

DAIHATSU



Land - Use Diesel Generator

DK series / DC series Diesel Engine



DAIHATSU DIESEL MFG.CO.,LTD.

Daihatsu Diesel Engines — Gent

Self-Sufficiency in Electric Energy, the Clean and Low-Cost Way. Achieved



Environmental Friendliness

Japan's top-class, high-efficiency engines help to reduce carbon dioxide (CO₂) emissions and conserve the global environment.

Endurance and Reliability

Daihatsu engines also boast a tough and durable structure. For reliable assurance, they are designed with a 20% extra margin of strength over the actual operating load.

Economical Operation

Daihatsu engines are at the top of the class in Japan for overall efficiency, including thermal uses like heating, cooling and steam applications. They are highly economical.

Easy and Safe to Use

Highly evaluated for quality control, and backed by a long record of stable operation in both marine and land use, the Daihatsu factory was the world's first life-protecting marine power generator manufacturer to be certified by Lloyd's Register of Shipping in England.

Easy Maintenance

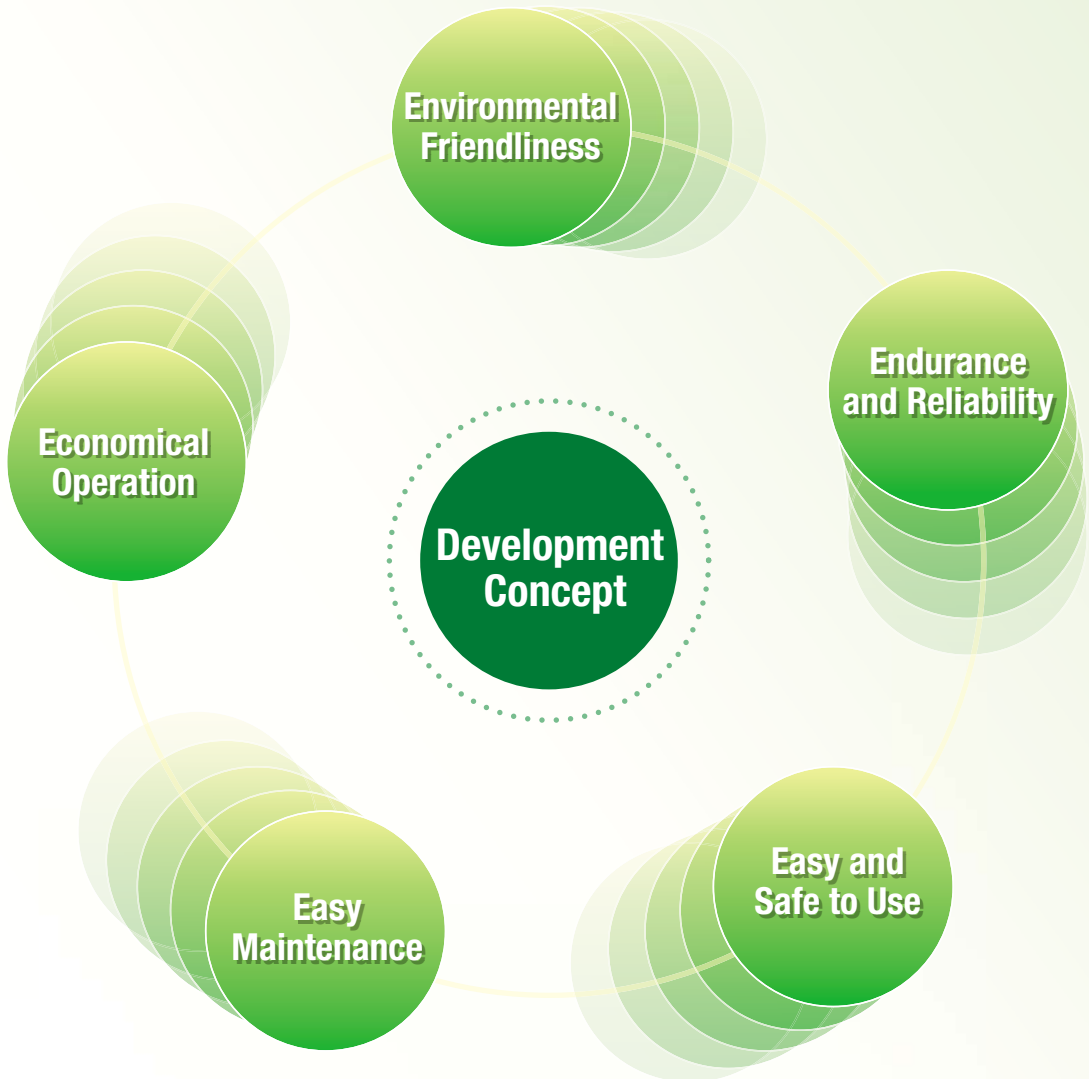
The use of the DSP (Daihatsu Single Pipe) supercharging system and a 40% reduction in the number of parts compared with conventional engines have greatly lowered the cost of maintenance. Daihatsu also provides direct maintenance with a nationwide network, as part of its total support system.

DK & DC series



le to the Earth

by Daihatsu Land-Use Diesel Generators.



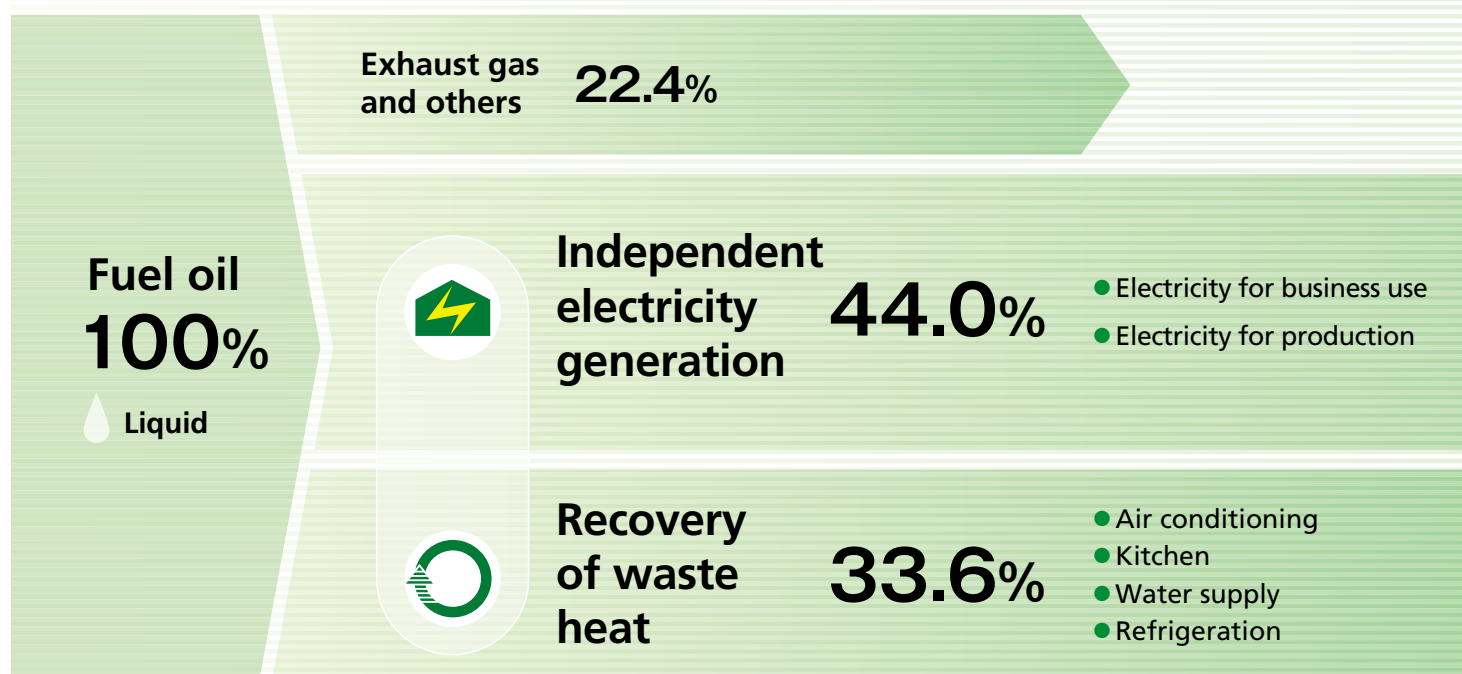
Co-generation systems that effectively use the h further enhance energy-savings and help to con

The exhaust gas, exhaust heat, and cooling water heat from the engine are recovered and reused to produce hot water, steam manufacturing, and heating/cooling.

This superb energy-saving efficiency is contributing to a wide variety of fields, from business facilities to hotels and other accommodations, and medical institutions.

