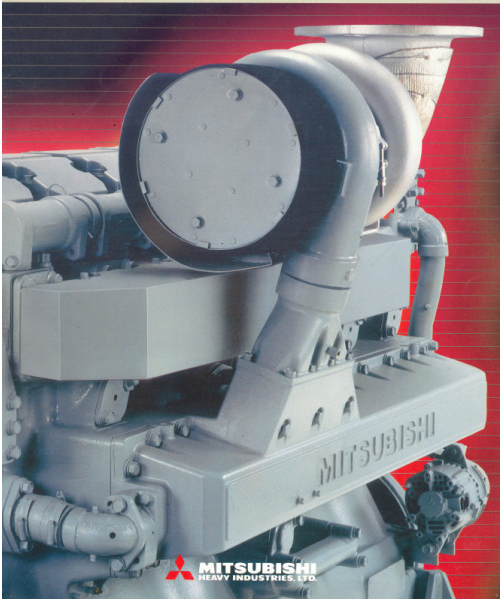
MITSUBISHI DIESEL ENGINE S6R,S6R2



MITSUBISHI HEAVY INDUSTRIES, LTD.

The newest and most uni

Greater Power in Less Space

The SR series 6-cylinder in-line diesel engines boast an output of 500kW, an output normally achieved by the much larger 12-cylinder, V-type engines. These compact power units require less floor space in a generator set arrangement and are readily enhanced by lightweight and easy handling features to ensure quick installation.

Extra High Fuel Efficiency

Experience gained during more than a decade of SB, SA and SN diesel engine production led to the introduction of a direct injection system employing Mitsubishi's originally designed PS type fuel injection pump. Now, in combination with an originally designed high performance turbocharger and twin passage swirl port, Mitsubishi has achieved in the SR series an outstandingly efficient engine with a fuel oil consumption rate of 196g/kW-hr (147g/HP-hr) at prime power rating output per 1,000rpm by S6R2-PTK without fan.

Unique Design

Backed by extensive engine development experience, technologically refined through computer aided design, the SR diesel engine series readily includes a variety of qualitative features.

(1) Newly designed crankcase and pistons offer thorough engine durability with the same high reliability as the SB, SA and SN series.

(2) Most accessories are concentrated on one side of the engine for easier daily maintenance.

(3) Exterior engine piping has been replaced by internal installation of accessories, thereby eliminating the possibility of pipe breakage.

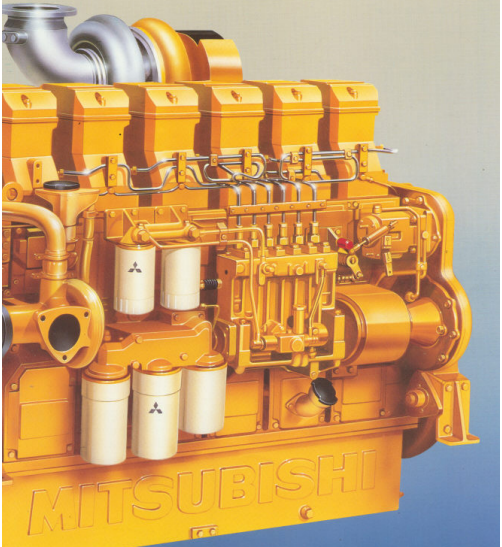
(4) Cartridge type paper filter facilitates easy filter change.

Wide Selection of Accessories for Diversified Engine Applications

(1) Starting systems for air direct injection, air motor, and electric motor.

(2) Numerous options include safety stop device, heater, exhaust silencer and more.

ue model of diesel engines



S6R-PTA imaginative illustration

Standard Specifications

Engine model	S6R			S6R2		
	PT	PTA	PTK	PT	PTA	PTK
Engine type	4 stroke cycle, water cooled, turbocharged diesel engine					
Combustion system	Direct injection					
Turbocharger	Mitsubishi TD type					
Charge air cooling system	PTA (Aftercooler) : Jacket water to air cooler PTK (Intercooler) : Raw water to air cooler					
Cylinder arrangement	In-line 6 cylinders					
Piston bore x stroke	170mm x 180mm			170mm x 220mm		
Total displacement	24.5 liter			30.0 liter		
Compression ratio	14 : 1					
Rotation	SAE standard (Counter-clockwise viewed from flywheel)					
Starting system	Electric motor (DC24V-7.5kW x 1 pc)					
Alternator	DC24V - 25A					
Governor	Hydraulic type					
Flywheel	SAE 18 inch					
Flywheel housing	SAE # 0					
Fuel oil	Diesel fuel oil (ASTM No.2-D)					
Fuel injection pump	Mitsubishi PS type					
Fuel injection nozzle	Hole type					
Fuel oil filter	Paper element type					
Lubricating system	Forced lubrication by gear pump					
Lubricating oil	API service grade CD class					
Lub. oil filter	Paper element type					
Dimensions Length (mm)	1722	1722	1722	1722	1722	1722
Dimensions Width (mm)	1050	1050	1050	1050	1050	1050
Dimensions Height (mm)	1498	1498	1498	1578	1578	1578
Dry weight (kg)	2250	2300	2300	2350	2400	2400

Standard Accessories

- *Turbocharger*
- *Electric starter*
- *Charging alternator*
- *Governor*
- *Fuel filter*
- *Lub. oil filter*
- *Oil pan*
- *Flywheel*
- *Flywheel housing*
- *Breather*
- *Exhaust manifold*
- *Exhaust outlet flange*
- *Thermostat*
- *Engine mountings*
- *Standard tools*
- *Standard spare parts*

