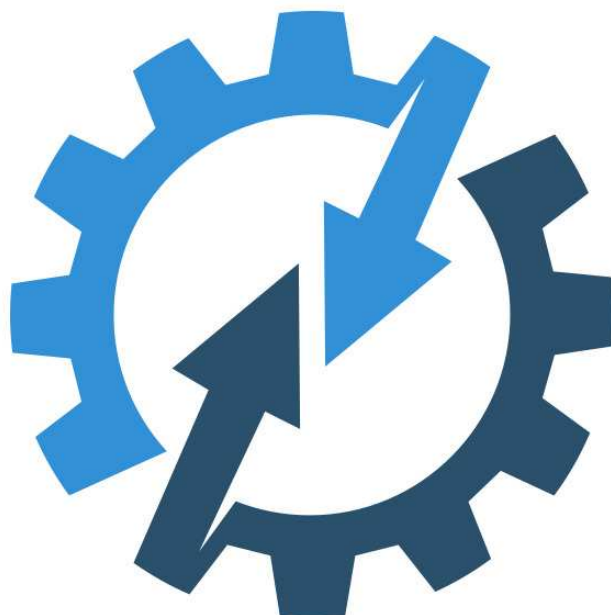


WHEEL DRIVE



ENGLISH

LSMotion's and his partner production is based on gearbox + wheel units (drivewheels), electric motors for battery operated vehicles and differential units.

This catalogue shows the main range of drivewheels production, horizontals and verticals. Other drivewheels are not in the catalogue, but customized and available on request.

Main features on which **LSMotion** is focusing are:

- The steering system, which is available on most of our drive units, with a wide range of optional depending on vehicle features and movements
- Electric motors manufactured in our factories, from 12 to 96V, both AC Motors for battery operated machines and DC Motors (permanent magnets and wounded, separately excited, series wound and shunt wound) with which we can satisfy all requests of traction motors for battery machines
- Wide range of gear ratios available
- Wheels with rubber cover, Vulkollan or polyurethane with different hardness depending on application requirements.

Our products are manufactured complying with IEC and European standards.

OPTIONALS

- **E/M brakes**: the catalogue shows drive wheels with electromagnetic brake, available on request. We can provide e/m brakes with IP65 enclosure.
- **Thermal protections**: generally, we can supply on/off thermal switches or thermal sensors, with cable output on terminal board.
- **Detectable wear system**: it is a brush with an additional wire to detect the brush wearing; cable output being on terminal board.
- **Ventilation on traction motor**: may it be required, it is possible to get a longer traction motor duty cycle for heavy duties or for 2/3 shifts per day, intensive services.
- **End limit switches**: available on steering plate, with its cam.
- **Encoders**: the availability is large: incremental or absolute, single or multiturn, directly mounted on motors shaft (both traction and/or steering), or on steering plate.
- **Potentiometer**: multiturn, generally 10kOhm – 10 turns, directly mounted on steering plate, coupled with the steering crown gear.
- **Tacho-generators**: generally 10V-1000rpm, directly mounted on motors shaft (both traction and/or steering).

On the catalogue you can find the standard production of our motors; on request we can make motors with different performances in power, voltage and rpm.

For customized requests please fill in the form on the bottom of this catalogue with as much details as possible: we then would be able to select the best solution in between our various choices.

INDEX

DRIVE WHEELS LIST
ELECTRICAL CONNECTIONS
WHEELS
ELECTROMAGNETIC BRAKE

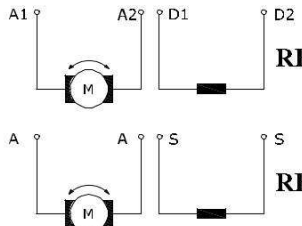
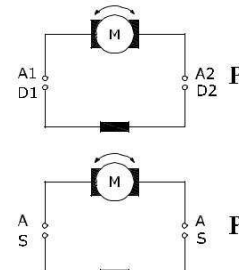
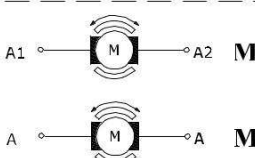
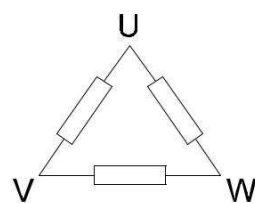
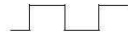

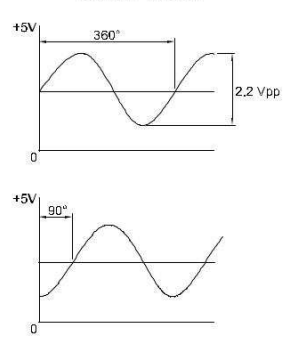
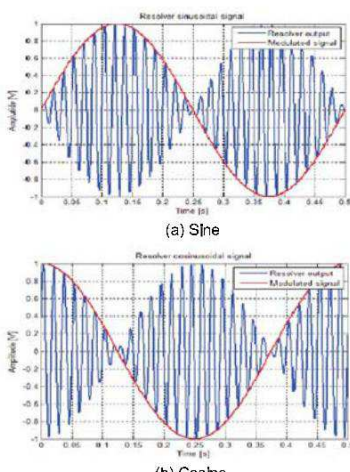
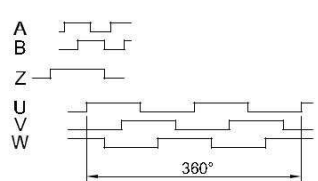

PAG. 3
 PAG. 4
 PAG. 5
 PAG. 6

HORIZONTAL DRIVE WHEELS		MAX WHEEL LOAD	MOTOR POWER	VOLTAGE	WHEEL SIZE
		(kg)	(W)	(V)	(mm)
LD25 – LD10 - LM70	PAG. 7	600	250÷500	12÷96	205
LD20	PAG. 8	-	400÷500	12÷96	-
LMR220	PAG. 9	600	500÷1000	12÷96	220
LMR240	PAG. 10	1150	700÷1000	12÷96	250 ÷ 260
LMR250	PAG. 11	1150	700÷1500	12÷96	250 ÷ 260
LMR300	PAG. 12	1350	1200÷1500	12÷96	300
LMR270	PAG. 13	1300	1000÷1500	24÷96	270
LMR260/300 Mot. D.151	PAG. 14	1500	1500÷2500	24÷96	300
LMR260/350 Mot. D.151	PAG. 15	2000	1500÷2500	24÷96	350
LMR260/350 Mot. D.191	PAG. 16	2000	3000÷5000	24÷96	350
LMR260/406 Mot. D.191	PAG. 17	2300	3000÷5000	24÷96	406
LMR350	PAG. 18	2600	3000÷5000	24÷96	350
LMR415	PAG. 19	4000	6000÷12000	24÷96	406
LT110	PAG. 20	2350	1000÷2000	24÷96	300 / 330
VERTICAL DRIVE WHEELS		MAX WHEEL LOAD	MOTOR POWER	VOLTAGE	WHEEL SIZE
		(kg)	(W)	(V)	(mm)
LWR125ECO	PAG. 21	1000	800÷1200	12÷96	230
LWR151ECO	PAG. 22	1000	1500÷2000	24÷96	230
LWR151	PAG. 23	1800	1500÷2500	24÷96	260
LWR191	PAG. 24	1800	3000÷3500	24÷96	260
LWR350 Mot. D.191	PAG. 25	3000	3000÷5000	24÷96	350
LWR350 Mot. D.244	PAG. 26	3000	5000÷10000	48÷96	350
LWR425 Mot. D.191	PAG. 27	3100	3000÷5000	24÷96	406
LWR425 Mot. D.244	PAG. 28	3100	5000÷10000	48÷96	406

STEERING DRIVE WHEELS / MOTORUOTE STERZANTI

HORIZONTAL STEERING DRIVE WHEELS		MAX WHEEL LOAD	MOTOR POWER	VOLTAGE	WHEEL SIZE
		(kg)	(W)	(V)	(mm)
LMR220S	PAG. 29	600	500÷1000	12÷96	220
LMR240S	PAG. 30	1150	700÷1000	12÷96	250 ÷ 260
LMR250S	PAG. 31	1150	700÷1000	24÷96	250 ÷ 260
LMR270S	PAG. 32	1300	1000÷1500	24÷96	270
LMR260/320S	PAG. 33	2000	3000÷5000	12÷96	320
LMR350S	PAG. 34	2600	3000÷5000	24÷96	350
LMR415S	PAG. 35	4000	6000÷12000	48÷96	406
LMR600S	PAG. 36	6000	6000÷12000	48÷96	559
VERTICAL STEERING DRIVE WHEELS		MAX WHEEL LOAD	MOTOR POWER	VOLTAGE	WHEEL SIZE
		(kg)	(W)	(V)	(mm)
LWR151ECOS	PAG. 37	1000	1500÷2000	24÷96	230
LWR260S Mot. D.151	PAG. 38	1800	1500÷3000	24÷96	260
LWR350S Mot. D.191	PAG. 39	3000	3000÷5000	24÷96	350
LWR350S Mot. D.244	PAG. 40	3000	5000÷10000	48÷96	350
LWR425S Mot. D.244	PAG. 41	3100	5000÷10000	48÷96	406

ELECTRICAL CONNECTIONS / COLLEGAMENTI ELETTRICI

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 <i>4 MORSETTI CON MORSETTIERA</i></p> <p>4 TERMINALS WITHOUT TERMINAL BOARD <i>4 MORSETTI SENZA MORSETTIERA</i></p> </div> </div> <hr style="border-top: 1px dashed black;"/> <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 <i>4 MORSETTI CON MORSETTIERA</i></p> <p>4 TERMINALS WITHOUT TERMINAL BOARD <i>4 MORSETTI SENZA MORSETTIERA</i></p> </div> </div> <hr style="border-top: 1px dashed black;"/> <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 <i>2 MORSETTI CON MORSETTIERA</i></p> <p>2 TERMINALS WITHOUT TERMINAL BOARD <i>2 MORSETTI SENZA MORSETTIERA</i></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>  </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> 	

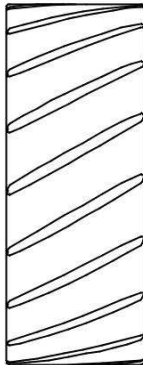
WHEELS

TYPES OF TREAD

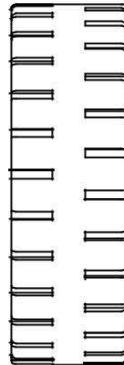
L
smooth
liscio



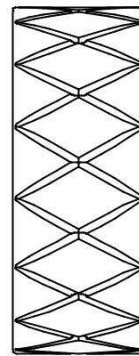
S1
diagonal
diagonale



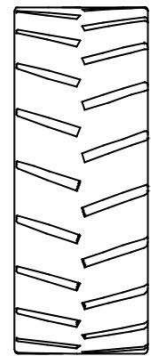
S2
horizontal
orizzontale



S3
X type
tipo a X

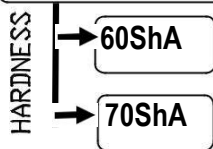


S4
V type
tipo a V

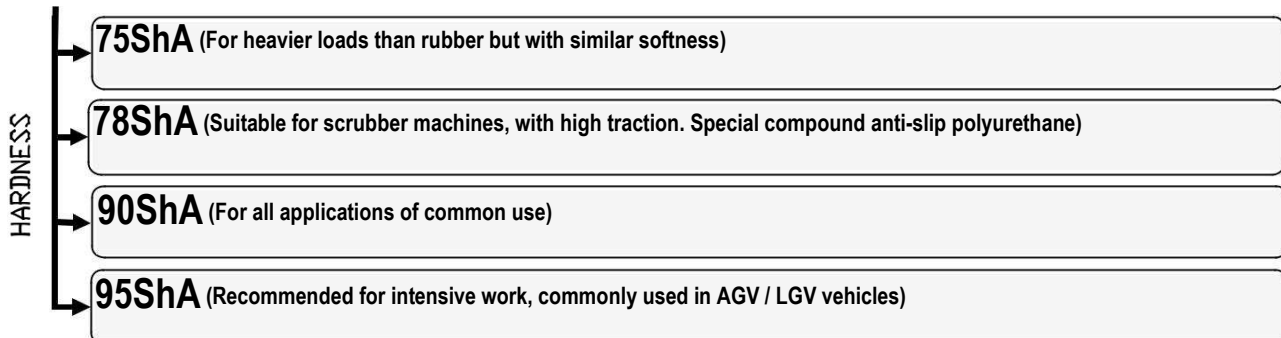


TYPES OF COVERING

RUBBER



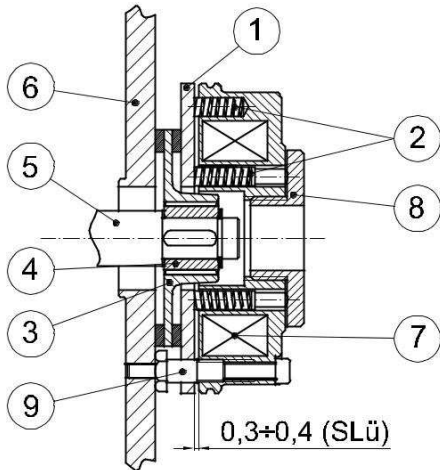
POLYURETHANE



VULKOLLAN

ELECTROMAGNETIC BRAKES

STANDARD BRAKE



- 1 - Pressure disk - Disco di spinta
 - 2 - Springs - Molle
 - 3 - Brake disk - Ferodo
 - 4 - Hub - Mozzo
 - 5 - Shaft - Albero
 - 6 - Braking flange - Controdisco freno
 - 7 - Electro-magnet - Bobina
 - 8 - Ring nut - Ghiera regolazione coppia
 - 9 - Air gap regulation screw - Vite di registro
- SLü - Air gap - Fessura d'aria

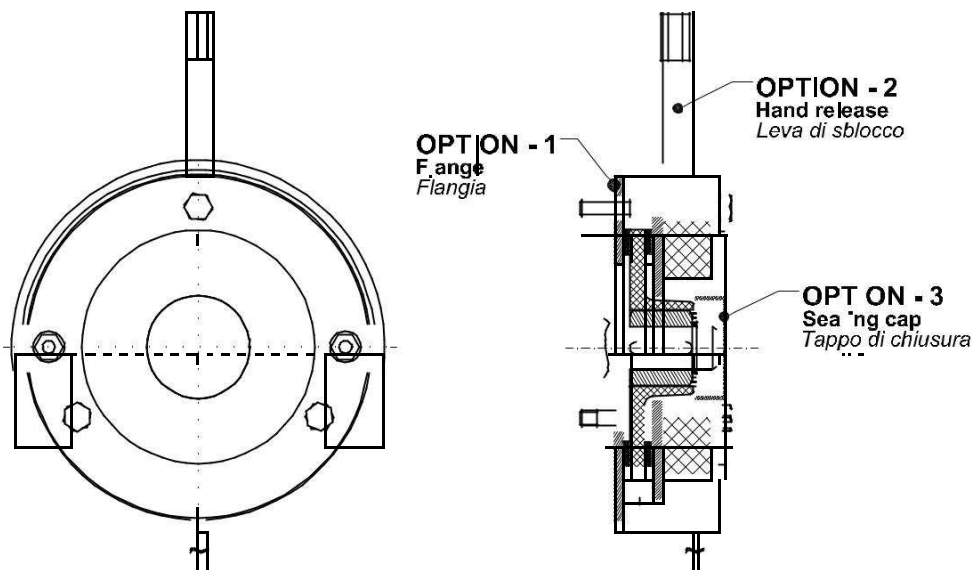
General Regulations

Before starting the motor, power must be applied to the electromagnetic brake, to check the brake disengages from the drive. Occasionally, after an extended off-line period, the brake disk (item 3) could become attached to the braking flange (item 6). In this situation, you may detach the brake disk by doing the following: with the brake always powered, try to move the brake disk (item 3) using a small screwdriver without scoring the contact surfaces.

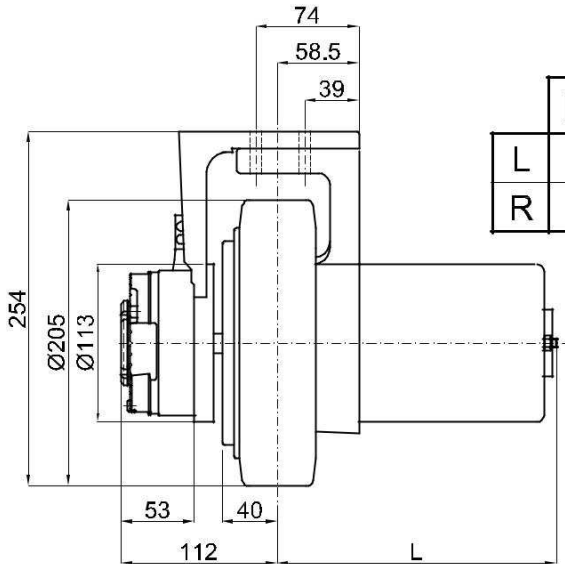
To improve the braking torque, retighten the ring nut (item 8) (clockwise). To get the lower braking, unscrew the same ring nut (counter-clockwise).

Note: the e/m brakes are already set up when the drive wheels are assembled with a standard braking.