■ Remarkable Improvement in Energy Efficiency

Setting fuel to "100," an Energy Efficiency graph showing how much of the fuel can actually be used as energy attains a high value of 77.6%. Compared with 44.0% for power generation only, this is an improvement of about 70%. This kind of total energy-saving effect for buildings and facilities is highly attractive.



The Versatile Daihatsu Lineup

- An optimal system can be configured from the wide Daihatsu diesel engine lineup, with individual
- The lineup also includes gas engines (815 kWe to 5300 kWe) based on the long track record of
- There is also a wide lineup of emergency-use generators, from compact packages to large-scale

■ Usable for a Wide Range of Applications

These systems can be used in a wide variety of business and fields, from factories and buildings to department stores and other businesses, and hotels and leisure facilities.

Electricity for production

Sports centers / Leisure facilities

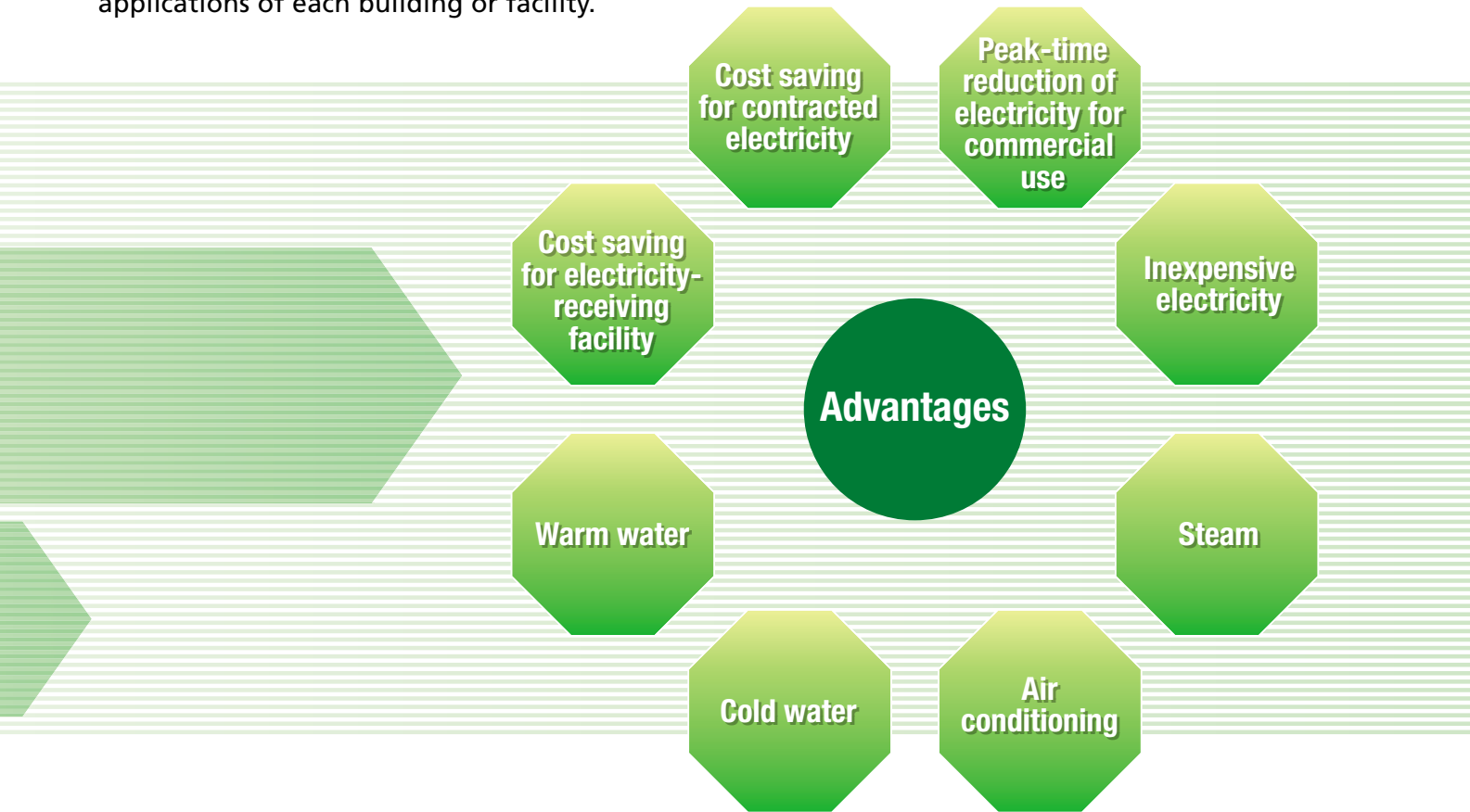
Offices / Buildings

Restaurants / Drive-in restaurants

eat energy during power generation serve the environment.

Advantages of Co-Generation

In addition to stable, self-sufficient electric power and cost-savings, the many advantages of co-generation include efficient heating and cooling, and hot water. A wide variety of advantages can be enjoyed depending on the applications of each building or facility.



generators capable of producing output from 600 kWe to 5600 kWe.
diesel engines.
systems.

Hospitals



Hotels / Inns



Manufacturing
factories







Department stores/
Supermarkets

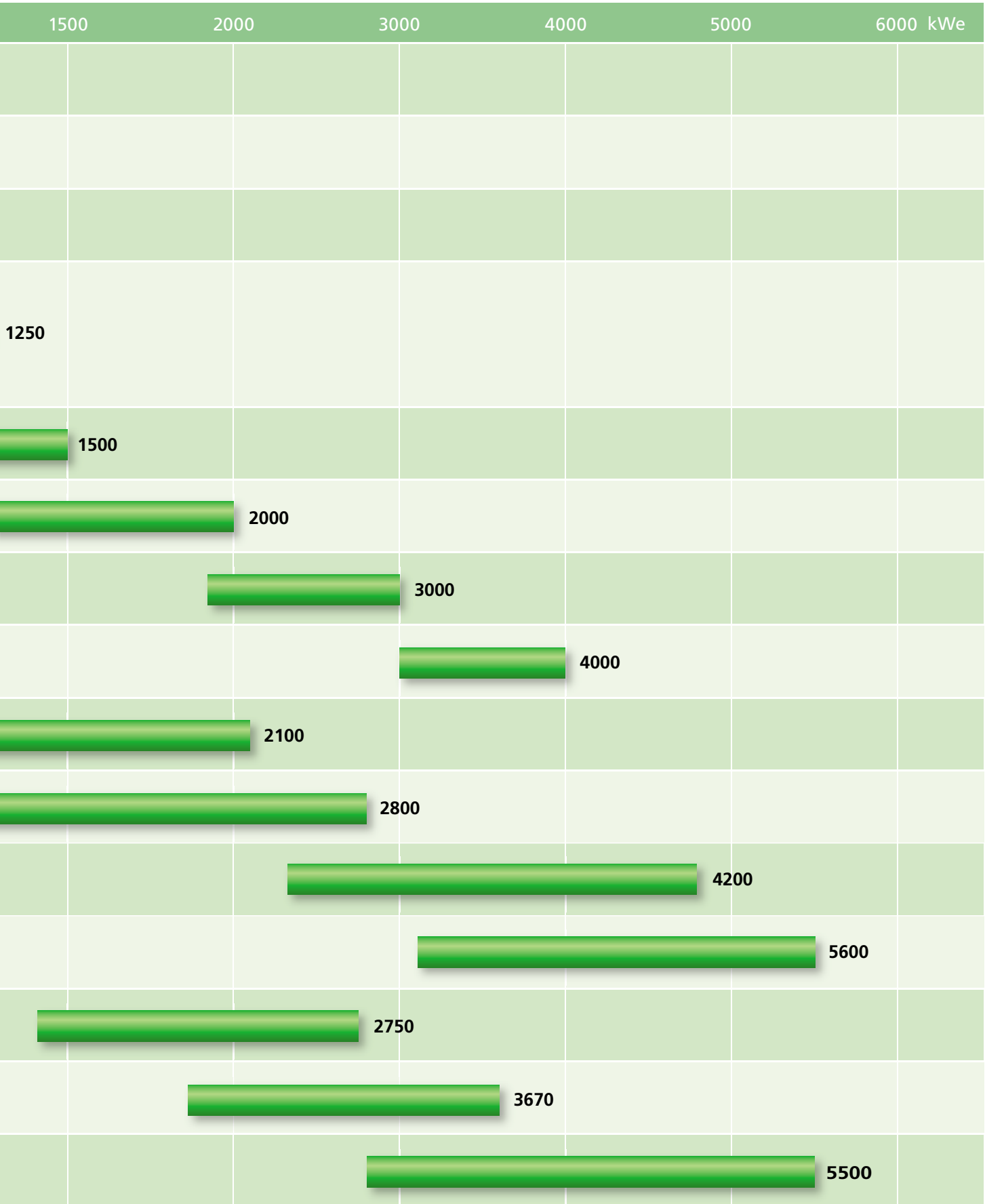


A Versatile Lineup Covering a Wide Output Range

■ Power generating output range (kWe)

