DOOSAN INFRACORE INDUSTRIAL ENGINE

D34

Intermittent rating kW(HP) / rpm	Max. torque N.m(kg.m) / rpm	Aftertreatmnet System	EPA/CARB Compliance	EU Compliance
54 (74) / 2400	330 (33.7) / 1400	DOC	Tier4 F	Stage 3B
63 (85) / 2400	325 (33.1) / 1600	DOC + SCR		Stage4
69 (92) / 2400	350 (35.7) / 1600			
75 (100) / 2400	375 (38.2) / 1600			
82 (110) / 2400	430 (43.8) / 1400			
97 (130) / 2400	500 (51.0) / 1400		*Tier4 F	

**97kW can be sold in California from 2017.*

◎ MECHANICAL SYSTEM

o Engine Model	D34
o Engine Type	In-line 4 cycle Diesel, water cooled, Turbo-intercooler
o Combustion type	Direct injection
o Cylinder Type	Linerless
o Number of cylinders	4
o Bore x stroke	98 x 113 mm
o Displacement	3.409 lit.
o Compression ratio	17.0 : 1
o Firing order	1-3-4-2
o Dry weight	335 kg (w/o starter, alternator, aftertreatment)
o Dimension (LxWxH)	
889.6x655.2x804.5mm(with DOC)	
875x655.2x804.5mm(with DOC/Fan Height 475mm)	
896.9x655.2x992mm(with DOC+SCR/ up to 110HP)	
896.9x695.9x1005.4mm(with DOC+SCR/over 110HP)	
o Rotation	Counter clockwise viewed from Flywheel
o Fly wheel housing	SAE NO.3M(SAE J617)
o Fly wheel	Clutch 11 1/2"(SAE J620)
o Number of teeth (Flywheel)	125

◎ FUEL SYSTEM

o Injection pump	DELPHI DFP 4.2
o Governor	Controlled by ECU
o Feed pump	N/A
o Injection nozzle	Multi hole type
o Fuel filter	Full flow, cartridge type
o Used fuel	EN590

◎ LUBRICATION SYSTEM

o Lub. Method	Fully forced pressure feed type
o Oil pump	Gear type driven by crankshaft
o Oil filter	Full flow, cartridge type
o Oil pan capacity	High level 12.6 liters(except 130HI
	Low level 6.0 liters(except 130HP)
	High level 14.3 liters(130HP)
	Low level 6.4 liters(130HP)
o Angularity limit	35 deg all around
o Lub. Oil	10W30 CJ-4 (Refer to Operation Manual)
o Maximum oil temp	135℃ at main oil gallery
o Lub oil pressure	Idle Speed : Min 100 kPa

◎ ENGINEERING DATA

o Water flow	114 liters/min @2,400 rpm (100HP)
o Heat rejection	
-.to coolant	12.0 kcal/sec @2,400 rpm (74HP)
-.to coolant	14.2 kcal/sec @2,400 rpm (100HP)
-.to coolant	14.9 kcal/sec @2,400 rpm (110HP)
-.to coolant	16.2 kcal/sec @2,400 rpm (130HP)
-.to CAC	2.2 kcal/sec @2,400 rpm (74HP)
-.to CAC	2.6 kcal/sec @2,400 rpm (100HP)
-.to CAC	2.8 kcal/sec @2,400 rpm (110HP)
-.to CAC	3.6 kcal/sec @2,400 rpm (130HP)
o Air flow	5,280 liter/min @2,400 rpm (100HP)
o Exhaust gas temp.	750 °C ↓ @2,400 rpm
o Max. permissible restrictions	
-.Intake system	2.16 kPa clean filter
	6.23 kPa dirty filter
-.Exhaust system	20 kPa max.(DOC only version)
	30 kPa max.(DOC+SCR version)

◎ VALVE SYSTEM

o Type	Over head valve
o Number of valve	Intake 2, exhaust 2 per cylinder
o Valve lashes	Intake 0.4mm
(@ cold)	Exhaust 0.45mm

