SELECTED **PRODUCTS** 2025

(800) 343-1391
www.aemc.com

AEMC® INSTRUMENTS
CHAUVIN ARNOUX GROUP

AEMC® Instruments and Chauvin Arnoux® Energy

AEMC Instruments and sister company Chauvin Arnoux Energy, both partners with the Chauvin Arnoux Group, have specializations in fixing equipment for measuring and supervising electrical networks to meet the needs of cutting-edge industries for intensive use in severe environments.

ELECTRICAL POWER GENERATION

INDUSTRY MANUFACTURING FACILITIES

ELECTRICAL POWER TRANSMISSION AND DISTRIBUTION

RAIL

NAVAL

INTEGRATED PRODUCTION

We handle all aspects of product manufacturing; from design through to final testing of the equipment. Our teams guarantee the quality and reliability of all the instruments we supply, as well as support lasting decades.

A LONG-TERM OFFERING

Our thorough mastery of our industrial know-how in our factories in France and our ability to keep abreast of the changes in the markets (materials used in our equipment) enable us to guarantee constant quality and long-term availability for our products.

POWER
MONITORS

Industry | Energy generation | Energy transmission & distribution

FOR MONITORING LV, MV AND HV ELECTRICAL NETWORKS

MEMO range

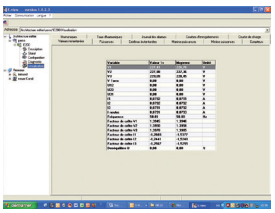
- Easy-to-read, all-in-one screen
- Easy to set up and operate
- Managed inventory covering your main requirements

ENERIUM range

- Accuracy suitable for the most critical MV/LV measurements
- The operating history and diagnostic tools to understand your electrical feeder
- Unique on the market, up to 8 totally-integrated inputs/outputs (on-off or analog)
- Qualimetry at the heart of a power monitor

		MEMO	ENERIUM				
		FLUSH-MOUNTING 96X96			FLUSH-MOUNTING 144X144		
							
		MEMO P200	Enerium 50	Enerium 150	Enerium 100	Enerium 200	Enerium 300
		ELECTRICAL ENERGY			MULTI-ENERGY		QUALIMETRY
Functional specifications	Accuracy class (as per IEC 61557-12)	0.5	0.5	0.5	0.5	0.5 or 0.2	0.2
	Version without display				Enerium 110	Enerium 210	Enerium 310
Recording functions	8 load curves		■	■		■	■
	4 trend curves			■	■	■	■
Alarms	Number of alarms		16	16	16	16	16
	Time/date-stamped events recorded		64	64	64	64	64
Power quality	THD / PF / Tan f	■	■	■	■	■	■
	Max. harmonic orders		25	50	25	50	50
	Qualimetry as per EN50160						■
	Capture of V, U, I & In waveforms						16
	Storage of the last 1,024 time/ date-stamped events (dips, outages, overvoltages)						■
Inputs / Outputs	Max. number of inputs / outputs	1	2	2	8	8	8
Inputs (option)	On-off (pulse or alarm mode)		0, 1 or 2	0, 1 or 2	0, 2, 4, 6 or 8	0, 2, 4, 6 or 8	0, 2, 4, 6 or 8
	Analog						
Outputs (option)	On-off (pulse or alarm mode)	1 (pulse))	0, 1 or 2	0, 1 or 2	0, 2, 4, 6 or 8	0, 2, 4, 6 or 8	0, 2, 4, 6 or 8
	Analog		0 or 2	0 or 2	0, 2 or 4	0, 2 or 4	0, 2 or 4
Graphics	Fresnel			■	■	■	■
	Gauges			■			
	Harmonic-order histograms			■		■	■
Communication interface	Optical USB		Front	Front	Front or rear	Front or rear	Front or rear
	Ethernet or RS485	RS485 only	■	■	■	■	■
	Metrological LED				■	■	■
Programming	Front panel	■	■	■	■	■	■
	Software		■	■	■	■	■

RELATED SOFTWARE



E.VIEW

Configuration, diagnostic, installation and display software dedicated to the ENERIUM range of power monitors.

For your IEC 61850 networks, don't forget to use ENERIUM with the ELINK communication gateway:

- It modernizes the protocol of your measuring equipment without calling into question your choice of power monitors
- Up to 10 power monitors
- DNV.GL-certified

LV ENERGY METERS

Tertiary Industry

FOR SIMPLE METERING FUNCTIONS

		MEMO MD32	MEMO MD65	MEMO TD80
		Single-phase		Three-phase
Strengths		1 module	2 modules	4 modules
Rating		32 A	65 A	80 A
Installation mounting	DIN-rail	1 module	2 modules	4 modules
	Connection	direct	direct	direct
Energy metering & management	Energy / Display	kWh	kWh total and partial	kWh total and partial
Output(s)	Pulse(s)	1	1	1
Accuracy class		IEC Class 1	IEC Class 1	IEC Class 1
To order		P01330740	P01330741	P01330745

MEMO MD32
- Direct connection up to 32 A
- Single-phase
- Class 1 as per IEC 62053-21

MEMO MD65
- Direct connection up to 65 A
- Single-phase
- Class 1 as per IEC 62053-21

MEMO TD80
- Direct connection up to 80 A
- Three-phase
- Class 1 as per IEC 62053-21

FOR ADVANCED METERING FUNCTIONS

ULYS MD45-M
ULYS MD45-M MODBUS
- Direct connection up to 45 A
- Single-phase
- MID Class B
- Integrated RS485 Modbus communication (ULYS MD45-M Modbus model)

ULYS MD100-M
ULYS MD100-M MODBUS
- Direct connection up to 100 A
- Single-phase
- MID Class B
- Integrated RS485 Modbus communication (ULYS MD100-M Modbus model)

ULYS TDA80-M
- Direct connection up to 80 A
- Three-phase
- MID Class B

ULYS TTA-M
- Connection on CT
- Three-phase
- MID Class B

ULYS TD80-M
- Direct connection up to 80 A
- Three-phase
- MID Class B
- Integrated communication depending on model: Modbus, Ethernet

ULYS TT-M
- Connection on CT
- Three-phase
- MID Class B
- Integrated communication depending on model: Modbus, Ethernet

			ULYS MD45-M ULYS MD45-M Modbus	ULYS MD100-M ULYS MD100-M Modbus	ULYS TDA80-M	ULYS TTA-M	ULYS TD80-M	ULYS TT-M
			Single-phase		Three-phase			
Strengths			Multiprotocol communication - Multiple measurements - MID version					
Rating			45 A	100 A	80 A	TC 1 / 5 A	80 A	TC 1 / 5 A
Installation	DIN-rail mounting		1 module	2 modules	4 modules			
	Connection		direct		direct	TC	direct	TC
Energy metering and management	Total energy	Display	kWh, kVArh		kWh, kVArh, kVArh total			
	Partial energy		kWh		kWh, kVArh, kVAh			
Multiple measurements	Electrical parameters / Display		V, I, P, Q, F, FP		V, U, I, P, Q, F, FP, ΣP, ΣQ, ΣS			
Output(s)/Inputs	Pulse output(s)		1	2	2	2	1	1
	Rate switch input		1	1	1	1	1 (except Ethernet model)	1 (except Ethernet model)
Accuracy class / MID certification			MID Class B		MID Class B		MID class B	
To order	Communication	Without	ULYS MD45-M P01330754	ULYS MD100-M P01330760	ULYS TDA80-M P01331018	ULYS TTA-M P01331019		
		RS485 Modbus	ULYS MD45-M Modbus P01330756	ULYS MD100-M Modbus P01330761			ULYS TD80-M Modbus P01331036	ULYS TT-M Modbus P01331037
		Ethernet					ULYS TD80-M Ethernet P01331040	ULYS TT-M Ethernet **P01331041**

