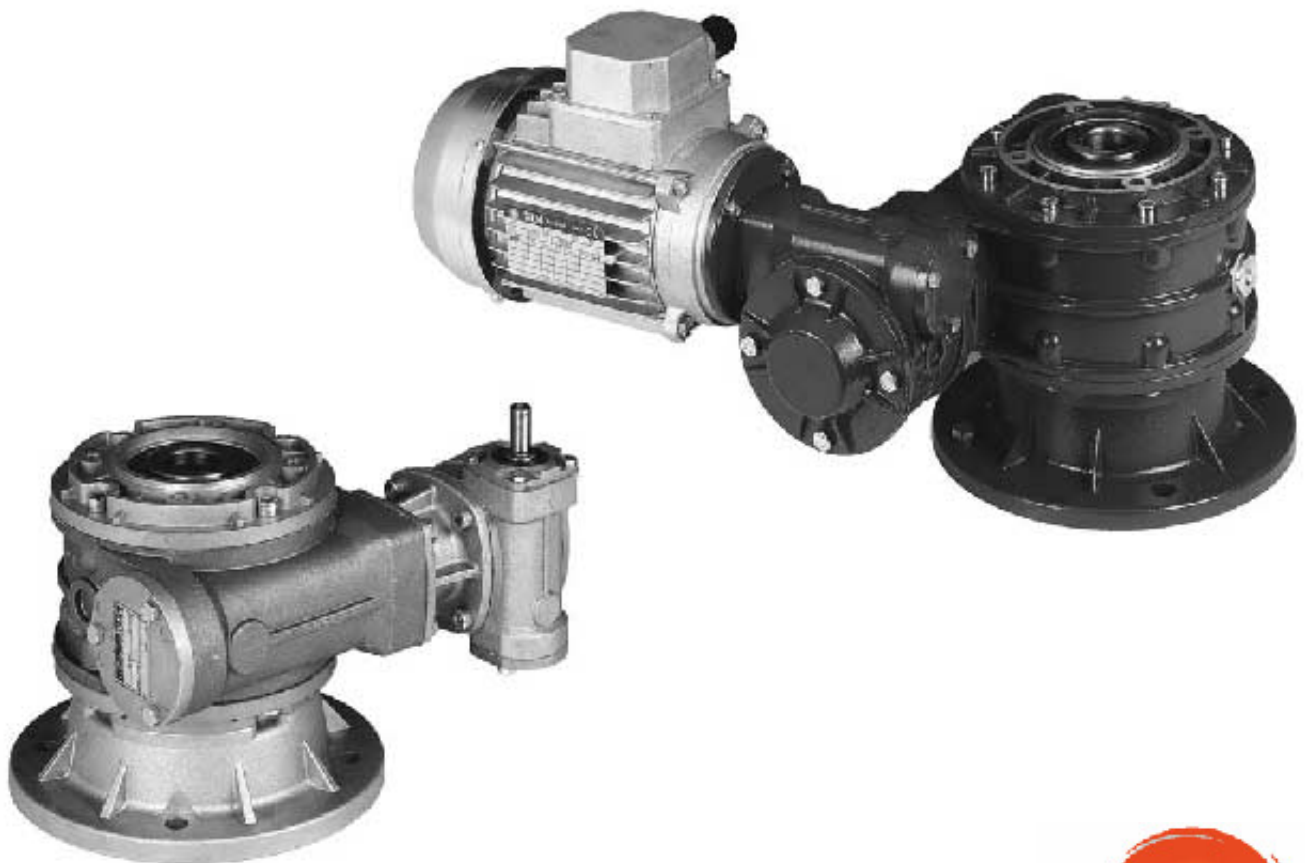


3.0 RIDOTTORI A VITE SENZA FINE COMBINATI
 COMBINED WORM GEARBOXES
 KOMBINIERTE SCHNECKENGETRIEBE

CRI
 CRM I

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3.1 Caratteristiche tecniche

I nostri riduttori a vite senza fine combinati vengono realizzati seguendo il criterio della massima affidabilità nel tempo, risultato ottenuto utilizzando ottimi materiali e moderni criteri di progettazione.

Carcasse, flange e piedi sono realizzati in ghisa meccanica G20 UNI 5007 ad esclusione dei modelli di bassa potenza (28-40-50-63-70) per i quali è invece utilizzato l'alluminio SG-AISI UNI 1706.

Le viti senza fine sono realizzate in acciaio e vengono cementate, temprate e rettificcate. La rettifica sul filetto, nei rapporti di riduzione per i quali il valore del modulo lo consente, viene eseguita con profilo ZI migliorando così i contatti tra le superfici dentate e, conseguentemente, il rendimento e la silenziosità di funzionamento.

La corona ha il mozzo in ghisa G20 sul quale viene riportata una fusione in bronzo GCuSn12 UNI7013.

Sono utilizzati cuscinetti a rulli conici o radiali a sfere di qualità per garantire una lunga durata.

Il programma di fabbricazione prevede anche, l'applicazione di un limitatore di coppia con allarme di arresto e l'assemblaggio con variatore.

3.1 Technical characteristics

Our gearboxes are manufactured with high quality material and modern design in order to guarantee the maximum reliability and duration.

Housings, flanges and feet are made out of engineering cast iron G20 UNI 5007 excluding the smaller sized models (28-40-50-63-70) for which aluminium SG-AISI UNI 1706 is utilized instead.

Wormshafts are made of steel and are casehardened, hardened and ground.

The thread grinding in the gear ratios that the module value permits is carried out with ZI-Profile.

This improves the contact between the toothed surfaces and therefore performance and reduces operating noise.

The wormwheel has a G20 cast iron hub onto which a casting in GCsSn12 UNI7013 bronze is fitted.

To guarantee a long life, taper roller bearing or radial ball bearings are used.

Our range also provides possible application of torque limiters equipped with stop devices and assembly on to variators.

3.1 Technische Eigenschaften

Unsere Untersetzungsgetriebe werden unter Verwendung von besten Materialien und mit modernsten Herstellungsmethoden hergestellt, um eine maximale Zuverlässigkeit sowie eine lange Lebensdauer zu garantieren.

Außer bei den Modellen mit niedriger Leistung, bei welchen Aluminium SG-AISI UNI 1706 verwendet wird, werden alle Gehäuse, Flansche und Sockel aus Maschinenguß G20 UNI 5007 gefertigt.


Die Schnecken sind aus einsatzgehärtetem, gehärtetem und geschliffenem Stahl. Das Gewindeschleifen erfolgt in den vom Modulwert zulässigen Übersetzungsverhältnissen mit ZI-Profil, wodurch die Kontakte zwischen den verzahnten Oberflächen und folglich die Leistung und der geräuscharme Betrieb verbessert werden.

Das Schneckenrad hat eine Nabe aus Gußeisen G20, auf die ein Guß aus Bronze GcuSn12 UNI7013 aufgetragen wird.

Um eine lange Lebensdauer zu gewährleisten, werden Kegelrollenlager oder Radial- kugellager von hoher Qualität verwendet. Die Getriebe können mit einer Rutsch- kupplung, einem einstellbaren Drehmoment- tbegrenzer und mit einem Drehzahlregler ausgerüstet werden.

3.2 Designazione

3.2 Designation

	Grandezza Size Größe	Versione Version Ausführung	Vers. di montaggio Mounting vers. Montageausf.	ir	* (IEC)	kW	n° Poli Poles Polig		Esempio / Example / Beispiel
CRMI	28/28	S I D A (FL,P,PP) A(F1,F2,F3)	1 2 3 4 5 6	140	63 (B5)	0.13 0.18	2 4	63 (B5) 63 (B14)	CRMI 40/85S 1:980 PAM 63 (B5)
	28/40			200	63 (B14)				
	28/50			280	....			
	28/63			400	....			
	40/70			600	....			
	40/85			980	....			
CRI	50/110	A (FL,P,PP) A(F1,F2,F3)	1 2 3 4 5 6	1372	63 (B5)	0.13 0.18	2 4	63 (B5) 63 (B14)	CRMI 40/85S 1:980 kW 0.18 4 63 (B5)
	63/130			1960	....			
	85/150			2800	....			
	85/180			4000	....			
	.....			5600	....			
				7000	....			
	8000	....						
	10000	....						
									CRI 40/85S 1:980

* Se non conforme alle specifiche dimensionali IEC precisare diametro foro e flangia (es. 14/120)

Altre specifiche:

- Versione flangiata con montaggio sinistro (opposto a catalogo)
- posizione della morsettiera del motore se diversa da quella standard, (par. 2.3)
- lubrificante (non per i tipi 28,40,50,63,70,85 già lubrificati a vita)
- elica della vite sinistra (esecuzione speciale)
- posizione di montaggio con indicazione tappi di livello e sfiato; se non specificato si considerano standard le posizioni S01 e I02
- cuscinetti conici corona
- bisporgenza vite ¹⁾
- albero lento bisporgente
- lubrificazione forzata ¹⁾
- limitatore di coppia ¹⁾²⁾
- limitatore di coppia RDB ¹⁾²⁾

* If not conform to IEC specifications please specify diameter of wormshaft's bore and flange (i.e. :14/200)

Further specification:

- flanged version. Left mounting opposite to catalogue
- terminal board position if different from standard (chapter 2.3)
- lubricant filling (except for size 28,40,50,63,70,85 lubricated for life)
- left helix (special version)
- mounting position. Indications must be given regarding level and breather plugs. If not specified positions S01 and I02 are considered standard
- wormwheel taper roller bearings
- double extended input shaft ¹⁾
- double extended output shaft
- forced lubrication ¹⁾
- torque limiter ¹⁾²⁾
- torque limiter RDB ¹⁾²⁾

NOTE.

1) Specify if the required option is on the input gearbox (1st gearbox) or on the output gearbox (2nd gearbox).
2) If requested on the input gearbox, it must be considered as special version.

* Falls nicht nach IEC, bitte Durchmesser der Eingangswellenbohrung und des Flansches angeben (z.B.: 14/200)

Weitere Spezifikationen:

- Geflanschte Ausführung mit Montage links (nicht wie im Katalog)
- Stellung des Klemmenkastens des Motors, falls diese von der Standard-Ausführung abweicht (kapitel 2.3)
- Schmiermittelfüllung (gilt nicht für die wartungsfreien Typen 28,40,50,63,70,85)
- Linksgängige Schraubenlinie der Schnecke (Spezialausführung)
- Montagestellung mit Angabe der Ölpegel und Entlüfterstöpfe. Falls nichts anderes angegeben ist, gelten die Pos. S01 und I02 als Standard.
- Kegelrollenlager auf der Schnecke
- Beidseitige Eingangswelle ¹⁾
- Beidseitige Abtriebswelle
- Zwangsschmierung ¹⁾
- Rutschkupplung ¹⁾²⁾
- Rutschkupplung RDB ¹⁾²⁾

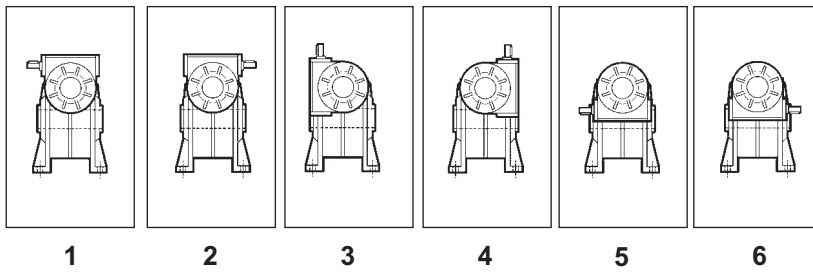
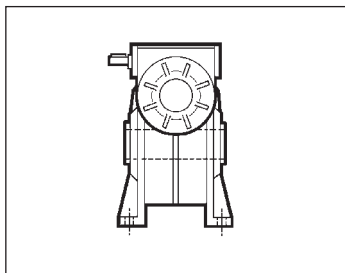
HINWEIS.

1) Angeben, ob die gewünschte Option am Eingangsgetriebe (1. Getriebe) oder am Ausgangsgetriebe (2. G.) benötigt wird.
2) Wird diese am Eingangsgetriebe benötigt, so gilt dies als Sonderausführung.

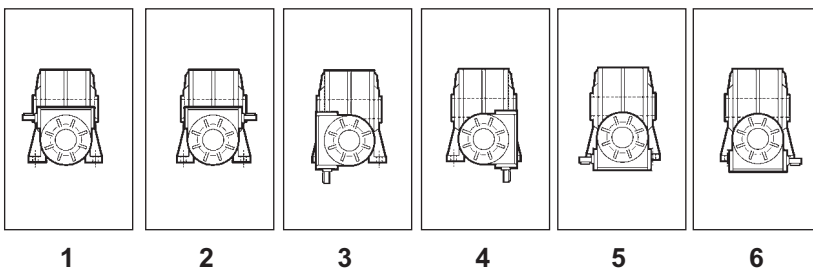
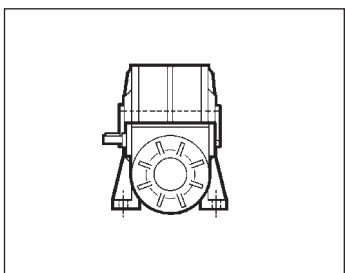
CRI - CRMI

Versione di montaggio / *Mounting version* / Montageausführungen

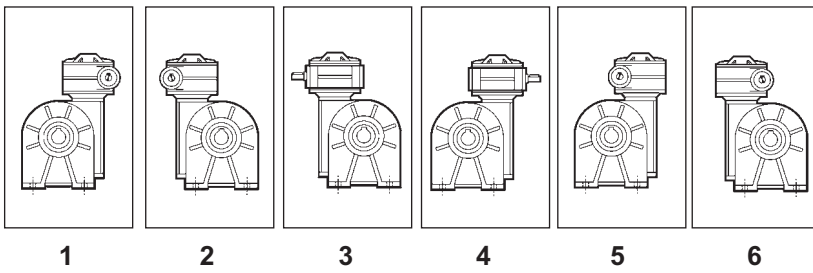
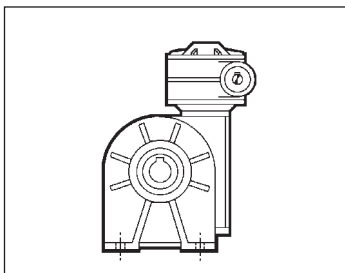
S
28 - 180



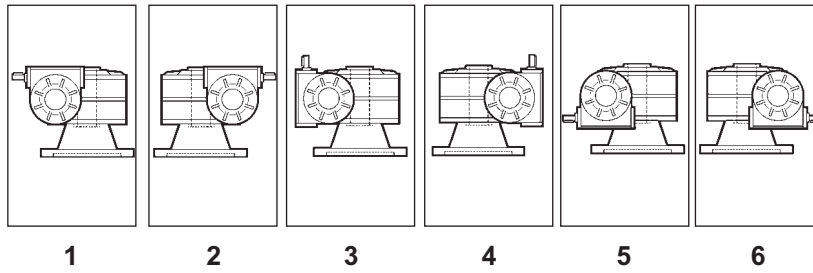
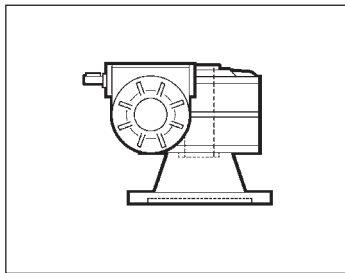
I
28 - 180



