



Stationary Pump Engine Performance Data

DONGFENG CUMMINS ENGINE Co.,LTD

XiangYang, Hubei Province, China
www.cumminspowerunits.com

QSB3.9-P50

FR96105

36 kW @ 2900 r/min
300 N.m @ 1100 r/min

CPL Code
CPL4854

Revision
2017/4/25

Version
00

Displacement: 3.9L

Aspiration: Turbocharged & Charge Air Cooled

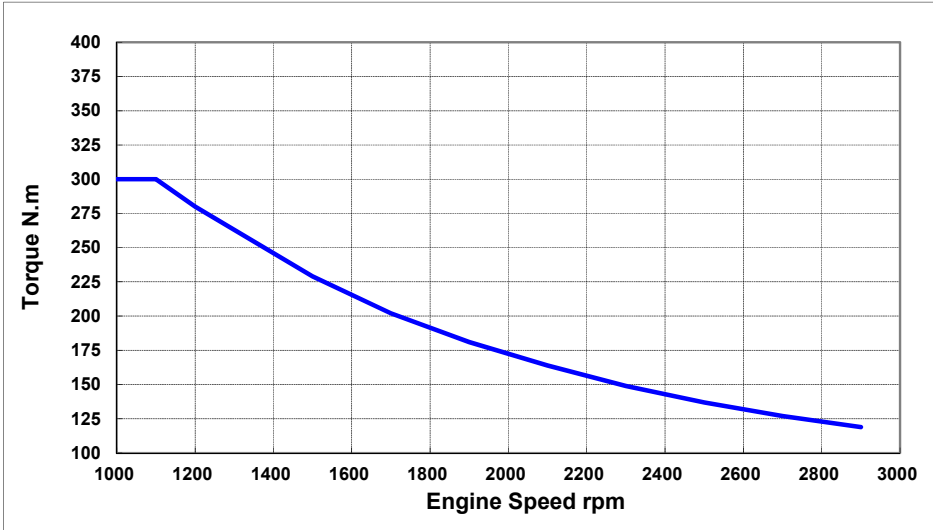
Application: Stationary Fire Pump

Fuel System: HPCR

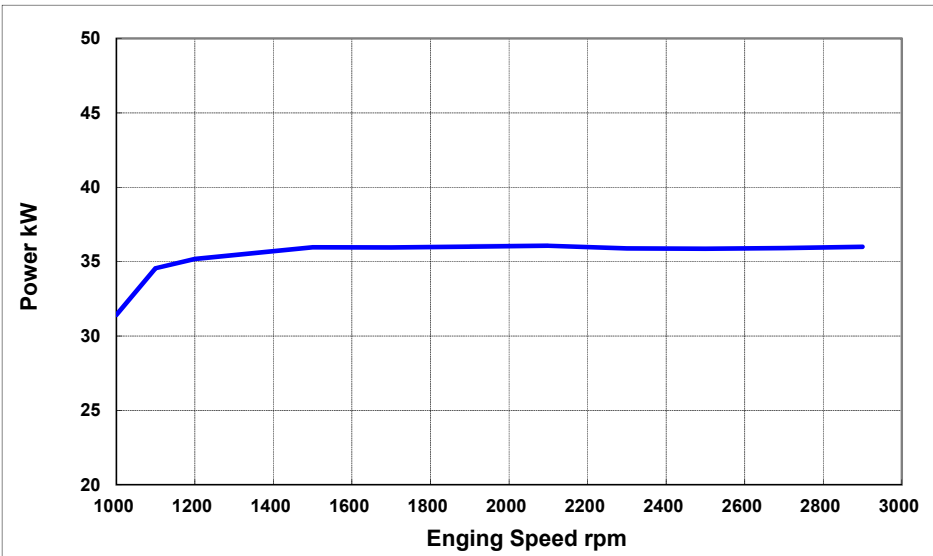
All data is based on the engine operating without air compressor, fan, generator, fan, optional equipment and driven components .
All data is based on the engine operating with 3.7 kPa inlet air restriction , 10 kPa exhaust restriction and with 13 kPa Inter-cooled implement differential pressure

Curves shown above represent gross engine performance capabilities obtained and corrected in accordance with GB/T18297 of 99kPa baiometric press. 298K inlet air temperature, and 1kPa water vapor pressure .

