



MAINTENANCE AND ENGINEERING | ME-020

Diesel Generators Operation and Maintenance

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Course content

Why Attend

Diesel generators provide standby and prime power for hospitals, data centres, remote sites and industry. They must start and run reliably when needed.

This Aractech course covers generator set components, engine systems, alternators, controls and synchronisation, fuel systems and fuel quality, load testing, preventive maintenance, troubleshooting and emissions. Participants develop maintenance and testing programmes.

Course Methodology

- Technical presentations
- Maintenance planning exercises
- Troubleshooting cases
- Group discussions
- Demonstrations

Course Objectives

- Describe generator set components and operation
- Understand engine, fuel and cooling systems
- Explain alternators, controls and synchronisation
- Plan load testing and preventive maintenance
- Troubleshoot common generator problems
- Manage fuel quality and emissions

Target Audience

- Generator technicians
- Electrical and mechanical maintenance staff

Course content

- Facilities engineers
- Data centre and hospital engineers

Course outline

Detailed course outline

Day-by-day outline for Diesel Generators Operation and Maintenance.

Day 1 - Generator Sets

- 09:00-09:45 | Applications
- 09:45-10:30 | Components
- 10:30-11:00 | Ratings
- 11:00-11:30 | Coffee break
- 11:30-11:45 | Ratings (continued)
- 11:45-12:30 | Standards
- 12:30-14:00 | Exercise: Generator review

Day 2 - Engine Systems

- 09:00-09:54 | Engine operation
- 09:54-10:48 | Fuel systems
- 10:48-11:00 | Cooling
- 11:00-11:30 | Coffee break
- 11:30-12:12 | Cooling (continued)
- 12:12-13:06 | Lubrication
- 13:06-14:00 | Air intake and exhaust

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Day 3 - Alternators and Controls

- 09:00-09:54 | Alternators
- 09:54-10:48 | Voltage regulation
- 10:48-11:00 | Controls
- 11:00-11:30 | Coffee break
- 11:30-12:12 | Controls (continued)
- 12:12-13:06 | Synchronisation
- 13:06-14:00 | Transfer switches

Day 4 - Testing and Maintenance

- 09:00-09:45 | Load bank testing
- 09:45-10:30 | Preventive maintenance
- 10:30-11:00 | Fuel quality
- 11:00-11:30 | Coffee break
- 11:30-11:45 | Fuel quality (continued)
- 11:45-12:30 | Records
- 12:30-14:00 | Workshop: Maintenance plan

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Day 5 - Troubleshooting

- 09:00-09:54 | Starting failures
- 09:54-10:48 | Performance problems
- 10:48-11:00 | Electrical faults
- 11:00-11:30 | Coffee break
- 11:30-12:12 | Electrical faults (continued)
- 12:12-13:06 | Emissions
- 13:06-14:00 | Capstone: Troubleshooting cases

Seminar dates

Available seminar dates

Live dates and pricing for Diesel Generators Operation and Maintenance generated from the course details page.

Date	Location	Format	Fee
2 - 6 November 2026	Paris	Classroom	€3,825
21 - 25 December 2026	Frankfurt	Classroom	€1,875
18 - 22 January 2027	Dubai	Classroom	€1,845
15 - 19 February 2027	Amsterdam	Classroom	€2,830
15 - 19 March 2027	Geneva	Classroom	€4,315
19 - 23 April 2027	Istanbul	Classroom	€1,978
17 - 21 May 2027	Vienna	Classroom	€3,225
21 - 25 June 2027	Barcelona	Classroom	€2,815
19 - 23 July 2027	Cape Town	Classroom	€1,625
16 - 20 August 2027	Frankfurt	Classroom	€1,875

Seminar dates

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Date	Location	Format	Fee
20 - 24 September 2027	Geneva	Classroom	€4,315
18 - 22 October 2027	Amsterdam	Classroom	€2,830
15 - 19 November 2027	Geneva	Classroom	€4,315
20 - 24 December 2027	Istanbul	Classroom	€1,978
2 - 6 November 2026	Online / Live	Online / Live	€1,815
21 - 25 December 2026	Online / Live	Online / Live	€1,815
18 - 22 January 2027	Online / Live	Online / Live	€1,815
15 - 19 February 2027	Online / Live	Online / Live	€1,815
15 - 19 March 2027	Online / Live	Online / Live	€1,815
19 - 23 April 2027	Online / Live	Online / Live	€1,815

Seminar dates

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Date	Location	Format	Fee
17 - 21 May 2027	Online / Live	Online / Live	€1,815
21 - 25 June 2027	Online / Live	Online / Live	€1,815
19 - 23 July 2027	Online / Live	Online / Live	€1,815
16 - 20 August 2027	Online / Live	Online / Live	€1,815
20 - 24 September 2027	Online / Live	Online / Live	€1,815
18 - 22 October 2027	Online / Live	Online / Live	€1,815
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