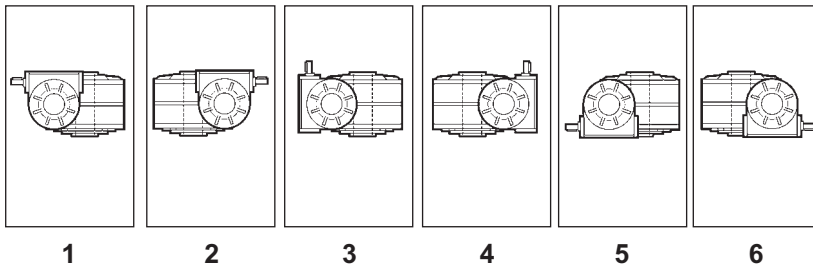
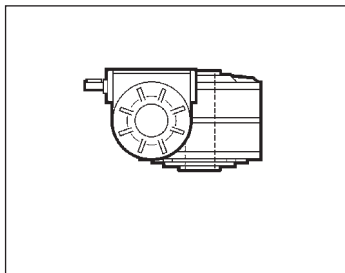
D
28 - 180



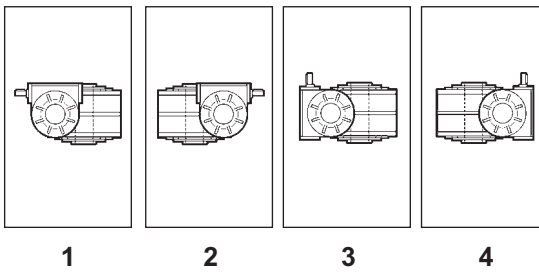
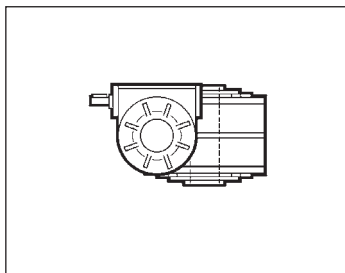
A(FL)
A(F1,F2,F3)
28 - 180



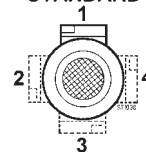
A(P)
28, 85 - 180



A(PP)
40 - 70



STANDARD



Posizione morsetti
Terminal board position
Lage des Klemmenkastens



3.3 Versioni

Oltre alle versioni di montaggio standard è possibile avere ulteriori configurazioni a richiesta previo benestare del ns. servizio tecnico che dovrà verificare possibili interferenze dell'eventuale flangia attacco motore con la struttura del secondo riduttore.

3.3 Versions

Beside the standard mounting versions it is possible to obtain further configurations upon request prior to approval of our technical department that has to check if the motor connecting flange interferes with the structure of the second gearbox.

3.3 Ausführung

Neben den angegebenen Standard-Montageversionen sind auf Anfrage weitere Konfigurationen erhältlich. Es bedarf dazu jedoch der Rücksprache mit unserer technischen Abteilung, um die geometrische Rea-lierbarkeit zu gewährleisten.

3.4 Lubrificazione

Per la lubrificazione dei riduttori combinati utilizzare le stesse indicazioni già illustrate per i riduttori a vite senza fine nel par. 2.4. Unica variante è quella relativa ai combinati 50/110, 63/110, 70,110, 63/130, 70/130 nei quali anche il secondo riduttore (normalmente predisposto per lubrificazione ad olio) viene fornito completo di lubrificante.

3.4 Lubrication

For the lubrication of combined gearboxes, please refer to the same instructions for the worm gearboxes on par.2.4, except for the combined type 50/110, 63/110, 70,110, 63/130, 70/130 where the second gearbox (which usually is supplied without oil) is supplied with lubricant.

3.4 Schmierung

Für die Schmierung der Getriebekombinationen gelten die bereits auf kapitel 2.4 für die Schneckengetriebe gemachten Angaben. Hierbei ist zu ergänzen, daß bei den Kombinationen 50/110, 63/110, 70,110, 63/130, 70/130 auch das zweite Getriebe (welches normalerweise ohne Ölfüllung ausgeliefert wird) komplett mit Ölfüllung geliefert wird.

Vedi la tabella seguente:

In tab.3.1 is listed an overview:

Tab.3.1 gibt einen Überblick:

Tab. 3.1

Riduttori forniti completi di lubrificante sintetico <i>Gearboxes supplied with synthetic oil</i> Getriebe werden mit synthetischem Öl geliefert	Riduttori predisposti per lubrificazione ad olio <i>Gearboxes supplied ready for oil lubrication</i> Getriebe sind für Ölschmierung vorgesehen
28/28, 28/40, 40/40, 28/50, 40/50, 28/63, 40/63, 28/70, 40/70, 50/70 63/70, 40/85, 50/85, 63/85, 70/85, 50/110, 63/110, 63/130, 70/130	85/110, 85/130, 85/150, 110/150, 85/180, 110/180, 130/180

3.5 Posizioni di montaggio

Per le posizioni di montaggio attenersi a quelle relative ai riduttori a vite senza fine nel par. 2.5. Ovviamente, nel caso dei combinati esse sono riferite al secondo riduttore.

3.5 Mounting positions

For the mounting positions, please refer to the worm gearboxes on par. 2.5 Of course, they refer to the second gearbox in case of combined gearboxes.

3.5 Montagepositionen

Für die Einbaupositionen gelten die Angaben für die Schneckengetriebe auf kapitel 2.5. Selbstverständlich beziehen sie sich bei Kombinationen auf das zweite Getriebe.

3.6 Carichi radiali e assiali

Sono riferiti al secondo riduttore per quanto concerne i carichi in uscita F_{r2} e al primo riduttore per quanto concerne i carichi sugli alberi in entrata F_{r1} .

3.6 Axial and overhung loads

They refer to the second gearbox as for the output loads F_{r2} and to the first gearbox as for the loads on the input shafts F_{r1} .

3.6 Radiale und Axiale Belastungen

Die Angaben beziehen sich auf die Belastungen an der Eingangswelle des ersten Getriebes F_{r1} und an der Ausgangswelle des zweiten Getriebes F_{r2} .

Tab. 3.2

n_1 min^{-1}	F_{r1} (N)							
	CRI - CRMI							
	28	40	50	63	70	85	110	130
1400	60	220	320	420	500	700	1000	1600
900	60	250	350	460	530	800	1200	1800
700	70	280	400	500	570	900	1300	2000
500	70	310	450	530	600	1000	1450	2200

Per quanto concerne i valori dei carichi assiali ed ulteriori informazioni sui carichi radiali, fare riferimento al par. 2.6.

As for the values of the axial loads and for further information on the radial loads, please refer to par. 2.6.

Die Werte der Axialbelastungen und weitere Informationen bezüglich Radialbelastungen sind auf kapitel 2.6 ersichtlich.

Tab. 3.3

n_2 min^{-1}	F_{r2} (N)									
	CRI - CRMI									
	28	40	50	63	70	85	110	130	150	180
10	1430	2300	3200	3300	4700	5800	8250	10700	15000	17000

I carichi radiali indicati nelle tabelle si intendono applicati a metà della sporgenza dell'albero e sono riferiti ai riduttori operanti con fattore di servizio 1. Valori intermedi relativi a velocità non riportate possono essere ottenuti per interpolazione considerando però che F_{r1} a 500 min^{-1} e F_{r2} a 10 min^{-1} rappresentano i carichi massimi consentiti.

The radial loads shown in the tables are applied on the centre line of the shaft extension and are related to gearboxes working with service factor 1. Intermediate values of speeds that are not listed can be obtained through interpolation but it must be considered that F_{r1} at 500 min^{-1} and F_{r2} at 10 min^{-1} represent the maximum allowable loads.

Bei den in der Tabelle angegebenen Radialbelastungen wird eine Kraffteinwirkung auf die Mitte des Wellenendes zugrunde gelegt; die Getriebe arbeiten mit Betriebsfaktor 1. Zwischenwerte für nicht aufgeführte Drehzahlen können durch Interpolation ermittelt werden. Hierbei ist jedoch zu berücksichtigen, daß die maximale Belastung den Werten für F_{r1} bei 500 min^{-1} und für F_{r2} bei 10 min^{-1} entspricht.

3.6 Carichi radiali e assiali

A richiesta possono essere fornite versioni rinforzate con cuscinetti a rulli conici sulla corona in grado di sopportare carichi superiori a quelli ammessi dalle versioni normali.

Si veda a tal proposito la tabella 3.4, in cui sono riportati i valori dei carichi radiali e assiali ammissibili sull'albero uscita nel caso di cuscinetti conici sulla corona. Si consiglia, in questi casi, di adottare versioni flangiate, verificando che il carico assiale venga interamente assorbito dal cuscinetto alloggiato nella flangia di fissaggio. Si sconsiglia, invece, la versione a piede, in quanto la resistenza meccanica della struttura non è sufficiente a garantire la necessaria sicurezza sia statica sia dinamica (urti e sovraccarichi).

Tale soluzione non è prevista sulla grandezza 28.

3.6 Axial and overhung loads

In order to increase the load capacity of the gearboxes it is possible to fit taper roller bearings on to the output shaft. Such reinforced versions are available upon request.

With regard to this reinforced version, let see output radial and axial load values shown on tab. 3.4. It's advisable to use flange mounted versions and to make sure that the axial load is absorbed by the bearing, housed in the fixing flange.

The foot mounted version is not recommended, because the structural safety is greatly reduced, with regard both to static and dynamic conditions.

Please note that this solution is not available for size 28.

3.6 Radiale und Axiale Belastungen

Für größere Belastungen stehen auf Wunsch auch verstärkte Ausführungen mit Kegelrollenlagern für die Schneckenwelle zur Verfügung.

Tabelle 3.4 listet die zulässigen Radial- und Axiallasten bei Verwendung von Kegelrollenlagern auf. Es wird in diesen Fällen empfohlen, Flanschausführungen zu verwenden und sicherzustellen, daß die axiale Last vollständig vom Lager, das sich im Befestigungsflansch befindet, aufgenommen wird. Die Fußversion empfiehlt sich in diesem Falle nicht, da deren Festigkeit nicht ausreicht, um die erforderliche Sicherheit gegen Stöße und Überlasten sowohl in statischer wie in dynamischer Hinsicht zu gewährleisten. Hinweis:

Für die Baugröße 28 ist diese Lösung nicht vorgesehen.

Tab. 3.4

CARICHI RADIALI - ASSIALI CON CUSCINETTI CONICI SULLA CORONA AXIAL AND OVERHUNG LOADS WITH TAPER ROLLER BEARINGS ON WORMWHEEL RADIALE UND AXIALE BELASTUNGEN MIT KEGELROLLENLAGERN AUF DEM SCHNECKENRAD																			[N]
n_2 [min ⁻¹]	CRI - CRMI																		
	40		50		63		70		85		110		130		150		180		
	Fr ₂	Fa ₂	Fr ₂	Fa ₂	Fr ₂	Fa ₂	Fr ₂	Fa ₂	Fr ₂	Fa ₂	Fr ₂	Fa ₂	Fr ₂	Fa ₂	Fr ₂	Fa ₂	Fr ₂	Fa ₂	
10	2300	3000	6900	8000	6900	8000	9000	11000	9000	12000	14800	19000	15600	22000	20000	26000	23000	30000	



3.7 Prestazioni riduttori CRI

3.7 CRI gearboxes performances

3.7 Leistungen der CRI-Getriebe

CRI 28/28

Kg 2.8

ir	i ₁ x _{i2}	n ₁ = 1400 min ⁻¹				IEC
		n ₂ min ⁻¹	T _{2M} Nm	P kW	RD %	
140	7x20	10.0	25	0.05	52	63 - 56 - 50
200	10x20	7.0	25	0.04	49	
280	10x28	5.0	25	0.03	42	
400	20x20	3.5	25	0.02	44	
600	15x40	2.3	25	0.02	35	
980	49x20	1.4	25	0.01	33	
1372	49x28	1.0	25	0.01	27	56 - 50
1960	49x40	0.7	25	0.01	25	
2800	70x40	0.5	25	0.01	21	
4000	100x40	0.4	25	0.01	17	
5600	100x56	0.3	25	0.01	15	
7000	100x70	0.2	20	0.01	14	
8000	100x80	0.2	16	0.01	11	
10000	100x100	0.1	12	0.01	11	

CRI 28/40

Kg 3.5

ir	i ₁ x _{i2}	n ₁ = 1400 min ⁻¹				IEC
		n ₂ min ⁻¹	T _{2M} Nm	P kW	RD %	
140	7x20	10.0	60	0.12	51	63 - 56 - 50
200	10x20	7.0	60	0.09	49	
280	10x28	5.0	60	0.07	43	
400	20x20	3.5	60	0.05	43	
600	15x40	2.3	60	0.04	33	
980	49x20	1.4	60	0.03	32	
1372	49x28	1.0	60	0.02	28	56 - 50
1960	49x40	0.7	60	0.02	23	
2800	70x40	0.5	60	0.02	20	
4000	100x40	0.4	60	0.01	16	
5600	100x56	0.3	60	0.01	14	
7000	100x70	0.2	50	0.01	11	
8000	100x80	0.2	45	0.01	10	
10000	100x100	0.1	35	0.01	11	

CRI 40/40

Kg 4.2

ir	i ₁ x _{i2}	n ₁ = 1400 min ⁻¹				IEC
		n ₂ min ⁻¹	T _{2M} Nm	P kW	RD %	
140	7x20	10.0	60	0.12	52	71 - 63 - 56
200	10x20	7.0	60	0.09	50	
280	10x28	5.0	60	0.07	45	
400	20x20	3.5	60	0.05	44	
600	15x40	2.3	60	0.04	34	
980	49x20	1.4	60	0.03	33	
1372	49x28	1.0	60	0.02	29	63 - 56
1960	49x40	0.7	60	0.02	23	
2800	70x40	0.5	60	0.02	19	
4000	100x40	0.4	60	0.01	18	
5600	100x56	0.3	60	0.01	16	
7000	100x70	0.2	50	0.01	12	
8000	100x80	0.2	45	0.01	11	
10000	100x100	0.1	35	0.01	13	

CRI 28/50

Kg 5.2

ir	i ₁ x _{i2}	n ₁ = 1400 min ⁻¹				IEC
		n ₂ min ⁻¹	T _{2M} Nm	P kW	RD %	
140	7x20	10.0	100	0.19	54	63 - 56 - 50
200	10x20	7.0	100	0.14	52	
280	10x28	5.0	100	0.11	46	
400	20x20	3.5	100	0.08	46	
600	15x40	2.3	100	0.06	38	
980	49x20	1.4	100	0.04	35	
1372	49x28	1.0	100	0.04	30	56 - 50
1960	49x40	0.7	100	0.03	27	
2800	70x40	0.5	100	0.02	24	
4000	100x40	0.4	100	0.02	19	
5600	100x56	0.3	100	0.02	17	
7000	100x70	0.2	100	0.01	15	
8000	100x80	0.2	75	0.01	13	
10000	100x100	0.1	60	0.01	12	

