

# Wärtsilä

## JOVYLOAD CONPOWER

### PRODUCT LEAFLET



With the type Wärtsilä JOVYLOAD CONPOWER Wärtsilä JOVYATLAS offers extremely efficient load resistors up to 5 MW, which are not only particularly suitable for the testing of generators, but are also used in the area of controlled battery discharge. The resistor systems are mounted into standard steel sea containers in which the load unit is installed as well as the entire switchgear to control the load bank.

#### STANDARDISED SEA STEEL CONTAINER

The installation of our load resistors in standard containers offers a good transport solution via cranes, e.g. lorries due to the compact structure, the high stability and the easy accessibility of the installations. The ventilation of our containers takes place laterally so that the containers are stackable and suitable for sea transport.

#### SOPHISTICATED DESIGN

Load resistors applied in the type series Wärtsilä JOVYLOAD CONPOWER consist of load tunnels installed independently from each other. Two load tunnels are arranged horizontally directly above each other; several of those load tunnels are connected next to each other – depending on the required overall performance. Each load tunnel is installed in a separate housing and equipped with

both a fan in order to cool the resistor elements and an associated monitoring device. Therefore the load tunnels are thermally uncoupled to the greatest possible extent. The biggest part of the converted thermal energy is released due to a special structure of the resistor elements and the forced ventilation via fans; only a smaller part is stored in the resistor elements. By using special stainless steel for the resistor elements the load steps have a very low temperature coefficient. Thereby the selected load remains almost constant also during overheating of the resistance material. The stainless steel elements are maintenance-free and achieve a long service life. The special design of the high performance steps allows arranging them within smallest space. The load steps can be connected current-dependently in order to assure gentle and regulated battery discharge.

Tab.1 Type Overview Wärtsilä JOVYLOAD CONPOWER

TYPES	Number of load steps											Dimensions W x H x D [mm]	Weight [t]
	1kW	2kW	5kW	10kW	20kW	50kW	100kW	200kW	300kW	500kW			
Wärtsilä JOVYLOAD CONPOWER 1.0	1	2	1	2	1	1	1	1	2	-	2991x2591x 2438	3,5	
Wärtsilä JOVYLOAD CONPOWER 2.0	1	2	1	2	1	1	1	1	2	2	2991x2591x 2438	4,0	
Wärtsilä JOVYLOAD CONPOWER 3.0	1	2	1	2	1	1	1	1	2	4	2991x2591x 2438	4,5	
Wärtsilä JOVYLOAD CONPOWER 4.0	1	2	1	2	1	1	1	1	2	6	6058x2591x 2438	5,5	
Wärtsilä JOVYLOAD CONPOWER 5.0	1	2	1	2	1	1	1	2	3	7	6058x2591x 2438	6,0	

**TECHNICAL DATA**

Input voltage	3 x 400 V (440 V, 660 V) further voltages on request
Output frequency	50 Hz / 60 Hz
Power	1000 W up to 5000 W
Protection degree	resistor element: IP 23 cabinet: IP 54
Material Resistor Elements	CR/Al 1.4725
Temperature coefficient	Cr/Al 0,00012 °C -1
Operation mode	Permanent operation
Ventilation control	Wind vane
Varnishing	RAL 3050
Ambient temperature	50°C

**OPTIONAL AVAILABLE**

SPS control and remote control  
3 x voltmeter  
3 x amperemeter  
wattmeter  
CSC approval

With the type series Wärtsilä JOVYLOAD CONPOWER we are offering many options:

For PLC we use SIMATIC from Siemens. We offer PLC optionally with a remote control of up to 100 m. A default programming of the control according to customer-specific requirements is optionally available. The load container of the Wärtsilä JOVYLOAD CONPOWER series can of course also be connected in parallel. Using the parallel connection any performance steps can be implemented as needed. In the event multiple containers are connected in parallel the container works in master/slave mode. On request we can also integrate input transformers for voltage adjustment. A CSC approval of the containers is also optionally available.

**STRUCTURE**

The load container is split into two sections. In the first part the entire switch-gear including safety components, auxiliary contactors and load contactors as well as the connection panel are mounted. Additionally the necessary elements for control and monitoring of the load bank are installed. The load room is installed in the second part of the container. Here the load banks including fan units and monitoring devices are arranged in separate housings. The load tunnels are operated independently.

- **ROBUST LOAD RESISTOR**  
mounted in standard steel sea containers with ISO corner fittings
- **VERY LOW TEMPERATURE COEFFICIENT**  
guarantees high accuracy of resistance values
- **IDEAL FOR GENERATOR TESTS**  
service-friendly design
- **VERY ROBUST**  
long life cycle of the resistance elements due to special stainless steel alloy
- **PLC REMOTE CONTROL AVAILABLE**  
up to 1000 m
- **CUSTOMISED DESIGNS**  
Manufacturing is done according to customers' requirements; a high amount of options is available.

Fig.1 Wärtsilä JOVYLOAD CONPOWER

