



DATAKOM



REMOTE MONITORING



METERING & CONTROL



GENSET PRODUCTS



"Your technology partner **Datakom**,
innovative products, affordable prices."

27
Years

Synchronization Units



D 700 TFT

Tailored for the most demanding applications, the D-700 provides synchronization, load share, mains synchronization, soft transfer, AMF, ATS, Remote Start, Engine control and remote display panel functionalities in a single unit,

Easy commissioning is achieved with the automatic learning feature, a first in the industry.

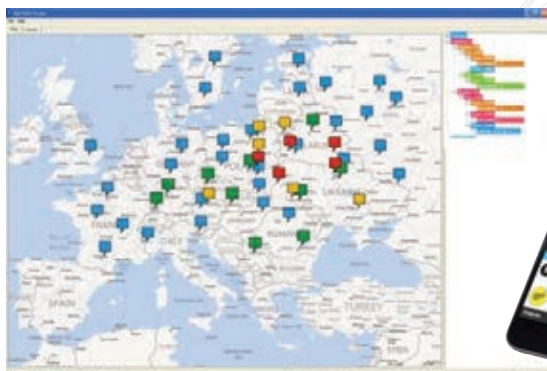
Unequalled communication capabilities allow integration to virtually any management system.

COMMUNICATIONS

- Ethernet (10/100Mb)
- 4-band GPRS modem (optional)
- USB Host & USB Device
- RS-485 (2400-115200baud)
- RS-232 (2400-115200baud)
- Micro SD card slot
- J1939-CANBUS
- Geo-locating through GSM
- GPS support (USB & RS-232)
- Embedded web server
- Web monitoring & programming
- Internet Central Monitoring
- SMS message sending
- E-mail sending
- Free PC software: Rainbow Plus
- Modbus RTU & Modbus TCP/IP
- SNMP

FUNCTIONALITIES

- Multi genset synch & load share
- Mains synchronization
- Single genset parallel with mains
- AMF unit (uninterrupted transfer)
- ATS unit (uninterrupted transfer)
- Remote start controller
- Manual start controller
- Engine controller
- Remote display panel
- Long term data record on flash
- On-board Input&output extension



Multifunctional Units



D 700

The D 700 is a comprehensive genset controller capable of all possible functions and communications.



D 500 - D 500 LITE

The D 500 is a cost effective genset controller ready for BMS integration and internet monitoring



D 300

The D 300 is a cost effective comprehensive genset controller ready for internet monitoring.



D 200

The D 200 is the lowest cost genset controller ready for internet monitoring.

	DKG 105	DKG 109	DKG 207	DKG 307	D 200	D 300	D 500 LITE	D 500	D 700
Voltage Inputs Mains/Genset	3/1	3/1	3/1	3/3	3/3	3/3	3/3	3/3	3/3
Current Inputs Genset/Mains	-/-	1/0	1/0	3/0	3/0	3/0	3/0	3/0	3/3
Digital Outputs	5	6	6	6	5	6	6	8	8
Digital Inputs	2	5	5	7	6	8	8	8	12
Sender Inputs		3	3	4	3	3	3	4	7
J1939 Canbus Port		□		□	□	■	■	■	■
Internal Real Time Clock				■		■	■	■	■
Event Records with Measurements	100	100	100	400	400	400	400	400	400
RS-232 / Logical Serial Port		L	L	■	L	■	■	■	■
RS-485 Serial Port							■	■	■
10/100Mb Ethernet Port								■	■
Internal GSM Modem					□	□	□	□	□
SMS on Fault		■	■	■	■	■	■	■	■
E-mail on Fault					■	■	■	■	■
Embedded Web Site								■	■
MODBUS TCP/IP								■	■
SNMP Communication								■	■

□ Optional

■ Available

AMF Units



DKG 105

DKG 105 automatic mains failure unit is a microprocessor based digital unit offering all functions needed for the automatic control of a genset.



DKG 207

DKG 207 is a comprehensive AMF unit for a single generating set operating in standby mode.



DKG 307

DKG 307 is a comprehensive AMF unit for single genset standby or dual genset mutual standby operations.

