

## Type RPW-6100-Ex (ATEX) Palletlifter with weighssystem

### Operating instructions

We would like to inform you about the fact that this RAVAS product is 100 % recyclable on the basis that the parts are processed and disposed off in the right manner.  
More information can be found on our website [www.ravas.com](http://www.ravas.com).



Rev.20150617  
Printing/typographical errors and model changes reserved

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## 1 Symbols



### Warning!

*This symbol indicates advice which, if ignored, puts your health or the ability of the device or devices to function at risk.*



### Note:

*This symbol indicates important additional information, tips and recommendations.*

## 2 Safety instructions

The most important safety instructions are summarised in this chapter. It is intended to supplement the relevant regulations which must be studied by the personnel responsible.

When working in hazardous areas, the safety of personnel and plant depends on complying with all relevant safety regulations. Assembly and maintenance staff working on installations therefore have a particular responsibility. They require precise knowledge of the applicable standards and regulations.



*As user, please observe:*

- *National safety and accident prevention regulations.*
- *National installation regulations (e.g. IEC 60079-14)*
- *Generally recognised technical regulations.*
- *Safety guidelines and information in these operating instructions as well as the enclosed mechanical assembly drawings, wiring diagrams and operating instructions of the subassembly devices.*
- *Characteristic values and rated operating conditions on the rating and data plates.*
- *Additional instruction plates / labels on the devices.*
- *That any damage can invalidate the Ex-protection.*

Use the devices in **accordance with the regulations** and for their intended purpose (see "Function" on page 2). Incorrect and impermissible use or non-compliance with these instructions invalidates our warranty provision. No changes to the devices and components impairing their explosion protection are permitted.

## 3 Conformity to standards

The devices comply with the following standards and directives:

- Directive 94/9/EG;  
EN 50014, EN 50018, EN 50019, EN 50020, EN1755



*The devices are approved for use in hazardous area Zones 1 and 2.*

## 4 Function

This operating manual describes the following device:  
- Pallet lifter with weigh system Type RPW-6100-Ex.

## 5 Technical data



*Please consult the manufacturer if operating conditions are non-standard.*

*Additional technical data can be obtained upon request.*

### 5.1 Ex protection


	RPW-6100-Ex
Explosion protection, device group and category	 II 2 G
Test certification	KEMA 03 ATEX 1038
Type of explosion protection to EN 50014	EEx ed[ib] IIC T4
May be used in temperature range	-20°C...+40°C

Table 5-1: Ex protection data

### 5.2 Electrical data

Supply by battery BU-12 (certificate KEMA 03 ATEX 2050) with the following maximum values:

U <sub>o</sub>	12 V
I <sub>o</sub>	10 Ah
I <sub>max</sub>	1 A

The battery may only be recharged outside the hazardous area. The charging instructions, stipulated in the battery-manual must be observed.

---

## 6 Arrangement

### 6.1 Dimensions

See appendix A 3.

## 7 Opening and closing of the enclosure



*Only open the enclosure outside the hazardous location.*

## 8 Commissioning



*Before commissioning, ensure that:*

- The device is not damaged

## 9 Maintenance and servicing



*Please pay attention to the national regulations applicable in the country of deployment!*

*Maintenance, repair and servicing work on the devices must only be performed by personnel who are both authorised and suitably trained for this purpose.*

*To prevent defects in the system, perform maintenance work regularly. The intervals between inspections should however not exceed a maximum of three years.*

*Maintenance and calibration may only be executed in a safe area.*

*Main guideline:*

- *Because the steering wheels are mounted in the front, pulling of the pallet truck is preferred above pushing it.*
- *When the lifting mechanism is not used, it should be kept in the neutral, middle position. This prolongs the life span of the sealings. .*
- *The bearings of the wheels and the pivoting points of the levelling bar of the loading wheels must be cleansed and greased regularly.*
- *The oil containers must be checked every six months.*

### 9.1 Inspection intervals

Consider the following conditions when determining the inspection interval:

- The ambient conditions:
  - Set-up in the open
  - Degree of wind, rain and sunlight exposure
- The operating conditions:
  - Duty cycle of the system
  - Operator errors
- Manufacturer information in the technical documentation:
  - Mechanical and electrical service life

### 9.2 Inspection content

Perform the inspections as determined by the local requirements. The inspections include visual examinations, general checks and detailed inspections.