CRI 40/50

Kg 5.9

ir	i ₁ x _{i2}	n ₁ = 1400 min ⁻¹				IEC
		n ₂ min ⁻¹	T _{2M} Nm	P kW	RD %	
140	7x20	10.0	100	0.19	56	71 - 63 - 56
200	10x20	7.0	100	0.14	53	
280	10x28	5.0	100	0.11	47	
400	20x20	3.5	100	0.08	47	
600	15x40	2.3	100	0.06	39	
980	49x20	1.4	100	0.04	35	
1372	49x28	1.0	100	0.04	30	63 - 56
1960	49x40	0.7	100	0.03	27	
2800	70x40	0.5	100	0.02	23	
4000	100x40	0.4	100	0.02	21	
5600	100x56	0.3	100	0.01	18	
7000	100x70	0.2	100	0.01	17	
8000	100x80	0.2	75	0.01	14	
10000	100x100	0.1	76	0.01	13	

CRI 28/63

Kg 7.4

ir	i ₁ x _{i2}	n ₁ = 1400 min ⁻¹				IEC
		n ₂ min ⁻¹	T _{2M} Nm	P kW	RD %	
140	7x20	10.0	210	0.39	56	63 - 56 - 50
200	10x20	7.0	226	0.31	53	
280	10x28	5.0	230	0.26	46	
400	20x20	3.5	186	0.16	46	
600	15x40	2.3	230	0.15	38	
980	49x20	1.4	193	0.08	35	
1372	49x28	1.0	218	0.08	29	56
1960	49x40	0.7	230	0.06	27	
2800	70x40	0.5	230	0.05	23	
4000	100x40	0.4	190	0.04	19	
5600	100x56	0.3	230	0.04	17	
7000	100x70	0.2	220	0.03	15	
8000	100x80	0.2	200	0.03	14	
10000	100x100	0.1	140	0.02	12	

3.7 Prestazioni riduttori CRI
3.7 CRI gearboxes performances
3.7 Leistungen der CRI-Getriebe
CRI 40/63

8.1

ir	i ₁ x _i ₂	n ₁ = 1400 min ⁻¹				IEC
		n ₂ min ⁻¹	T _{2M} Nm	P kW	RD %	
140	7x20	10.0	230	0.42	57	71 - 63 - 56
200	10x20	7.0	230	0.31	54	
280	10x28	5.0	230	0.26	47	
400	20x20	3.5	230	0.18	47	
600	15x40	2.3	230	0.14	39	
980	49x20	1.4	230	0.10	36	
1372	49x28	1.0	230	0.08	30	63 - 56
1960	49x40	0.7	230	0.06	27	
2800	70x40	0.5	230	0.05	22	
4000	100x40	0.4	230	0.04	21	
5600	100x56	0.3	230	0.03	18	
7000	100x70	0.2	220	0.03	17	
8000	100x80	0.2	200	0.02	15	
10000	100x100	0.1	140	0.02	14	

CRI 28/70

14.4

ir	i ₁ x _i ₂	n ₁ = 1400 min ⁻¹				IEC
		n ₂ min ⁻¹	T _{2M} Nm	P kW	RD %	
140	7x20	10.0	207	0.39	55	63 - 56 - 50
200	10x20	7.0	226	0.31	53	
280	10x28	5.0	270	0.31	45	
400	20x20	3.5	196	0.16	46	
600	15x40	2.3	290	0.19	38	
980	49x20	1.4	186	0.08	35	
1372	49x28	1.0	214	0.08	29	56 - 50
1960	49x40	0.7	282	0.08	26	
2800	70x40	0.5	282	0.06	26	
4000	100x40	0.4	184	0.04	19	
5600	100x56	0.3	224	0.04	16	
7000	100x70	0.2	246	0.04	14	
8000	100x80	0.2	256	0.04	13	
10000	100x100	0.1	190	0.02	12	

CRI 40/70

16.1

ir	i ₁ x _i ₂	n ₁ = 1400 min ⁻¹				IEC
		n ₂ min ⁻¹	T _{2M} Nm	P kW	RD %	
140	7x20	10.0	266	0.49	56	71 - 63 - 56
200	10x20	7.0	290	0.39	54	
280	10x28	5.0	290	0.33	46	
400	20x20	3.5	290	0.23	47	
600	15x40	2.3	290	0.18	39	
980	49x20	1.4	290	0.12	35	
1372	49x28	1.0	290	0.11	29	63 - 56
1960	49x40	0.7	290	0.08	27	
2800	70x40	0.5	290	0.07	22	
4000	100x40	0.4	290	0.05	21	
5600	100x56	0.3	290	0.04	18	
7000	100x70	0.2	290	0.04	16	
8000	100x80	0.2	270	0.03	14	
10000	100x100	0.1	190	0.02	14	

CRI 50/70

16.8

ir	i ₁ x _i ₂	n ₁ = 1400 min ⁻¹				IEC
		n ₂ min ⁻¹	T _{2M} Nm	P kW	RD %	
140	7x20	10.0	266	0.49	57	80 - 71
200	10x20	7.0	290	0.39	55	
280	10x28	5.0	290	0.32	47	
400	20x20	3.5	290	0.32	49	
600	15x40	2.3	290	0.17	41	
980	49x20	1.4	290	0.11	39	
1372	49x28	1.0	290	0.10	32	71 - 63
1960	49x40	0.7	290	0.07	30	
2800	70x40	0.5	290	0.06	26	
4000	100x40	0.4	290	0.05	22	
5600	100x56	0.3	290	0.04	19	
7000	100x70	0.2	290	0.04	17	
8000	100x80	0.2	270	0.03	15	
10000	100x100	0.1	190	0.02	14	

CRI 63/70

19.0

ir	i ₁ x _i ₂	n ₁ = 1400 min ⁻¹				IEC
		n ₂ min ⁻¹	T _{2M} Nm	P kW	RD %	
140	7x20	10.0	266	0.49	57	90 - 80 - 71
200	10x20	7.0	290	0.38	56	
280	10x28	5.0	290	0.32	47	
400	20x20	3.5	290	0.22	49	
600	15x40	2.3	290	0.17	41	
980	49x20	1.4	290	0.11	40	
1372	49x28	1.0	290	0.09	33	80 - 71
1960	49x40	0.7	290	0.07	30	
2800	70x40	0.5	290	0.06	27	
4000	100x40	0.4	290	0.05	23	
5600	100x56	0.3	290	0.04	20	
7000	100x70	0.2	290	0.03	18	
8000	100x80	0.2	270	0.03	16	
10000	100x100	0.1	190	0.02	15	

CRI 40/85

21

ir	i ₁ x _i ₂	n ₁ = 1400 min ⁻¹				IEC
		n ₂ min ⁻¹	T _{2M} Nm	P kW	RD %	
140	7x20	10.0	460	0.82	59	71 - 63 - 56
200	10x20	7.0	460	0.60	56	
280	10x28	5.0	460	0.52	46	
400	20x20	3.5	460	0.34	49	
600	15x40	2.3	460	0.28	40	
980	49x20	1.4	460	0.19	36	
1372	49x28	1.0	460	0.17	29	63 - 56
1960	49x40	0.7	460	0.13	27	
2800	70x40	0.5	460	0.11	22	
4000	100x40	0.4	460	0.08	21	
5600	100x56	0.3	460	0.06	20	
7000	100x70	0.2	460	0.06	17	
8000	100x80	0.2	460	0.05	16	
10000	100x100	0.1	350	0.04	14	



3.7 Prestazioni riduttori CRI

3.7 CRI gearboxes performances

3.7 Leistungen der CRI-Getriebe

CRI 50/85

Kg 23

ir	i ₁ x _{i2}	n ₁ = 1400 min ⁻¹				IEC
		n ₂ min ⁻¹	T _{2M} Nm	P kW	RD %	
140	7x20	10.0	460	0.81	60	80 - 71
200	10x20	7.0	460	0.60	57	
280	10x28	5.0	460	0.52	47	
400	20x20	3.5	460	0.33	51	
600	15x40	2.3	460	0.27	42	
980	49x20	1.4	460	0.17	40	
1372	49x28	1.0	460	0.16	32	71 - 63
1960	49x40	0.7	460	0.11	30	
2800	70x40	0.5	460	0.09	26	
4000	100x40	0.4	460	0.18	22	
5600	100x56	0.3	460	0.06	21	
7000	100x70	0.2	460	0.05	18	
8000	100x80	0.2	460	0.05	17	
10000	100x100	0.1	350	0.03	15	

CRI 63/85

Kg 25

ir	i ₁ x _{i2}	n ₁ = 1400 min ⁻¹				IEC
		n ₂ min ⁻¹	T _{2M} Nm	P kW	RD %	
140	7x20	10.0	460	0.81	60	90 - 80 - 71
200	10x20	7.0	460	0.59	57	
280	10x28	5.0	460	0.51	47	
400	20x20	3.5	460	0.33	52	
600	15x40	2.3	460	0.27	42	
980	49x20	1.4	460	0.17	41	
1372	49x28	1.0	460	0.15	32	71 - 80
1960	49x40	0.7	460	0.11	31	
2800	70x40	0.5	460	0.09	27	
4000	100x40	0.4	460	0.07	23	
5600	100x56	0.3	460	0.05	22	
7000	100x70	0.2	460	0.05	19	
8000	100x80	0.2	460	0.05	18	
10000	100x100	0.1	350	0.03	16	

CRI 70/85

Kg 32

ir	i ₁ x _{i2}	n ₁ = 1400 min ⁻¹				IEC
		n ₂ min ⁻¹	T _{2M} Nm	P kW	RD %	
140	7x20	10.0	460	0.80	60	100-90-80
200	10x20	7.0	460	0.59	57	
280	10x28	5.0	460	0.51	47	
400	20x20	3.5	460	0.33	52	90 - 80
600	15x40	2.3	460	0.27	42	100-90-80
980	49x20	1.4	460	0.17	41	80 - 71
1372	49x28	1.0	460	0.15	32	
1960	49x40	0.7	460	0.11	31	
2800	70x40	0.5	460	0.09	27	
4000	100x40	0.4	460	0.07	23	
5600	100x56	0.3	460	0.05	22	
7000	100x70	0.2	460	0.05	19	
8000	100x80	0.2	460	0.05	18	
10000	100x100	0.1	350	0.03	16	

CRI 50/110

Kg 42

ir	i ₁ x _{i2}	n ₁ = 1400 min ⁻¹				IEC
		n ₂ min ⁻¹	T _{2M} Nm	P kW	RD %	
140	7x20	10.0	960	1.7	60	80 - 71
200	10x20	7.0	960	1.2	58	
280	10x28	5.0	960	1.0	50	
400	20x20	3.5	960	0.68	52	
600	15x40	2.3	960	0.53	44	
980	49x20	1.4	936	0.34	41	
1372	49x28	1.0	960	0.31	33	71 - 63
1960	49x40	0.7	960	0.23	32	
2800	70x40	0.5	960	0.18	27	
4000	100x40	0.4	960	0.15	24	
5600	100x56	0.3	960	0.12	22	
7000	100x70	0.2	960	0.10	19	
8000	100x80	0.2	860	0.09	18	
10000	100x100	0.1	700	0.06	16	

CRI 63/110

Kg 44

ir	i ₁ x _{i2}	n ₁ = 1400 min ⁻¹				IEC
		n ₂ min ⁻¹	T _{2M} Nm	P kW	RD %	
140	7x20	10.0	960	1.7	60	90 - 80 - 71
200	10x20	7.0	960	1.2	59	
280	10x28	5.0	960	0.99	51	
400	20x20	3.5	960	0.67	52	
600	15x40	2.3	960	0.53	44	
980	49x20	1.4	960	0.35	42	
1372	49x28	1.0	960	0.30	34	80 - 71
1960	49x40	0.7	960	0.22	32	
2800	70x40	0.5	960	0.18	28	
4000	100x40	0.4	960	0.14	25	
5600	100x56	0.3	960	0.11	23	
7000	100x70	0.2	960	0.10	20	
8000	100x80	0.2	860	0.08	19	
10000	100x100	0.1	700	0.06	17	

CRI 70/110

Kg 51

ir	i ₁ x _{i2}	n ₁ = 1400 min ⁻¹				IEC
		n ₂ min ⁻¹	T _{2M} Nm	P kW	RD %	
140	7x20	10.0	960	1.6	61	90 - 80
200	10x20	7.0	960	1.2	59	
280	10x28	5.0	960	0.99	51	
400	20x20	3.5	960	0.67	52	
600	15x40	2.3	960	0.53	44	
980	49x20	1.4	960	0.35	42	
1372	49x28	1.0	960	0.30	34	80 - 71
1960	49x40	0.7	960	0.22	32	
2800	70x40	0.5	960	0.18	28	
4000	100x40	0.4	960	0.14	25	
5600	100x56	0.3	960	0.11	23	
7000	100x70	0.2	960	0.10	20	
8000	100x80	0.2	860	0.08	19	
10000	100x100	0.1	700	0.06	17	

3.7 Prestazioni riduttori CRI

3.7 CRI gearboxes performances

3.7 Leistungen der CRI-Getriebe

CRI 85/110

Kg 57

ir	i ₁ x _{i2}	n ₁ = 1400 min ⁻¹				IEC
		n ₂ min ⁻¹	T _{2M} Nm	P kW	RD %	
140	7x20	10.0	960	1.6	61	112-100- 90
200	10x20	7.0	960	1.2	60	
280	10x28	5.0	960	0.98	51	
400	20x20	3.5	960	0.65	54	
600	15x40	2.3	960	0.53	45	
980	49x20	1.4	960	0.34	42	
1372	49x28	1.0	960	0.30	34	90 - 80
1960	49x40	0.7	960	0.22	33	
2800	70x40	0.5	960	0.17	30	
4000	100x40	0.4	960	0.14	26	
5600	100x56	0.3	960	0.11	24	
7000	100x70	0.2	960	0.09	21	
8000	100x80	0.2	860	0.08	20	
10000	100x100	0.1	700	0.06	18	

CRI 63/130

Kg 54

ir	i ₁ x _{i2}	n ₁ = 1400 min ⁻¹				IEC
		n ₂ min ⁻¹	T _{2M} Nm	P kW	RD %	
140	7x20	10.0	1660	2.8	61	90 - 80 - 71
200	10x20	7.0	1600	2.0	59	
280	10x28	5.0	1600	1.7	51	
400	20x20	3.5	1600	1.1	53	
600	15x40	2.3	1600	0.90	43	
980	49x20	1.4	1600	0.58	42	
1372	49x28	1.0	1600	0.51	33	80 - 71
1960	49x40	0.7	1600	0.38	31	
2800	70x40	0.5	1600	0.30	28	
4000	100x40	0.4	1600	0.24	24	
5600	100x56	0.3	1600	0.18	23	
7000	100x70	0.2	1600	0.16	21	
8000	100x80	0.2	1600	0.14	20	
10000	100x100	0.1	1250	0.10	18	

