



Heathrow Airport, Terminal 5
G&M Tex supplies generators
to UK's major airports



CAIGATETEX
ENERGY SOLUTIONS

50Hz/60Hz
Dual Speed



50Hz/60Hz - Generator Sets

Power Container Module Series

PCM/DIESEL GENERATOR SET

50Hz/60Hz switchable
300kW~2000kW



ISO 20 FT Container



ISO 40 FT Container

Application: Diesel Power Plant | Hybrid Microgrid | Black Start | Backup Power

Fast, Reliable & Cost-Effective

The PCM series have been designed with the customer in mind. The solution provides you the flexibility to switch the power loads in the most efficient way. It's easy to move, operate and straightforward to maintain.



All-in-One

1. DIESEL ENGINE

- 4-stroke water cooled engine
- Electronic governor or engine management system
- Lube oil drain valve
- Standard air filter & fuel pre-filter

2. ALTERNATOR

- Single or twin bearing brushless alternator
- Class H insulation system and class H temperature rise
- IP23 protection
- Automatic Voltage Regulator with 1% Voltage Regulation

3. CONTROL PANELS

- DeepSea digital control module with manual and remote control
- ABB MCCB or motorised circuit breaker, power loom supplied
- A dependable and user-friendly operating system
- Full power monitoring and protection facilities are incorporated

4. COOLING SYSTEM

- Heavy duty high ambient radiator with guards
- Engine drive cooling fan assembly
- Coolant drain valve
- Low coolant level alarm/shutdown sender

5. FUEL SYSTEM

- Integral single skin fuel tank within baseframe
- Flexible fuel feed and return lines
- Automatic fuel transfer system in gravity-fed bulk tank
- Level switch, motorised valve and controls included

6. EXHAUST

- Residential noise reduction silencer supplied
- Internal or external exhaust system (of container)
- Include stainless steel bellows
- Set of connect flanges for silencer/bellows

7. STARTING SYSTEM

- 24VDC electric starter motor
- Engine starting battery cable and battery tray
- Battery charging alternator by engine drive
- Maintenance free batteries

8. ACOUSTIC CONTAINER

- ISO 20ft or 40ft HQ containers are attractive, robust and easy to transport
- ISO CSC plated shipping container
- Soundproof and weatherproof
- Specifically engineered to maximize utilisation and ease of operation

9. GENERAL

- Work tested in general compliance with ISO standards
- Built in anti-vibration mountings
- Powder coated fabricated steel base frame
- Products with "CEav certification"



