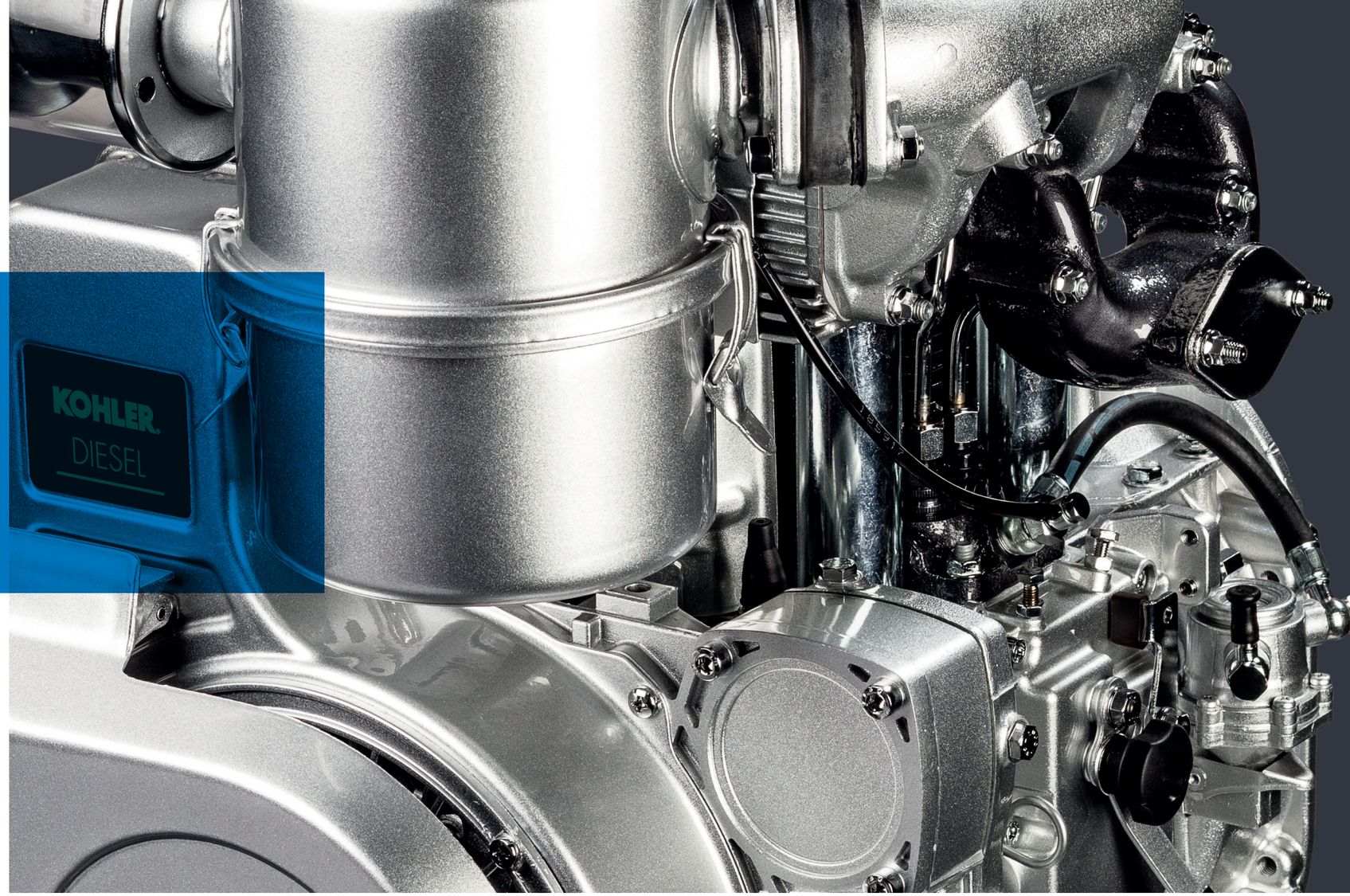
AIR COOLED DIESEL ENGINES

12.0 – 18.8 kW | 16.3 – 25.5 hp

AIR COOLED DIESEL ENGINES



STANDARD EQUIPMENT

Electric starting with 12 V starter motor and alternator
Remote throttle
Oil pressure switch
Combined manifold and exhaust muffler
Engine feet
Fuel lift pump
Counter-clockwise rotation on power take-off side
Automatic extra fuel device
Use, maintenance and spare parts booklet
Oil bath air filter
Manual control accelerator
Power take-off on flywheel (KD-625/2)
Power take-off on crankshaft (KD-425/2)
Fuel tank with filter

