Engine Specification: TAD733GE

General data	
No. of cylinders	6
Cylinder arrangement	In-line
Cycle	4 stroke
Displacement	7 L
Bore	108 mm
Stroke	130 mm
Compression ratio	18:1
Dry weight-engine only	710 kg
Dry weight-include cooling system	785 kg
Wet weight-engine only	751 kg
Wet weight-Genpac	826 kg

Cooling system	
Heat rejection radiation from engine at	
- standby power	20 kW
- prime power	19 kW
Heat engine rejection to coolant at	
- standby power	96.1 kW
- prime power	86.5 kW
Fan power consumption	4.2 kW
Fan drive ratio	1:1.0
Coolant capacity-engine	9.8 L
Coolant capacity-std radiator	27.3 L
Coolant pump(drive/ratio)	1:1.73
Coolant flow with standard system	3 L/S
Intercooler core area(std.size)	0.46 ㎡
Intercooler core thickness(std.size)	50 mm
Thermostat-start to open	87 ℃
Thermostat-fully open	102 ℃
Max. static pressure head	113 ℃
Shutdown switch setting	70 kPA
Standard pressure cap setting	90 kPA
Max. top tank temp	105 ℃

Inlet / Exhaust Data	
Max. intake restriction	3.5 kPA
Heat rejection to exhaust	
- standby power	165 kW
- prime power	142 kW
Exhaust gas temp after turbine at	
- standby power	530 ℃
- prime power	510 ℃
Max. back pressure in exhaust line	3 kPA
Exhaust gas flow at:	
- standby power	37.2 m 3 /min
- prime power	31.8 m 3 /min

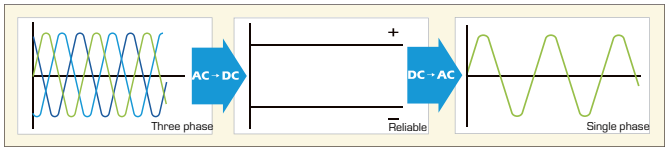
Fuel system	
Total fuel flow	360 L/H
Feed pump max suction head	500 kPA
Feed pump pressure	0.005 mm
Fuel filter micron micron size	0.063 mm
Governor type/make,standard	Heinzmann
Injection timing std.	2. 5°B.T.D.C

Lubrication system	
Oil consumption	
- standby power	0.09 L/H
- prime power	0.08 L/H
Oil system capacity-include filters	34 L
Oil sump capacity-max.	31 L
Oil sump capacity- min.	24 L
Oil change intervals	500 H
Oil pressure at rated speed	480-520 kPA
Lubrication oil temp in oil sump	110℃
Oil filter micron size	0.012 mm

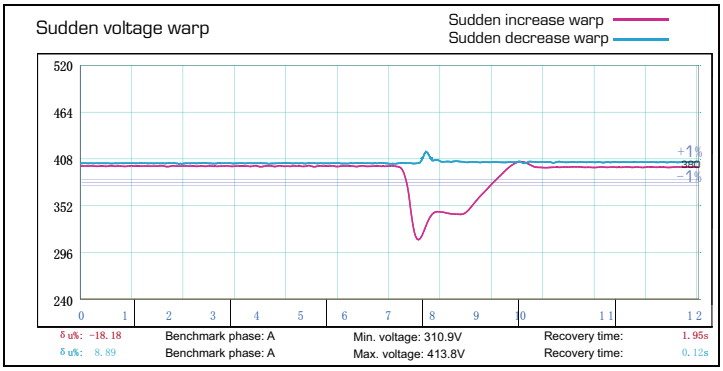
Electrical system	
Voltage	24 V
Alternator make/output	55 Amp
Starter motor	5 kW

