

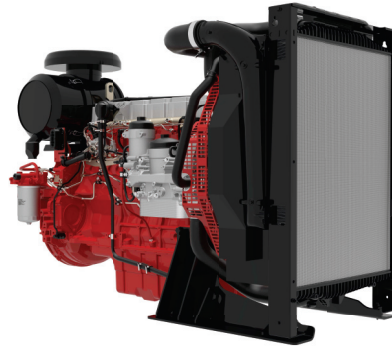
# TCD 2013

for power generating sets

100/135 - 251/260 kW at 1500/1800 rpm

EU Stage IIIA

- Watercooled 4 or 6-cylinder inline engines with turbocharging and charge air cooling.
- The powerful DEUTZ Common Rail (DCR<sup>®</sup>) injection system and the electronic engine control (EMR 4) with intelligent link to the drive management ensure optimum engine performance at low fuel consumption.
- Wet cylinder liners, long oil change intervals and easy changing of the engine fluids reduce the running costs and increase the availability of the machinery.



- Low noise emissions due to acoustically optimized components with very smooth running and high durability.
- Easy, inexpensive installation due to minimum weight and small installation space.
- Air filter and cooling system are fully pre-assembled.
- Best cold starting performance even under extreme conditions.
- The TCD 2013 meets the requirements of EU Stage IIIA.

## Technical data

Engine type		TCD 2013 L4 2V	TCD 2013 L6 2V	TCD 2013 L6 4V
No. of cylinders		4	6	6
Bore/stroke	mm   in	108/130   4.3/5.1	108/130   4.3/5.1	108/130   4.3/5.1
Displacement	l   cu in	4,8   293	7,2   439	7,2   439
Weight with cooling system and air filter	kg   lb	660   1455	945   2083	955   2105
Governing standard <sup>5)</sup>		G2	G3	G3

## 50 Hz / 1500 rpm

Power output <sup>1)</sup>		TCD 2013 L4 2V	TCD 2013 L6 2V	TCD 2013 L6 4V
LTP <sup>2)</sup> - gross (no fan)	kW   hp	100   135	151   202	251   336
LTP - net flywheel	kW   hp	98   131	146   196	242   324
PRP <sup>3)</sup> - gross (no fan)	kW   hp	95   128	144   192	238   319
COP <sup>4)</sup> - gross (no fan)	kW   hp	90   121	136   182	226   303

## 60 Hz / 1800 rpm

Power output <sup>1)</sup>		TCD 2013 L4 2V	TCD 2013 L6 2V	TCD 2013 L6 4V
LTP <sup>2)</sup> - gross (no fan)	kW   hp	114   153	174   233	260   349
LTP - net flywheel	kW   hp	110   147	165   221	245   328
PRP <sup>3)</sup> - gross (no fan)	kW   hp	109   146	165   221	247   332
COP <sup>4)</sup> - gross (no fan)	kW   hp	103   138	156   209	234   314

1) Power (kW) according to ISO 14396.

2) Limited Time Running Power: For up to 500 h/year, thereof a maximum of 300 h/year continuous running.

3) Prime Power: Average power output ≤ 80%, no time limitation, plus 5% additional power for governing purpose only.

4) Continuous Power: No time limitation, plus 10% additional power for governing purpose only.

5) According to ISO 8528-5.

The data on this data sheet are for information purposes only and are not binding values. The data in the quotation is definitive.

## 50 Hz / 1500 rpm

Fuel consumption <sup>1)</sup>		TCD 2013 L4 2V	TCD 2013 L6 2V	TCD 2013 L6 4V
Fuel consumption 25% load	g/kWh   lb/hph	318   0.52	260   0.43	253   0.42
Fuel consumption 50% load	g/kWh   lb/hph	284   0.47	249   0.41	235   0.39
Fuel consumption 75% load	g/kWh   lb/hph	270   0.44	236   0.39	225   0.37
Fuel consumption 100% load	g/kWh   lb/hph	244   0.40	216   0.36	210   0.35

Heat balance & cooling system		TCD 2013 L4 2V	TCD 2013 L6 2V	TCD 2013 L6 4V
Heat dissipation (engine radiator) <sup>2)</sup>	kW   hp	50   67	74   99	133   178
Heat dissipation (CAC) <sup>2)</sup>	kW   hp	19   25	23   31	39   52
Heat dissipation (convection)	kW   hp	9   12	14   19	23   31
Fan power	kW   hp	3   3	5   7	9   12
Cooling air flow	m <sup>3</sup> /h   cfm	6480   3814	11500   6769	15480   9111