All-round Application

POWER PLANT

Scale up to 50MW



HYBRID MICROGRID

100% electricity availability



BLACKSTART*

One step load > 200%



BACK UP POWER

Transition time within 10 seconds

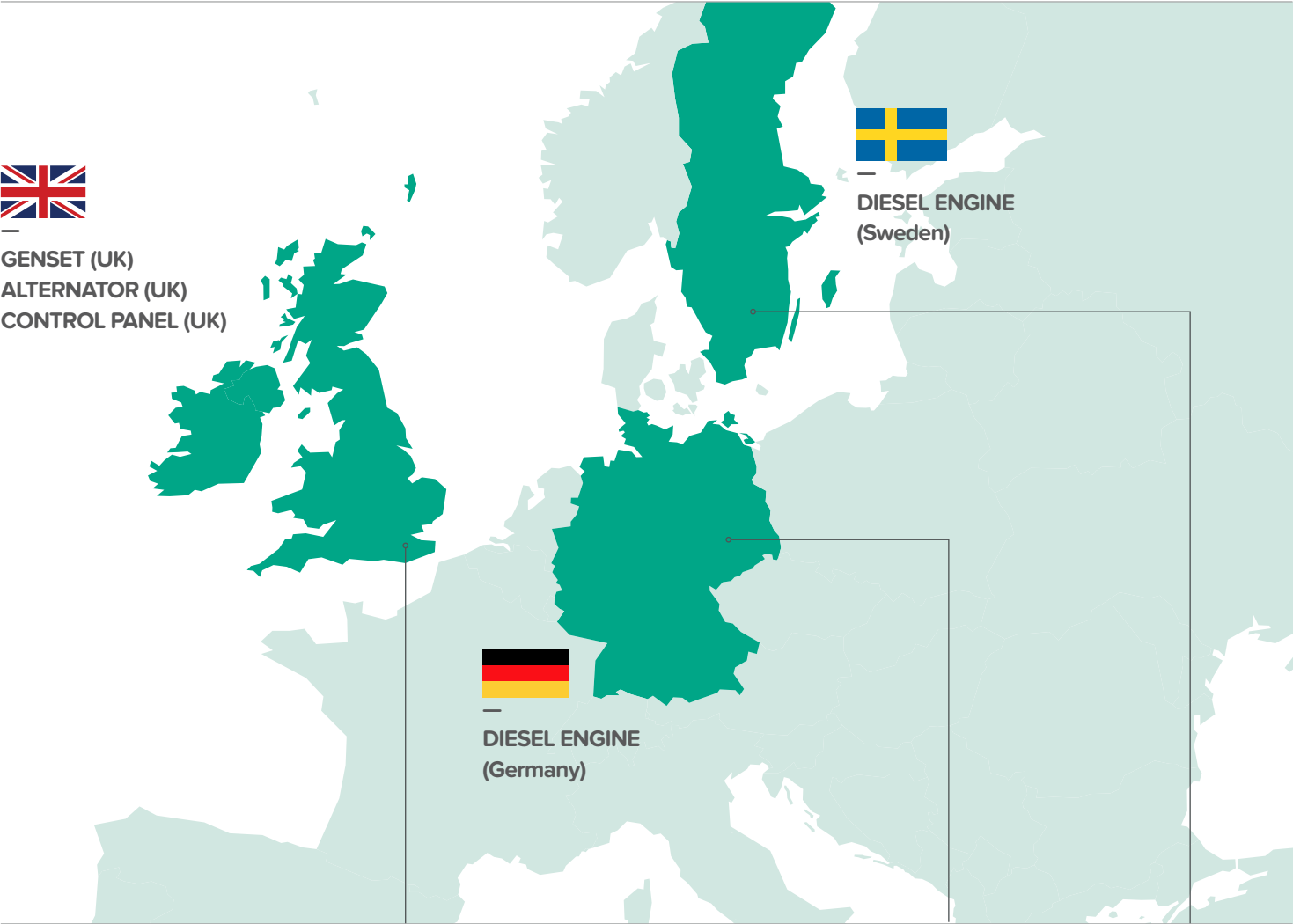


PCM series have been tested and used in arduous conditions with different temperatures and climates.

* Note: PCM series for Blackstart scenario requires EMS to achieve or even beyond 200% step load.

100% Made in the UK

The world-class quality genset is designed and assembled in the United Kingdom. All major components are produced in the West Europe.



UK
PCM
Genset



UK
Control
Panel



UK
Alternator
Model: A, A+, B+, C



UK
Alternator
Model: B



GERMANY
Diesel Engine
Model: C



SWEDEN
Diesel Engine
Model: A, A+, B, B+



Note: The solution can be tailor made to your requirements, with engine option by Volvo: A, A+, B, B+

