



Version Full Rental Power

BASE

- Analog engine
- Connection terminal box rental type
- Four-pole circuit breaker
- 2 points lifting ring with integrated ladder
- soundproofed enclosure dedicated to rental
- Fuel low level
- AREP Leroy-Somer alternator
- Easy access to the radiator
- Swing valve

ADDITIONAL EQUIPMENT - FULL

- Containment fuel tank and large autonomy
- Central lifting eye
- Inlet air preheating
- Voltage adjustment potentiometer
- Adjustable earth fault protection and earthing rod
- Battery isolating switch



Prime Power

PRP : Prime Power is available for an unlimited number of annual operating hours in variable load applications (Mitsubishi Engines are limited to 2000 hours a year), in accordance with ISO8528-1. The average power output shall not exceed x% of the prime power rating, in accordance with ISO 3046-1.

Standby power

ESP : The Standby Power Rating is applicable for supplying emergency power in variable load applications for up to 200 hours per year (Mitsubishi Engines are limited to 100 hours a year) in accordance with ISO8528-1. Overload is not allowed.

R700C2 (CE)

Motor type	TWD1643GE
Alternator type	LSA491S4
Canopy Type	M230

GENERAL CHARACTERISTICS

Frequency (Hz)	50
Reference voltage (V)	400/230
Max power (kVA)	700
Max power ESP (kWe)	560
Max power ESP (kVA)	636.4
Max power PRP (kWe)	509.1
Intensity (A)	1010
Standard Control Panel	TELYS
Optional control panel	KERYS Rental

DIMENSIONS

Length (mm)	5083
Width (mm)	1690
Height (mm)	2922
Dry weight (kg)	6140
Tank capacity (L)	1950
Autonomy @ 50% of load (h)	27.8
Autonomy @ 75% of load (h)	20.6

DIMENSIONS BASE VERSION

Length (mm)	5031
Width (mm)	1690
Height (mm)	2662
Dry weight (kg)	5410
Tank capacity (L)	610
Autonomy @ 50% of load (h)	8.7
Autonomy @ 75% of load (h)	6.5

NOISE LEVEL

dB(A)@1m (50Hz)	85.2
dB(A)@7m (50Hz)	75.2
dB(A)@15m (50Hz)	71.2
LWA (50Hz)	105

ENGINE SPECIFICATIONS

GENERAL CHARACTERISTICS

Description	TWD1643GE
Motor model	VOLVO
Cylinder arrangement	L
Number of cylinders	6
Bore (mm)	144
Stroke (mm)	165
Displacement (C.I.)	16.12
Compression ratio	16.5 : 1
Speed (RPM)	1500
Pistons speed (m/s)	8.25
Maximum stand-by power at rated	596
Governor type	Electronic
Frequency regulation (%)	+/- 0.5%
BMEP (bar)	26.6

COOLING SYSTEM

Radiator & Engine capacity (L)	95
Max water temperature (°C)	103
Outlet water temperature (°C)	93
Fan power (kW)	17
Fan air flow w/o restriction (m3/s)	10
Available restriction on air flow (mm)	30
Type of coolant	Glycol-Ethylene
Thermostat (°C)	86-96

EMISSIONS

Emission HC (g/kW.h)	0.08
Emission Nox (g/kW.h)	5.4
Emission CO (g/kW.h)	0.69
Emissions PM (g/kW.h)	0.083

EXHAUST

Exhaust gas flow (L/s)	1693
Exhaust gas temperature (°C)	450
Max. exhaust back pressure (mm CE)	1000

FUEL

Consumption @ 110% load (L/h)	142.6
Consumption @ 100% load (L/h)	128
Consumption @ 75% load (L/h)	94.5
Consumption @ 50% load (L/h)	63
Maximum fuel pump flow (L/hr)	190

OIL SYSTEM

Oil capacity (L)	48
Min. oil pressure (bar)	0.7
Max. oil pressure (bar)	6.5
Oil consumption 100% load (L/h)	0.1
Carter oil capacity (L)	42

HEAT BALANCE

Heat rejection to exhaust (kW)	463
Radiated heat to ambient (kW)	20
Haet rejection to coolant (kW)	218

AIR INTAKE

Intake air flow (L/s)	727
Max. intake restriction (mm CE)	150

ALTERNATOR

GENERAL CHARACTERISTICS

Description	LSA 49.1 S4
Alternator brand	LEROY SOMER
Number of phase	3
Altitude (m)	0 à 1000
Overspeed (rpm)	2250
Number of pole	4
Excitation system	AREP
Insulation class	H
Regulation	R448
Sustained short circuit current	3 IN" 10s
#Taux d'harmonique à vide TGH/THC	< 4%
#Taux d'harmonique en charge	< 4%
Wave form : CEI=FHT-(TGH/THC)	< 2%
Wave form : NEMA=TIF-(TGH/THC)	< 50
Number of bearing	1
Coupling	Direct
#Régulation de tension à régime	+/- 0.5%
Air flow (m3/s)	1

OTHER CHARACTERISTICS

No load excitation current (io) (A)	0.9
Full load excitation current (ic) (A)	3.6
Full load excitation voltage (uc) (V)	43
Recovery time (Delta U = 20%)	500
Motor start (Delta U = 20% perm. or	1578
Transient dip (4/4 charge) - PF : 0,8	13.3
No load losses (W)	8110
Heat rejection (W)	33710

REACTANCES (R) - TIME CONSTANT(CT)

Short circuit ratio (Kcc)	0.38
Direct axis synchro reactance	343
Quadra axis synchro reactance	205
Open circuit time constant (T'do)	1958
Direct axis transient reactance	17.5
Short circuit transient time constant	100
Direct axis subtransient reactance	14
Subtransient time constant (T"d) (ms)	10
Quadra axis subtransient reactance	16.3
Zero sequence reactance unsaturated	0.9
Negative sequence reactance	15.2
Armature time constant (Ta) (ms)	15

POWERS

Power factor (Cos Phi)	0.8
Continuous Nominal Rating 40°C	660
Standby Nominal Rating 40°C (kVA)	693
Standby Rating 27°C (kVA)	725
Efficiencies 4/4 load (%)	93.9

CONTROL PANELS

TELYS (ergonomic and user-friendly)



The highly versatile TELYS control unit is complex yet accessible, thanks to the particular attention paid to optimising its ergonomics and ease of use. With its large display screen, buttons and scroll wheel, it places the accent on simplicity and communication.

The TELYS offers the following functions:

Electrical measurements: voltmeter, frequency meter, ammeter.

Engine parameters: working hours counter, oil pressure, coolant temperature, fuel level, engine speed, battery voltage.

Alarms and faults: oil pressure, coolant temperature, failure to start, overspeed, alternator min./max., battery voltage min./max., emergency stop, fuel level.

Ergonomics: wheel for navigating around the various menus.

KERYS (coupling and adaptability)



The KERYS control unit has been designed to fulfil the specific requirements of professionals in terms of operating and monitoring generating sets. It therefore offers a wide range of functions.

This control unit is fitted as standard to all generating sets designed to be used for coupling and is offered as an option across the rest of our range.

The KERYS can be built into the central console, fitted directly on the generating set, or in a separate cabinet, to fulfil all the requirements for low and high output power plants.

The KERYS offers the following functions:

Coupling: pre-programmed coupling mode selector.

Electrical measurements: voltmeter, frequency meter, ammeter.

Engine parameters: working hours counter, oil pressure, coolant temperature, fuel level, engine speed, battery voltage.