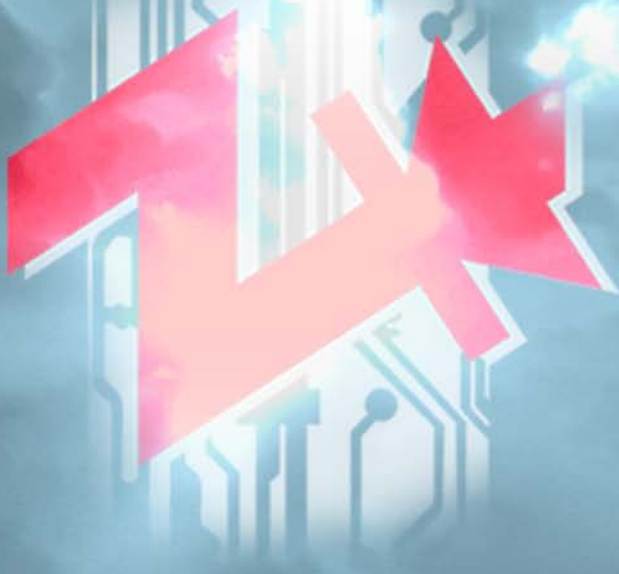


TECNOELETTRA
INNOVATION IS OUR PASSION



CATALOGUE 2015
ENERGY





YOUR PARTNER IN **ENERGY** SOLUTION

FIREFIGHTING



ENERGY



HYDRIC



TECNOELETTRA was founded in 1985 as a manufacturer of low voltage control panels, electronic relays and controllers for pumps and generators, Since the beginning Tecnoelettra always innovate using creative solution, new design and new electronic technology to develop new concepts for standard industrial generator panels well known today by the most important European generator's manufacturers .

DESIGN & QUALITY

New design concepts and high quality products are the heart of the entire development and production process at Tecnoelettra. Products are developed to meet the requirements of very competitive market and worldwide availability with high performance products and available worldwide . Therefore only with high qualified human resource with large experience in different fields together can develop products for a worldwide application.

MISSION

Our mission is always to provide to our customers and partners products solution with innovation, high performance and quality using the best technology available in the market for a more efficient and competitive users solution.





SECTOR: ENERGY

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TECNOELETTRA
SINCE 1985

AMF PANELS

Tecnoelettra's AMF Panels range is from 25A to 3200A.

Can be configured according to customer needs

with two different control solutions:

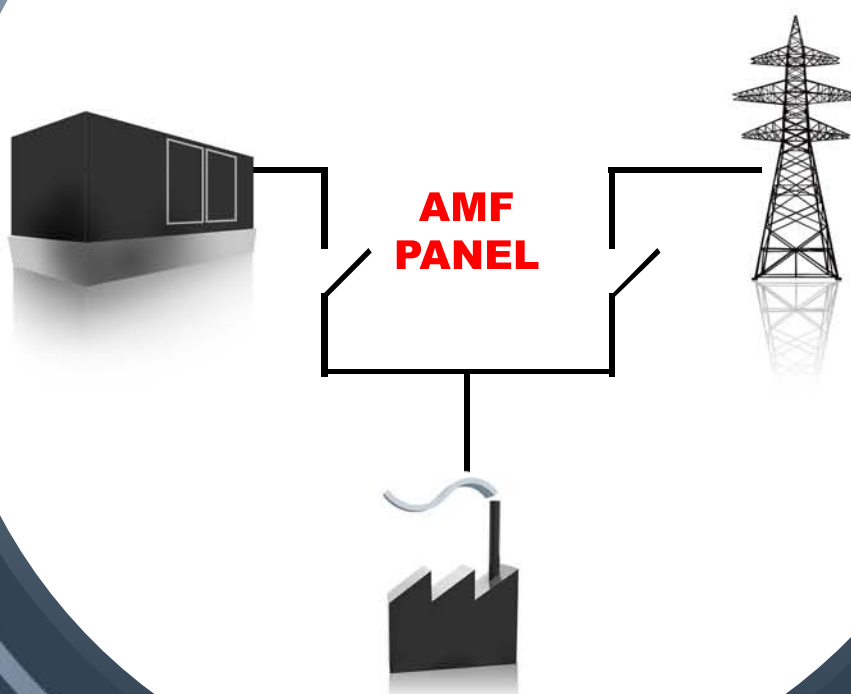
TE806: 1 Ph Control Mains / Group

TE809A: Check 3 Ph Mains / Group

and remote management software by SMS and PC.

Switching contactors up to 135A

Motorized switch from 100A to 3200A



AA-AT206 / AA-AT206B

AUTOMATIC PANELS FOR GENERATOR (AMF)

from 25A to 60A



TE806 CONTROLLER

- Control of single-phase mains
- Control of single-phase generator
- Display 4-digit 7-segment
- 9 function buttons
- 15 indications led
- 16 alarms and protections
- 5 electrical measurements
- 7 digital inputs
- 7 relay outputs

DATI TECNICI

- Work temperature:
-20 +50°C
- Power range:
9 - 17Vdc
- Frequency range:
45 - 65Hz
- Voltage range:
50 - 500Vac
- Accuracy measures:
+/- 5% +/- 1 digit
- Protection IP20

KEY FEATURES

- ★ Reliability guaranteed by more than 30,000 units sold
- ★ 2 years warranty
- ★ Exclusive design
 - Quality and robust materials
 - Large space for easy connection of the power cables and engine
 - Control phase voltmeter Mains / Generator
 - EJP
 - Automatic choke management to assure cold start of gasoline engines with any weather
 - Easy battery charger, functional for a battery always efficient
 - Programmable Automatic Test
 - Display to visualize all electrical measurements and alarms
 - Indications Led for operating status
 - Overload protection
 - RS232 for quick programming key with which to download different setup

STANDARD COMPOSITION

- Metal case 15/10 powder coated epoxy RAL7035
- Cover made of injection mold, material plastic type PPVO, flame retardant and resistant to weathering
- 3 Auxiliary circuits with fuses
- 2 Contactors switching Mains - Generator interlocked electrically and mechanically
- 1 Maintainer automatic battery charger 800mA
- 1 Controller TE806
- 1 Emergency button (ONLY VERSION AA-AT206)
- 1 Buzzer Alarm (ONLY VERSION AA-AT206)
- 1 Current transformer (ONLY VERSION AA-AT206)

AA-AT206							
A	400Vac-3ph+N	230Vac-3Ph+N	230Vac 1ph		Vdc	Dimension	Code
	kVA	kVA	A	kVA		A x L x P	
25	17	10	40	9	12	420 x 275 x 180	AA-AT20617
40	28	16	64	15	12	420 x 275 x 180	AA-AT20628
60	42	24	96	22	12	420 x 275 x 180	AA-AT20642
AA-AT206B							
A	400Vac-3ph+N	230Vac-3Ph+N	230Vac 1ph		Vdc	Dimension	Code
	kVA	kVA	A	kVA		A x L x P	
25	17	10	40	9	12	420 x 275 x 180	AA-AT206B17
40	28	16	64	15	12	420 x 275 x 180	AA-AT206B28
60	42	24	96	22	12	420 x 275 x 180	AA-AT206B42

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AA-AT207

AUTOMATIC PANEL FOR GENERATOR (AMF)

from 25A to 160A



from 100A to 160A

up to 60A



CONTROLLER TE809A DESCRIPTION

- Three-Phase Control Mains and Generator
- TRMS high precision measures
- Graphical display 128x64 pixels
- Customizable display with customer logo
- 8 function buttons + navigation drive
- 10 indication leds
- 5 programmable digital inputs
- 3 analog / digital inputs programmable
- 6 programmable static outputs
- 2 relay outputs
- RS232 and RS485 serial ports
- Function EJP
- Timer Start / Stop for programming start and stop, daily or weekly
- 4 Languages on board
- Possibility of connection with expansion boards TE6010, with programmable I / O (both analog and digital) and relay outputs

KEY FEATURES

- ★ Voltmetric three-phase control Mains / Generator
- ★ All measurements of voltage and current in a single page
- ★ 3 analog inputs to measure engine temperature, oil pressure, fuel level
- ★ CANBUS J1939 communication
- ★ RS232 and RS485 independents serial ports for remote monitoring via GSM modem and Ethernet converter with software TE MONITOR
- ★ Remote monitoring and control via SMS by Smartphone & Tablet with application TE REMOTE SMS
- ★ Inputs and output totally programmable
- ★ Events log with 250 storable events
- ★ 2 years warranty from the real date of installation, automatically detected by the controller
 - Exclusive design
 - Compact size
 - Easy to use
 - Smart Start: Real control of batteries status, for a safe start
 - Wide range of programming Mains/Generator thresholds, independent from each other
 - Control and visualization of real energy consumption

