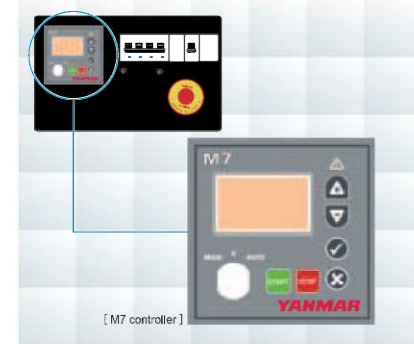


YH Series Control panel scope of supply

Control panel of YH170



[M7 controller]

Control panel of YH220~550



[CEM7 controller]

The M7 and CEM7 controllers are able to control operation, monitoring and protection of the generator. The controller unit consists of 2 different modules:

- ① The VISUALIZATION module
- ② The MEASUREMENT module

VISUALIZATION MODULE

Provides information about the status of the device and, at the same time, allows the user to interact with it. It consists on a backlight display and various LED's for monitoring the status of the controller and buttons that allow the user to control, program and configure the functions of the unit.

MEASUREMENT MODULE

Controls and monitors the control board functions and it is connected to every sensor and actuator in the generator. This is located in the rear part of the control panel, in order to reduce the wiring and to avoid electromagnetic disturbance.

Both visualization & measurement modules are connected by CAN communication bus and allow advanced intercommunication with other modules to the main controller.

② Control panel type is different to regional specifications and subject to change without notice.

STANDARD FEATURES

GENERATOR INDICATIONS	M7	CEM7
Voltage among phases	✓	✓
Voltage among phases and neutral	✓	✓
Amperage	✓	✓
Frequency	✓	✓
Apparent power (kVA)	✓	✓
Active power (kW)	✓	✓
Reactive power (kVAR)	✓	✓
ENGINE INDICATIONS		
Coolant temperature	✓	✓
Oil pressure	✓	✓
Fuel level	✓	✓
Battery voltage	✓	✓
Revolution speed	✓	✓
Battery charge alternator voltage	✓	✓
Unexpected shutdown	✓	✓
Stop failure	✓	✓
Low battery voltage	✓	✓
Start failure	✓	✓
Emergency Stop	✓	✓
ENGINE PROTECTIONS		
High coolant temperature	P	P
Coolant temperature by sensor	Pro	Pro
Low coolant level	P	P
Low oil pressure	P	P
Low fuel level	A	A
Fuel level by sensor	Pro	Pro
Battery charge alternator failure	A	A
Overspeed	P	P
Underspeed	P	P
ALTERNATOR PROTECTIONS		
High frequency	P	P
Low frequency	P	P
High voltage	P	P
Low voltage	P	P
Short-circuit	P	P
Asymmetry among phases	P	P
Incorrect phase sequence	P	P
Reverse power	P	P
Overload	P	P
COUNTER INDICATIONS		
Total hour counter	✓	✓
Partial hour counter	✓	✓
Kilowatt meter	✓	✓
Start valid counters	✓	✓
Start failure counters	✓	✓
Maintenance	✓	✓
FEATURES		
Alarm history	UP to 100	UP to 100
External start	✓	✓
Start inhibition	✓	✓
Pre-heating engine control	✓	✓
Gen-set contactor activation	✓	✓
Fuel transfer control	x	✓
Manual override	x	✓
Programmable alarms	✓	✓
Genset start function in test mode	x	✓
Programmable outputs	✓	✓
Multilingual	✓	✓

✓:Standard x:Not included A:Warning, alarm without engine stop.
P:Alarm with engine stop. St:Separate indicator Pro:Programmable

Note: All the protection are programmable to carry out "warning" or "engine stop with or without cooling"



WATER COOLED DIESEL GENERATORS

YH Series

4-Pole, Three-phase

Open / Silent type
Generator Output 13.4~55.0kVA



YH440DTLA



YH550DTLS

DIMENSIONS Unit:mm

Construction	Open type					Silent type					
	Model	YH170DTLA	YH220DTLA	YH280DTLA	YH440DTLA	YH550DTLA	YH170DTLS	YH220DTLS	YH280DTLS	YH440DTLS	YH550DTLS
L	1230	1460	1653	1653	1653	1475	1475	2100	2100	2100	2100
W	550	604	604	810	810	750	750	975	975	975	975
H	1102	1148	1132	1234	1189	1110	1110	1325	1325	1325	1325



OPTIONAL PARTS

Option	Applicable Type		
	YH open	YH silent	
Automatic Start / Stop and mains failure system (ATS & AMF)	✓	✓	
Excitation boost system for alternator (EBS)	✓	✓	
Anti-Condensation heater of alternator	✓	✓	
High capacity base fuel tank upgrade	YH170	100L	✓
		190L	✓
		330L	✓
		600L	✓
		750L	✓
	YH220-YH550	1,000L	✓
			✓
Water jacket pre-heater	✓	✓	
Battery charger from main supply	✓	✓	
Battery switch (Disconnection switch)	✓	✓	
MOD BUS-communication connector	RS485	✓	
MODEM-communication connector	RS232	✓	

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Note: All data subject to alteration without notice.

