CASE STUDY

CIAT CHOOSES GREENWAY® FOR ITS NEW SYSTEMS DEMONSTRATOR IN THE CRISTOPIA BUILDING

The CIAT Group, through its subsidiary CRISTOPIA Energy Systems, has designed and implemented an HYSYS and Pôle Energie systems demonstrator with CRISTOPIA STL thermal energy storage in its recently renovated buildings in Vence, in the South of France.

This "showroom" demonstrates a standard operational facility for customers, integrators, engineering consultants and anyone else who has cooling needs in excess of 500 kW, mainly for facilities in the service sector. The full Pôle Energie is driven by a Cristo'Control2, and the Comfort Units and the dual flow handling units are monitored by an Easy CIATControl.

HYSYS is a modular system, a combination of optimised products, the aim of which is to guarantee the quality of indoor air, personal comfort and energy optimisation in buildings. Pôle Energie is a system which brings together advanced technologies in low consumption production and storage, to make it possible to produce hot and cold water at a lower cost and to minimise environmental impacts.

The facility has been operational since June 2011, with an Aquaciat heat pump (Cold power 61 kW, Hot power 50 kW, absorbed power 21 kW) with CRISTOPIA cold storage, Cristo'Control2 smart control and piloting system, a Floway double flow air processing unit, CIAT comfort units and an Expair precision air-conditioning module for the computer room.

The principle of cold storage is to store cooling energy when the needs of the building are low, mostly at night. By producing cold air over 24 hours, the costs of energy consumption can be reduced and the equipment designed more accurately.

Registered Office: IDS Refrigeration Ltd
Green Court . Kings Weston Lane . Avonmouth . Bristol . BS11 8AZ
Tel: 01179 802520 . Fax: 01179 802521
climalife.uk@climalife.dehon.com
www.climalife.co.uk www.climalife.dehon.com

IDS Refrigeration Limited
Registered In England & Wales
Registration No. 3400691 . VAT No. GB 709 447 517

The heat transfer fluid used is Greenway, a "green" fluid mainly composed of 1.3 Propanediol produced from 100% renewable plant-based resources. CIAT has chosen Greenway for its energy and carbon footprint which is two times lower than that of MEG / MPG products (mono ethylene or mono propylene glycol), which are derived from petroleum resources and which will only continue to increase in cost.

Cristo'Control2, the real brains behind the Pôle Energie, manages all the parameters to optimise the overall energy efficiency of the Energy Hub throughout the year. The system can be monitored locally or remotely. This facility is used by CRISTOPIA as an experimental platform for the MINOSTOC research project. Each 2 m3 tank contains 2,450 nodules with a volume of MCP per tank of approximately 1,150 litres. The instrumentation installed in the Cristo'Control2 measures the power and energy at different areas across the system and adjust the STL tank charge / discharge balance.

For further information please contact: Mel Summers, Marketing Co-ordinator for Climalife in the UK.

Date of issue: 19th April 2012

(Address and contact details updated April 2014)

Registered Office: IDS Refrigeration Ltd
Green Court . Kings Weston Lane . Avonmouth . Bristol . BS11 8AZ
Tel: 01179 802520 . Fax: 01179 802521
climalife.uk@climalife.dehon.com
www.climalife.co.uk www.climalife.dehon.com

IDS Refrigeration Limited
Registered In England & Wales
Registration No. 3400691 . VAT No. GB 709 447 517