movexx

smart electric tugs

EN

Commercial Datasheet

2026 v1

made in the Netherlands

TT3500-M M020

The TT3500-M is the ergonomic solution for the safe and efficient transport of industrial carts. The TT3500-M is easy to use, powerful and compact, allowing carts to be transported by a single operator, even in confined spaces. By using the TT3500-M, it is no longer necessary to move heavy industrial carts with several people. As is the physical strain that comes with moving these heavy loads and the associated risk of industrial accidents.

Performance

The TT3500-M Tug has been specially designed to transport industrial carts. Thanks to its powered traction wheel, the operator's physical input is minimized. Equipped with 2.5 kW (3.4 hp) drive motor, the TT3500-M offers a highly cost-effective and productive solution for short and long-distance transfers of loads up to 3500 kg or 7700 lbs. Its compactness guarantees maximum manoeuvrability in confined spaces.

Comfort

The compact and exchangeable $LiFePO_4$ batteries allow opportunity charging at any convenient power point for optimum uptime. All controls are located on the ergonomic designed tiller head. The dual drive control levers for speed control and the button for lifting function can be easily operated by either hand which ensures precise operation. The spring loaded hook makes attaching the cart or trolley safe and easy.

Safety

The TT3500-M features an effective parking brake to hold the tug safely on slopes or on dock levellers. A robust metal cover protects the drive unit and components, while the low-profile chassis protects the operator's feet. A robust tiller arm places the operator at a safe yet comfortable working distance from the tug. The superstructure with the spring-loaded lift ensures traction and stability while driving. The safety reversing switch on the tiller head stops the TT3500-M and briefly drives away from the operator when actuated.

Reliability

The durable drive unit of the TT3500-M delivers consistent high performance and reliability. The robust chassis has a reinforced superstructure for safe, efficient handling of industrial carts up to 3500 kg (7700 lbs). The one touch control of the spring-loaded hook ensures user friendliness and improves durability of the components.

Service

The AC drive motor optimizes uptime between routine service periods and reduces service costs, while a reliable, energy efficient drive controller delivers smooth handling performance and easy adjustment of drive parameters to meet the operators demands.

STANDARD EQUIPMENT / OPTIONAL EQUIPMENT

STANDARD

- 5 km/h (3.1 mph) travel speed
- AC low-maintenance drive motor
- Multifunction display with hour meter, battery discharge indicator
- Key switch
- Drive wheel polyurethane
- Electromagnetic brake with mechanical release
- $LiFePO_4$ exchangeable battery 24V, 105Ah
- Safety reverse switch on tiller head
- Emergency stop

OPTIONAL

- Alternative superstructure
- Creep-speed mode
- Extra $LiFePO_4$ exchangeable battery 24V, 105Ah
- Horn

Features

Traction and lift system

- 2.5 kW (3.4 hp) AC drive motor;
- Adjustable parameters: travel speed and acceleration;
- No roll-back on hill starts;
- Electrical height adjustment.

Drive unit

- Robust metal cover protects drive system and components;
- Minimal ground clearance to protect operators feet;
- A robust tiller arm places the operator at a safe yet comfortable working distance from the tug.

Braking system

- Electromagnetic brake applied by moving the tiller arm to the vertical or horizontal position;
- Automatic brake after releasing the butterfly button;
- Emergency brake;
- Safety reverse switch on tiller head rolls back the machine momentarily when activated;
- TT3500-M slows down before coming to a stop, always remaining under total control.

Battery

- Exchangeable battery system ensures optimal running time;
- $LiFePO_4$ battery technology with integrated Battery Management System;
- Average 8-hours drive time on single charge;
- Fully charged in less than 6 hours.

Charging

- Internal charger enables opportunity charging at any convenient power point;
- Easy plug and fast charging.

Controls and display

- Traction and height adjustment controls grouped on ergonomic tiller head;
- Dual traction switch control levers for use with either hand;
- Safety reverse switch on tiller head stops the TT3500-M and briefly drives away from the operator when actuated;
- Reliable and precise battery indicator.

Chassis and superstructure

- Robust, reinforced superstructure provides safe & stable handling of loads up to 3500 kg [3.9 tn(US)];
- Integrated electric lift system enhances traction and load coupling;
- The superstructure ensures stability while driving;
- Heavy duty load wheels;
- High resistance to impact and wear thanks to double powder coating on all steel parts.

TECHNICAL DATA TT3500-M M020

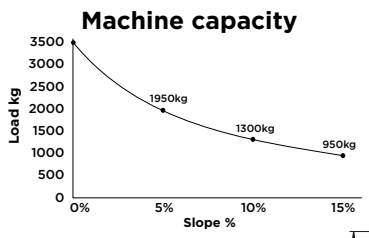
According to VDI 2198 in Metric units.

