

**WP6G240E330 型工业动力用柴油机
技术规格书**

**Technical Specifications of
WP6G240E330 Industry Power Engine**



一、 简要说明(Brief Description)

1.本着用户满意是我们宗旨的服务理念制定本技术规格书.

We compile the technical specifications in order to maximize customer satisfaction.

2.WP6 系列工业动力用柴油机是在道依茨系列柴油机基础上开发的系列柴油机。

WP6 series diesel engine was developed based on DEUTZ diesel engine .

二、柴油机主要技术参数 (Main technical parameters)

柴油机型号: Diesel Model	WP6G240E330
柴油机型式: Type	直列、4 冲程、水冷、干式缸套、增压中冷 In-line、4-Stroke、Dry-cylinder liner、 Turbocharged and Intercooled
气缸数/气门数: No. of cylinders / valves	6/12
缸径/行程: Bore/Stroke	105mm/130mm
压缩比: Compression Ratio	18: 1
排量: Displacement	6.75L
额定功率: Rated Power	176kW
额定转速: Rated Speed	2300r/min
大扭矩工况/转速区间 Max torque/speed range	860N.m /1200-1700r/min
怠速转速:	750±50 r/min

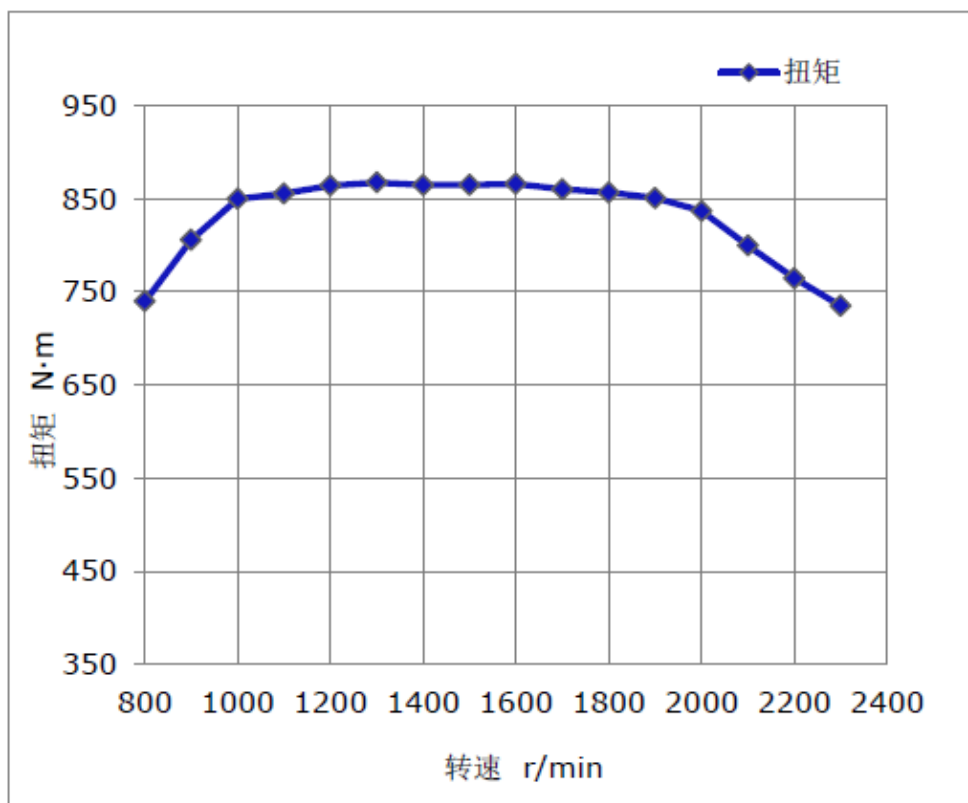
IdleSpeed	
发火循序: Fire Sequence	1-5-3-6-2-4
曲轴旋转方向 Crankshaft RotatingDirection	逆时针（从飞轮端看） Counterclockwise facing flywheel
启动方式: Starting method	DC24V 电启动 DC24V Electrical Start
起动机功率/电压: Starting motor Power/voltage	6kW/24V
调速方式: Governing control	电控 Electronic control
冷却方式: Cooling mode	闭式水冷 Closed water cooled
允许机体运行的最低冷却 液温度: Min. coolant temperature of engine working	50℃
发动机本身冷却液容量: Coolant capacity	8L
油底壳容量: The capacity of oilsump	16L（以油标尺为准） 16L(follow the oil dipstick)