ACCESSORIES ON DEMAND

Different guards according to use
24V alternators and starter motors
Automatic release decompression system
Flanges
Dry air filter
External fuel filter
Clutches
Range of fuel tanks of various sizes
Hydraulic pump adapters
Range of flywheels for various clutches
Mufflers and exhaust pipes
Controls
Pulleys
Oil cooler (KD-625/2; KD-425/2)
Crank starter (KD-625/2)
Keyswitch panel and wiring harness

KD
425/2

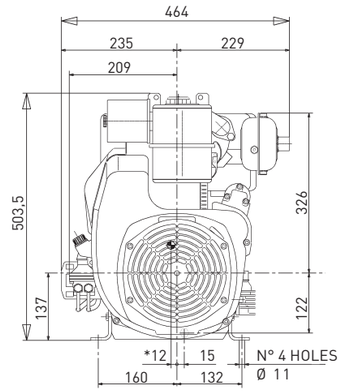
Quick specifics	KD-425/2 NE36
CYLINDERS	2
MAX POWER kW (hp)@rpm	13 (17.4) @ 3600
MAX TORQUE Nm@rpm	40 @ 2200
EMISSIONS COMPLIANCE	ECE R 24
OPERATING SPEED	Variable speed

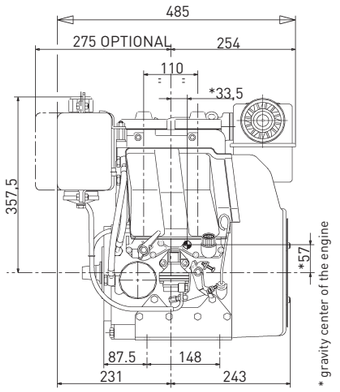
HVO APPROVED FOR HVO RENEWABLE FUEL

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

DATA

Dimensions (mm)

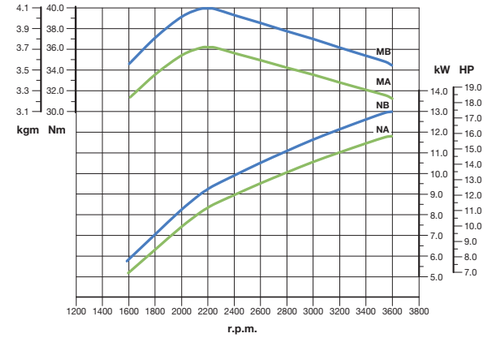




PERFORMANCE CURVES

(IFN-ACCORDING TO ISO 3046)

KD-425/2 NE36



- NB - Power curve
- NA - Power curve
- 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.

KD
625/2

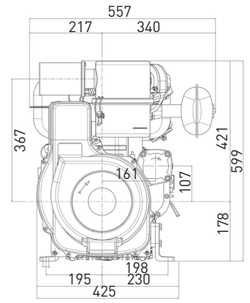
Quick specifics	
CYLINDERS	2
MAX POWER kW (hp)@rpm	18.8 (25.5) @ 3000
MAX TORQUE Nm@rpm	67.0 @ 2200

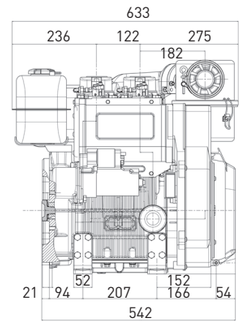
HVO APPROVED FOR HVO RENEWABLE FUEL

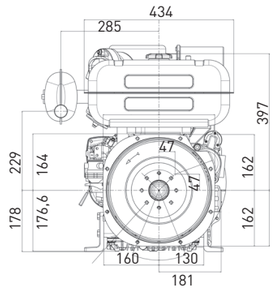
(Power & torque NB curve - ISO 3046/1 - IFN)

DATA

Dimensions (mm)



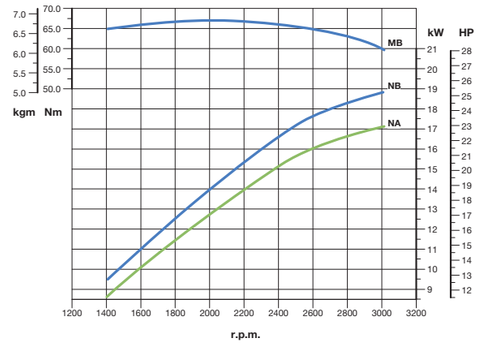




PERFORMANCE CURVES

(IFN-ACCORDING TO ISO 3046)

KD-625/2 ECE R 24



- NB - Power curve
- NA - Power curve
- MB - Torque curve - (NB curve)

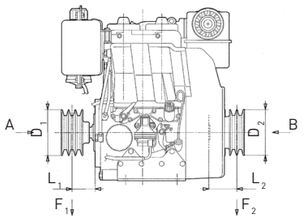
Power ratings refer to engines equipped with air filter, standard muffler, after running-in period at ambient conditions of +25°C, relative humidity 30% and 1 bar. Power levels drop by 1% every 100 m altitude and by 2% every 5°C above +25°C.