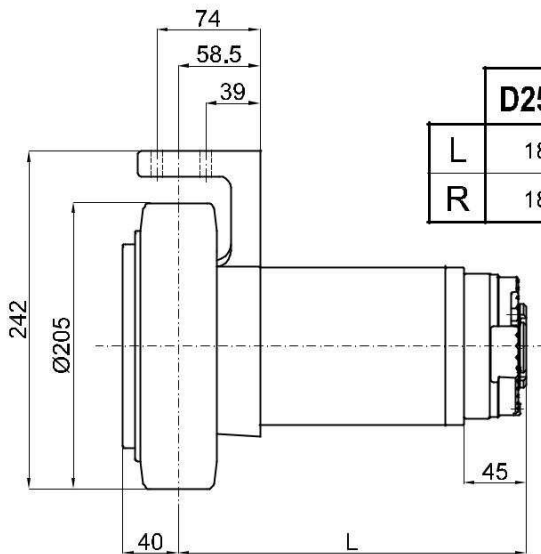
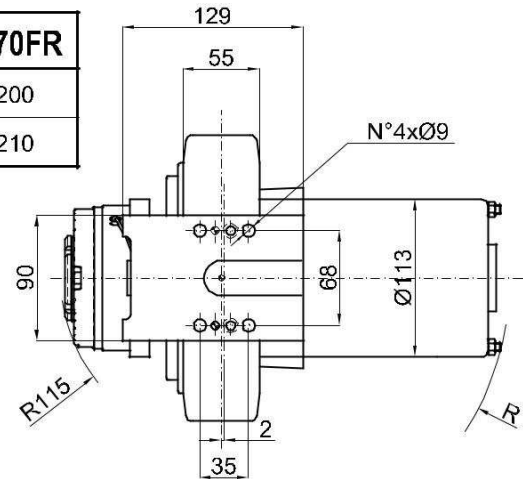
IP65 ENCLOSURE BRAKE SELF-REGULATED



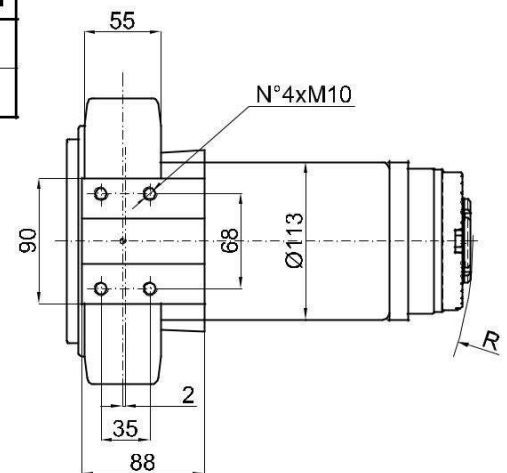
LD25 – LD10 – LM70



	D25FR	D10FR	M70FR
L	146	169	200
R	147	170	210

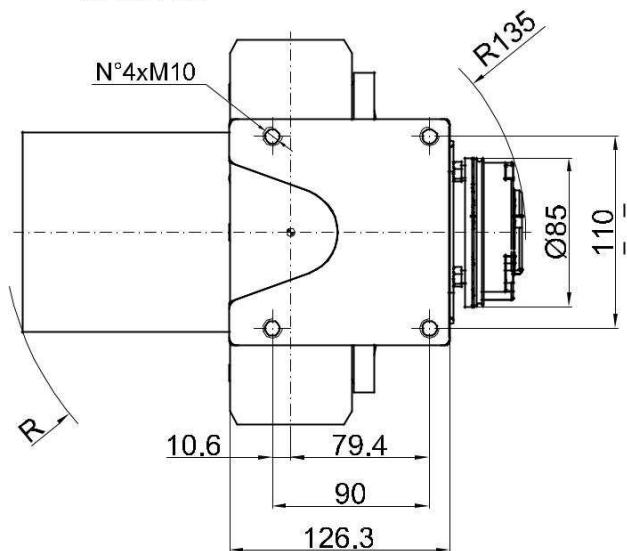
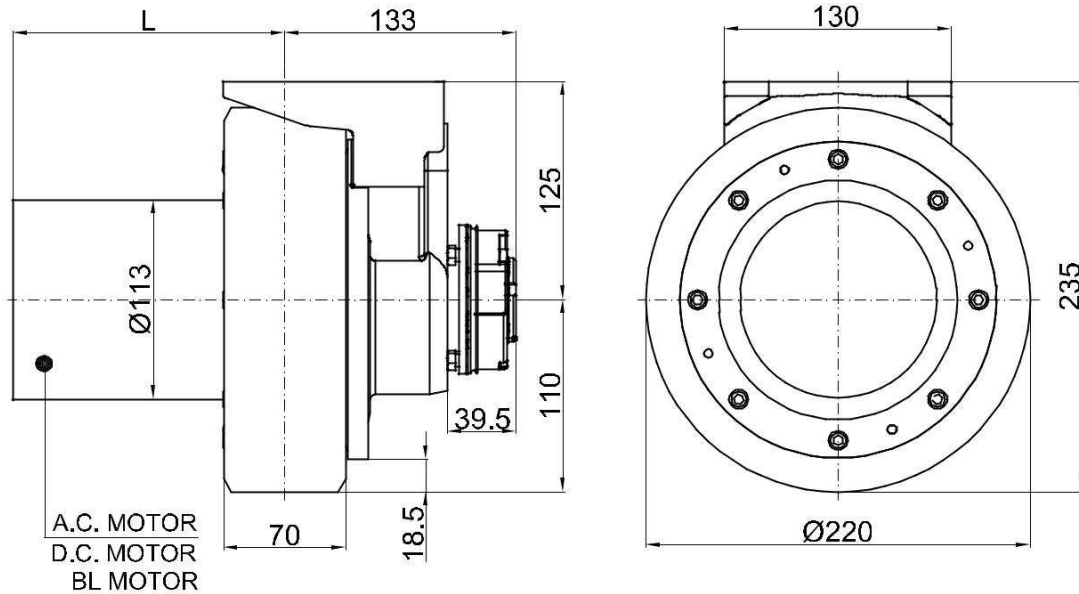


	D25FM	D10FM	M70FM
L	187	215	250
R	188	217	251



TECHNICAL DATAS – DATI TECNICI		D.C. MOTOR	
POWER - POTENZA	W	250 ÷ 500	
VOLTAGE - TENSIONE	V	12 ÷ 96	
GEAR RATIO – RAPPORTO DI RIDUZIONE	i	23:1 - 29:1	
WHEEL - RUOTA	mm	Ø205x55	
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm	290	
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA	kg	400 ÷ 600	
		rubber – gomma polyurethan – poliuretano vulkollan – vulkollan	
BRAKE TORQUE – COPPIA FRENO	Nm	5 - 10	
WEIGHT - PESO	kg	15 ÷ 20	

LMR220

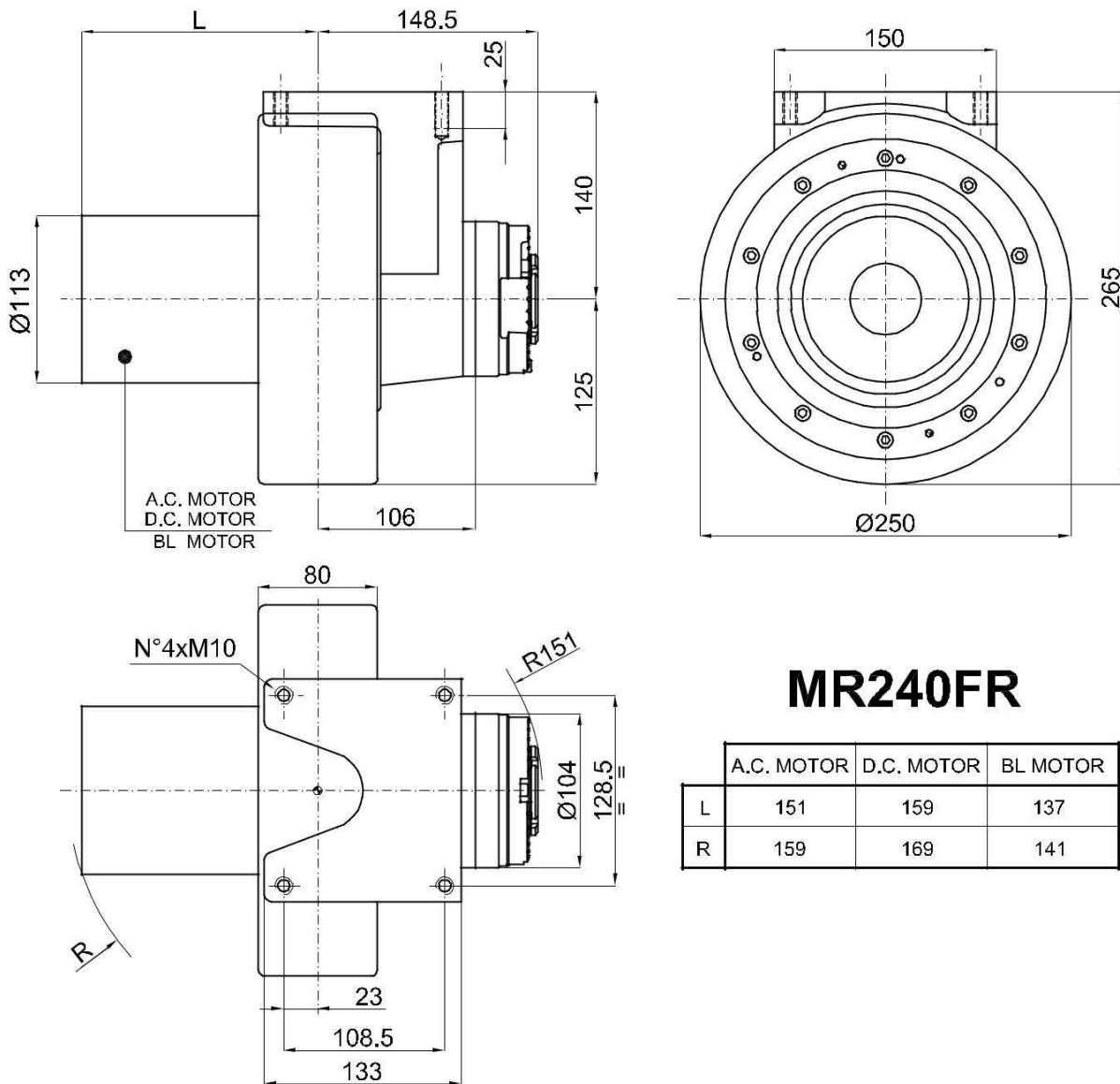


MR220FR

	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 ÷ 80
GEAR RATIO – RAPPORTO DI RIDUZIONE	i	27:1
WHEEL - RUOTA	mm	Ø220x70
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm	230
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA	kg	- 600 -
		rubber – gomma polyurethan – poliuretano vulkollan – vulkollan
BRAKE TORQUE – COPPIA FRENO	Nm	5
WEIGHT - PESO	kg	23 ÷ 30

LMR240

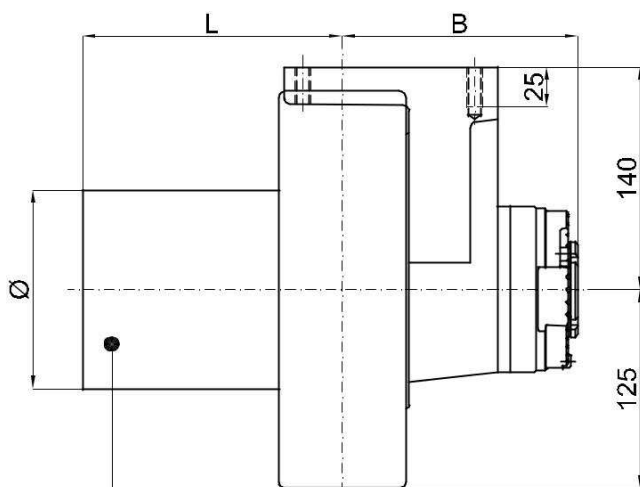


MR240FR

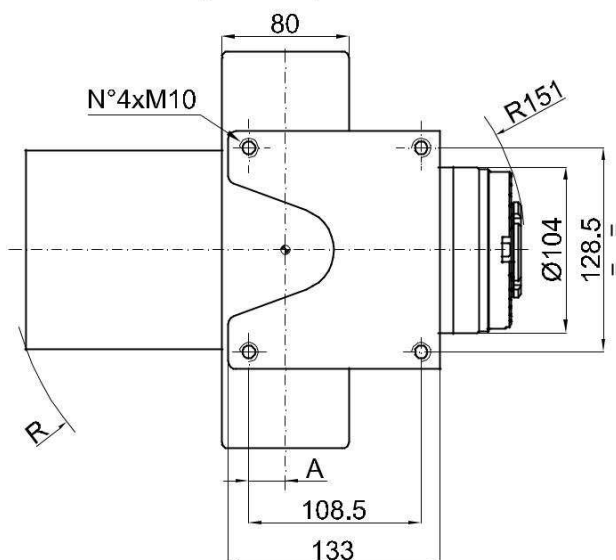
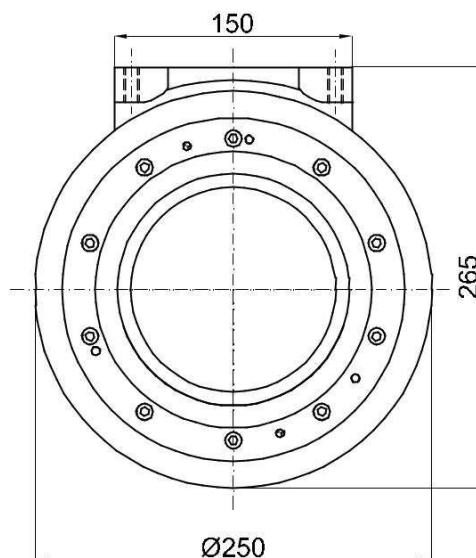
	A.C. MOTOR	D.C. MOTOR	BL MOTOR
L	151	159	137
R	159	169	141

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
WHEEL – RUOTA Ø260x80 / Ø260x100 (Drive wheel code MR245)	mm	Ø250x80 - Ø260x80 Ø260x100
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm	300
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA	kg	650 - 700 1000 - 1150 -
		rubber – gomma polyurethan – poliuretano vulkollan – vulkollan
BRAKE TORQUE – COPPIA FRENO	Nm	10
WEIGHT - PESO	kg	31 ÷ 35

LMR250



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

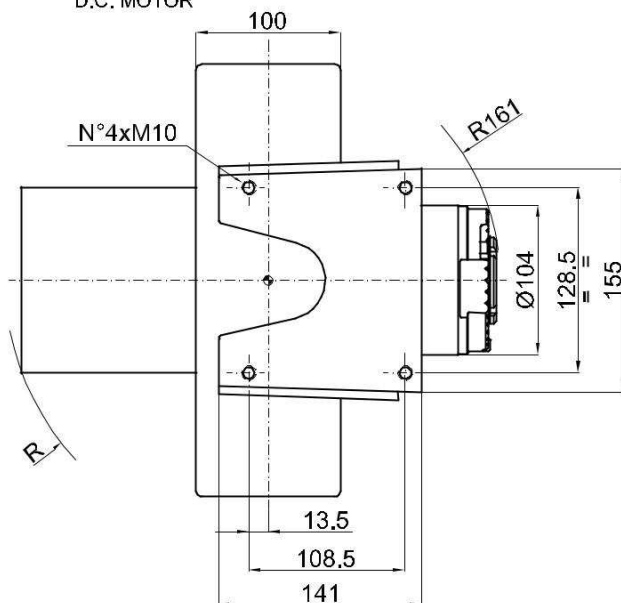
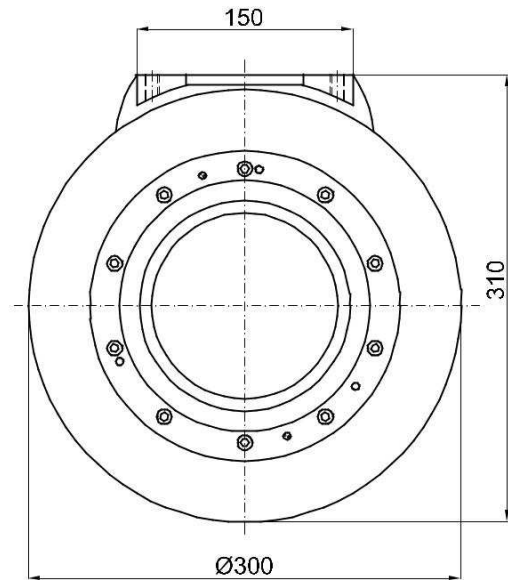
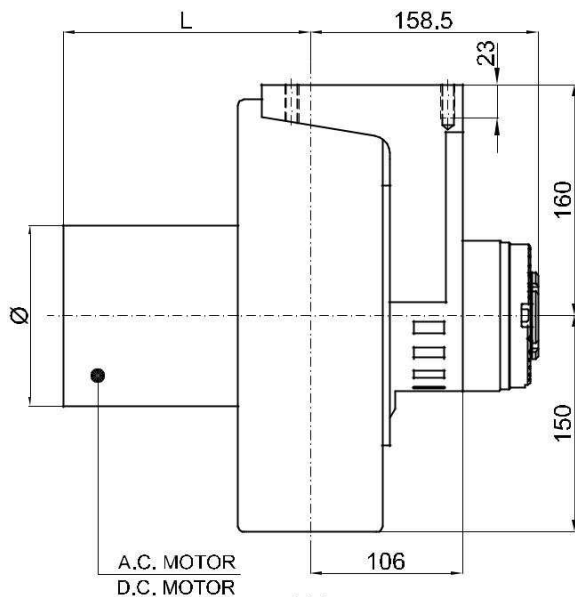


MR250FR

	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

TECHNICAL DATAS – DATI TECNICI		A.C. MOTOR D.C. MOTOR
POWER - POTENZA	W	700 ÷ 1500
VOLTAGE - TENSIONE	V	12 ÷ 96
GEAR RATIO – RAPPORTO DI RIDUZIONE	i	32:1 – 26:1 – 20:1
WHEEL – RUOTA Ø260x80 / Ø260x100 (Drive wheel code MR255)	mm	Ø250x80 - Ø260x80 Ø250x100 - Ø260x100
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm	300
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA	kg	650 - 700 1000 - 1150 -
		rubber – gomma polyurethan – poliuretano vulkollan – vullkollan
BRAKE TORQUE – COPPIA FRENO	Nm	10
WEIGHT - PESO	kg	32 ÷ 42

LMR300

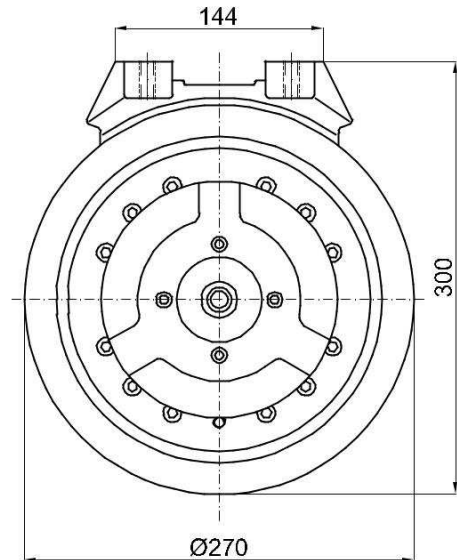
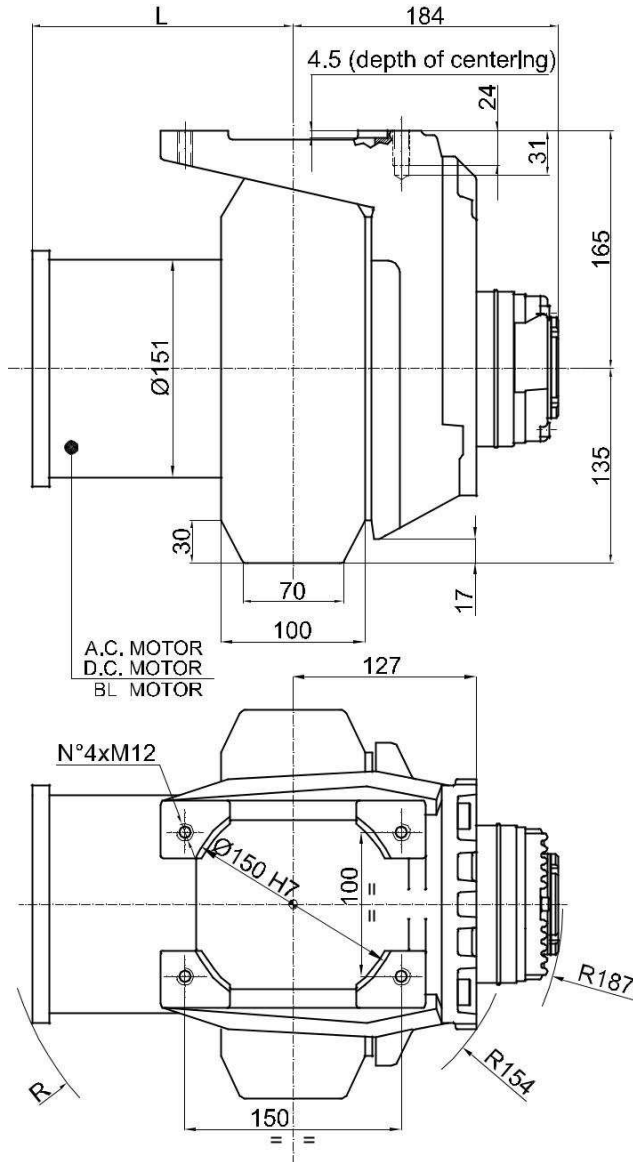