STANDARD COMPOSITION

- Metal case with ABS front and transparent cover to protect the controller
- Emergency button LED backlighting
- Buzzer
- Fuses
- 1 Cable gland d23mm
- 3 Cable gland d29mm
- Automatic battery charger 2A - 12Vdc
- Load current transformer
- Power connections terminals
- Engine connections terminal
- AMF + ATS Controller TE809A
- Motorized Switch Mains / Generator (from 100A to 160A)
- 2 Switching contactors Mains / Generator interlocked both electrically and mechanically (up to 60A)

TECHNICAL DATA

- Work temperature: -30 +70°C
- Power range: 8-35Vdc
- Frequency range: 45 - 65Hz
- Voltage range: 50 - 500Vac
- Accuracy measures: +/- 1% +/- 1 digit
- Protection IP20

AA-AT207							
A	400Vac 3ph+N	230Vac-3ph+N	230Vac 1ph		Vdc	Dimension	Code
	kVA	kVA	A	kVA		A x L x P	
25	17	10	40	9	12	298 x 381 x 165	AA-AT2074025
40	28	16	64	15	12	298 x 381 x 165	AA-AT2074040
60	42	24	96	22	12	298 x 381 x 165	AA-AT2074060
100	70	40			12	600 x 408 x 210	AA-AT2074100
160	110	63			12	600 x 408 x 210	AA-AT2074160

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AA-AT809A

AUTOMATIC PANEL FOR GENERATOR (AMF)

from 25A to 3200A



CONTROLLER TE809A DESCRIPTION

- Three-Phase Control Mains and Generator
- TRMS high precision measures
- Graphical display 128x64 pixels
- Customizable display with customer logo
- 8 function buttons + navigation drive
- 10 indication leds
- 5 programmable digital inputs
- 3 analog / digital inputs programmable
- 6 programmable static outputs
- 2 relay outputs
- RS232 and RS485 serial ports
- Function EJP
- Timer Start / Stop for programming start and stop, daily or weekly
- 4 Languages on board
- Possibility of connection with expansion boards TE6010, with programmable I / O (both analog and digital) and relay outputs

KEY FEATURES

- ★ Voltmetric three-phase control Mains / Generator
- ★ All measurements of voltage and current in a single page
- ★ 3 analog inputs to measure engine temperature, oil pressure, fuel level
- ★ CANBUS J1939 communication
- ★ RS232 and RS485 independents serial ports for remote monitoring via GSM modem and Ethernet converter with software TE MONITOR
- ★ Remote monitoring and control via SMS by Smartphone & Tablet with application TE REMOTE SMS
- ★ Input and outputs totally programmable
- ★ Events log with 250 storable events
- ★ 2 years warranty from the real date of installation, automatically detected by the controller
 - Exclusive design
 - Compact size
 - Easy to use
 - Smart Start: Real control of batteries status, for a safe start
 - Wide range of programming Mains/Generator thresholds, independent from each other
 - Control and visualization of real energy consumption

STANDARD COMPOSITION

- Metal case IP55 RAL 7035
- Switch power in two different solutions:
 - Interlocked contactors up to 135A
 - Motorized switches 160A to 3200A
- 1 Automatic battery charger
- 1 Alarm buzzer
- 10 protection fuses auxiliary circuits
- 1 Internal terminal for connecting auxiliary engine and special functions
- 1 terminal block for power connection up to 111kVA (copper bar from 173kVA to 2214kVA)
- 1 switch 1Ph + N engine preheating 230Vac / 10A
- 1 Key on / off
- 3 Amperometric transformer
- 1 Emergency button
- 1 TE809A controller

TECHNICAL DATA

- Work temperature: -30 +70°C
- Power range: 8-35Vdc
- Frequency range: 45 - 65Hz
- Voltage range: 50 - 500Vac
- Accuracy measures: +/- 1% +/- 1 digit
- Protection IP20

THE BEST QUALITY IN EVERY DETAILS



AA-AT809A					
A	400V 3ph+N	kVA 230V 3ph+N	Vdc	Dimension	Code
	kVA	kVA		H x W x D	
with contactors					
25	17	10	12	600-400-250	AA-AT809AT400017
40	28	16	12	600-400-250	AA-AT809AT400028
60	44	24	12	600-400-250	AA-AT809AT400042
80	55	32	12	750-500-250	AA-AT809AT400055
100	70	40	12	750-500-250	AA-AT809AT400070
135	93	54	12	750-500-250	AA-AT809AT400093
160	111	64	24	1000-600-250	AA-AT809AT400111B
with motorized changeover switch					
250	173	99	24	1000-600-250	AA-AT809ATY40173B
400	277	159	24	1000-600-450	AA-AT809ATY40277B
630	436	251	24	1000-600-450	AA-AT809ATY40436
800	554	318	24	1000-600-450	AA-AT809ATY40554
1000	692	398	24	1800-800-600	AA-AT809ATY40692
1250	865	497	24	1800-800-600	AA-AT809ATY40865
1600	1107	637	24	1800-1000-800	AA-AT809ATY41107
2000	1384	796	24	2000-1000-800	AA-AT809ATY41384
2500	1730	995	24	2000-1000-800	AA-AT809ATY41730
3200	2214	1273	24	2000-1000-800	AA-AT809ATY42214

NOTE: for panel version with circuit breaker please contact: sales@tecnoelettra.it



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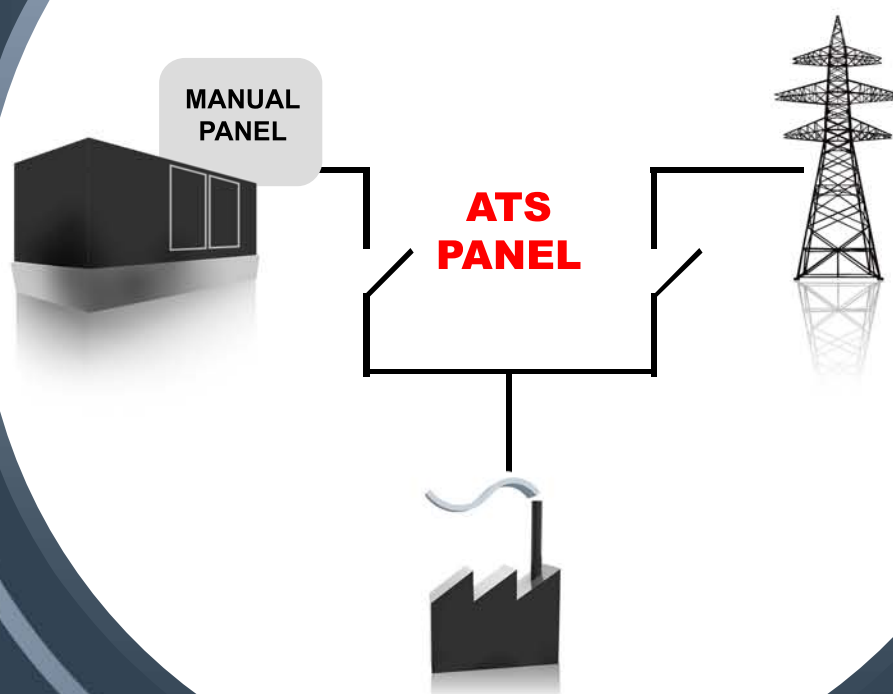
ATS PANELS

Tecnoelettra's ATS panels range is from 25A to 3200A.
Can be configured according to customer needs
with 3 different control solutions:

ATS-E: No control voltage

ATS-I: Control of three-phase voltage Mains / Generator

ATS207: Control of three-phase voltage Mains / Generator
and remote management software by SMS and PC





KEY FEATURES

- ★ **2 years warranty**
- ★ **Made with high quality nickel-plated copper bar**
 - Command switching by remote signal
 - Switching from manual key switch
 - Indications led for visualize:
 - State Switching
 - Engine running
 - Generator in alarm

STANDARD COMPOSITION

- Metal case RAL 7035
- Switching Mains / Generator with contactors up to 135A and with motorized switches from 250A to 3200A
- Power cable up to 160A
- Copper bar power from 160A to 3200A
- Auxiliary contact
- Fuses
- Controller ATS-E:
 - Box in ABS 96x96
 - Key switch for manual management of the Mains / Generator switching

