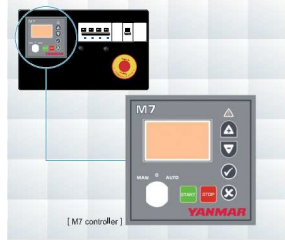
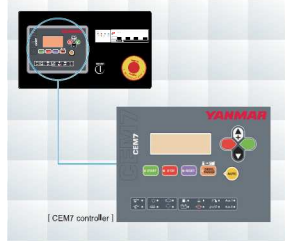


## YH Series Control panel scope of supply

### Control panel of YH170



### Control panel of YH220~550



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.

©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	✓	✓
Gen-set 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				
	YH170DTLA	YH220DTLA	YH280DTLA	YH440DTLA	YH550DTLA	YH170DTLS	YH220DTLS	YH280DTLS	YH440DTLS	YH550DTLS
L	1230	1460	1653	810	750	1475	1750	2100	2100	2100
W	550	604	604	810	750	750	975	975	975	975
H	1102	1148	1132	1234	1189	1110	1110	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	✓
	YH220-YH550	330L	✓
		600L	✓
		750L	✓
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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# 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/480V Model\* Silent\* A1 for open, and \*S for silent type)

Model*	Open type	YH170DTLA	YH220DTLA	YH280DTLA	YH440DTLA	YH550DTLA				
Frequency	Hz	50	60	50	60	50	60	50	60	
Voltage	V	380	380/220	380	380/220	380	380/220	380	380/220	
Current (prime power)	A	15.0	22.6/39.6	26.0	30.1/54.8	30.7	37.6/67.7	50.7	60.2/105	
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
	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
Generator	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
	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
Voltage (single phase)	V	220	220/127	220	220/127	220	220/127	220	220/127	
Revolutions	min <sup>-1</sup>	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	19.6	19.1	24.2	30.7	36.4	
Rated output	kW	13.2	16.2	18.0	21.6	21.0	26.8	34.1	40.8	
Revolutions	min <sup>-1</sup>	1500/1800								
Combustion system		Direct injection								
Cooling system		Radiator								
Aspiration		Natural Aspiration		Turbocharged		Natural Aspiration		Turbocharged		
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	2.7	4.2	4.2	4.2	
	Radiator	L	2.2	2.2	2.4	3.8	3.8	3.8	3.8	
	Total	L	6.7	7.4	7.4	10.5	10.5	10.5	10.5	
Lubricant qty	Effective	L	2.8	3.4	3.4	5.0	5.0	5.0	5.0	
	Starting motor	V×W	12-1.2	12-1.4	12-1.4	12-1.4	12-2.3	12-2.3	12-2.3	
Charging alternator	V×A	12V-40A								
Recommended battery capacity	V×Ah	12-66			12-92					
Fuel consumption (75% load)	L/hr	2.72	3.38	3.55	4.37	4.18	5.43	6.25	7.69	
Unit (open type)	Fuel tank capacity	L	60	76	76	120	120	120	120	
	Dry mass	kg	362	462	461	545	545	626	626	
Unit (silent type)	Fuel tank capacity	L	22	85	85	950	950	950	950	
	Dry mass	kg	691	870	885	950	950	950	950	
Noise level	(100% load, 1m)	dB(A)	73	74	72	74	73	74	73	
	(100% load, 7m)	dB(A)	64	65	63	64	64	66	67	
	(75% load 4m) LWA	dB	86	-	87	-	88	-	89	

## Powered by YANMAR TNV

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

