

MODEL
MRFW-100 T5


RENTAL RANGE
Soundproofed rental
Powered by FPT_IVECO



Image for illustrative purposes only

-  D10R
-  WATER-COOLED
-  THREE PHASE
-  50 HZ
-  STAGE 3A
-  DIESEL

Generating Rates

 SERVICE		PRP	STANDBY
Power	kVA	100	109
Power	kW	80	87
Rated Speed	r.p.m.	1.500	
Standard Voltage	V	400/230	
Available Voltages	V	230 - 230/132	
Rated at power factor	Cos Phi	0,8	

MACGEN gensets are compliant with EC mark which includes the following directives:

- 2006/42/CE Machinery safety.
- 2014/30/UE Electromagnetic compatibility.
- 2014/35/UE electrical equipment designed for use within certain voltage limits
- 2000/14/EC Sound Power level. Noise emissions outdoor equipment. (amended by 2005/88/EC)
- 97/68/EC Emissions of gaseous and particulate pollutants. (amended by 2002/88/EC & 2004/26/EC)
- EN 12100, EN 13857, EN 60204

Ambient conditions of reference according to ISO 8528-1:2005 normative: 1000 mbar, 25°C, 30% relative humidity.

Prime Power (PRP):

According to ISO 8528-1:2005, Prime power is the maximum power which a generating set is capable of delivering continuously whilst supplying a variable electrical load when operated for an unlimited number of hours per year under the agreed operating conditions with the maintenance intervals and procedures being carried out as prescribed by the manufacturer. The permissible average power output (Ppp) over 24 h of operation shall not exceed 70 % of the PRP.

Emergency Standby Power (ESP):

According to ISO 8528-1:2005, Emergency standby power is the maximum power available during a variable electrical power sequence, under the stated operating conditions, for which a generating set is capable of delivering in the event of a utility power outage or under test conditions for up to 200 h of operation per year with the maintenance intervals and procedures being carried out as prescribed by the manufacturers. The permissible average power output over 24 h of operation shall not exceed 70 % of the ESP

MACGEN HEADQUARTERS:

14 Drumagarnier Road, Kilrea, Northern Ireland BT51 5TB

Telephone: UK +44 (0) 28 2954 2500 / ROI +353 (0) 1801 5775

Email: sales@macgen.co.uk

Web: www.macgen.co.uk

Engine Specifications 1.500 r.p.m.

ENGINE		PRP	STANDBY
Rated Output	kW	89	98
Manufacturer		FPT_IVECO	
Model		NEF45TE2F	
Engine Type		4-stroke diesel	
Injection Type		Direct, common rail	
Aspiration Type		Turbocharged and after-cooled	
Number of cylinders and arrangement		4-L	
Bore and Stroke	mm	104 x 132	
Displacement	L	4,5	
Cooling System		Liquid (water + 50% glycol)	
Lube Oil Specifications		ACEA E3 - E5	
Compression Ratio		17,5:1	
Fuel Consumption Standby	l/h	24,8	
Fuel Consumption 100% PRP	l/h	22,8	
Fuel Consumption 80 % PRP	l/h	18,7	
Fuel Consumption 50 % PRP	l/h	13,4	
Lube oil consumption with full load		0,1 % of fuel consumption	
Total oil capacity including tubes, filters	L	12,8	
Total coolant capacity	L	18,5	
Governor	Type	Electrical	
Air Filter	Type	Dry	

Generator

Generator		
Manufacturer		STAMFORD
Poles	No.	4
Connection type (standard)		Star-series
Mounting type		S-3 11"1/2
Insulation	Class	H class
Enclosure (according IEC-34-5)		IP23
Exciter system		Self-excited, brushless
Voltage regulator		A.V.R. (Electronic)
Bracket type		Single bearing
Coupling system		Flexible disc
Coating type		Standard (Vacuum impregnation)

Application Data

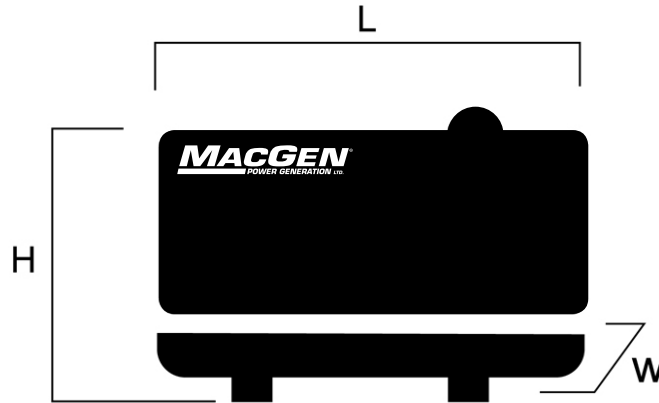
Exhaust System		
Maximum exhaust temperature	°C	460
Maximum allowed back pressure	kPa	5
Exhaust Flange Size (external diameter)	mm	90
Heat dissipated by exhaust pipe	KCal/Kwh	608

Necessary Amount Of Air		
Intake air flow	m ³ /h	525
Cooling Air Flow	m ³ /s	2,2
Alternator fan air flow	m ³ /s	0,514

Starting System		
Starting power	kW	3
Starting power	CV	4,08
Recommended battery	Ah	100
Auxiliary Voltage	Vdc	12

Fuel System		
Fuel Oil Specifications		Diesel
Fuel Tank	L	240
Other fuel tank capacities	L	450, 850, 240

Dimensions



D10R	Weight and Dimensions		
(L)	Length	mm	2.810
(H)	Height	mm	1.782
(W)	Width	mm	1.150
	Maximum shipping volume	m ³	5,76
(*)	Weight with liquids in radiator and sump	kg	1.775
	Fuel tank capacity	L	240
	Autonomy	Hours	13
	Sound pressure level	dB(A)@7m	68 ± 2,4
	(*) (with standard accessories)		STANDARD VERSION (Plastic tank)

MACGEN has the right to modify any feature without prior notice.
 Weights and dimensions based on standard products. Illustrations may include optional equipment.
 Technical data described in this catalogue correspond to the available information at the moment of printing.
 Industrial design under patent.

