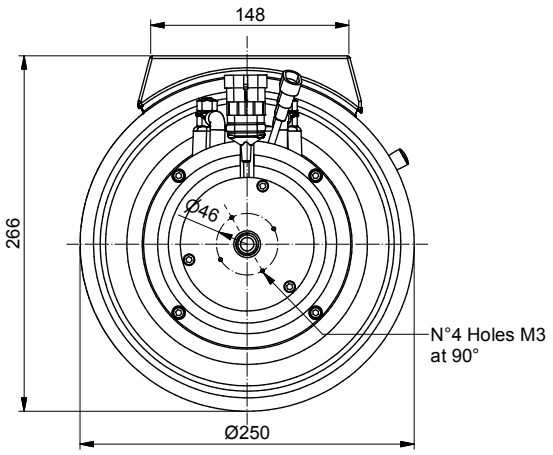
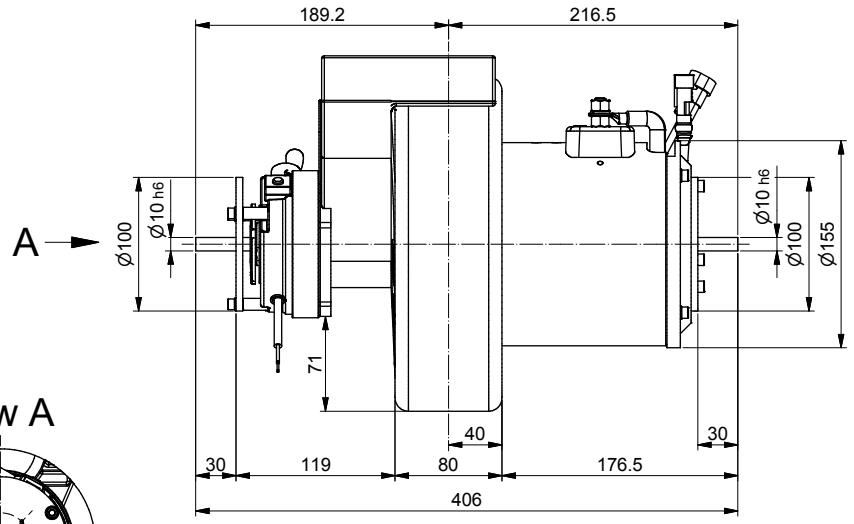
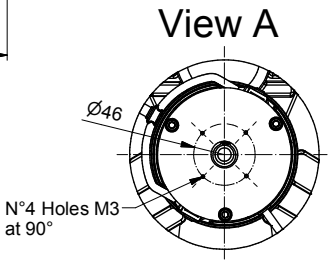
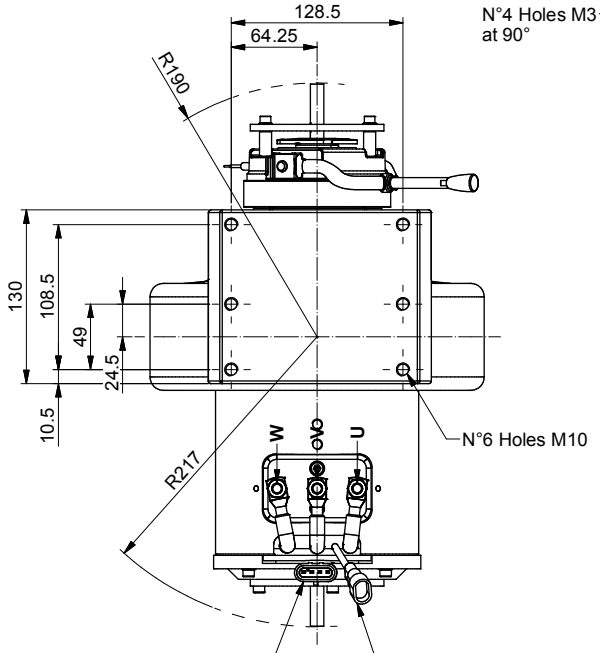
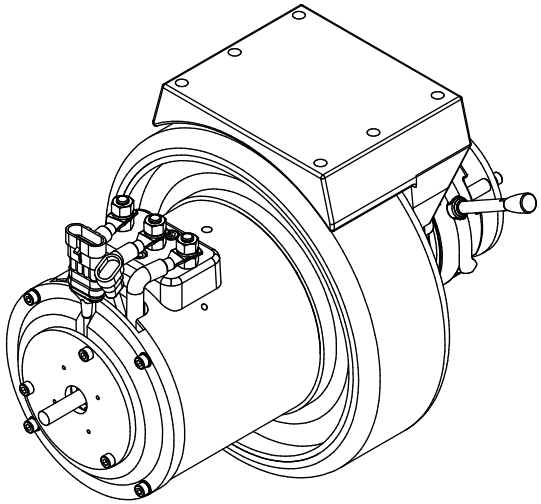
C.F.R. srl Modena - Italy	AC MOTOR IN WHEEL UNIT	CODE MRT20.A0100	Rev.: / Date:











Traction motor data		
Type : AC Asynchronous		
Power (S2 - 60 min)	W	1200
Motor voltage (~3)	V	16
Battery voltage	V	24
Speed	Rpm	2850
Frequency	Hz	100
Current	A	67
Torque	Nm	4
Enclosure	IP	20

Traction gear data		
Gear ratio	i	1:34.57
Max accel. and braking torque	Nm	280
Nominal wheel torque	Nm	104
Max load on vulkollan wheel	Kg	1000
Max load on poliurethan wheel	Kg	900
Max load on solid rubber wheel	Kg	600
Brake torque	Nm	8
Lubrication		Grease

Total Weight	Kg	37

Plug AMP Automotive Superseal 1.5
Series P4 282106-1
Encoder ES 64 PPR

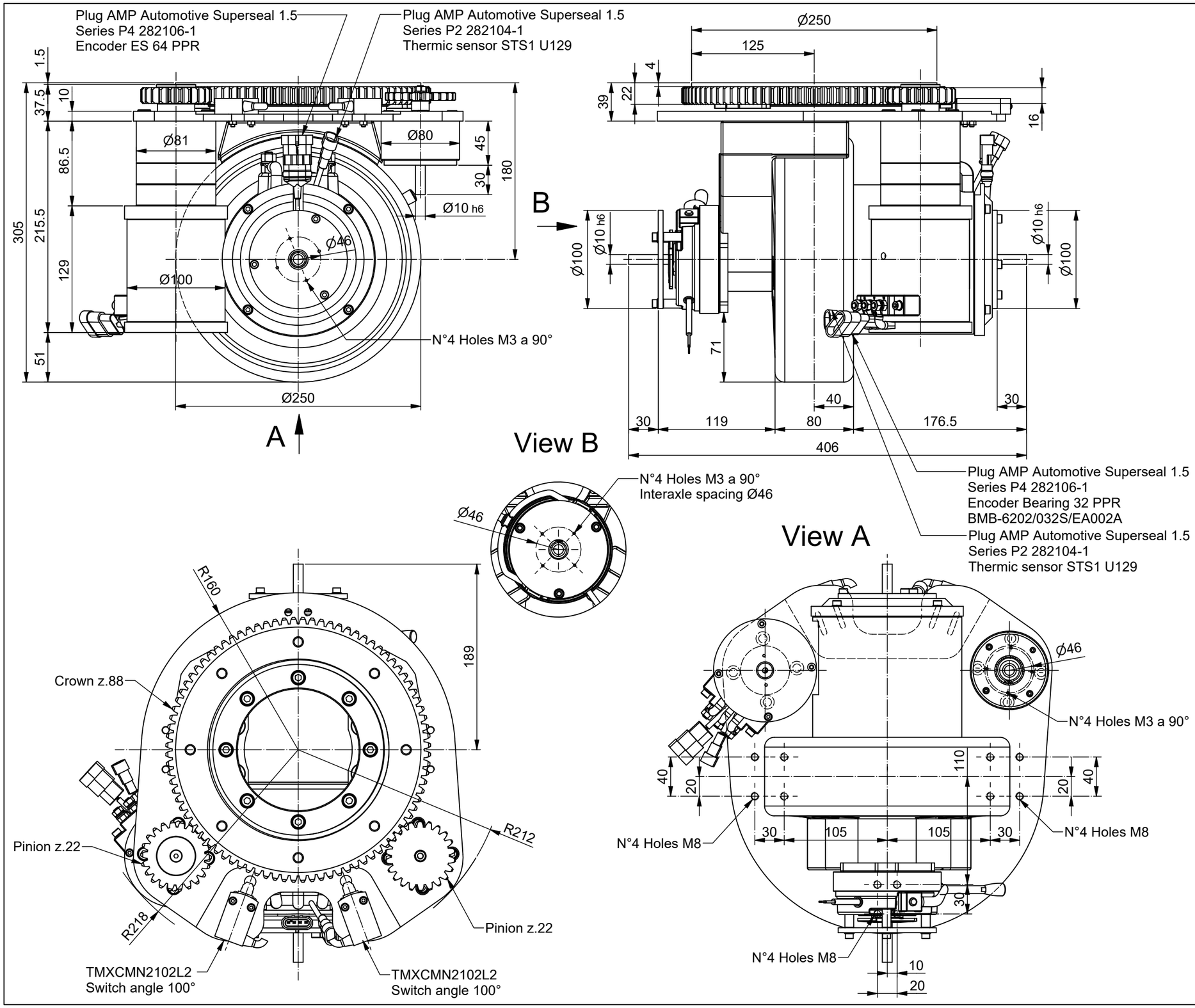
Plug AMP Automotive Superseal 1.5
Series P2 282104-1
Thermic sensor STS1 U129

