



ROUE MOTRICE

Mobilité Electrique



LSMotion

"La passion du monde de la Mécatronique"

FRANCAIS

La production de LSMOTION est basée sur des ensembles boîte de vitesses + roues (roues motrices), des moteurs électriques pour véhicules à batterie et des unités différentielles.

Ce catalogue présente la gamme principale de production de roues motrices, horizontales et verticales. Les autres roues motrices ne figurent pas dans le catalogue, mais sont personnalisées et disponibles sur demande.

Les principales caractéristiques sur lesquelles LSMOTION se concentre sont les suivantes :

- Le système de direction qui est disponible sur la plupart de nos unités motrices, avec une large gamme d'options en fonction des caractéristiques et des mouvements du véhicule
- Moteurs électriques fabriqués dans nos usines, de 12 à 96V, aussi bien des moteurs à courant alternatif pour machines à batteries que des moteurs à courant continu (aimants permanents et bobinés, excités séparément, bobinés en série et en dérivation) avec lesquels nous pouvons satisfaire toutes les demandes de moteurs de traction pour machines à batteries
- Large gamme de rapports de transmission disponibles
- Roues avec revêtement en caoutchouc, Vulkollan ou polyuréthane de dureté différente selon les exigences de l'application.

Nos produits sont fabriqués dans le respect des normes IEC et européennes.

OPTIONNELS

- **Freins E/M** : le catalogue présente des roues motrices avec frein électromagnétique, disponibles sur demande. Nous pouvons fournir des freins E/M avec un boîtier IP65.
- **Protections thermiques** : en général, nous pouvons fournir des interrupteurs thermiques marche/arrêt ou des capteurs thermiques, avec sortie de câble sur le bornier.
- **Système de détection d'usure** : il s'agit d'une brosse avec un fil supplémentaire pour détecter l'usure de la brosse ; la sortie du câble se fait sur le bornier.
- **Ventilation sur le moteur de traction** : si nécessaire, il est possible d'obtenir un cycle de fonctionnement plus long du moteur de traction pour les travaux lourds ou pour les 2/3 des équipes par jour, les services intensifs.
- **Fin de course** : disponible sur le plateau de direction, avec sa came.
- **Encodeurs** : la disponibilité est grande : incrémental ou absolu, simple ou multitours, monté directement sur l'arbre du moteur (traction et/ou direction), ou sur le plateau de direction.
- **Potentiomètre** : multitours, généralement 10 kOhm - 10 tours, monté directement sur le plateau de direction, couplé avec la couronne de direction.
- **Générateurs tachymétriques** : généralement 10V-1000 tours/minute, montés directement sur l'arbre du moteur (traction et/ou direction).

Sur le catalogue, vous trouverez la production standard de nos moteurs ; sur demande, nous pouvons fabriquer des moteurs avec différentes performances en puissance, tension et régime.

Pour les demandes personnalisées, veuillez remplir le formulaire au bas de ce catalogue avec le plus de détails possible : nous pourrions alors choisir la meilleure solution parmi nos différents choix.

INDEX / INDICE

LISTE DES ROUES MOTRICES
CONNEXIONS ÉLECTRIQUES
ROUES
FREIN ÉLECTROMAGNÉTIQUE

pag. 3
pag. 4
pag. 5
pag. 6/7

ROUES MOTRICES HORIZONTALES		CHARGE MAXIMALE SUR LA ROUE (kg)	PUISSANCE MOTEUR (W)	TENSION (V)	TAILLE DE LA ROUE (mm)
D25 – D10 - M70	pag. 8	600	250÷500	12÷96	205
MR150	pag. 9	200	300	24	150
MR200	pag. 10	600	400÷500	12÷96	198
MR220	pag. 11	600	500÷1000	12÷96	220
MR240	pag. 12	1150	700-1000	12÷96	250 ÷ 260
MR250	pag. 13	1150	700÷1500	12÷96	250 ÷ 260
MR300	pag. 14	1350	1200÷1500	12÷96	300
MR270	pag. 15	1300	1000÷1500	24÷96	270
MR260/300 Mot. D.151	pag. 16	1500	1500÷2500	24÷96	300
MR260/350 Mot. D.151	pag. 17	2000	1500÷2500	24÷96	350
MR260/350 Mot. D.191	pag. 18	2000	3000÷5000	24÷96	350
MR260/406 Mot. D.191	pag. 19	2300	3000÷5000	24÷96	406
MR350	pag. 20	2600	3000÷5000	24÷96	350
MR415	pag. 21	4000	6000÷12000	24÷96	406
T110	pag. 22	2350	1000÷2000	24÷96	300 / 330
ROUES MOTRICES VERTICALES		CHARGE MAXIMALE SUR LA ROUE (kg)	PUISSANCE MOTEUR (W)	TENSION (V)	TAILLE DE LA ROUE (mm)
WR125ECO	pag. 23	1000	800÷1200	12÷96	230
WR151ECO	pag. 24	1000	1500÷2000	24÷96	230
WR350 Mot. D.191	pag. 25	3000	3000÷5000	24÷96	350
WR350 Mot. D.244	pag. 26	3000	5000÷10000	48÷96	350
WR425 Mot. D.191	pag. 27	3100	3000÷5000	24÷96	406
WR425 Mot. D.244	pag. 28	3100	5000÷10000	48÷96	406

ROUES MOTRICES DIRECTRICES

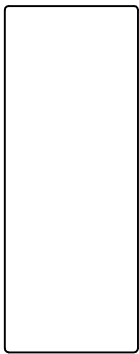
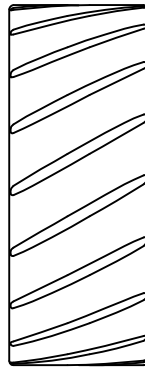
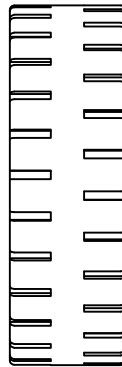
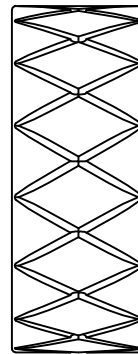
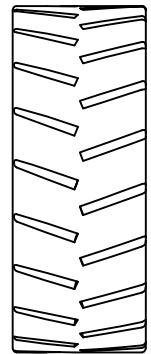
ROUES MOTRICES À DIRECTION HORIZONTALE		CHARGE MAXIMALE SUR LA ROUE (kg)	PUISSANCE MOTEUR (W)	TENSION (V)	TAILLE DE LA ROUE (mm)
MR150S	pag. 29	200	300	24	150
MR200S	pag. 30	600	400÷500	12÷96	198
MR220S	pag. 31	600	500÷1000	12÷96	220
MR240S	pag. 32	1150	700-1000	12÷96	250 ÷ 260
MR250S	pag. 33	1150	700÷1000	24÷96	250 ÷ 260
MR255S	pag. 34	1200	700÷1200	12÷96	260
MR270S	pag. 35	1300	1000÷1500	24÷96	270
MR260/320S	pag. 36	2000	3000-5000	12÷96	320
MR350S	pag. 37	2600	3000÷5000	24÷96	350
MR415S	pag. 38	4000	6000÷12000	48÷96	406
MR600S	pag. 39	6000	6000÷12000	48÷96	559
ROUES MOTRICES À DIRECTION VERTICALE		CHARGE MAXIMALE SUR LA ROUE (kg)	PUISSANCE MOTEUR (W)	TENSION (V)	TAILLE DE LA ROUE (mm)
WR151ECOS	pag. 40	1000	1500÷2000	24÷96	230
WR260S Mot. D.151	pag. 41	1800	1500÷3000	24÷96	260
WR350S Mot. D.191	pag. 42	3000	3000÷5000	24÷96	350
WR350S Mot. D.244	pag. 43	3000	5000÷10000	48÷96	350
WR425S Mot. D.244	pag. 44	3100	5000÷10000	48÷96	406

CONNECTION ELECTRIQUE

D.C. MOTOR MOTORE C.C.	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>SERIES WOUND <i>ECCITAZIONE IN SERIE</i></p> </div> <div style="width: 45%;"> <p>4 TERMINALS WITH TERMINAL BOARD 4 MORSETTI CON MORSETTIERA</p> <p>4 TERMINALS WITHOUT TERMINAL BOARD 4 MORSETTI SENZA MORSETTIERA</p> </div> </div> <hr/> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>SHUNT / SEP-EX WOUND <i>ECCITAZIONE PARALLELA / SEPARATA</i></p> </div> <div style="width: 45%;"> <p>4 TERMINALS WITH TERMINAL BOARD 4 MORSETTI CON MORSETTIERA</p> <p>4 TERMINALS WITHOUT TERMINAL BOARD 4 MORSETTI SENZA MORSETTIERA</p> </div> </div> <hr/> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>PERMANENT MAGNETS <i>MAGNETI PERMANENTI</i></p> </div> <div style="width: 45%;"> <p>2 TERMINALS WITH TERMINAL BOARD 2 MORSETTI CON MORSETTIERA</p> <p>2 TERMINALS WITHOUT TERMINAL BOARD 2 MORSETTI SENZA MORSETTIERA</p> </div> </div>
A.C. MOTOR MOTORE A.C.	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>MOTOR POWER SUPPLY TO CONTROLLER <i>PER CONTROLLO ALIMENTAZIONE DEL MOTORE</i></p> </div> <div style="width: 45%;"> <p>SPEED SENSOR <i>SENSORE DI VELOCITA'</i></p> <ul style="list-style-type: none"> RED Supply (4,5-24/48VDC) BLUE Channel B WHITE Channel A BLACK Ground </div> </div>
PMS BRUSHLESS MOTOR	<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p>ANALOGUE SINUSOIDAL SIN / COS</p> </div> <div style="width: 35%; text-align: center;"> <p>RESOLVER</p> <p>(a) Sine</p> <p>(b) Cosine</p> </div> <div style="width: 30%;"> <p>HALL SENSOR + INCREMENTAL ENCODER</p> </div> </div>
<p>THERMAL SENSOR KTY84/130 <i>SENSORE DI TEMPERATURA KTY84/130</i></p>	

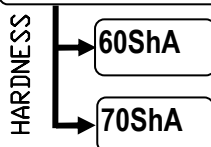
ROUES

MODÈLES DE VOIE

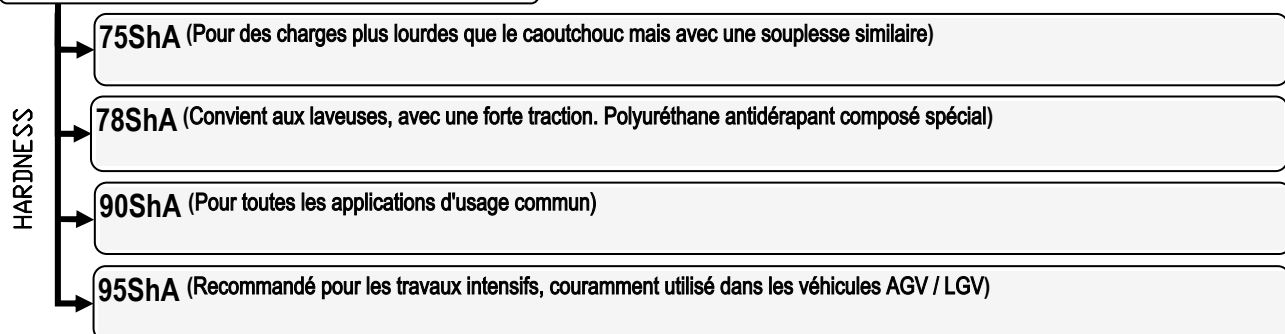
L
smoothS1
diagonalS2
horizontalS3
X typeS4
V type

TYPES DE REVÊTEMENTS

CAOUTCHOUC



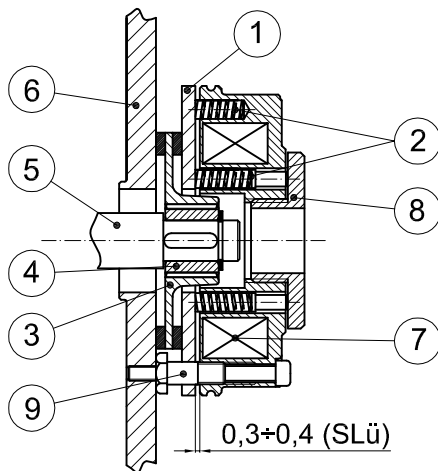
POLYURÉTHANE



VULKOLLAN

FREINS ÉLECTROMAGNÉTIQUES

FREIN STANDARD



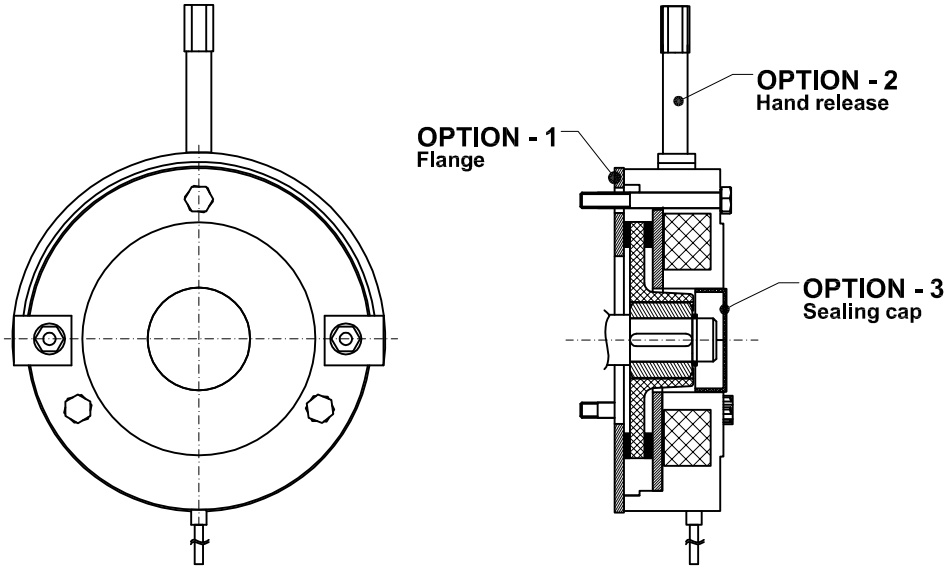
- 1 - Pressure disk
 - 2 - *Springs*
 - 3 - Brake disk
 - 4 - Hub
 - 5 - Shaft
 - 6 - Braking flange
 - 7 - Electro-magnet
 - 8 - Ring nut
 - 9 - Air gap regulation screw
- SLü - Air gap

Règlement général

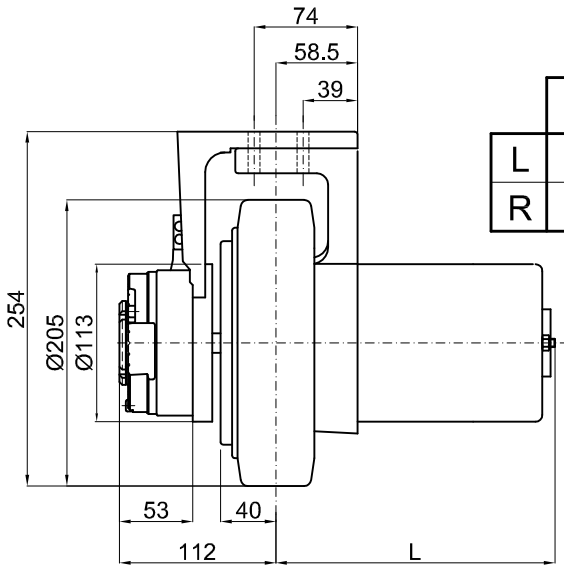
Avant de démarrer le moteur, il faut mettre sous tension le frein électromagnétique, afin de vérifier que le frein se désengage de l'entraînement. Parfois, après une longue période d'arrêt, le disque de frein (point 3) peut se fixer à la bride de freinage (point 6).

Dans cette situation, vous pouvez détacher le disque de frein en procédant comme suit : le frein étant toujours alimenté, essayez de déplacer le disque de frein (point 3) à l'aide d'un petit tournevis sans rayer les surfaces de contact. Pour améliorer le couple de freinage, resserrez la bague (point 8) (dans le sens des aiguilles d'une montre). Pour obtenir un freinage plus faible, dévissez la même bague (dans le sens inverse des aiguilles d'une montre).

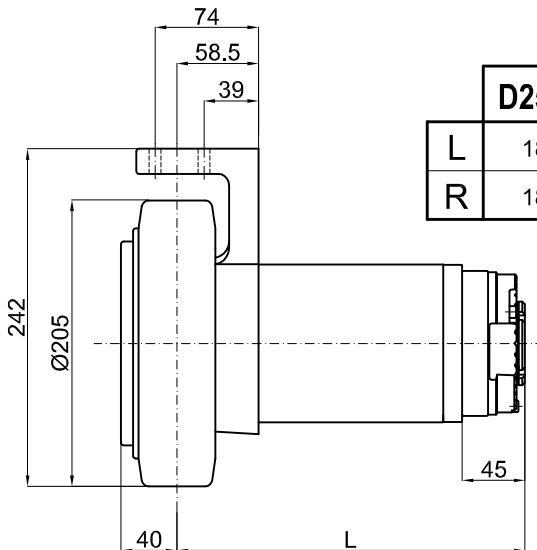
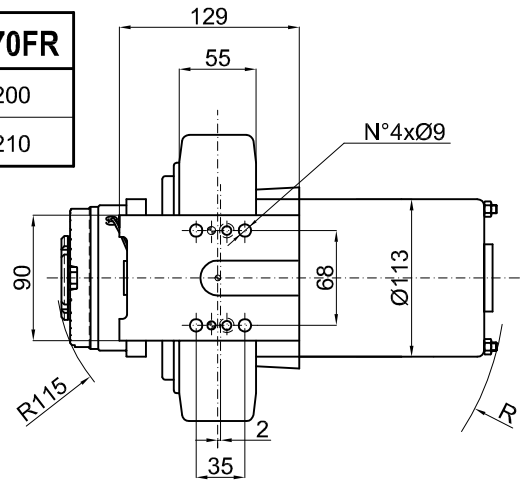
Note : les freins e/m sont déjà réglés lorsque les roues motrices sont assemblées avec un freinage standard.

**FREIN EN PROTECTION IP65
AUTORÉGULÉ**

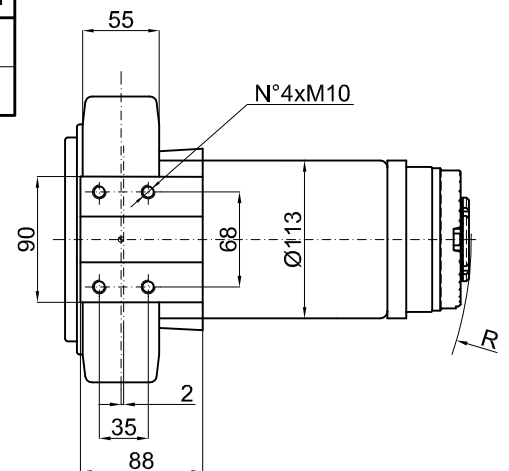
D25 – D10 – M70



	D25FR	D10FR	M70FR
L	146	169	200
R	147	170	210



	D25FM	D10FM	M70FM
L	187	215	250
R	188	217	251



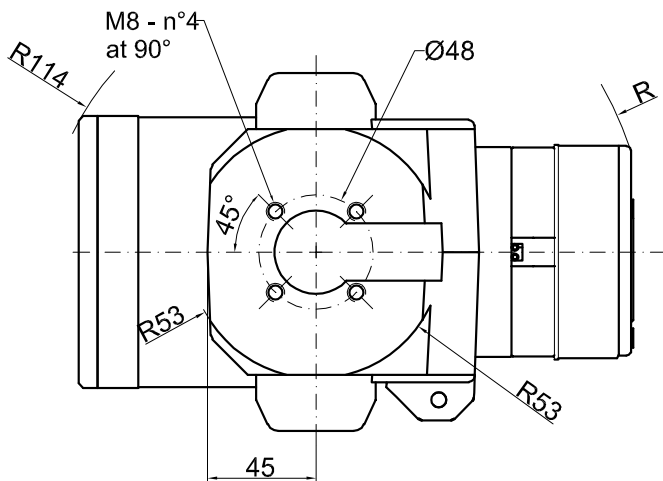
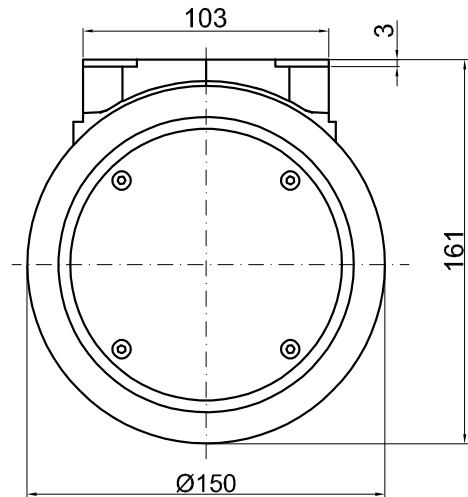
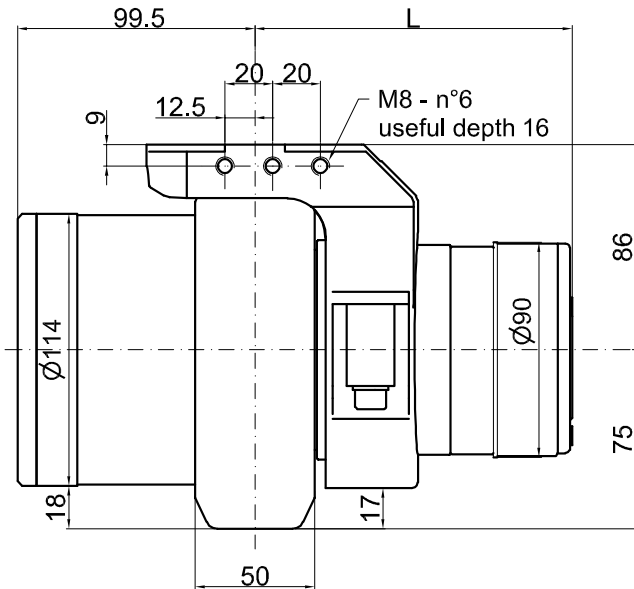
DONNÉES TECHNIQUES