ULYS MCM
MULTI-CHANNEL METER

18 meters in one

Compact size

Compatible with a large number of sensors

Industry | Energy generation | Energy transmission & distribution | Energy efficiency

DESCRIPTION

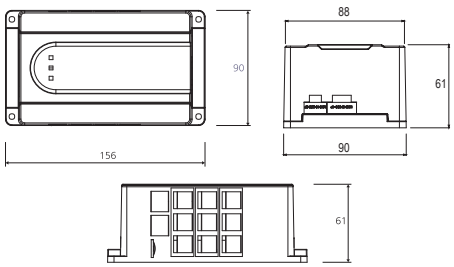
Ulys MCM is the innovative solution for centralizing the measurement of multiple electrical feeders.

- Compact: 18 meters in one!
- Quick implementation
- Wide range of sensors for all types of conductors and current values
- Comprehensive measurement of all the electrical parameters
- Flexible communication

TECHNICAL SPECIFICATIONS

Feature		Specification
Electrical system		1P2F, 3P3F, 3P4F
Nominal specifications of inputs	Voltage (Umin – Umax)	43-690 V~ between phases
	Voltage (Vmin – Vmax)	25-400 V~ between phases and neutral
	Measurement category	600 V Cat III
	Frequency	45-65 Hz
	Current	0-333 mV (max. 0.5 V p-p) | Impedance: 20 kΩ
	On-off (DI)	1 point, 80-250 V~, external power supply
	Temperature CTN	25°C, 10 kΩ, (β(25/85)=3 970°k)
Auxiliary power supply	Voltage	100-240 V~
	Frequency	50-60 Hz
	Max. voltage (L-N)	Short term: 1,440 V~ - Long term: 490 V~
	Consumption	0.05-0.08 A
	Overvoltage category	300 V Cat II
Communication		Modbus RS485
		Modbus TCP
		RS232
On-off output contact (DO)		1 NO (normally open) SPST (single-pole single-throw)

INSTALLATION CONDITIONS



TO ORDER

Model	Reference
ULYS-MCM9	P01331062
ULYS-MCM18	P01331064

The Ulys MCM is available in **9 or 18-channel** versions or three-phase measurement.

ACCESSORIES

SENSORS

Model	Rogowski coil		Current transformer					
Type of sensor	Openable, flexible		Openable, rigid					
Models	MF300	MF3000	TCC V 105	TCC V 1050	TCC V 161	TCC V 242	TCC V 364	TCC V 366
Rated current	600 A	3 000 A	5 A	50 A	100 A	250 A	400 A	600 A
Clamping diameter	70 mm	200 mm	10 mm	10 mm	16 mm	24 mm	36 mm	36 mm
Weight of pack of 3	195 g	210 g	190 g	190 g	320 g	625 g	1 150 g	1 260 g
Dimensions of sensor alone (hxwxd)	130 x 80 x 12 mm	270 x 220 x 12 mm	41.4 x 24 x 26.5 mm	41.4 x 24 x 26.5 mm	51.7 x 30 x 31.5 mm	71 x 44 x 39.2 mm	84 x 57 x 41 mm	84 x 57 x 41 mm

Our sensors are delivered in packs of 3 directly connected to the connection adapter

WHAT SENSORS DO YOU WANT?

	Ratio	Diameter	
Rigid sensors			
PACK 3 TCC V 105	5A / 333mV	10mm	P01 379 616
PACK 3 TCC V 1050	50A / 333mV	10mm	P0 1379 626
PACK 3 TCC V 161	100A / 333mV	16mm	P01 379 618
PACK 3 TCC V 242	250A / 333mV	24mm	P01 379 620
PACK 3 TCC V 364	400A / 333mV	36mm	P01 379 622
PACK 3 TCC V 366	600A / 333mV	36mm	P01 379 624
Flexible sensors			
PACK 3 MF300	600A / (39.1µV/A)	70mm	P01 379 631
PACK 3 MF3000	3000A / (39.1µV/A)	200mm	P01 379 633

WHAT IS THE DISTANCE BETWEEN YOUR ULYS MCM AND YOUR SENSORS

RJ12M-RJ12M M	3 meters	P01379641
RJ12M-RJ12M L	9 meters	P01379642

SCREEN The remote screen allows you to view the data measured by your Ulys MCM.

DO YOU WANT TO EQUIP YOUR ULYS MCM WITH A SCREEN?

ULYS MCM D	Screen	P01331065
RJ45M-RJ45M M	Connection cable*	P01379640

*Cable essential for screen connection

MEASUREMENT TRANSDUCERS

Energy generation | Energy transmission & distribution | Nuclear

A COMPLETE RANGE COVERING ALL YOUR MEASUREMENT REQUIREMENTS

- Analog and digital
- Communication with all systems (4-20 mA, Modbus, IEC 61850)
- 40 years of experience
- Designed and manufactured in France

	TRIAD 2	T82N
		
	Digital transducers	Analog transducers
	For general applications	For harsh environments
Measurements		
Iac	■	■
Vac	■	■
Uac	■	
Vdc		■
P	■	■
Q	■	■
S	■	
F	■	■
PF	■	■
Cosf	■	
Tanf	■	
f	■	
f (U' – U")	■	
Temperature		■
kWh	■	
kVArh	■	
kVAh	■	
Current/voltage unbalance	■	
Options		
Number of analog outputs	4	1
RS485	■	
Ethernet	■	
Programmable	■	
Plug-in versions		■
Self-powered	■ (1)	■

(1) By looping the input voltage

FOR GENERAL APPLICATIONS

TRIAD 2

- Accuracy class 0.1 as per IEC 60688
- Reinforced range for IEC 61000-4-5 substations
- Compatible with IEC 61850 via ELINK (communication gateway) and digital output available as an option (Ethernet / RS485)
- Configured when ordering or configurable using the Triadjust 2 software

- For single-phase or balanced three-phase networks
- 1 analog output

- For all electrical networks
- 4 analog outputs

For your **IEC 61850 networks**, don't forget **to use TRIAD 2 with the ELINK communication gateway**

- Modernizes the protocol of your measuring equipment without calling into question your choice of a transducer
- Up to 20 transducers
- DNV.GL-certified

IEC 61850 DNV·GL

FOR HARSH ENVIRONMENTS

T82N

- Linear transfer curve
- Accuracy class 0.5 as per IEC 60688
- Direct input or on CT
- 2 mounting modes: fixed or plug-in
- IP 20
- Tropicalization available as an option
- Operating temperature: -10 to +60°C

