

RADIAL LOADS / CARICHI RADIALI / RADIALE - UND AXIALLASTEN / CHARGES RADIALES / CARGA RADIAL Y AXIAL

- Radial load generated by external transmissions keyed onto input and/or output shafts.
- Forza radiale generata da organi di trasmissione calettati sugli alberi di ingresso e/o uscita.
- Cargas radiales, generada por transmisiones externas, aplicadas sobre los ejes de entrada y/o salida



$F_R\ [N] = \frac{M\ [Nm] \cdot 2000}{d\ [mm]} \cdot f_K$	$F_R\ [N] = \frac{M\ [lb\ in] \cdot 8.9}{d\ [in]} \cdot f_K$

M	Momento torcente / Output torque / Par torsion
d	Diametro primitivo / Diam. of driving element / Diámetro primitivo
f_K	Coefficiente di trasformazione / Factor / Coeficiente de transmisión **1.15** Ingranaggi / Gearwheels / Engranaje **1.25** Catena / Chain sprochets / Cadena **1.75** Cinghia Trapezoidale / Narrow v-belt pulley / Correa trapezoidal **2.50** Cinghia piatta / Flat-belt pulley / Correa plana

— If your application requires higher radial loads, contact our technical office. Higher load may be possible.
— Nel caso la vostra applicazione richieda carichi radiali superiori consultare il nostro ufficio tecnico, valori maggiori possono essere accettati.
— En el caso en que una aplicación exija una carga radial superior a la especificada en el catálogo, consultar a nuestra oficinas técnica.

B Output speed / Velocità in uscita / Velocidad de salida

Nominal power / Potenza nominale / Potencia nominal

Gear size / Grandezza riduttore / Tamaño reductor

Motor power / Potenza motore / Potencia motor

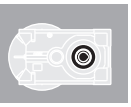
A Nominal torque / Momento torcente nominale / Par de torsión nominal

Flange code / Codice flangia / Código bridas

Input speed / Velocità in entrata / Velocidad de entrada

H62C Cube gear 5974lb in

Rating - Cast Iron
PARALLEL SHAFT GEARBOXES



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1750 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [HP]	Output torque M_{2M} [lb in]	Service factor f.s.	Nominal power P_{1R} [HP]	Nominal torque M_{2R} [lb in]	Available NEMA motor flanges -W	-X	-Y	AA	Output Shaft	Ratios code
							56C	143/5TC	182/4TC	213/5TC		
266	**6.57**	10	2272	1.5	14.80	3363					3018	01
232	**7.56**	10	2613	1.3	13.21	3452					3016	02
198	**8.82**	10	3050	1.2	11.90	3629					3014	03
141	**12.39**	10	4283	1.2	11.99	5133					2018	04

standard ø1.500

C Ratio / Rapporto / Relación

Transmitted torque / Momento torcente trasmesso / Par transmitido

Service factor / Fattore di servizio / Factor de servicio

Output shaft diam. / Diam. albero uscita / Diametro eje de salida

Notes / Note / Notas

fs

Type of load and starts per hour / Tipo di carico e avviamenti per ora		Oper. hours per day / Ore di funz. giorn. 3 h	10 h	24 h
Continuous or intermittent appl. with start / hour ≤ 10 / Applicazione cont. o interm. con n.ro operazioni/ora	Uniform / Uniforme	0.8	1	1.25
	Moderate / Moderato	1	1.25	1.5
	Heavy / Forte	1.25	1.5	1.75
Intermittent application with start / hour > 10 / Applicazione intermittente con n.ro operazioni/ora	Uniform / Uniforme	1	1.25	1.5
	Moderate / Moderato	1.25	1.5	1.75
	Heavy / Forte	1.5	1.75	2.15

D Motor flange available / Flange disponibili / Bridas disponibles

B) Mounting with reduction ring / Montaggio con boccola di riduzione / Montaje con casquillo de reducción

C) Motor flangeholes position/terminal box position / Posizione fori flangia/basetta motore / Posición agujeros brida / base motor

B) Available without reduction bushes / Disponibile anche senza boccola / Disponible tambien sin casquillo

A	Select required torque (according to service factor)	Seleziona la coppia desiderata (comprensiva del fattore di servizio)	Seleccionar el par deseado (incluyendo el factor de servicio)
B	Select ouput speed	Seleziona la velocità in uscita	Seleccionar la velocidad de salida
C	On the same line of selected geared motor, you can find the gear ratio	Sulla riga corrispondente alla motorizzazione prescelta si può rilevare il rapporto di riduzione	En la línea correspondiente al motor preseleccionado es posible encontrar la relación de reducción
D	Select motor flange available (if requested)	Scegli la flangia disponibile (se richiesta)	Seleccionar la brida disponible (sobre pedido)

▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1750 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [HP]	Output torque M_{2M} [lb in]	Service factor f.s.	Nominal power P_{1R} [HP]	Nominal torque M_{2R} [lb in]	Available NEMA motor flanges -W 56C	-X 143/5TC	-Y 182/4TC	AA 213/5TC		Output Shaft ø	Ratios code
266	**6.57**	10	2272	1.5	14.80	3363					3018	standard ø1.500	01
232	**7.56**	10	2613	1.3	13.21	3452					3016		02
198	**8.82**	10	3050	1.2	11.90	3629					3014		03
141	**12.39**	10	4283	1.2	11.99	5133					2018		04
123	**14.24**	10	4924	1.1	10.79	5310					2016		05
104	**16.75**	10	5790	1.0	10.16	5886					1618		06
91	**19.25**	10	6657	0.9	8.97	5974					1616		07
80	**21.78**	7.5	5647	1.1	7.93	5974					1318		08
70	**25.04**	7.5	6493	0.9	6.90	5974					1316		09
60	**29.23**	5	5053	1.2	5.91	5974					1314		10
57	**30.65**	5	5298	1.1	5.64	5974					1116		11
48.9	**35.78**	5	6186	1.0	4.83	5974					1114		12
45.4	**38.55**	3	3999	1.3	3.85	5133					818		13
39.5	**44.32**	3	4597	1.3	3.84	5886					816		14
33.8	**51.74**	3	5367	1.1	3.34	5974					814		15
28.7	**61.03**	2	4220	1.0	2.01	4248					616		16
24.6	**71.25**	2	4927	1.0	2.01	4956					614		17

The dynamic efficiency is **0.96** for all ratios

Motor Flanges Available Flange Motore Disponibili

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

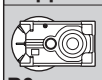
B) **Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione

C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

EN Unit **H62C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
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 **H62C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

E El reductor tamaño **H62C** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

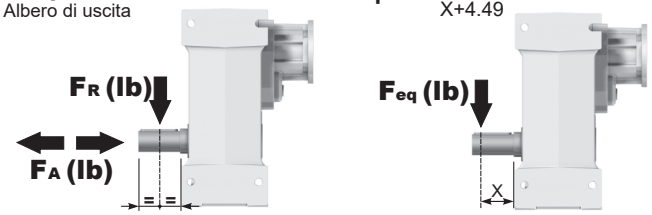
Standard supplied	**For these mounting position specify in the order or add oil** Per queste posizioni specificare in fase d'ordine o aggiungere olio					
 **B3**	 **B6**	 **B7**	 **B8**	 **V5**	 **V6**	 **V8**
79.23 oz	112.68 oz	105.63 oz	79.23 oz	153.17 oz	82.75 oz	Ask
SHELL Omala S4 WE 320			**ENI** Telium VSF 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

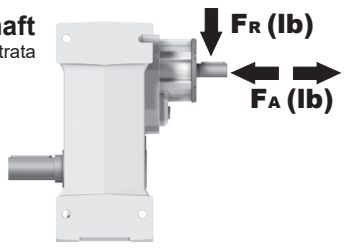
$$Feq = FR \cdot \frac{5.89}{X+4.49}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	135	674	**140**	162	809	**70**	211	1057
250	144	719	**120**	166	832	**40**	274	1371
200	155	778	**85**	193	967	**15**	292	1461