CRI 70/130

Kg 61

ir	i ₁ x _{i2}	n ₁ = 1400 min ⁻¹				IEC
		n ₂ min ⁻¹	T _{2M} Nm	P kW	RD %	
140	7x20	10.0	1660	2.8	62	100-90-80
200	10x20	7.0	1600	2.0	59	
280	10x28	5.0	1600	1.7	51	
400	20x20	3.5	1600	1.1	53	90 - 80
600	15x40	2.3	1600	0.90	43	
980	49x20	1.4	1600	0.58	42	80 - 71
1372	49x28	1.0	1600	0.51	33	
1960	49x40	0.7	1600	0.38	31	
2800	70x40	0.5	1600	0.31	27	
4000	100x40	0.4	1600	0.24	24	
5600	100x56	0.3	1600	0.18	23	
7000	100x70	0.2	1600	0.16	21	
8000	100x80	0.2	1600	0.14	20	
10000	100x100	0.1	1250	0.10	18	

CRI 85/130

Kg 67

ir	i ₁ x _{i2}	n ₁ = 1400 min ⁻¹				IEC
		n ₂ min ⁻¹	T _{2M} Nm	P kW	RD %	
140	7x20	10.0	1660	2.8	62	112-100-90
200	10x20	7.0	1600	2.0	60	
280	10x28	5.0	1600	1.6	51	
400	20x20	3.5	1600	1.1	55	
600	15x40	2.3	1600	0.89	44	
980	49x20	1.4	1600	0.57	42	
1372	49x28	1.0	1600	0.51	34	90 - 80
1960	49x40	0.7	1600	0.38	32	
2800	70x40	0.5	1600	0.29	29	
4000	100x40	0.4	1600	0.23	25	
5600	100x56	0.3	1600	0.18	24	
7000	100x70	0.2	1600	0.15	22	
8000	100x80	0.2	1600	0.14	21	
10000	100x100	0.1	1250	0.10	19	

CRI 85/150

Kg 96

ir	i ₁ x _{i2}	n ₁ = 1400 min ⁻¹				IEC
		n ₂ min ⁻¹	T _{2M} Nm	P kW	RD %	
140	7x20	10.0	2620	4.3	64	112-100-90
200	10x20	7.0	2600	3.1	61	
280	10x28	5.0	2510	2.5	53	
400	20x20	3.5	2600	1.7	55	
600	15x40	2.3	2600	1.4	45	
980	49x20	1.4	2600	0.89	44	
1372	49x28	1.0	2600	0.78	36	90 - 80
1960	49x40	0.7	2600	0.60	33	
2800	70x40	0.5	2600	0.45	31	
4000	100x40	0.4	2600	0.37	26	
5600	100x56	0.3	2600	0.27	25	
7000	100x70	0.2	2600	0.25	22	
8000	100x80	0.2	2600	0.22	21	
10000	100x100	0.1	1950	0.15	20	

CRI 110/150

Kg 115

ir	i ₁ x _{i2}	n ₁ = 1400 min ⁻¹				IEC
		n ₂ min ⁻¹	T _{2M} Nm	P kW	RD %	
140	7x20	10.0	2620	4.3	65	112 - 100
200	10x20	7.0	2600	3.1	62	
280	10x28	5.0	2510	2.5	54	
400	20x20	3.5	2600	1.7	57	
600	15x40	2.3	2600	1.4	46	
980	49x20	1.4	2600	0.84	46	
1372	49x28	1.0	2600	0.73	38	112-100-90
1960	49x40	0.7	2600	0.56	35	
2800	70x40	0.5	2600	0.43	32	
4000	100x40	0.4	2600	0.34	28	
5600	100x56	0.3	2600	0.25	27	
7000	100x70	0.2	2600	0.23	23	
8000	100x80	0.2	2600	0.21	23	
10000	100x100	0.1	1950	0.14	21	



3.7 Prestazioni riduttori CRI

3.7 CRI gearboxes performances

3.7 Leistungen der CRI-Getriebe

CRI 85/180



149

ir	i ₁ x _{i2}	n ₁ = 1400 min ⁻¹				IEC
		n ₂ min ⁻¹	T _{2M} Nm	P kW	RD %	
140	7x20	10.0	3750	6.1	65	112-100-90
200	10x20	7.0	4095	4.8	62	
280	10x28	5.0	3700	3.5	55	
400	20x20	3.5	4200	2.7	56	
600	15x40	2.3	4160	2.2	46	
980	49x20	1.4	3850	1.3	44	
1372	49x28	1.0	4200	1.2	37	90 - 80
1960	49x40	0.7	4200	0.97	33	
2800	70x40	0.5	4200	0.72	31	
4000	100x40	0.4	4200	0.59	26	
5600	100x56	0.3	4200	0.43	25	
7000	100x70	0.2	4200	0.40	22	
8000	100x80	0.2	4200	0.36	21	
10000	100x100	0.1	3300	0.26	16	

CRI 110/180



168

ir	i ₁ x _{i2}	n ₁ = 1400 min ⁻¹				IEC
		n ₂ min ⁻¹	T _{2M} Nm	P kW	RD %	
140	7x20	10.0	3750	6.0	65	112 - 100
200	10x20	7.0	4095	4.8	63	
280	10x28	5.0	3700	3.5	55	
400	20x20	3.5	4200	2.7	58	
600	15x40	2.3	4160	2.2	47	
980	49x20	1.4	4200	1.4	46	
1372	49x28	1.0	4200	1.1	39	112-100-90
1960	49x40	0.7	4200	0.91	35	
2800	70x40	0.5	4200	0.69	32	
4000	100x40	0.4	4200	0.55	28	
5600	100x56	0.3	4200	0.40	27	
7000	100x70	0.2	4200	0.37	24	
8000	100x80	0.2	4200	0.34	23	
10000	100x100	0.1	3300	0.24	20	

CRI 130/180



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ir	i ₁ x _{i2}	n ₁ = 1400 min ⁻¹				IEC
		n ₂ min ⁻¹	T _{2M} Nm	P kW	RD %	
140	7x20	10.0	3750	5.9	67	132-112-100
200	10x20	7.0	4095	4.7	64	
280	10x28	5.0	3700	3.4	57	
400	20x20	3.5	4200	2.6	59	
600	15x40	2.3	4160	2.1	48	
980	49x20	1.4	4200	1.3	47	
1372	49x28	1.0	4200	1.14	40	112-100
1960	49x40	0.7	4200	0.90	35	
2800	70x40	0.5	4200	0.66	34	
4000	100x40	0.4	4200	0.53	29	
5600	100x56	0.3	4200	0.39	28	
7000	100x70	0.2	4200	0.35	25	
8000	100x80	0.2	4200	0.33	24	
10000	100x100	0.1	3300	0.23	21	

I pesi riportati sono indicativi e possono variare in funzione della versione del riduttore.

Listed weights are for reference only and can vary according to the gearbox version.

Die angegebenen Gewichte sind Richtwerte und können sich je nach Getriebeversion ändern.

Nella tab. 3.4 sono riportate le dimensioni IEC e le possibili combinazioni albero/flangia riduttore predisposto per accoppiamento motore. I dati riportati si riferiscono al riduttore in entrata.

i_1 : Rappresenta il rapporto di riduzione del riduttore in entrata e può essere dedotto dalle tabelle relative alle prestazioni dei riduttori CRI (paragrafo 3.7).

In table 3.4 are listed the IEC dimensions as well as the possible shaft/flange combinations of the gearbox to be coupled with a motor. The listed values refers to the input gearbox.

i_1 : represents the reduction ratio of the input gearbox and it is shown in the tables of the CRI gearbox efficiency (chapter 3.7).

In Tabelle 3.4 sind sowohl die IEC-Anschlußmaße als auch weitere mögliche Welle/Flansch-Kombinationen zur Motorbefestigung aufgeführt, die Maße beziehen sich jeweils auf das Eingangsgetriebe.

i_1 : Steht für das Untersetzungsverhältnis des Eingangsgetriebes und kann aus den Leistungstabellen der CRI-Getriebe (Kapitel 3.7) entnommen werden.

Tab. 3.4

Possibili accoppiamenti con motori IEC - / Possible couplings with IEC motors / Mögliche Verbindungen mit IEC-Motoren.												
CRMI	IEC	i_1										
		7	10	15	20	28	40	49	56	70	80	100
28/...	63	11/90 (B14)										
	56	9/120 (B5) - 9/80• (B14)										
40/...	71	14/160 (B5) - 14/105 (B14)		14/140 - 14/120 - 14/90								
	63	11/140 (B5) - 11/90 (B14)		11/120 - 11/80•								
	56	9/120 (B5) - 9/80• (B14)		9/140 - 9/90								
50/...	80	19/120 (B14) - 19/200 (B5)		19/160								
	71	14/160 (B5) - 14/105 (B14)		14/140 - 14/120 - 14/90•								
	63*					11/140 (B5) - 11/90• B14		11/160 - 11/105 - 11/120				
63/...	90	24/200 (B5) - 24/140 (B14)		24/160 - 24/120 - 24/105•								
	80	19/200 (B5) - 19/120 (B14)		19/160 - 19/140 - 19/105•								
	71*	14/160 (B5) - 14/105• (B14)		14/200 - 14/140 - 14/120								
70/...	100	28/160 (B14)										
	90	24/200 (B5) - 24/140 (B14)		24/160 - 24/120 - 24/105•								
	80	19/200 (B5) - 19/120 (B14)		19/160 - 19/140 - 19/105•								
	71*					14/160 (B5) - 14/105• (B14)		14/200 - 14/140 - 14/120				
85/...	100	28/250 (B5) - 28/160 (B14)		28/200								
	90	24/200 (B5) - 24/140 (B14)		24/250 - 24/160 - 24/120								
	80*					19/200 (B5) - 19/120 B14		19/250 - 19/160 - 19/140				
110/...	112	28/250 (B5) - 28/160 (B14)		28/200								
	100	28/250 (B5) - 28/160 (B14)		28/200								
	90*					24/200 (B5)		24/250 - 24/160				
130/...	132	38/300 (B5)										
	112*	28/250 (B5)		28/200								
	100*	28/250 (B5)		28/200								

* I riduttori RMI con vite bisporgente vengono realizzati con boccola di riduzione in acciaio (es. per RMI 110/... boccola riduzione \varnothing 28/24).

N.B.

La configurazione standard della flangia attacco motore prevede 4 fori a 45° (esempio x: vedi par. 3.3).

Per le flange contrassegnate con il simbolo (•) i fori per il fissaggio al motore sono disposti in croce (esempio +). Pertanto è opportuno valutare l'ingombro della morsettiera del motore che verrà installato in quanto essa verrà a trovarsi orientata a 45° rispetto agli assi. Per la scelta della posizione della morsettiera rispetto agli assi fare riferimento allo schema seguente (in cui la posizione 5 è quella standard):

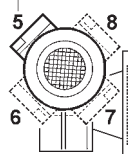
* The RMI worm gearbox with double extended input shaft have a steel axle box (e.g. for RMI 110/... axle box \varnothing 28/24).

NOTE:

The standard configuration for the 4 holes is 45° to the axles (like an x: see par. 3.3).

For the B14 flanges marked with (•) the holes to fit the motor are on the axles (like a +). Therefore we suggest to check the dimensions of the terminal board of the motor as it will be at 45° to the axles. Please choose the terminal board position referring to the following sketch (in which n° 5 is the standard position):

STANDARD



* RMI-Getriebe mit beidseitiger Antriebswelle haben eine Stahl-Reduziermuffe (z.B. RMI 110/... Muffe 28/24).

HINWEIS.

In der Standardkonfiguration sind die 4 Flanschbohrungen im 45°-Winkel zu den Achsen angeordnet (wie ein x: siehe Kapitel 3.3).

Bei B14-Flanschen, die mit (•) gekennzeichnet sind, sind die Bohrungen auf den Achsen angeordnet (wie ein +). Es sollte deshalb der Platzbedarf des Motorklemmenkastens beachtet werden, da er sich in 45°-Position zu den Achsen befinden wird. Die Lage des Klemmenkastens des Motors wählen Sie bitte anhand der folgenden Skizze (Pos. 5 ist Standardposition):



3.8 Prestazioni motoriduttori CRMI

n_2 min ⁻¹	ir	T2 Nm	FS'	CRMI
----------------------------	----	----------	-----	------

0.09 kW

$n_1 = 1400 \text{ min}^{-1}$				
10.0	140	44	1.4	28/40
10.0	140	47	2.1	28/50
7.0	200	60	1.0	28/40
7.0	200	64	1.6	28/50
5.0	280	75	0.8	28/40
5.0	280	79	1.3	28/50
5.0	280	79	2.9	28/63
3.5	400	113	0.9	28/50
3.5	400	113	2.0	28/63
3.5	400	115	2.5	40/70
2.3	600	141	1.6	28/63
2.3	600	145	2.0	40/70
1.4	980	212	1.1	28/63
1.4	980	213	1.4	40/70
1.4	980	219	2.1	40/85
1.0	1372	245	0.9	28/63
1.0	1372	245	1.2	40/70
1.0	1372	240	1.9	40/85
0.7	1960	322	0.9	40/70
0.7	1960	329	1.4	40/85
0.5	2800	380	1.2	40/85
0.4	4000	508	0.9	40/85
0.3	5600	460*	*	40/85
0.2	7000	460*	*	40/85
0.2	8000	406*	*	40/85
0.1	10000	350*	*	40/85

0.12 kW

$n_1 = 1400 \text{ min}^{-1}$				
10.0	140	59	1.0	28/40
10.0	140	62	1.7	28/50
7.0	200	85	1.2	28/50
7.0	200	87	2.7	28/63
7.0	200	89	3.3	40/70
5.0	280	105	1.0	28/50
5.0	280	105	2.2	28/63
5.0	280	106	2.7	40/70
3.5	400	151	1.5	28/63
3.5	400	153	1.9	40/70
3.5	400	160	2.9	40/85
2.3	600	188	1.2	28/63
2.3	600	193	1.5	40/70
2.3	600	197	2.3	40/85
1.4	980	313	0.9	50/70
1.4	980	284	1.0	40/70
1.4	980	293	1.6	40/85

3.8 CRMI gearmotors performances

n_2 min ⁻¹	ir	T2 Nm	FS'	CRMI
----------------------------	----	----------	-----	------

0.12 kW

$n_1 = 1400 \text{ min}^{-1}$				
1.0	1372	361	0.8	50/70
1.0	1372	327	0.9	40/70
1.0	1372	320	1.4	40/85
1.0	1372	375	2.6	50/110
0.7	1960	439	1.1	40/85
0.7	1960	505	1.9	50/110
0.5	2800	506	0.9	40/85
0.5	2800	629	1.5	50/110
0.4	4000	770	1.3	50/110
0.3	5600	990	1.0	50/110
0.2	7000	1100	0.9	50/110
0.2	8000	860*	*	50/110
0.1	10000	700*	*	50/110

