

ENERGIN® Gas Engines

ECONOMIC, EFFICIENT, ENERGIN



The gas engines of the M-Series of R Schmitt Enertec are the base of the ENERGIN® GEN, GEN+ and CHP units in the range of 100-500kW electrical power. The engines are specially designed and manufactured by us for the operation with the following fuels: natural gas, biogas, LPG, woodgas and other special gases.

ENERGIN® M-Series engines are exclusive developed for stationary applications and are characterized by high efficiency and durability. Our own production allows us to adapt the engine to the application and to respond quickly to market changes. In the supply of spare parts, we meet the highest quality standards, as the only way to ensure long life and high availability. Our ENERGIN® engines are used on all continents under various conditions. They are installed in industrial and developed countries withstanding climatic and adverse external conditions.

		CHP, GEN, GEN+		CHP		GEN+ without AWT ¹		GEN+ with AWT ¹		Engine specification			
	Engine type	Electrical power	Electrical efficiency	Thermal power	Overall efficiency	Thermal power	Overall efficiency	Thermal power	Overall efficiency				
natural gas	M06-GN0W22	100 kW ²	34,6 %	166 kW	92,0 %	-	-	-	-	Bore [mm] 128 [in line engines] 130 [V-engine]			
	M06-GT0W21	115 kW	36,5 %	-	-	125 kW	74,3 %	156 kW	83,9 %	Stroke [mm] 155 [in line engines] 142 [V-engine]			
	M06-GN0W22	122 kW ²	35,1 %	198 kW	92,0 %	-	-	-	-	Speed [rpm] 1.500			
	M08-GN0W22	151 kW ²	36,0 %	235 kW	92,1 %	-	-	-	-	Mean piston speed [m/s] 7,75 [in line engines] 7,1 [V-engine]			
	M06-GTIW22	173 kW	35,8 %	264 kW	90,5 %	179 kW	72,9 %	228 kW	83,0 %	Applicable gas types G = natural gas B = biogas H = woodgas and other low calorific gases P = propane and other high calorific gases			
	M06-GT2W22	185 kW	36,5 %	260 kW	87,8 %	169 kW	69,8 %	221 kW	80,1 %				
	M06-GT2D22	205 kW	37,5 %	266 kW	86,1 %	142 kW	63,4 %	223 kW	78,2 %				
	M08-GTIW22	220 kW ²	37,3 %	314 kW	90,5 %	-	-	-	-				
	M08-GT2W22	233 kW	37,7 %	309 kW	87,7 %	199 kW	69,9 %	262 kW	80,1 %				
	M08-GT2D22	260 kW	37,8 %	332 kW	86,0 %	176 kW	63,4 %	278 kW	78,2 %				
	M12-GTIW22	334 kW ²	36,6 %	496 kW	90,9 %	-	-	-	-	Aspiration N = natural T = turbocharged M = turbocharged with Miller Cycle			
	M12-GT2W22	350 kW	38,1 %	458 kW	87,9 %	295 kW	70,2 %	389 kW	80,4 %				
	M12-GT2D22	400 kW	38,5 %	498 kW	86,4 %	261 kW	63,6 %	415 kW	78,5 %				
M12-GM2D21	500 kW	39,5 %	587 kW	85,8 %	282 kW	61,7 %	481 kW	77,5 %	Mixture cooling 0 = none I = internal 2 = double stage internal / external				
M06-BT0W21	115 kW	37,0 %	153 kW	86,2 %	109 kW	72,0 %	142 kW	82,6 %					
biogas	M06-BTIW22	173 kW	37,2 %	227 kW	86,0 %	159 kW	71,4 %	209 kW	81,9 %	Exhaust manifolds W = watercooled D = dry, insulated			
	M06-BT2D22	205 kW	38,8 %	227 kW	81,8 %	123 kW	62,1 %	204 kW	77,4 %				
	M08-BT2W22	233 kW	38,1 %	278 kW	83,5 %	186 kW	68,5 %	252 kW	79,2 %	Engine types M06 M08 M12			
	M08-BT2D22	260 kW	41,6 %	251 kW	81,8 %	128 kW	62,1 %	224 kW	77,4 %				
	M12-BT2W22	350 kW	38,9 %	405 kW	83,9 %	269 kW	68,8 %	366 kW	79,6 %				
	M12-BT2D22	400 kW	40,2 %	418 kW	82,2 %	220 kW	62,3 %	374 kW	77,8 %				
	M12-BM2D21	500 kW	41,2 %	493 kW	81,7 %	245 kW	61,3 %	438 kW	77,2 %	No. of cylinders / config. 6 in line 8 in V90° 12 in V90°			
	woodgas	M08-HT2D22	166 kW	33,1 %	255 kW	84,0 %	149 kW	62,2 %	217 kW	76,3 %	Displacement [ltr] 12,0 15,1 22,6		
M12-HT2D22		250 kW	33,5 %	376 kW	83,9 %	244 kW	66,2 %	321 kW	76,5 %				