Model No.		min ⁻¹		500	1000
DK-20	 (6DK-20)	750	6DK-20	600	
			6DK-20	750	
		900 / 1000	8DK-20	1000	
DK-26	 (6DK-26)	720 / 750	6DK-26		
DK-28	 (6DK-28)	720 / 750	6DK-28		
			8DK-28		
			12DK-28		
			16DK-28		
DC-32	 (6DC-32)	720 / 750	6DC-32		
			8DC-32		
			12DC-32		
			16DC-32		
DK-36	 (12DK-36)	600	6DK-36		
			8DK-36		
			12DK-36		

Daihatsu Diesel Engines



■ Daihatsu Power Generators — Specifications

50Hz

Generating capacity	Diesel engine			Steam & warm water system		Steam system	Warm water system
	kWe	Model No.	Output kWm/PS	Rotational speed min ⁻¹	Steam kg/h	Warm water MJ/h	Steam kg/h
600	6DK-20	645/877	750	235	740	251	1562
750	6DK-20	801/1089	1000	342	920	365	2079
1000	8DK-20	1062/1444	1000	404	1220	431	2575
1250	6DK-26	1324/1801	750	492	770	525	2572
1500	6DK-28	1587/2158	750	571	1080	608	3106
2000	8DK-28	2105/2862	750	770	1440	821	4128
2100	6DC-32	2208/3002	750	739	890	788	3520
2750	6DK-36	2871/3904	600	1040	1620	1109	5283
2800	8DC-32	2923/3975	750	978	1170	1045	4652
3000	12DK-28	3138/4267	600	1157	2096	1234	6102
3670	8DK-36	3823/5198	600	1374	2160	1465	7039
4000	16DK-28	4167/5666	750	1536	2782	1638	8101
4200	12DC-32	4375/5813	750	1464	1710	1562	6921
5500	12DK-36	5711/7765	600	2140	3230	2282	10519
5600	16DC-32	5833/7931	750	1953	2280	2082	9228

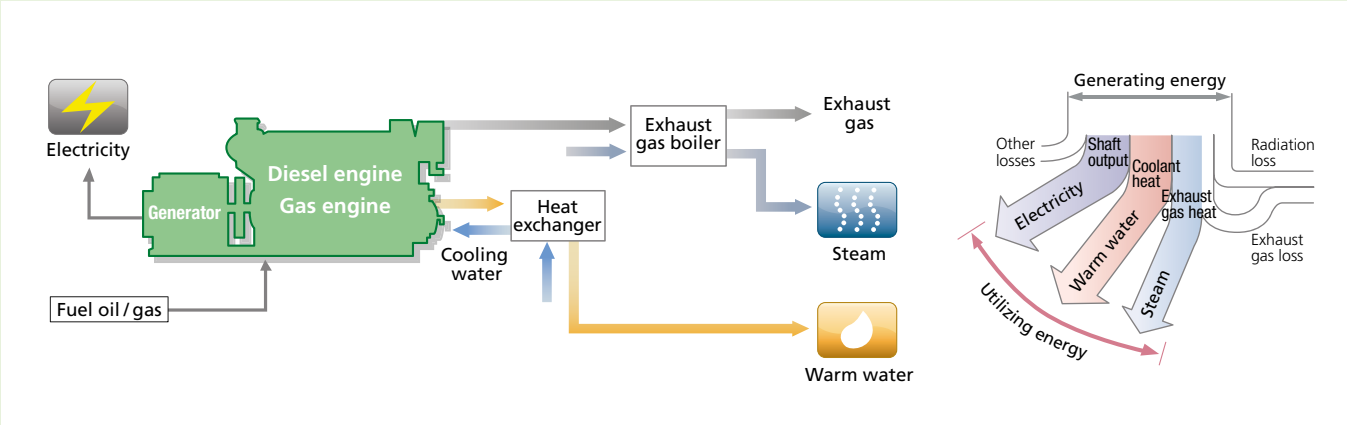
60Hz

Generating capacity	Diesel engine			Steam & warm water system		Steam system	Warm water system
	kWe	Model No.	Output kWm/PS	Rotational speed min ⁻¹	Steam kg/h	Warm water MJ/h	Steam kg/h
600	6DK-20	645/877	900	235	740	251	1562
750	6DK-20	801/1089	900	342	920	365	2079
1000	8DK-20	1062/1444	900	404	1220	431	2575
1250	6DK-26	1324/1801	720	492	770	525	2572
1500	6DK-28	1587/2158	720	571	1080	608	3106
2000	8DK-28	2105/2862	720	770	1440	821	4128
2100	6DC-32	2208/3002	720	739	890	788	3520
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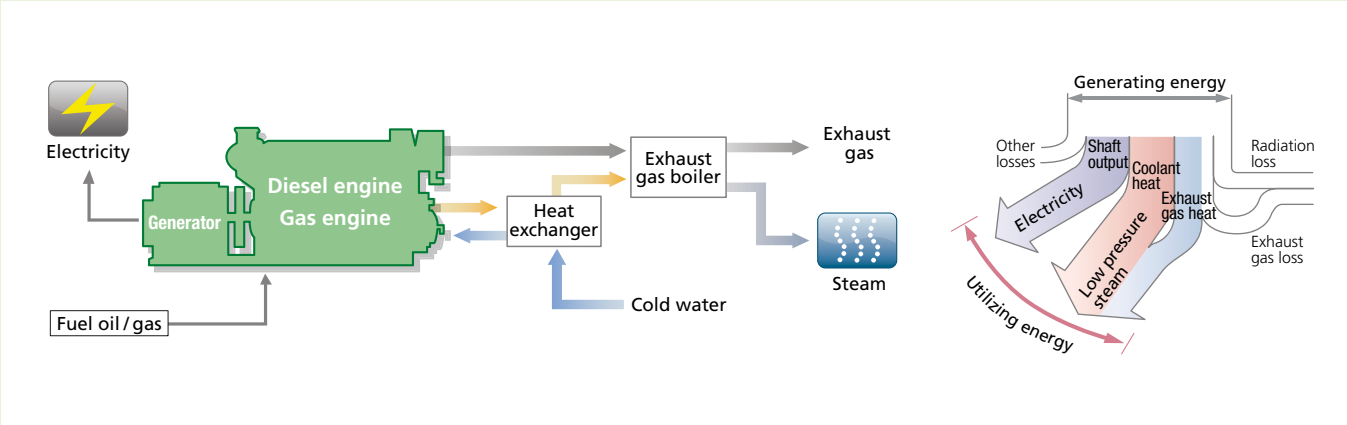
- Engine output is based on an engine chamber temperature of 5-40°C, an altitude of less than 300m, humidity of 85%, and cooling water temperature of 35°C.
- NOx content in the exhaust gas is less than 950ppm (13% O₂). ● Steam volume for saturation is at 0.78MPa (8kgf/cm²G).
- Supplied water temperature for heat recovery is 20°C. ● Supplied water temperature for the steam system is 60°C at the boiler inlet.
- Jacket water temperature at the engine outlet is 80°C. ● As for the specifications of the radiator, please consult us.
- The contents of this catalogue and the specifications may be revised without prior notice.

Co-Generation System Examples

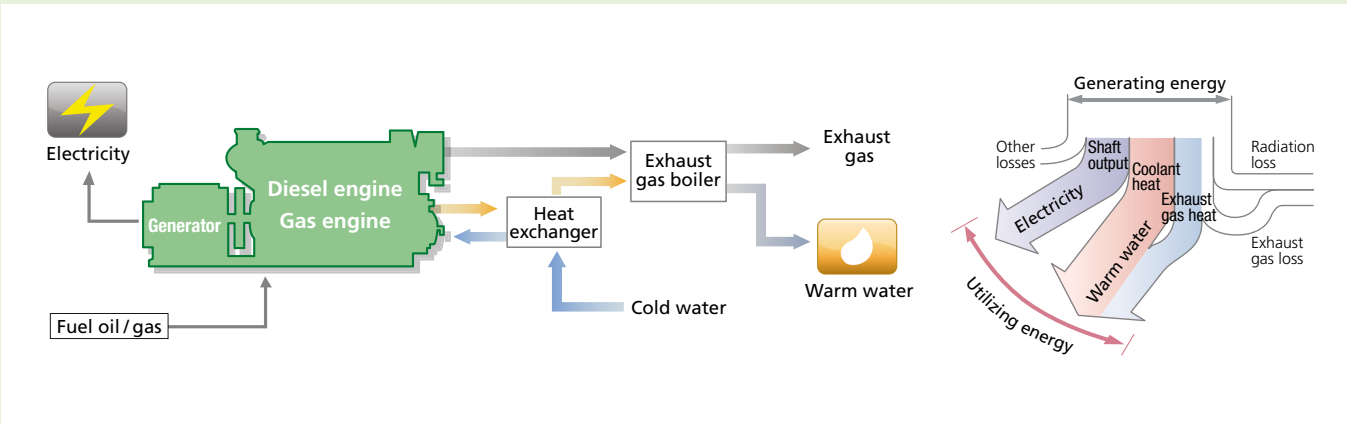
Electricity generation, steam, and warm water



