3-wheel electric tow tractor

TTE100

Towing capacity 10000 kg

3-wheel tow tractor, with on-board operator and rear-wheel drive. Extremely easy to drive, ideal for all heavy duties - both indoors and outdoors. "AGV ready".

- "Shock resistant" **supporting perimeter chassis** ensures maximum exploitation of AC motor torque.
- **Suspensions:** rubberised steel coil spring in the front, steel coil springs with shock absorbers in the rear.
- **Drum service brake** acting on 3 wheels with twofold braking system. Electromagnetic parking brake. Preset electrical braking, operating automatically when accelerator pedal is released, with first stroke of brake pedal and when reversing direction.
- Fifth wheel **"steer-by-wire" electric steering.**
- **1 operator on board.** Optimised driving position for maximum comfort and efficiency, low step-on platform for comfortable access as well as user-friendly and ergonomic dashboard.
- **"Man on board" device** with seat occupancy sensor.
- **Lighting system:** 2 front lights (position/dipped-beam/ main-beam), 2 front turn indicators, 2 rear turn indicators, 2 rear lights (position/brake lights). Horn.
- **Digital dashboard** with battery charge indicator, fault detection, speedometer and hour meter.
- **24 V DC/DC converter** for auxiliary services.
- **2 AC motors** equipped with encoder, thermal probes and negative electromagnetic parking brake. Electronic differential for optimal torque management also in turning manoeuvres.
- **Electronic AC control** with energy recovery and braking during deceleration.
- Several towing hitches available. Rear inching control to ease coupling operations.
- DIN 43531A 48 V battery – available capacity 420Ah, 460Ah and 500Ah.

Available options:

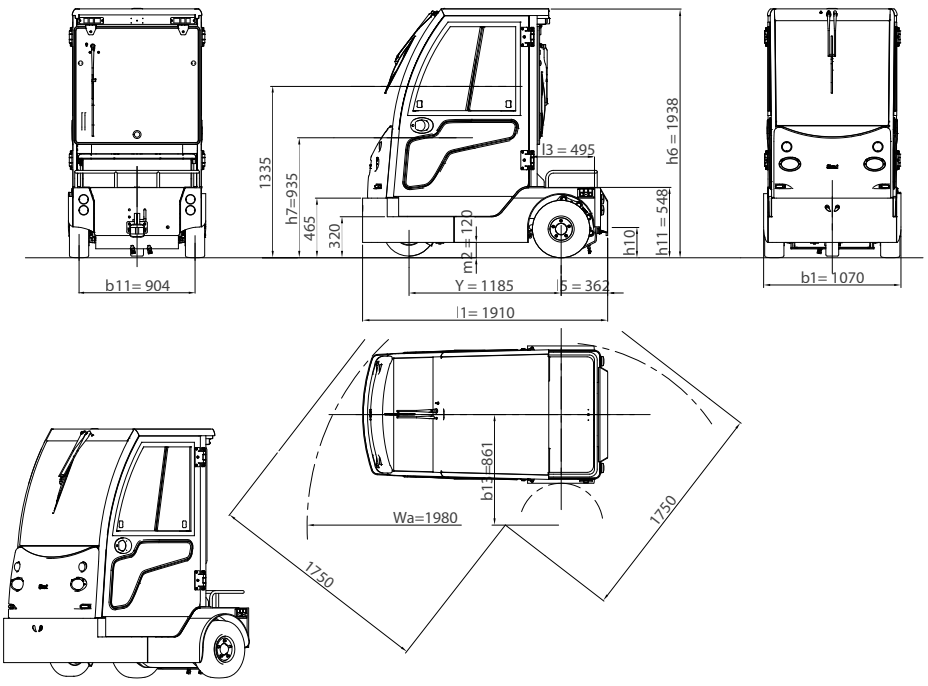
Pneumatic, superelastic or non-marking **tyres. Standard version without roof and cab**, available with **weather protection roof** with front windscreen, electric wiper, front and rear lights (position/brake/reversing lights/turn indicators), 2 small exterior rearview mirrors - full-LED lights; available also with canvas doors or with **full cab with hinged side doors.**

Electric **heating.**

Flashing light and blue safety light.

Standard paint finish: chassis dark grey RAL 7021/body light grey RAL 7035. Other colours available upon request.

All parts are easy to access for fast and effective maintenance. Lower costs due to AC technology and modular design.