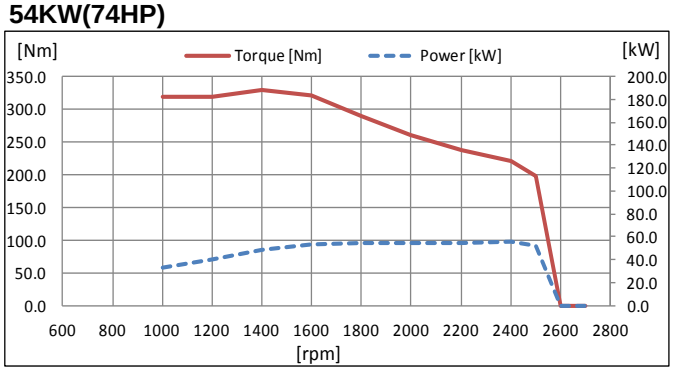
◎ COOLING SYSTEM

o Cooling method	Fresh water forced circulation
o Water capacity	Approx. 5.1 lit
(engine only)	
o Water pump	Centrifugal type driven by belt
o Thermostat	Wax – pellet type
	Opening temp. 82°C
	Full open temp. 97°C
o Cooling fan	Not Available
o Water Temperature	110℃ (max.)

◎ ELECTRICAL SYSTEM

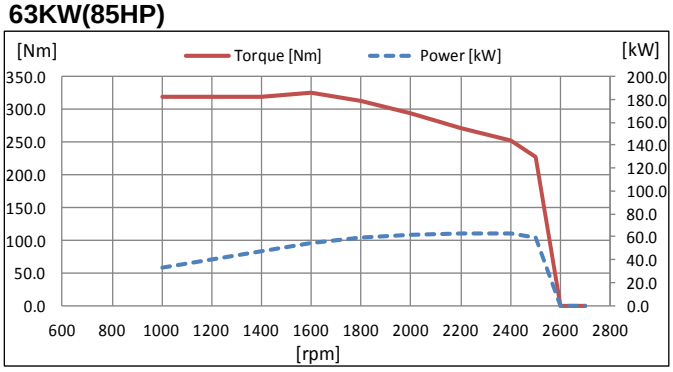
o Battery Charging	12V x 90A
Alternator	
o Voltage regulator	Built-in type IC regulator
o Starting motor	12V x 2.7kW
o Battery Voltage	12V
o Battery Capacity	100 Ah, 950CCA ↑ (recommended
o Starting Aid	Air heater

54KW(74HP)



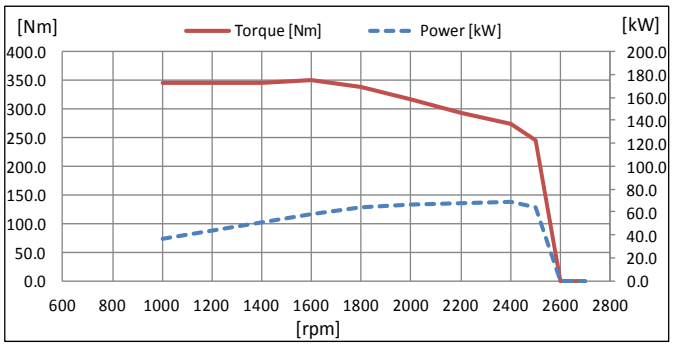
	Power			Torque	
speed	kW	PS	HP	Nm	kgm
1000	33.5	45.6	44.9	320.0	32.6
1200	40.2	54.7	53.9	320.0	32.6
1400	48.4	65.8	64.9	330.0	33.7
1600	54.0	73.4	72.4	322.0	32.8
1800	54.5	74.1	73.1	289.3	29.5
2000	54.6	74.2	73.2	260.7	26.6
2200	54.7	74.4	73.4	237.5	24.2
2400	55.3	75.2	74.1	220.0	22.4
2500	51.8	70.5	69.5	198.0	20.2
2600	0.0	0.0	0.0	0.0	0.0

63KW(85HP)



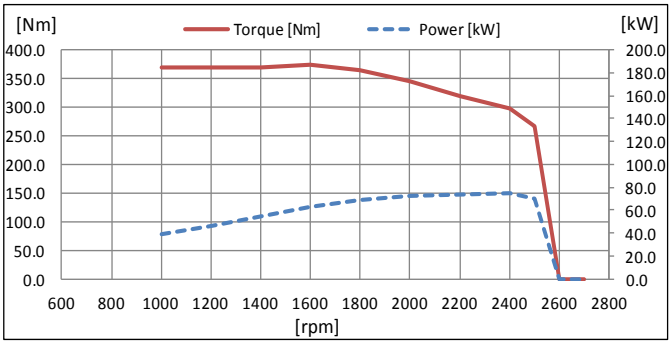
	Power			Torque	
speed	kW	PS	HP	Nm	kgm
1000	33.5	45.6	44.9	320.0	32.6
1200	40.2	54.7	53.9	320.0	32.6
1400	46.9	63.8	62.9	320.0	32.6
1600	54.5	74.0	73.0	325.0	33.1
1800	58.8	80.0	78.9	312.0	31.8
2000	61.8	84.0	82.9	295.0	30.1
2200	62.7	85.2	84.0	272.0	27.7
2400	63.4	86.2	85.0	252.3	25.7
2500	59.5	80.8	79.7	227.1	23.2
2600	0.0	0.0	0.0	0.0	0.0

