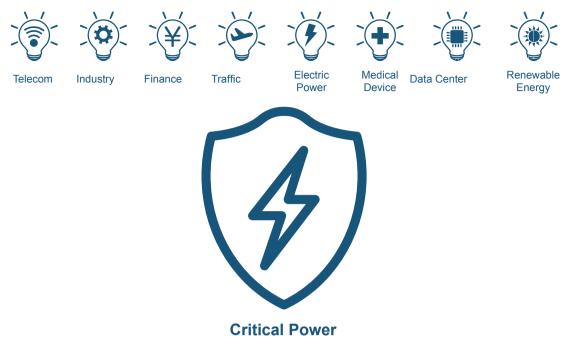




# **PROJECT SHOWCASES**Reliable Power Solutions





### **KEHUA TECH - POWER SOLUTION EXPERT**

Kehua Hengsheng Co., Ltd. as the leading power solution provider in mainland China, was founded in 1988. On January 13th, 2010 Kehua officially went public and was listed on Shenzhen Stock Exchange.

Till now Kehua owns 50 subsidiaries, 5 production bases, 3 R&D centers, 1 EMC test center and a UL witness Test Data Program. With more than 50 offices in domestic market, Kehua has a R&D team composed of over 950 engineers and 3 national experts in power industry, engaged in more than 60 national and industrial standards establishment, and also has been authorized more than 800 national patents and software copyrights and other intellectual property rights.

32 years specializing in power market, Kehua's products have been installed in 104 countries and regions, products could match the certificates of CE, SAA, TUV, UL and others for different markets' request.

Kehua supply IDC power, industrial power, electric power, communication power, elevator power, nuclear island power etc. According to the CCID Report, Kehua is the No.1 UPS Brand in China for 22 years. According to the global research organization IHS Markit, Kehua's industrial UPS market share has jumped to the third in the world, No.1 in Asia in 2017. Kehua products are widely used in finance, industry, transportation, communications, government, defense, nuclear power, education, medical, electric power etc.











Listed on Shenzhen Stock Exchange

Zhangzhou factory

Foshan factory

Xiamen factory

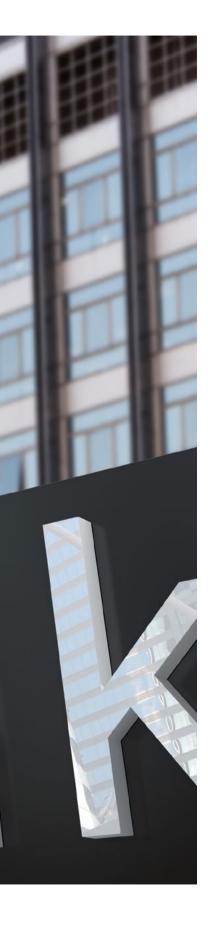
Jiaomei factory

# CONTENTS

02	Finance & Banking
06	Transportation
08	- Airport
10	- Rail Transit
12	- Expressway
14	Oil & Gas
18	Public Service
20	- Medical
22	- Government
24	- Education
26	- Stadiums & Events
28	Chemical
32	Energy & Power
36	Mining & Metals
40	Food & Pharmaceutical
44	Automotive
48	Telecom



# Finance & Banking



The finance and banking sectors continue to experience challenges. Nowadays, banking and financial services are not only in the traditional way like bank counters or ATMs. With the arising of Internet and the rapid development of modern information technology, IT-based financial service has already expended its operation to call center banking, on-line banking and mobile banking. Each day, a staggering amount of data being generated, processed, acted upon, and stored. However, IT-based financial services highly rely on solid infrastructure as the operation backbone. And how to maintain a stable operation with minimal downtime to provide optimal customer experience and keep data security are the central concerns of the financial customers.

The banking system consists of PCs, IT networks, servers, communication devices, call center, data centers. UPS power system can protect the critical system and sensitive components in modern finance and banking company.

Kehua has been serving the finance and banking users for over 30 years, solutions ranging from the single equipment to vast systems designed to large data centers.











**Sberbank Russia** is a state-owned Russian banking and financial services company headquartered in Moscow. The company was known as "Sberbank of Russia" until 2015. Sberbank has operations in several European and post-Soviet countries. Kehua UPS system enables a reliable power supply for the network security system of Sberbank.

**Sri Lanka People's Bank** is a state-owned commercial bank in Sri Lanka. Kehua closely follows the development needs of the banking business, providing hundreds sets KR series UPS power and batteries Related core components, ensure the security and stability of IT system.

**Bank of China (BOC)** is one of the 5 biggest state-owned commercial banks in China. By right of the excellent quality, Kehua has been one of BOC's long-term partners. Since 1990, Kehua has provided more than 27,000 sets of UPS ranging from 0.5kVA to 200kVA, batteries and cabinets, have been widely used in the bank's electrical systems over 30 provinces, cities and regions.

**China Construction Bank (CCB)** installs more than 35,000 sets of UPS (0.5~100kVA) and applies key components such as batteries in its IDC rooms, data terminals, outlets, ATM. Kehua UPS system solution greatly improves security and efficiency of the networks.



**The People's Bank of China (PBC/PBOC)** is the central bank of China. Kehua UPS system is widely used in the people's bank of China since 1990's. By now, Kehua has successively provided more than 1400 sets of 0.5~160Kva UPS system, battery and related components for the bank in nearly 30 provinces and cities, ensure absolute reliable power supplies for the financial electronic and information construction.

**Industrial and Commercial Bank of China (ICBC)** has ordered more than 7,000 (0.5~300kVA) sets of UPS and related key components for ICBC banking system since 1998, Kehua products has been applied in more than 20 provinces of the bank's service network, providing strong support the business expansion of ICBC.

**Agricultural Bank of China (ABC)** requires a highly reliable power protection. Kehua has offered more than 24,670 sets of high-end UPS ranging from 0.5kVA to 200kVA and key components such as batteries in the past 30 years and has received excellent user feedbacks.

**Lanka Clear** is the largest payments infrastructure provider in Sri Lanka, owned by the Central Bank of Sri Lanka (CBSL) and all CBSL-licensed commercial banks in the country. Kehua MR series modular UPS ensures continuity of data processing and enhance reliable and stable power supply for banks.



# Transportation



Urbanization progress are increasingly calling for low-emission transport and fast, safe mobility to improve intercity connections. Transportation agencies are also under increasing pressure to support sustainable mobility and maximise return on assets. The quality and stability of the power system is the indemnification of the normal operation of transportation, because even minor disturbances in power supply or quality can cause major network disruptions.

Kehua offers a range of technologies for the rail, airport and expressway sectors: wayside power solutions such as substation and power equipment; on-board power and propulsion technologies like traction transformers and converters among others; Monitoring and management systems.