The unit operates -40 to +85 degrees C and is tested down to -70 degrees C.

Remote Start Units



DKG 116

DKG 116 is a very low cost, comprehensive unit designed to start and stop a gasoline or diesel generating set both manually and remotely.



DKG 114

DKG 114 is a low cost engine control unit designed to start and stop the engine both manually and remotely.



DKG 317

DKG 317 is a comprehensive generator control unit designed to start and stop the generating set both manually and remotely.

The unit operates -40 to +85 degrees C and is tested down to -70 degrees C.

Manual Synchronization



DKG 217

The DKG-217 is an innovative generator control unit integrating most functions for manually synchronized parallel gensets.

Integrated functions are:

- manual start unit
- remote start unit
- led bargraph synchroscope
- configurable check synch relay



DKG 117

DKG 117 is a microprocessor controlled synchroscope with programmable synch check relay. It monitors the voltage and frequency of 2 independent power networks as well as the instantaneous phase angle between them.

Governor Controllers



DKG 253

The DKG 253 is a low cost electronic governor control unit designed to control the engine speed with fast and accurate response to load changes.

The unit features an adjustable internal overspeed alarm relay with indicating led. This relay provides supplementary speed protection in case of speed control failure.

DC Genset Controller



DKG 379

DKG 379 is an advanced DC genset controller for both variable and fixed speed generating sets.

It is available in 3 different versions, featuring a 7Amp actuator driver and electronic engine drive.

Earthquake Detector Units



DSD 050

Earthquake Gas Shut-off Unit



DSD 060

Industrial Earthquake Relay

Manual Start Units



DKG 110

DKG 110 is a low cost unit providing engine protection functions in a manual generating set control panel.



DKG 151

DKG 151 is a low cost, microprocessor controlled unit designed to start and stop the genset manually using the key switch and pushbuttons on the front panel. It has high power relay outputs enabling it to interface directly with diesel gensets.



DKG 155

DKG 155 is a microprocessor controlled unit designed to start and stop the genset manually using the key switch on the front panel. In the OFF position, the DC supply is removed from the module, thus zero power consumption is achieved.

ATS Controllers



DKG 171

DKG 171 is a low cost, microprocessor controlled unit designed to monitor the 3-phase mains voltages, send remote start command to the generating set and make changeover of both generator and mains contactors. The genset is supposed to be controlled by a Remote Start type control unit.



DKG 173

DKG173 is a DIN Rail mounted ATS controller not requiring DC supply. The unit monitors 3-phase mains voltages, sends remote start command to the generating set and performs changeover of both generator and mains contactors.



DKG 329

DKG 329 is designed to monitor 3-phase mains voltages, send remote start command to generating sets and control the changeover of both generator and mains contactors.

Battery Chargers



SMPS series are fixed output voltage, current limited lead acid battery chargers specially designed for permanent connection to genset starter batteries. They maintain the batteries fully charged, without overcharging or gassing.

SMPS - 123	SMPS - 124 DIN RAIL	SMPS - 125	SMPS - 1210	SMPS - 1210 - D	SMPS - 242 DIN RAIL	SMPS - 243	SMPS - 245	SMPS - 2410	SMPS - 2410 - D
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Voltage	13.7	13.7	13.7	13.7	13.7	27.4	27.4	27.4	27.4	27.4
Current	3	4	5	10	10	2	3	5	10	10

Alternator Voltage Regulators



AVR 4



AVR 8



AVR 20



AVR 40

AVR-4	AVR-5	AVR-12	AVR-20	AVR-8	AVR-380	AVR-40
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Output Current	4A	5A	10A	20A	8A	8A	40A
Min. Input Voltage (V)	190	190	190	190	190	190	190
Max. Input Voltage (V)	260	260	260	260	450	470	450
Max. Output @230V L-N	115	115	115	115	115	200	115
Voltage Adjust Pot	■	■	■	■	■	■	■
External Voltage Adjust	■	■	■	■	■	■	■
Stability Adjustment	■	■	■	■	■	■	■
50 / 60 Hz selection	■	■	■	■	■	■	■
Low Freq. Protection	■	■	■	■	■	■	■
Voltage Adjust Input	■	■	■	■	■	■	■
CT Droop Input					■	■	■
Overload Protection					■	■	■
High Temp. Protection					■	■	■
Input Low Voltage Prot.					■	■	■
Output Current Limit					□		□
Isolated Measuring Input							■

□ Optional ■ Available

Remote Monitoring & Control

RAINBOW SCADA

Rainbow Scada is an internet based universal remote monitoring and control program, flexible enough to integrate all kinds of intelligent control modules, independently of the manufacturer and function.



