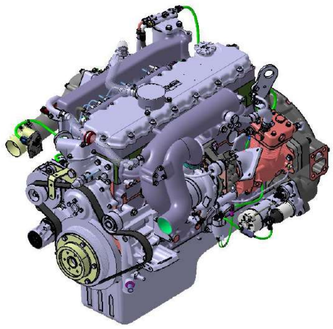
DL06P EURO VI



◎ Production Tolerance : ±5%

Intermittent rating kW(HP) / rpm	Max. torque N.m(kg.m) / rpm	Aftertreatment
206 (280) / 2500	1000 (102) / 1400	DOC+DPF+SCR

◎ General Specification

o Engine Model	DL06P
o Engine Type	In-line, 4 Cycle, Water Cooled Turbocharged & Intercooled
o Injection System	Electronic Common Rail
o Cylinder Type	Replaceable dry liner
o Number of Cylinders	6
o Bore x stroke	100 x 125 mm
o Displacement	5.89L
o Compression ratio	17.4 : 1
o Firing order	1-5-3-6-2-4
o Dry weight	606kg (Engine only)
o Dimension	1,106 x 827 x 973 mm
o Rotation	CCW viewed from Flywheel
o Breather System	OCV (Mesh + Impactor)
o No Load Max Engine Speec	2,750 +/- 25rpm
o No Load Min Engine Speed	600 +/- 25rpm
o Flywheel Housing	SAE2
o Flywheel Size	17 inch Pull
o Turbocharger	Waste Gate Valve
o Air Compressor Capacity	305cc/rev (Single)

◎ Valve System

o Type	Over Head Valve
o Number of Valve	Intake 2, Exhaust 2 per Cylinder
o Valve Lashes at Cold	Intake 0.3mm Exhaust 0.4mm

◎ Fuel System

o Injection pump	BOSCH CP 3.3
o Governor	E.C.U (BOSCH, EDC17CV41)
o Feed pump	GEAR TYPE
o Injection nozzle	Multi hole Type
o Fuel filter	Full flow, Catridge Type
o Used fuel	Diesel fuel oil (S<0.05%)

◎ Lubrication System

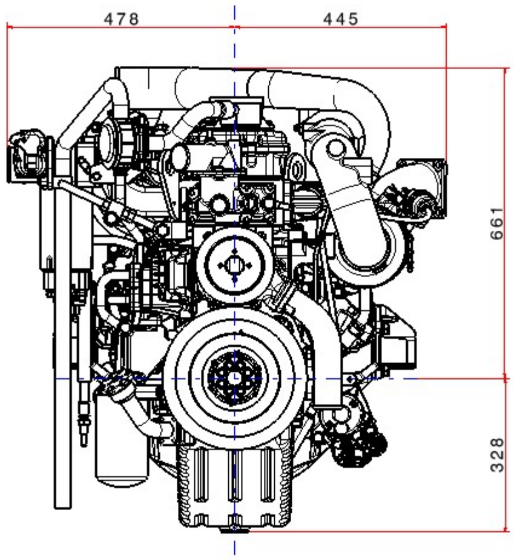
o Lub. Method	Fully forced pressure feed Type
o Oil pump	Gear Type driven by crankshaft
o Oil filter	Full flow, Catridge Type
o Oil pan capacity	High level 22 liters Low level 17 liters
o Lub. Oil	API CJ-4 Grade, 10W30 or 10W40

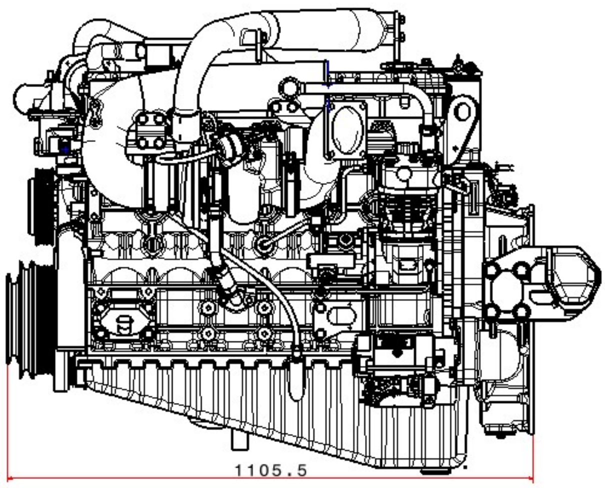
◎ Cooling System

o Cooling method	Fresh water forced circulation
o Water capacity	10.6 liters (Engine only)
o Water pump Capacity	310 liters/min at 2,200rpm
o Thermostat	Wax – Pellet Type