Kehua has comprehensive range of AC and DC power protection solutions to ensure maximum availability and ROI (return on investment), and reduced lifetime costs. Kehua is a power expert with extensive experience in large international engineering projects.

Kehua power solutions includes UPS, DC systems and batteries, distribution, fire detection, control and monitoring, turnkey project solutions.







**Faleolo International Airport** project Belongs to the Chinese government aid project. The project general contracted by the EPC of SCG (SHANGHAI CONSTRUCTION GROUP), Kehua provide users with high-end FR-UK33160 series UPS of power solutions to provide reliable power supply to the key equiptment.

**Beijing Daxing International Airport** is the second-largest single-building after Istanbul Airport with estimated annual capacity of 45 million passengers. With highly-automated and complex infrastructure, the airport demands intelligent solutions for its daily operation. Kehua's solutions help the airport manage real time operational information of each system, at the same time, enhance the management efficiency of the primary load power supply system.

**Yangon International Airport** is the primary and busiest international airport of Myanmar. The airport adopts Kehua FR-UK series UPS system to provide the power pretection for its critical equipments.



**Shandong Linyi Airport** requires a secure and stable UPS system. Dozens of Kehua 40KVA UPS applies in data center of the airport, 30kVA for their safety system and 10 kVA for their monitor control room, which ensures secure and stable power supplies for the airport operation.

**Qingdao International Airport** Qingdao International Airport handles with 10 million passengers and 200,000 tons of goods each year, more than 5,000 passengers each hours in peak period. Kehua supplies 2 sets of FR-UK series UPS to ensure reliable power supply for the normal operation of airport. The reliable and high efficiency won the customer's praise and trust.

**Urumqi International Airport** is approved by the government with total investment of 1.953 billion RMB. Kehua supplies dozens of FR-UK series UPS (5-40kVA) for the servers in the security data center, providing the power protection solution for the airport's operation. Kehua FR-UK series UPS configures dual DSP control technology, making the data processing faster and more precise.



**Ethiopia Railway** project starts from Addis Ababa (capital of Ethiopian ) to Djibouti, with a length of 740 km. Railway project applied in harsh environmental conditions, Kehua provide FR-UK series UPS solutions to provide effective protection for the safe operation of Ethiopian railway control systems. The high reliability and performance acquire customers' favors.

**Panama Metro** is a rapid transit system in Panama City, Panama, which links the north and east sides of the metropolitan area to the city center. Kehua supplies 3 sets of KR series UPS with lithium battery system to ensure reliable power supply for the normal operation of metro station. The reliable and high efficiency won the customer's praise and trust.

**Moscow Central Diameters** is a system of city train services on existing commuter rail lines in Moscow and Moscow Oblast, Russia, which began operation in 2019. With internal isolation transformer and the design of three proofing properties for preventing from dusk, smog and salt, Kehua FR-UK33 UPS has proved its stability, well adaptation and high efficiency especially for track road characteristic and usage scenario.

**Beijing Railway Bureau** selected dozens of sets of Kehua FR-UK series UPS systems in its main railway lines, supplied safety power for the TMIS, DMIS, PMIS and office automation systems. greatly improve the efficiency and safety of railway transportation.

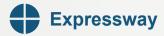


**Nanning Railway Bureau** adopts FR-UK series UPS system to build an unified management platform which contain power distribution, wiring, monitoring etc., structure a high reliable, complete performance and high intelligent center of supply.

**Beijing Metro** adopts Kehua highly reliable power solutions including over 100 sets of UPS for the Beijing Subway Yizhuang Line, Daxing Line, Fangshan Line, Line 8, Line 10, line 15 and other lines, to secure the power supply of its communication system and AFC systems.

**Changchun Subway System** is serving the urban rail transport system of Changchun city, Jilin province and surrounding areas. In 2011, Kehua provided 42 sets of customized FR-UK UPS, rectifier, controller for this subway.

Xiamen Metro Line 1 and Line 2 requires power protection for its running and operation system. Kehua provides Xiamen Metro Line 1&2 with the engineering power system solution composed of hundreds power units, making sure the power supply of UPS integrated power, railway special communication, public security communication, integrated supervisory control, AFC (Automatic Fare Collection System), ACC (AFC Clearing Center), platform screen doors, emergency power supply and AC/DC power supply unit for 35kV substation.





**Traffic Tunnel in Gothenburg, Sweden** The tunnel locates in Gothenburg, Sweden, the project adopts Kehua Modular UPS system to ensure the power supply for the monitoring and lighting systems in tunnel, its hot-swappable function ensures uninterrupted operations during maintenance.

**Liaoning Traffic office** requires a set of UPS systems to supply safe power for 14 cities and 90% counties (cities, districts) of all expressways in the province. Kehua provides 47 sets of FR-UK series UPS equipments to guarantee the reliability of the power system.

**G3015 Xinjiang Karamay - Tacheng Expressway** construction project applies more than 30 sets of Kehua MR series UPS, DHY Series Regulators to ensure the normal operation of the toll system, communication system and monitoring system along roads.

**Ningwu Highway** a coastal line highway, across many historical cities, such as Fu'an, Zhouning, Zhenghe, Jianyang, Wuyishan, etc. with total length of 301.30km. Kehua provided 122 sets of customized UPS for the telecom and dynamic power supply.



**Jiangxi Huang Jingwuhuang Highway** project requires high-reliable and adaptable machine for its challeging applications. Kehua FR-UK series UPS is a dedicated to deal with such harsh environments and industrial applications. Kehua 30kVA parallel UPS system are applied in monitoring and control center, 4 sets of FR-UK30L applied in telecom system; 1 to 15kVA UPS for highway charging system.

**Jilin Yiliao Highway** is one of the most important highway project in Liaoning province. According to the actual situation of Jilin terrain, Kehua supplied 14 sets of 50 to 100kVA low frequency UPS system for the difference applications including telecom, monitor, light, etc.

**Fujian Longchang Highway** applies 195 sets of Kehua low frequency UPS ranging from 10 to 30kVA for this highway power supply. According to the geographical environment, all the UPS has equipped with ant-moisture, anti-smoke, anti-vibration function to ensure the reliability of the system.

**Hubei Hurongxi Expressway** connects the middle east of China to the south-west of China with total 320km, across various of land situations and harsh environments. Kehua provides 250 sets of UPS for the project.



# Oil & Gas



The petrochemical industry is one of the pillar of industrial development all over the world, fueling the engine of human's industrial civilization. While oil and gas exploration and development have to face the most challenging areas in sparsely inhabited, remote areas, ranging from the frigid arctic, to the hot deserts, to extreme offshore environments.

The special environmental factors have extremely high expectations for technology and equipment. Power supply is the primary problem in the outlying areas with poor electricity grid, sags, surges, outages, harmonics, power factor correction or frequency excursion. And then a stable and high-quality power supply is of significance to the whole energy production system.

