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Gas engine - Gas Engine Features

MITSUBISHI HEAVY INDUSTRIES, LTD.

Technical features	Advantages
Low speed	Reliable operation
Fully automatic operation and synchronization technology	High efficiency 46%
High quality of gas control, advanced combustion diagnosis system	Low emission
Intelligent and remote computer monitoring technology, GPR technology	Stable start
Security protection Intelligent integration, automatic faults detection technology	Low operation cost
Gas-specific filtration, drying, pressing, regulating technology	Easy to operate
Specialized fire prevention, explosion-proof, cutting technology	Easy maintenance, long circle overhaul
Compressed air start technology of air motor	Safety
	High reliability (8000 hours)
	Long life(30 years)

Engine Series	MACH30G Series				Reference of Gen. set	
					Generator of Gen. set :	AC synchronous generator
Model	Four stroke, Pre-ignition chamber micro diesel oil ignition, water cooling, pressurize air inter-cooling, lean burn				Type of generator :	Satisfy relative national standard
					Rated voltage of Gen. set :	Can be selected
Engine Type	12MACH-30G	14MACH-30G	16MACH-30G	18MACH-30G	Rated current of Gen. set :	Can be selected
cylinders Configuration	V Type				Power factor of Gen. set :	0.8(lag)
No. of cylinders	12	14	16	18	Rated frequency of Gen. set:	Can be selected
cylinders Bore/Stroke (mm)	300 X 380				Starting mode of Gen. set :	Air starting
Nominal speed	750r/min				Cooling mode of Gen. set :	Air cooling
steady speed adjusting rate	8% (100% load)				Noise of Gen. set :	110dB(A) (From air exhaust port 1m)
Generator type	Options :400V, 6.3kV、 10.5kV Or according to customer requirement				Gas pressure :	0.98MPa(after pre-treatment)
Rated power (KW)	3800	4450	5100	5750	Oil consumption :	0.5g/kw.h
Continuous power of Gen. set (KW)	3450	4050	4640	5200	NOx emission :	200ppm
Steam of exhaust gas boiler (078 MPaG)kg/h	2160	2510	2920	3270	Methane Number	≥65
Rotary Direction	CW				Air exhaust noise :	110dB(A) (from air exhaust port 1m)
Fuel type	gas + diesel (dual fuel)				Piston total delivery capacity :	483L
Electrical efficiency %	46 %				18MACH-30G - Reference conditions	
Power generation per 1Nm3 *2(kW.h)	Fuel with 1Nm3gas+7gdiesel can generate 4.2kWh				Air exhaust temperature :	345 C°
					Air exhaust flow :	4000Nm3/h
External Dimensions (mm)	14100 x 3600 x 5400	14700 x 3600 x 5400	15100 x 3600 x 5400	15500 x 3600 x 5400	Air exhaust back pressure :	2.5kPa
					Heat consumption :	about 9000kJ/kW.h
Net Weight (Kg)	94000	104000	114000	125000	Diesel oil consumption :	10.3L/h
					Gas consumption	1172 Nm3/h(100% methane)