



## Power Generation Engines - 6.4 up to 15.000 kW

LE/SL/SQ/SS/SK-series

SB/SA/SH/SR-series

SU/KU/GSR-series

- Dependable and durable in power generation
- Engines for continuous, prime and stand-by operation
- Available in high and medium speed
- Wide range of outputs
- Available as gas and diesel solution
- Suitable for cogeneration of energy



## Advanced technology

Your partner in reliable, durable engines for all power generation applications.



### Global Reach

As a globally operating company with subsidiaries in all parts of the world, our goal is to help you wherever you need it. Our engines are made to perform even under the toughest conditions and are known for their durability and reliability.

### Reliable engines

The Mitsubishi diesel and gas engine line up for power generation comprises of engines from 5 kW to 15000 kW\*. These engines can be found in a multitude of applications including generator sets for stand-by or emergency power, prime power for peak shaving or base load power plants. We have a relentless focus on product quality and production management which makes us a reliable partner for our OEM's. The engines are built to last and with ease of maintenance in mind, they have easy access points to key components.

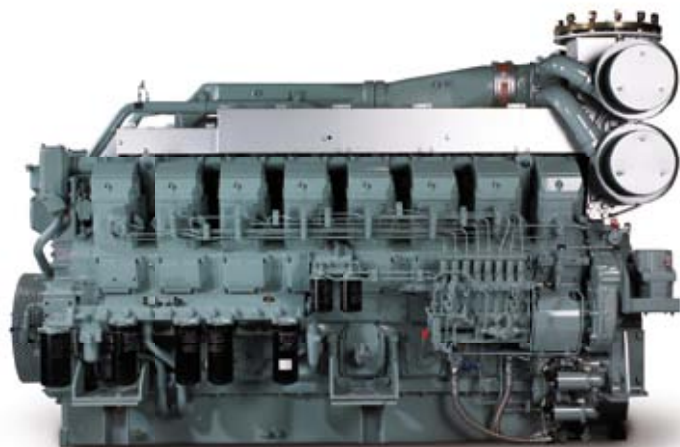
### Application engineering

A dedicated application engineer with vast knowledge of our engines and your needs, will offer support in your design process from beginning to end to help choose and implement the right engine. We believe in personal attention in order to find the most suitable solution for you.

### Logistic

For OEM's logistic efficiency is vital. We work with our OEM's in various ways to find the best possible logistic setups in order to ensure a smooth and cost efficient production flow fitting your personal needs.

\* More information on engines above 5880 kW available upon request.



*S16R-PTA: High speed  
diesel engine available  
in all ratings including  
continuous operation*

MODEL RANGE

Power Generation Engines: 6.4 up to 5880 kW					
	10 kW	50 kW	100 kW	1.000 kW	10.000 kW
	6 <b>LE-SERIES</b> 18				
	9 <b>SL-SERIES</b> 29				
	19 <b>SQ-SERIES</b> 25				
	28 <b>SS-SERIES</b> 46				
	42 <b>SK-SERIES</b> 90				
			275 <b>SB-SERIES</b> 450		
			330 <b>SA-SERIES</b> 910		
			800 <b>SH-SERIES</b> 1190		
			445 <b>SR-SERIES</b> 2170		
			1090 <b>SU-SERIES</b> 3790		
			3760 <b>KU-SERIES</b> 5880		
			315 <b>GSR-SERIES</b> 1565		
			3650 <b>KU-SERIES</b> 5750		