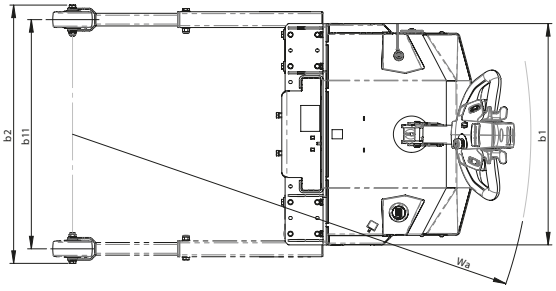
Characteristics	**1.1**	Manufacturer			Movexx International B.V.
	1.2	Manufacturer's type designation			TT3500-M M020
	1.3	Drive			Electric with $LiFePO_4$ battery
	1.4	Operator type			Pedestrian
	1.5*	Rated capacity/rated load		Q [t]	3.5
	1.7**	Rated drawbar pull		F [N]	1975
	1.8	Load distance, center of drive axle to lift face		x [mm]	662
	1.9	Wheelbase		y [mm]	1072
Weights	**2.1**	Weight incl. battery		kg	323
	2.2***	Axle load with load	front/rear	kg	404/252
	2.3***	Axle loading, without load	front/rear	kg	266/57
Tyres/Chassis	**3.1**	Tyres	front/rear		PU/Solid Rubber
	3.2	Tyres size	front	mm	230x75
	3.3	Tyres size	rear	mm	125x50
	3.5	Wheels, number (x = driven)	front/rear		x1/2
	3.6	Tread	front/rear	b_{10}/b_{11} [mm]	-/425-725
Dimensions	**4.9**	Tiller height	min-max	h_{14} [mm]	810/1316
	4.12	Tow coupling height	min-max	h_{10} [mm]	212/622
	4.19	Overall length		l_1 [mm]	1313
	4.20	Length to fork face		l_2 [mm]	600
	4.21	Overall width across chassis		b_1 [mm]	700
	4.21.1	Overall width across all		b_2 [mm]	725
	4.31	Ground clearance, front of machine		m_1 [mm]	35
	4.32	Ground clearance, center of wheel base		m_2 [mm]	32.5
	4.35	Turning radius		W_a [mm]	1450
Performance	**5.1**	Travel speeds forwards	with/without load	km/h	4/4.5
	5.1.1	Travel speed backwards	with/without load	km/h	2/2.5
	5.2	Lifting speed	with/without load	mm/s	8.6/10.6
	5.5**	Max drawbar pull (S2 = 60 min)		N	1975
	5.6**	Max drawbar pull (S2 = 5 min)		N	3700
	5.8*	Maximum slope (5 min)	with/without load	%	0/10
	5.9	Acceleration	with/without load	s	12/10
	5.10	Service brake			Electromagnetic
Drive	**6.1**	Drive motor output (S2 = 60 Min)		kW	2.5
	6.3	Battery acc. to DIN 43531			$LiFePO_4$
	6.4	Battery voltage/nominal capacity		V/Ah	24/105
	6.5	Battery weight +/- 5%		kg	24.3
Other	**8.1**	Type of drive unit			AC
	10.7	Sound level at operator's ear		dB(A)	<65

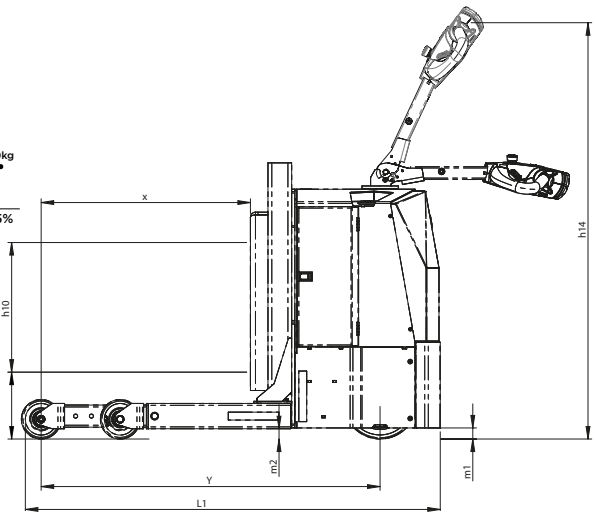
* The maximum payload is affected by the type of slope, operating time and floor type. See the graphic below for an indication of the allowable slope to load ratio (depending on slope surface/wheel type/machine weight).

** The maximum drawbar load on the hook [N] is determined by the engine power of the machine but is affected by the type of wheels of the machine and of the towed trolley/load, the type of surface and the drivable weight of the machine.

*** All values in this table have a tolerance of +/- 5%.







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TECHNICAL DATA TT3500-M M020

According to VDI 2198 in Imperial units.

