

Remote monitoring and control „RemoteManager“

1.0 Functional description

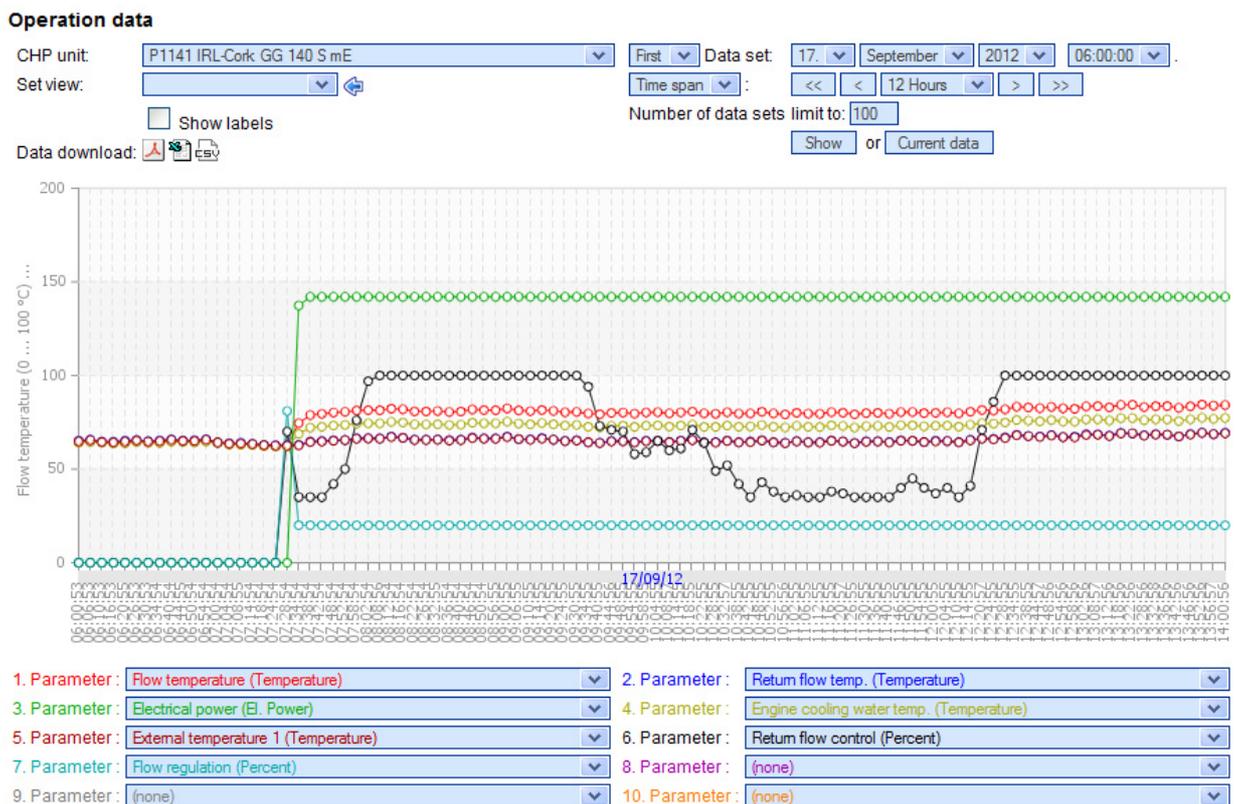
The RemoteManager allows for the remote monitoring and control of the compact CHP units. Additionally, operation/warning/fault notes can be received via E-Mail and/or SMS. Conditional to this is a constant connection of the CHP control with the internet (see below).

1.1 Logging of events and operation data

The CHP control sends the operation data every two minutes to an internet server operated by SOKRATHERM. If the internet connection is interrupted, the events and operation data of the CHP unit are recorded on an internal memory of the CHP control and the events are transferred to the server once the internet connection is restored.

1.2 Reading of events and operation data

With a normal web browser, the CHP plant can be accessed from a desktop in the office or on the way from a notebook or smartphone. The data sent from the CHP control can be depicted graphically online (see image 1.2.1) or exported for further processing in the data formats pdf, xls or csv.