UNIT: kW

 Diesel engines  Gas engines

LE- & SL2- & SQ2-series

			L2E	L3E	S3L2	S4L2	S4Q2
Type			4-cycle, water-cooled, diesel engine	4-cycle, water-cooled, diesel engine	4-cycle, water-cooled, diesel engine	4-cycle, water-cooled, diesel engine	4-cycle, water-cooled, diesel engine
Aspiration			Natural aspiration	Natural aspiration	Natural aspiration	Natural aspiration	Natural aspiration
Number of cylinders			2	3	3	4	4
Bore and stroke mm			76 x 70	76 X70	78 x 92	78 x 92	88 X 103
Displacement cc			635	952	1318	1758	2505
Combustion system			Swirl chamber	Swirl chamber	Swirl chamber	Swirl chamber	Swirl chamber
Fuel			Diesel fuel (ASTM No. 2-0)	Diesel fuel (ASTM No. 2-0)	Diesel fuel (ASTM No. 2-0)	Diesel fuel (ASTM No. 2-0)	Diesel fuel (ASTM No. 2-0)
Dry weight kg			73	87	135	155	195
	50 Hz (1500 rpm)	St-by	—	7,5	10,8	15,4	21,0
		Prime	—	6,4	9,7	13,8	19,5
	60 Hz (1800 rpm)	St-by	—	9,3	13,4	18,8	25,0
		Prime	—	8,0	12,0	17,0	23,5
	50 Hz (3000 rpm)	St-by	9,9	15,4	21,2	28,8	—
		Prime	8,5	13,3	18,3	25,8	—
	60 Hz (3600 rpm)	St-by	11,3	17,7	—	—	—
		Prime	9,9	15,6	—	—	—
Generator output (ISO3046, gross) kW							
Emission compliance*			—	—	—	—	EU Stage 3A
Dimensions mm	L x W x H		449 x 426 x 524	556 x 426 x 539	580 x 436 x 573	669 x 436 x 573	707 x 504 x 633

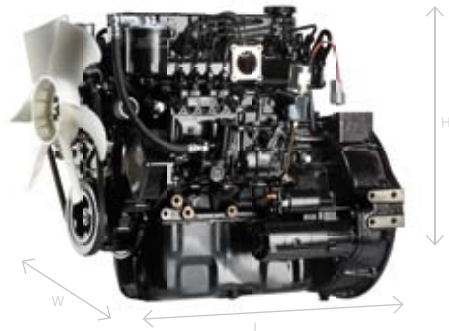
\* not applicable for all outputs



LE-series



SL-series



SQ-series

# SS- & SK-series

			S4S	S4S-DT	S4K-(DT)	S6K-(DT)
<b>Type</b>			4-cycle, water-cooled, diesel engine	4-cycle, water-cooled, diesel engine	4-cycle, water-cooled, diesel engine	4-cycle, water-cooled, diesel engine
<b>Aspiration</b>			Natural-aspirated	Turbocharged	NA (TC)	NA (TC)
<b>Number of cylinders</b>			4	4	4	6
<b>Bore and stroke</b> mm			94 x120	94 x 120	102 x 130	102 x 130
<b>Displacement</b> cc			3331	3331	4249	6373
<b>Combustion system</b>			Swirl chamber	Direct injection	Direct injection	Direct injection
<b>Fuel</b>			Diesel fuel (ASTM No. 2-D)	Diesel fuel (ASTM No. 2-D)	Diesel fuel (ASTM No. 2-D)	Diesel fuel (ASTM No. 2-D)
<b>Dry weight</b> kg			245	250	350	475
	50 Hz (1500 rpm)	St-by	31,6	39,0	46.7 (59.7)	70.5 (89.7)
		Prime	28,7	37,5	42.7 (54.7)	64.0 (81.6)
	60 Hz (1800 rpm)	St-by	36,5	46,2	—	—
		Prime	34,2	44,5	—	—
	50 Hz (3000 rpm)	St-by	—	—	—	—
		Prime	—	—	—	—
	60 Hz (3600 rpm)	St-by	—	—	—	—
		Prime	—	—	—	—
<b>Generator output (ISO3046, gross) kW</b>						
<b>Emission compliance*</b>			EU Stage 3A	EU Stage 3A	—	—
<b>Dimensions</b> mm	L x W x H		781 x 593 x 710	781 x 593 x 821	894 x 741 x 929	1163 x 741 x 976

