

AIR COOLED DIESEL ENGINES

2.7 – 8.8 kW | 3.7 – 12.0 hp



KOHLER[®]
IN POWER. SINCE 1920.

AIR COOLED DIESEL ENGINES



STANDARD EQUIPMENT

- Recoil starting with automatic compression release §
- Fuel tank
- Fuel filter
- Dry air cleaner
- Muffler with guard
- Accelerator and stop manual control
- Manual compression release*
- Automatic deaeration on injection pump
- Wire mesh oil filter
- Conical power take-off
- External safety fuel filter
- Automatic fuel control during start
- User maintenance and spare parts booklet

Specific for KD15-440 model:

- Hydraulic tappets
- High capacity dry air cleaner
- Fuel tank drain tap
- 3 years warranty

§ Not on KD15-500 model

* On KD15-500 model only

ACCESSORIES ON DEMAND

- | | | |
|---|-------------------------------------|--|
| Power take-off flywheel side (engines with electrical starting) | Accelerator and stop remote control | Grass protection for engine cooling |
| Power take-offs with flanging and special shaft | Oil pressure switch | Alternator with voltage regulator 12 V or 24 V |
| Lateral power take-off* | Oil temperature switch | Oil level sensor switch |
| Internal dynamic balancer | Oil bath air cleaner | High capacity oil sump (KD15-350 and KD15-440) |
| Electric start 12V / 24 V | Cylinder head temperature switch | High capacity oil and fuel filters for remote assembly** |
| Keyswitch panel | Glow plug on intake manifold | Single lever control |
| Fuel lift pump | Stop with solenoid valve | Control lever guard |
| Emergency stop through electrovalve | Recoil with denoising cover | |

**On KD15-350 and KD15-440

Specific for KD15-440 model:

- In-tank fuel pre-filter
- Cyclonic air intake pre-filter
- Air filter clogging indicator, integrated into the engine
- External spin on oil filter

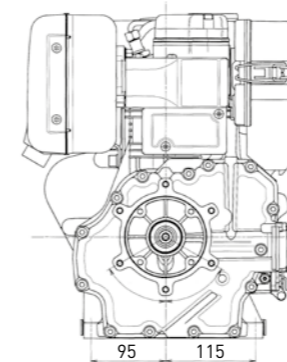
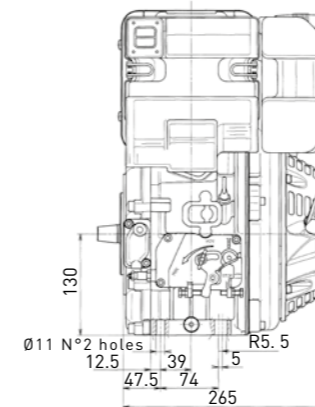
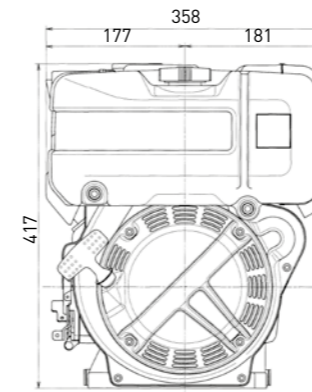
KD15

225



DATA

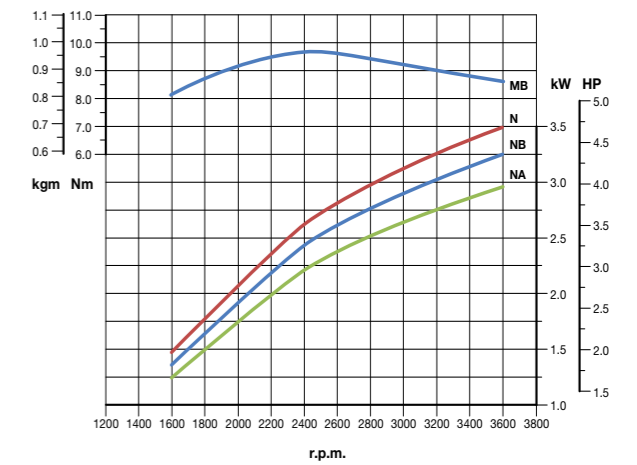
Dimensions (mm)



PERFORMANCE CURVES

(IFN-ACCORDING TO ISO 3046 and ISO 14396)

KD15-225 ECE R 24



- N - Power curve - 80/1269/CE E-ISO 1585
- NB - Power curve - ISO 3046/1 - IFN
- NA - Power curve - ISO 3046/1 - ICXN
- MB - Torque curve - (NB curve)

Power ratings refer to engines equipped with air filter, standard muffler, after running-in period at ambient conditions of +25°C, relative humidity 30% and 1 bar. Power levels drop by 1% every 100 m altitude and by 2% every 5°C above +25°C.

Quick specifics

CYLINDERS	1
MAX POWER kW (hp)@rpm	3.5 (4.7) @ 3600
MAX TORQUE Nm@rpm	10.4 @ 2400

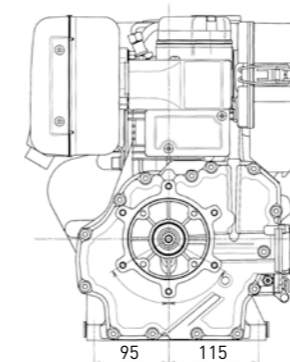
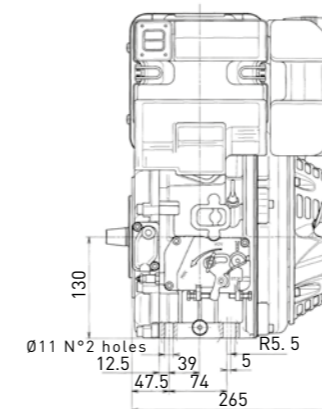
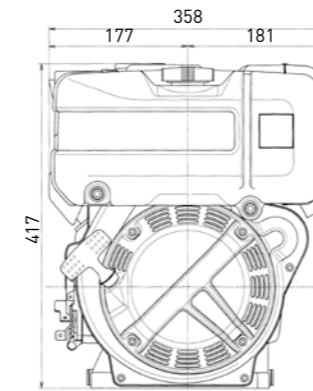
(Power & torque N curve - 80/1269/CE E-ISO 1585)

