LRQA

Certificate identity number: 10438922

Certificate Schedule

Location	Activities
GRID SOLUTIONS TRANSMISSÃO DE ENERGIA LTDA Av. Charles Schnneider s/n, Parque Senhor do Bonfim, TAUBATÉ, SP, Brazil	**ISO 9001:2015** Testing activity, Technical Training and Service related activities for systems and equipment in the field of electrical grid and communications.
General Electric Canada 1400 Rue Industrielle, LA PRAIRIE, J5R 2E5, QC, Canada	**ISO 9001:2015** Engineering, Project Management (including Turnkey projects), Testing, Construction, Erection, Commissioning, Technical Training and Service related activities for systems and equipment in the field of switchgear, stations and distribution electrical energy up to 800KV.
GE MULTILIN 650 Markland St., MARKHAM, L6C 0M1, Ontario, Canada	**ISO 9001:2015** Design, manufacture, and service protection, monitoring, control and communication products and solutions for systems and equipment in the field of electrical grids.
GRID SOLUTIONS CHILE S.A. CSS & ABS units, Avenida Isidora Goyenechea 2800, Edificio Titanium La Portada, Las Condes, 7550647 SANTIAGO RM, Chile	**ISO 9001:2015** Design, Project management, Engineering, Construction, Erection, Commissioning, Technical Training and Service related activities for systems and equipment in the field of electrical grid and communications.
GE Energy Colombia S.A Avenida Carrera 72 No 80-94., Piso 8, Centro Empresarial Titan Plaza BOGOTA, Colombia	**ISO 9001:2015** Design, Construction, Erection, Commissioning, Technical Training and Service related activities for systems and equipment in the field of electrical grid and communications.

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LRQA

Certificate identity number: 10438922

Certificate Schedule

Location	Activities
GE Energy Colombia S.A Avenida Carrera 72 No 80-94., Piso 8, Centro Empresarial Titan Plaza, 111021 BOGOTA DC, Colombia	**ISO 9001:2015** Design, Construction, Erection, Commissioning, Technical Training and Service related activities for systems and equipment in the field of electrical grid and communications.
Grid solutions for electrical networks SAE Plot 44, Tesseen El Shamaly Street (Al Salam Axis), First Sector, City Center, Fifth Sattlement, New Cairo Al Tagamoa El Khames, CAIRO, 11835, Egypt	**ISO 9001:2015** Design, Engineering, Project Management of Turnkey projects, Procurement, Construction (including Civil Works), Erection, Testing, Commissioning, Technical Training and Service related activities for systems and equipment in the field of electrical grids including Medium Voltage, High Voltage and Extra High Voltage substations.
Grid Solutions Ltd. Vehmaistenkatu 5, 33730 TAMPERE, Finland	**ISO 9001:2015** Development, tendering, engineering, project management, manufacturing, testing, site supervision and commissioning, technical training and service for power quality products and Flexible AC Transmission Systems (FACTS).
Grid Solutions SAS Citylights, CITY 1, 204, rond-point du pont de Sèvres, 92100 BOULOGNE-BILLANCOURT, France	**ISO 9001:2015** Design, Engineering, Software & automation development, Project Management (including Turnkey projects), Manufacturing, Testing, Construction, Erection, Commissioning, Technical Training and Service related activities for systems and equipment in the field of electrical grids and communications.

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LRQA

Certificate identity number: 10438922

Certificate Schedule

Location	Activities
Grid Solutions SAS 1, rue Paul DOUMER, 73106 AIX-LES-BAINS, France	**ISO 9001:2015** Design, Engineering, Project Management (including Turnkey projects), Manufacturing, Testing, Erection, Commissioning, Technical training and Service related activities for Electrical grids.
Grid Solutions SAS SPS activity, 102 & 127 avenue de Paris, 91300 MASSY, France	**ISO 9001:2015** Design, Engineering, Software & automation development, Project Management (including Turnkey projects), Testing, Construction, Erection, Commissioning, Technical Training and Service related activities for systems and equipment in the field of electrical grids and industrial installations.
Grid Solutions SAS Parc Eureka - 81 rue Euclide - CS 1140, 34000 MONTPELLIER CEDEX 2, France	**ISO 9001:2015** Design, project management, engineering, Technical Training and Service related activities for systems and equipment in the field of electrical grids and communications.
LABORATOIRE OKSMAN SERAPHIN Parc Technologique du Canal 8, rue Giotto, 31520 RAMONVILLE SAINT-AGNE, France	**ISO 9001:2015** Testing and Service related activities for on-line and laboratory monitoring of immersed transformers via dielectric fluid analysis.
Grid Solutions SAS COE unit, 655 allée des parcs, 69792 SAINT-PRIEST, France	**ISO 9001:2015** Design, Engineering, Project Management (including Turnkey projects), Construction, Erection, Testing, Commissioning for systems and equipment in the field of electrical grids and telecommunications.

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Certificate identity number: 10438922

Certificate Schedule

Location	Activities
Grid Solutions SAS 21 rue Cyprian, 69100 VILLEURBANNE, France	**ISO 9001:2015** Research, Design, Studies, Tests in laboratory, Production, Sale, Installation and Commissioning of high-voltage equipment and generator circuit breaker.
GE Grid GmbH Culemeyerstrasse 1, 12277 BERLIN, Germany	**ISO 9001:2015** Engineering, Automation solutions, Project Management (including Turnkey projects), Erection, Commissioning in the field of electrical grids and communications.
GE Grid GmbH An der Eisenbahn 5, 01099 DRESDEN, Germany	**ISO 9001:2015** Engineering, Automation solutions, Project Management (including Turnkey projects), Erection, Commissioning in the field of electrical grids and communications.
GE Grid GmbH Service Deutschland, Zum Wasserwerk 7, 15537 ERKNER, Germany	**ISO 9001:2015** Project management, erection, commissioning, maintenance, repair, renovation and extension of products, installations and Service related activities for systems and equipment in the field of electrical grids in transmission and distribution of electrical energy.
GE Grid GmbH AGK & Service Deutschland units, Lilienthalstrasse 150, 34123 KASSEL, Germany	**ISO 9001:2015** Design, Engineering, Project Management, Manufacturing, Testing and Sales of High Voltage Switchgears, Compact Solutions and Instrument Transformers, After Sales and Service related activities, including Construction, Erection, Commissioning, Technical Training, Maintenance, Repair, Renovation and extension of products for systems and equipment in the field of electrical grids in transmission and distribution of electrical energy.

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Certificate identity number: 10438922

Certificate Schedule

Location	Activities
GE Grid GmbH AGM/GA & Service Deutschland units, Rheinstrasse 73, 41065 MOENCHENGLADBACH, Germany	**ISO 9001:2015** Design, Manufacturing, Erection, Repair and After-sales service of Power Transformers, Special Transformers and Transformer Monitoring Systems.
GRID SOLUTIONS HELLAS S.A. 8 - 10, Sorou Str., 151 25 MAROUSI, Greece	**ISO 9001:2015** Engineering, Project Management (including Turnkey projects), Construction, Erection, Commissioning, and Service related activities for systems and equipment in the field of electrical grids and communications.
GE T&D India Limited GA unit, 19/1, GST Road, Pallavaram, CHENNAI, 600043, India	**ISO 9001:2015** Design, Project management, Engineering, Manufacturing, Servicing, Commissioning and Technical training of protection, control, measurement equipment and substation automation systems for generation, transmission, distribution and industry segments.
GE T&D India Limited SRI unit, IOC Building, Gate No-3, 19/1, GST Road, Pallavaram, CHENNAI, 600043, India	**ISO 9001:2015** Engineering, Project Management (including Turnkey projects), Testing, Construction, Erection, Commissioning, Technical Training and Service related activities for systems and equipment in the field of electrical grids and industrial installations.
GE T&D India Limited # 46, SIPCOT INDUSTRIAL COMPLEX, ZUZUVADI VILLAGE, HOSUR, 635126, India	**ISO 9001:2015** Design, Engineering, Manufacturing and Sales of Instrument Transformers, Coupling Capacitors, Grading Capacitors, Line Traps and Condenser Bushings.

