

– DIESEL GENERATING SET

# TC165T 165 KVA

– POWERED BY CUMMINS 6BTAA5.9-G12

**INDUSTRIAL STANDBY & PRIME  
POWER SOLUTION**



**SILENT TYPE**



**OPEN TYPE**

STANDBY (ESP)

**165**

kVA // 132 kW

PRIME (PRP)

**150**

kVA // 120 kW

VOLTAGE // 3 $\phi$

**400V**

238 A @ 50 Hz

NOISE @ 7M

**≤ 85 ± 2**

dB(A) // Silent

## ELECTRICAL SPECIFICATIONS

01 //  
ELECTRICAL

Model	<b>TC165T</b>
Frequency	<b>50 Hz</b>
Phases / Wires	<b>3 Phase, 4 Wire</b>
Voltage	<b>400 / 230 V</b>
Rated Current	<b>238 A</b>
Rated Speed	<b>1500 r/min</b>
Power Factor (cos $\phi$ )	<b>0.8</b>
Fuel Consumption @ 100%	<b>34 L/h</b>
Engine	<b>Cummins 6BTAA5.9-G12</b>
Alternator	<b>Stamford NI50G4</b>
Control Module	<b>DSE 7320 MKII</b>

## WEIGHT & DIMENSIONS

02 //  
PHYSICAL

### – OPEN TYPE

L 2350 ×  
W 950 ×  
H 1430 mm

**1392 KG**  
Tank: 262 L

### – SILENT TYPE

L 3436 ×  
W 1106 ×  
H 1968 mm

**1971 KG**  
Tank: 370 L

**STANDARDS** GB/T 2820-2009 // ISO 8528 // CE //  
CNAS // IAF

### – STANDARD INCLUDED

Engine, alternator, cooling system, base frame (excl. fuel tank), shock absorber, air intake, control box with mains floating charge, plastic fan blades.

### – OPTIONAL ADD-ONS

Base frame with fuel tank, water jacket heater, fuel water separator, fuel heater, level sensors, switch box, auto-fueling system, battery frame, anti-condensation heater.

### – ACCESSORIES BUNDLED

Silencer, bellow, exhaust silencing system accessories (matching engine), battery, starting cord assembly, gen-set documentation, tools matched to engine.

ENG.  
 MANUFACTURER: CUMMINS // 6-CYLINDER IN-LINE // TURBOCHARGED &  
 AFTERCOOLED

POWER PLANT  
**4-STROKE DIESEL**

140 KW @ 1500 RPM

# CUMMINS

## 6BTAA5.9-G12

### ENGINE CORE

01 //  
 POWER PLANT

Manufacturer	<b>CUMMINS</b>
Model	<b>6BTAA5.9-G12</b>
Engine Speed (rated)	<b>1500 RPM</b>
Cylinder / Arrangement	<b>6 / L (Inline)</b>
Displacement	<b>5.9 L</b>
Bore × Stroke	<b>102 × 120 mm</b>
Compression Ratio	<b>17.3 : 1</b>
Max Standby Power @ Rated	<b>140 kW</b>
Frequency Regulation	<b>≤ 1 %</b>
Governor Type	<b>Electrical</b>
Aspiration / Cooling	<b>Turbocharged &amp; Aftercooled</b>

### FUEL / OIL / AIR

02 //  
 CONSUMABLES

Fuel Consumption @ 100% PRP	<b>34 L/h</b>
Fuel Consumption @ 75% PRP	<b>26 L/h</b>
Fuel Consumption @ 50% PRP	<b>17 L/h</b>
Fuel Consumption @ 25% PRP	<b>10 L/h</b>
Total Oil Capacity w/ Filters	<b>16.4 L</b>
Engine Air Flow	<b>150 L/s</b>
Exhaust Gas Flow	<b>357 L/s</b>
Exhaust Temperature	<b>507 °C</b>
Max Back Pressure	<b>10 kPa</b>
Radiator & Engine Capacity	<b>30.0 L</b>
Max Water Temperature	<b>104 °C</b>

#### – KEY ENGINE ADVANTAGES

- ▶ **Cummins engines:** advanced design, reliable performance and durable continuous operation.
- ▶ High combustion efficiency and low fuel consumption, engineered for continuous running.
- ▶ Globally available Cummins service parts and authorised service network.
- ▶ Alloy-steel block and connecting rods for high durability under load.
- ▶ P/T pump injection technology — low cost and complete combustion.
- ▶ Proven platform operating across industrial, construction and agricultural applications.

ALT.

