TELECOM APPLICATION

Power Solution

PRAMAC

Pramac
Proposal overview

Pramac offers a wide range of solutions for Telecom applications.
In order for you to get the best power solution, there are two main factors you need consider. First, the type of site application and secondly the electric output accepted by the Base Transceiver Station (BTS).

BY
SITE APPLICATION

Site application types depend on the presence of the mains power supply.

Sites which have access to mains power supply are defined as on grid applications. The types of application can be further split according to the quality of the mains power supply, between reliable grid site application and bad grid site application. In the first instance the mains power supply failure can be under 12 hours per week, in the second it is over 12 hours per week.

Sites which have no mains power provision are defined as off-grid applications. These sites are usually located in remote areas, and usually have a dual genset installation.

BY
ELECTRIC OUTPUT

Different electric outputs are accepted by the BTS. It depends on the country they are located and / or the technology of BTS infrastructures.

BTS can accept different electric output supplies: AC, DC or both when different devices are installed.

The BTS have been moving more and more to DC output power sources.

PRAMAC
for Telecom application

		DIESEL GENSET	HYBRID
SITE APPLICATION	**ON GRID** Reliable grid	✓	-
	BAD GRID >12h/week	✓	✓
	OFF GRID	✓	✓
ELECTRIC OUTPUT	**AC**	✓	-
	DC	✓	✓
	AC& DC	✓	✓

DC Direct Current I **AC** Alternating Current

DIESEL
gensets

SITE APPLICATION

OUTPUT

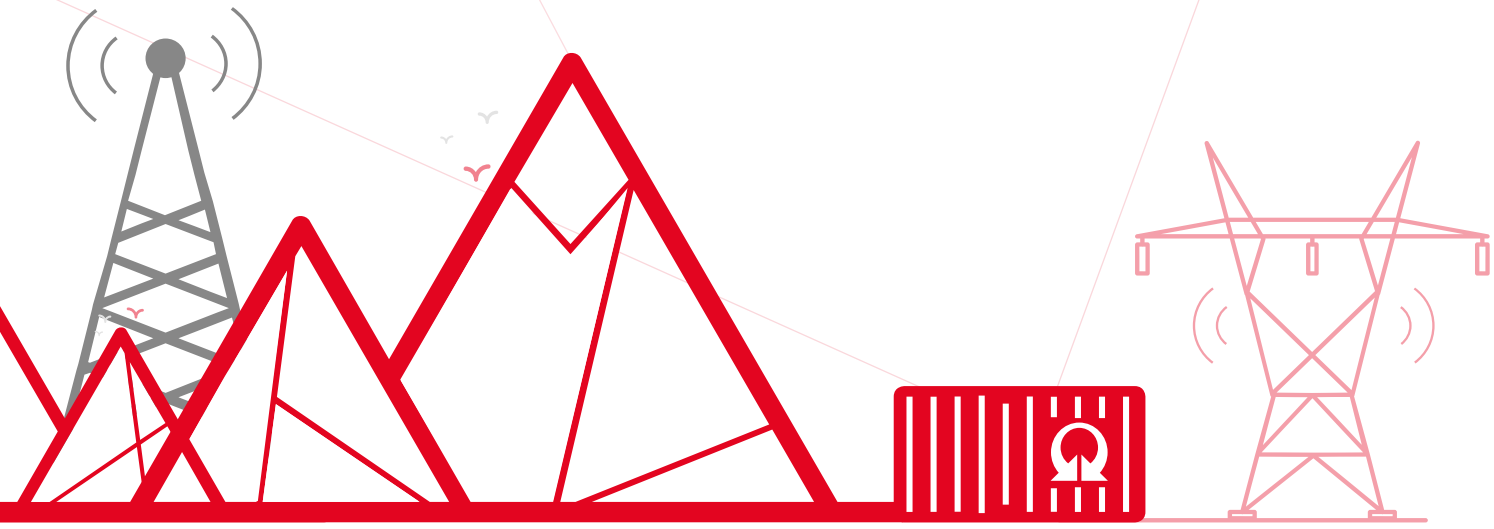
PRAMAC'S HERITAGE IN THE TELECOMS MARKET

Pramac's experience in supplying the telecoms market has enabled it to design and develop a bespoke range of power generators which incorporate a number of unique features specific to the telecoms sector.

The Pramac design team has spent many years reviewing the market to understand what power it needs. As such, two new models have been created: Long Running and Super Silent.

Both of these models offer a wide power range from 10kVA up to 65 kVA.