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Certificate Schedule

Location	Activities
GE T&D India Limited DLF IT Park, Plot No-08, Major Arterial Road, Block AF, Tower C, 8th Floor, New Town (Rajarhat), KOLKATA, 700156, India	**ISO 9001:2015** Engineering, Project Management (including Turnkey projects), Testing, Construction, Erection, Commissioning, Technical Training and Service related activities for systems and equipment in the field of electrical grids and industrial installations.
GE T&D India Limited Magnet House, Narotam Moraji Marg, Ballard Estate, MUMBAI, 400001, India	**ISO 9001:2015** Engineering, Project Management (including Turnkey projects), Testing, Construction, Erection, Commissioning, Technical Training and Service related activities for systems and equipment in the field of electrical grids and industrial installations.
GE T&D India Limited ACS, SER & HVDC units, T-5 & T-6, Plot I-14, Axis House, Jaypee Wishtown, sector-128, NOIDA, 201304, Uttar Pradesh, India	**ISO 9001:2015** Design, Engineering, Software & automation development, Project Management (including Turnkey projects), Testing, Construction, Erection, Commissioning, Technical Training and Service related activities for systems and equipment in the field of electrical grids and industrial installations.
GE T&D India Limited 142, VANDALUR WALAJABAD ROAD, SALAMANGALAM VILLAGE, PADAPPAI, 601301, India	**ISO 9001:2015** Engineering, Manufacturing, Supervision of Erection & Commissioning and Service of High Voltage Gas Insulated Substations and Circuit Breakers; Development, Manufacturing of Spring Operating Mechanisms (SOM) and Production, Inspection and Testing activities related to Electrical Drive and Control Power Systems.

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Certificate identity number: 10438922

Certificate Schedule

Location	Activities
GE T&D India Limited Milestone 87, Vadodara Halol Highway, Near Kotambi Village, VADODARA, 391510, India	**ISO 9001:2015** Design, Manufacturing, Testing, Repair, Erection, Commissioning and Service Related activities in the field of Power, Industrial & Special Transformers, Shunt & Series Reactors and HVDC Transformers up to 1200KV, 2000 MVA.
PT GRID SOLUTIONS INDONESIA South Quarter Tower B, 18th - 20th Floor, Jl. RA Kartini Kav. 8, Cilandak Barat, JAKARTA SELATAN, 12430, Indonesia	**ISO 9001:2015** Engineering, Software & automation development, Project Management (including Turnkey projects), Testing, Construction, Erection, Commissioning, Technical Training and Service related activities for systems and equipment in the field of electrical grids and communications.
PT. UNELEC INDONESIA Jalan Swadaya PLN Klender, Jatinegara, Cakung, JAKARTA TIMUR, 13930, Indonesia	**ISO 9001:2015** Design and Manufacturing of Power Transformer; Assembling of HV Switchgear.
Grid Solutions S.p.A. Via Meucci, 22, 30020 NOVENTA DI PIAVE (VE), Italy	**ISO 9001:2015** Design, Engineering, Manufacturing, Erection, Commissioning and Service related activities of Circuit Breakers, Compact Solutions and Disconnectors, Connectors and general devices for systems in the field of electrical Grids.

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LRQA

Certificate identity number: 10438922

Certificate Schedule

Location	Activities
Grid Solutions S.p.A. Via M. Villa 210 SESTO SAN GIOVANNI (MI), Italy	**ISO 9001:2015** PTR: Design, production and service related activities in the field of bushings for high and medium voltage electrical networks. GA: Design, engineering, testing, commissioning, and service related activities of protection, measurement, control equipment of electrical energy generation, transmission, distribution network system and industrial automation systems.
GE Renewables Sdn Bhd Level 38, NU Tower 2, 203, Jln Tun Sambanthan, KL Sentral, 50470 KUALA LUMPUR, Malaysia	**ISO 9001:2015** Project Management, Testing, Construction, Erection, Commissioning, Technical Training and Service related activities for systems and equipment in the field of electrical grids.
GE Grid Solutions, S.A. de C.V. Avenida Antonio Dovali Jaime 70, Samara Building, Torre B, DIF 01210 MEXICO City, Mexico	**ISO 9001:2015** Design, Engineering, Software & automation development, Project Management (including Turnkey projects), Construction, Erection, Commissioning, Technical Training and Service related activities for systems and equipment in the field of electrical grids and communications.
GE Nederland B.V. Koopmansstraat 7, 2288 BC RIJSWIJK, The Netherlands	**ISO 9001:2015** Engineering, Project Management (including Turnkey projects), Erection, Commissioning for systems and equipment in the field of electrical grids and communications.

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Certificate identity number: 10438922

Certificate Schedule

Location	Activities
GE Power Norway AS Drammensveien 165, 0277 OSLO, Norway	**ISO 9001:2015** Project Management (including Turnkey projects), Construction, Erection, Commissioning, and Service related activities for systems and equipment in the field of electrical grids and communications.
Grid Solutions Pakistan (Pvt.) Ltd Head Office, 19-E, Block-06, P.E.C.H.S, KARACHI, 75400, Pakistan	**ISO 9001:2015** Design, Engineering, Project Management of Turnkey projects, Procurement, Construction (including Civil Works), Erection, Testing, Commissioning, Technical Training and Service related activities for systems and equipment in the field of electrical grids including Medium Voltage, High Voltage and Extra High Voltage substations.
GE Power Sp. Z.o.o. Ul. Modelarska 12, 40-142 KATOWICE, Poland	**ISO 9001:2015** Engineering, Project Management (including Turnkey projects), Erection, Commissioning, Service related activities for systems and equipment in the field of electrical grids and communications.
Grid Solutions Portugal, Lda Av. Columbano Bordalo Pinheiro, No 108-5 B, 1070-067 LISBON, Portugal	**ISO 9001:2015** Design of Protection and control systems, Project management, Testing, Erection, Commissioning, Technical Training and Service related activities for systems and equipment in the field of electrical grids and High and Medium Voltage Equipment.

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Certificate identity number: 10438922

Certificate Schedule

Location	Activities
GRID SOLUTIONS ROMANIA SRL Splaiul Independentei, 319, Sector 6,, 060044 BUCHAREST, Romania	**ISO 9001:2015** ACS: Engineering, Project Management (including Turnkey projects and automation), Construction, Erection, Commissioning, and Service related activities for systems and equipment in the field of electrical grids and communications. GA: Design, Engineering, Project Management (including Turnkey projects), Testing, Commissioning, Technical training and Field Service for Protection, Control, Communication, Metering Equipment in the field of electrical grids and industrial installations.
AO Grid Rus 10, Presnenskaya nab., MOSCOW, 123112, Russian Federation	**ISO 9001:2015** Design, Engineering, Project Management (including Turnkey projects), Testing, Commissioning, Technical Training and Service related activities for systems and equipment in the field of electrical grids and communications.
Grid Solutions Arabia Limited Co. Al Khobar GA unit, Al Khobar Integration facility, Baghlaf Industrial Area, AL KHOBAR, 11412, Saudi Arabia	**ISO 9001:2015** Design, engineering, manufacturing, project management, services for industrial & telecommunication, substation automation, protection and control, measurement equipment, monitoring and diagnostics, systems for power generation, transmission, distribution, digital substation and industrial automation systems.
Branch of Cogelex Company GA & SAU units, 6th Floor Platinium Center, Salahuddin Al Ayyubi street, Malaz - P.O Box N°87200, RIYADH, 11642, Saudi Arabia	**ISO 9001:2015** Design, Engineering, project management (including Turnkey projects), construction, procurement, installation, testing, automation, telecommunication, protection and control, measurement equipment, monitoring and diagnostics, commissioning and service related activities, in the field of electrical grids and sub-station projects.