IAR 1210B
RMS AC current

UAR 1210B
RMS AC voltage

QAR 1232B
Reactive power

PAR 1232B
Active power

FAR 1210B
Frequency

UCR 1420B
DC voltage

JAR 1211B
Phase angle

RCL 1220B
Temperature

- Socket for plug-in unit

	Socket	
Model	Type	Reference
UAR 1210B	5	EMBB 4005
IAR 1210B	4	EMBB 4004
PAR 1232B	3	EMBB 4003
QAR 1232B	3	EMBB 4003
FAR 1210B	5	EMBB 4005
JAR 1211B	4	EMBB 4004
UCR 1420B	5	EMBB 4005
RCL 1220B	6	EMBB 4006

- Mounting on DIN rail for fixed or plug-in unit

Model	Reference
Mounting on symmetrical DIN rail	PDIN SYME
Mounting on asymmetrical DIN rail	PDIN ASYM

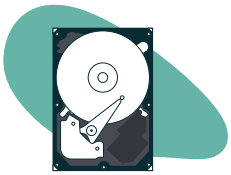
POWER QUALITY ANALYZERS

Industry | Energy generation | Energy transmission & distribution

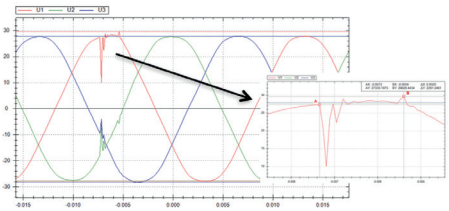
FOR 24/7 ANALYSIS OF ALL THE ELECTRICAL CHARACTERISTICS OF LV, MV AND HV NETWORKS

> IEC 61000-4-30 Class A

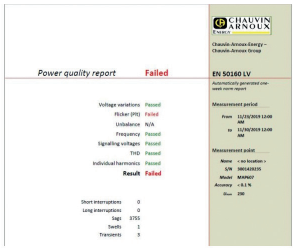
> Continuous storage 24/7



> Capture of the most complex energy quality parameters



> Generation of turnkey reports plus investigative tools in a broad software offering



MAP COMPACT

Electrical network quality analyzers
HV / MV / LV – Class A.

GENERAL SPECIFICATIONS

- Built-in display
- Measurement compliant with IEC 61000- 4-30 Class A
- Integrated EN50160 report generation function
- Recording of voltage dips / swells / outages
- Waveform capture with programmable pre-time and post-time
- Measurement of power and energy values as primary quantities
- Communication interfaces Ethernet and USB
- Compact format for installation in existing cabinets

MAP 607

SINGLE-PHASE ANALYZER – CLASS A

- 2 voltage channels: phase/neutral and phase/neutral-earth
- Plug & play: no driver required
- USB 2.0 communication port
- Configuration for voltage dips, overvoltages and transient disturbances
- Class A according to IEC 61000-4-30
- Measurement of all the power quality parameters according to the predefined standard (EN 50160, etc.)
- Direct indication on the product: Green LED: parameters OK Red LED: parameters outside profile

E.Qual-Premium Server

Analysis and report generation module for MAP network analyzers.

E.Qual-Premium Server is a unique, user-friendly solution for managing from ten to several hundred network analyzers.

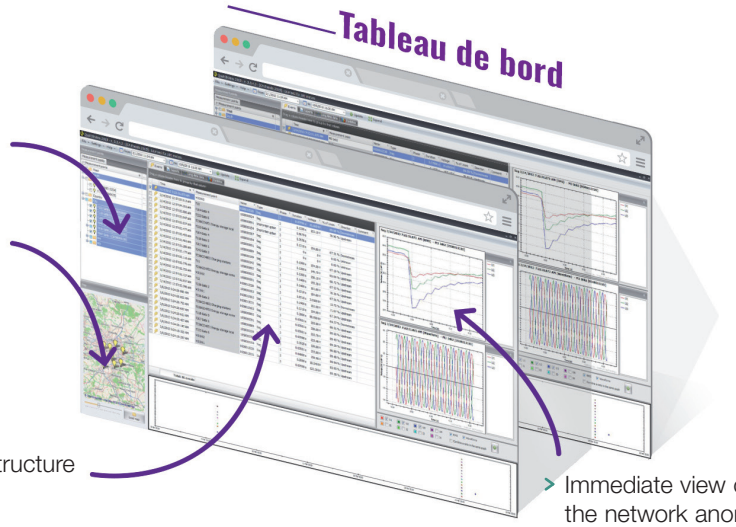
E.Qual-Premium Server also includes E.Qual-Premium:

- graphical multi-equipment views
- multi-equipment event logs
- statistical views

Peace of mind: all the data retrievals are performed automatically by a high-performance remote data-retrieval engine

Complete: a history from the moment the equipment fleet was commissioned, allowing benchmarking of all the analyzers

Analysis: special tools for summarizing the measurements on the fleet of analyzers and sharing the information in concise form with the decision-makers and operators



> Grouping of analyzers according to the feeder, type, etc.

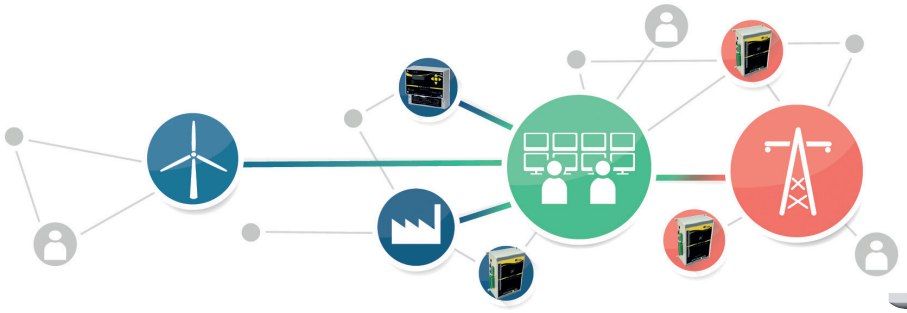
> Representation and geographical location of the analyzers

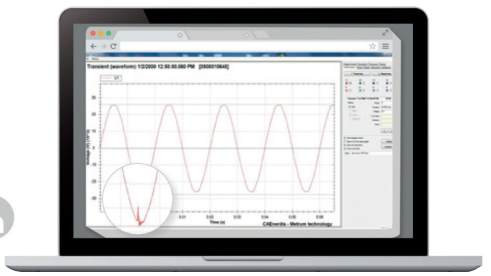
> Build up a view of the network by quantifying the problems on all the stored data by means of an intuitive sorting system

- Identify the weaknesses in the network's structure (phase, type of event, directionality)
- Match up the phenomena according to their critical nature and their duration

> Immediate view of the network anomaly

> Receive email alerts





TO ORDER

Models	Description	Number of licenses
E.Qual-Premium Server	Configuration, remote data retrieval, display, administration and analysis software	5
E.Qual-Premium Server	Configuration, remote data retrieval, display, administration and analysis software	20