Setting @ 2800 RPM

Power NB (kW)	Torque NB (Nm)
18.2 @ 2800 rpm	67.0 @ 2000 rpm

APPLICATION SPECS

KD-425/2



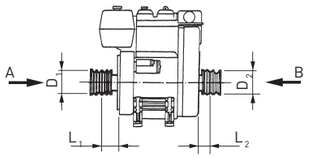
Minimum pulley diameters for belt drive

330/2: $D_1\ (mm) \geq 585\ [49 + L_1(mm)]\frac{N\ (kW)}{n\ (rpm)}$ $D_2\ (mm) \geq 1030\ [31 + L_2(mm)]\frac{N\ (kW)}{n\ (rpm)}$

425/2: $D_1\ (mm) \geq 700\ [45 + L_1(mm)]\frac{N\ (kW)}{n\ (rpm)}$ $D_2\ (mm) \geq 1540\ [17 + L_2(mm)]\frac{N\ (kW)}{n\ (rpm)}$

Max intermittent axial load in both directions A - B = 300 kg

KD-625/2

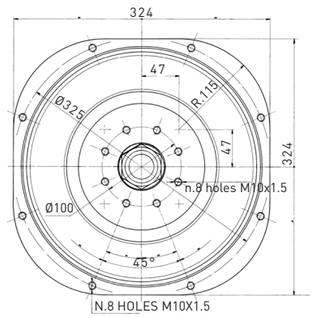
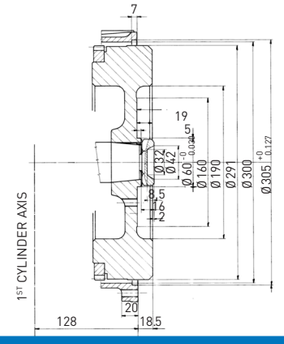
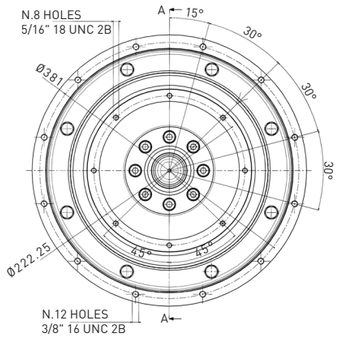
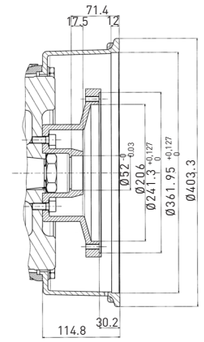


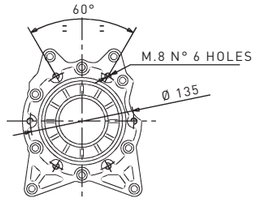
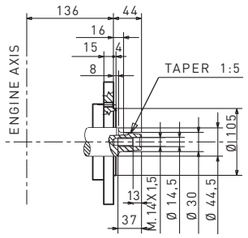
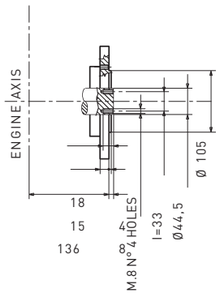
Minimum pulley diameters for belt drive

$D_1\ (mm) \geq 136\ [162 + L_1(mm)]\frac{N\ (kW)}{n\ (rpm)}$ $D_2\ (mm) \geq 204\ [260 + L_2(mm)]\frac{N\ (kW)}{n\ (rpm)}$