0.18 kW

$n_1 = 1400 \text{ min}^{-1}$				
10.0	140	93	1.1	28/50
10.0	140	96	2.4	28/63
10.0	140	97	2.7	40/70
7.0	200	130	1.8	28/63
7.0	200	133	2.2	40/70
5.0	280	158	1.5	28/63
5.0	280	159	1.8	40/70
5.0	280	159	2.9	40/85
3.5	400	226	1.0	28/63
3.5	400	229	1.3	40/70
3.5	400	240	1.9	40/85
2.3	600	282	0.8	28/63
2.3	600	289	1.0	40/70
2.3	600	295	1.6	40/85
1.4	980	439	1.0	40/85
1.4	980	493	1.9	50/110
1.0	1372	480	1.0	40/85
1.0	1372	562	1.7	50/110
0.7	1960	758	1.3	50/110
0.5	2800	943	1.0	50/110
0.4	4000	1155	0.8	50/110
0.3	5600	960*	*	50/110
0.2	7000	960*	*	50/110
0.2	8000	860*	*	50/110
0.1	10000	700*	*	50/110

3.8 Leistungen der CRMI Getriebe

n_2 min ⁻¹	ir	T2 Nm	FS'	CRMI
----------------------------	----	----------	-----	------

0.25 kW

$n_1 = 1400 \text{ min}^{-1}$				
10.0	140	135	2.0	40/70
10.0	140	141	3.3	40/85
7.0	200	185	1.6	40/70
7.0	200	191	2.4	40/85
5.0	280	220	1.3	40/70
5.0	280	220	2.1	40/85
3.5	400	319	0.9	40/70
3.5	400	334	1.4	40/85
3.5	400	353	2.7	50/110
2.3	600	410	1.1	40/85
2.3	600	450	2.1	50/110
1.4	980	684	1.4	50/110
1.4	980	695	2.3	63/130
1.0	1372	781	1.2	50/110
1.0	1372	779	2.1	63/130
0.7	1960	1053	0.9	50/110
0.7	1960	1048	1.5	63/130
0.5	2800	1329	1.2	63/130
0.4	4000	1670	1.0	63/130
0.3	5600	1600*	*	63/130
0.2	7000	1600*	*	63/130
0.2	8000	1600*	*	63/130
0.1	10000	1250*	*	63/130

0.37 kW

$n_1 = 1400 \text{ min}^{-1}$				
10.0	140	199	1.3	40/70
10.0	140	208	2.2	40/85
7.0	200	274	1.1	40/70
7.0	200	282	1.6	40/85
7.0	200	294	3.3	50/110
5.0	280	326	0.9	40/70
5.0	280	326	1.4	40/85
5.0	280	353	2.7	50/110
3.5	400	494	0.9	40/85
3.5	400	522	1.8	50/110
3.5	400	536	3.0	63/130
2.3	600	606	0.8	40/85
2.3	600	666	1.4	50/110
2.3	600	654	2.4	63/130
1.4	980	1013	0.9	50/110
1.4	980	1029	1.6	63/130
1.0	1372	1156	0.8	50/110
1.0	1372	1152	1.4	63/130
0.7	1960	1551	1.0	63/130
0.5	2800	1967	0.8	63/130

3.8 Prestazioni motoriduttori CRMI

n_2 min ⁻¹	ir	T2 Nm	FS'	CRMI
----------------------------	----	----------	-----	------

0.37 kW

$n_1 = 1400$ min ⁻¹				
0.4	4000	1600*	*	63/130
0.3	5600	1600*	*	63/130
0.2	7000	1600*	*	63/130
0.2	8000	1600*	*	63/130
0.1	10000	1250*	*	63/130

0.55 kW

$n_1 = 1400$ min ⁻¹				
10.0	140	313	1.5	50/85
10.0	140	318	3.0	50/110
7.0	200	425	1.1	50/85
7.0	200	437	2.2	50/110
5.0	280	491	0.9	50/85
5.0	280	525	1.8	50/110
5.0	280	532	3.0	63/130
3.5	400	776	1.2	50/110
3.5	400	797	2.0	63/130
2.3	600	990	1.0	50/110
2.3	600	972	1.6	63/130
1.4	980	1530	1.0	63/130
1.4	980	1601	1.6	85/150
1.4	980	1601	2.6	85/180
1.0	1372	1713	0.9	63/130
1.0	1372	1840	1.4	85/150
1.0	1372	1907	2.2	85/180
0.7	1960	2390	1.1	85/150
0.7	1960	2390	1.8	85/180
0.5	2800	3204	0.8	85/150
0.5	2800	3204	1.3	85/180
0.4	4000	3897	1.1	85/180
0.3	5600	4200*	*	85/180
0.2	7000	4200*	*	85/180
0.2	8000	4200*	*	85/180
0.1	10000	3300*	*	85/180

0.75 kW

$n_1 = 1400$ min ⁻¹				
10.0	140	427	1.1	50/85
10.0	140	433	2.2	50/110
7.0	200	579	0.8	50/85
7.0	200	596	1.6	50/110
7.0	200	603	2.7	63/130
5.0	280	717	1.3	50/110

3.8 CRMI gearmotors performances

n_2 min ⁻¹	ir	T2 Nm	FS'	CRMI
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0.75 kW

$n_1 = 1400$ min ⁻¹				
5.0	280	725	2.2	63/130
3.5	400	1058	0.9	50/110
3.5	400	1087	1.5	63/130
2.3	600	1326	1.2	63/130
1.4	980	2183	1.2	85/150
1.4	980	2183	1.9	85/180
1.0	1372	2509	1.0	85/150
1.0	1372	2601	1.6	85/180
0.7	1960	3259	0.8	85/150
0.7	1960	3259	1.3	85/180
0.5	2800	4369	1.0	85/180
0.4	4000	4200*	*	85/180
0.3	5600	4200*	*	85/180
0.2	7000	4200*	*	85/180
0.2	8000	4200*	*	85/180
0.1	10000	3300*	*	85/180

1.1 kW

$n_1 = 1400$ min ⁻¹				
10.0	140	635	1.5	63/110
10.0	140	644	2.6	63/130
7.0	200	884	1.1	63/110
7.0	200	884	1.8	63/130
7.0	200	920	2.8	85/150
5.0	280	1064	0.9	63/110
5.0	280	1064	1.5	63/130
5.0	280	1112	2.3	85/150
3.5	400	1595	1.0	63/130
3.5	400	1660	1.6	85/150
3.5	400	1684	2.5	85/180
2.3	600	1945	0.8	63/130
2.3	600	2042	1.3	85/150
2.3	600	2079	2.0	85/180
1.4	980	3202	0.8	85/150
1.4	980	3202	1.3	85/180
1.0	1372	3814	1.1	85/180
0.7	1960	4780	0.9	85/180
0.5	2800	4200*	*	85/180
0.4	4000	4200*	*	85/180
0.3	5600	4200*	*	85/180
0.2	7000	4200*	*	85/180
0.2	8000	4200*	*	85/180
0.1	10000	3300*	*	85/180

3.8 Leistungen der CRMI Getriebe

n_2 min ⁻¹	ir	T2 Nm	FS'	CRMI
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1.5 kW

$n_1 = 1400$ min ⁻¹				
10.0	140	866	1.1	63/110
10.0	140	878	1.9	63/130
10.0	140	913	2.9	85/150
7.0	200	1206	0.8	63/110
7.0	200	1206	1.3	63/130
7.0	200	1255	2.1	85/150
5.0	280	1451	1.1	63/130
5.0	280	1516	1.7	85/150
5.0	280	1564	2.4	85/180
3.5	400	2263	1.1	85/150
3.5	400	2296	1.8	85/180
2.3	600	2785	0.9	85/150
2.3	600	2835	1.5	85/180
1.4	980	4367	1.0	85/180
1.0	1372	5201	0.8	85/180
0.7	1960	4200*	*	85/180
0.5	2800	4200*	*	85/180
0.4	4000	4200*	*	85/180
0.3	5600	4200*	*	85/180
0.2	7000	4200*	*	85/180
0.2	8000	4200*	*	85/180
0.1	10000	3300*	*	85/180

1.8 kW

$n_1 = 1400$ min ⁻¹				
10.0	140	1069	0.9	63/110
10.0	140	1083	1.5	63/130
10.0	140	1126	2.3	85/150
7.0	200	1487	1.1	63/130
7.0	200	1548	1.7	85/150
5.0	280	1789	0.9	63/130
5.0	280	1870	1.3	85/150
5.0	280	1929	1.9	85/180
3.5	400	2791	0.9	85/150
3.5	400	2831	1.5	85/180
2.3	600	3435	0.8	85/150
2.3	600	3496	1.2	85/180
1.4	980	5386	0.8	85/180



3.8 Prestazioni motoriduttori CRMI

3.8 CRMI gearmotors performances

3.8 Leistungen der CRMI Getriebe

n_2 min ⁻¹	ir	T2 Nm	FS'	CRMI
----------------------------	----	----------	-----	------

2.2 kW

$n_1 = 1400$ min ⁻¹				
10.0	140	1304	1.3	70/130
10.0	140	134	2.0	85/150
10.0	140	1357	2.8	85/180
7.0	200	1790	0.9	70/130
7.0	200	1841	1.4	85/150
7.0	200	1866	2.2	85/180
5.0	280	2224	1.1	85/150
5.0	280	2294	1.6	85/180
3.5	400	3367	1.3	85/180
2.3	600	4157	1.0	85/180

3 kW

$n_1 = 1400$ min ⁻¹				
10.0	140	1778	0.9	85/130
10.0	140	1826	1.4	85/150
10.0	140	1851	2.0	85/180
7.0	200	2510	1.0	85/150
7.0	200	2544	1.6	85/180
5.0	280	3032	0.8	85/150
5.0	280	3129	1.2	85/180
3.5	400	4591	0.9	85/180

4 kW

$n_1 = 1400$ min ⁻¹				
10.0	140	2435	1.1	85/150
10.0	140	2468	1.5	85/180
7.0	200	3392	1.2	85/180
5.0	280	4171	0.9	85/180

N.B.
I valori contrassegnati dal simbolo (*) indicano la coppia massima applicabile al riduttore con FS=1. In questi casi la potenza del motore applicato non dovrà mai essere utilizzata integralmente onde evitare danneggiamenti al riduttore.

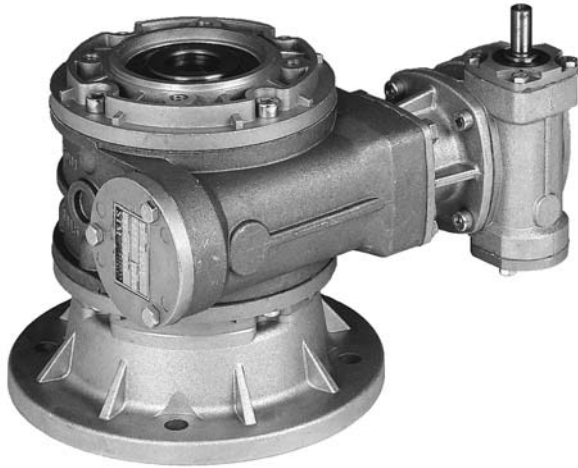
NOTE.
Values marked with (*) show the maximum torque that can be applied to the gearbox with FS=1. In these cases, the power of the motor applied shall never be used completely in order to avoid damages to the gearbox.

HINWEIS.
Die mit (*) gekennzeichneten Werte zeigen das für ein Getriebe bei FS=1 mögliche Maximaldrehmoment an. Um Schäden am Getriebe zu vermeiden, darf in diesen Fällen der Motor nicht mit voller Leistung gefahren werden.

