



Specification Sheet for WorldWide Electric FDD2112, 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	0.0034Ω/PHASE @ 22°C WIRED AS HIGH WYE (SERIES STAR)							
ROTOR WINDING RESISTANCE	1.66Ω @ 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	2076 kg				2120 kg			
WEIGHT WOUND STATOR	907 kg				907 kg			
WEIGHT WOUND ROTOR	788 kg				744 kg			
WR ² INERTIA	17.652 kgm ²				17.1086 kgm ²			
SHIPPING WEIGHTS in a crate	2173 kg				2200 kg			
PACKING CRATE SIZE	183 x 92 x 140 (cm)				183 x 92 x 140 (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	760	800	800	725	865	916	958	1000
X _d DIR. AXIS SYNCHRONOUS	2.69	2.56	2.38	1.92	3.07	2.91	2.79	2.67
X' _d DIR. AXIS TRANSIENT	0.15	0.14	0.13	0.11	0.17	0.16	0.16	0.15
X'' _d DIR. AXIS SUBTRANSIENT	0.11	0.10	0.10	0.08	0.12	0.12	0.11	0.11
X _q QUAD. AXIS REACTANCE	2.24	2.13	1.98	1.60	2.56	2.42	2.32	2.22
X'' _q QUAD. AXIS SUBTRANSIENT	0.27	0.25	0.24	0.19	0.30	0.28	0.27	0.26
X _L LEAKAGE REACTANCE	0.08	0.08	0.07	0.06	0.09	0.09	0.08	0.08
X ₂ NEGATIVE SEQUENCE	0.19	0.18	0.17	0.13	0.22	0.21	0.20	0.19
X ₀ ZERO SEQUENCE	0.03	0.03	0.03	0.02	0.03	0.03	0.03	0.03
REACTANCES ARE SATURATED. VALUES ARE PER UNIT AT RATING AND VOLTAGE INDICATED.								
T' _d TRANSIENT TIME CONST.	0.099 s							
T'' _d SUB-TRANSTIME CONST.	0.013 s							
T' _{do} O.C. FIELD TIME CONST.	2.95 s							
T _a ARMATURE TIME CONST.	0.034 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	651	687	687	623	710	750	750	680	730	775	775	700	745	790	790	715
kW Output	521	550	550	498	568	600	600	544	584	620	620	560	596	632	632	572
Efficiency, %	93.6	93.6	93.8	94.2	93.2	93.3	93.5	94.0	93.1	93.1	93.3	94.0	93.0	93.0	93.3	93.9
kW Input	556	587	586	529	609	643	642	579	627	666	665	596	641	680	677	609

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	742	784	820	860	810	855	895	938	840	889	929	970	849	898	939	980
kW Output	594	627	656	688	648	684	716	750	672	711	743	776	679	718	751	784
Efficiency, %	93.3	93.5	93.6	93.6	93.0	93.1	93.2	93.3	92.8	93.0	93.1	93.1	92.8	92.9	93.0	93.1
kW Input	636	671	701	735	697	735	768	804	724	765	798	834	732	773	808	842