THREE-PHASE SYNCHRONOUS GENERATOR 20141201

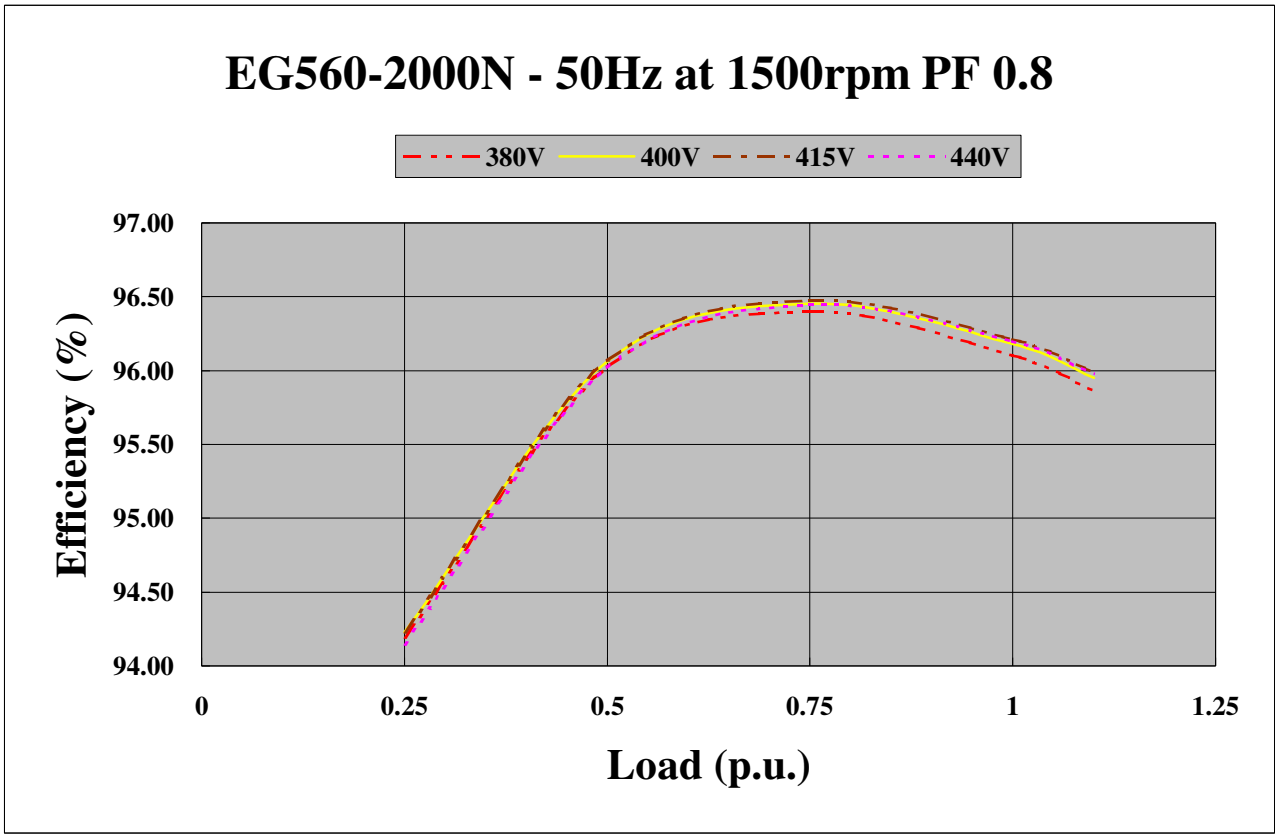
Datasheet For 50Hz @ 1500rpm / 60Hz @ 1800rpm