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



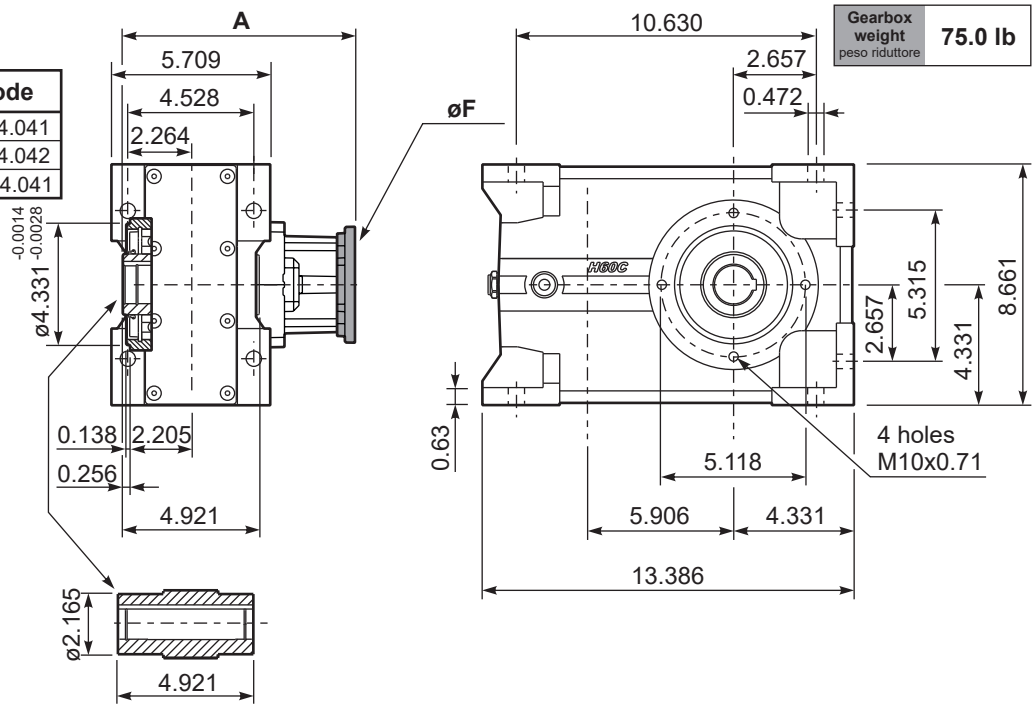
n_1	FA	FR
1750	101	506
1140	112	562

tab. 2

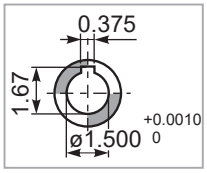
PH62C... Basic gearbox
Riduttore base

Nema flange	A	øF	kit code
56C-143/5TC	9.193	6.50	KU085.4.041
182/4TC	9.898	8.88	KU085.4.042
213/5TC	10.413	8.88	KUC50.4.041

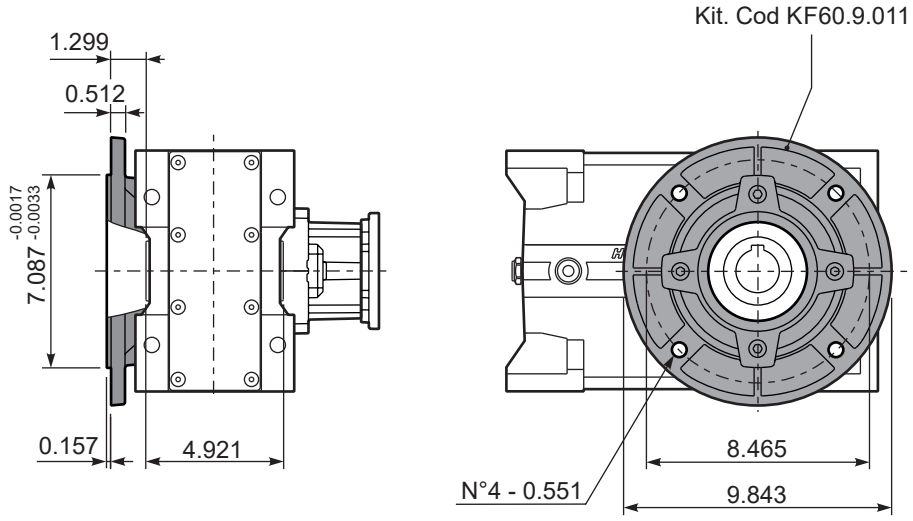
Gearbox weight / peso riduttore: **75.0 lb**



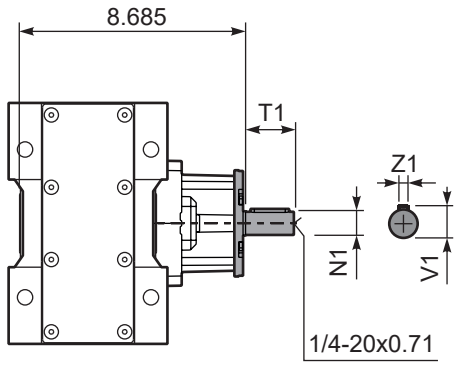
Standard
Hollow shaft



PH62C...-F Output flange
Flangia uscita

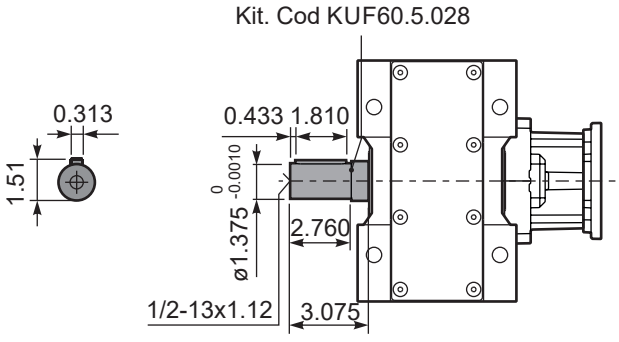


RH62C... Input Shaft
Albero in entrata



Nema flanges	N1	T1	V1	Z1	kit code
Standard	0.875	1.97	0.96	0.188	KC50.5.070U
On request	0.750	1.97	0.83	0.188	KC50.5.069U

PH62C A... Single output shaft
Albero uscita semplice



▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1750 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [HP]	Output torque M_{2M} [lb in]	Service factor f.s.	Nominal power P_{1R} [HP]	Nominal torque M_{2R} [lb in]	Available NEMA motor flanges -W 56C	Available NEMA motor flanges -X 143/5 TC		Output Shaft ø	Ratios code
28.3	**61.89**	2	4191	1.4	2.85	5974			191318		01
24.6	**71.16**	2	4819	1.2	2.48	5974			191316		02
21.2	**82.48**	2	5585	1.1	2.14	5974			171316		03
18.2	**96.29**	1.5	4890	1.2	1.83	5974			171314		04
17.4	**100.51**	1.5	5104	1.2	1.76	5974			131318		05
15.1	**115.56**	1.5	5869	1.0	1.53	5974			131316		06
13.9	**125.96**	1.5	6397	0.9	1.38	5886			190816		07
13.0	**134.91**	1.5	6851	0.9	1.31	5974			131314	**standard ø1.500**	08
11.9	**147.05**	1	4979	1.2	1.20	5974			190814		09
10.3	**170.44**	1	5770	1.0	1.04	5974			170814		10
9.5	**184.15**	1	6235	1.0	0.96	5974			101314		11
8.5	**205.87**	0.75	5228	1.1	0.86	5974			91316		12
7.3	**240.34**	0.75	6103	1.0	0.73	5974			91314		13
6.3	**279.22**	0.5	4727	1.2	0.62	5886			100816		14
5.4	**325.97**	0.5	5518	1.1	0.54	5974			100814		15
4.8	**364.41**	0.5	6169	1.0	0.48	5886			90816		16
4.1	**425.43**	0.33	4753	1.3	0.41	5974			90814		17
3.6	**481.19**	0.33	5376	1.1	0.36	5886			70816		18
3.1	**561.76**	0.33	6276	1.0	0.31	5974			70814		19

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available Flange Motore Disponibili

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

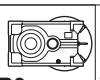
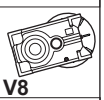
B) **Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione

C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

EN Unit **H63C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
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 **H63C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

E El reductor tamaño **H63C** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

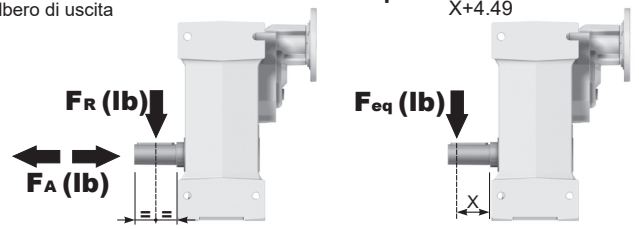
Standard supplied	**For these mounting position specify in the order or add oil** Per queste posizioni specificare in fase d'ordine o aggiungere olio					
 **B3**	 **B6**	 **B7**	 **B8**	 **V5**	 **V6**	 **V8**
82.75 oz	135.56 oz	110.92 oz	82.75 oz	160.21 oz	88.03 oz	Ask
SHELL Omala S4 WE 320			**ENI** Telium VSF 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