One machine is all you need

Introducing the new generation-YANMAR diesel power generators
 Fuel Thrifty, Durability, Easy Maintenance and User Friendliness
 improved than ever for all your power needs.



Emergency shutdown button inside and out side for better safety.

All in one controller with digital display for easy operation.

One point lifting for easy handling.

Total soundproof isolation for quite work.

Rain cap for outdoor use.

All in one controller with digital display for easy operation.

Rain cap

Emergency shutdown button for better safety.

Open type

Forklift pockets for easy handling.

Engine oil drain pump for easy maintenance.

Silent type

Easy access fuel refill with keyed lid.

Forklift pockets for easy handling.

External fuel supply inlet pocket.

Engine oil drain pump for easy maintenance.

All door-keyed locks for safety & protection.

SPECIFICATION

(All models are also available in 400V/415V/440V)
 Model** Suffix -A* for open, and -S* for silent type

Model**	Open type	YH170DTLA		YH220DTLA		YH280DTLA		YH440DTLA		YH550DTLA				
		YH170DTLS		YH220DTLS		YH280DTLS		YH440DTLS		YH550DTLS				
	Frequency	Hz	50	60	50	60	50	60	50	60	50	60		
	Voltage	V	380	380/220	380	380/220	380	380/220	380	380/220	380	380/220		
	Current (prime power)	A	19.0	22.6/39.6	26.0	30.1/54.8	30.7	37.5/67.7	50.7	60.2/105	62.7	68.4/130		
	Output	Stand-by power rating	kVA	13.4	16.0/16.5	18.5	21.3/23.1	22.0	26.6/28.4	36.9	43.5/44.4	45.0	47.8/54.7	
		Prime power rating	kW	10.7	12.8/13.2	14.8	17.0/18.5	17.6	21.3/22.7	29.5	34.8/35.5	36.0	38.2/43.8	
		Prime power rating	kVA	12.5	14.9/15.1	17.1	19.8/20.9	20.2	24.7/25.8	33.4	39.6/39.9	41.3	45.0/49.7	
	Prime power rating	kW	10.0	11.9/12.1	13.7	15.8/16.7	16.2	19.8/20.6	26.7	31.7/31.9	33.0	36.0/39.8		
Generator	Voltage (single phase)	V	220	220/127	220	220/127	220	220/127	220	220/127	220	220/127		
	Revolutions	min ⁻¹	1500	1800	1500	1800	1500	1800	1500	1800	1500	1800		
	Phase and wire		3-phase, 4-wire											
	Power factor	%	80 (lag)											
	Insulation		H (Stator, rotor)											
	No. of poles		4											
	Excitation		Brushless AVR											
	Type		Vertical water-cooled, 4-stroke diesel											
	Model		3TNV88-GGEH		4TNV88-GGEH		4TNV84T-GGEH		4TNV98-GGEH		4TNV98T-GGEH			
	No. of cyls-bore*stroke	mm	3-88*90		4-88*90		4-84*90		4-98*110		4-98*110			
	Displacement	L	1,642		2,190		1,995		3,318		3,318			
	Continuous rating output	kW	12.2	14.7	16.4	19.8	19.1	24.2	30.7	36.4	37.7	45.3		
	Rated output	kW	13.2	16.2	18.0	21.6	21.0	26.8	34.1	40.8	41.4	50.1		
	Revolutions	min ⁻¹	1500/1800											
	Combustion system		Direct injection											
	Cooling system		Radiator											
	Aspiration		Natural Aspiration		Turbocharged		Natural Aspiration		Turbocharged		Turbocharged			
Engine	Lubricating system		Forced lubrication with multi-stage trochoid pump											
	Starting system		Electric starting											
	Fuel		Diesel fuel (BS2869 A1 or A2)											
	Lubricating oil		API service: CD grade											
	Cooling water	Engine	L	2.0		2.7		2.7		4.2		4.2		
		Radiator	L	2.2		2.2		2.4		3.8		3.8		
	Lubricant qty	Total	L	6.7		7.4		7.4		10.5		10.5		
		Effective	L	2.8		3.4		3.4		5.0		5.0		
	Starting motor	V-kW	12-1.2		12-1.4		12-1.4		12-2.3		12-2.3			
	Charging alternator	V-A	12V-40A											
	Recommended battery capacity	V-AH	12-66		12-82									
	Fuel consumption (75% load)	L/hr	2.72	3.38	3.55	4.37	4.18	5.43	6.25	7.69	7.58	9.01		
Unit (open type)	Fuel tank capacity	L	60		76		76		120		120			
	Dry mass	kg	362		462		461		545		626			
	Fuel tank capacity	L	22		85									
Unit (silent type)	Dry mass	kg	691		870		885		950		960			
	Noise level	(100% load,1m) dB(A)	73	74	72	74	73	74	73	77	73	77		
		(100% load,7m) dB(A)	64	65	63	64	64	64	66	67	66	67		
		(75% load 4m) LWA dB	86	-	87	-	88	-	88	-	89	-		

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The TNV series adds a whole range of "goodies" that make this engine a mechanical "Work of art"