MR300FR

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

TECHNICAL DATAS – DATI TECNICI		A.C. MOTOR	D.C. MOTOR
POWER - POTENZA	W	1200 ÷ 1500	
VOLTAGE - TENSIONE	V	12 ÷ 96	
GEAR RATIO – RAPPORTO DI RIDUZIONE	i	32:1 – 26:1 – 20:1	
WHEEL - RUOTA	mm	Ø300x100	
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm	300	
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA	kg	750	900 - 1350
		rubber – gomma	
		polyurethan – poliuretano	
		vulkollan – vukollan	-
BRAKE TORQUE – COPPIA FRENO	Nm	10	
WEIGHT - PESO	kg	35 ÷ 45	

LMR270

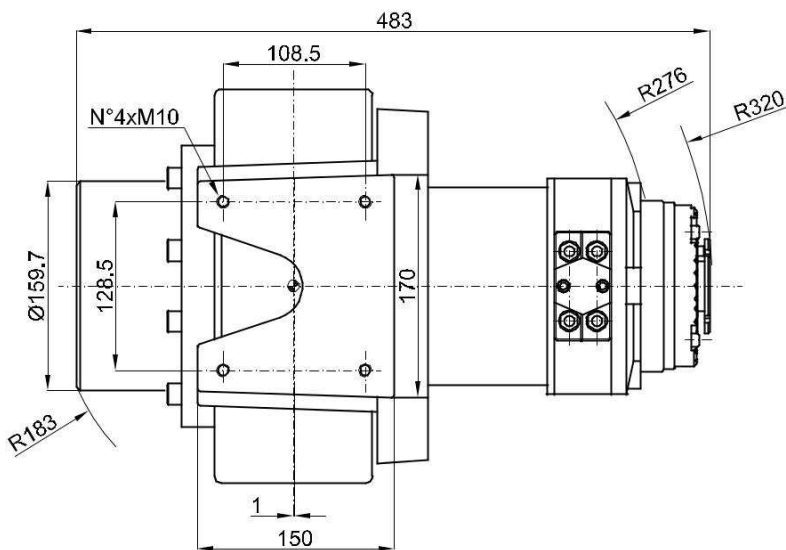
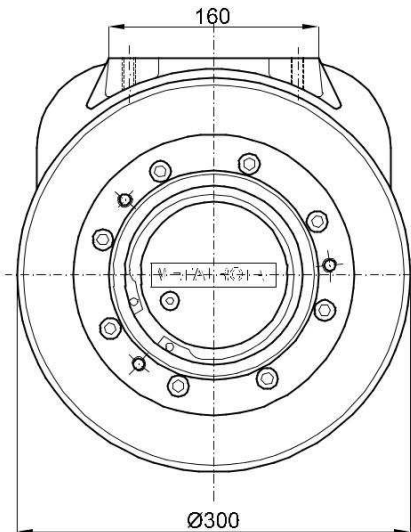
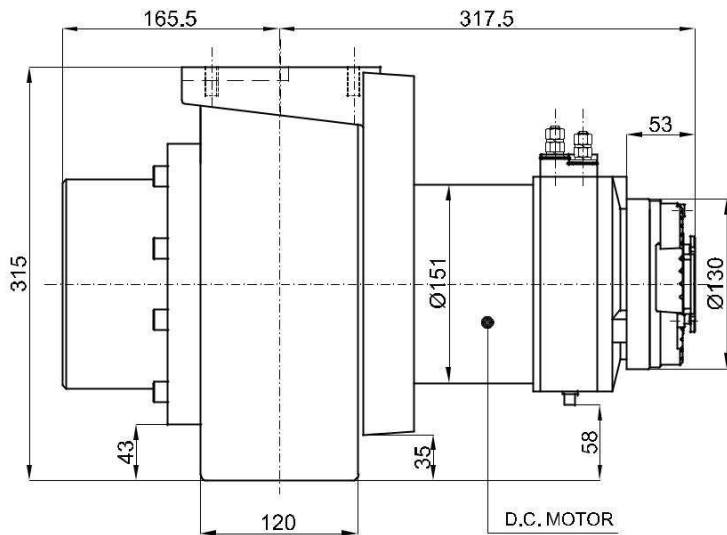


MR270FR

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

TECHNICAL DATAS – DATI TECNICI		A.C. MOTOR D.C. MOTOR BL MOTOR
POWER - POTENZA	W	1000 ÷ 1500
VOLTAGE - TENSIONE	V	24 ÷ 96
GEAR RATIO – RAPPORTO DI RIDUZIONE	i	34:1 – 23:1
WHEEL - RUOTA	mm	Ø270x100
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm	500
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA	kg	- 1300 -
		rubber – gomma polyurethan – poliuretano vulkollan – vukollan
BRAKE TORQUE – COPPIA FRENO	Nm	20
WEIGHT - PESO	kg	75

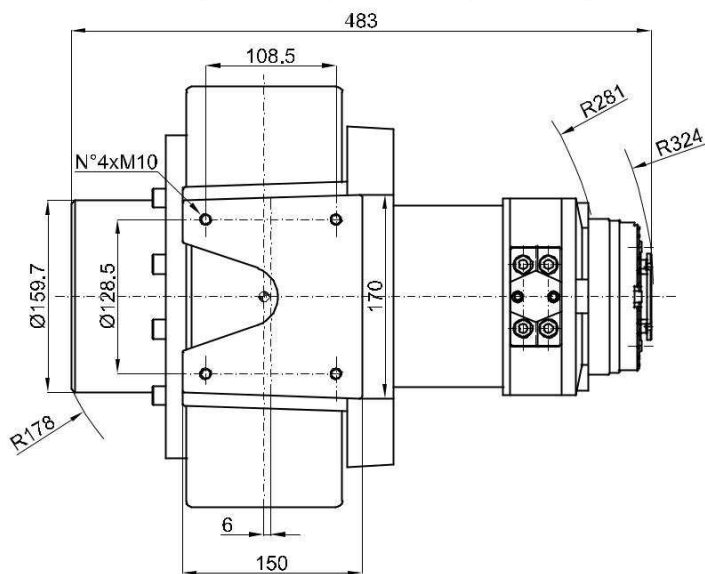
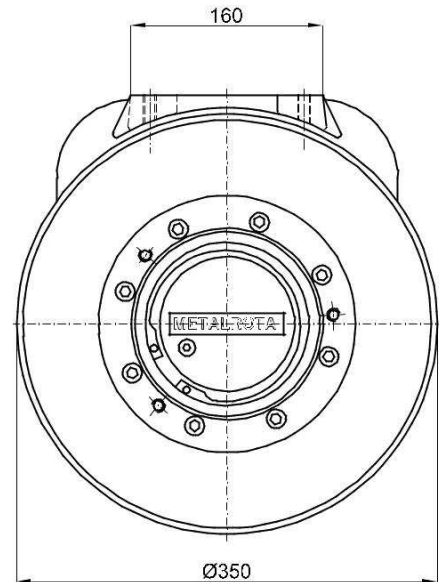
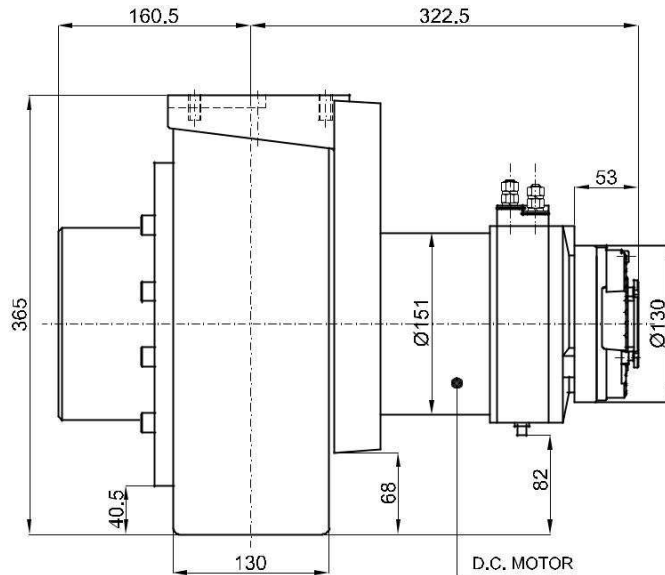
LMR260/300 Motor Ø151mm



**MR260/300FM
D.151mm**

TECHNICAL DATAS – DATI TECNICI		D.C. MOTOR	
POWER - POTENZA	W		1500 ÷ 2500
VOLTAGE - TENSIONE	V		24 ÷ 96
GEAR RATIO – RAPPORTO DI RIDUZIONE	i		30:1
WHEEL - RUOTA	mm		Ø300x120
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm		1200
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA	kg	rubber – gomma polyurethan – poliuretano vulkollan – vukollan	- 1000 - 1500 -
BRAKE TORQUE – COPPIA FRENO	Nm		20
WEIGHT - PESO	kg		70

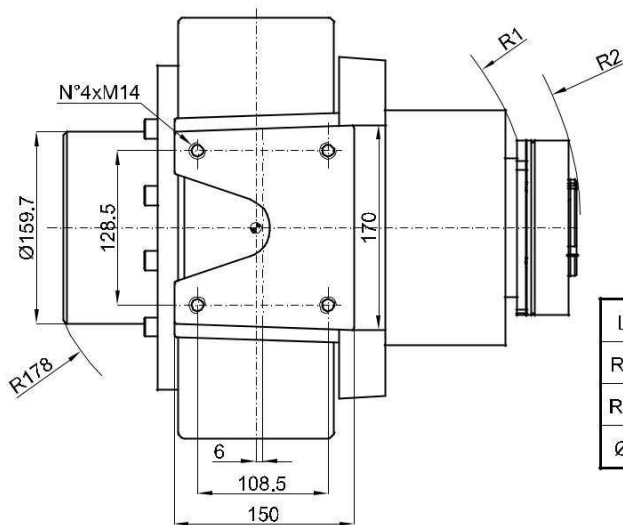
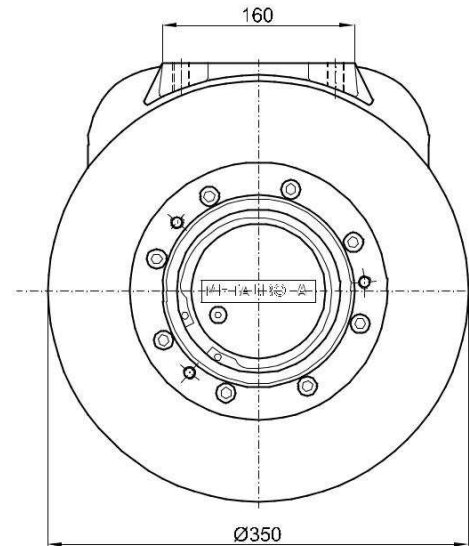
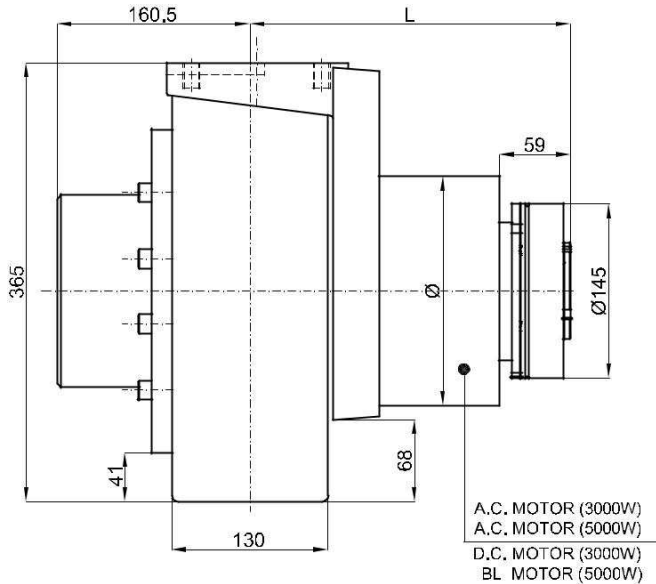
LMR260/350 Motor Ø151mm



MR260/350FM D.151mm

TECHNICAL DATAS – DATI TECNICI		D.C. MOTOR	
POWER - POTENZA	W		1500 ÷ 2500
VOLTAGE - TENSIONE	V		24 ÷ 96
GEAR RATIO – RAPPORTO DI RIDUZIONE	i		30:1
WHEEL - RUOTA	mm		Ø350x130
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm		1200
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA	kg	rubber – gomma polyurethan – poliuretano vulkollan – vukollan	- 1400 - 2000 -
BRAKE TORQUE – COPPIA FRENO	Nm		20
WEIGHT - PESO	kg		83

LMR260/350 Motor Ø191mm

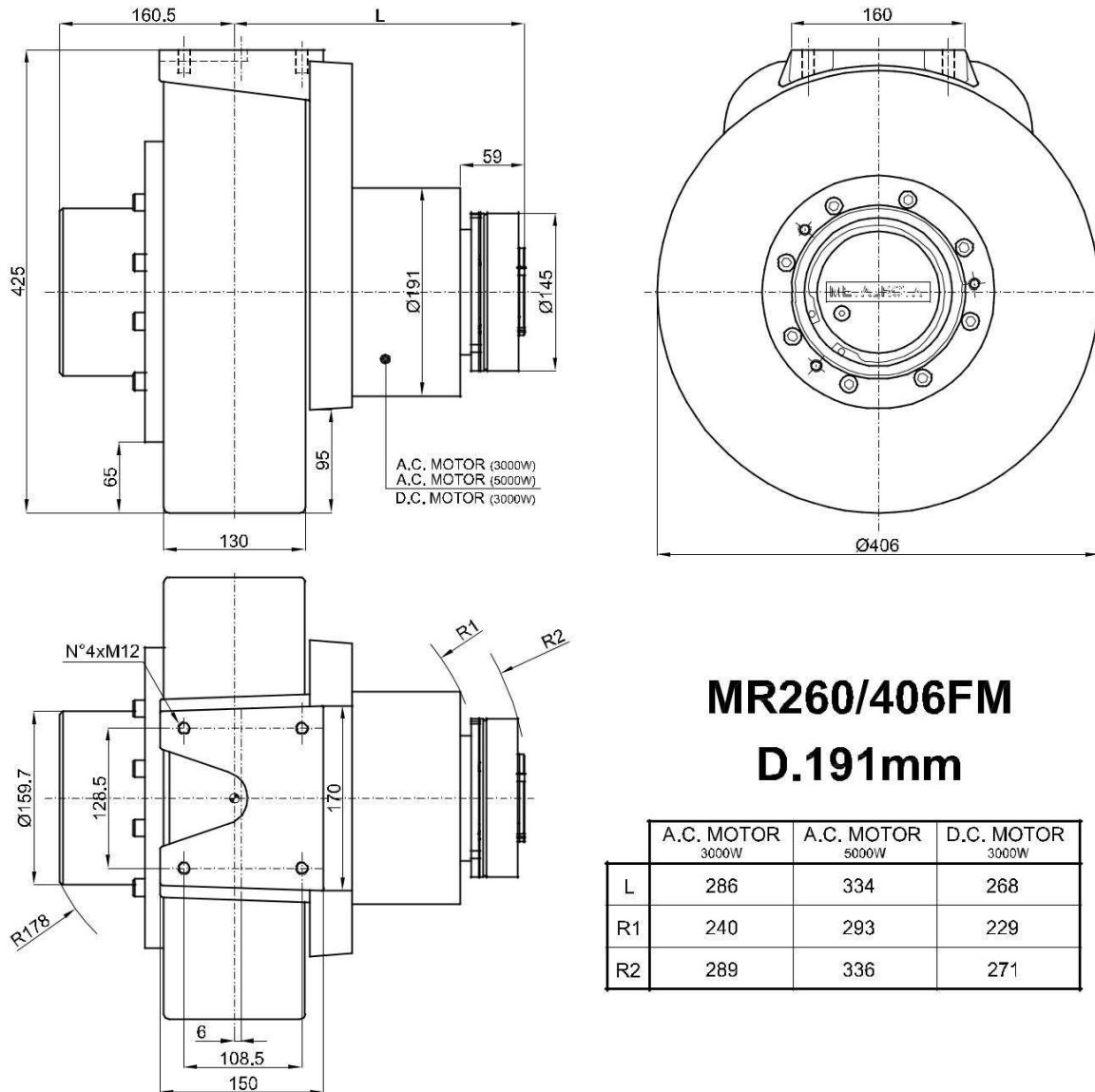


MR260/350FM D.191mm

	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

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
WHEEL - RUOTA	mm	Ø350x130
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm	1200
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA	kg	- 1400 - 2000 -
		rubber – gomma polyurethan – poliuretano vulkollan – vukollan
BRAKE TORQUE – COPPIA FRENO	Nm	40
WEIGHT - PESO	kg	123 - 130