MONITORING NETWORKS

Industry | Energy generation | Energy transmission & distribution | Nuclear

LOW-VOLTAGE

GRIDWATCH

SOLUTION FOR SUPERVISION OF LV INSTALLATIONS

A tailored solution based on integration of the Ulys MCM multichannel meter

ANTICIPATE

Aging of the transformer and installations

Optimized scheduling and reduced maintenance costs

TRACK AND SECURE

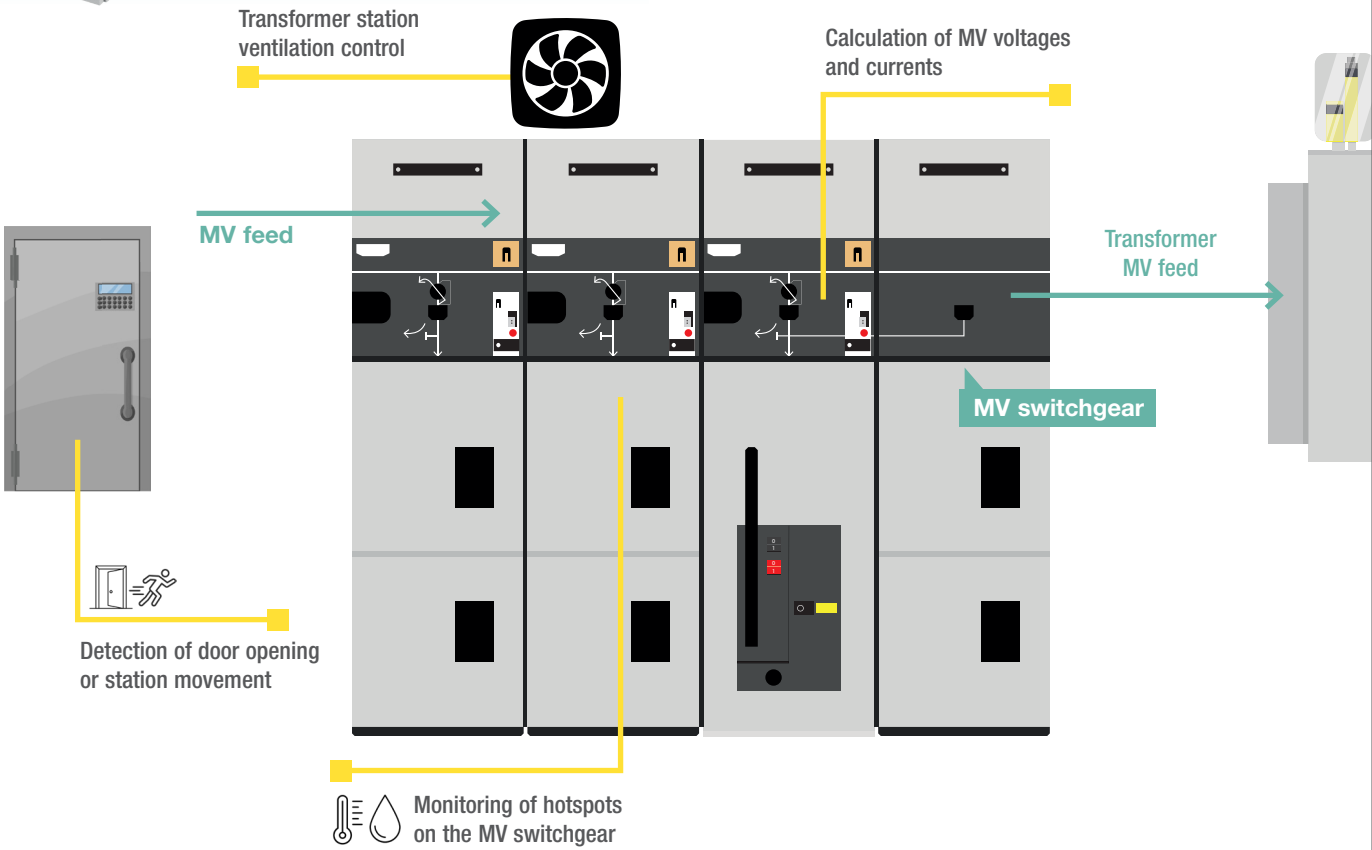
The energy flows

Reduced technical and non-technical losses

OPTIMIZE

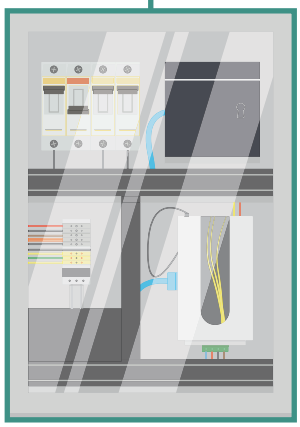
The installations and new connections

Assessment of the available reserve or the effective overload on the feeders or transformers



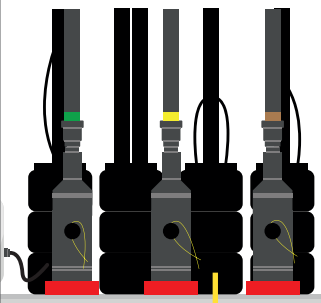
GRIDWATCH MEASUREMENT BOX

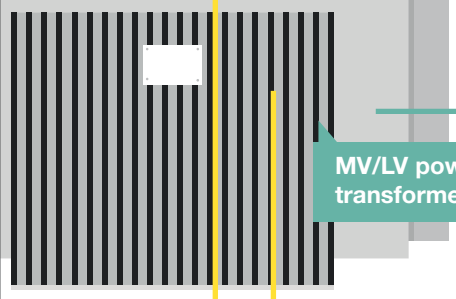
GRIDWATCH MEASUREMENT KIT



Measurement of transformer load factor and unbalance

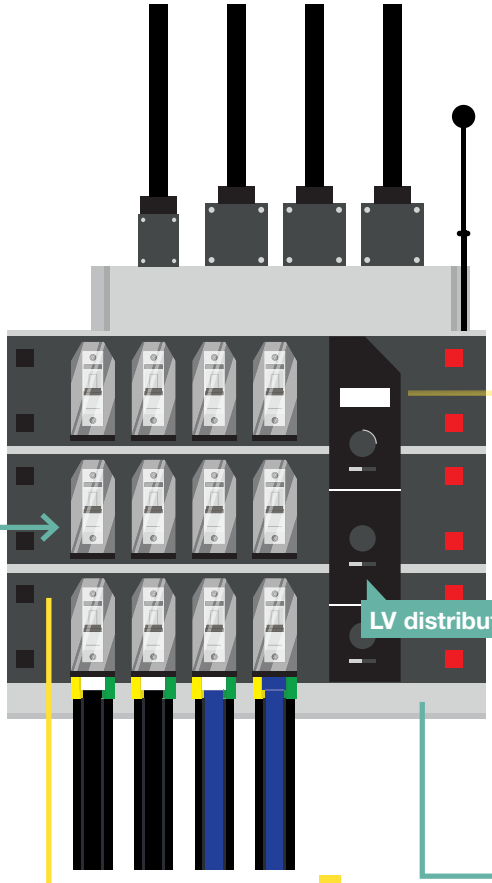
W Calculation of load factor and transformer imbalance





MV/LV power transformer

LV transformer general feeder



W Measurement of current and power values on each LV feeder

LV distribution switchboard

Monitoring of transformer surface temperature

Monitoring of connection hotspots on the LV and MV transformer

Transformer station temperature and humidity measurement

Flood detection – transformer station water level

Detection of fuse blowout on LV feeder

LV distribution

MONITORING NETWORKS

Industry | Energy generation | Energy transmission & distribution | Nuclear

LOW-VOLTAGE

Strengths

Complete and upgradable

GridWatch includes all the sensors needed to supervise the critical points in the MV/LV transformer station.