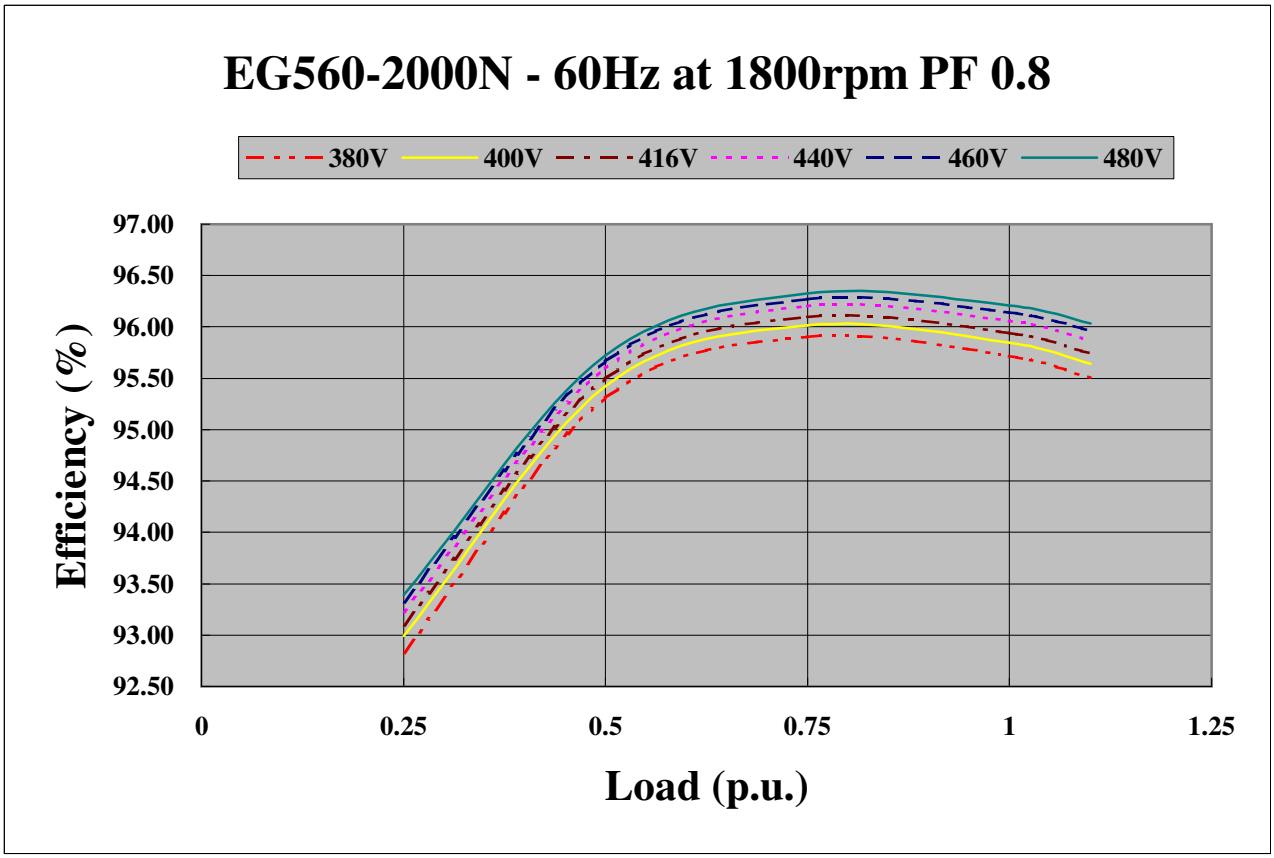
EG560-2000N

Frequency	Hz	50				60					
Rated capacity (kVA)	S	2375	2500	2594	2750	2494	2625	2730	2888	3019	3150
Rated power (kW)	P	1900	2000	2075	2200	1995	2100	2184	2310	2415	2520
Voltage (V)	U	380	400	415	440	380	400	416	440	460	480
Short-circuit ratio	Kcc	0.329	0.36	0.392	0.469	0.249	0.264	0.276	0.297	0.317	0.343
Reactance											
Direct axis synchronous reactance	Xd	3.472	3.299	3.179	2.999	4.375	4.156	3.996	3.778	3.614	3.463
Direct axis transient reactance saturated	X'd	0.194	0.184	0.178	0.167	0.244	0.232	0.223	0.211	0.202	0.193
Direct axis subtransient reactance saturated	X"d	0.151	0.143	0.138	0.13	0.19	0.181	0.174	0.164	0.157	0.151
Quadrature axis synchronous reactance	Xq	1.528	1.452	1.399	1.32	1.926	1.829	1.759	1.663	1.591	1.525
Quadrature axis subtransient reactance	X"q	0.185	0.176	0.169	0.16	0.233	0.221	0.213	0.201	0.192	0.184
Negative sequence reactance saturated	X2	0.17	0.16	0.15	0.14	0.21	0.2	0.19	0.18	0.17	0.17
Zero sequence reactance unsaturated	X0	0.008	0.008	0.007	0.007	0.01	0.01	0.009	0.009	0.008	0.008
Time constant											
Open circuit time constant	T'd0	3.929	3.929	3.929	3.929	3.929	3.929	3.929	3.929	3.929	3.929
Short-circuit transient time constant	T'd	0.219	0.219	0.219	0.219	0.219	0.219	0.219	0.219	0.219	0.219
Subtransient time constant	T"d	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Armature time constant	Ta	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
No load losses	W	25028	25909	26599	27806	36391	37172	37826	38856	39757	40698
Heat dissipation at full load at Class H	W	77014	79429	81673	86983	89345	91063	92480	94823	96939	99317
Efficiency											
PF=0.8 Efficiency of 25% load	%	94.20	94.23	94.23	94.15	92.83	92.99	93.10	93.23	93.32	93.39
50% load	%	96.02	96.06	96.07	96.02	95.31	95.42	95.50	95.60	95.67	95.72
75% load	%	96.40	96.45	96.47	96.44	95.90	96.02	96.10	96.20	96.27	96.33
100% load	%	96.10	96.18	96.21	96.20	95.71	95.84	95.94	96.06	96.14	96.21
