Company Profile

Activities

DRTecnologie has been operating in the electricity conversion and measurement sector for over 60 years. We are able to supply small AC/DC power supplies with a few hundred watts, up to large direct current to alternate current inverters with many hundred kilowatt powers, used to power the equipment of a power plant. These devices also require measurement and control systems that we design and build directly in our laboratories.
Where experience is required, proven reliability and flexibility in design, our company is able to provide concrete answers in the field of conversion and measurement of electricity.

History

Our company was founded in 1956 by Mr. Domenico Da Ros. Director for more than ten years of the power supply laboratory of the Telettra Company (the most important Italian manufacturer of radiotelephony equipment), he decided to undertake an independent activity dedicated to the design and construction of electrical energy conversion equipment using, as regulating elements, the magnetic components. They were produced, first in Italy, automatic regulators for alternators, completely static, built with magnetic amplifiers and selenium rectifiers.

The introduction, in the early '60s, of considerable silicon diodes, allowed to build, first again in Italy, powerful static battery rectifiers (110 V - 500 A) and completely automatic. The appearance in the market, in the second half of the '60s, of power thyristors (SCR) and subsequently of power transistors, allowed to develop complex systems of static conversion from direct current to alternating current, previously realizable only using rotating machines. In the following years the evolution of semiconductor power components, in close symbiosis with extremely sophisticated magnetic components, designed and produced in our factory, allowed to develop energy converters with switching frequencies close to radiofrequency (200 kHz); this allowed to reduce the volumes of the equipment, up to specific powers above 200 W / dm^3. The experience gained has allowed us to design sophisticated measurement and control systems indispensable for the correct management of electricity.
Since 1991 the company Da Ros S.r.l., which had the name of its founder, changed its business name assuming the current name of D.R. Tecnologie S.r.l.

The future

The experience gained in more than 60 years of business allows us to face the challenges of the future in a sector that apparently seems trivial. Many times the supply of electricity is underestimated in the design of complex systems of automation both industrial, railway, IT and telematics. That the "plug" occasionally comes off, is sometimes too late to notice. It is much more prudent to turn to some expert, which you can trust, without the risk of buying expensive and perhaps beautiful UPS (Uninterruptible Power Source) which in Italian means: "Unstoppable Source of Problems".

The milestones

1956 - Establishment of Domenico Da Ros
1958 – Domenico Da Ros is the European leader in the construction of regulators and exciters for completely static alternators supplied to the main manufacturers of generating sets and hydraulic power stations up to 20 MVA. The construction of these products continued until 1980.
1960 – Edison Volta, acquires battery charger rectifiers with magnetic amplifiers regulation (110 V - 500 A) for the auxiliary services of the Tavazzano (MI) Thermoelectric Plant
1962 – RAI Italian Radio Television, acquires 400 alternating voltage stabilizers (220 V - 2 kVA) with magnetic amplifiers adjustment, intended for powering the Radio Bridges of the Italian television network. The supplies of these products continued until 1975.
1963 – Ferrovie dello Stato, acquires the first control unit for supplying signaling equipments (144 Vcc - 150 Vca 5 kVA) completely static and integrated (railway station of San Salvo - CH).
1967 – ENEL S.p.A., acquires the first integrated power supply system rectifier - static inverter for the Piacenza Levante thermoelectric plant (110 Vcc - 500 A / 115 Vca 15 kVA). In the following years, 24 static power inverters are supplied with output power of 15 kVA, 18 sized 30 kVA, and 24 sized 40 kVA dedicated to the safety supplies of all the ENEL thermoelectric power plants.
1973 – State Company for Telephone Services, ASST, buys continuity systems with power ranging between 5 and 50 kVA to replace the same rotary type installed in radio transmission radio-bridge. The collaboration continued until 1993 for a total of about 80 systems installed.