◎ Electrical System

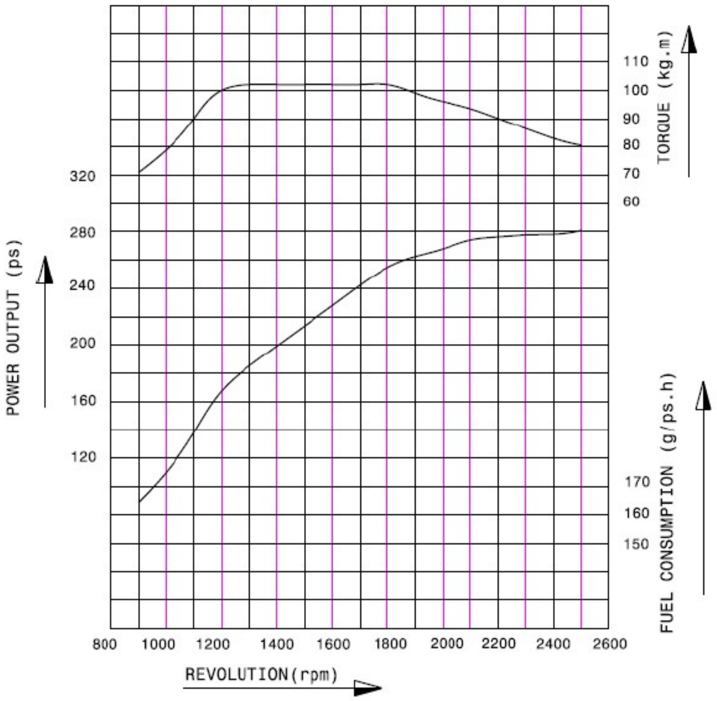
o Alternator	N/A (Vehicle Parts)
o Starting motor	24V x 4.5kW
o Battery Voltage	24V
o Battery Capacity	150AH x 2ea (recommended)





