

Energy Measuring Module DEE 021



The DEE 021 energy measuring module is used to measure the energy directly on the machine. The voltages from the three input phases (L1, L2 and L3) are measured and up to 12 currents are recorded. The DEE 021 has a real-time Ethernet VARAN as well as a CAN bus interface and can therefore communicate with the automation world perfectly.

With the DEE 021, input voltages, phase sequences, phase positions and the frequency are monitored. It can also detect short power disruptions and registers the 0-crossing point. The module has 12 independent channels for measuring current.

Performance Data

Interfaces	1x VARAN In (RJ45) 1x VARAN Out (optional Ethernet (VtE)) (RJ45) 1x CAN 2x DIAS 3x voltage 12x current
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Electrical Requirements

Supply voltage	18-30 V DC	
Current consumption of power supply at +24 V DC	typically 110 mA	maximum 130 mA
Current consumption of power supply at +24 V DC (UL)	maximum 120 mA	

Voltage Inputs

Number of channels	3
Measurement range	up to 500 V AC
Measurement value	-8000 ... +8000
Resolution	14-bit
Scan rate	50 µs
Analog measurement precision	0,65 % of maximum measurement value

Current Inputs

Number of channels	12
Measurement range	up to 1 A rms
Measurement value	-8000 ... +8000
Resolution	14-bit
Scan rate	50 µs
Analog measurement precision	0,6 % of maximum measurement value

Connection Requirements

Required terminal module	DKL 361, article number: 05-024-361
Mechanical coding	1 2 3 4 5 7

Article Number and Miscellaneous

Article number	05-068-021
Standard	UL 508 (E247993)

Environmental Conditions

Storage temperature	-20 ... +85 °C	
Environmental temperature	0 ... +60 °C	
Humidity	0-95 %, non-condensing	
EMC stability	in accordance with EN 61000-6-2 (industrial area)	
Shock resistance	EN 60068-2-27	150 m/s ²
Protection type	EN 60529	IP20
Protection Type (UL)	open type device	
pollution degree	2	