Subsidiaries

ARGENTINA
SDMO ARGENTINA S.A.
TEL. +54 11 48363511 - FAX +54 11 48363516

BELGIUM
SDMO NV/SA
TEL. +32 3 646 04 15 - FAX +32 3 646 06 25

BRAZIL
SDMO DO BRASIL
TEL. +55 (11) 4390 8434 - FAX +55 (11) 4390 8434

SPAIN
SDMO INDUSTRIES IBERICA
TEL. +34 902 30 56 56 - FAX +34 93 580 31 36

UNITED STATES
SDMO GENERATING SETS
TEL. +1 305 863 00 12 - FAX +1 305 863 97 81

UNITED KINGDOM
SDMO ENERGY LTD
TEL. +44 (0) 1932 345 777 - FAX +44 (0) 1932 350 033

NIGERIA
SDMO LAGOS
TEL. +234 (0) 1 776 95 95 - FAX + 33 (0) 1 72 27 55 62

Offices

ALGERIA
SDMO ALGER
TEL. +213 21 92 55 84 - FAX +213 21 92 47 76

DUBAI
SDMO MIDDLE EAST
TEL. + 971 50 249 96 94 - FAX +33 1 722 755 75

SDMO Industries - 12 bis rue de la Villeneuve
CS 92 848 - 29 228 Brest Cedex 2 - France
Tel. +33 (0)2 98 41 41 41 - Fax +33 (0)2 98 41 63 07
www.sdmo.com
NEW TELYS

Wholly developed by SDMO, the TELYS is fitted as standard, or as an option, to all our generating sets, to ensure efficient operation and surveillance of your installation. Streamlined and modernised, the new generation TELYS offers new functions in addition to those taken from the previous version. In its basic configuration, it is able to cover 80% of standard applications.

Its new design, directly inspired by the NEXYS, has a reduced number of buttons to offer you simplicity when operating your generating set. More than ever, SDMO has placed the emphasis on the user-friendliness of its product, the particular strength being communication (USB connections, PC connections, control software and remote operation).

SIMPLICITY

The straightforward TELYS interface ensures it is easy to use: a START button, STOP button, MENU button, ESCAPE button and 3 LEDs (operation, alarm and fault). The ridged control wheel makes this interface particularly easy to operate, as it allows you to scroll through the menus and make selections at a single touch. Pictograms ensure that all information given can be immediately understood.

USER-FRIENDLINESS

The TELYS has a large, backlit screen, the contrast for which does not need to be adjusted, making your installation a pleasure to use, whether inside or out, both day and night. The drop down menus and descriptions ensure that no further explanation is needed. The integrated maintenance tool warns you of future servicing requirements and the fault finding aid guides you through any alarms or faults signalled by the TELYS.

MODULARITY

With the same format and design as the NEXYS, the TELYS can be easily fitted in place of the latter. To improve the control of your parameters and increase the potential of your installation, three cards can be connected to the TELYS (Inputs/Outputs, Speed/Voltage trimming, Synchronizing). Certain aftermarket options can also be added to update the product and/or to personalise your generating sets.

COMMUNICATION

The generating set can be controlled and operating parameters viewed remotely, without having to install specific software, via a computer network, a landline telephone network or a mobile telephone network. The USB ports ensure that it is easy to recover any events connected to the operation of the generating sets, to change parameters or to update the software. Also, the TELYS is multilingual as standard and can also take some special languages as an option (Arabic, Chinese, Russian)

(1) available from 2007 semester 1
(2) available from 2007 semester 2

PRESENTATION

The TELYS is fitted as standard, or as an option, to all SDMO generating sets in the POWER PRODUCTS and RENTAL POWER ranges.

Types of control unit | TELYS
--- | ---
POWER PRODUCTS
PACIFIC range (T7.5 to T44) | ○
MONTANA range (J33 to J300) | (1)
MONTANA range (J400 to J440) | ○
ATLANTIC range (V200 to V220) | ○
ATLANTIC range (> V220) | (2)
EXEL range | ○
PACIFIC range (T1250 to T12100) | ○
RENTAL POWER
From 16 to 275 kVA | ○
From 330 to 700 kVA | (1)

○ Option
• Basic

COMPLIANCE WITH STANDARDS

The TELYS has been developed following a process which exacts the highest quality. It complies with all major European, American and International standards and directives:
- Electromagnetic Compatibility (EMC) general standards: EN 61000-6-2 and EN 61000-6-4 (emission and protection)
- LOW VOLTAGE standards
- Salt spray test performance: In accordance with standard EN68011-2-11
- Protection index of a TELYS mounted to a console: IP31 with the soft USB port protective cover fitted (according to EN 60529)
- UL and CSA standards

In addition, the TELYS does not fall under the remit of directives 2002/95/CE and 2002/96/CE, which relate to Electrical and Electronic Equipment (DEEEE).
PRESENTATION OF THE MMI
(Man-Machine Interface)

The TELYS screen does not need any contrast adjustment and can be easily read at all levels of ambient light.