110% load	%	95.87	95.95	95.99	95.98	95.50	95.64	95.74	95.87	95.96	96.04
PF=1 Efficiency of 25% load	%	94.26	94.29	94.30	94.26	93.12	93.27	93.37	93.51	93.60	93.67
50% load	%	96.26	96.29	96.31	96.31	95.78	95.88	95.95	96.04	96.10	96.15
75% load	%	96.88	96.93	96.95	96.97	96.57	96.67	96.73	96.82	96.88	96.93
100% load	%	96.76	96.82	96.86	96.89	96.61	96.71	96.78	96.88	96.95	96.98
110% load	%	96.69	96.66	96.71	96.75	96.51	96.62	96.69	96.79	96.86	96.93
No load excitation current	io(A)	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Full load excitation current	ic(A)	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
Full load excitation voltage	uc(V)	60	60	60	60	60	60	60	60	60	60
Short circuit current capacity	%	>300I_N 10s(with PMG or Auxiliary winding)									
Recovery time	Tr	1 s									
Waveform : TIF		<50									
Waveform : THD		<3%									
Waveform : THF		<2%									
Winding pitch		2/3									
Steady state voltage regulation		+/-1%									
A.V.R. model		EVC600									
Duty		Continuous									
Number of poles		4									
Class of insulation		H									
Altitude		≤1000m									
Rated power factor		0.8									
Excitation		Brushless									
Stator winding		6ends									
Rotor		With damping cage									
Overload	%	110% rated load for 2 hour per 24 hour									
Stator winding resistance (20℃)	ohm	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
Rotor winding resistance (20℃)	ohm	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
Exciter resistance (20℃)	ohm	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
Cooling air requirement	m^3/min	188	188	188	188	226	226	226	226	226	226
Energy storage constant (H)	sec.	0.580	0.551	0.532	0.501	0.760	0.722	0.694	0.656	0.628	0.602
Method of cooling		IC 01									
Ambient temperature		40℃									
Sense of rotation		Clockwise-DE									
Type of construction		Single / Double bearing									
Degree of protection / enclosure		IP21 or IP23									
Maximum overspeed		2250 rpm 2minutes									