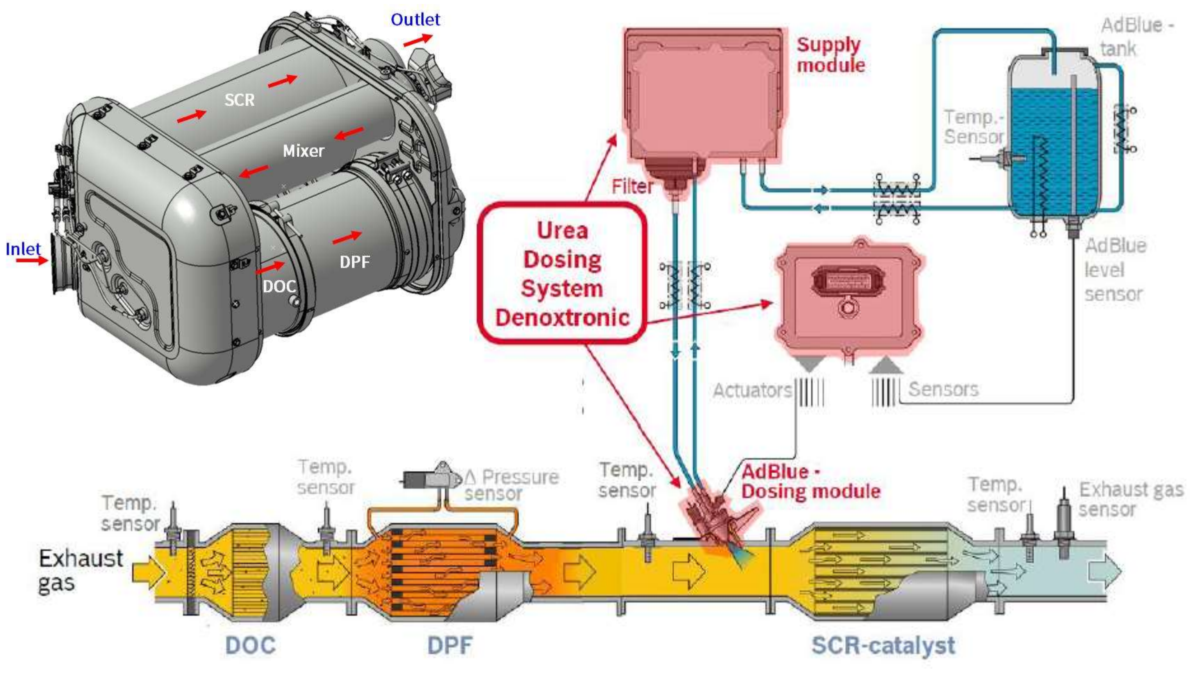
DL06P EURO VI

◎ Performance Curve



DL06 280PS	Declared Torque		Declared Power	
rpm	kgfm	Nm	PS	kW
800	64.0	627.8	71.5	52.6
1000	79.0	775.0	110.3	81.1
1200	100.0	981.0	167.6	123.2
1400	102.0	1000.6	199.4	146.6
1600	102.0	1000.6	227.9	167.6
1800	102.0	1000.6	256.4	188.5
2000	96.0	941.8	268.1	197.2
2200	90.0	882.9	276.5	203.3
2400	83.0	814.2	278.1	204.6
2500	80.5	789.7	281.0	206.7
2750	1.0	9.8	3.8	2.8

◎ Aftertreatment System



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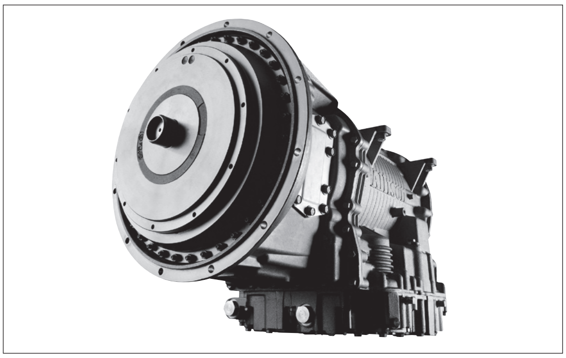
※ Specifications are subject to change without prior notice

Allison Torqmatic™



T325 (R) specification

For Applications with engines up to 220 kW (295 hp) gross input power and up to 1200 N•m gross input torque.

RATINGS

	Gross Input Torque N•m	Gross Input Power[(1)] kW (hp)	GVW kg	Vocations
City Bus	1200	213 (285)	29,000	City Bus
Tour Coach	1200	220 (295)	27,000	Tour Coach

(1). Gross Power rating as defined by ISO 1585 or SAE J1995.

DRIVETRAIN INTERFACES

Acceptable full-load engine governed speed	1950 – 2800 rpm
Acceptable engine idle speed range (with transmission in Drive)	500 – 800 rpm
Maximum output shaft speed at 105 km/hr - retarder-equipped models only	3600 rpm

MOUNTING

To Engine	SAE No.2
In Chassis	Rear support available (required for some installations)

TORQUE CONVERTER

Type One stage, three element, polyphase. Includes standard integral damper which is operational in lockup.

Model	Stall Torque Ratio
TC-411	2.71
TC-413	2.44
TC-415	2.35
TC-417	2.20
TC-418	1.98
TC-419	2.02
TC-421	1.77

MECHANICAL RATIOS (Gear ratios do not include torque converter multiplication)

Range

First	3.49 : 1
Second	1.86 : 1
Third	1.41 : 1
Fourth	1.00 : 1
Fifth	0.75 : 1
Sixth	0.65 : 1
Reverse	-5.03 : 1

CONTROL SYSTEM

Description Allison 5th Generation Electronic Controls with closed loop adaptive shifts

Shift Sequences [C = Converter mode (lockup clutch disengaged); L = Lockup mode (lockup clutch engaged)]

City Bus	Tour Coach
Standard: 1C–[1L]–2C–2L–3L–4L–5L	Standard: 1C–[1L]–2C–2L–3L–4L–5L
Optional: 1C–[1L]–2C–2L–3L–4L–5L–6L	Optional: 1C–[1L]–2C–2L–3L–4L–5L–6L
Optional: 1C–[1L]–2C–2L–3L–4L	Optional: 1C–[1L]–2C–2L–3L–4L

TCM must be calibrated for “1L” option. Second-gear-start calibrations are not available for all vehicle applications.