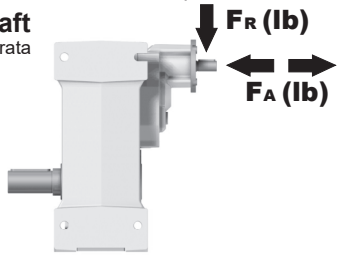
$$Feq = FR \cdot \frac{5.89}{X+4.49}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	135	674	**140**	162	809	**70**	211	1056
250	144	719	**120**	166	831	**40**	274	1370
200	155	777	**85**	193	966	**15**	292	1460

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

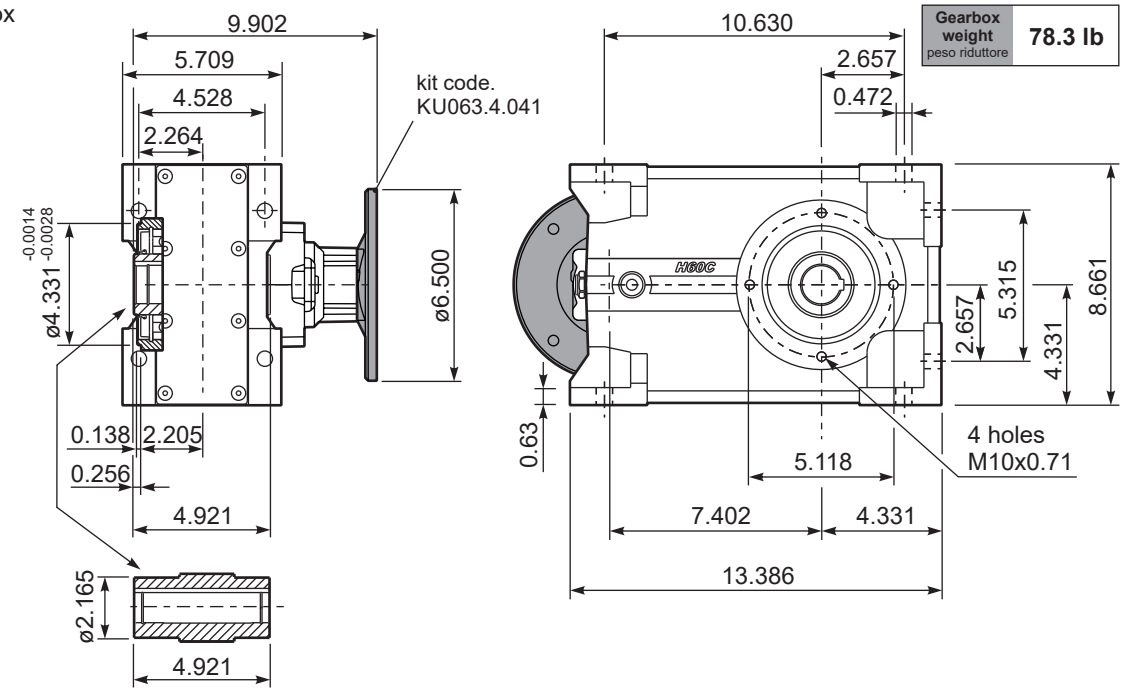
Input shaft
Albero in entrata



n_1	FA	FR
1750	90	449
1140	99	494

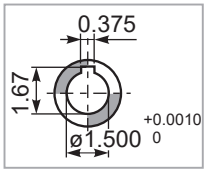
tab. 2

PH63C... Basic gearbox
Riduttore base

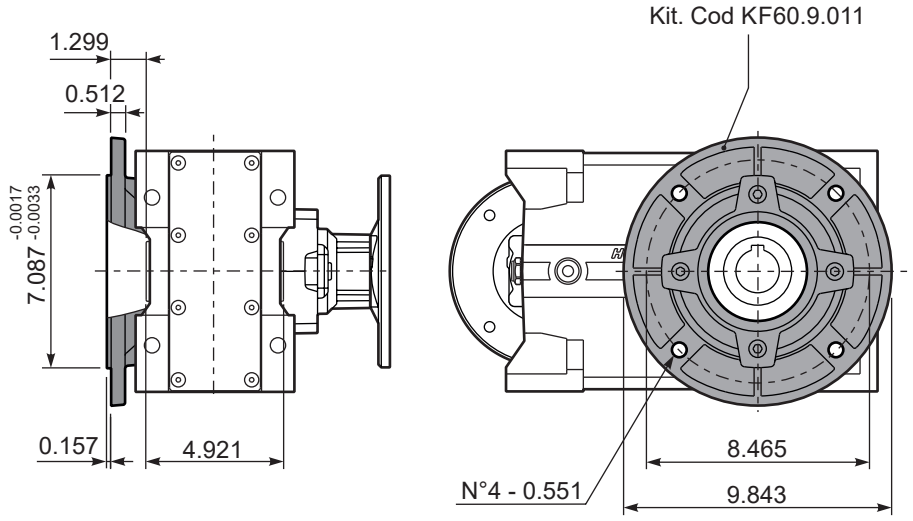


Gearbox weight / peso riduttore: **78.3 lb**

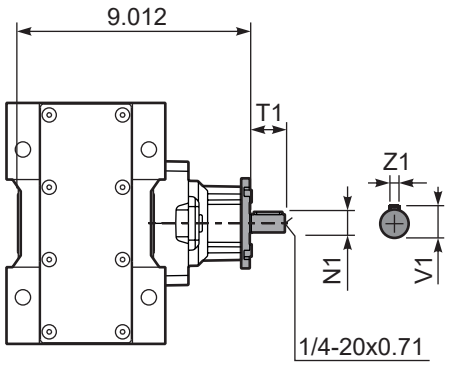
Standard
Hollow shaft



PH63C...-F Output flange
Flangia uscita

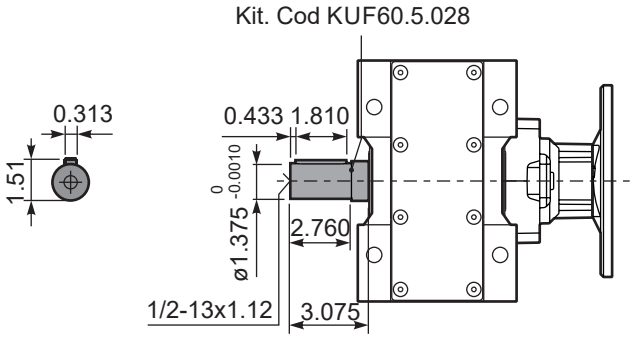


RH63C... Input Shaft
Albero in entrata



Nema flanges	N1	T1	V1	Z1	kit code
Standard	0.750	1.97	0.83	0.188	KC40.5.070U
On request	0.625	1.57	0.71	0.188	KC40.5.069U

PH63C A... Single output shaft
Albero uscita semplice



▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1750 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [HP]	Output torque M_{2M} [lb in]	Service factor f.s.	Nominal power P_{1R} [HP]	Nominal torque M_{2R} [lb in]	Available NEMA motor flanges -W 56C	-X 143/5TC	-Y 182/4TC	AA 213/5TC		Output Shaft ø	Ratios code
218	**8.02**	10	2772	1.7	16.60	4602					3018		01
191	**9.18**	10	3175	1.6	16.45	5222					3016		02
164	**10.68**	10	3692	1.6	16.30	6019					3014		03
116	**15.11**	10	5224	1.3	13.13	6859					2018		04
101	**17.30**	10	5983	1.3	13.09	7833					2016		05
87	**20.13**	10	6959	1.1	11.45	7966					2014		06
75	**23.39**	10	8089	1.0	9.85	7966					1616		07
64	**27.21**	7.5	7056	1.1	8.47	7966					1614	**standard**	08
58	**30.42**	7.5	7889	1.0	7.57	7966					1316	**ø1.500**	09
49.5	**35.38**	5	6117	1.3	6.51	7966					1314		10
47.0	**37.24**	5	6438	1.2	6.15	7921					1116		11
40.4	**43.31**	5	7488	1.1	5.32	7966					1114		12
37.2	**47.02**	3	4877	1.3	3.84	6240					818		13
32.5	**53.85**	3	5586	1.3	3.85	7169					816		14
27.9	**62.63**	3	6497	1.2	3.68	7966					814		15
23.6	**74.16**	2	5128	1.0	2.02	5178					616		16
20.3	**86.25**	2	5964	1.0	2.02	6019					614		17

The dynamic efficiency is **0.96** for all ratios

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 **H72C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
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 **H72C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti.
Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

E El reductor tamaño **H72C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, 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.