Available in various versions, it can be adapted to the sizing and the available budget for **optimum roll-out**.

Moving forward, GridWatch can be gradually equipped with sensors to instrument the transformer and then extend the analysis to the electrical feeders on the transformer station.

Quick roll-out

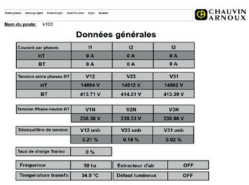
To reduce unavailability of the transformer station during commissioning of the system, **GridWatch has been designed for quick installation and roll-out:**

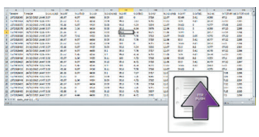
- split-core current sensors connected with a single click,
- prewired environmental measuring sensors,
- preconfigured wireless hotspot sensors, etc.

Interface our solution with your teams

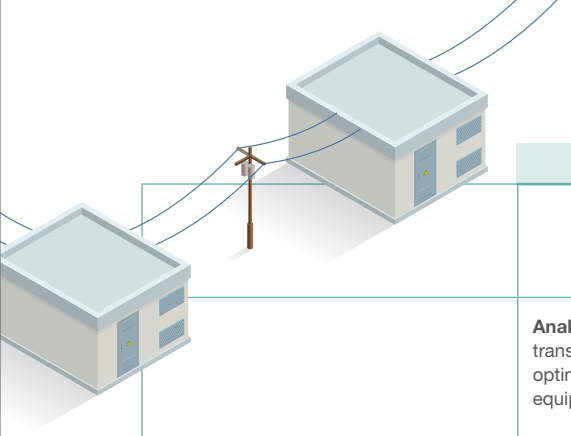
Communication modes for everything from the demonstrator to high-volume roll-outs

SMS/Email alerts | **WEB pages** | **Recording and FTP Push of .csv data** | **MQTT alarms log** | **Real-time viewing** | **VPN service for remote access**



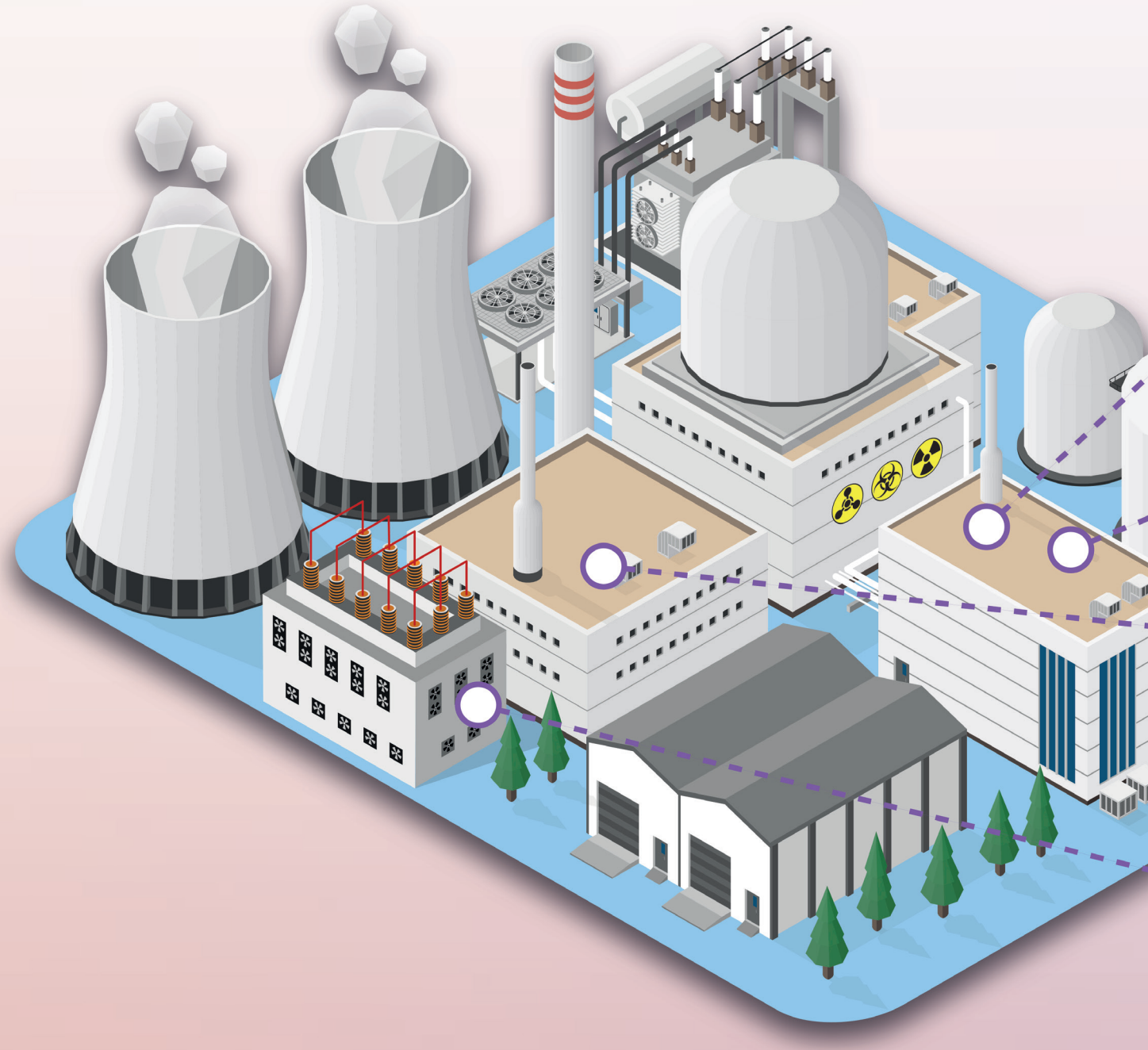


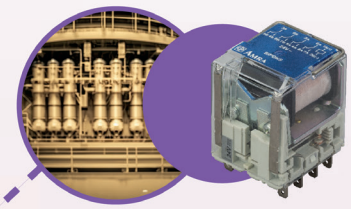
M2Web API HTTPS
web services OPC UA
Modbus TCP