\* not applicable for all outputs



Fan



SS-series

# SB3- & SA3-series

		S6B3-PTA	S6A3-PTA	S6A3-PTAA
Type		4 cycle water-cooled, turbocharged diesel engine	4 cycle water-cooled, turbocharged diesel engine	4 cycle. water-cooled, diesel engine
Aspiration		Aftercooler	Aftercooler	Turbocharged with Air-to-Air cooling system
Number of cylinders		6	6	6
Bore x stroke mm		135 x 170	150 x 175	150 x 175
Displacement Ltr		14,60	18,56	18,56
Combustion system		Direct injection	Direct injection	Direct injection
Fuel		Diesel fuel oil (ASTM No. 2-D)	Diesel fuel oil (ASTM No. 2-D)	Diesel fuel oil (ASTM No. 2-D)
Dry weight kg		1550	1790	1648
Stand-by power rating output kWm hp	50Hz 1500rpm	360 (483)	430 (576)	473 (63-4)
	60Hz 1800rpm	400 (536)	490 (657)	516 (692)
Prime power rating output kWm hp	50Hz 1500rpm	325 (436)	390 (523)	430 (577)
	60Hz 1800rpm	360 (483)	440 (590)	460 (617)
Continuous 'C' power rating output kWm hp	50Hz 1500rpm	275 (369)	330 (442)	—
	60Hz 1800rpm	305 (409)	375 (503)	—
Emission compliance		—	—	—
Dimensions mm	L x W x H	1397 x 887 x 1282	1576 x 938 x 1319	1576 x 938 x1319



Manual stop lever



Fresh water pump

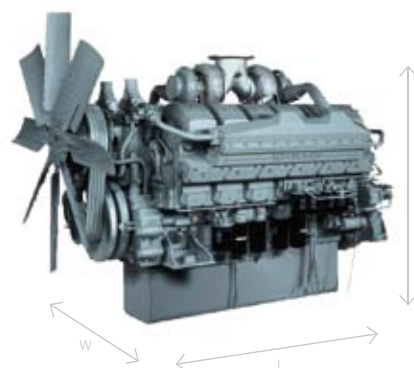


# SA2- & SH-series

		S12A2-PTA	S12H-PTA
<b>Type</b>		4 cycle water-cooled, turbocharged diesel engine	4 cycle water-cooled, turbocharged diesel engine
<b>Aspiration</b>		Aftercooler	Aftercooler
<b>Number of cylinders</b>		12V	12V
<b>Bore x stroke mm</b>		135 x 170	150 x 175
<b>Displacement Ltr</b>		14,60	18,56
<b>Combustion system</b>		Direct injection	Direct injection
<b>Fuel</b>		Diesel fuel oil (ASTM No. 2-D)	Diesel fuel oil (ASTM No. 2-D)
<b>Dry weight kg</b>		2920	4190
<b>Stand-by power rating output kWm hp</b>	50Hz 1500rpm	724 (970)	980 (1314)
	60Hz 1800rpm	821 (1100)	1080 (1448)
<b>Prime power rating output kWm hp</b>	50Hz 1500rpm	656 (880)	890 (1193)
	60Hz 1800rpm	731 (980)	980 (1314)
<b>Continuous 'C' power rating output kWm hp</b>	50Hz 1500rpm	589 (790)	800 (1072)
	60Hz 1800rpm	612 (820)	880 (1180)
<b>Emission compliance</b>		—	—
<b>Dimensions mm</b>	L x W x H	1816 x 1382 x 1542	1954 x 1472 x 1694