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Certificate identity number: 10438922

Certificate Schedule

Location	Activities
GE GRID SOLUTIONS PTE. LTD. GA, ASG & SSG units,, 31 Kaki Bukit Road 3, #02-05 Techlink, SINGAPORE 417818, Singapore	**ISO 9001:2015** Engineering, Software & automation development, Project Management (including Turnkey projects), Testing, Construction, Erection, Commissioning, Technical Training and Service related activities for systems and equipment in the field of electrical grids and communications.
GE Grid Solutions SA. Avenida de Suiza 14, 28821 COSLADA, Spain	**ISO 9001:2015** Engineering, Project Management (including Turnkey projects), Erection, Commissioning, and Service related activities for systems and equipment in the field of electrical grids and communications.
Bilbao GE Power Management S.L. Avenida Pinoa 10 Vizcaya, 48170 ZAMUDIO, Spain	**ISO 9001:2015** Design, manufacture, and service related activities of protection and control products for industrial and utility applications and of metering and communication products.
GE Grid Solutions AB Lugna Gatan, Byggnad 350, 721 36 VÄSTERÅS, Sweden	**ISO 9001:2015** Project Management (including Turnkey projects), Erection, Commissioning, for systems and equipment in the field of electrical grids and communications.
GE Grid (Switzerland) GmbH Carl-Sprecher Str. 3, 5036 OBERENTFELDEN, Switzerland	**ISO 9001:2015** Design, Engineering, Project Management (including Turnkey projects), Manufacturing, Testing, Construction, Erection, Commissioning, Technical Training and Service related activities for Systems and Equipment in the field of electrical Grids and Communications. Design and Manufacturing of Spring Operating Mechanisms.

UKAS MANAGEMENT SYSTEMS 0041

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LRQA

Certificate identity number: 10438922

Certificate Schedule

Location	Activities
GE Power Taiwan Limited 6F, No. 8, Min Sheng E. Rd., Sec. 3, TAIPEI 10480, Taiwan	**ISO 9001:2015** Project Management (including Turnkey projects), Testing, Construction, Erection, Commissioning, and Service related activities for systems and equipment in the field of electrical grids and communications.
Grid Solutions (Thailand) Limited 87/1 Capital Tower, All Seasons Place, 9th Floor, Wireless Road, Lumpini, Pathumwan, BANGKOK, 10330, Thailand	**ISO 9001:2015** Design, Engineering, Software & automation development, Project Management (including Turnkey projects), Manufacturing, Testing, Construction, Erection, Commissioning, Technical Training and Service related activities for systems and equipment in the field of electrical grids and communications.
Grid Solutions Enerji Endüstrisi A.Ş. TPP Unit TPP unit, Mustafa Kemal Mah., Dumlupınar Bulvari No: 164 / 501, Kentpark Ofis Blokları 5.Kat Cankaya, 06520 ANKARA, Turkey	**ISO 9001:2015** Design, Engineering, Project Management of Turnkey projects, Procurement, Construction (including Civil Works), Erection, Testing, Commissioning, Technical Training and service related activities for systems and equipment in the field of electrical grids including Low Voltage, Medium Voltage, High Voltage and Extra High Voltage substations and BOP (Balance of Plant) scope of power plants.
Grid Solutions Enerji Endüstrisi A.Ş. ATT & TSG units, Güney Yanyol Cd. No:320, Barış Mahallesi, 41400 GEBZE, Turkey	**ISO 9001:2015** Design, Engineering, Manufacturing, Project Management (including Turnkey projects), Manufacturing, Testing, Construction, Erection, Commissioning, foreign trade, logistics including customs and management administrative organization activities of the applicant, Technical Training and Service related activities for systems and equipment in the field of electrical grids, communications, AIS, GIS, transformer, reactor, LV,MV,HV transmission and distribution system.

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LRQA

Certificate identity number: 10438922

Certificate Schedule

Location	Activities
Grid Solution SAS (Dubai Branch) General Electric Building, Building # 18, Al Falak street, 2nd Floor,, Dubai Internet City, P.O.Box. 11549, DUBAI, United Arab Emirates	**ISO 9001:2015** Design, Engineering, Project Management (including Turnkey projects), Construction, Procurement, installation, testing, automation, telecommunication, protection and control, measurement equipment, monitoring and diagnostics, commissioning and services related activities, in the field of electrical grids and sub-station projects.
Grid Solutions Middle Est (FZE) GA unit, P.O Box: 8765, A4-29/30/31 SAIF Zone, SHARJAH, United Arab Emirates	**ISO 9001:2015** Design, engineering, manufacturing, project management, services for industrial & telecommunication, substation automation, protection and control, measurement equipment, monitoring and diagnostics, systems for power generation, transmission, distribution, digital substation and industrial automation systems.
GE Grid Solutions (UK) Limited Lissue Industrial Estate East, Unit 1, 7 Lissue Walk, County Antrim, LISBURN, BT282LU, Northern Ireland, United Kingdom	**ISO 9001:2015** Design, Manufacturing and Service related activities for analytical instruments for the detection and monitoring of latent failure conditions in the field of electrical grids.
UK Grid Solutions Ltd GSS unit, St Leonards Building, Harry Kerr Way, Redhill Business Park, STAFFORD, ST16 1WS, United Kingdom	**ISO 9001:2015** Engineering, Software & automation development, Project Management (including Turnkey projects), Manufacturing, Testing, Construction, Erection, Commissioning, Technical Training and Service related activities for systems and equipment in the field of electrical grids and communications.

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Certificate identity number: 10438922

Certificate Schedule

Location	Activities
UK Grid Solutions Ltd AGS unit, Lord Nelson Building, William Bagnall Drive, Redhill Business Park, STAFFORD, ST16 1WS, United Kingdom	**ISO 9001:2015** Engineering, Project Management (including Turnkey projects), Construction, Erection, Commissioning, for systems and equipment in the field of electrical grids and communications.
Grid Solutions Uk Ltd. Power Transformers TST unit, Power Transformers, Ranshaw Drive, STAFFORD, ST174FD, United Kingdom	**ISO 9001:2015** Design, Engineering, Project Management, Manufacturing, Testing and despatch activities for Power Transformers.
UK Grid Solutions Ltd PES unit, Lord Nelson Building, William Bagnall Drive, Redhill Business Park, STAFFORD, ST16 1WS, United Kingdom	**ISO 9001:2015** Design, Engineering, Software & automation development, Project Management (including Turnkey projects), Manufacturing, Testing, Construction, Erection, Commissioning, Technical Training and Service related activities for systems and equipment in the field of electrical grids and communications.
UK Grid Solutions Limited SMS/PCS unit, St Leonards Building, Harry Kerr Way, Redhill Business Park, STAFFORD, ST16 1WT, United Kingdom	**ISO 9001:2015** Design, engineering, manufacturing, project management, and service related activities for telecommunication, protection, control and measurement equipment and systems for generation, transmission, distribution and industrial automation systems.
GE Industrial of PR LLC Road 402, Km 1.5, Las Marias Industrial Park, ANASCO, PR 00610, United States	**ISO 9001:2015** Manufacturing of electronic and electromechanical products for protection and control and equipment in the field of electrical grids.

