Specification Sheet for WorldWide Electric DDD6112, Three-Phase

CONTROL SYSTEM	SELF-EXCITED				P.M.G.-EXCITED			
AUTOMATIC VOLTAGE REGUALTOR	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	0.0073Ω/PHASE @ 22°C WIRED AS HIGH WYE (SERIES STAR)							
ROTOR WINDING RESISTANCE	1.37Ω @ 22°C							
EXCITER STATOR RESISTANCE	18Ω @ 22°C							
EXCITER ROTOR RESISTANCE	0.068Ω/PHASE @ 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. 6317 (ISO)							
BEARING NON-DRIVE END	BALL. 6314 (ISO)							
	1 BEARING				2 BEARING			
WEIGHT COMP. GENERATOR	1160 kg				1160 kg			
WEIGHT WOUND STATOR	535 kg				535 kg			
WEIGHT WOUND ROTOR	463 kg				440 kg			
WR² INERTIA	5.4292 kgm^2				5.2304 kgm^2			
SHIPPING WEIGHTS in a crate	1230 kg				1230 kg			
PACKING CRATE SIZE	155 x 87 x 107 (cm)				155 x 87 x 107 (cm)			
	50 Hz				60 Hz			
TELEPHONE INTERFERENCE	THF < 2%				TIF < 50			
COOLING AIR	0.8 m^3/sec, 1700 CFM				0.99 m^3/sec, 2100 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	400	400	400	400	455	480	500	500
Xd DIR. AXIS SYNCHRONOUS	2.72	2.45	2.28	2.03	3.28	3.09	2.95	2.71
X'd DIR. AXIS TRANSIENT	0.18	0.16	0.15	0.13	0.18	0.17	0.16	0.15
X''d DIR. AXIS SUBTRANSIENT	0.13	0.12	0.11	0.10	0.13	0.12	0.12	0.11
Xq QUAD. AXIS REACTANCE	2.35	2.12	1.97	1.75	2.90	2.73	2.61	2.39
X''q QUAD. AXIS SUBTRANSIENT	0.31	0.28	0.26	0.23	0.43	0.41	0.39	0.35
X_L LEAKAGE REACTANCE	0.06	0.05	0.05	0.04	0.07	0.07	0.06	0.06
X_2 NEGATIVE SEQUENCE	0.23	0.20	0.19	0.17	0.29	0.27	0.26	0.24
X_0 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'd TRANSIENT TIME CONST.	0.08 s							
T''d SUB-TRANSTIME CONST.	0.019 s							
T'do O.C. FIELD TIME CONST.	1.7 s							
Ta ARMATURE TIME CONST.	0.018 s							
SHORT CIRCUIT RATIO	1/Xd							

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	370	370	370	370	400	400	400	400	415	430	430	430	425	450	440	440
kW Output	296	296	296	296	320	320	320	320	332	344	344	344	340	360	352	352
Efficiency, %	93.5	93.8	93.9	94.0	93.2	93.4	93.6	93.8	92.9	93.0	93.2	93.5	92.8	92.8	93.1	93.4
kW Input	317	316	315	315	343	343	342	341	357	370	369	368	366	388	378	377

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	420	445	465	465	455	480	500	500	485	515	535	535	500	530	550	550
kW Output	336	356	372	372	364	384	400	400	388	412	428	428	400	424	440	440
Efficiency, %	93.7	93.8	93.8	94.0	93.4	93.4	93.5	93.7	93.1	93.1	93.1	93.4	92.9	92.9	93.0	93.2
kW Input	359	380	397	396	390	411	428	427	417	443	460	458	431	456	473	472