MSW Series 815-1780P

Heavy-duty generators designed for high power demands. Regardless of the field of activity, this series offers a reliable solution for the most demanding customer needs. With a modular layout and a large list of supplements these generators are suitable for different market areas, enjoying the economic benefits of a standard production.



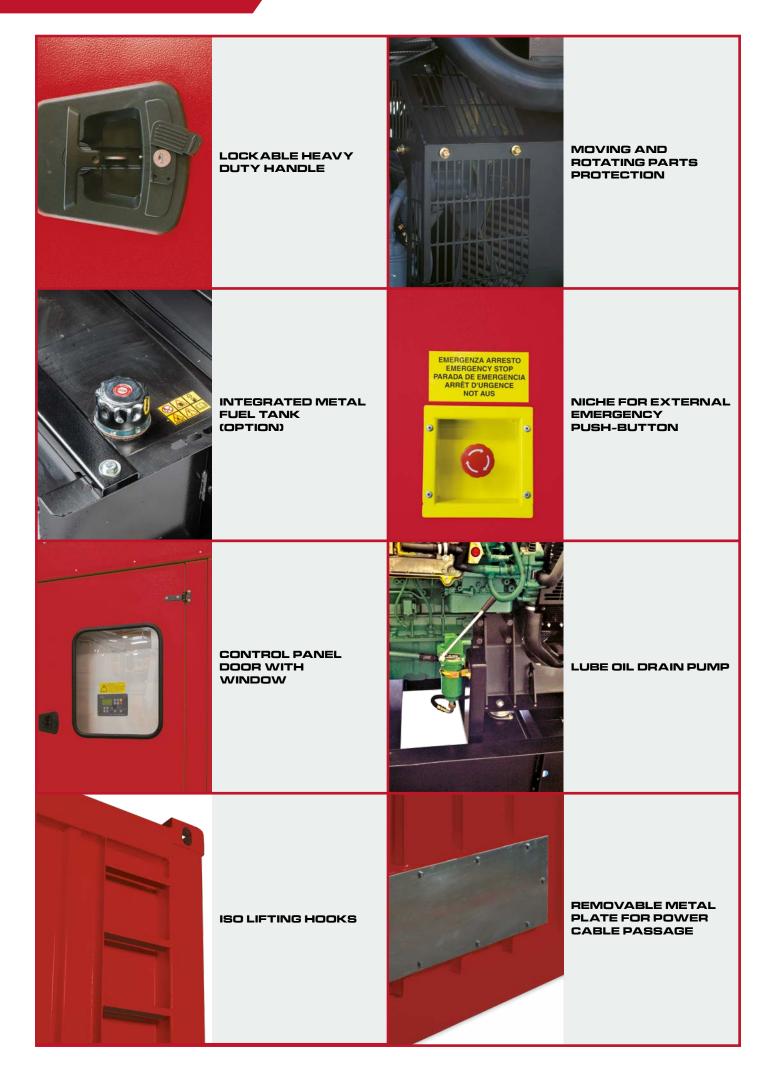




Main applications:

- Critical stand-by (Hospital / Data Center)
- Emergency stand-by (Industry)
- Power plant





GENERATING SET	MSW815P		MSW875P		MSW1050P		MSW1400P	
MAIN DATA								
POWER RATING	kVA	kWe	kVA	kWe	kVA	kWe	kVA	kWe
STAND BY POWER - LTP	836	669	929	743	1106	885	1405	1124
PRIME POWER - PRP	760	608	852	681	1004	803	1271	1017
VOLTAGE	380		380		380		380	
FREQUENCY	60Hz		60Hz		60Hz		60Hz	
DIESELENGINE								
BRAND	Perkins		Perkins		Perkins		Perkins	
MODEL	4006-23TAG2A		4006-23TAG3A		4008 TAG2A		4012-46TWG2A	

NUMBER OF CYLINDERS / DISPLACEMENT (cc)	6 in line / 22921	6 in line / 22921	8 in line / 30561	12V/45842
ASPIRATION	Turbocharged aftercooled	Turbocharged aftercooled	Turbocharged	Turbocharged aftercooled
COOLING SYSTEM	Water	Water	Water	Water
STARTING SYSTEM / ELECTRIC CIRCUIT (Volt)	Electric / 24 V	Electric / 24 V	Electric / 24 V	Electric / 24 V
SPEED (rpm)	1800	1800	1800	1800
SPEED GOVERNOR (Type)	Electronic	Electronic	Electronic	Electronic
STAND-BY POWER [LTP] (kWm)	746,0	839,0	980,0	1217,0
PRIME POWER (PRP) (kWm)	682,0	759,0	894,0	1106,0
FUEL CONSUMPTION @ 75% PRP (I/h)	132,1	147,4	167,9	217,4