D.C. MOTOR

PUISSANCE	W	250 ÷ 500
TENSION	V	12 ÷ 96
RAPPORT REDUCTION	i	23:1 - 29:1
DIAMETRE ROUE	mm	Ø205x55
COUPLE MAXI A LA ROUE	Nm	290
CHARGE MAXI A LA ROUE	kg	sur demande 400 ÷ 600 sur demande
COUPLE DE FREINAGE	Nm	5 - 10
POIDS	kg	15 ÷ 20

rubber
polyurethane
vulkollan

MR150

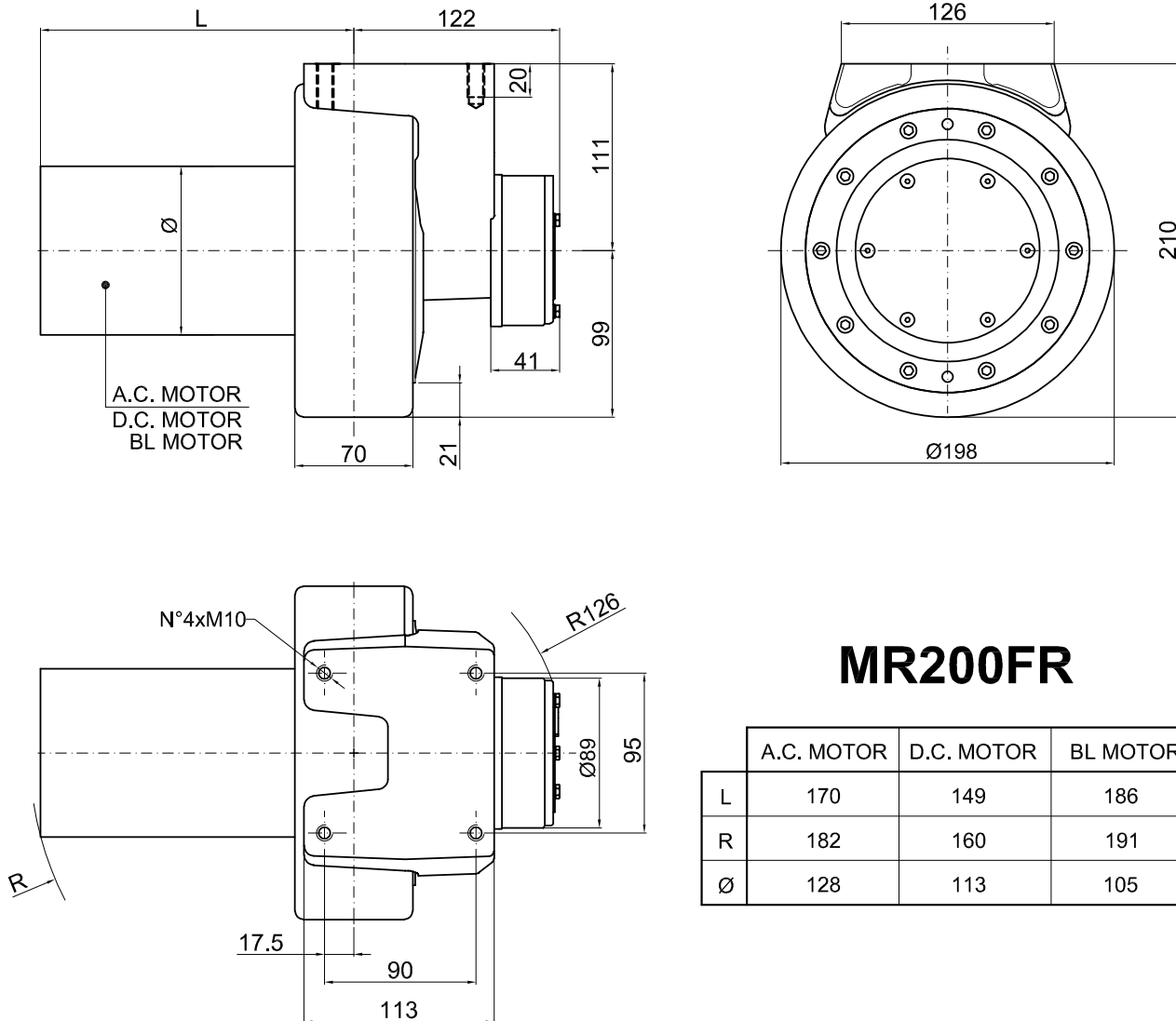


MR150FM

	D.C. MOTOR	BL MOTOR
L	133	155
R	139	158

DONNÉES TECHNIQUES	D.C. MOTOR BL MOTOR	
	PUISSANCE	W
TENSION	V	24
RAPPORT REDUCTION	i	10:1
DIAMETRE ROUE	mm	$\varnothing 150 \times 50$
COUPLE MAXI A LA ROUE	Nm	90
CHARGE MAXI A LA ROUE	kg	sur demande 200 sur demande
COUPLE DE FREINAGE	Nm	5
POIDS	kg	10

MR200

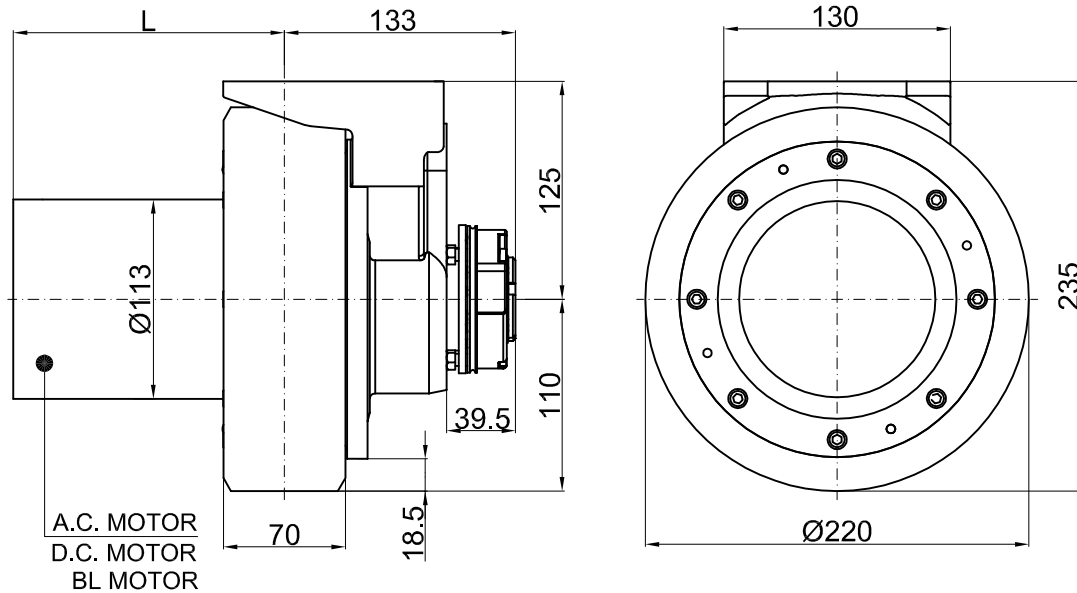


DONNÉES TECHNIQUES

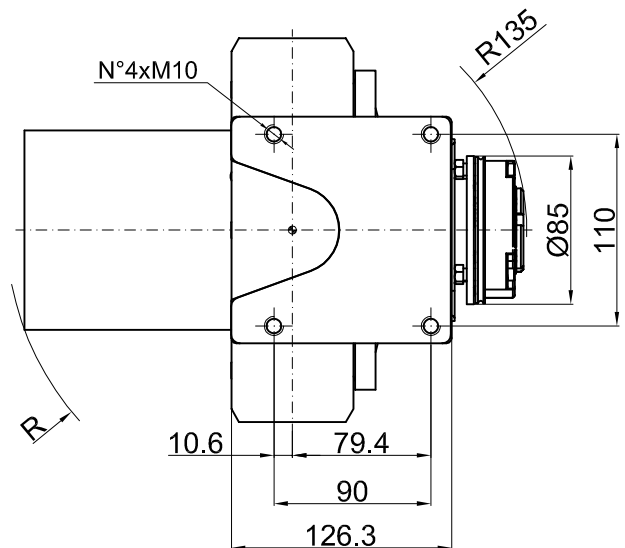
A.C. MOTOR
D.C. MOTOR
BL MOTOR

PUISSANCE	W	400 ÷ 500
TENSION	V	12 ÷ 96
RAPPORT REDUCTION	i	31:1 – 21:1
DIAMETRE ROUE	mm	Ø198x70
COUPLE MAXI A LA ROUE	Nm	180
CHARGE MAXI A LA ROUE	kg	400
	rubber	550
	polyurethane	600
	vulkollan	
COUPLE DE FREINAGE	Nm	5
POIDS	kg	20 ÷ 28

MR220



A.C. MOTOR
D.C. MOTOR
BL MOTOR



MR220FR

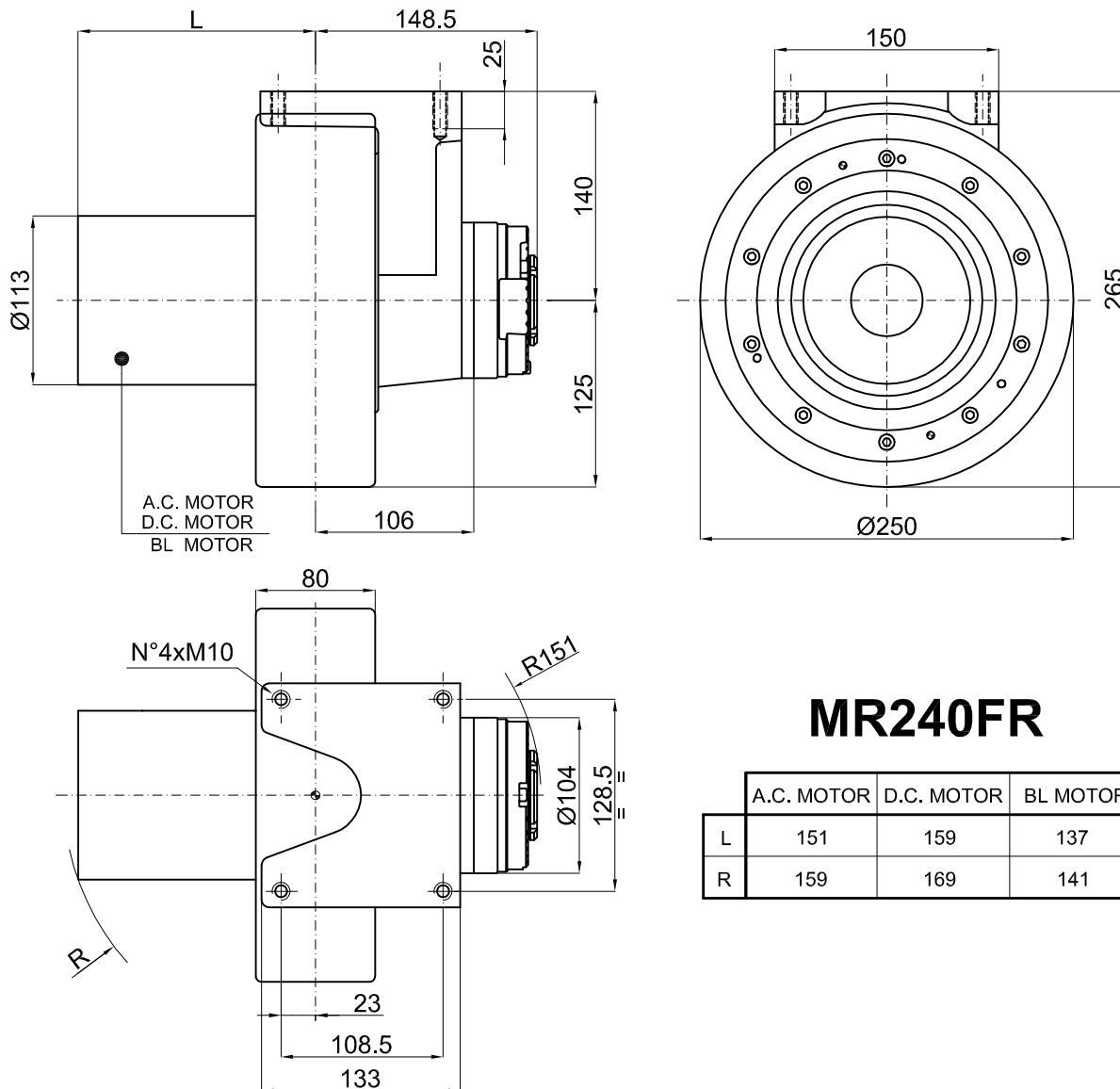
	A.C. MOTOR	D.C. MOTOR	BL MOTOR
L	152	155	166
R	161	165	169

DONNÉES TECHNIQUES

	A.C. MOTOR D.C. MOTOR BL MOTOR	
PUISSANCE	W	500 ÷ 1000
TENSION	V	12 ÷ 96
RAPPORT REDUCTION	i	27:1
DIAMETRE ROUE	mm	Ø220x70
COUPLE MAXI A LA ROUE	Nm	230
CHARGE MAXI A LA ROUE	kg	sur demande 600 sur demande
COUPLE DE FREINAGE	Nm	5
POIDS	kg	23 ÷ 30

rubber
polyurethane
vulkollan

MR240



MR240FR

	A.C. MOTOR	D.C. MOTOR	BL MOTOR
L	151	159	137
R	159	169	141

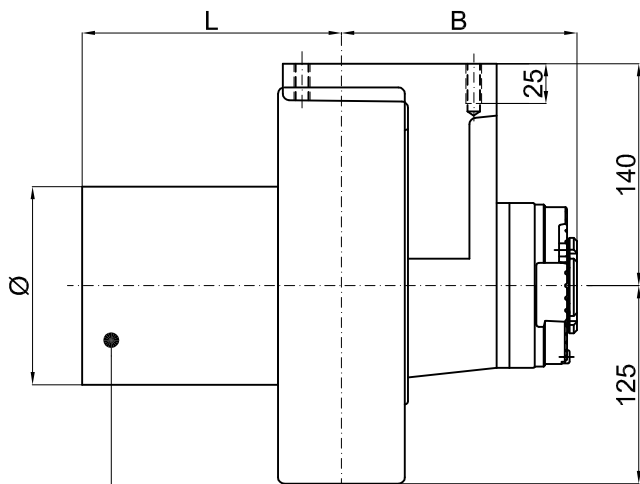
DONNÉES TECHNIQUES

A.C. MOTOR
D.C. MOTOR
BL MOTOR

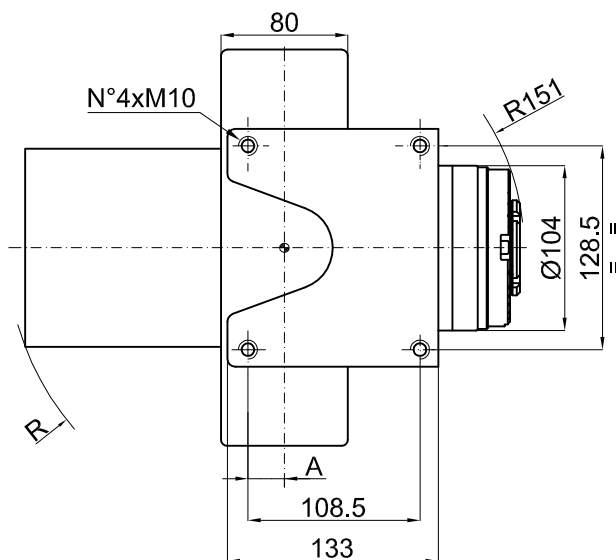
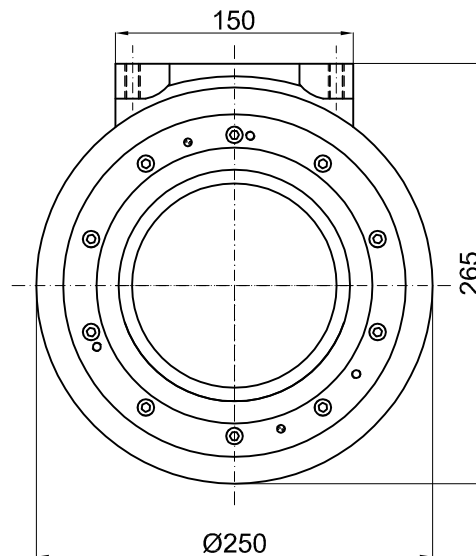
PUISSANCE	W	700 ÷ 1000
TENSION	V	12 ÷ 96
RAPPORT REDUCTION	i	32:1 - 26:1 - 20:1
DIAMETRE ROUE Ø260x80 / Ø260x100 (code de la roue motrice MR245)	mm	Ø250x80 - Ø260x80 Ø260x100
COUPLE MAXI A LA ROUE	Nm	300
CHARGE MAXI A LA ROUE	kg	650 - 700 1000 - 1150 sur demande
COUPLE DE FREINAGE	Nm	10
POIDS	kg	31 ÷ 35

rubber
polyurethane
vulkollan

MR250



A.C. MOTOR (700W-1000W)
A.C. MOTOR (1200W-1500W)
D.C. MOTOR (700W-1000W)

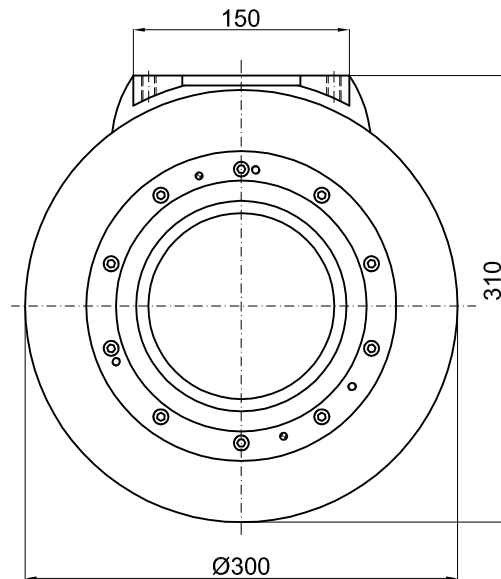
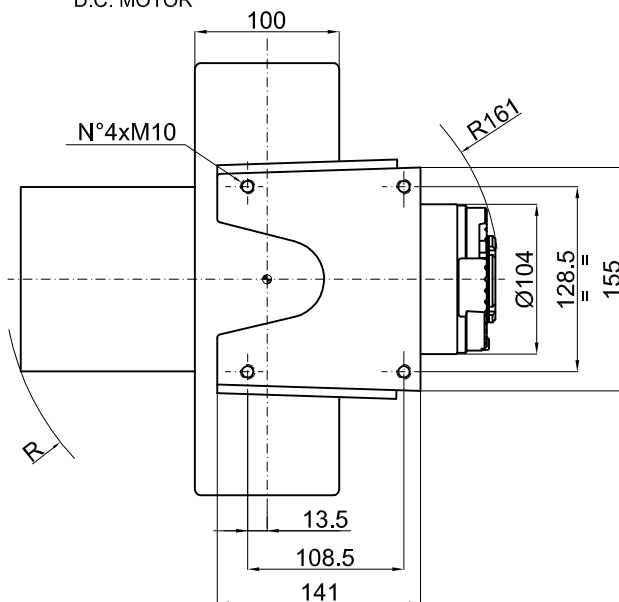
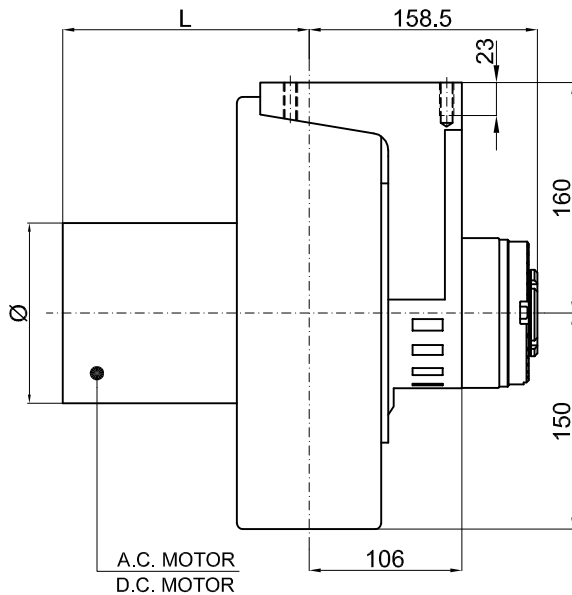


MR250FR

	A.C. MOTOR 700W + 1000W	A.C. MOTOR 1200W + 1500W WHEEL Ø250x100	D.C. MOTOR 700W + 1000W
Ø	125	151	125
L	175	195	164
R	186	209	175
A	23	13	23
B	148.5	158.5	148.5

