

Join us in making the world a better place. Today.

# HEAT TO CLEAN ELECTRICITY

*compact – modular – profitable*



## efficiency PACK eP 250.300

### Plug & Play

Waste heat recovery solution

**Any sector, any waste heat**  
from 90 °C to over 800 °C

**Profitable efficiency measure**  
e.g. for ISO 50001

# PLUG & PLAY EFFICIENCY UPGRADE

## SAVE COSTS

Our waste heat recovery solutions turn waste heat from all kinds of sources – liquid and gaseous – into clean electricity. Customers benefit from an improvement in energy efficiency and additional electricity savings, e.g. at the coolers. This saves energy costs and carbon emissions.

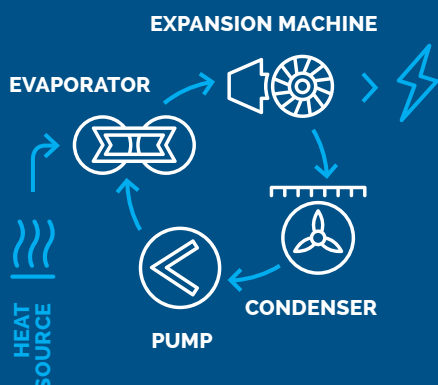
## LOW MAINTENANCE

Only one day of maintenance is required per year, which results in low maintenance costs. Thereby the efficiency PACK is prepared for at least 15 years of operation. Orcan's systems have been sold to customers worldwide and have proven their reliability in almost 1 million operating hours.

## FLEXIBLE & MODULAR

The efficiency PACKs operate independently and automatically. Thanks to its outstanding part load capacity and the modular design, it adapts quickly to the heat source to maximize power output. The use of only high-quality standard components ensure a robust and reliable operation under all conditions.

## HOW IT WORKS



## FACTS & FIGURES

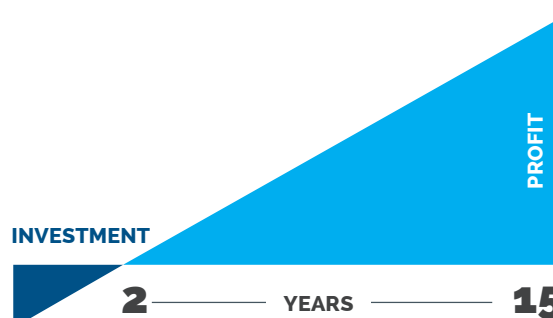
|                             |   |
|-----------------------------|---|
| Input power                 | 1,000–4,000 kW thermal (per module)   |
| Electrical output gross/net | Up to 400 kW gross / Up to 300 kW net   |
| Working fluid               | Standard refrigerant<br>(non-inflammable, non-toxic, non-ozone-depleting)   |
| Interfaces                  | <ul style="list-style-type: none"> <li>■ Liquid: 90 °C – 110 °C (LT)<br/>120 °C – 150 °C (HT)</li> <li>■ Gaseous: 150 °C to over 800 °C (through a heat exchanger)</li> </ul> |
| Ambient conditions          | IEC 60721-3-4 with IE41 (-33 to +40 °C)   |
| Dimensions                  | ISO 668 20' HC container (6.1 m x 2.5 m x 2.9 m)<br>(optional: ORCAN-eCooler available)   |

## CASE STUDY

- 12 MW thermal waste heat -> 4 efficiency PACKs
- 8,000 hrs of operation per year
- 960 kW<sub>el,net</sub> (all internal consumers e.g. cooler already deducted)

### Annual savings

**460,800 € per year at 6 Ct/kWh**  
**921,600 € per year at 12 Ct/kWh**  
**7,680 MWh electrical savings**



## ORCAN ENERGY – AT A GLANCE

**Orcan Energy AG** is a leading European CleanTech company offering efficient energy solutions based on Organic Rankine Cycle (ORC) technology for the conversion of waste heat into electricity. Orcan Energy AG was founded in 2008, employs 60 people and is headquartered in Munich, Germany.

**200**  
units sold  
worldwide

**880,000**

hours of  
operation

**6,100**  
tons of  
carbon saved