LMR260/406 Motor Ø191mm

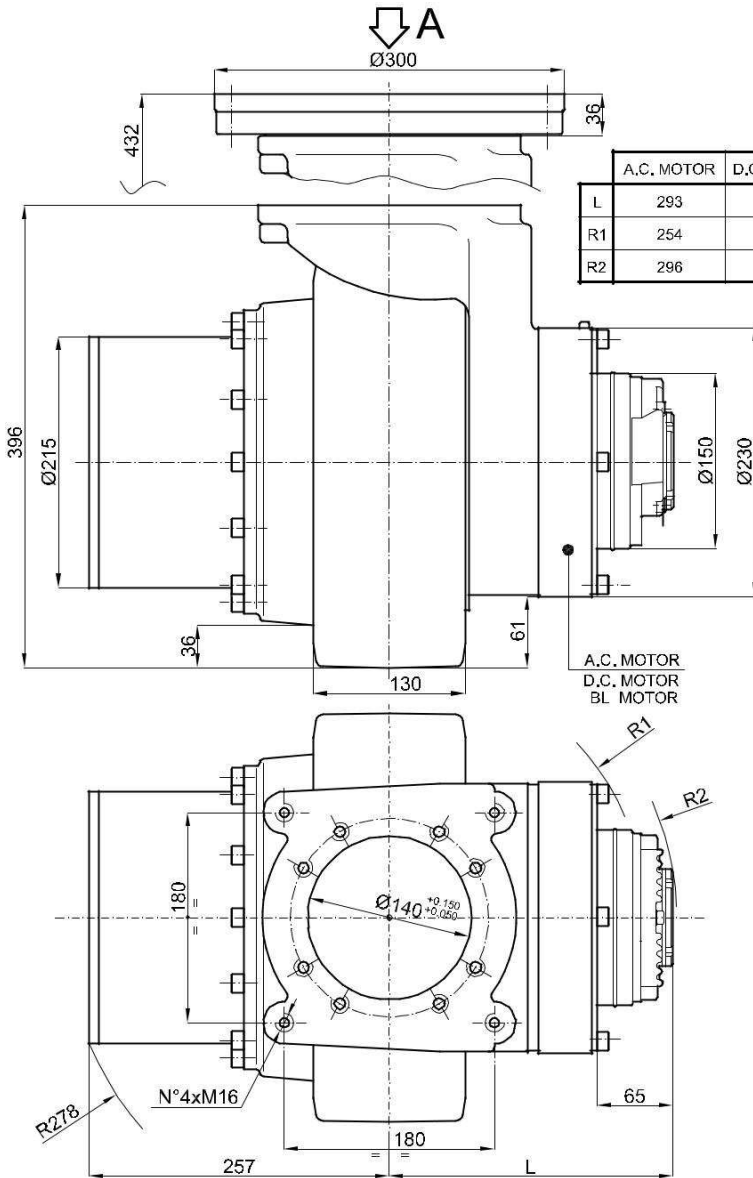


MR260/406FM D.191mm

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

TECHNICAL DATAS – DATI TECNICI		A.C. MOTOR D.C. MOTOR
POWER - POTENZA	W	3000 ÷ 5000
VOLTAGE - TENSIONE	V	24 ÷ 96
GEAR RATIO – RAPPORTO DI RIDUZIONE	i	30:1
WHEEL - RUOTA	mm	Ø406x130
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm	1200
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA	rubber – gomma polyurethan – poliuretano vulkollan – vulkollan	- 1800 - 2300 -
BRAKE TORQUE – COPPIA FRENO	Nm	40
WEIGHT - PESO	kg	135

LMR350

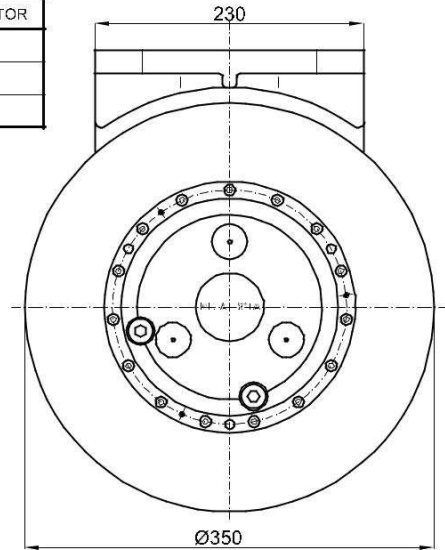


	A.C. MOTOR	D.C. MOTOR	BL MOTOR
L	293	243	269
R1	254	219	226
R2	296	246	273

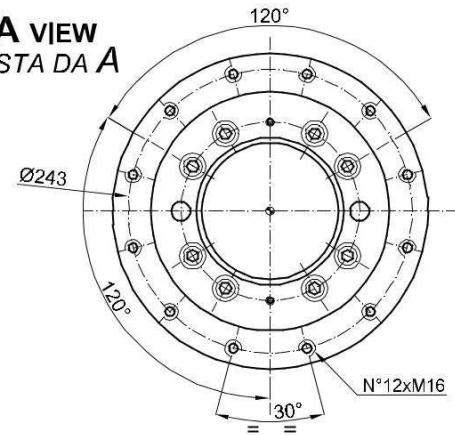
A.C. MOTOR
D.C. MOTOR
BL MOTOR

MR350FM

- Slewing bearing on request
- Ralla di rotazione a richiesta

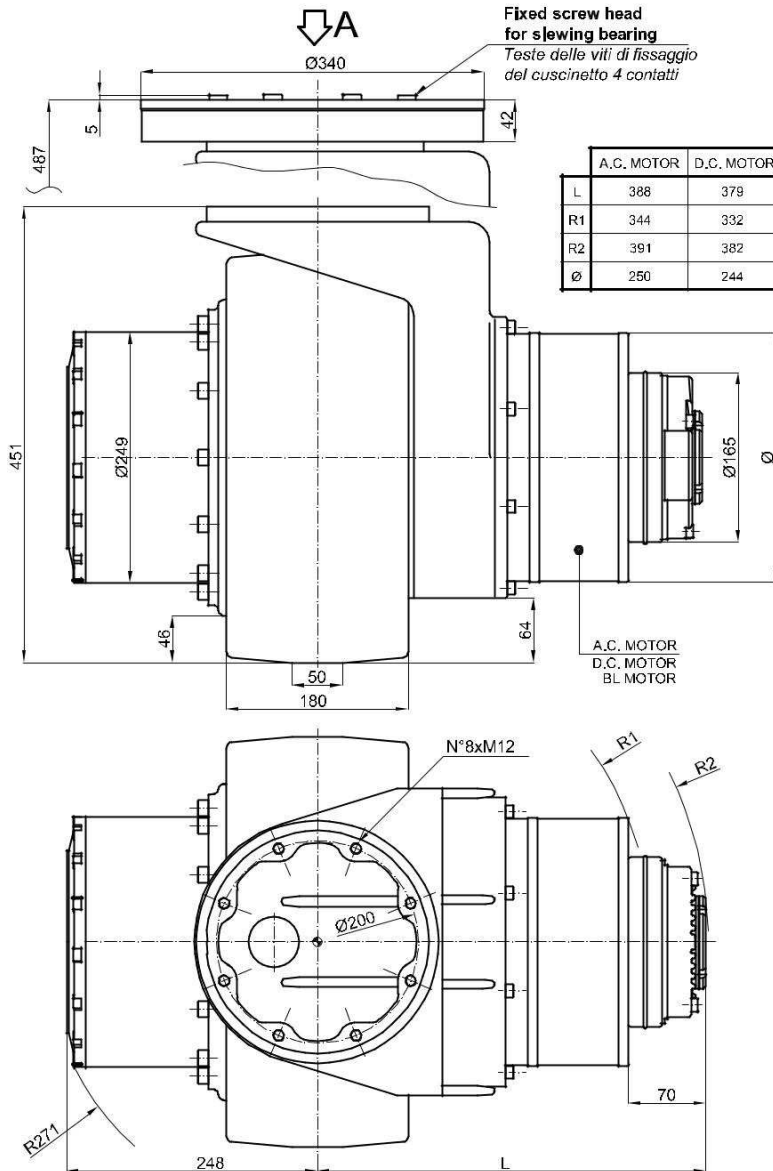


A VIEW
VISTA DA A



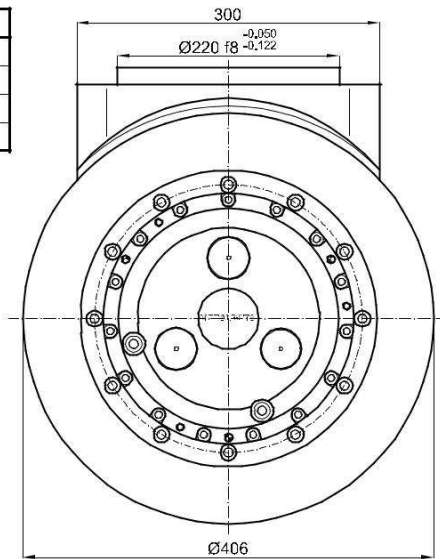
TECHNICAL DATAS – DATI TECNICI		A.C. MOTOR D.C. MOTOR BL MOTOR
POWER - POTENZA	W	3000 ÷ 5000
VOLTAGE - TENSIONE	V	24 ÷ 96
GEAR RATIO – RAPPORTO DI RIDUZIONE	i	30:1 – 22:1
WHEEL - RUOTA	mm	Ø350x130
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm	2000
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA	kg	-
		2600
		-
BRAKE TORQUE – COPPIA FRENO	Nm	40
WEIGHT - PESO	kg	145

LMR415

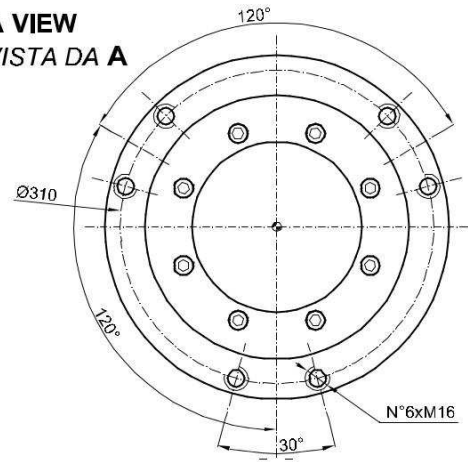


MR415FM

- Slewing bearing on request
- Ralla di rotazione a richiesta



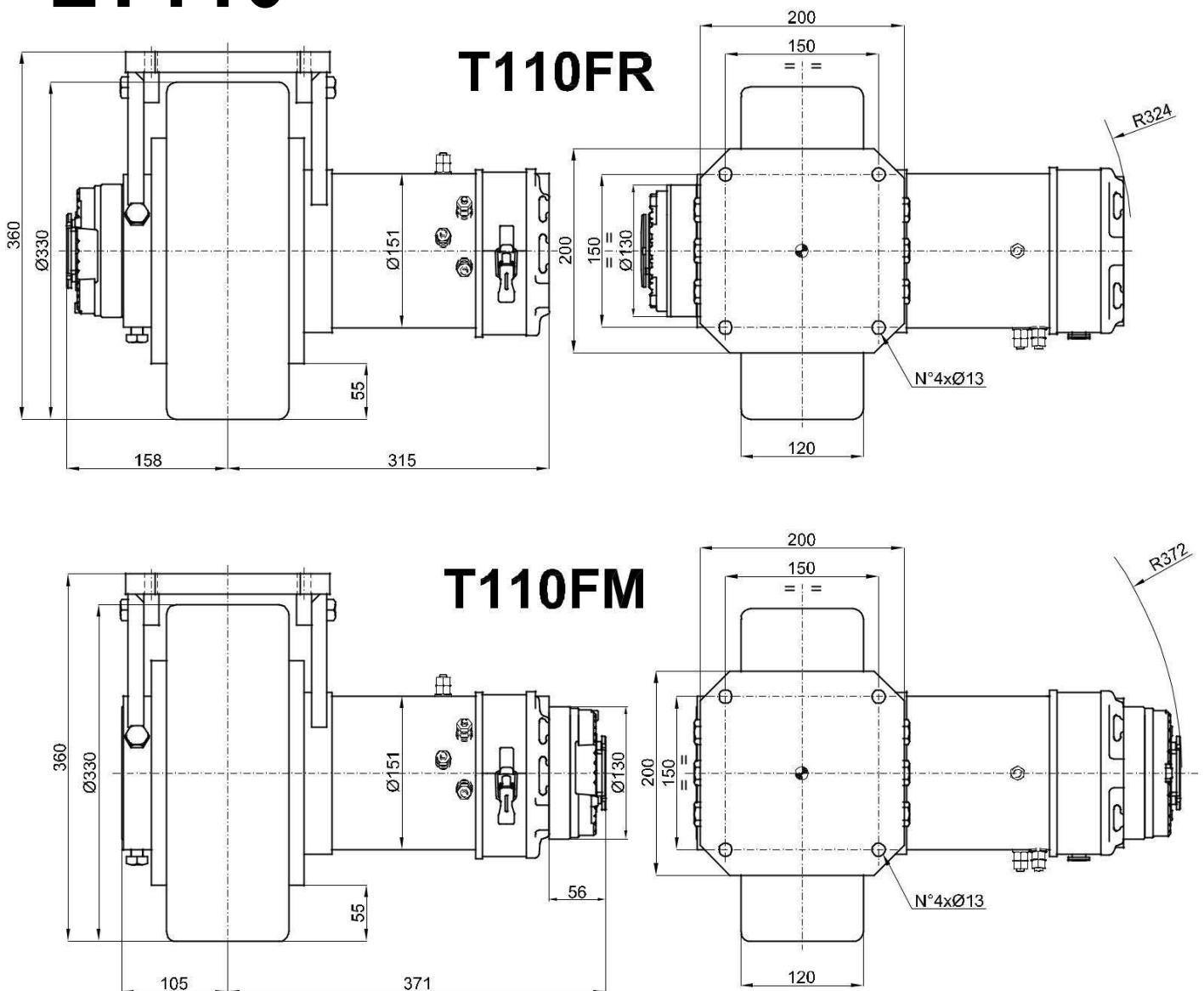
A VIEW
VISTA DA A



TECHNICAL DATAS – DATI TECNICI

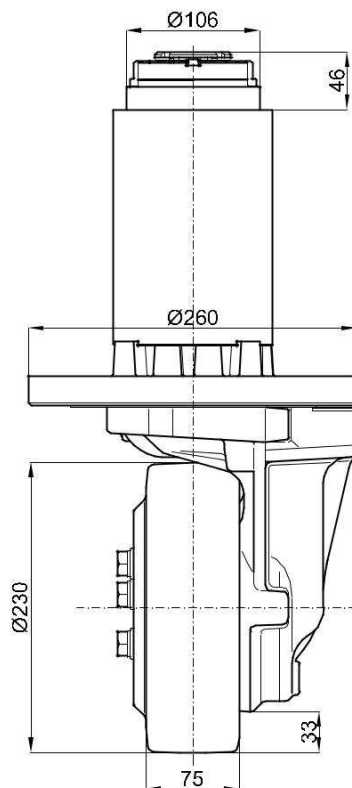
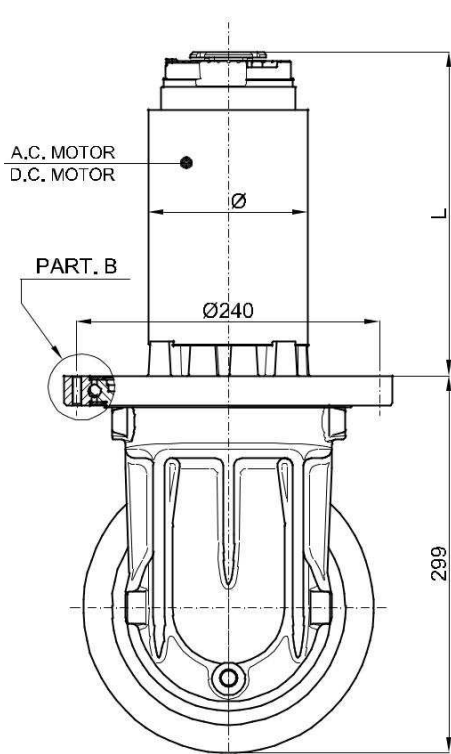
		A.C. MOTOR	D.C. MOTOR	BL MOTOR
POWER - POTENZA	W	6000 ÷ 12000		
VOLTAGE - TENSIONE	V	24 ÷ 96		
GEAR RATIO – RAPPORTO DI RIDUZIONE	i	25,6:1		
WHEEL - RUOTA	mm	Ø406x180		
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm	3600		
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA	kg	-		
		rubber – gomma		
		polyurethan – poliuretano		
		vulkollan – vukollan		
BRAKE TORQUE – COPPIA FRENO	Nm	75		
WEIGHT - PESO	kg	180 ÷ 210		

LT110



TECHNICAL DATAS – DATI TECNICI		D.C. MOTOR	
POWER - POTENZA		W	1000 ÷ 2000
VOLTAGE - TENSIONE		V	24 ÷ 96
GEAR RATIO – RAPPORTO DI RIDUZIONE		i	40:1
20:1 (drive wheel code F120) – 20:1 (codice motoruota F120)			
13:1 (drive wheel code L130) – 13:1 (codice motoruota L130)			
WHEEL - RUOTA		mm	Ø300x120 - Ø330x120
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA		Nm	800
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA		kg	1100 - 1100 1450 - 1750 2100 - 2350
BRAKE TORQUE – COPPIA FRENO		Nm	20
WEIGHT - PESO		kg	72

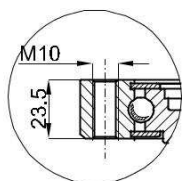
LWR125ECO



WR125ECOFM

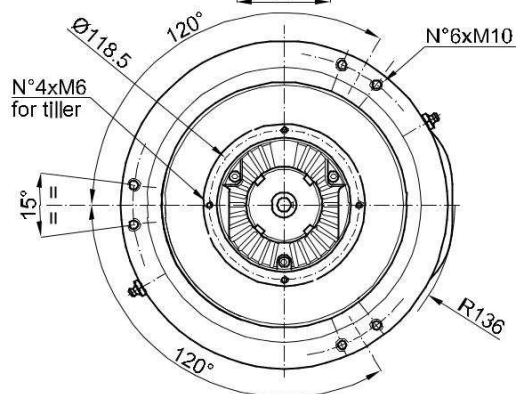
PART. B

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



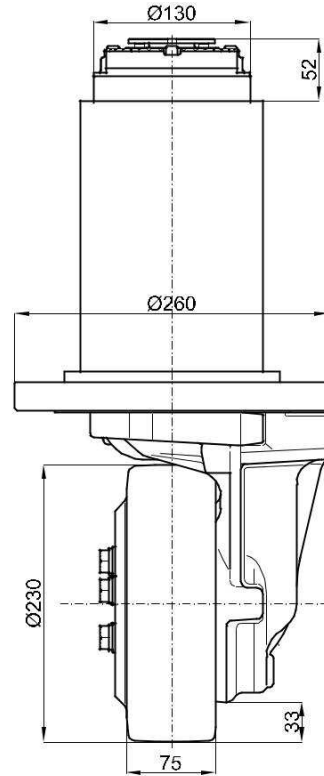
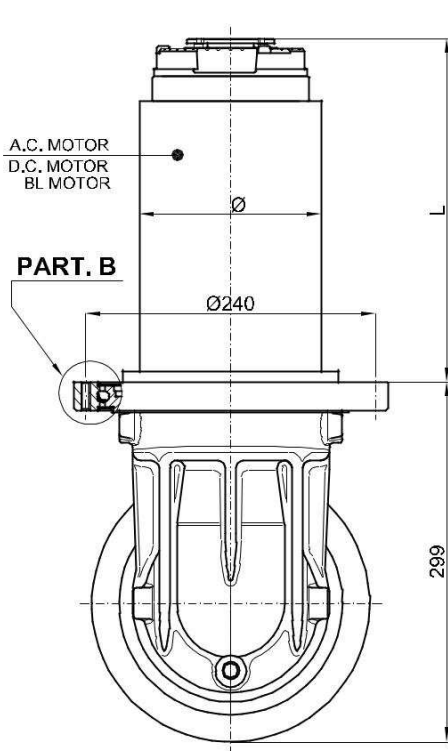
- Motor integral with the gear box

