



**Dongfeng Cummins Engine Company**  
**Xiangyang - Hubei, China**  
**Vehicle Engine Data Sheet**

Engine Model  
**ISDe245-30**

Curve No.  
**FR92158**

**DCEC**

CPL Code  
**1995**

Date  
**2006-11**

Displacement: 6.7L

Bore: 107mm

Stroke: 124mm

Fuel System: Bosch Pump (HPCR)

Cylinders: 6 Cylinders, in Line

Advertised Power: 180kW@2500rpm

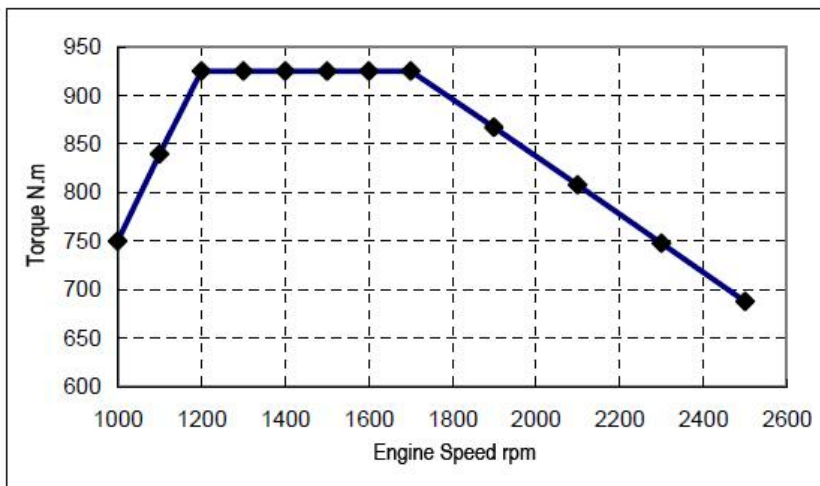
245HP@2500rpm

Peak Torque: 925N.m@1200-1700rpm

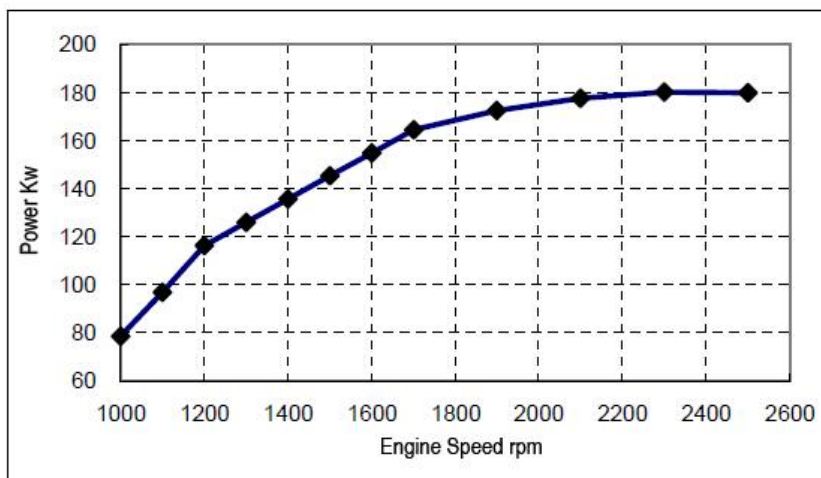
Aspiration: Turbocharged & Air-Air Intercooled

Rating Type: Continuous

### Power Curve of Cummins ISDe245-30 Diesel Engine



Torque	
rpm	N.m
1000	750
1100	840
1200	925
1300	925
1400	925
1500	925
1600	925
1700	925
1900	867
2100	808
2300	748
2500	688



Power	
rpm	kW
1000	79
1100	97
1200	116
1300	126
1400	136
1500	145
1600	155
1700	165
1900	172
2100	178
2300	180
2500	180

Performance data obtain under normal conditions, according to GB/T18297-2001 test conditions