Dimensions of Other Available Versions

<i>Weight and Dimensions</i>		
(L) Length	mm	2.810
(H) Height	mm	1.928
(W) Width	mm	1.150
Maximum shipping volume	m ³	6,23
(*) Weight with liquids in radiator and sump	kg	1.925
Fuel tank capacity	L	450
Autonomy	Hours	24
Sound pressure level	dB(A)@7m	68 ± 2,4
<i>(*) (with standard accessories)</i>		HIGH CAPACITY VERSION (Steel tank)

<i>Weight and Dimensions</i>		
(L) Length	mm	2.810
(H) Height	mm	2.201
(W) Width	mm	1.150
Maximum shipping volume	m ³	7,11
(*) Weight with liquids in radiator and sump	kg	2.055
Fuel tank capacity	L	850
Autonomy	Hours	45
Sound pressure level	dB(A)@7m	68 ± 2,4
<i>(*) (with standard accessories)</i>		HIGH CAPACITY VERSION (Steel tank)

<i>Weight and Dimensions</i>		
(L) Length	mm	2.810
(H) Height	mm	1.782
(W) Width	mm	1.150
Maximum shipping volume	m ³	5,76
(*) Weight with liquids in radiator and sump	kg	1.795
Fuel tank capacity	L	240
Autonomy	Hours	13
Sound pressure level	dB(A)@7m	68 ± 2,4
<i>(*) (with standard accessories)</i>		OPTIONAL VERSION (Steel tank)

Generator set features

Engine

- Diesel engine
- 4-stroke cycle
- Water-cooled
- 12V electrical system
- Radiator with blower fan
- Water separator filter (no visible level)
- Electronic governor
- HTW sender
- LOP sender
- Radiator water level sensor
- Dry air filter
- Hot parts protection
- Moving parts protection

Alternator

- Self-excited and self-regulated
- IP23 protection
- H class insulation

Electrical system

- M5 control panel with electronic CEM7 control unit and switched emergency stop
- Power panel with built-in circuit breaker plates
- Safety relay in output terminal board (thermal magnetic trip and alarm in control unit)
- Battery isolator
- Adjustable earth leakage protection (time & sensitivity) with thermal magnetic protection
- 4-pole thermal magnetic circuit breaker
- Battery charger alternator with ground connection
- Starter battery/ies installed (cables and bracket included)
- Ground connection electrical installation with connection ready for ground spike (not supplied)

Soundproofed version

- Steel chassis
- Manhole to fill the radiator
- Pre-installation or niche to house the quick connection hydraulic fittings for fuel transfer
- Anti-leakage chassis, predisposed to retain liquids (retention tray)
- Manhole for fuel tank cleaning and drainage
- Manhole for chassis cleaning
- Oversized chassis to protect the bodywork
- Slide carriage and brackets for transportation with forklift
- Tilting cap in the exhaust
- Anti-vibration shock absorbers
- Chassis with integrated fuel tank
- Fuel level gauge
- Bodywork made from high quality steel plate
- High mechanical strength
- Low level of noise emissions
- Soundproofing provided by high-density volcanic rock wool
- Epoxy polyester powder coating
- Full access for maintenance (water, oil and filters, no need to remove the bonnet)

Generator set features

Soundproofed version

- Reinforced lifting hooks for crane hoisting
- Steel residential silencer -35db(A) attenuation.
- Oil sump extraction kit
- Versatility to assemble a high capacity chassis with a metallic fuel tank
- External filling of the fuel tank with safety key
- Emergency stop button (double emergency stop protection: Interior on the panel + Exterior on the bodywork)
- Mechanized for power cable output
- Door with window to visualize control panel, alarms and measurements
- Pressure locks
- IP Protection according to ISO 8528-13:2016

Additional Options:

- Auto start packages
- Synchronised options (Gen to Gen / Gen to Mains)
- Heavy duty lift & drag skids
- Dual & multi-voltage socket packs
- 3-way fuel bulk tank kit
- High capacity fuel tank
- Fast tow trailer unit
- Water fuel pre-filters
- Switchable dual frequency
- Remote monitoring & control systems
- Water jacket heater
- Battery trickle charger
- Programmable timer
- Low water level sensor
- Marine grade alternators
- PMG on alternators
- Customised canopy colours

Many more options available on request



MACGEN POWER GENERATION LTD.

14 Drumagarner Road, Kilrea, Northern Ireland BT51 5TB

Telephone: UK +44 (0) 28 2954 2500 / ROI +353 (0) 1801 5775

Email: sales@macgen.co.uk

Web: www.macgen.co.uk