- Motore solidale al riduttore



TECHNICAL DATAS – DATI TECNICI		A.C. MOTOR	
		D.C. MOTOR	
POWER - POTENZA	W	800 ÷ 1200	
VOLTAGE - TENSIONE	V	12 ÷ 96	
GEAR RATIO – RAPPORTO DI RIDUZIONE	i	20:1	
WHEEL - RUOTA	mm	Ø230x75	
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm	400	
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA			
	kg	430	1000
			-
BRAKE TORQUE – COPPIA FRENO	Nm	10	
WEIGHT - PESO	kg	49 ÷ 60	

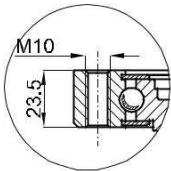
LWR151ECO



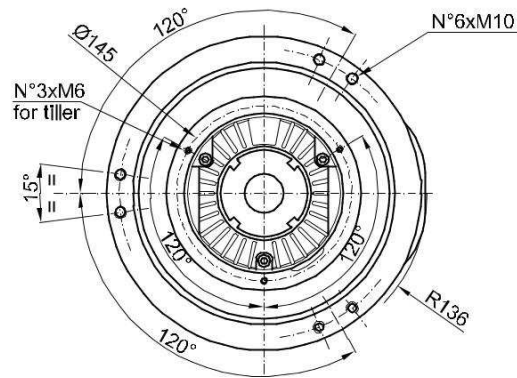
WR151ECO FM

PART. B

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

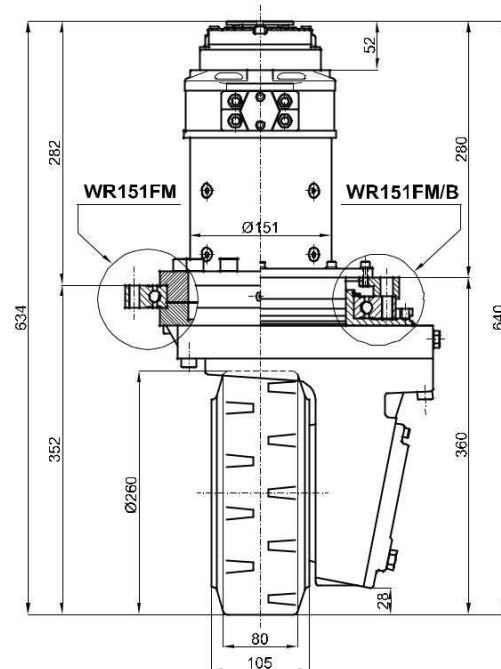
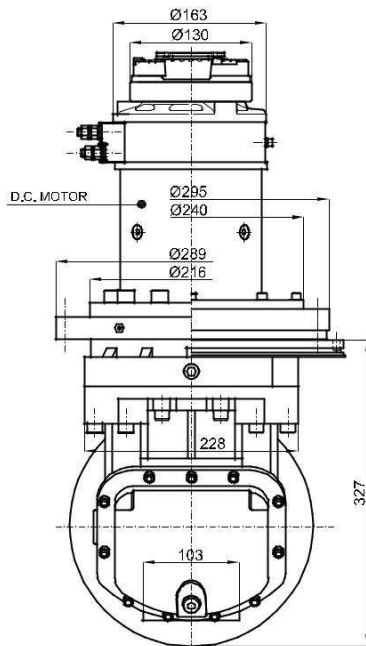


- Motor integral with the gear box
- Motore solidale al riduttore

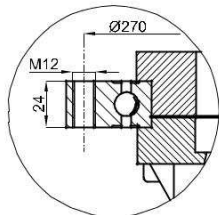


TECHNICAL DATAS – DATI TECNICI		A.C. MOTOR D.C. MOTOR BL MOTOR
POWER - POTENZA	W	1500 ÷ 2000
VOLTAGE - TENSIONE	V	24 ÷ 96
GEAR RATIO – RAPPORTO DI RIDUZIONE	i	20:1
WHEEL - RUOTA	mm	Ø230x75
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm	400
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA	kg	430
		1000
		-
BRAKE TORQUE – COPPIA FRENO	Nm	20
WEIGHT - PESO	kg	61 ÷ 70

LWR151



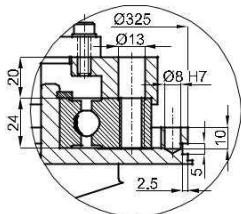
WR151FM



- Motor Integral with the gear box

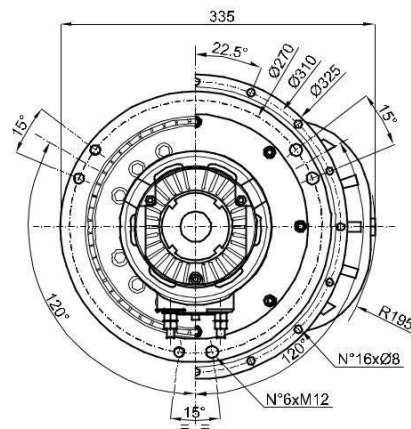
- Motore solidale al riduttore

WR151FM/B



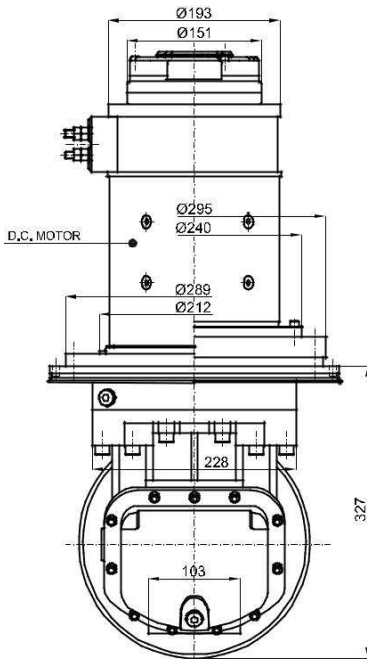
- Motor Integral with the slewing bearing

- Motore solidale alla ralla di rotazione

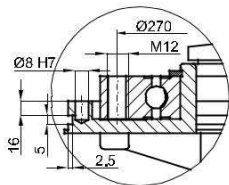


TECHNICAL DATAS – DATI TECNICI		D.C. MOTOR	
POWER - POTENZA	W	1500 ÷ 2500	
VOLTAGE - TENSIONE	V	24 ÷ 96	
GEAR RATIO – RAPPORTO DI RIDUZIONE	i	9:1 - 14:1 - 18:1 - 21:1 - 25:1	
WHEEL - RUOTA	mm	Ø260x105	
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm	600	
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA	kg	850	rubber – gomma
		-	polyurethan – poliuretano
		1800	vulkollan – vukollan
BRAKE TORQUE – COPPIA FRENO	Nm	20	
WEIGHT - PESO	kg	75	

LWR191



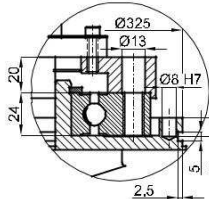
WR191FM



- Motor Integral with the gear box

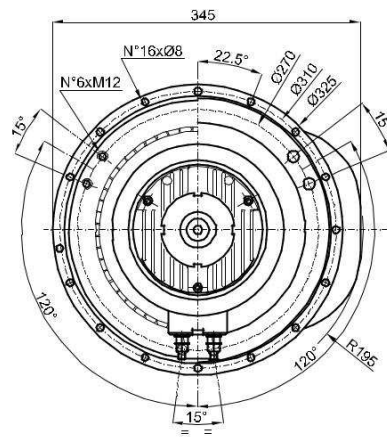
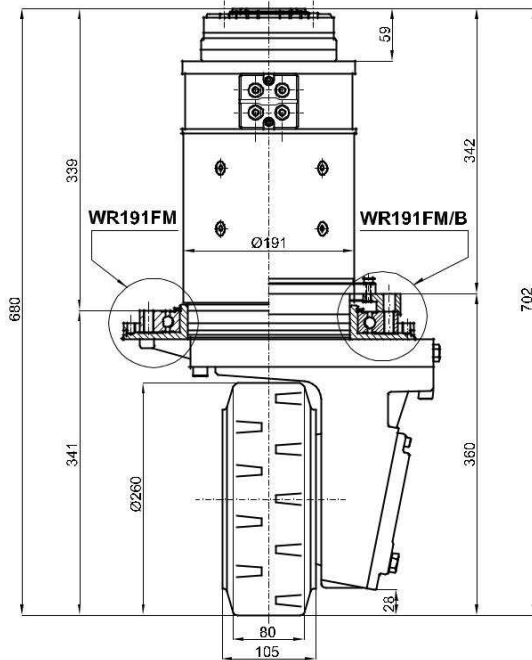
- Motore solidale al riduttore

WR191FM/B



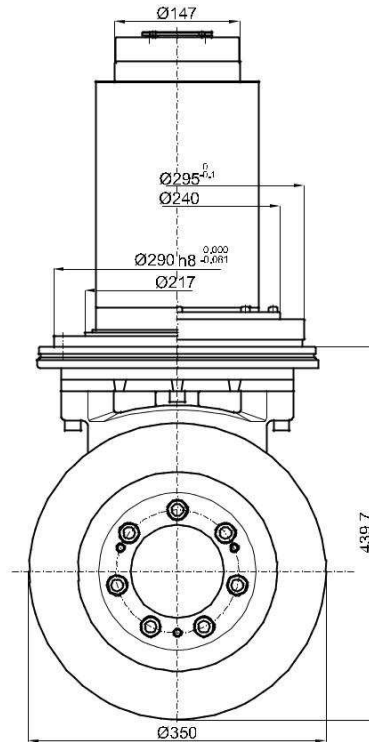
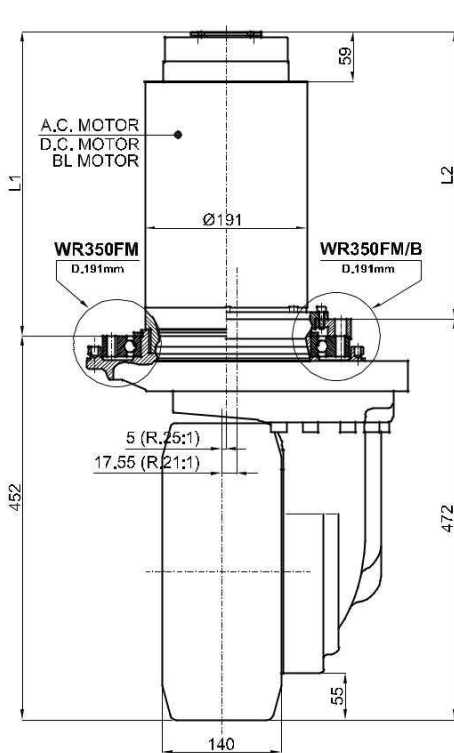
- Motor Integral with the slewing bearing

- Motore solidale alla ralla di rotazione

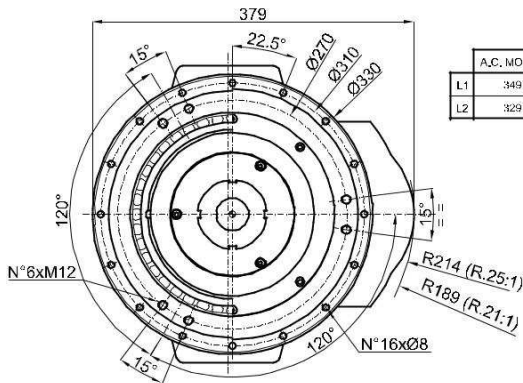


TECHNICAL DATAS – DATI TECNICI		D.C. MOTOR	
POWER - POTENZA	W	3000 ÷ 3500	
VOLTAGE - TENSIONE	V	24 ÷ 96	
GEAR RATIO – RAPPORTO DI RIDUZIONE	i	9:1 - 14:1 - 18:1 - 21:1 - 25:1	
WHEEL - RUOTA	mm	Ø260x105	
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm	600	
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA	kg	850	rubber – gomma
		-	polyurethan – poliuretano
		1800	vulkollan – vukollan
BRAKE TORQUE – COPPIA FRENO	Nm	40	
WEIGHT - PESO	kg	95	

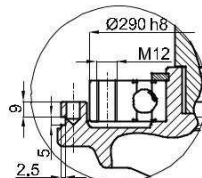
LWR350 Motor Ø191mm



WR350FM-D.191mm



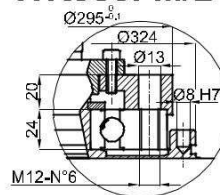
	A.C. MOTOR	D.C. MOTOR	BL MOTOR
L1	349	359	-
L2	329	339	306



- Motor integral with the gear box

- Motore solidale al riduttore

WR350FM/B-D.191mm



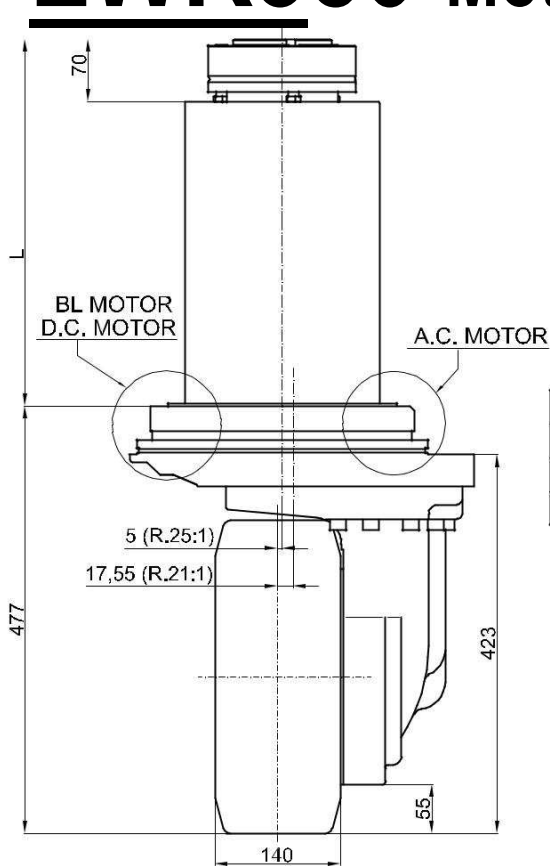
- Motor Integral with the slewing bearing

- Motore solidale alla ralla di rotazione

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
WHEEL - RUOTA	mm	Ø350x140
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm	2200
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA	kg	- - 3000
		rubber – gomma polyurethan – poliuretano vulkollan – vukollan
BRAKE TORQUE – COPPIA FRENO	Nm	40
WEIGHT - PESO	kg	142 ÷ 167

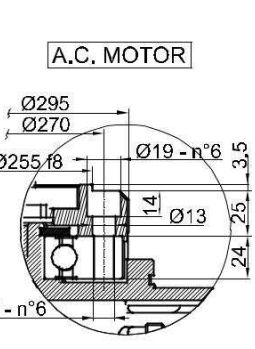
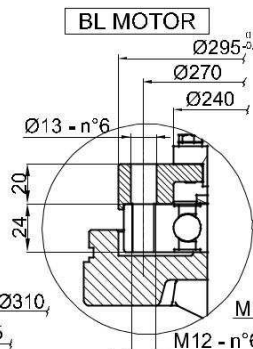
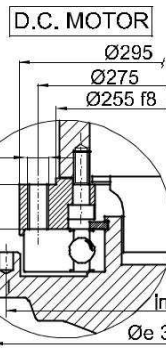
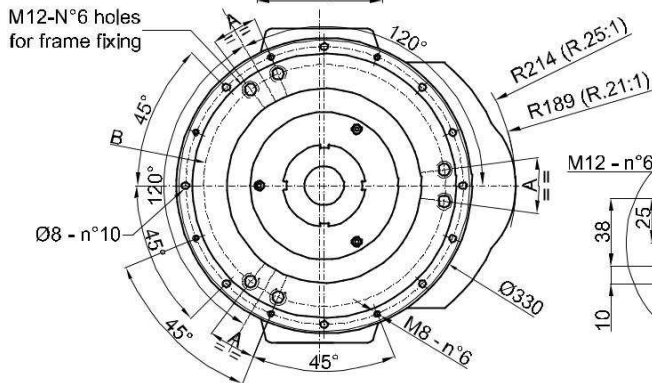
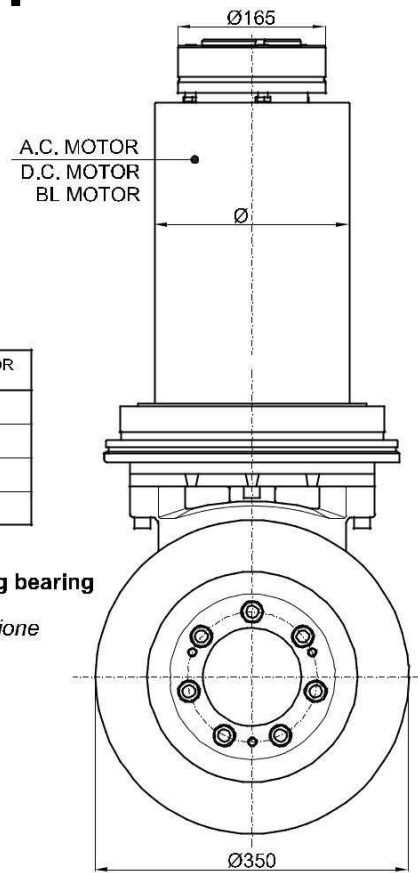
LWR350 Motor Ø244mm



