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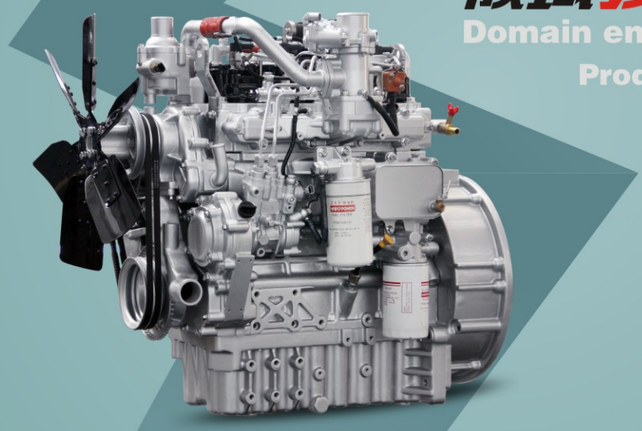
一拖（洛阳）柴油机有限公司
YTO (LUOYANG) DIESEL ENGINE CO.,LTD
地　　址：河南省洛阳市建设路154号
免费热线：4006591869

国机集团 SINOMACH

东方红® 柴油机
YTO® POWER

Supporting generator set/marine engine/gas engine

配套发电机组/船机/燃气机
领域发动机
Domain engine 产品推广手册
Product Promotion Manual



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YTO (LUOYANG) DIESEL ENGINE CO.,LTD

Company Profile



YTO (Luoyang) Diesel Engine Co., Ltd. specializes in the design and production of off–road diesel engines. The company was established in 1958, and after nearly 70 years of development, it now boasts three major engine manufacturing bases, with its products covering three–cylinder, four–cylinder, and six–cylinder diesel engines. The company has consistently focused on the forefront of the industry development, partnering with leading international research institutions such as Ricardo in the UK and Southwest Research Institute in the US, maintaining its core technologies at an internationally competitive level.

The power range of the generator set covers from 1.3L to 12L in displacement, with power ranging from 10kW to 420kW. Widely used in industries such as factories, buildings, shopping malls, banks, hotels, ports, oil fields, mines, hospitals, and areas including highway, railway, and airport construction, it is the preferred power source for high–end customers domestically and has seen an annual increase in export sales.

The gas main unit is applicable to various gas sources, including natural gas, liquefied gas, biogas, and well gas, and is widely used in fields such as livestock breeding, landfill sites, and oil fields. The marine engines are primarily used in various operational environments such as transportation and fishing in inland rivers and coastal areas.

Product calibration strictly adheres to international standards, with outstanding adaptability in "three high" environments, ensuring worry–free operation in high–altitude regions.

Manufacturing capacity

Dongfanghong Diesel Engine Company boasts industry–leading intelligent manufacturing workshops. These workshops extensively apply digital technologies such as automation, Industrial Internet of Things, big data analysis, and 5G. The Company has developed information systems including SAP, PLM, MES, SCM, and marketing service clouds. This has enabled the establishment of an efficient, intelligent, and green production system. The production lines extensively utilize advanced manufacturing techniques including flexible machining centers, robotic cleaning, robotic assembly, robotic painting, electric cylinder pressing, AGV automated conveyance, intelligent automated storage and retrieval systems, 3D visual inspection, in–line testing, automatic run–in, etc. The implementation of an advanced TPS lean production management system ensures high quality and consistency of the products. Through the integrated application of systems such as MES, PLM, and ERP, a highly efficient and collaborative digital manufacturing management platform has been established. This platform enables end–to–end traceability of product information, ensuring that every Dongfanghong diesel engine meets the highest standards of quality assurance.


Cylinder body flexible machining line


Robot loading and unloading


Adhesive inspection


Robotic painting

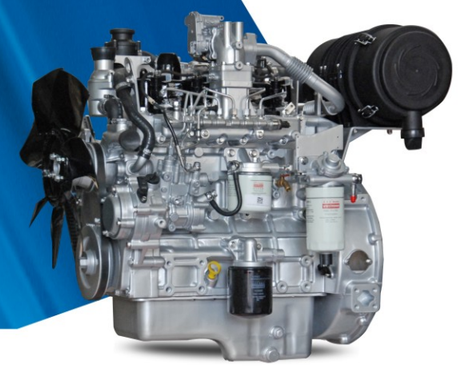

Power monitoring and control unit


Accumulating chain conveyance


Intelligent automated storage and retrieval systems


AGV pallet conveyance

Generator Set Field Supporting (EuroⅢA)
YTN/LR Series



Characteristic

- High reliability
- Models of portable
- Low noise/vibration
- Low fuel consumption
- ECU control system

