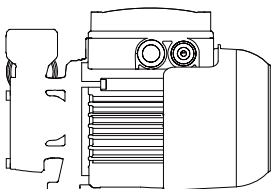
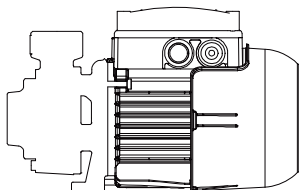


ISTRUZIONI PER L'INSTALLAZIONE E LA MANUTENZIONE
INSTRUCTIONS DE MISE EN SERVICE ET D'ENTRETIEN
INSTRUCTIONS FOR INSTALLATION AND MAINTENANCE
INSTALLATIONSANWEISUNG UND WARTUNG
INSTRUCTIES VOOR INGEBRUIKNAME EN ONDERHOUD
INSTRUÇÕES PARA INSTALAÇÃO E MANUTENÇÃO
INSTRUCCIONES PARA LA INSTALACION Y EL MANTENIMIENTO
INSTALLATIONS - OCH UNDERHÅLLSANVISNING
KULLANIM VE BAKIM TALİMATLARI
ИНСТРУКЦИИ ПО МОНТАЖУ И ТЕХНИЧЕСКОМУ ОБСЛУЖИВАНИЮ
安裝和维护说明
إرشادات للتثبيت والصيانة.
دفترچه نصب و راهنمای پمپ های مدل

KPS 30-16



KPF 30-16 / KPF 45-20



WARNINGS: Installation, electrical connection and setting up of the pump must be carried out by skilled personnel in compliance with the general and local safety regulations in force. Failure to abide by these instructions invalidates every right to the guarantee, as well as endangering persons and things.

APPLICATIONS: Peripheral pump suitable for domestic use, with limited bulk, capable of generating high heads for water supply, small gardening jobs, draining and filling cisterns. Also suitable for small industrial uses.

PUMPED FLUIDS: The machine has been designed and built for pumping water, free from explosive substances and solid particles or fibres, with a density of 1000 kg/m³ and a kinematic viscosity of 1 mm²/s, and chemically non-aggressive liquids.

TECHNICAL DATA AND RANGE OF USE

P_{max}: 6 bar (600kPa)

TF C°: -10°C ÷ +50°C

TF C°: 0 ÷ +35°C for domestic uses

Homologated pumps EN 60335-2-41

TA C°: -10°C ÷ +40°C

Relative humidity of the air: MAX. 95%

Noise level: Falls within the limits envisaged by EC Directive 89/392/EEC and subsequent modifications.

Motor construction in conformity with standards CEI 2-3 - CEI 61-69 (EN 60335-2-41).



The pumps may contain small quantities of residual water from testing.

We advise flushing them briefly with clean water before their final installation.

INSTALLATION: The electropump must be fitted in a well ventilated place, protected from unfavourable weather conditions and with an environment temperature not exceeding 40°C. A firm anchoring of the pump to the bearing surface favours the absorption of any vibrations caused by pump operation. Ensure that the metal pipes do not exert undue strain on the apertures, thus preventing deformations or breakages. **It is always good practice to place the pump as close as possible to the liquid to be pumped. The pump must be installed only in horizontal position.**

Pumps that are to be used in fountains for outdoor use, in garden ponds and similar places, must be fed by means of a circuit equipped with a differential current device, the rated operating differential current of which is not higher than 30 mA. (Cl. 7.12.1 IEC 60335-2-41:96).

ELECTRICAL CONNECTION: Scrupulously follow the wiring diagrams inside the terminal board box.

Ensure that the mains voltage is the same as the value shown on the motor plate and that there is the possibility of MA

KING A GOOD EARTH CONNECTION: In fixed installations, International Safety Standards require the use of isolating switches with a fuse-carrier base. Single-phase motors are provided with built-in thermal overload protection and may be connected directly to the mains. Three-phase motors must be protected with special remote-control motor-protectors calibrated for the current shown on the plate.

STARTING UP: Do not start the pump unless it has been completely filled with fluid. Before starting up, check that the pump is properly primed; fill it completely with clean water by means of the hole provided after having removed the filler cap on the pump body. Dry operation causes irreparable damage to the mechanical seal. The filling cap must then be screwed back on carefully. Switch on the power and check, on the three-phase version, that the motor is turning in the correct direction; this should be in a clockwise direction, looking at the motor from the impeller side. If it is turning in the wrong direction, invert the connections of any two wires on the terminal board, after having disconnected the pump from the power mains.