Optional Accessories

- *Air cleaner*
- *Governor motor*
- *Fan and fan drive*
- *Radiator*
- *Heat exchanger*
- *Automatic shut-off device*
- *Instrument panel*
- *Heater*
- *Battery*
- *Battery switch*
- *Fuel tank*
- *Fuel transfer pump*
- *Exhaust gas silencer*
- *Exhaust flexible pipe*
- *Air motor starter*
- *Air compressor*
- *Air tank*

Outputs

Applications	Rating	Frequency (Hz)	Speed (rpm)	Engine model S6R-PT without fan kW	S6R-PT without fan HP	S6R-PT with fan kW	S6R-PT with fan HP	S6R-PTA without fan kW	S6R-PTA without fan HP	S6R-PTA with fan kW	S6R-PTA with fan HP	S6R-PTK without fan kW	S6R-PTK without fan HP
Generator	Prime	50	1500	380	509	365	489	490	657	475	637	520	697
		60	1800	440	590	420	563	570	764	550	737	605	811
			1200	315	422	305	409	365	489	355	476	400	536
	Standby	50	1500	420	563	405	543	540	724	525	704	570	764
		60	1800	485	650	465	623	625	838	605	811	665	891
			1200	345	462	335	449	400	536	390	523	440	590
Power unit	Continuous		1800	400	536	385	516	510	683	490	657	550	737
			1500	345	462	330	442	445	596	430	576	475	637
			1200	285	382	275	369	330	442	320	429	365	489
Fire pump	Rated		1800	440	590	420	563	570	764	550	737	605	811
			1500	380	509	365	489	490	657	475	637	520	697
			1200	315	422	305	409	365	489	355	476	400	536

Applications	Rating	Frequency (Hz)	Speed (rpm)	Engine model S6R2-PT without fan kW	S6R2-PT without fan HP	S6R2-PT with fan kW	S6R2-PT with fan HP	S6R2-PTA without fan kW	S6R2-PTA without fan HP	S6R2-PTA with fan kW	S6R2-PTA with fan HP	S6R2-PTK without fan kW	S6R2-PTK without fan HP
Generator	Prime	50	1500	440	590	420	563	565	757	545	730	610	817
			1000	310	416	300	402	370	496	360	482	410	549
		60	1200	370	496	355	476	465	623	450	603	500	670
	Standby	50	1500	485	650	465	623	625	838	605	811	670	898
			1000	340	456	330	442	410	549	400	536	450	603
		60	1200	405	543	390	523	510	683	495	663	550	737
Power unit	Continuous		1500	400	536	380	509	515	690	495	663	555	744
			1200	335	449	320	429	425	570	410	549	455	610
			1000	280	375	270	362	335	449	325	436	375	503
Fire pump	Rated		1500	440	590	420	563	565	757	545	730	610	817
			1200	370	496	355	476	465	623	450	603	500	670
			1000	310	416	300	402	370	496	360	482	410	549

Rating Explanation

- *Every engine power rating represents net performance with MHI's standard accessories installed such as air cleaner, inlet and outlet manifolds, fuel oil system, lub. oil system, cooling water pump, charging alternator, starting motor and cooling fan (when indicated) at ISO 3046/1-1981 standard reference conditions;*
  Total barometric pressure : 100 kPa (29.53 inHg)
  Air temperature : 300 K (80.6°F)
  Relative humidity : 60 %

- *PTA type is equipped with a charge air cooler (aftercooler) using engine cooling water, and PTK type with a charge air cooler (intercooler) using raw water (below 305 K).*

- *Standby power rating*
  This rating is applicable for supplying electric power on/during normal utility power failure. No overload is permissible. This rating conforms with DIN 6270 Rating B.

- *Prime power rating*
  This rating is applicable for supplying electric power continuously. 110 % load is permissible for one hour. This rating conforms with DIN 6270 Rating A.

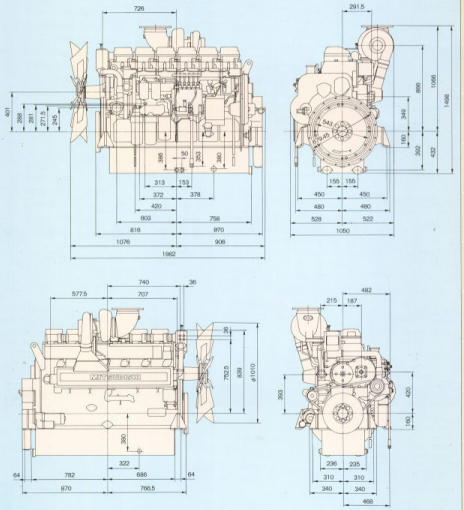
- *kW value represents engine's mechanical output and HP value is derived from the formula: HP = kW × 1.34*

- *All specifications are subject to change without prior notice.*

Dimensions

S6R

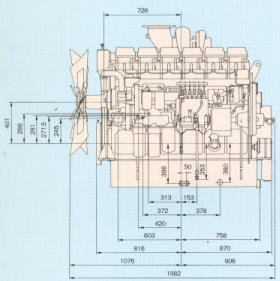
Unit: mm

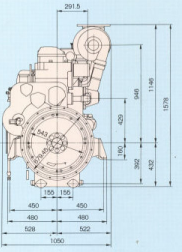


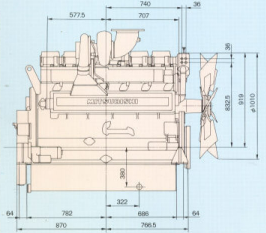
Dimensions

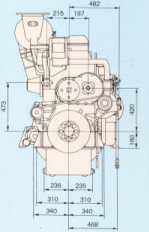
S6R2

Unit: mm









Catalog No. SE-067-12
HG80-12200. B Printed in Japan

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