DONNÉES TECHNIQUES		A.C. MOTOR D.C. MOTOR	
		W	700 ÷ 1500
PUISSANCE		V	12 ÷ 96
TENSION		i	32:1 - 26:1 - 20:1
RAPPORT REDUCTION		mm	Ø250x80 - Ø260x80 Ø250x100 - Ø260x100
ROUE Ø260x80 / Ø260x100 (code de la roue motrice MR255)		Nm	300
COUPLE MAXI A LA ROUE		kg	650 - 700 1000 - 1150 sur demande
CHARGE MAXI A LA ROUE	rubber polyurethane vulkollan		
COUPLE DE FREINAGE		Nm	10
POIDS		kg	32 ÷ 42

MR300

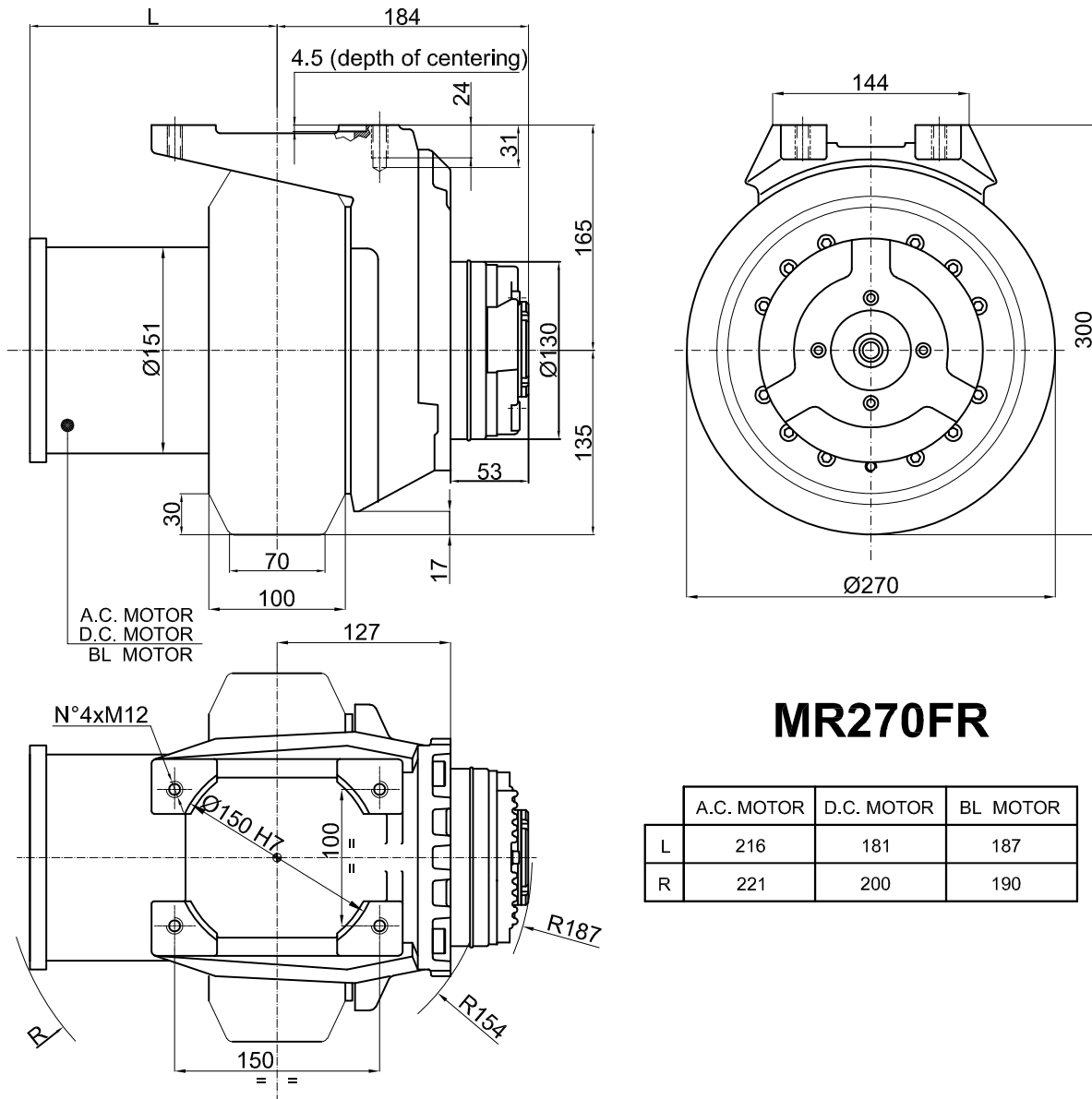


MR300FR

	A.C. MOTOR	D.C. MOTOR
L	195	171
R	209	183
Ø	151	125

DONNÉES TECHNIQUES	A.C. MOTOR D.C. MOTOR	
	PUISSANCE	W
TENSION	V	12 ÷ 96
RAPPORT REDUCTION	i	32:1 - 26:1 - 20:1
DIAMETRE ROUE	mm	Ø300x100
COUPLE MAXI A LA ROUE	Nm	300
CHARGE MAXI A LA ROUE	kg	750 900 - 1350 sur demande
COUPLE DE FREINAGE	Nm	10
POIDS	kg	35 ÷ 45

MR270



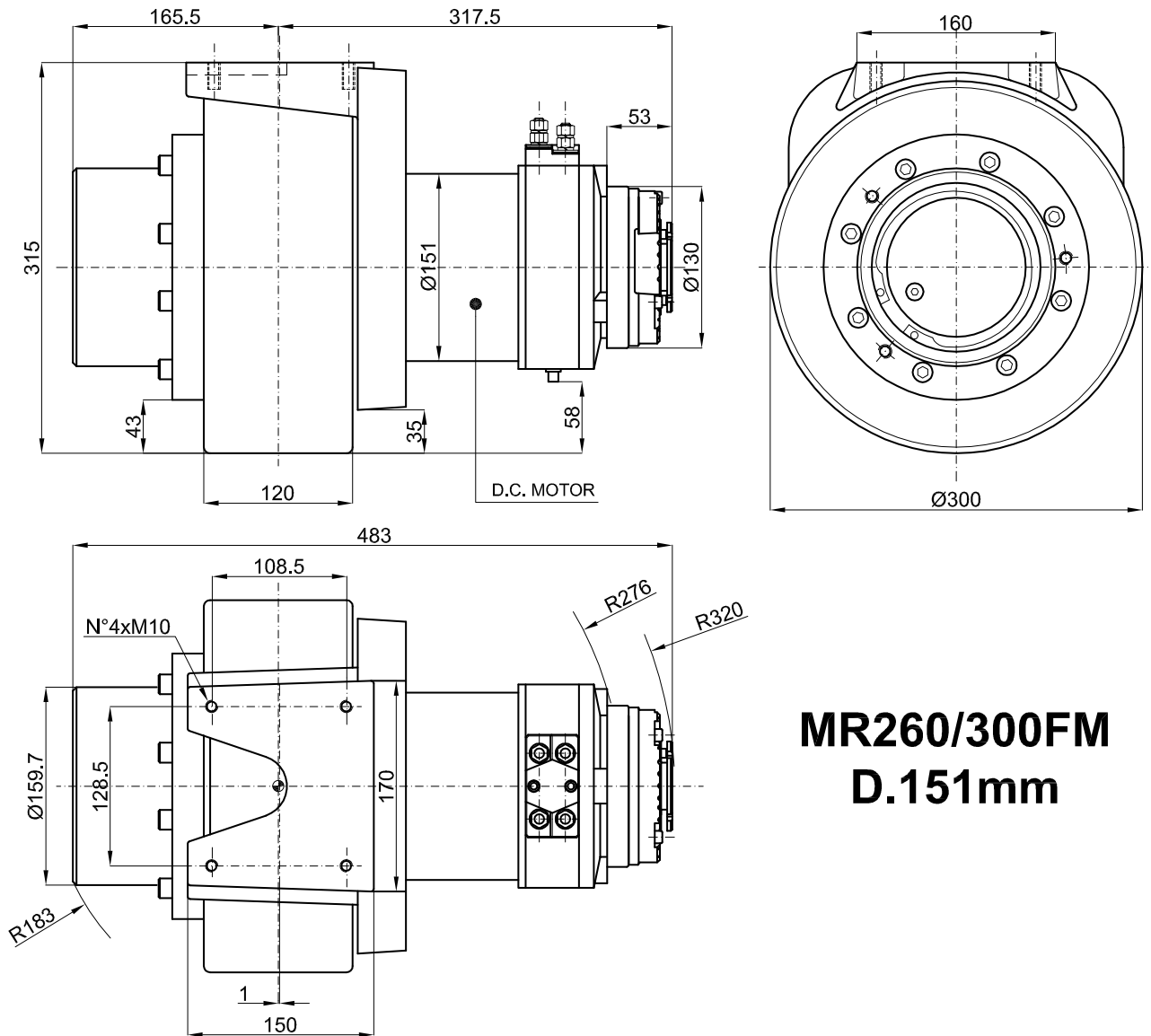
MR270FR

	A.C. MOTOR	D.C. MOTOR	BL MOTOR
L	216	181	187
R	221	200	190

DONNÉES TECHNIQUES

		A.C. MOTOR D.C. MOTOR BL MOTOR	
PUISSANCE		W	1000 ÷ 1500
TENSION		V	24 ÷ 96
RAPPORT REDUCTION		i	34:1 – 23:1
DIAMETRE ROUE		mm	Ø270x100
COUPLE MAXI A LA ROUE		Nm	500
CHARGE MAXI A LA ROUE	rubber polyurethane vulkollan	kg	sur demande 1300 sur demande
COUPLE DE FREINAGE		Nm	20
POIDS		kg	75

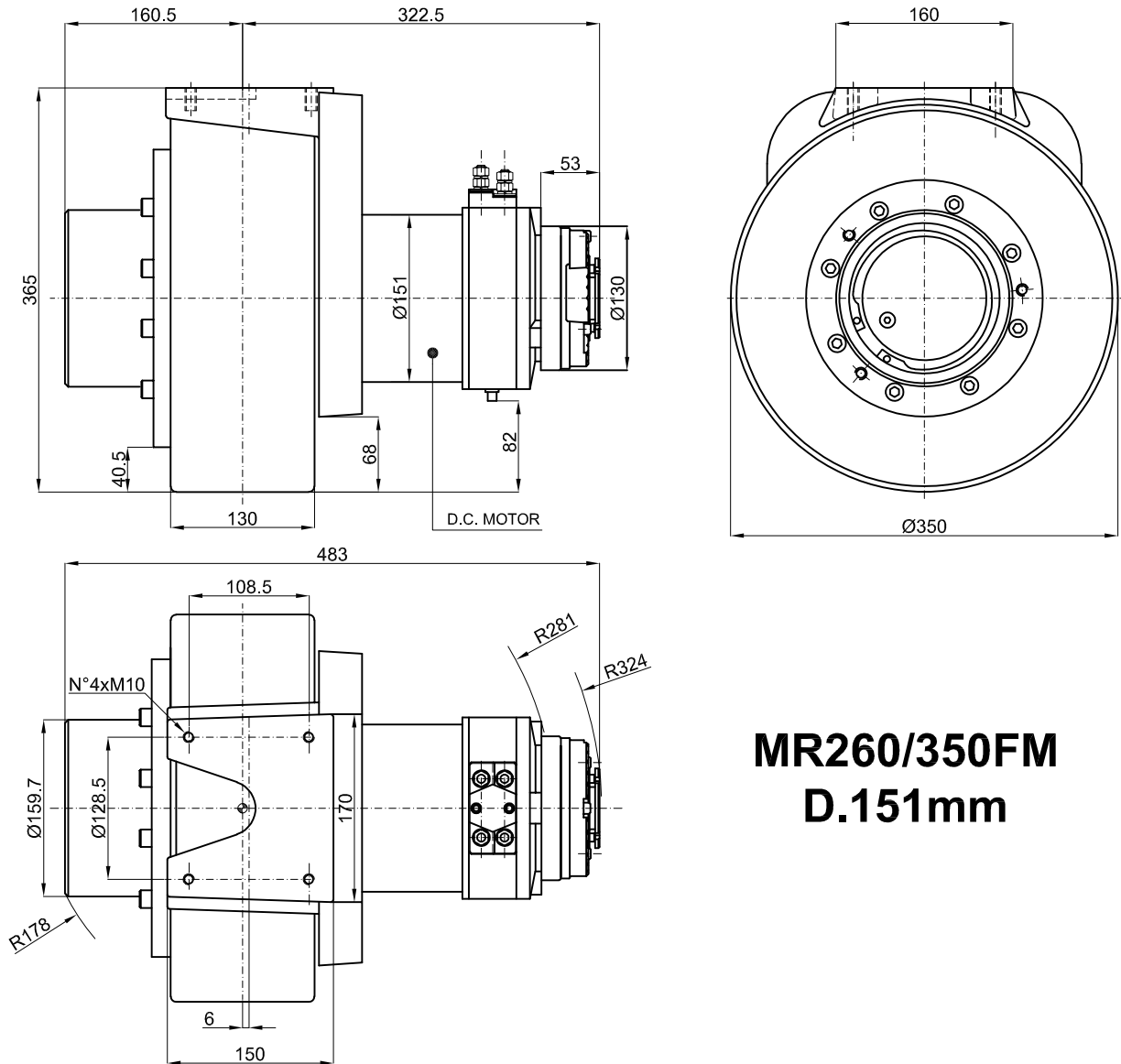
MR260/300 Motor Ø151mm



MR260/300FM D.151mm

DONNÉES TECHNIQUES		D.C. MOTOR	
PUISSANCE	W		1500 ÷ 2500
TENSION	V		24 ÷ 96
RAPPORT REDUCTION	i		30:1
DIAMETRE ROUE	mm		Ø300x120
COUPLE MAXI A LA ROUE	Nm		1200
CHARGE MAXI A LA ROUE	kg	rubber polyurethane vulkollan	sur demande 1000 - 1500 sur demande
COUPLE DE FREINAGE	Nm		20
POIDS	kg		70

MR260/350 Motor Ø151mm

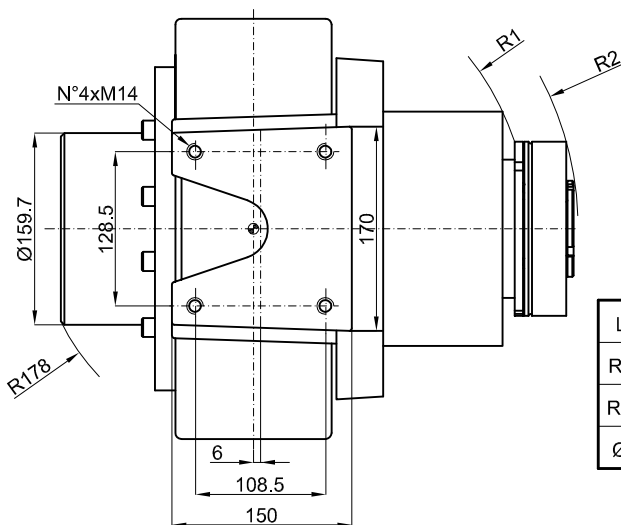
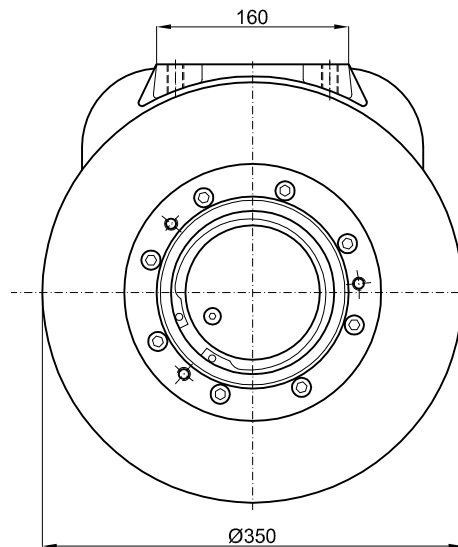
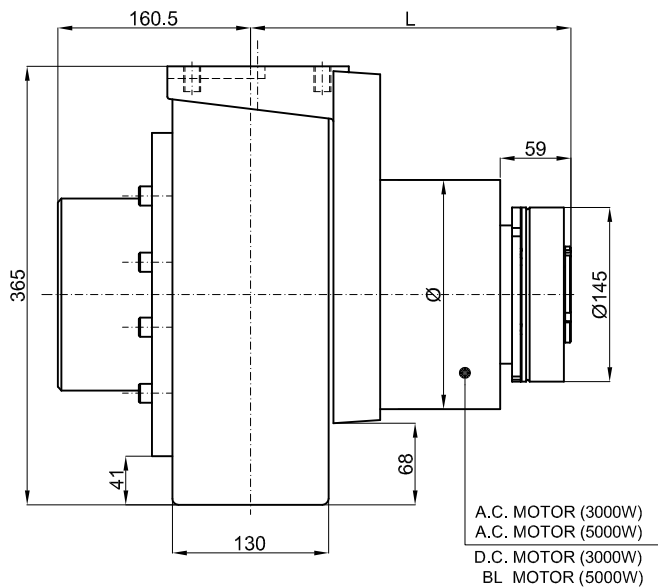


MR260/350FM D.151mm

DONNÉES TECHNIQUES

DONNÉES TECHNIQUES		D.C. MOTOR	
PUISSANCE	W		1500 ÷ 2500
TENSION	V		24 ÷ 96
RAPPORT REDUCTION	i		30:1
DIAMETRE ROUE	mm		Ø350x130
COUPLE MAXI A LA ROUE	Nm		1200
CHARGE MAXI A LA ROUE	kg	rubber polyurethane vulkollan	sur demande 1400 - 2000 sur demande
COUPLE DE FREINAGE	Nm		20
POIDS	kg		83

MR260/350 Motor Ø191mm



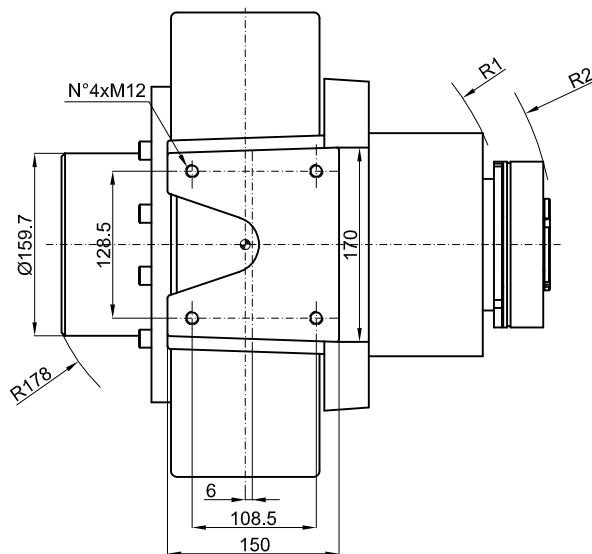
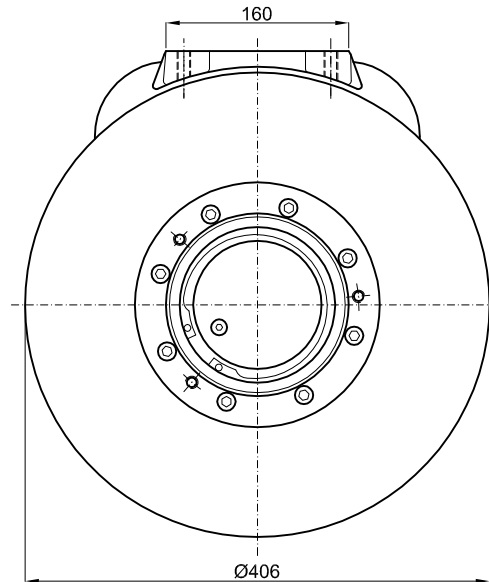
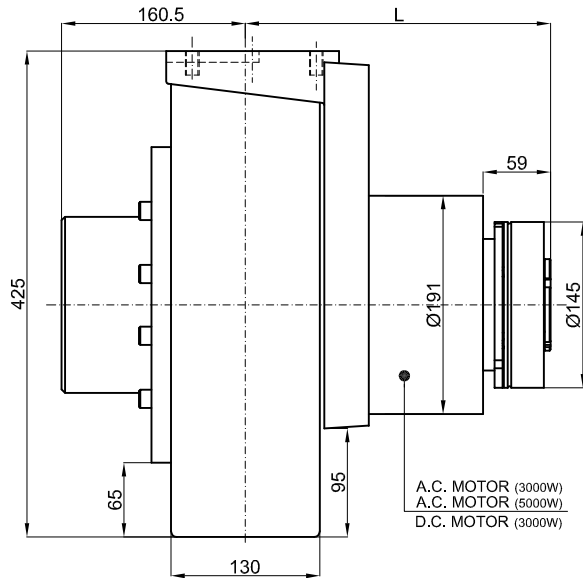
MR260/350FM D.191mm

	A.C. MOTOR 3000W	A.C. MOTOR 5000W	D.C. MOTOR 3000W	BL MOTOR 5000W
L	286	334	268	313
R1	240	293	229	268
R2	289	336	271	315
Ø	191	191	191	167

DONNÉES TECHNIQUES

	A.C. MOTOR D.C. MOTOR BL MOTOR	
PUISSANCE	W	3000 ÷ 5000
TENSION	V	24 ÷ 96
RAPPORT REDUCTION	i	30:1
DIAMETRE ROUE	mm	Ø350x130
COUPLE MAXI A LA ROUE	Nm	1200
CHARGE MAXI A LA ROUE	kg	sur demande 1400 - 2000 sur demande
COUPLE DE FREINAGE	Nm	40
POIDS	kg	123 - 130

