# Clouver SmartKit



## Data Sheet

The SmartKit consists of the gateway with smart software, which automatically records machine statuses after simple integration. A touch panel can be added as an option, which the machine operator can use to conveniently record all downtime reasons systematically using the input screen.

## The Gateway

The gateway has interfaces for voltage measurement and non-contact current measurement via current terminals. The power consumption and power generation are monitored, recorded, and visualised in Clouver. In the standard version, currents of up to 100 A can be measured.

The SmartKit has four inputs for current measurement and three inputs for voltage measurement. This allows measurements to be taken on all three phases and even the neutral conductor.



Illustration:The SmartKit Gateway

## **Technical Data**

Voltage Measuring Range	0 – 390 V eff. 3-phase or 3 × 1-phase
Current Range	0 - 100 A (others on request) 3-phase + neutral conductor (contactless with current transformers)
Measuring Accuracy	2 %
Power Supply	24 VDC (Not included in the scope of delivery)
Intrinsic Consumption	3,7 W
Connections	LAN, 4 x USB host, audio Voltage measurement: screw terminals, current measurement: 3.5 mm jack sockets
Pins used	3,3 V, 5 V, I2C1_SDA, I2C1_SCL, GPCLK0 GPI017, GPI018, GPI027, GPI022, GPI023
Protection Class	IP10
Dimensions	85 × 56 × 60cm

#### Installation Situation -Safety and Independence



- Preservation of existing machine warranties
- Non-contact measurement with current transformers
- Galvanic isolation of the power supply and data lines
- Installation can be carried out by the customer on site
- If required, you will receive telephone support during installation

### Input on the TouchPanel

The input screen, specially developed for the SmartKit, enables the operator to obtain information directly through simple and quick input fields. If a standstill is detected by the gateway's smart software, the machine operator is shown a selection of possible reasons for the standstill. With a simple tap, these are transferred to Clouver and can be analysed. The associated hardware, the TouchPanel, is perfectly tailored to the input screen of the SmartKit. Alternatively, the input screen can be called up with any display device that has a wifi interface.

Housing	Closed housin Allwinner V40	ng with fanless design Cortex (Quad Core)	
CPU	7" WSVGA TF	T-Display (1024 × 600) projec	cted
Display	Capacitive	Capacitive	
Touch Screen	1 GByte DDR3	S-SDRAM	
Memory / Storage	8 GByte EMM	C Flash	
Interfaces	- WLAN: WI-F	100/1000BaseT I a, b, g, n x USB 2.0, 2 x RS-232	
Operating Temperature	10 ~ 60 °C		
Supply Voltage	8 ~ 18 VDC		
Mounting		VESA 75/100 Metal base for standalone and mounting	
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