Lube oil filters



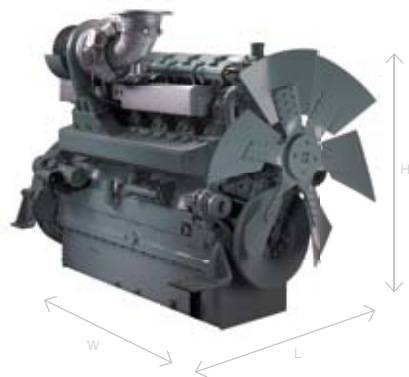
SH-series

# SR-series, 6 cylinder

		S6R-PTA	S6R2-PTA	S6R2-PTAA
Type		4 cycle water-cooled, turbocharged diesel engine	4 cycle water-cooled, turbocharged diesel engine	4 cycle water-cooled, diesel engine
Aspiration		Aftercooler	Aftercooler	Turbocharged with Air-to-Air cooling system
Number of cylinders		6	6	6
Bore x stroke mm		170 x 180	170 x 220	170 x 220
Displacement Ltr		24,51	29,96	29,96
Combustion system		Direct injection	Direct injection	Direct injection
Fuel		Diesel fuel oil (ASTM No. 2-D)	Diesel fuel oil (ASTM No. 2-D)	Diesel fuel oil (ASTM No. 2-D)
Dry weight kg		2300	2400	2370
Stand-by power rating output kWm hp	50Hz 1500rpm	570 (764)	655 (878)	710 (951)
	60Hz 1800rpm	665 (851)	—	—
Prime power rating output kW hp	50Hz 1500rpm	515 (690)	595 (798)	645 (865)
	60Hz 1800rpm	595 (798)	—	—
Continuous 'C' power rating output kWm hp	50Hz 1500rpm	445 (597)	515 (690)	—
	60Hz 1800rpm	510 (684)	—	—
Emission compliance		—	—	—
Dimensions mm	L x W x H	1690 x 1041 x 1498	1690 x 1077 x 1578	1690 x 1077 x 1578



Turbocharger



S6R-series



# SR-series, 12 cylinder

		S12R-PTA	S12R-PTA2	S12R-PTAA2	S12R-F1PTAW2
<b>Type</b>		4 cycle water-cooled, turbocharged diesel engine	4 cycle water-cooled, turbocharged diesel engine	4 cycle water-cooled, diesel engine	4 cycle water-cooled, turbocharged diesel engine
<b>Aspiration</b>		Aftercooler	Aftercooler	Turbocharged with Air-to-Air cooling system	Intercooler
<b>Number of cylinders</b>		12V	12V	12V	12V
<b>Bore x stroke mm</b>		170 x 180	170 x 180	170 x 180	170 x 180
<b>Displacement Ltr</b>		49,03	49,03	49,03	49,03
<b>Combustion system</b>		Direct injection	Direct injection	Direct injection	Direct injection
<b>Fuel</b>		Diesel fuel oil (ASTM No. 2-D)	Diesel fuel oil (ASTM No. 2-D)	Diesel fuel oil (ASTM No. 2-D)	Diesel fuel oil (ASTM No. 2-D)
<b>Dry weight kg</b>		4800	4800	4966	5270
<b>Stand-by power rating output kWm hp</b>	50Hz 1500rpm	1220 (1635)	1315 (1763)	1404 (1882)	1462 (1960)
	60Hz 1800rpm	1320 (1769)	1470 (1971)	1596 (2139)	—
<b>Prime power rating output kWm hp</b>	50Hz 1500rpm	1110 (1488)	1195 (1602)	1277 (1711)	1329 (1782)
	60Hz 1800rpm	1190 (1595)	1340 (1796)	1447 (1940)	—
<b>Continuous 'C' power rating output kWm hp</b>	50Hz 1500rpm	990 (1327)	—	—	—
	60Hz 1800rpm	1020 (1367)	—	—	—
<b>Emission compliance</b>		—	—	—	—
<b>Dimensions mm</b>	L x W x H	2325 x 1360 x 1565	2325 x 1360 x 1565	2520 x 1360 x 1862	2491 x 1457 x 1647