B3	B6	B7	B8	V5	V6	V8
112.68 oz	163.73 oz	140.85 oz	112.68 oz	218.31 oz	109.15 oz	Ask

SHELL Omala S2 GX 460 | **ENI** Blasia 460

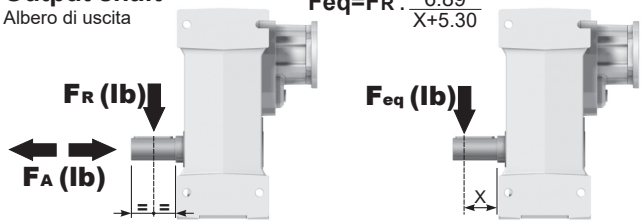
For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

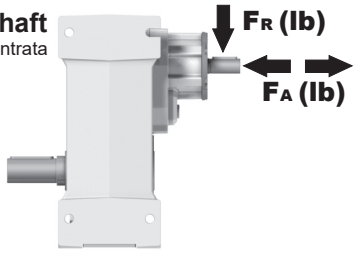
$$Feq = FR \cdot \frac{6.89}{X+5.30}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	166	831	**140**	193	966	**70**	229	1146
250	180	899	**120**	202	1011	**40**	292	1460
200	186	932	**85**	218	1090	**15**	382	1910

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata

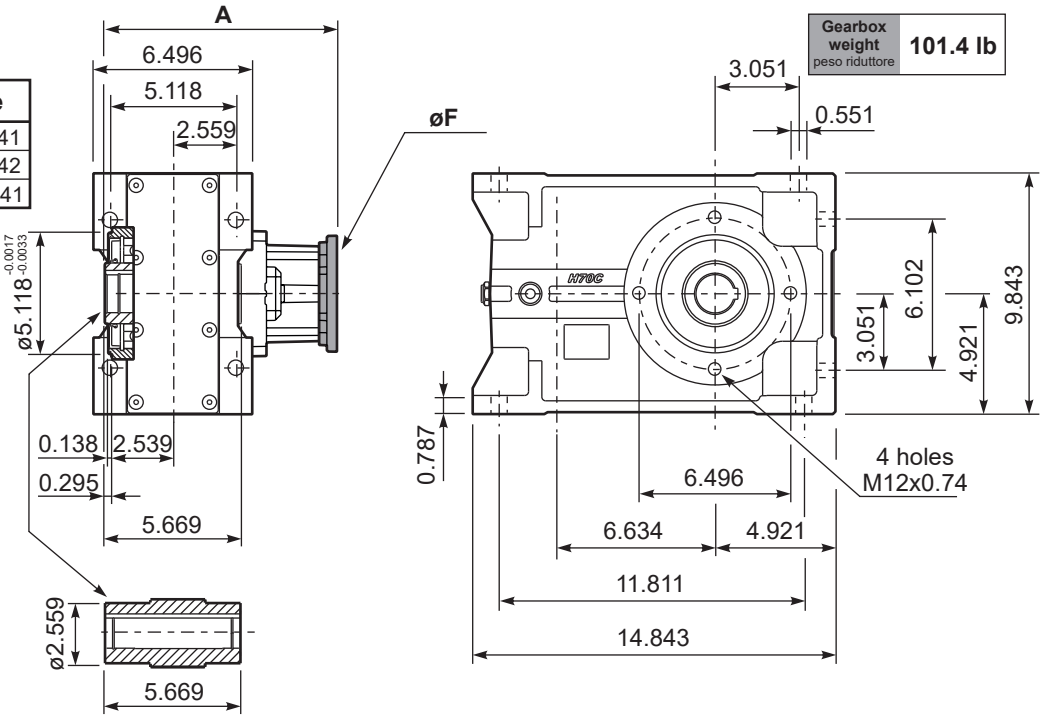


n_1	FA	FR
1750	101	449
1140	112	494

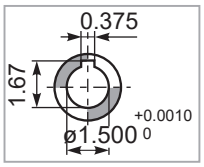
tab. 2

PH72C... Basic gearbox
Riduttore base

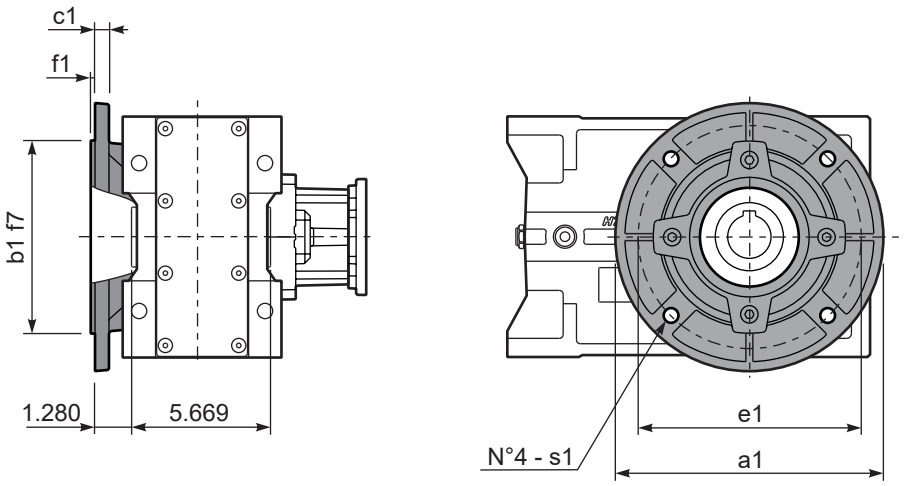
Nema flange	A	øF	kit code
56C-143/5TC	9.646	6.50	KU085.4.041
182/4TC	10.350	8.88	KU085.4.042
213/5TC	10.866	8.88	KUC50.4.041



Standard
Hollow shaft



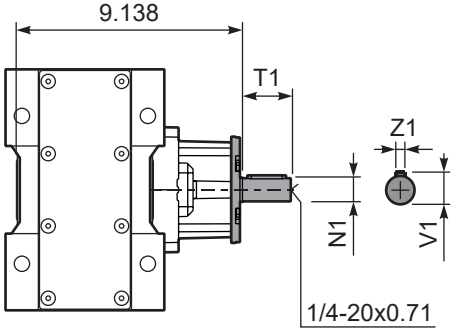
PH72C...-F Output flange
Flangia uscita



Available output flanges
Flange di uscita

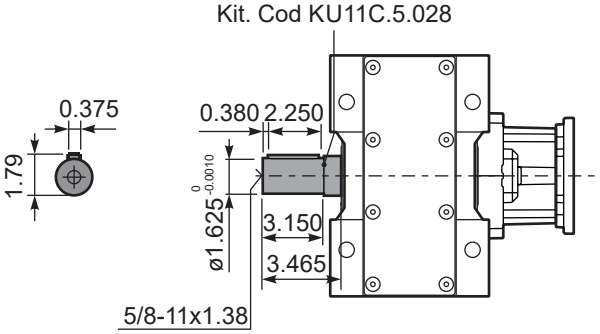
a1 ø	b1	c1	e1	f1	s1	Kit code
9.843	7.087 -0.0017 -0.0033	0.512	8.465	0.118	0.551	KF70.9.011
11.811	9.055 -0.0020 -0.0038	0.630	10.433	0.157	0.551	KF70.9.012

RH72C... Input Shaft
Albero in entrata



Nema flanges	N1	T1	V1	Z1	kit code
Standard	0.875	1.97	0.96	0.188	KC50.5.070U
On request	0.750	1.97	0.83	0.188	KC50.5.069U

PH72C A... Single output shaft
Albero uscita semplice



▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1750 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [HP]	Output torque M_{2M} [lb in]	Service factor f.s.	Nominal power P_{1R} [HP]	Nominal torque M_{2R} [lb in]	Available NEMA motor flanges -W 56C	Available NEMA motor flanges -X 143/5 TC		Output Shaft ø	Ratios code
23.2	**75.50**	2	5112	1.4	2.86	7302			191318		01
20.2	**86.47**	2	5855	1.4	2.72	7966			191316		02
17.5	**100.22**	2	6786	1.2	2.35	7966			171316		03
15.0	**116.56**	2	7893	1.0	2.02	7966			171314		04
12.8	**136.82**	1.5	6948	1.1	1.72	7966			151314		05
11.4	**153.05**	1.5	7773	0.9	1.38	7169			190816		06
10.7	**163.31**	1.5	8294	1.0	1.44	7966			131314		07
9.8	**178.01**	1.5	9040	0.9	1.32	7966			190814	**standard ø1.500**	08
9.1	**191.67**	1	6489	1.2	1.23	7966			101316		09
8.5	**206.32**	1	6985	1.1	1.14	7966			170814		10
7.9	**222.92**	1	7547	1.1	1.06	7966			101314		11
7.2	**242.18**	1	8199	1.0	0.97	7966			150814		12
7.0	**250.15**	1	8469	0.9	0.94	7966			91316		13
6.1	**289.08**	0.75	7340	1.1	0.81	7966			130814		14
5.3	**330.31**	0.75	8387	0.9	0.70	7877			71316		15
4.4	**394.59**	0.5	6680	1.2	0.60	7966			100814		16
3.4	**514.99**	0.5	8718	0.9	0.46	7966			90814		17
2.6	**680.03**	0.33	7598	1.0	0.35	7966			70814		18

The dynamic efficiency is **0.94** for all ratios

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 **H73C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
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 **H73C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

E El reductor tamaño **H73C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, 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.