发动机净重 (kg) : Net weight	625 ± 50
外形尺寸 (长×宽×高) (mm) : Size of shape (length×width ×height) :	1256×773×1086 (见外形图) 1256×773×1086 (outline drawing)

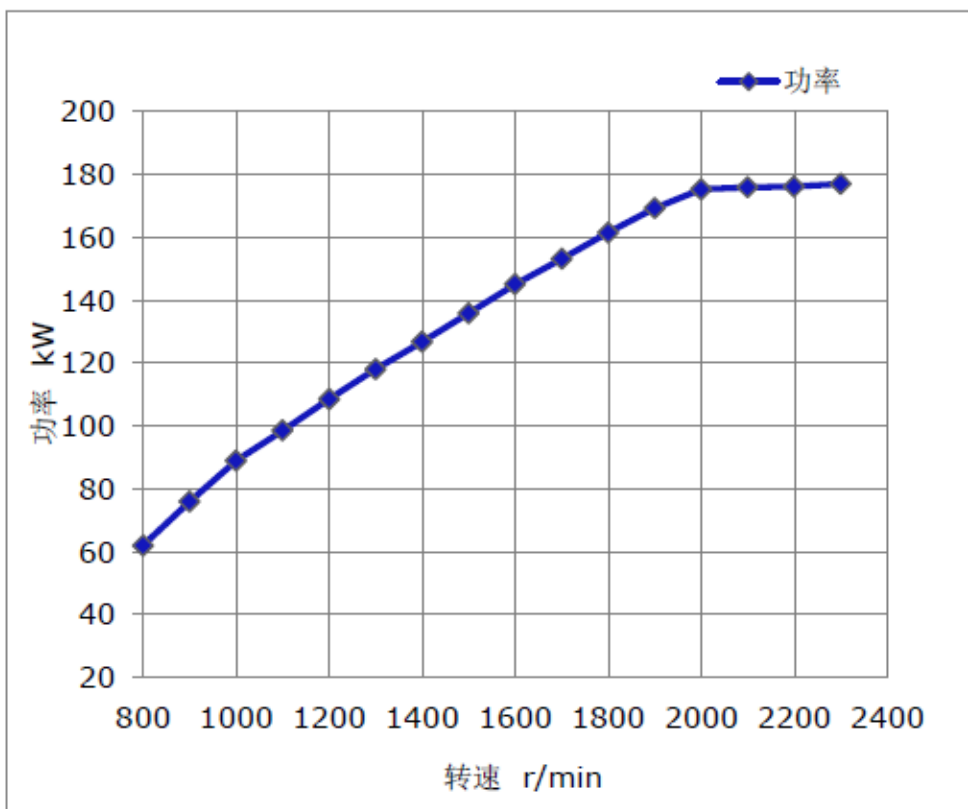
三、柴油机主要性能参数(Main performance parameters)

稳态调速率: Steady governing rate	(8~12)%
怠速转速波动率: Idling speed fluctuation rate	≤1.5%
机油燃油消耗比: Consume ratio of oil and fuel	≤0.2%

扭矩随发动机转速变化曲线



功率随发动机转速变化曲线



四、推荐柴油机配套使用参数

动力输出口: Power output:	SAE1 号飞轮壳/非标飞轮（尺寸见外形图） SAE1 flywheel housing /Non-standard flywheel （Dimensions in outline drawing）
空滤器流量: Air filter flow	$\geq 973\text{kg/h}$
最小进气管直径: Min. diameter of intake pipe	65mm
消音器流量: Muffler flow	$\geq 1011\text{ kg/h}$
排气管最小直径: Min. diameter of exhaust pipe	65mm
允许最大排气背压: Max. exhaust back pressure	6.5kPa
最大排气温度（涡轮后）: Max. exhaust temperature（After the turbocharger）	$\leq 550^{\circ}\text{C}$

