

## DEEP SEA CONTROLLER

Huu Toan chooses Deep Sea Electronics from UK, the world's number one manufacturer of generator control, as our partner. DSE displays information to the operator in a clear, concise and easy-to-use format for customers



## MARATHON/MECC ALTE ALTERNATOR

Mecc Alte is the world leading alternators producer, made in UK/Italy. These products have ultra-compact design, high voltage accuracy and minimal harmonic content of voltage and interference meeting all demanding technological application's requirements



## MTU ENGINES

Huu Toan uses MTU engines, made in Germany and widely considered as one of the largest range power engine brand in the world, for the above 500 kVA Gensets. MTU engines are featured advanced technologies give Huu Toan Gensets huge competitive advantages in strong power, long durability, low fuel consumption, low operating temperature and minimal exhaust emissions

## HUU TOAN'S SOUND PROOF SYSTEM

In order to meet rigorous super-silent standard, Huu Toan uses sheet metal with thickness of 1.8-2.0 mm coated with Jotun/AkzoNobel powder and installs premium acoustic insulation system materials for our Genset Sound Proof System

## THE MOST ADVANCED GENSET OEM FACTORY IN VIETNAM



AE 2510

Modern powder coating application provides the most color-durable and longest-lasting finishes available

High efficient and precise automated CNC systems

HUU TOAN

HỆ THỐNG KIỂM TRA CÔNG SUẤT MÁY PHÁT ĐẾN 2500 KVA  
QUALITY TESTING SYSTEM FOR GENSET UP TO 2500 KVA

The wide range up to 2500 kVA permanent load bank

Automated robotic welding delivers a higher quality fabricated steel

**HUU TOAN**

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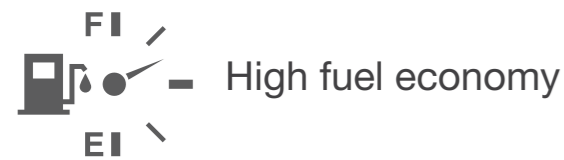
**HUU TOAN**