Product specification

Power range	30~400kW
Type	In-line,direct injection,water-cooling,four stroke
Bore x Stroke	98-126mm 120-145mm
Speed regulation rate	≤ 5 % (Mechanical) ≤ 1 % (Electronic adjustment)

Generator Set Field Supporting(EuroⅢA)

Product platform	Number of cylinders	Number of valves	Bore diameter (mm)	Travel (mm)	Engine displacement (L)	Intake mode	Fuel system	Standby power of the generator set (kVA)/1500rpm	Standby power of the generator set (kVA)/1800rpm
YTN4NR	4	2	98	120	3.6	Naturally aspirated	Common rail	25	25
								30	30
								35	35
								40	40
YTN4NR	4	2	98	120	3.6			45	45
								55	55
								65	65
								75	75
LR4M3LR	4	2	110	125	4.75	Intercooler		90	90
								100	100
								110	110
								125	125
LR6M3LR	6	2	110	125	7.13			135	135
								150	150
								165	165
								180	180
								200	200
								220	220
LR6M5RF	6	4	110	135	7.7			250	250
								275	275
YTN12	6	4	126	145	11.6			300	300
								330	330
								350	350
								400	400
								450	450

Structure and parameter improve without prior notice. The description does not accord with real, in kind prevail.

Generator Set Field Supporting (Euro V) YTN4/YTN3/YD/YND Series

Characteristic

- High reliability
- Models of portable
- Low noise/vibration
- Low fuel consumption
- ECU control system

Product specification

Power range	30~100kW
Type	In-line,direct injection,water-cooling,four stroke
Bore x Stroke	80-98mm 90-120mm
Speed regulation rate	≤ 5 % (Mechanical) ≤ 1 % (Electronic adjustment)

Generator Set Field Supporting(Euro V)

Product platform	Number of cylinders	Number of valves	Bore diameter (mm)	Travel (mm)	Engine displacement (L)	Intake mode	Fuel system	Emission technology pathway	Certified power/ speed kW/rpm
YD480DE	4	2	80	90	1.81	Naturally aspirated	In-line pump	/	14/1500
YND485DE	4	2	85	95	2.156			/	17/1500
YND490DE	4	2	90	95	2.417			/	18/1500
YTN4Z	4	2	98	120	3.6	Turbocharging	Common rail	EGR+DOC+DPF	40/1500
	4	2	98	120	3.6			EGR+DOC+DPF	40/1800
	4	2	98	120	3.6			EGR+DOC+DPF	44/1500
	4	2	98	120	3.6			EGR+DOC+DPF	44/1800
	4	2	98	120	3.6			EGR+DOC+DPF	50/1500
	4	2	98	120	3.6			EGR+DOC+DPF	50/1800
	4	2	98	120	3.6			EGR+DOC+DPF	55.9/1500
	4	2	98	120	3.6			EGR+DOC+DPF	55.6/1800
YTN3	4	4	95	115	3.3	Turbocharged with intercooler		DOC+DPF+SCR	68/1500
	4	4	95	115	3.3			DOC+DPF+SCR	68/1800
	4	4	95	115	3.3			DOC+DPF+SCR	77/1500
	4	4	95	115	3.3			DOC+DPF+SCR	77/1800
	4	4	95	115	3.3			DOC+DPF+SCR	85/1500
	4	4	95	115	3.3			DOC+DPF+SCR	85/1800
	4	4	95	115	3.3			DOC+DPF+SCR	92/1500
	4	4	95	115	3.3			DOC+DPF+SCR	92/1800
	4	4	95	115	3.3			DOC+DPF+SCR	100/1500
	4	4	95	115	3.3			DOC+DPF+SCR	100/1800

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Generator Set Field Supporting YD Series

Characteristic

- High reliability
- Models of portable
- Low noise/vibration
- Low fuel consumption

Product specification

Power range	10~100kW
Type	In-line,direct injection,water-cooling,four stroke
Bore x Stroke	80-110mm 90-118mm
Speed regulation rate	≤ 5 % (Mechanical) ≤ 1 % (Electronic adjustment)