Technical Data

POWER CONTAINER MODULAR (PCM) SERIES

MODEL	50Hz@400/230V		60Hz@480/277V		Container Details				Fuel Base Tank (L)	Weight (t)
	Prime kW / kVA	Standby kW / kVA	Prime kW / kVA	Standby kW / kVA	Confi (Unit/DGU)	Container	85dB(A) Noise Level (m)	Silence Mount		
C320	320/400	352/440	345/431	400/500	1A	20ft	1	Int	1020	5.9
C400	400/500	440/550	400/500	440/550	1A*	20ft	1	Int	1020	6.1
C500*	516/645	588/710	528/660	582/728	1B	20ft	1	Int	1200	6.9
C550*	560/700	616/770	560/700	616/770	1B*	20ft	1	Int	1200	7.0
C600*	640/800	704/880	690/862	800/1000	2A	20ft	7	Ext	2×1020	9.0
C800	800/1000	880/1100	800/1000	880/1100	2A*	20ft	7	Ext	2×1020	9.3
C900*	916/1145	1008/1260	928/1160	1022/1278	1A* 1B	20ft	7	Ext	1020+1200	10.1
C1000	1000/1250	1100/1375	1000/1250	1100/1375	1C	20ft	7	Ext	1000	11.2
C1000*	1032/1290	1136/1420	1056/1320	1164/1456	2B	20ft	15	Ext	2×1200	10.9
C1100*	1120/1400	1232/1540	1120/1400	1232/1540	2B*	20ft	15	Ext	2×1200	11.1
C1200	1200/1500	1320/1650	1200/1500	1320/1650	3A*	40ft	15	Ext	3×1020	14.5
C1300*	1352/1690	1488/1860	1401/1751	1564/1956	1A2B	40ft	15	Ext	1020+2×1200	16.0
C1500*	1548/1935	1704/2130	1584/1980	1746/2184	3B	40ft	15	Ext	3×1200	16.9
C1600*	1636/2045	1800/2250	1648/2060	1814/2268	1B2B*	40ft	15	Ext	3×1200	17.1
C1650*	1680/2100	1848/2310	1680/2100	1848/2310	3B*	40ft	15	Ext	3×1200	17.2
C1800	1800/2250	1980/2475	1800/2250	1980/2475	2A* 1C	2×20ft	15	Ext	2×1020+1000	20.5
C1800*	1832/2400	2016/2520	1856/2320	2044/2556	2A* 2B	2×20ft	15	Ext	2×1020+2×1200	20.2
C2000	2000/2500	2200/2750	2000/2500	2200/2750	2C	40ft	15	Ext	2×1000	21.6
C2000*	2064/2580	2272/2840	2112/2640	2328/2912	4B	2×20ft	15	Ext	4×1200	21.8

Remark:

C1300* - 1A2B - 40ft

-
- 40ft container module of package
 - DGU quantity and model: 1A2B for 1 unit model A and 2 units model B
 - Approach primary output 1300kW plus
 - Caigate PCM product series

- 20ft ISO standard container: 6.06×2.44×2.59m, 40ft ISO high cube container: 12.19×2.44×2.90m.
- 50Hz/60Hz switchable, 3 phases 4wires, 0.8pf.
50Hz @1500rpm 400V/230V, 380V/220V, 415V/240V;
60Hz @1800rpm 480V/223V, 380V/220V, reconnectable.
- Applicable ambient temperature: -20°C <T <40°C.
- All gensets come with DSE panel and stainless steel bellows.
- FT2-Automatic fuel transfer system incl. gravity feed from bulk tank (level switch, motorised valve, controls incl.).
- DSE 8610/20 Control panel (sync with mains) for single unit.
- DSE 8610 + DSE 8660 + DSE 8003 MKII (sync with each genset and mains plus centre control panel) for multi-units.
- I Int - internal exhaust system, suitable for C320, C400, C500*, C550*;
Ext - external exhaust system, suitable for the remaining models.
- Fuel Base Tank (L): A/A*: 1020L, B/B*: 1200L, C: 1000L.
- Any specific noise level requirement, can be tailor-made on request, please contact sales@caigate.com; for detailed technical and pricing info, please download via www.caigate.com



20FT CONTAINER MODULE



2 X 20FT CONTAINER MODULE



40FT CONTAINER MODULE

Product options

DIESEL GENERATOR UNIT (DGU)

GENSET MODEL	Diesel Generator Set				Engine	Dimension (L x W x H) mm	
	50Hz		60Hz		Brand/Model	Open	Canopy
	Prime KW / KVA	Standby KW / KVA	Prime KW / KVA	Standby KW / KVA			
A	320/400	352/440	345/431	400/500	Scania/DC13 72A	3831×1194×2131	5000×1600×2100
A+	400/500	440/550	400/500	440/550			
B	516/645	588/710	525/656	582/728	Scania / DC16-93 A	3869×1316×2212	5400×1750×2100
B+	560/700	616/770	560/700	616/770	Scania / DC16-78A		
C	1000/1250	1100/1375	1000/1250	1100/1375	MTU / 18V2000 B76	5814×1889×2198	/

1. Original country: DGU is designed and assembled in UK; Engine: Scania, made in Sweden; MTU, made in Germany; Alternator: A, A+, B+ and C in MeccAtte, made in UK; B in Stamford, made in UK or EU; Controller: Deepsea, made in UK.