B3	B6	B7	B8	V5	V6	V8
116.20 oz	200.70 oz	146.13 oz	116.20 oz	225.35 oz	114.44 oz	Ask

SHELL Omala S2 GX 460	**ENI** Blasia 460

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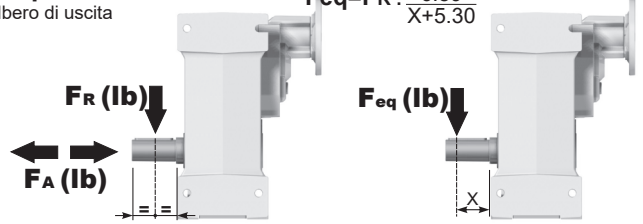
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

$$Feq = FR \cdot \frac{6.89}{X+5.30}$$



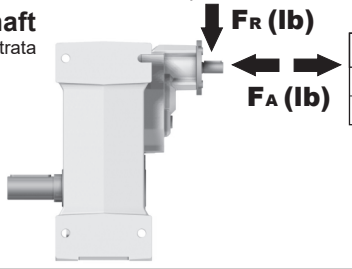
n_2	FA	FR
300	166	831
250	180	899
200	186	932

n_2	FA	FR
140	193	966
120	202	1011
85	218	1090

n_2	FA	FR
70	229	1146
40	292	1460
15	382	1910

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

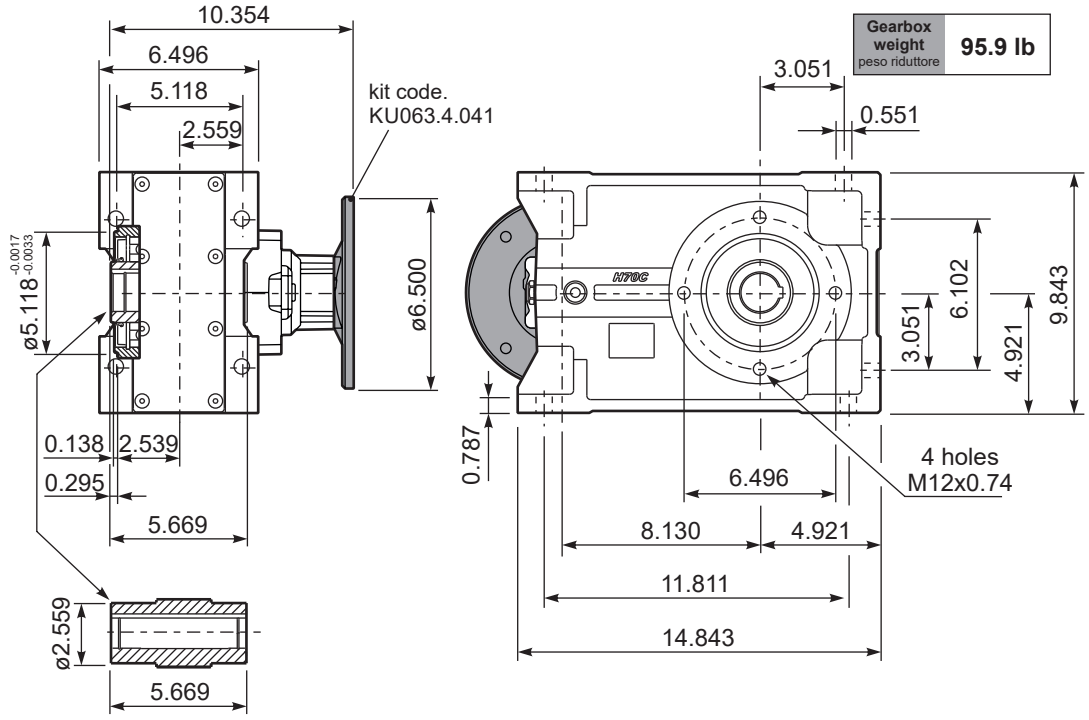
Input shaft
Albero in entrata



n_1	FA	FR
1750	90	449
1140	99	494

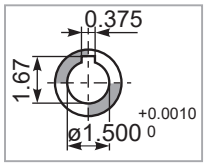
tab. 2

PH73C... Basic gearbox
Riduttore base

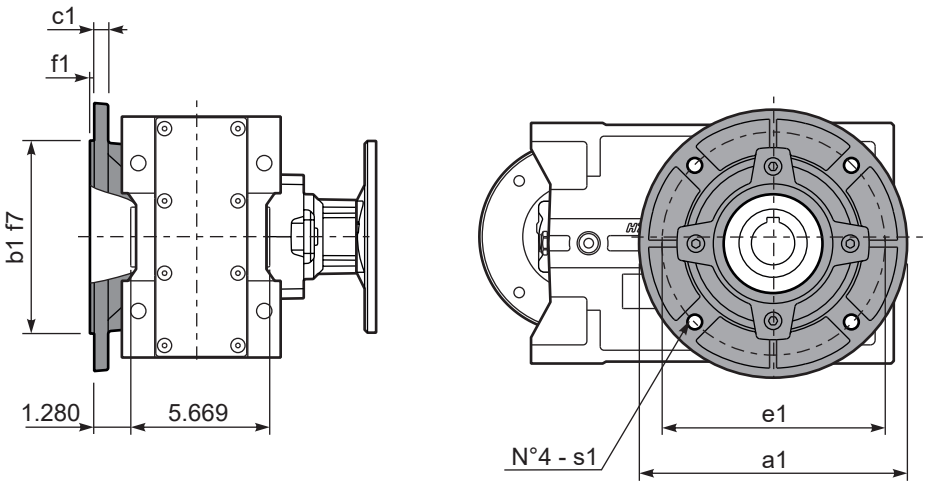


Gearbox weight / peso riduttore: **95.9 lb**

Standard
Hollow shaft



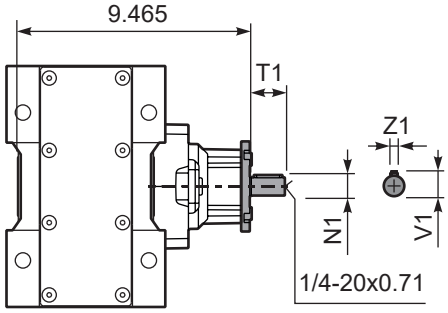
PH73C...-F Output flange
Flangia uscita



Available output flanges
Flange di uscita

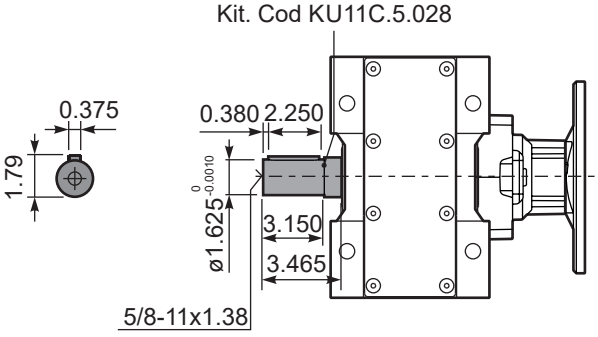
a1 ø	b1	c1	e1	f1	s1	Kit code
9.843	7.087 -0.0017 -0.0033	0.512	8.465	0.118	0.551	KF70.9.011
11.811	9.055 -0.0020 -0.0038	0.630	10.433	0.157	0.551	KF70.9.012

RH73C... Input Shaft
Albero in entrata



Nema flanges	N1	T1	V1	Z1	kit code
Standard	0.750	1.97	0.83	0.188	KC40.5.070U
On request	0.625	1.57	0.71	0.188	KC40.5.069U