69KW(92HP)



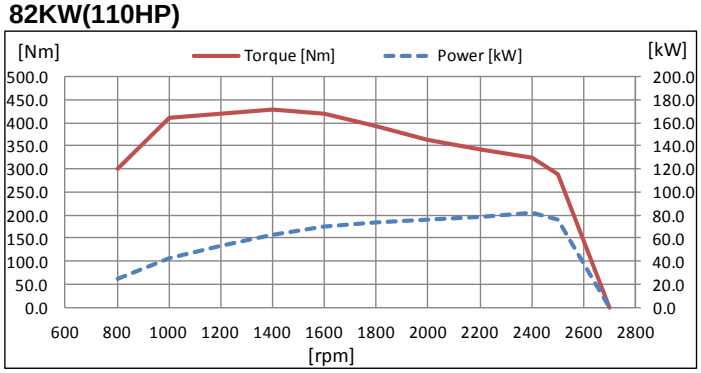
	Power			Torque	
speed	kW	PS	HP	Nm	kgm
1000	36.1	49.1	48.4	345.0	35.2
1200	43.4	58.9	58.1	345.0	35.2
1400	50.6	68.8	67.8	345.0	35.2
1600	58.6	79.7	78.6	350.0	35.7
1800	63.7	86.6	85.4	338.0	34.5
2000	66.6	90.6	89.3	318.0	32.4
2200	67.7	92.1	90.8	294.0	30.0
2400	68.6	93.3	92.0	273.1	27.8
2500	64.4	87.5	86.3	245.8	25.1
2600	0.0	0.0	0.0	0.0	0.0

75KW(100HP)



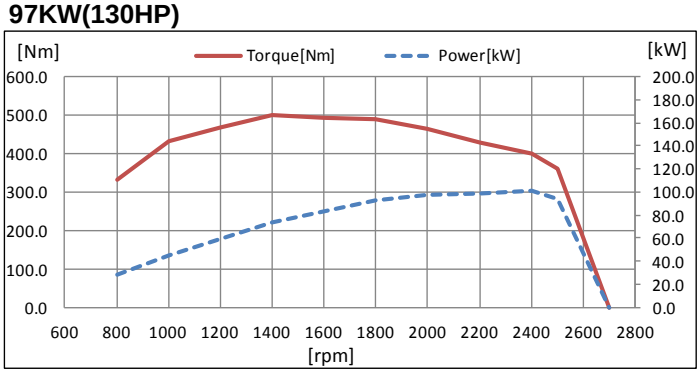
	Power			Torque	
speed	kW	PS	HP	Nm	kgm
1000	38.7	52.7	52.0	370.0	37.7
1200	46.5	63.2	62.4	370.0	37.7
1400	54.2	73.8	72.7	370.0	37.7
1600	62.8	85.4	84.3	375.0	38.2
1800	68.8	93.5	92.3	365.0	37.2
2000	72.3	98.2	96.9	345.0	35.2
2200	73.7	100.2	98.9	320.0	32.6
2400	74.6	101.5	100.1	297.0	30.3
2500	70.0	95.1	93.8	267.3	27.3
2600	0.0	0.0	0.0	0.0	0.0

82KW(110HP)



	Power			Torque	
speed	kW	PS	HP	Nm	kgm
800	25.1	34.2	33.7	300.0	30.6
1000	42.9	58.4	57.6	410.0	41.8
1200	52.8	71.8	70.8	420.0	42.8
1400	63.0	85.7	84.5	430.0	43.8
1600	70.4	95.8	94.5	420.4	42.9
1800	73.9	100.5	99.2	392.3	40.0
2000	76.3	103.7	102.3	364.1	37.1
2200	78.6	106.8	105.4	341.1	34.8
2400	81.9	111.4	109.9	326.0	33.2
2500	75.9	103.2	101.7	289.8	29.6
2700	0.0	0.0	0.0	0.0	0.0