MAINTENANCE AND CLEANING: In normal operation, the pump does not require any specific maintenance. However, it may be necessary to clean the hydraulic parts when a fall in yield is observed. The electropump must not be dismantled unless by skilled personnel in possession of the qualifications required by the regulations in force. In any case, all repairs and maintenance jobs must be carried out only after having disconnected the pump from the power mains.

REMOVAL AND REPLACEMENT OF THE SUPPLY CABLE: Before starting, ensure that the electropump is not connected to the power network.

A) For versions without a pressure switch:

Remove the condenser cover, unscrewing the 2 screws on it. Unscrew the three terminals L - N - ⊕ and disconnect the brown lead, the blue lead and the yellow-green lead, coming from the supply cable.

B) For versions with a SQUARE D pressure switch:

ENGLISH

- Section of cable with plug from the pressure switch: unscrew the screw from the cover of the pressure switch using a screwdriver and remove the cover. Remove the yellow-green lead, slackening the earth screw, the blue lead and the brown lead from the respective terminals at the side, slackening the screws on the terminals. Remove the cable blocking terminal, slackening the respective screws, and slip off the cable which is now disconnected.

- Section of cable from the pressure switch to the terminal board: unscrew the nut from the cover of the pressure switch using a screwdriver and remove the cover. Remove the yellow-green lead, slackening the earth screw, the blue lead and the brown lead from the respective central terminals, slackening the screws on the terminals. Remove the cable blocking terminal, slackening the respective screws, and slip off the cable which is now disconnected. Remove the condenser cover, unscrewing the 2 screws on it. Unscrew the three terminals L - N - ⊕ and disconnect the brown lead, the blue lead and the yellow-green lead, coming from the pressure switch.

ATTENTION: depending on the installation and if the pumps have no cable, fit supply cables type H05 RN-F for indoor use and type H07 RN-F for outdoor use, complete with plug (standards 61-69). For power cables without a plug, provide a device for cutting off the mains (e.g. magnetothermal device) with separating contacts of at least 3 mm for each pole. When replacing the power cable, a cable of the same type must be used (e.g. H05 RN-F or H07 RN-F depending on the installation) and with the same terminals, proceeding as for disassembly in inverse order.

If the power cable is damaged it must be replaced by the manufacturer or by the respective assistance service, or anyway by a qualified person. (Cl. 7.12.5 SSA 1062/95, IEC 60335-2-41:96).

TROUBLESHOOTING		
FAULT	CHECKS (possible cause)	REMEDY
The motor does not start and makes no noise.	A. Check the electric connections. B. Check that the motor is live. C. Check the protection fuses.	C. If they are burnt-out, change them. N.B: If the fault is repeated immediately this means that the motor is short circuiting.
The motor does not start but makes noise.	A. Ensure that the mains voltage is the same as the value on the plate. B. Ensure that the connections have been made correctly. C. Check that all the phases are present on the terminal board. (3~) D. Look for possible blockages in the pump or motor. E. Check the condition of the capacitor.	B. Correct any errors. C. If not, restore the missing phase. D. Remove the blockage. E. Replace the capacitor.
The motor turns with difficulty.	A. Check the voltage which may be insufficient. B. Check whether any moving parts are scraping against fixed parts.	B. Eliminate the cause of the scraping.
The pump does not deliver.	A. The pump has not been primed correctly. B. On three-phase motors, check that the direction of rotation is correct. C. The diameter of the intake pipe is insufficient. D. Blocked foot valve.	B. If necessary, invert the connection of two supply wires. C. Replace the pipe with one with a larger diameter. D. Clean the foot valve.
The pump supplies insufficient flow.	A. Blocked foot valve. B. The impeller is worn or blocked. C. The diameter of the intake pipe is insufficient. D. On three-phase motors, check that the direction of rotation is correct.	A. Clean the foot valve. B. Remove the obstructions or replace the worn parts. C. Replace the pipe with one with a larger diameter. D. If necessary, invert the connection of two supply wires.

IT - AVVERTENZE - Personale specializzato

È consigliabile che l'installazione venga eseguita da personale competente e qualificato, in possesso dei requisiti tecnici richiesti dalle normative specifiche in materia.

Per personale qualificato si intendono quelle persone che per la loro formazione, esperienza ed istruzione, nonché le conoscenze delle relative norme, prescrizioni provvedimenti per la prevenzione degli incidenti e sulle condizioni di servizio, sono stati autorizzati dal responsabile della sicurezza dell'impianto ad eseguire qualsiasi necessaria attività ed in questa essere in grado di conoscere ed evitare qualsiasi pericolo. (Definizione per il personale tecnico IEC 364).