TECHNICAL DATA

- Work temperature: -30 +70°C
- Protection IP55

CONTROLLER ATS-E DESCRIPTION

- Switching from manual key switch
- Automatic switching from external contact
- Indications led
- Dimensions: 96 x 96 mm
- Contact rating key switch: 4 Amp 230Vac
- Inputs for indications switching Mains side (LR) and Generator (LG): 230-400Vac
- Inputs for LED engine running (LM) and LED Alarm (LA): 12-24Vdc

ATS-E				
A	400Vac 3ph+N	230Vac 3Ph+N	Dimension	Code
	kVA	kVA	A x L x P	
with contactors				
25	17	10	500-400-200	103EGH40017
40	28	16	500-400-200	103EGH40028
60	42	24	500-400-200	103EGH40042
80	55	32	500-400-200	103EGH40055
100	70	40	500-400-200	103EGH40070
135	93	54	500-400-200	103EGH40093
160	111	64	800-600-300	103EGH40111
with motorized changeover switch				
250	173	99	800-600-300	103EATY40173
400	277	159	1000-600-450	103EATY40277
630	436	251	1000-600-450	103EATY40436
800	554	318	1000-600-450	103EATY40554
1000	692	398	1600-800-600	103EATY40692
1250	865	497	1600-800-600	103EATY40865
1600	1107	637	1800-1000-800	103EATY41107
2000	1384	796	1800-1000-800	103EATY41384
2500	1730	995	2000-1000-800	103EATY41730
3150	2180	1253	2000-1000-800	103EATY42214



KEY FEATURES

- ★ **2 years warranty**
- ★ **Made with high quality nickel-plated copper bar**
- ★ **Grafic Display 128 x 64 pixel to visualize:**
all measures, all alarms and the operating status
- ★ **Start and stop by buttons**
 - Voltmetric three-phase control Mains / Generator
 - Automatic switching
 - Manuale switching by buttons
 - Frequency phases control
 - Keyboard lock

STANDARD COMPOSITION

- Metal case RAL 7035
- Switching Mains / Generator with contactors up to 135A
and with motorized switches from 250A to 3200A
- Power cable up to 160A
- Copper bar power from 160A to 3200A
- Auxiliary contact
- Fuses
- Controller ATS-I

TECHNICAL DATA

- Work temperature: -20 +70°C
- Protection IP55
- Power range: 8-35 Vdc
- Frequency range: 45 - 65 Hz
- Voltage range: 50-500 Vac
- TRMS measurements accuracy: +/- 2%

CONTROLLER ATS-I DESCRIPTION

- Box in ABS 96x96
- Remote Start / Stop output
- Three-phase mains control
- Three-phase generator control
- 2 relay outputs to control contactors Mains / Generator
- 6 Electrical measures
- 7 Operating status informations
- 5 Mains alarms
- 5 Generator alarms
- 8 function buttons
- Backlight display 128x64 pixel

ATS-I				
A	400Vac 3ph+N	230Vac 3Ph+N	Dimension	Code
	kVA	kVA	A x L x P	
with contactors				
25	17	10	500-400-200	103IGH40017
40	28	16	500-400-200	103IGH40028
60	42	24	500-400-200	103IGH40042
80	55	32	500-400-200	103IGH40055
100	70	40	500-400-200	103IGH40070
135	93	54	500-400-200	103IGH40093
160	111	64	800-600-300	103IGH40111
with motorized changeover switch				
250	173	99	800-600-300	103IATY40173
400	277	159	1000-600-450	103IATY40277
630	436	251	1000-600-450	103IATY40436
800	554	318	1000-600-450	103IATY40554
1000	692	398	1600-800-600	103IATY40692
1250	865	497	1600-800-600	103IATY40865
1600	1107	637	1800-1000-800	103IATY41107
2000	1384	796	1800-1000-800	103IATY41384
2500	1730	995	2000-1000-800	103IATY41730
3200	2214	1253	2000-1000-800	103IATY42214



CONTROLLER TE809ATS DESCRIPTION

- Automatic and manual switching Mains / Generator
- Three-phase control Mains / Generator
- TRMS high precision measures
- Grafich display 128x64 pixel
- Customizable display with customer logo
- 6 tasti funzione + Drive di navigazione
- 10 indications led
- 5 programmable digital inputs
- 6 programmable static outputs
- 2 relay outputs
- Serial ports RS232 and RS485
- EJP functions
- Start / Stop timer for programmable working mode, daily and weekly
- 4 Languages on board
- Possibility to connect with expansion boards TE6010, for programmable I/O (analogic and digital) and relay output

KEY FEATURES

- ★ The first ATS controller that permit you to visualize all engine measures, connected to TE809G by RS485
- ★ RS232 and RS485 independents serial ports for remote monitoring via GSM modem and Ethernet converter with software TE MONITOR
- ★ Remote monitoring and control via SMS by Smartphone & Tablet with application TE REMOTE SMS
- ★ Inputs and output totally programmable
- ★ Events log with 250 storable events
- ★ Big graphic display 128x64 pixel customizable with customer logo
- ★ 2 years warranty from the real date of installation, automatically detected by the controller
- Exclusive design
- Compact size
- Easy to use
- Remote start with changeover management even with mains presence (EJP)
- Start / Stop timer for programmable working mode
- Management for three-phase (with or without neutral), two-phase or single-phase systems

STANDARD COMPOSITION

- Metal case IP55 RAL7035
- Changeover and contactors switching Mains / Generator
- Predisposition for automatic battery charger
- Alarm buzzer
- 7 Auxiliary circuit protection fuses
- Terminal for power connection
- Controller TE809-ATS

TECHNICAL DATA

- Work temperature : -30 +70°C
- Protection IP65
- Power range: 8-35 Vdc
- Voltage range: 50-500 Vac
- Accuracy measures: +/- 1% +/- 1 digit

ATS-809				
A	400Vac 3ph+N	230Vac 3ph+N	Dimension	Code
	kVA	kVA	H x W x D	
with contactors				
25	17	10	298 x 381 x 165	809ATSGH40017
40	28	16	298 x 381 x 165	809ATSGH40028
60	42	24	298 x 381 x 165	809ATSGH40042
80	55	32	500-400-200	809ATSGH40055
100	70	40	500-400-200	809ATSGH40070
135	93	54	500-400-200	809ATSGH40093

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TECHNICAL DATA

- Work temperature : -30 +70°C
- Protection IP65
- Power range: 8-35 Vdc
- Voltage range: 50-500 Vac
- Accuracy measures: +/- 1% +/- 1 digit
- 4 - 2A Static outputs
- 2 - 6A Static outputs

KEY FEATURES

- ★ The first ATS controller that permit you to visualize all engine measures, connected to TE809G by RS485
- ★ RS232 and RS485 independents serial ports for remote monitoring via GSM modem and Ethernet converter with software TE MONITOR
- ★ Remote monitoring and control via SMS by Smartphone & Tablet with application TE REMOTE SMS
- ★ Inputs and output totally programmable
- ★ Events log with 250 storable events
- ★ Big graphic display 128x64 pixel customizable with customer logo
- ★ 2 years warranty from the real date of installation, automatically detected by the controller
- Exclusive design
- Compact size
- Easy to use
- Remote start with changeover management even with mains presence (EJP)
- Start / Stop timer for programmable working mode
- Management for three-phase (with or without neutral), two-phase or single-phase systems

STANDARD COMPOSITION

- Metal case IP55 RAL7035
- Changeover and contactors switching Mains / Generator
- Predisposition for automatic battery charger
- Alarm buzzer
- 7 Auxiliary circuit protection fuses
- Terminal for power connection
- Controller TE809-ATS

A	400Vac 3ph+N	230Vac 3ph+N	Dimension	Code
	kVA	kVA	H x W x D	
with changeover motorized switches				
250	173	99	800-600-300	ATS-AT207ATY40173
400	277	159	1000-600-450	ATS-AT207ATY40277
630	436	251	1000-600-450	ATS-AT207ATY40436
800	554	318	1000-600-450	ATS-AT207ATY40554
1000	692	398	1600-800-600	ATS-AT207ATY40692
1250	865	497	1600-800-600	ATS-AT207ATY40865
1600	1107	637	1800-1000-800	ATS-AT207ATY41107
2000	1384	796	1800-1000-800	ATS-AT207ATY41384
2500	1730	995	2000-1000-800	ATS-AT207ATY41730
3200	2214	1253	2000-1000-800	ATS-AT207ATY42214