MR260/406 Motor Ø191mm



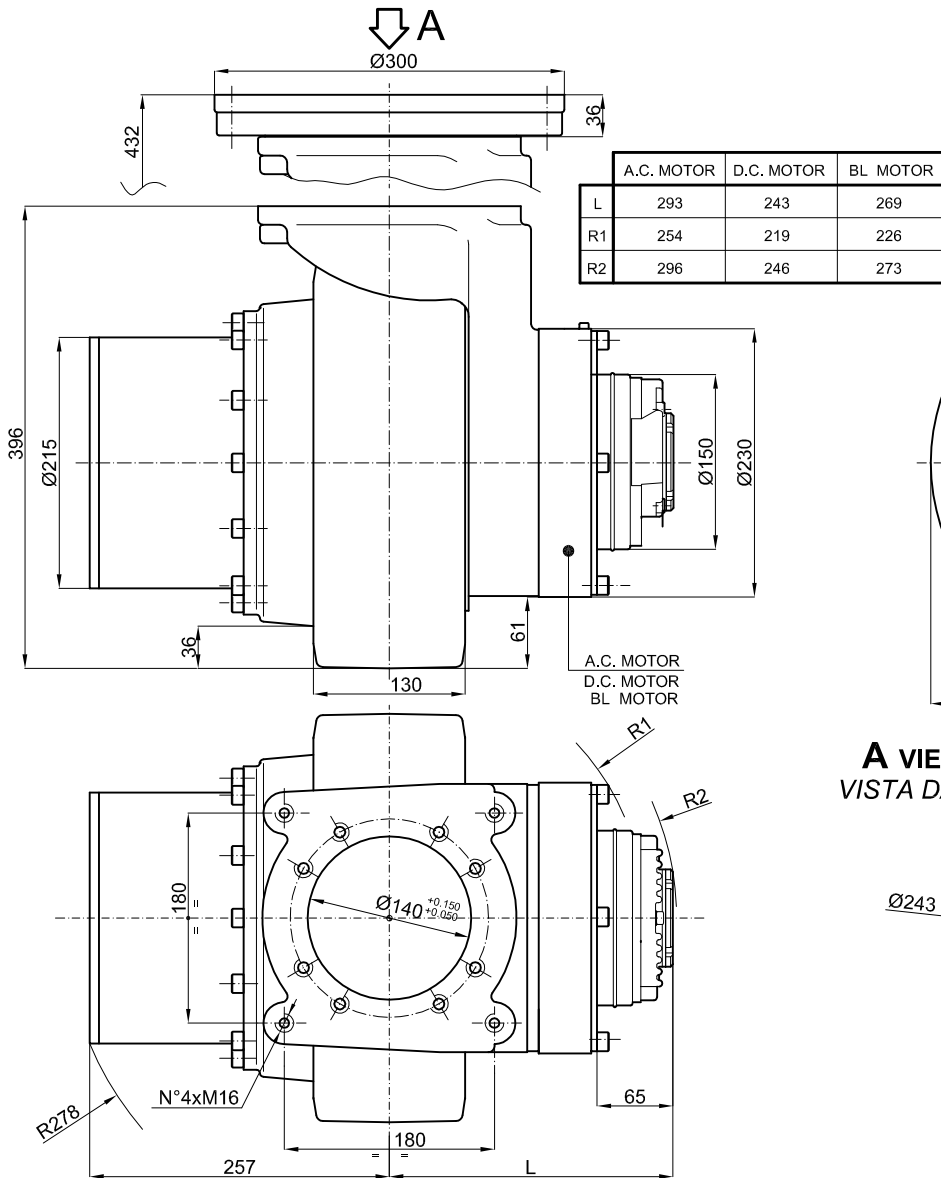
MR260/406FM D.191mm

	A.C. MOTOR 3000W	A.C. MOTOR 5000W	D.C. MOTOR 3000W
L	286	334	268
R1	240	293	229
R2	289	336	271

DONNÉES TECHNIQUES

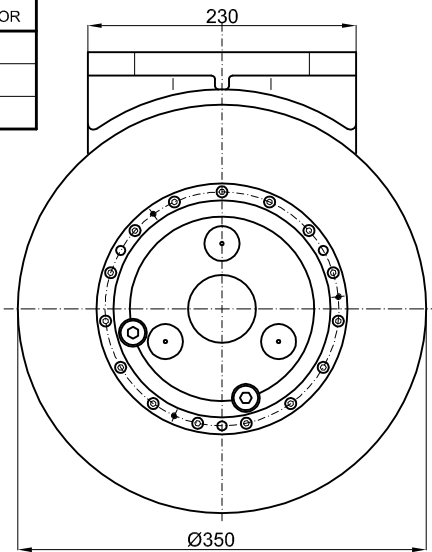
	A.C. MOTOR D.C. MOTOR	
PUISSANCE	W	3000 ÷ 5000
TENSION	V	24 ÷ 96
RAPPORT REDUCTION	i	30:1
DIAMETRE ROUE	mm	Ø406x130
COUPLE MAXI A LA ROUE	Nm	1200
CHARGE MAXI A LA ROUE	kg	sur demande 1800 - 2300 sur demande
		rubber polyurethane vulkollan
COUPLE DE FREINAGE	Nm	40
POIDS	kg	135

MR350

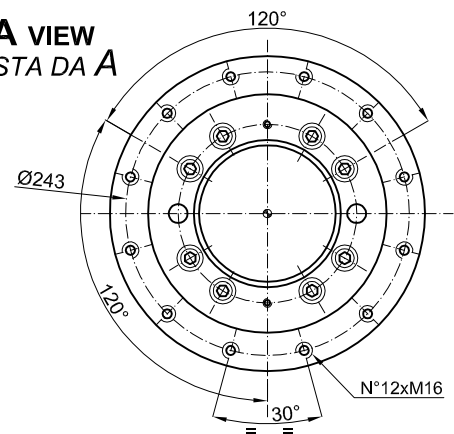


MR350FM

- Slewing bearing on request
- Ralla di rotazione a richiesta



A VIEW VISTA DA A



DONNÉES TECHNIQUES

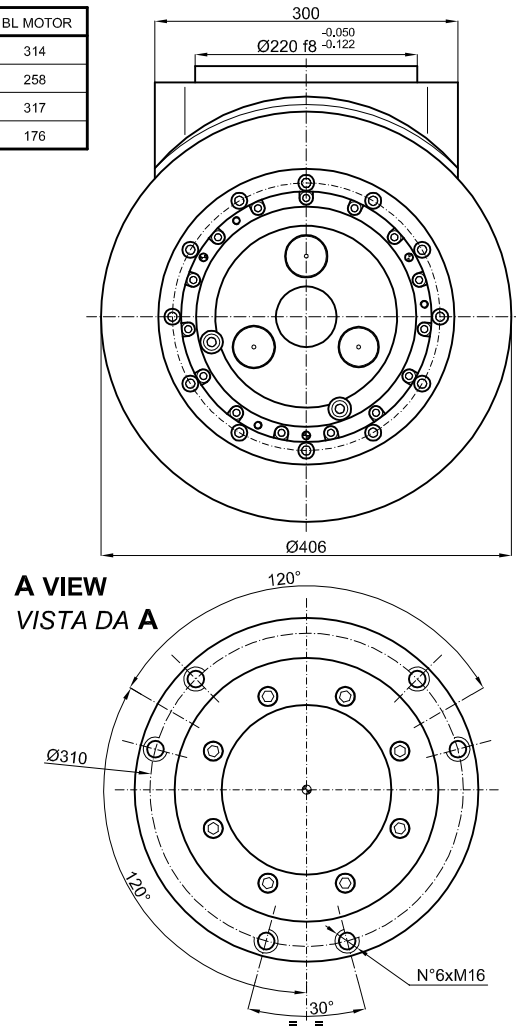
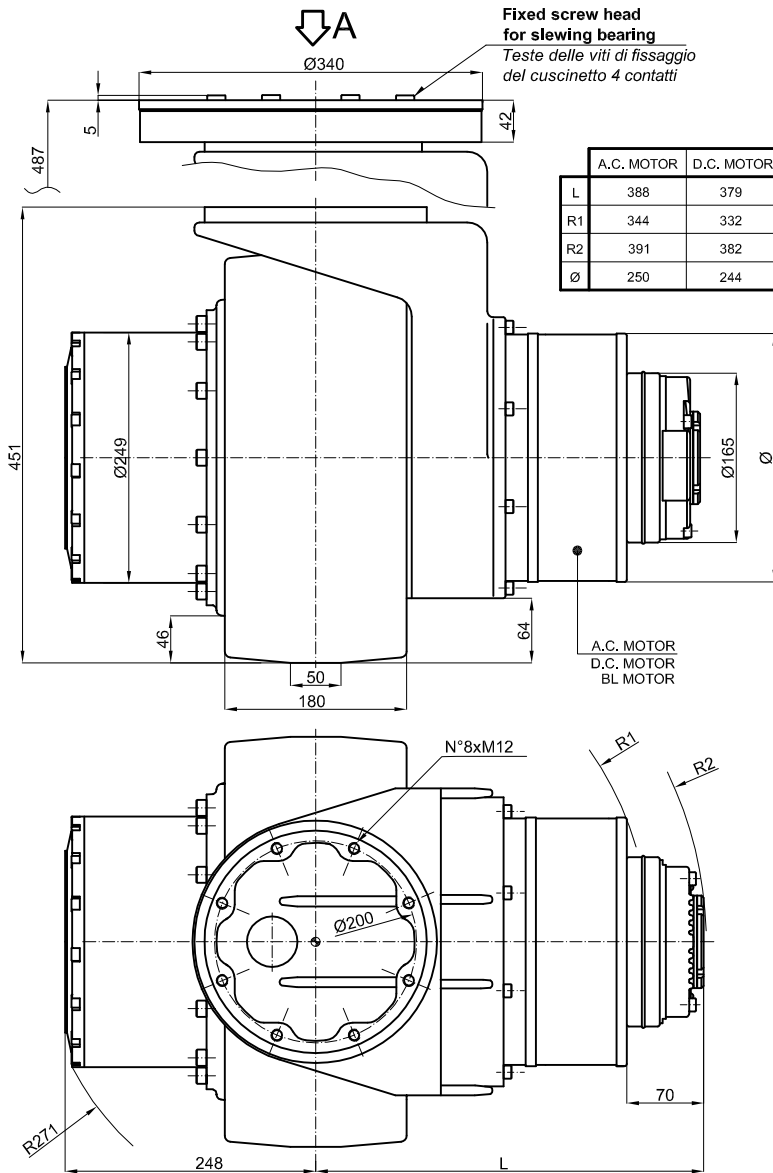
	A.C. MOTOR D.C. MOTOR BL MOTOR	
PUISSANCE	W	3000 ÷ 5000
TENSION	V	24 ÷ 96
RAPPORT REDUCTION	i	30:1 - 22:1
DIAMETRE ROUE	mm	$\varnothing 350 \times 130$
COUPLE MAXI A LA ROUE	Nm	2000
CHARGE MAXI A LA ROUE	kg	sur demande 2600 sur demande
COUPLE DE FREINAGE	Nm	40
POIDS	kg	145

rubber
polyurethane
vulkollan

MR415

MR415FM

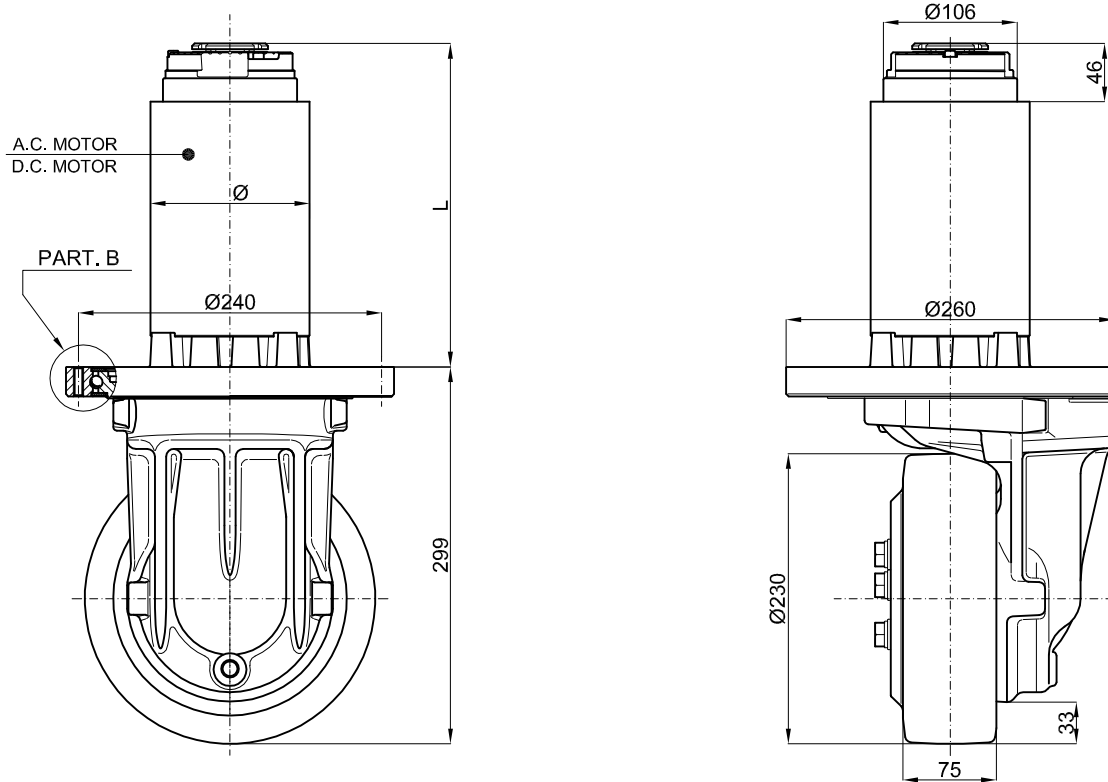
- Slewing bearing on request
- Ralla di rotazione a richiesta



DONNÉES TECHNIQUES

		A.C. MOTOR	D.C. MOTOR	BL MOTOR
PUISSANCE	W	6000 ÷ 12000		
TENSION	V	24 ÷ 96		
RAPPORT REDUCTION	i	25,6:1		
DIAMÈTRE ROUE	mm	Ø406x180		
COUPLE MAXI A LA ROUE	Nm	3600		
CHARGE MAXI A LA ROUE	kg	rubber	sur demande	
		polyurethane	4000	
		vulkollan	sur demande	
COUPLE DE FREINAGE	Nm	75		
POIDS	kg	180 ÷ 210		

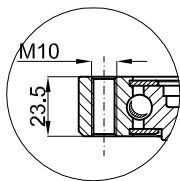
WR125ECO



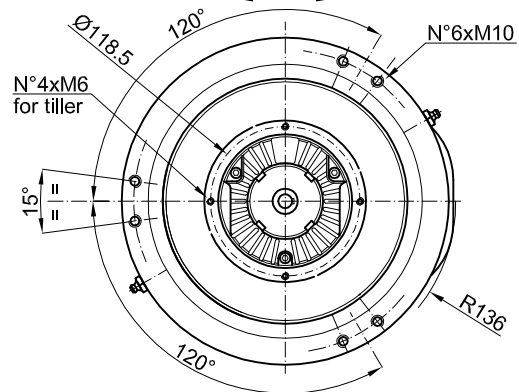
WR125ECOFM

PART. B

	A.C. MOTOR	D.C. MOTOR
L	273,5	256



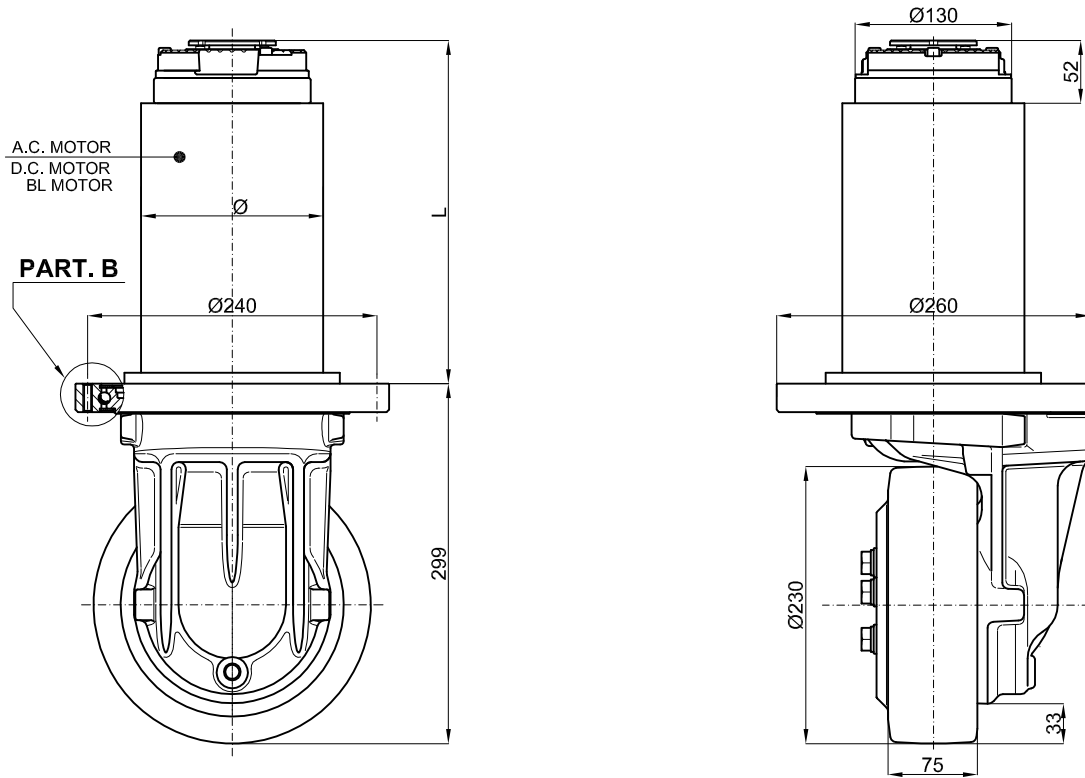
- Motor integral with the gear box
- Motore solidale al riduttore



DONNÉES TECHNIQUES

	A.C. MOTOR D.C. MOTOR	
PUISSANCE	W	800 ÷ 1200
TENSION	V	12 ÷ 96
RAPPORT REDUCTION	i	20:1
DIAMETRE ROUE	mm	Ø230x75
COUPLE MAXI A LA ROUE	Nm	400
CHARGE MAXI A LA ROUE	kg	430
	rubber polyurethane vulkollan	1000
COUPLE DE FREINAGE	Nm	10
POIDS	kg	49 ÷ 60

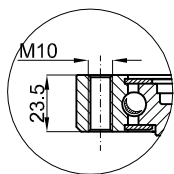
WR151ECO



WR151ECOFM

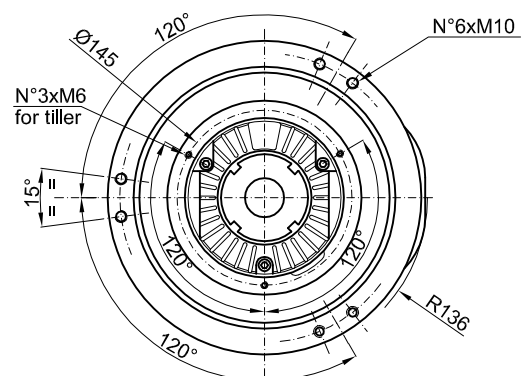
PART. B

	A.C. MOTOR	D.C. MOTOR	BL MOTOR
L	285	333	278
Ø	151	151	155



- Motor integral with the gear box

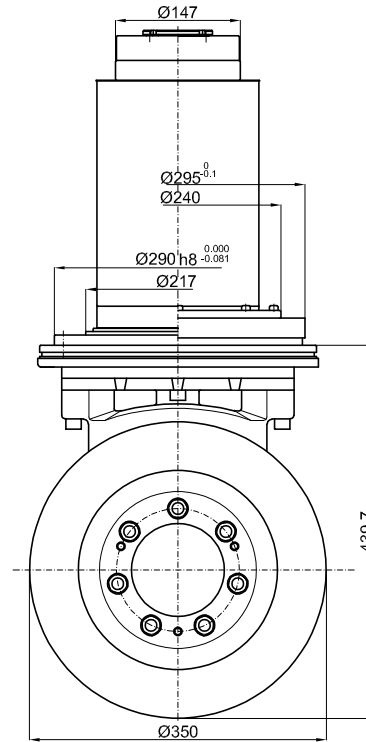
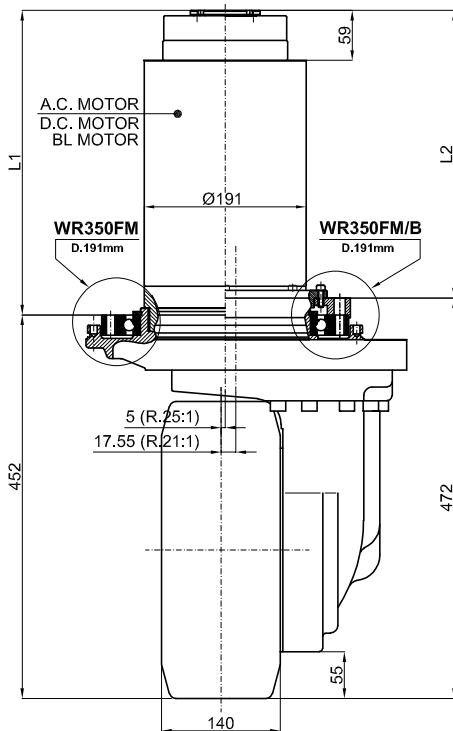
- Motore solidale al riduttore



