

# 600E series

## Electric powertrains



Bonfiglioli's 600E planetary drives incorporate an integrated, maintenance-free electric motor and offer significant benefits in terms of compact dimensions, low noise and high efficiency. 600 Series drives are designed for use with all kinds of aerial platforms and other kinds of mobile machinery, for indoor and outdoor use.

This advanced powertrain solution uses a two or three stage gearbox offering reduction ratios of up to 1:145 to satisfy the widest possible range of needs. The gearbox is coupled to a low voltage induction motor (BT Series) specially developed for traction power and control applications.



### Torque Range

900 ... 10000 Nm

### Gear Ratios

20 ... 145

### Key standard features

- Two or three stage planetary drive with reduction ratios of up to 1:145
- Optimised gear design for maximum efficiency and minimum noise
- Integrated, low voltage, 3 phase induction motor with inverter
- Integrated, high accuracy, KTY temperature sensor
- Integrated, high resolution, Hall effect speed sensor

### Optional features available on request

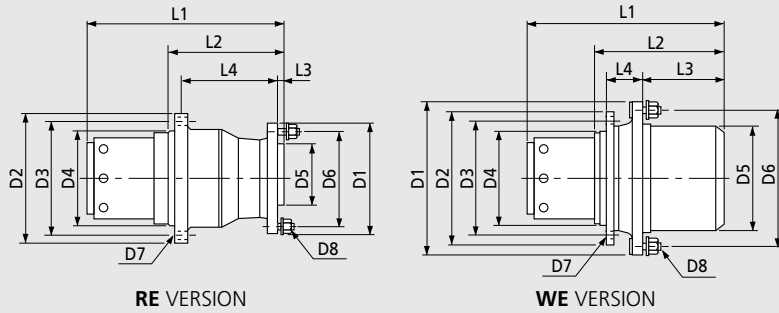
- Speed sensor-bearing
- Other types of temperature sensor
- Mechanical disengagement for towing, with no need to remove the wheel and without oil drop
- Parking brake (spring applied with hydraulic or electromagnetic release)

Type	Max deliverable torque (Nm)
600 WE	900
601 RE	3000
602 RE	3500
602 WE	4500
604 WE	7000
605 WE	10000

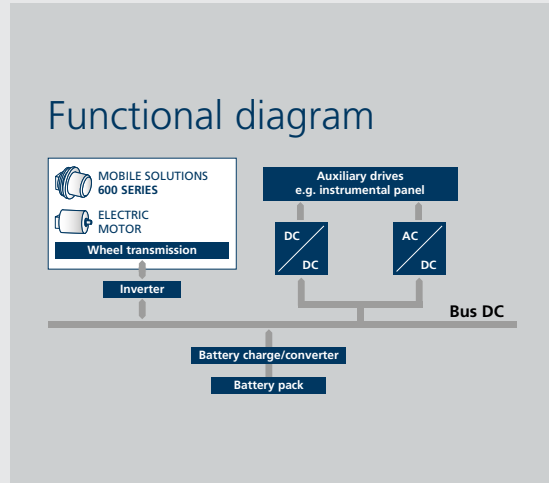


# Overall dimensions and technical data

TYPE	RATIOS	MAX INPUT SPEED	WEIGHT	OIL QUANTITY	AC ELECTRIC MOTOR - SIZE				PARKING BRAKE		MACHINE TON CLASS
					BT135	BT150	BT170	BT200	Electromagnetic	Hydraulic	
	1:	rpm	kg	L							ton
600 WE	48- 58.7	6000	35	0.5	•	•			•		3
601 RE	20.1 - 51.8	4000	40	0.8		•	•		•	•	6
602 RE	20.3 - 30.6	6000	53	0.7		•	•		•	•	9
602 WE	20 - 145	6000	45	0.5		•	•		•	•	9
604 WE	22.2 -53	5000	65	1.1			•	•	•	•	13
605 WE	22.2 - 53	5000	65	1.1			•	•		•	16



TYPE	BT 135-			BT 150-			BT 170-			BT 200-		
	50	100	150	50	100	150	50	100	150	50	100	150
P <sub>n</sub> (S2 60') (kW)	0.9	1.6	2.3	1.5	2.5	3.4	2.4	4.3	5.4	3.1	6.2	9.1
T <sub>n</sub> (Nm)	3	5.6	8.5	4.8	9.1	12.5	7.7	14	22	10	20	29.5
V <sub>batt</sub> (V)	24	24	24	24	24	24	48	48	48	80	80	80
I <sub>n</sub> (A)	55	95	128	80	130	175	67	110	143	53	98	137
n (rpm)	2930	2927	2632	2894	2617	2610	2945	2952	2357	2957	2963	2958
cosφ	0.77	0.8	0.81	0.85	0.86	0.87	0.77	0.83	0.8	0.77	0.8	0.84
η (%)	86.9	89.5	90.0	85.5	88.7	89.2	88.3	89.6	91.3	88.8	91.6	92.5



TYPE	L1								L2	L3	L4	D1	D2	D3	D4	D5	D6	D7	D8			
	275	325	375	290	340	390																
600 WE	275	325	375	290	340	390						134	39	89	240	207.5	190.5	171.45	184.15	216	M8 n°6	M12 n°9
601 RE					453	503	412	462				247	12	200	189	265	245	225	110	160	Ø13 n°8	M14x1.5 n°8
602 RE						524	434	484	534			269	15	193	210	295	265	235	130	170	M16 n°8	M18 n°6
602 WE						455	375	425	475			210.5	104.5	88	260	271	248	220	200	230	Ø15 n°12	M14 n°9
604 WE								464	514	446	496	231	110	106	315	300	275	250	220	275	M16x2 n°12	M20x1.5 n°8
605 WE								524	456	506	556	241	154	72	315	300	275	250	220	275	M16x2 n°12	M20x1.5 n°8

TYPE	MACHINE WEIGHT (TON)																
	0.5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
600 WE	0.9 ... 2 kW																
601 RE			1.5 ... 3 kW														
602 RE					3 ... 4 kW												
602 WE					2 ... 4.5 kW												
604 WE									4.5 ... 6 kW								
605 WE														6 ... 9 kW			

<b>Vertical booms</b>																	
Height (m)	5	6.5	8	10													
<b>Scissors lift</b>																	
Height (m)	6.5	7.5	10	11.5	12.5	14	15	18									
<b>Telescopic / Articulated booms</b>																	
Height (m)						11	12	14	15	16	17.5	19	20	21	25	26	27