

## Recommended accessories:

- air filter SPP1200
- water type intercooler (water-air)

### Spark ignition engines:

- TEDOM ignition system with diagnostics of the state of the ignition system (position sensor, ignition coils with holders and covers, high-voltage cables, interconnecting cables)
- mixture quality control system (AFR) based on intake manifold pressure (MAP), sensor of MAP, sensor of mixture temperature (MAT)
- mixer
- flap valve for mixture quality regulation
- TEDOM mechanical throttle valve
- speed controller, actuator fitted on engine and linked to throttle valve (partly in the enclosed package)
- gas track with zero pressure regulator (in the enclosed package)
- metal gas hose between mixer and AFR actuator (in the enclosed package)

### Compression ignition engines:

- fuel filter

## Typical applications:

- co-generation units and tri-generation units
- generator sets
- pumps
- compressors

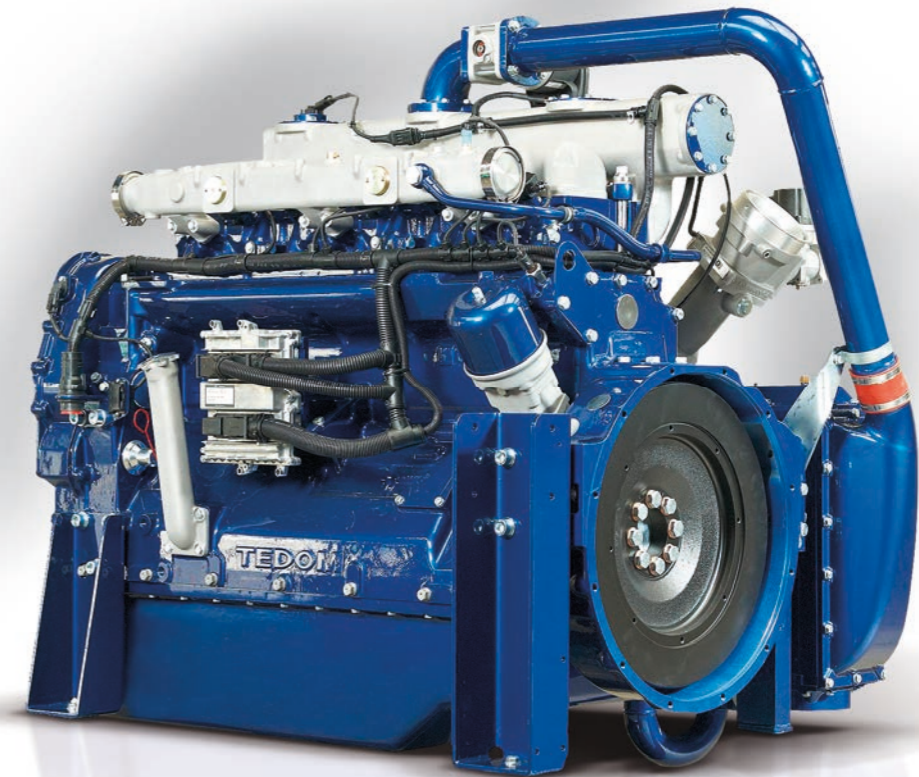
## Options:

- centrifugal coolant pump mechanically driven from crank shaft – pump input 2 kW
- centrifugal coolant pump driven by V-belt from electric motor mounted on engine
- thermostat housing including thermostats
- conservation of engine
- bottom cover with oil sump (25/50 dm<sup>3</sup>)
- flywheel SAE 14
- cooled exhaust manifold
- recharging alternator 28 V / 45 A
- coolant temperature sensor
- oil pressure sensor
- oil temperature sensor
- coolant temperature emergency switch
- inductive pulse sensor (for revolution meter)
- oil filling
- exhaust silencer
- catalytic converter
- particle filter
- coolant expansion tank with overpressure plug
- cooler of coolant (water-air)
- cooler of coolant (water-water)
- plastic fan
  - on the crankshaft
    - pull type
    - push type
  - apart from crankshaft (driven by V-belts)
    - pull type
    - push type
- wooden transport pallet

**TEDOM**

... technology  
in harmony  
with nature

# STATIONARY ENGINES



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**NATURAL GAS - BIOGAS - LPG - DIESEL**

## Advantages of the engine:

- high-quality and reliable engines with proven concept
- long service intervals and easy maintenance
- economic operation because of low consumption of oil and fuel

## Basic information of the engine:

- displacement 11,946 dm<sup>3</sup>, water cooled
- four-stroke six-cylinder in-line engine
- atmospheric or turbocharged