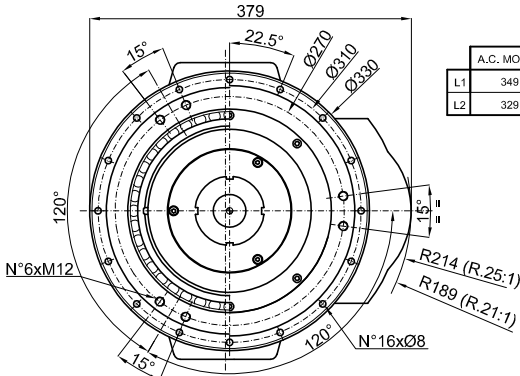
DONNÉES TECHNIQUES

	A.C. MOTOR D.C. MOTOR BL MOTOR	
PUISSANCE	W	1500 ÷ 2000
TENSION	V	24 ÷ 96
RAPPORT REDUCTION	i	20:1
DIAMETRE ROUE	mm	Ø230x75
COUPLE MAXI A LA ROUE	Nm	400
CHARGE MAXI A LA ROUE	kg	430
	rubber polyurethane vulkollan	1000 sur demande
COUPLE DE FREINAGE	Nm	20
POIDS	kg	61 ÷ 70

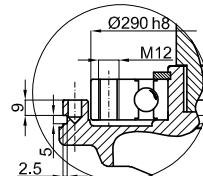
WR350 Motor Ø191mm



WR350FM-D.191mm



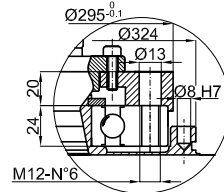
	A.C. MOTOR	D.C. MOTOR	BL MOTOR
L1	349	359	-
L2	329	339	306



- Motor integral with the gear box

- Motore solidale al riduttore

WR350FM/B-D.191mm



- Motor integral with the slewing bearing

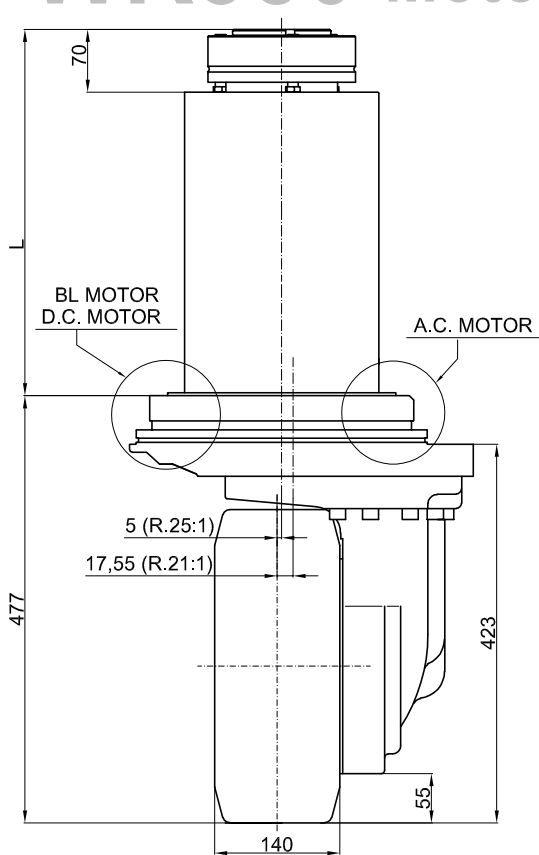
- Motore solidale alla ralla di rotazione

DONNÉES TECHNIQUES

	A.C. MOTOR D.C. MOTOR BL MOTOR	
PUISSANCE	W	3000 ÷ 5000
TENSION	V	24 ÷ 96
RAPPORT REDUCTION	i	21:1 - 25:1
DIAMETRE ROUE	mm	Ø350x140
COUPLE MAXI A LA ROUE	Nm	2200
CHARGE MAXI A LA ROUE	kg	sur demande sur demande 3000
COUPLE DE FREINAGE	Nm	40
POIDS	kg	142 ÷ 167

rubber
polyurethane
vulkollan

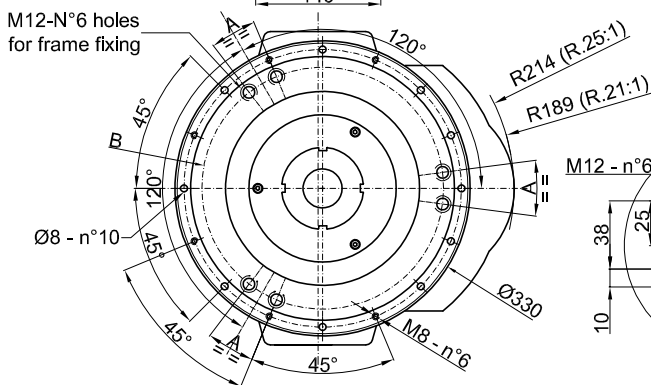
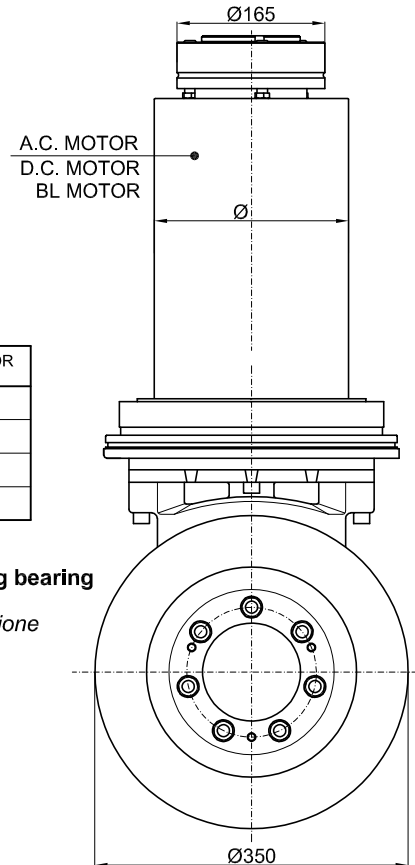
WR350 Motor Ø244mm



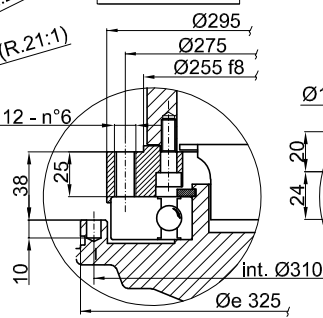
WR350FM/B D.244mm

	A.C. MOTOR 7000W	D.C. MOTOR 7000W	BL MOTOR 10000W
Ø	217	251	219
L	359	409	416
A	15°	40°	15°
B	270	275	270

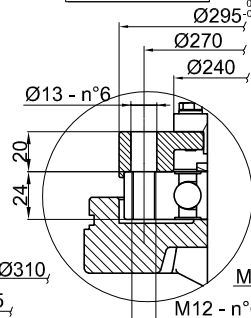
- Motor integral with the slewing bearing
- Motore solidale alla ralla di rotazione



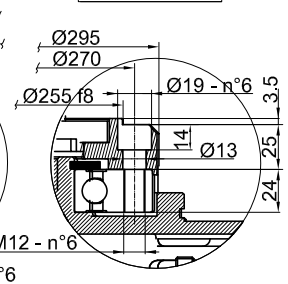
D.C. MOTOR



BL MOTOR



A.C. MOTOR

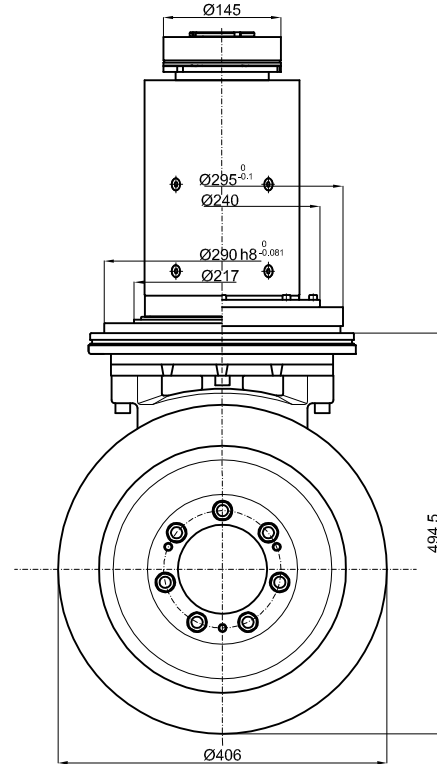
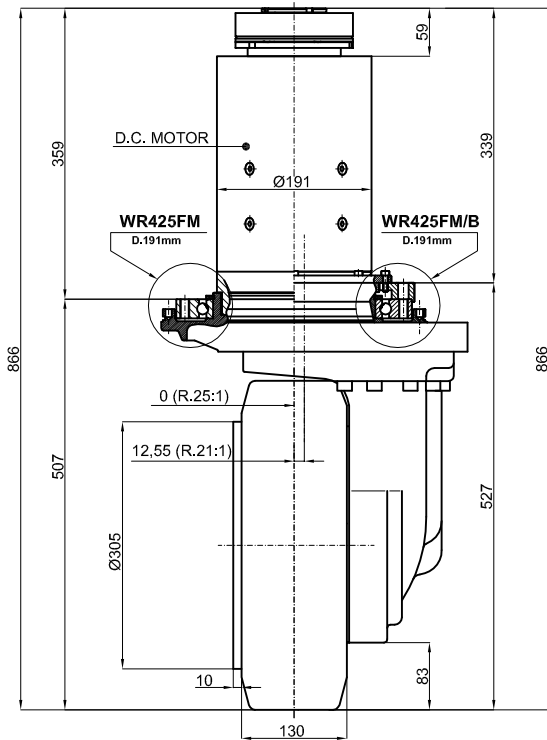


DONNÉES TECHNIQUES

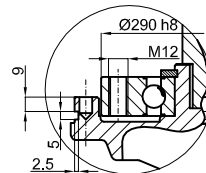
	A.C. MOTOR D.C. MOTOR BL MOTOR
PUISSANCE	W 5000 ÷ 10000
TENSION	V 24 ÷ 96
RAPPORT REDUCTION	i 21:1 - 25:1
DIAMETRE ROUE	mm Ø350x140
COUPLE MAXI A LA ROUE	Nm 2200
CHARGE MAXI A LA ROUE	Kg sur demande sur demande
COUPLE DE FREINAGE	Nm 75
POIDS	kg 180 ÷ 200

rubber
polyurethane
vulkollan

WR425 Motor Ø191mm



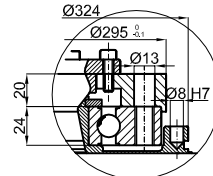
WR425FM-D.191mm



- Motor integral with the gear box

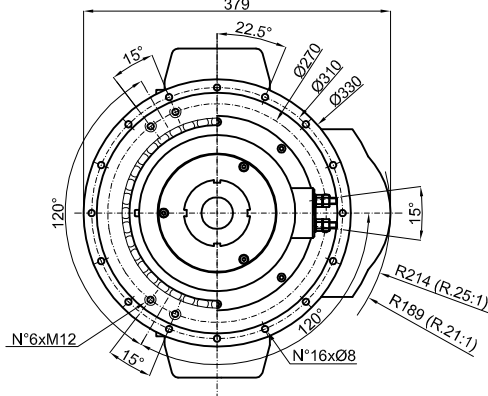
- Motore solidale al riduttore

WR425FM/B-D.191mm



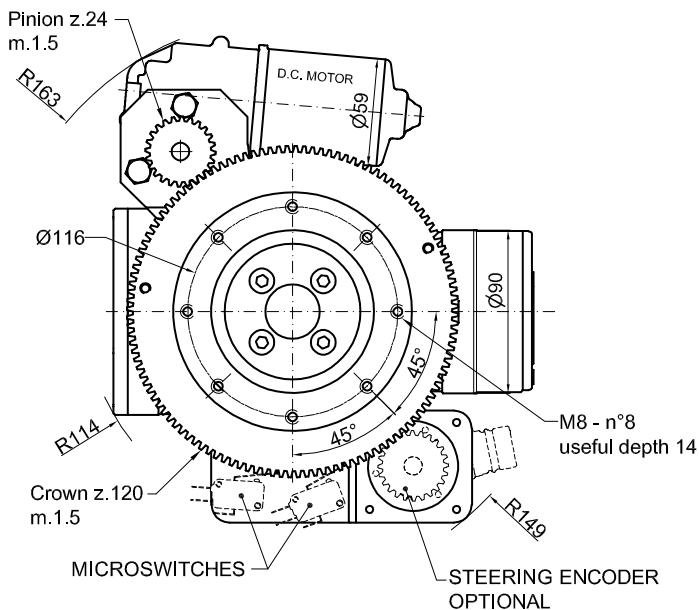
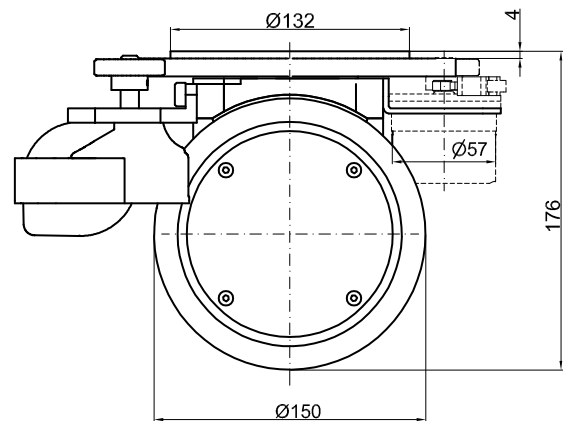
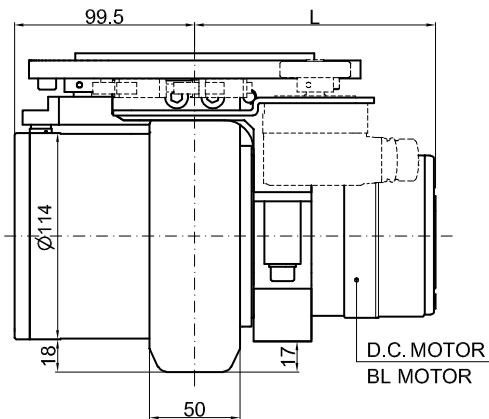
- Motor integral with the slewing bearing

- Motore solidale alla ralla di rotazione



DONNÉES TECHNIQUES		D.C. MOTOR	
PUISSANCE		W	3000 ÷ 5000
TENSION		V	24 ÷ 96
RAPPORT REDUCTION		i	21:1 - 25:1
DIAMETRE ROUE		mm	Ø406x130
COUPLE MAXI A LA ROUE		Nm	2200
CHARGE MAXI A LA ROUE	rubber polyurethane vulkollan	kg	sur demande sur demande 3100
COUPLE DE FREINAGE		Nm	40
POIDS		kg	160 ÷ 180

MR150S



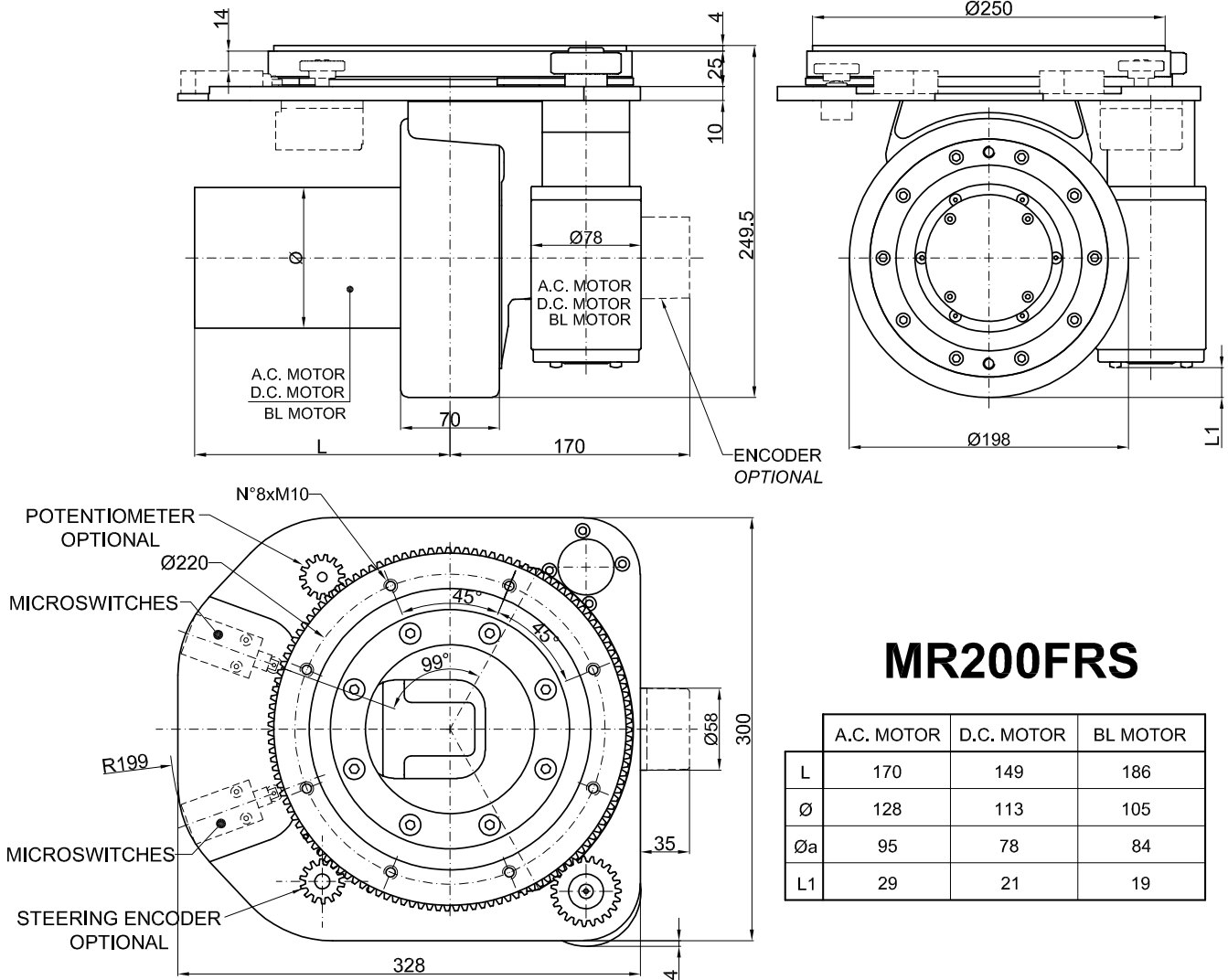
MR150FMS

	D.C. MOTOR	BL MOTOR
L	133	155

TECHNICAL DATAS – DATI TECNICI	D.C. MOTOR BL MOTOR	
	POWER - POTENZA	W
VOLTAGE - TENSIONE	V	24
GEAR RATIO – RAPPORTO DI RIDUZIONE	i	10:1
STEERING SYSTEM RATIO – RAPPORTO DI RIDUZIONE SISTEMA STERZO	i	345
WHEEL - RUOTA	mm	Ø150x50
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm	90
MAX WHEEL LOAD – CARICO MAX SULLA RUOTA (the value refers to a moving steering, not with stopped vehicle) (il valore è riferito per una sterzata in movimento, non con veicolo fermo)	kg	on request 200 on request
BRAKE TORQUE – COPPIA FRENO	Nm	5
WEIGHT - PESO	kg	13 ÷ 16

rubber – gomma
polyurethane – poliuretano
vulkollan – vulkollan

MR200S



MR200FRS

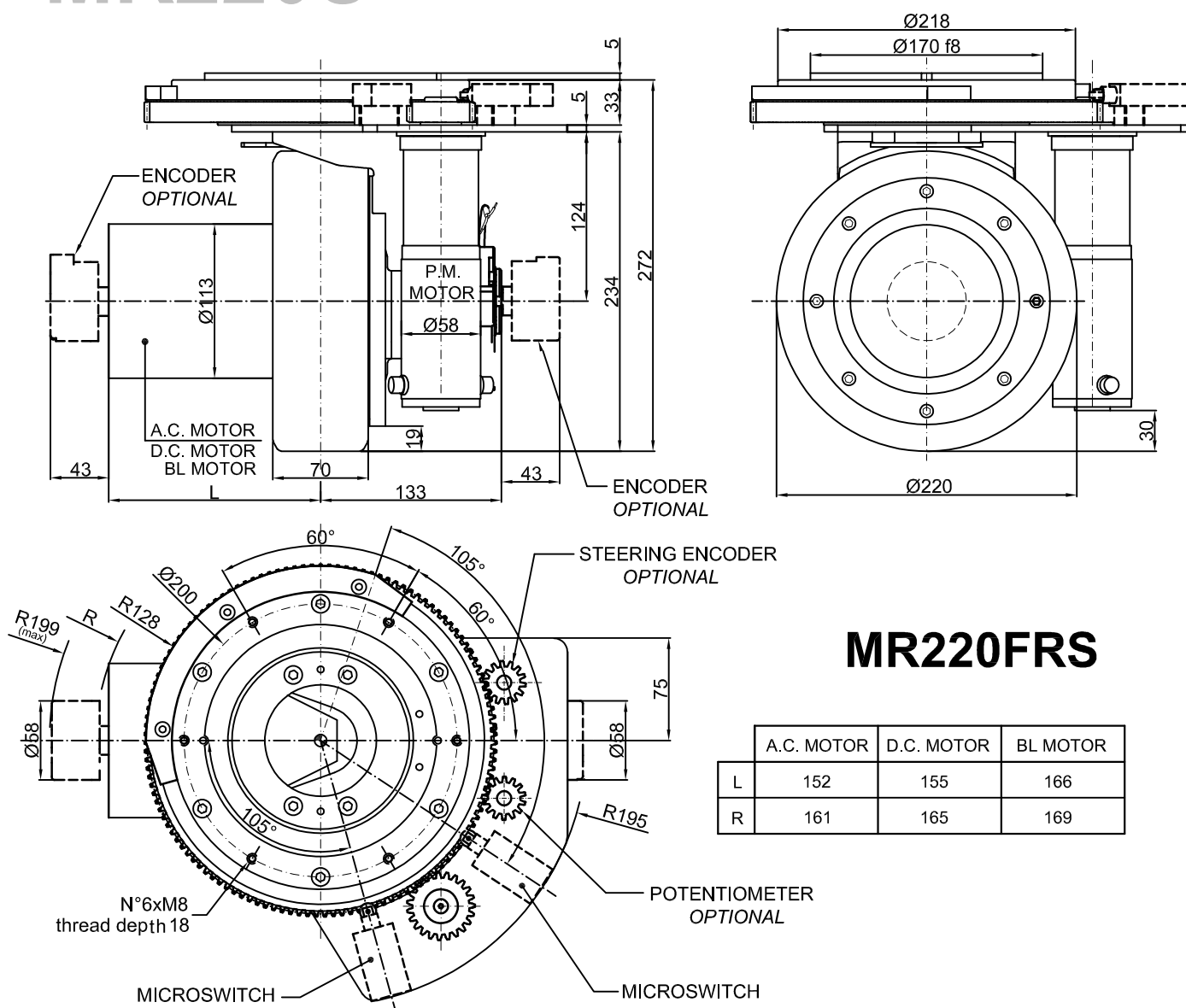
	A.C. MOTOR	D.C. MOTOR	BL MOTOR
L	170	149	186
Ø	128	113	105
Øa	95	78	84
L1	29	21	19