3.9 Dimensioni

3.9 Dimensions

3.9 Abmessungen



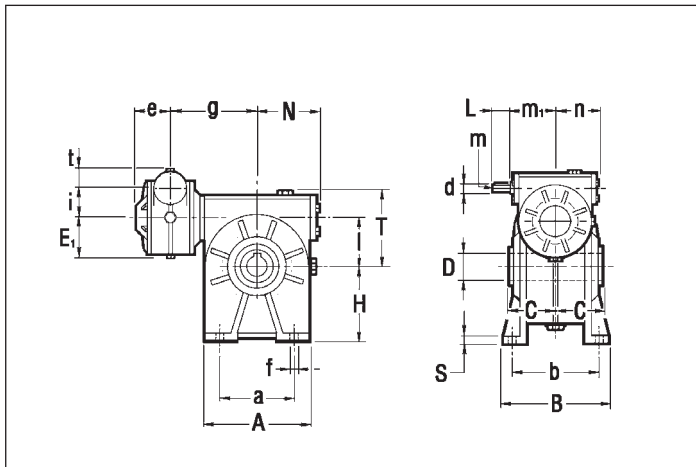


3.9 Dimensioni

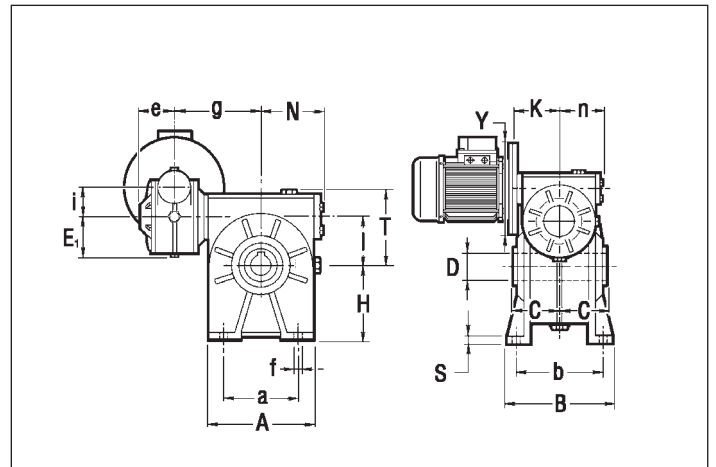
3.9 Dimensions

3.9 Abmessungen

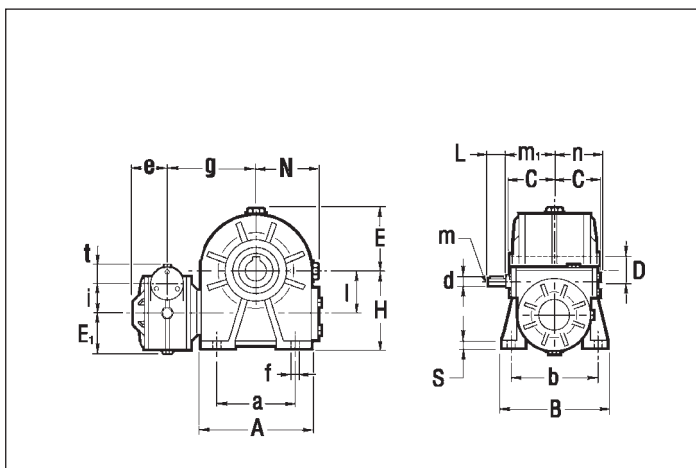
CRI S



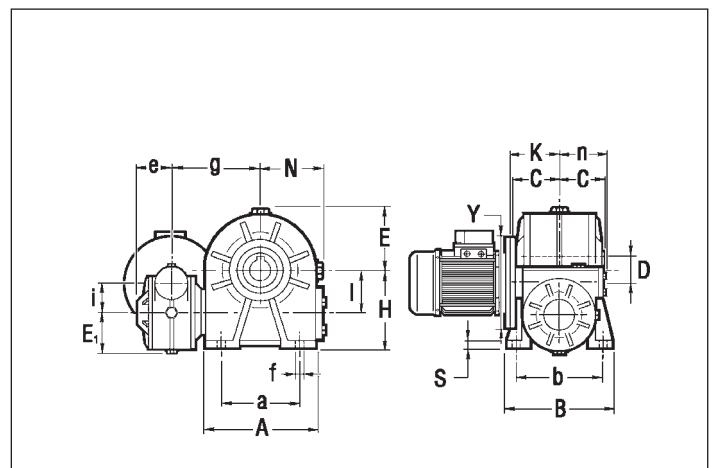
CRMI S



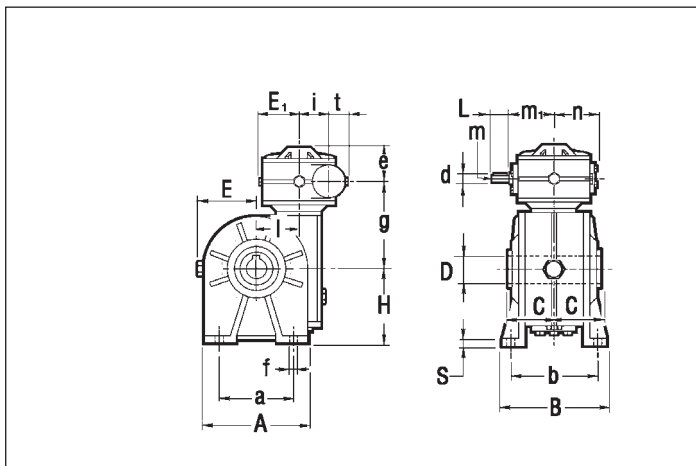
CRI I



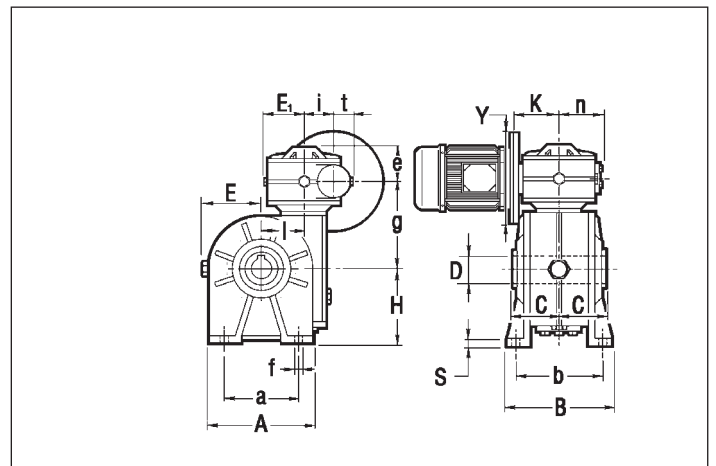
CRMI I



CRI D



CRMI D



3.9 Dimensioni

3.9 Dimensions

3.9 Abmessungen

CRI CRMI	A	a	B	b	C	D H7	d j6	E	E ₁	e	f	g	H	I	i	L	m	m ₁	N	n	S	T	t
28/28	67	52	78	66 ⁺² ₋₆	30	14	9	40	40	35	5.5	90	52	28	28	20	M4	47	44.5	44.5*	6	49	21
28/40	100	70	102	84 ^{±3}	41	19(18)	9	59	40	35	7	104.5	71	40	28	20	M4	47	61.5	44.5*	8	66	21
40/40 °	100	70	102	84 ^{±3}	41	19(18)	11	59	59	49	7	145.5	71	40	40	22	M5	64	61.5	61.5	8	66	26
28/50	120	85	119	99 ^{±3}	49	24(25)	9	69	40	35	9	115	85	50	28	20	M4	43	72.5	44.5*	10	80	21
40/50	120	85	119	99 ^{±3}	49	24(25)	11	69	59	49	9	106	85	50	40	22	M5	64	72.5	61.5	10	80	26
28/63	140	95	136	111 ⁺² ₋₈	60	25	9	81	40	35	11	135.5	100	63	28	20	M4	47	84	44.5*	11	99	20
40/63	140	95	136	111 ⁺² ₋₈	60	25	11	81	59	49	11	146	100	63	40	22	M5	64	84	61.5	11	99	26
28/70	158	120	140	116 ⁺² ₋₈	60	28	9	87	40	35	11	140.5	115	70	28	20	M4	47	92	44.5*	13	108	21
40/70	158	120	140	116 ⁺² ₋₈	60	28	11	87	59	49	11	151	115	70	40	22	M5	64	92	61.5	13	108	26
50/70	158	120	140	116 ⁺² ₋₈	60	28	14	87	69	59	11	149	115	70	50	30	M6	74	92	72.5	13	108	30
63/70 °	158	120	140	116	60	28	18	87	81	69	11	182	115	70	63	45	M6	96	92	81	13	108	36
40/85 °	193	140	168	140	61	32(35)	11	105	59	49	13	198	135	85	40	22	M5	64	111	61.5	15	135	26
50/85	193	140	168	140	61	32(35)	14	105	69	59	13	173	135	85	50	30	M6	74	111	72.5	15	135	30
63/85 °	193	140	168	140	61	32(35)	18	105	81	69	13	198	135	85	63	45	M6	96	111	81	15	135	36
70/85	193	140	168	140	61	32(35)	19	105	87	68	13	165	135	85	70	40	M8	97	111	92	15	135	43
50/110 °	250	200	200	162	77.5	42	14	135	69	59	14	236.5	172	110	50	30	M6	74	142	72.5	17	170	30
63/110 °	250	200	200	162	77.5	42	18	135	81	69	14	227	172	110	63	45	M6	96	142	81	17	170	36
70/110	250	200	200	162	77.5	42	19	135	87	68	14	191	172	110	70	40	M8	97	142	92	17	170	38
85/110	250	200	200	162	77.5	42	24	135	105	71	14	195	172	110	85	50	M8	115	142	111	17	170	50
63/130 °	286	235	230	190	90	48	18	150	81	69	15	265	200	130	63	45	M6	96	159	81	19	200	36
70/130	286	235	230	190	90	48	19	150	87	68	15	214	200	130	70	40	M8	97	159	92	19	200	38
85/130	286	235	230	190	90	48	24	150	105	71	15	213	200	130	85	50	M8	115	159	111	19	200	50
85/150	336	260	250	210	105	55	24	178	105	71	19	240	230	150	85	50	M8	115	189	111	20	224	50
110/150	336	260	250	210	105	55	28	178	135	92	19	254	230	150	110	60	M8	146	189	142	20	224	60
85/180	400	310	320	260	120	65	24	210	105	71	22	283	265	180	85	50	M8	115	232	111	22	265	50
110/180	400	310	320	260	120	65	28	210	135	92	22	296	265	180	110	60	M8	146	232	142	22	265	60
130/180	400	310	320	260	120	65	38	210	150	102	22	306	265	180	130	80	M10	166	232	159	22	265	70

* CRI 28/... - CRMI 28/... IEC56: n=44.5, CRMI 28/... IEC 63: n=46

	CRMI															
	28/28 28/40 28/50 28/63 28/70		40/40 ° 40/50 40/63 40/70 40/85 °		50/70 50/85 50/110 °		63/70 ° 63/85 ° 63/110 ° 63/130 °		70/85 70/110 70/130		85/110 85/130 85/150 85/180		110/150 110/180		130/180	
	Y	K	Y	K	Y	K	Y	K	Y	K	Y	K	Y	K	Y	K
B5	120	49	120	63.5	140	77	160	95	160	100	160	116	200	145	—	—
	—	—	140	63.5	160	77	200	95	200	100	200	116	250	145	250	163
	—	—	160	71	200	81	—	—	—	—	250	118	—	—	300	163
B14	80•	49	80•	63.5	90•	77	105•	95	105	100	120	116	160	145	—	—
	90	51	90	63.5	105	77	120	95	120	100	140	116	—	—	—	—
	—	—	105	71	120	81	140	95	140	100	160	118	—	—	—	—
	—	—	—	—	—	—	—	—	160	100	—	—	—	—	—	—

(•) Vedi nota in fondo a tabella 3.4.

(•) See note at the bottom of table 3.4.

(•) Siehe Bemerkungen Tabelle 3.4 unten.

(°) Riduttori con accoppiamento eseguito con kit di montaggio, vedi par. 3.11.
N.B. Le dimensioni delle linguette sono riportate di seguito.

(°) Gearboxes assembled with combination kit, see also chapter 3.11.
NOTE. Sizes of feathers are shown below.

(°) Getriebe angebaut mit Kombinationskit, siehe auch Abschnitt 3.11.
HINWEIS. Die Abmessungen der Federn sind auf angegeben.

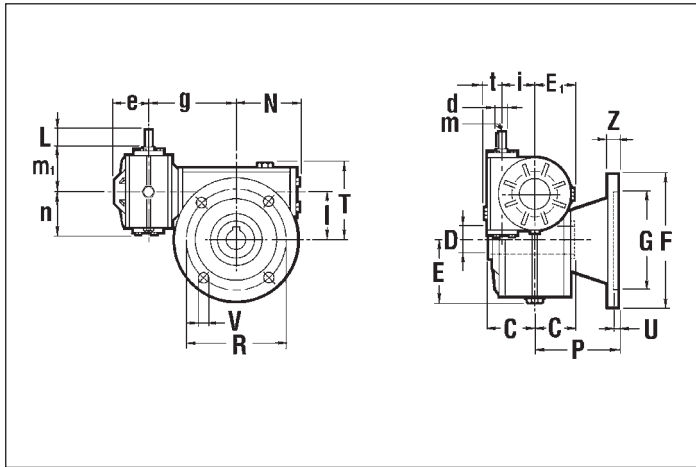


3.9 Dimensioni

3.9 Dimensions

3.9 Abmessungen

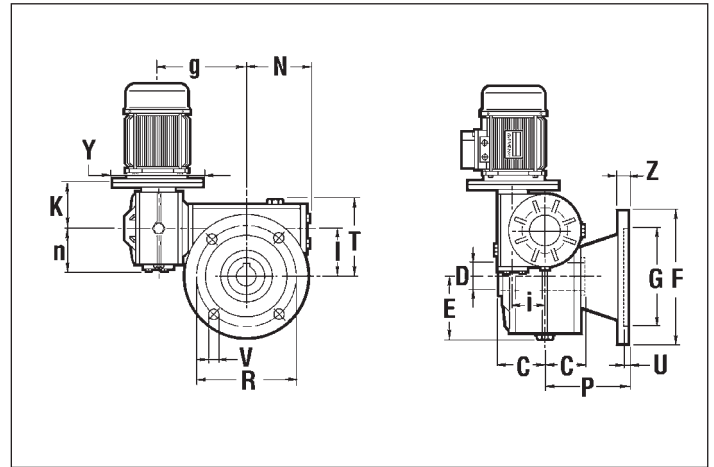
CRI A(FL)



N.B.
Nelle grandezze .../40, .../50, .../63, .../70 la versione A(FL) viene ottenuta applicando una flangia modulare sulla flangia pendolare della versione A(PP).

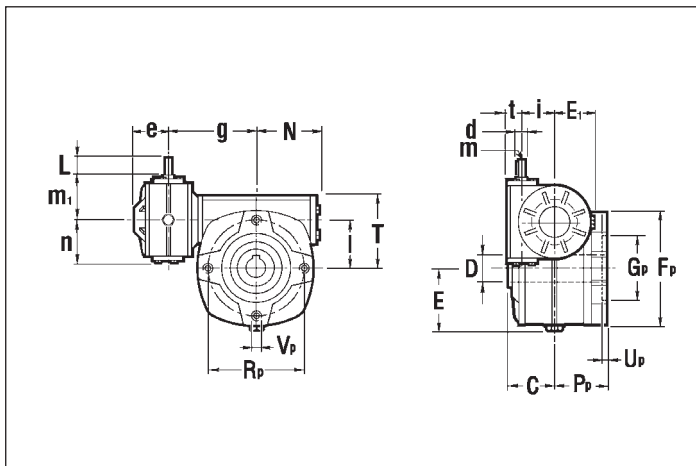
NOTE.
In sizes .../40, .../50, .../63, .../70 the FL version is obtained by applying a modular flange onto the shaft-mounted flange of the A(PP) version.

CRMI A(FL)

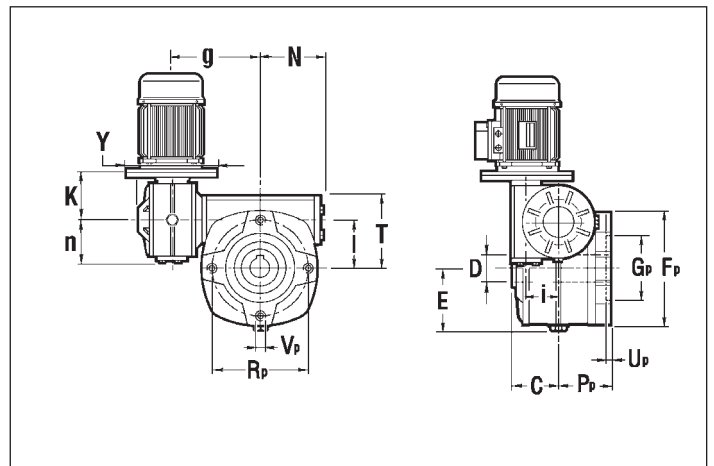


HINWEIS.
Bei den Größen .../40, .../50, .../63, .../70 erhält man die FL-Version, indem ein Modulflansch an den Flansch mit Drehmomentstütze der A(PP)-Version befestigt wird.