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

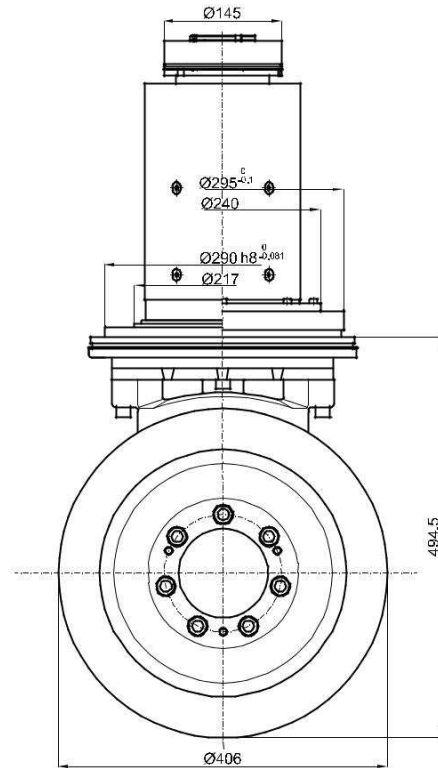
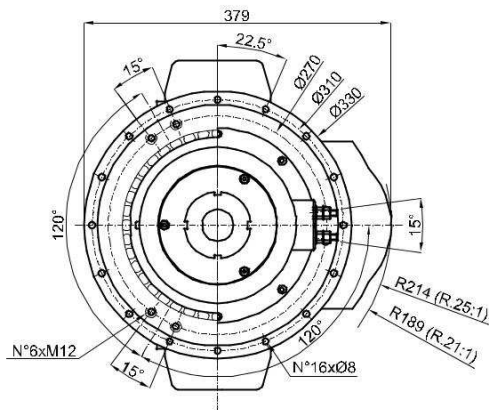
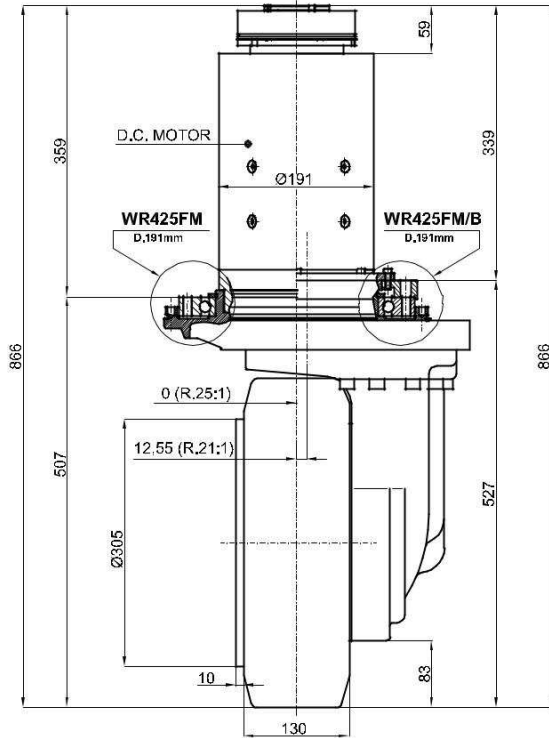
- Motor integral with the slewing bearing
- Motore solidale alla ralla di rotazione



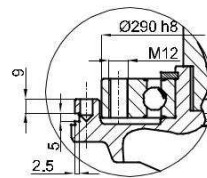
TECHNICAL DATAS – DATI TECNICI

	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
WHEEL - RUOTA	mm Ø350x140
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm 2200
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA	Kg - - 3000
BRAKE TORQUE – COPPIA FRENO	Nm 75
WEIGHT - PESO	kg 180 ÷ 200

LWR425 Motor Ø191mm

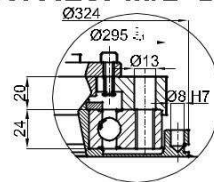


WR425FM-D.191mm



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

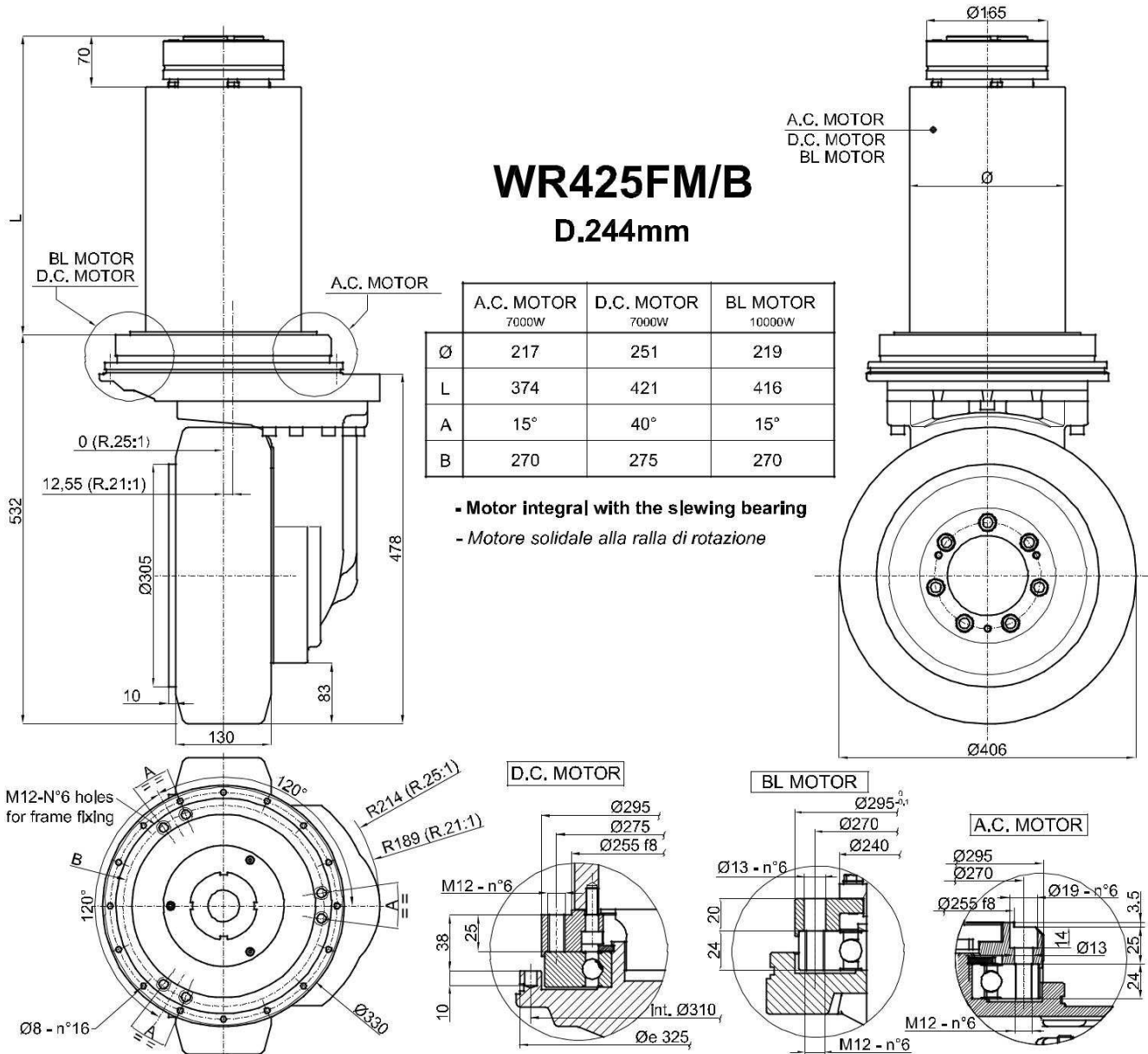
WR425FM/B-D.191mm



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

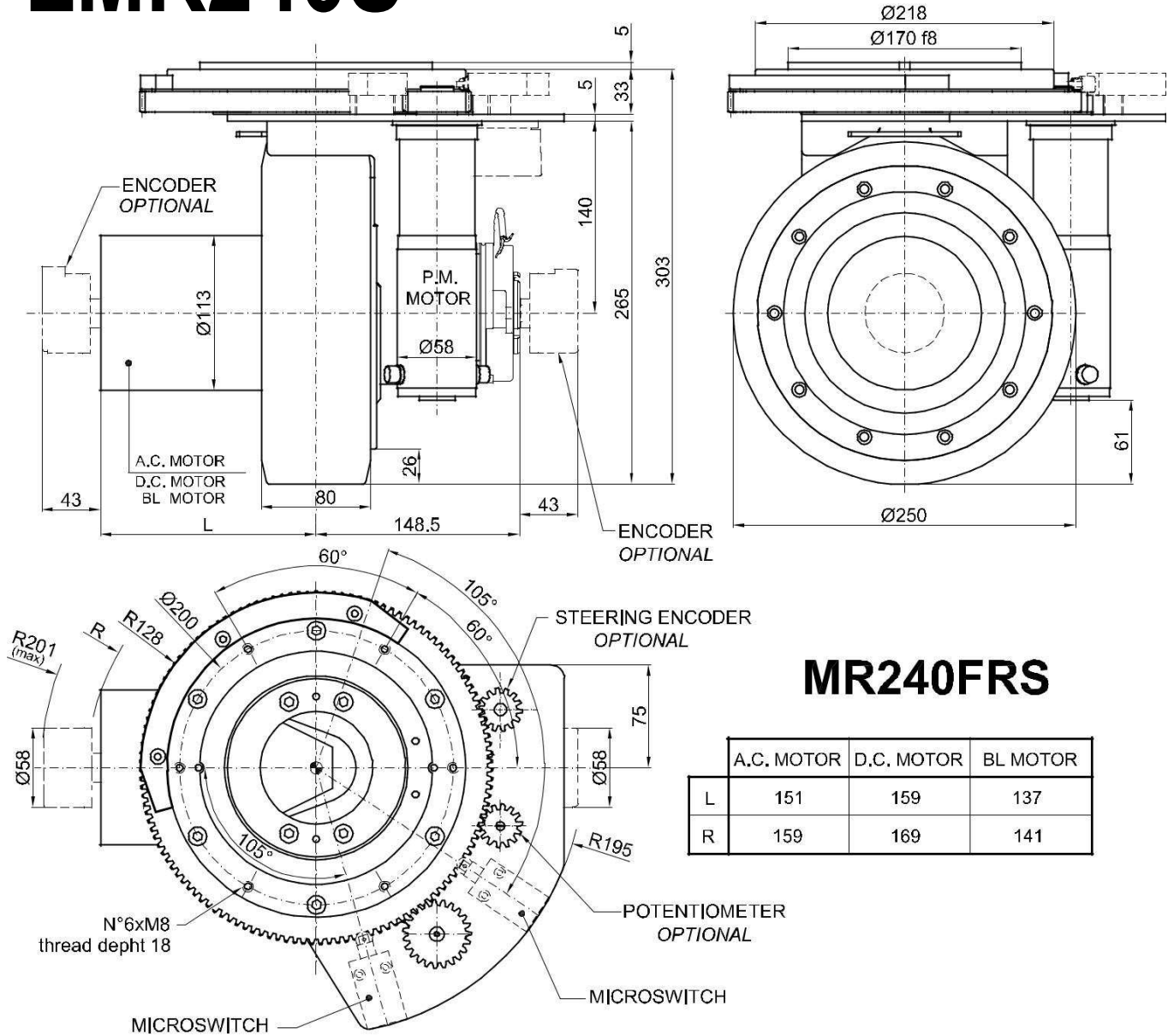
TECHNICAL DATAS – DATI TECNICI		D.C. MOTOR	
POWER - POTENZA	W	3000 ÷ 5000	
VOLTAGE - TENSIONE	V	24 ÷ 96	
GEAR RATIO – RAPPORTO DI RIDUZIONE	i	21:1 - 25:1	
WHEEL - RUOTA	mm	Ø406x130	
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm	2200	
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA	kg	3100	rubber – gomma polyurethan – poliuretano vulkollan – vulkollan
BRAKE TORQUE – COPPIA FRENO	Nm	40	
WEIGHT - PESO	kg	160 ÷ 180	

LWR425 Motor Ø244mm



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	
WHEEL - RUOTA	mm	Ø406x130	
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm	2200	
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA	kg	-	
		rubber – gomma polyurethan – poliuretano vulkollan – vukollan	
BRAKE TORQUE – COPPIA FRENO	Nm	75	
WEIGHT - PESO	kg	215	

LMR240S

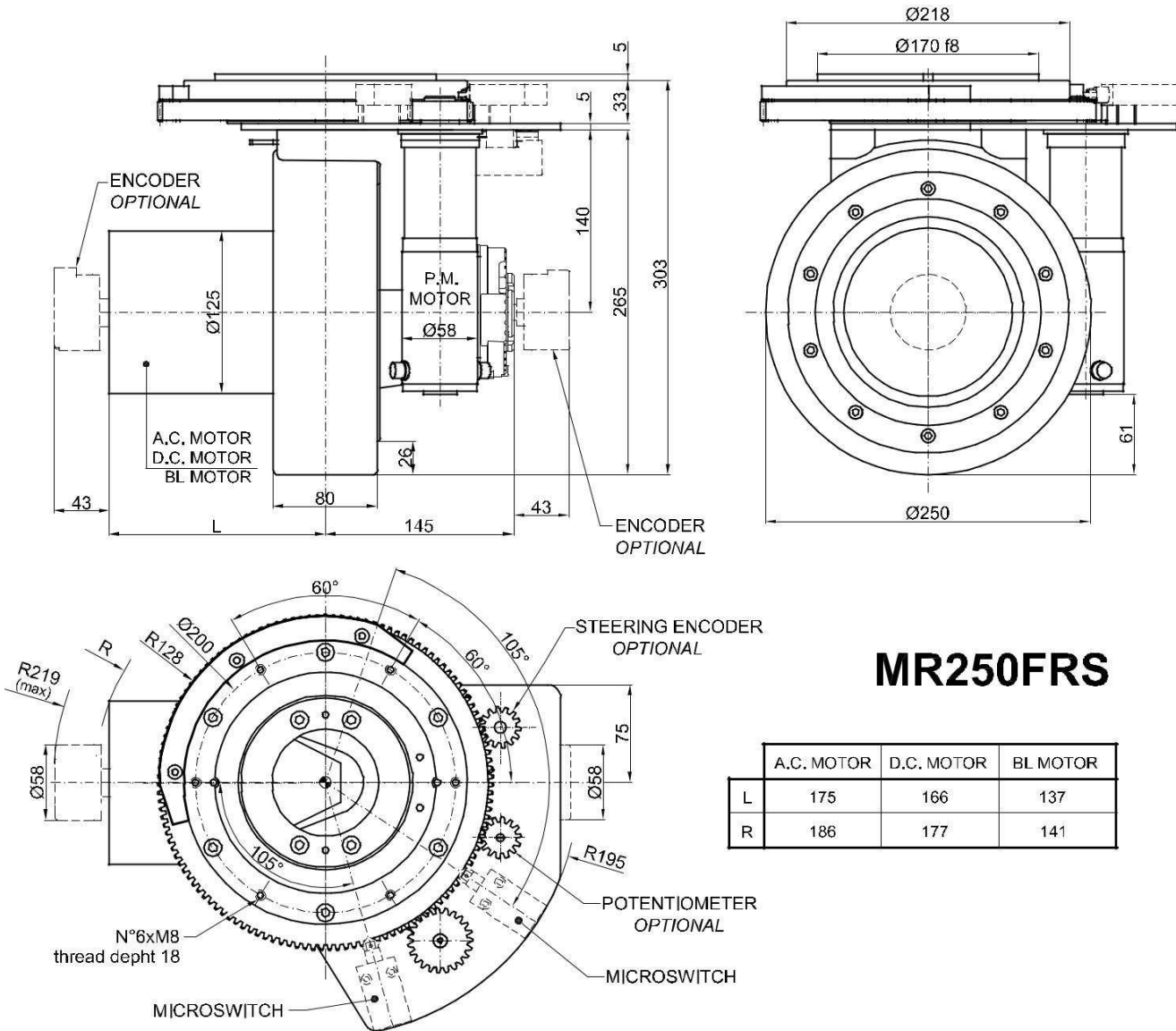


MR240FRS

	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	
		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	kg	650 - 700 1000 - 1150 -	
			rubber – gomma polyurethan – poliuretano vulkollan – vukollan
BRAKE TORQUE – COPPIA FRENO	Nm	10	
WEIGHT - PESO	kg	50	

LMR250S

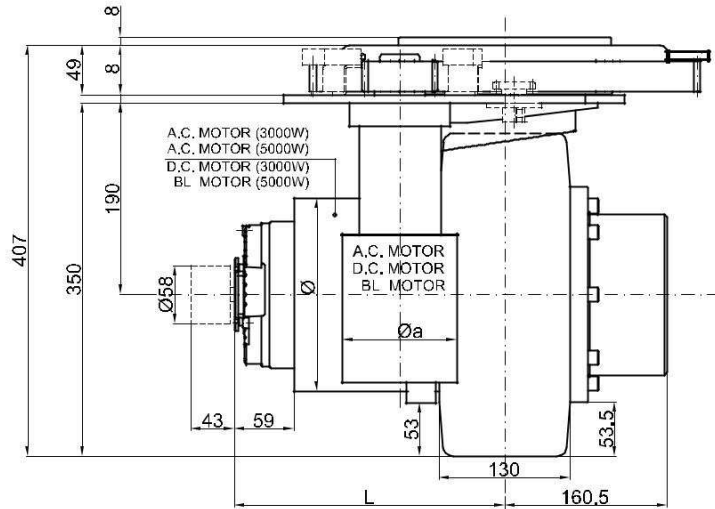
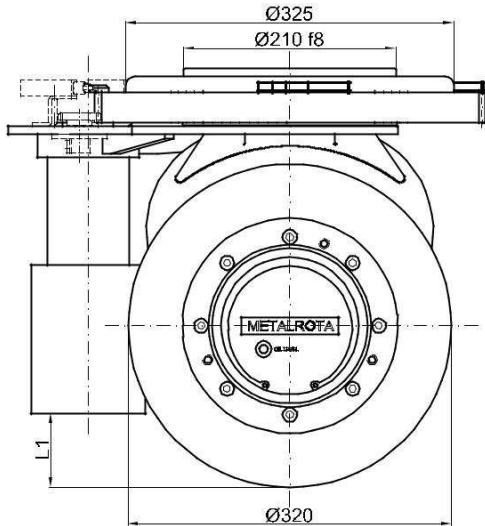


MR250FRS

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

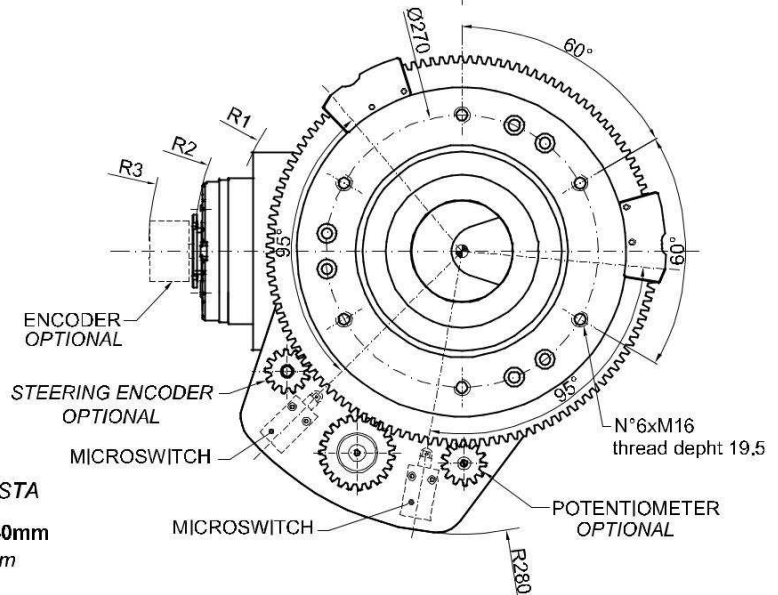
TECHNICAL DATAS – DATI TECNICI	A.C. MOTOR D.C. MOTOR BL MOTOR	
	POWER - POTENZA	W
VOLTAGE - TENSIONE	V	12 ÷ 96
GEAR RATIO – RAPPORTO DI RIDUZIONE	i	32:1 – 26:1 – 20:1
STEERING SYSTEM RATIO – RAPPORTO DI RIDUZIONE SISTEMA STERZO	i	442
WHEEL - RUOTA	mm	Ø250x80 - Ø260x80
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm	300
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA	kg	650 - 700 1000 - 1150 -
		rubber – gomma polyurethan – poliuretano vulkollan – vukollan
BRAKE TORQUE – COPPIA FRENO	Nm	10
WEIGHT - PESO	kg	51 ÷ 57