V-belt drive



S12R-series

# SR-series, 16 cylinder

		S16R-PTA	S16R-PTAA2	S16R-PTA2	S16R-F1PTAW2	S16R2-PTAW
Type		4 cycle water-cooled, turbocharged diesel engine	4 cycle. water-cooled, diesel engine	4 cycle water-cooled, turbocharged diesel engine	4 cycle water-cooled, turbocharged diesel engine	4 cycle water-cooled, turbocharged diesel engine
Aspiration		Aftercooler	Turbocharged with Air-to-Air cooling system	Aftercooler	Intercooled	Intercooled
Number of cylinders		16V	16V	16V	16V	16V
Bore x stroke mm		170 x 180	170 x 180	170 x 180	170 x 180	170 x 220
Displacement Ltr		65,37	65,37	65,37	65,37	80
Combustion system		Direct injection	Direct injection	Direct injection	Direct injection	Direct injection
Fuel		Diesel fuel oil (ASTM No. 2-D)	Diesel fuel oil (ASTM No. 2-D)	Diesel fuel oil (ASTM No. 2-D)	Diesel fuel oil (ASTM No. 2-D)	Diesel fuel oil (ASTM No. 2-D)
Dry weight kg		6200	6443	6300	6680	7750
Stand-by power rating output kWm hp	50Hz 1500rpm	1620 (2172)	1939 (2599)	1790 (2399)	1947 (2610)	2167 (2905)
	60Hz 1800rpm	1750 (2346)	2149 (2881)	1950 (2614)	—	—
Prime power rating output kWm hp	50Hz 1500rpm	1480 (1984)	1728 (2316)	1630 (2185)	1777 (2382)	1960 (2627)
	60Hz 1800rpm	1590 (2131)	1939 (2599)	1775 (2379)	—	—
Continuous 'C' power rating output kWm hp	50Hz 1500rpm	1330 (1783)	—	—	—	1680 (2252)
	60Hz 1800rpm	1360 (1823)	—	—	—	—
Emission compliance		—	—	—	—	—
Dimensions mm	L x W x H	2880 x 1360 x 1810	3075 x 1360 x 1862	2880 x 1360 x 1810	3045 x 1457 x 1810	3118 x 1478 x 2030