L'apparecchio non è destinato ad essere usato da persone (bambini compresi) le cui capacità fisiche sensoriali e mentali siano ridotte, oppure con mancanza di esperienza o di conoscenza, a meno che esse abbiano potuto beneficiare, attraverso l'intermediazione di una persona responsabile della loro sicurezza, di una sorveglianza o di istruzioni riguardanti l'uso dell'apparecchio. I bambini devono essere sorvegliati per sincerarsi che non giochino con l'apparecchio.

FR - AVERTISSEMENTS - Personnel spécialisé

Il est conseillé de confier l'installation à du personnel spécialisé et qualifié, possédant les caractéristiques requises par les normes spécifiques en la matière.

Par personnel qualifié, on désigne les personnes qui de par leur formation, leur expérience, leur instruction et leur connaissance des normes, des prescriptions, des mesures de prévention des accidents et des conditions de service, ont été autorisées par le responsable de la sécurité de l'installation à effectuer n'importe quelle activité nécessaire et durant celle-ci sont en mesure de connaître et d'éviter tout risque. (Définition pour le personnel technique IEC 364).

L'appareil n'est pas destiné à être utilisé par des personnes (enfants compris) dont les capacités physiques, sensorielles ou mentales sont réduites, ou manquant d'expérience ou de connaissance, à moins qu'elles aient pu bénéficier, à travers l'intervention d'une personne responsable de leur sécurité, d'une surveillance ou d'instructions concernant l'utilisation de l'appareil. Il faut surveiller les enfants pour s'assurer qu'ils ne jouent pas avec l'appareil.)

GB - WARNINGS - Skilled technical personnel

It is advisable that installation be carried out by skilled personnel in possession of the technical qualifications required by the specific legislation in force.

The term skilled personnel means persons whose training, experience and instruction, as well as their knowledge of the respective standards and requirements for accident prevention and working conditions, have been approved by the person in charge of plant safety, authorizing them to perform all the necessary activities, during which they are able to recognize and avoid all dangers. (Definition for technical personnel IEC 364).

The appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

DE - HINWEISE - Fachpersonal

Die Installation sollte möglichst durch kompetentes und qualifiziertes Personal erfolgen, das im Besitz der technischen Anforderungen laut der einschlägigen Normen ist.

Unter Fachpersonal werden solche Personen verstanden, die aufgrund ihrer Ausbildung und Erfahrung, sowie der Kenntnis der entsprechenden Normen und Vorschriften für die Unfallverhütung, sowie der Betriebsbedingungen, vom für die Sicherheit der Anlage Verantwortlichen dazu autorisiert sind, jeglichen erforderlichen Eingriff auszuführen und alle damit verbundenen Gefahren zu kennen und diese vermeiden zu können. (Definition des technischen Personals IEC 364).

Das Gerät darf nicht von Personen (einschließlich Kindern) benutzt werden, deren physische, sensorische oder mentale Fähigkeiten eingeschränkt sind, oder denen es an Erfahrung oder Kenntnissen mangelt, sofern ihnen nicht eine für ihre Sicherheit verantwortliche Person zur Seite steht, die sie überwacht oder beim Gebrauch des Gerätes anleitet. Kinder nicht unbeaufsichtigt in die Nähe des Gerätes lassen und sicherstellen, dass sie nicht damit herumspielen.

NL - WAARSCHUWINGEN - Gespecialiseerd personeel

Het is aan te raden, dat de installatie door bevoegd, gekwalificeerd personeel uitgevoerd wordt, dat over de door de specificatie, betreffende normen verlangde vereisten beschikt.

Onder gekwalificeerd personeel verstaat men de personen, die door hun scholing, ervaring en opleiding alsook hun kennis van de betreffende normen, voorschriften, maatregelen ter voorkoming van ongelukken en over de arbeidsomstandigheden door de veiligheidsverantwoordelijke van de installatie geautoriseerd zijn iedere noodzakelijke handeling uit te voeren en

daarbij in staat zijn ieder gevaar te onderkennen en te vermijden. (IEC 364 Definitie voor het technische personeel.) Het apparaat is niet bedoeld voor gebruik door personen (waaronder kinderen) met beperkte lichamelijke, sensorische of mentale vermogens, of die onvoldoende ervaring of kennis ervan hebben, tenzij zij bij het gebruik van het apparaat onder toezicht staan van of geïnstrueerd worden door iemand die verantwoordelijk is voor hun veiligheid. Kinderen moeten in het oog gehouden worden om erop toe te zien dat ze niet met het apparaat spelen.

