



Alternator Data Sheet Frame Size: LVSI804X

Characteristics						
Weights:	No of Bearings:		1-bearing		2-bearing	
	Stator assembly:		N/A		10141 lb	4600 kg
	Rotor assembly:		N/A		6060 lb	2749 kg
Complete assembly:		N/A		17954 lb	8144 kg	
Maximum speed:		2250 rpm				
Excitation current:	Full load:		3.94 Amps			
	No load:		0.88 Amps			
Insulation system:		Class H throughout				
3 Ø Ratings (0.8 power factor)		50 Hz (winding no)				
		<u>380</u> (12)	<u>400</u> (12)	<u>415</u> (12)	<u>440</u> (12)	
163° C rise ratings	@ 27° C	kW	3264	3440	3440	3232
		kVA	4080	4300	4300	4040
150° C rise ratings	@ 40° C	kW	3176	3344	3344	3176
		kVA	3970	4180	4180	3970
125° C rise ratings	@ 40° C	kW	2972	3129	3129	2940
		kVA	3715	3911	3911	3675
105° C rise ratings	@ 40° C	kW	2776	2924	2924	2748
		kVA	3470	3655	3655	3435
80° C rise ratings	@ 40° C	kW	2412	2542	2542	2384
		kVA	3015	3177	3177	2980
3 Ø Reactances (Based on full load at 125° C rise rating)		<u>380</u> (12)	<u>400</u> (12)	<u>415</u> (12)	<u>440</u> (12)	
Synchronous		2.526	2.400	2.230	1.864	
Transient		0.179	0.170	0.158	0.132	
Subtransient		0.131	0.124	0.115	0.096	
Negative sequence		0.189	0.180	0.167	0.140	
Zero sequence		0.025	0.024	0.022	0.019	
3 Ø Motor starting		<u>380</u> (12)	<u>400</u> (12)	<u>415</u> (12)	<u>440</u> (12)	
Maximum kVA (90% sustained voltage)		11145	11146	11146	11025	
Time constants (sec)		<u>380</u> (12)	<u>400</u> (12)	<u>415</u> (12)	<u>440</u> (12)	
Transient		0.213	0.213	0.213	0.213	
Subtransient		0.016	0.016	0.016	0.016	
Open circuit		5.100	5.100	5.100	5.100	
DC		0.081	0.081	0.081	0.081	
Windings (@20° C)		<u>380</u> (12)	<u>400</u> (12)	<u>415</u> (12)	<u>440</u> (12)	
Stator resistance	(L-L Ohms)	0.000512	0.000512	0.000512	0.000512	
Rotor resistance	(Ohms)	1.63	1.63	1.63	1.63	
Number of leads		6	6	6	6	



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	Stator assembly:	N/A	10141 lb	4600 kg		
	Rotor assembly:	N/A	6060 lb	2749 kg		
	Complete assembly:	N/A	17954 lb	8144 kg		
Maximum speed:		2250 rpm				
Excitation current:	Full load:	3.94 Amps				
	No load:	0.88 Amps				
Insulation system:	Class H throughout					
3 ϕ Ratings (0.8 power factor)		60 Hz (winding no)				
		<u>416</u> (12)	<u>440</u> (12)	<u>480</u> (12)	<u>600</u> (07)	
163° C rise ratings	@ 27° C	kW	3680	3592	3920	3920
		kVA	4600	4490	4900	4900
150° C rise ratings	@ 40° C	kW	3304	3496	3816	3816
		kVA	4130	4370	4770	4770
125° C rise ratings	@ 40° C	kW	3096	3272	3571	3571
		kVA	3870	4090	4464	4464
105° C rise ratings	@ 40° C	kW	2892	3056	3338	3338
		kVA	3615	3820	4172	4172
80° C rise ratings	@ 40° C	kW	2512	2640	2900	2900
		kVA	3140	3300	3625	3625
3 ϕ Reactances			<u>416</u> (12)	<u>440</u> (12)	<u>480</u> (12)	<u>600</u> (07)
(Based on full load at 125° C rise rating)						
Synchronous			2.655	2.508	2.300	2.000
Transient			0.186	0.176	0.161	0.148
Subtransient			0.137	0.130	0.119	0.108
Negative sequence			0.197	0.186	0.171	0.156
Zero sequence			0.027	0.025	0.023	0.021
3 ϕ Motor starting			<u>416</u> (12)	<u>440</u> (12)	<u>480</u> (12)	<u>600</u> (07)
Maximum kVA	(90% sustained voltage)		14781	14781	14781	14781
Time constants (sec)			<u>416</u> (12)	<u>440</u> (12)	<u>480</u> (12)	<u>600</u> (07)
Transient			0.213	0.213	0.213	0.212
Subtransient			0.016	0.016	0.016	0.016
Open circuit			5.100	5.100	5.100	5.180
DC			0.081	0.081	0.081	0.083
Windings (@20° C)			<u>416</u> (12)	<u>440</u> (12)	<u>480</u> (12)	<u>600</u> (07)
Stator resistance	(L-L Ohms)	0.000512	0.000512	0.000512	0.000732	
Rotor resistance	(Ohms)	1.63	1.63	1.63	1.63	
Number of leads		6	6	6	6	



