

ENERGIN® GEN+ units are generators sets with heat recovery from engine jacket water, lube oil and the first stage of mixture cooling. As an option they can be equipped with an exhaust heat exchanger cooling the exhaust to 250 °C. For more efficient heat recovery please refer to the ENERGIN® CHP units. When steam is needed, GEN+ units can be equipped with an external steam boiler.

The gas engines of the M-Series of R Schmitt Enertec are the base of the ENERGIN® GEN+ units in the range of 115-500kW 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. With the additionally sound enclosure, that is mounted on the common frame, the sound level can be reduced to less than 70 dB(A). GEN+ are easy to install and save on space because all major components are mounted on the common frame and are ready piped and cabled.

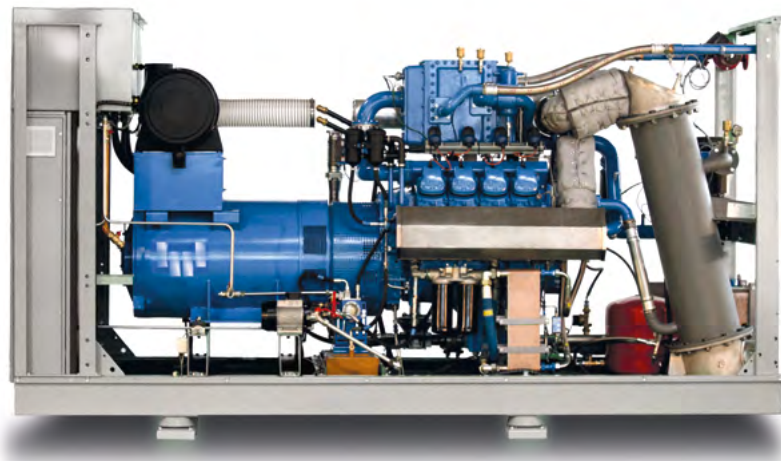
	ENERGIN®type	Engine type	Electrical power	Electrical efficiency	GEN+ without AWT ¹		GEN+ with AWT ¹		Engine specification				
					Thermal power	Overall efficiency	Thermal power	Overall efficiency					
natural gas	M06 GEN+ G115	M06-GT0W21	115 kW	36,5 %	125 kW	74,3 %	156 kW	83,9 %	Bore	[mm]	128 [in line engines] 130 [V-engines]		
	M06 GEN+ G173	M06-GTIW22	173 kW	35,8 %	179 kW	72,9 %	228 kW	83,0 %	Stroke	[mm]	155 [in line engines] 142 [V-engines]		
	M06 GEN+ G185	M06-GT2W22	185 kW	36,5 %	169 kW	69,8 %	221 kW	80,1 %	Speed	[U/min]	1.500		
	M06 GEN+ G205	M06-GT2D22	205 kW	37,5 %	142 kW	63,4 %	223 kW	78,2 %	Mean piston speed	[m/s]	7,75 [in line engines] 7,1 [V-engine]		
	M08 GEN+ G233	M08-GT2W22	233 kW	37,7 %	199 kW	69,9 %	262 kW	80,1 %	Applicable gas types	G = natural gas B = biogas H = woodgas and other low calorific gases P = propane and other high calorific gases			
	M08 GEN+ G260	M08-GT2D22	260 kW	37,8 %	176 kW	63,4 %	278 kW	78,2 %					
	M12 GEN+ G350	M12-GT2W22	350 kW	38,1 %	295 kW	70,2 %	389 kW	80,4 %					
	M12 GEN+ G400	M12-GT2D22	400 kW	38,5 %	261 kW	63,6 %	415 kW	78,5 %					
	M12 GEN+ G500	M12-GM2D21	500 kW	39,5 %	282 kW	61,7 %	481 kW	77,5 %					
biogas	M06 GEN+ B115	M06-BT0W21	115 kW	37,0 %	109 kW	72,0 %	142 kW	82,6 %	Aspiration	N = natural T = turbocharged M=turbocharged with Miller Cycle			
	M06 GEN+ B173	M06-BTIW22	173 kW	37,2 %	159 kW	71,4 %	209 kW	81,9 %	Mixture cooling	0 = none I = internal 2 = double stage internal / external			
	M06 GEN+ B205	M06-BT2D22	205 kW	38,8 %	123 kW	62,1 %	204 kW	77,4 %					
	M08 GEN+ B233	M08-BT2W22	233 kW	38,1 %	186 kW	68,5 %	252 kW	79,2 %	Exhaust manifolds	W = watercooled D = dry, insulated			
	M08 GEN+ B260	M08-BT2D22	260 kW	41,6 %	128 kW	62,1 %	224 kW	77,4 %					
	M12 GEN+ B350	M12-BT2W22	350 kW	38,9 %	269 kW	68,8 %	366 kW	79,6 %	Engine types	M06 M08 M12			
	M12 GEN+ B400	M12-BT2D22	400 kW	40,2 %	220 kW	62,3 %	374 kW	77,8 %	ENERGIN®				
	M12 GEN+ B500	M12-BM2D21	500 kW	41,2 %	245 kW	61,3 %	438 kW	77,2 %	No. of cylinders / configuration	6 in line 8 in V90° 12 in V90°			
	woodgas	M08 GEN+ H166	M08-HT2D22	166 kW	33,1 %	149 kW	62,2 %	217 kW	76,3 %	capacity	[ltr.]	12,0 15,1 22,6	
M12 GEN+ H250		M12-HT2D22	250 kW	33,5 %	244 kW	66,2 %	321 kW	76,5 %					

¹ AWT = Exhaust gas heat exchanger


GEN+ Basic scope of supply

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 stage intercooler	●
Heat recovery from the 250 °C cooled exhaust gas	○
Remote radiator for 2 nd stage of mixture cooling	○
Remote radiator for jacket water, lubrication oil and 1 st stage intercooler	○
Remote radiator for jacket water, lubrication oil, 1 st stage intercooler and exhaust heat	○
ENERSCREEN® control system with touchpanel for engine, generator and auxiliaries set mounted in switchboard. With synchronizing and generator protection functions	●
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 the oil consumption	●
Exhaust silencer single or double stage in loose supply	○

○ as an option ● included



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