

NovaDual32

YEAR-ROUND ENERGY EFFICIENCY



One Device - Multiple Functions

Cooling, heating, and energy recycling.

Production and distribution with optimal energy efficiency.

Effortless factory-ready safety concept.



Energy-Efficient

The NovaDual32 heat pump with energy station equipment combines a heat pump and a chilled water station in an innovative way, allowing for year-round utilization of the device. NovaDual32 with its energy recovery function is designed for simultaneous cooling and heating in an exceptionally energy-efficient way, and therefore particularly suited for locations with concurrent cooling and heating demands, such as shopping centers, hotels, and industrial facilities.

Cost-Effective Installation

The NovaDual32 combines a chilled water station and a heat pump, saving valuable space in the mechanical room. The combined device allows for a shorter turnaround time and significantly less work effort, compared to traditional on-site assembled multi-functional systems. The quick turnaround is primarily due to the high-quality documentation during the design phase and the extensive factory-assembled system.

Site-Specific and Reliable

The NovaDual32 is a dual-circuit heat pump with energy station equipment. Its four compressors enhance operational reliability even in challenging situations. Above all, the solution always meets the company's factory standards. All devices are manufactured and pre-tested at the factory and delivered as ready-to-use systems. These comprehensive solutions can be equipped to fully meet your specific requirements in terms of heat collection, cooling and heating distribution, automation, electrical equipment, and other accessories.

Life-Cycle Service

We look after our equipment throughout their entire lifecycle. Our IoT-based remote service integrates device oversight, optimization, documentation, and maintenance into one reliable service solution.

Safety Concept

The Nova series chassis is designed according to the requirements for A2L and A3 class refrigerants. The delivery always includes a comprehensive factory-ready safety concept, ensuring an effortless installation process. The safety concept comes in two versions depending on the installation site: either a dilution or an exhaust version. The delivery includes all necessary components and controls.

Functionalities

Geoenergy Model:

Heating from the geothermal well
Free cooling from the geothermal well
Energy recycling, cooling and heating
Cooling, heat storage in the geothermal well

Heat Recovery Model:

Heating with heat recovery energy
Cooling, condensation with a dry cooler
Energy recycling, cooling and heating

Standard Equipment

Refrigeration Circuits: 4 compressors, two refrigerant circuits

Compressors: Scroll compressors with crankcase heaters and thermal and overcurrent protection

Heat Exchangers: Plate heat exchangers made of stainless steel

Electronic Expansion Valves: Optimal control of refrigerant circuit superheat improves energy efficiency

External Setpoint Adjustment: Via 0-10VDC signal

Flow Switch

Heat Recovery Module

Heat recovery circuit with pump, evaporator overheat protection valve, chilled water tank, chiller connection module, and automation with controls

Energy Well Module

Energy well circuit with pump, freeze protection valve for cooling water circuit, chilled water tank, energy well connection module, and automation with controls

Safety Concepts

SCO - Exhaust safety concept, refrigerant leak monitoring, exhaust fan and control.

SCI - Dilution safety concept for mechanical rooms, refrigerant leak monitoring, dilution fan installed and control.

Accessories

Constant Flow Pump for the Evaporator Circuit

F1: Frequency converter-controlled pump <95 kPa
P1: Constant speed pump <95 kPa

Cooling Water Circuit Pump

F2: Frequency converter-controlled pump <95 kPa
P2: Constant speed pump <95 kPa

Condensation Circuit Pump

F3: Frequency converter-controlled pump <95 kPa
P3: Constant speed pump <95 kPa

Cooling Water Circuit with Dew Point Control

FSP: Frequency converter-controlled pump <95 kPa

Sound Insulation

NS: No sound insulation

CR: Compressor soundproof hood/hoods

FS: Chassis sound insulation

SS: Compressor soundproof hood/hoods and chassis insulation

Vibration Isolation

VI: Light vibration isolation (rubber mounts)

VD: Vibration isolation kit (rubber dampers + expansion joints)

Electrical Accessories for Compressor

CE1: Basic accessories

CE2: Compensation capacitors

CE3: Soft starters

Energy Measurement System

CTL: Electrical energy measurement (Coptronic Light)

Automation

RTU: Modbus RTU interface

TCP: Modbus TCP/IP interface

BAC: BACnet interface

SN: Service Next - Industrial Internet

Performance Values

	28-4	32-4	36-4	44-4	48-4	56-4	64-4	72-4	80-4	90-4	100-4
Heating Capacity, Geoenergy Model kW (1)	80	108	123	138	163	185	207	232	258	299	339
Heating Capacity, Heat Recovery Model kW (2)	129	171	195	219	256	291	326	367	408	469	531
Cooling Capacity kW (3)	86	115	131	148	172	197	221	248	276	316	356
Number of Refrigerant Circuits	2										
Capacity Stages	4										
Main Fuse of the Unit (A)	80	100	125	125	160	160	160	200	200	250	315
Pipe Connections (DN)	80										
Frame Length L (mm)*	2135-6860										

(1) -2/2°C ethyl alcohol 28%, 40/50°C water

(2) 20/15°C ethylene glycol 35%, 40/50°C water

(3) 12/7°C water, 36/42°C ethylene glycol

*The frame length (L) depends on the selected accessories. Modular delivery is possible.

Dimensions