	GridWatch C100	GridWatch C200	GridWatch C50
	Analyze the load factor of the transformer and feeders to optimize the connection of new equipment	**Analyze** the load factor of the transformer and feeders to optimize the connection of new equipment + **anticipate** failures and aging on electrical installations + **steer** maintenance of the transformer stations	**9** three-phase channels (coming soon)
Measurement and analysis of the behavior of cabin station equipment			
Transformer monitoring: Electrical measurement and metering on the secondary of the general MV/ LV transformer	• 3P+N voltage socket on feed terminal strip • Quick-install current socket for Rogowski sensor (diameter 200 mm) • Quantities measured: V, U, I, F, P, Q, S, Phase, Ea, Eq, Es • MV quantities calculated: U, I		
Monitoring of the low-voltage electrical feeders: Electrical measurement and metering	• Quick-install current socket for split-core CTs (up to 8 feeders) • Quantities measured: V, U, I, F, P, Q, S, Phase, Ea, Eq, Es		
Measurement of neutral currents (general and low-voltage feeders)	-	Yes	
Measurement of connection hotspot temperatures on the LV and MV transformer	-	Yes	-
Transformer surface temperature measurement	-	Yes (wired temperature sensor)	
Measurement of the ambient temperature of the kit and the ambient temperature and humidity of the transformer station	-	Yes	-
Interfacing with the other elements in the transformer station	-	Analog inputs and on-off inputs/outputs available	-
Communication and data management			
Communication mode	3G/4G communication and associated remote antenna		
Data viewing	Remote web pages		GridWatch dashboard
Management of alarms and recordings	• Overrun alarms and timeout with transmission of an SMS text or email, recording in alarms log • Recording of all the quantities and variables		via GridWatch dashboard solution
Protocols used simultaneously	• Modbus TCP: access to all the electrical and physical quantities in real time (1s) • MQTT: Publisher mode on alarm / Subscriber mode • HTTP: Access to all the electrical and physical quantities in real time, as well as historized data • FTP Push: file sent to FTP server		MQTT: Publisher mode for measurements
Remote administration	Updating – Parameter Settings – Fleet management		
General specification			
Local data viewing screen	-	Yes	
Use	Indoor		
Operating temperature	(14 to 131) °F (-10 to 55) °C		
Installation	Wall mounting or mounting on stand		Wall mounting
Standards	IEC 61439-1 / IEC 61439-5		
Battery operation in the event of power outage	-	Yes	-

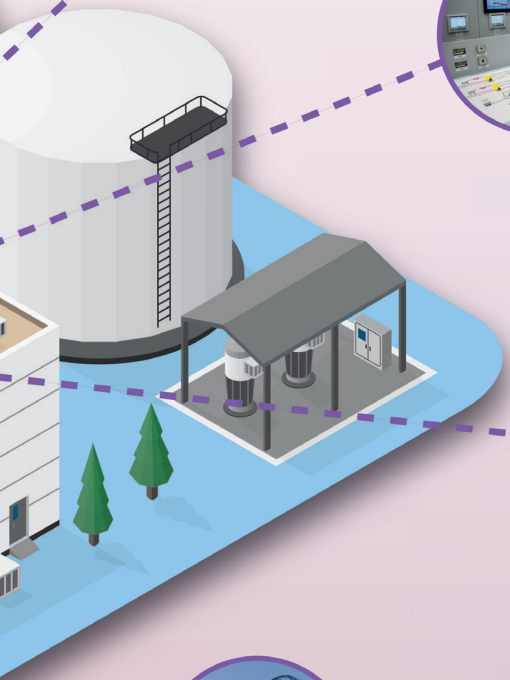
MEASURING EQUIPMENT & NUCLEAR ENVIRONMENTS





RE3000 - OKB184
TOK - POK
Automation relays
Switching of critical loads

Panel meters
Control room display



TRIAD - ENERIUM
Digital transducer & power meters
Auxiliary systems
& main supply monitoring

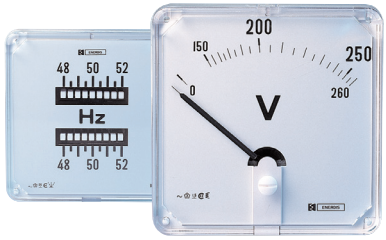
T82N
Analog transducer
Control of electrical power
generation process

ANALOG PANEL METERS

Industry | Energy generation | Energy transmission & distribution | Nuclear

WITH ROUND BARREL FOR SEVERE OPERATING CONSTRAINTS

- EDF-certified range, usable onboard sea-going vessels, ideal for power generators and distributors
- Large choice of functions, formats, measurement ratings and options



Front panel (round barrel) Format	48 x 48	72 x 72	96 x 96	COHO 48 x 48
Standard functions				
AC ammeter	90°		250°	
AC voltmeter	90°		250°	
Pointer dial frequency meter		90°	250°	
Vibrating reed frequency meter	1 to 9 reeds			
Wattmeter / Varmeter				
Phasemeter		90°	250°	
DC Ammeter	90°		250°	
DC Voltmeter	90°		250°	
Hour meter				
Synchronization equipment				
Double vibrating reed frequency meter	2 x 9 reeds			
Differential voltmeter		90°	250°	
Strengths	NORMEUROPE, the industry reference for the generation, transmission and distribution of electrical energy for severe operating constraints.			

MECHANICAL PRESENTATION

		Deflection	90°			240°	
Format			48 x 48	72 x 72	96 x 96	48 x 48	72 x 72	96 x 96
Mounting and front-panel tightness outside standard [1]								
Panel meter standard: IP 40 front panel Casing: IP 20 360° panel meters: always 4 studs			2 x M2.5 studs	2 x M4 studs	2 x M4 studs	2 x M2.5 studs	2 x M4 studs	2 x M4 studs
Option	Ring fastening	IP 40 front panel	drilling 48 mm	drilling 58 mm	drilling 88 mm	drilling 48 mm	drilling 58 mm	drilling 88 mm
Option	Reinforced fastening + seal	IP 52 front panel	4 x M2.5 studs	4 x M4 studs	4 x M4 studs	4 x M2.5 studs	4 x M4 studs	4 x M4 studs
Option	Watertight (zero reset, front)	+ IP54 front panel seal		4 x M4 studs	4 x M4 studs	4 x M2.5 studs	4 x M4 studs	4 x M4 studs
Option	Watertight (zero reset, front-rear)	+ IP55 product seal		4 x M4 studs	4 x M4 studs	4 x M2.5 studs	4 x M4 studs	4 x M4 studs
Production of non-standard dials (after feasibility approval)								
Dial markings on request			■	■	■	■	■	■
Color markings			■	■	■	■	■	■
Color areas			■	■	■	■	■	■
Black background with white markings			■	■	■	■	■	■
Double scale				■	■	■	■	■

(1) IPXY where X is the level of protection against penetration by solid bodies and Y is the level of protection against penetration by liquids.