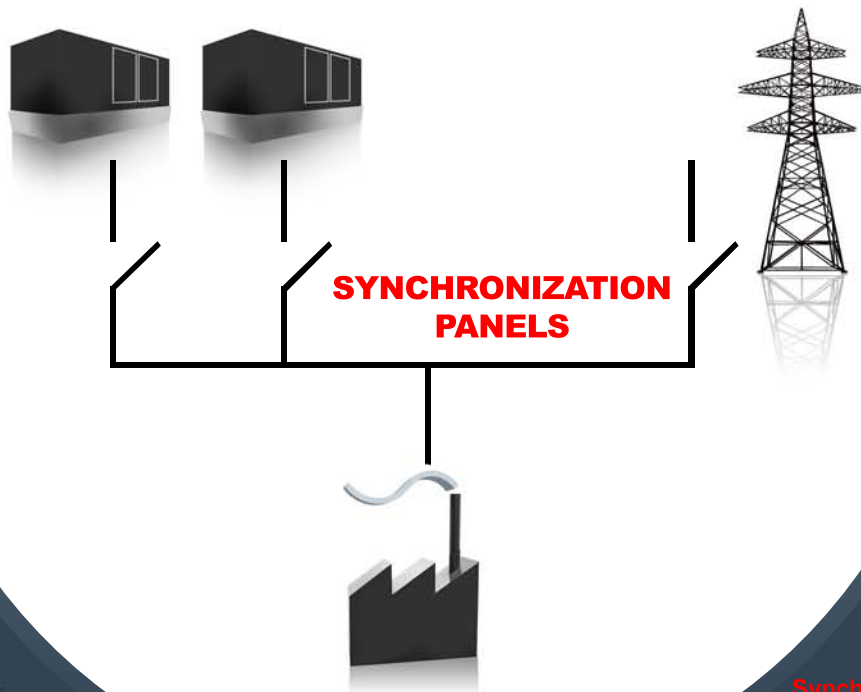


SYNCHRONIZATION PANELS

Tecnoelettra is specialized company on development and manufacture of Synchronization panels for generators and generator and Mains Network. Our standard ratings of synchronizations panels goes from 160A to 4.000A on 400Vca, 50/60Hz. We also manufacture Medium voltage panels up to 24kV under request.

Synchronization between generators

- Load sharing with or without automatic start management of generators basis on load demand
- Timer control Synchronization without energy interruption to the load



Synchronization between Generator and Mains network

- Simultaneous energy supply to load
- Cogeneration to the Mains Network
- Automatic start of generator on Mains fault with synchronization on Mains return
- Peak shaving – automatic start on load request
- Synchronization between generators and Mains using external ATS control

QP808

AUTOMATIC SYNCHRONIZING PANEL FOR ONE GENERATOR

from 160A to 1250A



PANEL STANDARD COMPOSITION

- Metal box black color painting with epoxy powder supplied with standings for basement mounting
- One thermomagnetic motorized circuit breaker with release tripping coil
- Copper nickel-plated bus bar connection for generator power cables
- Copper nickel-plated bus bar connection for load power cables
- Automatic battery charger
- Auxiliary protection fuses
- Acoustic alarm
- Emergency pushbutton
- Two metal multipole connectors for auxiliary engine connections
- Two metal multipole connectors for communication between several generators
- Two standing legs for basement mounting
- Synchronizing controller TE808 Platinum

DESCRIPTION

The Panel series QP808 has small dimension and designed for a genset basement mounting, easily and fast connection including the generator motorized thermomagnetic circuit breaker and all commands and control of synchronization. A specific multipole connector allows a fast connection of multiple synchronization of generators up to 30 units.

KEY FEATURES

- ★ Maximum vibration resistance , HAL Test approved up to 30G
- ★ Engine canbus J1939
- ★ Two independent serial interface RS232 and one RS485 for remote control management through Modem GSM/GPRS and Ethernet converter with TE-Monitor software
- ★ Help page for easy commissioning with status of input and outputs
- ★ Self-Learning function for easy setup of RPM and AVR regulators
- ★ Large graphic display 320x240 pixels with plant working synoptic and all generator and Mains measures
- ★ Real time clock calendar with battery backup
 - 100 historical events and alarm records
 - Two years warranty from the date of first installation

TE808 PLATINUM CONTROLLER DESCRIPTION

- USB port
- Two serial port RS232 independent
- Serial port RS485
- Canbus engine port J1939
- Canbus port for connection TE808 Platinum
- Pick-up input 0 to 8kHz
- D+ input
- 9 relays output
- 10 digital input
- 1 analogic output PID for AVR regulator (-5V to +5V)
- 1 analogic output PID for RPM regulator (0V to +10V reversable)
- 3 analogic input for engine sensors
- 1 analogic input 4 to 20mA for external wattmeter
- 8 analogic input for Mains and generator Voltage sensing
- 3 analogic input for load current sensor
- 20 front panel buttons

QP808				
A	kVA	V	Vdc	code
160	111	400	24	QP808PWC4111B
200	138	400	24	QP808PWC4138B
250	173	400	24	QP808PWC4173B
400	277	400	24	QP808PWC4277B
630	436	400	24	QP808PWC4436
800	554	400	24	QP808PWC4554
1000	692	400	24	QP808PWC4692
1250	865	400	24	QP808PWC4865

SYA808

AUTOMATIC SYNCHRONIZING PANEL FOR ONE GENERATOR

from 160A to 4000A



DESCRIPTION

The Panel series SYA808 are designed to command and control of one generator for synchronization with others generators (maximum 30 units) or synchronization Generator with Mains network. The panel includes the generator motorized thermomagnetic circuit breaker and all commands and devices needed for synchronization with exception of RPM and AVR regulators.

KEY FEATURES

- ★ Maximum vibration resistance, HAL Test approved up to 30G
- ★ Engine canbus J1939
- ★ Two independent serial interface RS232 and one RS485 for remote control management through Modem GSM/GPRS and Ethernet converter with TE-Monitor software
- ★ Help page for easy commissioning with status of input and outputs
- ★ Self-Learning function for easy setup of RPM and AVR regulators
- ★ Large graphic display 320x240 pixels with plant working synoptic and all generator and Mains measures
- ★ Real time clock calendar with battery backup
 - 100 historical events and alarm records
 - Two years warranty from the date of first installation

PANEL STANDARD COMPOSITIO

- Metal panel IP55 RAL 7035 for floor mounting
- Motorized thermomagnetic circuit breaker with release tripping coil
- Copper nickel-plated bus bar connection for generator power cables
- Copper nickel-plated bus bar connection for load power cables
- Automatic battery charger
- Auxiliary protection fuses
- One preheating circuit protect by miniature breaker
- Acoustic alarm
- Emergency pushbutton
- Synchronizer controller TE808 Platinum

TE808 PLATINUM CONTROLLER DESCRIPTION

- USB port
- Two serial port RS232 independent
- Serial port RS485
- Canbus engine port J1939
- Canbus port for connection TE808 Platinum
- Pick-up input 0 to 8kHz
- D+ input
- 9 relays output
- 10 digital input
- 1 analogic output PID for AVR regulator (-5V to +5V)
- 1 analogic output PID for RPM regulator (0V to +10V reversable)
- 3 analogic input for engine sensors
- 1 analogic input 4 to 20mA for external wattmeter
- 8 analogic input for Mains and generator Voltage sensing
- 3 analogic input for load current sensor
- 20 front panel buttons

SYA808				
A	kVA	V	Vdc	code
160	111	400	24	SYA808P40111B
200	138	400	24	SYA808P40138B
250	173	400	24	SYA808P40173B
400	277	400	24	SYA808P40277B
630	436	400	24	SYA808P40436
800	554	400	24	SYA808P40554
1000	692	400	24	SYA808P40692
1250	865	400	24	SYA808P40865
1600	1107	400	24	SYA808P41107
2000	1384	400	24	SYA808P41384
2500	1730	400	24	SYA808P41730
3200	2214	400	24	SYA808P42214
4000	2770	400	24	SYA808P42770

SYB808

AUTOMATIC SYNCHRONIZED PANEL FOR TWO GENERATORS

from 160A to 2000A



DESCRIPTION

The Panel series SYB808 are special designed to command and control of TWO synchronized generators in the same panel. The panel includes the generators motorized thermomagnetic circuit breaker and all commands and devices needed for synchronization with exception of RPM and AVR regulators.