Electricity generation and steam



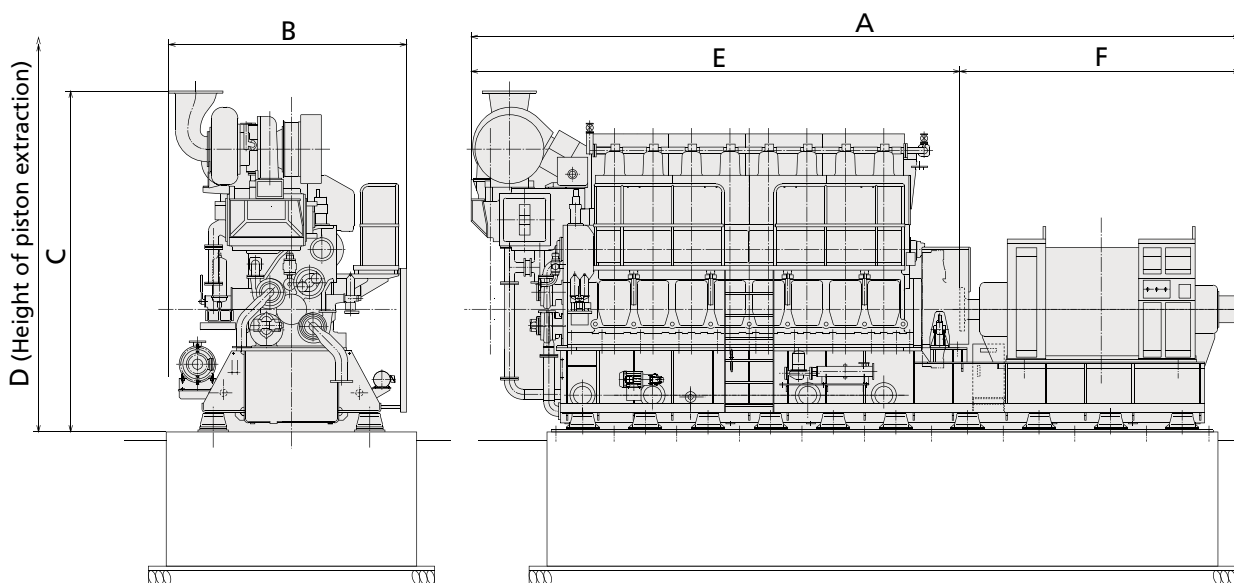
Electricity generation and warm water



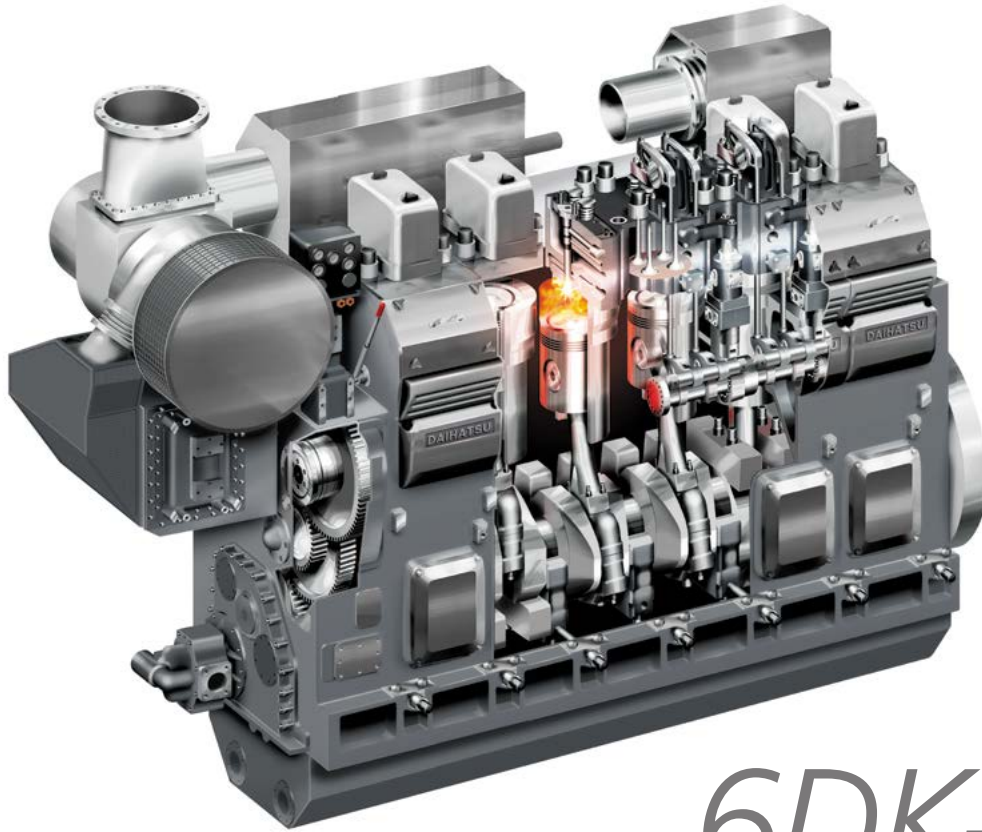
■ Power Generator and Engine Dimensions and Weights

(mm)

Model No.	A	B	C	D	E	F	Weight of generating plant (kg)			
							Engine	Generator	Baseplate & accessories	Total
Diesel engine										
6DK-20	5,500	2,000	2,890	3,350	3,300	2,200	8,650	2,950	4,900	16,500
8DK-20	6,700	2,000	2,890	3,560	4,100	2,600	10,100	4,500	6,400	21,000
6DK-26	7,000	2,900	3,310	4,260	4,300	2,700	16,000	8,100	7,900	32,000
6DK-28	7,200	3,200	3,660	4,530	4,400	2,800	18,000	8,100	9,900	36,000
8DK-28	8,400	3,200	3,740	4,600	5,200	3,200	23,000	10,200	11,800	45,000
6DC-32	8,200	3,400	4,270	4,800	4,730	3,470	35,000	13,000	15,000	63,000
6DK-36	9,300	4,000	4,530	5,090	5,800	3,500	55,000	15,300	18,700	89,000
8DC-32	10,100	3,400	4,470	4,800	5,730	4,370	40,700	15,500	18,000	74,200
12DK-28	9,600	4,500	4,070	4,200	6,190	3,410	43,000	15,500	19,500	78,000
12DC-32	10,350	4,700	4,960	4,500	6,500	3,850	63,000	17,000	24,500	104,500
8DK-36	11,200	4,000	4,530	5,090	6,900	4,300	65,000	16,500	30,200	111,700
16DK-28	10,870	4,500	4,270	4,200	7,300	3,570	49,000	16,000	22,000	87,000
12DK-36	12,200	5,000	5,680	6,530	6,500	5,700	85,000	26,300	29,000	140,300
16DC-32	12,000	4,700	5,200	4,500	8,000	4,000	74,000	22,000	44,700	140,700



