



COMPANY INTRODUCTION



JIANGSU LIANHONG SMART ENERGY CO.,LTD is a high-tech company engaged in professional automation control area, it was founded in '2000 and registered in the Jingang Science Park in Nanjing city. Since its inception, according to the potential marketing demands of transportation and energy automation, NLA-1000 integrated automation system had researched and developed by company engineers independently. And our products passed the evaluation of CE certification this year.

The major products based on NLA-1000 integrated automation system include: Multifunction Power Control Module (NLA-PM100),Intelligent Gateway

Interface System Integration (NLA-GW100), Single-lamp control module (NLA-LM100) and routers, repeaters, etc.. Multifunction power monitoring module, Gateway Interface and integrated intelligent system monitoring module those have passed the model test by the Ministry of Electric Power P.R. China. NLA-1000 integrated automation systems and related products can be widely used in energy automation systems (include: distribution automation systems, automated system for drainage, gas supply automation systems, lighting automation system),Traffic Automation System (include: large bridge, long tunnel, highway, airport, etc.), industrial automation systems, other distributed control network and integrated electronic system.

Jiangsu Lianhong independently developed a whole set of advanced smart energy management automation system technology, which is widely used in construction of smart urban layout, including in energy automation monitoring and management smart grid demand side management and Internet of things construction of large public buildings such as highways, rail transit, universities, hospitals, urban lighting, government office buildings, enterprises and institutions. The project is distributed in 18 provinces and cities across the country and has a broad and solid business foundation.



PRODUCT INTRODUCTION

CE CERTIFIED PRODUCT LIST



NLA-PM100E multifunctional power monitoring and controlling terminal integrates telemetry,telecommand,telecontrol and timing control functions into one. It is widely used in power plant,substation,switching station, It can meet the needs of automatic supervisory control and energy monitoring in transportation,architecture,company energy management,urban and rural distribution network, urban road lighting.

LH-TC100C fan coil thermostat is suitable for fan coil intelligent control of central air-conditioning system in the places such as the public buildings and smart homes. The indoor temperature control and adjustment is achieved by controlling water valve, fan and underfloor heating water valve of the fan coil automatically, remote monitoring of the running state of thermostat and indoor ambient temperature in real time, remote start-stop control and temperature setting online, switch between running mode and wind speed, remote setting of energy saving mode to reduce energy waste, online statistics run time of various modes of fans so as to assess and stimulate on energy conservation, multiple interval fixed-time control, Automatically open and close the fan coil at set time and adjust the set temperature.



Lonworks twisted-pair network is used to ensure remote real time monitoring.



LH-TC100D fan coil thermostat is suitable for fan coil intelligent control of central air-conditioning system in the places such as the public buildings and smart homes. The indoor temperature control and adjustment is achieved by controlling water valve, fan and underfloor heating water valve of the fan coil automatically, remote monitoring of the running state of thermostat and indoor ambient temperature in real time, remote start-stop control and temperature setting online, switch between running mode and wind speed, remote setting of energy saving mode to reduce energy waste, online statistics of various modes of fan's run time so as to assess and stimulate on energy conservation, Support host linkage start-stop of air source, ground source, water source heat pump, multiple interval fixed-time control, Automatically open and close the fan coil at set time and adjust the set temperature.

WIFI network is used to ensure remote real time monitoring.



TYPICAL INDUSTRY CASES

RAIL TRANSIT INDUSTRY

NANJING METRO AND BEIJING METRO

The network platform of Nanjing Metro energy management system has been completed and put into operation in 2012, which is representative and influential in China. The seven lines (line 1, line 2, line 3, line 4, line 10, line S1 and line S8) have been put into the platform operation, six of which have built line-layered energy management system. LonWorks fieldbus control system network technology is adopted for device layer network of line 1, line 2, line 3 and line 10, and a total of more than 10000 NLA-PM100E meters is used for the whole platform.