## Stationary engines 50 Hz

Natural gas	Mech. power output kW	Power input (in fuel)	Heat output			Efficiency			Emissions*		Compression ratio
			Coolant heat kW	Exhaust heat kW <sup>1)</sup>	Total kW	Mech. %	Therm. %	Total %	CO mg/Nm <sup>3</sup>	NO <sub>x</sub> mg/Nm <sup>3</sup>	
TG 85 G5V NX 86	86,0	231,9	55,1	66,0	121,1	37,1	52,2	89,3	650	500	12:1
TG 110 G5V TX 86	110,4	282,8	67,6	75,2	142,8	39,0	50,5	89,5	650	500	12:1
TG 130 G5V TX 86	132,4	345,5	79,7	98,9	178,6	38,3	51,7	90,0	650	500	12:1
TG 170 G5V TW 86	173,2	435,6	85,8	123,9	209,7	39,8	50,9	90,7	650	500	12:1
TG 190 G5V TW 86	192,9	470,5	95,2	123,3	218,5	41,0	49,5	90,5	650	500	12:1
TG 210 G5V TW 86	212,7	518,9	98,5	142,3	240,8	41,0	49,5	90,5	650	500	12:1
TG 230 G5V TW 86**	234,2	588,4	128,6	153,9	282,5	39,8	51,0	90,8	650	500	12:1
TG 80 G5V NX 88	80,0	232,9	85,9	47,5	133,4	34,3	57,3	91,6	< 50	< 50	12:1
TG 100 G5V NX 88	100,3	281,4	99,1	59,2	158,3	35,6	56,3	91,9	< 50	< 50	12:1
TG 110 G5V NX 88	110,4	301,1	101,6	64,9	166,5	36,7	55,3	92,0	< 50	< 50	12:1
TG 120 G5V NX 88	119,7	321,0	105,5	70,3	175,8	37,3	54,8	92,1	< 50	< 50	12:1
TG 130 G5V NX 88	130,5	338,8	105,5	76,2	181,7	38,5	53,6	92,1	< 50	< 50	12:1
TG 150 G5V TX 88	153,9	425,1	145,6	94,0	239,6	36,2	56,4	92,6	< 50	< 50	9,5:1
TG 180 G5V TX 88**	177,8	480,5	159,7	108,7	268,4	37,0	55,9	92,9	< 50	< 50	11:1

Biogas	Mech. power output kW	Power input (in fuel)	Heat output			Efficiency			Emissions*		Compression ratio
			Coolant heat kW	Exhaust heat kW <sup>1)</sup>	Total kW	Mech. %	Therm. %	Total %	CO mg/Nm <sup>3</sup>	NO <sub>x</sub> mg/Nm <sup>3</sup>	
TB 90 G5V NX 86	88,2	238,5	63,4	58,0	121,4	37,0	50,9	87,9	650	500	12:1
TB 110 G5V TX 86	112,5	292,0	76,7	67,1	143,8	38,5	49,2	87,8	650	500	12:1
TB 130 G5V TX 86	130,4	335,8	85,4	79,9	165,3	38,8	49,2	88,1	650	500	12:1
TB 170 G5V TW 86	175,9	442,4	101,0	106,7	207,7	39,8	49,5	89,2	650	500	12:1
TB 190 G5V TW 86	191,3	467,8	108,6	103,5	212,1	40,9	48,1	89,0	650	500	12:1
TB 210 G5V TW 86	213,0	519,6	117,3	117,5	234,8	41,0	48,1	89,0	650	500	12:1

LPG	Mech. power output kW	Power input (in fuel)	Heat output			Efficiency			Emissions*		Compression ratio
			Coolant heat kW	Exhaust heat kW <sup>1)</sup>	Total kW	Mech. %	Therm. %	Total %	CO mg/Nm <sup>3</sup>	NO <sub>x</sub> mg/Nm <sup>3</sup>	
TP 90 G5V NX 86	89,0	268,9	73,5	80,0	153,5	33,1	57,1	90,2	650	500	9,5:1
TP 145 G5V TX 86	144,0	392,4	92,0	123,0	215,0	36,7	54,8	91,5	650	500	9,5:1
TP 160 G5V TW 86	158,9	433,0	94,0	125,5	219,5	36,7	54,4	91,1	650	500	9,5:1
TP 135 G5V NX 88	136,0	384,2	89,0	124,0	213,0	35,4	55,4	90,8	< 50	< 50	9,5:1

