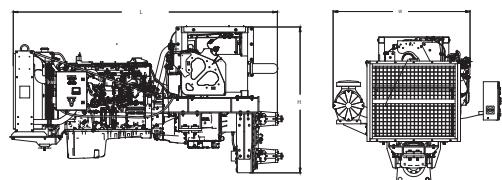
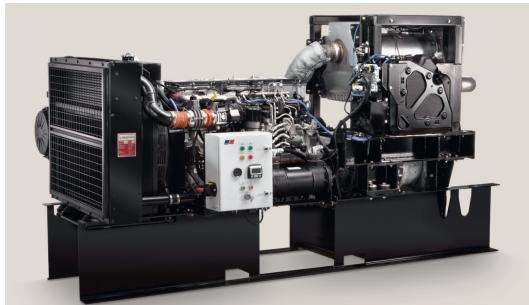


Mobile Rig Power Module

Diesel Engine Power Module for Mobile Rig Application

EPA 2013, CARB GHG2014 On-Highway Certified

350 kW (470 bhp) @ 1800 rpm



Dimensions and Masses

Module	Dimensions mm	Mass, dry
	3458Lx1783Wx1856H (136Lx70Wx73H in.)	approx. 2722 kg (approx. 6000 lb)

All dimensions are approximate, for complete information refer to the installation drawing.

Engine Model	6R1300Y70
Bore/stroke	mm 132/156
Cylinder configuration	6R
Compression Ratio:	17.3:1
Displacement, total	l (in ³) 12.8 (781.1)
Fuel specification	Ultra Low Sulfur (15 ppm sulfur max.), Grade No.1-D/2-D (ASTM D975-00)

Package Model	TPNVZ06R1300-1AO	
Engine Speed	1800 rpm	
Engine type	6R1300Y70	
Transmission type*	Allison® OFS4500*	
Air intake		
Intake air depression	mbar (in. Water)	25 (10)
Intake air flow @ 100% Load	m ³ /s (CFM)	22.1 (780)
Exhaust System		
Exhaust volume flow before aftertreatment (at exhaust temperature)	m ³ /s (CFM)	44.4 (1568)
Exhaust gas temperature	°C (°F)	420 (788)
Max. Exhaust back pressure	mbar (in. Hg)	178 (5.2)
Transmission		
Temperature oil	°C (°F)	80 - 100 (176 - 212)
Lube System		
Engine oil capacity with filters	l (gal)	41 (10.83)
Oil pressure @ 2000 rpm	mbar (psi)	4000 (58)
Oil pressure @ low idle 600 rpm	mbar (psi)	1000 (15)
Max. in block oil temperature	°C (°F)	125 (257)
Single oil filter - microns @ 50% efficiency		17
Fuel System		
Max. HP pump fuel inlet temp.	°C (°F)	90 (194)
Fuel temperature rise @ rated	°C (°F)	30 (54)
Max. fuel inlet restriction at engine inlet	mbar (psi)	350 (5.08)
Max. positive fuel restriction at engine outlet	mbar (psi)	300 (4.35)

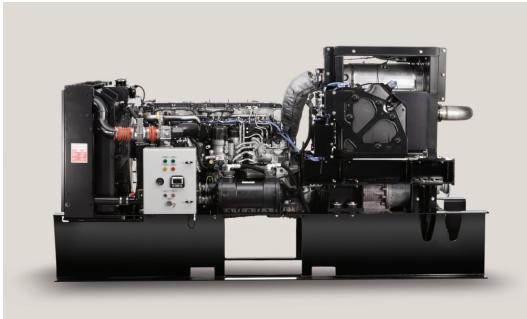
Reference conditions: All values are at rated speed and power at SAE J1995

- > Ambient air temperature: 25°C (77°F)
- > Altitude above sea level: 100 m (328 ft)
- > Ambient air pressure: 1000 mbar (14.5 psi)

* Free issued from MTU distributors



Power. Passion. Partnership.