Simai®
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FEATURES	1.1	Manufacturer			SIMAI S.p.A.
	1.2	Model			TTE100
	1.3	Drive			electric
	1.4	Operator Type			sitting driver
	1.5	Load Capacity	Q	t	0,1
	1.5.1	Towing Capacity (S2=60' / S2=30')	Q	t	10
	1.7	Rated Drawbar pull	F	N	2200
	1.9	Wheelbase	Y	mm	1185
WEIGHT	2.1	Service weight (w/battery)		kg	1475
	2.2	Axle loading laden front/rear (with operator 80 kg. each)		kg	639 / 1016
	2.3	Axle loading unladen front/rear		kg	609 / 866
TIRES, CHASSIS	3.1	Tyres:Cushion(Cu),Superelastic(SE), Pneus(Pn) Poliurethane (PE)			SE/Pn
	3.2	Tyre size front			4.00 - 8 (SE)
	3.3	Tyre size rear			18x7-8
	3.5	Wheels nr. Front/Rear (X=motive)			1 / 2X
	3.6	Tread front	b_{10}	mm	-
	3.7	Tread rear	b_{11}	mm	904
DIMENSIONS	4.7	Height of roof/cabin	h_6	mm	1938
	4.8	Seat height	h_7	mm	935
	4.8.1	Step on platform height		mm	465
	4.12	Coupling height	h_{10}	mm	245 - 300 - 355
	4.13	Loading height (min / MAX)	h_{11}	mm	548
	4.16	Platform length	l_3	mm	495
	4.17	Rear overhang	l_5	mm	362
	4.18	Platform width	b_9	mm	925
	4.19	Overall length	l_1	mm	1910
	4.21	Overall width	b_1	mm	1070
	4.32	Ground clearance - centre of wheelbase	m_2	mm	120
	4.35	Turning radius front	Wa	mm	1980
	4.35.1	Turning radius rear		mm	1420
	4.36	Turning radius inner	b_{13}	mm	861
	4.36.1	Aisle width when turning 90°		mm	1750
PERFORMANCES	5.1	Travel speed laden/unladen		km/h	8,5 / 18
	5.5	Drawbar pull laden		N	-
	5.5.1	Drawbar pull unladen		N	2200
	5.6	Max. Drawbar pull laden/unladen		N	8000
	5.7	Gradeability laden/unladen		%	-
	5.8	Max. Gradeability laden/unladen		%	-
	5.10	Service / Parking brake (I=Hydraulic E=Electromagn. M=Mechanical)			I / E
	5.10.1	Type of service brake front/rear			drum / mult. disks
MOTOR	6.1	Drive motor rating S2 60 min		kW	2x6,6
	6.1.1	Hydrauling steering motor rating S2 60 min		kW	-
	6.3	Battery according to DIN 43531 / 35 / 36 A, B, C, no			43531 A
	6.4	Battery voltage	U	V	48
	6.4.1	Battery rated capacity	K_5	Ah	420 - 460 - **500**
	6.5	Battery weigth		kg	667 - 700 - **731**
	6.6	Energy consumption (EN 16796)		kWh/h	3,22
OTHER DATA	8.1	Drive Control			inverter AC
	8.4	Sound level at driver's ear according to DIN 12053		dB(A)	69
	8.5	Towing coupling, type DIN			-

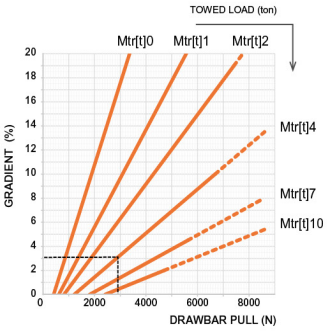
GRAPH 1:
i [%] = GRADIENT
Mtr [ton] = TOWED LOAD
F [N] = TRACTION FORCE
SOLID CURVES: START & STOP ALLOWED

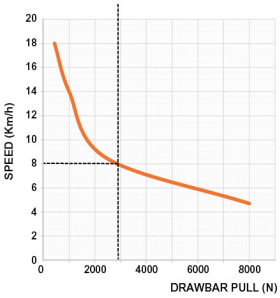
GRAPH 2:
V0 [Km/h] = SPEED
F [N] = TRACTION FORCE

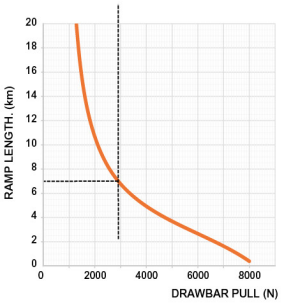
TRAILERS WITH BRAKES ARE RECOMMENDED FOR LOADED DESCENTS. IF THIS IS NOT POSSIBLE, SPEED SHOULD BE LIMITED IN ACCORDANCE WITH OPERATING MANUAL.

GRAPH 3:
s [Km] = RAMP LENGTH THAT CAN BE COVERED PER HOUR
F [N] = TRACTION FORCE

EXAMPLE OF GRAPH READING:
- TOWED LOAD (Mtr) = 4 t
- GRADIENT (i) = 3 %
- TRACTION FORCE (F) = 2900 N
- SPEED (V0) = 8 km/h
- MAX. RAMP LENGTH THAT CAN BE COVERED PER HOUR (s) = 7,5 km







As per VDI guidelines 2198, this datasheet applies to standard electric tractor / platform truck only. Dimensions are not binding and can be changed in any moment. The performances must be intended for brand new machines, after having completed the running-in tested in San Donato Milanese Factory in normaal climatic conditions. Performances and weight are to be intended with standard motors and battery (reported in bold) and with pneumatic tires. Some data can vary according to different equipments.

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