PRODUCT DATA SHEET – ENERGY EFFICIENCY SOLUTION

V1.0 / 01.06.2024

General Information:

The evaluation of energy data with continuous and regular monitoring is referred to as (energy) efficiency. The aim of energy efficiency is to control parameters with the ability to warn of deviations, diagnose unnecessary energy consumption and optimize CO_2 emissions through corrective and preventive measures. KARL MAYER STOLL wants to enable its customers to optimize their production in terms of energy consumption.

From data collection to analysis and evaluation. The Energy Efficiency Solution includes a dashboard that gives you insights into the energy and power consumption of your warp knitting machines, such as energy per day, per article, per revolution or an overview of your CO_2 footprint or energy costs.

1. Energy Efficiency Solution "EES" - Overview

The EES is a cloud-based solution for visualizing selected data to identify the energy consumption of KARL MAYER STOLL machines.

Basically, processed machine data from networked KARL MAYER STOLL machines are displayed and evaluated, which were implemented in the EES to implement the "Use Cases" described under point The EES is a SaaS solution that KARL MAYER STOLL makes available to its customers for use. Further details are regulated in the Connectivity Conditions.

Download: https://www.karlmayer.com/saas/

Prerequisite:

In order to be able to use the solution described below, the following prerequisites must be created for the respective machine:

Networking:

Conclusion of a connectivity contract for each machine and the associated permanent networking of the machine via the k.ey to ensure continuous data transfer. The obligations of KARL MAYER STOLL and the customer set out in the Connectivity Contract shall apply.

Software Version:

The machine has been updated to the latest software versions/software releases. If the machine is not equipped with the necessary current software version, this requires a software update. It must be clarified in advance whether this update must be carried out remotely or by a service technician by KARL MAYER STOLL service staff or whether the customer can carry out this update themselves.

KAMCOS Version:

For the product launch, the EES will only be offered for machines equipped with a KAMCOS 2 system. In the further course of product development, machines with a KAMCOS 1 system will also be integrated into the EES.

* Please refer to Annex A for the current status

Hardware:

The machine is "Energy Ready", i.e. equipped with the appropriate hardware. For new machines, the option can be selected as part of the machine configuration. In the case of retrofitting, this can be requested and ordered from Care Solutions. The hardware is subject to a charge. The installation is also a chargeable service that is carried out by KARL MAYER STOLL service staff.

* Further information can be found in Annex A

Service:
In the event of faults, the customer can open a ticket via the input channels offered by the KARL MAYER STOLL Service. Unless otherwise defined, the SLAs from the connectivity contract apply.
https://www.karlmayer.com/saas/

Log In:
Once the solution has been activated by KARL MAYER STOLL Service, the customer can use the application. Access to the EES is web-based using logins via the KARL MAYER STOLL customer portal myKM.ON.
Customer portal: https://customerportal.karlmayer.com
Customer portal CN: https://customerportal.karlmayer.com.cn

Registration in the customer portal is required for this. During the registration process in the customer portal, a comparison is automatically made with the user authorizations of the respective user. To ensure a single sign-on for both the customer portal and access to the digital solutions from KARL MAYER STOLL, the customer must register with a unique and always the same e-mail address.

2. EES Use Cases
The following is an abstract description of the scope of services of the Energy Efficiency Solutions software - "EES" for short.

2.1 Display of live energy data for individual machines and the entire machine fleet
2.1.1 Live machine park: Shows all performance values for each individual machine and for the entire machine park in a general overview.
2.1.2 Live machine details: Shows the performance and energy data of an individual machine in detail. Including the machine states, standby, heating, production.

2.2 Analysis of (historical) energy data
2.2.1 Compare and analyze the energy consumption data of various selected machines with each other or in comparison to the entire machine fleet. The energy data to be analyzed can be displayed per day, month or year. Individual time ranges can also be selected. It is also possible to select whether the data for energy, costs or CO2 emissions should be displayed and whether they should be displayed cumulatively or not.
2.2.2 Comparison of energy data based on different substances/articles. In addition to the article selection, the machines on which the article was produced and the period to be analyzed or compared can be selected. The energy consumption is displayed, divided into total energy consumption and energy consumption during production as well as energy costs.

2.3 Control of the machine heating
2.3.1 Shows how the optimized heating of machines in a machine park can be set up and controlled. Production time can be set individually for each machine and each day.
2.3.2 Setting the individual production time for each machine and each day. By creating a template, the production time can be defined by the user. Different templates can be created and assigned to the machines. The heating control system controls the heating of the machine individually, depending on the machine type itself, so that the machines are ready for production at the desired time.

2.4 Energy Reports
2.4.1 Download an energy report as a PDF. The report can be created for individual machines or for the entire plant. A monthly report or an annual report can also be generated. Before the PDF is generated, the content of the report is displayed for checking.

2.4.2 Storage of the set analysis values for an energy report. For continuous and consistently repeatable report generation, the created energy report is saved as a template and can be called up and adapted at any time.

2.5. EES specifications / settings

2.5.1 All necessary settings can be made on the settings page. The parameters such as the energy costs "per kw/h", the CO_2 emissions "g/kwh".

2.5.2 Filters and selection options: Machine, Entire machine park, Article, Period (day, month, year, individual)

2.5.3 The "states" of the machine are divided into Stand-By, Heating and Production. If the machine is switched off, none of the 3 "status" are displayed.

3. Notes

* Please refer to the operating manual for a detailed description of how to use the solution.

*Due to regular extensions, adaptations and optimizations, both the use cases and the respective specifications are adapted at regular intervals. There is no guarantee that the above-mentioned use cases and the specifications described will be 100% consistent with the current solution.

* Product updates that are not explicitly announced as optional and subject to a charge are provided free of charge

* Languages: see Annex A

ANNEX A

Energy Efficiency Solution "EES"
valid from 01.06.2024

KARL MAYER STOLL Warp Knitting Maschinen		
Energy Ready		
1	All ON Tricot machines KAMCOS 2	
	From order date 06/ 2024	The machine is "Energy Ready", i.e. equipped with the appropriate hardware
	Before order date 06/ 2024	The machine must be retrofitted "Energy Ready", i.e. equipped with the appropriate hardware for a fee
2	Warp Knitting machines KAMCOS 2 excl. ON Tricot machines	
		The machine must be retrofitted "Energy Ready", i.e. equipped with the corresponding hardware for a fee
Languages		
1	German and English	From product launch / 01/05/2024
2	Turkish, Italian, Spanish, Chinese	Until end of 2024
3	Another 6 languages analogous to the customer portal	Until end of 2025
*	Product updates are always offered in German and English. In addition, updates for the above-mentioned languages are offered at the same time if possible, but at least successively and promptly.	