ALTERNATOR

TYPE	Brushless		Brushless		Brushless		Bru	shless
POLES	4		4		4		4	
VOLTAGE REGULATION SYSTEM	Electronic		Electronic		Electronic		Electronic	
GENSET VERSION	OPEN	CONTAINER	OPEN	CONTAINER	OPEN	CONTAINER	OPEN	CONTAINER

FUEL TANK (OPTION)

MATERIAL	Meta	al	Met	a	Met	al	Metal	Metal
CAPACITY (L)	500/1000		500/1000		500/1000		500/1000	
AUTONOMY @ 75% PRP (h)	3,79/7,57		3,39 / 6,78		2,98/5,96		2,30/4,60	
NOISE LEVEL								
NOISE PRESSURE @ 7 m - dB(A)	-	72	-	72	-	75	-	75

OVERALL DIMENSIONS

LENGTH (mm)	4100	6055	4100	6055	4646	12190	5004	12190
WIDTH (mm)	2130	2438	2130	2438	2122	2438	2200	2438
HEIGHT (mm)	2218	2591	2218	2591	2466	2896	2504	2896
DRY WEIGHT (Kg)	6641	9641	6641	9641	8170	14667	10040	16040

GENERATING SET	MSW1510P		MSW1650P		MSW1780P		
MAIN DATA							
POWER RATING	kVA	kWe	kVA	kWe	kVA	kWe	
STAND BY POWER - LTP	1522	1218	1681	1345	1905	1524	
PRIME POWER - PRP	1385	1108	1528	1222	1732	1386	
VOLTAGE	3	80	3	80	G	80	
FREQUENCY	60	OHz	60	OHz	6	OHz	
DIESEL ENGINE							
BRAND	Per	rkins	Pe	rkins	Perkins		
MODEL	4012-46TWG3A		4012-46TAG2A		4012-46TAG3A		
NUMBER OF CYLINDERS / DISPLACEMENT (cc)	12V/45842		127/45842		12V/45842		
ASPIRATION	Turbocharged		Turbocharged		Turbocharged aftercooled		
COOLING SYSTEM	Wa	ater	Water		Water		
STARTING SYSTEM / ELECTRIC CIRCUIT (Volt)	Electric	c/24V	Electric / 24 V		Electric / 24 V		
SPEED (npm)	16	800	1800		1800		
SPEED GOVERNOR (Type)	Elect	tronic	Electronic		Electronic		
STAND-BY POWER [LTP] (kWm)	13'	14,0	1459,0		1643,0		
PRIME POWER (PRP) (kWm)	120	0,0	1332,0		1500,0		
FUEL CONSUMPTION @ 75% PRP (//h)	235,6		267,7		299,9		
ALTERNATOR							
TYPE	Brushless		Brushless		Brushless		
POLES	4		4		4		
VOLTAGE REGULATION SYSTEM	Elect	tronic	Electronic		Electronic		
GENSET VERSION	OPEN CONTAINER		OPEN	CONTAINER	OPEN	CONTAINER	

FUEL TANK (OPTION)

MATERIAL	Metal	Metal	Metal
CAPACITY (L)	500/1000	500/1000	500/1000
AUTONOMY @ 75% PRP (h)	2,12/4,24	1,87 / 3,74	1,67 / 3,33
NOISE LEVEL			
	5	- 75	75

OVERALL DIMENSIONS

LENGTH (mm)	5004	12190	5004	12190	5004	12190
WIDTH (mm)	2200	2438	2200	2438	2200	2438
HEIGHT (mm)	2574	2896	2574	2896	2610	2896
DRY WEIGHT (Kg)	10330	16330	11074	17074	11561	17561





ACP - Automatic control panel

Mounted on the genset, complete with digital control unit AMF26P for

monitoring, control and protection of the generator, secured with lockable door.