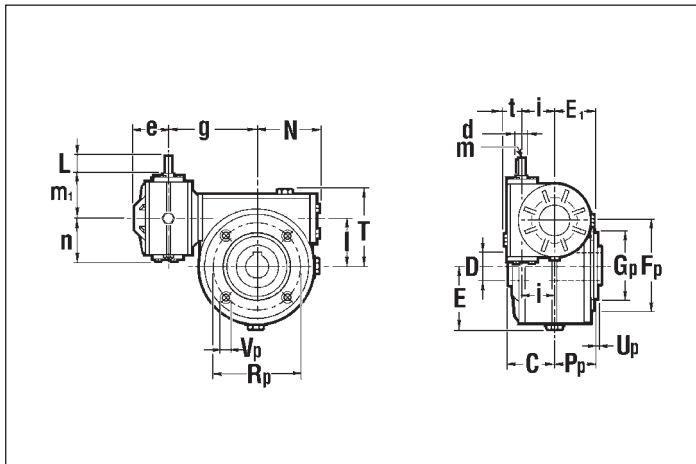
CRI .../28A(P)



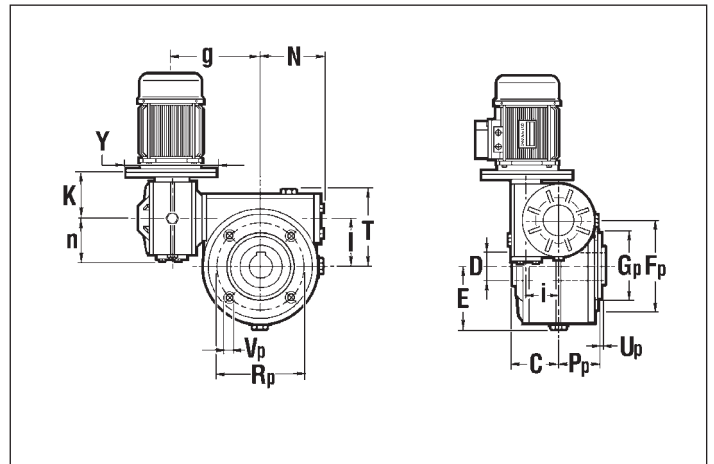
CRMI .../28A(P)



CRI .../40A(PP) - .../70A(PP) CRI .../85A(P) - .../180A(P)



CRMI .../40A(PP) - .../70A(PP) CRMI .../85A(P) - .../180A(P)



3.9 Dimensioni

3.9 Dimensions

3.9 Abmessungen

CRI CRMI	C	D H7	d j6	E	E ₁	e	g	l	i	L	m	m ₁	N	n	T	t
28/28	30	14	9	40	40	35	90	28	28	20	M4	47	44.5	44.5*	49	21
28/40	41	19 (18)	9	59	40	35	104.5	40	28	20	M4	47	61.5	44.5*	66	21
40/40 °	41	19 (18)	11	59	59	49	145.5	40	40	22	M5	64	61.5	61.5	66	26
28/50	49	24 (25)	9	69	40	35	115	50	28	20	M4	43	72.5	44.5*	80	21
40/50	49	24 (25)	11	69	59	49	106	50	40	22	M5	64	72.5	61.5	80	26
28/63	60	25	9	81	40	35	135.5	63	28	20	M4	47	84	44.5*	99	21
40/63	60	25	11	81	59	49	145.5	63	40	22	M5	64	84	61.5	99	26
28/70	60	28	9	87	40	35	140.5	70	28	20	M4	47	92	44.5*	108	21
40/70	60	28	11	87	59	49	151	70	40	22	M5	64	92	61.5	108	26
50/70	60	28	14	87	69	59	149	70	50	30	M6	74	92	72.5	108	30
63/70 °	60	28	18	87	81	69	182	70	63	45	M6	96	92	81	108	36
40/85 °	61	32 (35)	11	105	59	49	198	85	40	22	M5	64	111	61.5	135	26
50/85	61	32 (35)	14	105	69	59	173	85	50	30	M6	74	111	72.5	135	30
63/85 °	61	32 (35)	18	105	81	69	198	85	63	45	M6	96	111	81	135	36
70/85	61	32 (35)	19	105	87	68	165	85	70	40	M8	97	111	92	135	43
50/110 °	77.5	42	14	135	69	59	236.5	110	50	30	M6	74	142	72.5	170	30
63/110 °	77.5	42	18	135	81	69	227	110	63	45	M6	96	142	81	170	36
70/110	77.5	42	19	135	87	68	191	110	70	40	M8	97	142	92	170	38
85/110	77.5	42	24	135	105	71	195	110	85	50	M8	115	142	111	170	50
63/130 °	90	48	18	150	81	69	265	130	63	45	M6	96	159	81	200	36
70/130	90	48	19	150	87	68	214	130	70	40	M8	97	159	92	200	38
85/130	90	48	24	150	105	71	213	130	85	50	M8	115	159	111	200	50
85/150	105	55	24	178	105	71	240	150	85	50	M8	115	189	111	224	50
110/150	105	55	28	178	135	92	254	150	110	60	M8	146	189	142	224	60
85/180	120	65	24	210	105	71	283	180	85	50	M8	115	232	111	265	50
110/180	120	65	28	210	135	92	296	180	110	60	M8	146	232	142	265	60
130/180	120	65	38	210	150	102	306	180	130	80	M10	166	232	159	265	70

* CRI 28/... - CRMI 28/... IEC56: n=44.5, CRMI 28/... IEC 63: n=46

CRI CRMI	F	G H8	P	R	U	V	Z	Fp	Gp h8	Pp	Rp	Up	Vp
28/28	70	40	49	56	5	6	5	67	42(H8)	36	56	7	M6
28/40	140	95	82	115	5	8.5	9	95	60	38	83	2	M6
40/40 °													
28/50	160	110	91.5	130	5	10	10	105	70	49	85	2.5	M8
40/50													
28/63	180	115	116	150	5	11	11	105	70	57.5	85	3.5	M8
40/63													
28/70	200	130	111	165	5	13	11	120	80	57	100	4	M8
40/70													
50/70	200	130	100	165 ⁰ ₊₁	5	13	12	144	110	56.5	130	3.5	M10
63/70 °													
40/85 °	200	130	100	165 ⁰ ₊₁	5	13	12	144	110	56.5	130	3.5	M10
50/85													
63/85 °	250	180	150	215	5	15	16	200	130	74	165	3	M12
70/110													
85/110	300	230	150	265	5	15	18	242	180	87	215	5	M12
63/130 °													
70/130	350	250	160	300	6	19	18	250	180	102	215	5	M14
85/130													
85/150	400	300	180	350	6.5	22	22	300	230	117	265	5	M16
110/150													
85/180	400	300	180	350	6.5	22	22	300	230	117	265	5	M16
110/180													
130/180	400	300	180	350	6.5	22	22	300	230	117	265	5	M16

	CRMI															
	28/28 28/40		40/40 ° 40/50 40/63 40/70 40/85 °		50/70 50/85 50/110 °		63/70 ° 63/85 ° 63/110 ° 63/130 °		70/85 70/110 70/130		85/110 85/130 85/150 85/180		110/150 110/180		130/180	
	Y	K	Y	K	Y	K	Y	K	Y	K	Y	K	Y	K	Y	K
B5	120	49	120	63.5	140	77	160	95	160	100	160	116	200	145	200	163
	—	—	140	63.5	160	77	200	95	200	100	200	116	250	145	250	163
	—	—	160	71	200	81	—	—	—	—	250	118	—	—	300	163
B14	80 •	49	80 •	63.5	90 •	77	105 •	95	105	100	120	116	160	145	—	—
	90	51	90	63.5	105	77	120	95	120	100	140	116	—	—	—	—
	—	—	105	71	120	81	140	95	140	100	160	118	—	—	—	—
	—	—	—	—	—	—	—	—	160	100	—	—	—	—	—	—

(•) Vedi nota in fondo a tabella 3.4.

(•) See note at the bottom of table 3.4.

(•) Siehe Bemerkungen Tabelle 3.4 unten.

(°) Riduttori con accoppiamento eseguito con kit di montaggio, vedi par. 3.11.
N.B. Le dimensioni delle linguette sono riportate di seguito.

(°) Gearboxes assembled with combination kit, see also chapter 3.11.
NOTE. Sizes of feathers are shown below.

(°) Getriebe angebaut mit kombinationskit, siehe auch Abschnitt 3.11.
HINWEIS. Die Abmessungen der Federn sind angegeben.

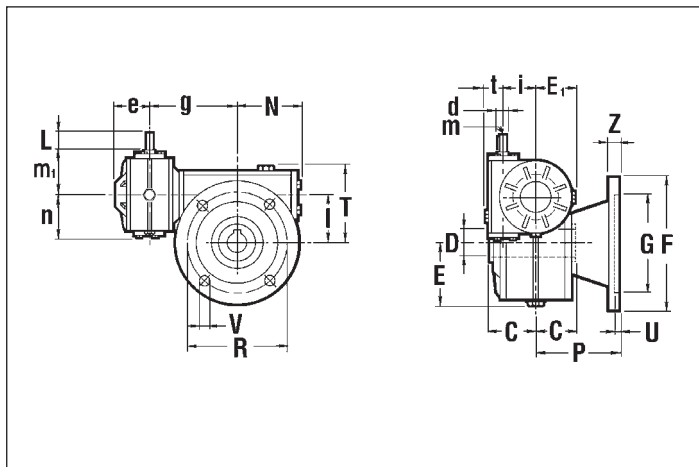


3.9 Dimensioni

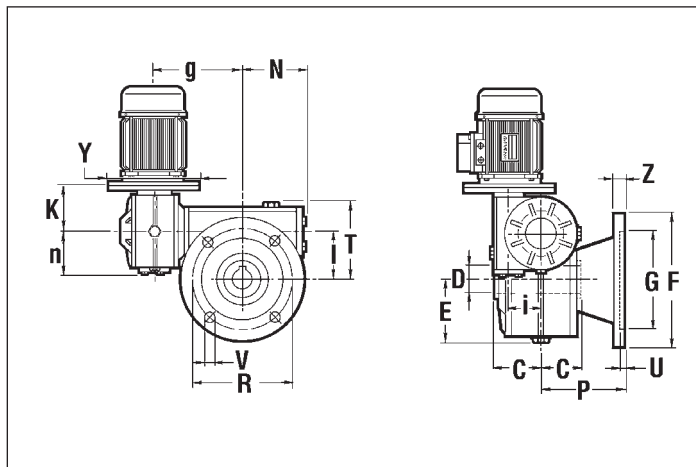
3.9 Dimensions

3.9 Abmessungen

CRI A(F1 - F2 - F3)



CRMI A(F1 - F2 - F3)



CRI - CRMI

	28/28		28/40 40/40°			28/50 40/50			28/63 40/63			28/70 40/70 50/70 63/70°			40/85° 50/85 63/85° 70/85			50/110° 63/110° 70/110 85/110			85/180 110/180 130/180	
	F1	F1	F2	F1	F2	F3	F1#	F2#	F3#	F1#	F2#	F3	F1	F2	F3	F1	F2	F3	F2	F2		
F	80	106	120	125	125	140	175	200	160	175	175	160	200	210	160	200	270	270	400			
G (H8)	50	60	80	70	70	95	115	130	110	115	115	110	130	152	110	130	170	170	300			
P	53	69	62	93	73	81	86	102	82	116	85	101	141	120	91	115	132	178	150			
R	63±5	87	100	90 ⁰ ₉	100	115	150	165	130	150	150	130	165	176	130	165	230	230	350			
U	4	5	5	5	4	4	5	5	5	5	5	6	6	5	5	5	10	10	6.5			
V	6	8.5	9	10.5	9	9	11	13	10	11	11	11	13	13	11.5	13	13.5	13.5	22			
Z	7	9	9	10	9	9	11	11	11	10	10	11	12	14	10	12	18	18	22			

Le versioni F1, F2, F3 contrassegnate con il simbolo (#) sono ottenute applicando una flangia modulare sulla flangia pendolare della versione PP.

F1, F2 and F3 versions that are marked with (#) are obtained by applying a modular flange onto the shaft-mounted flange of the PP version.

Die mit (#) gekennzeichneten Versionen F1, F2 und F3 erhält man, indem ein Modulflansch an den Flansch mit Drehmomentstütze der PP-Version befestigt wird.

CRI CRMI	C	D H7	d j6	E	E ₁	e	g	l	i	L	m	m ₁	N	n	T	t
28/28	30	14	9	40	40	35	90	28	28	20	M4	47	44.5	44.5*	49	21
28/40	41	19 (18)	9	59	40	35	104.5	40	28	20	M4	47	61.5	44.5*	66	21
40/40°	41	19 (18)	11	59	59	49	145.5	40	40	22	M5	64	61.5	61.5	66	26
28/50	49	24 (25)	9	69	40	35	115	50	28	20	M4	43	72.5	44.5*	80	21
40/50	49	24 (25)	11	69	59	49	106	50	40	22	M5	64	72.5	61.5	80	26
28/63	60	25	9	81	40	35	135.5	63	28	20	M4	47	81	44.5*	99	21
40/63	60	25	11	81	59	49	146	63	40	22	M5	64	81	61.5	99	26
28/70	60	28	9	87	40	35	140.5	70	28	20	M4	47	92	44.5*	108	21
40/70	60	28	11	87	59	49	151	70	40	22	M5	64	92	61.5	108	26
50/70	60	28	14	87	69	59	149	70	50	30	M6	74	92	72.5	108	30
63/70°	60	28	18	87	81	69	182	70	63	45	M6	96	92	81	108	36
40/85°	61	32 (35)	11	105	59	49	198	85	40	22	M5	64	111	61.5	135	26
50/85	61	32 (35)	14	105	69	59	173	85	50	30	M6	74	111	72.5	135	30
63/85°	61	32 (35)	18	105	81	69	198	85	63	45	M6	96	111	81	135	36
70/85	61	32 (35)	19	105	87	68	165	85	70	40	M8	97	111	92	135	43
50/110°	77.5	42	14	135	69	59	236.5	110	50	30	M6	74	142	72.5	170	30
63/110°	77.5	42	18	135	81	69	227	110	63	45	M6	96	142	81	170	36
70/110	77.5	42	19	135	87	68	191	110	70	40	M8	97	142	92	170	38
85/110	77.5	42	24	135	105	71	195	110	85	50	M8	115	142	111	170	50
85/180	120	65	24	210	105	71	283	180	85	50	M8	115	232	111	265	50

* CRI 28/... - CRMI 28/... IEC56: n=44.5, CRMI 28/... IEC 63: n=46

(°) Riduttori con accoppiamento eseguito con kit di montaggio, vedi par.3.11.
N.B. Le dimensioni delle linguette sono riportate di seguito.

(°) Gearboxes assembled with combination kit, see also chapter 3.11.
NOTE. Sizes of feathers are shown below.

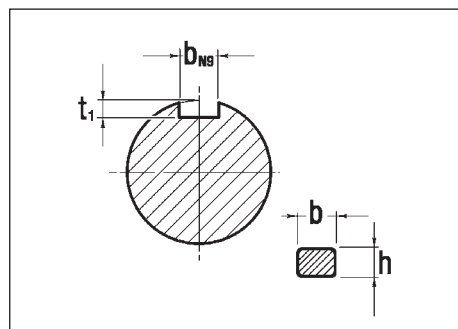
(°) Getriebe angebau mit kombinationskit, siehe auch Abschnitt 3.11.
HINWEIS. Die Abmessungen der Federn sind auf angegeben.