Specializing on power conversion and protection industry for 30 years, Kehua has comprehensive product portfolio for petroleum industry plants for offshore and onshore applications. Kehua industrial power solution is full capable of design, supply, installation, testing and service for individual requirements.











**Brunei PMB Project** is a 10 million-ton world-class petrochemical industry base, which is Brunei's largest industrial investment so far. Kehua provides highly reliable industrial-grade power protection solutions, including 50 sets of FR-UK31 DL industrial UPS and 31 sets of EPS systems. The solutions can prevent all kinds of precision instruments from losing control and malfunction caused by instantaneous power loss. They can also avoid personnel injury, economic loss and environmental pollution caused by of electrical accidents.

**Gazprom Neft Russia** is a vertically integrated oil company in Russia, primarily engaged in oil and gas exploration, production and refining, it is one of the top three companies in oil refining of Russia. In 2017, 2 units of Kehua FR-UK 3360DL applied in Valves of natural gas pipelines to ensure a reliable power supply system.

**Pemex Mexico** is the largest oil company in Mexico and. The project is to guarantee the power supply to the control system of production units as Coke Tower, Hydraulic decoking equipment, Flameless burner, Heating furnace, High & low pressure separator, reactor, air distributor, etc. Kehua supplied 10 pcs DL series UPS for different production control system, achieving the reliability and intelligent management of the power solution.

**Drilling Platform of China National Offshore Oil Corporation (CNOOC)** is under high temperature and humidity environments of south China sea. Kehua provides an industrial-grade marine high power UPS power system, including FR-UK31DL series UPS, bypass cabinet, output power distribution cabinet, batteries, explosion-proof switch boxes etc. The solution safeguards the control system, alarm system(ICMS), emergency shutdown system(ESD) for the platform.



**CNPC Petroleum Pipeline - West-East Gas Transmission Project** is a landmark construction in Western Development. The project locates in harsh environments of high altitude. Kehua offers more than 50 sets of high-end UPS and related core components, providing highly reliable protective equipment in the stations along the West-East Gas Pipeline to escort the construction.

**Changqing Oilfied** exploration area mainly in a basin area of 37 million square kilometers. accumulates proven geological reserves of 541.88 million tons of oil and gas. In order to improve power supply stability, Changqing applies 12 sets of Kehua FR-UK series UPS (20-80kVA), 10 sets of 20kVA to ensure power supply for the communications room; two sets of 80kVA for control center.

### ChuanQing Drilling Engineering of China National Petroleum Corporation (CNPC)

the project requires a UPS system to be able to operate at a harsh environment. Based on the on-vehicle mobile requirement, Kehua provides 3 high-end UPS in the backup power vehicle to support the critical equipment such as oil drilling pump and control valve, providing highly reliable power supply for safe production.

### SINOPEC GROUP - China Petroleum & Chemical Corporation Jiangsu Company

is a large-scale national petroleum distribution company, the data center of the company undertakes important data transmission tasks, electricity security critical to prevent the loss of company economy and reputation. Kehua provides 2 sets of 50kVA FR-UK series UPS system for data center power protection.



### **Public Service**

allin.

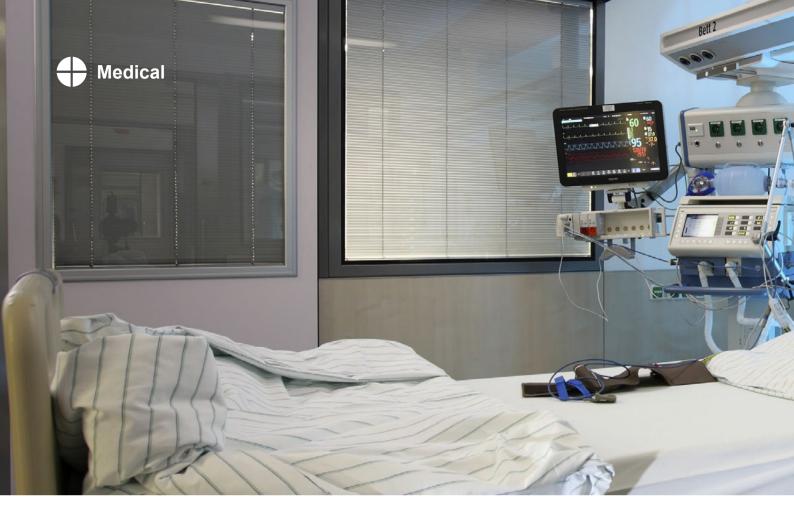
ANALASSI ANA



A failure or fault with the power supply system in public service sectors (Medical, public security, education, public events) can lead to massive followup costs. damages, or enven accidents. By using UPS power system, these faults or risks can be detected and resolved quickly.

Kehua UPS power systems have been widely applied in public service to ensure a reliable power supply for critical or sensitive systems. Kehua high-end UPS is on behlf of high reliability and quality, the successful case can tell the truth itself.

In medical segment, Kehua has comprehensive product portfolios to meet the requirements of power protectionfor precise and critical instruments and equipments in hospitals; In government and pubic security, Kehua has participated in national and provincial level construction projects and its solutions have been well proven by users; In education segments, Kehua is an expert at reliable power supply for Libraries, IT rooms, servers and other teaching facilities; In stadiums and events, relying on rich experience in powering the international events and games, Kehua UPS power system is competent to the task of power safeguard for lightning, communication, security systems etc.



**Regional Oncology Center** in Russia adopated one set of Kehua 160kVA online FR-UK series UPS to connect with angiography machine. Angiography machine is a highly sensitive device. It demands the highest level of power protection, which is provided by Kehua FR-UK series UPS system.

**Hospital Ships and City Hospitals in Burma** The hospital Ships provides lifesaving surgeries and medical treatments for people where medical care is nearly non-existent, reliable power supply for these special ships are the crucial part of daily medical operation. The Burma City Hospital has adopted dozens sets of Kehua 80~160kVA high power UPS for reliable power supply to their hospital ships and the main local hospitals as well.

**The Faculty of Medicine, Lund University in Sweden** is one of eight faculties at Lund University. The faculty of Medicine in Lund University installed 2 sets of 200kVA UPS system to ensure a reliable power supply.

**Sumatra City Hospitals of Indonesia** equips many sensitive electronic instruments and devices for monitoring, diagnosing, ICT and IT systems. The equipments operation are concerned about human life. Couple sets of Kehua high power UPS are installed to reliable power supply for the essential equipment like CT, MRI etc.



**Henan Center for Disease Control and Prevention** is very important in preventing and disease controlling of the province. After analyzing the site situation, Kehua provides UK33 series (160kVA) for the reliable power to the center BSL-S lab.