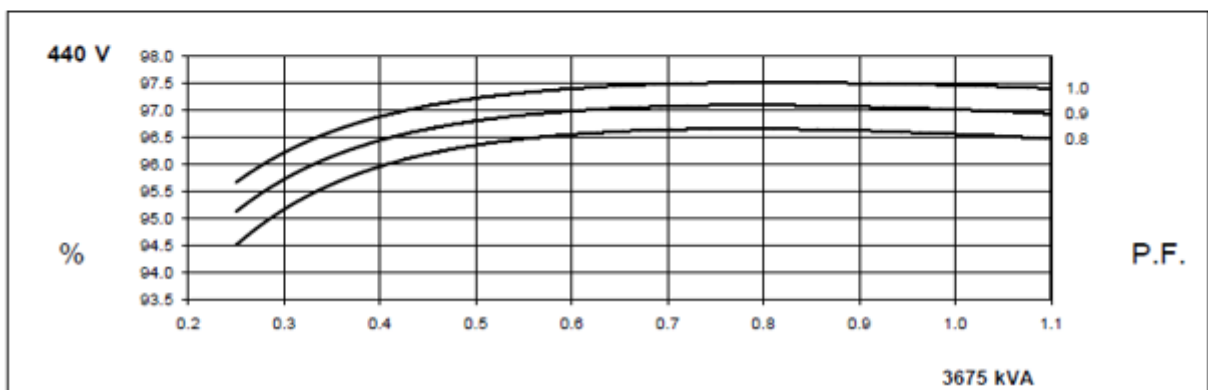
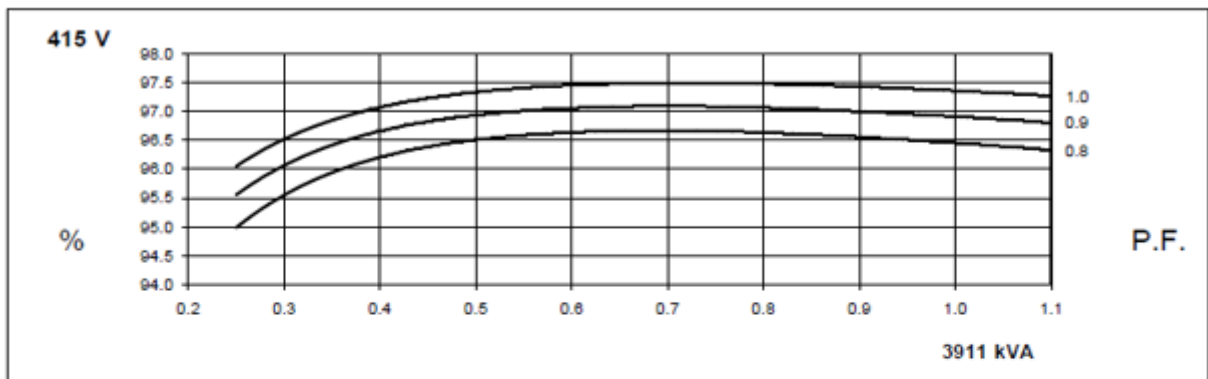
