



## Specification Sheet for WorldWide Electric EDD5112, Three-Phase

CONTROL SYSTEM	SELF-EXCITED				P.M.G.-EXCITED			
AUTOMATIC VOLTAGE REGULATOR	AGR440				AGR321		AGR341	
VOLTAGE REGULATION	± 1.0 %				± 0.5 %		± 1.0 %	
	WITH 4% ENGINE GOVERNING							
SUSTAINED SHORT CIRCUIT	NONE – SELF-EXCITED MACHINES CANNOT SUPPLY A SHORT-CIRCUIT CURRENT				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	12							
STATOR WINDING RESISTANCE	0.0043Ω/PHASE @ 22°C WIRED AS HIGH WYE (SERIES STAR)							
ROTOR WINDING RESISTANCE	1.96Ω @ 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. 6220 (ISO)							
BEARING NON-DRIVE END	BALL. 6314 (ISO)							
	1 BEARING				2 BEARING			
WEIGHT COMP. GENERATOR	1535 kg				1543 kg			
WEIGHT WOUND STATOR	722 kg				722 kg			
WEIGHT WOUND ROTOR	617 kg				588 kg			
WR <sup>2</sup> INERTIA	8.9828 kgm <sup>2</sup>				8.7049 kgm <sup>2</sup>			
SHIPPING WEIGHTS in a crate	1625 kg				1635 kg			
PACKING CRATE SIZE	166 x 87 x 124 (cm)				166 x 87 x 124 (cm)			
	50 Hz				60 Hz			
TELEPHONE INTERFERENCE	THF < 2%				TIF < 50			
COOLING AIR	1.035 m <sup>3</sup> /sec, 2202 CFM				1.312 m <sup>3</sup> /sec, 2780 CFM			
HIGH WYE (SERIES STAR), VAC	380/220	400/231	415/240	440/254	416/240	440/254	460/266	480/277
LOW WYE (PARALLEL STAR), VAC	190/110	200/115	208/120	220/127	208/120	220/127	230/133	240/138
HIGH (SERIES) DELTA, VAC	220/110	230/115	240/120	254/127	240/120	254/127	266/133	277/138
KVA BASE RATING FOR REACTANCE VALUES	600	600	600	600	681	713	731	750
X <sub>d</sub> DIR. AXIS SYNCHRONOUS	3.14	2.83	2.63	2.34	3.53	3.30	3.10	2.92
X' <sub>d</sub> DIR. AXIS TRANSIENT	0.17	0.15	0.14	0.12	0.17	0.16	0.15	0.14
X'' <sub>d</sub> DIR. AXIS SUBTRANSIENT	0.12	0.11	0.10	0.09	0.12	0.11	0.11	0.10
X <sub>q</sub> QUAD. AXIS REACTANCE	2.45	2.21	2.05	1.82	2.82	2.64	2.48	2.33
X'' <sub>q</sub> QUAD. AXIS SUBTRANSIENT	0.26	0.24	0.22	0.20	0.34	0.32	0.30	0.28
X <sub>L</sub> LEAKAGE REACTANCE	0.06	0.05	0.05	0.04	0.06	0.06	0.05	0.05
X <sub>2</sub> NEGATIVE SEQUENCE	0.18	0.16	0.15	0.13	0.23	0.22	0.20	0.19
X <sub>0</sub> ZERO SEQUENCE	0.08	0.08	0.07	0.06	0.10	0.09	0.09	0.08
REACTANCES ARE SATURATED. VALUES ARE PER UNIT AT RATING AND VOLTAGE INDICATED.								
T' <sub>d</sub> TRANSIENT TIME CONST.	0.08 s							
T'' <sub>d</sub> SUB-TRANSTIME CONST.	0.012 s							
T' <sub>do</sub> O.C. FIELD TIME CONST.	2.5 s							
T <sub>a</sub> ARMATURE TIME CONST.	0.019 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
Low Wye (Parallel Star) Voltage	190	200	208	220	190	200	208	220	190	200	208	220	190	200	208	220
High (Series) Delta Voltage	220	230	240	254	220	230	240	254	220	230	240	254	220	230	240	254
KVA Output	550	560	550	550	600	610	600	600	636	640	636	636	660	665	660	660
kW Output	440	448	440	440	480	488	480	480	509	512	509	509	528	532	528	528
Efficiency, %	95.0	95.1	95.2	95.3	94.7	94.9	95.0	95.2	94.5	94.7	94.8	95.0	94.3	94.5	94.7	94.9
kW Input	463	471	462	462	507	514	505	504	538	541	537	536	560	563	558	556

### 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
Low Wye (Parallel Star) Voltage	208	220	230	240	208	220	230	240	208	220	230	240	208	220	230	240
High (Series) Delta Voltage	240	254	266	277	240	254	266	277	240	254	266	277	240	254	266	277
KVA Output	625	650	663	675	681	713	731	750	719	750	780	800	738	769	798	819
kW Output	500	520	530	540	545	570	585	600	575	600	624	640	590	615	638	655
Efficiency, %	95.0	95.1	95.2	95.3	94.8	94.9	95.0	95.0	94.6	94.7	94.8	94.8	94.5	94.6	94.7	94.8
kW Input	526	547	557	567	575	601	616	632	608	634	658	675	625	650	674	691