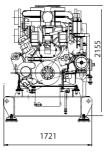
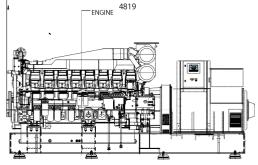
## S16R SERIES









1795 kVA (1436 kWe) / 1500 rpm 50 Hz 2035 kVA (1628 kWe) / 1800 rpm 60 Hz

#### **TECHNICAL DATA**

TEOTIMOAL DATA
Engine brand Mitsubishi
Engine designation S16R-MPTK
No . of cylinders and configuratio V 16
Method of operation 4-stroke,
direct-injected, turbocharged
diesel engine with aftercooler
Bore, mm
Stroke, mm
Displacement, I
Compression ratio
Crankshaft Power HE Cooling
at 1500 rpm, kW (hp) 1500 (2040)
at 1800 rpm, kW (hp) 1690 (2299)
Crankshaft Power KC Cooling
at 1500 rpm, kW (hp) 1500 (2040)
at 1800 rpm, kW (hp) 1690 (2299)
Crankshaft Power RC Cooling
at 1500 rpm, kW (hp) 1450 (1972)
at 1800 rpm, kW (hp) 1540 (2094)
Recommended fuel to conform to
Specific fuel consumption
g/kWh at 1500 rpm 207 (75%)
g/kWh at 1800 rpm 210 (75%)
All data represent net performance with standard accessories
such as fuel injection pump, water pump, L.O. pump and
charding alternator under the conditions of TOOKPa (750mm Hg).

barometric pressure 300K (27°C) ambient temperature and 60%

The engine is certified acc. to IMO NOx, stage 2.

GENERATOR

**ENGINE** 

The Mitsubishi engines are well

IMO stage 2 and CCNR.

balanced and have excellent emission

performance, meeting all present and

coming emission regulations, including

Mitsubishi's basic design in combi-

nation with Woodward governor and

a modern electronic control system

gives superior load acceptance and

standards with good margin.

synchronizing capabilities, meeting all

All the standard Gensets are equipped with a generator built by Newage Stamford. Stamford is the market leader in this power range and provides for worldwide service coverage. These generators are of a long proven design, based on years of experience of power generation for land-based and marine applications.

#### STANDARD SPECIFICATION

Heavy-duty, water-cooled diesel engine Radiator with mechanical fan Protective grille for fan and rotating parts Electric starter and charge alternator Starting battery (with lead acid) including rack and cables Engine jacket water heater Steel base frame and anti-vibration isolators Fuel tank under the base frame Flexible fuel connection hoses Single bearing, class H alternator Industrial exhaust silencer and steel bellows supplied separately Static battery charger Manual for application and installation Generators Sets' voltage and frequency regulation comply with ISO 8528-5 Generators Sets' can take 100% load at one step according to NFPA110

#### **GENERAL CHARACTERISTICS**

Frequency (Hz) 50 Control Panel Model 7320 Model Name APD 825 M Fuel Type Diesel

lid koninklijke **metaalunie** 

Amsterdam Alexandria Marine B.V.

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#### **Technical description**

#### **Complete Genset**

- High system efficiency as a esult of system optimization of the complete Genset
- All used components of highest quality from well reputed suppliers
- Reinforced set dimensioned for high output and low sound level
- Mono-block engine/generator rigidly mounted on a common bed frame
- Engine directly coupled to generator via a flexible couplin
- Flexible mountings including welding plates mounted under the frame
- Full protection of rotating parts will be provided

#### Engine

- Flywheel housing with connection acc. to SAE 0
- Flywheel (18")
- Engine brackets

#### Lubrication system

- Freshwater-cooled oil cooler
- Spin-on type oil filters with chang over valve
- Spin-on type oil by-pass filte

#### **Fuel system**

- Woodward electronic or hydraulic governing systems
- Jacketed fuel pipes
- Spin-on type fuel filters of chang over type
- 24V fuel shut-off valve, electrically operated

#### Inlet air and exhaust system

- Non-cooled turbocharger
- Air inlet filter/silence
- Fresh water cooled charge air cooler. (on MPTA models)

#### Other equipment

- Front P.T.O. pulley (2x B groove)
- Front safety cover

#### **Generator**

- Temperature rise class H, ambient temp. 50 degr. C
- Anti condensation heating
- Droop kit

- Stator winding as standard with short 2/3 pitch winding, ideal for non-linear load (thyristor load)
- 4-pole, brushless, AC marine generator
- Dynamically balanced rotor
- Automatic Voltage Regulator (AVR) for accurate Voltage regulation
- Permanent magnet mounted on generator for independent power supply to AVR
- Permanent magnet system to obtain hard performance on motor start and to deliver stationary short circuit current
- Heavy damper cage for parallel operation and very low subtransient reactance
- Double bearing generator as standard
- Voltage available range up to 690V
- IP23 enclosure as standard

