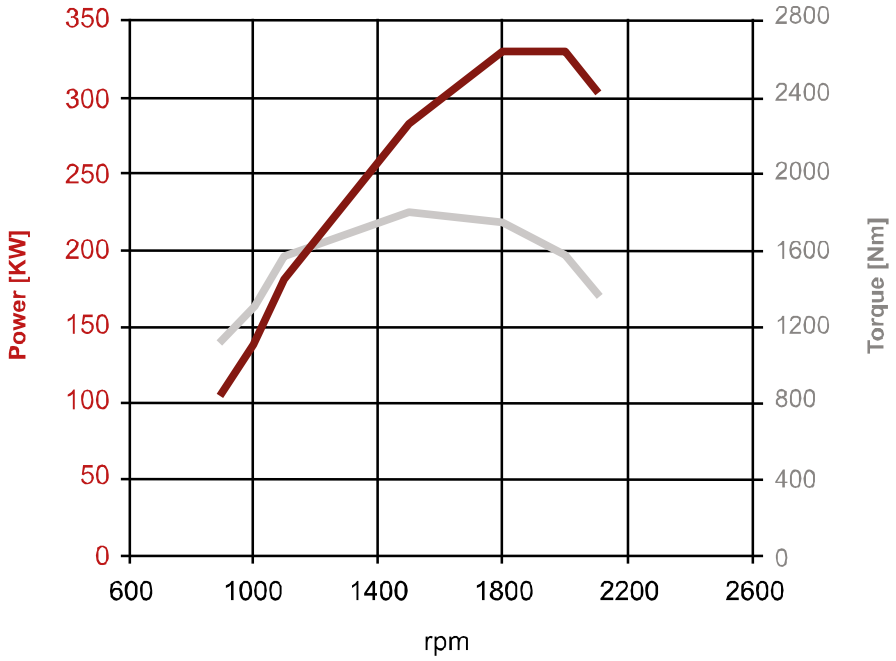
C87 Tier4b / StageIV	Engine Performance Data Sheet Industrial Market	

Number Cylinders:	6	Aspiration:	Turbocharged Charge Air Cooled	Second Release - Revision: 1.0
Displacement:	8.7 L	Fuel System:	Bosch HPCR	Data : 31/03/2015

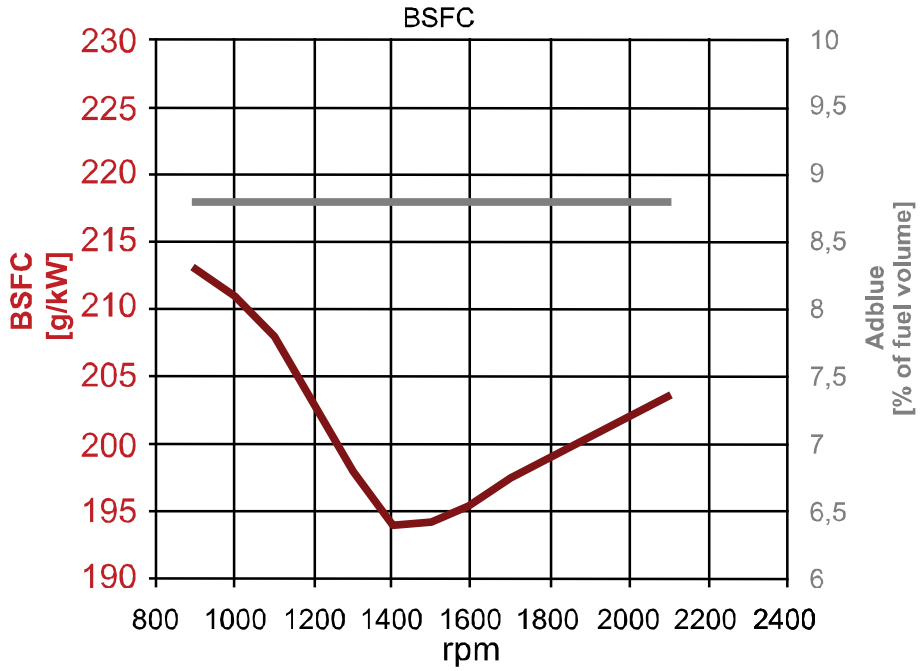
Power :	305 kW @ 2100 rpm	Torque :	1800 Nm @ 1500 rpm
Status for curves and data:	Approved	Tolerance on values:	± 5% (N/A for Alpha/Beta/Preliminary Engines)



rpm	*Power Output (kW)*	*Torque Output (Nm)*
900	107	1133
1000	138	1300
1100	181	1571
1200	205	1628
1300	230	1686
1400	256	1743
1500	283	1800
1600	299	1784
1700	315	1767
1800	330	1750
1900	330	1659
2000	330	1575
2100	305	1387