Diesel	Mech. power output kW	Power input (in fuel)	Heat output			Efficiency			Emissions*		Compression ratio
			Coolant heat kW	Exhaust heat kW <sup>1)</sup>	Total kW	Mech. %	Therm. %	Total %	CO mg/Nm <sup>3</sup>	NO <sub>x</sub> mg/Nm <sup>3</sup>	
TD 105 G5V NX 86	105,5	278,4	69,0	67,0	136,0	37,9	48,9	86,8	650	4000	15,9:1
TD 135 G5V TX 86	137,0	344,2	77,0	79,0	156,0	39,8	45,3	85,1	650	4000	15,9:1
TD 150 G5V TW 86	150,0	355,0	84,0	62,0	146,0	42,2	44,5	86,7	650	4000	15,7:1
TD 175 G5V TW 86	175,0	412,0	90,0	76,0	166,0	42,5	44,7	87,2	650	4000	15,7:1

<sup>1)</sup> cooled to 120 °C; <sup>2)</sup> cooled to 150 °C

\* on request (NO<sub>x</sub> – possible is 250 mg/Nm<sup>3</sup>); \*\* for stand by applications only (up to 100 hrs per year)

All technical data are to be considered as a reference and they can be modified without notice.

## Stationary engines 60 Hz

Natural gas	Mech. power output kW	Power input (in fuel)	Heat output			Efficiency			Emissions		Compression ratio
			Coolant heat kW	Exhaust heat kW <sup>1)</sup>	Total kW	Mech. %	Therm. %	Total %	CO mg/Nm <sup>3</sup>	NO <sub>x</sub> mg/Nm <sup>3</sup>	
TG 100 G8V NX 86	98,8	274,6	67,0	81,5	148,5	36,0	54,1	90,1	650	500	12:1
TG 150 G8V TX 86	153,2	405,7	97,3	115,8	213,1	37,8	52,5	90,3	650	500	12:1
TG 200 G8V TW 86	202,1	508,0	109,3	133,0	242,3	39,8	50,5	90,3	650	500	12:1
TG 150 G8V NX 88	156,8	413,7	133,6	92,7	226,3	37,9	54,7	92,6	< 50	< 50	12:1
TG 180 G8V TX 88**	181,3	513,6	176,0	120,6	296,6	35,3	57,8	93,1	< 50	< 50	11:1

Biogas	Mech. power output kW	Power input (in fuel)	Heat output			Efficiency			Emissions		Compression ratio
			Coolant heat kW	Exhaust heat kW <sup>2)</sup>	Total kW	Mech. %	Therm. %	Total %	CO mg/Nm <sup>3</sup>	NO <sub>x</sub> mg/Nm <sup>3</sup>	
TB 100 G8V NX 86	99,8	280,0	75,7	72,3	148,0	35,6	52,9	88,5	650	500	12:1
TB 150 G8V TX 86	148,3	410,2	114,3	100,6	214,9	36,2	52,4	88,5	650	500	12:1
TB 200 G8V TW 86	200,7	518,4	117,6	130,3	247,9	38,7	50,4	89,1	650	500	12:1

LPG	Mech. power output kW	Power input (in fuel)	Heat output			Efficiency			Emissions		Compression ratio
			Coolant heat kW	Exhaust heat kW <sup>2)</sup>	Total kW	Mech. %	Therm. %	Total %	CO mg/Nm <sup>3</sup>	NO <sub>x</sub> mg/Nm <sup>3</sup>	
TP 105 G8V NX 86	103,6	314,9	91,1	90,5	181,6	32,9	57,7	90,6	1000	500	9,5:1
TP 165 G8V TX 86	166,8	467,2	134,5	126,4	260,9	35,7	55,8	91,5	1000	500	9,5:1
TP 180 G8V TW 86	177,5	497,2	114,4	143,7	258,1	35,7	51,9	87,6	1000	500	9,5:1
TP 145 G8V NX 88	145,0	422,7	126,2	113,5	239,7	34,3	56,7	91,0	< 50	< 50	9,5:1

## Standard scope of engine delivery:

- without coolant pump (for the installation of an external el. pump)
- flywheel box SAE 1
- flywheel SAE 11½
- electric starter 24 V, 6,6 kW
- without thermostat housing
- exhaust manifold – not cooled
- emergency oil pressure switch
- top coating with BUCHNER AC 80
- standard verification of engine parameters on natural gas
- letter of guarantee + maintenance plan and catalogue of spare parts on CD
- standard report of final technical inspection and brake test

### Spark ignition engines:

- spark plugs
- centrifugal oil filter in the by-pass
- replaceable full-flow filter with by-pass valve
- oil cooler
- closed crank case with oil separator connected to the intake manifold
- oil pan with capacity of 51 dm<sup>3</sup>

### Compression ignition engines:

- Bosch injection pump equipped with electronic actuator
- injectors
- electronic speed governor
- magnetic speed sensor
- harness between speed controller and actuator
- electro-mechanical stop valve
- electro-hydraulic stop valve
- oil pan with capacity of 25 dm<sup>3</sup>