# A2085 - Ground power unit / Houchin C690



## Description

## Model C690 Ground Power Unit, 140 kVA output + 28V DC / TIER3

The C690 is a low noise Ground Power Unit suitable for servicing 400Hz AC and 28V DC electrical systems on all types of aircraft.

Powered by a diesel engine, coupled to a Houchin alternator, the unit is mounted on a monocoque chassis with integral cable trays.

It is protected by a unique sliding weatherproof canopy and is designed for maximum access.

The company's quality procedures are certified to: BS EN ISO 9001:2000

Serial number: 104833

## Configuration

### **Trailer mounted**

A rugged monocoque construction in fabricated sheet steel with extensive corrosion protection. Fifth wheel steering, fitted with leaf springs and four 18x7 pneumatic tyred wheels.

### **Truck mounted**

The unit can be supplied without undergear for mounting on to the customer's choice of vehicle.

## **Performance**

Model Type	kVA Rating	Continuous Peak Overload kVA	Engine	Cylinders	Engine Type	Fuel Type	Electrical System	Cooling System	Coolant
C690	90	112	Cummins	6	4 Stroke Turbo		24 Volt	Tropical Radiator	Water
C690	100	112			Charged	Diesel	24 VOIC	& Fan	water
C690	140	154	Cummins QSB	6					

## Features Applying To All Models

: 115/200 Volts : 0.2 secs. Voltage Range Transient Recovery

Phase Frequency Regulation : ± 2Hz (steady state) : 400 Frequency Transient : ± 10Hz (load change) Power Factor Transient Recovery : 0.8 cos Ø : 1.0 secs.

Peak Load : 110% continuous

Voltage Regulation : ± 1% (steady state)
Voltage Transient : ± 20% (100% load change) at 0.8 p.f

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## **Technical Specification**

### **Electrical Standards**

BS 5000 pt, 99, BS 2G219 (ISO 6858), Insulation class 'H' throughout and varnished to provide a moisture-proof protection.

### Operating Equipment

Provides rated output at temperatures of between -25° and + 40° and altitudes of up to 1000m ASL. Contact manufacturer for appropriate de-ratings for higher values than those stated.

#### Generator

Houchin designed and manufactured brushless, synchronous alternator. Revolving field salient pole type with a single bearing. Coupled to the engine flywheel by means of a spring steel disc.

#### **Electrical Controls**

On/OFF Pushbuttons, Power 'ON' lamp, Digital instrumentation to read – volts, amps and frequency. Interlock-bypass switch with indicator Excite pushbutton, Panel lamps with switch.

### **Engine Controls**

Start keyswitch, Idle/service switch, Hours counter, Fault display.

#### Protection

Over voltage, Under voltage, Over frequency, Under frequency, Overload, Low oil pressure, High engine temperature.

## **Fuel Tank**

With sufficient capacity to give approximately 10 hours full load running. Complete with contents gauge.

## **Output Cable**

AC Output cable 7.6m long, complete with a standard 6-pin socket. DC output cable 10m long, complete with a standard 3-pin socket.

## **Noise Attenuation**

Engine : dBA@3M Cummins BT : 84 Cummins BTA : 87

## Testing

All equipment is fully tested, test certificates are available upon request.

## **Publications**

A comprehensive manual is included, containing sections covering general description and operating instructions, service/maintenance, fault diagnosis and overhaul procedures and illustrated part list.

#### Servicing

The equipment is designed for ease of maintenance and inspection.

## Overall Size

 Height : 1663 mm
 Width : 1755 mm

 Length : 3606 mm
 Weight : 2800 Kg