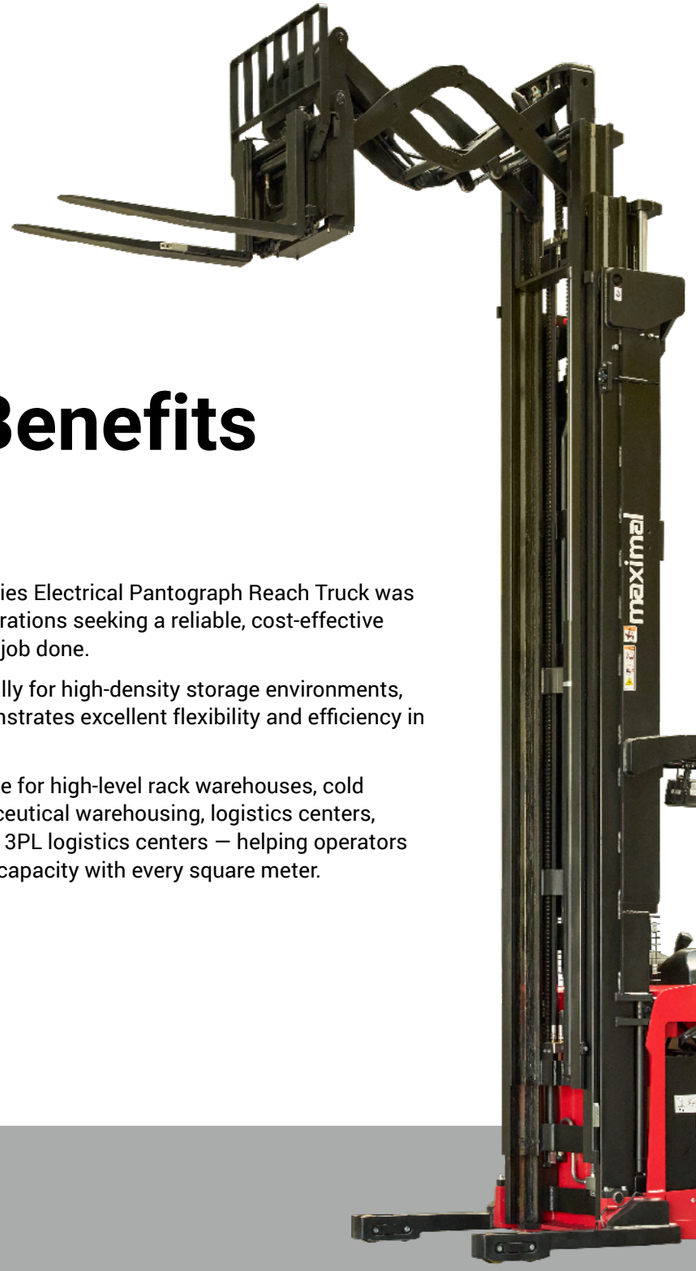
X SERIES ELECTRIC FORK REACH TRUCK

PRT16

Load Capacity: 1600KG

maximal



Key Benefits

The Maximal X Series Electrical Pantograph Reach Truck was engineered for operations seeking a reliable, cost-effective solution to get the job done.

Designed specifically for high-density storage environments, the X Series demonstrates excellent flexibility and efficiency in narrow aisles.

It is the ideal choice for high-level rack warehouses, cold chain and pharmaceutical warehousing, logistics centers, and e-commerce & 3PL logistics centers — helping operators maximize storage capacity with every square meter.

Productivity & Efficiency

The X Series pairs AC drive and lift motors with an advanced digital controller for optimal performance matching and maximum efficiency:

- Maximum travel speed of 11 km/h
- Maximum mast lifting speed of 0.54 m/s
- Regenerative braking during travel, extending battery range
- Compact body with agile turning — minimum AST of 3,142 mm (with 1,200 mm forks), maximizing rack storage density
- High-strength mast steel profile design with strong high-level load capacity and a maximum lift height of 11.5 m
- Standard joystick control, integrated side shifter, and wired camera system for precise, high-efficiency operation
- Standard side-extract lead-acid battery for easy replacement and maintenance
- Optional lithium-ion battery with side-charging capability for opportunity charging on the go

Safety & Stability

The X Series is built with a robust frame and mast design for extended service life and superior mast stability. High IP-rated electrical components ensure safe and reliable operation even under demanding working conditions.