TECHNICAL DATAS – DATI TECNICI

	A.C. MOTOR D.C. MOTOR BL MOTOR	
POWER - POTENZA	W	400 ÷ 500
VOLTAGE - TENSIONE	V	12 ÷ 96
GEAR RATIO – RAPPORTO DI RIDUZIONE	i	31:1 – 21:1
STEERING SYSTEM RATIO – RAPPORTO DI RIDUZIONE SISTEMA STERZO	i	254
WHEEL - RUOTA	mm	Ø198x70
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm	180
MAX WHEEL LOAD – CARICO MAX SULLA RUOTA (the value refers to a moving steering, not with stopped vehicle) (il valore è riferito per una sterzata in movimento, non con veicolo fermo)	kg	400
		550
		600
BRAKE TORQUE – COPPIA FRENO	Nm	5
WEIGHT - PESO	kg	38 ÷ 45

rubber – gomma
polyurethane – poliuretano
vulkollan – vulkollan

MR220S



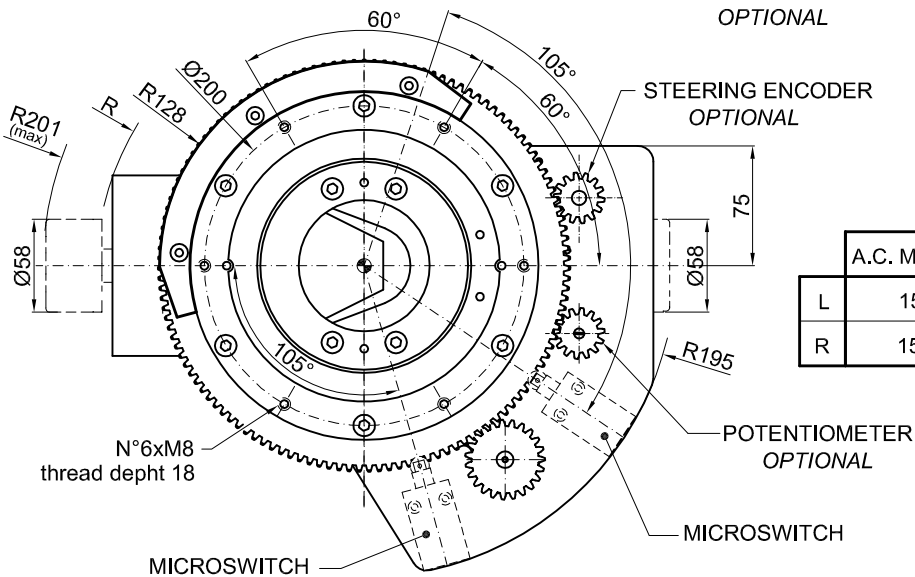
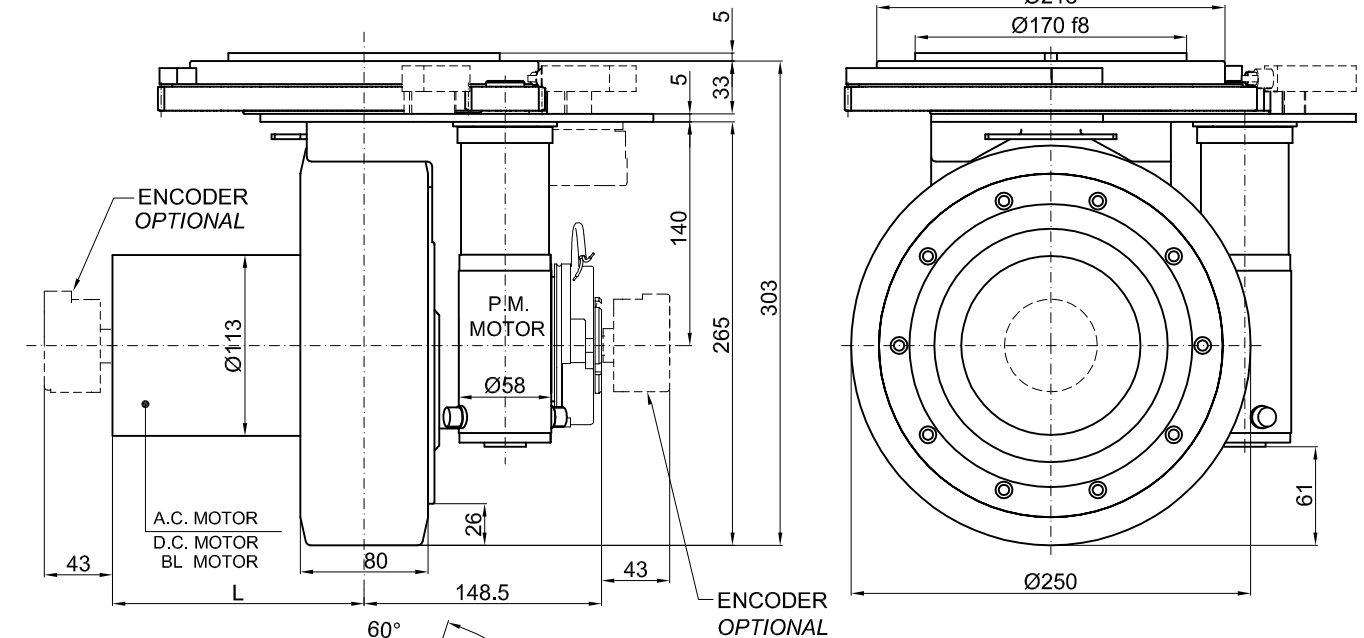
MR220FRS

	A.C. MOTOR	D.C. MOTOR	BL MOTOR
L	152	155	166
R	161	165	169

TECHNICAL DATAS – DATI TECNICI

	A.C. MOTOR D.C. MOTOR BL MOTOR	
POWER - POTENZA	W	500 ÷ 1000
VOLTAGE - TENSIONE	V	12 ÷ 96
GEAR RATIO – RAPPORTO DI RIDUZIONE	i	27:1
STEERING SYSTEM RATIO – RAPPORTO DI RIDUZIONE SISTEMA STERZO	i	442
WHEEL - RUOTA	mm	Ø220x70
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm	230
MAX WHEEL LOAD – CARICO MAX SULLA RUOTA (the value refers to a moving steering, not with stopped vehicle) (il valore è riferito per una sterzata in movimento, non con veicolo fermo)	kg	on request 600 on request
BRAKE TORQUE – COPPIA FRENO	Nm	5
WEIGHT - PESO	kg	39 ÷ 46

MR240S



MR240FRS

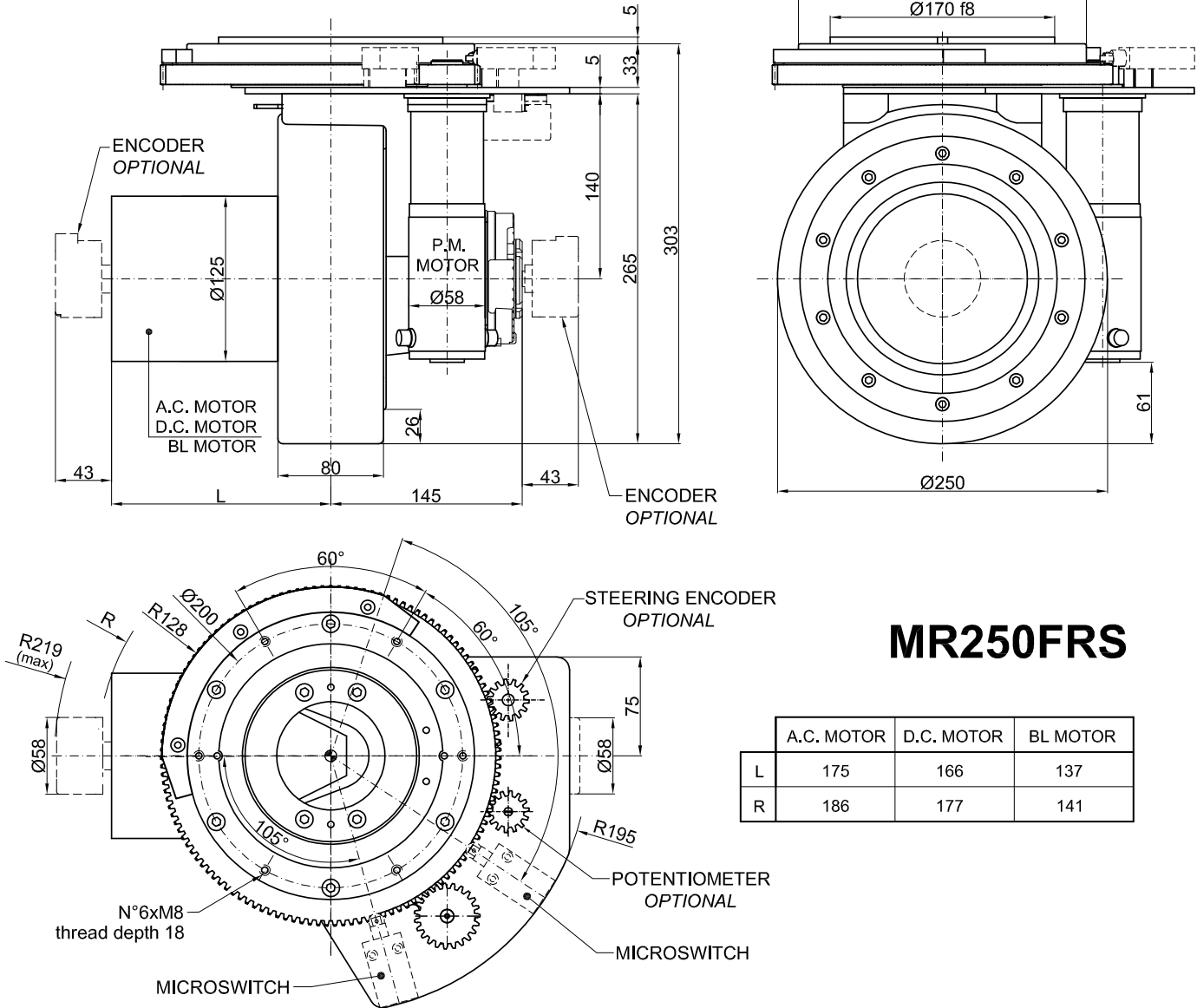
	A.C. MOTOR	D.C. MOTOR	BL MOTOR
L	151	159	137
R	159	169	141

TECHNICAL DATAS – DATI TECNICI

	A.C. MOTOR D.C. MOTOR BL MOTOR	
POWER - POTENZA	W	700 ÷ 1000
VOLTAGE - TENSIONE	V	12 ÷ 96
GEAR RATIO – RAPPORTO DI RIDUZIONE	i	32:1 – 26:1 – 20:1
STEERING SYSTEM RATIO – RAPPORTO DI RIDUZIONE SISTEMA STERZO	i	442
WHEEL - RUOTA	mm	Ø250x80 - Ø260x80
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm	300
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA (the value refers to a moving steering, not with stopped vehicle) (il valore è riferito per una sterzata in movimento, non con veicolo fermo)	kg	650 - 700 1000 - 1150 on request
BRAKE TORQUE – COPPIA FRENO	Nm	10
WEIGHT - PESO	kg	50

rubber – gomma
polyurethane – poliuretano
vulkollan – vulkollan

MR250S



MR250FRS

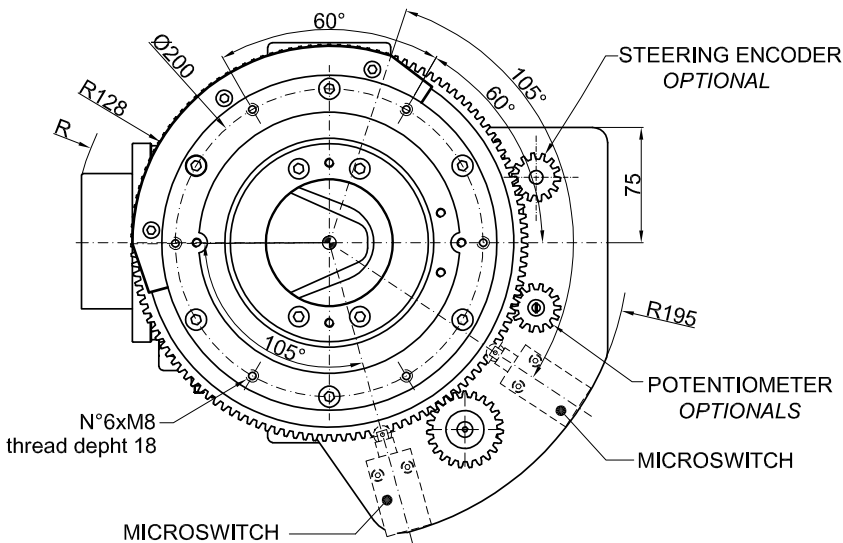
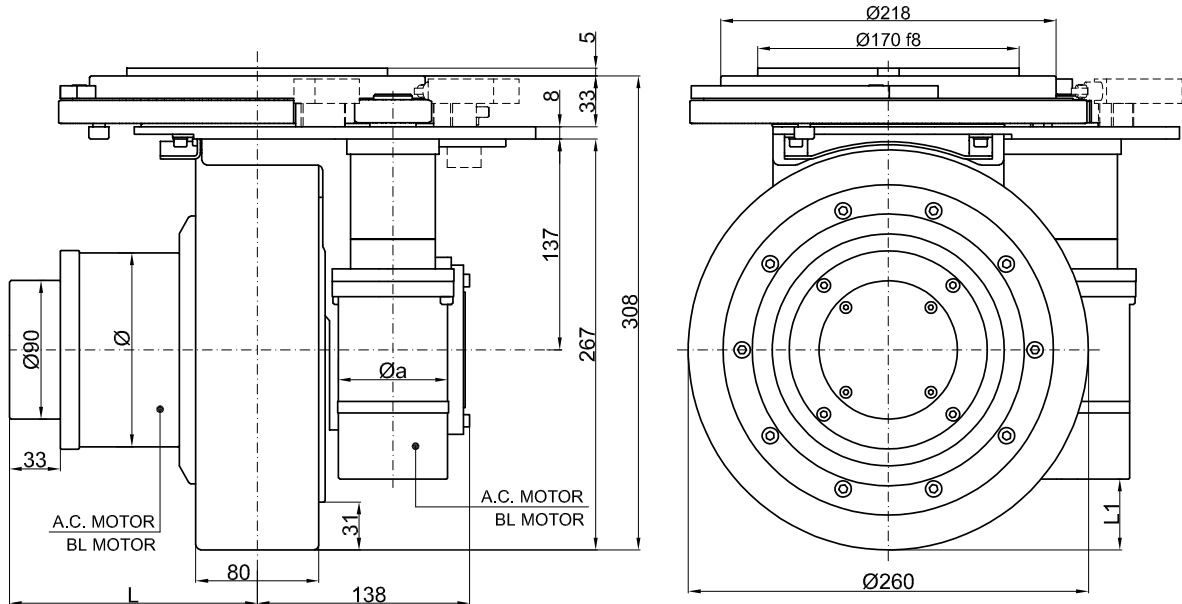
	A.C. MOTOR	D.C. MOTOR	BL MOTOR
L	175	166	137
R	186	177	141

TECHNICAL DATAS – DATI TECNICI

	A.C. MOTOR D.C. MOTOR BL MOTOR	
POWER - POTENZA	W	700 ÷ 1000
VOLTAGE - TENSIONE	V	12 ÷ 96
GEAR RATIO – RAPPORTO DI RIDUZIONE	i	32:1 – 26:1 – 20:1
STEERING SYSTEM RATIO – RAPPORTO DI RIDUZIONE SISTEMA STERZO	i	442
WHEEL - RUOTA	mm	Ø250x80 - Ø260x80
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm	300
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA (the value refers to a moving steering, not with stopped vehicle) (il valore è riferito per una sterzata in movimento, non con veicolo fermo)	kg	650 - 700 1000 - 1150 on request
BRAKE TORQUE – COPPIA FRENO	Nm	10
WEIGHT - PESO	kg	51 ÷ 57

rubber – gomma
polyurethane – poliuretano
vulkollan – vulkollan

MR255S

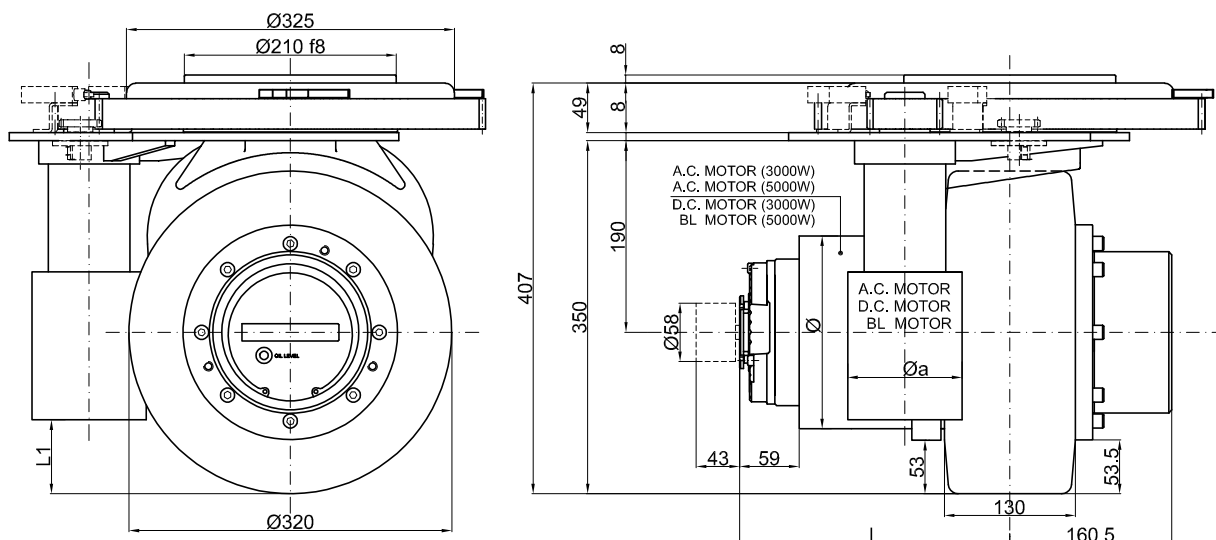


MR255FRS

	A.C. MOTOR	BL MOTOR
L	220	160
R	232	167
Ø	151	126
Øa	108	□60
L1	55	46

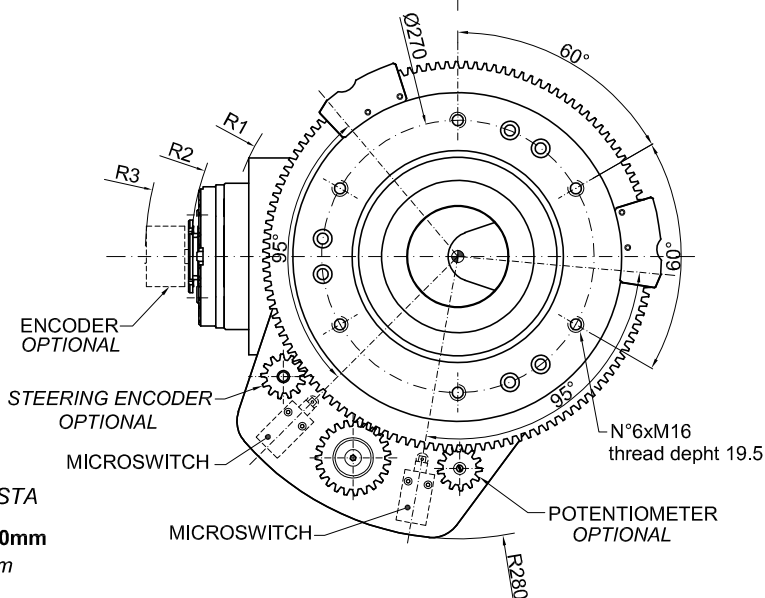
TECHNICAL DATAS – DATI TECNICI	A.C. MOTOR BL MOTOR	
	POWER - POTENZA	W
VOLTAGE - TENSIONE	V	12 ÷ 96
GEAR RATIO – RAPPORTO DI RIDUZIONE	i	32:1 – 26:1 – 20:1
STEERING SYSTEM RATIO – RAPPORTO DI RIDUZIONE SISTEMA STERZO	i	442
WHEEL - RUOTA	mm	Ø260x80
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm	382
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA (the value refers to a moving steering, not with stopped vehicle) (il valore è riferito per una sterzata in movimento, non con veicolo fermo)	kg	700 1200 on request
BRAKE TORQUE – COPPIA FRENO	Nm	10
WEIGHT - PESO	kg	60 ÷ 70