THREE-PHASE SYNCHRONOUS

THREE PHASE EFFICIENCY CRUVES 20121201

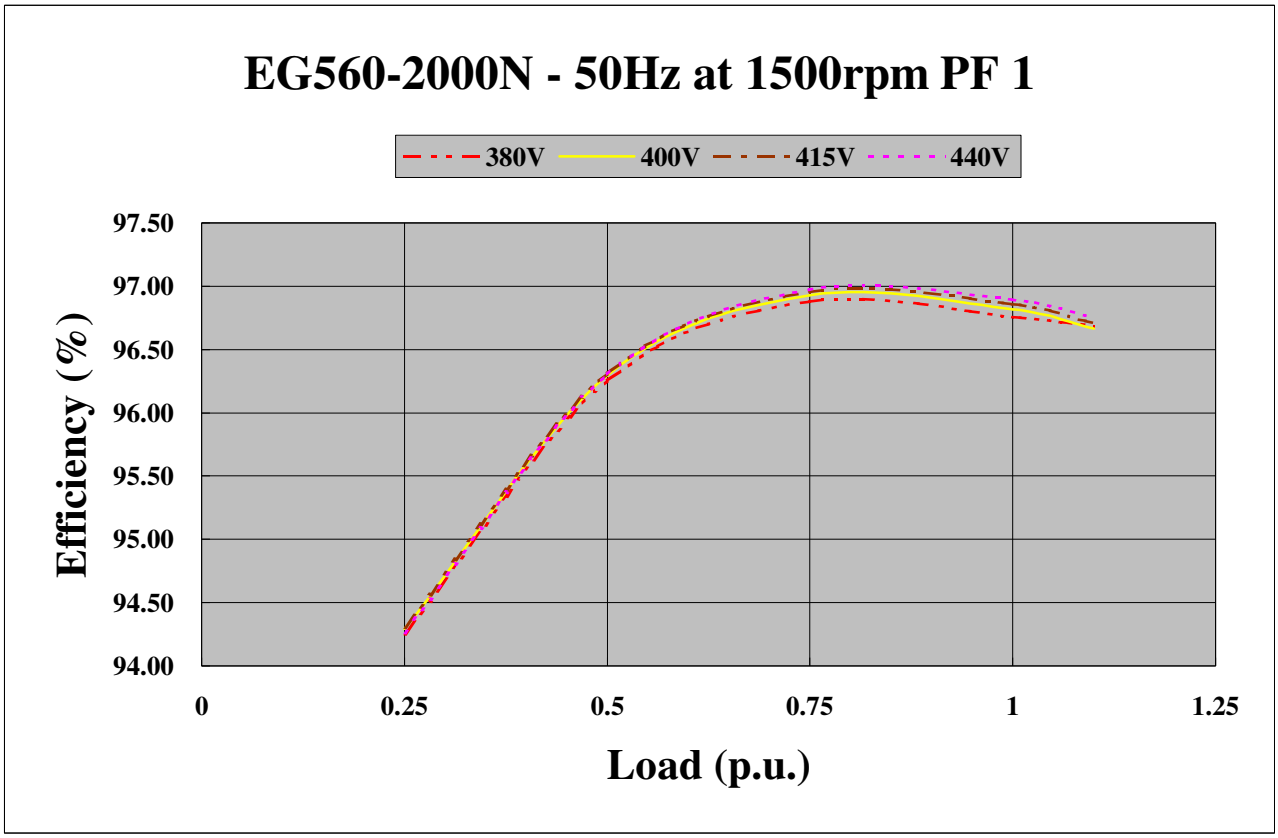


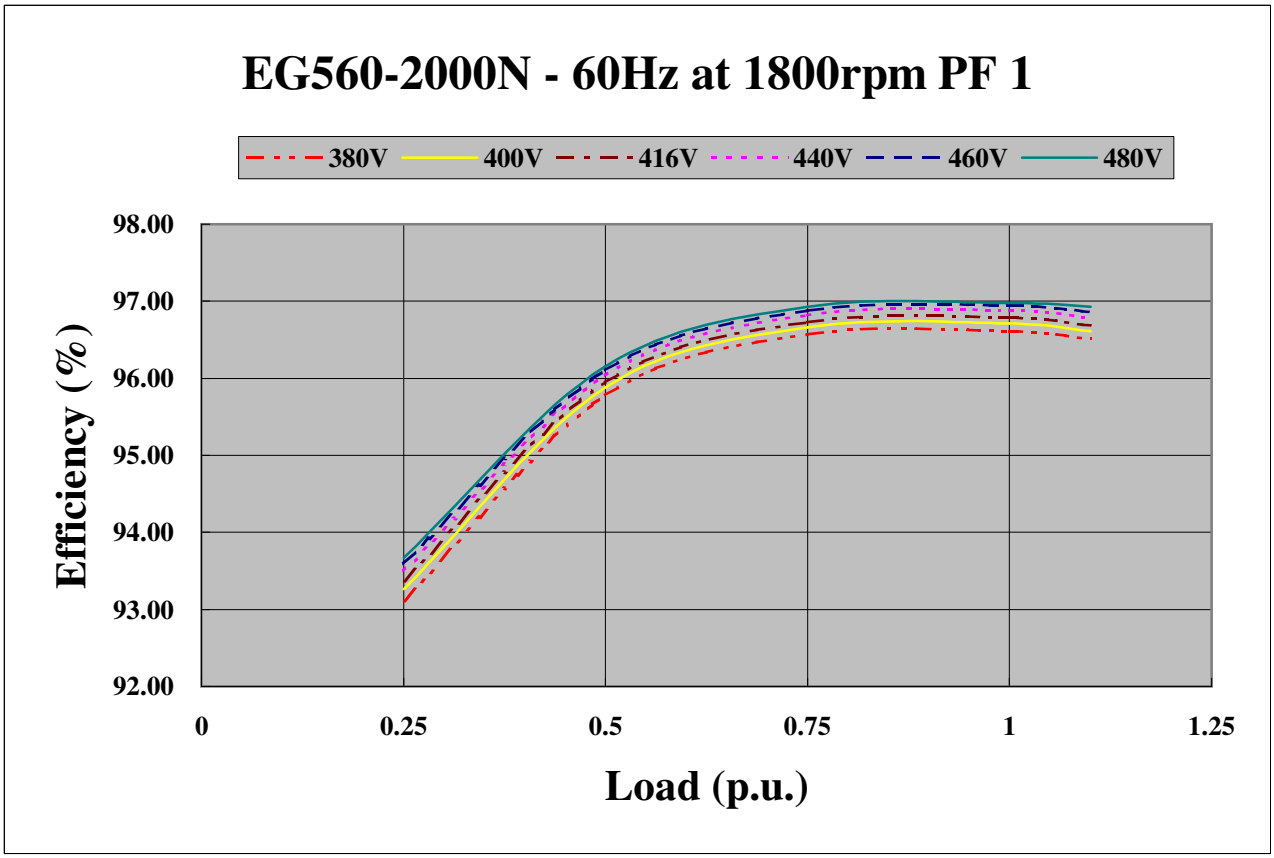


Data and Technical Specification are subject to change in order to update or improve the products, without prior notice