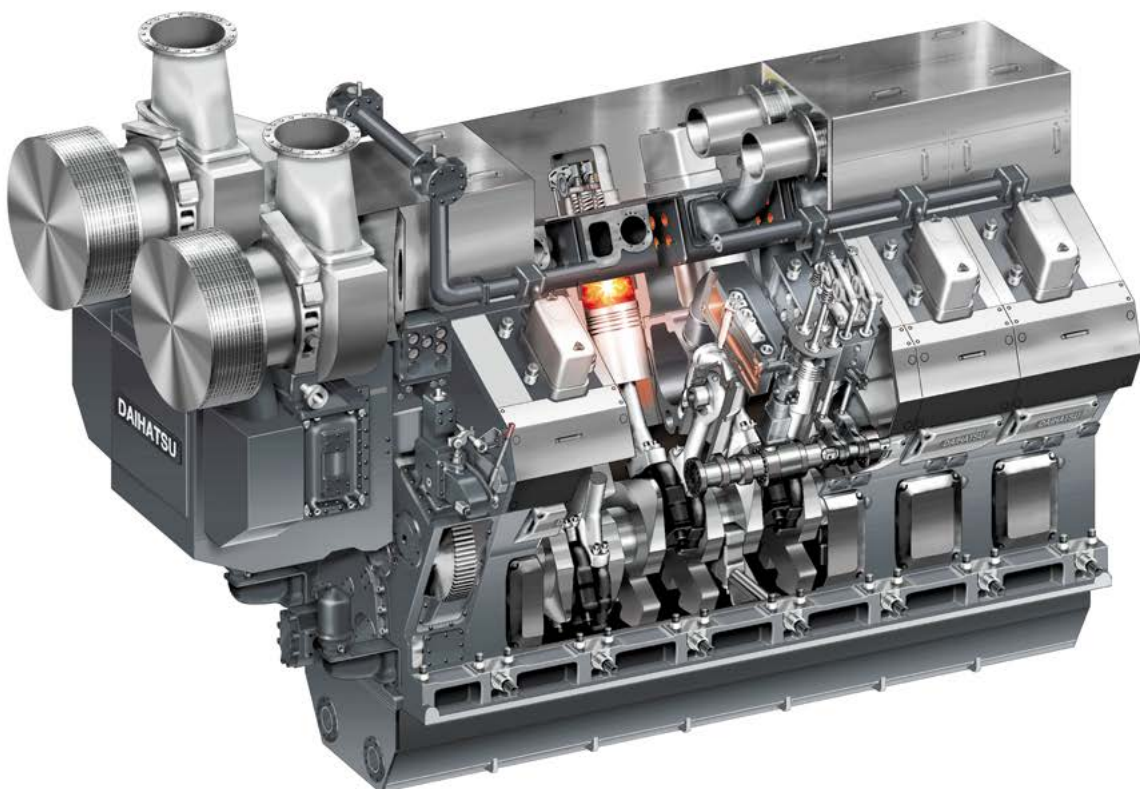
■ Engine Cross-Section View



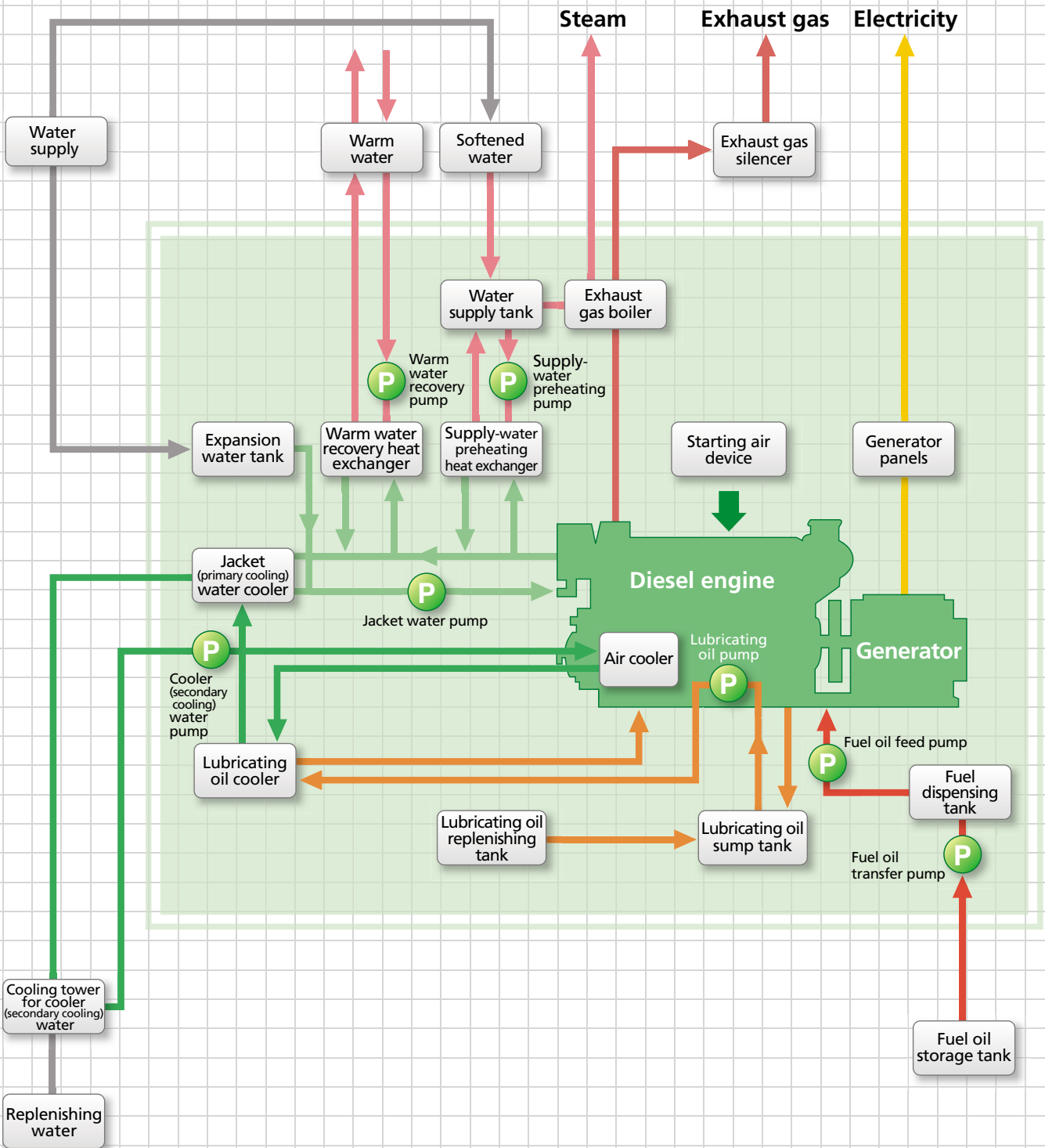
6DK-36

DAIHATSU DIESEL ENGINES FOR POWER-GENERATION SYSTEMS

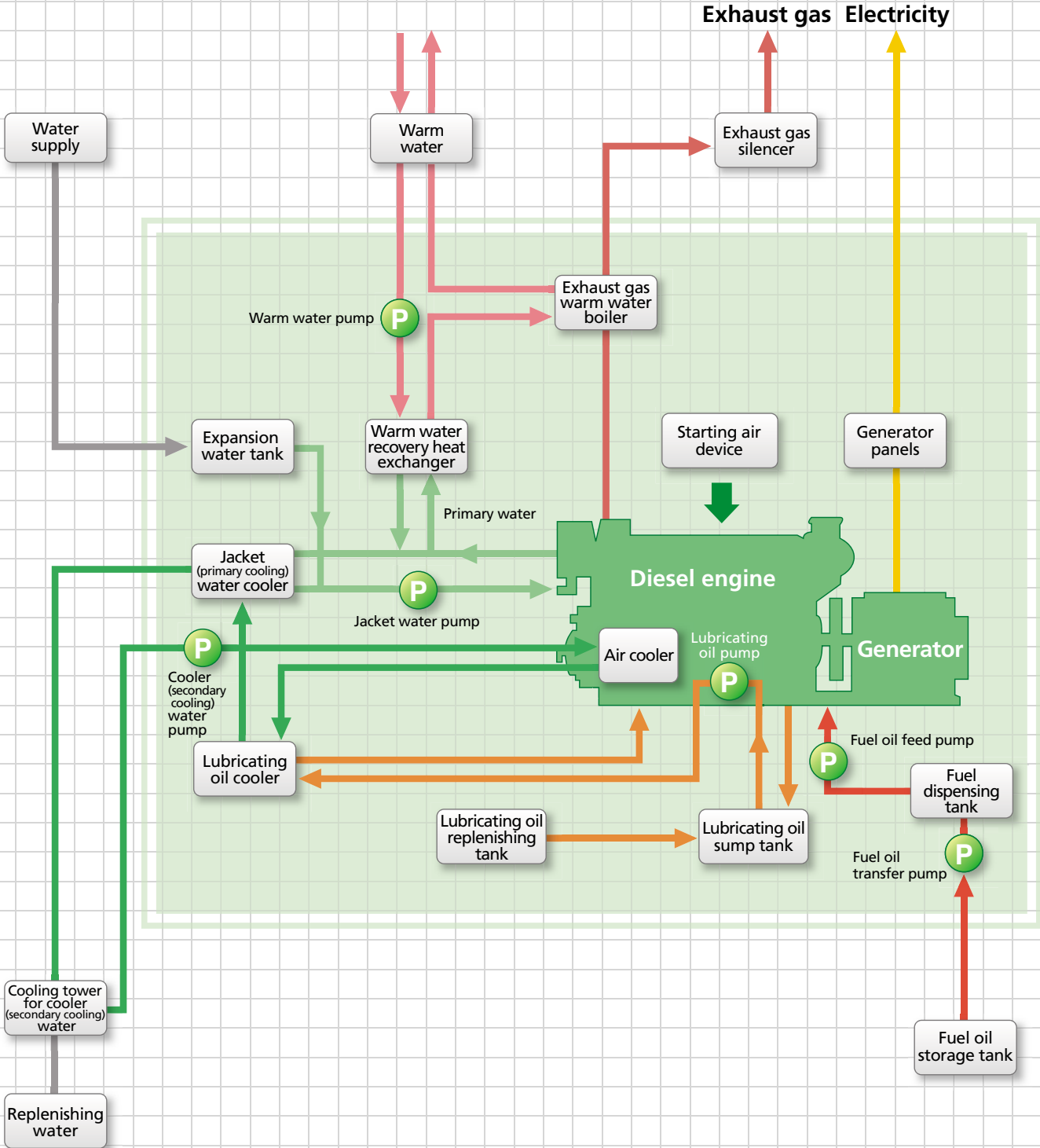
12DK-36



■ Piping Flow — Steam and Warm Water Recovery Example

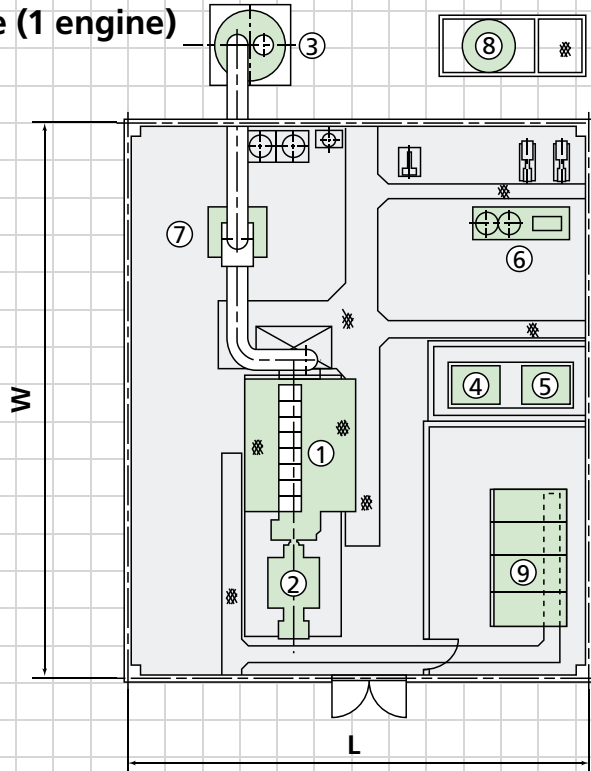


■ Piping Flow — Warm Water Recovery Example



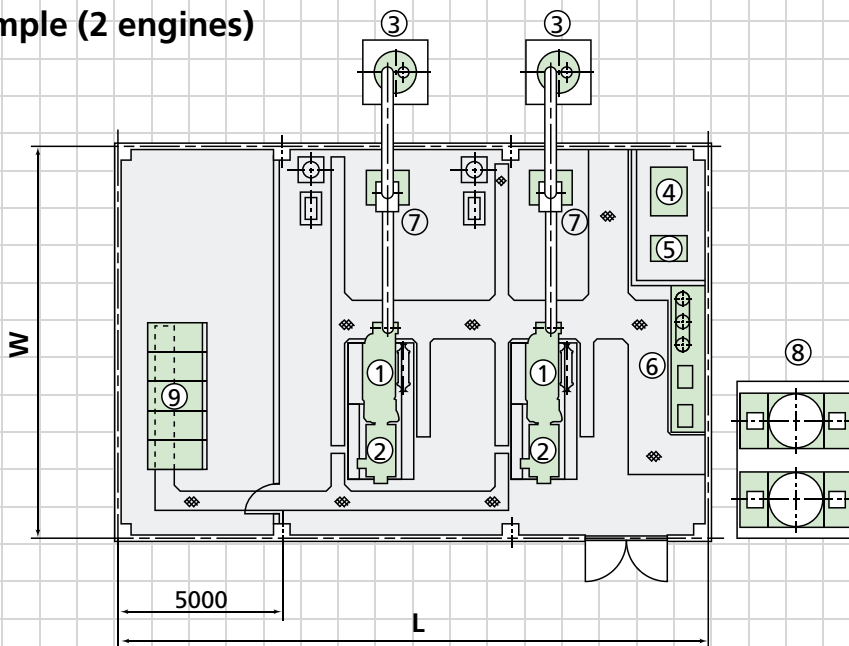
■ Equipment Layout Example

Example (1 engine)



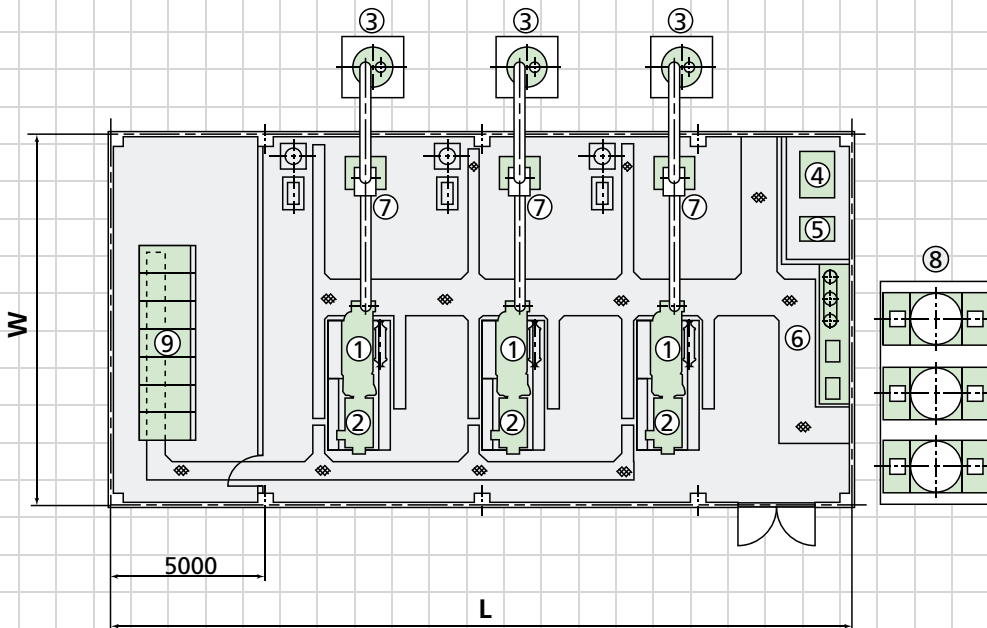
No.	Item	Qty
1	Engine	1
2	Generator	1
3	Exhaust silencer	1
4	Fuel oil dispenser	1
5	Lube oil dispenser	1
6	Starting air device	1
7	Exhaust gas boiler	1
8	Cooling tower	1
9	Control panel	1set

Example (2 engines)



No.	Item	Qty
1	Engine	2
2	Generator	2
3	Exhaust silencer	2
4	Fuel oil dispenser	1
5	Lube oil dispenser	1
6	Starting air device	1set
7	Exhaust gas boiler	2
8	Cooling tower	2
9	Control panel	1set

Example (3 engines)



No.	Item	Qty
1	Engine	3
2	Generator	3
3	Exhaust silencer	3
