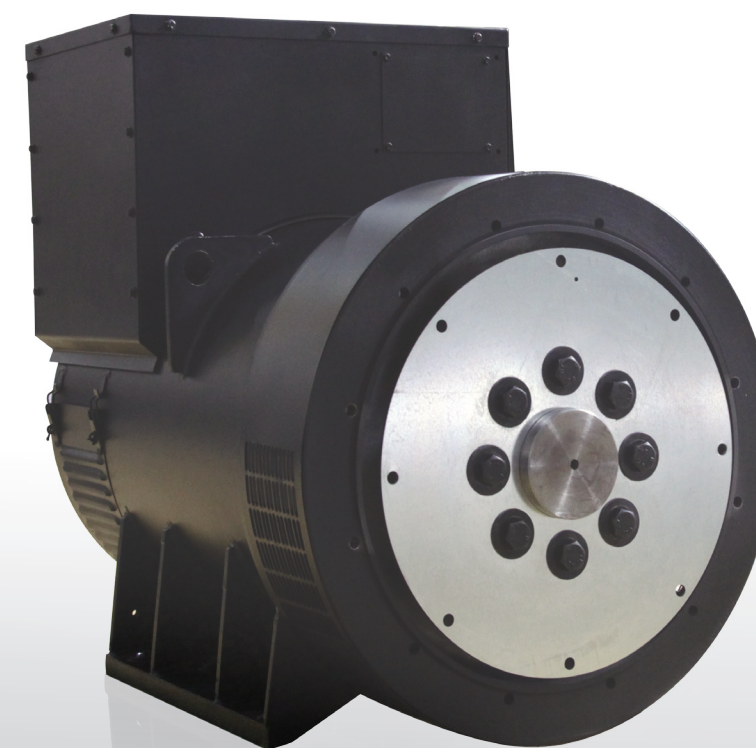




ALTERNATORS FOR STATIONARY POWER APPLICATIONS



REGULATION & EXCITATION

MBH alternators are equipped with outstandingly engineered and reliable automatic voltage regulators.

- Frame A & B (8 to 40 kVA)
 - Analog AVR : R4/6
 - Voltage regulation +/-1%
 - Self excited
 - Auxiliary winding option upon request
- Frame C & D (50 to 250 kVA)
 - Analog AVR : R4/4
 - Voltage regulation +/-1%
 - Self excited
 - Frame C, Auxiliary option upon request
 - Frame D auxiliary winding built in (Upgrade AVR to R6/4G2)
 - Three phase sensing AVR option
- Frame E, F, G & H (300 to 2135 kVA)
 - Analog AVR : 2 phase sensing R6/4G2 Frame E to Frame G
 - Analog AVR : 3 phase sensing R6/2G1 Frame H
 - Voltage regulation +/-0.5%
 - Auxiliary winding
 - Digital AVR option
 - Three phase sensing AVR option Frame E to Frame G

PARALLEL

MBH Alternators are capable to run parallel with:

- Frames A, B, C & D as an option: a PK-4 module.
- Frames E, F, G & H as standard.

OPTIONS

- Anti-condensation heaters
- Air inlet filters (Derate 5%)
- Air outlet deflectors (Derate 5%)
- Current transformers for parallel operation
- Temperature detectors for bearings
- Temperature detectors for stator windings
- Remote voltage trimmer
- Different adaptors for specific applications

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The "MBH Alternators" division manufactures synchronous, brushless and self excited AC alternators. MBH alternators are designed in a way to achieve high efficiency, to minimize the harmonics on the voltage waveform and to withstand vibrations.

Furthermore, they are equipped with auxiliary winding as part of the excitation system to enhance the voltage regulation at application of sudden loads.

RANGE

MBH alternators range from 7.5 to 2950 kVA, can operate at 50Hz or 60Hz, with a power factor from 0.8 (lag) to 1.0.

APPLICATIONS

MBH alternators are designed and manufactured for stationary power applications, and used in continuous and standby modes in hospitals, commercial centers, telecommunication, cogeneration, and many other segments.

QUALITY & RELIABILITY

MBH's quality control system secures the best quality in all processes starting from Design to Engineering, Manufacturing and Sales. We are certain to provide the best alternator quality, undoubtedly translated by our warranty commitment.

TECHNICAL SUPPORT & AFTER SALES SERVICE

We are committed to providing the best after-sales service to you, wherever you are.