**Shandong Disease Control and Prevention Center** chooses Kehua FR-UK33120 to provide reliable power to the automation control system of the whole infrastructure. The stable and reliable performance win the customer's favours.

**Huaxi Hospital of Sichuan University** is a national center for the diagnosis and treatment of severe problems in western China. Kehua provides 2 sets 100kVA UPS, providing double-loop power supply for the hospital's MRI system and 2 sets 20kVA UPS to center room, ensuring reliable charge system power protection.

**Emergency Container Hospital in Russia** is an emergency medical base to fighting against COVID-19 which is integrated with precise medical equipment and air-condition system. Kehua FR-UK series UPS system ensures the stable power supply for medical equipment, and provides the reliable support for emergency hospital.



**Ukraine Parliament - Verkhovna Rada Building** is located in the center of Kiev, where the Ukrainian parliament meets for all sessions. This demands the strictest standard of safety and reliability for power supply system. Kehua supplied MR33 series modular UPS, providing high reliable power supply for the data room.

**The Public Security Department of Shandong Province** adopts dozens of sets of FR-UK series UPS to protect the power supply of the key devices. Because of the significant technical advantages, Kehua UPS solutions are widely applied to public security systems in Yantai, Jining, Linyi, Weifang, Weihai, Dezhou in Shandong province and has been well accepted by users.

**The City Security System Project of Henan Province** Kehua provides nearly 100 set of 3~30kVA UPS for the project. Those UPS are applied in monitoring computer rooms of the local police stations and police offices in Henan province, including Yuzhou, Sanmenxia, Yongcheng and other cities of the province.

**Guangdong State Administration of Taxation** has developed a E-tax system to support the growing data flow to ensure the accuracy of the data and information. It totally applies 521 sets of Kehua UPS system including 3 sets of high power 160kVA for provincial computer room, 2 sets of 160kVA for Disaster-protection center room, and hundreds of 20~80kVA UPS for tax system machine room.



**China Golden Tax Project** is a national program in Tax system from provincial to city district level, application and installation of the Project throughout the country are under uneven power network conditions and complex geographical environment, which causes the strict requirement of UPS power. Kehua provided thousands sets of high-power 5~160kVA UPS since 1999 for the Golden Tax Project, to ensure reliable power protection for tax system in more than 20 provinces for 10 years, making contributions to the development of the national tax electron

**Hebei Finance Bureau** has cooperated with Kehua company since 1999. The Bureau has adopted thousands of Kehua UPS products to satisfy the upgrading demands of financial system. The quality and service are highly praised by the customer.

**Xiamen Traffic Police** uses more than 100 sets of Kehua outdoors UPS for Xiamen hundreds of traffic lights system to provide a reliable traffic control. As a critical traffic facilities concerning public security, Kehua UPS are well proven by the applications.

**Sweden Vaggeryd Government IT Room** adopts Kehua KR33 UPS system to ensure the power protection for Sweden Vaggeryd government IT rooms. The high efficiency and robust design brings cost-effective power supply for the IT system operation.



**Cultural Information Resource Sharing Project** is a national culture sharing project. By the use of the Internet, satellite and broadband transmission, the project achieves information resources disc sharing in the whole country. Kehua provide hundreds sets of UPS were used in libraries, cultural centers around the cities to ensure power protection to cultural sharing project.

**Tsinghua University** has more than 100 servers in the computer room of library. in addition to its own library system, also provides the data backup service to other neighboring university library system. For the actual application of Tsinghua University Library, Kehua provides 80kVA UPS parallel systems to meet power supply of multiple servers.

**Ibrary of Shiyan City** needs power protection is the foundation of information security. For practical application of Shiyan library, Kehua provides a KELONG®YTR3360 with battery and other core components, to offer effective power protection for libraries normal business, overcoming the difficulties caused by the power outage.

**Indonesia School Energy-storage Power system (Lead-carbon)** Depending on the irregular electricity at the Indonesia school in Jakatra, Kehua provides the energy-storage power system solution including 15pcs FR-UK33 120K UPS and 15pcs batteries packs for peak shaving and energy conservation.



**Poland Electron Technology (ITE) Institute** is a major Polish research center with the primary focus on semiconductor micro- and nanotechnology. Kehua provides the KR3115 UPS to ensure the power uninterrupted and equipment safety.

**China Science and Technology University** requires ultra-reliable power protection for its highprecision test instruments in modern physics laboratory. Kehua provides independent patent FR-UK series 60kVA UPS with clean, reliable and stable power supply to ensure uninterrupted and accuracy of the experiment.

**Chinese Academy of Science Semi-conductor Institute** has many high capacity equipment, such as air compressor, water pump, high temperature stove in its semi-conductor lab, which poses a huge challenge for power source. Kehua provides FR-UK series UPS, with soft-start to protect the Institute equipment.

**Huazhong Science and Technology University** has developed a Campus Card System to full cover the university, electricity power security is extremely important to the system. Kehua provides several sets of UPS equipment to meet the requirements for electronic information building of the school.





**Hong Kong–Zhuhai–Macau Bridge** is the world's longest sea bridge linking up Hong Kong, Macau and the mainland's River Delta cities to form the Greater Bay Area. In the mega project, about 200 sets of Kehua UPS system was installed in the substations of the east and west artificial island and the port artificial, working in the harsh environment of high temperature, high humidity and corrosion.

**Expo 2020** is a World Expo to be hosted by Dubai in the United Arab Emirates. In the event, Kehua not only provides reliable and stable power supply, but also provides professional technical service on site, which makes customers satisfy with both product quality and service.

**Angola 2010 Africa Cup main stadium** adopts 8 sets of Kehua high-end 250kVA UPS systems for stadium lighting systems and network systems. And offer 10 sets 15kVA to 30kVA UPS systems for the five-star hotel IT equipment, video broadcast network.

**Nanjing 2014 Youth Olympic Games** is China's major Olympic event. Relying on the successful experience of the Beijing Olympic Games, the Asian Games in Guangzhou and the Shenzhen Universiade, Kehua is highly trusted by the customers. This time, dozens of Kehua high-end 10kVA to 300kVA UPS are widely used in the lighting system, the flag-raising device system, security system, ticketing system, OBS television systems and other critical load equipment.



**Gabon Oyem Stadium** undertakes the Africa Cup 2017, and it lies in a forest of Oyem city, which is the capital of Woleu-Ntem Province in Gabon and a large multifunctional venue set of match, hotel, office, conference, admitting twenty thousand spectators. Kehua offers 4 sets of high-power supply systems and send the engineer team to provide technical service.

**Shanghai World Expo** select dozens of Kehua high power UPS for the emergency data center, and many of them applied in US Pavilion and French Pavilion, and industrial high-end UPS for tunnels, which makes great contribution to the smooth progress of the Expo.