MR260/320S



MR260/320FMS D.191mm

	A.C. MOTOR 3000W	A.C. MOTOR 5000W	D.C. MOTOR 3000W	BL MOTOR 5000W
L	286	334	268	313
R1	240	293	230	268
R2	289	344	278	315
R3	330	380	312	357
Ø	191	191	191	167
Øa	126	126	113	119
L1	38	38	73	75

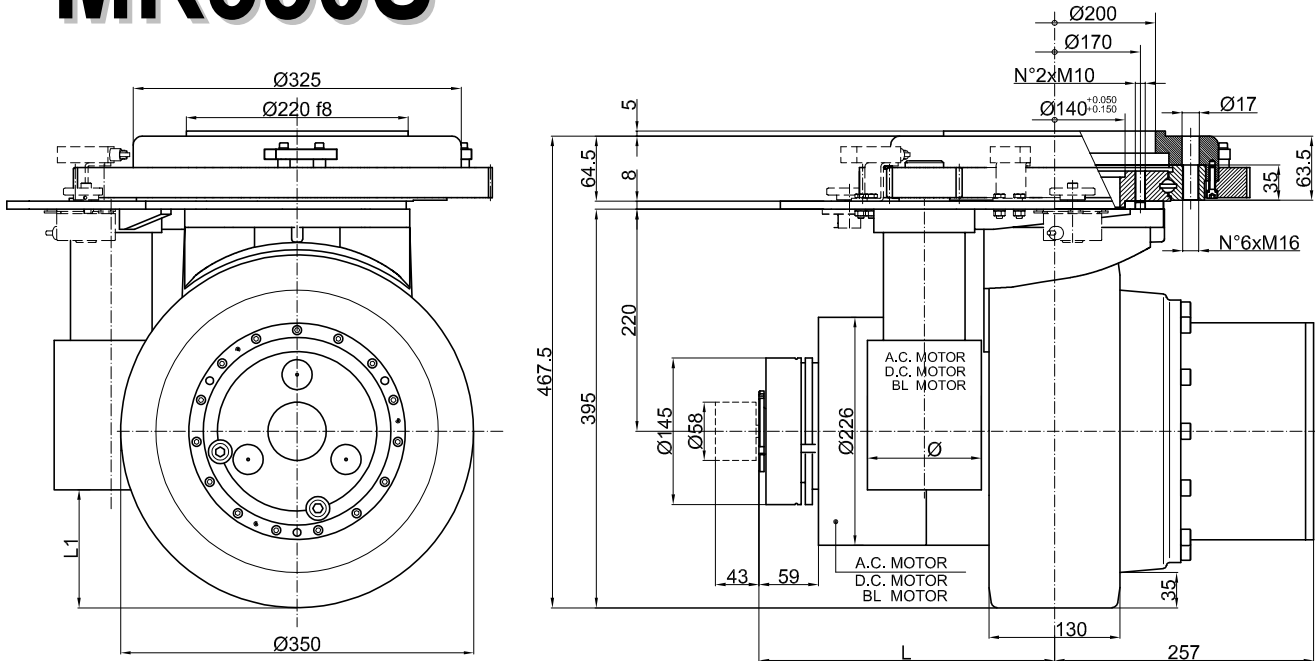


AVAILABLE ON REQUEST / DISPONIBILE A RICHIESTA

Wheel Ø300, Ø350, Ø406 with thickness from 100 to 140mm
Ruota Ø300, Ø350, Ø406 con spessori da 100 a 140mm

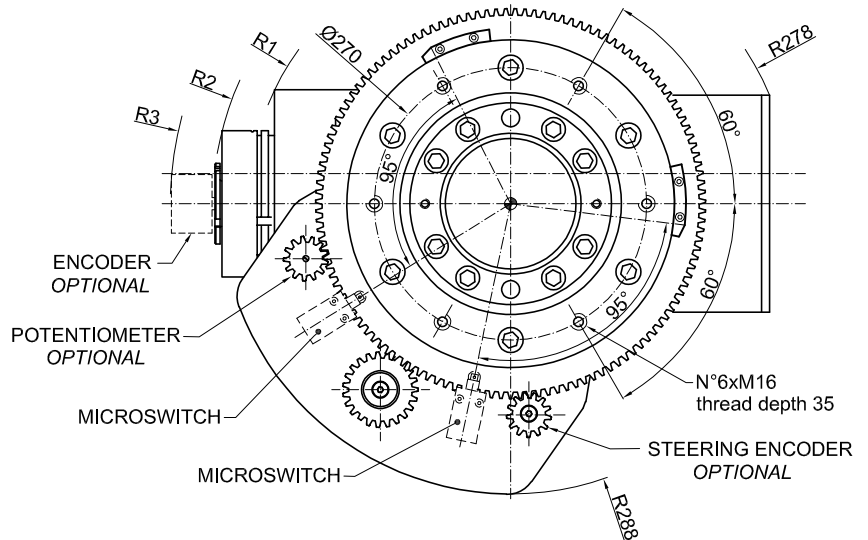
TECHNICAL DATAS – DATI TECNICI		A.C. MOTOR D.C. MOTOR BL MOTOR
POWER - POTENZA	W	3000 ÷ 5000
VOLTAGE - TENSIONE	V	24 ÷ 96
GEAR RATIO – RAPPORTO DI RIDUZIONE	i	30:1
STEERING SYSTEM RATIO – RAPPORTO DI RIDUZIONE SISTEMA STERZO	i	282
WHEEL - RUOTA	mm	Ø320x130
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm	1200
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA (the value refers to a moving steering, not with stopped vehicle) (il valore è riferito per una sterzata in movimento, non con veicolo fermo)	kg	on request 2000 on request
BRAKE TORQUE – COPPIA FRENO	Nm	40
WEIGHT - PESO	kg	150

MR350S



MR350FMS

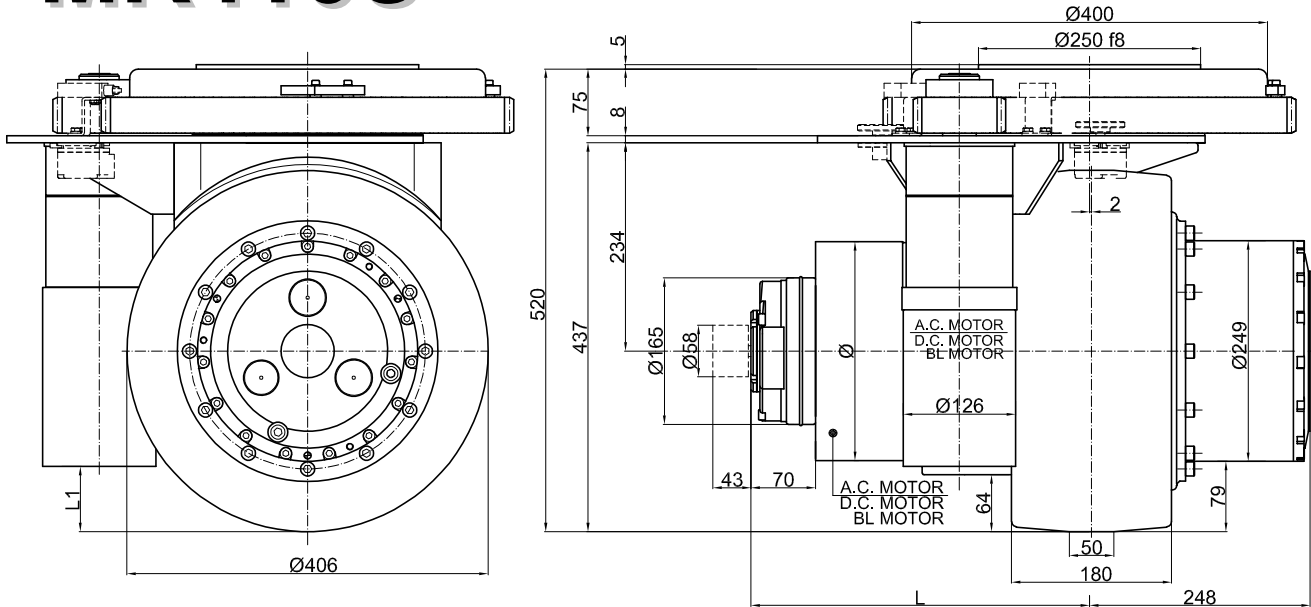
	A.C. MOTOR	D.C. MOTOR	BL MOTOR
L	293	243	269
R1	260	216	226
R2	295	247	273
R3	337	287	314
Ø	126	113	119
L1	83	117	105



TECHNICAL DATAS – DATI TECNICI

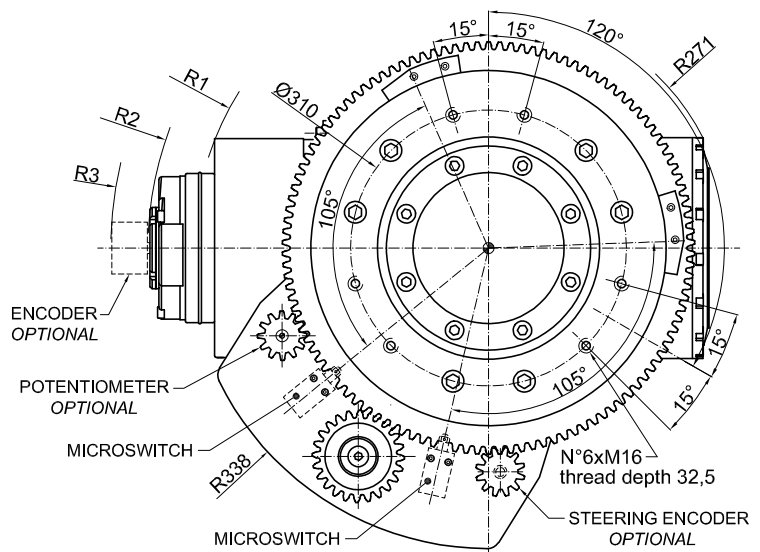
		A.C. MOTOR	D.C. MOTOR	BL MOTOR
POWER - POTENZA	W	3000 ÷ 5000		
VOLTAGE - TENSIONE	V	24 ÷ 96		
GEAR RATIO – RAPPORTO DI RIDUZIONE	i	22:1 - 30:1		
STEERING SYSTEM RATIO – RAPPORTO DI RIDUZIONE SISTEMA STERZO	i	282		
WHEEL - RUOTA	mm	Ø350x130		
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm	2000		
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA (the value refers to a moving steering, not with stopped vehicle) (il valore è riferito per una sterzata in movimento, non con veicolo fermo)	kg	rubber – gomma	on request	
		polyurethane – poliuretano	2600	
		vulkollan – vulkollan	on request	
BRAKE TORQUE – COPPIA FRENO	Nm	40		
WEIGHT - PESO	kg	170		

MR415S



MR415FMS

	A.C. MOTOR	D.C. MOTOR	BL MOTOR
L	388	379	314
Ø	250	244	176
R1	344	332	258
R2	391	382	319
R3	429	424	356
L1	64	73	48

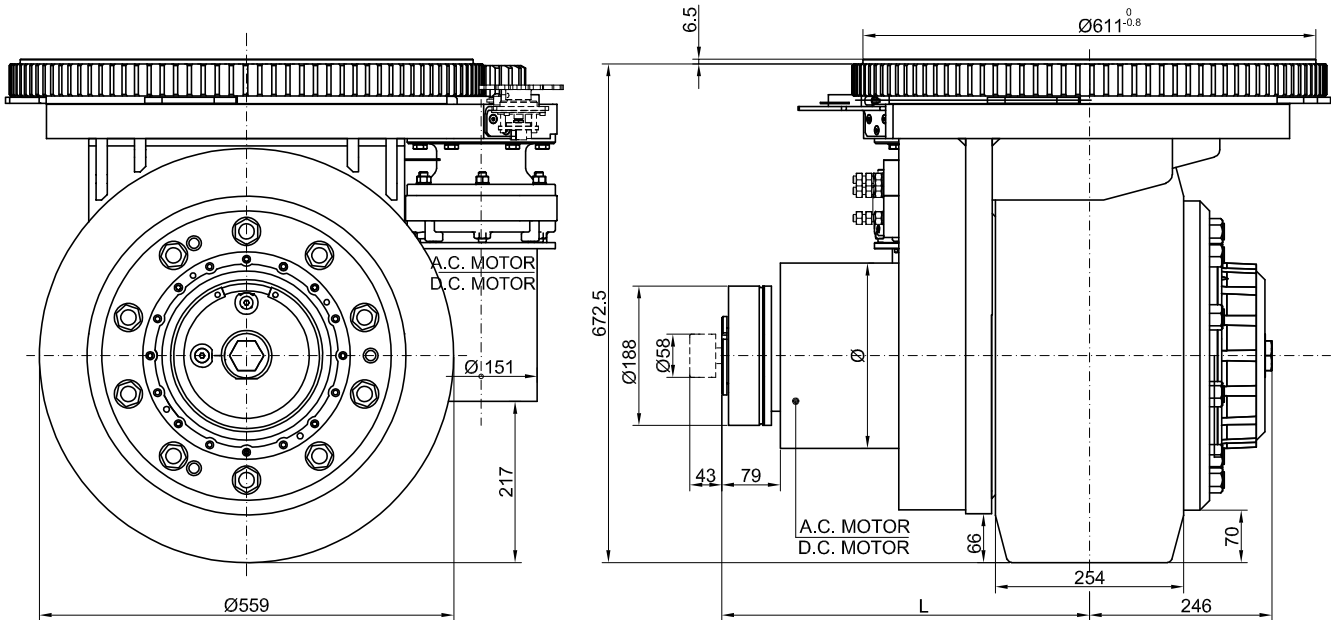


TECHNICAL DATAS – DATI TECNICI

		A.C. MOTOR D.C. MOTOR BL MOTOR
POWER - POTENZA	W	6000 ÷ 12000
VOLTAGE - TENSIONE	V	24 ÷ 96
GEAR RATIO – RAPPORTO DI RIDUZIONE	i	25,6:1
STEERING SYSTEM RATIO – RAPPORTO DI RIDUZIONE SISTEMA STERZO	i	243
WHEEL - RUOTA	mm	Ø406x180
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm	3600
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA (the value refers to a moving steering, not with stopped vehicle) (il valore è riferito per una sterzata in movimento, non con veicolo fermo)	kg	on request 4000 on request
BRAKE TORQUE – COPPIA FRENO	Nm	75
WEIGHT - PESO	kg	258 ÷ 300

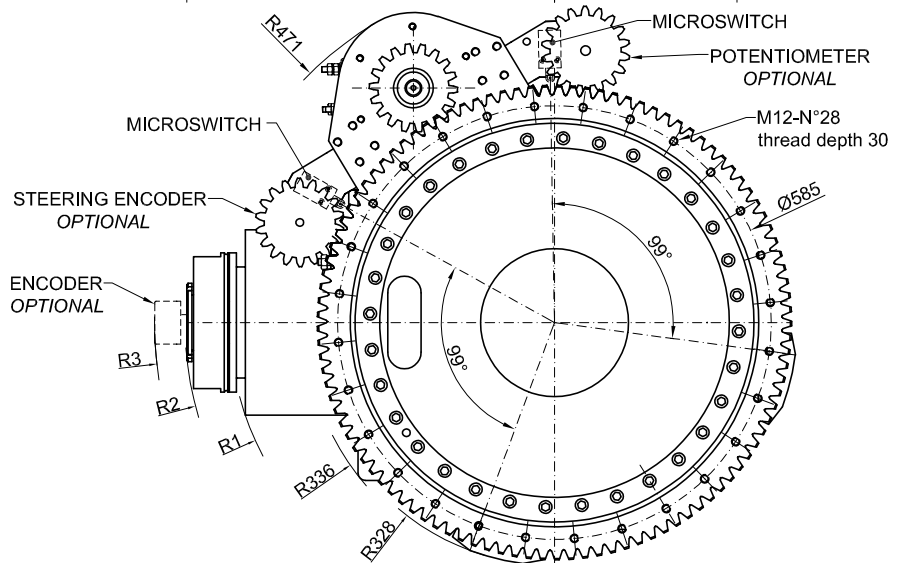
rubber – gomma
polyurethane – poliuretano
vulkollan – vulkollan

MR600S



MR600FMS

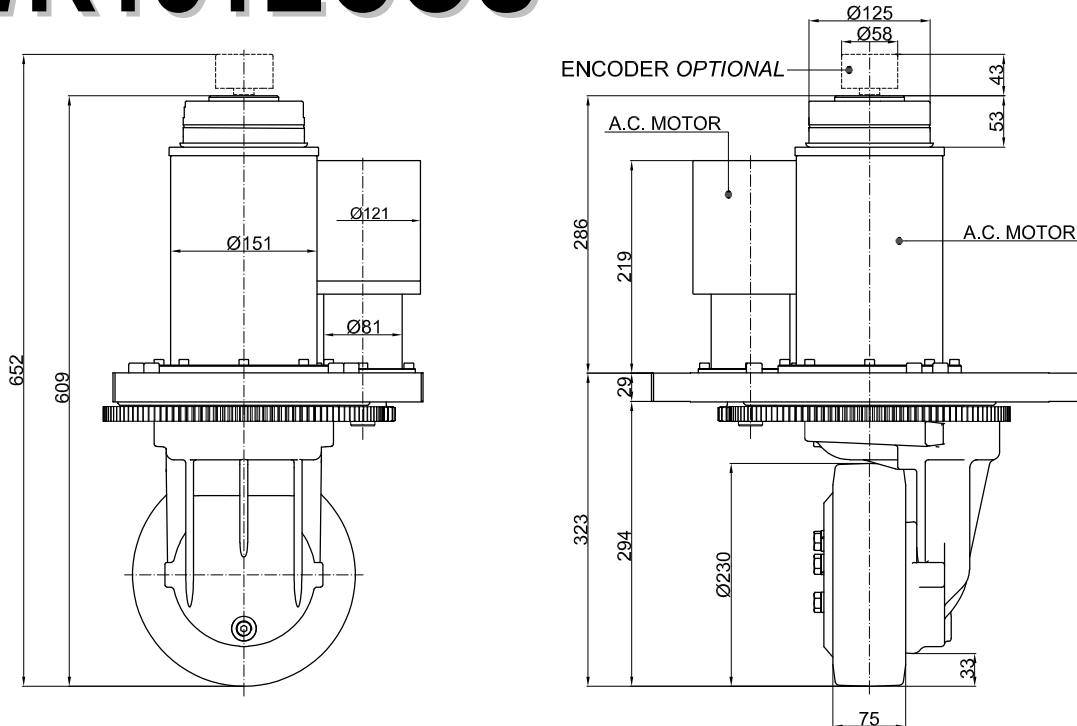
	A.C. MOTOR	D.C. MOTOR
L	496	563
Ø	252	244
R1	439	501
R2	499	565
R3	540	606



TECHNICAL DATAS – DATI TECNICI

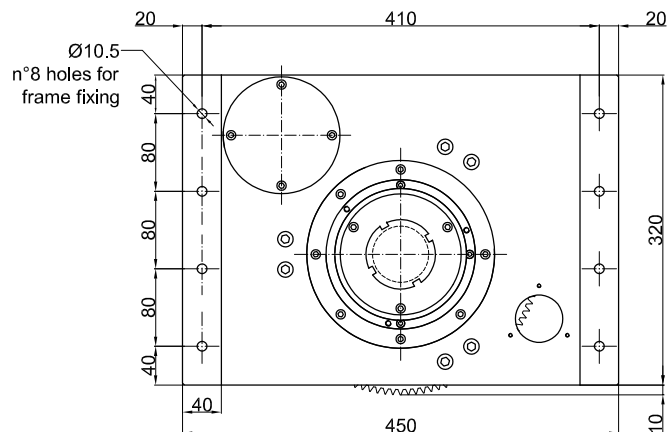
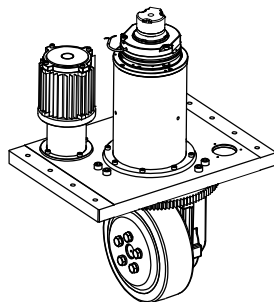
	A.C. MOTOR	D.C. MOTOR
POWER - POTENZA	W	6000 ÷ 12000
VOLTAGE - TENSIONE	V	24 ÷ 96
GEAR RATIO – RAPPORTO DI RIDUZIONE	i	54:1
STEERING SYSTEM RATIO – RAPPORTO DI RIDUZIONE SISTEMA STERZO	i	507
WHEEL - RUOTA	mm	Ø559x254
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm	12000
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA (the value refers to a moving steering, not with stopped vehicle) (il valore è riferito per una sterzata in movimento, non con veicolo fermo)	kg	on request 6000
		rubber – gomma polyurethane – poliuretano vulkollan – vulkollan
BRAKE TORQUE – COPPIA FRENO	Nm	100
WEIGHT - PESO	kg	640