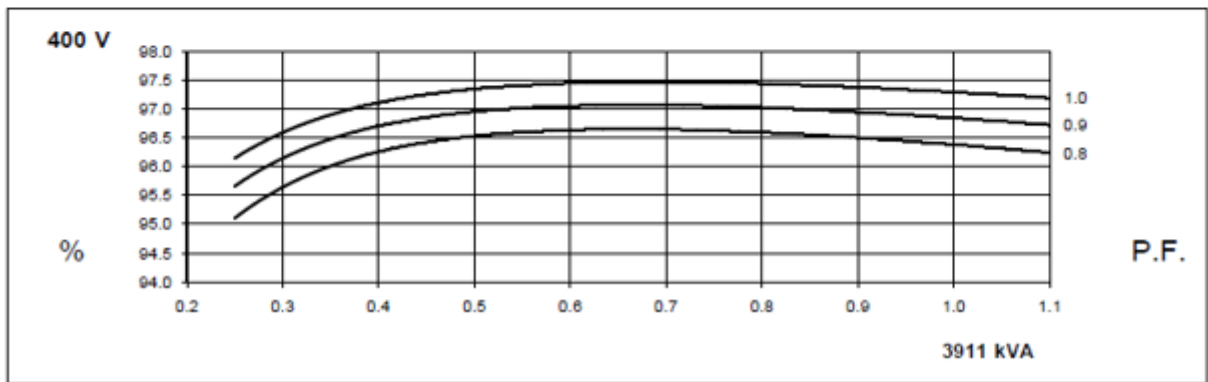
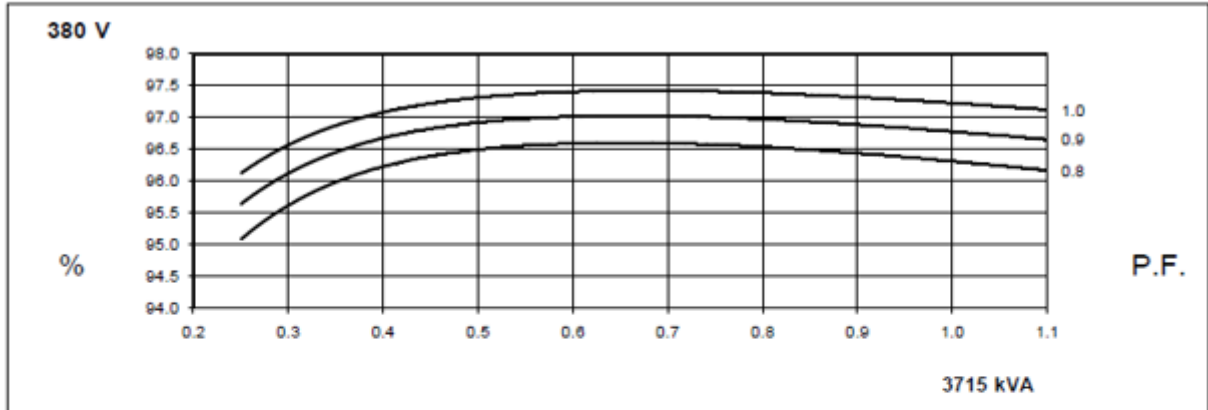
Alternator Data Sheet