2. 50 Hz/60 Hz switchable, 3 phases 4 wire, 0.8 pf. 50Hz @1500rpm, 400V/230V, 380V/220V, 415V/240V; 60Hz @1800rpm, 480V/223V, 380V/220V, reconnectable.
3. The standard DGU range of generating sets meet European "CE" requirements.

4. Weight of genset: Openset: A/A+ is 3.25t, B/B+ is 4.15t, C is 8.4t; Canopy: A/A+ is 4.85t, B/B+ is 6.05t.

5. DSE 7320 or DSE 7420 control panel for standard single unit.

DGU STANDARD SCOPE OF SUPPLY AND OPTION

PARTS	FEATURES	A	A'	B	B'	C
1. Engine	1.1 4 stroke water cooled engine	✔	✔	✔	✔	✔
	1.2 Coolant Heater	⊕	⊕	⊕	⊕	⊕
2. Alternator	2.1 Single or twin bearing Alternator	✔	✔	✔	✔	✔
	2.2 Anti - condensation Heater	⊕	⊕	⊕	⊕	⊕
	2.3 Quadrature Droop Kit	⊕	⊕	⊕	⊕	⊕
3. Controller	3.1 DSE Panel	✔	✔	✔	✔	✔
	3.2 Single - Mains synch	⊕	⊕	⊕	⊕	⊕
	3.3 Multiset - Mains synch	⊕	⊕	⊕	⊕	⊕
	3.4 Central control panel	⊕	⊕	⊕	⊕	⊕
4. Circuit Breaker	4.1 Three-Pole Circuit Breaker	✔	✔	✔	✔	⊕
	4.2 Four-Pole Circuit Breaker	⊕	⊕	⊕	⊕	⊕
	4.3 Motorised Kit for Circuit Breaker	⊕	⊕	⊕	⊕	⊕
5. Enclosure	5.1 Canopy	⊕	⊕	⊕	⊕	✖
	5.2 Container (20ft & 40ft)	⊕	⊕	⊕	⊕	⊕
6. Radiator	6.1 Ambient Temperature to 40°C	✔	✔	✔	✔	✔
	6.2 Low coolant Temperature Alarm	⊕	⊕	⊕	⊕	⊕
	6.3 Low coolant level Alarm	⊕	⊕	⊕	⊕	⊕
7. Fuel Tank	7.1 Base Fuel Tank	✔	✔	✔	✔	⊕
	7.2 Low Fuel level Alarm	⊕	⊕	⊕	⊕	⊕
	7.3 Automatic Fuel Transfer system	⊕	⊕	⊕	⊕	⊕
8. Exhaust	8.1 Industrial Silencer Mounting Kit (loose)	✔	✔	✔	✔	✔
	8.2 Residential silencer (loose)	⊕	⊕	⊕	⊕	⊕
	8.3 Stainless Steel Bellows (loose)	⊕	⊕	⊕	⊕	⊕
9. Battery	9.1 Lead Acide Battery Cable & Tray	✔	✔	✔	✔	✔
	9.2 Static Battery Charger	⊕	⊕	⊕	⊕	⊕
10. Baseframe	10.1 Powder coade fabricated steel basetrane	✔	✔	✔	✔	✔
	10.2 Single point lift	⊕	⊕	⊕	⊕	⊕
	10.3 Fork pockets (canopy set only)	⊕	⊕	⊕	⊕	⊕

