



12M33

PowerKit ESP/PRP/DCP/COP Diesel Engine



Bore & Stroke (mm)	150 x 185
Displacement (L)	39.2
N° of Cylinders	12
Cylinders Arrangement	AtVee
Fuel System	High Pressure Common Rail/ Mechanical
Governor (Gov.)	ECU/ Electronic
Aspiration (Asp.)	Turbocharged & air-to-air cooled

Customer benefits

Warranty terms – 2 yrs unlimited hrs, 4 yrs/800h ESP
 50°C Cooling package standard with low derating
 Low fuel consumption across the range
 Extended mean time between overhauls (MTBO)

ESP/ PRP/ DCP												
Diesel Engine Models	Gross Engine Output			Typical Generator Output						RPM	Asp.	Gov.
	ESP	PRP	DCP	ESP		PRP		DCP				
	kWm			kWe	kVA	kWe	kVA					
12M33G1250/5	1108	1007	-	1000	1250	920	1150	-	-	1500	T/A-A	ELC
12M33G1265/5	1120	1018	1018	1012	1265	920	1150	920	1150	1500	T/A-A	ECU
12M33G1400/5	1210	1100	-	1120	1400	1000	1250	-	-	1500	T/A-A	ELEC
12M33G1410/5	1240	1130	1130	1128	1410	1024	1280	1024	1280	1500	T/A-A	ECU
12M33G1500/5	1320	1200	-	1200	1500	1100	1375	-	-	1500	T/A-A	ELEC
12M33G1650/5	1450	1350	1350	1320	1650	1200	1500	1200	1500	1500	T/A-A	ECU
12M33G1000/6	1108	1007	-	1000	1250	900	1125	-	-	1800	T/A-A	ELEC
12M33G1100/6	1265	1150	-	1100	1375	1000	1250	-	-	1800	T/A-A	ELEC
12M33G1105/6	1210	1100	1100	1105	1380	1005	1255	1005	1255	1800	T/A-A	ECU
12M33G1200/6	1320	1200	-	1200	1500	1092	1365	-	-	1800	T/A-A	ELEC
12M33G1240/6	1360	1235	1235	1240	1550	1100	1375	1100	1375	1800	T/A-A	ECU
12M33G1300/6	1420	1290	-	1300	1625	1176	1470	-	-	1800	T/A-A	ELEC

COP										
COP Diesel Engine Models	Gross Engine Output		Typical Generator Output				RPM	Asp.	Gov.	
	COP	PRP	COP		PRP					
	kWm		kWe	kVA	kWe	kVA				
12M33G2D0/5	882	1100	780	975	1000	1250	1500	T/A-A	ECU	
12M33G2D0/6	1000	1235	900	1125	1100	1375	1800	T/A-A	ECU	

Dimensions and dry weight (mm/kg)



Diesel Engine	Speed RPM	Dimensions and dry weights							
		with standard radiator				with Optional radiator (Electrical)			
		L	W	H	WEIGHT	L	W	H	WEIGHT
mm	mm	mm	Kg	mm	mm	mm	Kg		
12M33G1250/5	1500	3525	2241.5	2243	4575	3444	1871	2395	4240
12M33G1265/5	1500	3525	2241.5	2243	4575	3444	1871	2395	4240
12M33G1400/5	1500	3525	2241.5	2243	4575	3444	1871	2395	4240
12M33G1410/5	1500	3526	2241.5	2243	4576	3444	1871	2395	4240
12M33G1500/5	1500	3525	2241.5	2243	4575	3444	1871	2395	4240
12M33G1650/5	1500	3525	2241.5	2243	4575	3444	1871	2395	4240
12M33G1000/6	1800	3162	1748	2150	3585	3444	1871	2395	4240
12M33G1100/6	1800	3525	2241.5	2243	4585	3444	1871	2395	4240
12M33G1105/6	1800	3525	2241.5	2243	4585	3444	1871	2395	4240
12M33G1200/6	1800	3525	2241.5	2243	4585	3444	1871	2395	4240
12M33G1240/6	1800	3525	2241.5	2243	4585	3444	1871	2395	4240
12M33G1300/6	1800	3525	2241.5	2243	4585	3444	1871	2395	4240

Standard Equipment

Engine and block	<ul style="list-style-type: none"> Cast iron cylinder block with inspection door per cylinder Cast iron cylinder liners, wet type and replaceable valves guides and seats Separate cast iron cylinder heads with 4 valves Hardened steel forged crankshaft with induction hardened journals, crank pins and radius Lube oil cooled light alloy pistons with high performance piston rings
Cooling System	<ul style="list-style-type: none"> Radiator and hoses supplied separately Thermostatically-controlled system with belt driven coolant pump and pusher fan
Lubrication system	<ul style="list-style-type: none"> Full flow screw able oil filters Lube oil purifier with replaceable cartridge Water cooled lube oil cooler
Fuel system	<ul style="list-style-type: none"> In line fuel injection pump with flanged electronic governor Duplex fine filter and water separation filter assembly with transparent cup for better efficiency Electric fuel priming pump integrated in the filters support
Air intake and exhaust system	<ul style="list-style-type: none"> Top mounted turbocharger optimized for gen-set application Special rear mounted air filter with restriction indicator Exhaust manifold and turbocharger shield for heat isolating
Electrical System	<ul style="list-style-type: none"> 24 Vdc electric starter motor and battery charging alternator LOP + HWT sensors
Flywheel and housing	<ul style="list-style-type: none"> SAE 0 flywheel housing and 18" flywheel

Ratings definitions

Emergency Standby Power (ESP)

Emergency Standby Power is the maximum power available for a varying load for the duration of a main power network failure. The average load factor over 24 hours of operation should not exceed 70% of the engine's ESP power rating. Typical operational hours of the engine is 200 hours per year, with a maximum usage of 500 hours per year. This includes an annual maximum of 25 hours per year at the ESP power rating. No overload capability is allowed. The engine is not to be used for sustained utility paralleling applications.

Data Centre Power (DCP)

Data Centre Power is defined as being the maximum power which a generating set is capable of delivering while supplying a variable or continuous electrical load and during unlimited run hours. Depending on the sites to supply and the availability of reliable utility, the generating set manufacturer is responsible to define what power level he is able to supply to fulfil that requirement including hardware or software or maintenance plan adaptation.

Continuous Power (COP)

Continuous Power is the maximum power available for an unlimited period of use at a constant load factor. No overload capability is allowed.

Prime Rated Power (PRP)

Prime Power is the maximum power available for unlimited hours of usage in a variable load application. The average load factor should not exceed 70% of the engine's PRP power rating during any 24 hour period. An overload capability of 10% is available, however, this is limited to 1 hour within every 12 hour period.

- 1) All ratings are based on operating conditions under ISO 8528-1, ISO 3046, DIN6271. Performance tolerance of $\pm 5\%$.
- 2) Test conditions: 100 kPa, 25°C air inlet temperature, relative humidity of 30%, with fuel density 0.84 kg/L.
Derating may be required for conditions outside these; please contact the factory for details.