Data : Date : 19/06/2018	Scala : Scale : 1 : 4	A3
Dis : Drawn : L.L.		

C.F.R. srl
Modena - Italy

AC MOTOR IN WHEEL UNIT

CODE MRT20.A0101



Traction motor data		
Type : AC Asynchronous		
Power (S2 - 60 min)	W	1200
Motor voltage (~3)	V	16
Battery voltage	V	24
Speed	Rpm	2850
Frequency	Hz	100
Current	A	67
Torque	Nm	4
Enclosure	IP	20

Traction gear data		
Gear ratio	i	1:34.57
Max accel. and braking torque	Nm	280
Nominal wheel torque	Nm	104
Max load on vulkollan wheel	Kg	1000
Max load on poliurethan wheel	Kg	900
Max load on solid rubber wheel	Kg	600
Brake torque	Nm	grease
Lubrication		8

Steering gearmotor data		
Type : AC Asynchronous		
Power (S2 - 60 min)	W	300
Motor voltage (~3)	V	16
Battery voltage	V	24
Motor Speed	Rpm	2850
Frequency	Hz	100
Current	A	17
Motor torque	Nm	1
Gear ratio	i	1:46
Gear output torque	Nm	35
Enclosure	IP	20
Lubrication		Grease

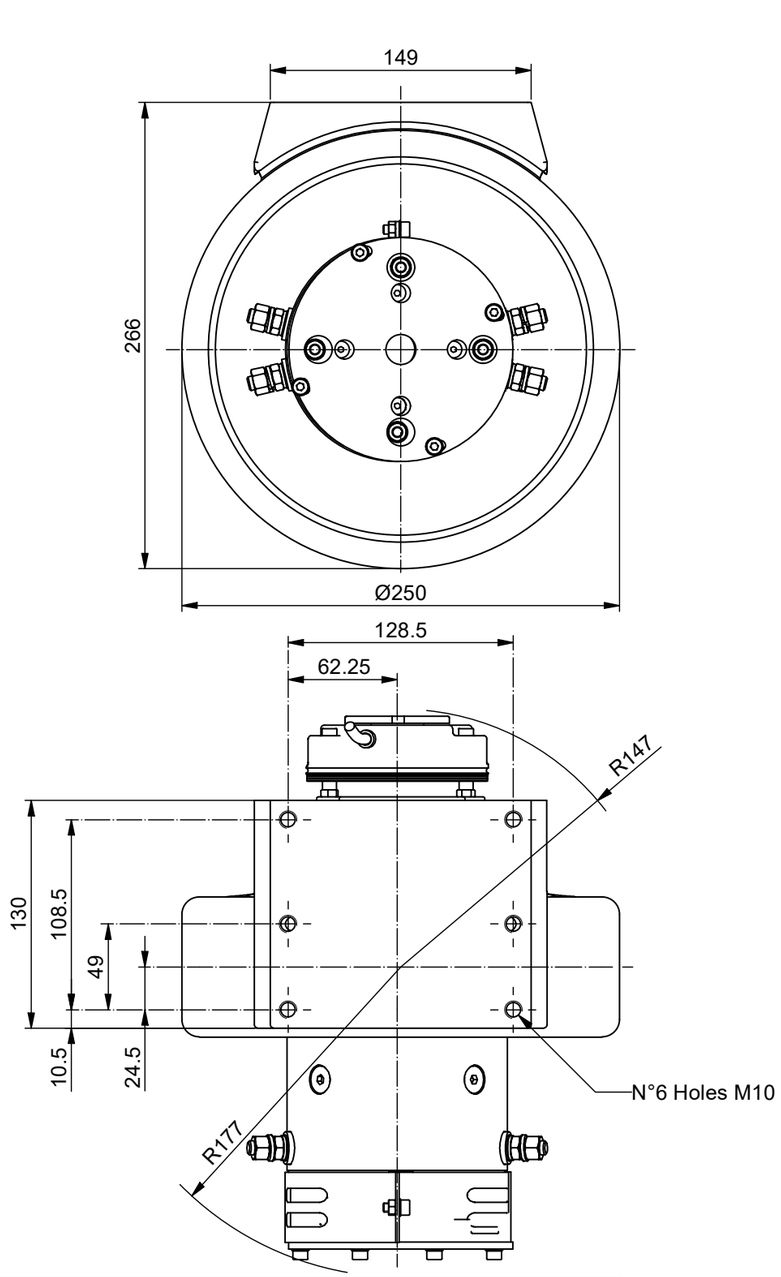
Total Weight	Kg	62

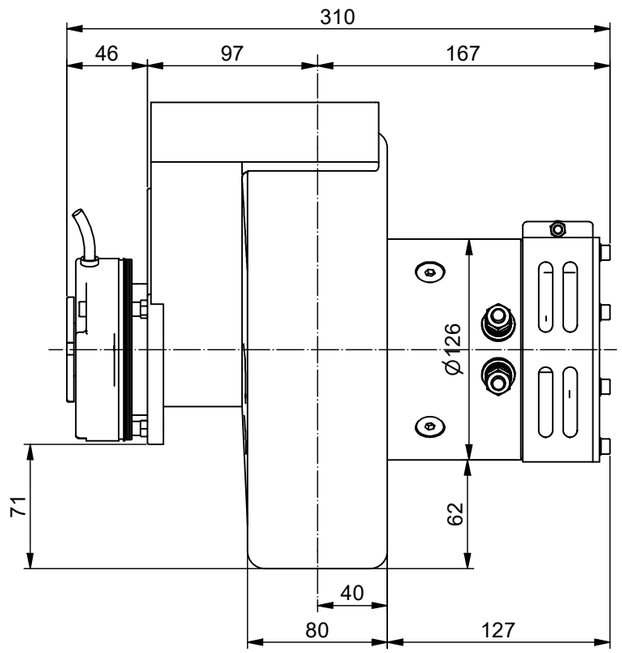
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Dis : *Drawn :* M.C.			

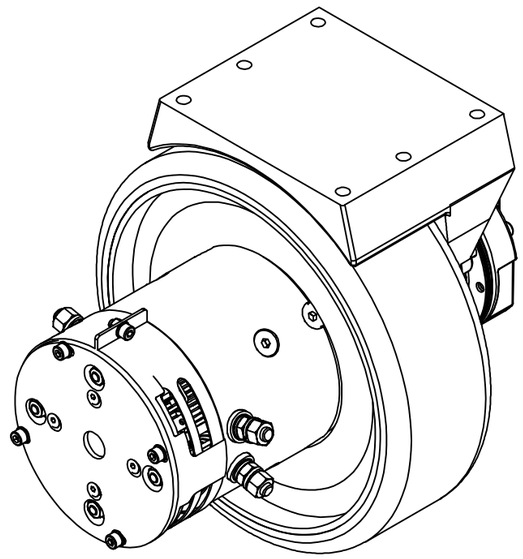
C.F.R. srl
Modena - Italy

D.C. MOTOR IN WHEEL UNIT

CODE **MRT20.DC001**







	Available on request
A	Motors: Permanent Magnet, Series Wound, Sepex, AC Asynchronous
B	Voltages: 24V, 36V, 48V, 72V, 80V, 96V
C	Gear Ratio: 1:28.3, 1:34.57
D	Encoders application ; Thermic Sensor
E	Forced ventilation
F	