THREE-PHASE SYNCHRONOUS

THREE PHASE EFFICIENCY CRUVES 20121201



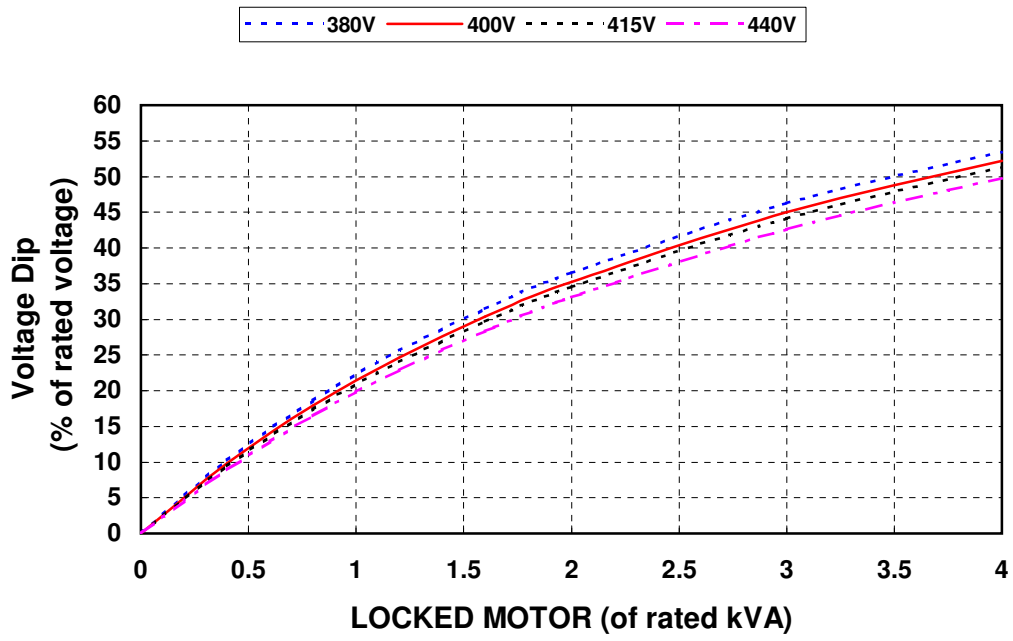


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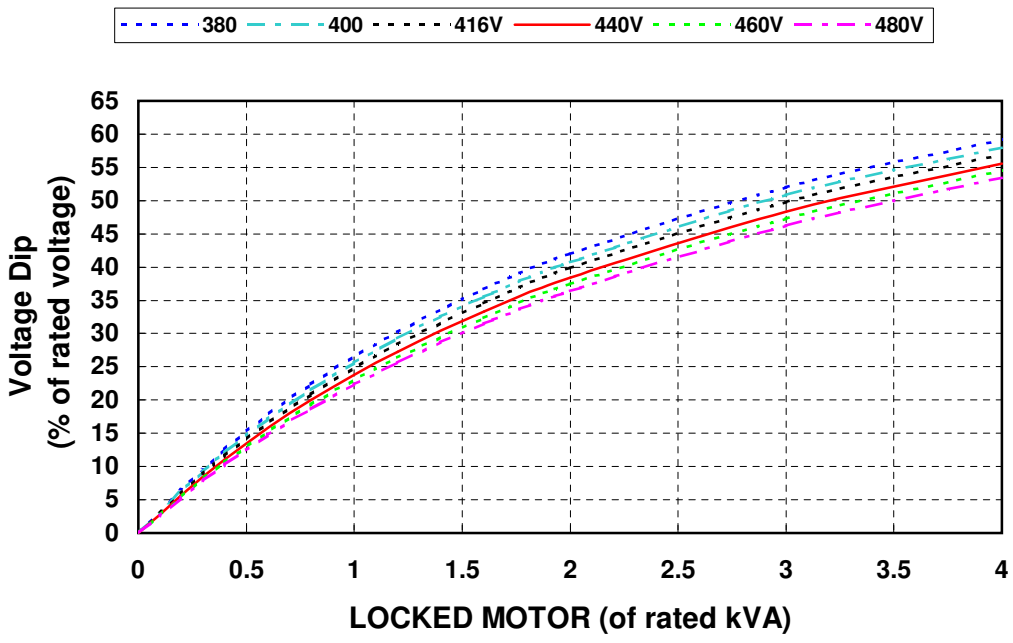
THREE PHASE SYNCHRONROUS GENERATOR

EG560-2000N 20130527

LOCKED ROTOR MOTOR STARTING CURVES AT 50Hz



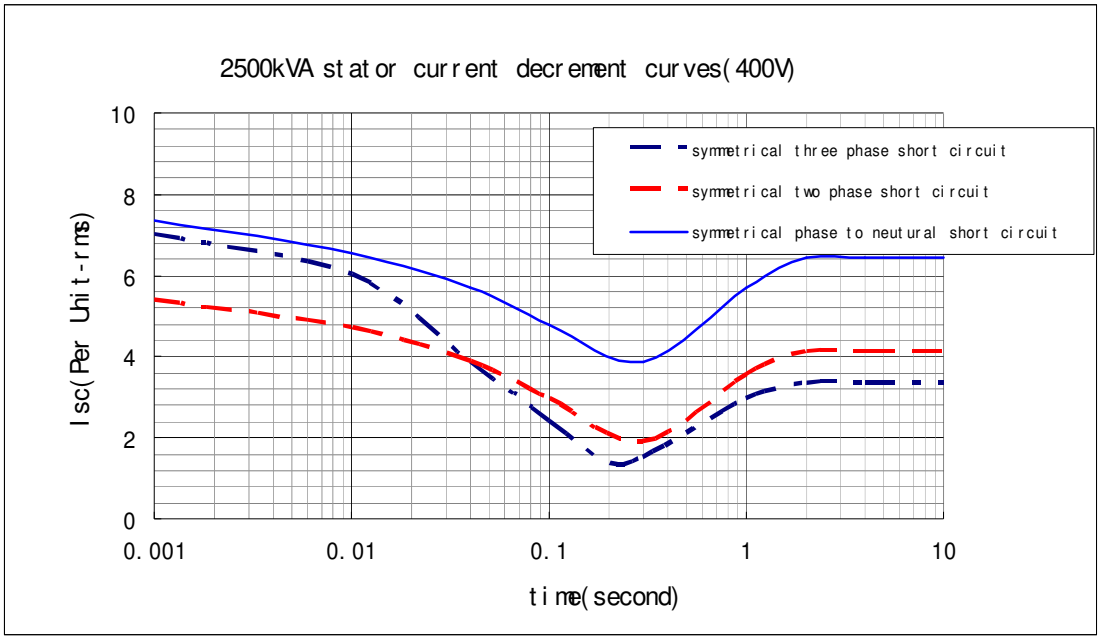
LOCKED ROTOR MOTOR STARTING CURVES AT 60Hz



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THREE-PHASE SYNCHRONOUS GENERATOR
STATOR CURRENT DECREMENT CURVES

EG560-2000 N 20140601



with PMG or Auxiliary winding