Alternator Specification

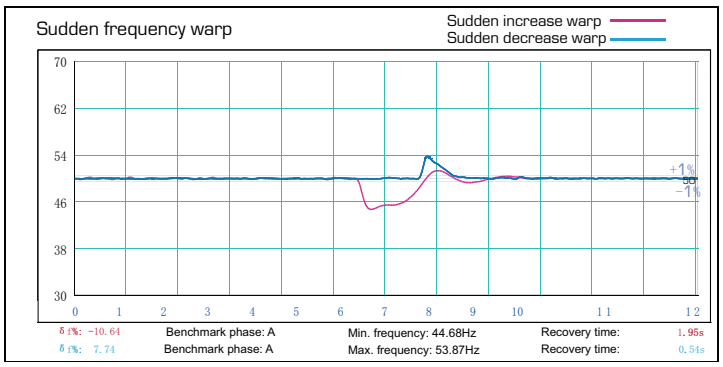
Alternator	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Terminals	12
Insulation type	H class
Winding Pitch	2/3
IP rating	IP23
Excitation system	Self-excited
Bearing	Single bearing
Coating	Vacuum impregnation
Voltage regulator	A.V.R
Couping	Flexible disc



Emergency voltage curve



Emergency frequency curve



Options

Engine	Alternator	Generator Sets	Fuel System
• Water Jacket Pre-heater • Fuel heater	• Winding Temp measuring Instrument • Alternator Pre-heater • PMG • Anti-damp and anti-corrosion treatment • Anti-condensation heater • Winding and bearing RTD	• Tools with the machine • Extended range fuel tank • Bunded fuel tank	• Low fuel level alarm • Automatic fuel feeding system • Fuel T-valves
Canopy	**Lub oil system**	**Cooling System**	**Control Panel**
• Rental type Canopy • Trailer	• Oil Pre-heater • Oil temp sensor	• Front heat protection	• Remote control panel • ATS • Synchronizing controller • Adjustable earth leakage relay

Control Panel

Configuration

- Emergency stop button
- Protection MCB
- Battery charger
- Integrated aviation plug
- ATS connection
- Digital control module

Features

- 3 phase generator set monitoring
- Support of engines equipped with electronic control unit
- Comprehensive diagnostic message
- Automatic or manual start/stop of the gensets
- Push buttons for simple control, lamp test
- Graphic back-lit LCD display
- Parameters adjustable via keyboard or PC
- Mains measurements（50HZ/60HZ）
- Generator measurements（50HZ/60HZ）
- Comprehensive shutdown or warning on fault condition
- 3 phase Generator protections
  - Over-/under voltage
  - Over-/under frequency
  - Current/voltage asymmetry
  - Over current/overload
- 3 phase AMF function
  - Over-/under frequency
  - Over-/under voltage
  - Voltage asymmetry
- Configurable analog inputs
- Battery voltage, engine speed (pick-up) measurement
- Configurable programmable binary inputs and outputs
- Warm-up and cooling functions
- Generator C.B. and Mains C.B. control with feedback and return timer
- RS232 interface
- Modem communication support
- Hours counter
- Sealed to Ip65
- Event log

Benefits

- Less wiring and components
- Integrated solution
- Less engineering and programming
- User friendly set-up and button layout
- Module can be configured to suit individual applications
- PC software for simplified configuration
- Wide range of communication capabilities

Operation conditions

- Operation temp: -20 ℃ to + 70 ℃
- Storage temp: -30 ℃ to + 80 ℃
- Operating humidity: 95% w/o condensation
- Vibration : 5-25Hz, ±1.6 mm
  5-100Hz, a=4g
- Shocks: a= 500m/s²

Options

- Ethernet interface (Remote monitoring and control)
- GSM modem/wireless internet (Remote monitoring and control)
- RS232-RS485 Dual port interface
- Synchronizing control panel
- Distribution board with sockets kit and power busbar
- Battery trickle charge ammeter
- Earth leakage protection
- Earth fault protection
- Low fuel level alarm
- Low fuel level shutdown
- High fuel level alarm
- Fuel transfer system control
- Low coolant level shutdown
- High lube oil temp shutdown
- Overload via alarm switch on breaker
- Engine coolant heater controls
- Control panel heater
- Speed adjust switch
- Oil temp displayed on LCD screen
- Additional 8 inputs and outputs

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