PT - ADVERTÊNCIAS - Pessoal especializado

É aconselhável que a instalação seja realizada por pessoal competente e qualificado, que possua os requisitos técnicos exigidos pelas normas específicas sobre a matéria.

Com pessoal qualificado entende-se aquelas pessoas que pela sua formação, experiência e instrução, como também pelo conhecimento das relativas normas, prescrições e medidas para a prevenção dos acidentes e sobre as condições de serviço, foram autorizadas pelo responsável pela segurança da instalação a realizar todas as actividades necessárias, estando em condições de conhecer e evitar qualquer perigo. (Definição para o pessoal técnico IEC 364).

O aparelho não é destinado a ser utilizado por pessoas (inclusive crianças) com reduzidas capacidades físicas, sensoriais ou mentais, ou que faltem de experiência ou conhecimentos, a não ser que possam beneficiar, através de uma pessoa responsável pela sua segurança, de um controlo ou de instruções relativas à utilização do aparelho. As crianças devem ser vigiadas de forma a assegurar que não brinquem com o aparelho.

ES - ADVERTENCIAS - Personal especializado

Es aconsejable que la instalación sea realizada por personal competente y cualificado, con los requisitos técnicos establecidos por las normas específicas de tal sector.

Con personal cualificado nos referimos a todas aquellas personas que, o por su formación, experiencia e instrucción, así como por sus conocimientos concernientes las normas, prescripciones y disposiciones correspondientes para la prevención de accidentes y las condiciones del servicio, han sido autorizadas por el responsable de la seguridad de la instalación a realizar cualquier actividad necesaria, estando capacitado para conocer y evitar cualquier peligro. (Definición del personal técnico IEC 364).

El aparato no deberá ser utilizado por personas (tampoco niños) con capacidades físicas, sensoriales o mentales reducidas, o bien sin la debida experiencia o conocimientos, salvo que un responsable de su seguridad les haya explicado las instrucciones y supervisado el manejo de la máquina. Se deberá prestar atención a los niños para que no jueguen con el aparato.

SE - SÄKERHETSFÖRESKRIFTER - Kvalificerad teknisk personal

Installationen ska utföras av behörig och kvalificerad personal som uppfyller de tekniska krav som indikeras av gällande standard.

Med kvalificerad personal menas de personer som är kapabla att lokalisera och undvika möjliga faror. Dessa personer har tack vare sin bakgrund, erfarenhet och utbildning, och sin kännedom om gällande normer och olycksförebyggande regler auktoriserats av skyddsombudet att utföra nödvändiga arbeten. (Definition av teknisk personal enligt IEC 364).

Apparaten får inte användas av barn eller personer med nedsatt fysisk eller psykisk förmåga eller utan erfarenhet och kunskap. Det måste i sådana fall ske under översyn av en person som ansvarar för deras säkerhet och som kan visa hur apparaten används på korrekt sätt. Håll barn under uppsikt för att säkerställa att de inte leker med apparaten.

TR - UYARILAR - Uzman personel

Pompanın takılmasının, yürürlükteki özel normlara uygun teknik bilgilere sahip olan, vasıflı uzman personel tarafından yapılması tavsiye edilir.

Vasıflı personel olarak formasyon, tecrübe ve eğitimlerinden, kazalardan korunma ve çalışma şartları ile ilgili normlar, yönerge ve tedbirleri bildiklerinden dolayı tesisat güvenliğinden sorumlu teknisyen tarafından yapılması gereken herhangi işlem yapmaya izin verilen, bu işlemlerde herhangi tehlike önleyebilen kişiler adlandırılır. (Teknik personel tanımı IEC 364).

Aparat, yanlarında güvenliklerinden sorumlu bir kişi aracılığı ile denetim altında tutulmadıkları veya aparatın kullanımıyla ilgili talimatlar aracılığı ile bilgilendirilmemiş oldukları takdirde fiziksel, duyasal ve zihinsel yeteneklerinde eksiklik bulunan veya bilgisiz ya da deneyimsiz olan kişiler (çocuklar dahil) tarafından kullanılacak için tasarlanmamıştır. Çocukların aparat ile oynamadıklarından emin olmak için denetim altında tutulmaları gerekir.