KD15 225S



DATA

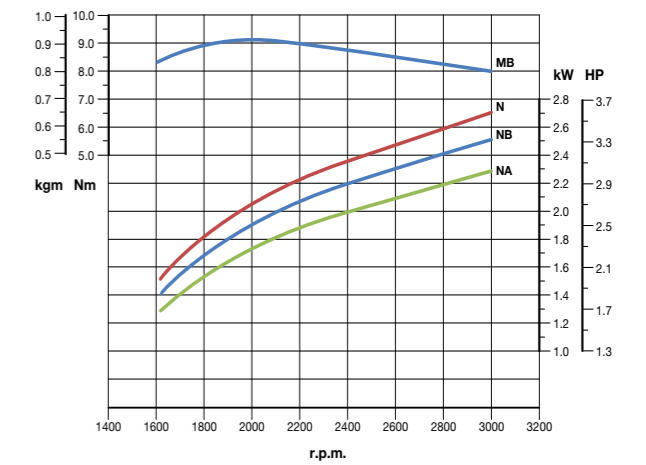
Dimensions (mm)



PERFORMANCE CURVES

(IFN-ACCORDING TO ISO 3046 and ISO 14396)

KD15-225S ECE R 24



- N - Power curve - 80/1269/CE E-ISO 1585
- NB - Power curve - ISO 3046/1 - IFN
- NA - Power curve - ISO 3046/1 - ICXN
- MB - Torque curve - (NB curve)

Power ratings refer to engines equipped with air filter, standard muffler, after running-in period at ambient conditions of +25°C, relative humidity 30% and 1 bar. Power levels drop by 1% every 100 m altitude and by 2% every 5°C above +25°C.

Sound pressure level up to 2 dBA less than the standard version

Quick specifics

CYLINDERS	1
MAX POWER kW (hp)@rpm	2.7 (3.6) @ 3000
MAX TORQUE Nm@rpm	9.8 @ 2000

(Power & torque N curve - 80/1269/CE E-ISO 1585)

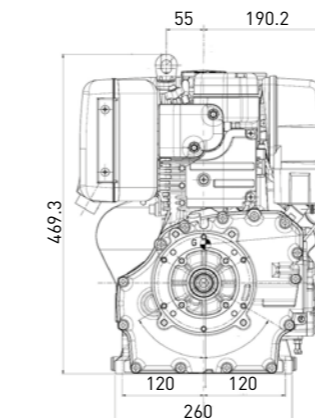
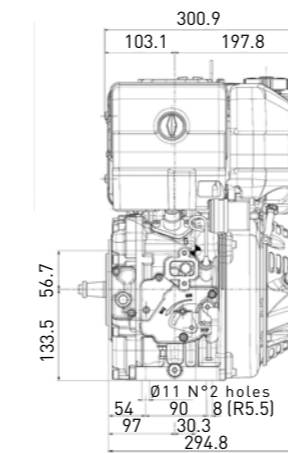
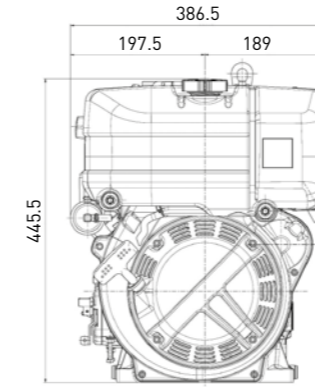
KD15

350



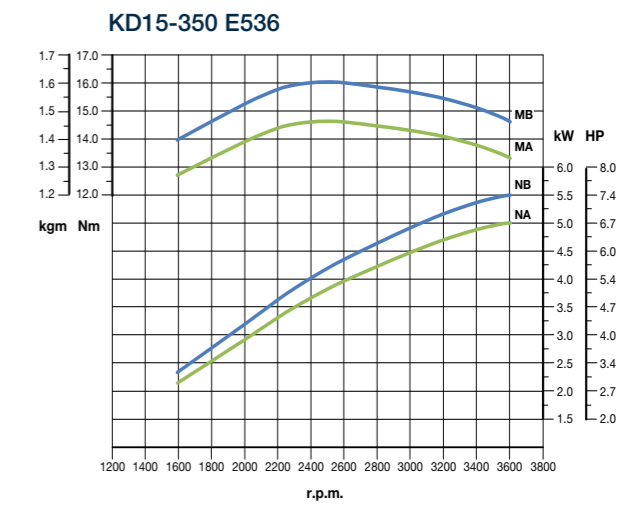
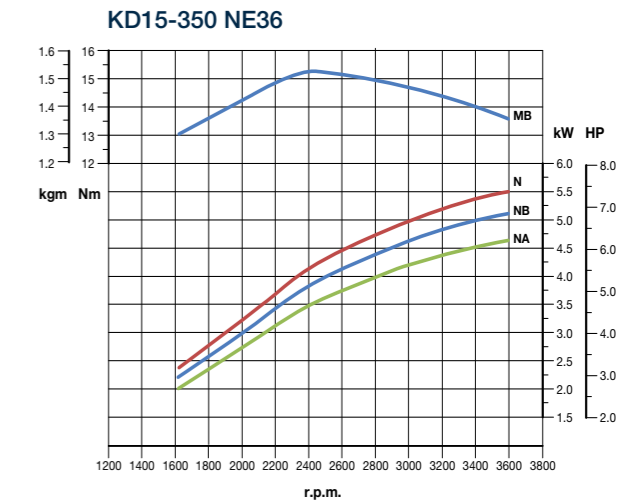
DATA

Dimensions (mm)



PERFORMANCE CURVES

(IFN-ACCORDING TO ISO 3046 and ISO 14396)



- N - Power curve - 80/1269/CE E-ISO 1585
- NB - Power curve - ISO 3046/1 - IFN
- NA - Power curve - ISO 3046/1 - ICXN
- MB - Torque curve - (NB curve)
- MA - Torque curve - (NA curve)

Power ratings refer to engines equipped with air filter, standard muffler, after running-in period at ambient conditions of +25°C, relative humidity 30% and 1 bar. Power levels drop by 1% every 100 m altitude and by 2% every 5°C above +25°C.

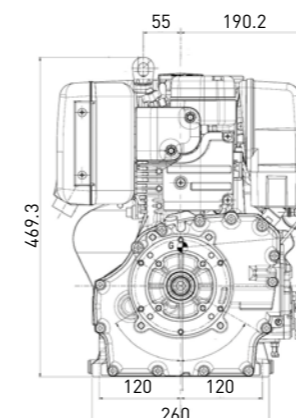
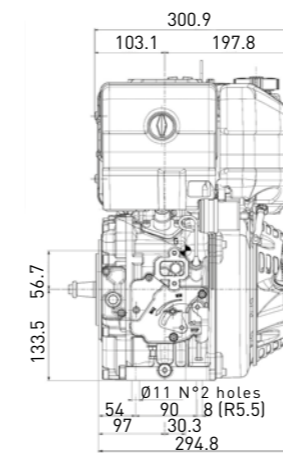
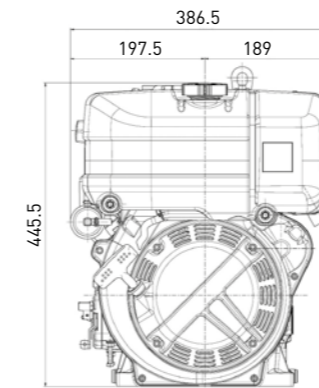
Quick specifics	KD15-350 NE36	KD15-350 U436	KD15-350 E536
CYLINDERS	1	1	1
MAX POWER kW (hp)@rpm	5.1 (6.8) @ 3600	5.0 (6.7) @ 3600	5.5 (7.4) @ 3600
MAX TORQUE Nm@rpm	15.3 @ 2400	14.6 @ 2500	16.0 @ 2500
EMISSION COMPLIANCE	-	US TIER 4 Final	EU STAGE V
OPERATING SPEED	Variable speed	Single speed	Variable speed