涡轮增压器法兰处允许的最大弯矩: Max. bending moment of turbocharger flange	10N • m (静弯矩)
机油压力低报警值: Alarm value of low oil temperature	80kPa
机油压力高报警值: Alarm value of high oil temperature	1000kPa
请在开机运行 30s 以后开始检测机油压力 Please measure oil pressure after running 30s	
出水管水温报警温度: Alarm value of water outlet temperature	96℃
机油温度高报警值 Alarm value of high oil temperature	105℃
转速高报警值 Alarm value of high speed	115%额定转速 115% rated speed
转速高停车值 Stopping value of high speed	120%额定转速 120% rated speed
燃油进油管最小直径: Min. diameter of fuel inlet pipe	10mm
燃油回油管最小直径: Min. diameter of fuel return pipe	10mm

柴油机外部允许的冷却系统阻力(额定工 况): Cooling system resistance of engine external (Rated working condition)	50kPa
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热平衡试验数据（环境温度：试验测量值 43.4℃）					
参数	单位	额定工况	大扭矩工况		
			1700 r/min	1500 r/min	1200 r/min
发动机进/出水压力	(kPa)	-2.4/27.5	4.4/17.5	6.3/14.3	9.5/12.2
冷却液流量	(m ³ /h)	13.9	10.3	9.0	7.2
发动机进/出水温度	(℃)	85.0/90.7	80.9/87.8	80.5/87.3	80.2/87.5
中冷前/后温度	(℃)	153.9/51.7	143.1/46.5	137.4/42.6	117.9/36.0
中冷前/后压力	(kPa)	140.4/139.9	136.4/136.1	130.1/129.8	98.4/98.1
发动机总热量	(kJ/s)	490.4	415.9	355.1	276.4
冷却液带走的热量	(kJ/s)	88.3	79.8	69.5	59.0
中冷器散热量	(kJ/s)	27.7	20.7	18.0	11.1
排气带走的热量	(kJ/s)	155.8	122.5	99.8	71.9
发动机表面辐射热量	(kJ/s)	24.5	20.8	17.8	13.8
注：因测量等误差原因，表面辐射热量按发动机总热量的 5%计算。					

五、 柴油机使用环境 (Ambiance condition)

1. 柴油机在下列条件下，应能输出额定功率：

The diesel engine should be able to output rated power in the following conditions.

a) 绝对大气压力，PX: 100kPa（或海拔高度 0 米）；

Atmospheric pressure, PX: 100kPa (or 0 meter above sea level);

b) 环境温度，Tr: 298K（25℃）；

Ambiance temperature , Tr: 298K(25℃);

c) 空气相对湿度 Φ_r : 30%。

Relative air humidity Φ_r : 30%。

2. 柴油机在下列条件下，应能连续并可靠地工作：

The diesel engine should be able to work continuously and reliably in the following conditions.

a) 环境温度：无辅助措施时，下限值 -15°C ，上限值 50°C ；

Range of ambience temperature without auxiliary measures: $-15^{\circ}\text{C} \leq T \leq 50^{\circ}\text{C}$;

b) 空气相对湿度：最湿月平均最高相对湿度为 90% (指该月的月平均最低温度为 25°C)

Relative air humidity: the max relative humidity is 90% of the wettest month in a year (It means that the lowest average temperature of this month is 25°C)

c) 工作环境中应无爆炸性气体、无导电尘埃。

The working environment should be without explosive gas and electric mote.

d) 工作现场如有任何特殊的危险条件（如爆炸大气环境和易燃气体）用户应提前加以说明。

The customer should illuminate in advance if there has any especial and dangerous condition at the working space (for example, explosive and flammable gas).