



## Specification Sheet for WorldWide Electric FDD6112, Three-Phase

CONTROL SYSTEM	P.M.G.-EXCITED							
AUTOMATIC VOLTAGE REGULATOR	AGR321				AGR341			
VOLTAGE REGULATION	± 0.5 %				± 1.0 %			
	WITH 4% ENGINE GOVERNING							
SUSTAINED SHORT CIRCUIT	SEE SHORT-CIRCUIT DECREMENT CURVES							
INSULATION SYSTEM	CLASS H							
PROTECTION	IP23							
RATED POWER FACTOR	0.8							
STATOR WINDING	DOUBLE LAYER LAP							
WINDING PITCH	TWO-THIRDS							
NUMBER OF WINDING LEADS	6							
STATOR WINDING RESISTANCE	0.0018/PHASE @ 22°C WIRED AS HIGH WYE (SERIES STAR)							
ROTOR WINDING RESISTANCE	2.14Ω @ 22°C							
R.F.I. SUPPRESSION	BS EN 61000-6-2 & BS EN 61000-6-4, VDE 0875G, VDE 0875N. Consult the factory for others.							
WAVEFORM DISTORTION	NO LOAD < 1.5% NON-DISTORTING BALANCED LINEAR LOAD < 5.0%							
MAXIMUM OVERSPEED	2250 Rev/Min							
BEARING DRIVE END	BALL. 6228 (ISO)							
BEARING NON-DRIVE END	BALL. 6319 (ISO)							
	1 BEARING				2 BEARING			
WEIGHT COMP. GENERATOR	2678 kg				2700 kg			
WEIGHT WOUND STATOR	1148 kg				1148 kg			
WEIGHT WOUND ROTOR	993 kg				945 kg			
WR <sup>2</sup> INERTIA	23.9182 kgm <sup>2</sup>				23.3750 kgm <sup>2</sup>			
SHIPPING WEIGHTS in a crate	2819 kg				2885 kg			
PACKING CRATE SIZE	194 x 105 x 154 (cm)				194 x 105 x 154 (cm)			
	50 Hz				60 Hz			
TELEPHONE INTERFERENCE	THF < 2%				TIF < 50			
COOLING AIR	2.18 m <sup>3</sup> /sec, 4619 CFM				2.63 m <sup>3</sup> /sec, 5573 CFM			
HIGH WYE (SERIES STAR), VAC	380/220	400/231	415/240	440/254	416/240	440/254	460/266	480/277
KVA BASE RATING FOR REACTANCE VALUES	1090	1130	1130	1025	1204	1274	1332	1390
X <sub>d</sub> DIR. AXIS SYNCHRONOUS	2.57	2.40	2.23	1.80	2.88	2.73	2.61	2.50
X' <sub>d</sub> DIR. AXIS TRANSIENT	0.13	0.12	0.12	0.09	0.15	0.14	0.13	0.13
X'' <sub>d</sub> DIR. AXIS SUBTRANSIENT	0.10	0.09	0.08	0.07	0.11	0.10	0.10	0.09
X <sub>q</sub> QUAD. AXIS REACTANCE	2.14	2.00	1.86	1.50	2.40	2.27	2.17	2.08
X'' <sub>q</sub> QUAD. AXIS SUBTRANSIENT	0.24	0.23	0.21	0.17	0.27	0.26	0.25	0.24
X <sub>L</sub> LEAKAGE REACTANCE	0.07	0.06	0.06	0.05	0.07	0.07	0.07	0.06
X <sub>2</sub> NEGATIVE SEQUENCE	0.17	0.16	0.15	0.12	0.19	0.18	0.17	0.16
X <sub>0</sub> ZERO SEQUENCE	0.03	0.03	0.02	0.02	0.03	0.03	0.03	0.03
REACTANCES ARE SATURATED. VALUES ARE PER UNIT AT RATING AND VOLTAGE INDICATED.								
T' <sub>d</sub> TRANSIENT TIME CONST.	0.103 s							
T'' <sub>d</sub> SUB-TRANSTIME CONST.	0.014 s							
T' <sub>do</sub> O.C. FIELD TIME CONST.	3.38 s							
T <sub>a</sub> ARMATURE TIME CONST.	0.035 s							
SHORT CIRCUIT RATIO	1/X <sub>d</sub>							

### 50Hz RATINGS

Class	F				H				Standby							
Temp Rise	105°C R/R (40°C)				125°C R/R (40°C)				150°C R/R (40°C)				163°C R/R (27°C)			
High Wye (Series Star) Voltage	380	400	415	440	380	400	415	440	380	400	415	440	380	400	415	440
High (Series) Delta Voltage	220	230	240	254	220	230	240	254	220	230	240	254	220	230	240	254
KVA Output	999	1035	1035	939	1090	1130	1130	1025	1125	1165	1165	1055	1145	1185	1185	1075
kW Output	799	828	828	751	872	904	904	820	900	932	932	844	916	948	948	860
Efficiency, %	94.8	94.9	95.0	95.3	94.6	94.7	94.8	95.1	94.5	94.6	94.7	95.1	94.4	94.5	94.7	95.1
kW Input	843	872	872	788	922	955	954	862	952	985	984	887	970	1003	1001	904

### 60Hz RATINGS

Class	F				H				Standby							
Temp Rise	105°C R/R (40°C)				125°C R/R (40°C)				150°C R/R (40°C)				163°C R/R (27°C)			
High Wye (Series Star) Voltage	416	440	460	480	416	440	460	480	416	440	460	480	416	440	460	480
High (Series) Delta Voltage	240	254	266	277	240	254	266	277	240	254	266	277	240	254	266	277
KVA Output	1104	1167	1220	1274	1204	1274	1332	1390	1243	1315	1375	1435	1257	1329	1390	1450
kW Output	883	934	976	1019	963	1019	1066	1112	994	1052	1100	1148	1006	1063	1112	1160
Efficiency, %	94.8	94.9	94.9	95.0	94.6	94.7	94.7	94.7	94.5	94.6	94.6	94.7	94.5	94.5	94.6	94.6
kW Input	932	984	1028	1073	1018	1076	1125	1174	1052	1112	1163	1212	1064	1125	1175	1226