

# TC70M

#### 50Hz POWERED BY CUMMINS SERIES





#### TECHNICAL SPECIFICATIONS

#### DIESEL GENERATING SET 400/230V-50Hz-3Phase

Model	TC70M		
Power(ESP)	kVA/kw	70/56	
Power(PRP)	kVA/kw	60/48	
Rated Voltage	V	24	
Rated Current	A	101	
Rated rotation speed	r/min	1500	
Power Factor		0.8	
Fuel Consumption	Litre/hour	18	
Fuel Tank Capacity	Litre		
Noise level	70dB(A)@7m		

#### WEIGHT AND DIMENSIONS

GEN-Set	Dimension ( L*W*H )	Weight
Silent Type	2396mm*1056mm*1670mm	1108kg

#### **STANDARDS:**

Genset: GB/T2820-2009,ISO8528 Alternator: MECC-ALTE, ECP32 1L4C Diesel Engine: CUMMINS, QSB3.9-G2

Standby Power: Continues running at variable load for duration of an

emergency. No overload is permitted on these ratings.

Prime Power: Continues running at variable load for unlimited periods with 10% overload available for 1 hour in any 12 hour period.











#### **CONFIGURATION:**

Standard: Engine, alternator, cooling system, Base frame (excluding fuel tank), shock absorber, air inlet system, control box (including mains floating charge), plastic fan blades (when the engine and water tank do not bring).

Optional: Base frame (including fuel tank), water jacket heater, fuel water separator, fuel heater, fuel level sensor (only supporting underframe tank), switch box (with switch), power switch, the water level sensor, motor anti condensation heater, automatic fueling system (only supporting base frame including fuel tank), battery frame.

Accessories: Silencer, bellow, exhaust silencing system accessories (with the matching engine), regular battery, starting cord assembly, data of gen-set, random tool (with the matching engine.



# **ENGINE Specification**

Manufacturer: CUMMINS	
Model	QSB3.9-G2
Engine speed Rated	1500 RPM
Cylinder /Arrangement	4/ L
Displacement	3.9L
Bore and Stroke	102 mm×120 mm
Compression ratio	17.3:1
Max. stand by power at rated RPM	70 KW
Frequency regulation, steady state	≤1%
Governor: type	Electronically-control high pressure common rail
Aspiration and Cooling	Turbocharged & After-cooled
Exhaust System	
Exhaust gas flow	188L/s
Exhaust temperature	465°C
Max back pressure	10kPa
Fuel System	
Fuel consumption 100% (of the Prime Power)	18L/h
Fuel consumption75% (of the Prime Power)	14L/h
Fuel consumption50% (of the Prime Power)	10L/h
Fuel consumption110% (of the Prime Power)	19L/h
Oil system	
Total oil capacity w/filters	10.9L
Air intake	
Engine air flow	89 L/s
Coolant System	
Engine capacity	7 L
Max water temperature	104°C
Thermostat	82-95°C



- Cummins engines with advanced design, reliable performance, durable operation.
- Alloy-steel and connecting steel-lever, high durability
- High combustion efficiency and low fuel consumption, work continuously
- P/T pump injection technology, low cost, completely combustion

Note: All data sheets are for reference only and subject to change without prior notice.





# **ALTERNATOR Specification**

Manufacturer: MECC-ALTE		
Туре	ECP32 1L4C	
Number of phase power	3	
Factor (Cos Phi)	0.8	
Pole	4	
Bearing	1	
Coupling	Direct	
Exciter type	Brushless	
Insulation: class, temperature rise	Н/Н	
Degree of protection	IP23	
AVR model	DSR	
Altitude	≤1000m	
Winding Pitch	2/3	
Winding Leads	12	

#### **FEATURES**

- Leading reality in the national scene, fortified by sixty years of experience in the electro mechanical field, Mecc Alte is today at its height in the world production of synchronous alternators.
- Committed daily to research, development and updating activities, Mecc Alte is a testimony to constant improvement in all areas from technology, organisation and quality with its ISO 9001 certification.

#### **STANDARDS**

- Marine certifying institutions
   Korean Register of Shipping, American Bureau of Shipping,
   China Classification Society, Germanischer Lloyd, Nippon Kaiji Kyokai, Russian Maritime Register of Shipping.
- Product certifying institutions CSA International Underwriters Laboratories Istituto Marchio di Qualità

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# **Control Panel**

### Model: DSE 6020

#### **AUTO START & AUTO MAINS FAILURE CONTROL MODULES**

### DIMENSIONS

#### **OVERALL**

216mm x 158mm x 42mm (8.5" x 6.2" x 1.6")

## PANEL CUTOUT 182mm x 137mm (7.2" x 5.4")

WEIGHT 400g (0.4kg)



#### **KEY FEATURES**

- Back-lit icon LCD display
- > Front panel editing
- ▶ LED and LCD alarm indication
- Power Save mode
- CAN and Magnetic Pick-up/Alt.
   versions available (specify on ordering)
- > PC and front panel configuration
- > 4 Digital inputs
- ➤ 3 Analogue inputs
- 6 Outputs (4 configurable on Magnetic Pick-up/Alt., 6 configurable on CAN version)
- Configurable timers and alarms
- ➤ Alternative configuration
- ➤ Event Log (5)
- Remote Start input

- > 3 Phase generator monitoring
- Current monitoring and protection
- Power monitoring(kW, kV A, kV Ar)
- > 3 Phase Mains (Utility) monitoring (DSE6020 only)
- > Test button (DSE6020 only)
- ► Battery Voltage monitoring
- Engine pre-heat
- Hours counter
- Comprehensive shutdown or warning on fault condition

#### **KEY BENEFITS**

- Automatically transfers between mains (utility) and generator power (DSE6020 only)
- Hours counter provides accurate information for monitoring and

- maintenance periods
- User-friendly set-up and button
- Multiple engine parameters are monitored simultaneously
- Module can be configured to suit individual applications
- Compatible with a wide range of CAN engines
- Uses DSE Configuration Suite PC software for simplified configuration
- ➤ IP65 rating (with optional gasket)
  offers increased resistance to water
  ingress
- Licence-free PC software