Main technical parameter

Model	Number of cylinders	Number of valves	Bore diameter (mm)	Travel (mm)	Engine displacement (L)	Intake mode	Fuel system	Common used power kW/1500rpm	Common used power kW/1800rpm
YD380D	3	2	80	90	1.357	Naturally aspirated	Mechanical/ Electronic adjustment	10	12
YD385D	3	2	85	90	1.532			11	13
YD390D	3	2	90	90	1.72			15	18
YD390ZD	3	2	90	90	1.72	Turbocharging		21	24
YD480D	4	2	80	90	1.81	Naturally aspirated		14	16
YND485D	4	2	85	95	2.156			17	20
YND490D	4	2	90	95	2.417			21	25
YSD490D	4	2	90	100	2.545			21	25
Y490D	4	2	90	105	2.672			24	27
Y495D	4	2	95	105	2.977			27	30
YD4100D	4	2	100	105	3.298			30	35
YD4100ZD	4	2	100	105	3.298	Turbocharging		40	48
Y4100D	4	2	100	118	3.707	Naturally aspirated		30	36
Y4102D	4	2	102	118	3.857			33	39
Y4105D	4	2	105	118	4.087			38	45
Y4110D	4	2	110	118	4.486			43	48
Y4102ZD	4	2	102	118	3.857	Turbocharging		40	48
Y4102ZLD	4	2	102	118	3.857	Turbocharged with intercooler		48	53
Y4105ZLD	4	2	105	118	4.087		Electronic adjustment	55	60
Y4105ZLDA	4	2	105	118	4.087			63	70
Y4110ZLD	4	2	110	118	4.486			72	90
Y4110ZLDA	4	2	110	118	4.486			80	85
Y4110ZLDB	4	2	110	118	4.486			90	100

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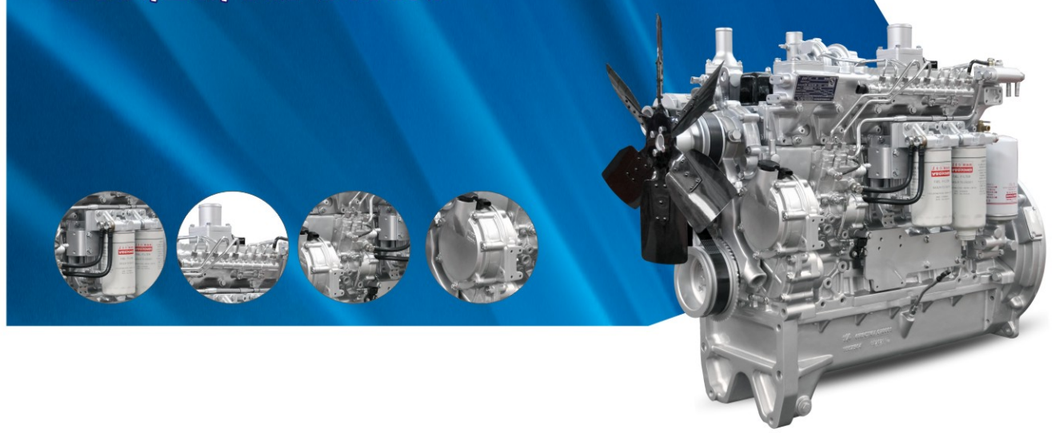
Generator Set Field Supporting YTN/LR/YM Series



Characteristic

- High reliability
- Models of portable
- Low noise/vibration
- Low fuel consumption
- ECU control system

Product specification

Power range	30~400kW
Type	In-line,direct injection,water-cooling,four stroke
Bore x Stroke	95-126mm 115-155mm
Speed regulation rate	≤ 5 % (Mechanical) ≤ 1 % (Electronic adjustment)