✔ Standard equipment; ⊕ Availabe on request; ✖ Not available



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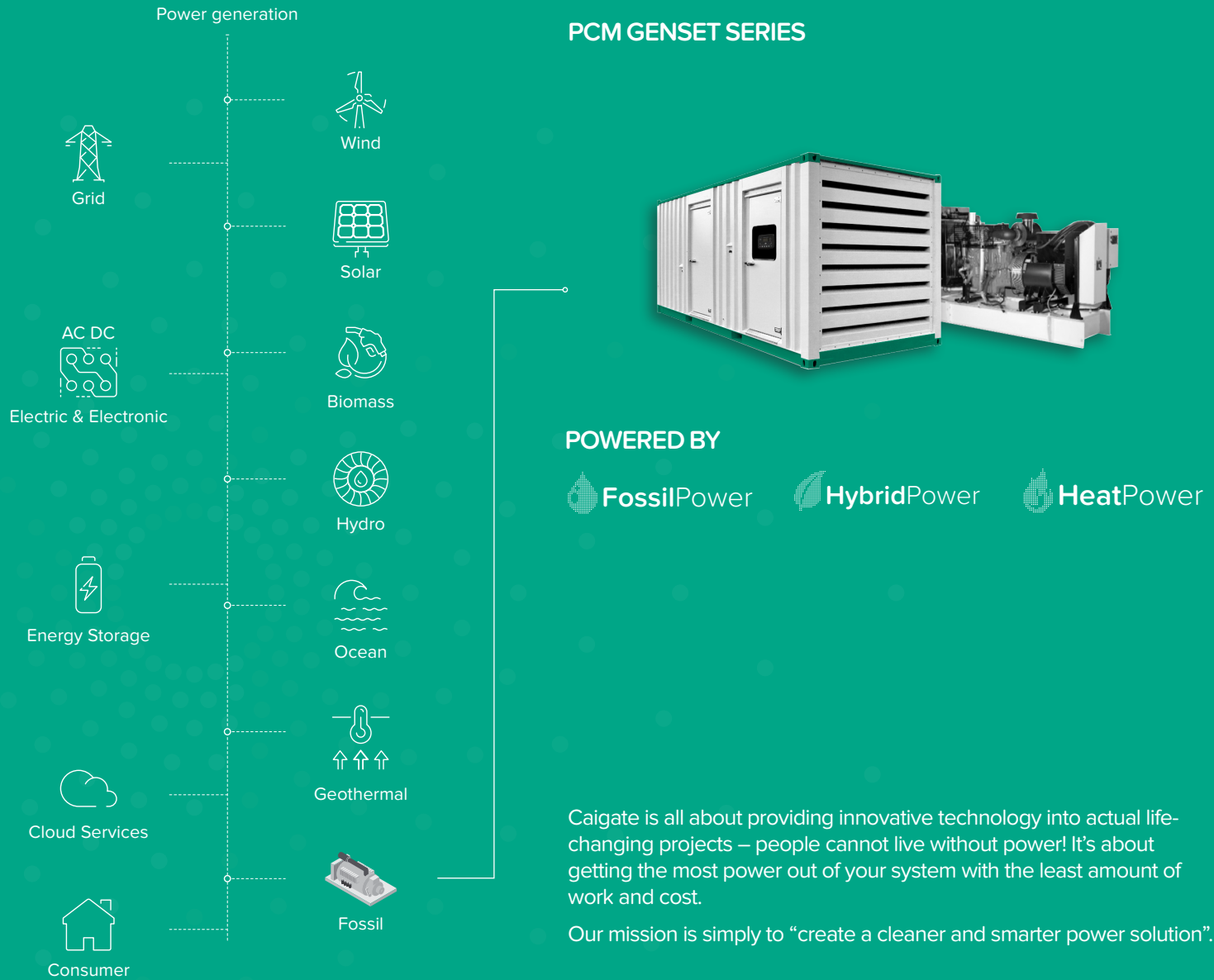


CANOPY



CONTAINER

Integrated solution provider for Hybrid Microgrid Solution:



Emergency generators for British Royal
Navy T45 destroyer



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ENERGY SOLUTIONS

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