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Certificate identity number: 10438922 0000295

Certificate Schedule

Location	Activities
Alstom Grid LLC One Power Lane, CHARLEROI, PA, 15022, United States	**ISO 9001:2015** Design, Engineering, Project Management, Manufacturing, Testing, Erection, Commissioning, Technical training and Service related activities for Electrical grids.
GE Power-Capacitors Instruments Transformers LLC 1925 Calumet Street, CLEARWATER, FL, 33765, United States	**ISO 9001:2015** Engineering, Manufacturing and Testing for capacitors, capacitor equipments, instrument transformers, control power transformers, switches and electronic assemblies. The sourcing and distribution of arresters and other power conditioning products.
Grid Solutions LLC 18W140 Butterfield Rd, Oakbrook Terrace, IL 60181, United State	**ISO 9001:2015** Engineering, Project Management (including Turnkey projects), Testing, Construction, Erection, Commissioning, Technical Training related activities for systems, software and equipment in the field of switchgear, stations and distribution electrical energy.
GE MDS, LLC 175 Science Parkway, ROCHESTER, NY, 14620, United States	**ISO 9001:2015** Design, Manufacture and Service related activites of Highly Secure Wireless Multi-Service Products and System for Industrial Point-to-Point and Multipoint Data, Voice and Video Communications Solutions.
Grid Solutions LLC 4300 Rt 50 Suite 204, Saratoga Springs, NY, 12866, United States	**ISO 9001:2015** Development, tendering, engineering, project management, testing, site supervision and commissioning, technical training and service for Flexible AC Transmission Systems (FACTS).

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000296

LRQA

Certificate identity number: 10438922

Certificate Schedule

Location	Activities
GRID SOLUTIONS VIETNAM CO., LTD V1501-V1506, Pacific Place, 83B Ly Thuong Kiet Street, Tran Hung Dao Ward, Hoan Kiem District HA NOI CITY, Vietnam	**ISO 9001:2015** Project Management (including Turnkey projects), Testing, Erection, Commissioning, Technical Training for systems and equipment in the field of electrical grids and communications.

UKAS MANAGEMENT SYSTEMS 9001

Atenas Energia

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ÍTEM 10

Switches para subestación

AUTORIZACIÓN DE FABRICANTE

KYLAND

FORMULARIO Nº 2

AUTORIZACIÓN DEL FABRICANTE, REPRESENTANTE O DISTRIBUIDOR

Fecha: *29 de julio de 2022*

ID No.: *414153*

A: Administración Nacional de Electricidad (ANDE)

POR CUANTO

Nosotros ***Kyland Technology Co., Ltd.***, como fabricantes oficiales de ***Switch Ethernet Industrial SICOM3028GPT y sus módulos y accesorios***, con fábrica ubicada en ***205# Jiangjun Road, Dianjun District, Yichang City, Hubei Province, China, 443004,*** oficina corporativa en ***Building No. 2, Shixing Avenue, 30#, Shijingshan District, Beijing, China, 100041,*** y oficina regional LATAM en ***Andador Pensamiento #190, Campestre las Flores, Irapuato, Guanajuato, México, 36625,*** mediante el presente instrumento autorizamos a **ATENAS ENERGÍA S.A.** con dirección en **Calle camino a Alberdi a Km de Alberdi, Villa Franca – Paraguay** a presentar una oferta con el propósito de suministrar los siguientes bienes de fabricación nuestra ***Switch Ethernet Industrial SICOM3028GPT, sus módulos y accesorios,*** y a posteriormente firmar el contrato.

Cuando existan servicios conexos como parte del contrato, reconocemos que **ATENAS ENERGÍA S.A.** cuenta con la capacidad para llevarlos a cabo.

Asimismo, confirmamos haber el leído las Condiciones Contractuales y expresamos nuestra conformidad con lo allí establecido en materia de avales, garantías, plazos y cualquier otro aspecto.

Por este medio extendemos nuestro aval y plena garantía, conforme a las bases y condiciones, respecto a los bienes ofrecidos por la firma antes mencionada.

Firma:

Nombre: ***Jorge RENTERIA***

Cargo: ***LATAM Sales Director***

Debidamente autorizado para firmar esta Autorización en nombre de: **ATENAS ENERGÍA S.A.**

Fechado en el día 29 de Julio de 2022

Atenas Energía S.A.

PLANILLA DE DATOS GARANTIZADOS

PLANILLA DE DATOS GARANTIZADOS

ESPECIFICACION TÉCNICA DTE/ISC/03/2021

Los Items corresponden a la misma numeración contenida en la Especificación Técnica (E.T. DTE/ISC/03/2021)

ITEM	DESCRIPCION	EETT ANDE DL/DIM	OFERENTE
	Descripción	Suministro de Equipos de Transmisión de Datos en Redes Locales(LAN) (Switch)	
	Fabricante / Marca:		Kyland
	Modelo:		SICOM3028GPT
	País de Fabricación:		China
1	**Generalidades**		
1.1	Objetivo: La presente Especificación Técnica establece las condiciones mínimas a ser cumplidas durante el proceso completo de adquisición de los Switches del tipo industrial, incluyendo sus correspondientes softwares y licencias para supervisión, operación y mantenimiento, además de las protecciones necesarias para los distintos módulos que lo componen, bajo fiel cumplimiento de lo acordado en la Planilla de Datos Garantizados, y estructurado conforme a los siguientes procesos: • Suministro • Soporte Técnico • Garantía	Cumplimiento Obligatorio	Cumple
1.2	Topología: Los equipos Switches del tipo industrial deberán funcionar en Estaciones y Subestaciones Eléctricas, interconectables y configurables vía conexión Ethernet con protocolo TCP/IP, agrupadas de tal forma que posibiliten la troncalización de las conexiones entre equipos.	Cumplimiento Obligatorio	Cumple

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1.3	Información: El oferente deberá remitir junto con su oferta, toda la información posible en forma de diseños, esquemas, diagramas, planillas, descripciones, catálogos, listas, equipos a suministrar y servicios a efectuar, de manera a que se pueda evaluar convenientemente y determinar la capacidad del mismo para cumplir con los requerimientos establecidos en estas especificaciones técnicas.	Cumplimiento Obligatorio	Cumple
2	**Características Técnicas Específicas de los Equipos:**		
2.1	**Suministro: Todos los equipos ofertados serán de tipo INDUSTRIAL**	Cumplimiento Obligatorio	Cumple
2.1.1	**Equipamiento: deberá estar sujeto a normas para operar en Estaciones Eléctricas (IEC-61850).**		Cumple
2.1.1.1	Arquitectura	Full Indoor, uso en Estaciones Eléct.	Si
2.1.1.2	Alimentación	110VDC/220VAC, con borneras a tornillo y terminales	Si
	Consumo de corriente	≤ 1 A	Cumple
2.1.1.3	Temperatura de Operación	-40 / +85 °C	Si
2.1.1.4	Aplicaciones	Utilización en Estaciones Eléctricas e Industrias	Si
2.1.2	**Características técnicas del Switch tipo industrial**		
2.1.2.1	Numero de puertos Fast Ethernet Óptico Multimodo LC	≥16	Cumple
2.1.2.2	Cantidad de puertos de cobre RJ-45 con autosensado y autonegociación 10/100/1000 Base Tx	≥4	Cumple
2.1.2.3	Numero de puertos SFP Giga Ethernet exclusivo	≥2	Cumple
2.1.2.4	Formato de puerto	Modular	Si
2.1.2.5	Modo de transmisión	Dúplex (Rx Tx) – Half y Full	Si
2.1.2.6	Capacidad de conmutación (switching)	≥1.8 Gbps	28Gbps
2.1.2.7	Sistema de refrigeración	Natural (sin ventilador)	Si
2.1.2.8	Latencia de conmutación:	≤10 microsegundos	Si
2.1.2.9	Longitud de onda de puertos ópticos	1300 a 1310nm	Si
2.1.2.10	Soporte de direcciones MAC	8000	16000
2.1.2.11	Capacidad de segmentación de la red	≥255VLAN	Si
2.1.2.12	Rango ID VLAN	1 a 4094	Si
2.1.2.13	Protocolo de capa física	10/100 Base-Tx 10/100 Base-Fx Auto-negociación	Si
2.1.2.14	Tipo de montaje del Switch	Rack 19"	Si
2.1.3	**Funciones**		
2.1.3.1	Soporte de calidad de servicio (QoS)	Configurable por puerto	Si