*If defects which affect explosion protection are discovered during inspections, then the equipment is to be taken out of service until the defect is remedied.*

### 9.3 Inspections/maintenance checklist

Date:	Name:	Yes	No	Action performed
<b>Date last inspection</b>				
<b>General inspections</b>				
Are the wires in the terminal blocks clamped properly?				
Are the permissible temperature specifications (in accordance with EN 50014) complied with?				
Are seals, cable glands and cable entries free of damage?				
<b>Inspecting the outer condition of enclosures</b>				
Are the enclosures free of ruptures, holes, bumps, material brittleness or corrosion spots?				
<b>Inspecting the condition of cable glands</b>				
Are the threaded joints tightened properly?				
Is the sealing within the threaded joint in satisfactory condition?				
<b>Inspecting the condition of windows:</b>				
Are the windows intact? a)				
<b>Inspecting the condition of the wheels</b>				
Are the wheels in satisfactory condition?				
<b>Inspection of the interiors</b>				
Are the interior spaces of the devices in flawless condition?				
Are the electrical points of contact in flawless condition?				
Is the mechanical attachment of the battery intact?				
Do the electrical contact points make contact properly?				
<b>Calibration:</b>				
Is the device within the tolerances as stated by the manufacturer?				
Recommended interval: once a year				
<b>Inspection of the age and condition</b>				
Is the device still within the electrical or mechanical service life as specified by the manufacturer?				
<b>Inspecting the device prior to operating</b>				
Is the device intact?				
Has the device been checked that no extraneous particles are present within?				
Is the battery connection performed correctly?				
Do cable entries and stopping plugs sit correctly?				
Are all unused openings sealed with certified sealing elements?				

Table 9-1: Maintenance checklist

a.) Only clean the windows with damp cloths.

## 10 Accessories and spare parts



*Use only original accessories and spare parts from electromach b.v.. Use of another company's accessories and spare parts invalidates the warranty of electromach b.v..*

## 11 Transportation and storage

Transport and storage are only permissible in the original packaging.

## 12 Disposal



*Please observe the national waste-disposal regulations.*

Wenn Sie die Betriebsanleitung in einer anderen Sprache der Europäischen Union benötigen, sprechen Sie bitte Ihre electromach Vertretung vor Ort an.

Should you require the operating instructions in one of the other European Community languages, please feel free to contact your electromach representative.

Si vous avez besoin des instructions de mise en service dans une autre langue de l'Union Européenne, prière de contacter votre Représentant electromach.

En caso necesario podrá solicitar de su representante electromach estas instrucciones de servicio en otro idioma de la Union Europea.

Se desiderate la traduzione del manuale operativo in un'altra lingua della Comunità Europea potete richiederla al vostro rappresentante electromach.

Indien noodzakelijk kan de vertaling van deze gebruiksinstructie in een andere EU-taal worden opgevraagd bij uw electromach-vertegenwoordiging.

Har ni behov av montage och skötselinstruktioner till annat EU-språk kontakta din electromach representant.

Se for necessária a tradução destas instruções de operação para outro idioma da União Europeia, pode solicita-la junto do seu representante electromach.

Montagevejledningen kan oversættes til andre EU-sprog og rekvireres hos Deres electromach leverandør.

Tarvittaessa tämän käyttöohjeen käännös on saatavissa toisella EU:n kielellä Teidän electromach edustajaltanne.



## EC-Declaration of Conformity

**EG-Konformitätserklärung**  
*EC-Declaration of Conformity*  
*CE-Déclaration de Conformité*



**Wir** (*we; nous*)

electromach bv, Hamerstraat 10, 7556 MZ Hengelo

**RPW-6100-Ex**

**erklären in alleiniger Verantwortung, daß das Produkt**  
*hereby declare in our sole responsibility, that the product*  
*déclarons de notre seule responsabilité, que le produit*