The truck delivers excellent strength and durability across various operating environments, significantly enhancing stability. By reducing maintenance requirements, it further strengthens operational reliability and boosts overall work efficiency.

- **Wide-view mast:**

  Excellent load and forward visibility for enhanced operator comfort and productivity

- **High-strength overhead guard:**

  Profiled steel construction for superior operator protection

- **Operator presence system:**

  Standard safety pedal for added safety

- **Multi-layer braking system:**

  Regenerative braking ensures short, smooth stops. The auto-engaging electromagnetic parking brake prevents rollback on slopes.

- **Mast assembly:**

  Clear working visibility with standard integrated side shifter and fork tilt for improved high-level load capacity

- **Cushioning protection:**

  Standard fork extension/retraction cushioning and fork landing cushioning to protect loads and ensure safe operation

- **Auto speed reduction on turning:**

  Automatically reduces speed based on steering angle for safer cornering

- **CAN-bus communication:**

  Real-time monitoring of motor speed, temperature, and other parameters for closed-loop control

Operator Comfort&Ergonomics

The X Series is designed with the operator's comfort and convenience at its core:

- **Spacious operating compartment:**

  Safety pedal, steering wheel, and joystick laid out in a familiar, intuitive arrangement for easy load handling

- **Large colour LCD display:**

  Automotive-style interface providing full vehicle information at a glance

- **USB charging port:**

  Convenient for charging mobile phones and electronic devices during shifts

- **Centralized Joystick control layout:**

  All truck controls within close reach for maximum operator comfort

- **Standard electric power steering (EPS):**

  Auto-centering on startup for effortless steering, especially in narrow aisles

- **Adjustable comfortable armrest:**

  Reduces physical fatigue and improves driving comfort

Easy Service and Maintenance

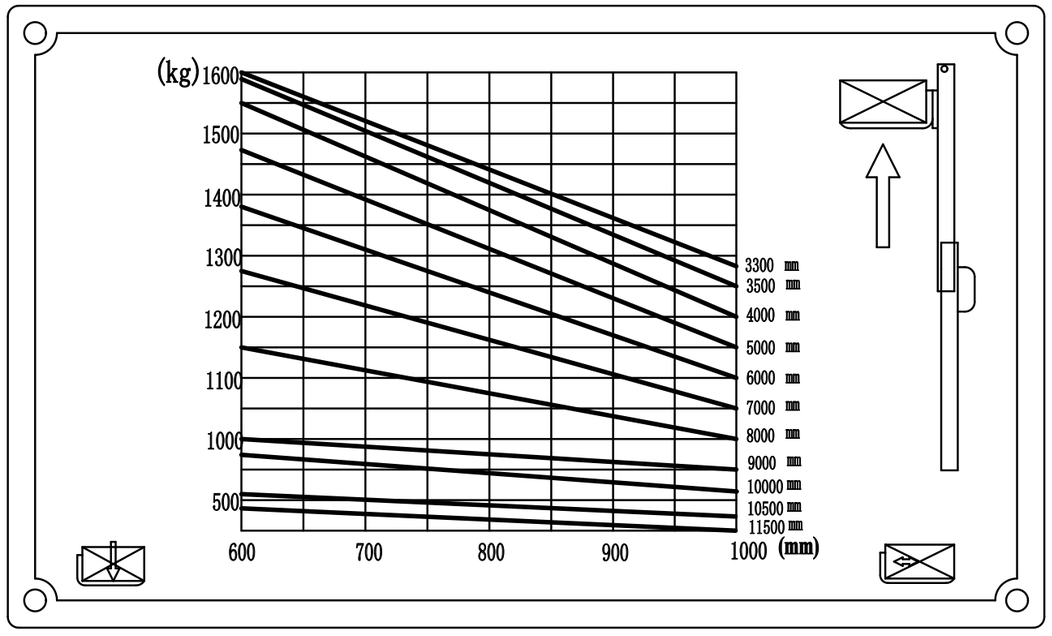
- Fully opening hood: Easy access to all electrical controls, motors, hydraulics, drive systems, and braking components for cost-effective maintenance
- Side-extract battery mechanism: Standard design for quick battery maintenance and replacement
- Error code display: The monitoring system continuously tracks vehicle status in real time and reports fault information on-screen, enabling drivers to respond swiftly
- CAN-bus architecture: Simplifies wiring, maintenance, and fault diagnosis — delivering an efficient, reliable, and flexible service solution