MORE THAN 20,000 UNITS
sold worldwide



FLEXIBILITY
at any time

Specifications

- AC Single or three phases, 50Hz or 60Hz
- DC fix or variable speed from 44 to 57 Vdc
- Water cooling
- Anti-theft hinges and screws
- Metal fuel tank
- Weatherproof enclosure
- Double large doors on each side enabling easy service and maintenance
- Automatic control panel
- Fully modular design for Telecom application

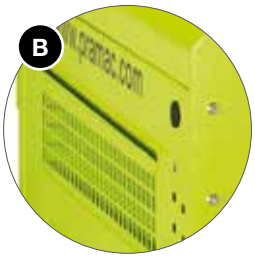
Advantages

- Affordable investment: low CAPEX solution
- Easy transportation by truck or pick-up
- Retrofit super silent enclosure 65 dB(A) @1m
- Several extended fuel tank capacities: from 500 litres up to 2000 litres
- Longer maintenance intervals with 1000hr kit free maintenance

DIESEL
GENSET

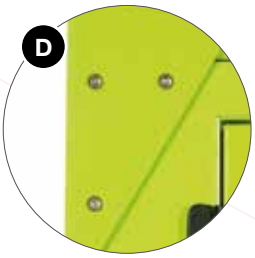
DIESEL
gensets

Four removable lifting points for **easy handling**

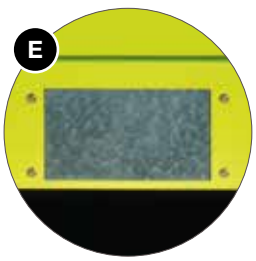


Weather proof canopy made from galvanized **sheet metal**

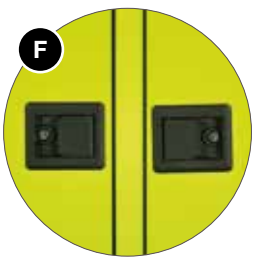
Large double doors on each side for quick and easy reach of all parts in maintenance & service



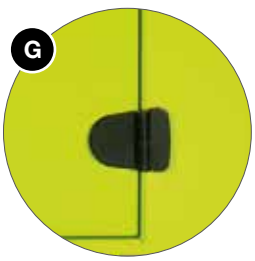
Anti-theft screws



Easy access for power cable



Lockable doors with key or padlock



Anti-theft hinges

Metal fuel tank

LOCATED IN REMOTE AREAS

large autonomy
is a must

1000 HR
FREE MAINTENANCE

LONG Running

All Long Running Telecom models have been designed to reduce refuelling frequency, and operators can enjoy long run times.

Combined with the optional 1000 hour free maintenance kit, operators can also enjoy reduced travel costs, by up to 50%, as fewer onsite visits are required for maintenance and refuelling.

Thanks to its modular build frame, the Long Running Telecom genset can be assembled and installed on site, as its two components can be transported separately. Its single or double-walled extended metal fuel tank has a capacity ranging from 500 litres up to 2000 litres.

NEAR THE CITY CENTER

low noise is needed

LOW NOISE
65 dB(A)
@1m

SUPER Silent

The Super Silent Telecom range has been specifically designed for urban use where noise has to be kept to a minimum.

Built in a modular frame, the genset can be installed assembling on site the additional noise attenuators improving air inlet/outlet soundproofing.

DIESEL
GENSET

OPTIONAL

LONG RUNNING

EFT
EXTENDED FUEL TANK

1000 HR
Maintenance Kit:
WSP + HDF + ALS

WSP - WATER SEPARATOR FILTER

removes particulates and water from the fuel for a more efficient and reliable machine. This is particularly useful when you cannot guarantee the fuel quality.

HDF - HEAVY DUTY FILTER

an air filter which enables the genset to work in dusty environments and increases maintenance intervals.