PRESENTATION
The large personalised TELYS screen makes different information easy to read (pictograms, measurements and messages). Its backlight design gives it a contrast that is adapted to all types of ambient light. The section with graphics is split into four zones:

ZONE 1
Zone 1 informs the user of the generating set operating mode
1. Manual or automatic mode
2. Generating set operating - Voltage and frequency stable
3. Generating set powered by the installation (flashing arrows)
4. Network synchronizing or synchronising between generating sets (option) (2)
5. Maintenance indicator (1)

ZONE 2
In zone 2, the function pictograms are displayed: measurements, alarms or faults
1. Fuel level
2. Coolant temperature and level
3. Battery voltage and charge
4. Oil pressure, temperature and level
5. Emergency stop
6. Overload
7. Failure to start, underspeed and overspeed
8. Engine speed

ZONE 3
In zone 3, the electrical and mechanical values and the associated units of measurement are shown.

ZONE 4
The menus and messages connected to the operation of the generating set are found in zone 4.
**COMPONENTS**

**MICS TELYS**

The standard version of the TELYS consists of a main board and an MMI. This board is available in two versions, to ensure that all types of engines (electronic, traditional or mixed engines) can be managed.

**FUNCTIONS**

**STANDARD SPECIFICATIONS**

**ENGINE MEASUREMENTS**

- Single voltages
- Composite voltages
- Frequency
- Active/reactive/apparent power
- Power factor
- Total and partial counter
- Total and partial active/reactive energy meter
- Currents

**SAFETY FEATURES**

- Fuel level
- Oil pressure
- Coolant temperature
- Oil temperature
- Battery voltage
- Coolant temperature
- Overload
- Underspeed

**MAIN OPTIONS**

- CM402: Pre-wiring for auto start-up
- CM403: Automatic Pack (Charger (12V) + Engine preheating)
- CM404: Automatic Pack (Charger (24V) + Engine preheating)
- CM405: Report pack (Genset running, General fault, Low diesel level fault or alarm)
- CM406B: Adjustable mains detection in the control unit
- CM407: Analog values displayed on screen (PH-TE)
- CM408: Remote starter unit
- CM409: Battery ammeter
- CM410(1): Voltage trimming
- CM411(1): Speed trimming (if elec regulator is possible and selected)
- CM412: Sound alarm fitted in the control unit
- CM415: Safety feature for low coolant level
- CM416: Low fuel level safety feature for diesel tank (Alarm as standard)
- CM418: Differential protection 30 or 300 mA (Non adjustable <= 50 A)
- CM419: Differential protection 30 or 300 mA (Non adjustable <= 125 A)
- CM420: Adjustable differential protection (time & threshold)
- CM421: Differential protection 30 or 300 mA (Non adjustable <= 125 A)
- CM422: Differential protection 30 or 300 mA (Non adjustable <= 125 A)
- CM423: Differentiated triggered fault
- CM424: Battery ammeter
- CM425: Charging alternator current
- CM426: Engine speed

**OPTIONAL CARDS**

- USB HOST PORT - For connecting a USB key
- ETHERNET PORT - For connection to a modem or for working on the intranet
- RS 485 PORT - For specialised communication

**EXTERNAL COMMUNICATION**

- Remote control via local ETHERNET network or RS485 Mod Bus
- Remote control via PSTN fixed telephone network
- Remote control via GSM mobile telephone network

**INFORMATION REPORT**

- CE100: Fixed distance report pack (Genset running, General fault, Low fuel level fault or alarm)
- CE200: Configurable distance report pack (6 report maximum)
- CE210: Genset CN
- CE220: Genset in automatic mode
- CE230: Genset in non-automatic mode
- CE240: Genset in manual mode
- CE250: Genset in test mode
- CE260: Genset stopped
- CE270: General fault
- CE280: Non-faulting fault
- CE290: Oil pressure fault
- CE300: Water temperature fault
- CE310: Low water level fault
- CE320: Overspeed fault
- CE330: Alternator voltage fault
- CE340: Overload fault
- CE350: Emergency stop triggered fault
- CE360: Bulk tank fault (Separate tank)
- CE370: Differentiated triggered fault
- CE380: Fuel level low for exterior tank fault
- CE390: General alarm
- CE400: Loss of coolant preheating alarm
- CE410: Battery voltage alarm
- CE420: Battery charger fault alarm

**SAFETY FEATURES**

- Min/Max Alternator voltage
- Min/Max Battery voltage
- Overload and/or short circuit
- Active/reactive power return
- Oil pressure
- Coolant temperature
- Overload
- Underspeed

**PRODUCT PLUS**

- 5 Basic languages: French, English, German, Spanish, Portuguese (Arabic, Chinese and Russian optional(1))
- Integrated software accessible via an internet browser, enabling certain parameters to be modified, TELYS data to be displayed, and the genset to be remotely controlled (2)
- Integrated maintenance tool displaying future servicing requirements (1)
- Integrated fault finding tool aiding the user in the event of any alarms and/or faults
- Ability to send e-mail, SMS or fax in the event of any alarms or faults (optional(1))
- Optional tropicalisation of the cards (to provide protection in extremely humid conditions)
- Operation at -20°C to +60°C
- Humidity: 95% at 45°C, 70% at 50°C, 50% at 60°C
- Different levels of access to the configuration parameters

(1) available from 2007 semester 1
(2) available from 2007 semester 2

(1) available from 2007 semester 1
(2) France only