KEY FEATURES

- ★ Maximum vibration resistance, HAL Test approved up to 30G
- ★ Engine canbus J1939
- ★ Two independent serial interface RS232 and one RS485 for remote control management through Modem GSM/GPRS and Ethernet converter with TE-Monitor software
- ★ Help page for easy commissioning with status of input and outputs
- ★ Self-Learning function for easy setup of RPM and AVR regulators
- ★ Large graphic display 320x240 pixels with plant working synoptic and all generator and Mains measures
- ★ Real time clock calendar with battery backup
 - 100 historical events and alarm records
 - Two years warranty from the date of first installation

PANEL STANDARD COMPOSITION

- Metal panel IP55 RAL 7035 for floor mounting
- Motorized thermomagnetic circuit breaker with release tripping coil
- Copper nickel-plated bus bar connection for generator power cables
- Copper nickel-plated bus bar connection for load power cables
- Two Automatic battery charger
- Auxiliary protection fuses
- Two preheating circuit protect by miniature breaker
- Acoustic alarm
- Emergency pushbutton
- Two Synchronizer controllers TE808 Platinum

TE808 PLATINUM CONTROLLER DESCRIPTION

- USB port
- Two serial port RS232 independent
- Serial port RS485
- Canbus engine port J1939
- Canbus port for connection TE808 Platinum
- Pick-up input 0 to 8kHz
- D+ input
- 9 relays output
- 10 digital input
- 1 analogic output PID for AVR regulator (-5V to +5V)
- 1 analogic output PID for RPM regulator (0V to +10V reversable)
- 3 analogic input for engine sensors
- 1 analogic input 4 to 20mA for external wattmeter
- 8 analogic input for Mains and generator Voltage sensing
- 3 analogic input for load current sensor
- 20 front panel buttons

SYB808				
A	kVA	V	Vdc	code
160	111	400	24	SYB808P40111B
200	138	400	24	SYB808P40138B
250	173	400	24	SYB808P40173B
400	277	400	24	SYB808P40277B
630	436	400	24	SYB808P40436
800	554	400	24	SYB808P40554
1000	692	400	24	SYB808P40692
1250	865	400	24	SYB808P40865
1600	1107	400	24	SYB808P41107
2000	1384	400	24	SYB808P41384



DESCRIPTION

The Automatic Panel series SYAR includes one motorized thermomagnetic circuit breaker and is designed to be used together with the panel series SYA808 for different application as for example generator synchronize with Mains.

The maximum g enerators synchronization are 30 units

For a special Custom solutions on the panel SYAR we can mount for example one controller TE808 to manage the start and stop sequence of the generators set or special application

PANEL STANDARD COMPOSITION

- Metal panel IP55 RAL 7035 for floor mounting
- Motorized thermomagnetic circuit breaker with release tripping coil
- Copper nickel-plated bus bar connection for generator power cables
- Copper nickel-plated bus bar connection for load power cables
- Auxiliary protection fuses

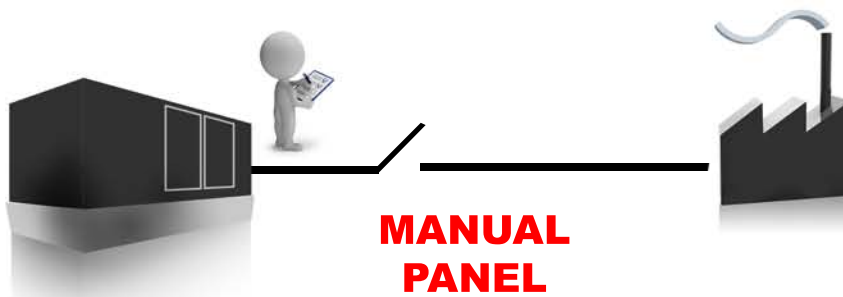
SYAR				
A	kVA	V	Vdc	code
160	111	400	24	SYAR40111
200	138	400	24	SYAR40138
250	173	400	24	SYAR40173
400	277	400	24	SYAR40277
630	436	400	24	SYAR40436
800	554	400	24	SYAR40554
1000	692	400	24	SYAR40692
1250	865	400	24	SYAR40865
1600	1107	400	24	SYAR41107
2000	1384	400	24	SYAR41384
2500	1730	400	24	SYAR41730
3200	2214	400	24	SYAR42214
4000	2770	400	24	SYAR42770



TECNOELETTRA
SINCE 1985

MANUAL PANELS

Tecnoelettra offers a wide range of panels for command and control of manual generator, in different mounting solution: base mounting, directly on the alternator, for canopy generators and for P.T.O. generators, from 10A to 1250A.





KEY FEATURES

- ★ Graphic display 128 x 64 pixel to visualize all measures alarms and operating status
- ★ Serial port RS232 o RS485 for remote control by PC or GSM
- ★ Remote starting with automatic supply to reduce battery consumption
- ★ Master/Slave function by RS485 to connect more controllers
- ★ 3 Analog inputs for engine temperature measure, oil pressure and fuel level
- ★ 2 years warranty automatically detected by the controller
 - Direct mounting on the alternator
 - 3 alarms indication led: oil, temperature, fuel level
 - 3 leds for immediate indication of the supply voltage
 - Timer Start / Stop programmable

STANDARD COMPOSITION

- Box with metal base epoxy powder painting RAL 9005 and plastic cover in ABS - IP44
- Socket Cee 3P+N+T
- Socket Cee 2P+T
- Thermomagnetic molded circuit breaker 4P
- Thermomagnetic miniature circuit breaker 1P+N
- Circuit breaker cover protection
- Start power relay 30A
- 4 Auxiliary fuses
- 1 Current transformer
- 4 vibration dampers
- 50cm Power cable to connect directly on the alternator
- 1 Controller TE2010-GE

CONTROLLER TE2010-GE DESCRIPTION

- All measurements, alarms and information on 128x64pixel backlighting graphic display
- TRMS Measurements of current and voltage
- Historical anomalies with 10 storable events
- 4 languages on board + 1 programmable
- Daily-Weekly Test
- Remote start and stop
- Calendar
- 1 serial port RS232 or RS485
- Starting, stopping and receiving information via GSM
- 3 Leds for showing the phase voltage
- 3 led to immediate indications of alarms: oil, temperature and fuel
- Analog inputs for: oil pressure, engine temperature and fuel level

ETE-2010				
A	KVA	V	Dimension	Code
10	7	400	350 x 300 x 230	ETE20104010
16	11	400	350 x 300 x 230	ETE20104016
20	14	400	350 x 300 x 230	ETE20104020
25	17	400	350 x 300 x 230	ETE20104025
32	22	400	350 x 300 x 230	ETE20104032
40	28	400	350 x 300 x 230	ETE20104040
50	35	400	350 x 300 x 230	ETE20104050
63	44	400	350 x 300 x 230	ETE20104063
80	55	400	350 x 300 x 230	ETE20104080
100	70	400	350 x 300 x 230	ETE20104100
125	87	400	350 x 300 x 230	ETE20104125



KEY FEATURES

- ★ Graphic display 128 x 64 pixel to visualize all measures alarms and operating status
- ★ Serial port RS232 o RS485 for remote control by PC or GSM
- ★ Remote starting with automatic supply to reduce battery consumption
- ★ Master/Slave function by RS485 to connect more controllers
- ★ 3 Analog inputs for engine temperature measure, oil pressure and fuel level
- ★ 2 years warranty automatically detected by the controller
 - Direct mounting on the alternator
 - 3 alarms indication led: oil, temperature, fuel level
 - 3 leds for immediate indication of the supply voltage
 - Timer Start / Stop programmable

STANDARD COMPOSITION

- Metal case IP40 epoxy powder painting RAL 9005tt
- 4Poles Thermomagnetic molded circuit breaker
- Emergency push-button
- Start power relay 30A
- 4 Auxiliary fuses
- 1 Current transformer
- 4 vibration dampers
- 50cm Power cable to connect directly on the alternator, up to 87kVA
- Copper bars for connection from 111 to 436kVA
- Controller TE2010-GE

CONTROLLER TE2010-GE DESCRIPTION

- All measurements, alarms and information on 128x64pixel backlighting graphic display
- TRMS Measurements of current and voltage
- Historical anomalies with 10 storable events
- 4 languages on board + 1 programmable
- Daily-Weekly Test
- Remote start and stop
- Calendar
- 1 serial port RS232 or RS485
- Starting, stopping and receiving information via GSM
- 3 Leds for showing the phase voltage
- 3 led to immediate indications of alarms: oil, temperature and fuel
- Analog inputs for: oil pressure, engine temperature and fuel level

TEM1-2010					
A	KVA	V	Vdc	Dimension	Code
10	7	400	12	290 x 430 x 260	TEM120104010
16	11	400	12	290 x 430 x 260	TEM120104016
20	14	400	12	290 x 430 x 260	TEM120104020
25	17	400	12	290 x 430 x 260	TEM120104025
32	22	400	12	290 x 430 x 260	TEM120104032
40	28	400	12	290 x 430 x 260	TEM120104040
50	35	400	12	290 x 430 x 260	TEM120104050
63	44	400	12	290 x 430 x 260	TEM120104063
80	55	400	12	290 x 430 x 260	TEM120104080
100	70	400	12	290 x 430 x 260	TEM120104100
125	87	400	12	290 x 430 x 260	TEM120104125
160	111	400	24	350 x 500 x 320	TEM120104160B
200	138	400	24	350 x 500 x 320	TEM120104200B
250	173	400	24	350 x 500 x 320	TEM120104250B
400	277	400	24	440 x 600 x 410	TEM120104400B
630	436	400	24	440 x 600 x 410	TEM120104630B