# GENERATOR HT5M series



WE PUT OUR HEART AND DEDICATION TO DEVELOP QUALITY PRODUCTS WORTHY OF THE VIETNAMESE BRAND, VIETNAMESE SPIRIT

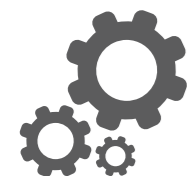
# GENERATOR 500 - 2200<sup>kVA</sup>



High fuel economy



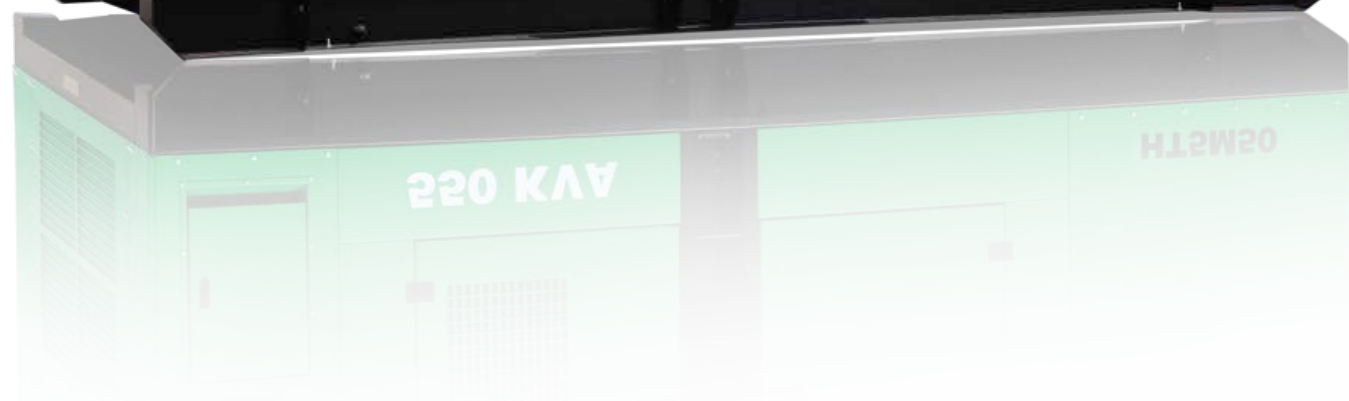
Superior soundproof system



Reliable durability



ISO 9001:2008 standard



## SPECIFICATIONS

MODEL			HT5M50	HT5M65	HT5M80	HT5M90	HT5M100	HT5M110	HT5M125	HT5M150	HT5M160	HT5M180	HT5M200	HT5M220		
GENERATOR	Type		Synchronous generator, direct coupling, brushless.													
	Insulation and protection class		Class H, IP21 ( other on request)													
	Voltage regulation		± 1% from no-load to nominal load in static condition with frequency variations ranging from -5% to +20% of the nominal value.													
	Frequency		50 / 60													
	Voltage		220/380V - 50Hz ÷ 240/415V - 60Hz													
	Phase - Wires - Power factor		3 PHASES - 4 WIRES - COSPHI 0.8													
Power	Standby	kVA	546 / 590	715 / 755	847 / 962	990 / 1100	1100 / 1237	1243 / 1375	1338 / --	1650 / 1780	1760 / 1900	1970 / 2180	2255 / 2475	2400 / 2500		
	Prime	kVA	500 / 540	650 / 687	770 / 880	900 / 1000	1000 / 1125	1130 / 1250	1250 / --	1500 / 1620	1600 / 1730	1790 / 1983	2050 / 2250	2200 / 2375		
ENGINE	Engine model		MTU	10V 1600 G20F 10V 1600 G20S-60Hz	12V 1600 G20F 12V 1600 G20S-60Hz	12V 2000 G65-TD 12V 2000 G65-60Hz-TD	16V 2000 G25-TD 16V 2000 G45-60Hz-TD	16V 2000 G65-TD 16V 2000 G65-60Hz-TD	18V 2000 G65-TD 18V 2000 G65-60Hz-TD	18V 2000 G26F-TD --/--	12V 4000 G23 12V 4000 G43-60Hz	12V 4000 G23 12V 4000 G43-60Hz	12V 4000 G63 12V 4000 G83-60Hz	16V 4000 G23 16V 4000 G43-60Hz	16V 4000 G63 16V 4000 G83-60Hz	
	Type		Diesel 4 stroke													
	Aspiration		Turbo charged air-to-air intercooler													
	Speed governor		Electronic													
	Compression ratio		17.5, 17.5, 16, 16, 16, 16, 17.5, 16.5, 16.5, 16.5, 16.5, 16.5, 16.5, 16.5													
	Cylinder - Arrangement		10 - V 90, 12 - V 90, 12 - V 90, 16 - V 90, 16 - V 90, 18 - V 90, 18 - V 90, 12 - V 90, 12 - V 90, 12 - V 90, 16 - V 90, 16 - V 90													
	Bore x stroke		mm	122 x 150	122 x 150	130 x 150	130 x 150	130 x 150	130 x 150	135 x 156	170 x 210	170 x 210	170 x 210	170 x 210	170 x 210	
	Total displacement		L	17.5	21	23.88	31.84	31.84	35.82	40.2	57.2	57.2	57.2	76.3	76.3	
	Revolutions		rpm	1500 / 1800						1500			1500 / 1800			
	Power	Standby	Hp	--	--	--	--	--	--	--	--	--	--	--	--	
Prime		Hp	--	--	--	--	--	--	--	--	--	--	--	--		
Power	Standby	kWm	493 / 561	634 / 668	765 / 890	891 / 1007	979 / 1114	1100 / 1310	1212 / --	1562 / 1672	1562 / 1672	1733 / 1910	1978 / 2222	2162 / 2508		
	Prime	kWm	448 / 511	576 / 608	695 / 810	810 / 915	890 / 1010	1000 / 1191	1102 / --	1420 / 1520	1420 / 1520	1575 / 1736	1798 / 2020	1965 / 2280		