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2.1.3.2	Soporte de Protocolo de "Spanning Tree" (Spanning Tree Protocol) IGMP Snooping para el filtrado de multidifusión.	Cumplimiento Obligatorio	Cumple
2.1.3.3	Soporte de Protocolo de High-availability Seamless Redundancy (HSR) y Parallel Redundancy Protocol (PRP).	Cumplimiento Obligatorio	Cumple
2.1.3.4	Configuración de puertos remota: estado, estadísticas, seguridad.	Cumplimiento Obligatorio	Cumple
2.1.3.5	SNTP sincronización de tiempo (Cliente y Servidor).	Cumplimiento Obligatorio	Cumple
2.1.3.6	SSH/SSL Encryption	Cumplimiento Obligatorio	Cumple
2.1.3.7	Permitir control de autenticación centralizada mediante servidor RADIUS	Cumplimiento Obligatorio	Cumple
2.1.3.8	Seguridad de puerto basado en direcciones MAC	Cumplimiento Obligatorio	Cumple
2.1.3.9	Storm Filtering	Cumplimiento Obligatorio	Cumple
2.1.4	**Herramientas de administración**		
2.1.4.1	Basadas en WEB, Telnet	Cumplimiento Obligatorio	Cumple
2.1.4.2	SNMP v1/v2/v3	Cumplimiento Obligatorio	Cumple
2.1.4.3	Supervisión remota (RMON)	Cumplimiento Obligatorio	Cumple
2.1.5	**Confiabilidad de operación en ambientes hostiles**		
2.1.5.1	Seguridad, Inmunidad a interferencias electromagnéticas y picos eléctricos de acuerdo a las normas: (presentar certificados que demuestren cumplimiento de dichas normas)	CSA/UL 60950-1 cCSAus(CSA C22.2 No. 60950-1) IEC 60079-15 FDA/CDRH Laser Eye Safety(21 CFR) CE Marking	Si
		IEC 61800-3 IEC 61000-6-2 IEC 61000-4-2 IEC 61000-4-3 IEC 61000-4-4 IEC 61000-4-5 FCC Part 15 Class A EN 55022: 1998 (CISPR22)	Si
		IEC 61850-3(Incluido GOOSE) IEEE 1613 NEMA TS-2 (ITSs) 802.3u 802.3x 802.1d	Si
	El switch debe tener un (Mean Time Between Failure) MTBF: >300.000 horas a 40ºC.	Cumplimiento Obligatorio	Cumple
2.2	**Condiciones Ambientales de Operación**		

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PLANILLA DE DATOS GARANTIZADOS
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2.2.1	Clima	Sub-Tropical	Si
2.2.2	Temperatura	Maxima: 85ºC	Si
		Minima: -40ºC	Si
		Maxima Promedio Diaria: 33ºC	Si
2.2.3	Humedad Relativa del Aire	Maxima: 95%	Si
		Media Anual: 80%	Si
2.2.4	Altitud	Sobre el nivel dell mar: 50 a 1000mts.	Si
2.3	**Condiciones de Almacenamiento, transporte y seguridad**		
*	Transporte	ETSI EN300019-1-2 class 2	Si
*	Alamcenamiento	ETSI 300019-1-1 class 1	Si
*	Seguridad	EN 60950	Si
*	EMC	Conforme a EN301 489-4	Si
2.4	**Normativas Internacionales a las cuales el equipamiento estará sujeto**		
*	IEEE, Institute of Electrical and Electronics Engineers	Cumplimiento Obligatorio	Cumple
*	IEC, International Electrotechnical Comission	Cumplimiento Obligatorio	Cumple
*	ITU, Unión Internacional de Telecomunicaciones	Cumplimiento Obligatorio	Cumple
*	NEMA, National Electrical Manufacturers Association	Cumplimiento Obligatorio	Cumple
2.5	**Descripción de Cantidades: La cantidad requerida para la presente licitación corresponderá, a la especificada en la planilla de precios**	Cumplimiento Obligatorio	Cumple
2.6	**Accesorios**		
2.6.1	Soporte de documentos, Manual de Instrucciones, adaptadores, dispositivos, etc., para la operación, ajuste, calibración y mantenimiento del equipamiento ofertado.	Cumplimiento Obligatorio	Cumple
2.6.2	El oferente deberá suministrar todos los accesorios necesarios para instalación y puesta en servicio del equipo	Cumplimiento Obligatorio	Cumple
2.6.2.1	Deberá proveer los accesorios correspondientes para montaje en rack de 19".	Cumplimiento Obligatorio	Cumple
2.6.2.2	Accesorios para cableado de interconexión de equipos, los mismos serán de acuerdo a los tipos de puertos que posea el equipo.	Cumplimiento Obligatorio	Cumple

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2.6.2.3	Todos los accesorios recomendados por el fabricante que no estén descriptas en la presente especificación técnica	Cumplimiento Obligatorio	Cumple
2.6.2.4	El oferente deberá proveer todas las informaciones técnicas de los accesorios propuestos	Cumplimiento Obligatorio	Cumple
3	**Descripción de la Oferta**		
3.1	**A ser presentados juntamente con la oferta.**		
3.1.1	El oferente deberá presentar las Planillas de Datos Garantizados debidamente completadas.	Cumplimiento Obligatorio	Cumple
3.1.2	El oferente deberá presentar las Planillas de Precios debidamente completadas.	Cumplimiento Obligatorio	Cumple
3.1.3	El oferente deberá presentar una lista de Referencias, de suministros de equipos y servicios similares a los ofertados, que se encuentran actualmente en funcionamiento.	Cumplimiento Obligatorio	Cumple
3.1.4	Los equipos ofertados, componentes del sistema, deberán ser preferentemente de la misma marca, de manera a evitar integraciones que puedan entorpecer el funcionamiento, los reclamos o consultas una vez puestos en servicio. Esta condición deberá constar en los documentos técnicos entregados por el Oferente. **En todo caso el Oferente deberá remitir una nota junto con su oferta indicando que es el único responsable de todo el suministro.** Este item no es descalificatorio.	Describir forma de cumplimiento	Cumple todo
3.1.5	El oferente deberá demostrar su capacidad e idoneidad para proveer asis-tencia técnica inmediata en Paraguay, así mismo deberá contar con una experiencia mínima de 3 (tres) años en la provisión y montaje de equipos y servicios similares.	Cumplimiento Obligatorio	Cumple
3.2	**A ser presentados luego de la firma del Contrato**		
3.2.1	El Proveedor deberá presentar los documentos técnicos los que serán de propiedad de la ANDE y cuyo costo será considerado como incluido en el precio de la oferta y serán presentados por lo menos los siguientes:	Cumplimiento Obligatorio	Cumple
3.2.2	Las instrucciones completas para el Montaje y Puesta en Servicio e intercone-xiones, incluidas las adecuaciones mecánicas, físicas y eléctricas.	Cumplimiento Obligatorio	Cumple
3.2.3	Diseños de los bay-faces del equipo.	Cumplimiento Obligatorio	Cumple