PH73C A... Single output shaft
Albero uscita semplice



▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1750 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [HP]	Output torque M_{2M} [lb in]	Service factor f.s.	Nominal power P_{1R} [HP]	Nominal torque M_{2R} [lb in]	Available NEMA motor flanges -Y 182/4TC	AA 213/5TC	AB 254/6TC		Output Shaft ø	Ratios code
293	**5.98**	20	4135	2.1	**42.81**	**8851**				3015		01
246	**7.10**	20	4910	2.1	**42.36**	**10400**				3013		02
203	**8.63**	20	5966	2.0	**40.06**	**11949**				3011		03
155	**11.27**	20	7794	1.7	**34.07**	**13276**				2015		04
131	**13.38**	20	9253	1.6	**32.52**	**15046**				2013		05
115	**15.24**	20	10537	1.6	**31.92**	**16816**				1615		06
108	**16.26**	20	11244	1.7	**33.06**	**18587**				2011		07
97	**18.09**	20	12511	1.5	**29.71**	**18587**				1613	**standard ø2.000**	08
88	**19.82**	20	13703	1.3	**26.61**	**18233**				1315		09
80	**21.98**	20	15202	1.2	**24.45**	**18587**				1611		10
74	**23.53**	20	16269	1.1	**22.85**	**18587**				1313		11
72	**24.25**	20	16773	1.0	**20.47**	**17170**				1115		12
61	**28.80**	20	19914	0.9	**18.67**	**18587**				1113		13
50	**34.99**	15	18148	1.0	**15.36**	**18587**				1111		14
42.0	**41.64**	10	14399	1.2	**12.05**	**17347**				813		15
34.6	**50.60**	10	17469	1.1	**10.62**	**18587**				811		16

The dynamic efficiency is **0.96** for all ratios

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 **H82C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
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 **H82C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti.
Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

E El reductor tamaño **H82C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, 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.

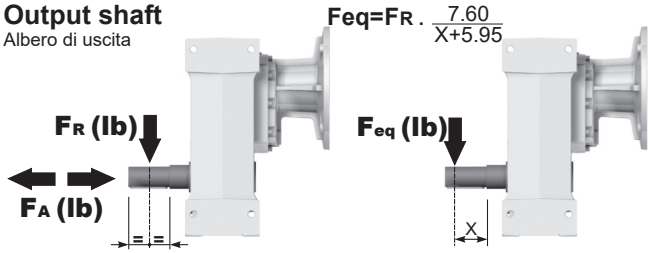
B3	B6	B7	B8	V5	V6	V8
197.18 oz	239.44 oz	274.65 oz	197.18 oz	352.11 oz	193.66 oz	Ask
SHELL Omala S2 GX 460			**ENI** Blasia 460			

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

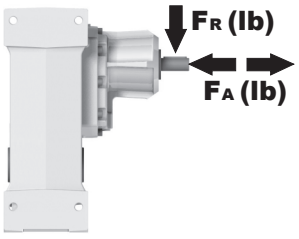
$$Feq = FR \cdot \frac{7.60}{X+5.95}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	207	1033	**140**	252	1258	**70**	315	1573
250	225	1123	**120**	256	1281	**40**	404	2022
200	238	1191	**85**	292	1460	**15**	539	2696

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata

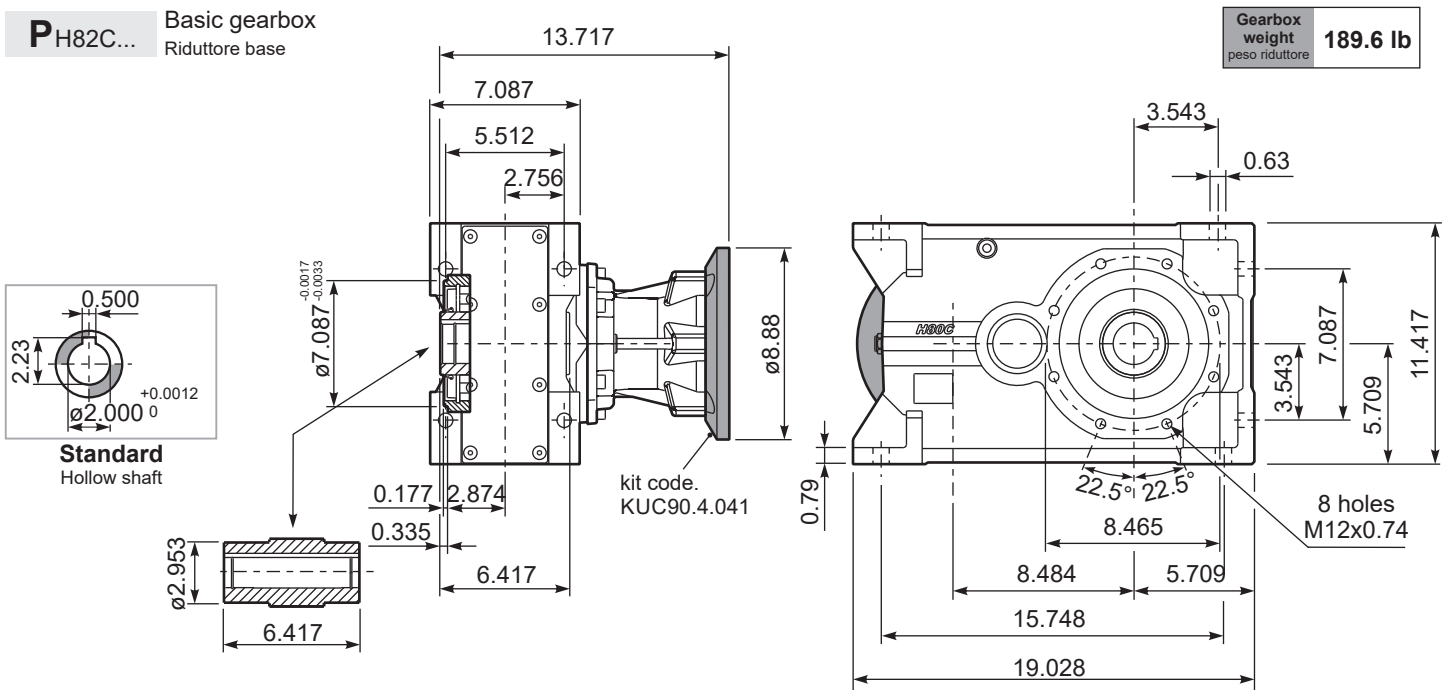


n_1	FA	FR
1750	157	786
1140	189	944

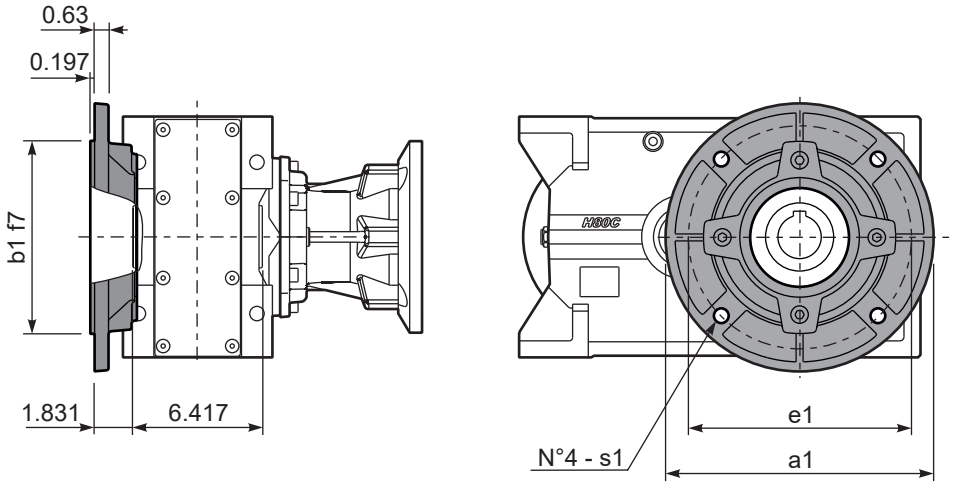
tab. 2

PH82C... Basic gearbox
Riduttore base

Gearbox weight peso riduttore	189.6 lb



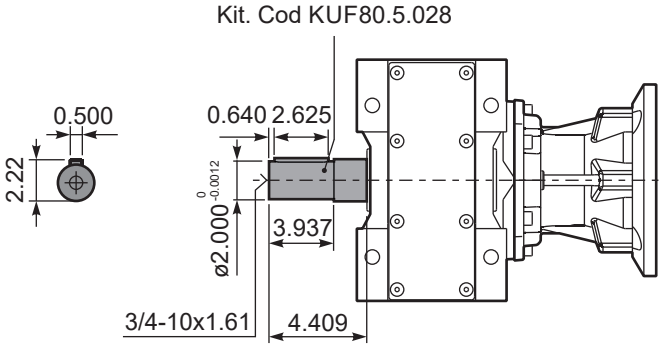
PH82C...**-F** Output flange
Flangia uscita