## **Optional equipment**

- Engine

   Twin fuel filters/water separator wit change over valve
- Flexible exhaust compensator, dry
- Raw/sea water circulation pump
- Cooling water connection bellows
- Electrical or air starting systems
- Engine cooling water heater 230V or 400 V
- Pre-lube oilpump combined with heater

### Heat Exchanger cooled system (HE)

- For seawater- and central-cooled Gensets
- Plate heat exchanger with integrated expansion tank

#### Radiator cooled system (RC

- For air-cooled Gensets
- V-belt-driven radiator fan

Keel cooled system (KC)

– 2-circuit keel cooling system for keel- or box coolers

#### ComAp Classified control and monitoring system

- Alarm and monitoring functions according to classification
- Optional functions on request

4819

- Modbus

ENGINE

- Configurable inputs and outputs
- RPU-Shutdown unit, includes all shutdown functions required by classification societies

#### Generator

- Air inlet louvres/filters acco ding to IP44
- Thermistors (1 or 2 per phase) mounted in generator for temperature measurement of windings in generator
- PT100 elements (1 or 2 per phase) mounted in generator for temperature measurement of windings in generator
- Single bearing generator
- PT100 elements mounted in generator bearings for temperature measurement
- Water cooled generator

#### **Miscellaneous**

- Flexible exhaust compensator
- Dry exhaust silencer with or without spark arrestor
- Synchronizer unit
- Load sharing unit
- Toolkit
- Spare parts according to classificatio recommendations

Contact your local dealer for further information.

Not all models, standard equipment and accessories are available in all countries. All specifications are subject to change without notice.

The Genset illustrated may not be entirely identical to produc-tion standard Gensets.

#### Technical data HE-KC Genset

1795 kVA (1436kWe) / 1500 rpm 50 Hz 2035 kVA (1628 kWe) / 1800 rpm 60 Hz Dimensions  $L \times W \times H$ , mm, not for installation S16R-MPTK......5123 x 1657 x 2263

All data represent net performance with standard accessories such as fuel injection pump, water pump, L.O. pump and charging alternator under the conditions of 100kPa (750 mm Hg), barometric pressure 300K (27°C) ambient temperature and 60% relative humidity

#### **Control Module DSE Model 7320**



- MENU NAVIGATION BUTTONS
- CLOSE MAINS BUTTOM
- MAIN STATUS BUTTON
- ALARM LED'S
- CLOSE GENETATOR BUTTON
- STATUS LED'S
- OPERTION SELECTING BUTTONS



1721

#### **APPENDIX**





#### Emission - Unregulated | High Speed > 100 kWm

	Output <sup>1</sup>				Engine	Fraguency
	Star	ndby	Prime		Speed	Frequency
	kWm	kVA	kWm	kVA	rpm	Hz
S6B3-PTA	359	426	324	385	1500	50
S6A3-PTA	430	511	390	463	1500	50
S6A3-PTAA	463	550	420	499	1500	50
S6R-PTA	555	659	500	594	1500	50
S6R2-PTA	635	754	575	683	1500	50
S6R2-PTAA	710	843	645	766	1500	50
S12A2-PTA	723	859	656	799	1500	50
S12A2-PTA2	818	971	742	881	1500	50
S12H-PTA	980	1164	890	1057	1500	50
S12R-PTA	1190	1413	1080	1283	1500	50
S12R-PTA Switchable	-	-	1110	1318	1500	50
S12R-PTA2	1285	1526	1165	1383	1500	50
S12R-PTAA2	1441	1711	1314	1560	1500	50
S16R-PTA	1590	1888	1450	1722	1500	50
S16R-PTA2	1760	2090	1600	1900	1500	50
S16R-PTAA2	1939	2303	1728	2052	1500	50
S16R2-PTAW	2167	2573	1960	2328	1500	50
S16R2-PTAW-E	2275	2702	2068	2456	1500	50
S16R2-PTAW2-E	2430	2886	2209	2623	1500	50

# - GENSET DIMENSIONS S16R GENSET WITH OR WITHOUT CANOPY

#### **Gen. Set Canopy Dimensions (mm)**

LENGHT	4819
WIDTH	2155
HEIGHT	2155
DRY WEIGHT (kg.)	11400
TANK CAPACITY (It.)	2000/2200

### Gen. Set Canopy Dimensions (mm)

LENGHT	9000
WIDTH	2800
HEIGHT	3300
DRY WEIGHT (kg.)	15450
TANK CAPACITY (It.)	2000/2200

