

YH Series

4-Pole, Three-Phase, Silent type

Generator Output 13.4kVA~55.0kVA



YH170



YH220/280/440/550

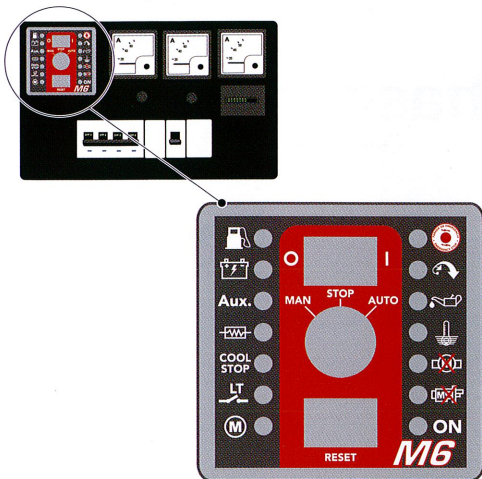
SPECIFICATIONS

(All models are also available in 400V/415V/440V)

Model	YH170DTLS		YH220DTLS		YH280DTLS		YH440DTLS		YH550DTLS					
Generator	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	60.2/104.7	62.7	68.4/130.4		
	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	
			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	
			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	
	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 (with damper coil) AVR													
Engine	Type	Vertical, water-cooled, 4-stroke diesel												
	Model	3TNV88-GGEH		4TNV88-GGEH		4TNV84T-GGEH		4TNV98-GGEH		4TNV98T-GGEH		4TNV98T-GGEH		
	No. of cyls-borexstroke	mm		3-88x90		4-88x90		4-84x90		4-98x110		4-98x110		
	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	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	NA				TC		NA		TC		TC		
	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 dynamo	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	7.58	9.01			
Unit	Dimension	L	1475				2100							
		W	750				975							
		H	1110				1325							
	Fuel tank capacity	L	22				85							
Dry mass	kg	691		870		885		950		960				

YH Series Control panel scope of supply

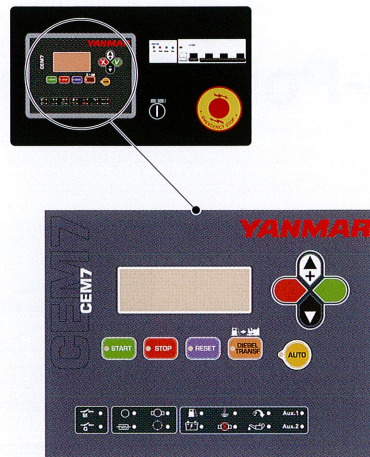
Control panel of YH170



User-friendly design simplifies the control of the Gen-set operation. Separate meters of Voltage, Amperage and Frequency allow you to monitor the power-output.

M6 controller protects the internal devices from harmful conditions. Three-key positions offer the possibility to start the engine in manual or automatic mode (in condition of free-voltage contact).

Control panel of YH220~550



The CEM7 controller unit is a device able to control operation, monitoring and protection of the Gen-set. 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 backlit 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 Gen-set. 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.

GENERATOR INDICATIONS	M6	CEM7
Voltage among phases	SI	●
Voltage among phases and neutral	×	●
Amperage	SI	●
Frequency	SI	●
Apparent power (kVA)	×	●
Active power (kW)	×	●
Reactive power (kVAR)	×	●
ENGINE INDICATIONS		
Coolant temperature	×	A
Oil pressure	×	A
Fuel level (%)	×	●
Battery voltage	×	●
Revolution speed	×	●
Battery charge alternator voltage	×	●
ENGINE PROTECTIONS		
High water temperature	P	P
High coolant temperature by sensor	×	Pro
Low engine temperature by sensor	×	Pro
Low oil pressure	P	P
Low oil pressure by sensor	×	A
Unexpected shutdown	●	●
Fuel storage	A	A
Fuel storage by sensor	×	Pro
Stop failure	×	●
Battery voltage failure	×	●
Battery charge alternator failure	A	A
Overspeed	P	P
Underspeed	×	P
Start failure	●	●
Emergency Stop	●	●

ALTERNATOR PROTECTIONS	M6	CEM7
High frequency	P	P
Low frequency	×	P
High voltage	×	P
Low voltage	×	P
Short-circuit	×	P
Asymmetry among phases	×	P
Incorrect phase sequence	×	P
Inverse power	×	P
Overload	×	P
COUNTER INDICATIONS		
Total hour counter	SI	●
Partial hour counter	×	●
Kilowatt meter	×	●
Start valid counters	×	●
Start failure counters	×	●
Maintenance	×	●
FEATURES		
Alarm history	×	UP to 100
External start	●	●
Start inhibition	×	●
Pre-heating engine control	●	●
Gen-set contactor activation	●	●
Fuel transfer control	×	●
Engine temperature control	×	●
Manual override	×	●
Programmable alarms	×	●
Gen-set start function in test mode	×	●
Programmable outputs	×	●
Multilingual	×	●

●:Standard ×:Not included A:Warning, alarm without engine stop. P:Alarm with engine stop. SI:Separate indicator Pro:Programmable

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

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