Inlet & exhaust data		TCD 2013 L4 2V	TCD 2013 L6 2V	TCD 2013 L6 4V
max. intake depression	mbar   psi	10   0.15	10   0.15	10   0.15
Combustion air volume	m <sup>3</sup> /h   cfm	450   265	600   353	756   445
max. exhaust gas temperature	°C   °F	530   986	485   905	515   959
Exhaust gas flow	m <sup>3</sup> /h   cfm	1261   742	1587   934	2079   1224

## 60 Hz / 1800 rpm

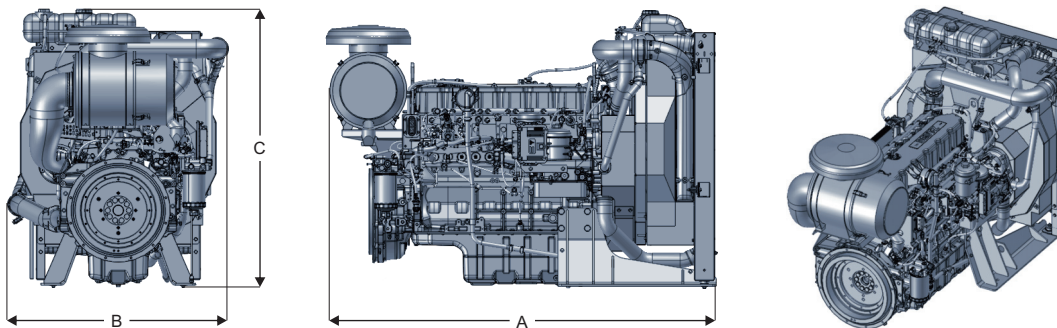
Fuel consumption <sup>1)</sup>		TCD 2013 L4 2V	TCD 2013 L6 2V	TCD 2013 L6 4V
Fuel consumption 25% load	g/kWh   lb/hph	318   0.52	288   0.47	255   0.42
Fuel consumption 50% load	g/kWh   lb/hph	282   0.46	260   0.43	234   0.38
Fuel consumption 75% load	g/kWh   lb/hph	263   0.43	243   0.40	245   0.40
Fuel consumption 100% load	g/kWh   lb/hph	233   0.38	223   0.37	218   0.36

Heat balance & cooling system		TCD 2013 L4 2V	TCD 2013 L6 2V	TCD 2013 L6 4V
Heat dissipation (engine radiator) <sup>2)</sup>	kW   hp	57   76	73   98	141   189
Heat dissipation (CAC) <sup>2)</sup>	kW   hp	20   27	26   35	46   62
Heat dissipation (convection)	kW   hp	10   13	16   21	24   32
Fan power	kW   hp	4   6	9   12	16   21
Cooling air flow	m <sup>3</sup> /h   cfm	7560   4450	13320   7840	18720   11018

Inlet & exhaust data		TCD 2013 L4 2V	TCD 2013 L6 2V	TCD 2013 L6 4V
max. intake depression	mbar   psi	20   0.29	20   0.29	20   0.29
Combustion air volume	m <sup>3</sup> /h   cfm	492   290	660   388	858   505
max. exhaust gas temperature	°C   °F	540   1004	511   952	485   905
Exhaust gas flow	m <sup>3</sup> /h   cfm	1396   822	1806   1063	2270   1336

- 1) Refers to diesel with a density of 0.835 kg/dm<sup>3</sup> at 15°C | 6.96 lb/US gallon at 60°F.  
 2) The heat quantities are valid for the dimensioning of the cooling system.

## Dimensions



		A	B	C
TCD 2013 L4 2V	mm   in	1589   62.6	880   34.6	1247   49.1
TCD 2013 L6 2V	mm   in	1909   75.2	879   34.6	1263   49.7
TCD 2013 L6 4V	mm   in	1865   73.4	1046   41.2	1322   52.0

Note: The engine dimensions and weights vary depending on the scope of delivery.

For more information please contact the DEUTZ AG Köln or the responsible sales partner.