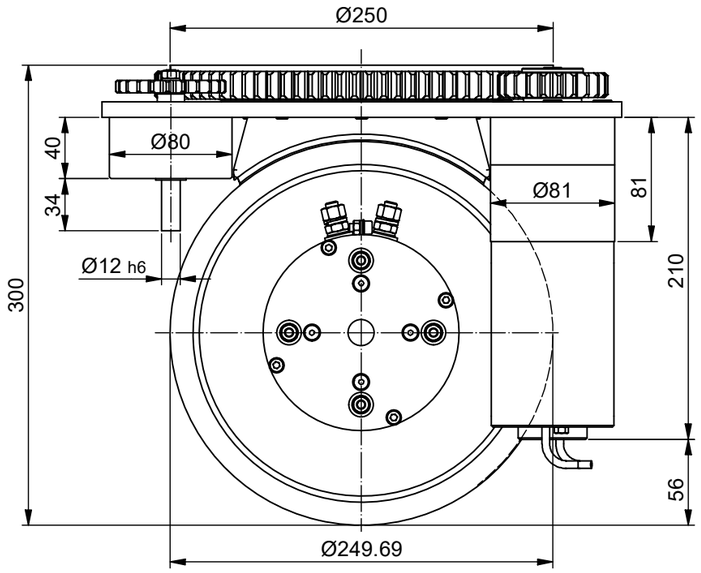
	Traction motor data		
1	Type : D.C. Series Wound		
2	Power (S2 - 60 min)	W	900
3	Motor voltage	V	24
4			
5	Speed	rpm	2400
6			
7	Current	A	54
8	Torque	Nm	3.6
9			
10			
11	Enclosure	IP	20
12	Brake torque	Nm	8
	Traction gear data		
13	Max input motor power	W	1200
14	Gear ratio	i	1:34.57
15	Max accel. and braking torque	Nm	280
16			
17	Nominal wheel torque	Nm	87
18			
19			
20			
21	Lubrication		Grease
22	Max load on vulkollan wheel	kg	1000
23	Max load on polyurethan wheel	kg	900
24	Max load on solid rubber wheel	kg	600
	Steering gear motor data		
25	Type :		
26	Power (S2 - 60 min)	W	
27	Motor voltage	V	
28			
29	Motor Speed	rpm	
30			
31	Current	A	
32	Motor torque	Nm	
33	Enclosure	IP	
34			
35	Gear ratio	i	
36	Efficiency	η	