Main technical parameter

Model	Number of cylinders	Number of valves	Bore diameter (mm)	Travel (mm)	Engine displacement (L)	Intake mode	Fuel system	Common used power kW/1500rpm	Common used power kW/1800rpm
YTN3-DA	4	4	95	115	3.26	Turbocharged with intercooler	Common rail	82	90
YTN3-DB	4	4	95	115	3.26			88	95
YTN4NJ-DA	4	2	98	120	3.6	Naturally aspirated	Mechanical/ Electronic adjustment	30	30
YTN4NJ-DB	4	2	98	120	3.6			36	36
YTN4ZJ	4	2	98	120	3.6	Turbocharging		46	46
YTN4JT	4	2	98	120	3.6	Turbocharged with intercooler		62	62
LR4A3L-D	4	2	105	125	4.33			75	78
LR4A3LR-DA	4	2	105	125	4.33		Common rail	54	59
LR4A3LR-DB	4	2	105	125	4.33			62	68
LR4A3LR-DC	4	2	105	125	4.33			68	74
LR4A3LR-DD	4	2	105	125	4.33			75	78
LR4A3LR-DE	4	2	105	125	4.33			82	90
LR4M3L-DA	4	2	110	125	4.75		Mechanical/ Electronic adjustment	82	90
LR4M3L-DB	4	2	110	125	4.75			96	105
LR4M3L-DC	4	2	110	125	4.75			103	110
LR4M3L-DD	4	2	110	125	4.75		Electronic adjustment	112	120
LR4M3LR-DA	4	2	110	125	4.75			88	95
LR4M3LR-DB	4	2	110	125	4.75			95	105
LR4M3LR-DC	4	2	110	125	4.75			105	116
LR4M3LR-DD	4	2	110	125	4.75			112	123
LR4M3LR-DE	4	2	110	125	4.75			120	132
LR4M3LRF-DA	4	4	110	125	4.75			128	140
LR4M3LRF-DB	4	4	110	125	4.75			135	148
LR4M3LRF-DC	4	4	110	125	4.75			140	154
LR4M5R-DA	4	2	110	135	5.13	Naturally aspirated		38	42
LR4M5R-DB	4	2	110	135	5.13			46	50

Main technical parameter

Model	Number of cylinders	Number of valves	Bore diameter (mm)	Travel (mm)	Engine displacement (L)	Intake mode	Fuel system	Common used power kW/1500rpm	Common used power kW/1800rpm
LR6A3L-DA	6	2	105	125	6.49	Turbocharged with intercooler	Mechanical/ Electronic adjustment	120	120
LR6A3L-DB	6	2	105	125	6.49		Electronic adjustment	132	132
LR6M3L-DA	6	2	110	125	7.13			142	145
LR6M3L-DB	6	2	110	125	7.13			155	165
LR6M3L-DC	6	2	110	125	7.13			178	178
LR6M3LR-DA	6	2	110	125	7.13		Common rail	150	165
LR6M3LR-DB	6	2	110	125	7.13			155	170
LR6M3LR-DC	6	2	110	125	7.13			180	200
LR6M5LRF-DA	6	4	110	135	7.7			185	204
LR6M5LRF-DB	6	4	110	135	7.7			195	215
LR6M5LRF-DC	6	4	110	135	7.7			210	230
YM6S4L-DA	6	2	126	130	9.73		Electronic adjustment	186	195
YM6S4L-DB	6	2	126	130	9.73			208	215
YM6S4L-DC	6	2	126	130	9.73			232	241
YM6S4LF-D	6	4	126	130	9.73			255	265
YM6S4LRF-D	6	4	126	130	9.73		Common rail	255	280
YM6S9L-DA	6	2	126	155	11.6		电调	290	320
YM6S9L-DB	6	2	126	155	11.6		Electronic adjustment	320	330
YM6S9LF-DA	6	2	126	155	11.6			330	350
YM6S9LF-DB	6	4	126	155	11.6			350	360
YM6S9LRF-D	6	4	126	155	11.6		Common rail	330	350
YM6S9LRF-DA	6	4	126	155	11.6			350	365
YM6S9LRF-DB	6	4	126	155	11.6			380	400

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Main technical parameter

Product platform	Engine displacement (L)	Number of valves	Bore diameter (mm)	Travel (mm)	Intake mode	Fuel system	Rated power (kW)	Rated speed (r/min)	Purpose
LR4B5	4.95	2	108	135	Naturally aspirated	Mechanical pump	35-42	1500	Main engine
							35-48	1800	
							35-55	2000	
							35-42	1500	Auxiliary engine
							35-48	1800	
LR4V5	5.6		115	135			46	1500	Main engine
							54	1800	
							60	2000	
							46	1500	Auxiliary engine
LR4M3W	4.75		110	125	Turbocharged with intercooler		50-70	1500	Main engine
							60-78	1800	
							65-92	2000	
							50-70	1500	Auxiliary engine
							54-78	1800	
LR6M3	7.13		110	125	Naturally aspirated		60	1500	Main engine
							65	1500	
							78	1800	
							86	2000	
							65	1500	Auxiliary engine