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3.2.4	Diseños indicando la posición de las tarjetas y módulos, e identificación puertos y terminales.	Cumplimiento Obligatorio	Cumple
4	**Documentos de operación y mantenimiento del Sistema**		
4.1	Manuales para operar el sistema, con una descripción detallada de los equipos en su conjunto y de las unidades que lo componen	Cumplimiento Obligatoriamente	Cumple
4.2	Manuales de procedimientos de operación.	Cumplimiento Obligatoriamente	Cumple
4.3	Documentos de Hardware.	Cumplimiento Obligatoriamente	Cumple
4.4	Diagramas de bloques, funcionales del sistema y de interconexiones entre los equipos.	Cumplimiento Obligatoriamente	Cumple

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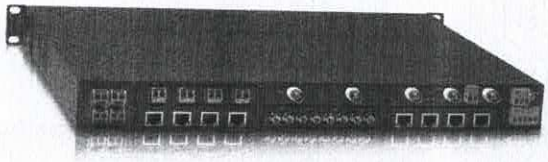
CATÁLOGOS TÉCNICOS

0000308

SICOM3028GPT

28 ports Layer 2/3 managed rack mountable modular switch



- Flexible modular design for easy expansion, supports max 28 gigabit fiber/copper ports
- Supports DT-Ring, DRP, MSTP and VRRP for network redundancy
- Supports Layer 3 routing protocols such as RIP and OSPF
- Supports IEEE1588v2 and the synchronization precision reaches ±100 ns, supports ITU-T.G.8261/G.8262 synchronous Ethernet and the synchronization precision reaches ±50 ns
- Supports TimeServer module, GPS module, IRIG-B module, TMS-trigger module, serial server module
- Supports IEC61850 MMS management
- Supports cable test
- Complies with IEC61850-3 and IEEE1613
- KEMA, CE, FCC, EN50155/50121
- NEMA TS2

Overview

SICOM3028GPT is an intelligent modular platform which is an All-in-One solution integrating IEEE1588v2, Sync-E, full gigabit, and both layer 2 & Layer 3 availability specifically designed to operate reliably in electrically harsh and climatically demanding utility substation and industrial environments. SICOM3028GPT supports up to 28 gigabit fiber/copper ports, meets the IEC61850 and IEEE1613 standards. SICOM3028GPT is a 19-inch 1U rack mountable device and supports one 1U slot and six 0.5U slots which offers the maximum flexibility for easy expansion.SICOM3028GPT supports IEEE1588v2 and synchronous Ethernet protocol with hardware time stamping and supports the BC, P2P TC, and E2E TC clock modes, it reaches a timing precision of 100 ns. It supports Power Profile and Telecom Profile, and supports many modules for time synchronous like TimeServer, GPS and IRIG-B module etc. SICOM3028GPT supports many Layer 2 software features such as port, VLAN, multicast, QoS, fast redundant ring and Layer 3 functions such as VRRP, RIP, OSFP, IGMP and PIM. It supports Console, Telnet, Web management and network management software based on SNMP. By expanding the serial server module, the product can provide up to 24 RS232/422/485 serial ports. At present, the product is widely used at the intelligent substation and many other industrial communication systems.

Software functions

Switching Function

Supports VLAN and PVLAN
Supports port aggregation
Supports flow control
Supports broadcast storm suppression

Redundancy Protocol

Supports DT-Ring, DT-Ring+, and DT-VLAN and the recovery time<50 ms
Supports DHP and DRP and the recovery time<20 ms
Supports RSTP/MSTP and compatible with STP.

Multicast Protocol

Supports IGMP snooping
Supports GMRP
Supports static multicast
Supports GOOSE over IP tunnel (receiver)(Web interface doesn't support)

L3 function (part of sub-models support)

Supports ARP proxy
Supports RIPv1/v2
Supports OSFPv2
Supports static routing
Supports VRRP
Supports IGMP
Supports PIM SM
Supports GOOSE over IP tunnel (sender) (Web interface doesn't support)

Security

Supports IEEE 802.1x
Supports HTTPS/SSL
Supports SSH
Supports SFTP
Supports RADIUS
Supports TACACS+
Supports user grading
Supports MAC address binding
Supports port isolate

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Service Quality Management

Supports ACL
Support 802.1p(CoS),DSCP
Supports SP and WRR queuing

Management & Maintenance

Supports Console, Telnet, and Web management methods
Supports SNMPv1/v2c/v3 and can managed by Kyvision
Supports IEC61850 MMS management
Supports file transfer and software update over FTP and TFTP
Supports the IP/MAC address conflict alarm, power failure alarm, power alarm, temperature alarm, port linkdown alarm, port traffic alarm, CRC and packet lose alarm, CPU alarm, memory alarm, Sfp port rx power alarm, transceiver alarm and ring alarm (Web interface doesn't support address conflict alarm. Sfp port rx power alarm, transceiver alarm need supported by hardware)
Supports port mirroring
Supports cable test
Supports loop detection
Supports CRC protection
Supports Syslog
Supports RMON
Supports LLDP
Supports Link-check
Supports NTP and SNTP
Supports RTC

IP Address Management

Supports Bootp
Supports DHCP server/client
Supports Up to 16 different IP addresses and VLAN for system management

Time synchronization

Supports PTPv2 (IEEE1588-2008)
Supports Power profile (C37.238)
Supports Telecom profile (in special version)
Supports synchronous Ethernet (ITU-T.G.8261/G.8262)
Supports TMS function

Product Specifications

Technical Specifications

Standard
- IEEE 802.3i (10Base-T)
- IEEE 802.3u (100Base-T)
- IEEE 802.3ab (1000Base-T)
- IEEE 802.3ad (port aggregation)
- IEEE 802.3z (1000Base-SX/LX)
- IEEE 802.3x (flow control)
- IEEE 802.1p (priority)
- IEEE 802.1Q (VLAN)
- IEEE 802.1w (RSTP)
- IEEE 802.1s (MSTP)
- IEEE 802.1x
- IEEE1588-2008 (PTPv2)
- ITU-T.G.8261/G.8262 (synchronous Ethernet)

Switch Properties

Priority queue	8
Number of VLANs	4K
VLAN ID	1–4093
Number of multicast groups	256
Routing table	8K (L2 chassis do not involve)
MAC table	16K

Packet buffer
- 12Mbit (SICOM3028GPT-L3F/L3FT/L3G/L3GT), 8Mbit (SICOM3028GPT-L2F/L2FT/L2G/L2GT)

Packet forwarding rate
- 41.7Mpps (SICOM3028GPT-L2G/L2GT/L3G/L3GT), 9.5Mpps (SICOM3028GPT-L2F/L2FT/L3F/L3FT)

Switching delay < 10 μs

Interface

Console port	Mini USB, RJ45

Alarm contact
- 3-pin 5.08mm-spacing plug-in terminal block, 250 VAC/220 VDC Max, 2 A Max, 10A@1s, 60 W Max

Slots for module
- 1U: 1
- 0.5U: 6

LED

LED on front panel
- Alarm LED: Alarm
- Running LED: Run
- Ring Role LED: Ring
- Synchronization finish LED: Lock
- Power LED: PWR1, PWR2
- Port LED: Link/ACT
- Port speed LED: Speed

LED on rear panel
- Port LED: Link/ACT
- Port speed LED: Speed

Power Requirements

Power input:
- 24VDC (18-36 VDC)
- 48VDC (36-72 VDC)
- 100-240VAC,50/60Hz;110-220VDC (85-264VAC/77-300VDC)

Power terminal
- 5-pin 5.08 mm-spacing plug-in terminal block

Power consumption	< 40 W
Overload protection	Support
Reverse connection protection	Support
Redundancy protection	Support
Hot Swappable	Support

Physical Characteristics

Housing	Metal
Cooling	Natural cooling, fanless
Protection Class	IP40

Dimensions(WxHxD)
- 482.6 mm x 44 mm x 359.7 mm (19x1.73x14.16 in.)

