

Motor Vehicle Exhaust Emission Standards

Category			Current Regulation				Next Phase Regulation			
			Test Mode	Components	Enforcement year	Standard value	Test Mode	Components	Enforcement year	Standard value
Gasoline/LPG motor vehicles	Passenger cars		JC08M (g/km) ※3	CO	2005	1.92 (1.15)	WLTC (g/km) ※7	CO	2018	2.03 (1.15)
				NMHC		0.08 (0.05)		NMHC		0.16 (0.10)
				NOx		0.08 (0.05)		NOx		0.08 (0.05)
				PM※4		0.007 (0.005)		PM		0.007 (0.005)
	Kei cars		JC08M (g/km) ※3	CO	2007	6.67 (4.02)	WLTC (g/km) ※7	CO	2019	7.06 (4.02)
				NMHC		0.08 (0.05)		NMHC		0.16 (0.10)
				NOx		0.08 (0.05)		NOx		0.08 (0.05)
				PM※4		0.007 (0.005)		PM		0.007 (0.005)
	Trucks and buses Light-duty vehicles (gvw≤1.7t)		JC08M (g/km) ※3	CO	2005	1.92 (1.15)	WLTC (g/km) ※7	CO	2018	2.03 (1.15)
				NMHC		0.08 (0.05)		NMHC		0.16 (0.10)
				NOx		0.08 (0.05)		NOx		0.08 (0.05)
				PM※4		0.007 (0.005)		PM		0.007 (0.005)
	Trucks and buses Medium-duty vehicles (1.7t<gvw≤3.5t)		JC08M (g/km) ※3	CO	2005	4.08 (2.55)	WLTC (g/km) ※7	CO	2019	4.48 (2.55)
				NMHC		0.08 (0.05)		NMHC		0.23 (0.15)
				NOx		0.10 (0.07)		NOx		0.11 (0.07)
				PM※4		0.009 (0.005)		PM		0.009 (0.007)
	Trucks and buses Heavy-duty vehicles (3.5t<gvw)		JE05M (g/kWh)	CO	2005	21.3 (16.0)	Undecided	CO	Undecided	Undecided
				NMHC		0.31 (0.23)		NMHC		
				NOx		0.9 (0.7)		NOx		
				PM※4		0.013 (0.010)		PM		
Passenger cars		JC08M (g/km) ※3	CO	2009	0.84 (0.63)	WLTC (g/km) ※7	CO	2018	2.03 (0.63)	
			NMHC		0.032 (0.024)		NMHC		0.037 (0.024)	
			NOx		0.11 (0.08)		NOx		0.23 (0.15)	
			PM		0.007 (0.005)		PM		0.007 (0.005)	
Trucks and buses Light-duty vehicles (gvw≤1.7t)		JC08M (g/km) ※3	CO	2009	0.84 (0.63)	WLTC (g/km) ※7	CO	2018	2.03 (0.63)	
			NMHC		0.032 (0.024)		NMHC		0.037 (0.024)	
			NOx		0.11 (0.08)		NOx		0.23 (0.15)	
			PM		0.007 (0.005)		PM		0.007 (0.005)	
Trucks and buses Medium-duty vehicles (1.7t<gvw≤3.5t)		JC08M (g/km) ※3	CO	2009 ※5	0.84 (0.63)	WLTC (g/km) ※7	CO	2019	4.48 (0.63)	
			NMHC		0.032 (0.024)		NMHC		0.037 (0.024)	
			NOx		0.20 (0.15)		NOx		0.36 (0.24)	
			PM		0.009 (0.007)		PM		0.009 (0.007)	
Trucks and buses Heavy-duty vehicles (3.5t<gvw)		JE05M (g/kWh)	CO	2009 ※6	2.95 (2.22)	WHTC※8 and WHSC (g/kWh)	CO	2016 ※9	2.95 (2.22)	
			NMHC		0.23 (0.17)		NMHC		0.23 (0.17)	
			NOx		0.9 (0.7)		NOx		0.7 (0.4)	
			PM		0.013 (0.010)		PM		0.013 (0.010)	

Notes:

- ※1 CO: carbon monoxide, HC: hydrocarbons, NMHC: Non-Methane hydrocarbons, NOx: nitrogen oxides, PM: particulate matter
- ※2 The value 1.92(1.15) indicates 1.92 as the maximum permissible value for the vehicle and 1.15 as the average value for the vehicle type.
- ※3 Apply to the value calculated by the sum of the value obtained by multiplying 0.75 to the value measured in the hot state the JC08 mode value obtained by multiplying 0.25 to the value measured in the cold state the JC08 mode.
- ※4 Regulation of gasoline vehicle PM · LPG is applicable from 2009 only for vehicles equipped with in-cylinder direct injection gasoline engine equipped with a lean burn NOx reduction catalyst storage type.
- ※5 For the following vehicles GVW2.5t apply from 2010.
- ※6 For the following vehicles GVW12t apply from 2010.
- ※7 Apply to the value measured in the cold state the WLTC.
- ※8 Apply to the value calculated by the sum of the value obtained by multiplying 0.86 to the value measured in the hot state the WHTC value obtained by multiplying 0.14 to the value measured in the cold state the WHTC.
- ※9 Apply from 2017 for the tractor. For the following vehicles GVW7.5t apply from 2018.