Frame Size: LVSI804X

Three Phase Efficiency Curves

WDG 12

50 HZ





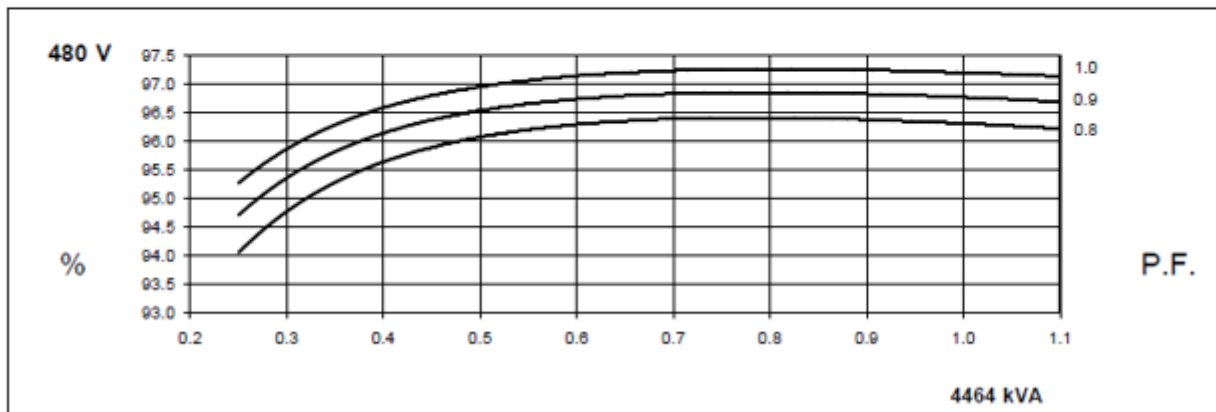
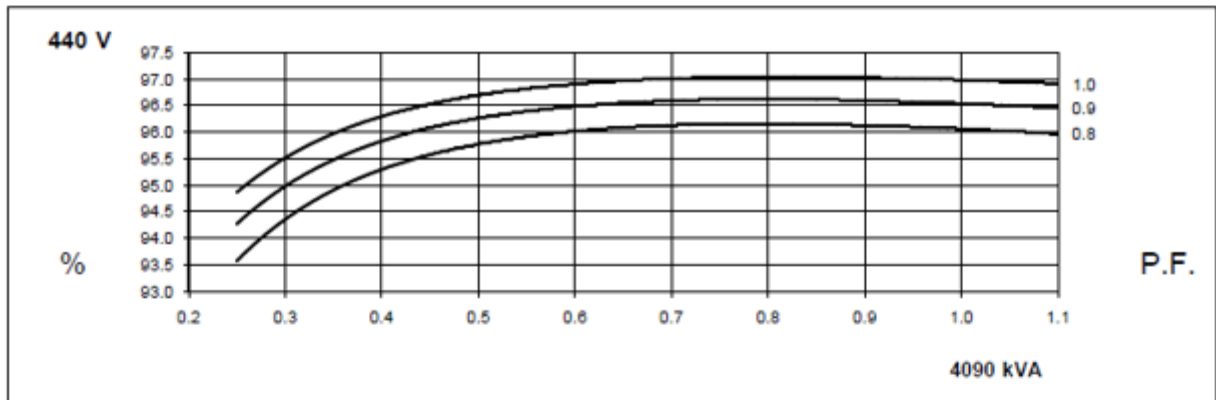
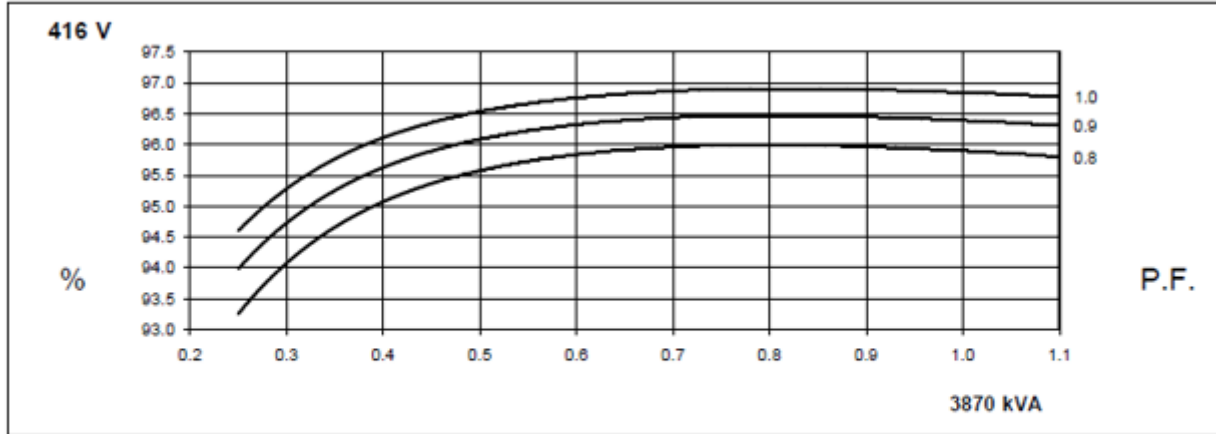
Alternator Data Sheet