LMR260/320S



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

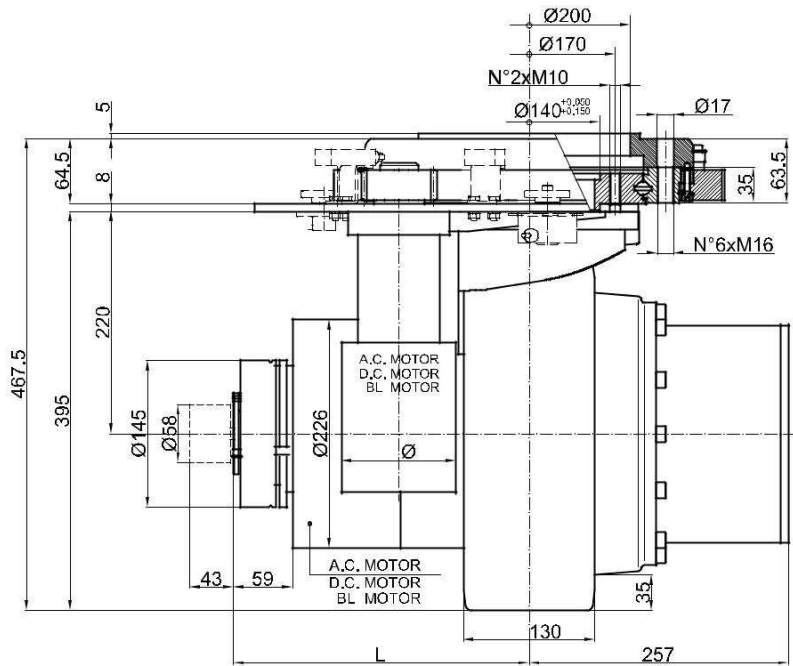
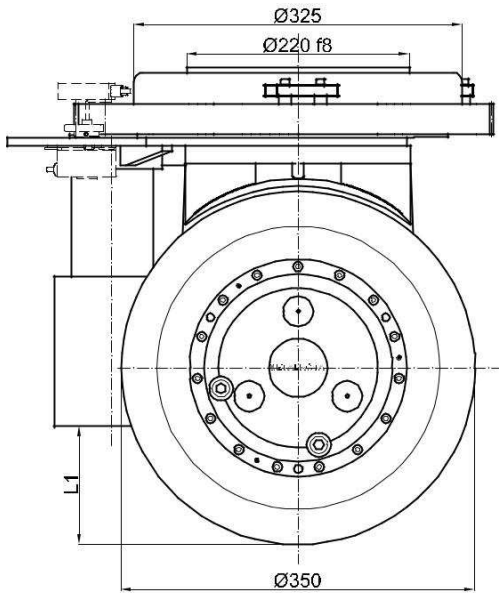


AVAILABLE ON REQUEST / DISPONIBILE A RICHIESTA

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

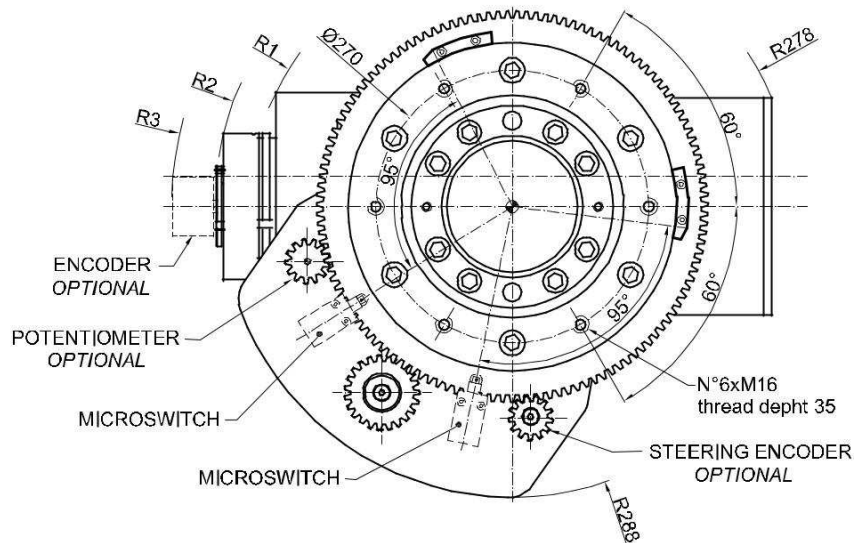
TECHNICAL DATAS – DATI TECNICI		A.C. MOTOR D.C. MOTOR BL MOTOR	
POWER - POTENZA	W	3000 ÷ 5000	
VOLTAGE - TENSIONE	V	24 ÷ 96	
GEAR RATIO – RAPPORTO DI RIDUZIONE	i	30:1	
STEERING SYSTEM RATIO – RAPPORTO DI RIDUZIONE SISTEMA STERZO	i	282	
WHEEL - RUOTA	mm	Ø320x130	
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm	1200	
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA	kg	-	
		rubber – gomma	
		polyurethan – poliuretano	
		vulkollan – vukollan	
BRAKE TORQUE – COPPIA FRENO	Nm	40	
WEIGHT - PESO	kg	150	

LMR350S



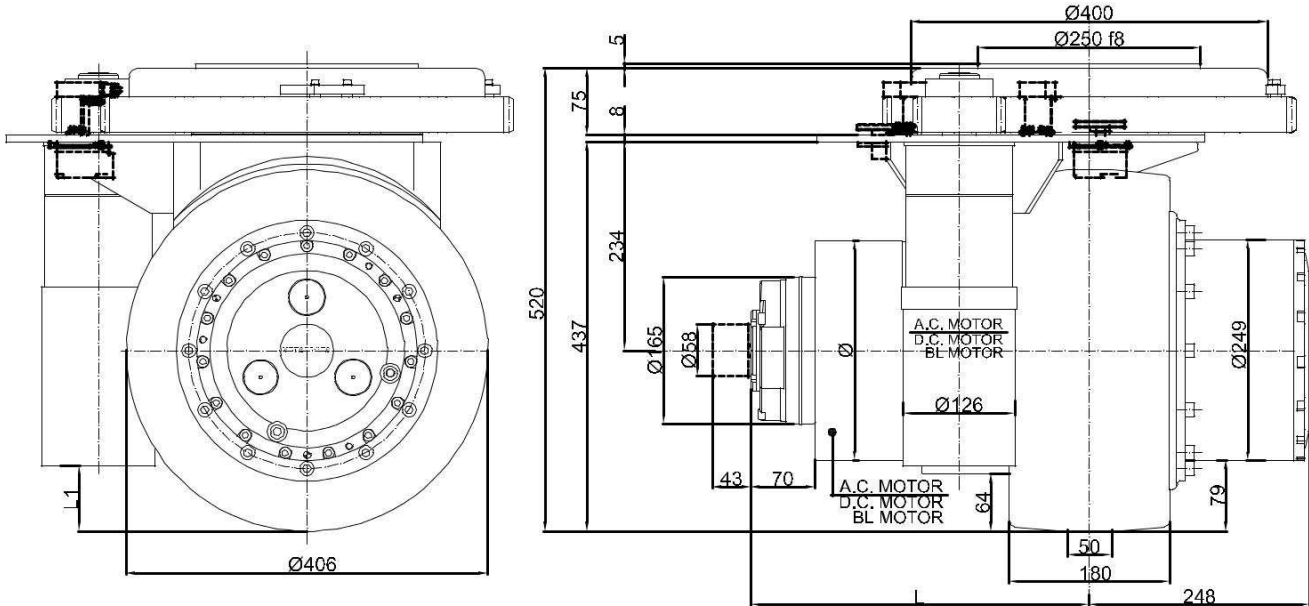
MR350FMS

	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



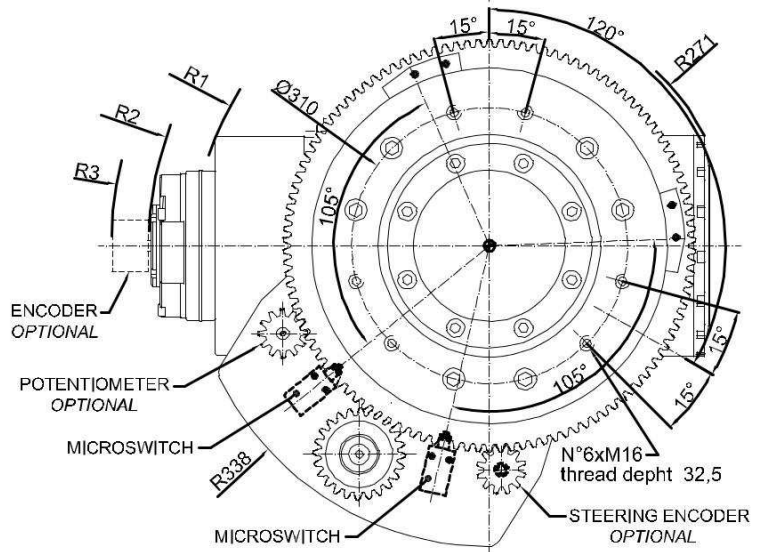
TECHNICAL DATAS – DATI TECNICI		A.C. MOTOR D.C. MOTOR BL MOTOR	
		W	3000 ÷ 5000
POWER - POTENZA		V	24 ÷ 96
VOLTAGE - TENSIONE		i	22:1 - 30:1
GEAR RATIO – RAPPORTO DI RIDUZIONE		i	282
STEERING SYSTEM RATIO – RAPPORTO DI RIDUZIONE SISTEMA STERZO		mm	Ø350x130
WHEEL - RUOTA		Nm	2000
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA		kg	2600
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA	rubber – gomma polyurethan – poliuretano vulkollan – vukollan	Nm	40
BRAKE TORQUE – COPPIA FRENO		kg	170
WEIGHT - PESO			

LMR415S



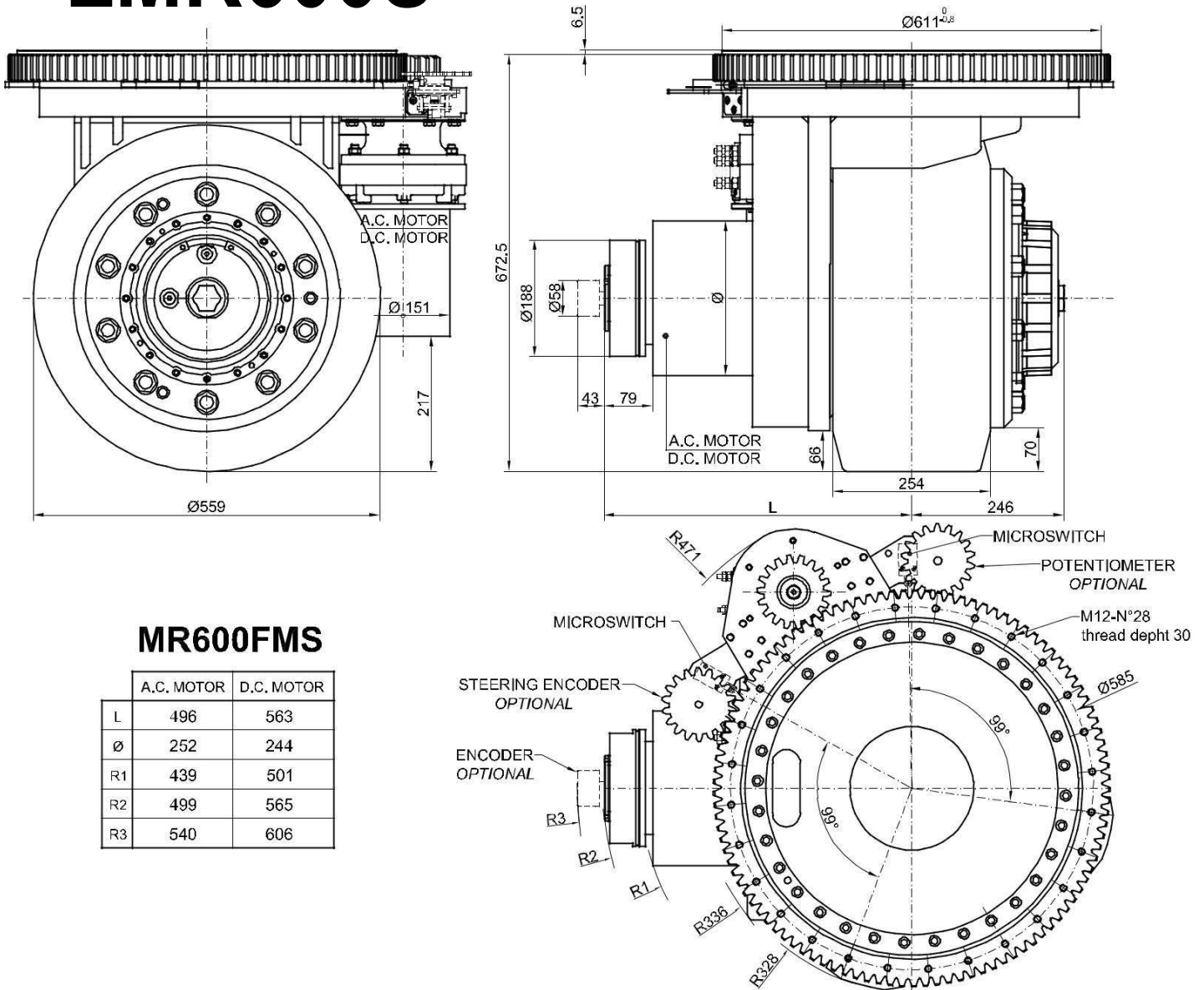
MR415FMS

	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	kg	4000
		rubber – gomma polyurethan – poliuretano vulkollan – vukollan
BRAKE TORQUE – COPPIA FRENO	Nm	75
WEIGHT - PESO	kg	258 ÷ 300

LMR600S

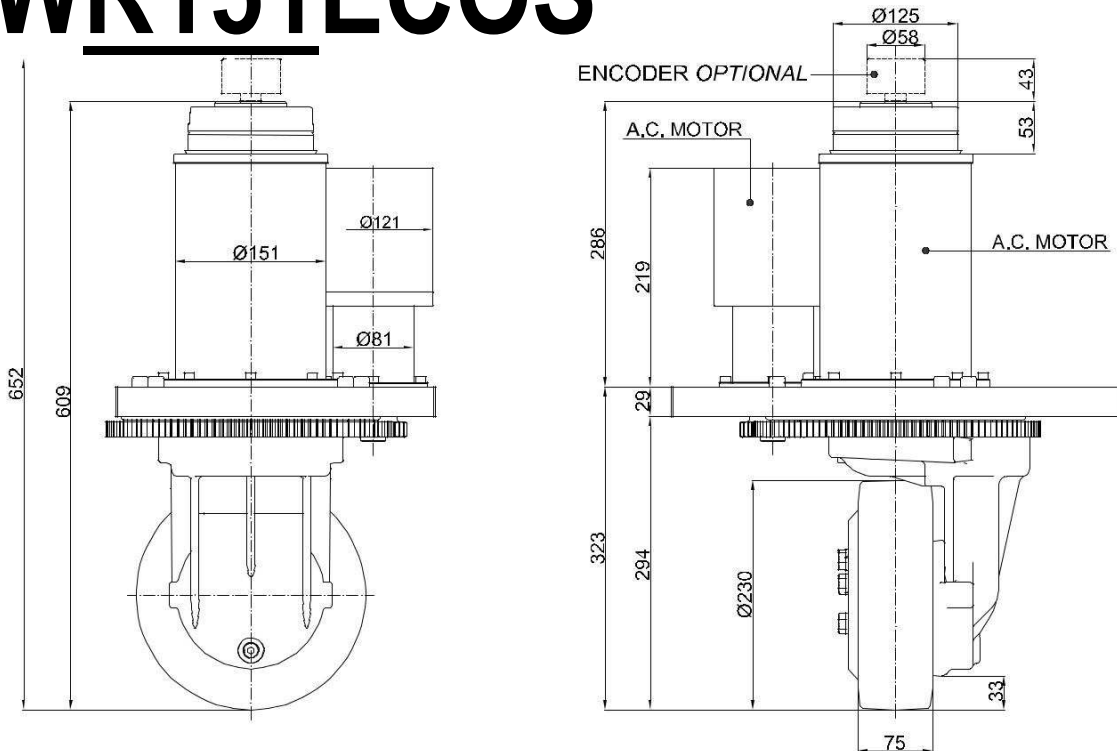


MR600FMS

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

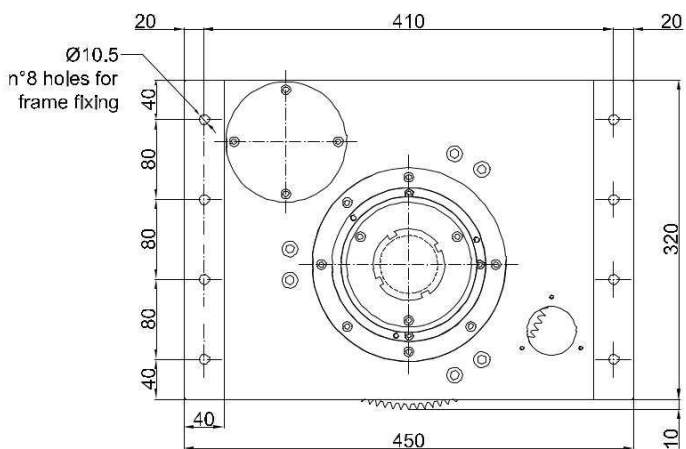
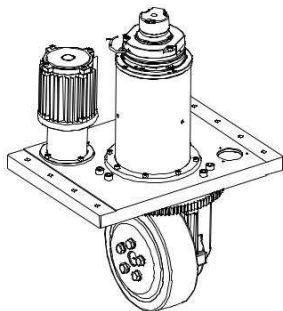
TECHNICAL DATAS – DATI TECNICI		A.C. MOTOR	D.C. MOTOR
POWER - POTENZA	W	6000 ÷ 12000	
VOLTAGE - TENSIONE	V	24 ÷ 96	
GEAR RATIO – RAPPORTO DI RIDUZIONE	i	54:1	
STEERING SYSTEM RATIO – RAPPORTO DI RIDUZIONE SISTEMA STERZO	i	507	
WHEEL - RUOTA	mm	Ø559x254	
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm	12000	
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA	kg	-	
		rubber – gomma	
		polyurethan – poliuretano	
		vulkollan – vukollan	
BRAKE TORQUE – COPPIA FRENO	Nm	100	
WEIGHT - PESO	kg	640	