3.9 Dimensioni

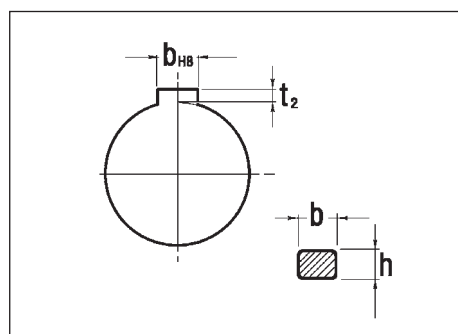
3.9 Dimensions

3.9 Abmessungen

Linguette



Albero entrata
Input shaft
Antriebswelle



Albero uscita
Output shaft
Abtriebswelle

Federn

d	b x h	t ₁
9	3 x 3	1.8
11	4 x 4	2.5
14	5 x 5	3.0
18	6 x 6	3.5
19	6 x 6	3.5
24	8 x 7	4.0
28	8 x 7	4.0
38	10 x 8	5.0
42	12 x 8	5.0
48	14 x 9	5.5

D	b x h	t ₂
14	5 x 5	2.3
18	6 x 6	2.8
19	6 x 6	2.8
24	8 x 7	3.3
25	8 x 7	3.3
28	8 x 7	3.3
32	10 x 8	3.3
35	10 x 8	3.3
42	12 x 8	3.3
48	14 x 9	3.8
55	16 x 10	4.3
65	18 x 11	4.4

Esecuzione con vite bisporgente

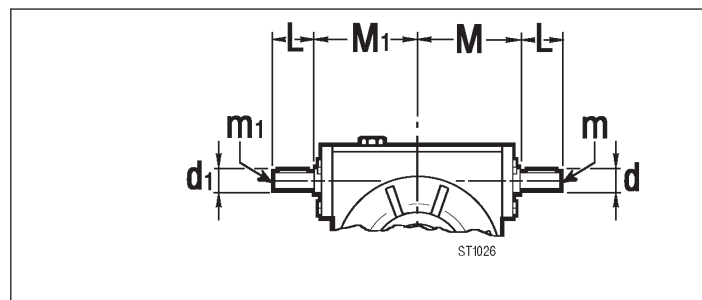
Double extended input shaft

Ausführung mit Wellenzapfen auf beiden Seiten

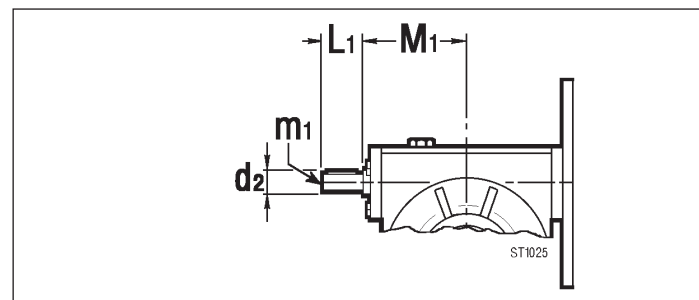
Nei riduttori combinati è necessario specificare se questa configurazione è riferita al primo riduttore (in entrata) o al secondo riduttore (in uscita).

In combined gearboxes, it is necessary to specify if such configuration refers to the first gearbox (input gearbox) or to the second one (output gearbox).

Bei den Kombinationsgetrieben muß angegeben werden, ob sich die Konfiguration auf das erste Getriebe (Eingang) oder auf das zweite (Ausgang) bezieht.



Configurazione realizzabile solo sul primo riduttore (CRI).
This configuration can only be obtained on the first gearbox (CRI).
Nur am ersten Getriebe (CRI) realisierbare Konfiguration.



Configurazione realizzabile sul primo riduttore (CRMI) e sul secondo riduttore (CRI e CRMI).
This configuration can be obtained both on the first gearbox (CRMI) and on the second gearbox (CRI and CRMI).

Grandezza Size Größe	d	d ₁	d ₂	L	L ₁	m	m ₁	M	M ₁
28	9	9	9	20	20	M4	—	47	47
40	11	11	11	22	22	M5	M5	64	64*
50	14	14	14	30	30	M6	M6	74	74
63	18	18	18	45	45	M6	M6	96	85
70	19	19	19	40	40	M8	M8	97	97
85	24	24	24	50	50	M8	M8	115	115
110	28	28	28	60	60	M8	M8	146	146
130	38	38	38	80	80	M10	M10	166	166
150	42	42	42	100	100	M12	M12	195	195
180	48	48	48	110	110	M14	M14	235	235

(*) RMI 40/... IEC71: M₁ = 67



3.10 Gioco ridotto

I riduttori vite senza fine combinati sono anche disponibili con gioco ridotto/registrabile. Per informazioni sulle quantità e prezzi contattare il nostro uff. commerciale.

3.10 Low backlash

The combined worm gearboxes are also available with low/adjustable backlash. For informations of quantities and prices please contact our sales department.

3.10 Spielarme Getriebe

Die kombinierten Schneckengetriebe sind auch spielarm bzw. mit einstellbarem Spiel erhältlich. Für informationen bzgl. Abnahmemenge und Preis wenden Sie sich bitte an unseren Vertrieb.

3.11 Accoppiamenti

E' inoltre disponibile un kit che permette di combinare modularmente i riduttori, utilizzando un riduttore in entrata in versione flangiata e il riduttore in uscita predisposto con flangia attacco motore IEC. La tabella seguente indica le possibili combinazioni.

3.11 Coupling

To make you more flexible it is also possible to supply the gearboxes seperately and to combine them with an assembling kit. For this we deliver the input gearbox in the flanged version and the output gearbox with IEC motor connecting flange. The possible combinations and the assembling kits are listed below.

3.11 Kupplung

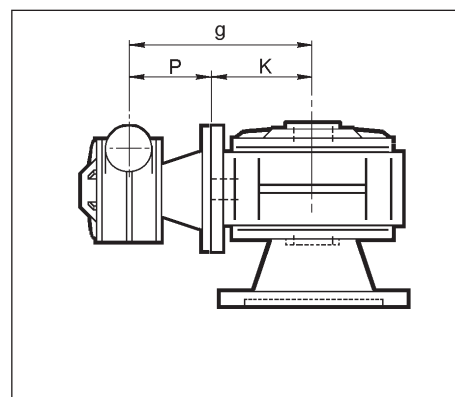
Um bei der Kombination der Getriebe vorot flexibler zu sein, bieten wir einen Montage-Kit an, mit dessen Hilfe ein Standardgetriebe mit Abtriebsflansch in der ersten Übersetzungsstufe und ein Standardgetriebe mit IEC-Eingangsflansch in der zweiten Übersetzungsstufe kombiniert werden können. Die Kombinationsmöglichkeiten sowie die zugehörigen Montage-Kits sind in der folgenden Tabelle aufgelistet.

Nei riduttori e motorvariatori combinati 28/28 e 28/40 (accoppiati con kit di montaggio) l'asse della vite del 1° riduttore è sempre inclinata di 45° rispetto all'asse orizzontale o verticale. Specificare la posizione in fase di ordine.

In the combined worm gearboxes and motor-variators 28/28 and 28/40 (coupled with an assembly kit) the wormshaft axis of the first gearbox has always a tilt of 45° compared to the horizontal or vertical axis.

The position has to be specified in the order.

Wird das Kombinationsgetriebe 28/28 und 28/40 mit Hilfe des Montagekits gebildet, so befindet sich die Achse des ersten Getriebes immer in 45° bezüglich zur Horizontalen bzw. Vertikalen. Bei Auftragserteilung bitte die Montageposition angeben.



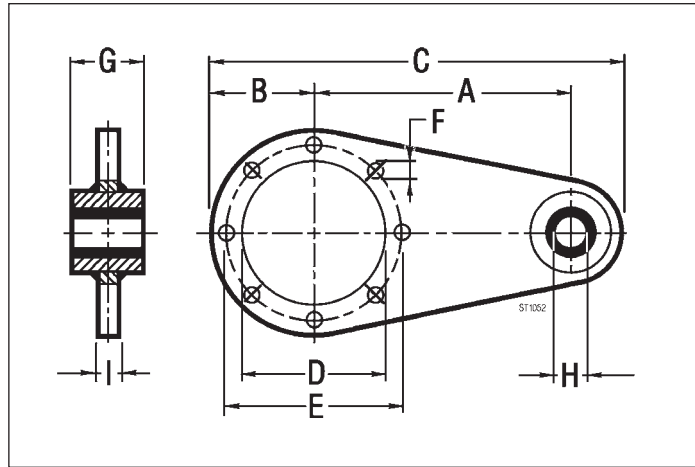
CRI CRMI	P	K	g	Riduttore in entrata Input gearbox Erstes Getriebe	Kit di montaggio Assembling kit Montage-kit	Riduttore uscita Output gearbox Zweites Getriebe
28/28	53	49	102		KIT 28/28	
40/40	82	63.5	145.5		KIT 40/40	
40/50	82	77	159		KIT 40/50	
50/50	91.5	77	168.5		KIT 50/50	
40/63	82	95	177		KIT 40/63	
50/63	91.5	95	186.5		KIT 50/63	
63/63	82	95	177		KIT 63/63	
40/70	82	100	182		KIT 40/70	
50/70	91.5	100	191.5		KIT 50/70	
63/70	82	100	182		KIT 63/70	
70/70	111	100	211		KIT 70/70	
40/85	82	116	198		KIT 40/85	
50/85	91.5	116	207.5		KIT 50/85	
63/85	82	116	198		KIT 63/85	
70/85	111	116	227		KIT 70/85	
85/85	100	116	216		KIT 85/85	
50/110	91.5	145	236.5		KIT 50/110	
63/110	82	145	227		KIT 63/110	
70/110	111	145	256		KIT 70/110	
85/110	100	145	245		KIT 85/110	
63/130	102	163	265		KIT 63/130	

3.12 Accessori Braccio di reazione

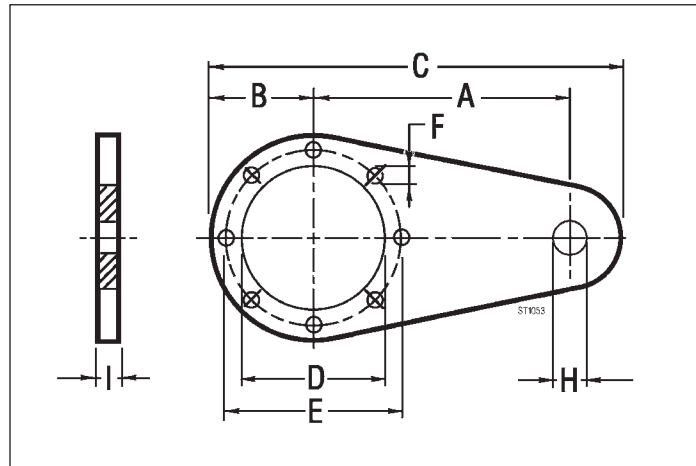
3.12 Accessories Torque arm

3.12 Zubehör Drehmomentstütze

Con boccola VKL
With VKL bushing
Mit VKL-Buchse



Standard



	CRI - CRMI									
	28/28	28/40 40/40	28/50 40/50	28/63 40/63	28/70 40/70 50/70 63/70	40/85 50/85 63/85 70/85	50/110 63/110 70/110 85/110	63/130 70/130 85/130	85/150 110/150	85/180 110/180 130/180
A	70	90	100	150	150	200	250	300	350	400
B	34.5	50	60	53	60	75	100	120	125	150
C	119.5	165	185	230	240	313	388	465	525	610
D	42.15	60	70	70	80	110	130	180	180	230
E	56	83	85	85	100	130	165	215	215	265
F	6.5	7	9	9	9	11	13	13	15	17
G	—	15	15	20	20	25	25	30	30	35
H	9	10	10	10	10	20	20	25	25	35
I	4	4	4	6	6	6	6	6	6	10



3.12 Accessori Alberi lenti

Tutti i riduttori a vite senza fine sono forniti con albero lento cavo. A richiesta, possono essere forniti alberi lenti come indicato nei disegni dimensionali.

Le dimensioni delle linguette sono conformi alle norme UNI 6604-69 (vedi par. 2.11).

3.12 Accessories Output shafts

All worm gearboxes are supplied with hollow output shaft. Output shafts as shown in the size drawings can be supplied upon request.

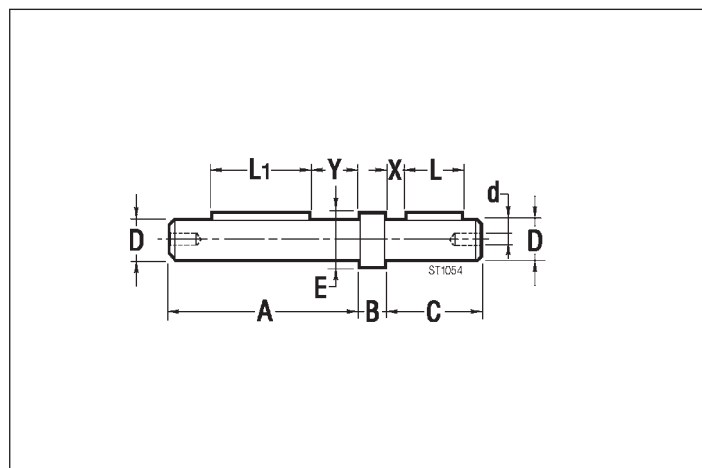
Sizes of feathers comply with standards UNI 6604-69 (see chapter 2.11).

3.12 Zubehör Abtriebswellen

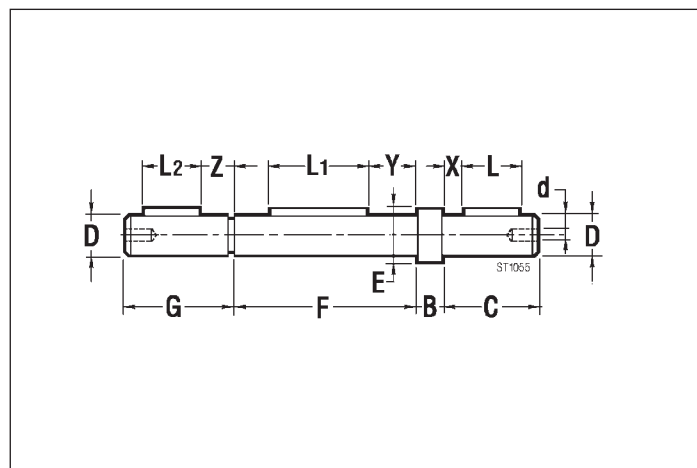
Alle Schneckengetriebe werden mit hohler Abtriebswelle geliefert. Auf Anfrage können Abtriebswellen gemäß den Maßzeichnungen geliefert werden.

Die Abmessungen der Federn entsprechen den Normen UNI 6604-69 (siehe Kapitel 2.11).

Albero lento
Single output shaft
Einseitige Abtriebswelle



Albero lento bisporgente
Double output shaft
Beidseitige Abtriebswelle



	CRI - CRMI									
	28/28	28/40 40/40	28/50 40/50	28/63 40/63	28/70 40/70 50/70 63/70	40/85 50/85 63/85 70/85	50/110 63/110 70/110 85/110	63/130 70/130 85/130	85/150 110/150	85/180 110/180 130/180
A	58	80	95	117	117	119	153	177	207	239
B	1.5	10	10	10	10	10	10	20	20	20
C	29.5	40	45	60	60	71	100	110	110	130
D_{g6}	14	19	24	25	28	32	42	48	55	65
d	M6	M8	M8	M8	M8	M10	M10	M10	M12	M14
E	17	22	28	34	34	38	50	58	63	78
F	60	82	98	120	120	122	155	180	210	240
G	31	50	55	70	70	81	110	130	130	150
L	20	25	30	40	40	50	80	90	90	100
L1	20	40	50	60	60	70	80	90	100	120
L2	20	25	30	40	40	50	80	90	90	100
X	4.5	8	7.5	10	10	10	10	10	10	15
Y	20	21	24	30	30	26	37	45	55	60
Z	6	18	18	20	20	20	20	30	30	35

N.B.
Tutti gli alberi lenti vengono forniti in kit di montaggio completi di linguette, rondelle, viti (e anelli elastici seeger per l'albero bisporgente).

NOTE.
All output shafts are supplied in kit complete with feathers, washers and screws (as well as snap rings for the double extended shaft).

HINWEIS.
Alle Abtriebswellen werden als Bausätze komplett mit Federn, Scheiben, Schrauben (bei beidseitiger Abtriebswelle auch die Seegerringe) geliefert.