KEY FEATURES

- ★ Graphic display 128 x 64 pixel to visualize all measures alarms and operating status
- ★ Serial port RS232 o RS485 for remote control by PC or GSM
- ★ Remote starting with automatic supply to reduce battery consumption
- ★ Master/Slave function by RS485 to connect more controllers
- ★ 3 Analog inputs for engine temperature measure, oil pressure and fuel level
- ★ 2 years warranty automatically detected by the controller
 - Direct mounting on the alternator
 - 3 alarms indication led: oil, temperature, fuel level
 - 3 leds for immediate indication of the supply voltage
 - Timer Start / Stop programmable

STANDARD COMPOSITION

- Metal case IP40 epoxy powder painting RAL 7035
- 4Poles Thermomagnetic molded circuit breaker
- Emergency push-button
- Start power relay 30A
- 4 Auxiliary fuses
- 1 Current transformer
- 4 vibration dampers
- 50cm Power cable to connect directly on the alternator, up to 87kVA
- Controller TE2010-GE

CONTROLLER TE2010-GE DESCRIPTION

- All measurements, alarms and information on 128x64pixel backlighting graphic display
- TRMS Measurements of current and voltage
- Historical anomalies with 10 storable events
- 4 languages on board + 1 programmable
- Daily-Weekly Test
- Remote start and stop
- Calendar
- 1 serial port RS232 or RS485
- Starting, stopping and receiving information via GSM
- 3 Leds for showing the phase voltage
- 3 led to immediate indications of alarms: oil, temperature and fuel
- Analog inputs for: oil pressure, engine temperature and fuel level

TEM7-2010				
A	KVA	V	Dimension	Code
10	7	400	500 x 350 x 150	TEM720104010
16	11	400	500 x 350 x 150	TEM720104016
20	14	400	500 x 350 x 150	TEM720104020
25	17	400	500 x 350 x 150	TEM720104025
32	22	400	500 x 350 x 150	TEM720104032
40	28	400	500 x 350 x 150	TEM720104040
50	35	400	500 x 350 x 150	TEM720104050
63	44	400	500 x 350 x 150	TEM720104063
80	55	400	500 x 350 x 150	TEM720104080
100	70	400	500 x 350 x 150	TEM720104100
100	70	400	500 x 350 x 150	TEM720104125



KEY FEATURES

- ★ Graphic display 128 x 64 pixel to visualize all measures alarms and operating status
- ★ Serial port RS232 or RS485 for remote control by PC or GSM
- ★ Remote starting with automatic supply to reduce battery consumption
- ★ Master/Slave function by RS485 to connect more controllers
- ★ 3 Analog inputs for engine temperature measure, oil pressure and fuel level
- ★ 2 years warranty automatically detected by the controller
- Base mounting
- 3 alarms indication led: oil, temperature, fuel level
- 3 leds for immediate indication of the supply voltage
- Timer Start / Stop programmable

STANDARD COMPOSITION

- Metal case IP20 epoxy powder painting RAL 9005 complete with command and power box
- Emergency push-button
- 4 Protection fuses
- 16Poles metal connector for engine connection
- Thermomagnetic breaker with release coil
- Coil protection fuse
- 30A start power relay
- 3 Current transformer
- Copper bars connection for generator and load
- 2 Fixing plate
- Controller TE2010-GE

CONTROLLER TE2010-GE DESCRIPTION

- All measurements, alarms and information on 128x64pixel backlighting graphic display
- TRMS Measurements of current and voltage
- Historical anomalies with 10 storable events
- 4 languages on board + 1 programmable
- Daily-Weekly Test
- Remote start and stop
- Calendar
- 1 serial port RS232 or RS485
- Starting, stopping and receiving information via GSM
- 3 Leds for showing the phase voltage
- 3 led to immediate indications of alarms: oil, temperature and fuel
- Analog inputs for: oil pressure, engine temperature and fuel level

TEM8-2010					
A	KVA	V	Vdc	Dimension	Code
160	111	400	24	1200 x 540 x 260	TEM8201040160B
200	138	400	24	1200 x 540 x 260	TEM8201040200B
250	173	400	24	1200 x 540 x 260	TEM8201040250B
400	277	400	24	1200 x 540 x 260	TEM8201040400B
630	436	400	24	1200 x 540 x 260	TEM8201040630B
800	554	400	24	1360 x 540 x 300	TEM8201040800
1000	692	400	24	1360 x 540 x 300	TEM8201041000
1250	865	400	24	1360 x 540 x 300	TEM8201041250

TEM12-2010

MANUAL PANEL FOR CANOPY GENERATORS

from 16A to 250A



KEY FEATURES

- ★ Graphic display 128 x 64 pixel to visualize all measures alarms and operating status
- ★ Serial port RS232 o RS485 for remote control by PC or GSM
- ★ Remote starting with automatic supply to reduce battery consumption
- ★ Master/Slave function by RS485 to connect more controllers
- ★ 3 Analog inputs for engine temperature measure, oil pressure and fuel level
- ★ 2 years warranty automatically detected by the controller
- For canopy generator
- 3 alarms indication led: oil, temperature, fuel level
- 3 leds for immediate indication of the supply voltage
- Timer Start / Stop programmable

STANDARD COMPOSITION

- Metal case IP55 epoxy powder painting RAL 9005
- Instruments protection door
- Socket Cee 3P+N+T up to 125A with 4 Poles circuit breaker
- Socket Cee 2P+T up to 125A with 1 P+N circuit breaker
- 1mt power cable to connect to the alternator up to 125A
- Input cable connection to bush bar 160-250A
- Connector for engine cable connection
- 30A start relay
- Protection fuses
- 1 Current transformer
- Controller TE2010-GE

CONTROLLER TE2010-GE DESCRIPTION

- All measurements, alarms and information on 128x64pixel backlighting graphic display
- TRMS Measurements of current and voltage
- Historical anomalies with 10 storable events
- 4 languages on board + 1 programmable
- Daily-Weekly Test
- Remote start and stop
- Calendar
- 1 serial port RS232 or RS485
- Starting, stopping and receiving information via GSM
- 3 Leds for showing the phase voltage
- 3 led to immediate indications of alarms: oil, temperature and fuel
- Analog inputs for: oil pressure, engine temperature and fuel level

TEM12-2010					
A	KVA	V	Vdc	Dimension	Code
16	11	400	12	712 x 403 x 170	TEM1220104016
20	14	400	12	712 x 403 x 170	TEM1220104020
25	17	400	12	712 x 403 x 170	TEM1220104025
32	22	400	12	712 x 403 x 170	TEM1220104032
40	28	400	12	712 x 403 x 170	TEM1220104040
50	35	400	12	712 x 403 x 170	TEM1220104050
63	44	400	12	712 x 403 x 170	TEM1220104063
80	55	400	12	712 x 403 x 170	TEM1220104080
100	70	400	12	712 x 403 x 170	TEM1220104100
125	87	400	12	712 x 403 x 170	TEM1220104125
160	111	400	24	712 x 403 x 170	TEM1220104160
200	138	400	24	712 x 403 x 170	TEM1220104200
250	173	400	24	712 x 403 x 170	TEM1220104250

TEM13-2010

MANUAL PANEL FOR CANOPY GENERATORS

from 160A to 630A



KEY FEATURES

- ★ Graphic display 128 x 64 pixel to visualize all measures alarms and operating status
- ★ Serial port RS232 o RS485 for remote control by PC or GSM
- ★ Remote starting with automatic supply to reduce battery consumption
- ★ Master/Slave function by RS485 to connect more controllers
- ★ 3 Analog inputs for engine temperature measure, oil pressure and fuel level
- ★ 2 years warranty automatically detected by the controller
 - For canopy generator
 - 3 alarms indication led: oil, temperature, fuel level
 - 3 leds for immediate indication of the supply voltage
 - Timer Start / Stop programmable

STANDARD COMPOSITION

- Metal case IP55 epoxy powder painting RAL 9005
- Instruments protection door
- Socket Cee 3P+N+T up to 125A with 4 Poles circuit breaker
- Socket Cee 2P+T up to 125A with 1 P+N circuit breaker
- Input cable connection to bush bar 160-250A
- Connector for engine cable connection
- 30A start relay
- Protection fuses
- 3 Current transformer
- Generator circuit breaker
- Controller TE2010-GE