(Power & torque NB curve - ISO 3046/1 - IFN)

KD15 350S

DATA

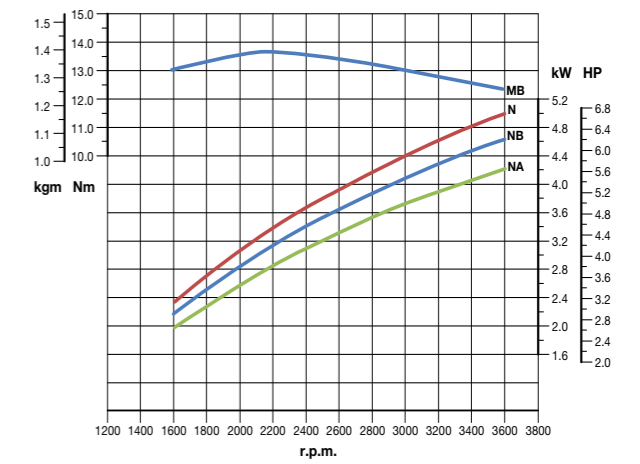
Dimensions (mm)



PERFORMANCE CURVES

(IFN-ACCORDING TO ISO 3046 and ISO 14396)

KD15-350S ECE R 24



- N - Power curve - 80/1269/CE E-ISO 1585
- NB - Power curve - ISO 3046/1 - IFN
- NA - Power curve - ISO 3046/1 - ICXN
- MB - Torque curve - (NB curve)

Power ratings refer to engines equipped with air filter, standard muffler, after running-in period at ambient conditions of +25°C, relative humidity 30% and 1 bar. Power levels drop by 1% every 100 m altitude and by 2% every 5°C above +25°C.

Sound pressure level up to 2 dBA less than the standard version



Quick specifics

CYLINDERS	1
MAX POWER kW (hp)@rpm	5.0 (6.7) @ 3600
MAX TORQUE Nm@rpm	14.7 @ 2200

(Power & torque N curve - 80/1269/CE E-ISO 1585)

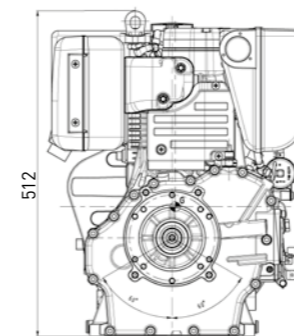
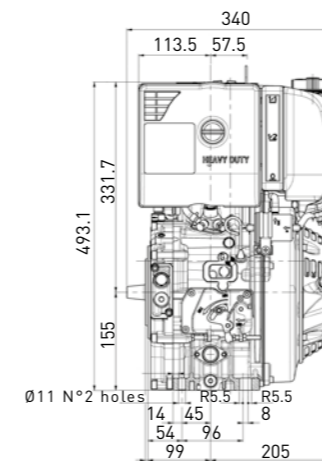
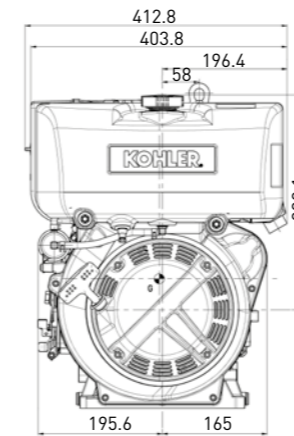
KD15

440



DATA

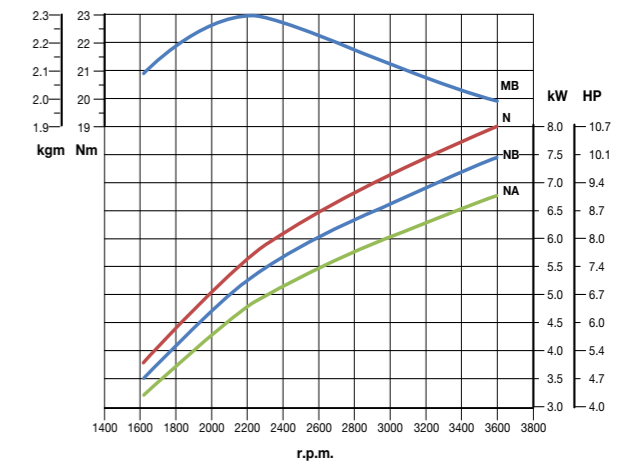
Dimensions (mm)



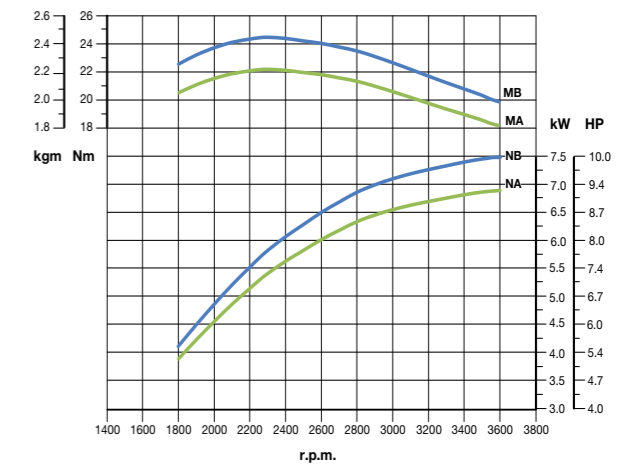
PERFORMANCE CURVES

(IFN-ACCORDING TO ISO 3046 and ISO 14396)

KD15-440 NE36



KD15-440 E536



- N - Power curve - 80/1269/CE E-ISO 1585
- NB - Power curve - ISO 3046/1 - IFN
- NA - Power curve - ISO 3046/1 - ICXN
- MB - Torque curve - (NB curve)
- MA - Torque curve - (NA curve)

Power ratings refer to engines equipped with air filter, standard muffler, after running-in period at ambient conditions of +25°C, relative humidity 30% and 1 bar. Power levels drop by 1% every 100 m altitude and by 2% every 5°C above +25°C.