**Olympic Sports Center of Shanxi Province** is a key planning and construction projects in Shanxi Province, as qualification for the top sports events infrastructure. Kehua power solution is tailored to provide more than 20 sets of high power UPS systems for automation facilities, lighting systems, communication systems and data center for highly reliable power protection.

**Beijing Olympic Games** applies dozens of Kehua UPS power system from 1kVA to 60kVA and complete power solution for the water circulation system, switchers, server s and broadcasting equipments, ensuring the power security of the whole wonderful event.



Chemical enterprises have to maximize the plant utilization and productivity and meet the high technology requirements of environmental protection. And it is also essential to provide maximum safety in a highly controlled environment. In addition, increasing energy costs call for greater energy utilization efficiency. That's how reliable, safe, and efficient power supply contributes to consistent market success among intense global competition.

The chemical is a complex industry that relys on maximum accuracy and safety. So power system would make difference: even the smallest disruptions in the power supply can result in expensive interruptions in the production processes and cause serious damage to high quality facilities in the factory. In a worst-case scenario, a supply bottleneck can even endanger humans and the environment. For all these reasons, ensuring a reliable, safe, and efficient power supply is of the utmost importance in the chemical industry.



SIN

ZER



Xiamen Xianglu Chemical Fiber Co., Ltd. is the largest foreign-invested enterprises in chemical fiber industry of China. The company attaches great importance to quality management and environmental protection. Therefore, the power is directly related to the product's quality. Kehua provides dozens of DL series UPS to protect the security of DCS control system, solving the switch between double power automatic switch ATS and bypass voltage stabilizer, improve power supply stability.

**Hubei Blue Sky Salt Chemical Co., Ltd.** is one of the major salt chemical production enterprises. the brine plant, salt and sodium workshops uses Kehua 20kVA, 30kVA UPS system to protect a variety of instrumentations and control system devices of the modern production line.

**Zhengjiang Jiacheng Chemical Co., Ltd.** is a giant chemical company which majors in the dyes, sodium hydrosulfite, sulfuric acid, additives products manufacturing. As a critical component of production, control system power supply is great of significance to the factory. Kehua provide UPS, EPS and bypass cabinet, to provide highly reliable power protection for power safety of DCS control system and bypass regulator conversion.

**SINOPEC Hubei Fertilizer Company** requires intelligent solutions for its self-provided 110kV substation intelligent system. Kehua integrated power system solution consist of AC power systems, 22 Vdc power systems, 48V communication systems and AC uninterruptible power supply system, realizing security, networking, intelligence and integration of station power supply for the company.

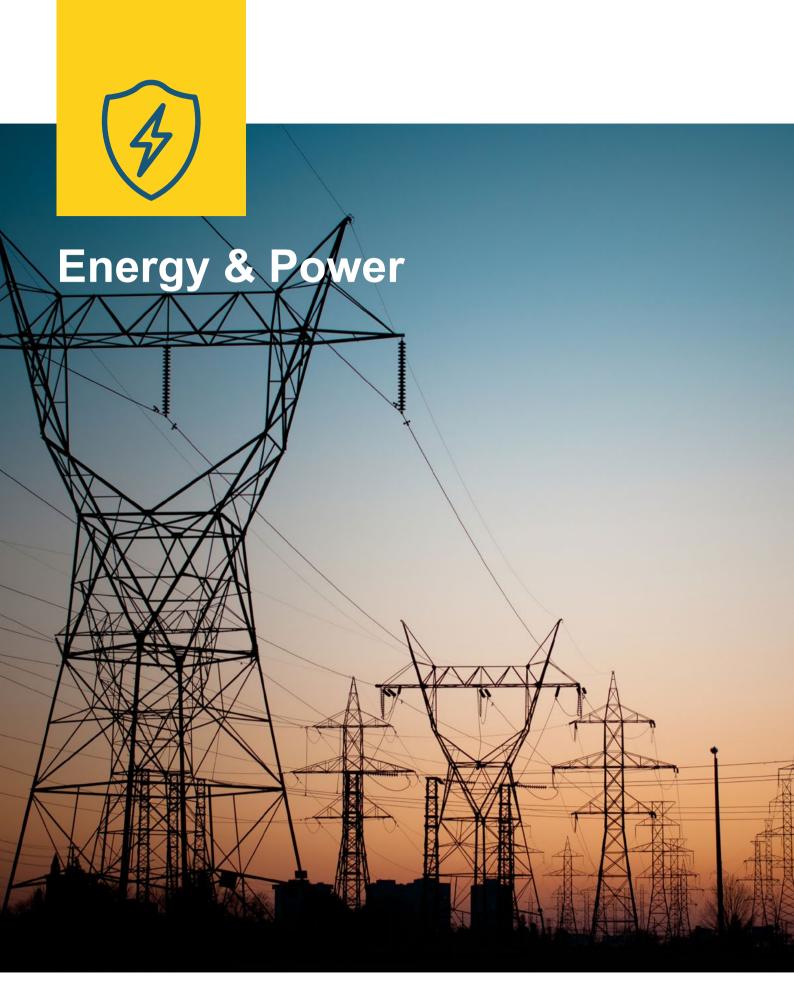


**Xinjiang Tianye (Group) Co., Ltd.** is a large scale state-owned enterprises. As the business grows, its DCS control systems of power plant are in the demand of upgrades. Kehua provides dozens of UPS, among which the 30kVA parallel UPS systems used in DCS control systems are providing highly reliable power protection; Kehua UPS products are also widely applied in its chemical automated production lines and other projects.

**Shandong LUXI Fertilizer Industry Group** has one of the largest fertilizer production base in China, with 100,000 kilowatts generating units. In order to improve the stability of power supply, Luxi purchases more than 20 sets of Kehua 6-30kVA UPS, guarantee DCS control system with highly reliability to avoid huge economic losses caused by power outages.

**Fujian Changle ShanLi Chemical Fiber Co., Ltd.** is located iln Changle Binhai Industrial Zone, have an annual output of 600,000 tons of melt polyester, with dozens of import FDY production lines and systems, Fujian Changle ShanLi stands on the advanced level of the industry. KEHUA supplied total about 2.5 MW system UPS for the power security of production, insures the high productivity of the company.

**Tenglong Specialty Resin (Xiamen) Co., Ltd.** owns the world's largest single-line production of the largest polymerization device, the daily output reach 900 tons. KEHUA supplied its customize industrial-grade 3-phase UPS for the DCS control system, together with intelligent multi-mode BMS technology, provide reliable power protection to the production line.



Energy generation station or distribution must comply with special safety requirements. Extreme ambient temperatures and large temperature fluctuations are common occurrences in the energy sector. As extremely high temperatures in fuel power plants, , or extremely low temperatures with hydro-power plants in snow-capped mountains and Northern cold regions .