Category		Current Regulation				Next Regulation					
		Test Mode	Components	Enforcement year	Standard value	Category	Test Mode	Components	Enforcement year	Standard value	
2-wheeled motor vehicles	First-class motor-driven cycles	2-wheeled motor vehicles M (g/km)	CO	2006	(2.0)	Class1 ※3	WMTC (g/km)	CO	2016	(1.14)	
			HC		(0.50)			HC		(0.30)	
			NOx		(0.15)			NOx		(0.07)	
	Second-class motor-driven cycles	2-wheeled motor vehicles M (g/km)	CO	2007	(2.0)	Class2 ※4	WMTC (g/km)	CO	2016	1.58 (1.14)	
			HC		(0.50)			HC		0.24 (0.20)	
			NOx		(0.15)			NOx		0.10 (0.07)	
	Mini-sized 2-wheeled motor vehicles	2-wheeled motor vehicles M (g/km)	CO	2006	(2.0)	Class3 ※5	WMTC (g/km)	CO	2016	1.58 (1.14)	
			HC		(0.30)			HC		0.21 (0.17)	
			NOx		(0.15)			NOx		0.14 (0.09)	
	Small-sized 2-wheeled motor vehicles	2-wheeled motor vehicles M (g/km)	CO	2007	2.7 (2.0)	Class3 ※5	WMTC (g/km)	CO	2016	1.58 (1.14)	
			HC		0.40 (0.30)			HC		0.21 (0.17)	
			NOx		0.20 (0.15)			NOx		0.14 (0.09)	
Diesel-powered special motor vehicles	Rated power output equal to or greater than 19kW but less than 37kW	8M or RMC and NRTC (g/kWh) ※6	CO	2016	6.5 (5.0)	Undecided	Undecided	CO	Undecided	Undecided	
			NMHC		0.9 (0.7)			NMHC			Undecided
			NOx		5.3 (4.0)			NOx			
			PM		0.04 (0.03)			PM			
	Rated power output equal to or greater than 37kW but less than 56kW	8M or RMC and NRTC (g/kWh) ※6	CO	2016	6.5 (5.0)	Undecided	Undecided	CO	Undecided	Undecided	
			NMHC		0.9 (0.7)			NMHC			
			NOx		5.3 (4.0)			NOx			
			PM		0.033 (0.025)			PM			
	Rated power output equal to or greater than 56kW but less than 75kW	8M or RMC and NRTC (g/kWh) ※6	CO	2015	6.5 (5.0)	Undecided	Undecided	CO	Undecided	Undecided	
			NMHC		0.25 (0.19)			NMHC			
			NOx		0.53 (0.4)			NOx			
			PM		0.03 (0.02)			PM			
	Rated power output equal to or greater than 75kW but less than 130kW	8M or RMC and NRTC (g/kWh) ※6	CO	2015	6.5 (5.0)	Undecided	Undecided	CO	Undecided	Undecided	
			NMHC		0.25 (0.19)			NMHC			
			NOx		0.53 (0.4)			NOx			
			PM		0.03 (0.02)			PM			
	Rated power output equal to or greater than 130kW but less than 560kW	8M or RMC and NRTC (g/kWh) ※6	CO	2014	4.6 (3.5)	Undecided	Undecided	CO	Undecided	Undecided	
			NMHC		0.25 (0.19)			NMHC			
			NOx		0.53 (0.4)			NOx			
			PM		0.03 (0.02)			PM			
	Gasoline/LPG-powered special motor vehicles	Rated power output equal to or greater than 19kW but less than 560kW	7M (g/kWh)	CO	2007	26.6 (20.0)	Undecided	Undecided	CO	Undecided	Undecided
				NMHC		0.80 (0.6)			NMHC		
				NOx		0.80 (0.6)			NOx		

Notes:

- ※1 CO: carbon monoxide, HC: hydrocarbons, NMHC: Non-Methane hydrocarbons, NOx: nitrogen oxides, PM: particulate matter
- ※2 The value 2.7 (2.0) indicates 2.7 as the maximum permissible value for the vehicle and 2.0 as the average value for the vehicle type.
- ※3 Two-wheeled vehicles of a total emission of more than 0.050 l but less than 0.150 l and a maximum speed of 50 km/h or less or two-wheeled vehicles of a total emission of less than 0.150 l and a maximum speed of more than 50 km/h but less than 100 km/h.
- ※4 Two-wheeled vehicles of a total emission of less than 0.150 l and a maximum speed of 100 km/h or more but less than 130 km/h, or a total emission 0.150 l or more and a maximum speed of less than 130 km/h.
- ※5 Two-wheeled vehicles of a maximum speed of 130 km/h or more.
- ※6 Apply to the value calculated by the sum of the value obtained by multiplying 0.9 to the value measured in the hot state the NRTC value obtained by multiplying 0.1 to the value measured in the cold state the NRTC.
- ※7 Regulations for First-class motor-driven cycles below 50km/h maximum speed after 2016 will be as same as Current Regulation.