

MOLOS.ENERGY/GSM

Remote energy efficiency management

MOLOS.ENERGY/GSM is an Energy IoT (Energy Internet of Things) device, responsible for performing non-invasive, two-way, four-quadrant measurements on low voltage circuits. Measured quantities include: voltage, current, power factor, active energy consumption, active energy return, inductive and capacitive reactive energy flow. MOLOS.ENERGY/GSM device can monitor three 1-phase circuits or one 3-phase circuit and the measurements are performed in semi-indirect way. The device is perfect for placing in distributed locations. Cellular network is used for data transmission to the cloud platform. Integration with a local BMS system or PLC controllers is possible via build in interface.



Power supply	230 VAC, 50Hz (from one of monitored circuits)
Earthing system	TN-S or TT (1-phase lub 3-phase circuits)
Ingress protection	IP20
Protection class	II
Working temperature	from 0°C to 40°C
GSM	Yes
Data transmission standard	GPRS
SIM card slot type	microSIM
SMA antenna connector (GSM)	Yes
Communication protocols	MQTT, ModBus RTU
Communication encryption	AES with a 256-bit key, TLS 1.2, CA certificate, two-way SSL authentication
Serial communication	Yes (external ENERGY.RS485 module needed)
Mounting	DIN rail
Dimensions	105 x 90 x 65,3 mm / 6 "S" modules
Voltage measurement accuracy	±0,5%
Current measurement accuracy	±1%
Voltage measurement range	Od 100 do 265 V
Software platforms supported	MOLOS.CLOUD, MOLOS.ENERGY, Microsoft Azure



Third party MQTT brokers support	Yes	
Two-way current measurement (usage / production)	Yes	
Version	STD	5A
Standard transformation ratio for current transformers	1:2000	Any current transformer with 5A current, ordered separately
Input resistance of current paths	<33 Ω	<0,05 Ω
Phase current measurement range (RMS)	25A (1:1000) 35A (1:1500) 50A (1:2000) 62A (1:2500)	1,4 x rated transformer primary current