ALS - AUTOMATIC LUBE OIL SYSTEM

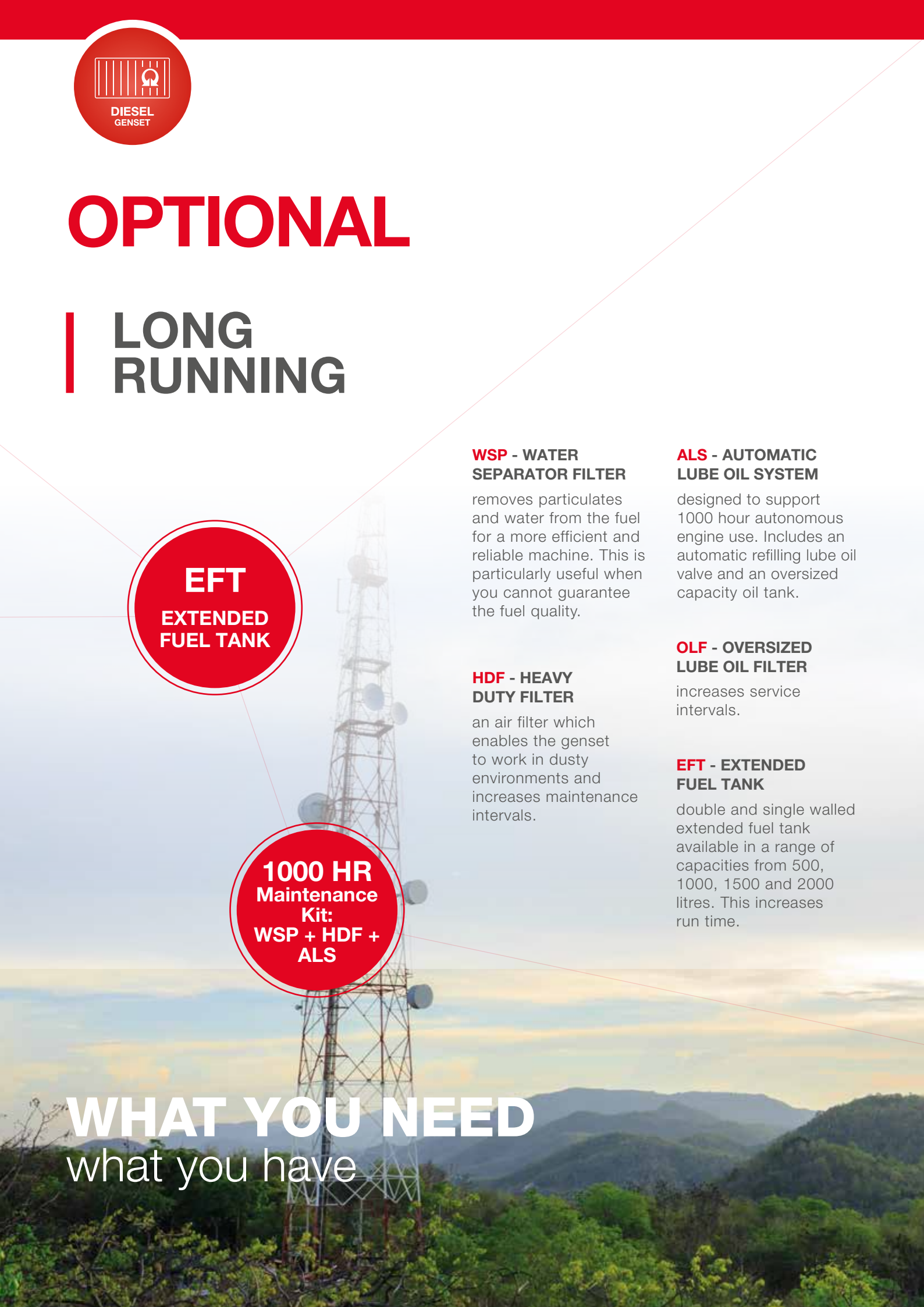
designed to support 1000 hour autonomous engine use. Includes an automatic refilling lube oil valve and an oversized capacity oil tank.

OLF - OVERSIZED LUBE OIL FILTER

increases service intervals.

EFT - EXTENDED FUEL TANK

double and single walled extended fuel tank available in a range of capacities from 500, 1000, 1500 and 2000 litres. This increases run time.



WHAT YOU NEED
what you have

CONTROL & PROTECTION

WEB
REMOTE MONITORING

TSW
CONTROL PANEL INTEGRATED TRASFER SWITCH

LCL - LOW COOLANT LEVEL SENSOR

alarm and sensor are activated in the event of low coolant levels and automatic shut down functionality when engine runs dry to prevent overheating.

TSW – INTEGRATED TRANSFER SWITCH

easy grid connection to control panel.

DSW - DOOR SWITCHES

audible alarm when genset doors are opened.

RGW - REMOTE GATEWAY

for remote monitoring and control of the genset using GPRS and GSM modules. Also available with GPS functionality.

EAG/FAG - ENGINE AND FUEL ANALOG GAUGE

allows the direct monitoring of running parameters in the machine.

Other anti-theft systems and configurations available.

HYBRID
systems

SITE APPLICATION
BAD GRID
OFF GRID

OUTPUT
DC
AC& DC

DESIGNED TO EMPOWER TELECOM SITES
AT VERY LOW OPEX

Hybrid systems are designed to power telecom sites at very low opex.

In off-gird application, the OPEX reduction can reach -70% with an increase of system lifetime up to + 7,5 years.

Suitable for average loads from 500W up to 7kW we have a range of power options available to suit all types of applications, through engine and battery pack sizing from 300Ah up to 1400Ah.

The hybrid box is the core of hybrid system and gives the flexibility of adding renewable power sources to the system at any time.

A LARGE RANGE OF HYBRID SOLUTIONS

HIGH PERFORMANCE
best total cost of ownership

Specifications

- DC variable speed from 44 to 57 Vdc genset
- VRLA battery pack from 300Ah up to 1400Ah
- Anti-theft hinges and screws
- Metal fuel tank
- Weatherproof enclosure
- Double large doors on each side allow easy service and maintenance
- Hybrid box managing the power flow among the genset, the batteries and the PV panels (Option)
- Modular design

Advantages

- From -30% up to -70% OPEX reduction*
- From -60% up to -88% engine running time reduction*
- Easy transportation by truck or pick-up
- Longer maintenance interval with 1000hr kit free maintenance
- Plug-in installation

* Compare with Dual AC genset 24h/7d off grid installation

PRAMAC

ENERGY GENERATION

PR INDUSTRIAL S.R.L.

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