¹ AWT = Exhaust heat exchanger

² only available as CHP

Basic scope of supply

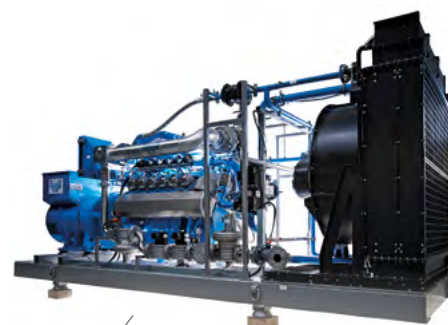
GEN GEN+ CHP

Four stroke gas engine coupled with double bearing alternator mounted on common frame	●	●	●
Sound attenuating enclosure with air ventilation mounted on common frame with engine and generator	-	○	○
Heat recovery from engine jacket water, lube oil and 1 st intercooler	-	●	-
Heat recovery from engine jacket water, exhaust, lube oil and 1 st intercooler. Cooling the exhaust temperature to 120°C with natural gas and 180°C with biogas applications	-	-	●
Heat recovery from exhaust. Cooling the exhaust to 250 °C	-	○	-
Set mounted radiator with electric fan for cooling the mixture and jacket water	○	-	-
External radiator with electric fan for cooling the jacket water and 2 nd mixture	○	-	-
Remote radiator for 2 nd stage mixture cooling	-	○	○
Remote radiator for jacket water, lubrication oil, 1 st stage mixture cooling and exhaust heat	-	○	○
ENERSCREEN® control system for engine, generator and auxiliaries. Set mounted with touchpanel in switchboard	●	●	●
Synchronizing and generator protection function	○	●	●
Generator circuit breaker set mounted in switchboard	○	●	●
Electric pre-lubrication pump with change over valve to use the pump for oil drainage and oil change	-	●	●
Set mounted lube oil make up tank with automatic level control on the engine oil pan for automatic compensation of oil consumption	-	●	●
Automatic level control valve on the engine oil pan for connection of an external oil tank for automatic compensation of oil consumption	●	-	-
Exhaust silencer single or double stage in loose supply	○	○	-
Exhaust primary silencer set mounted in common frame	-	-	●
Exhaust secondary silencer for higher noise protection in loose supply	-	-	○

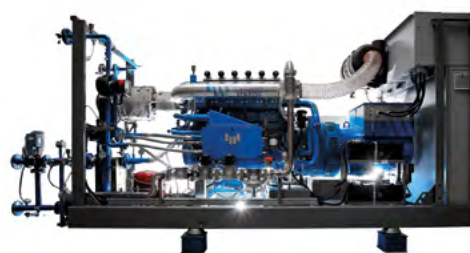
- not included ○ as an option ● included



CHP



GEN



GEN+

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