CONTROL CABINET

- DIGITAL INSTRUMENTATION (AMF-26P)
- Generator voltage (3 phases)
- Mains voltage
- Generator frequencyGenerator current (3 phases)
- Battery voltage
- Power (kVA kW kVAr)
- Power factor Cos φ
- Hour meter
- Engine speed r.p.m.
- Fuel level (%)
- Engine temperature

COMMANDS AND OTHERS

- Four operation modes: OFF Manual starting Automatic starting Automatic test
- Push-button for forcing Mains contactor or generator contactor
- Push-buttons: start/stop, fault reset, up/down/page/enter selection
- Remote starting availability
- DC system disconnection switch
- Acoustic alarm
- Automatic battery charger
- RS232 Communication port
- Password security option

PROTECTION WITH ALARM

- Engine protection: low fuel level, low oil pressure, high engine temperature
- Generator protection: under/over voltage, overload, under/over frequency,
- starting failure, under/over battery voltage

PROTECTIONS WITH SHUTDOWN

- Engine protection: low fuel level, low oil pressure, high engine temperature
- Generator protection: under/over voltage, overload, under/over battery
- voltage, battery charger failure • Earth Fault included in the control unit

OTHER PROTECTIONS

- Emergency stop button
- Panel secured with lockable door

POWER CABINET

- Generator Circuit Breaker 3 or 4 poles
- ETB External Terminal Board as standard
- Other Configurations and/or special versions available on request







MPP - Modular parallel panel

Mounted on the generator, complete with digital control unit IG-NTC for monitoring, control, protection and load sharing for both single and multiple generators operating in standby or parallel modes (up to 32 generators in island).

CONTROL CABINET

DIGITAL INSTRUMENTATION (Graphical display 128x64 pixels)

- Mains: Voltage, Intensity, Frequency
- Mains kW kVAr -Power factor Cos ϕ
- Generator voltage (3 phases)
- Generator frequency
- Generator current (3 phases)
- Generator Power (kVA kW kVAr Cos φ)
- Generator kWh and kVAh
- Battery voltage
- Hour meterEngine speed r.p.m.
- Fuel level (%)
- Engine temperature Oil pressure

COMMANDS AND OTHERS

- Operation modes: OFF AMF function Single Parallel to mains Island application - Single Parallel to Mains AMF application - Multiple parallel Generator Island application
- Push-button for forcing Mains Breaker/contactor or Generator Breaker/ contactor
- Push-buttons: start/stop, fault reset, up/down/page/enter selection
- Multiple parallel and Power Management operation with digital load AVR sharing
- Automatic synchronizing and power control (via speed governor or ECU)
- Base load Import/Export and Peak shaving
- Voltage and PF control (AVR)
- Configurable digital I/O(12/12) and analogue inputs (3)
- Integrate PLC programmable functions
- Event-based history (up to 500records)
- Selectable measurement range 120/277V and 0-1/0-5A
- Remote starting and Blocking signal availability
- DC system disconnection switch
- Acoustic alarm
- Automatic battery charger
- 2xRS232/RS485/USB Communication ports
- Multi-pin connector (in and out) for parallel with other generators

PROTECTION

- Engine protection: low fuel level, low oil pressure, high engine temperature.
- Generator protection: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage
- Others: overcurrent, short circuit, reverse power, earth fault
- Emergency stop button
- Panel secured with lockable door

POWER CABINET

- Generator Circuit Breaker 3 or 4 poles motorized
- External Terminal Board as standard



MAIN SUPPLEMENTS

- Lead-acid starting batteries kit
- Fully bunded base frame
- Manual Battery Switch
- Leakage detection sensor
- Fuel Cut Off Valve
- Automatic Fuel Pump
- Coolant Pre-Heating System

• Automatic Lube Oil Top up System with lube oil tank 100L

LTS - Load transfer switch panel - Accessories

The Load Transfer Switch (LTS) panel operates the power supply changeover between the generator and the Mains in backup applications, guaranteeing the feeding to the load within a short period of time.

It consists of a standalone cabinet which can be installed separate from the generator. The logic control of the power supply changeover is operated by means of the Automatic Control panel mounted on the generator, therefore no logic device is required on the LTS panel.

MAIN FEATURES

The enclosure is made of metal sheet folded and painted with high-resistance epoxy powder, guaranteeing external IP40 and internal IP20. Standard color is RAL7035. The lower side of the panel presents a removable plate for power cables connection.

The front door presents an emergency push-button to stop the generator. Inside the enclosure, a lever is provided to allow a manual selection of the power supply between the generator and the Mains (I-O-II).

According to the changeover control signal, the power supply is transferred from one source to the other by means of two motorized IV-poles changeover switches. A mechanical and electrical interlocking prevents both power sources to be connected at the same time, avoiding any damage for the load or the alternator.



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MASONS DISTRIBUTOR IN YOUR AREA IS:

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