Frame Size: LVSI804X

Three Phase Efficiency Curves

WDG 12

60 HZ





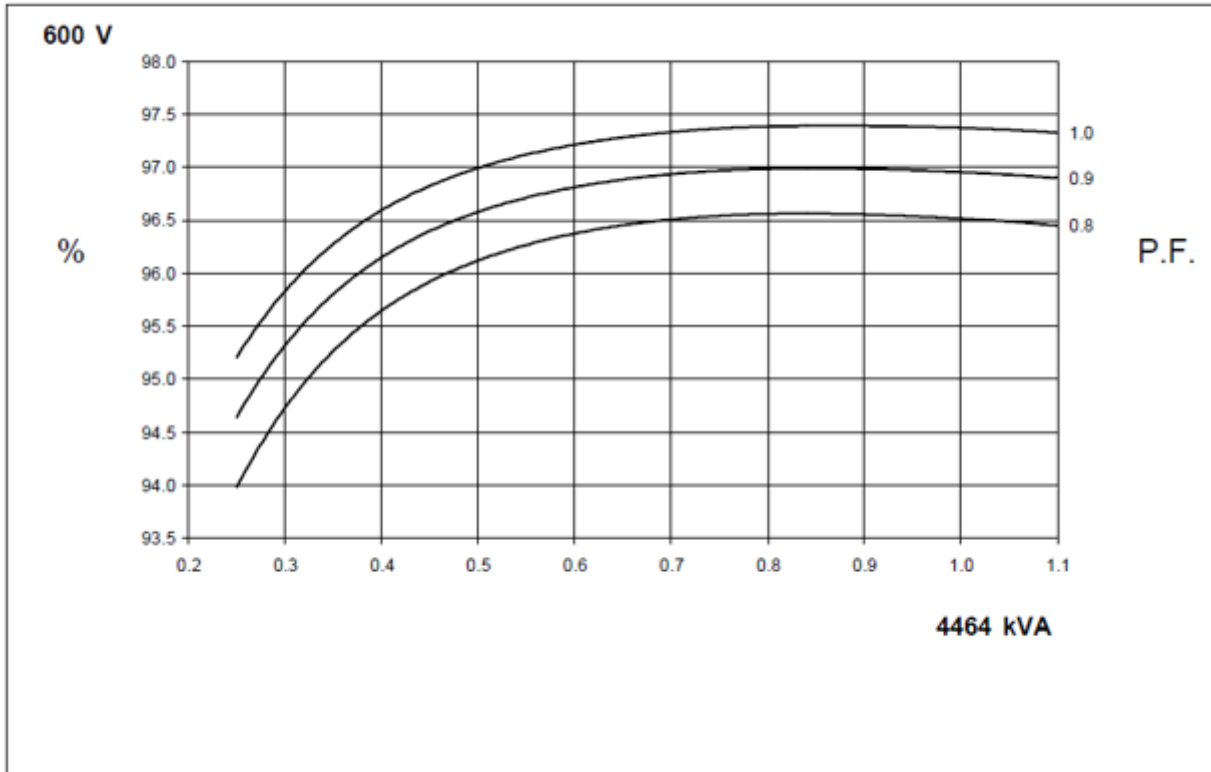
Alternator Data Sheet

Frame Size: LVSI804X

Three Phase Efficiency Curves

WDG 7

60 HZ





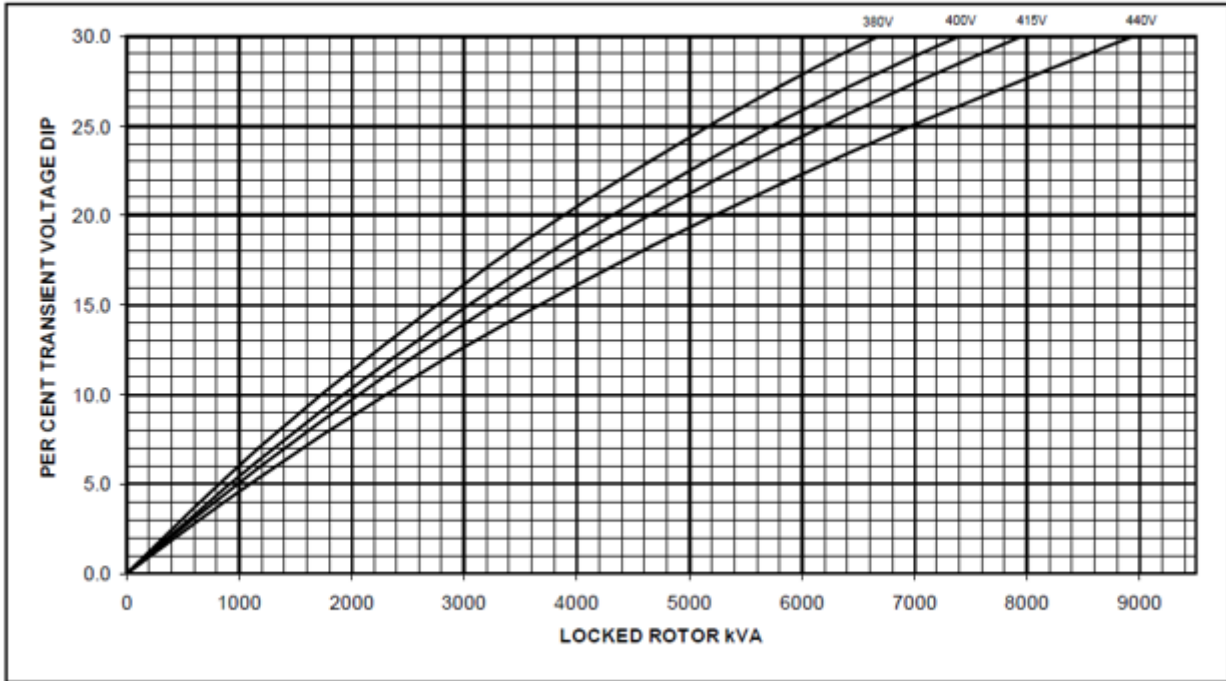
Alternator Data Sheet

Frame Size: LVSI804X

Locked Rotor Motor Starting Curve

WDG 12

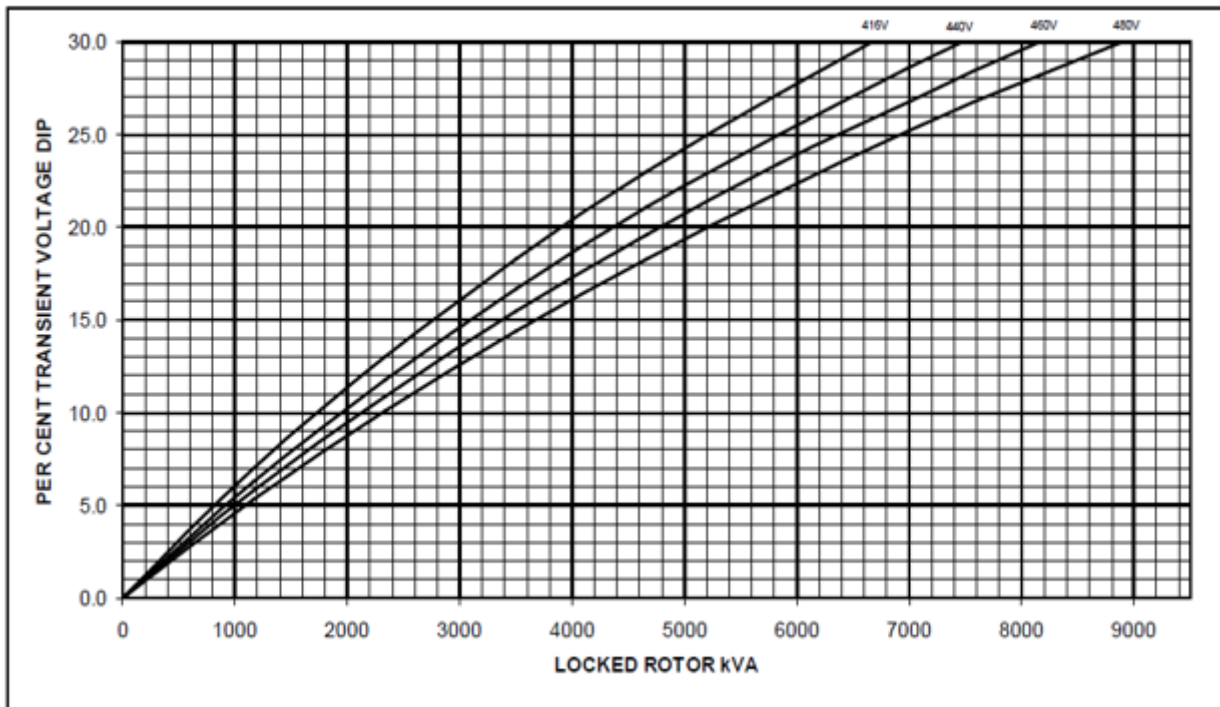
50 HZ



Locked Rotor Motor Starting Curve

WDG 12

60 HZ





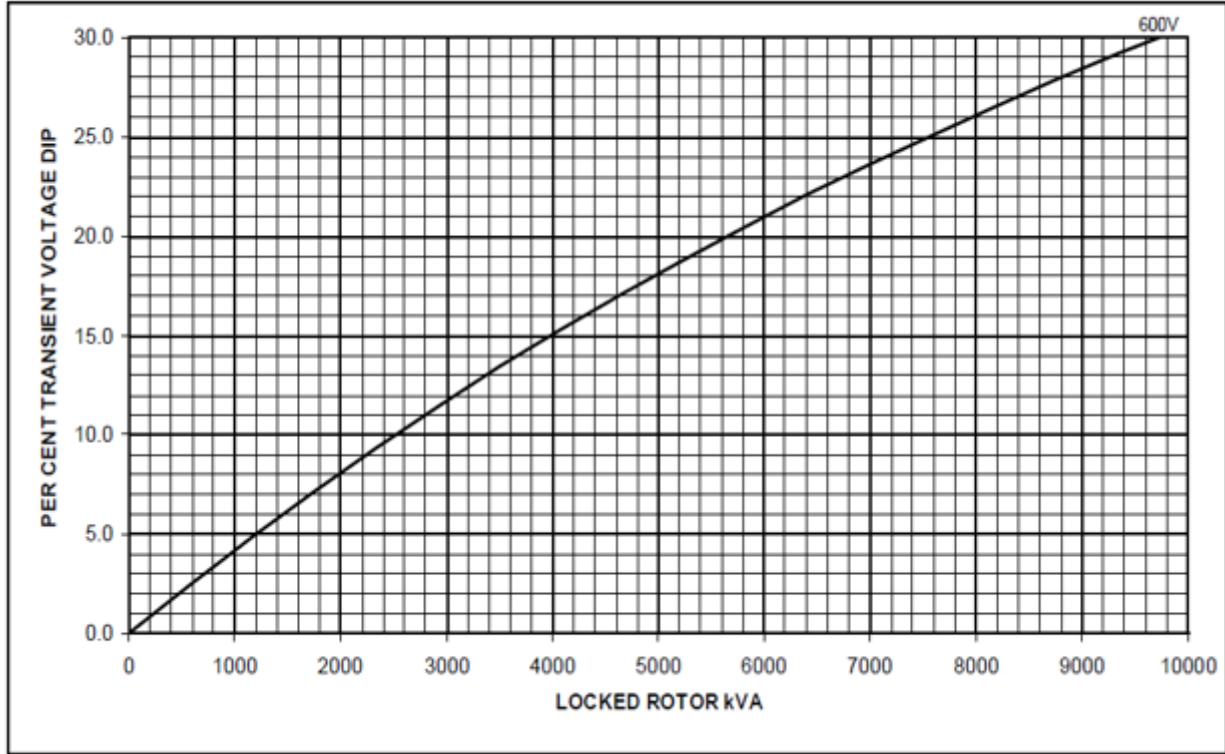