DKG 090

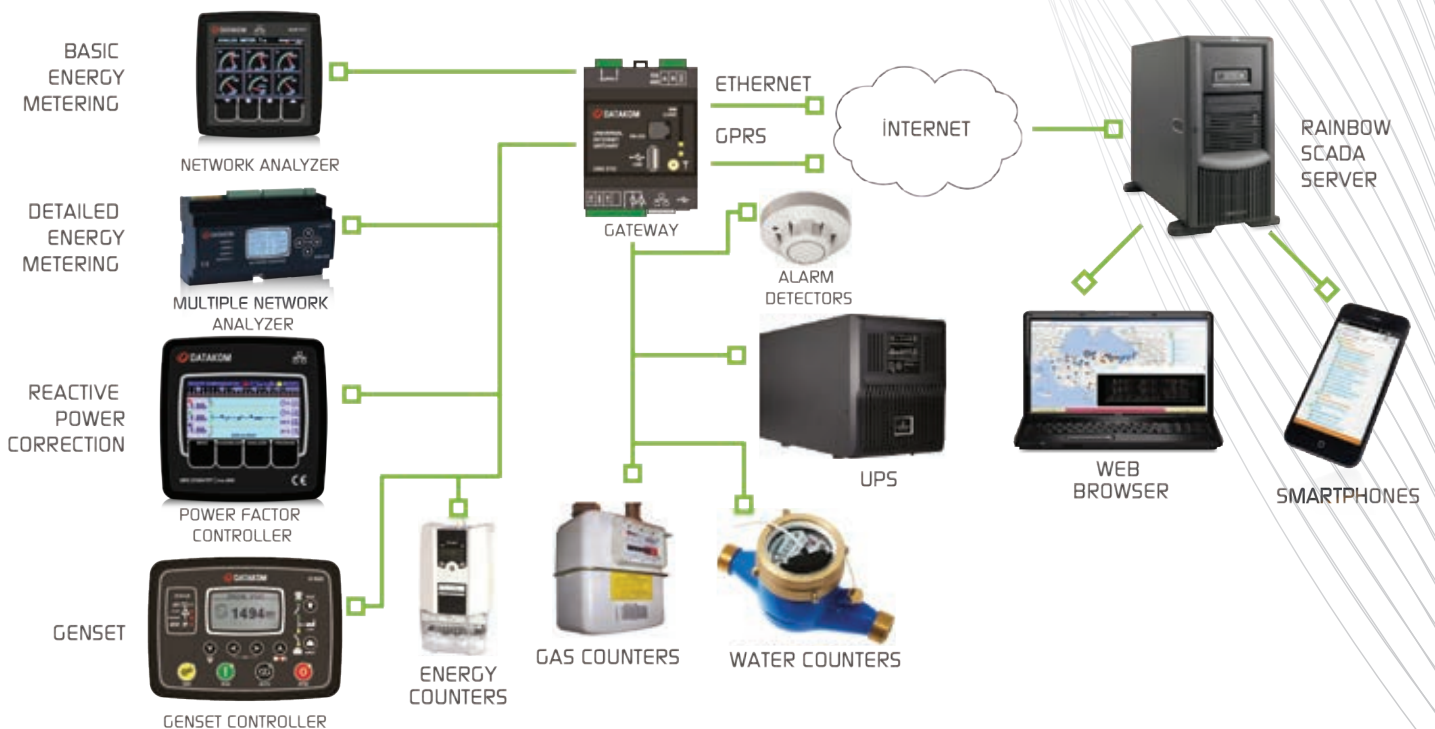
DKG 090 is a 4 band GSM MODEM providing GPRS class 12 communications over any GSM network. It features internet monitoring, SMS and e-mail capabilities for most Datakom modules.