Engine Performance data

Rated Power (*)	kW (CV)	305
Rated speed	rpm	2100
Specific Power (rated)	kW/l	35
Max Power (peak)	kW (CV)	330
Power speed (peak)	rpm	from 1800 to 2000
Specific Power (peak)	kW/l	37.9
BMEP @max Power	bar	20
Mean Piston Speed	m/s	9.5
Max Torque	Nm	1800
Max Torque speed	rpm	1500
Specific Torque	Nm/l	206.7
BMEP @ max Torque	bar	26
Torque rise	%	29.7
Torque @ 1000 rpm	Nm	1300
Max no load governor speed	rpm	2110±50
Nominal idling speed	rpm	600±100
Best Point BSFC	g/kWh	194
Oil consumption @ rated speed	g/kWh	0.10
Engine brake power @ rated speed	kW	42.8
Engine brake power in over speed	kW	91.2 @ 3000 rpm



Lubrication System

Min oil pressure @ low idle (engine oil temp at 120°C)	kPa (bar)	60
Min oil pressure @ rated speed (engine oil temp at 120°C)	kPa (bar)	250
Max oil pressure @ rated speed (engine oil temp at 120°C)	kPa (bar)	600

Cooling System

Maximum coolant temperature (engine out) with 100 kPa pressure cap	°C	106
Engine out coolant to ambient @ rated speed	delta °C	na
Engine out coolant to ambient @ torque speed	delta °C	na
Charge air cooler outlet to ambient @ max rpm - CAC dT	delta °C	25
Maximum Air intake Manifold Temperature	°C	75-90

Engine Noise

Full load @ Rated Speed (top rating)	dBA	97.5
No load @ Low Idle	dBA	82.1

Maximum Rating Performance Data (*)

		Rated speed	***Max power***	***Peak Torque***
Power output	kW	305	330	283
Torque	Nm	1387	1575	1800
Speed	rpm	2100	2000	1500
Ambient Temperature	°C	20	20	20
Frictional torque	Nm	145.0	185.4	170.4
Fuel Flow	g/s	17.2	18.4	15.4
Fuel consumption (BSFC)	g/kWh	203	202	195
AdBlue consumption	% fuel Volume	8.8	8.8	8.5
Charge Air Flow	g/s	450	430	330
Exhaust Gas Flow	g/s	467.1	448.4	345.4
Boost Pressure (compressor outlet)	kPa	200	210	165
Temperature after HP-Compressor	°C	na	na	na
Boost Temperature (includes EGR effect)	°C	190	195	185
Exhaust Gas Temp between HP-TC	°C	na	na	na
Exhaust Gas Temp (after TC)	°C	490	520	540
Power LP-CAC (engine water)	kW	na	na	na
Total Water cooling power of engine	kW	120.2	124.5	109.3
Total Pump water flow	l/s	5	4.8	4
Radiator Coolant Flow (**)	l/min	na	na	na
LP-CAC water flow (for ΔT=6°C)	l/s	na	na	na
Power of HP CAC	kW	na	na	na
Total CAC power (air to air)	kW	64.5	65.6	49

(*) Power at flywheel according dir. 97/68 EC (w/o fan), after 50 hours of run-in, tolerance ±3%, fuel EN 590; Test according ISO 3046/1, turbo air inlet temperature 25°C, atmospheric pressure 100 kPa, humidity 30 % - According also to DIN 6271, BS 5514, SAE J1349. All data is based on the engine operating with fuel system, water pump, lubricating oil pump with inlet and exhaust restriction at or below Datasheet limits. Accessory loads assumed at 20 N-m across from idle to rated rpm. Fan duty cycle must be lower than 20% Radiator Coolant Flow is approximately 5% less with a continuously deaerating system. Coolant: 50/50 - Ethylene Glycol/Water by volume.

(**) Radiator Coolant Flow is approximately 5% less with a continuously deaerating system. Coolant: 50/50 - Ethylene Glycol/Water by volume.

All data is subject to change without notice

Revision	Description	Date
33	First document release	31/01/2014
34		28/02/2014
35		31/03/2014
37		30/04/2014
38		30/06/2014
38.1		31/07/2014
39		30/09/2014
1.0		31/03/2015