MANUFACTURER: CUMMINS GENERATOR TECHNOLOGIES // BRUSHLESS AVR // IP23  
CLASS H

3-PHASE AC

**BRUSHLESS SHUNT**

IP23 / CLASS H

# STAMFORD N150G4

## CORE CONFIGURATION

01 //  
BUILD

Manufacturer	<b>STAMFORD</b>
Type	<b>N150G4</b>
Number of Phases	<b>3</b>
Power Factor (cos φ)	<b>0.8</b>
Pole Count	<b>4</b>
Bearing	<b>1 (Single)</b>
Coupling	<b>Direct</b>
Exciter Type	<b>Brushless SHUNT</b>

## ELECTRICAL / PROTECTION

02 //  
PROTECTION

Insulation Class / Temp Rise	<b>H / H</b>
Degree of Protection	<b>IP 23</b>
AVR Model	<b>DM730</b>
Altitude Rating	<b>≤ 1000 m</b>
Winding Pitch	<b>2/3</b>
Winding Leads	<b>6 / 12</b>
Voltage Regulation	<b>± 1.0 %</b>
Overspeed Capability	<b>2250 r/min (1 min)</b>

### – STAMFORD ALTERNATOR QUALITY PROGRAM

- ▶ Utilising wire-wound (random-wound) technology – industry benchmark for all gen-set configurations.
- ▶ IP21, IP22, IP23 and IP44 enclosure protection options available.
- ▶ Manufactured under ISO 9001 and ISO 14001 certified environments.
- ▶ Brushless excitation with AVR – maintenance-free, high-reliability voltage control.
- ▶ Ideal for marine/offshore, UPS, telecoms, construction and continuous/standby power.
- ▶ Licensed service network across Southeast Asia for parts and warranty support.

**STANDARDS** GB755 // BS5000 Part 3 // VDE 0530 // NEMA MG1-22 // IEC-34 // CSA C22-100 // AS1359

CTRL.  
 AUTO START & AUTO MAINS FAILURE (AMF) CONTROL MODULE // IP65 //  
 ETHERNET-READY

AMF + AUTO START

**GEN-SET CONTROLLER**

IP65 / 250-EVENT LOG

# DEESEA

## DSE 7320 MKII

### PHYSICAL SPECS

01 // DIMENSIONS

Overall Size	<b>240 × 181 × 42 mm</b>
Overall (imperial)	<b>9.4" × 7.1" × 1.6"</b>
Panel Cutout	<b>220 × 160 mm</b>
Panel Cutout (imperial)	<b>8.7" × 6.3"</b>
Weight	<b>400 g</b>
Ingress Protection	<b>IP65 (with gasket)</b>
Display	<b>132 × 64 px • 4-line LCD</b>
Inputs / Outputs	<b>9 / 8 Configurable</b>
Event Log	<b>250 Events</b>
Operating Temperature	<b>-30 to +70 °C</b>

### MKII ENHANCEMENTS

02 // UPGRADES

Processing Power	<b>Upgraded CPU</b>
USB Host Port	<b>Type-A (Firmware)</b>
USB Device Port	<b>Type-B (PC Config)</b>
Front Editing	<b>PIN Protected</b>
Config Suite	<b>v2 Compatible</b>
Tier 4 CAN Support	<b>Enhanced</b>
Backward Mounting	<b>Identical Cutout</b>
Languages	<b>Multi-lingual</b>
DSENet® Expansion	<b>Supported</b>
Real-Time Clock	<b>Battery Backed-up</b>

#### - CORE FEATURES

- 4-Line back-lit LCD text display
- Five-key menu navigation
- Front panel editing with PIN protection
- Customisable status screens & power save
- Up to 3 remote display units
- Tier 4 CAN engine support
- CAN & Magnetic Pick-up sensing
- Integral PLC editor

#### - PROTECTION & MONITORING

- kW & kVAr protection
- Reverse power (kW & kVAr) protection
- Unbalanced load protection
- Independent earth fault trip
- Charge alternator failure alarm
- Fuel usage monitor & low-fuel alarms
- LED and LCD alarm indication
- 3 configurable maintenance alarms

#### - LOAD & POWER CONTROL

- Automatic load transfer (AMF)
- Load shedding & dummy load outputs
- Power monitoring (kWh, kVAr, kVAh)
- Manual speed control (CAN engines)
- Manual fuel pump control
- Engine exerciser schedule
- Idle control for starting & stopping
- Multiple date/time scheduler

#### - CONNECTIVITY & SOFTWARE

- USB host + device connectivity
- RS232 & RS485 communications
- Configurable Gencomm pages
- Remote SCADA monitoring via PC software
- Advanced SMS messaging (start/stop via SMS)
- Ethernet via DSE860/865 modules
- Licence-free DSE Config Suite PC software
- DSENet® expansion compatible