Weight	< 10 Kg (22.046 pound)
Mounting	19 inch 1U rack mounting

Environmental Limits

Operating temperature	-40°C to +85°C (-40°F to 185°F)
Storage temperature	-40°C to +85°C (-40°F to 185°F)
Ambient Relative Humidity	5% to 95% (non-condensing)

Quality Assurance

MTBF
- 360000h (SICOM3028GPT-L2F/L2G)
- 359000h (SICOM3028GPT-L2FT/L2GT)
- 371000h (SICOM3028GPT-L3F/L3G)
- 368000h (SICOM3028GPT-L3FT/L3GT)

Warranty 5 years

Approvals

KEMA
- Models with power supply of HV:100-240VAC,50/60Hz;110-220VDC

CE All models
FCC All models
EN50155
- Models with power supply of HV:100-240VAC,50/60Hz;110-220VDC

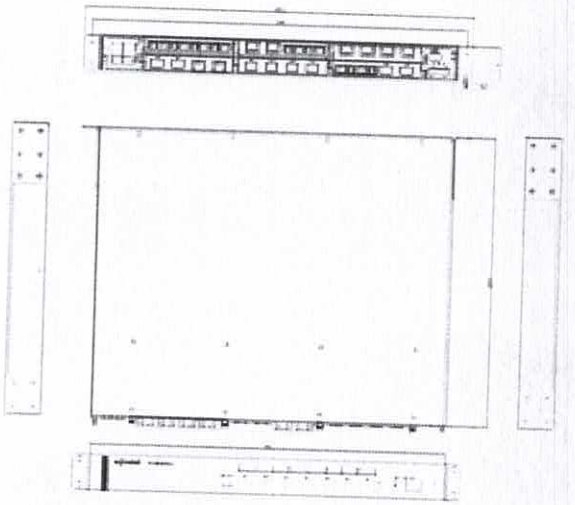
Industry Standard

EMI
- FCC CFR47 Part 15, EN55022/CISPR22, Class A

EMS
- IEC61000-4-2(ESD) ±8 kV (contact), ±15 kV(air)
- IEC61000-4-3(RS) 10 V/m (80 MHz-2 GHz)
- IEC61000-4-4(EFT) Power Port: ±4 kV; Data Port: ±2 kV
- IEC61000-4-5(Surge) Power Port: ±2 kV/DM, ±4 kV/CM; Data Port: ±2 kV
- IEC61000-4-6(CS) 3 V (10 kHz-150 kHz); 10 V (150 kHz-80 MHz)
- IEC61000-4-8 (power frequency magnetic field) 100 A/m(cont.), 1000 A/m(1s-3s)
- IEC61000-4-9 (pulsed magnetic field) 1000 A/m
- IEC61000-4-10 (damped oscillation) 100 A/m
- IEC61000-4-12 (oscillatory wave) 2.5 kV/CM, 1 kV/DM
- IEC61000-4-16 (common mode conduction) 30 V(cont.), 300 V(1s)

Machinery
- IEC60068-2-6 (vibration)
- IEC60068-2-27 (shock)
- IEC60068-2-32 (free fall)

Mechanical Drawing



Order Information

Product Model	SICOM3028GPT-SM-PS1-PS2
Code definition	**Code selection**
SM: Sub-model	L2GT-MB: SICOM3028GPT 28G ports L2 Chassis with time synchronization L2G-MB: SICOM3028GPT 28G ports L2 Chassis L2FT-MB: SICOM3028GPT 24+4G ports L2 Chassis with time synchronization L2F-MB: SICOM3028GPT 24+4G ports L2 Chassis L3GT-MB: SICOM3028GPT 28G ports L3 Chassis with time synchronization L3G-MB: SICOM3028GPT 28G ports L3 Chassis L3FT-MB: SICOM3028GPT 24+4G ports L3 Chassis with time synchronization L3F-MB: SICOM3028GPT 24+4G ports L3 Chassis
PS1: power input 1	
HV	100-240VAC,50/60Hz;110-220VDC(85-264VAC/77-300VDC)
L1	48VDC(36-72VDC)
L3	24VDC(18-36VDC)
PS2: power input 2	
HV	100-240VAC,50/60Hz;110-220VDC(85-264VAC/77-300VDC)
L1	48VDC(36-72VDC)
L3	24VDC(18-36VDC)
NA	no redundant power supply

Accessories

Accessory Model	Description
Gigabit SFP module	See the selection table of industrial gigabit SFP module
100M SFP module	See the selection table of industrial 100M SFP module
DT-FCZ-RJ45-01	Single-port RJ45 dust plug
DT-XL- Mini USB-USB-2m	2m USB console cable
DT-ZJQ-BNC-TNC-01	BNC(female) to TNC(female) connector
DT-XL-LMR400-TNC-BNC-20m	20m coaxial cable with BNC(male) to TNC(male) Adapter
DT-XL-LMR400-TNC-BNC-2m	2m coaxial cable with BNC(male) to TNC(male) Adapter
DT-GPS-ANT-01	GPS antenna, 5 V DC power supply, 1 TNC connector(female)
DT-SP-01	GPS surge protection, TNC connector(male) – TNC connector(female)

DOCUMENTACIÓN DE EXPERIENCIA

KYLAND

Commercial Invoice

Kyland Technology Co., Ltd.
北京东土科技股份有限公司
Office Address: Building No.2,Shixing Avenue 30#,Shijingshan District, Beijing,100041
中国北京市石景山区实兴大街30号院2号楼
Factory Address: 205#, Jiangjun Road, Dianjun
District, Yichang City, Hubei Province, China 443004
湖北省宜昌市点军区将军路205号

Invoice No.(发票编号):	1000054860
PO No.(合同编号):	PO 1
Invoice Date(发票日期):	24/Jun/22
Term(交易方式):	EXW Yichang
Payment Term(付款方式)	T/T in advance

Buyer(买方):

Company: Bin Data, S.A.
Address: Santa Cruz de la Sierra casi Fortin Galpon, No. 3658, Asuncion, Paraguay, 1404
Contact: Augusto Valdez Barrios
Tel/Phone: +595 9815 14281
RUC: 801143262-4

Seller(卖方):

Company: Kyland Technology Co., Ltd.
公司： 北京东土科技股份有限公司
Address： Building No.2, Shixing Avenue 30#
Shijingshan District, Beijing China
100041
地址： 中国北京市石景山区实兴大街30号院2号楼
Email: order@kyland.com

Item 编号	QTY 数量	Product 产品	SAP code	Description 描述	Unit 单价	Amount 总价	Date of Dispatch 货期
1	20	Industrial Ethernet Switch 工业以太网交换机	300220321	SICOM3028GPT-L2F-MB, with SM6.6-Power-L3, SM6.6-Power-HV, SM6.6-2GX2GE-1U, IGSFP-M-SX-LC-850-0.55-DDM, SM6.6-4T-0.5U			

Carrier:

Sub Total (合计):	
Freight (运费):	
Total (总计):	

Notice

Please arrange your (USD/ EUR) payment to our new bank information as below
Beneficiary: Kyland Technology Co., Ltd.
Beneficiary Bank : CHINA CONSTRUCTION BANK BEIJING BR GUCHENG SUBBR
SWIFT Code: PCBCCNBJBJX
Beneficiary Bank Address: No 49, Shijingshan Road, Shijingshan District, Beijing,China
Beneficiary A/C No.:
11050164530000000985（USD)
Beneficiary A/C No.:
11050164530000000986（EUR)

请按照以下信息安排付款:
收款人: 北京东土科技股份有限公司
银行: 中国建设银行北京古城支行
SWIFT Code:PCBCCNBJBJX
账号:11050164530000000985(USD)
账号:11050164530000000986(EUR)

Notice:

1.This shipment does not contain any material that emits radio frequency.
2. Please make sure to have our complete Beneficiary Name " Kyland Technology Co., Ltd. " as well as our Bank Account Number in whole for your payments.
3.Please kindly be noted, Buyer shall be solely responsible for bank transfer fees. In case the bank transfer fees being deducted from cash receiving by Seller, it shall be regarded as Buyer's invoice due, then might impact Buyer's credit rate.
4.Please be sure to put the Invoice Number into your payment swift.

