

# DATASHEET

# ORC ENO-180LT



*“ Generate power from your waste heat thanks to our ORC “*

Founded in 2009, ENOGIA is a turbine based ORC manufacturer specialised in waste heat recovery with systems producing from 10 kWe to 180 kWe.

## THE PRODUCT

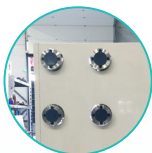
The ENO-180LT module is an ORC manufactured by ENOGIA, able to recover up to 2400 kWth and having a nominal power output of 180 kWe from low temperature heat sources.



High speed patented micro-turbines



Assembling and performance testing in ENOGIA workshop



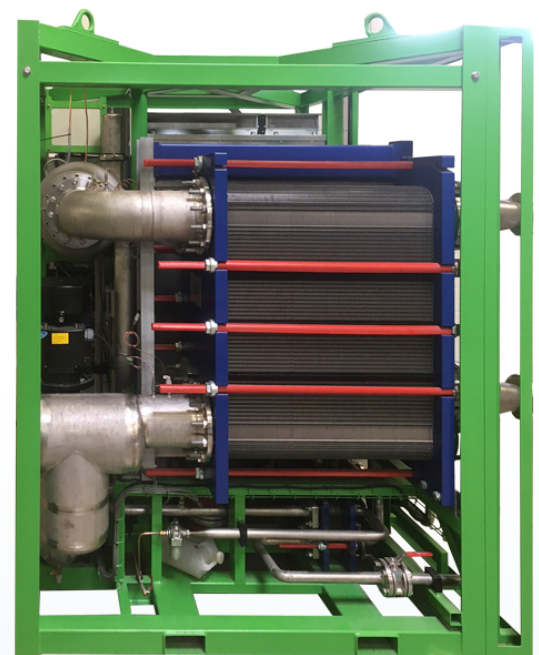
Hydraulic connections with standard flanges



Plug-and-play system on a single skid



Remote control and access 24/7



## SYSTEM COMBINING PERFORMANCE AND RELIABILITY AT LOW TEMPERATURE TEMPERATURE

Designed with the same state of mind as the other ORC of the LT range, the ENO-180LT is a turnkey product raising from architectural innovations.

This system suits a wide range of heat recovery applications such as biomass boilers, gas engines, geothermal sources, heating processes or concentrating solar panels. Any heat flow with temperatures between 70°C

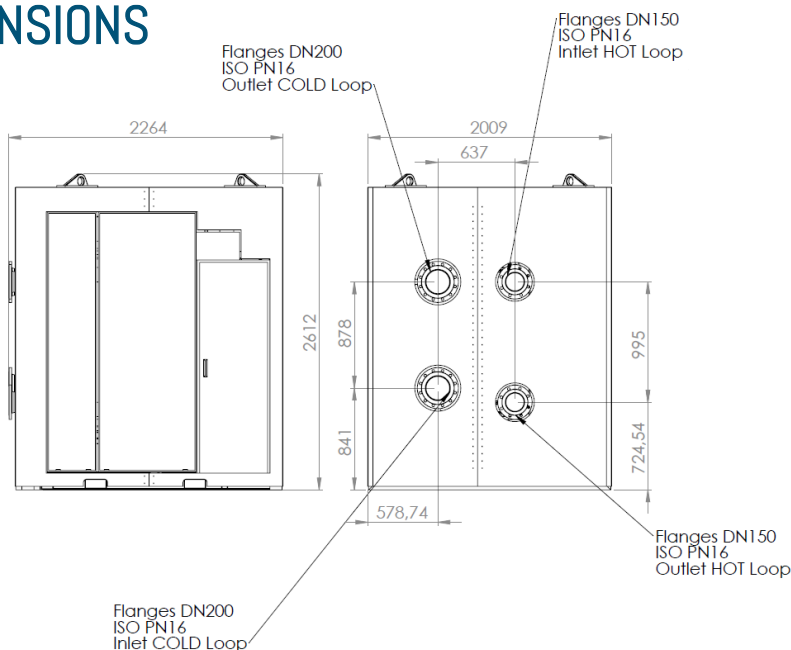
and 120°C can be recovered with this system thanks to its two kinetic turbines.

The produced electricity is monitored by decoupling protection relays, ensuring its compliance with the grid. Remaining heat can be recovered for floor heating or drying system to reach a global efficiency close to 95% !

## ENO-180LT CHARACTERISTICS

<b>Electrical ratings</b>	Maximum gross electric power	180 kWe
	Grid connection	400V, 3ph, 50-60 Hz
<b>Heat source</b>	Temperature range	70-120°C
	Thermal power input range	1400-2400 kWth
	Hot source medium	Water, stream, oil
	Hydraulic connections	DN 200, PN16
<b>Cold source</b>	Temperature range	0-60°C
	Working fluid	Water
	Cooling system	Dry cooler, cooling tower
	Hydraulic connections	DN 125, PN16
<b>Main components</b>	Working fluid	R1233zd
	Generator	Medium speed, permanent magnet
	Expander	Kinetic turbine
	Heat exchangers	Brazed plate
	Pump	Multi-stage magnetic coupling
	Controls	Industrial PLC
	Monitoring	Remote web support
<b>Main ratings</b>	Weight	7000 kg
	Dimensions L x w x h	2,3m x 2m x 2,6m
	Environmental	IP 20
	Noise level @10m	60 dB
	Design lifetime	20 yrs
	Safety	Non flammable, non toxic, ODP=0
<b>Norm compliance</b>	Machine directive	2006/42/EG
	PED	2014/68/EU
	Electrical norms	2014/35/EG
	Grid codes	VDE-0126 (G59, VDE-ARN, UL,...)

## DIMENSIONS



### GOOD TO KNOW

This equipment should be installed as close as possible to the heat source to reduce heat losses through the pipes.