



# UNIGEN PLUS

- AUTOMATIC COUPLER -

## Generating set Auto Synchroniser and load sharer.

### APPLICATIONS

■ **Isochronous load sharing in island mode or in parallel with mains**

UNIGEN Plus will be used on generator sets that require synchronising, load sharing and paralleling features. UNIGEN Plus can be used to parallel either a single genset with mains or several together. One UNIGEN is needed per generator set. UNIGEN Plus combined with the GCR (CRE Load Commander) can control very complex power plants with several mains.

■ **Mobile gensets**

With its digital « Super Droop » function, unique on the market, UNIGEN Plus makes the mobile gensets coupling simple.

### ADVANTAGES

■ **SUPER DROOP (digital), at +/-0,25Hz**

No communication between UNIGENS is needed to achieve the coupling. The curve is almost isochronous at +/-0,25Hz.

■ **Compatible with all speed governors:** UNIGEN PLUS is equipped with an analogue output (+/- 10V adjustable) for speed control.

Barber Colman / Woodward	MTU MDEC	Cummins
GAC	Volvo	Deutz EMR
Heinzmann	Perkins	Scania

■ **Compatibility with all AVR :**

UNIGEN PLUS is equipped with an analogue output (+/-10V adjustable) for voltage control (AVR).

STAMFORD	MARELLI MOTORI
BASLER	MARATHON
AVK	LEROY SOMER
MECC ALTE SPA	

■ **Compatible with modules using paralleling lines 0-3V**

Brand	Product
CRE	Gensys
Woodward/Barber Colman	DYN2 801xx
	PowRcon DYN2 9402x
	2301 A

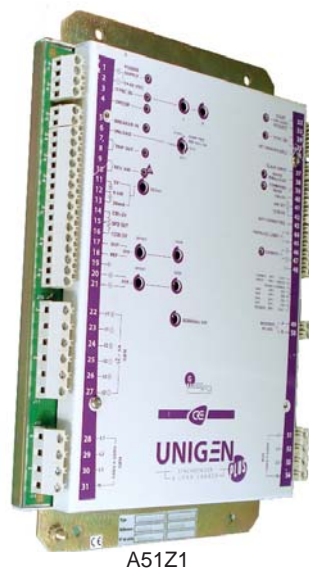
■ **Replacement of « out of production » products:**

UNIGEN Plus can replace the following Barber Colman modules:

Auto Synchro	DYN2-90300
Load sharer	DYN2 80 108 & DYN2 80 109

■ **CANBUS “plug & Play”**

The address of each Unigen doesn't need to be adjusted. All Unigens connected on the CANBUS will automatically detect the other one. Up to 8 gensets can be paralleled together.



### FUNCTIONS

■ **ALL the settings are adjusted with potentiometers**  
No computer needed!!

■ **Synch check relay 'SYNC OK'**

UNIGEN Plus controls the difference of voltage, frequency and phase between the generator to be paralleled and the bus bar. The sync check relay "SYNC OK" authorizes the closing of the generator breaker either in Automatic or Manual mode.

■ **Automatic & Manual Synchronisation:**

The automatic mode of UNIGEN Plus modifies the voltage AND the frequency AND the phase in order to enable quick and precise coupling. Using the manual mode, the speed can be adjusted by an external 10kOhms potentiometer.

■ **Power load sharer (kW & kVAR):**

It manages load and unload ramps during the launch and the stop of the group. It can manage groups of various power and/or with an electronic speed regulator from a different brand.

■ **Load dependant start « Start on load request »**

« Start on load request » is activated to start/stop slave generator sets in accordance with the load demand.

■ **Reverse kW protection**

The relay 'REV kW' closes on reverse power.

■ **Analogue kW output**

Compatible with PLC and 0-5 V, 0-20 mA or 4-20 mA gauges.

## CHARACTERISTICS

### Weight – Dimensions:

1, 5 kg - 200x275x26 mm.

### Voltage measurement and current input:

Part number	Nominal voltage & current
A51Z1	110 VAC to 500VAC 1A to 5A

Frequency: 50 or 60 Hz.

### Output relays :

Volt free contacts, 5 A at voltage of 250 VAC, maximum cutting voltage 440 VAC. Switched power on resistive load, 2000 VA.

## ENVIRONMENT

■ **Mounting:** Can be fixed in all direction.

■ **Operating temperature:** -20°C to + 70°C.

■ **CE mark:** UNIGEN PLUS is in conformity with European CE Mark requirements.

■ **Power supply:** 9 – 40Vdc.

■ **Vibrations:** 5 to 500Hz at 25G.

■ **CEM:** EN 50081-2 et EN 61000-6-2