Max intermittent axial load in both directions A - B = 300 kg

AVAILABLE FLANGES*

	Flange standard type	Standard version	Flange type B	SAE 4, 7"½
KD-625/2				

	Flange standard type	Standard version	Flange type crankshaft version
KD-425/2			

*Other flanges available on request

TECHNICAL SPECIFICATIONS

Model		KD-330/2	KD-425/2
Engine specs	4 stroke air cooled diesel engine	•	•
	Direct injection	•	•
	Mechanical fuel lift pump	•	•
	Forced lubrication with oil pump	•	•
	Full flow oil filtration	•	•
	Torque adapter	•	•
	Centrifugal speed governor	•	•
	Crankcase in die-cast aluminum	•	•
	Electric starting	•	•
	Counter-clockwise rotation (from power take-off side)	•	•
	Aluminum alloy independent heads	•	•
	Independent and replaceable cast iron cylinders	•	•
	Automatic extra fuel starting device	•	•
	Air cooled by fan	•	•
	Power take-off on crankshaft	•	•
	Power take off on Flywheel	-	-
Technical features	Cylinder	2	2
	Bore (mm)	80	85
	Stroke (mm)	65	75
	Engine displ (cm^3)	654	851
	Injection system	DI	DI
	Compression ratio	19:1	19:1
Performance	Emission compliance	ECE R 24	ECE R 24
	Rating (kW/HP) NB ISO 3046 IFN NA ISO 3046 ICXN	 12.0/16.1 10.0/13.4	 13/17.4 11.8/15.8
	Max torque (Nm@rpm)	32.0@2400	40.0@2200
	Min idling speed (rpm)	1000	1000
Fuel compatibility	EN 590	•	•
	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*	•	•
	HVO - Hydrotreated Vegetable Oil	•	•
Service features	Fuel tank capacity (l)	4	4
	Oil sump capacity (l)	1.5	1.7
	Oil consumption (kg/h)	0.007	0.0085
	Oil change interval std/synthetic (hr)	250 **	250 **
	Oil filter change interval std/synthetic (hr)	250 **	250 **
	Valve adjustement	500	500
Physical characteristics	H×L×W (fan excluded) (mm)	485×485×438	503.5×485×464
	Dry weight (kg)	60	63
	Daily service points - positions	1 side service	1 side service
	Ambient operating temps (°C)	-5° +45° ***	-5° +45° ***
	Gradeability-all round (intermittent-30 min) (deg)	25°	25°
	Gradeability-all round (peak value-1min) (deg)	35°	35°
	Cap. of air required for correct combustion @3600 (l/min)	1050/875	1330/1110
	Cap. of air required for correct cooling @3600 (l/min)	11700/9750	14200/11835
Lubrication	Oil type	SAE 5W-40 / API CF4	SAE 5W-40 / API CF4

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

* With restrictions ** According to operating conditions *** -32°C on demand

TECHNICAL SPECIFICATIONS

Model		KD-625/2
Engine specs	4 stroke air cooled diesel engine	•
	Direct injection	•
	Mechanical fuel lift pump	•
	Forced lubrication with oil pump	•
	Full flow oil filtration	•
	Torque regulator	•
	Centrifugal speed governor	•
	Crankcase in die-cast aluminum	•
	Electric starting	•
	Counter-clockwise rotation (from power take-off side)	•
	Aluminum alloy independent heads	•
	Indipendent cast iron cylinders	•
	Automatic extra fuel starting device	•
	Air cooled by fan	•
	Power take-off on crankshaft	-
	Power take off on Flywheel	•
Technical features	Cylinder	2
	Bore (mm)	95
	Stroke (mm)	88
	Engine displ (cm^3)	1248
	Injection system	DI
	Compression ratio	17.5:1
Performance	Emission compliance	ECE R 24
	Rating (kW/HP) NB ISO 3046 IFN NA ISO 3046 ICXN	 18.8/25.2 16.8/22.5
	Max torque (Nm@rpm)	67.0@2000 52.5@3000
	Min idling speed (rpm)	1000÷1100
Fuel compatibility	EN 590	•
	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*	•
	HVO - Hydrotreated Vegetable Oil	•
Service features	Fuel tank capacity (l)	10
	Oil sump capacity (l)	2.8
	Oil consumption (kg/h)	0.013
	Oil change interval std/synthetic (hr)	250 **
	Oil filter change interval std/synthetic (hr)	250 **
	Valve adjustement	250
Physical characteristics	H×L×W (fan excluded) (mm)	599×633×557
	Dry weight (kg)	115
	Daily service points - positions	1 side service
	Ambient operating temps (°C)	-10° +45° ***
	Gradeability-all round (intermittent-30 min) (deg)	25°
	Gradeability-all round (peak value-1min) (deg)	35°
	Cap. of air required for correct combustion @3600 (l/min)	1600 (@3000)
	Cap. of air required for correct cooling @3600 (l/min)	26300 (@3000)
Lubrication	Oil type	SAE 5W-40 / API CF4

* With restrictions ** According to operating conditions ***-32°C on demand

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