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# DEUTZ TCD 3.6

For mobile machinery 55,4-105 kW / 75-141 hp at 2000-2600 min<sup>-1</sup>/rpm EU Stage IIIB, IV and V / US EPA Tier 4

- Water-cooled 4-cylinder inline engine with cooled, external exhaust gas recirculation with turbocharging and optionally with and without charge air cooling.
- The powerful Common Rail injection system and the electronic engine control (EMR) with intelligent link to the drive management ensure optimum engine performance at low fuel consumption.
- The DVERT®oxidation catalyst for EU Stage IIIB and US EPA Tier 4 enables maintenance-free operation under all application and ambient conditions. A DVERT® particulate filter (DPF) is available as an option. With the introduction of EU Stage V, DPF will be available for all engine types. Through the use of the diesel particulate filter, the engines already comply with the EU Stage V emissions standard expected from 2019\*.
- For ease of machine installation engine foot print and all major installation interfaces will stay unchanged for Stage V.
- Up to 500 h oil change intervals and a maintenance-free valve train result in low maintenance costs and increased machine availability.
- The extremely compact engine design and customer friendly accessories reduce the installation costs and increase the number of applications.
- 100% power take-off at flywheel and front end. Additionally up to two PTO drives with a total torque of up to 310 Nm.

- A variant without EAT is optionally available for less regulated markets up to emission level EU Stage IIIA.
- New High Torque engine version for extraordinary strong performance below 56 kW. TCD 3.6 is available with 100 kW (Stage IV) and 105 kW (Stage V).



### **TECHNICAL DATA**

| Engine type                                |           | TD 3.6 L4        | TCD 3.6 L4 HT**) | TCD 3.6 L4       | TCD 3.6 L4 HP***) |  |
|--|-----------|------------------|------------------|------------------|-------------------|--|
| No. of cylinders                           |           | 4                | 4                | 4                | 4                 |  |
| Bore/stroke                                | mm   in   | 98/120   3,9/4,7 | 98/120   3,9/4,7 | 98/120   3,9/4,7 | 98/120   3,9/4,7  |  |
| Displacement                               | I   cu in | 3,6   221        | 3,6   221        | 3,6   221        | 3,6   221         |  |
| Max. nominal speed min <sup>-1</sup>   rpm |           | 2600             | 2300             | 2300             | 2300              |  |

| Engine type                                   |                         | TD 3.6 L4    | TCD 3.6 L4 HT**) | TCD 3.6 L4 | TCD 3.6 L4 HP***) |
|---|-------------------------|--------------|------------------|------------|-------------------|
| Power output as per ISO 14396 1)              | kW   hp                 | 55,4   74    | 55,4   74        | 100   136  | 105   141         |
| at speed                                      | min <sup>-1</sup>   rpm | 2600         | 2300             | 2300       | 2300              |
| Max. torque                                   | Nm   Ib/ft              | 330   243 4) | 390   288 5)     | 500   369  | 550   406         |
| at speed                                      | min <sup>-1</sup>   rpm | 1600         | 1300             | 1600       | 1600              |
| Minimum idling speed                          | min <sup>-1</sup>   rpm | 800          | 800              | 800        | 800               |
| Specific fuel consumption 2)                  | g/kWh   lb/hph          | 220   0,36   | 210   0,35       | 210   0,35 | 210   0,35        |
| Weight as per DIN 70020 Part 7A <sup>3)</sup> | kg   lb                 | 350   772    | 350   772        | 350   772  | 350   772         |
|   |                         |              |                  |            |                   |

 $<sup>^{\</sup>star}$  Based on the proposal by the EU Commission COM (2014) 581 final from 25.09.2014

\*\*) HT = High Torque \*\*\*) HP = High Power



Power data without deduction of fan power

<sup>2)</sup> Best point consumption refers to diesel with a density of 0.835 kg/dm3 at  $15^{\circ}$ C.

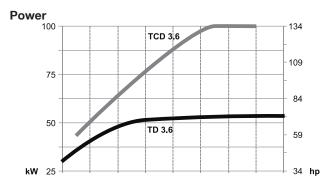
<sup>3)</sup> Without starter/alternator, cooler and fluids but with flywheel and flywheel housing

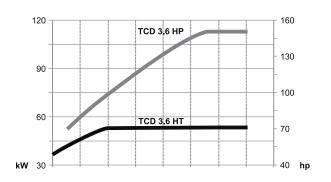
<sup>4) 340</sup> Nm | 251 lb/ft in Stage V

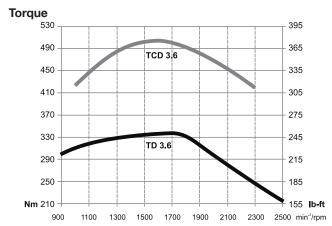
<sup>5) 405</sup> Nm | 299 lb/ft in Stage V

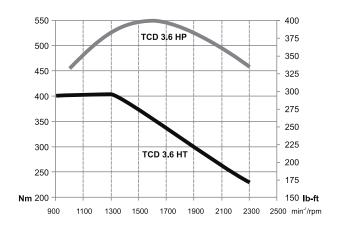


# TCD 3.6 HT and HP

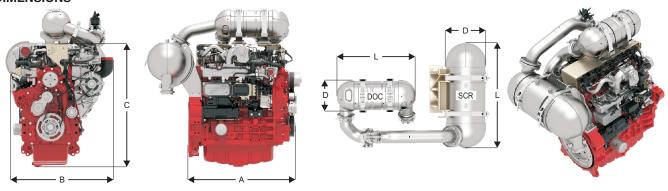








# **DIMENSIONS**



|             |         |            |            |            | DOC       |            | SCR       |            | DPF       |            | DVERT® EAT |     | AT  |
|-------------|---------|------------|------------|------------|-----------|------------|-----------|------------|-----------|------------|------------|-----|-----|
| Engine type |         | A          | В          | С          | D         | L          | D         | L          | D         | L          | DOC        | SCR | DPF |
| TD 3.6      | mm   in | 701   27,6 | 592   23,3 | 790   31,1 | 199   7.8 | 523   20,6 | -         | -          | 199   7,8 | 613   24,1 |            | -   | •   |
| TCD 3.6     | mm   in | 701   27,6 | 592   23,3 | 790   31,1 | 199   7.8 | 523   20,6 | -         | -          | 199   7,8 | 613   24,1 |            | -   | •   |
| TCD 3.6 HT  | mm   in | 701   27,6 | 592   23,3 | 790   31,1 | -         | -          | 246   9,7 | 659   25,9 | 199   7,8 | 613   24,1 |            |     | •   |
| TCD 3.6 HP  | mm   in | 701   27,6 | 592   23,3 | 790   31,1 | -         | -          | 246   9,7 | 659   25,9 | 199   7,8 | 613   24,1 | -          | •   | •   |

Standard for EU Stage IV / T4 Standard for EU Stage V

For TCD 3.6 Stage IV the DVERT® oxidation catalyst (DOC) does not satisfy the regulations of certain markets that have specified additional limit values for the number of particles (e.g.

DEUTZ offers the DVERT® wallflow particulate filter as an option for these markets.

All connection variants are available either in 0° or 90° positions for inlet and outlet flanges. Note: The engine dimensions and weights vary depending on the scope of delivery.

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

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