Driver-to-Transmission Interface Cab-mounted shift selector, pushbutton or lever with two-digit display (range selected and range attained)

Communication Protocol - Engine/Vehicle Systems Interface SAE J1939, IESCAN, PT-CAN

T325 (R) specification

PHYSICAL DESCRIPTION

	Installation Length*	Dry Weight	Depth below transmission centerline: With Shallow Oil Sump (Standard)	Depth below transmission centerline: With Deep Oil Sump (Optional)
Basic Model	738 mm	243 kg	274 mm	328 mm
With Retarder	738 mm	279 kg	274 mm	328 mm

*Approximate length from engine housing to output flange (depending on output flange type)

OUTPUT RETARDER PROVISION (OPTION)

Type Integral, hydraulic

	Capacity: Torque	Capacity: Power
Low	1490 N•m	298 kW (400 hp)
Medium	1763 N•m	373 kW (500 hp)

OIL SYSTEM

Allison approved fluids: TES 295 and TES 389	
Capacity, excluding external circuits	
With Deep Oil Sump	27 litres
With Shallow Oil Sump	25 litres
Main circuit oil filter	Replaceable element, integral
Cooler circuit oil filter	Replaceable element, integral
Electronic oil level sensor (OLS)	Standard

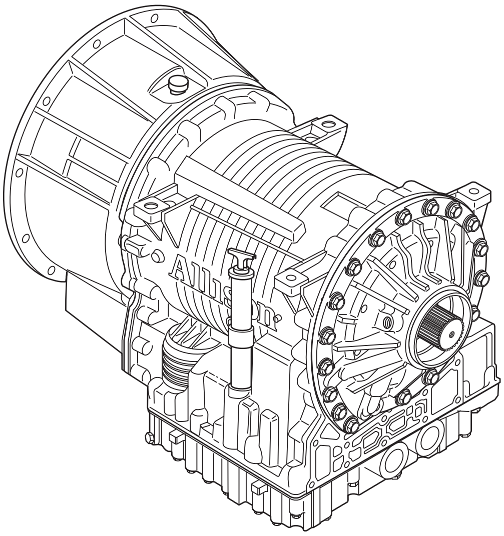
SPEEDOMETER PROVISION

Description	Non-zero-crossing square wave 8, 16 or 40 pulses per revolution of transmission output shaft
Location	Electronic output from TCM

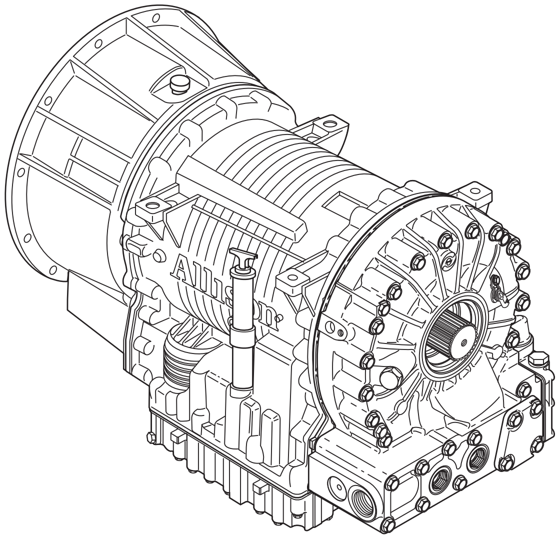
TACHOGRAPH PROVISION

Tone wheel	4 or 6-tooth
Mounting	M18 x 1.5 metric thread
Location	Transmission rear cover or retarder housing

T325



T325 (R)



Allison Transmission