Available output flanges
Flange di uscita

a1 ø	b1	e1	s1	Kit code
11.811	9.055 -0.0020 -0.0038	10.433	0.551	KF80.9.011
13.780	9.843 -0.0020 -0.0038	11.811	0.709	KF80.9.012

PH82C **A**... Single output shaft
Albero uscita semplice



8

▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1750 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [HP]	Output torque M_{2M} [lb in]	Service factor f.s.	Nominal power P_{1R} [HP]	Nominal torque M_{2R} [lb in]	Available NEMA motor flanges -W 56C	-X 143/5TC	-Y 182/4TC	AA 213/5TC		Output Shaft ø	Ratios code
36.0	**48.55**	10	16436	1.1	11.31	18587					201315		01
30.4	**57.64**	10	19515	1.0	9.52	18587					201313		02
26.7	**65.64**	7.5	16667	1.1	8.36	18587					161315		03
25.0	**70.04**	7.5	17784	1.0	7.84	18587					201311		04
22.5	**77.93**	7.5	19789	0.9	7.04	18587					161313		05
20.5	**85.36**	7.5	21674	0.9	6.43	18587					131315		06
18.5	**94.70**	5	16030	1.2	5.80	18587					161311		07
17.3	**101.35**	5	17156	1.1	5.42	18587					131313	**standard ø2000**	08
14.2	**123.15**	5	20846	0.9	4.46	18587					131311		09
11.6	**150.73**	3	15310	1.2	3.64	18587					111311		10
9.8	**179.39**	3	18220	1.0	3.06	18587					81313		11
8.0	**217.98**	2	14760	1.3	2.52	18587					81311		12
7.1	**247.03**	2	16727	1.0	2.06	17259					61313		13
5.8	**300.17**	1.5	15244	1.2	1.83	18587					61311		14

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available Flange Motore Disponibili

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

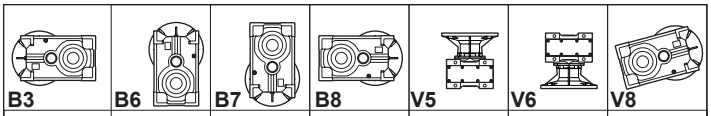
B) Available on Request without reduction bushing Disponibile a Richiesta senza Bussola di Riduzione

C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

EN Unit **H83C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
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 **H83C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti.
Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

E El reductor tamaño **H83C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, 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.

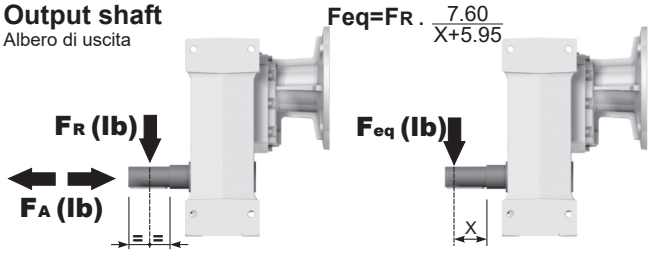
 B3	B6	B7	B8	V5	V6	V8
204.23 oz	250 oz	288.73 oz	204.23 oz	380.29 oz	211.27 oz	Ask
SHELL Omala S2 GX 460				**ENI** Blasia 460		

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

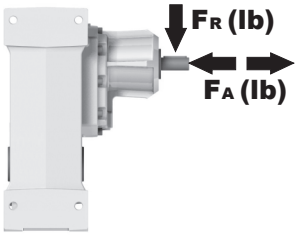
$$Feq = FR \cdot \frac{7.60}{X+5.95}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	207	1033	**140**	252	1258	**70**	315	1573
250	225	1123	**120**	256	1281	**40**	404	2022
200	238	1191	**85**	292	1460	**15**	539	2696

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



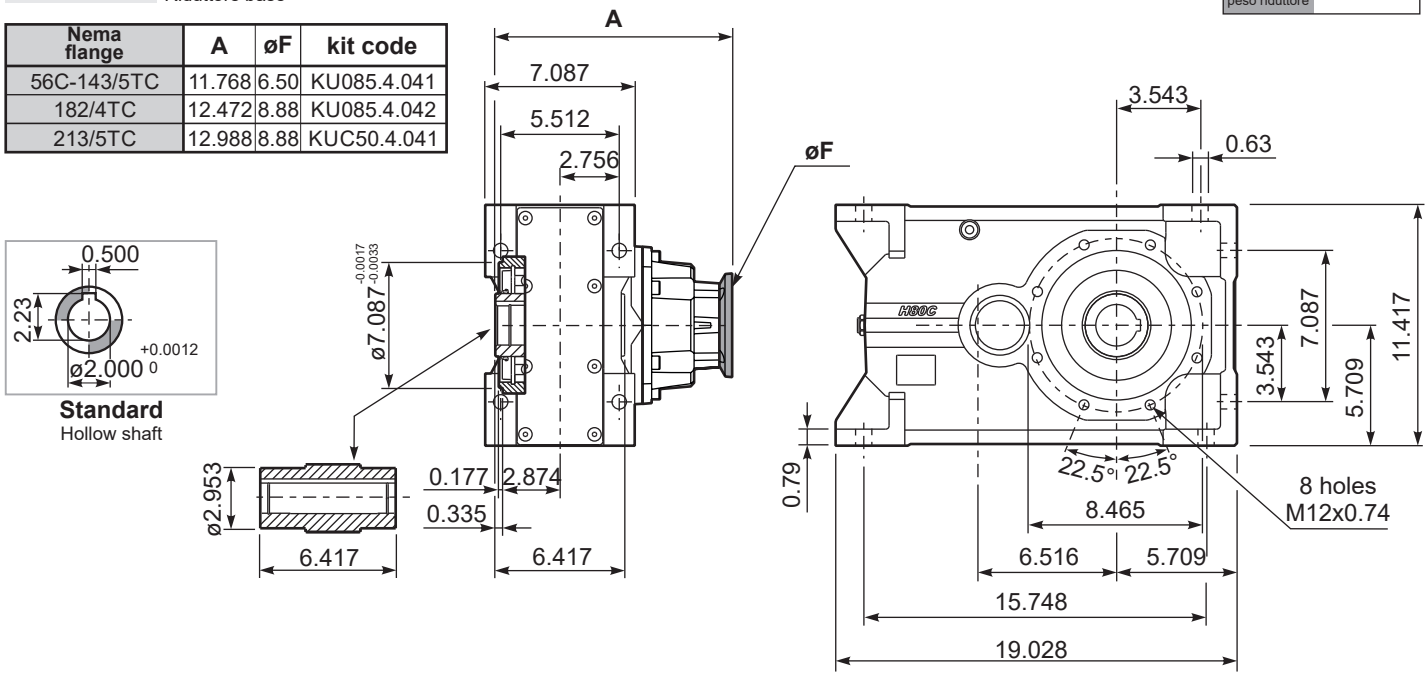
n_1	FA	FR
1750	101	506
1140	112	562

tab. 2

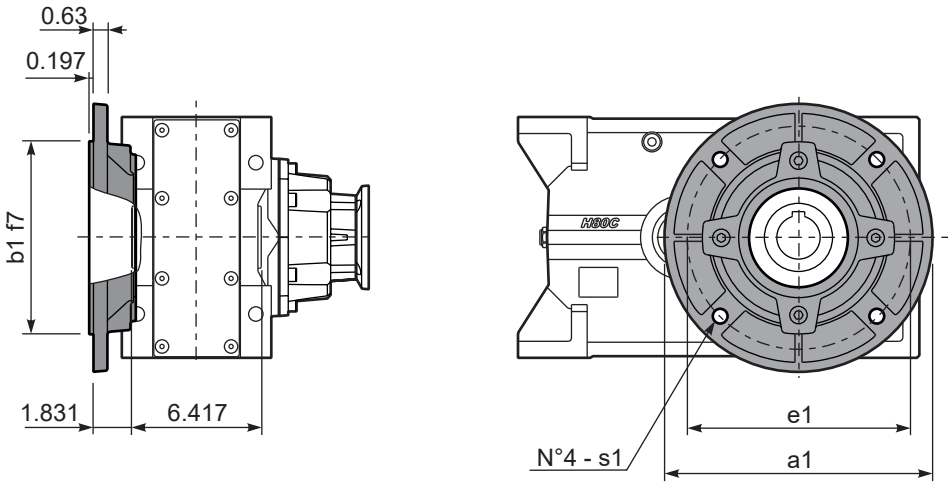
PH83C... Basic gearbox
Riduttore base

Gearbox weight / peso riduttore: 178.6 lb

Nema flange	A	øF	kit code
56C-143/5TC	11.768	6.50	KU085.4.041
182/4TC	12.472	8.88	KU085.4.042
213/5TC	12.988	8.88	KUC50.4.041