4	Fuel oil dispenser	1
5	Lube oil dispenser	1
6	Starting air device	1set
7	Exhaust gas boiler	3
8	Cooling tower	3
9	Control panel	1set

■ Size of the generator room (for reference)

(m)

Generating capacity (kWe)	Model No.	1 Engine (W x L x H)	2 Engines (W x L x H)	3 Engines (W x L x H)
600 / 750	6DK-20	14.5×11×6.5	14.5×15×6.5	14.5×19×6.5
1000	8DK-20	15.5×11×6.5	15.5×15×6.5	15.5×19×6.5
1250	6DK-26	15.5×11.5×7	15.5×16×7	15.5×20.5×7
1500	6DK-28	15.5×11×7	15.5×16×7	15.5×21×7
2000	8DK-28	16×11×7	16×16×7	16×21×7
2100	6DC-32	17×11.5×7.5	17×17×7.5	17×22.5×7.5
2750	6DK-36	17×12×7.5	17×17×7.5	17×22×7.5
2800	8DC-32	20×13×10	20×19.5×10	20×26×10
3670	8DK-36	22×13×10	22×19.5×10	22×26×10
3000	12DK-28	19×15×10	19×21×10	19×27×10
4000	16DK-28	20×15×10	20×21×10	20×27×10
4200	12DC-32	20×15×10	20×21×10	20×27×10
5500	12DK-36	20×15×11	20×21×11	20×28×11
5600	16DC-32	20×15×11	20×21×11	20×28×11

Delivery History

Daihatsu co-generation systems are at work in a large number of locations supplying stable electric