For technical support, information on warranty and spare parts, contact our service division at service@mbh.de

Voltage: 220/380Volts - 50Hz				Voltage: 230/400Volts - 50 Hz				Voltage: 254/440Volts - 60 Hz				Voltage: 277/480Volts - 60 Hz					
Insulation Class "F" 105°C		Insulation Class "H" 125°C		Insulation Class "F" 105°C		Insulation Class "H" 125°C		Insulation Class "F" 105°C		Insulation Class "H" 125°C		Insulation Class "F" 105°C		Insulation Class "H" 125°C			
Alternator Model	Continuous kVA	Continuous kVA	Standby kVA	Continuous kVA	Continuous kVA	Standby kVA	Continuous kVA	Continuous kVA	Standby kVA	Continuous kVA	Continuous kVA	Standby kVA	Continuous kVA	Continuous kVA	Standby kVA	AVR - Reg. %	AUX. Winding
A0 XI 4	7.4	8.0	8.0	7.4	8.0	8.0	9.3	10.1	10.1	9.3	10.1	10.1	R4/6 - ±1%	Option			
A1 XI 4	10.0	11.0	11.0	10.0	11.0	11.0	12.5	13.8	13.8	12.5	13.8	13.8	R4/6 - ±1%	Option			
A2 XI 4	12.0	13.0	13.0	12.0	13.0	13.0	15.0	16.3	16.3	15.0	16.3	16.3	R4/6 - ±1%	Option			
A3 XI 4	15.0	16.0	16.0	15.0	16.0	16.0	18.8	20.0	20.0	18.8	20.0	20.0	R4/6 - ±1%	Option			
B0 XI 4	19.6	22.0	22.0	19.6	22.0	22.0	25.7	26.9	26.9	26.9	29.3	29.3	R4/6 - ±1%	Option			
B1 XI 4	22.9	25.0	25.0	22.9	25.0	25.0	27.5	30.0	30.0	27.5	30.0	30.0	R4/6 - ±1%	Option			
B2 XI 4	28.7	31.0	31.0	28.7	31.0	31.0	34.1	37.1	38.4	34.1	37.1	38.4	R4/6 - ±1%	Option			
B3 XI 4	33.9	37.0	37.0	33.9	37.0	37.0	42.4	46.3	47.9	42.4	46.3	47.9	R4/6 - ±1%	Option			
B4 XI 4	36.7	40.0	41.5	36.7	40.0	40.0	45.8	50.0	52.0	43.1	47.1	48.9	R4/6 - ±1%	Option			
C0 XI 4	45.0	50.0	53.0	45.0	50.0	53.0	55.0	63.0	66.0	58.0	65.0	69.0	R4/4 - ±1%	Option			
C1 XI 4	53.0	60.0	61.0	53.0	60.0	61.0	65.0	73.0	74.0	68.0	75.0	79.0	R4/4 - ±1%	Option			
C2 XI 4	67.0	75.0	79.0	67.0	75.0	79.0	81.0	91.0	96.0	85.0	97.0	103.0	R4/4 - ±1%	Option			
C3 XI 4	75.0	85.0	87.0	75.0	85.0	87.0	90.0	100.0	103.0	95.0	104.0	110.0	R4/4 - ±1%	Option			
D0 XI 4	84.0	100.0	106.0	84.0	100.0	106.0	106.0	118.0	126.0	112.0	125.0	132.0	R4/4 - ±1%	Built In			
D1 XI 4	98.0	112.0	119.0	106.0	112.0	119.0	123.0	135.0	142.0	123.0	137.0	146.0	R4/4 - ±1%	Built In			
D2 XI 4	110.0	125.0	127.0	110.0	125.0	132.0	137.0	150.0	157.0	143.0	160.0	168.0	R4/4 - ±1%	Built In			
D3 XI 4	125.0	140.0	145.0	125.0	140.0	145.0	144.0	168.0	176.0	160.0	179.0	188.0	R4/4 - ±1%	Built In			
D4 XI 4	134.0	150.0	159.0	134.0	150.0	159.0	153.0	170.0	179.0	170.0	189.0	195.0	R4/4 - ±1%	Built In			
D5 XI 4	145.0	160.0	170.0	145.0	160.0	170.0	173.0	190.0	200.0	187.0	206.0	212.0	R4/4 - ±1%	Built In			
D6 XI 4	163.0	180.0	185.0	163.0	180.0	185.0	197.0	216.0	226.0	210.0	229.0	247.0	R4/4 - ±1%	Built In			
D7 XI 4	182.0	200.0	212.0	182.0	200.0	212.0	225.0	245.0	259.0	235.0	255.0	275.0	R4/4 - ±1%	Built In			
D8 XI 4	205.0	225.0	245.0	205.0	225.0	245.0	258.0	275.0	294.0	270.0	294.0	313.0	R4/4 - ±1%	Built In			
D9 XI 4	229.0	250.0	265.0	229.0	250.0	265.0	275.0	299.0	312.0	287.0	312.0	331.0	R4/4 - ±1%	Built In			
E0 WI 4	280.0	300.0	320.0	280.0	300.0	320.0	335.0	360.0	385.0	345.0	375.0	400.0	R6/4G2 - ±0.5%	Standard			
E1 WI 4	300.0	325.0	345.0	300.0	325.0	345.0	363.0	394.0	419.0	381.0	419.0	444.0	R6/4G2 - ±0.5%	Standard			
E2 WI 4	320.0	350.0	370.0	320.0	350.0	370.0	385.0	420.0	445.0	400.0	440.0	460.0	R6/4G2 - ±0.5%	Standard			
E3 WI 4	345.0	375.0	385.0	345.0	375.0	385.0	414.0	450.0	479.0	433.0	469.0	494.0	R6/4G2 - ±0.5%	Standard			
E4 WI 4	370.0	400.0	415.0	370.0	400.0	430.0	445.0	480.0	515.0	465.0	500.0	535.0	R6/4G2 - ±0.5%	Standard			
F0 WI 4	400.0	450.0	478.0	400.0	450.0	478.0	500.0	550.0	581.0	538.0	594.0	625.0	R6/4G2 - ±0.5%	Standard			
F1 WI 4	450.0	500.0	515.0	450.0	500.0	515.0	538.0	594.0	625.0	588.0	644.0	675.0	R6/4G2 - ±0.5%	Standard			
F2 WI 4	513.0	560.0	594.0	523.0	560.0	594.0	596.0	654.0	688.0	630.0	700.0	747.0	R6/4G2 - ±0.5%	Standard			
F3 WI 4	550.0	600.0	636.0	550.0	600.0	636.0	650.0	713.0	750.0	664.0	738.0	787.0	R6/4G2 - ±0.5%	Standard			
F4 WI 4	610.0	665.0	700.0	611.0	665.0	700.0	707.0	764.0	807.0	739.0	813.0	862.0	R6/4G2 - ±0.5%	Standard			
G0 WI 4	651.0	710.0	730.0	687.0	750.0	775.0	784.0	855.0	889.0	860.0	938.0	970.0	R6/4G2 - ±0.5%	Standard			
G1 WI 4	697.0	760.0	785.0	733.0	800.0	825.0	840.0	916.0	948.0	917.0	1000.0	1035.0	R6/4G2 - ±0.5%	Standard			
G2 WI 4	793.0	865.0	890.0	834.0	910.0	938.0	956.0	1043.0	1077.0	1043.0	1138.0	1175.0	R6/4G2 - ±0.5%	Standard			
G3 WI 4	871.0	950.0	980.0	917.0	1000.0	1030.0	1049.0	1145.0	1180.0	1146.0	1250.0	1290.0	R6/4G2 - ±0.5%	Standard			
G4 WI 4	990.0	1080.0	1115.0	1026.0	1120.0	1155.0	1157.0	1262.0	1303.0	1263.0	1378.0	1423.0	R6/4G2 - ±0.5%	Standard			
G5 WI 4	1091.0	1190.0	1225.0	1146.0	1250.0	1288.0	1270.0	1386.0	1432.0	1386.0	1513.0	1563.0	R6/4G2 - ±0.5%	Standard			
H0 WI 4	1265.0	1360.0	1415.0	1305.0	1400.0	1460.0	1510.0	1625.0	1690.0	1575.0	1690.0	1760.0	R6/2G1 - ±0.5%	Standard			
H1 WI 4	1400.0	1505.0	1570.0	1445.0	1550.0	1615.0	1690.0	1815.0	1890.0	1760.0	1890.0	1970.0	R6/2G1 - ±0.5%	Standard			
H2 WI 4	1500.0	1615.0	1675.0	1540.0	1650.0	1720.0	1800.0	1935.0	2015.0	1875.0	2015.0	2100.0	R6/2G1 - ±0.5%	Standard			
H3 WI 4	1715.0	1845.0	1920.0	1770.0	1900.0	1980.0	2055.0	2210.0	2300.0	2140.0	2300.0	2395.0	R6/2G1 - ±0.5%	Standard			
H4 WI 4	1871.0	2010.0	2095.0	1926.0	2070.0	2160.0	2314.0	2488.0	2588.0	2408.0	2588.0	2692.0	R6/2G1 - ±0.5%	Standard			
H5 WI 4	1985.0	2135.0	2225.0	2050.0	2200.0	2295.0	2360.0	2535.0	2635.0	2560.0	2750.0	2860.0	R6/2G1 - ±0.5%	Standard			