DIGITAL PANEL METERS

Industry

FOR THE INDUSTRIAL SECTOR

- Instant mounting without tools
- Quick, simple programming
- Compact design
- Digital processing of the data makes it possible to connect the panel meters to external measuring or supervision systems
- Totally programmable



		µDIGI1	µDIGI2	CA 2150
		Economical programmable range for industrial use		Programmable range for universal use
Front panel format (mm)		24 x 48	48 x 96	48 x 96
Display range (in counts)		-1999/+9999	-1999/+9999	-19999/+19999
Measurement functions	AC ammeter	µDIGI1 E	µDIGI2 E	CA 2150-E
	AC voltmeter	µDIGI1 E	µDIGI2 E	CA 2150-E
	DC ammeter	µDIGI1 E	µDIGI2 E	CA 2150-E
	DC voltmeter	µDIGI1 E	µDIGI2 E	CA 2150-E
	Process signals	µDIGI P/LP	µDIGI2 P	CA 2150-M
	Thermocouple thermometer		µDIGI2 P	CA 2150-M
	Pt 100 thermometer		µDIGI2 P	CA 2150-M
	Potentiometer		µDIGI2 P	CA 2150-M
	Load cell			CA 2150-M
	Frequency meter			CA 2150-D
	Tachometer			CA 2150-D
	Counter			CA 2150-D
	Chronometer			CA 2150-D
Special functions	MIN/MAX			CA 2150-E/D/M
Output(s)	Analog output			Option
	RS232 output			Option
	RS485 output			Option
	Threshold output(s)		Option	Option
User-programmable				

TO ORDER

µDIGI1

Model	Power supply	Reference
µDIGI1-LP	Self-powered (active loop)	P01 330 000
µDIGI1-P	85 - 265 Vac & 100 - 300 Vdc	P01 330 031
	22 - 53 Vac & 10.5 - 70 Vdc	P01 330 032
µDIGI1-E	85 - 265 Vac & 100 - 300 Vdc	P01 330 011
	22 - 53 Vac & 10.5 - 70 Vdc	P01 330 012

µDIGI2

Model	Power supply	Reference
µDIGI2-E	85 - 265 Vac & 11 - 265 Vdc	P01 330 081
µDIGI2-P	85 - 265 Vac & 11 - 265 Vdc	P01 330 080

CA 2150

Model	Power supply	Reference
CA 2150-E	85 - 265 Vac & 100 - 300 Vdc	P01 308 005
	22 - 53 Vac & 10.5 - 70 Vdc	P01 308 006
CA 2150-M	85 - 265 Vac & 100 - 300 Vdc	P01 308 001
	22 - 53 Vac & 10.5 - 70 Vdc	P01 308 002
CA 2150-D	85 - 265 Vac & 100 - 300 Vdc	P01 308 003
	22 - 53 Vac & 10.5 - 70 Vdc	P01 308 004

Cartes option	µDIGI1	µDIGI2	CA 2150
2-relay alarm		P01 319 301	P01 319 301
4-relay alarm			P01 319 303
Com RS 485			P01 319 307
Com RS 232			P01 319 306
4-20 mA output			P01 319 311
0-10 Vdc output			P01 319 310

CURRENT TRANSFORMERS

Energy transmission & distribution | Industry | Energy efficiency

RATE SWITCH INPUT



		Core - Single-phase					
		JVR 86	JVO 40-100	JVO 40-100 S	J3R 80B	JVO 90-160 S	JVS 38B
Type of connection	Wound primary	Ø M8/M10 > 75 A					
	Cable primary (mm)		Ø 42	Ø 40	Ø 66	Ø 90	Ø 63
Accuracy	Accuracy class	0.5	0.5	0.2s	0.5	0.2s	0.2s
	Accuracy power (VA)	20	7.5 (bi-rating) / 15	7.5	15 (5 for 300 A 10 for 400 A)	7.5	10 (7.5 for 1 000 A)
Rating	Single-rating	■*	■		■*		■
	Bi-rating		200 - 500 A	200-500 A			
	Tri-rating					500 - 1,000 - 2,000 A	
Primary	5 / 5 A	■					
	20 / 5 A	■					
	40 / 5 A	■					
	50 / 5 A	■					
	60 / 5 A	■					
	75 / 5 A	■					
	100 / 5 A	■					
	150 / 5 A	■					
	200 / 5 A	■	■	■			
	250 / 5 A						
	300 / 5 A				■		
	400 / 5 A				■		
	500 / 5 A		■	■	■	■	
	600 / 5 A				■		
	750 / 5 A				■		
	800 / 5 A						
	1,000 / 5 A				■	■	■
	1,200 / 5 A						■
	1,250 / 5 A				■		
	1,500 / 5 A				■		■
	2,000 / 5 A					■	■

Also available with 1A secondary. Please contact us.






		Core - Single-phase				Core - Three-phase		
		JVP 1025	JVP 1045	JVP 1045B	JVP 1145 S	TRI 500	TRI 700	TRI 700 S
Type of connection	Cable primary (mm)							
	Cable clamp (cross-section in mm^2)							
Accuracy	Accuracy class	0.5	0.5	0.5	0.2s	0.5	0.5	0.2s
	Accuracy power (VA)	15 (30 for 1,250 A)	15 (30 for 1,000 A)	7.5 (bi-rating) / 15	7.5	15	3.75	7.5
Rating	Single-rating	■	■	■		■		
	Bi-rating			500 - 1,000 A 1,000 - 2,000 A				50-100 A 100-200 A 200-500 A
	Tri-rating				500 - 1,000 - 2,000 A		100 - 200 - 500 A	
Primary	5 / 5 A							
	20 / 5 A							
	40 / 5 A							
	50 / 5 A					■		
	60 / 5 A							
	75 / 5 A					■		
	100 / 5 A					■	■	■
	150 / 5 A					■		
	200 / 5 A					■	■	■
	250 / 5 A							
	300 / 5 A					■		
	400 / 5 A					■		
	500 / 5 A	■		■	■	■	■	■
	600 / 5 A	■	■			■		
	750 / 5 A							
	800 / 5 A							
	1,000 / 5 A		■	■	■			
	1,200 / 5 A							
	1,250 / 5 A	■						
	1,500 / 5 A							
	2,000 / 5 A			■	■			

CURRENT TRANSFORMERS

Tertiary | Industry | Energy efficiency

TCR
Wound primary

TCR / JVS
Cable/busbar primary

JVS
Busbar primary

		TCR10	TCR15	TCR20	TCR22-30	JVS 25B	TCR28-40 JVS 26B ●	TCR43-60 JVS 30B ●	TCR63-80 JVS 38B ●	JVS 39B	JVS 40
Type of connection		0.5 / 1 / 3	0.5 / 1 / 3	0.5 / 1 / 3	0.5 / 1 / 3	0.5 / 1 / 3 0.2s	0.5 / 1 / 3 0.2s	0.5 / 1 / 3 0.2s	0.5 / 1 / 3 0.2s	0.2s	0.2s
Wound primary (connection)		Aperture 25 x 25	Wire 16 mm²								
Cable primary(mm)				Ø 20	Ø 22	Ø 26	Ø 28	Ø 43	Ø 63		
Busbar primary (mm)					25 x 10 30 x 10 20 x 12	20 x 20 25 x 12 30 x 10	20 x 25 30 x 15 40 x 10	50 x 30 60 x 12 12 x 45	50 x 50 60 x 30 80 x 30	3 x 100 x 10	100 x 20
Primary	5 A	■	■								
	10 A	■	■								
	15 A		■								
	20 A		■								
	25 A		■								
	30 A		■								
	40 A			■							
	50 A	■	■	■							
	60 A	■		■							
	75 A	■		■							
	100 A			■	■	■	●				
	125 A	■		■	■	■	●				
	150 A			■	■	■	■ / ●				
	200 A			■	■	■	■ / ●				
	250 A				■	■	■ / ●				
	300 A				■	■	■ / ●				
	400 A				■	■	■ / ●	●	●		
	500 A					■	■ / ●	●	●		
	600 A				■	■	■ / ●	■ / ●	●		
	750 A						●	■ / ●	●		
	800 A						●	■ / ●	●		
	1,000 A							■ / ●	●		■
	1,200 A							■ / ●	●		■
	1,500 A							●	■ / ●	■	■
	2,000 A								■ / ●	■	■
	2,500 A								■ / ●	■	
	3,000 A								■ / ●	■	
	4,000 A									■	
	5,000 A										