TENMA CORPORATION
6DK-26 1250kWe x 2



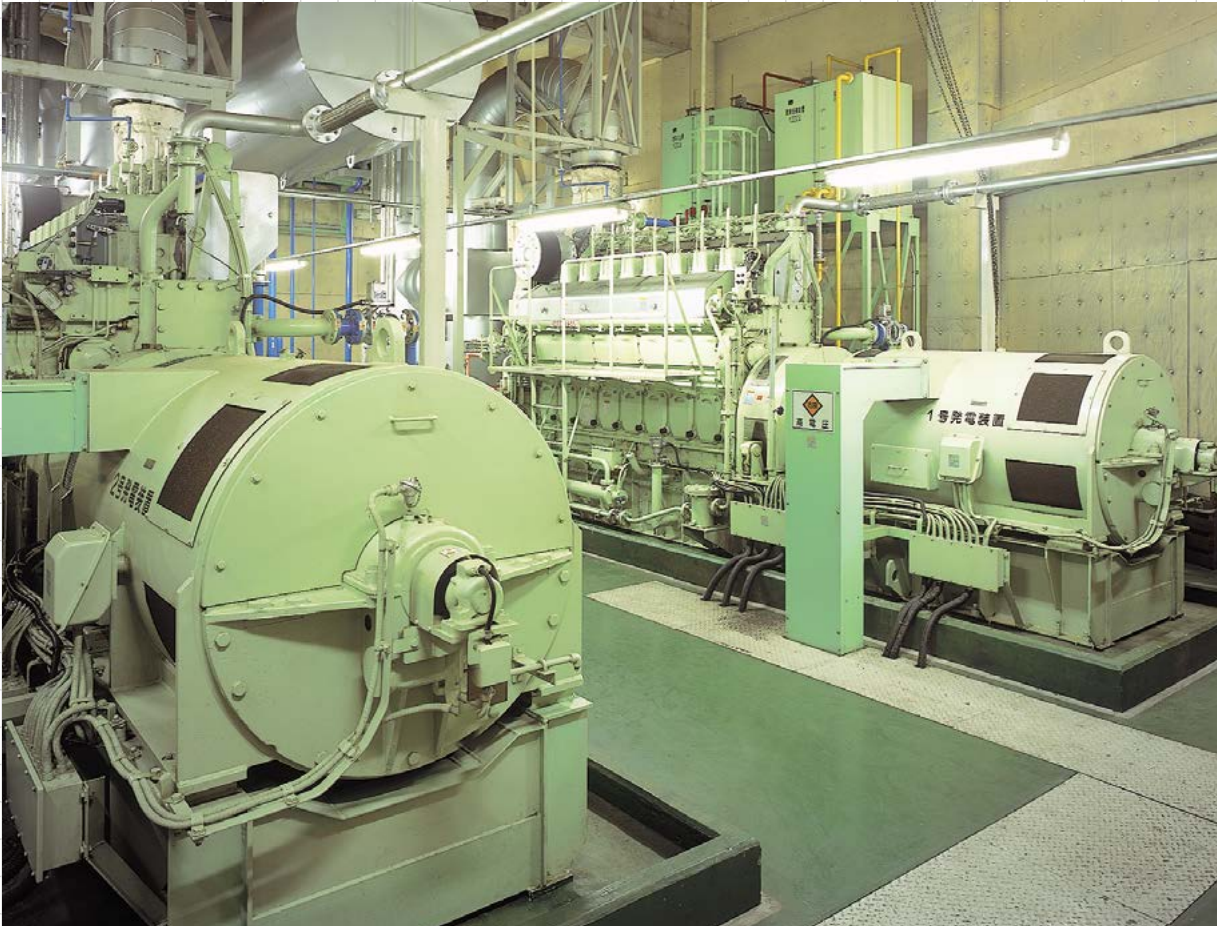
NIPPON PISTON RING CO., LTD.
6DK-36 2750kWe x 3



power, pursuing efficiency, and saving energy.

NIPRO PHARMA CORPORATION

8DK-20
998kWe x 2



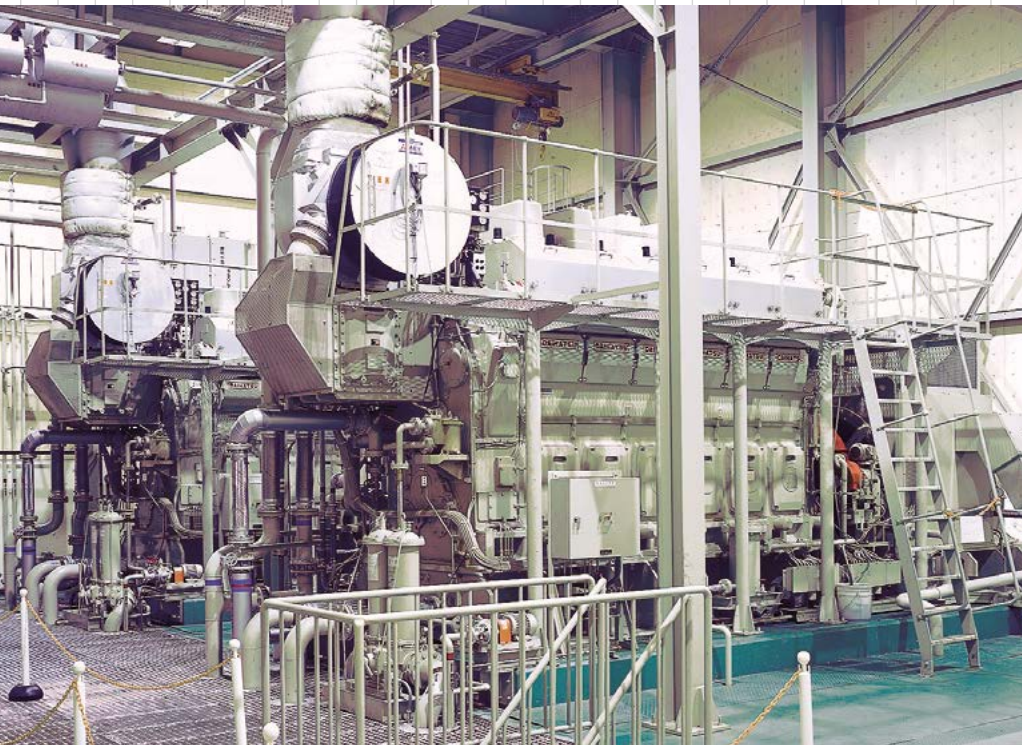
Exhaust gas boiler

Delivery History

Daihatsu diesel generators are supplying power, enhancing efficiency, and saving energy many diverse



**SHIN NIHON MACHINE MFG.
CO., LTD.**
8DK-20 900kWe x 2



AGC TECHNO GLASS CO., LTD.
6DK-36 2750kWe x 2



applications.



NGK SPARK PLUG CO., LTD.
6DK-28 1500kWe x 2

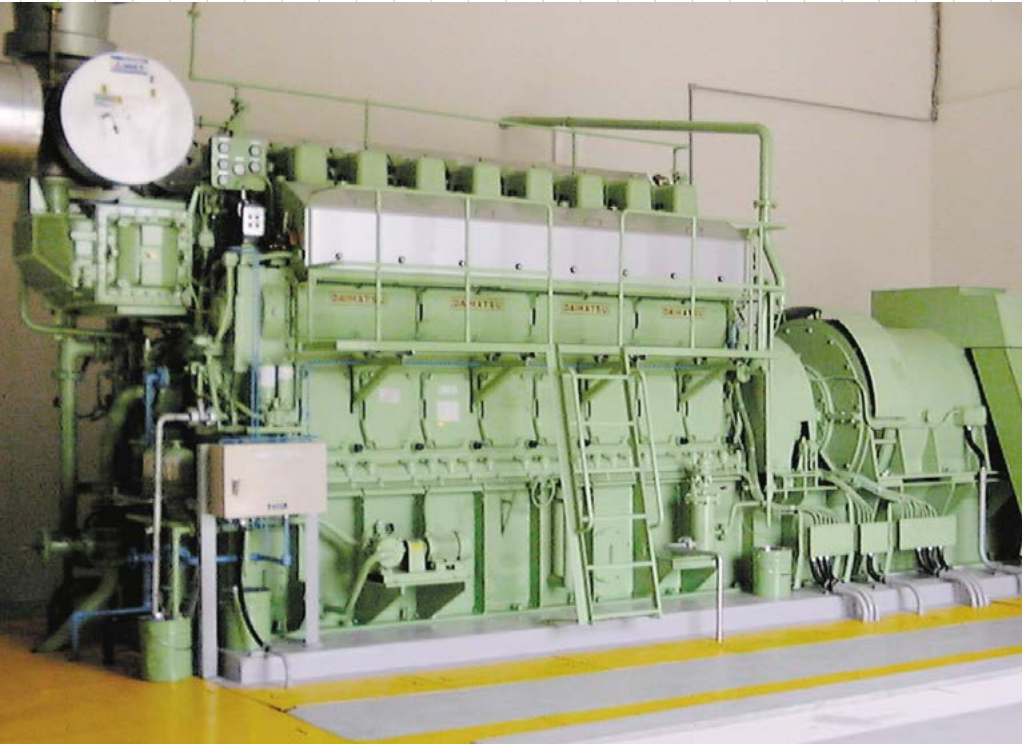


SHOWA MANUFACTURING CO., LTD.
6DK-20 750kWe x 2



Delivery History

Daihatsu diesel generators are supplying power, enhancing efficiency, and saving energy many diverse