FUEL SYSTEM	Fuel type		Diesel EN 590, Grade No.1-D/2-D (ASTM D975-00)													
	Fuel consumption	100%	L/h	108.4 / 108.5	139.7 / 141.8	165.4 / 210.4	190.8 / 213.0	209.7 / 243.9	240.4 / 287.7	250 / --	299.3 / 333.6	319.3 / 356.3	361.7 / 415.2	410.8 / 461.3	428.5 / 487.1	
		80%	L/h	88.4 / 85.6	104.8 / 107.4	124 / 151.8	143.1 / 162.8	157.3 / 186.5	180.3 / 222.1	188 / --	224.5 / 254.3	239.5 / 271.3	271.3 / 308.3	308.1 / 351.2	321.4 / 361.7	
		50%	L/h	54.2 / 63.6	69.8 / 79.3	82.7 / 102.6	95.4 / 111.1	104.8 / 126.7	120.2 / 150.9	126 / --	149.7 / 180.4	159.7 / 192.6	180.9 / 219	205.4 / 247.9	214.3 / 252	
Fuel tank capacity (OP/SP)		L	800 / 1000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
LUB OIL SYSTEM	Oil consumption		< 0.2% of fuel consumption per hour			< 0.5% of fuel consumption per hour			< 0.35% of fuel consumption per hour			< 0.3% of fuel consumption per hour				
	Oil grade		Multi-grade oils-category 2, SAE-grades 10W-40 and 15W-40 for diesel engines													
	Oil capacity		L	60.5	65	77	102	102	130	122	260	260	260	300	300	
COOLANT	Coolant capacity (engine only)		L	60	72.5	90	110	110	120	73	160	160	160	175	175	
CONTROL SYSTEM	Type		AMF ( Auto mains failure control module) - 12/24VDC - MCB / MCCB output protection - CANbus system													
	Basic function		Indication : LV/LL voltage, L1/L2,L3 current, Frequency, Power ( kW, kVA,kVAh,kWh, kVAh,kVAh), Rpm , Oil pressure , Coolant temperature , Hours run , Charging voltage, Battery voltage. ALarm: Low fuel level. Shutdown with indication: Over voltage, Under voltage, Over frequency, Under frequency, Overload, Short circuit, High water temperature, Low oil pressure.													
DIMENSIONS (Open / Soundproof)	Length		mm	3050 / 4350	3426 / 5439	3905 / 5960	4700 / 6350	4750 / 6350	4980 / 6500	5040 / 6600	6300 / 8400	6300 / 8400	6500 / 12192	6970 / 12192	7100 / 12192	
	Width		mm	1520 / 1877	1442 / 1981	1603 / 2010	1700 / 1850	1700 / 1850	2106 / 2150	2106 / 2150	2230 / 2907	2230 / 2907	2230 / 2438	2230 / 2438	2230 / 2438	
	Height		mm	2075 / 2330	1958 / 2332	2200 / 2350	2250 / 2350	2350 / 2350	2470 / 3351	2470 / 3351	2700 / 3780	2700 / 3780	2782 / 2896	2872 / 2896	2760 / 2896	
DRY WEIGHT (Open / Soundproof)		kg	3700 / 4700	4500 / 5850	6000 / 8200	7000 / 9500	7500 / 10700	8450 / 12000	-- / --	14000 / 19500	14000 / 19500	15000 / 20500	16000 / 21500	16500 / 22000		
OPTIONAL DEVICES		Automatic transfer switch (ATS), Synchronizing system														
NOISE LEVEL (Open / Soundproof)		dB	-- / 85	-- / 85	-- / 85	-- / 85	-- / 85	-- / 85	-- / 85	-- / 85	-- / 85	-- / 85	-- / 85	-- / 85		

▲ Error within ±5%

▲ NOISE LEVEL with 75% load at 7 meter

▲ Specifications are subject to change without notice