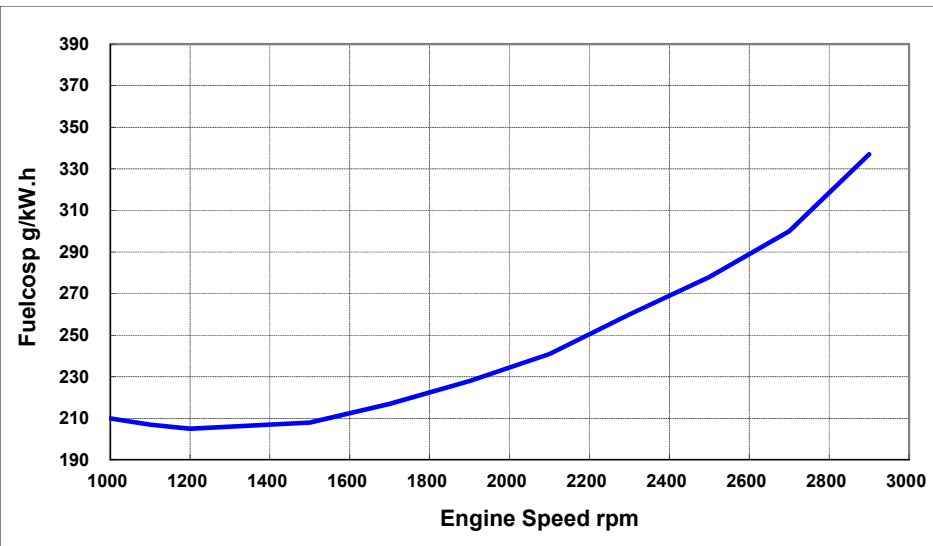
Performance curve



Torque	
rpm	N.m
2900	119
2700	127
2500	137
2300	149
2100	164
1900	181
1700	202
1500	229
1200	280
1100	300
1000	300



Power	
rpm	kW
2900	36
2700	36
2500	36
2300	36
2100	36
1900	36
1700	36
1500	36
1200	35
1100	35
1000	31



Fuelcosp	
rpm	g/kW.h
2900	337
2700	300
2500	278
2300	260
2100	241
1900	228
1700	217
1500	208
1200	205
1100	207
1000	210



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General Performance Data

Low idle speed:	1000±50	rpm
Maximum no load speed:	3000±20	rpm
Maximum overspeed capability(15sec max):	3300	rpm
When 0% gas pedal loading capacity@1000rpm :	300	N.m
Maximum altitude limit for continuous running:	2000	m
Minimum Pump Inlet Pressure:	6	kPa
Cold start capability(Sea Level without Load)		
Without start add device:	NA	°C
With air intake preheating:	NA	°C
Cold start capability(Sea Level with Load)*		
Max parasitic load at 0°C @ 500r/min without Aid:	NA	N.m
Max parasitic load at -15°C @ 500r/min without Aid:	NA	N.m

* The data measured at 101kPa atmospheric pressure, crank speed 120r/min, Engine use 5W40 lube oil and diesel refer to GB19147

Performance data

Parameter	Advertised Power	Peak Torque	Low Speed
Engine Speed(rpm)	2900	1100	1000
Output Power(kW)	36	35	31
Torque(N.m)	119	300	300
Inlet air flow(L/s)	134	39	32
Charge air flow(kg/min)	10.4	3	2.50
Exhaust gas flow(kg/min)	10.6	3.1	2.6
Exhaust gas temperature(deg C)	274	400	410
Heat rejection to coolant(kW)	45.0	31.4	31.0
Radiator coolant flow(L/min)	319.0	187.0	181.0
Heat rejection to charge air cooler(kW)	14.0	1.0	0.7
Turbo Comp.Outlet Pressure(kPa)	129	28	23
Temperature(deg C)	132	48	44
Fuel Consumption(kg/hr)	11.6	7.1	6.5