Turbocharger



Diesel fuel lines



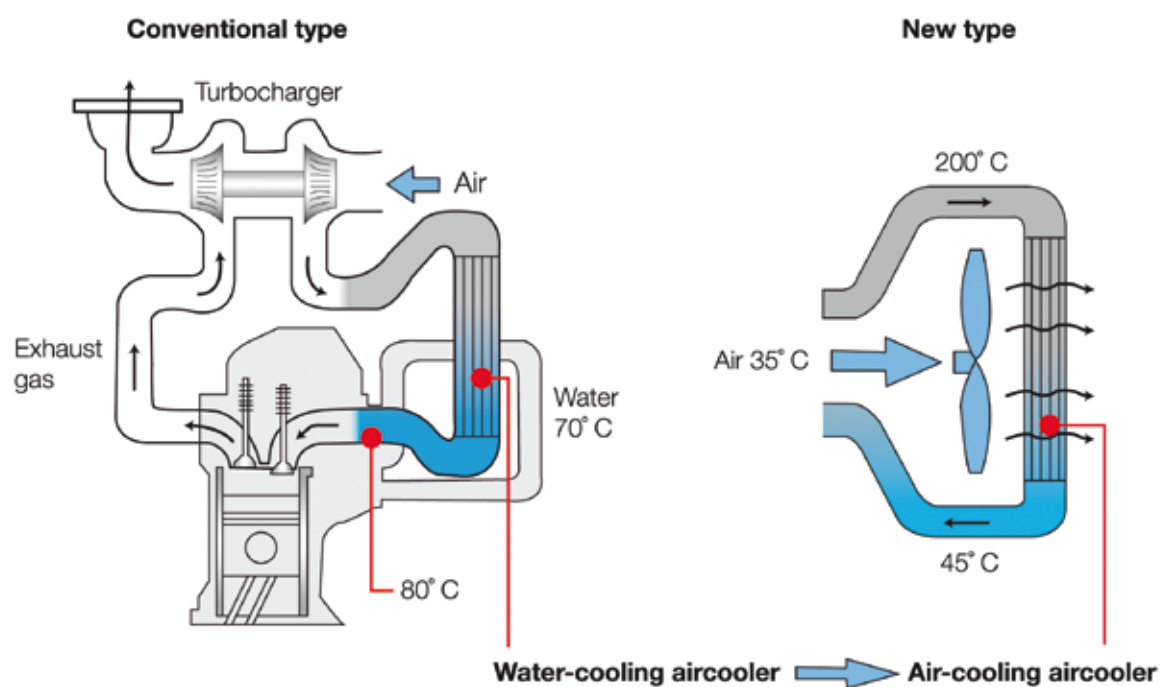
S16R-series

### Cooling systems

<b>PTA</b>	Air cooler (aftercooler) using engine cooling water
<b>PTA2</b>	Air cooler (aftercooler) using jacket water to cooler
<b>PTAA2</b>	Air-to-air cooling system
<b>PTAW</b>	2 circuit air to water cooling system
<b>PTAW2</b>	2 circuit air to water cooling system

### Radiator Comparison

High power output is realized by the air-cooling type radiator with its increased air flow and effective cooling.

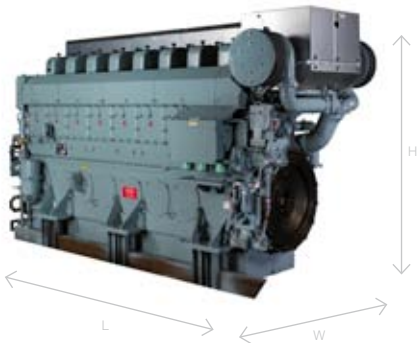


# SU-series, 6, 8, 12 & 16 cylinder

		S6U-PTA	S6U2-PTA	S8U-PTA	S12U-PTA	S16U-PTA
Type		4 cycle, water-cooled, turbocharged diesel engine	4 cycle, water-cooled, turbocharged diesel engine	4 cycle, water-cooled, turbocharged diesel engine	4 cycle, water-cooled, turbocharged diesel engine	4 cycle, water-cooled, turbocharged diesel engine
Aspiration		Aftercooler	Aftercooler	Aftercooler	Aftercooler	Aftercooler
Number of cylinders		6	6	8	12V	16V
Bore x stroke	mm	240 x 260	240 x 300	240 x 260	240 x 260	240 x 260
Displacement	Ltr	70,6	81,4	94,1	141,2	188,2
Combustion system		Direct injection	Direct injection	Direct injection	Direct injection	Direct injection
Fuel		Diesel fuel oil (ASTM class 2-D): Heavy fuel oil (option)	Diesel fuel oil (ASTM class 2-D): Heavy fuel oil (option)	Diesel fuel oil (ASTM class 2-D): Heavy fuel oil (option)	Diesel fuel oil (ASTM class 2-D): Heavy fuel oil (option)	Diesel fuel oil (ASTM class 2-D): Heavy fuel oil (option)
Dry weight	kg	8350	8650	11000	15500	20500
Stand-by power rating output	50Hz 1000rpm	1259 (1688)	1395 (1870)	1678 (2250)	2518 (3375)	3357 (4500)
	60Hz 1200rpm	1351 (1812)		1802 (2416)	2703 (3623)	3604 (4831)
Prime power rating output	50Hz 1000rpm	1214 (1627)	1306 (1751)	1619 (2170)	2429 (3256)	3238 (4340)
	60Hz 1200rpm	1288 (1727)	—	1717 (2302)	2576 (3453)	3434 (4603)
Continuous ‘C’ power rating output	50Hz 1000rpm	1091 (1462)	1183 (1586)	1455 (1950)	2182 (2925)	2910 (3901)
	60Hz 1200rpm	1148 (1540)		1531 (2052)	2297 (3079)	3063 (4106)
Emission compliance		—	—	—	—	—
Dimensions	mm L x W x H	3380 x 1403 x 2104	3380 x 1403 x 2177	4222 x 1538 x 2179	3491 x 1795 x 2350	4557 x 1710 x 2473



