RK Power Generator

RK POWER GENERATOR CORP.

Diesel Product Line

PDF 450

60 Hz / 1800 RPM

450 **kWe**

Standby / Prime

Ratings

	208V	240V	480V
Phase	3	3	3
PF	0.8	0.8	0.8
Hz	60	60	60
Generator Model	PDF 450	PDF 450	PDF 450
Connection	12 LEAD WYE	12 LEAD DELTA	12 LEAD WYE
Standby			
kWe	400	400	400
AMPS	1390	1204	602
Temp Rise	130°C / 27°C	130°C / 27°C	130°C / 27°C

Standard Equipment

Engine

- Radiator Cooled Unit Mounted (55˚C)
- Blower Fan & Fan Drive
- Starter & Alternator
- Oil Pump & Filter
- Oil Drain Extension w/Valve
- Governor - Electronic Isochronous
- 24V Battery System & Cables
- Air Cleaner (Dry Single Stage)
- Flexible Fuel Connector
- EPA Certified Tier 3

Generator

- Brushless Single Bearing
- Automatic Voltage Regulator
- ± 1% Voltage Regulation
- 4 Pole, Rotating Field
- 130˚C Standby Temperature Rise
- 105˚C Prime Temperature Rise
- 100% of Rated Load - One Step
- 5% Maximum Harmonic Content
- NEMA MG 1, IEEE and ANSI Standards Compliance for Temperature Rise

Additional

- Microprocessor Based Digital Control
- Interface Connection Box
- Control Panel Mounted in NEMA 12 Enclosure
- Base - Formed Steel
- Main Line Circuit Breaker Mounted & Wired
- Critical Grade Silencer Mounted
- Battery Charger 24V 5 Amp
- Jacket Water Heater -20˚F 4000W 240V w/Isolation Valves
- Vibration Isolation Mounts
- Radiator Duct Flange (OPU Only)
- Single Source Supplier
- Standard Colors - White / Tan / Gray

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Application Data

Engine

Manufacturer:	Volvo Penta	Displacement - Cu. In. (lit): (12.8)	780
	Model: TAD1353GE	Bore - in. (cm) x Stroke - in. (cm): (15.8)	5.20 (13.1) x 6.20
Type:	4-Cycle	Compression Ratio:	18.1:1
Aspiration:	Turbo Charged, CAC	Rated RPM: 0	180
Cylinder Arrangement:	6 Cylinder Inline	Max HP Stby (kWm): (449)	611

Exhaust System	Standby	Prime
Gas Temp. (Stack): °F (°C)	932 (500)	905 (485)
Gas Volume at Stack Temp: CFM (m^3/min)	2,790 (79.0)	2,613 (74.0)
Maximum Allowable Exhaust Restriction: in. H_2O (kPa)	40.0 (10.0)	40.0 (10.0)
Cooling System		
Ambient Capacity of Radiator: °F (°C)	131 (55.0)	131 (55.0)
Maximum Allowable Static Pressure on Rad. Exhaust: in. H_2O (kPa)	0.50 (0.12)	0.50 (0.12)
Water Pump Flow Rate: GPM (lit/min)	87.0 (329)	87.0 (329)
Heat Rejection to Coolant: BTUM (kW)	10,123 (177)	9383 (164)
Heat Rejection to CAC: BTUM (kW)	5,346 (94.0)	5,289 (93.0)
Heat Radiated to Ambient: BTUM (kW)	3,415 (59.8)	3,202 (56.0)
Air Requirements		
Aspirating: CFM (m^3/min)	1,102 (31.2)	1,038 (29.4)
Air Flow Required for Rad. Cooled Unit: CFM (m^3/min)	24,175 (684)	24,175 (684)
Air Flow Required for Heat Exchanger/Rem. Rad. CFM (m^3/min)	Consult Factory For Remote Cooled Applications	
Fuel Consumption		
At 100% of Power Rating: gal/hr (lit/hr)	27.9 (105.6)	25.6 (96.9)
At 75% of Power Rating: gal/hr (lit/hr)	21.9 (82.9)	20.1 (76.1)
At 50% of Power Rating: gal/hr (lit/hr)	15.0 (56.8)	14.0 (53.0)
Fluids Capacity		
Total Oil System: gal (lit)	9.50 (36.0)	9.50 (36.0)
Engine Jacket Water Capacity: gal (lit)	5.28 (20.0)	5.28 (20.0)
System Coolant Capacity: gal (lit)	11.6 (44.0)	11.6 (44.0)

Deration Factors
Rated Power is available up to 3,280 Ft (1,000 m) at ambient temperatures to 122°F (50°C) standby and prime.
Consult factory for site conditions above these parameters.