**Gabelhubwagen mit Wägeeinrichtung**  
*Palletlifter with weighsystem*  
*Transpalette avec système de pesée*

**auf das sich diese Erklärung bezieht, mit der/den folgenden Norm(en) oder normativen Dokumenten übereinstimmt**

*which is the subject of this declaration, is in conformity with the following standard(s) or normative documents*

*auquel cette déclaration se rapporte, est conforme aux norme(s) ou aux documents normatifs suivants*

**Bestimmungen der Richtlinie**

*terms of the directive*

*prescription de la directive*

**Titel und/oder Nr. sowie Ausgabedatum der Norm**

*title and/or No. and date of issue of the standard*

*titre et/ou No. ainsi que date d'émission des normes*

**94/9 EG: Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen**

*94/9 EC: Equipment and protective systems intended for use in potentially explosive atmospheres*

*94/9 CE: Appareils et systèmes de protection destinés à être utilisés en atmosphères explosibles*

EN 50 014 (1997)

EN 50 018 (2000)

EN 50 019 (2000)

EN 50 020 (2002)

EN 1755 (2000)

**89/336 EWG:**

**Elektromagnetische Verträglichkeit**

*89/336 EEC: Electromagnetic compatibility*

*89/336 CEE: Compatibilité électromagnétique*

-

**EG-Baumusterprüfbescheinigung:**

*EC-Type Examination Certificate:*

*Attestation d'examen CE de type:*

**KEMA 03 ATEX 1038**

**Qualitätssicherung Produktion:**

*Production Quality Assessment:*

*Assurance Qualité Production:*

**KEMA 01 ATEX Q3201**

Hengelo, 17.11.2003

**Ort und Datum**

*Place and date*

*lieu et date*

**J.F.W. Wijnen**

**Geschäftsführer**

*Managing Director*

*Directeur Général*



**W.H. Moelard**

**Leiter Qualitätsmanagement**

*Head of quality management dept.*

*Chef du dept. assurance de qualité*

## EC-Type Examination certificate

(1) **EC-TYPE EXAMINATION CERTIFICATE**

(2) Equipment or protective system intended for use in potentially explosive atmospheres - Directive 94/9/EC

(3) EC-Type Examination Certificate Number: **KEMA 03ATEX1038**

(4) Equipment or protective system: **Pallet Car with Weighing Unit Type RPW-4100-Ex**

(5) Manufacturer: **Electromach B.V., Member of the R. STAHL Technology Group**

(6) Address: **Hamerstraat 10, 7556 MZ Hengelo, The Netherlands**

(7) This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) KEMA Quality B.V., notified body number 0344 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the directive.

The examination and test results are recorded in confidential report no. 2026557.


(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

<b>EN 50014 : 1997</b>	<b>EN 50018 : 2000</b>	<b>EN 50019 : 2000</b>
<b>EN 50020 : 2002</b>	<b>EN 1755 : 2000</b>	

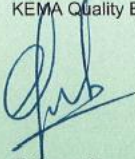
(10) If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment or protective system according to the Directive 94/9/EC. Further requirements of the directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

(12) The marking of the equipment or protective system shall include the following:


**II 2 G EEx ed [ib] IIC T4**


Arnhem, 11 November 2003  
KEMA Quality B.V.

  
C.G. van Es  
Certification Manager

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**KEMA Quality B.V.**  
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ACCREDITED BY THE  
DUTCH COUNCIL FOR  
ACCREDITATION



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**AMENDMENT 1****to EC-Type Examination Certificate KEMA 03ATEX1038****Manufacturer:** Electromach B.V., Member of the R. STAHL Technology Group**Address:** Hamerstraat 10, 7556 MZ Hengelo, The Netherlands**Description**

This Amendment is issued because of the following :

- the type designation of the Pallet Car with Weighing Unit changed from RPW-4100-Ex into RPW-6100-Ex due to another type of indicator, which is IT3000 from SYSTEC
- the number of pushbuttons in the pushbutton box is increased due to more functions

**Test documentation**dated**Drawing No.** 5020-A / RPW-6100-Ex (12 sheets)

15.10.2003

Arnhem, 11 November 2003  
KEMA Quality B.V.

A blue ink signature, appearing to be "C.G. van Es", written over a horizontal line.

C.G. van Es  
Certification Manager

[2030536]

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Dimensions

