MASONS POWER GENERATION

A new generation of power

REF. MPG **04.**00

MODEL | MSW65-80

> **DEUTZ Diesel engine.**

> **Watercooling system.**

> **Industrial muffler.**

> **Complete with engine and battery liquids.**

CE

MODEL		MSW65	MSW80
CODE		SG560TDA	SG740TDA
PRIME POWER PRP	**kVA** (kW)	**57,7** (46,1)	**74,1** (59,3)
EMERGENCY POWER LTP	**kVA** (kW)	**63,0** (50,4)	**78,5** (62,8)
Voltage	Volt	400/230	400/230
Frequency	Hz	50	50
Power factor	Cos φ	0,8	0,8
Fuel capacity	Litres	240	240
Autonomy (100% load PRP)	h	17,5	15,3
Dimensions (LxWxH)	mm	2.200x1.000x1.620	2.200x1.000x1.620
Weight	kg	865	945
DIESEL ENGINE	**DEUTZ**	**BF4M 2012-G2**	**BF4M 2012C**
Cooling system	Type	Water	Water
Speed	rpm	1.500	1.500
Displacement	c.c.	4.040	4.040
Cyliders and disposition	n° disp.	4 L	4 L
Aspiration	Type	Turbo	Turbo - Intercooler
Engine power PRP	kWm	52,0	66,1
Fuel consumption (100% load)	l/h	13,7	15,7
Specific consumption PRP	g/kWh	221	199
Engine governor (standard)	Type	Mechanical	Mechanical
SYNCHRONOUS ALTERNATOR	**STAMFORD**	**UCI 224 E**	**UCI 224 F**
Insulation	Class	H	H
Mechanical degree protection	Type	IP23	IP23
Voltage regulation	Type	Electronic	Electronic

TECHNICAL FEATURES

TECHNICAL CHARACTERISTICS NOT IMPEGNATIVE RESERVATION OF MODIFICATIONS FOR INNOVATION OF THE PRODUCT

MANUAL CONTROL PANEL (MCP)	MSW65	MSW80
 Manual control panel mounted on the genset, complete with digital control unit **BE23** for monitoring, control and protection of the generating set.	**Digital instrumentation** through BE23 control unit.	• Genereting set voltage (3 phases). • Generating set frequency. • Generating set intensity (3 phases). • Battery voltage. • Power (kVA - kW - kVAr). • Power factor Cos φ. • Hours-counter. • Fuel level (%). • Engine temperature.
	Commands and others	• DC supply selector switch. • Push-buttons: start/stop. • Emergency stop button. • Remote starting availability.
	Protections with alarm	• Engine protections: low fuel level, low oil pressure, high engine temperature. • Genset protections: over-frequency, battery voltage out of limits.
	Protections with shutdown	• Engine protections: low fuel level, low oil pressure, high engine temperature. • Genset protections: under/over voltage, over-load, under/over frequency, under/over battery voltage. • Circuit breaker protection: III poles. • Differential protection.
	Output	• Power cables connection directly from circuit breaker.

MANUAL CONTROL PANEL (MCP)

AUTOMATIC CONTROL PANEL (ACP)

Automatic control panel mounted on the genset, complete with digital control unit **AC01** for monitoring, control and protection of the generating set.

AUTOMATIC CONTROL PANEL (ACP)	MSW65	MSW80
Digital instrumentation through AC-01 control unit.	• Genereting set voltage (3 phases). • Mains voltage. • Generating set frequency. • Generating set current (3 phases). • Battery voltage. • Power (kVA - kW - kVAr). • Power factor Cos φ. • Hours-counter. • Engine speed r.p.m. • Fuel level (%). • Engine temperature.	
Commands and others	• Selector switch with six positions: Automatic test - Automatic starting - Engine locked - Mains contactor forced - Manual starting - Genset contactor forced. • Push-buttons: start/stop, up/down selection, reset. • Emergency stop button. • Remote starting availability. • Acoustic alarm. • Automatic battery charger.	
Protections with alarm	• Engine protections: low fuel level, low oil pressure, high engine temperature. • Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage, battery charger failure.	
Protections with shutdown	• Engine protections: low fuel level, low oil pressure, high engine temperature, • Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure. • Circuit breaker protection: III poles. • Differential protection.	
Output	• Plinth row for connection from ACP to LTS panel. • Power cables connection directly from circuit breaker.	