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DSE7320 Control Panel

KEY FEATURES

- Five key menu navigation
- Front panel editing with PIN protection
- Customisable status screens
- Power save mode
- Support for up to three remote display units
- 9 configurable inputs
- 8 configurable outputs
- Flexible sender inputs
- Configurable timers and alarms
- 3 configurable maintenance alarms
- Multiple date and time scheduler
- Configurable event log (250)
- CAN engine support
- Integral PLC editor
- Easy access diagnostic page
- CAN and Magnetic Pick-up/Alt. sensing

KEY BENEFITS

- Real-time clock provides accurate event logging
- Multiple date and time scheduler
- Set maintenance periods can be configured to maintain optimum engine performance
- Ethernet communications (via DSE855 module), provides advanced remote monitoring
- Modules can be integrated into building management systems (BMS)
- Increased input and output expansion capability via DSENet®
- Licence-free PC software
- IP65 rating (with supplied gasket) offers increased resistance to water ingress
- PLC editor allows user configurable functions to meet specific application requirements

Weights / Dimensions / Sound Data

Sounds Data

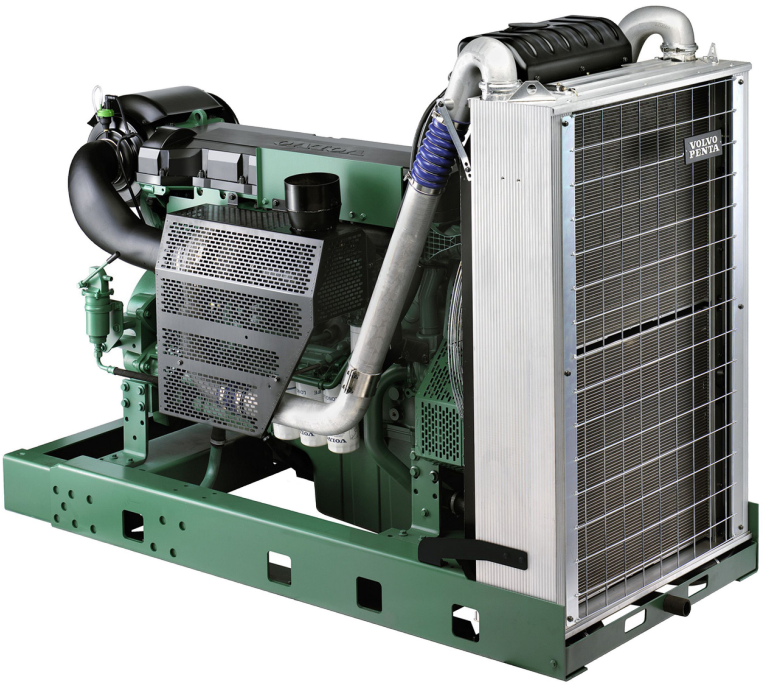
	No Load	Full Load
OPU	88 dBA	91 dBA
Level 1	84 dBA	86 dBA
Level 2	79 dBA	81 dBA
Level 3	70 dBA	73 dBA

TAD1641GE

Technical Data

General

Engine designation	TAD1641GE
No. of cylinders and configuration	in-line 6
Method of operation	4-stroke
Bore, mm (in.)	144 (5.67)
Stroke, mm (in.)	165 (6.50)
Displacement, l (in³)	16.12 (983.7)
Compression ratio	16.5:1
Dry weight, kg (lb)	1480 (3263)
Dry weight with Gen Pac, kg (lb)	1910 (4211)
Wet weight, kg (lb)	1550 (3417)
Wet weight with Gen Pac, kg (lb)	2020 (4453)



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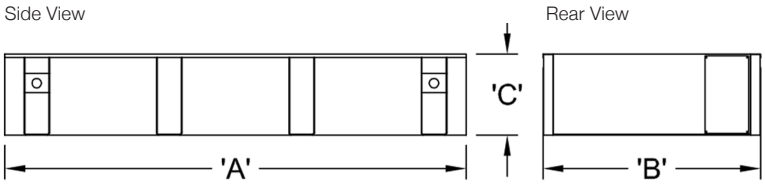
Enclosures

Dimensions

Length: 206"
Width: 70"

Double Wall Fuel Tank



1000 Gal.

Distributed By:

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