Package Model	TPNVZ06R1300-1AO
Engine Speed	1800 rpm
Cooling System	
Max. allowable engine temperature	°C (°F)
Min. water pump inlet pressure @ 1800 rpm	mbar (psi)
(pressurized)	480 (7)
Maximum pressure (closed circuit)	mbar (psi)
Limiting ambient clearance (LAT)	°C (°F)
	2070 (30)
	50 (122)

Reference conditions: All values are at rated speed and power at SAE J1995
 > Ambient air temperature: 25°C (77°F) > Altitude above sea level: 100 m (328 ft)
 > Ambient air pressure: 1000 mbar (14.5 psi) > Charge air: 45°C (113°F)

Application	Power definition
5B	Medium duty operation

Load factor: < 75%, Operating hours: unrestricted, Overload: Fuel stop (ICFN)

Power output within 5% tolerance at standard conditions. Power definition according to ISO 3046 (ratings also correspond to SAE J 1995 and SAE J 1349 standard conditions)
 Consult your MTU distributor/dealer for the rating that will apply to your specific application.

Standard Equipment	
Diesel Engine	<ul style="list-style-type: none"> - Sturdy rear gear train and ribbed cast iron block minimize noise vibration harshness - SAE 1 flywheel housing, flex plate adaptation for Allison® 4000 transmission - Forged crankshaft, forged connecting rods - Dual overhead cam, 4 valves per cylinder - Simple turbocharger design. Extremely reliable, low inertia, fixed vane, pneumatic controlled wastegate - Exhaust cooled EGR - Three-stage integrated Jacobs® engine brake offers quieter engine braking and provides superior braking horsepower for extended service brake life - Overall robust design - Closed crankcase vent system - 12 Volts 160 Amps battery charging alternator
Starting System	<ul style="list-style-type: none"> - 12V electric starter 39MT Delco Remy®
Fuel System	<ul style="list-style-type: none"> - ACRS – Amplified Common Rail Fuel Injection System - Electronically controlled injectors - Engine mounted pre-filter and main filter - Easy injector removal since injector is not camshaft driven
Lube Oil System	<ul style="list-style-type: none"> - Lube oil circulation pump with safety valve for forced-feed with lubrication and piston cooling - Dipstick for oil level measurement on engine - Single oil filter –micron @ 50% efficiency - Front sump oil pan - Long drain intervals
Exhaust Gas System	<ul style="list-style-type: none"> - Cooled exhaust gas recirculation - Stainless steel tube with 2-ply exhaust bellows between turbocharger and ATS - Stainless steel exhaust tail pipe - Thermal insulated exhaust tube between turbo outlet and ATS inlet - Pneumatically controlled wastegate turbocharging system

Standard Equipment

Cooling System	<ul style="list-style-type: none">- Belt driven coolant pump and coolant thermostat for main coolant circuit- Air to air charge air cooling circuit- Air shutdown flap pneumatically actuated with manually reset- 50°C radiator unit with belt driven fan and Horton® fan clutch
Mounting System	<ul style="list-style-type: none">- 3-point mounts to chassis (elastic element provided by MTU as an option)- Heavy duty Cradle mount between engine and transmission- Sturdy drop-box support bracket directly mounted to cradle- Front and rear universal mount isolators
Power Transmission	<ul style="list-style-type: none">- Engine flywheel flex plate for close coupled transmission
Air Inlet System	<ul style="list-style-type: none">- Single turbocharger which supplies filtered air through a CAC to intake manifold- Dual stage air filtration system with safety element. Dry paper element- Air filter assembly equipped with restriction indicator- Aluminized steel tube and flex hose connections between air filter and turbocharger- Cooled EGR (Exhaust Gas Recirculation) mixed with fresh air from charge air cooler
Aftertreatment System	<ul style="list-style-type: none">- One box aftertreatment system including DOC, DPF, SCR catalyst, DEF doser in the same package- Enables lower exhaust back pressure for better fuel economy.- DEF pump and tank mounted on package.- ACM (aftertreatment control module) directly mounted to ATS structure- Complete system fully mounted and ready for a drop-in installation

Optional Equipment

Remote Operating Panel	<ul style="list-style-type: none">- Ship loose panel from the factory. Panel to be mounted to the chassis by customers.- Includes Murphy Powerview® display with aftertreatment info- Start/Stop button- Yellow check engine light indicator- Red stop engine light indicator- DEF (diesel exhaust fluid) level guage- Drive/PTO mode indicator lamps- Customer interface plug on the back of the panel for ease of customer connections
Exhaust System	<ul style="list-style-type: none">- GT exhaust spark arrestor
Transmission Oil Cooler	<ul style="list-style-type: none">- Tube & Shell cooler, 2-pass. Inlet & outlet on the same end of cooler.
PTO	<ul style="list-style-type: none">- Front PTO adaptor flange

Subject to change without notice. Customization possible. Engines illustrated in this document may feature options not fitted as standard to standard engine.