WR151ECOS



WR151ECOFMS

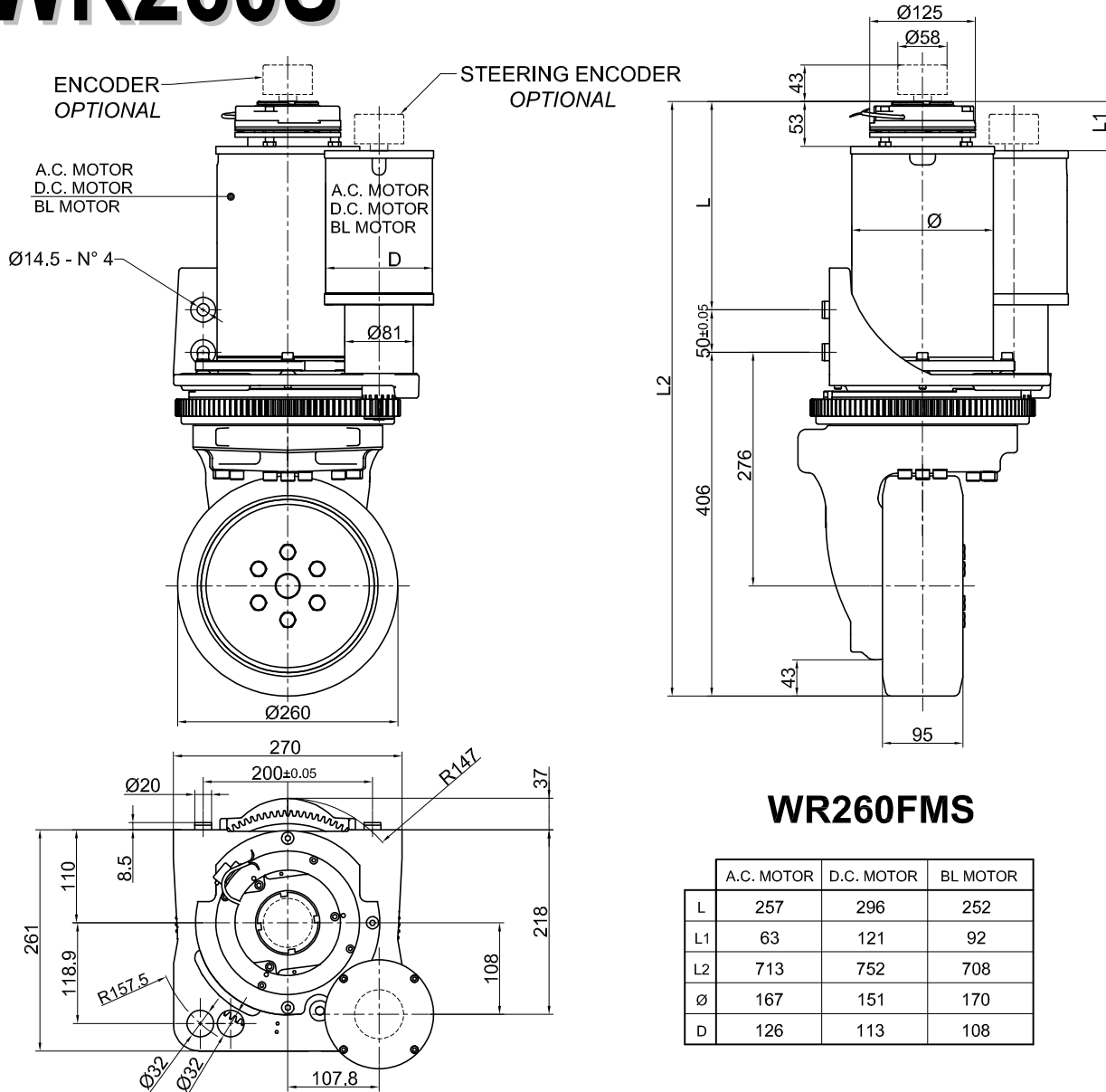
- Motor integral with the slewing bearing
- Motore solidale alla ralla di rotazione



TECHNICAL DATAS – DATI TECNICI

	A.C. MOTOR	
POWER - POTENZA	W	1500 ÷ 2000
VOLTAGE - TENSIONE	V	24 ÷ 96
GEAR RATIO – RAPPORTO DI RIDUZIONE	i	20:1
STEERING SYSTEM RATIO – RAPPORTO DI RIDUZIONE SISTEMA STERZO	i	210
WHEEL - RUOTA	mm	Ø230x75
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm	400
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA (the value refers to a moving steering, not with stopped vehicle) (il valore è riferito per una sterzata in movimento, non con veicolo fermo)	kg	430 1000 on request
		rubber – gomma polyurethane – poliuretano vulkollan – vulkollan
BRAKE TORQUE – COPPIA FRENO	Nm	20
WEIGHT - PESO	kg	120

WR260S



WR260FMS

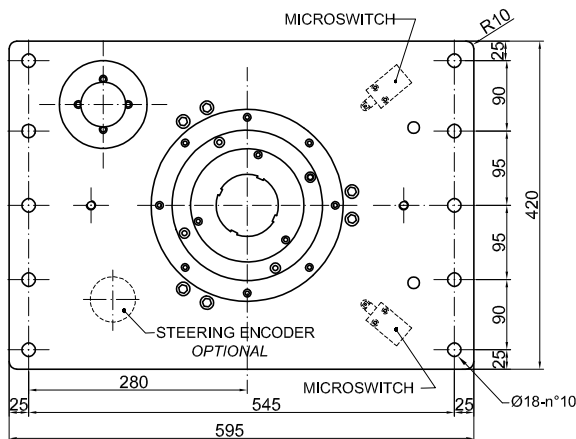
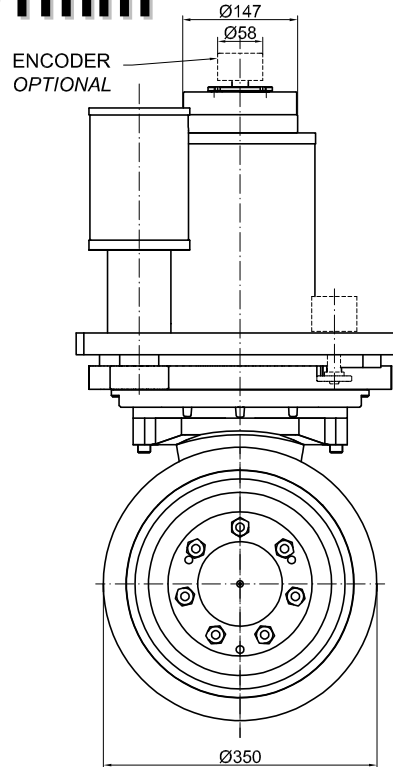
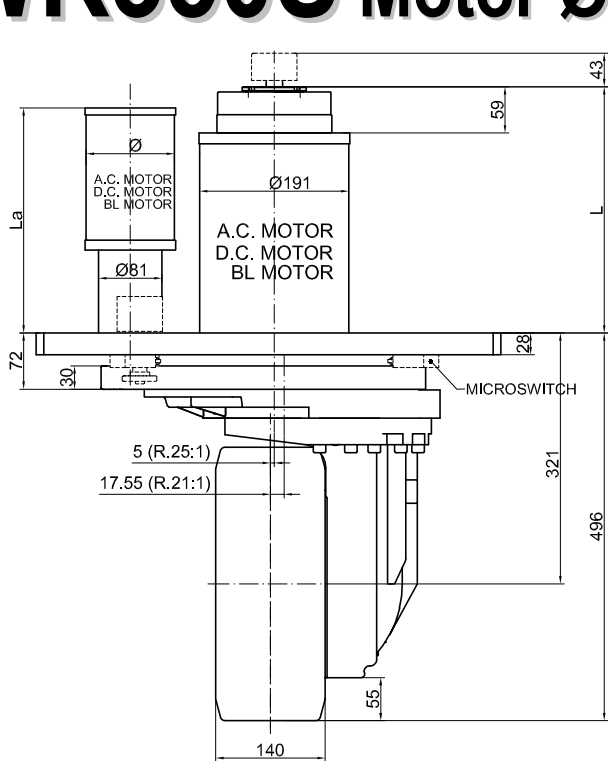
	A.C. MOTOR	D.C. MOTOR	BL MOTOR
L	257	296	252
L1	63	121	92
L2	713	752	708
Ø	167	151	170
D	126	113	108

TECHNICAL DATAS – DATI TECNICI

	A.C. MOTOR D.C. MOTOR BL MOTOR	
POWER - POTENZA	W	1500 ÷ 3000
VOLTAGE - TENSIONE	V	24 ÷ 96
GEAR RATIO – RAPPORTO DI RIDUZIONE	i	18:1
STEERING SYSTEM RATIO – RAPPORTO DI RIDUZIONE SISTEMA STERZO	i	216
WHEEL - RUOTA	mm	Ø260x95
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm	500
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA (the value refers to a moving steering, not with stopped vehicle) (il valore è riferito per una sterzata in movimento, non con veicolo fermo)	kg	on request 1800 on request
BRAKE TORQUE – COPPIA FRENO	Nm	20
WEIGHT - PESO	kg	110

rubber – gomma
polyurethane – poliuretano
vulkollan – vulkollan

WR350S Motor Ø191mm



WR350FMS/B Motor Ø191

- Motor integral with the frame
- Motore solidale al telaio

	A.C. MOTOR	D.C. MOTOR	BL MOTOR
L	305	315	276
La	282	247	267
Ø	126	113	121

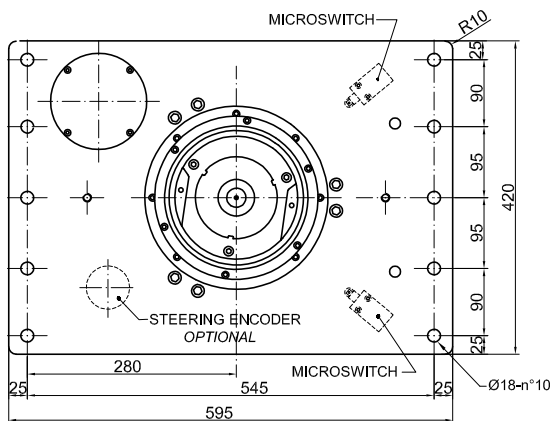
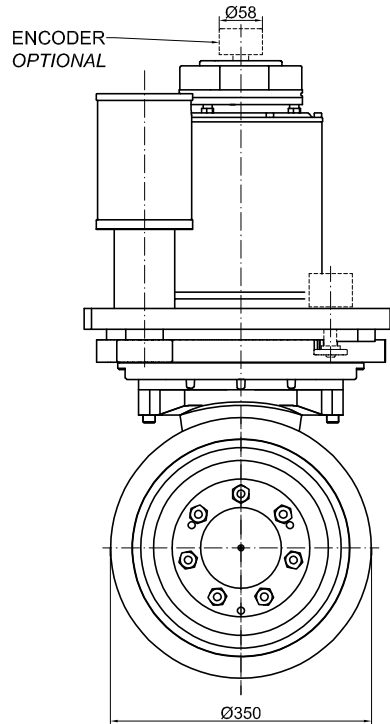
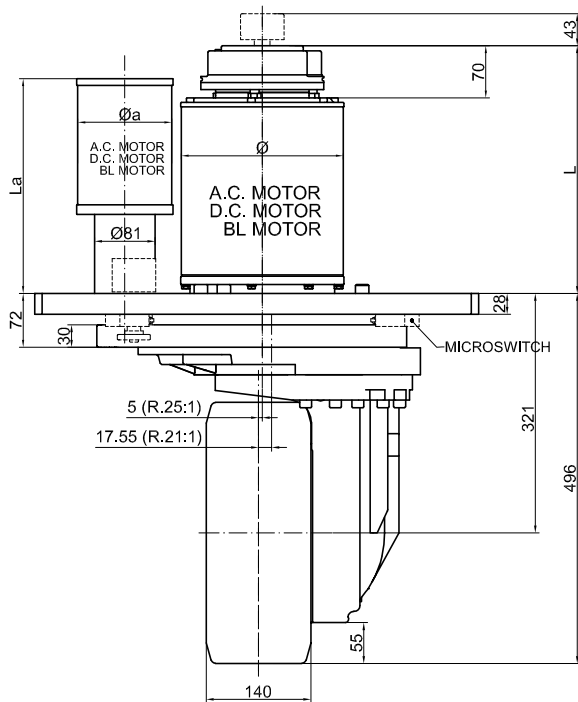
TECHNICAL DATAS – DATI TECNICI

A.C. MOTOR
D.C. MOTOR
BL MOTOR

POWER - POTENZA	W	3000 ÷ 5000
VOLTAGE - TENSIONE	V	24 ÷ 96
GEAR RATIO – RAPPORTO DI RIDUZIONE	i	21:1 – 25:1
STEERING SYSTEM RATIO – RAPPORTO DI RIDUZIONE SISTEMA STERZO	i	282
WHEEL - RUOTA	mm	Ø350x140
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm	2200
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA (the value refers to a moving steering, not with stopped vehicle) (il valore è riferito per una sterzata in movimento, non con veicolo fermo)	kg	on request on request 3000
BRAKE TORQUE – COPPIA FRENO	Nm	40
WEIGHT - PESO	kg	232

rubber – gomma
polyurethane – poliuretano
vulkollan – vulkollan

WR350S Motor Ø244mm



WR350FMS/B Motor Ø244

- Motor integral with the frame
- Motore solidale al telaio

	A.C. MOTOR 7000W	D.C. MOTOR 7000W	BL MOTOR 10000W
Ø	217	251	219
L	332	368	375
Øa	126	113	121
La	288	254	273

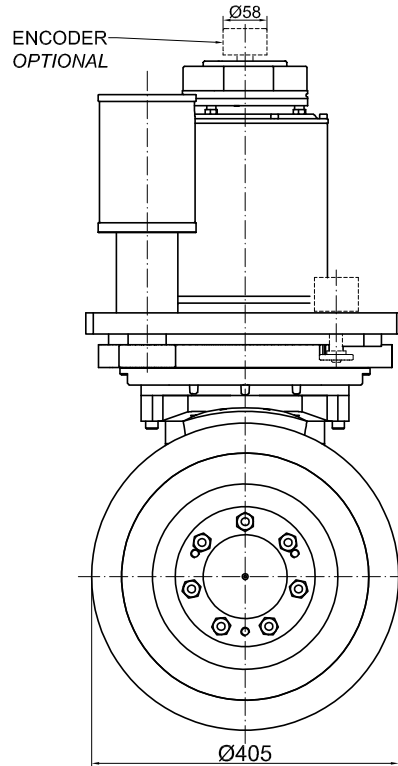
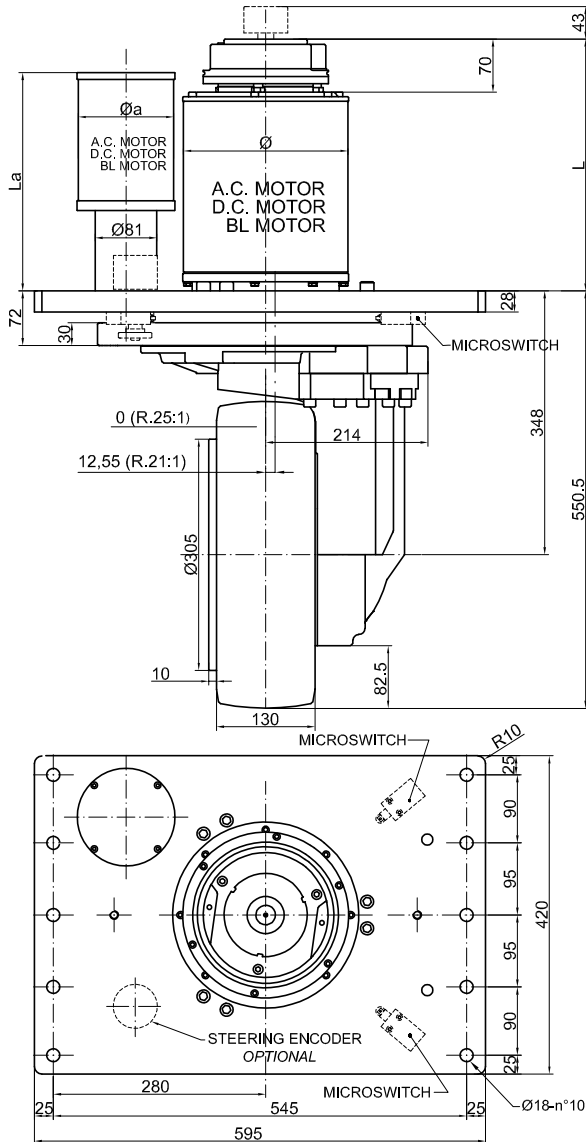
TECHNICAL DATAS – DATI TECNICI

A.C. MOTOR
D.C. MOTOR
BL MOTOR

POWER - POTENZA	W	5000 ÷ 10000
VOLTAGE - TENSIONE	V	24 ÷ 96
GEAR RATIO – RAPPORTO DI RIDUZIONE	i	21:1 – 25:1
STEERING SYSTEM RATIO – RAPPORTO DI RIDUZIONE SISTEMA STERZO	i	282
WHEEL - RUOTA	mm	Ø350x140
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm	2200
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA (the value refers to a moving steering, not with stopped vehicle) (il valore è riferito per una sterzata in movimento, non con veicolo fermo)	kg	on request on request 3000
BRAKE TORQUE – COPPIA FRENO	Nm	75
WEIGHT - PESO	kg	285

rubber – gomma
polyurethane – poliuretano
vulkollan – vulkollan

WR425S Motor Ø244mm



WR425FMS/B
Motor Ø244

- Motor integral with the frame
- Motore solidale al telaio

	A.C. MOTOR 7000W	D.C. MOTOR 7000W	BL MOTOR 10000W
Ø	217	251	219
L	332	368	375
Øa	126	113	121
La	288	254	273

TECHNICAL DATAS – DATI TECNICI

		A.C. MOTOR D.C. MOTOR BL MOTOR
POWER - POTENZA	W	5000 ÷ 10000
VOLTAGE - TENSIONE	V	24 ÷ 96
GEAR RATIO – RAPPORTO DI RIDUZIONE	i	21:1 – 25:1
STEERING SYSTEM RATIO – RAPPORTO DI RIDUZIONE SISTEMA STERZO	i	282
WHEEL - RUOTA	mm	Ø405x130
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm	2200
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA (the value refers to a moving steering, not with stopped vehicle) (il valore è riferito per una sterzata in movimento, non con veicolo fermo)	kg	on request on request 3100
BRAKE TORQUE – COPPIA FRENO	Nm	75
WEIGHT - PESO	kg	300

rubber – gomma
polyurethane – poliuretano
vulkollan – vulkollan



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E-mail: contact@LSMotion.fr

Formulaire de demande pour les roues motrices

Company Name _____

Address _____

Telephone N. _____ Fax N. _____

E-mail _____

Contact Reference _____

Vehicle type _____ Quantity per batch _____

Wheel diameter (mm) _____ Floor surface _____

Direct Weight over the wheel (kg) without load _____ with load _____

Vehicle selfweight with operator and batteries (kg) _____ Load to carry (kg) _____

Towing capacity (if any additional trolley behind) (kg) _____

Max speed on flat (km/h) without load _____ with load _____

Max climbing slope (%) without load _____ with load _____

Max speed on slope (km/h) without load _____ with load _____

Acceleration (m/sec²) _____

Duty _____ Short Service _____ tl= _____

tl= service time (min) _____ Shifts _____ Service % = _____

tr= resting time (min) _____ Cyclic Service _____ tl= _____ tr= _____

Drive wheel type _____ Horizontal _____ Vertical

Power (W) _____

Voltage (12, 24, 48, 72, 80V) _____ Other _____

DC Motor wounds _____ Series wound _____ Separately Excited

Shunt wound _____ PM

AC Motor _____ Speed sensor _____ Thermal sensor

Brushless PMS Motor (synchronous) _____ Speed sensor _____ Thermal sensor

Environment and required IP _____

Preferred wheel material (Vulkollan, Poliurethane or Rubber) _____

e/m brake _____ Yes _____ No

Incremental Encoder _____ Pulses (ppr) _____ Voltage (TTL, HTL) _____

Connector type (8 pin M12, 12 pin EML, cable) _____

Absolute Encoder (specify) _____

Thermal protection _____ Yes _____ No

Tacho generator _____ Yes _____ No

Electric Steering System _____ Yes _____ No

Limit end switches _____ Yes _____ No

Steering Incremental Encoder _____ Pulses (ppr) _____ Voltage (TTL, HTL) _____

Connector type (8 pin M12, 12 pin EML, cable) _____

Absolute Encoder (specify) _____

Potentiometer _____ Yes _____ No

Mechanical limits _____ Yes _____ No

NOTES: _____

**All technical data and dimensions outputs in this catalogue are subject to development changes without prior notice.
The illustrations are not binding.**

*Tutti i dati e le dimensioni riportate in questo catalogo sono soggetti a modifiche di sviluppo senza alcun preavviso.
Le illustrazioni non sono vincolanti.*

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