

COMPACT DIESEL ENGINES

TNM series

Max. Output 14.1~17.6kW



- Vertical cylinder, 4-cycle, water-cooled diesel engine.
- Ultra-Compact and High Performance. [No.1 in class in Power Density]
- Low Noise & Vibration. [The Ladder Frame Structure]
- Environmentally Friendly. [Compliant with EPA Tier 4 in the U.S. and Extra-low Fuel Consumption]
- Easy Installation and Replacement, the Perfect fit for your Machine.

SPECIFICATIONS

Engine Model	3TNM68				3TNM72					
Combustion	Indirect injection (IDI)									
No. of Cylinders	3									
Bore x Stroke	mm Φ68 x 72				mm Φ72 x 74					
Displacement	liter 0.784				liter 0.903					
Maximum Rated Output	Engine Speed	min ⁻¹ (rpm)	3600	3400	3200	3000	3600	3400	3200	3000
	Output	kW [hp]	14.1 [18.9]	13.5 [18.1]	12.8 [17.2]	12.6 [16.9]	17.6 [23.6]	16.5 [22.1]	15.6 [20.9]	14.7 [19.7]
Dry mass (back plate / SAE#6 bell housing)	kg 73/82				kg 77/86					
Dimensions (back plate)	Length x Width x Height mm 431 x 400 x 500				450 x 400 x 505					

WATER COOLED DIESEL ENGINE

TNV series

Max. Output 9.9~72.0kW



3TNV76



3TNV88



4TNV106T

- Vertical cylinder, 4-cycle, water-cooled diesel engine.
- Emission reduction (ie a cleaner engine).
- IDI engines: combustion chamber, fuel injection equipment mechanical pump.
- DI engines: nozzle installation angle, combustion chamber, fuel injection equipment (MP pump, fuel injection nozzle).
- Noise level reduction (ie a more silent engine)

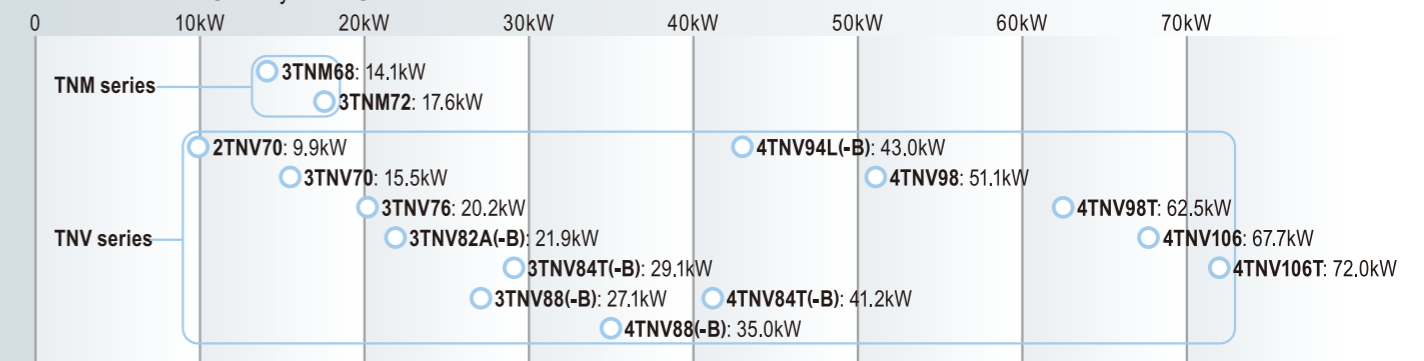
SPECIFICATIONS

Engine Model	2TNV70		3TNV70				3TNV76
Combustion	Indirect injection (IDI)						
No. of Cylinders	2		3				
Bore x Stroke	mm Φ70 x 74						mm Φ76 x 82
Displacement	liter 0.570		liter 0.854				liter 1.116
Maximum Rated Output	Engine Speed	min ⁻¹ (rpm)	3600				3600
	Output	kW[hp]	9.9 [13.3]		15.5 [20.8]		20.2 [27.1]
Dry mass (Back plate / Bell housing)	kg 73/84		kg 87/98				kg 94/112
Dimensions	Length x Width x Height mm 415 x 427 x 521		504 x 427 x 549				524 x 427 x 572

Engine Model	3TNV82A (-B)	3TNV84T (-B)	3TNV88 (-B)	4TNV84T (-B)	4TNV88 (-B)
Combustion	Direct injection (DI)				
No. of Cylinders	3			4	
Bore x Stroke	mm Φ82 x 84	mm Φ84 x 90	mm Φ88 x 90	mm Φ84 x 90	mm Φ88 x 90
Displacement	liter 1.331	liter 1.496	liter 1.642	liter 1.995	liter 2.190
Maximum Rated Output	Engine Speed	min ⁻¹ (rpm)	3000		3000
	Output	kW[hp]	21.9 [29.4]	29.1 [39.0]	27.1 [26.3]
Dry mass (Back plate / Bell housing)	kg 111/128	kg 150/159	kg 138/148	kg 165/170	kg 155/165
Dimensions	Length x Width x Height mm 528.5 x 498.5 x 561		615.7 x 517.5 x 652		564.5 x 517.5 x 622