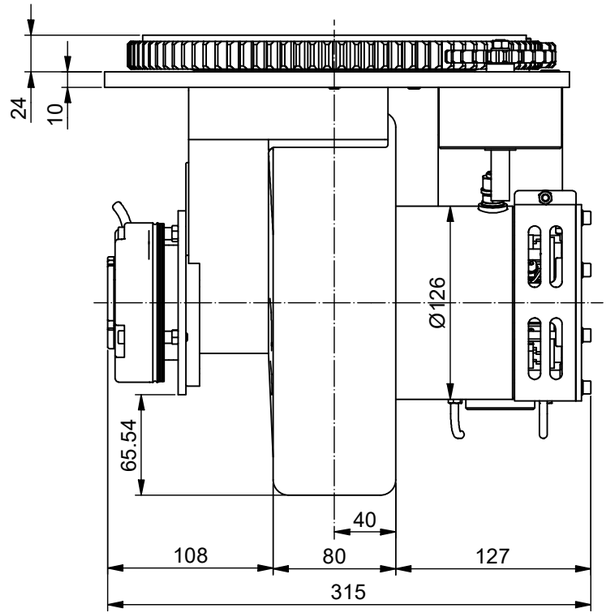
37	Total Weight	kg	34

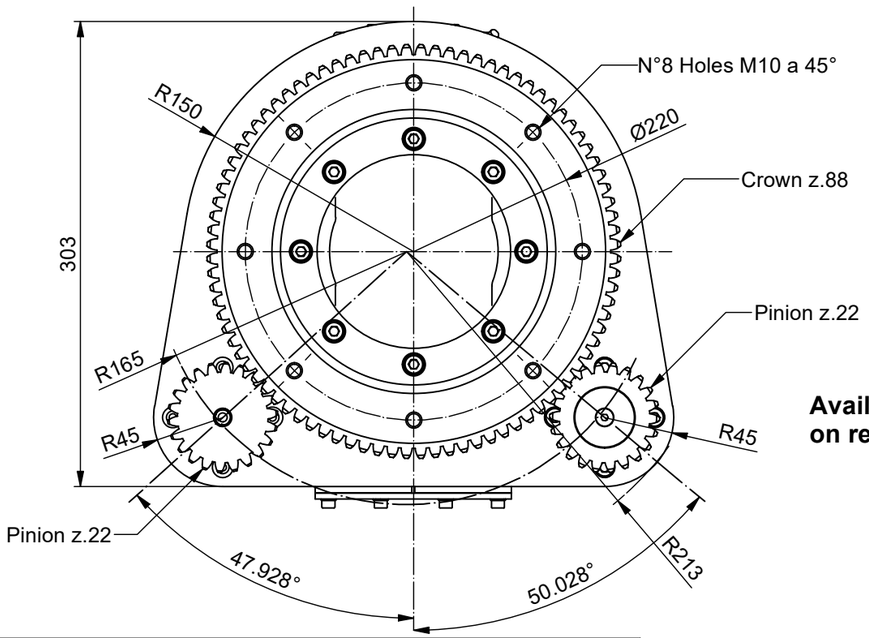
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Modena - Italy

D.C. MOTOR IN WHEEL UNIT

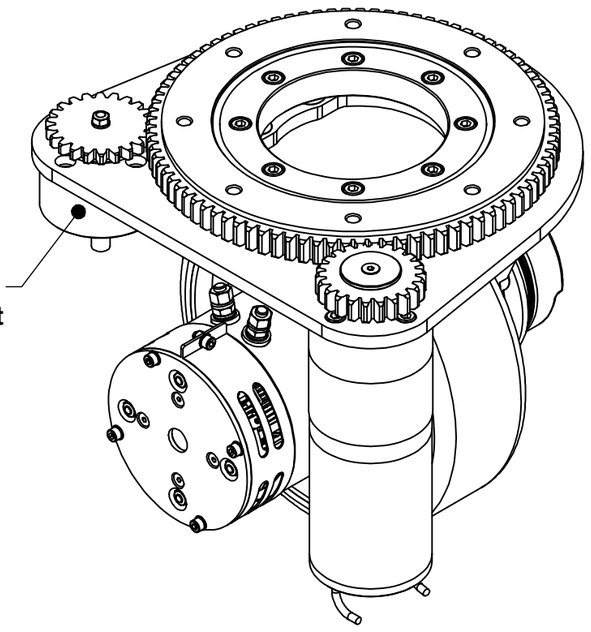
CODE **MRT20.DC002**







Available on request



	Available on request
A	Motors: Permanent Magnet, Series Wound, Sepex, AC Asynchronous
B	Voltages: 24V, 36V, 48V, 72V, 80V, 96V
C	Gear Ratio: 1:28.3, 1:34.57
D	Encoders application ; Thermic Sensor
E	Forced ventilation
F	

	Traction motor data		
1	Type : D.C. Permanent Magnet		
2	Power (S2 - 60 min)	W	600
3	Motor voltage	V	48
4			
5	Speed	rpm	2600
6			
7	Current	A	18
8	Torque	Nm	2.2
9			
10			
11	Enclosure	IP	20
12	Brake torque	Nm	8
	Traction gear data		
13	Max input motor power	W	1200
14	Gear ratio	i	1:34.57
15	Max accel. and braking torque	Nm	280
16			
17	Nominal wheel torque	Nm	53
18			
19			
20			
21	Lubrication		Grease
22	Max load on vulkollan wheel	kg	1000
23	Max load on polyurethan wheel	kg	900
24	Max load on solid rubber wheel	kg	600
	Steering gear motor data		
25	Type : D.C. Permanent Magnet		
26	Power (S2 - 60 min)	W	200
27	Motor voltage	V	48
28			
29	Motor Speed	rpm	3000
30			
31	Current	A	6
32	Motor torque	Nm	0.6
33	Enclosure	IP	23
34			
35	Gear ratio	i	1:46
36	Efficiency	η	0.75

37	Total Weight	kg	55