Quick specifics	KD15-440 NE36	KD15-440 U436	KD15-440 E536
CYLINDERS	1	1	1
MAX POWER kW (hp)@rpm	7.5 (10.1) @ 3600	7.0 (9.4) @ 3600	7.5 (10.1) @ 3600
MAX TORQUE Nm@rpm	23 @ 2200	23 @ 2200	24.5 @ 2200
EMISSION COMPLIANCE	-	US TIER 4 Final	EU STAGE V
OPERATING SPEED	Variable speed	Single speed	Variable speed

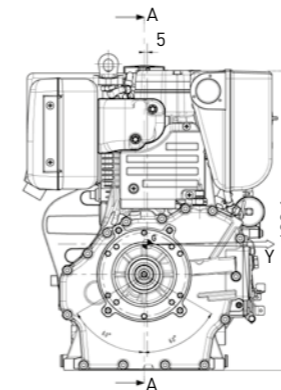
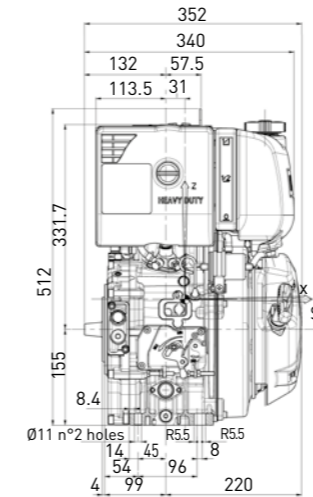
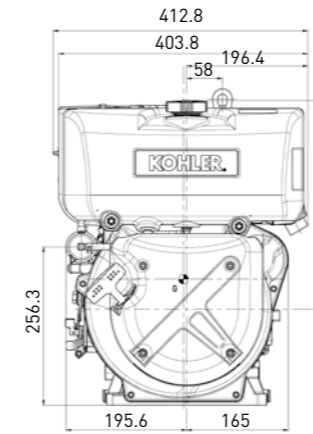
(Power & torque NB curve - ISO 3046/1 - IFN)

KD15 440S



DATA

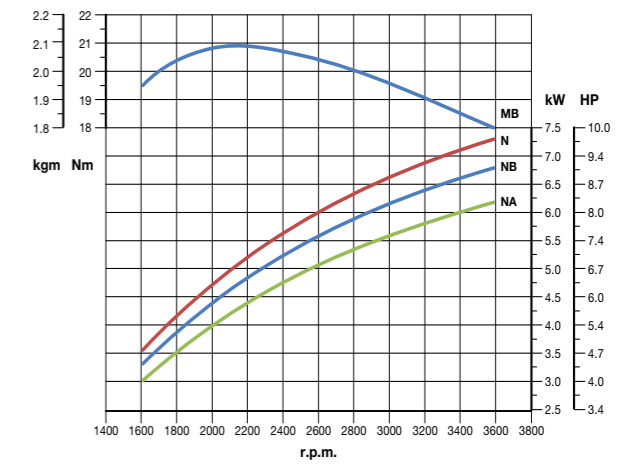
Dimensions (mm)



PERFORMANCE CURVES

(IFN-ACCORDING TO ISO 3046 and ISO 14396)

KD15-440S ECE R 24



- N - Power curve - 80/1269/CE E-ISO 1585
- NB - Power curve - ISO 3046/1 - IFN
- NA - Power curve - ISO 3046/1 - ICXN
- MB - Torque curve - (NB curve)

Power ratings refer to engines equipped with air filter, standard muffler, after running-in period at ambient conditions of +25°C, relative humidity 30% and 1 bar. Power levels drop by 1% every 100 m altitude and by 2% every 5°C above +25°C.

Sound pressure level up to 2 dBA less than the standard version

Quick specifics

CYLINDERS	1
MAX POWER kW (hp)@rpm	7.3 (9.8) @ 3600
MAX TORQUE Nm@rpm	22.5 @ 2100

(Power & torque N curve - 80/1269/CE E-ISO 1585)

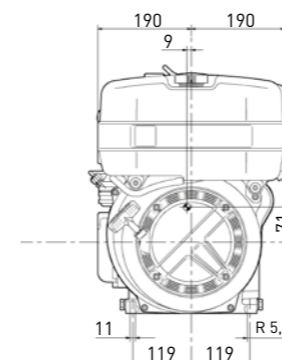
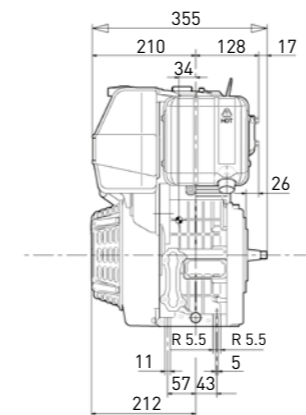
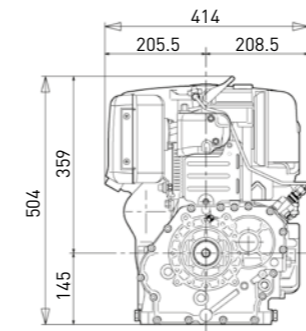
KD15

500



DATA

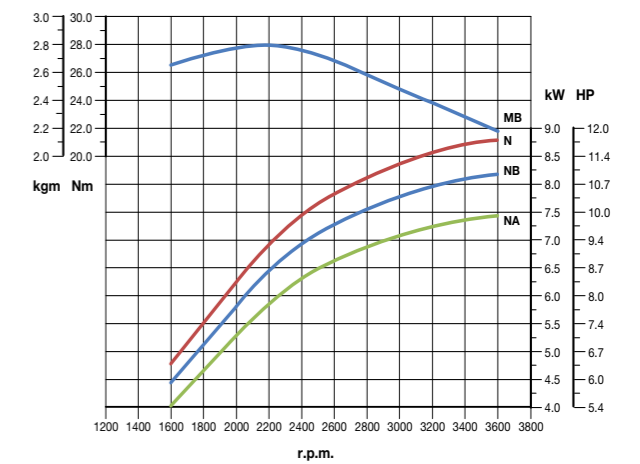
Dimensions (mm)



PERFORMANCE CURVES

(IFN-ACCORDING TO ISO 3046 and ISO 14396)

KD15-500 ECE R 24



- N - Power curve - 80/1269/CE E-ISO 1585
- NB - Power curve - ISO 3046/1 - IFN
- NA - Power curve - ISO 3046/1 - ICXN
- MB - Torque curve - (NB curve)

Power ratings refer to engines equipped with air filter, standard muffler, after running-in period at ambient conditions of +25°C, relative humidity 30% and 1 bar. Power levels drop by 1% every 100 m altitude and by 2% every 5°C above +25°C.