The UPS systems are normally designed with builtin redundancy to guarantee uninterrupted operation. Kehua redundancy modules and uninterruptible power supplies (UPS) with rechargeable batteries as the storage medium are used to maintain the supply of power during a power failure or interruption to either maintain full system functionality or to perform a controlled shutdown. This prevents malfunctions within the system that in the worst case scenario could cause considerable permanent damage.

Kehua UPS power supply systems are used in a wide variety of applications within the energy production and distribution fields. In the energy sector, its primarily reliability, long service life and immunity to fluctuations - even in extreme environmental conditions – have been well proven by users.





**The Three Gorges Dam Project** is a hydroelectric dam that spans the Yangtze River by the town of Sandouping, located in Yiling District, Yichang, Hubei province, China. The Three Gorges Dam is the world's largest power station in terms of installed capacity (22,500 MW). Kehua Tech has provided more than 20 sets of FR-UK series UPS parallel system to protect the main projects.

**Wenzhou Fuel Power Plant** adopts Kehua 3-phase 60kVA parallel UPS, equipped with 1000Ah high capacity batteries. The UPS system pours the redundant power to the charging system and provide bigger charging current to prolong the charging demand of the batteries, which will guarantee the reliability of the devices and equipment of IT department.

**Daqing Electric Bureau (Heilongjiang Province)** adopts 3 phase-input single phase-out FR-UK series parallel UPS, along with power distribution cabinet, lightning protector, network adapter etc. The integrated solution improves the security of system and realize intelligent network management for customer.

**Zhejiang Xiaoshan Electric Bureau** has been provided with Kehua customized FR-UK series parallel UPS system. It supplys a high reliable power protection for the user's large-scale IDC and control center, enhance the safety of the electrical environment.

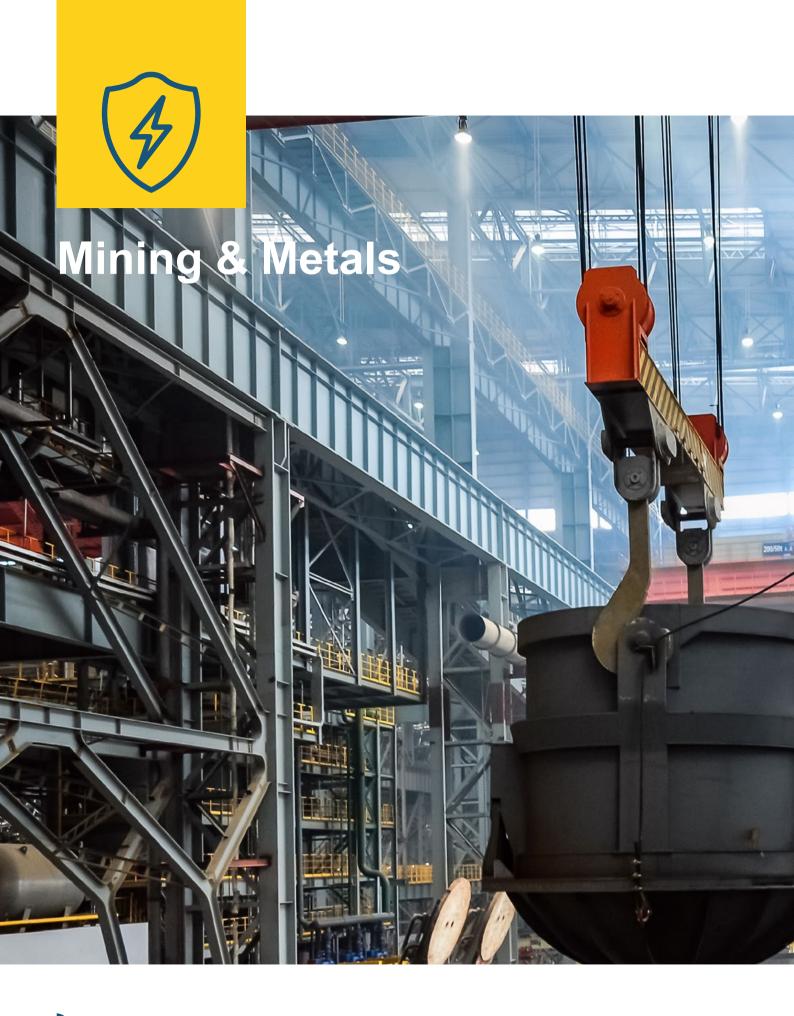


**Guangxi Fangchenggang Nuclear Power Co., Ltd.** Kehua Tech offers nuclear grade 80A and 1000A charger system, 15KVA and 400KVA inverter, non-nuclear class 100A and 400A charging and discharging equipment for CGN's nuclear power plant, Hulong-1(HPR1000), LOT68A nuclear island DC and UPS project.

**Yangjiang Nuclear Power Co., Ltd.** Kehua provides one set of FR-UK3160DL-HD, 2 sets of FR-UK3360HD-CBM and 2 sets of isolation transformer PLG3380HD as the requirement of the technical specifications of the nuclear plant. Now the devices has been used securely and supplied stable power for the control system of the nuclear plant.

**State Grid Cooperation of China** Ningxia Branch, SGCC has installed Kehua modular UPS and battery system to secure the key devices' operation. Kehua modular UPS system ranging from 125-480 kVA supports online hot swap and expansion and easy maintenance.

**Guizhou Taian Cement Kiln Cogeneration Project** East China Electric Power Design Institute adopts Kehua integrated electrical power system to provide reliable AC and DC Power supply to its 7.5 MW Cement Kiln Cogeneration waste heat generation station in Guizhou province.





Safety and availability are crucial to the mining & metal industry – the extraction of valuable materials or metal smelting should ideally continue without interruption to ensure that productivity and quality. And all the equipments have to adapt to the inhospitable regions or extreme mill environments. The power supply system plays a key role in this regard: it has to be safe and reliable, as well as efficient and flexible.

The mining & metal industry works mainly under extremely difficult natural conditions with poor grid, which involves a high risk of danger to humans and machines. The power supply is therefore subject to maximum safety precautions, since it has to operate with maximum reliability and safety. There are also increased demands in terms of energy efficiency. A solution must go beyond proven, integrated products: it also requires a precise understanding of the mining industry.