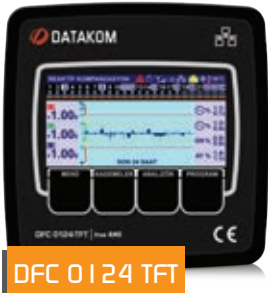
DKG 210

The intelligent DKG 210 module connects any industrial device to the Rainbow Scada remote monitoring and control system, through internet. It supports both Ethernet and GPRS connections.

DATAKOM RAINBOW SCADA REMOTE MONITORING SYSTEM



Power Factor Controllers



DFC 0124 TFT

The DFC 0124 is a flexible 24 step power factor controller, together with unrivalled remote monitoring capabilities over internet in a compact and low cost package. The module offers up to 24 on-board outputs, selectable as contactor or solid-state-contactor drivers. It offers 3 additional phase-controlled inductive drive outputs for the exact matching of the required power factor.



DFC 0124 LCD

The DFC 0124 is a flexible 24 step power factor controller, together with unrivalled remote monitoring capabilities over internet in a compact and low cost package. The module offers up to 24 on-board outputs, selectable as contactor or solid-state-contactor drivers. It offers 3 additional phase-controlled inductive drive outputs for the exact matching of the required power factor.



DFC 0112

The DFC 0112 is a flexible 12 step power factor controller, together with internal GSM modem in a low cost package.



DFC 0108

DFC 0108 is a low cost, 8 steps power factor controller capable of driving both capacitors and inductive reactors.

Phase Controlled AC Drivers



SVC-30

The Datakom SVC series are thyristor based solid state switches for phase controlled switching of inductors used in static power factor compensation where the target power factor is exactly met.

	Rating	Voltage	Reactor Rating	Nominal Current	Automatic Fan
SVC - 05	5kVAr	230 / 400V	3x1.7kVAr	8A	
SVC - 10	10kVAr	230 / 400V	3x3.4kVAr	16A	■
SVC - 20	20kVAr	230 / 400V	3x6.7kVAr	30A	■
SVC - 30	30kVAr	230 / 400V	3x10kVAr	50A	■

Static Switches



SSC-30

The Datakom SSC series are solid state switches for capacitor banks used in power factor compensation. These contactors turn-on at zero voltage difference and turn-off at zero current without inrush currents. They are the most convenient solutions for the compensation of fast varying loads, in the range of 0.05 to 10 seconds.

	Rating	Voltage	Number of Switches	Current
SSC - 05	5kVAr	230 / 400V	3	3x8A
SSC - 10	10kVAr	230 / 400V	3	3x16A
SSC - 15	16kVAr	230 / 400V	3	3x24A
SSC - 30	30kVAr	230 / 400V	3	3x50A
SSC - 50	50kVAr	400V	2	2x80A
SSC - 100	100kVAr	400V	2	2x160A



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Network Analysers



DKM 411

The DKM 411 is an advanced precision metering device offering an 3.5" size colour TFT, together with unrivalled remote monitoring capabilities over internet in a compact and low cost package.

COMMUNICATIONS

- Modbus RTU RS-485
- Modbus TCP/IP
- SNMP
- TCP/IP server
- TCP/IP client
- UDP
- SMTP
- Embedded web server
- Web monitoring
- Web programming
- GSM-SMS sending
- E-mail sending
- Central Monitoring through IP
- Free configuration & monitoring software

MEASUREMENTS

- Phase to phase voltages: U12-U23-U31-Uavg
- Phase to neutral voltages: V1-V2-V3-Vavg
- Phase currents: I1-I2-I3-Iavg-I_{tot}
- Active power: P1-P2-P3-ΣP
- Reactive power: Q1-Q2-Q3-ΣQ
- Apparent power: S1-S2-S3-ΣS
- Power factor: cos1-cos2-cos3-Σcos
- Active power counters: Pc1-Pc2
- Reactive power counters: Qc1-Qc2
- User counters: USR1-USR2-USR3-USR4
- 2...63 Harmonics of any voltage or current
- Phase to neutral voltages vector angles
- Phase to phase voltages vector angles
- Phasor vector diagram



DKM 409

The DKM 409 is a precision instrument designed for displaying various AC parameters in 3-phase distribution panels.