Setting @ 3000 rpm

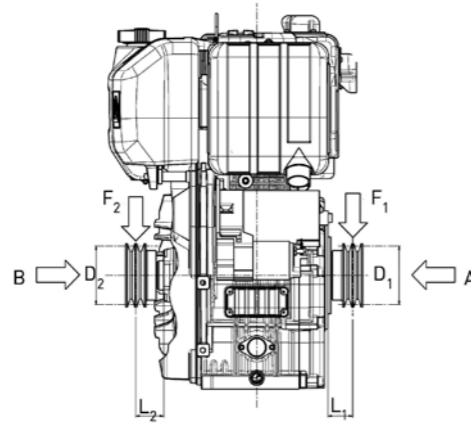
Power N* (kW)	Torque N* (Nm)
8.2 @ 3000 rpm	30 @ 2200 rpm

Quick specifics

CYLINDERS	1
MAX POWER kW (hp)@rpm	8.8 (11.8) @ 3600
MAX TORQUE Nm@rpm	30 @ 2200

(Power & torque N curve - 80/1269/CE E-ISO 1585)

APPLICATION SPECS



KD15-225/225S

Minimum pulley diameters for belt drive

$$D_2 \text{ (mm)} \geq 740 [90 + L_2 \text{ (mm)}] \frac{N \text{ (kW)}}{n \text{ (rpm)}}$$

$$D_1 \text{ (mm)} \geq 820 [55 + L_1 \text{ (mm)}] \frac{N \text{ (kW)}}{n \text{ (rpm)}}$$

Max intermittent axial load in both directions A - B = 150 kg

Max radial force on pulley for belt drive

$$F_2 \text{ (N)} \leq \frac{77000}{90+L_2 \text{ (mm)}}$$

$$F_1 \text{ (N)} \leq \frac{70000}{55+L_1 \text{ (mm)}}$$

KD15-350/350S

Minimum pulley diameters for belt drive

$$D_2 \text{ (mm)} \geq 860 [60 + L_2 \text{ (mm)}] \frac{N \text{ (kW)}}{n \text{ (rpm)}}$$

$$D_1 \text{ (mm)} \geq 820 [55 + L_1 \text{ (mm)}] \frac{N \text{ (kW)}}{n \text{ (rpm)}}$$

Max intermittent axial load in both directions A - B = 200 kg

Max radial force on pulley for belt drive

$$F_2 \text{ (N)} \leq \frac{67000}{60+L_2 \text{ (mm)}}$$

$$F_1 \text{ (N)} \leq \frac{70000}{55+L_1 \text{ (mm)}}$$

KD15-440/440S

Minimum pulley diameters for belt drive

$$D_2 \text{ (mm)} \geq 620 [66 + L_2 \text{ (mm)}] \frac{N \text{ (kW)}}{n \text{ (rpm)}}$$

$$D_1 \text{ (mm)} \geq 650 [53 + L_1 \text{ (mm)}] \frac{N \text{ (kW)}}{n \text{ (rpm)}}$$

Max intermittent axial load in both directions A - B = 2000 N Max

Max radial force on pulley for belt drive

$$F_1 \text{ (N)} \leq \frac{89000}{53+L_1 \text{ (mm)}}$$

$$F_2 \text{ (N)} \leq \frac{92000}{66+L_2 \text{ (mm)}}$$

KD15-500

Minimum pulley diameters for belt drive

$$D_2 \text{ (mm)} \geq 900 [48 + L_2 \text{ (mm)}] \frac{N \text{ (kW)}}{n \text{ (rpm)}}$$

$$D_1 \text{ (mm)} \geq 570 [55 + L_1 \text{ (mm)}] \frac{N \text{ (kW)}}{n \text{ (rpm)}}$$