Cylinder heads



SU-series

# KU-series

		12KU30A	14KU30A	16KU30A	18KU30A
<b>Type</b>		4 cycle, V-type and trunk piston type , water-cooled, diesel engine	4 cycle, V-type and trunk piston type , water-cooled, diesel engine	4 cycle, V-type and trunk piston type , water-cooled, diesel engine	4 cycle, V-type and trunk piston type , water-cooled, diesel engine
<b>Aspiration</b>		turbocharged	turbocharged	turbocharged	turbocharged
<b>Number of cylinders</b>		12	14	16	18
<b>Bore x stroke</b> mm		300 x 380	300 x 380	300 x 380	300 x 380
<b>Displacement</b> Ltr		322	375	430	483
<b>Combustion system</b>		Direct injection	Direct injection	Direct injection	Direct injection
<b>Fuel</b>		Diesel fuel oil No.2 - No.6 - Heavy Fuel Oil*	Diesel fuel oil No.2 - No.6 - Heavy Fuel Oil*	Diesel fuel oil No.2 - No.6 - Heavy Fuel Oil*	Diesel fuel oil No.2 - No.6 - Heavy Fuel Oil*
<b>Dry weight</b> metric ton		2300	2300	2400	2400
<b>Continuous 'C' power rating output</b>	50Hz 750rpm	3920	4570	5230	5880
	60Hz 720rpm	3760	4390	5020	5650
<b>NOx Emission</b> ppm		710-780, O2:15%*	710-780, O2:15%*	710-780, O2:15%*	710-780, O2:15%*
<b>Dimensions</b> mm	L x W x H	6355 x 2900 x 3400	7145 x 2900 x 3720	7685 x 2900 x 3720	8225 x 2900 x 3720

\* NOx value to be determined refreing to local regulation



KU-series

# GSR-series (Miller cycle\*)

		GS6RPTK	GS6R2PTK	GS12RPTK	GS16RPTK	GS16R2PTK
Type		4-cycle, intercooled, Natural Gas engine	4-cycle, intercooled, Natural Gas engine	4-cycle, intercooled, Natural Gas engine	4-cycle, intercooled, Natural Gas engine	4-cycle, intercooled, Natural Gas engine
Aspiration		Turbocharged	Turbocharged	Turbocharged	Turbocharged	Turbocharged
Number of cylinders		6	6	12V	16V	16V
Bore x stroke mm		170x180	170x220	170x180	170x180	170x220
Displacement Ltr		24,52	29,96	49,03	65,37	79,9
Combustion system		Prechamber, Spark Ignited	Prechamber, Spark Ignited	Prechamber, Spark Ignited	Prechamber, Spark Ignited	Prechamber, Spark Ignited
Fuel		Natural Gas	Natural Gas	Natural Gas	Natural Gas	Natural Gas
Dry weight 50Hz / 60Hz kg		2400 / 2400	2650 / 2650	5350 / 5350	6770 / 6830	8105 / 7815
Continuous 'C' power rating output kWm hp	50Hz 1500rpm	363	na	722	959	1563
	60Hz 1200rprn	315	394	632	845	1031
Emission compliance		—	—	—	—	—
Dimensions mm	L x H x W	1989 x 1638 x 1123	1989 x 1718 x 1123	2396 x 2137 x 1832	2876 x 2137 x 1820	3422 x 2122 x 2164