PRT16-MX

Lift	h3(mm)	5000	6000	6500	7000	7700	8000	8500	9000	9500	10000	10500	11000	11500
Lift Capacity	Kg	1470	1370	1300	1270	1200	1150	1125	1000	950	850	600	500	300
Height of mast, lowered	h1(mm)	2532	2800	2970	3130	3368	3470	3640	3743	3915	4113	4285	4455	4625
Free Lift (with load backrest)	h2(mm)	1395	1720	1890	2170	2322	2424	2585	2756	2925	3080	3250	3420	3590
Height, mast extended (with load backrest)	h4(mm)	6000	7000	7500	8000	8700	9000	9500	10000	10500	11000	11500	12000	12500

Note:
1.The maximum lifting height of the 700Ah Lead Acid battery is 9.5 meters
2.The maximum lifting height of the 1000Ah Lead Acid battery and the 700AH lithium battery is 11.5 meters

PRT16-MX Load Capacity Chart

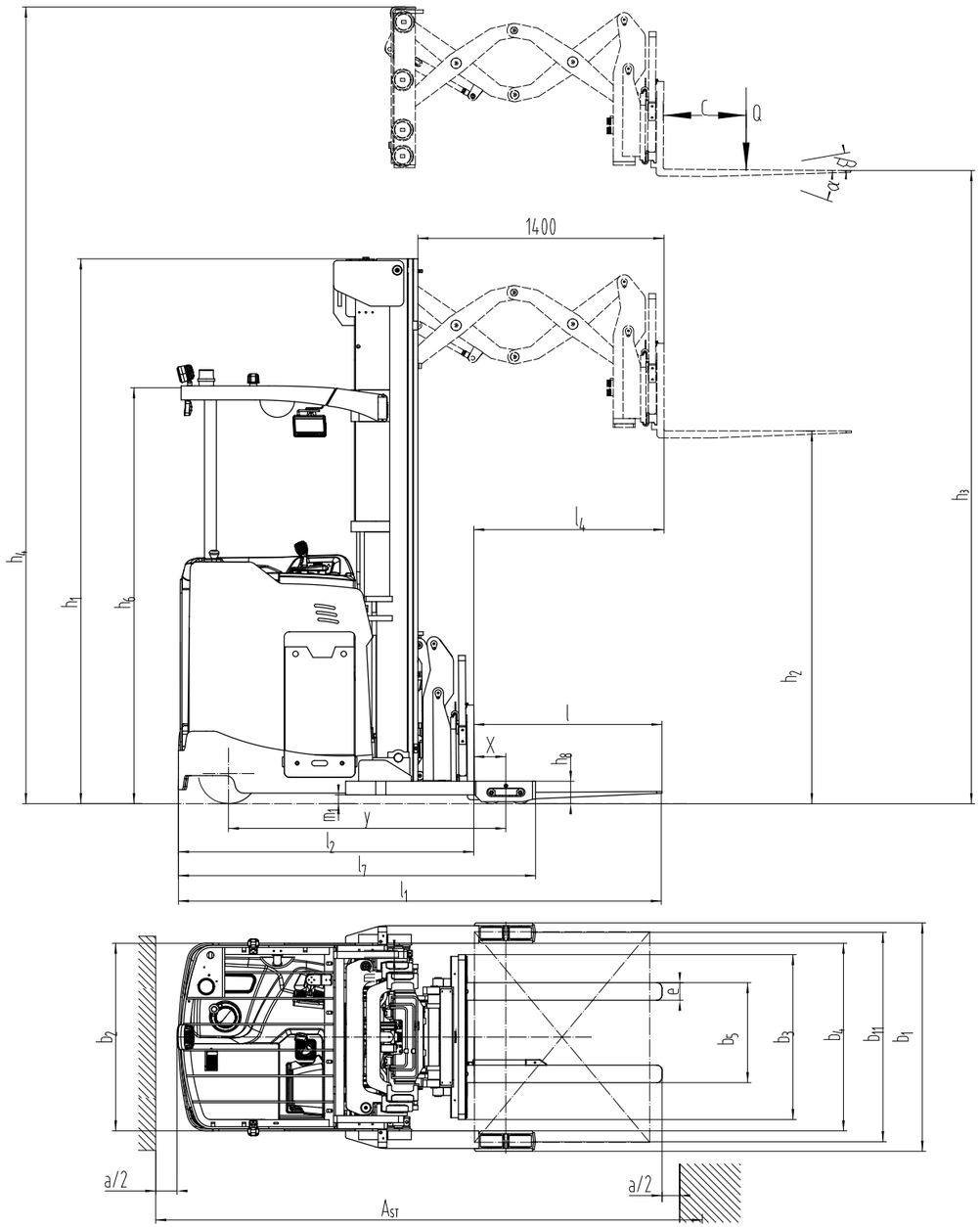


PRT16 Specification

Features	1.2	Manufacturer's type designition		PRT16-MX Battery 700Ah	PRT16-MX Battery 1000Ah
	1.3	Drive:		Electric	Electric
	1.4	Operator type:		Standing	Standing
	1.5	Rated capacity/rated load	Q (kg)	1600	1600
	1.6	Load centre distance	c (mm)	600	600
	1.8	Load distance, centre of drive axle to fork	x (mm)	178	178
	1.9	Wheelbase	y (mm)	1580	1720
Weight	2.1	Service weight	kg	4530	4930
	2.3	Axle loading, unladen front/rear	kg	1710/3220	1880/3500
	2.4	Axle loading, fork advanced, laden front/rear	kg	4155/2375	4480/2550
	2.5	Axle loading, fork retracted, laden front/rear	kg	3990/2540	4295/2735
Tyres	3.1	Tyres:		Polyurethane	Polyurethane
	3.2	Tyre size, front		Φ343×140	Φ343×140
	3.3	Tyre size, rear		φ128x73	φ128x73
	3.4	Additional wheels (dimensions)		Φ160x60	Φ160x60
	3.5	Wheels, number front/rear (× = driven wheels)		1x+2/4	1x+2/4
	3.6	Tread, front	b10 (mm)	679	679
	3.7	Tread, rear	b11 (mm)	1196	1196