CONTROLLER TE2010-GE DESCRIPTION

- All measurements, alarms and information on 128x64pixel backlighting graphic display
- TRMS Measurements of current and voltage
- Historical anomalies with 10 storable events
- 4 languages on board + 1 programmable
- Daily-Weekly Test
- Remote start and stop
- Calendar
- 1 serial port RS232 or RS485
- Starting, stopping and receiving information via GSM
- 3 Leds for showing the phase voltage
- 3 led to immediate indications of alarms: oil, temperature and fuel
- Analog inputs for: oil pressure, engine temperature and fuel level

TEM13-2010					
A	KVA	V	Vdc	Dimension	Code
160	111	400	12	670 x 711 x 266	TEM1320104160
200	138	400	12	670 x 711 x 266	TEM1320104200
250	173	400	12	670 x 711 x 266	TEM1320104250
400	277	400	24	670 x 711 x 266	TEM1320104400B
630	436	400	24	670 x 711 x 266	TEM1320104630B



KEY FEATURES

- ★ ABS cover for maximum environment protection
- ★ Earth leakage protection included
- ★ 2 years warranty
- For cardan generators (P.T.O.)
- Measurement 7 led segment display

STANDARD COMPOSITION

- Box with metal base epoxy powder painting RAL 9005 and plastic cover in ABS - IP44
- Socket Cee 3P+N+T
- Socket Cee 2P+T
- Thermomagnetic molded circuit breaker 4P
- Thermomagnetic miniature circuit breaker 1P+N
- Earth leakage relay 30mA up to 63A
- Earth leakage relay adjustable 80-125A
- Circuit breaker cover protection
- 4 vibration dampers
- 50cm Power cable to connect directly on the alternator
- Digital multimeter TDM3

MULTIMETER TDM3 DESCRIPTION

The multimeter visualizes 5 measures:

- Voltage: +/-2% voltage value, scanning refresh 1"
- Current: +/-2% current value, scanning refresh 1"
- Frequency: +/- 1% frequency value, scanning refresh 1"
- Power: kVA, calculated from voltage and current measures
- Hours: from 0 to 99000 hours, with hours memory and possibility to reset
- Peak voltage and current save
- Manual selection of measures by button
- Automatic selection of measures at fixed time

ETE-D				
A	Hz	V	Dimension	Code
25	50	400	350 x 300 x 230	ETED4025
32	50	400	350 x 300 x 230	ETED4032
40	50	400	350 x 300 x 230	ETED4040
50	50	400	350 x 300 x 230	ETED4050
63	50	400	350 x 300 x 230	ETED4063
80	50	400	350 x 300 x 230	ETED4080
100	50	400	350 x 300 x 230	ETED4100
125	50	400	350 x 300 x 230	ETED4125

CONTROLLERS FOR GENERATORS

Tecnoelettra offers a complete range of controllers for generator, developed and manufactured by our technicians for various applications:

- AMF
- ATS
- SYNCHRONIZING
- MANUAL GENERATORS
- TELECOM APPLICATIONS



TE809 FAMILY

CONTROLLER

AMF - AUTOSTART - ATS



TE809A

AUTOMATIC MAINS FAILURE CONTROLLER
COD: TE809AMF



- Engine Canbus communication J1939
- RS232 - RS485 independant serial interfaces
- Digital/analog inputs and outputs programmable by setup on board
- Help service page, with visualization of the status of inputs and outputs
- 2 years warranty from the real installation date, automatically detected by the controller
- Events log with up to 250 events
- Voltages and currents measures in the same display page
- Remote start with changeover control even with mains presence
- Timer start/stop for programmed work cycles
- Easy programming and navigation
- Fast and easy updating of the maintenance hours
- Wireless communication with GSM modem
- Gasoline engines support with automatic management of the choke valve

TE809ATS

AUTOMATIC TRANSFER SWITCH CONTROLLER
COD: TE809ATS



- RS232 - RS485 independent serial interfaces
- Digital/analog inputs and outputs programmable from the keyboard
- Help service page, with visualization of the status of inputs and outputs
- 2 years warranty from the real installation date, automatically detected by the contraller
- Events log with up to 250 events
- Voltages and currents measures in the same display page
- Remote start with closure of the generator contactor even with mains present
- Timer start / stop for programmed work cycles
- Smart autoseup system
- Easy programming and navigation
- Smart autoseup system
- GSM/GPRS communication

TE809G

AUTO START CONTROLLER
COD: TE809G



- Engine Canbus communication J1939
- RS232 - RS485 independent serial interfaces
- Digital/analog inputs and outputs programmable from the keyboard
- Help service page, with visualization of the status of inputs and outputs
- 2 years warranty from the real installation date, automatically detected by the controller
- Events log with up to 250 events
- Voltages and currents measures in the same display page
- Timer start/stop for programmed work cycles
- Easy programming and navigation
- Smart autoseup system
- Fast and easy updating of the maintenance hours
- GSM/GPRS communication
- For diesel engines and gasoline engines with automatic management of the choke valve



+70 C°



-30 C°

KEY FEATURES

- ★ A unique controller for:
 - Mains/Generator synchronization
 - Generators synchronization up to 30 engines
- ★ Engine Canbus communication J1939
- ★ 2 RS232 and 1 RS485 independent serial interfaces
- ★ Help service page, with visualization of the status of inputs and outputs
- ★ 2 years warranty from the real installation date, automatically detected by the controller
- ★ Self-learning function to autotest the connections and regulators
- ★ Maximum vibration resistance, approved up to 30g
- ★ Large display 320x240 pixels with all the information
 - Opex fuel management
 - 100 Events log

DISPLAY: MEASUREMENT AND GENERAL INFORMATION

- Electrical Parameters (generator/mains):
Voltages (L-L and L-N)
Currents, Hz, PF, kW, kVA
kVAR, kWh, Mains kW
DV, DHZ, D°
- Dimensions: 138x257x110
- Cut-out: 113x232
- Weight: 3 kg
- Work temperature range:
-30°C + 70°C
- Ambient protection IP65
- Range Vdc: 8-35
- Range Vac: 50-500, and up to 15kV in MV by voltage transformers

TECHNICAL DATA

- Dimensions: 138x257x110
- Cut-out: 113x232
- Weight: 3 kg
- Work temperature range:
-30°C + 70°C
- Ambient protection IP65
- Range Vdc: 8-35
- Range Vac: 50-500, and up to 15kV in MV by voltage transformers

HARDWARE DESCRIPTION

- 1 USB port
- 2 RS232 port
- 1 RS485 port
- 1 Canbus J1939 port
- 1 Canbus controllers communication
- 1 Pick-up input (0 - 8kHz)
- 1 D+static output
- 9 Relay outputs
- 1 Analog output [-5 +5V]
- 1 Analog output [0 +10V] reversible
- 10 Digital inputs
- 3 Resistive analog inputs
- 1 - 4-20mA input for external wattmeter
- 6 Voltage inputs
- 3 Current inputs
- 15 Buttons

SYNCHRO FEATURES

- Adjustable load sharing slope
- Dynamic start/stop procedure, in accordance to the generators working hours
- Reverse power protection
- Load power control
- Unbalanced load control
- Overload alarm by magnetothermic protection curve
- Phases sequence control
- Alternator alarms/protectations management
- Generator and Mains MCCB or ACB command
- Synchronization between sources with different powers
- Four different languages available (others to be download on the controller).
- Charger Alternator protection
- TRMS Voltage Measurements
- Manual Voltage and Frequency adjustment
- Dummy load
- Load shedding
- Mains synchronization AMF no break
- Peak shaving



KEY FEATURES

- ★ All measures, alarms and informations in a backlighted graphical display 128x64pixel
- ★ 1 serial interface RS232 or RS485 for remote monitoring by PC or GSM
- ★ Remote Start / Stop and informations by GSM
- ★ Master/Slave function by RS485 for multi controller system
- ★ 3 analog inputs for engine temperature, oil pressure, fuel level
- ★ 2 years warranty, automatically detected by the controller
- 3 leds for immediate alarms indication: oil, temperature, fuel
- 3 leds indications for voltage presence
- Timer start/stop for programmed work cycles
- Voltage and current TRMS measurements
- Events log with 10 events
- 4 languages on board + 1 programmable
- Daily-Weekly test
- Maintenance indication
- Battery Maintenance indication
- Autonomy hours indication
- 32 alarms