Alternator Data Sheet

Frame Size: LVSI804X

Locked Rotor Motor Starting Curve

WDG 7

60 HZ





Alternator Data Sheet

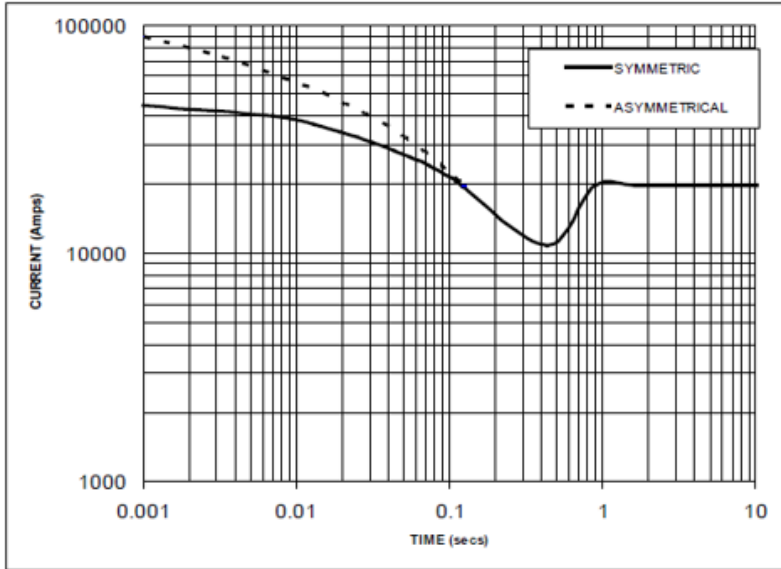
Frame Size: LVSI804X

Three Phase Short Circuit Decrement Curve
No-Load Excitation at Rated Speed

WDG 12

50 HZ

Based on series star (wye) connection



NOTE 1

THE FOLLOWING MULTIPLICATION FACTORS SHOULD BE USED TO ADJUST THE VALUES FROM CURVES BETWEEN THE 0.001 SECONDS AND THE MINIMUM CURRENT POINT IN RESPECT OF NOMINAL OPERATING VOLTAGE

VOLTAGE	FACTOR
380V	X 0.95
400V	X 1.00
415V	X 1.04
440V	X 1.10

THE SUSTAINED CURRENT VALUE IS CONSTANT IRRESPECTIVE OF VOLTAGE LEVEL

NOTE 2

THE FOLLOWING MULTIPLICATION FACTORS SHOULD BE USED TO CONVERT THE VALUES CALCULATED IN ACCORDANCE WITH NOTE 1 TO THOSE APPLICABLE TO THE VARIOUS TYPES OF SHORT CIRCUIT

	3 PHASE	2 PHASE L-L	1 PHASE L-N
INSTANTANEOUS	X 1.0	X 0.87	X 1.30
MINIMUM	X 1.0	X 1.80	X 3.20
SUSTAINED	X 1.0	X 1.50	X 2.50
MAX SUSTAINED DURATION	10 SEC	5 SEC	2 SEC