Dimensions	4.1	Tilt of mast/fork carriage forward/backward	a/b (°)	2/5	2/5
	4.2	Height, mast lowered	h1 (mm)	2532	2532
	4.3	Free lift	h2 (mm)	1395	1395
	4.4	Lift	h3 (mm)	5000	5000
	4.5	Height, mast extended	h4 (mm)	6000	6000
	4.7	Height of overhead guard (cabin)	h6 (mm)	2362	2362
	4.19	Overall length	l1 (mm)	2757	2897
	4.20	Length to face of forks	l2 (mm)	1687	1827
	4.21	Overall width	b1/b2 (mm)	1302/1070	1302/1070
	4.22	Fork dimensions DIN ISO 2331	s / e / l (mm)	40/100/1070	40/100/1070
	4.24	Fork-carriage width	b3 (mm)	940	940
	4.25	Fork spread	b5 (mm)	200-680	200-680
	4.26	Distance between wheel arms/loading surfaces	b4 (mm)	1070	1070
	4.28	Reach distance	l4 (mm)	1085	1085
	4.31	Ground clearance, laden, below mast	m1 (mm)	50	50
	4.32	Height of ground jack	h8 (mm)	130	130
	4.34.1	Aisle width for pallets 1000 × 1200 crossways	Ast (mm)	3070	3210
	4.34.2	Aisle width for pallets 800 × 1200 lengthways	Ast (mm)	3142	3282
	4.35	Turning radius	Wa (mm)	1865	2005
	4.37	Length across wheel arms	l7 (mm)	2039	2179
Performance data	5.1	Travel speed, laden/unladen	km/h	10.5/11.0	10.5/11.0
	5.2	Lift speed, laden/unladen	m/s	0.42/0.50	0.42/0.50
	5.3	Lowering speed, laden/unladen	m/s	0.52/0.54	0.52/0.54
	5.4	Reaching speed, laden/unladen	m/s	0.16	0.16
	5.8	Max. gradeability, laden/unladen	%	10/15	10/15
	5.10	Service brake		Electromagnetic	Electromagnetic
Motors	6.1	Drive motor rating S2 60 min	kW	7.0(AC)	7.0(AC)
	6.2	Lift motor rating at S3 15%	kW	20.0(AC)	20.0(AC)
	6.4	Battery voltage/nominal capacity K5	(V)/(Ah) or kWh	36/700	36/1000
	6.5	Battery weight	kg	780	1080
Addtional Data	10.7	Sound pressure level at the driver's seat	dB (A)	75	75