Main technical parameter

Product platform	Engine displacement (L)	Number of valves	Bore diameter (mm)	Travel (mm)	Intake mode	Fuel system	Rated power (kW)	Rated speed (r/min)	Purpose
LR6M3W	7.13	2	110	125	Turbocharged with intercooler	Mechanical pump	97	1500	Main engine
							104	1500	
							110	1500	
							128	1800	
							142	2000	
							97	1500	Auxiliary engine
							110	1500	
							125	1500	
YM6S4W	9.73	2	126	130			205	1500	Main engine
							225	1800	
							185	1500	Auxiliary engine
							200	1800	
YM6S4WF	9.73	4	126	130			215	1500	Main engine
							235	1800	
							210	1500	Auxiliary engine
							230	1800	
YM6S9W	11.6	2	126	155			275	1500	Main engine
							300	1800	
							265	1500	Auxiliary engine
							290	1800	
YM6S9WF	11.6	4	126	155			295	1500	Main engine
							320	1800	
							300	1500	Auxiliary engine
							320	1800	

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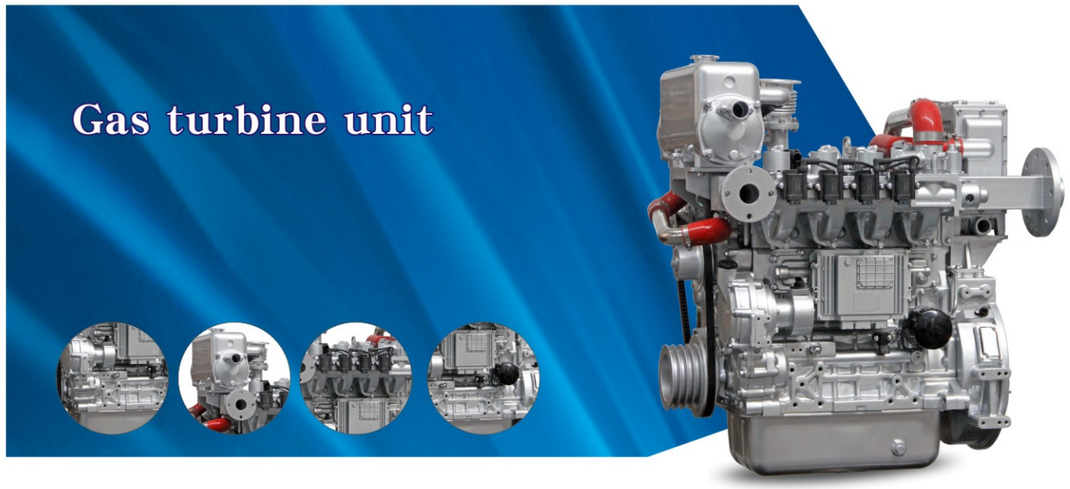

Main technical parameter

Model	Engine displacement (L)	Number of valves	Intake mode	Rated power (kW)	Rated speed (r/min)	Purpose
YTNN4N-D	3.6	2	Naturally aspirated	25	1500	Main unit
YTNN4Z-D	3.6	2	Turbocharging	40	1500	
LRN4M5	5.13	2	Naturally aspirated	45	1500	
LRN4M3Z	4.75	2	Turbocharging	55	1500	
LRN4M3L	4.75	2	Turbocharged with intercooler	60	1500	
LRN6M5	7.7	2	Naturally aspirated	65	1500	
LRN6M3Z	7.13	2	Turbocharging	78	1500	
LRN6M3L	7.13	2	Turbocharged with intercooler	85	1500	
YMN6S4	9.726	2	Naturally aspirated	95	1500	
YMN6S4Z	9.726	2	Turbocharging	108	1500	
YMN6S4L	9.726	2	Turbocharged with intercooler	120	1500	
YMN6S9	11.6	2	Naturally aspirated	160	1500	
YMN6S9Z	11.6	2	Turbocharging	190	1500	
YMN6S9L	11.6	2	Turbocharged with intercooler	208	1500	

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