Characteristics	**1.1**	Manufacturer			Movexx International B.V.
	1.2	Manufacturer's type designation			TT3500-M M020
	1.3	Drive			Electric with $LiFePO_4$ battery
	1.4	Operator type			Pedestrian
	1.5*	Rated capacity/rated load		Q [tn(US)]	3.9
	1.7**	Rated drawbar pull		F [lbf]	444
	1.8	Load distance, center of drive axle to lift face		x [in]	26.1
	1.9	Wheelbase		y [in]	42.2
Weights	**2.1**	Weight incl. battery		lb	712
	2.2***	Axle load with load	front/rear	lb	891/556
	2.3***	Axle loading, without load	front/rear	lb	586/126
Tyres/Chassis	**3.1**	Tyres	front/rear		PU/Solid Rubber
	3.2	Tyres size	front	in	9.06x2.95
	3.3	Tyres size	rear	in	4.9x2.0
	3.5	Wheels, number (x = driven)	front/rear		x1/2
	3.6	Tread	front/rear	b_{10}/b_{11} [in]	-/16.7-28.5
Dimensions	**4.9**	Tiller height	min-max	h_{14} [in]	31.9/51.8
	4.12	Tow coupling height	min-max	h_{10} [in]	8.4/24.5
	4.19	Overall length		l_1 [in]	51.7
	4.20	Length to fork face		l_2 [in]	23.6
	4.21	Overall width across chassis		b_1 [in]	27.6
	4.21.1	Overall width across all		b_2 [in]	28.5
	4.31	Ground clearance, front of machine		m_1 [in]	1.4
	4.32	Ground clearance, center of wheel base		m_2 [in]	1.3
	4.35	Turning radius		W_a [in]	57.1
Performance	**5.1**	Travel speeds forwards	with/without load	mph	2.5/2.8
	5.1.1	Travel speed backwards	with/without load	mph	1.2/1.6
	5.2	Lifting speed	with/without load	[in/s]	0.34/0.42
	5.5**	Max drawbar pull (S2 = 60 min)	with load	lbf	444.0
	5.6**	Max drawbar pull (S2 = 5 min)	with load	lbf	831.8
	5.8*	Maximum slope (5 min)	with/without load	%	0/10
	5.9	Acceleration	with/without load	s	12/10
	5.10	Service brake			Electromagnetic
Drive	**6.1**	Drive motor output (S2 = 60 Min)		hp	3.4
	6.3	Battery acc. to DIN 43531		V/Ah	$LiFePO_4$
	6.4	Battery voltage/nominal capacity			24/105
	6.5	Battery weight +/- 5%		lb	53.6
Other	**8.1**	Type of drive unit			AC
	10.7	Sound level at operator's ear		dB(A)	<65

* The maximum payload is affected by the type of slope, operating time and floor type. See the graphic below for an indication of the allowable slope to load ratio (depending on slope surface/wheel type/machine weight).

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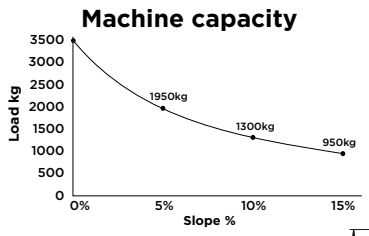

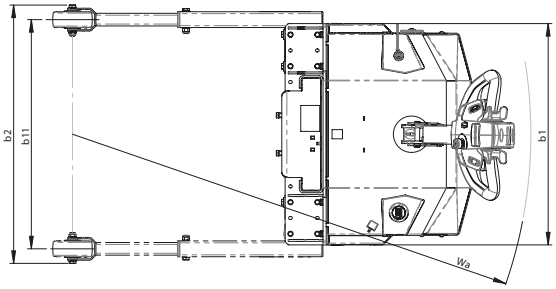

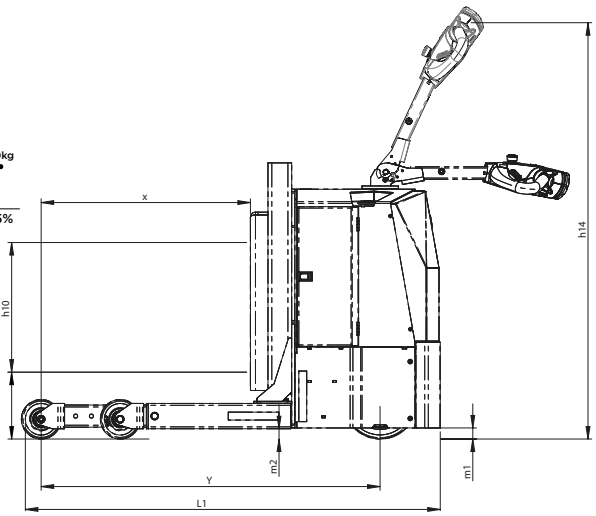

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