In addition, through the application of systematic load adjustment and energy-saving control demonstration of BAS system (called central air conditioning and ventilation system) of Daxinggong metro station in the whole line, and the assessment of energy consumption index of the whole line, Nanjing Metro energy management system realizes that, real-time online metering of energy consumption on water and electricity about classification, subitem and household metering of energy consumption of all stations and buildings along the line, real-time monitoring of energy quality about voltage, current, power, frequency, power factor and other parameters, automatic monitoring of energy equipment about equipment status, fault alarm and energy-saving control, charging and metering of commercial power consumption, statistical analysis and query of energy consumption data, analysis and decision-making of Metro management as an assessment tool for each energy consumption unit, energy audit, and uploading of energy consumption information and data to a higher level operational platform, such as metro operation company and energy consumption monitoring center platform of Jiangsu Housing Construction Department.

The line network platform of Nanjing Metro energy management system mainly realizes its function through operation of human-machine interface, data query, energy use overview, quota alarm, statistical analysis report, quota management, industry benchmarking, definition and configuration of software function module. Meanwhile, according to the statistical analysis of the energy management system data of each line, Nanjing metro operating company has formulated the "energy-saving management plan", the quota management plan of station energy consumption and the implementation plan of energy-saving transformation measures.

Beijing Metro has established the energy consumption statistics and monitoring platform of the line network layer, and passed the acceptance by the administrative department at the end of 2017. At present, the line network layer platform has covered 13 metro lines, 9 of which energy data can be automatically collected, and 4 of which energy data can be manually entered.



PUBLIC BUILDING

JIANGSU NATIONAL GRID CUSTOMER SERVICE BUILDING



Jiangsu National grid customer service building has 6 stories, with the whole building area about 32000 m², and the total of construction area about 93800 m², integrating various functions of office, production, scientific research and conference. Based on 185 multifunctional power monitoring and controlling terminals (PM-100E) and 200 networking fan coil unit temperature controllers (TC100B) with advanced "industrial Internet of things" technology, the project conducted distributed monitoring, metering and centralized management of energy to complete the configuration of power, water, photovoltaic, ground source heat pump and energy storage in 2017. According to energy data, it increased by 30% of energy diagnosis, efficiency analysis, energy-saving potential analysis and comprehensive energy efficiency through energy management platform. The system has run stably and reliably since it was put into operation, it provides building with an effective means to realize safety, green, smart and health energy.

CAMPUS ENERGY MANAGEMENT

NANJING MEDICAL UNIVERSITY ENERGY MANAGEMENT SYSTEM



Nanjing Medical University has two campuses of Wutaishan and Jiangning, 17 colleges in total, covering an area of 1590 mu. Wutai campus is a clinical teaching and research center, located in the south foot of Wutai Mountain, Gulou District, Nanjing, covering an area of 120 mu (1.06 square kilometers); Jiangning campus is a teaching and research center, located in the university town of Jiangning District, Nanjing, covering an area of 1470 mu (0.98 square kilometers). At present, the power supply of the whole campus is completed through two high-voltage power distribution rooms and twenty low-voltage power distribution rooms.

The energy-saving monitoring platform of Nanjing Medical University is divided into 66 subnets by using fiber distributed data interface communication, which is composed of 698 three-phase multifunctional power monitoring terminals (NLA-PM100E), 27 intelligent gateways, 87 intelligent water meters, nearly 1500 fan coil controllers (LH-TC100C/ LH-TC100D), 128 field controllers, 33 frequency converters and 66 network controllers (i.Lon SmartServer). Through advanced distributed energy monitoring system technology and the configuration of intelligent meters, the energy-saving monitoring platform realizes the metering and monitoring of water and power consumption in Jiangning and Wutaishan Campus, including the total metering of power consumption in 12 substations in the campus, the monitoring and metering of outlet loop, the sub metering of power consumption in 28 buildings, the water metering of household and buildings, and the real-time monitoring of the substation, the intelligent energy-saving control of street lamps and electric water boiler, and the energy-saving control of the whole central air conditioning system of teaching buildings and administrative buildings.

The energy-saving monitoring platform of Nanjing Medical University was started on June 1, 2014, and the whole system was put into operation in September 2015. After passing the acceptance by the school and the expert group of Jiangsu Housing Construction Department, it was formally put into use in December 2016. Now the system reaches 16% of annual energy-saving rate.