AUTOMATIC CONTROL PANEL (AMF)

Automatic control panel for automatic starting by Mains failure. Delivered loose from the genset, and complete with digital control unit **AC01** for monitoring, control and protection of the generating set.

AUTOMATIC CONTROL PANEL (AMF)	MSW65		MSW80		
Digital instrumentation through AC-01 control unit.	• Genereting set voltage (3 phases). • Mains voltage. • Generating set frequency. • Generating set current (3 phases). • Battery voltage. • Power (kVA - kW - kVAr). • Power factor Cos φ. • Hours-counter. • Engine speed r.p.m. • Fuel level (%). • Engine temperature.				
Commands and others	• Selector switch with six positions: Automatic test - Automatic starting - Engine locked - Mains contactor forced - Manual starting - Genset contactor forced. • Push-buttons: start/stop, up/down selection, reset. • Emergency stop button. • Remote starting availability. • Acoustic alarm. • Automatic battery charger.				
Change over contactors Mains/Genset	IV poles - 90A.	IV poles - 110A.	IV poles - 200A.	IV poles - 200A.	IV poles - 325A.
Protections with alarm	• Engine protections: low fuel level, low oil pressure, high engine temperature. • Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage, battery charger failure.				
Protections with shutdown	• Engine protections: low fuel level, low oil pressure, high engine temperature, • Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure.				
Output	• Plinth row for connection from pre-wired panel (mounted on the genset) to AMF panel. • Power cables connected to terminals board (internal).				

GENSET SUPPLEMENTS (ONLY AVAILABLE WHEN ORDERED)

GENSET SUPPLEMENTS

>	**APM: PMG FOR STAMFORD ALTERNATOR + MX321 AVR.**
>	**PMK: PARALLEL KIT FOR SYNCHRONIZING WITH OTHER ALTERNATOR.**
>	**PWF: PARALLEL KIT FOR SYNCHRONIZING WITH THE MAINS.**
>	**AFP: AUTOMATIC FUEL TRANSFER PUMP.**
>	**DCC: DIFFERENT CANOPY COLOUR.**
>	**EEG: ENGINE ELECTRONIC GOVERNOR.**
>	**PHS: COOLANT PREHEATING SYSTEM.**

CONTROL PANEL SUPPLEMENTS (ONLY AVAILABLE WHEN ORDERED)

CONTROL PANEL SUPPLEMENTS

> **MAP: MANUAL ANALOGUE CONTROL PANEL.**

Manual control panel mounted on the genset, with analogue instrumentation, and protected through door with lockable handle.

Instrumentation (analogue)	• Voltmeter with selector switch (3 phases). • Frequency meter. • Ammeter with selector switch (3 phases). • Hours-counter. • Fuel level indicator. • Oil pressure indicator. • Engine temperature indicator.
Commands and others	• Start/stop selector switch with key. • Emergency stop button.
Protections with alarm	• Engine protections: low fuel level, low oil pressure, high engine temperature, battery charger failure.
Protections with shutdown	• Circuit breaker protection: III poles. • Differential protection. • Engine protection unit: low fuel level, low pressure oil, high engine temperature, battery charger failure.
Output	• Power cables connection directly from circuit breaker.

> **TIF: IV POLES CIRCUIT BREAKER INSTEAD OF III POLES.**

> **RSS: REMOTE START/STOP.** Only for MAP.

ACCESSORIES

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> **LOAD TRANSFER SWITCH PANEL.**

Load transfer switch panel built in a metal cabinet and supplied loose from the genset.

	MSW65		MSW80		
Change over contactors	**IV poles - 90A.**	**IV poles - 110A.**	**IV poles - 200A.**	**IV poles - 200A.**	**IV poles - 325A.**
Connections	• Plinth row for connection from ACP to LTS panel. • Terminals board for power cables connection (Genset-Mains-Load).				
Protections	• Contactors mechanically and electrically interlocked. • Emergency stop button.				

Automatic control panel + LTS panel measures the Mains voltage and starts automatically the genset within few seconds in case of Mains failure. It transfers immediately the load again to the genset when the Mains voltage returns within the rated values.

> **FEC: FLEXIBLE EXHAUST COMPENSATOR.**

> **RES: RESIDENTIAL SILENCER.**

> **RCG: REMOTE CONTROL BY GSM KIT** (kit for genset management and control by remote PC; comunication available by means of RS232 directly to PC or through GSM modem). Available only for automatic versions with **AC01** control unit.