Thanks to its isolated RS-485 Modbus RTU communication port, the device is free from ground potential difference issues and measured parameters are safely transferred to factory and building automation systems. The unit has 2 programmable digital inputs and 2 programmable relay outputs.



DKM 405

The DKM 405 is a low cost 92x92mm precision instrument designed to display various AC parameters in a 3-phase distribution panel. The unit has 1 digital input and 1 programmable relay output.



DKM 401

The DKM 401 is a low cost 92x92mm precision instrument designed to display various AC parameters in a 3-phase distribution panel.

B&W Screen (2.9")	Color Screen (3.5")	RS-485 Modbus	Digital Inputs	Digital Outputs	Analog Outputs	USB Port	Ground Current Input	DC Supply	AC Supply	1 mA Measurement	Record Memory	Real Time Clock	Accuracy %	True RMS	Harmonics	Micro-SD Card	Ethernet	USB Host	External GPRS Modem
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DKM 409 - S	■								■				0,5	■	31				
DKM 409 - S4	■	■							■				0,5	■	31				
DKM 409	■	■	2	2					■				0,5	■	31				
DKM 409 - Pro	■	■	4	2	2	■	■	□	■		1MB	■	0,5	■	31	■			
DKM 409 - Pro - At - AC	■	■	4	2	3	■			■	■	1MB	■	0,5	■	49				
DKM 409 - Pro - At - DC	■	■	4	2	3	■			■	■	1MB	■	0,5	■	49				
DKM 411		■	■	2	2			□	■			■	0,2	■	63	■	■	■	■

Multiple Network Analyser



DKM 430

DATAKOM DKM 430 is a precision instrument allowing the measurement, recording and remote monitoring of 10 3-phased or 30 single-phased feeders (or any combination of these two) in AC distribution panels. The number and flexibility of current inputs allow the unit to be used in a variety of applications like power distribution network monitoring, ISO50001 energy efficiency or home and factory automation.

Transformer Temperature Protection



DPR-145

DPR-145 is a precision unit designed for the temperature protection of dry type or resin filled MV transformers. The unit offers a high degree of protection against electromagnetic disturbances.

It has 4 temperature inputs of PT100 type. Three of them are used for the transformer protection. The fourth input may be used as core temperature protection or ambient temperature monitoring.

Transformer Step Indicator



DPR-165

DPR-165 is a precision instrument designed to indicate transformer step information and temperature. The unit offers a high degree of protection against electromagnetic disturbances. The unit reads resistor values found on step changers of power transformers.

It has also a 0-20mA analog input for the monitoring of transformers equipped with analog step transducers.

Protection Relays



DPR-02 relay is a three-phase (line to neutral) voltage protection relay designed to be used for over-voltage, under-voltage and phase rotation protection in distribution substations, generators, motors, transformers and capacitors in compensation systems



DPR-03 relay is a three-phase (line to line) voltage protection relay designed to be used for overvoltage, under-voltage and phase rotation protection in distribution substations, generators, motors, transformers and capacitors in compensation systems.



DPR-05 relay is a three-phase (line to neutral) voltage asymmetry protection relay designed for electric motor protection. It offers adjustable asymmetry limit together with adjustable trip and reset delays. The unit has also phase sequence protection, phase failure and phase overvoltage protections.



DPR-06 relay is a three-phase (line to line) voltage asymmetry protection relay designed for electric motor protection. It offers adjustable asymmetry limit together with adjustable trip and reset delays. The unit has also phase sequence protection, phase failure and phase overvoltage protections.

Phases
Topology
Low Voltage Protection
High Voltage Protection
Phase Order Protection
Phase Loss Protection
Adjustable Trip Delay
Adjustable Reclose Delay
DIN Rail Mount
Adjustable Voltage Low Limit
Adjustable Voltage High Limit
Asymmetry Protection
6A/277V AC Relay Output
Output Type

[illegible]