# Cummins Engine Co. Ltd

## Diesel Engine for Vehicle Performance Data

### Technical Request

Aspiration	Turbocharged & Air-Air Intercooled
Emission Certification	GB17691
Net Weight( with flywheel and alternator)	509kg
Dry Weight	530kg
Compression Ratio	17.3:1
Distance from Center of Gravity to the Front Engine Block	402mm
Distance from Center of Gravity to the Crankshaft Centerline	144mm
Maximum Bending Moment at Rear Face of Block	1360N.m
Limit load of Thrust Bearing:	
Instantaneous maximum	3781N
Continuous maximum	1779N
Instantaneous inertia at Rotating: (without Flywheel)	N/A

### Performance Characteristic

Idle Speed:	600-800rpm
Maximum non-load speed:	2850rpm
Over speed performance(within 15 seconds):	4200rpm
Maximum Altitude at Continuous Operation:	3000m
The clutch torque @ 800rpm:	600N.m
When install exhaust braking:	
The limit exhaust pressure of Turbocharger export @3150 rpm	413 kPa
Maximum power of Exhaust brake	TBD

Engine Speed (RPM)	Oil Pressure (kPa)	Air Flow (m3/min)	Air Pressurized		Exhaust Flow (m3/min)	Exhaust Temperature (°C)	Fuel Consumption (l/hr)	Heat Energy Loss	
			Flow (kg/min)	Pressure kPa				Coolant (KW)	Air (KW)
2500							220	89.1	38.1
2300								84.6	34.9
1400								73.3	20.7

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All values within  $\pm 5\%$ .

## **LUBRICATION SYSTEM**

Oil Sump Capacity:

Upper Limit	17.5L
Lower Limit	15L
Capacity of the whole system	19.5L

## **AIR SYSTEM**

Air intake maximum temperature rise from Outside to the Turbocharger	15°C
The allowable maximum restriction when use Dry Air Filter	
Medium	2.9(300) kPa (mmH <sub>2</sub> O)
Heavy	3.7(380) kPa (mmH <sub>2</sub> O)
The allowable maximum restriction when use dirty Filter Element	6.2(635) kPa (mmH <sub>2</sub> O)

## **TURBOCHARGED & INTERCOOLED**

Environment design parameters	
The highest temperature of intake manifold	30°C
Temperature after the cooling of the intercooler	N/A
The maximum allowable cold pressure difference before and after the intercooler	13.5(125) kPa(mmHg)
The allowable minimum diameter of the intake manifold	65mm

## **EXHAUST SYSTEM**

The maximum exhaust resistance with exhaust manifold and muffler	10 kPa(mmHg)
The allowable minimum diameter of the exhaust manifold	75mm
The allowable maximum static bending moment of the Turbocharger exhaust flange	27N.m

## **FUEL SYSTEM**

The maximum resistance of Fuel Pump when use clean filter	30 kPa(mmHg)
Maximum fuel return oil resistance:	20 kPa(mmHg)

## **COOLING SYSTEM**

Engine Coolant Capacity	9.4L
The range of temperature adjustment for the Thermostat	83-95°C
The maximum pressure of Coolant(without pressure cap and thermostat closed)	200 kPa
The highest coolant temperature (at engine exports)	100°C
Maximum degassing time	25mins
Maximum coolant flow to accessories	37L/min
The lowest coolant temperature	70°C
Minimum speed of water-filling	19 L/min
Minimum coolant expansion volume relative to the system capacity	6%
Water tank capacity without water expansion relative to the system capacity	11%
Minimum allows pressure of pressure cap	50 kPa
The alarm temperature of the coolant	104°C
The open temperature of louver	95°C

**24V ELECTRICAL SYSTEM**

Maximum resistance of starting circuit

0.004Ω

The cold start current when engine and the clutch separate

550 CCA

**COLD STARTING SYSTEM**

The lowest cold starting temperature without auxiliary starting device

-12°C @ 120rpm

The lowest cold starting temperature with starting device

-25°C @ 120rpm

*Cummins Engine Co. Ltd**All data is subject to change without notice- contact Cummins for most recent data.*