Engine Model	4TNV94L (-B)	4TNV98(-Z)	4TNV98T(-Z)	4TNV106	4TNV106T
Combustion	Direct injection (DI)				
No. of Cylinders	4				
Bore x Stroke	mm Φ94 x 110	mm Φ98 x 110			mm Φ106 x 125
Displacement	liter 3.053	liter 3.319			liter 4.412
Maximum Rated Output	Engine Speed	min ⁻¹ (rpm)	2500		2200
	Output	kW[hp]	43.0 [57.7]	51.1 [68.5]	62.5 [83.8]
Dry mass (Back plate / Bell housing)	kg -/235	kg -/235	kg -/245	kg -/320	kg -/340
Dimensions	Length x Width x Height mm 719 x 496 x 717		719 x 496 x 717		890 x 628 x 820

DIESEL ENGINE [2~4 cylinders]



TNMseries Power Pack



SPECIFICATIONS

Model	3TNM68 Power Pack						
Engine Speed	min ⁻¹ (rpm)	3600	3000	1800	1500		
Industrial use -ASA, ASA2, ASA3	Intermittent	NET kW[hp]	14.1 [18.9]	—	—	—	
		Gross kW	14.7	—	—	—	
Rated Output	Generator use -HGE(3000/3600) -GGE(1500/1800)	Stand-by	NET kW[hp]	14.2 [19.0]	12 [16.1]	7.3 [9.8]	6.1 [8.2]
			Gross kW	15.2	12.6	7.4	6.2
	Continuous	NET kW[hp]	12.9 [17.3]	10.9 [14.6]	6.6 [8.8]	5.5 [7.4]	
		Gross kW	13.9	11.5	6.7	5.6	
Applicable generator capacity	Continuous	kVA	15.1	12.5	7.5	5.9	
		kVA	13.6	11.4	6.5	5.3	
Dry mass (back plate / SAE#6 bell housing / SAE#5 bell housing)	kg	91/100/104					
Dimensions (back plate)	Length x Width x Height mm	758 x 474 x 668					

TNVseries Power Pack



Genepack A

Genepack B

ENGINE SPEC. SELECTION CODE

Power Pack Group	Application	3TNV 70	3TNV 76	3TNV 88(-B)	4TNV 88(-B)	4TNV 98(-Z)	4TNV 98T(-Z)
Group A	General industrial use	—	-CS	-DS	-DS	-NS	-NS
	Generator use (open type)	4-pole —	-GA	-GA	-GA	-GA	-GA
Group B	Generator use (enclosed type)	2-pole	-HB	-HB	—	—	—
		4-pole	—	-GB	-GB	-GB	-GB

OUTPUT & DIMENSIONS / Industrial use

Engine Model	3TNV76	3TNV88(-B)	4TNV88(-B)	4TNV98(-Z)	4TNV98T(-Z)
Code	-CS	-DS	-DS	-NS	-NS
Rated Output kW/min ⁻¹ (rpm)	18.7/3200	26.8/3000	35.4/3000	50.7/2500	62.5/2500
Weight kg	128	181	211	280	284
	Length mm	814	821	1002	1041
Dimensions	Width mm	514	609	609	703
	Height mm	696	792	824	940

OUTPUT & DIMENSIONS / Generator use

Engine Model	3TNV70	3TNV76	3TNV76	3TNV88(-B)	4TNV88(-B)	4TNV98(-Z)	4TNV98T(-Z)	
Code	-HB	-HB	-GA	-GB	-GA	-GB	-GA	
No. of Poles	2-pole				4-pole			
Frequency @min ⁻¹ (rpm)	50	60	50	60	50	60	50	
	3000	3600	3000	3600	1500	1800	1500	
Engine Output	Prime power rating kW	12.1	14.5	15.1	17.7	8.2	9.8	
	Rated output kW	13.3	16.0	16.5	19.5	9.0	10.7	
Applicable Generator Capacity	Prime power rating kVA	12.4	15.0	16.0	18.4	8.4	10.0	
	Rated output kVA	13.6	16.6	17.1	20.2	9.2	11.0	
Weight kg	115	125	122	125	180	175	210	
	Length mm	798	814	745	814	821	875	
Dimensions	Width mm	518	518	518	518	609	609	
	Height mm	683	694	696	672	792	731	

Note:When specification varies,the above engine speed and rated output will vary accordingly.