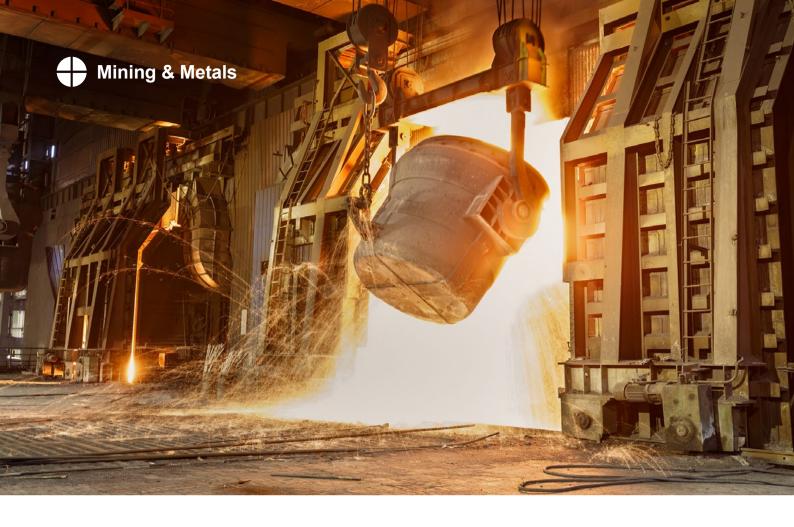
Kehua UPS power protection solution takes a comprehensive view of power supply from mining to products and covers all aspects: mining, purification, refinement, strand casing, rolling, sizing. Kehua industrial-grade UPS power solution brings dependable, safe, sustainable mining & metal power safeguard in the process.











**Ma'anshan Iron & Steel Co., Ltd.** is one of China's largest iron and steel enterprises with worldclass cold-rolled sheet, galvanized sheet high-speed wheels production line. It requires a reliable power system for its automation production line. In the project, Kehua provides high-end UPS power supply and related core components for production control (DCS) control system and related production equipment, providing a highly reliable and continuous power protection.

**Tangshan Jianlong Industry Co., Ltd.** is a comprehensive iron and steel enterprise integrating mining, mineral processing, sintering, steelmaking and rolling. It requires a centralize power system for production control center and MES computer room. Kehua provides 80kVA UPS with isolated transformer system to ensure the system stability; Some servers configures dual power backup with 20kVA UPS of additional power to enhance the security and stability of the system; 10kVA UPS power supply system is mainly used for the ERP computer room to protect the uninterruptable operation of the network requirements.

**Tianjin Pipe (Group) Corporation** is the largest oil pipe production base in China, its precise modern production equipments require a secure power supply for its production system. Kehua provides 22 sets of 20-160kVA UPS devices for DCS, PLC control systems of production facilities. The 160kVA UPS is installed in PLC control system and S7-400 equipments; 120kVA UPS is applied in computer control system protection; 100kVA for quick forging plant control system.



**Aluminum Corporation of China** is the world's second largest alumina supplier, the third largest aluminum supplier and the fifth largest supplier of aluminum sheet in the world. Kehua provided high-end UPS power supply for Henan, Luoyang, Zhongzhou and other subsidiaries of the company to provide reliable and stable power protection for the production process and DCS control systems.

**BAOSTEEL (Group) Company** is Chinese largest enterprises specialized in producing high-tech and highly value-added iron and steel. Its hydraulic sensing, electronic control, computer and information communications world advanced equipments require for high reliable power supply system. To adapt to the large temperature difference, dusty, and other harsh environments, Kehua FR-UK series UPS with superior adaptability and Load capacity applied in instrumentation and emergency lighting systems, ensuring safety of production.

**Nanjing Iron and Steel Group Co., Ltd.** is giant steel and iron enterprise of Jiangsu Province. Kehua industrial-grade UPS products has been selected by Nanjing iron and Steel Group to provide power protection solution for its DCS and PLC control and information system. Kehua FR-UK series provides high reliability to adapt harsh industrial environments and protects the critial loads to ensure stable operation of production.



# Food & Pharmaceutical

Driven by productivity efficiency and security requirements, food & Pharmaceutical industry has been stepped into a phase of automatization and informatization. Due to the high degree of automation, the facilities are extremly sensitive to power quality events.

So it's critical for food and beverage companies to consider their approach to power protection for their sensitive process loads, as power outage, sags or other voltage disturbances can result in tripping or failure to critical equipment. As a result, depending on the particular process costs relating to product loss and downtime, the overall costs is significant for operators.

Kehua power protection solutions consists of a comprehensive range of UPSs that can protect the food and pharmaceutical facilities from disturbances in power supply. Relying on the reliable power protection, Kehua UPS ensures the maximizing utilization of your facility and enhanced product quality to your customers.







**Harbin Pharmaceutical Group Co., Ltd. (HPGC)** is a state-controlled Sino-foreign equity joint venture. HPGC is one of the most valuable pharmaceutical brands in China and its brand value is evaluated to be worth 18.4 billion RMB. HPGC has adopted several sets of Kehua FR-UK series UPS, which provide a reliable power protection for the production equipment.

**The JDB Group** is one of the most famous beverage enterprise integrated the raw materials cultivation, beverage production and sales in China. Kehua has provided one unit FR-UK33200PG industrial grade UPS, and guaranteed the power reliability of the production line.

**Coca-cola Bottlers Manufacturing (Wuhan) Co., Ltd** requires the protection of bottling equipments, Kehua has provided 3 units 200kVA and 400kVA KELONG brand UPS for Coca-cola bottlers manufacturing (Wuhan) Co. Ltd, providing a reliable power solution for the company.



**China Shijiazhuang Pharmaceutical Group Co., Ltd. (CSPC)** is one of Chinese super large enterprises, is also one of the pillar enterprises in Hebei province. Kehua has provided several 40kVA KELONG brand industrial grade UPS, to offer a power protection of the control systems and lab instruments for customer.

**Yangtze River Pharmaceutical Group** is a national giant cross-regional pharmaceutical group, and it is listed as one of the 1st Innovative Enterprises by China MII. Kehua 320kVA UPS system performs very well in the newly-built lab of the company, providing reliable power protection for high precision instruments, which is even exceed customer expectations.

**Yinlu Group** Yinlu has become one of the top 10 players in the canned food and beverage industry of China. Yinlu group purchased more than 10 sets Kehua industrial grade low-frequency UPS, power capacity included 120kVA, 200kVA and 400kVA, respectively used for KHS bottling equipments, UHT and Aseptic package.

43



## Automotive

Nowadays, the automotive industry is an intense competitive business. With globalization and many players around the world, it poses higher requirements to manufacturers for shorter time-tomarket and quicker models variation.

The automotive industry sets a high value and top priority on reliability and efficiency in production and all manufacturing processes. The production system has to run 24 hours per day,7 days per week. And then any down time occurs in the manufacturing process is cost intensive.

The reliability and zero-failure production are ensured by critical UPS power supply system, which realizes the longest service life and the highest MTBF figures. In response to the continuous running request, Kehua UPS power solutions assure the highest efficiency and quality to ensure profitable business operation. And the resulting benefits for automotive industry applications are achieved.







