



Specification Sheet for WorldWide Electric FDD7112, 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	0.0015/PHASE @ 22°C WIRED AS HIGH WYE (SERIES STAR)							
ROTOR WINDING RESISTANCE	2.45Ω @ 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	2658 kg				2840 kg			
WEIGHT WOUND STATOR	1350 kg				1350 kg			
WEIGHT WOUND ROTOR	1167 kg				1129 kg			
WR ² INERTIA	29.2790 kgm ²				28.7543 kgm ²			
SHIPPING WEIGHTS in a crate	3054 kg				3130 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 ³ /sec, 4619 CFM				2.63 m ³ /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	1190	1250	1250	1135	1310	1386	1449	1513
X _d DIR. AXIS SYNCHRONOUS	2.16	2.05	1.90	1.54	2.47	2.33	2.23	2.14
X' _d DIR. AXIS TRANSIENT	0.12	0.11	0.10	0.08	0.13	0.13	0.12	0.12
X'' _d DIR. AXIS SUBTRANSIENT	0.09	0.08	0.08	0.06	0.10	0.09	0.09	0.08
X _q QUAD. AXIS REACTANCE	1.79	1.70	1.58	1.28	2.04	1.93	1.85	1.77
X'' _q QUAD. AXIS SUBTRANSIENT	0.21	0.20	0.18	0.15	0.23	0.22	0.21	0.20
X _L LEAKAGE REACTANCE	0.07	0.06	0.06	0.05	0.07	0.07	0.07	0.07
X ₂ NEGATIVE SEQUENCE	0.15	0.14	0.13	0.11	0.17	0.16	0.15	0.15
X ₀ ZERO SEQUENCE	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
REACTANCES ARE SATURATED.	VALUES ARE PER UNIT AT RATING AND VOLTAGE INDICATED.							
T' _d TRANSIENT TIME CONST.	0.115 s							
T'' _d SUB-TRANSTIME CONST.	0.015 s							
T' _{do} O.C. FIELD TIME CONST.	3.6 s							
T _a ARMATURE TIME CONST.	0.038 s							
SHORT CIRCUIT RATIO	1/X _d							

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	1091	1146	1146	1040	1190	1250	1250	1135	1225	1288	1288	1170	1250	1313	1313	1190
kW Output	873	917	917	832	952	1000	1000	908	980	1030	1030	936	1000	1050	1050	952
Efficiency, %	95.1	95.1	95.1	95.3	94.9	94.9	95.0	95.2	94.8	94.8	94.9	95.2	94.7	94.7	94.8	95.2
kW Input	918	964	964	873	1003	1054	1053	954	1034	1087	1086	983	1056	1109	1108	1000

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	1200	1270	1328	1386	1310	1386	1449	1513	1354	1432	1497	1563	1369	1448	1514	1580
kW Output	960	1016	1062	1109	1048	1109	1159	1210	1083	1146	1198	1250	1095	1158	1211	1264
Efficiency, %	95.1	95.1	95.1	95.1	94.9	94.9	95.0	95.0	94.8	94.9	94.9	94.9	94.8	94.8	94.9	94.9
kW Input	1009	1068	1117	1166	1104	1168	1220	1274	1143	1207	1262	1318	1155	1222	1276	1332