TCRO
Split core

TC CLIP
Split core

		JVS 50	JVS 60	TCRO 2030	TCRO6080	TCRO80120	TCRO80160	TCC16	TCC24	TCC24	TCC36	TCC36
Accuracy class		0.2s	0.2s	0.5 / 1 / 3	0.5 / 1 / 3	0.5 / 1 / 3	0.5 / 1 / 3	1	1	0.5	0.5	0.5
Cable primary (mm)												
Passage de câble (mm)								Ø 16	Ø 24	Ø 24	Ø 36	Ø 36
Busbar primary (mm)		100 x 30	125 x 60	20 x 30	60 x 80	80 x 120	80 x 160					
Primary	5 A											
	10 A											
	15 A											
	20 A											
	25 A											
	30 A											
	40 A											
	50 A											
	60 A							■**				
	75 A											
	100 A			■					■**			
	125 A											
	150 A			■								
	200 A			■								
	250 A			■						■**		
	300 A											
	400 A			■	■						■**	
	500 A				■	■						
	600 A				■							■**
	750 A											
	800 A				■	■						
	1,000 A		■		■	■						
	1,200 A					■						
	1500 A	■	■			■	■					
	2000 A	■	■				■					
	2,500 A	■	■				■					
	3000 A	■	■				■					
	4,000 A	■	■									
	5,000 A		■									

** Secondary 1A

AUXILIARY RELAYS

Power generation	Nuclear	Power transmission	Rolling stock	Fixed railway installations	Shipbuilding	Oil industry	Heavy industry
●	*Depending on products*	●	*Depending on products*	●	●	●	●

Monostable

Monostable with forcibly guided contacts

Bistable

Rapide monostable ou bistable

Temporisé

Model	Monostable instantaneous	Bistable (latching)	Forcibly guided contacts	Fast-acting(*)	Time delay	Contacts	In	Notes	Rolling stock equipment (***)	Nuclear
RCM	■					2 CO	10 A	Compact		
RDM	■					4 CO	10 A	Compact		
RGM	■					4 CO	12 A	High breaking capacity (**)		
RMMX	■					8 CO	10 A	Multi-contact, compact		
RMM	■					8-12-20 CO	12 A	High breaking capacity, multi-contact		
POK-POKS	■					2 CO	5-10 A	Compact	●	●
BIPOK-BIPOKS	■					4 CO	5-10 A	Compact	●	●
TRIPOK-TRIPOKS	■					6 CO	5-10 A	Compact	●	
QUADRIPOK	■					8 CO	10 A	Compact	●	
ESAPOK	■					12 CO	10 A	Compact		
OK	■					4-8-12 CO	10 A	High breaking capacity	●	
OKB184	■					4 CO	10 A	High breaking capacity, K3-qualified		●
RE3000	■					4 CO	10 A	K3-qualified		●
FOKB	■					4 CO NC-NO	13 A	High breaking capacity, NF F62-002	●	
RCG	■		■			2 CO	10 A	Forcibly guided contacts, type A, EN61810-3	●	
RDG	■		■			4 CO	10 A	Forcibly guided contacts, type A, EN61810-3	●	
RGG Previous name RGMZX	■		■			4 CO	10 A	High breaking capacity, forcibly guided contacts, type A, EN61810-3	●	
RMGX	■		■			8 CO	10 A	High breaking capacity, forcibly guided contacts, type A, EN61810-3	●	
RGB		■				3-4 CO	12 A	High breaking capacity		
RMBX		■				7-8 CO	10 A	Multi-contact	●	
RMB		■				7-11-19 CO	10 A	High breaking capacity, multi-contact, common negative		
OKBA		■				4-8 CO	10 A	High breaking capacity	●	
RGMVX	■			■		4 CO	10 A	Operating time < 8 ms		
RMMV/X	■			■		8-12 CO	10 A	Operating time < 8 ms for 8 CO < 10 ms for 12 CO		
RGR	■			■		2 CO	2 A	Operating time < 3 ms		

Power generation	Nuclear	Power transmission	Rolling stock	Fixed railway installations	Shipbuilding	Oil industry	Heavy industry
●	*Depending on products*	●	*Depending on products*	●	●	●	●

Modèle	Monostable instantaneous	Bistable (latching)	Forcibly guided contacts	Fast-acting(*)	Time delay	Contacts	In	Notes	Rolling stock equipment (***)	Nuclear
RGMV	■			■		4 (CO or NC)	10 A	Operating time < 8 ms		
RMMV	■			■		8 (CO or NC)	10 A	Operating time < 6 ms		
RMMZ11/13	■			■		8 CO	10 A	Operating time < 13 ms		
RGBV		■		■		4 CO	10 A	Operating time < 10 ms		
RMBV		■		■		8-12 CO	10 A	Operating time < 10 ms		
RGBZ10/11		■		■		3-4 CO	12 A	Operating time < 12 ms		
RMBZ30		■		■		7 CO	10 A	Operating time < 18 ms		
RV LV16	■			■		6 (NO or NC)	5 A	Operating time < 6 ms		
RDT					■	4 CO	10 A	Time delay on pick-up or drop-out		
RDL - RGL					■	2 CO	10 A	Flasher		
RDTE15/16					■	4 CO	10 A	Delay on drop-out, adjustable duration, no Vaux		
RGTO					■	1 CO	5 A	Delay on drop-out, adjustable duration, no Vaux		
TMM					■	4 CO	10 A	Multifunction relay, 10 functions	●	●
TM - TMS Previous name OK-TMF/S					■	4 CO	5-10 A	Time delay on pick-up or drop-out	●	
TOK					■	4 CO	10 A	High breaking capacity, time delay on pick-up or drop-out	●	●
OKR					■	4 CO	5 A	Time delay on pick-up or drop-out	●	
OKT					■	4 CO	5 A	Time delay on pick-up or drop-out	●	
UTM					■	-	-	Static time delay unit	●	
TOK-L					■	4 CO	10 A	High breaking capacity, flasher relay	●	
TOK-FP					■	4 CO	10 A	High breaking capacity, flasher relay	●	
OKRE-L					■	4 CO	5 A	Flasher	●	
OKRE-FP					■	4 CO	5 A	Flasher	●	
CLE					■	4 CO	5 A	Flasher		
RGK			■		■	4 CO	12 A	Forcibly guided contacts, type A, EN61810-3	●	
MOK-V2	■					2 CO	3 A	Measuring relay, voltage	●	

Fast-acting monostable or bistable

Logic function

Time-delay with forcibly guided contacts

Measurement

NOTES

NOTES

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CHAUVIN ARNOUX GROUP

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