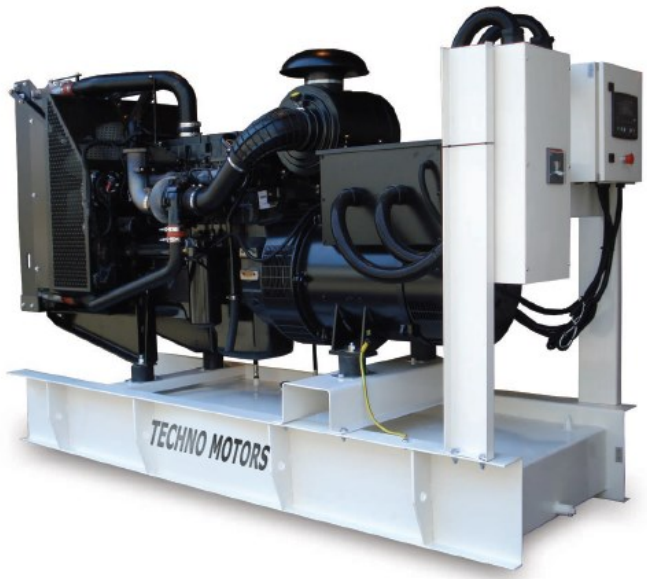
TECHNO MOTORS

TMP200



ENGINE: Perkins

ALTERNATOR: LEROY SOMER

CONTROLLER: DSE

CIRCUIT BREAKER: ABB

STANDARD SPECIFICATIONS

1. ENGINE
Perkins four(4) stroke heavy duty high performance industrial type diesel engine.

2. ENGINE FILTRATION SYSTEM
- Air filter
- Fuel filter
- Full flow lube oil filter

All filters elements are replaceable.

3. COOLING RADIATOR
Radiator and cooling fan, complete with safety guards.

4. EXHAUST SYSTEM
Heavy duty Industrial Exhaust
- Noise reduction level : **12 (dBA)**
- Maximum allowable back pressure: **6.0 (kPa)**

5. CIRCUIT BREAKER TYPE
- ABB 3 pole MCB.
- 4 pole CB is Optional

6. FUEL SYSTEM
On Generating Sets up to 500 KVA, the base-frame design is integrated with a fuel tank with a capacity of approx. 8 hours running at Full Load.

GENSET TYPE (TMP200)		
OUTPUT RATINGS	Ratings at 80% Power Factor	
400-415 V, 3 ph., 50 Hz, 1500 rpm	Prime	Standby
	200 KVA	220 KVA
	160 kW	**176 KW**

Prime Power: These ratings apply to producing continuous electrical power (at varying load) instead of commercially received electricity. 10% overload power is provided for one(1) hour every 12 hours of continuous operation.

Standby Power: These ratings apply to providing continuous electrical power (at variable load) in the case of a utility power outage. Overload is not allowed on these ratings.

ENGINE / TECHNICAL DATA		
Engine Make & Model	Perkins 1106A-70TAG4	
Governor Type	Mechanical	
Number of Cylinders & Arrangement	6 Vertical in line	
Bore and Stroke mm	105 x 135	
Displacement / Cubic Capacity liters	7.01	
Induction System	Turbocharged, air to air aftercooled	
Cycle	4 stroke	
Combustion System	Direct Injection	
Compression Ratio	16:1	
Rotation	Anti-clockwise, viewed on flywheel	
Coolin System	Water - cooled	
Frequency and Engine Speed	50Hz / 1500rpm	
	Prime	Standby
Gross Engine Power kW (hp)	183.6 (246.2)	202 (270.88)
Fuel Consumption @ 50% load L/hr.	23.1	-
@ 75% load L/hr.	34.7	-
@100% load L/hr.	45.8	49.4
Total Lubrication System Capacity liters	18	18
Total Coolant Capacity (inc. radiator) liters	20.5	20.5
Exhaust Temperature: °C	550	550
Radiator Cooling Air Flow (Min): m^3/sec	1.92	1.92
Combustion Air Flow: m^3/min	12.6	13.2
Exhaust Gas Flow: m^3/min	34.9	36.8

DIMENSIONS AND WEIGHT (OPEN TYPE)				
Length cm	Width cm	Height cm	Weight kg (with oil and coolant)	Fuel Tank (liters)
257	90	148	1758	261

Alternator Data	
Make	Leroy Somer
Model	TAL 046B / TAL 044M
No. of bearings	1
Insulation class	H
Total Harmonic Content	At no load <2.5% / <2% On-Load <5%
Ingress Protection	IP23
Excitation System	SHUNT
Winding Pitch	2/3
AVR Model	R150 / R120
Overspeed	2250 RPM
Voltage Regulation (steady)	± 0.8% / ± 1%
Short Circuit Capacity	-