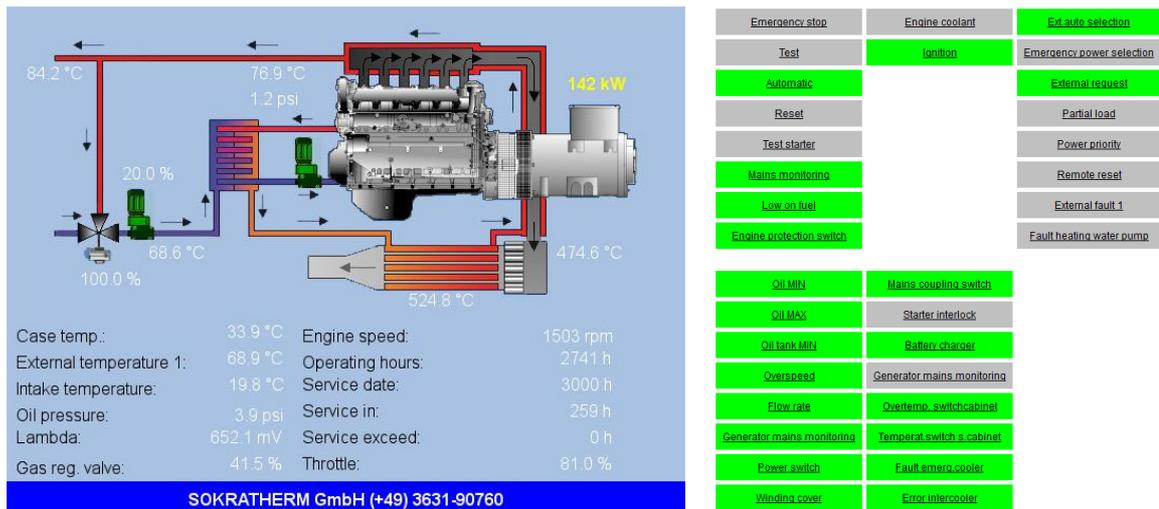


1.2.1 Graphic depiction of the operation data

With this data from the CHP unit and the total system, the operation can be analyzed and optimized if necessary. It can be further used to locate and solve potential plant faults quickly. The evaluation of the flight recorder function (data recording with increased resolution before the fault occurred) helps to e.g. isolate fault causes.

1.3 Online insight into the CHP unit

The RemoteManager also allows for an insight into the CHP unit which is updated every second. The graph 1.3.1 shows two examples of the depiction of current operation data.



1.3.1 Online insight of the CHP unit

1.4 Change of preset values

Additionally to the operation data reading, limit values and parameters can also be checked and, if necessary, changed with the RemoteManager. For example, the operator or SOKRATHERM can change the selection and deselection criteria to optimize the operation (e.g. to minimize the number of starts or to adapt the operation to the user's habits).

1.5 Acknowledgement of warning and fault notes

Fault or warning notes can be acknowledged with the RemoteManager and a remote start of the CHP unit can be initiated. This way the immediate restart of operation is possible and unnecessary personnel deployments between service dates are avoided, which substantially contributes to a better availability and less cost.

1.6 Automatic sending of notes and operation data

When an incident occurs, automatic notes as e.g. warning or fault notes can be sent automatically to the operator and/or the service center via E-Mail and/or SMS. Optionally, important process data as e.g. operation hour, power, heat and gas counter values can be received in freely adjustable periods, e.g. daily, weekly or monthly via E-Mail.

2.0 Delivery scope

The connection of the CHP control to the internet is done with a router built into the CHP switchgear cabinet. The router must be connected to the internet with a network cable. This can be a customer side LAN network, a separate DSL connection or a UMTS modem.

No additional software or hardware is necessary on the end device (desktop, notebook, smartphone) to securely access the CHP unit with the RemoteManager. The access data and user levels in the RemoteManager are implemented by SOKRATHERM in consultation with the CHP operator.

Detailed information about the security concept of the internet connection is available in the separate description „CHP Internet connection“.

Subject to technical change!

SOKRATHERM®
Cogeneration