**MOTO HONDA DA
AMAZONIA LTDA.**
8DK-28 2100kWe x 1



**CONTAINER CORPORATION
OF PHILIPPINES**
12DK-36 5300kWe x 1

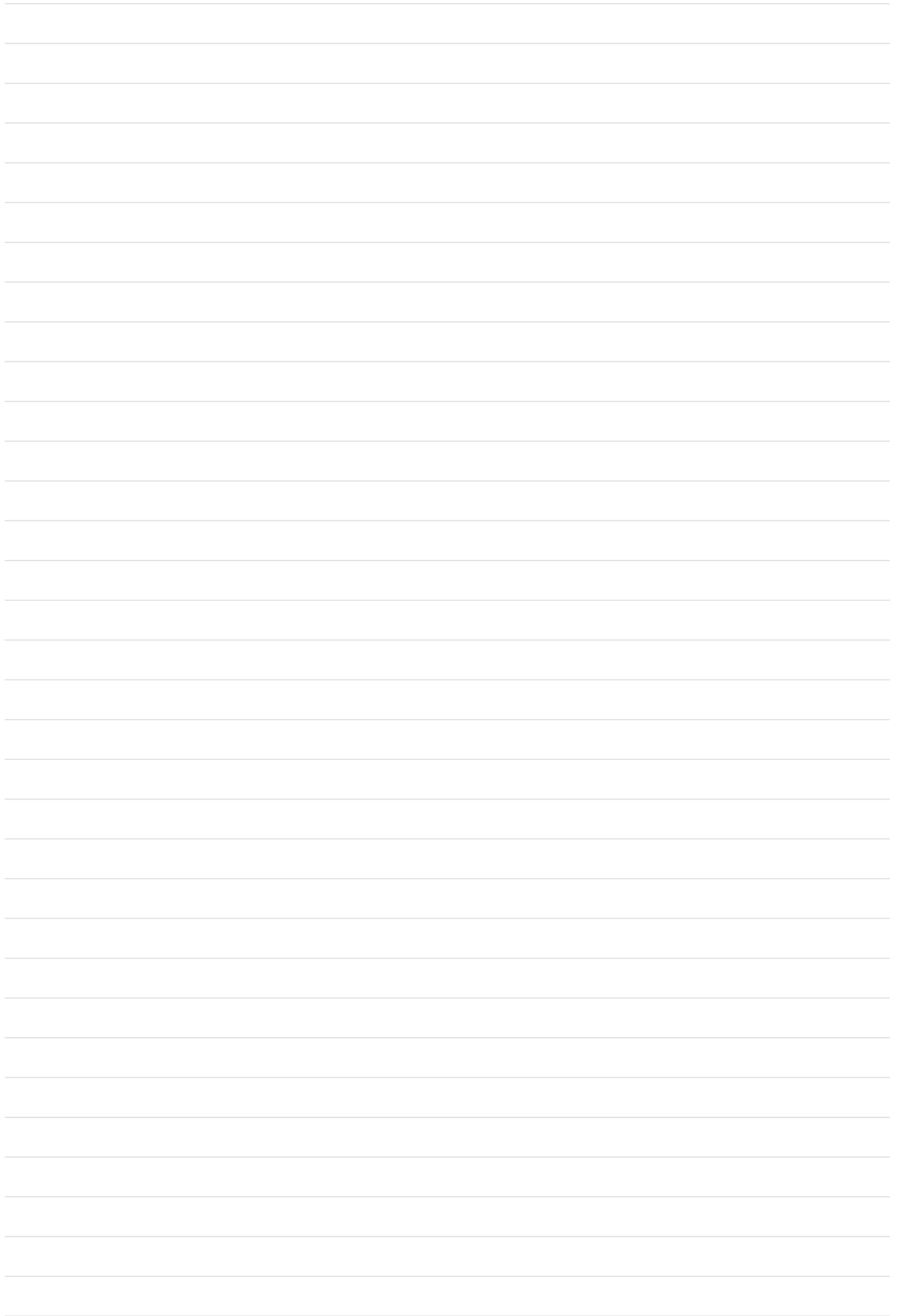


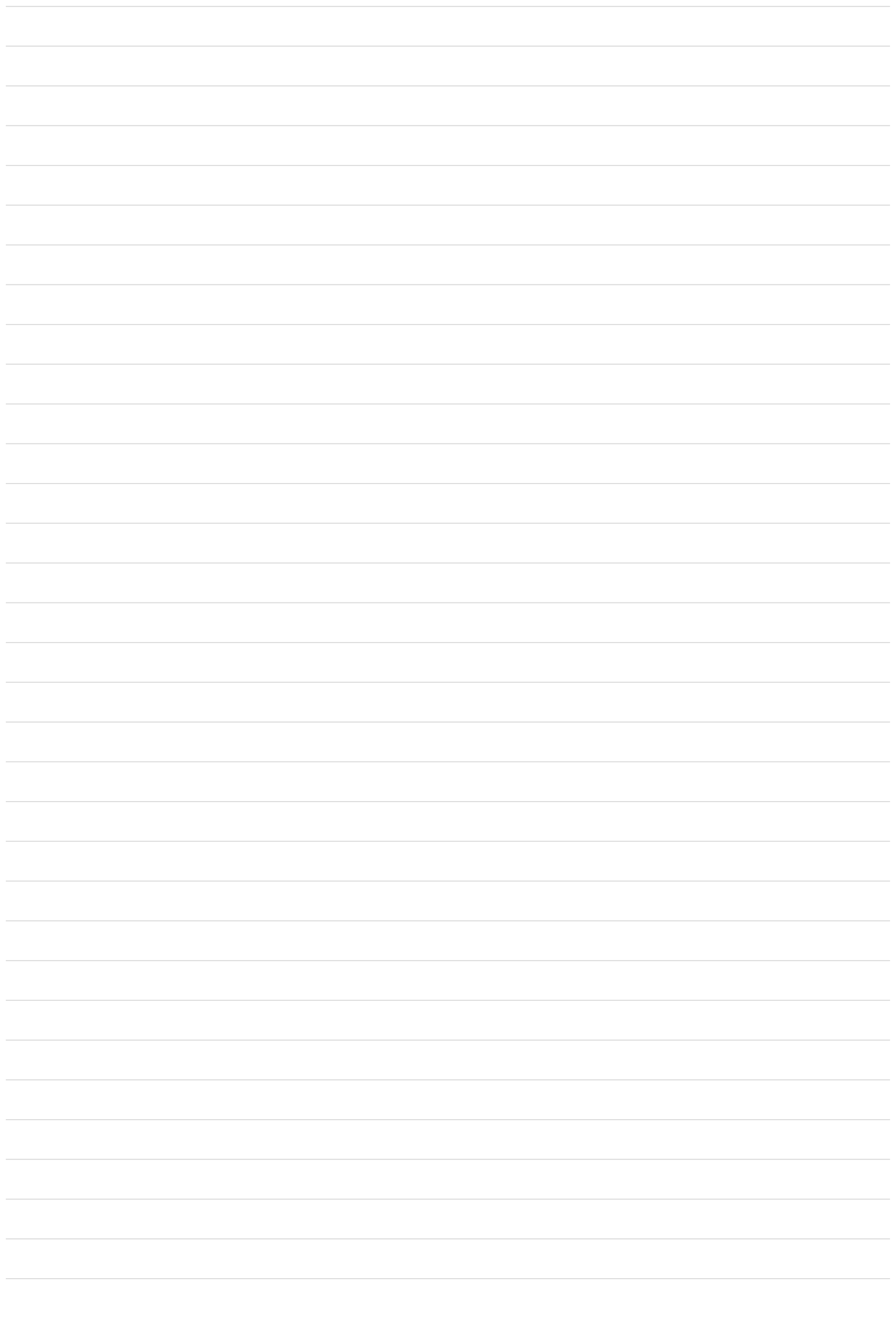
applications.



BRB ENERGY LIMITED
8DK-36 3670kWe x 3







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- Please refer to our separate brochure for the "DAIHATSU AFTER-SERVICE NETWORK".
- All information contained in this pamphlet is correct at the time of printing, but may be subject to change without notice.