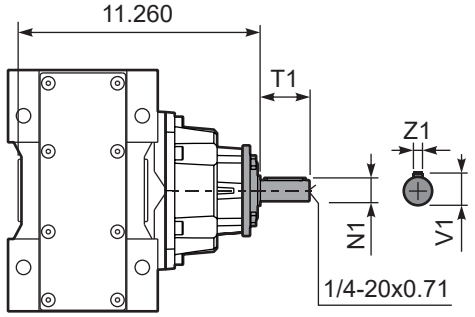
PH83C...-F Output flange
Flangia uscita



Available output flanges
Flange di uscita

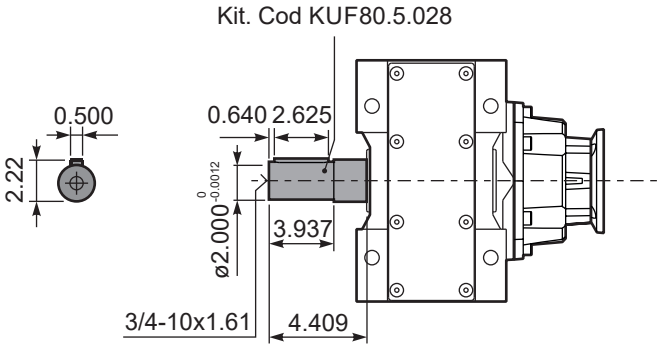
a1 ø	b1	e1	s1	Kit code
11.811	9.055 -0.0020 -0.0038	10.433	0.551	KF80.9.011
13.780	9.843 -0.0020 -0.0038	11.811	0.709	KF80.9.012

RH83C... Input Shaft
Albero in entrata



Nema flanges	N1	T1	V1	Z1	kit code
Standard	0.875	1.97	0.96	0.188	KC50.5.070U
On request	0.750	1.97	0.83	0.188	KC50.5.069U

PH83C A... Single output shaft
Albero uscita semplice



8

HYDROMEC SPA IS THE LEGAL RESPONSABLE FOR WARRANTY ISSUES.

PLEASE READ CAREFULLY

The following WARNING and CAUTION information are supplied to you for the proper functioning of your product.
Read ALL instructions prior to operating reducer.
Injury to personnel or reducer failure may be caused by improper installation, maintenance or operation.

WARNING:

• Written authorization is required to operate or use reducers in man lift or people moving devices.

• Check to make sure that certain applications do not exceed the allowable load capacities published in the current catalog.
• Buyer shall be solely responsible for determining the adequacy of the product for any and all uses to which Buyer shall apply the product. The application by Buyer shall not be subject to any implied warranty of fitness for a particular purpose.
• For safety, Buyer or User should provide protective guards over all shaft extensions and any moving apparatus mounted thereon. The User is responsible for checking all applicable safety codes in his area and providing suitable guards. Failure to do so may result in bodily injury and/or damage to equipment.
• Gearboxes operating in high position should have a protective shield for any possible parts falling down for casual accidents where people are moving under them.
• Hot oil and reducers can cause severe burns. Use extreme care when removing lubrication plugs and vents.
• Make certain that the power supply is disconnected before attempting to service or remove any components. Lock out the power supply and tag it to prevent unexpected application power.
• Reducers are not to be considered fail safe or self-locking devices. If these features are required, a properly sized, independent holding device should be utilized.
Reducers should not be used as a brake.
• Any brakes that are used in conjunction with a reducer must be sized or positioned in such a way so as to not subject the reducer to loads beyond the catalog rating.
• Lifting supports including eyebolts are to be used for vertically lifting the gearbox only and not other associated attachments or motors.
• Use of an oil with an EP additive on units with backstops may prevent proper operation of the backstop. Injury to personnel, damage to the reducer or other equipment may result.
• Overhung loads subject shaft bearings and shafts to stress which may cause premature bearing failure and or shaft breakage from bending fatigue, it not sized properly.

SELLING CONDITIONS

Warranty for manufacturing defects will expire one-year after the invoicing date. Hydro-Mec s.p.a. will replace or repair defective parts but will not accept any further changes for direct or indirect damages of any kind. The warraty will become null and void if repairs or changes are carried out without our prior written authorization.
Our company will not be responsible for any direct or indirect damages, caused by a wrong use of the products or for not observing the catalogue/ web indication.
If the process requires total protections the customers should consider additional measures to avoid any contaminations arising from the gearboxes.

All information shown in this catalogue are purely indicative;
Hydro-Mec s.p.a reserves the right to make any necessary variation without prior notice.

HYDROMEC SPA È LEGALMENTE IL RESPONSABILE DEI PROBLEMI DI GARANZIA.

LEGGERE ATTENTAMENTE

Le seguenti raccomandazioni sono fondamentali per un buon funzionamento del vostro prodotto.
Leggere attentamente tutte le istruzioni prima di azionare il riduttore.
L'inappropriata installazione, manutenzione o funzionamento del riduttore può causare incidenti al personale addetto edanni al riduttore stesso.

ATTENZIONE:

• E' richiesta autorizzazione scritta per azionare riduttori in ascensori o dispositivi per il movimento delle persone.

• Controllare che alcune applicazioni non eccedano la massima capacità di carico ammessa pubblicata in questo catalogo.
• L'acquirente è l'unico responsabile per la determinazione dell'adeguatezza del prodotto per qualcuna o tutte le utilizzazioni che l'acquirente stesso farà del riduttore. L'applicazione dell'acquirente non potrà essere soggetta ad alcuna implicita garanzia di montaggio per uno scopo particolare.
• Per ragioni di sicurezza l'acquirente dovrà provvedere a porre protezioni adeguate su tutta la lunghezza dell'albero a tutti gli organi in movimento.
L'utilizzatore è responsabile del controllo di tutti i codici di sicurezza e la predisposizione di protezioni adeguate. In assenza di tali precauzioni si possono verificare incidenti alle persone e danni agli apparati.
• Su riduttori installati in posizioni elevate utilizzare protezioni adeguate per qualsiasi distacco accidentale di parti nel caso di passaggio di persone al di sotto.
• Olio e riduttori bollenti possono causare gravi ustioni. Usare estrema cautela nella rimozione dei tappi e delle ventole.
• Assicurarsi che la corrente di alimentazione sia scollegata prima di riparare o rimuovere alcun componente. Chiudere l'alimentazione e contrassegnare tale operazione per evitare accensioni accidentali.
• I riduttori non devono essere considerati esenti da guasti o a bloccaggio automatico. Se sono indispensabili queste caratteristiche, deve essere utilizzato un dispositivo indipendente della dimensione adatta. I riduttori non devono essere utilizzati come freni.
• Qualsiasi freno sia utilizzato insieme al riduttore deve essere della giusta grandezza e posizionato in modo da non causare carichi eccessivi non previsti dai dati forniti nel catalogo.
• I dispositivi di sollevamento come le golfare devono essere usati solo per sollevare verticalmente il riduttore e non altri dispositivi associati o motori.
• L'utilizzo di un olio con un additivo EP su gruppi provvisti di dispositivo di arresto possono inficiare l'uso corretto del freno e provocare danni alle persone, alle cose ed al riduttore stesso nonché ad altri apparecchi.
• I Carichi sospesi assoggettano i cuscinetti della vite e la vite stessa a sollecitazioni che possono causare, se non adeguatamente dimensionati, l'usura prematura dei cuscinetti e/o larottura della vite a causa della resistenza alla flessione.

CONDIZIONI DI VENDITA

La garanzia relativa a difetti di costruzione ha la durata di un anno dalla data di fatturazione della merce. Tale garanzia comporta per Hydro-Mec s.p.a. l'onere della sostituzione o riparazione delle parti difettose ma non ammette ulteriori addebiti per eventuali danni diretti o indiretti di qualsiasi natura. La garanzia decade nel caso in cui siano state eseguite riparazioni o apportate modifiche senza nostro consenso scritto.
La nostra ditta non si ritiene responsabile per eventuali danni diretti o indiretti derivanti da un uso improprio dei prodotti e dalla mancata osservanza delle indicazioni riportate a catalogo o web.
Se il processo richiede una protezione totale, i clienti dovrebbero prendere in considerazione misure aggiuntive per evitare qualsiasi contaminazione derivante dai riduttori.
 Tutte le informazioni riportate nel presente catalogo sono puramente indicative; Hydro-Mec s.p.a si riserva il diritto di apportare qualsiasi variazione necessaria senza preavviso.

HYDRO·MEC

HIGH EFFICENCY GEARBOXES

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hydromec@hydromec.com

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