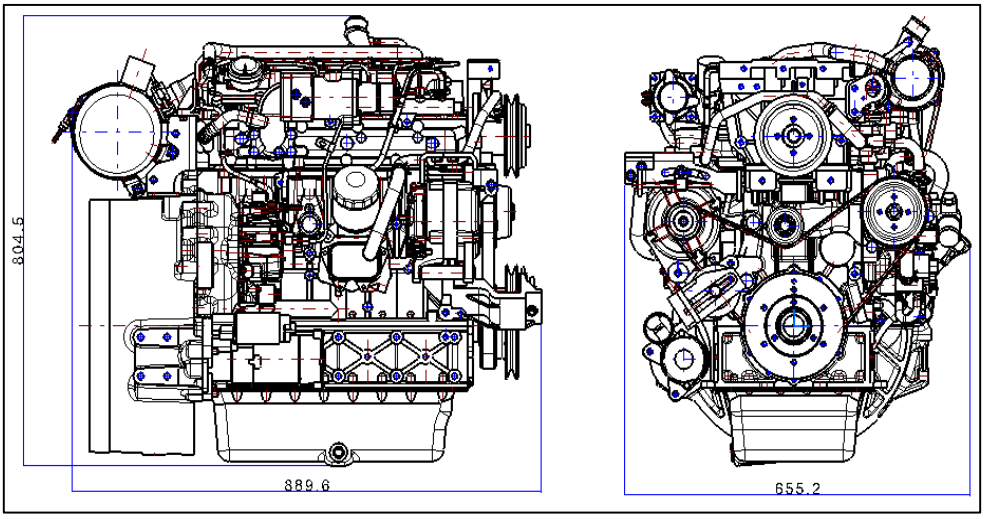
97KW(130HP)



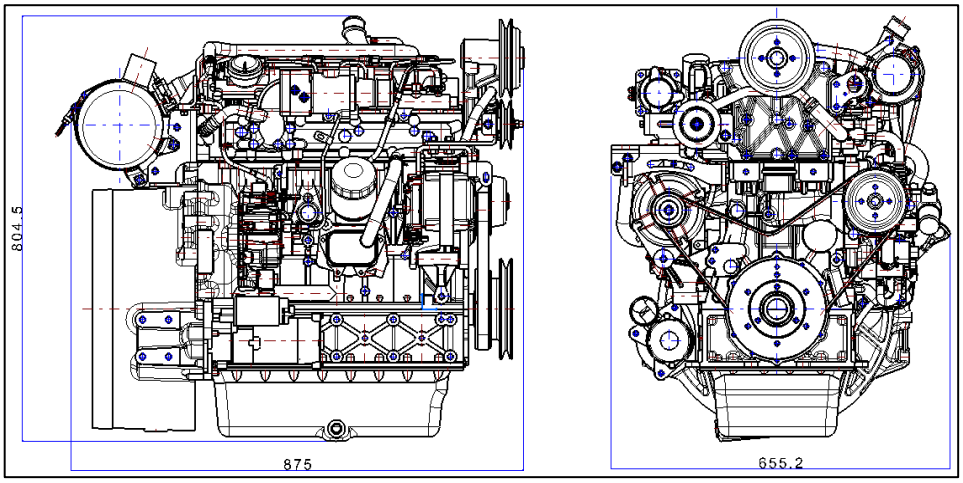
	Power			Torque	
speed	kW	PS	HP	Nm	kgm
800	25.1	34.2	33.7	300.0	30.6
1000	42.9	58.4	57.6	410.0	41.8
1200	58.8	80.0	78.9	468.0	47.7
1400	73.3	99.7	98.3	500.0	51.0
1600	79.9	108.7	107.2	477.0	48.6
1800	85.6	116.4	114.8	454.0	46.3
2000	90.3	122.7	121.1	431.0	43.9
2200	94.2	128.1	126.4	409.0	41.7
2400	97.0	131.9	130.1	386.0	39.4
2500	69.9	`	93.7	267.0	27.2
2700	0.0	0.0	0.0	0.0	0.0

o Dimension (LxWxH)