RU - ПРЕДУПРЕЖДЕНИЯ - Специализированный персонал

Рекомендуется, чтобы монтаж производился компетентным и квалифицированным персоналом, обладающим техническими навыками в соответствии со специфическими нормативами в данной области. Под квалифицированным

персоналом подразумевается персонал, который получил образование, опыт и навыки, а также знаком с соответствующими нормативами, указаниями и инструкциями по предотвращению несчастных случаев и с рабочими условиями, уполномочен ответственным за безопасность на фабрике выполнять любые необходимые операции и уметь распознавать в них любой риск. (Определение технического персонала IEC 364).

Агрегат не предназначен для использования лицами (включая детей) с физическими, сенсорными или умственными ограничениями, или же не имеющими опыта или знания обращения с агрегатом, если это использование не осуществляется под контролем лиц, ответственных за их безопасность, или после обучения использованию агрегата. Следите, чтобы дети не играли с агрегатом.

CN - 警告 - 技术熟练人员

建议产品安装必须由专业技术人员进行操作

技术熟练人员指的是指经过培训，有经验，具备的相关标准知识，懂得紧急防护知识和了解其工作条件，且得到工厂安全负责人的许可，准许他们在现场进行必要的活动，确保在活动中能识别和避免所有危险的人员。（技术人员定义 IEC364）。

当人（包括儿童）的身体感官和心智能力下降时，或者相关的经验或知识欠缺时不能使用本设备，除非他们已经通过一个中间负责人负责他们的安全，监督或指导其对有关器具的使用。必须对儿童进行监督，确保他们不接触该设备。

تنبيهات

العمال المؤهلون

نصح بأن تتم عملية التركيب على يد عمال مؤهلين وذوي الكفاءة، حاملين للمتطلبات التقنية المطلوبة من قبل الأنظمة الخاصة المتعلقة في المادة.

بالعمال المؤهلين نعني هؤلاء الأشخاص الذين بموجب تكوينهم المهني، خبرتهم وتعليمهم، وكذلك معرفتهم بالانظمة المتعلقة بالمجال، بالأوامر المسجلة المتعلقة في الوقاية الاحتياطية ضد الحوادث وبشروط الخدمة، تم التصريح لهم من قبل المسؤول الأمني عن الجهاز للقيام بأية فعالية ضرورية وهم على قدرة معرفة وتجنب كل خطر. (تعريف العمال التقنيين IEC 364)

الجهاز غير مؤهل للإستعمال من قبل أشخاص (بما في ذلك الأطفال) الذين قدرتهم الجسمانية والحسية والعقلية ليست بالمستوى الطبيعي، أو من قبل أشخاص عديمي الخبرة أو المعرفة، إلا فيما إذا إستطاعوا الحصول، عن طريق شخص مسؤول عن أمانهم وسلامتهم، على إشراف أو إرشادات تخص إستعمال الجهاز هذا.

من الضروري القيام بمراقبة الأطفال للتأكد من عدم لعبهم في الجهاز.

هشدارها

میگرداند.

نصب دستگاه بایستی توسط فردی ماهر ودارای صلاحیتهای فنی مورد تایید کشورانجام پذیرد.

شخص ماهر به فردی اطلاق میشودکه دوره های آموزشی را طی کرده ، دستورالعمل ونحوه ی انجام کار را فرا گرفته، ازدانش وتجربه کاری درموردرعایت استانداردها و الزامات شرایط کاری درجهت جلوگیری از هرگونه حادثه درمحیط کاری برخوردارمیشايد وموردتایید مدیرمسئول ایمنی محصولات کارخانه و یا نماینده رسمی شرکت قرارگرفته ومجزو انجام تمام فعالیتهای ضروری درجهت شناسایی و جلوگیری از خطرات احتمالی را اخذکرده باشد .

شخص مسئول ایمنی محصولات، نحوه ی کارکرد ودستورالعمل آنرا بایستی به مصرف کننده آموزش دهد وبایستی توجه داشت که نباید به هیچ وجه مورداستفاده کودکان، افراد معلول واشخاصی قرارگردد که دچاراختلالات حسی وذهنی هستند و یا از تجربه ودانش کافی جهت استفاده ازآن برخوردارنیستند. باید به کودکان آموخت که با وسیله بازی نکنند.

Modello / Modèle / Model Modell Model / Modelo / Modell / Model Модель / نموذج / مدل	Prevalenza / Hauteur d'élévation / Head up / Förderhöhe / Overwicht / Prevalencia / Maximal pumphöjd / Manometrik yükseklik حد اکثر ارتفاع پمپاژ / التفوق / Hanop	
	Hmax (m) 2 poles 50 Hz	Hmax (m) 2 poles 60 Hz
KPS 30/16	32.5	32.5
KPF 30/16 - KPF 45/20	32.5	32.5