DISPLAY MEASURES AND VALUES

- | | |
|--------------------------|-------------------------------|
| - Voltage L1-L2 [Vac] | - KWh |
| - Voltage L2-L3 [Vac] | - Oil pressure [bar-psi] |
| - Voltage L3-L1 [Vac] | - Engine temperature [°C-°F] |
| - Voltage L1/N-L2/N-L3/N | - Fuel level [Litres-Gallons] |
| - Battery voltage [Vdc] | - Work autonomy [h] |
| - Current L1 [A] | - Work hours |
| - Current L2 [A] | - Daily work hours |
| - Current L3 [A] | - Time to service |
| - Frequency [Hz] | - Warranty expiry |
| - Cos-fi [0,00 ÷ 1,00] | - Time to battery service |
| - Active power [kW] | - Alarm [type + icon] |
| - Reactive power [kVAR] | |
| - Apparent power [kVA] | |

HARDWARE DESCRIPTION

- | | |
|------------------------|--------------------------------|
| - 1 Port RS232 / RS485 | - 3 Analog / Digital inputs |
| - D+ | - 5 buttons + navigation drive |
| - 4 Relay outputs 5A | - 6 indication leds |
| - 7 Digital inputs | |

TECHNICAL DATA

- Front protection IP65
- Working temperature -20°C + 70°C
- Supply range Vdc 8..35
- Voltage measures range Vac 50..500
- Frequency measures range Hz 50..60
- Display 128x64 pixel, 62x33 mm
- Dimensions :194x106x50
- Cut-Off: 182x94
- Weight: 450g
- Comply EN61010

ATS-E / ATS-I

CONTROLLERS FOR GENERATORS / MAINS TRANSFER SWITCHING

COD ATS-E: 1571019 COD ATS-I: 1571822B



ATS-E

KEY FEATURES

- ★ 2 years warranty
- ★ Indication led for visualize:
 - Switching status
 - Engine running
 - Generator alarm
- Transfer switch command by remote signal
- Manual transfer switch command by key selector

TECHNICAL DATA

- Dimensionis 96 x 96 x 50 mm
- Key selector switch contact rate 4Amp 230Vac
- Inputs for mains led (LR) and generator led (LG) are 230-400Vac
- Inputs for engine running led (LM) and alarm status led (LA) are 12-24Vdc



ATS-I

KEY FEATURES

- ★ 2 years warranty
- ★ Backlighted graphical display 128x64pixel, with mains and generator measures in TRMS
- ★ Start & Stop of generator by
- ★ Three phase control of mains and generator
 - Automatic switching
 - Manual switching by buttons
 - Phase-sequence control
 - Key-lock function

TECHNICAL DATA

- Dimensions: 96 x 96 x 100 mm
- Output for Start / Stop generator
- 2 relay outputs for transfer-switch
- 8 electric measures
- 6 alarms
- 8 buttons
- IP65 Protection
- Work temperature: -20° - +70°C
- Voltage range: 50-500 Vac
- Frequency range 45-65 Hz
- Supply voltage: 8-32 Vdc
- Inputs for Mains switching indications (LR) e Generator switching indications (LG): 230-400Vac
- Inputs for signaling the engine running (LM) and LED Alarm (LA) : 12-24Vdc



TECNOELETTRA
SINCE 1985

ACCESSORIES & SPECIAL PRODUCTS





EXPANSION BOARDS TE6010

KEY FEATURES

- Modular expansion system composed by base board (Code 1578050) on which it's possible to install different combination of expansion modules:
 - Expansion 8 digital inputs Code: 1578050B
 - Expansion 8 digital outputs Code: 1578050C
 - Expansion 4 analog inputs Code: 1578050D
 - Expansion 5 relay outputs Code: 1578050E
 - Expansion 6 analog outputs Code: 1578050F
- Connection to controllers TE808 and TE809 by RS485

TECHNICAL DATA

- Supply range 8 - 35 Vdc
- Modbus communication
- Baudrate: 9600-115200 Bps



MODEM GSM / GPRS

KEY FEATURES

- Used for communication via SMS with controllers TE808 - TE809 - TE2010
- Quadriband GSM 850/900/1800/1900 MHZ
- Connection by RS232
- Supply range: 7-30Vdc
- Antenna included

TECHNICAL DATA

- Work temperature: from -20 °C to +60 °C
- H x W x D : 78 x 54 x 26 mm

ORDER CODE

1571806B



ETHERNET CONVERTER

KEY FEATURES

- Used for communication via Ethernet with controllers TE808 - TE809
- 10/100Mbps Ethernet
- Connection by RS232 or RS485
- Baudrate from 1200 to 38400 bps
- Supply range: 9-40Vdc

TECHNICAL DATA

- Range di temperatura: da -20 °C a +60 °C
- A x L x P : 108 x 78 x 25 mm

ORDER CODE

1571806G



TRANSPARENT PORTHOLE IN ABS-HB AND IP55

KEY FEATURES

- ABS - HB
- IP55
- Temperature resistant: -30 +80 ° C
- Vibration resistant
- Impact resistant
- Quick fixing
- Italian design
- The cheapest on the market

DIMENSIONS

- H x W x D : 235 x 325 x 12 mm

CUT-OUT

- H x W : 187 x 277 mm

FIXING IN ONE CLICK !

NOTE: For more information please contact: sales@tecnoelettra.it



KIT PULSANTE DI EMERGENZA

KEY FEATURES

- 1 Plastic cup
- 1 Emergency button 22 mm
- 1 Contact NO
- 1 Contact NC

CUT-OUT

- H x W : Ø 82 mm

NOTE: For more information please contact: sales@tecnoelettra.it



FUEL TRANSFER PUMP BOX

KEY FEATURES

- Command and Control Box, automatic and manual of fuel transfer pump
- Selection of operation mode by selector
- Manual operation by selector
- Automatic operation by 4 levels of control :
 - Reserve Level
 - Minimum Level
 - Maximum level
 - Full Level

TECHNICAL DATA

- H x W x D : 120 x 150 x 80 mm
- 6 indication leds
- 4 alarm outputs
- 1 Electrovalve output
- 1 Pump command output 230Vac

ORDER CODE

12V Version: 1570704E

24V Version: 1570704F

REMOTE MANAGEMENT SOFTWARE



TE REMOTE SMS TECNOELETTRA APP



REMOTE MONITORING SYSTEM
FOR SMARTPHONE & TABLET

DESCRIPTION

The Remote Sms app is a new feature offered to all Tecnoelettra's customers for a remote monitoring system available directly on your tablet or smartphone, using communication via SMS between the mobile device and a TE809 controller.

The application also lets the user to send commands to devices and set their custom configuration parameters.

The app is the simplest and easiest way to see all the measures of your generators, and the general situation of all the gensets, thanks to the notifications and the overview map.

TE MONITOR TECNOELETTRA SOFTWARE



REMOTE MONITORING SYSTEM FOR PC

DESCRIPTION

The Remote manager PC software for TE809, allows to program all parameters and control the genset directly from your PC in several ways: direct connection with serial or USB cable, wireless connection with GSM modem, networking connection with Ethernet converter.

By PC software you can command TE809 as you are in front of your genset with Virtual Controller screen; other features include printable parameters report, printable events log, analog instruments graphic configuration, printable internal memory datalog, exportable configuration files, real time measurements record.



DESCRIPTION

Tecnoelettra is specialized in the manufacturing of custom panels

NOTE: For more information please contact: contact@tecnoelettra.ro



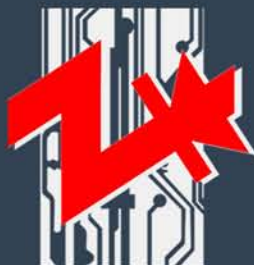
MEDIUM VOLTAGE PANELS



**AERONAUTICA
MILITARE**



PANELS FOR MILITARY APPLICATION



WORLDWIDE DISTRIBUTION



Tecnoletra is present in more than 80 countries directly or with representatives companies that distribute our products locally. It's permit to Tecnoletra to be a ricognize brand at international level

QUALITY & RELIABILITY



All Tecnoletra's products are tested, using special test bench with monitoring software developed by Tecnoletra to assure high standard quality products for Worldwide application. All our products are cover with 2 years warranty.

CUSTOMER SERVICE



Qualified technicians with large field experience and electrical panels design are available to follow you on your application. Complete satisfaction and care of our client, also after sales, it always a focus point of our organization

ITALIAN DESIGN



**THE EXCELLENCE
OF ITALIAN DESIGN**

All our products are design and manufacture in Italy, with passion and professional skill. Tecnoletra is always committed to carry Made in Italy also in the idustrial sectors, with special products in each details, and easily recognizable.

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