1976 – NIFE Italia (batteries of accumulators), purchases and supplies to the shipyards of Muggiano and FIAT-Sepa, 32 static inverters of power equal to 8.2 / 10 kVA, mounted on the same number of Fast Frigates of the "Lupo" class. The equipment, built according to Navy Military Standards, US Navy and MIL, were subjected to torpedo explosion tests in a contiguous chamber (acceleration of 6g on the three axes).
1978 – Tecnimont S.p.A. purchases 14 systems of continuity for the supply of equipment for polypropylene plants installed in the Asian Russia (Omsk, Tomsk, Berezniky, Kemerovo, Gorlovka, Novosibirsk, etc.); the current management is carried out directly by our company in collaboration with Russian companies specialized in maintenance.
1978 – SNAM S.p.A. buys around 600 DC continuity systems, intended for powering the safety systems of the Italy-Algeria methane pipeline. Part of the equipment uses as primary energy alternative or renewable sources such as: sun, wind and thermionic conversion.
1979 – IndustrialExport Bucharest (Romania) purchases the materials and design for continuity plants for the oil refining sector. The agreement was concluded after 3 years with the construction or upgrading of refineries in Ploiesti (Romania), Zarqa (Jordan), Banias (Syria) and Yanbu (Saudi Arabia).
1984 – The National Research Council acquires continuity systems with very low emission of electromagnetic noises, intended for the feeding of the measurement laboratories of the Neutrinos of Mont Blanc, Campo Imperatore (Gran Sasso) and the Plateau Rosa (Cervinia).
1991 – Transformation of the company name from Da Ros S.r.l. to D.R. Tecnologie S.r.l.
1998 – SITE S.p.A., purchases 108 direct current energy stations for the power supply of the cellular repeater equipments of the Ferrovie dello Stato Napoli Reggio Calabria section.
2005 – Approval and patent of the first radio frequency decoupler for GSM / UMTS cellular networks capable of withstanding impulsive overvoltages up to 10 kV.
2010 – Development and patent of a high-voltage current transducer without contact with the power line (distance greater than 5 meters)
2014 – Development of electrical energy storage and conversion systems for harsh environments that use ultracapacitors to replace electrochemical batteries.

Products

The range of products available includes three classes of equipment:

- Standardized components for mechanical installation in 19-inch racks or ETSI racks.
- Standardized assemblies consisting of standardized rack products and installed in metal cabinets of dimensions complying with DIN41488 standards.
- Non-standardized assemblies constructed according to customer specifications, using both standardized rack products and non-standard products.

AC / DC converters
Normally used as power supplies or battery chargers with a power range between 100W and 100 kW they are built in 19-inch or ETSI racks up to 12 kW power and directly in the cabinet for higher powers.

Direct current / alternating current converters
Normally used in uninterruptible power supplies (UPS) to transform electrical energy into direct current accumulated in batteries, in alternating current with characteristics similar to that supplied by the city network. The range of powers available is between 500VA and 150 kVA; they are built in 19-inch or ETSI racks up to the power of 6 kVA and directly into the cabinet for higher powers.

Direct current / direct current converters
Normally used in uninterruptible power supplies (Energy Stations) where the available continuity energy is with different voltage values than those required by the equipment to be served; they are in practice "Transformers" for direct current. The range of powers available is between 50W and 5000W; they are built in 19-inch or ETSI racks up to maximum power.

Alternating / alternating current power converters
In current practice, alternating current / alternating current converter is defined, any device, apart from transformers, which modifies some of the parameters that distinguish electric energy in alternating current. In practice, the most common apparatuses of this type are voltage stabilizers and frequency converters. The range of powers available is between 150VA and 10 kVA; they are built in 19-inch or ETSI racks up to maximum power.

Measurement, control and isolation systems
Knowing the status of a system, an electric network or a locomotive is essential to ensure continuity and safety of the service. Static indicators, analog or digital, include: voltage, current, earth or isolation relays, reverse phase and sequence and programmable digital meters. The isolation devices allow the transit of the TLC-ADSL-VDSL-GSM-UMTS signals ensuring galvanic separation with high test voltages.

Services

DRTecnologie is able to provide all the services necessary for the sizing, installation, use and maintenance of the equipment produced and supplied. The main services available are.

- Sizing and selection of equipment based on the characteristics of the users to be supplied.
- Site inspection for the correct identification of the installation site
- Maintenance, both at our company and at the plant.
- Adjustment of existing systems to new power and voltage requirements.

Customers

DRTecnologie operates and has operated in various technological fields. A list of customers displayed in simple alphabetical order could be confusing. We prefer to divide customers according to the specific sector and report only those of particular interest, even knowing that, in some cases, the criterion could be reductive.

Energy Systems for Railway Devices
Ansaldo Trasporti Spa
SITE-DLK Srl
Ferrovie dello Stato S.p.A.
Trenitalia S.p.A.
Rete Ferroviaria Italiana (RFI S.p.A.)
Ferrovie Nord Milano Esercizio Spa
Siemens Elettra Spa
Saira Electronics HaslerRail

Telecommunication Energy Systems
M.M.I. Marina Militare Italiana
Shape (NATO)
Telecom Italia Spa
Rete Ferroviaria Italiana (RFI S.p.A.)

Energy Systems for Electric Power Plants
Edison Energia Spa
Enel Produzione Spa
Interpower Spa
Sel Edison Spa

Energy Systems for Automation, Chemistry, Energy Production and Research
ABB Industria Spa
AEM-A2A Azienda Energetica Milanese Spa
AGIP Spa
Agrolinz Melamin Srl
Air Liquide Spa (Sio Spa)
Ansaldo Impianti Spa
Fininvest Spa - Videotime Spa
Istituto Nazionale di Fisica Nucleare
Jordan Petroleum Refinery Co.
Kuwait Raffinazione e Chimica Spa
OMV - Austria
Saras Raffinerie Sarde Spa
Sirti Spa
SITE Spa
Solvay Spa