Max intermittent axial load in both directions A - B = 200 kg

Max radial force on pulley for belt drive

$$F_2 \text{ (N)} \leq \frac{64000}{48+L_2 \text{ (mm)}}$$

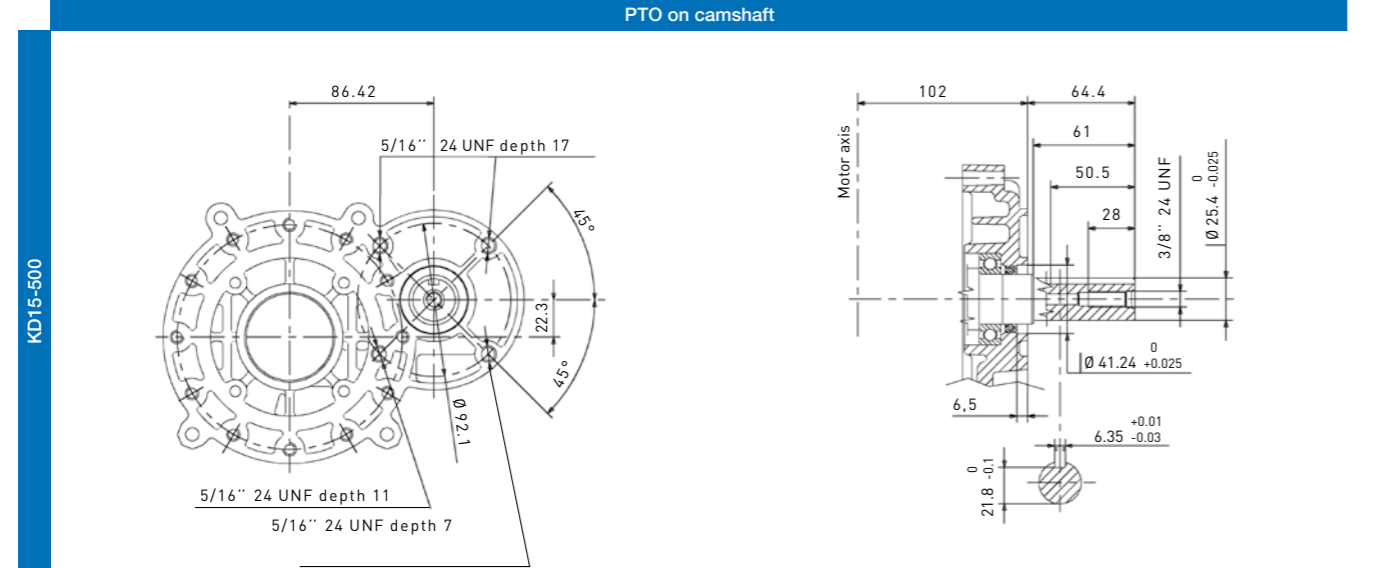
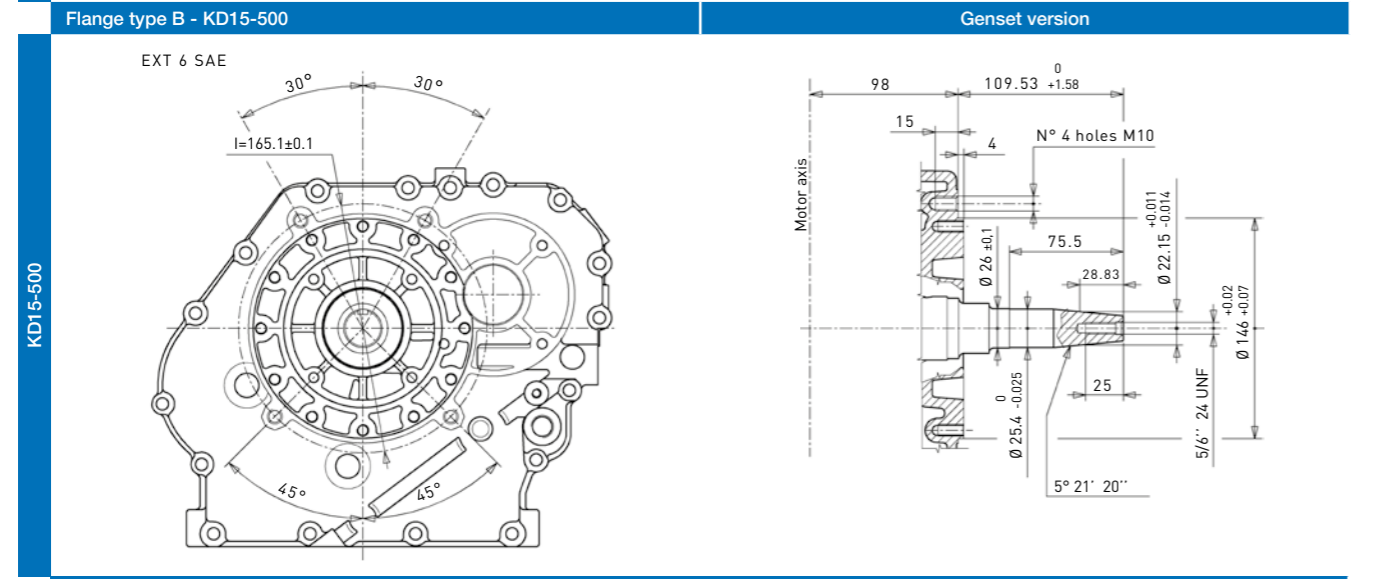
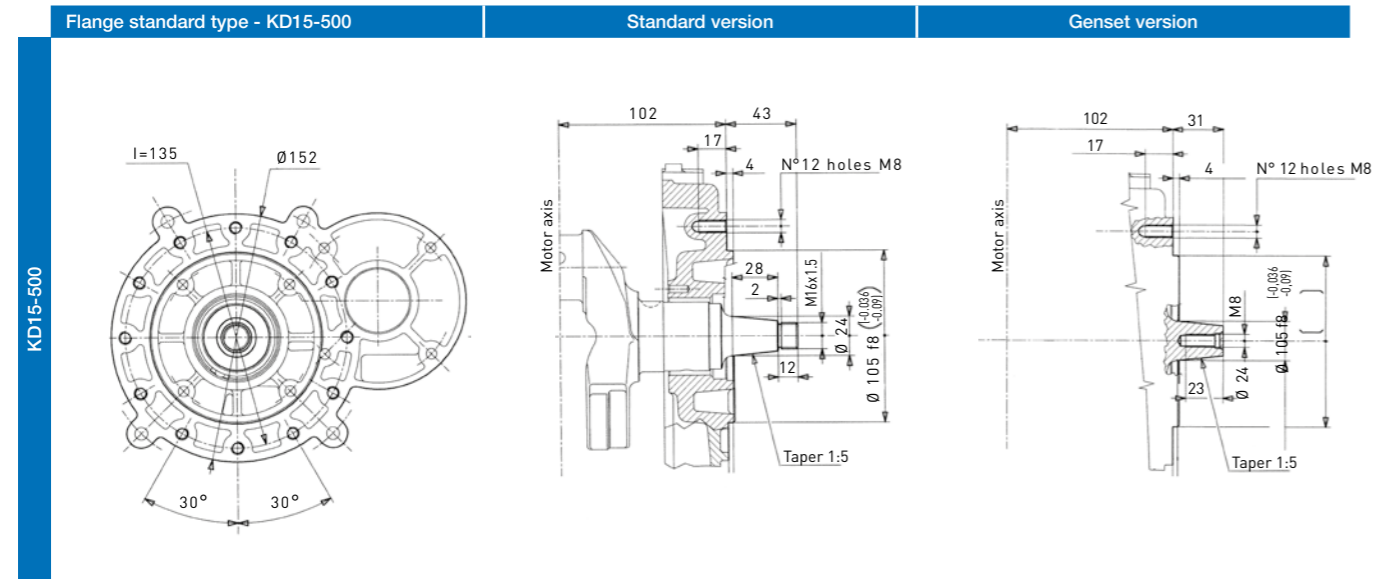
$$F_1 \text{ (N)} \leq \frac{100520}{55+L_1 \text{ (mm)}}$$

AVAILABLE FLANGES*

	Flange standard - KD15-225 / 225S and KD15-350 / 350S	Industrial version	
Standard version - KD15-225 / 225S and KD15-350 / 350S			
	Flange type A - KD15-225 / 225S	Genset version	Industrial version
KD15-225 / 225S	Flange SAE J609a	EXT a4 J609a	EXT 3 SAE J609a
KD15-350 / 350S	Flange type B - KD15-350 / 350S	Genset version	Industrial version
	Flange SAE J609a	EXT 6 SAE	EXT.4 SAE
KD15-350 / 350S			