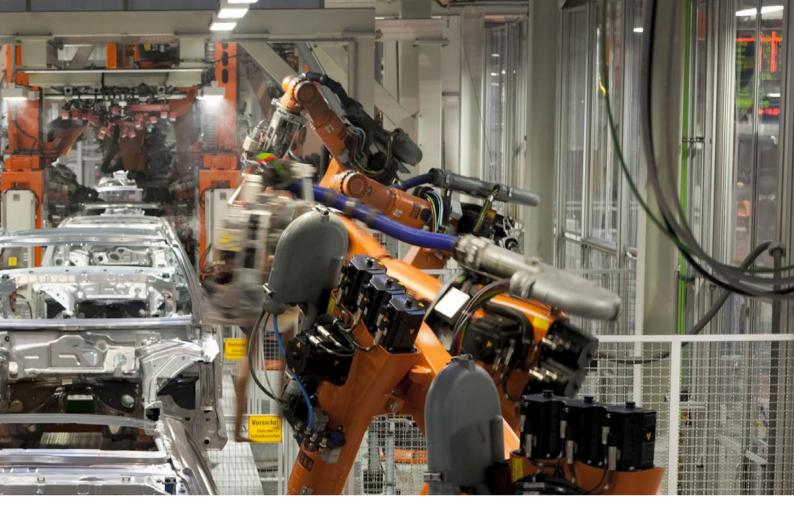




**Ford Motor Company** adopts 3 sets of Kehua FR-UK 33400kVA parallel system in its assembly plant in Johannesburg, South Africa. Kehua FR-UK parallel system features high efficiency and 1+1 redundancy design ensures smooth service operations for customer.

**China FAW Group Corporation** is a global leader in vehicle manufacturing industry with 60 years of history. Kehua high power UPS products FR-UK Series and FR-UK-PG Series are successfully applied in China FAW Group factories in Changchun, Jilin, Tianjin and other cities, providing power protection for manufacture control, monitoring and other key systems.

**Dongfeng PEUGEOT CITROEN Automobile Company Limited** is a joint venture enterprises built by Dongfeng Motor and French PSA Group, were established on May 18, 1992. KEHUA supplies FR-UK3340 series product solution to guarantee the power supply security of the central data center.



**China North Railway Corporation Limited (CNR)** is the leading manufacturer of rail transportation equipments in China and in international. Since 2010, Kehua start to provide over 20 units of FR-UK Series UPS to CNR to secure the power supply of manufacturer.

**Nissan Zhengzhou (China) Company** is the first joint venture company Nissan Motor Corporation invested in China, established in 1993, registered capital about \$380 million. Kehua provided 2 sets FR-UK3340kVA UPS, support internet devices and network servers in CCR equipment room.

**Xiamen King Long United Automotive Industry Co., Ltd.** incorporated in 1988, focuses on R&D, manufacture, sales and services of large, medium sized bus and van with 3 manufacturinig bases. Xiamen Van manufacturing base owns advanced automotive production line for stamping, welding, electrophoresis, pain coating and final assembly. Kehua FR-UK series UPS provides the sustainable power supply for the PLC and DCS control system, monitoring systems of the company.



In communication, telecom rectifier power supplies are dc power supplies. They supply power during daily operation and are backed-up with UPS power system during power failure.

We provide reliable power solutions, technology, and services capability that help operators, from largest scale datacenters to the most remote offgrid mountaintop, keep their networks powered. Our products and services are used by telecom, wireless and cable broadband service providers to ensure an uninterrupted power supply and convert AC power from a primary power source, such as the electric utility grid, into precisely controlled DC power used for datacenters, central offices, cell towers, outside plant fiber optics and customer premise facilities for mobile internet and cloud computing applications. Kehua offers a new way to achieve reliable and costeffective protection for critical applications, ensures power quality for your loads.











**China Mobile International Information Port** As a industry benchmark construction projects, the information base is to build in an total area of 1322 acres. Including R&D centers, data centers, call centers and academic exchange centers. Kehua provides 40 sets of high-end 400kVA UPS and battery switch boxes to build secure and reliable data center and power distribution system.

**State Administration of Radio, Film and Television (SARFT)** is an executive branch under the State Council of the People's Republic of China. Its main task is the administration and supervision of stateowned enterprises engaged in the television, radio, and film industries. Kehua provides the 10~60kVA UPS for power systems and monitoring system for its monitoring center to ensure reliable power protection.

**3data Russia** adopts Kehua KR33 series UPS. Kehua KR33 series UPS features high power efficiency and compact design, ensures the reliability of power supply.

**Tencent IDC computer room of Shanghai Telecom** Tencent IDC III of Shanghai is the green computer room of Shanghai Telecom, which uses Kehua 480kVA UPS system to ensure a reliable green power supply.



**China Telecom Information Park** locates in Pudong, Shanghai. Kehua provides 200~480kVA UPS power supply system for the core equioments, providing a stable and reliable guarantee for the information base.

**Bengal Submit Communication Limited** is a large group company in telecommunication. It adopts Kehua module UPS as its power supply system in the telecommunications transmission room to ensure secure and reliable data transmission services for local telecom operators.

**China Unicom of Yunnan** is a wholly-owned subsidiary for China Unicom.Kehua provided nearly 1,000 the DJN series products for the company. The rack-mounted communication power supply is suitable for the communication machine room's integrated equipment type and convenient to be managed and monitored.

**Lesotho Econet** is one of the two largest communication operators in local. Customers are much concerned about the security and reliability of UPS system. The project is to replace the old system and requires continuous online switching. Kehua provides dual parallel FR-UK/B3380 and machine and battery breaker cabinets. The solution satisfies the load requirements and achieve the reliability of power supply.

### Kehua Hengsheng Co., Ltd.

Add: No. 457, Malong Road, Torch High-Tech Industrial Zone, Xiamen Fujian 361006 China Tel: +86-592-5160516 Fax: +86-592-5162166 Email: Intertrade@kehua.com www.kehua.com

#### Copyright ©Kehua Hengsheng Co., Ltd 2020. All rights reserved.

No part of this document may be reproduced or transmitted in any form or by any means without prior written consent of Kehua Hengsheng Co., Ltd.

### **KEHUA FRANCE**

3 place du Général de Gaulle 13001 Marseille France Standard : +33 (0)4 65 38 62 48 Hotline : +33 (0)4 65 38 62 62 3

Email: contact@kehua-france.com

www.kehua-france.com



#### **General Disclaimer**

The information in this document may contain predictive statements including, without limitation, statements regarding the future financial and operating results, future product portfolio, new technology, etc. There are a number of factors that could cause actual results and developments to differ materially from those expressed or implied in the predictive statements. Therefore. such information is provided for reference purpose only and constitutes neither an offer or an acceptance. Kehua may change the information at any time without notice