Atenas Energía S.A.

ENTEC

ENERGY TECHNOLOGY JOINT STOCK COMPANY
No. 21, Plot 13B, Trung Yen 3 Road, Trung Yen New Residential,
Cau Giay District - Hanoi, Vietnam
Tel: +84-4-37830640/37830641/37830648 Fax: +84-4-37830635
Webside: www.entec.com.vn

Document Number: KYLAND/171221-01/ENTEC

OPERATION CERTIFICATE

TO: Whom it may concern
Ha Noi, *21th December 2017*

We: *ENERGY TECHNOLOGY JOINT STOCK COMPANY (ENTEC - VIETNAM)*, confirm that **KYLAND** has been supplying their Industrial Ethernet Switches (***SICOM3000, SICOM3016, SICOM2024M, SICOM3024, SICOM3024P, SICOM3028GPT***) to our 110kV, 220kV Substation projects since year 2010. All Switches are functioning properly until now.

We also certify that the Ethernet Switches were tested successfully by our engineers to be compatible with our system and IEC61850 Standard.

ENERGY TECHNOLOGY.,JSC

General Director

M.S.D.N:0101362221-C.T.C.P
CÔNG TY CỔ PHẦN ENTEC KỸ THUẬT NĂNG LƯỢNG
Q.CẦU GIẤY - T.P HÀ NỘI

Mr. Nguyen Linh Phuong

Atenas Energía S.A.

CFE Distribución
Bajío

Gerencia Divisional de Distribución Bajío
Administración Divisional

"2020, Año de Leona Vicario, Benemérita Madre de la Patria"

Guanajuato, Gto., February 27, 2020

To: Whom it may concern

We inform that, for some years, we have worked with the ***Kyland Technology*** devices: ***SICOM3024P, KOM200, KOM300, SICOM3028GPT and PTS***, having good results and improvements in terms of the operation and reliability of our communication networks of electrical substations of Distribution, in the territory that includes the Bajio Distribution Division from CFE.

The present is extended, for the purposes that are convenient to the interested party.

Sincerely,

Ing. Angel Mario Vazquez
Distribution Submanager
CFE DDB

Atenas Energía S.A.

CERTIFICADO ISO 9001

0000316

Certificate CN18/10264

The management system of

Kyland Technology Co., Ltd.

Business Registration Address: Room 901, 8th Floor, Building No. 2, Shixing Avenue 30#, Shijingshan District, Beijing, P.R. China
Business Operation Address: (Electronics Workshop) No. 99 Mailbox, Heishitou Road, Shijingshan District, Beijing, P.R. China

Unified Social Credit Code 91110000722601414 9

has been assessed and certified as meeting the requirements of

ISO 9001:2015

For the following activities

The scope of registration appears on page 2 of this certificate.

This certificate is valid from 3 April 2021 until 2 April 2024
and remains valid subject to satisfactory surveillance audits.
Recertification audit due a minimum of 60 days before the expiration date
Issue 2. Certified since 3 April 2018

This is a multi-site certification.
Additional site details are listed on subsequent pages

Authorised by

SGS United Kingdom Ltd
Rossmore Business Park Ellesmere Port Cheshire CH65 3EN UK
t +44 (0)151 350-6666 f +44 (0)151 350-6600 www.sgs.com
The certification information can be verified on the web site of Certification and Accreditation Administration of the People's Republic of China www.cnca.gov.cn

UKAS MANAGEMENT SYSTEMS
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HC SGS 9001-15 01 0118 M2

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Atenas Energía S.A.

Kyland Technology Co., Ltd.
ISO 9001:2015

Issue 2.

Detailed scope.

Design and development, Manufacture and Service of Industrial Ethernet Switches.

Additional facilities

Kyland Technology Co., Ltd.

Business Registration Address: Room 901, 8th Floor, Building No. 2, Shixing Avenue 30#, Shijingshan District, Beijing, P.R. China

Business Operation Address: Building No. 2, Shixing Avenue 30#, Shijingshan District, Beijing, P.R. China

UKAS MANAGEMENT SYSTEMS
0005

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Atenas Energia S.A.

此为证书 CN18/10264 译本

下述组织

北京东土科技股份有限公司

注册地址：北京市石景山区实兴大街 30 号院 2 号楼 8 层 901
经营地址：中国北京市石景山区黑石头路 99 号信箱(电子车间)

统一社会信用代码 91110000722601414 9

的管理体系已经过审核，并被证明符合下述要求

ISO 9001:2015

所涉及的活动范围覆盖

证书的注册范围显示在第二页上

该证书的有效期自 2021 年 04 月 03 日至 2024 年 04 月 02 日
组织必须定期接受监督审核并经审核合格此证书方继续有效
持续认证至少在证书失效前 60 天执行
版本号 2. 初始注册日期 2018 年 04 月 03 日

该证书为多地址证书，其它具体地址在后续页上列出

签署

UKAS MANAGEMENT SYSTEMS
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SGS United Kingdom Ltd
Rossmore Business Park Ellesmere Port Cheshire CH65 3 EN UK
t +44 (0)151 350-6666 f +44 (0)151 350-6600 www.sgs.com
本证书信息可在国家认证认可监督管理委员会官方网站www.cnca.gov.cn 上查询

HC SGS 9001-15 01 0118 M2

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此为证书 CN18/10264 译本，续

北京东土科技股份有限公司

ISO 9001:2015

版本号 2.

认证范围

工业以太网交换机的设计开发、制造和服务

附属机构

北京东土科技股份有限公司

注册地址：北京市石景山区实兴大街 30 号院 2 号楼 8 层 901

经营地址：中国北京市石景山区实兴大街 30 号院 2 号楼

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0000320

Management System Certification

ENVIRONMENTAL MANAGEMENT SYSTEM

CERTIFICATION CERTIFICATE

Kyland Technology Co.,Ltd.

Registered Address: 8F 901, Building No.2, Shixing Avenue 30#,
Shijingshan District, Beijing Zip Code.100041
Business Location : 8-12F, Building No.2, Shixing Avenue 30#,
Shijingshan District, Beijing Zip Code. 100041
Production Address: Xishan Machinery Plant(Inside Of The Yard),
Heishitou Road, Shijingshan District, Beijing Zip Code. 100042

The Environmental Management System Conforms to the Standard GB/T24001-2016/ISO14001:2015

Certified Scope:
Design, development, production of industrial internet communication products and related management activities

Unified Social Credit Code: 91110000722601 4149

Registration No.: 04320E31819R3M

First Issuing Date: 31 Dec. 2011

Issuing Date: 29 Dec. 2020

Expiration Date: 04 Jan. 2024

Issued By: _____

中国认可
国际互认
管理体系
MANAGEMENT SYSTEM
CNAS C043-M

The certified organization should accept regular surveillance, if the surveillance are qualified, the certificate will sustain effective

Address:17/F,Building3 (TriumphCentre),170BeiyuanRoad,ChaoyangDist.,BeijingP.R.ChinaPostcode:100101Tel:010-84850008WebSite: www.uicec.com

Thiscertificationinformationcanbequeriedon theCNCAofficialwebsite (www.cnca.gov.cn)

Atenas Energis S.A.