\* also available as Lean-Burn



Common rail



GSR-series



# KU-gas

		12KU30A GSI	14KU30A GSI	16KU30A GSI	18KU30A GSI
<b>Type</b>		4 cycle, V-type and trunk piston type, water-cooled, gas engine	4 cycle, V-type and trunk piston type, water-cooled, gas engine	4 cycle, V-type and trunk piston type, water-cooled, gas engine	4 cycle, V-type and trunk piston type, water-cooled, gas engine
<b>Aspiration</b>		turbocharged	turbocharged	turbocharged	turbocharged
<b>Number of cylinders</b>		12	14	16	18
<b>Bore x stroke</b> mm		300 x 380	300 x 380	300 x 380	300 x 380
<b>Displacement</b> Ltr		322	375	430	483
<b>Combustion system</b>		Direct injection	Direct injection	Direct injection	Direct injection
<b>Fuel</b>		Natural Gas*	Natural Gas*	Natural Gas*	Natural Gas*
<b>Dry weight</b> metric ton		2300	2300	2400	2400
<b>Continuous 'C' power rating output</b>	50Hz 750rpm	3800	4450	5100	5750
	60Hz 720rpm	3650	4250	4900	5500
<b>NOx Emission</b> ppm		320 or less (O <sub>2</sub> : 0%), 92 or less (O <sub>2</sub> :15%)*	320 or less (O <sub>2</sub> : 0%), 92 or less (O <sub>2</sub> :15%)*	320 or less (O <sub>2</sub> : 0%), 92 or less (O <sub>2</sub> :15%)*	320 or less (O <sub>2</sub> : 0%), 92 or less (O <sub>2</sub> :15%)*
<b>Dimensions</b> mm	L x W x H	6355 x 2900 x 3400	7145 x 2900 x 3720	7685 x 2900 x 3720	8225 x 2900 x 3720

\* Also available with Micro-Pilot injection, for gas fuels such as coal mine, methane, digester and landfill.

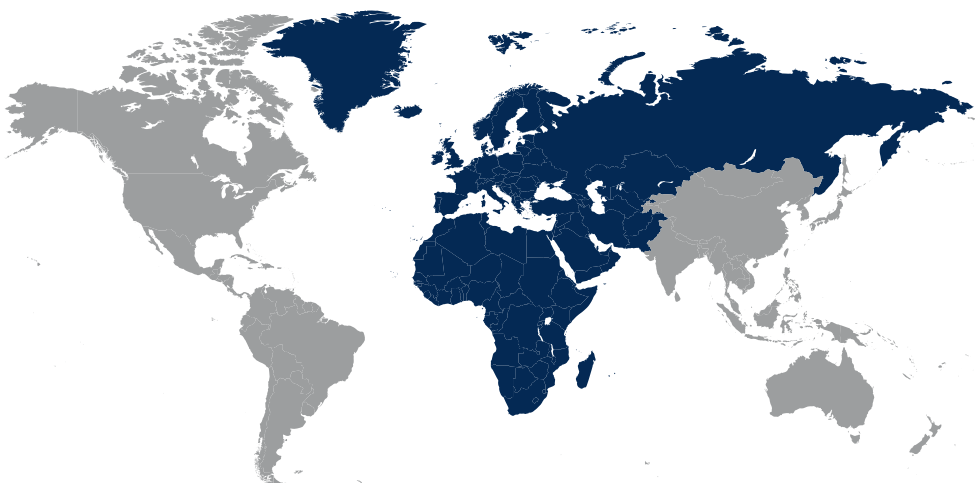


*KU installed in Pakistan*

Mitsubishi Turbocharger and Engine Europe B.V. reserves the right to modify any characteristic or specification without prior notice and without incurring any obligation. The illustrations may include optional equipment and/ or accessories. All information in this brochure is based on the latest information available at the time of printing. Unless mentioned otherwise, the information mentioned is owned by Mitsubishi Turbocharger And Engine Europe B.V.. Text, lay-out, illustrations, scripts, articles and other items in this brochure are protected by copyright.

# Your loyal, reliable partner since 1917

In 1917, Mitsubishi Heavy Industries (MHI) became the first Japanese company to develop and build a diesel engine, and since then has steadfastly pioneered technologies for the reciprocating engine. MHI offers a broad line-up, ranging from construction machinery and marine engines to engines for power generation. In recent years, the company has been involved in the general development of advanced gas turbines, rocket engines, and other types of internal combustion engines, even as it continues to look at the true significance and its decades-long quest to further refine the reciprocating engine.



## **MITSUBISHI TURBOCHARGER AND ENGINE EUROPE B.V.**

**Headquarters Engine, Genset & Powerplant Division Europe, Middle East and Africa**

Damsluisweg 2  
1332 EC Almere  
P.O. Box 30101  
1303 AC Almere  
The Netherlands

Phone: +31 (0)36 5388311  
Fax: +31 (0)36 5388342

[www.mtee.eu](http://www.mtee.eu)