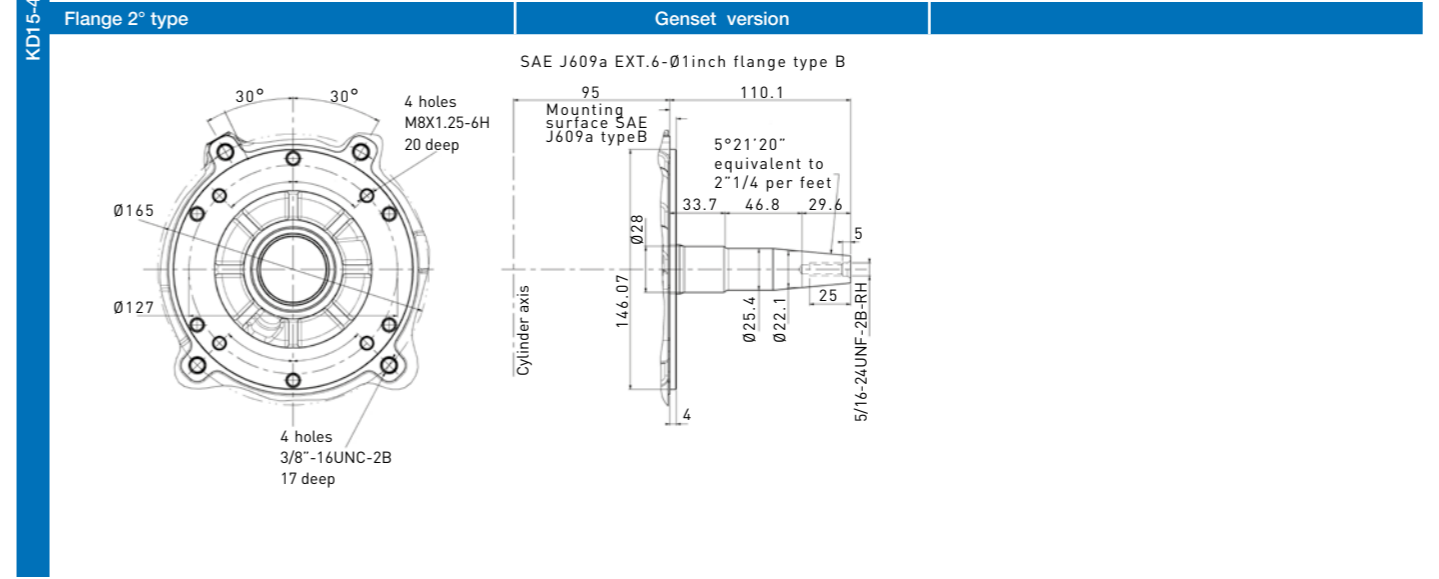
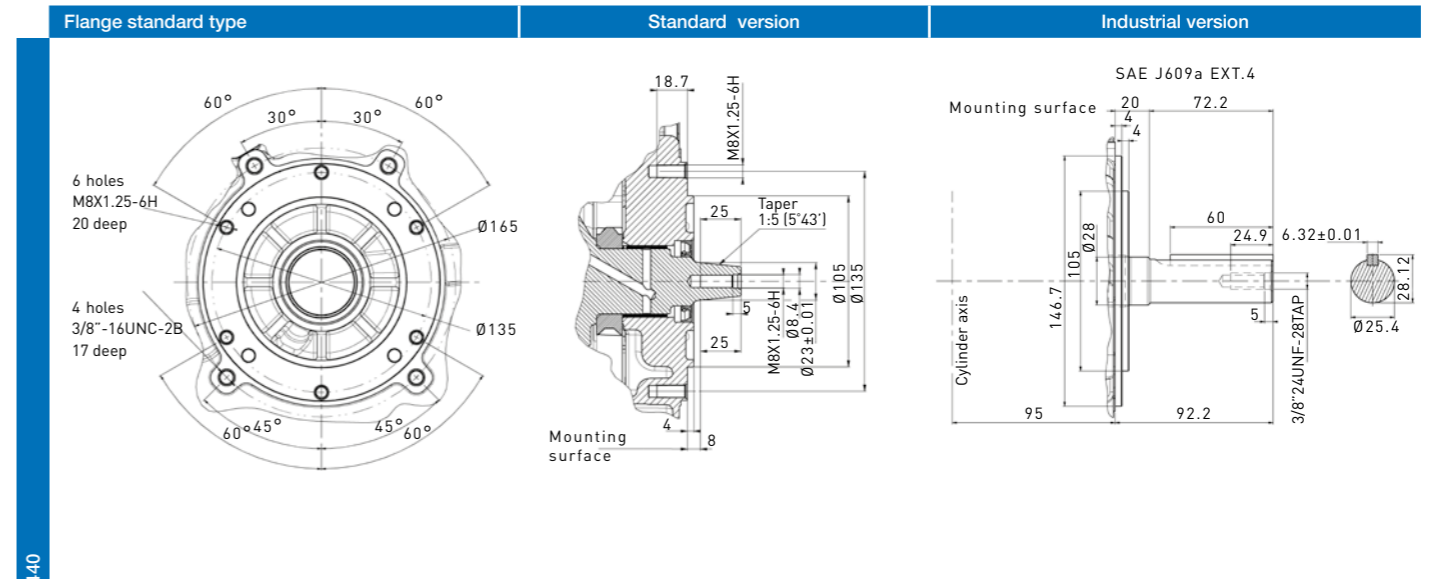
*Other flanges available on request

AVAILABLE FLANGES*



*Other flanges available on request

AVAILABLE FLANGES*



*Other flanges available on request

TECHNICAL SPECIFICATIONS

Model	KD15-225	KD15-225S	KD15-350			KD15-5350S		
Engine specs	4 stroke air cooled diesel engine	•	•	•	•	•		
	Conical power take-off on crankshaft	•	•	•	•	•		
	Anticlockwise rotation	•	•	•	•	•		
	Forced lubrication with oil pump	•	•	•	•	•		
	Centrifugal mass governor	•	•	•	•	•		
	Built-in full flow oil filter	•	•	•	•	•		
	Oil breathing blow-by with safety device	•	•	•	•	•		
	Automatic extra fuel starting device	•	•	•	•	•		
	Self bleeding fuel system	•	•	•	•	•		
	Torque adjuster	•	•	•	•	•		
	Automatic compression release	•	•	•	•	•		
	Die-cast aluminum crankcase with integral cast iron cylinder liner	•	•	•	•	•		
	Re-borable independent cast iron cylinders	-	-	-	-	-		
	Aluminum cylinder head	•	•	•	•	•		
Built-in rigid feet	•	•	•	•	•			
Hydraulic tappets	-	-	-	-	-			
Technical features	Cylinder	1	1	1			1	
	Bore (mm)	69	69	82			82	
	Stroke (mm)	60	60	66			66	
	Engine displ (cm³)	224	224	349			349	
	Injection system	DI	DI	DI			DI	
	Compression ratio	21:1	21:1	20.3:1			20.3:1	
Performance	Emission compliance	ECE R 24	-	ECE R 24	US TIER 4 F	EU STAGE V	-	
	Rating (kW/HP) N (80/1269/CEE)ISO 1585 NB ISO 3046 IFN NA ISO 3046 ICXN	(3600 rpm) 3.5 /4.8 3.3/4.5 3.1/4.2	(3000 rpm) 2.7 /3.7 2.5 /3.4 2.3 /3.1	(3600 rpm) 5.5 /7.4 5.1 /6.8 4.7/6.2	(3600 rpm) - 5.0/6.7 -	(3600 rpm) - 5.5/7.4 -	(3600 rpm) 5.0 /6.8 4.6 /6.2 4.1 /5.6	-
	Max torque (Nm@rpm)	10.4@2400	9.8@2000	15.3@2400	14.6@2500	16.0 @2500	14.7@2200	
	Min idling speed	950 ÷1000	950 ÷1000	950 ÷1000			950 ÷1000	
	EN 590	•	•	•			•	
Fuel compatibility	No 1 Diesel (US) - ASTM D 975-09 B - Grade 1-D S 15	•	•	•			•	
	No 1 Diesel (US) - ASTM D 975-09 B - Grade 1-D S 500	•	•	•			•	
	No 2 Diesel (US) - ASTM D 975-09 B - Grade 2-D S 15	•	•	•			•	
	No 2 Diesel (US) - ASTM D 975-09 B - Grade 2-D S 500	•	•	•			•	
	ARCTIC EN 590/ASTM D 975-09 B	•	•	•			•	
	High Sulfur Fuel < 5000 ppm (< 0.5%)	•	•	•			•	
	High Sulfur Fuel > 5000 ppm (> 0.5%)	•	•	•			•	
	Military NATO Fuels F34 - F35 - F44 - F63 - F64 - F65 *	•	•	•			•	
	Military US Fuels JP5 - JP8 (AVTUR) *	•	•	•			•	
	Civil Jet Fuels Jet A/ A1*	•	•	•			•	
	Fuel tank capacity (l)	3	3	4.3			4.3	
Service features	Oil sump capacity (l)	0.9	0.9	1.2			1.2	
	Oil consumption (kg/h)	0.0021	0.0021	0.0032			0.0032	
	Oil change interval std/synthetic (hr)	250**	250**	250**			250**	
	Oil filter change interval std/synthetic (hr)	500	500	500			500	
	Dry air cleaner change interval (hr)	250	250	250			250	
	Valve adjustment	500	500	500			500	
	Physical characteristics	H x L x W (fan excluded) (mm)	417 x 358 x 265	417 x 358 x 275	445.5x386.5 x300.9			446x 387 x 311
Dry weight (kg)		28	28	33			33	
Daily service points - positions		1 side service	1 side service	1 side service			1 side service	
Ambient operating temps (°C)		-10 to +50	-10 to +50	-10 to +50			-10 to +50	
Gradeability-all round (intermittent -30 min) (deg)		25°	25°	25°			25°	
Gradeability-all round (peak value -1 min) (deg)		35°	35°	35°			35°	
Cap. of air required for correct combustion @3600 (l/min)		350	290	540			540	
Cap. of air required for correct cooling @3600 (l/min)		3800	3200	5000			5000	
Lubrication	Oil type	SAE 5W 40 API SERVICE CF	SAE 5W 40 API SERVICE CF	SAE 5W 40 API SERVICE CF			SAE 5W 40 API SERVICE CF	