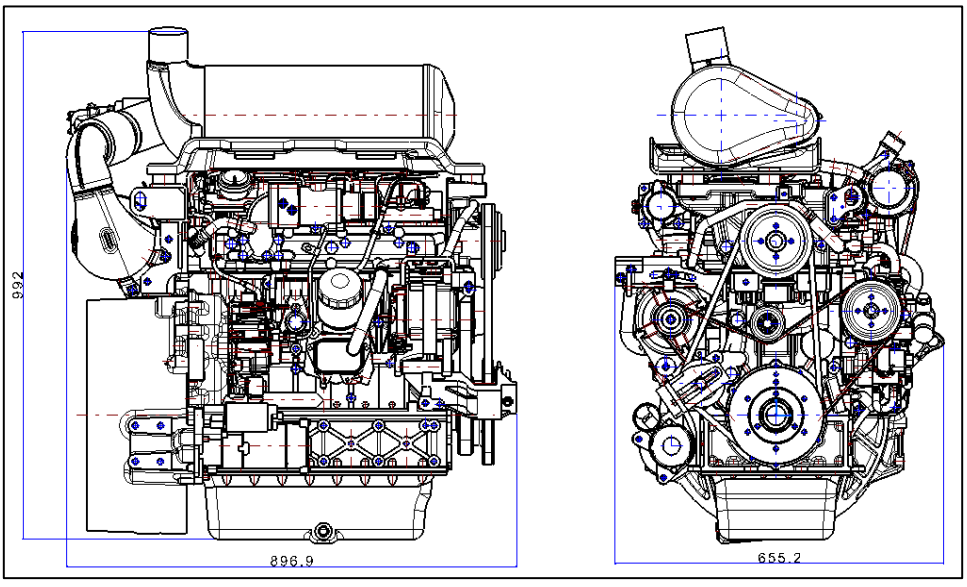
-D34_74HP_DOC only 889.6x655.2x804.5mm(with DOC)



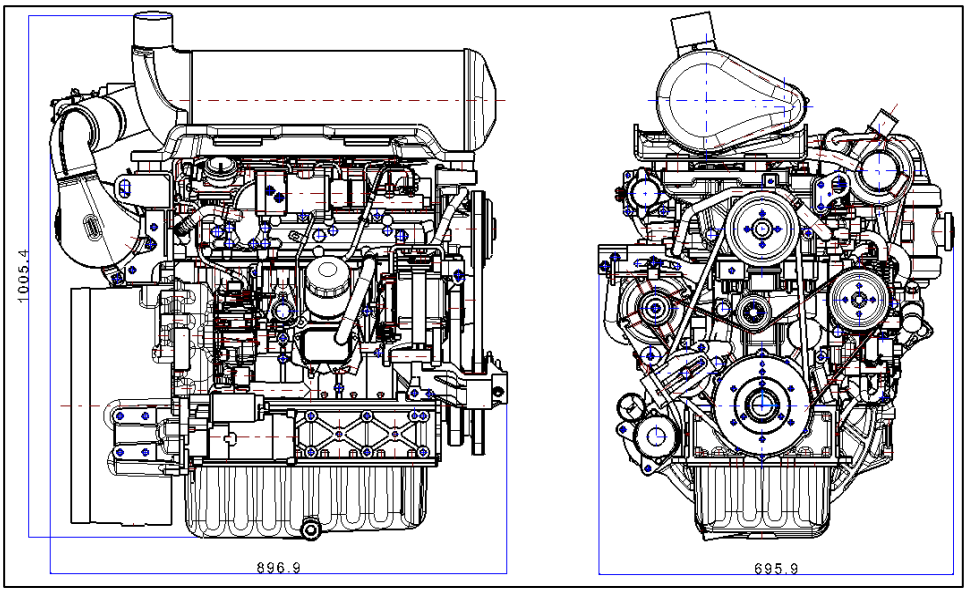
-D34_74HP_DOC only (Fan Heigh option_475mm) 875x655.2x804.5mm(with DOC/Fan Height 475mm)



-D34_Up to 110HP_DOC+SCR 896.9x655.2x992mm(with DOC+SCR/ up to 110HP)



-D34_Over 110HP_DOC+SCR 896.9x695.9x1005.4mm(with DOC+SCR/over 110HP)



◆ CONVERSION TABLE

in. = mm x 0.0394	lb/ft = N.m x 0.737
PS = kW x 1.3596	U.S. gal = lit. x 0.264
psi = kg/cm2 x 14.2	kW = 0.2388 kcal/s
in3 = lit. x 61.02	lb/PS.h = g/kW.h x 0.00162
hp = PS x 0.98635	cfm = m3/min x 35.336
lb = kg x 2.20462	

Revised : 6th, September, 2016

※ Speccifications are subject to change without prior notice