LWR151ECOS



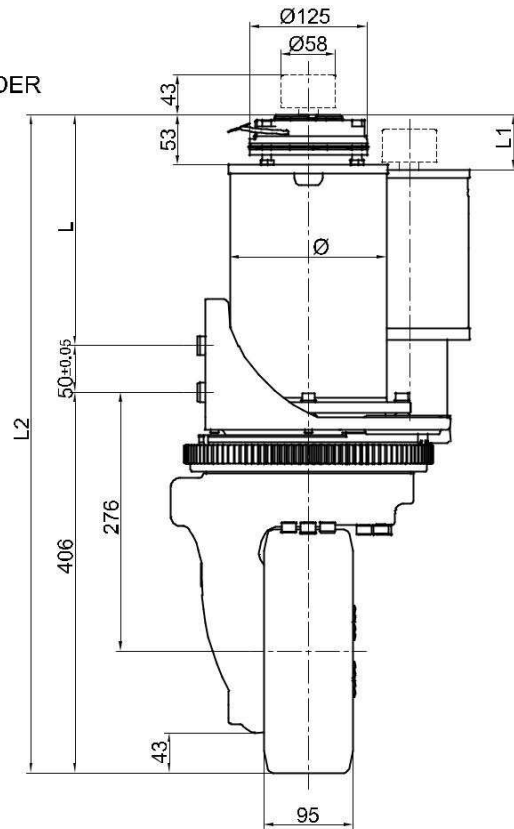
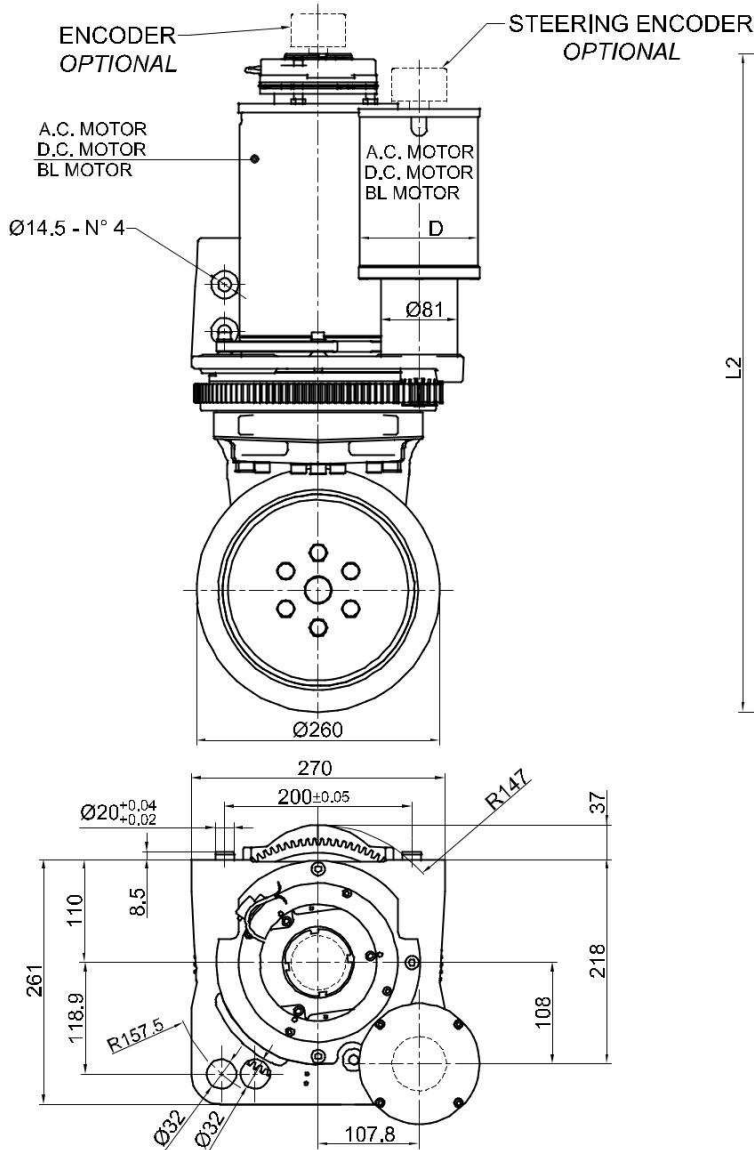
WR151ECOFMS

- 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	rubber – gomma polyurethan – poliuretano vulkollan – vukollan	kg	430 1000 -
BRAKE TORQUE – COPPIA FRENO		Nm	20
WEIGHT - PESO		kg	120

LWR260S

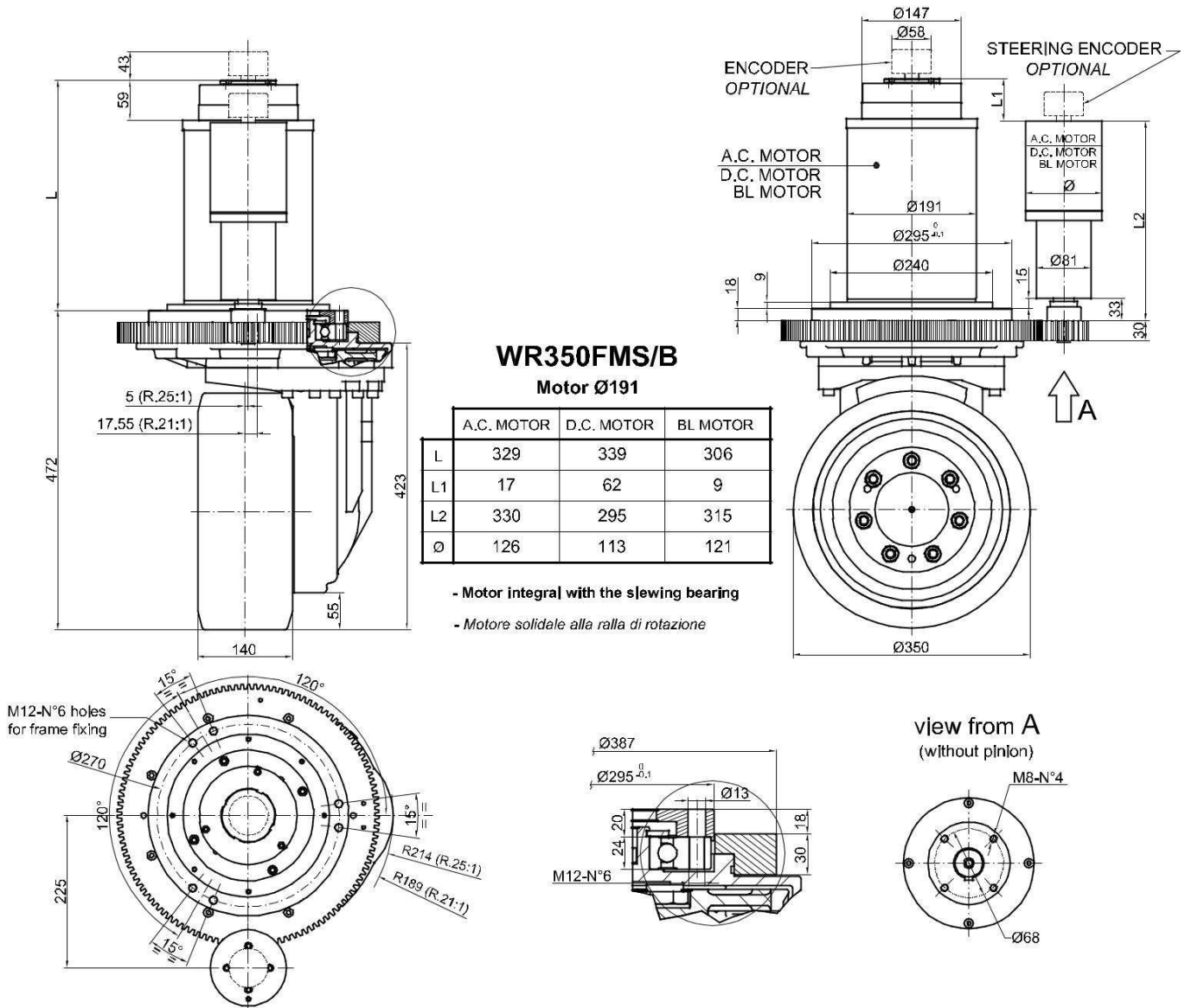


WR260FMS

	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	kg	-	
		rubber – gomma	
		polyurethan – poliuretano	
		vulkollan – vulkollan	
BRAKE TORQUE – COPPIA FRENO	Nm	20	
WEIGHT - PESO	kg	110	

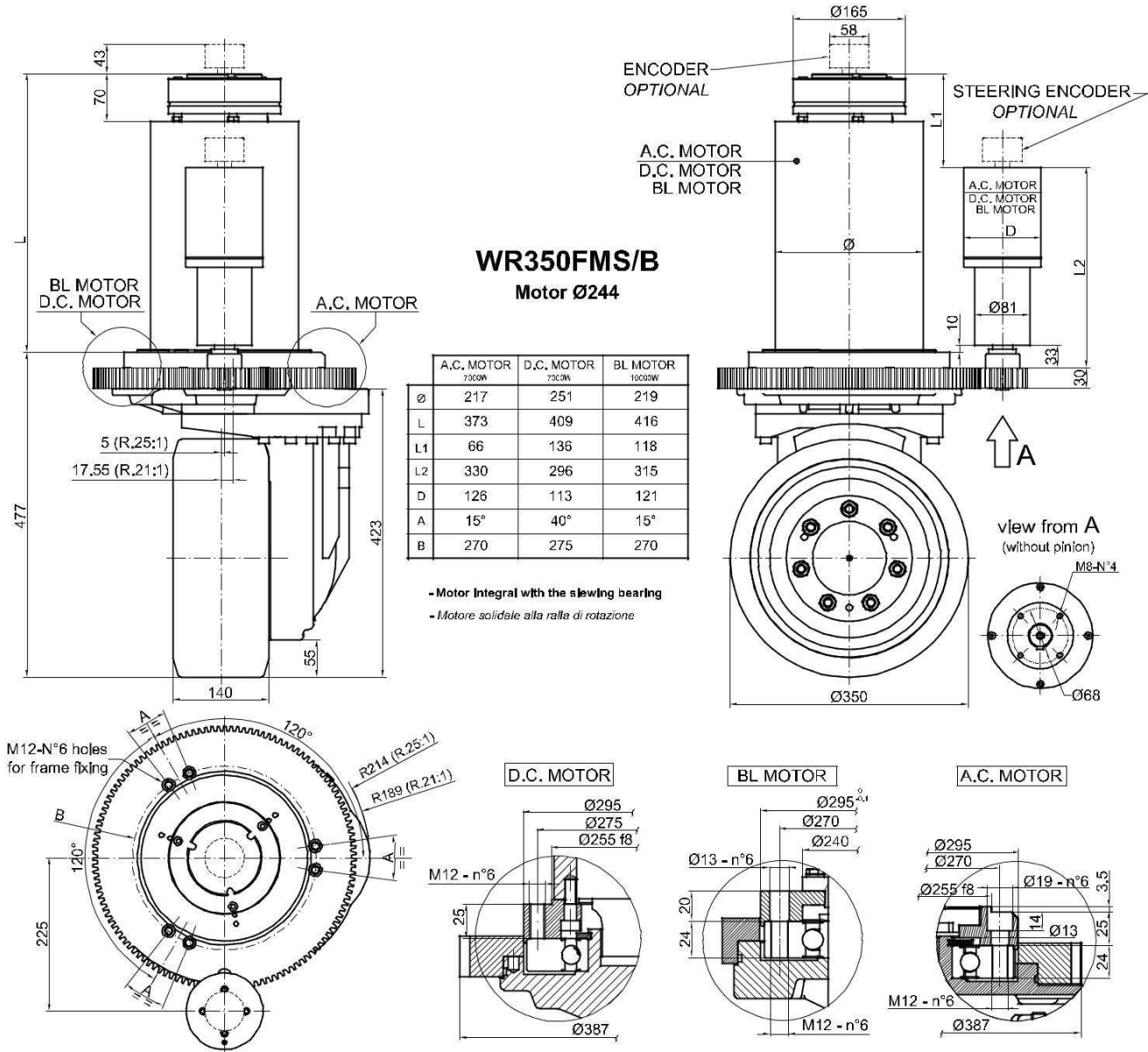
LWR350S Motor Ø191mm



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	kg	- - 3000
BRAKE TORQUE – COPPIA FRENO	Nm	40
WEIGHT - PESO	kg	187

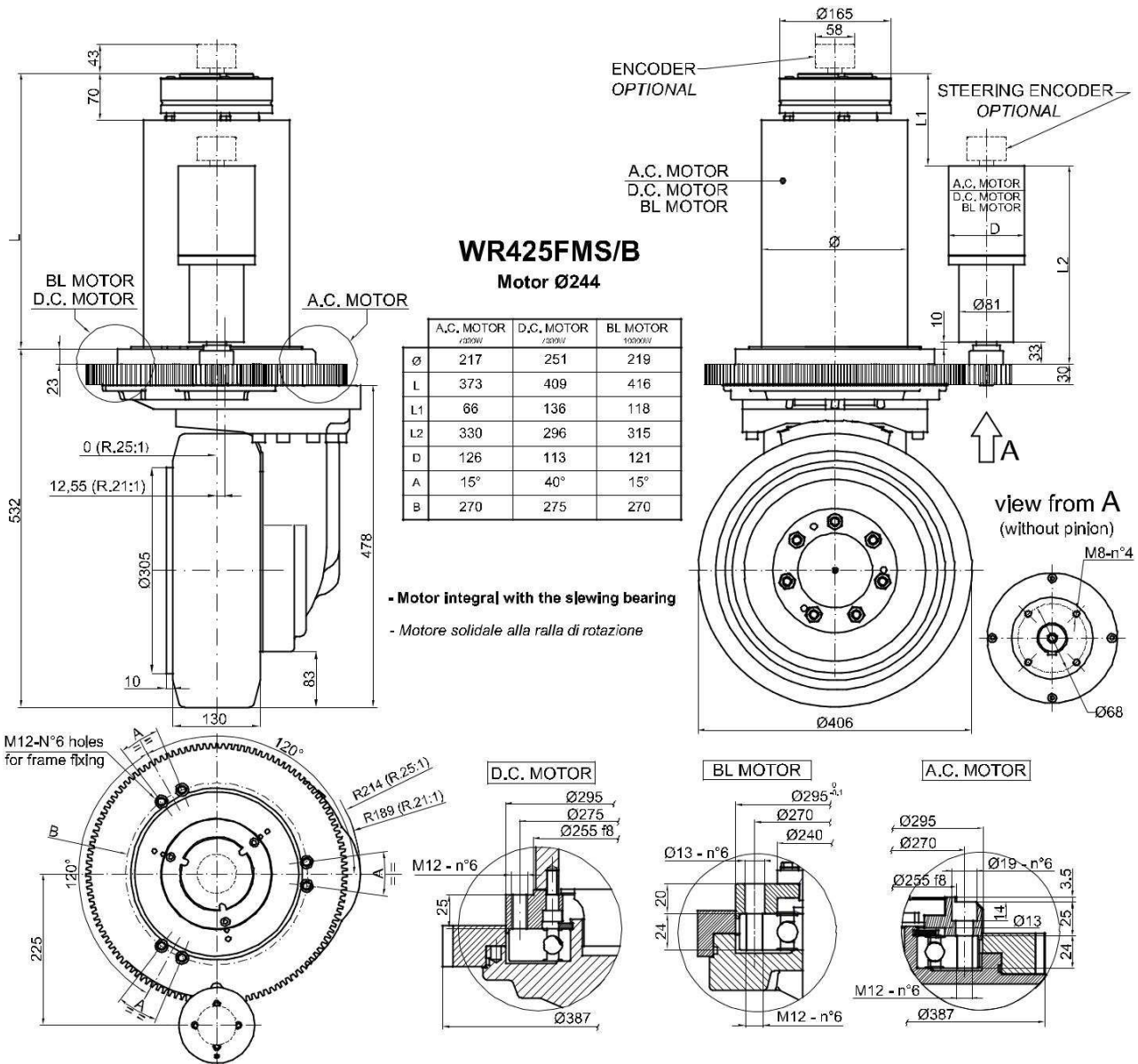
rubber – gomma
polyurethan – poliuretano
vulkollan – vukollan

LWR350S Motor Ø244mm



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	kg	3000
BRAKE TORQUE – COPPIA FRENO	Nm	75
WEIGHT - PESO	kg	240

LWR425S Motor Ø244mm



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	Ø406x130
MAX WHEEL TORQUE – COPPIA MASSIMA ALLA RUOTA	Nm	2200
MAX WHEEL LOAD – CARICO MASSIMO SULLA RUOTA	kg	- - 3100
		rubber – gomma polyurethan – poliuretano vulkollan – vukollan
BRAKE TORQUE – COPPIA FRENO	Nm	75
WEIGHT - PESO	kg	255

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 Tel. 07.67.62.05.87
 URL: www.LSMotion.fr
 E-mail: contact@LSMotion.fr

LSMOTION
Drive Wheels Request Form

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/sec ²)	_____		
Duty	Short Service <input type="checkbox"/>	tl=	_____
tl= service time (min)	Shifts <input type="checkbox"/>	Service % =	_____
tr= resting time (min)	Cyclic Service <input type="checkbox"/>	tl=	tr= _____
Drive wheel type	Horizontal <input type="checkbox"/>	Vertical	<input type="checkbox"/>
Power (W)	_____		
Voltage (12, 24, 48, 72, 80V)	_____	Other	_____
DC Motor wounds	Series wound <input type="checkbox"/>	Separately Excited	<input type="checkbox"/>
	Shunt wound <input type="checkbox"/>	PM	<input type="checkbox"/>
AC Motor	Speed sensor <input type="checkbox"/>	Thermal sensor	<input type="checkbox"/>
Brushless PMS Motor (synchronous)	Speed sensor <input type="checkbox"/>	Thermal sensor	<input type="checkbox"/>
Environment and required IP	_____		
Preferred wheel material (Vulkollan, Poliurethane or Rubber)	_____		
e/m brake	Yes <input type="checkbox"/>	No	<input type="checkbox"/>
Incremental Encoder	Pulses (ppr) _____	Voltage (TTL, HTL)	_____
Connector type (8 pin M12, 12 pin EML, cable)	_____		
Absolute Encoder (specify)	_____		
Thermal protection	Yes <input type="checkbox"/>	No	<input type="checkbox"/>
Tacho generator	Yes <input type="checkbox"/>	No	<input type="checkbox"/>
Electric Steering System	Yes <input type="checkbox"/>	No	<input type="checkbox"/>
Limit end switches	Yes <input type="checkbox"/>	No	<input type="checkbox"/>
Steering Incremental Encoder	Pulses (ppr) _____	Voltage (TTL, HTL)	_____
Connector type (8 pin M12, 12 pin EML, cable)	_____		
Absolute Encoder (specify)	_____		
Potentiometer	Yes <input type="checkbox"/>	No	<input type="checkbox"/>
Mechanical limits	Yes <input type="checkbox"/>	No	<input type="checkbox"/>
NOTES:	_____		

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

2019-01-01