* With restrictions ** According to operating conditions

TECHNICAL SPECIFICATIONS

Model	KD15-440	KD15-440S	KD15-500			
Engine specs	4 stroke air cooled diesel engine	•	•	•		
	Conical power take-off on crankshaft	•	•	•		
	Anticlockwise rotation	•	•	•		
	Forced lubrication with oil pump	•	•	•		
	Centrifugal mass governor	•	•	•		
	Built-in full flow oil filter	•	•	•		
	Oil breathing blow-by with safety device	•	•	•		
	Automatic extra fuel starting device	•	•	•		
	Self bleeding fuel system	•	•	•		
	Torque regulator	•	•	•		
	Automatic compression release	•	•	•		
	Die-cast aluminum crankcase with integral cast iron cylinder liner	•	•	-		
	Re-borable independent cast iron cylinders	-	-	•		
	Aluminum alloy cylinder head	•	•	•		
Built-in rigid feet	•	•	•			
Hydraulic tappets	•	•	-			
Technical features	Cylinder	1	1	1		
	Bore (mm)	86	86	87		
	Stroke (mm)	76	76	85		
	Engine displ (cm³)	441	441	505		
	Injection system	DI	DI	DI		
	Compression ratio	20.3:1	20.5:1	19:1		
Performance	Emission compliance	ECE R 24	US TIER 4 F	EU STAGE V	-	
	Rating (kW/HP) N (80/1269/CEE)ISO 1585 NB ISO 3046 IFN NA ISO 3046 ICXN	(3600 rpm) - 7.5 /10.1 -	(3600 rpm) - 7.0 / 9.4 -	(3600 rpm) - 7.5 /10.1 -	-	ECE R 24 -
	Max torque (Nm@rpm)	23 @2200	23@2200	24.5@2200	22.5@2100	30.0@2200
	Min idling speed	950 ÷1000		1150	1200	
	EN 590	•	•	•	•	
Fuel compatibility	No 1 Diesel (US) - ASTM D 975-09 B - Grade 1-D S 15	•	•	•	•	
	No 1 Diesel (US) - ASTM D 975-09 B - Grade 1-D S 500	•	•	•	•	
	No 2 Diesel (US) - ASTM D 975-09 B - Grade 2-D S 15	•	•	•	•	
	No 2 Diesel (US) - ASTM D 975-09 B - Grade 2-D S 500	•	•	•	•	
	ARCTIC EN 590/ASTM D 975-09 B	•	•	•	•	
	High Sulfur Fuel < 5000 ppm (< 0.5%)	•	•	•	•	
	High Sulfur Fuel > 5000 ppm (> 0.5%)	•	•	•	•	
	Military NATO Fuels F34 - F35 - F44 - F63 - F64 - F65 *	•	•	•	•	
	Military US Fuels JP5 - JP8 (AVTUR) *	•	•	•	•	
	Civil Jet Fuels Jet A/ A1*	•	•	•	•	
	Fuel tank capacity (l)	4.3	4.3	5		
Service features	Oil sump capacity (l)	1.2	1.2	1.5		
	Oil consumption (kg/h)	0.0032	0.0032	0.0055		
	Oil/filter change interval std/synthetic (hr)	250**	250**	250**		
	Oil filter change interval std/synthetic (hr)	500	500	500		
	Dry air cleaner change interval (hr)	500	500	250		
	Valve adjustment	none	none	500		
	Physical characteristics	H x L x W (fan excluded) (mm)	493.1 x 412.8 x 340	493.1 x 412.8 x 352	504x415x355	
Dry weight (kg)		45	45	48		
Daily service points - positions		1 side service	1 side service	1 side service		
Ambient operating temps (°C)		-10 to +50	-10 to +50	-10 to +50		
Gradeability-all round (intermittent -30 min) (deg)		25	25	25°		
Gradeability-all round (peak value -1 min) (deg)		35	35	35°		
Cap. of air required for correct combustion @3600 (l/min)		640	640	800		
Cap. of air required for correct cooling @3600 (l/min)		5500	5500	8700		
Lubrication	Oil type	SAE 5W 40 API SERVICE CF	SAE 5W 40 API SERVICE CF	SAE 5W 40 API SERVICE CF		

* With restrictions ** According to operating conditions

For more information, contact your KOHLER source of supply.
Kohler Co. reserves the right to make modifications without prior notice.

KOHLER[®]
IN POWER. SINCE 1920.

Printed in Italy ED0035584830 Rev.08 10/18 EN **KOHLERPOWER.IT** KOHLER CO.