For ratings at other voltages than shown in above tables, please refer to technical documents.

International Standards

MBH AC alternators comply with the requirements of International Standards VDE0530, IEC34-1, BS5000, GB755, and AS1359. Specific products complying with other standards and certifications can be made available.

Rating Definitions

All standard ratings are based on altitude up to 1000m above sea level, 40°C Ambient Temperature, 0,8 (lag) – 1,0 power factor and IP 23 enclosure which corresponds to IC01 cooling according to IEC 34 standard.

Continuous Running: This rating at which the machine may be operated for an unlimited period, while complying with requirements of above standards.

Standby Running: This rating at which the machine may be operated for a limited period above the continuous permissible, while complying with the requirements of above standards.

Naming (Designation of alternator's model)

Example for: E4 WI S/4

- E: Letter indicates the frame size (A, B, C, D, E, F, G, H - Refer to drawings)
- 4: Digit indicates the core length (0, 1, 2, 3, 4, 5, 6, 7, 8, 9 - Refer to drawings)
- W: Letter indicates the excitation system (X: Self, W: AUX)
- I: Letter indicates the application (I: Industrial, M: Marine)
- S: Letter indicates the bearing's number (S: Single, D: Double)
- 4: Digit indicates the number of poles (2, 4)

Documentation

MBH alternators are supplied with:

- Operation manual and spare parts list
- General drawing
- Circuit diagram
- AVR Manual
- Other documents can be provided upon request (Test certificates, certificates of origin, drawings)