Control Panel Details (Standard)	
Make	DSE
Model	**DSE6110**

The DSE6110 is an Auto Mains (Utility) Failure Control Module .
This module can either be programmed using the front panel or by using the DSE configuration suite PC software.
Metering and Alarm indications not limited to:
- Generator frequency
- Under-speed, Overspeed
- Generator current
- Engine oil pressure
- Engine coolant temperature
- Fuel level (Warning or shutdown) - Optional
- Battery volts
- Fail to start/stop
- Emergency stop
- Failed to reach loading voltage/frequency
- Charge fail
- Loss of magnetic pick-up signal - Optional
- Low DC voltage

TECHNO MOTORS

TMS200

TMS200 65 dBA @ 1 Meter

TMS200 75 dBA @ 3 Meters

SOUND REDUCTION LEVEL:

- Tow(2) options are available:
  1. 65 dBA @ 1 meter
  2. 75 dBA @ 3 meters

TRANSPORTABILITY AND MOVEABILITY:

- Multiple points lifting facility
- Dragging points at base-frame

GENERAL SPECIFICATIONS :

- Unique appearance with high sound absorbing and thermal properties.
- Vertically hinged allow 180° opening rotation and retention with door stays.
- Lockable access doors which give full access to control panel and breaker.
- High quality locks and hinges.
- Internal emergency stop is standard with optional external emergency stop.
- Full weather proof enclosure and suitable operations in harsh conditions.
- Manufactured from galvanized metal sheet for doors & louvers.

DIMENSIONS AND WEIGHT (Closed Type 65 dBA @ 1 meter)				
Length cm	Width cm	Height cm	Weight kg (with oil and coolant)	Fuel Tank liters
420	140	200	2758	200

DIMENSIONS AND WEIGHT (Closed Type 75 dBA @ 3 meters)				
Length cm	Width cm	Height cm	Weight kg (with oil and coolant)	Fuel Tank liters
300	114	160	2438	215

AVAILABLE OPTIONS & ACCESSORIES

We offer a variety of additional features, accessories, and other technical specifications to customize our generating sets to match our customers' power requirements.

OPTIONS ACCESSORIES NOT LIMITED TO:

- A variety of GenSet control and synchronizing panels
- Additional protection alarms and shutdowns
- Water fuel separator
- Water jacket heater
- Battery charger
- Genuine spare parts
- Load banks
- Auxiliary fuel tanks
- Manual & automatic transfer switches

STANDARD SPECIFICATIONS
Continued…

7. ALTERNATOR
Based on the manufacturer specs:
7.1 INSULATION SYSTEM
- The insulation system is Class H.
- All windings are impregnated in either a triple dip thermosetting liquid, oil and acid resisting polyester varnish or vacuum pressure impregnated with a special polyester resin.
- Heavy coat of antitracking varnish additional protection against moisture or condensation.

7.2 AUTOMATIC VOLTAGE REGULATOR (AVR)
The fully sealed Automatic Voltage Regulator maintains the Voltage Regulation at ±1%. Nominal adjustment by means of a trim pot incorporated on the AVR.

7.3 MOTOR STARTING
An overload capacity equivalent to 300% of the Full Load impedance at zero Power Factor can be sustained for 10 seconds, when PMG option is fitted.

8. MOUNTING ARRANGEMENT
8.1 BASE-FRAME
The complete Generating Set is mounted as a whole on a heavy duty fabricated steel Base-frame.

8.2 COUPLING
The Engine and Alternator are directly coupled.
The Engine flywheel is flexibly connected to the alternator rotor.

8.3 ANTI-VIBRATION MOUNTING PADS
Anti-Vibration pads are fasten between the Engine / Alternator feet and the Base-frame.

8.4 SAFETY GUARDS
The Fan and Fan Drive, as well as the Battery Charging Alternator, are Safety Guard protected for the safety of the personnel.

9. FACTORY TESTS
- Before delivery, the generating set is load tested.
- Site load conditions and all protective device control functions are simulated.
- Before delivery, the generator and its systems are checked.

10. EQUIPMENT FINISHING
To provide the highest level of durability and scuff resistance, all mild steel components are completely degreased and coated.

11. DOCUMENTATIONS
- Operation & Maintenance manual,
- Circuit wiring diagrams and,
- Commissioning accompanied with the Generator.

13. WARRANTY
All of the Generating Sets are covered under a warranty policy for a period of 12 months or One Thousand Hours Run Time (1000hrs.). Warranty of the equipment is in line with manufacturers warranty terms & conditions.

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