DIMENSION DIAGRAM - PRT16

TRUCK DIMENSION DIAGRAM



Maximal PRT16 CONFIGURATION

PERFORMANCE	STD	OPT
Driving Motor 7kw Lifting Motor 20Kw	●	
Lead-Acid Battery	●	
Lithium battery		●
High-performance charger	●	
Digital Controller	●	
Cold Store Protect FOR TRUCK-25°C		●
DRIVE	**STD**	**OPT**
PU Drive Wheel / PU Load Wheel	●	
Load Wheel leg (1070/1302mm)	●	
Load Wheel leg (918/1150mm)		●
Speed limited (Three-speed H:10Km/h / S:7Km/h / E:5Km/h limit set on display)	●	
Safety Pedal	●	
Auto-parking brake	●	
Speed Limit when Mast is raised		●
Speed reduce when turning	●	
LIFT	**STD**	**OPT**
3 stage limited freelift mast	●	
2º forward /5º back tilt	●	
HANDLING	**STD**	**OPT**
Joysticks	●	
Selection of alternative fork lengths		●
Height positioning system		●
High select system		●
Camera system (Wired)	●	
Integrate Side shifter	●	
Load Backrest	●	
Mast Landing buffering	●	
Pantograph Reach in-out buffering	●	
Mast lifting/Lowering with reach in-out	●	

ERGONOMICS	STD	OPT
Overhead guard	●	
Top Screen PE		●
Electrical power steering	●	
180 Degree steering	●	
180°/360° Steering switch		●
USB Charger 5V 2.1A/1A	●	
Cup Holder	●	
Operator fan		●
Piping for Water Refill for Lead-Acid battery		●
Lateral battery Change	●	
Multifunction color display panel	●	
Adjustable Armrest	●	
VISIBILITY	**STD**	**OPT**
Internal Mirror Panorama		●
LED Work Light, pair for mast side	●	
LED Work Light, One piece for boarding side		●
Flashing Beacon	●	
Buzzer leading forks	●	
Blue spot lights		●
Red light (left, right, front)		●
OPERATION	**STD**	**OPT**
Horn	●	
APPEARANCE	**STD**	**OPT**
Maximal Red&Black	●	
Maximal White&Black - Lithium Version		●
SUPPLEMENTAL	**STD**	**OPT**
Literature package	●	
Operator's manual	●	
Warranty: Whole truck 14 Months / 2,000 hours parts manufacturer's warranty; Lithium battery: 5 years/10000hrs warranty	●	

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CE ISO 14001 ISO 9001

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