ALL OTHER TIMES ARE UNCHANGED

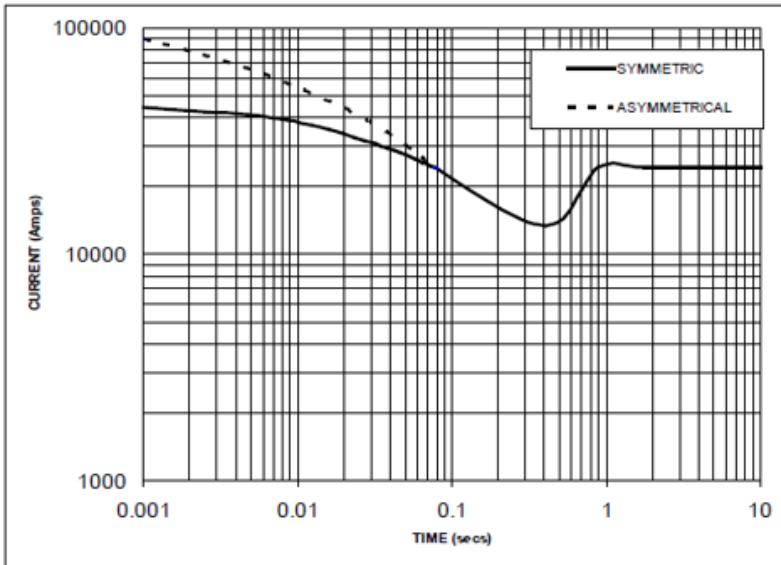
SUSTAINED SHORT CIRCUIT = 19758 Amps

Three Phase Short Circuit Decrement Curve
No-Load Excitation at Rated Speed

WDG 12

60 HZ

Based on series star (wye) connection



NOTE 1

THE FOLLOWING MULTIPLICATION FACTORS SHOULD BE USED TO ADJUST THE VALUES FROM CURVES BETWEEN THE 0.001 SECONDS AND THE MINIMUM CURRENT POINT IN RESPECT OF NOMINAL OPERATING VOLTAGE

VOLTAGE	FACTOR
416V	X 0.87
440V	X 0.92
480V	X 0.96
480V	X 1.00

THE SUSTAINED CURRENT VALUE IS CONSTANT IRRESPECTIVE OF VOLTAGE LEVEL

NOTE 2

THE FOLLOWING MULTIPLICATION FACTORS SHOULD BE USED TO CONVERT THE VALUES CALCULATED IN ACCORDANCE WITH NOTE 1 TO THOSE APPLICABLE TO THE VARIOUS TYPES OF SHORT CIRCUIT

	3 PHASE	2 PHASE L-L	1 PHASE L-N
INSTANTANEOUS	X 1.0	X 0.87	X 1.30
MINIMUM	X 1.0	X 1.80	X 3.20
SUSTAINED	X 1.0	X 1.50	X 2.50
MAX SUSTAINED DURATION	10 SEC	5 SEC	2 SEC

ALL OTHER TIMES ARE UNCHANGED

SUSTAINED SHORT CIRCUIT = 24162 Amps



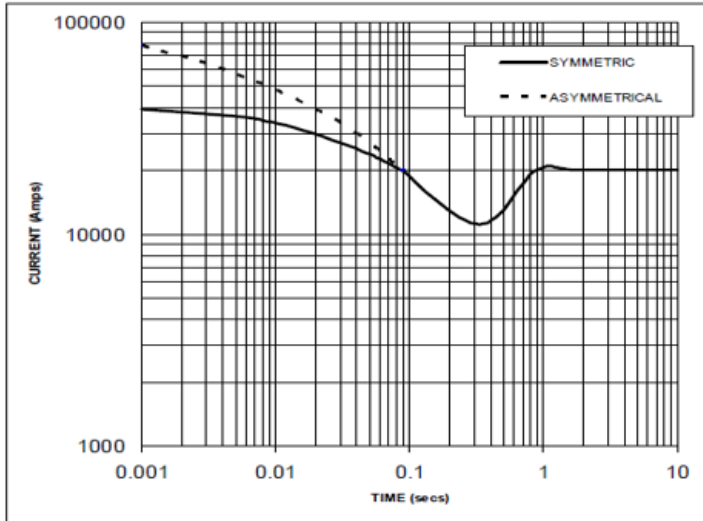
Alternator Data Sheet

Frame Size: LVSI804X

Three Phase Short Circuit Decrement Curve
 No-Load Excitation at Rated Speed
 Based on series star (wye) connection

WDG 7

60 HZ



NOTE 1
 THE FOLLOWING MULTIPLICATION FACTORS SHOULD BE USED TO ADJUST THE VALUES FROM CURVES BETWEEN THE 0.001 SECONDS AND THE MINIMUM CURRENT POINT IN RESPECT OF NOMINAL OPERATING VOLTAGE

VOLTAGE	FACTOR
600V	X 1.00

THE SUSTAINED CURRENT VALUE IS CONSTANT IRRESPECTIVE OF VOLTAGE LEVEL

NOTE 2
 THE FOLLOWING MULTIPLICATION FACTORS SHOULD BE USED TO CONVERT THE VALUES CALCULATED IN ACCORDANCE WITH NOTE 1 TO THOSE APPLICABLE TO THE VARIOUS TYPES OF SHORT CIRCUIT

	3 PHASE	2 PHASE L-L	1 PHASE L-N
INSTANTANEOUS	X 1.0	X 0.87	X 1.30
MINIMUM	X 1.0	X 1.80	X 3.20
SUSTAINED	X 1.0	X 1.50	X 2.50
MAX SUSTAINED DURATION	10 SEC	5 SEC	2 SEC

ALL OTHER TIMES ARE UNCHANGED

SUSTAINED SHORT CIRCUIT = 20189 Amps