FRAME LVSI814D
WINDING 312

RATINGS	REFER TO RATINGS BOOK
OVERLOAD	REFER TO RATINGS BOOK
ALTITUDE	REFER TO RATINGS BOOK
AMBIENT TEMP.	REFER TO RATINGS BOOK

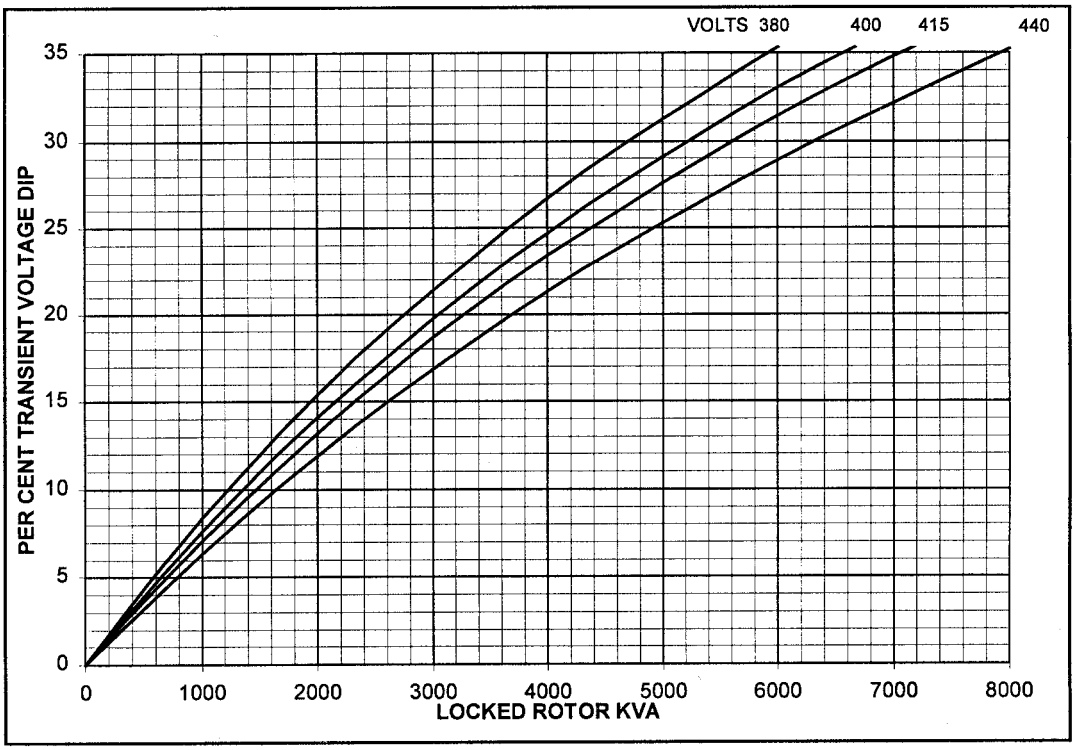
CONTROL SYSTEM SER. 3	SEPARATELY EXCITED BY P.M.G.	
A.V.R.	MA325	
VOLTAGE REGULATION	± 0.5%	With 4% ENGINE GOVERNING
SUSTAINED SHORT CIRCUIT	REFER TO SHORT CIRCUIT DECREMENT CURVES OF THIS SECTION	

INSULATION SYSTEM	CLASS H	
PROTECTION	IP22 STANDARD - IP23 OPTIONAL	
RATED POWER FACTOR	0.8	
STATOR WINDING	DOUBLE LAYER LAP	
WINDING PITCH	TWO THIRDS	
WINDING LEADS	6	
STATOR WDG. RESISTANCE	0.000368 Ohms PER PHASE AT 22°C SERIES STAR CONNECTED	
ROTOR WDG. RESISTANCE	1.426 Ohms at 22°C	
R.F.I. SUPPRESSION	B.S. EN 50081/2-1/2 VDE 0875G VDE 0875N For other standards apply to the factory	
WAVEFORM DISTORTION	NO LOAD < 1.5% NON-DISTORTING BALANCED LINEAR LOAD < 5.0%	
MAXIMUM OVERSPEED	2250 Rev/Min	
BEARING DRIVE END	BALL. 6232 (ISO)	
BEARING NON-DRIVE END	BALL. 6319 (ISO)	
EFFICIENCY	REFER TO EFFICIENCY CURVES OF THIS SECTION	
	1 BEARING	2 BEARING
WEIGHT COMP. GENERATOR	6300 kg (Approx)	6300 kg (Approx)
WEIGHT WOUND STATOR	2720 kg	2720 kg
STATOR CONSTRUCTION	WIRE WOUND	
WEIGHT WOUND ROTOR	2047 kg	1974 kg
WR² INERTIA	92.1 kgm²	89.7 kgm²

	50 Hz				60 Hz			
TELEPHONE INTERFERENCE	THF< 2%				TIF < 50			
COOLING AIR	4.1 m³/sec 8679 cfm				4.8 m³/sec 10171 cfm			
VOLTAGE SERIES STAR (Y)	380/220	400/231	415/240	440/254	416/240	440/254	460/266	480/277
kVA BASE RATING FOR REACTANCE VALUES	2700	2700	2700	2546	3052	3228	3375	3375
Xd DIR. AXIS SYNCHRONOUS	1.855	1.674	1.555	1.305	2.354	2.225	2.129	1.955
X'd DIR. AXIS TRANSIENT	0.215	0.194	0.180	0.151	0.277	0.262	0.250	0.230
X"d DIR. AXIS SUBTRANSIENT	0.144	0.130	0.121	0.101	0.182	0.172	0.164	0.151
Xq QUAD. AXIS REACTANCE	1.190	1.074	0.998	0.837	1.509	1.426	1.364	1.253
X"q QUAD. AXIS SUBTRANSIENT	0.206	0.186	0.173	0.145	0.208	0.197	0.188	0.173
X_L LEAKAGE REACTANCE	0.048	0.043	0.040	0.034	0.054	0.051	0.049	0.045
X_2 NEGATIVE SEQUENCE	0.175	0.158	0.147	0.123	0.195	0.184	0.176	0.162
X_0 ZERO SEQUENCE	0.059	0.053	0.049	0.041	0.064	0.060	0.058	0.053
REACTANCES ARE SATURATED	VALUES ARE PER UNIT AT RATING AND VOLTAGE INDICATED							
T'd TRANSIENT TIME CONST.	0.292 sec				0.315 sec			
T'd SUB-TRANSTIME CONST.	0.0173 sec				0.0199 sec			
T'do O.C. FIELD TIME CONST.	3.95 sec				3.9 sec			
Ta ARMATURE TIME CONST.	0.0808 sec				0.0797 sec			
SHORT CIRCUIT RATIO	1/Xd				1/Xd			

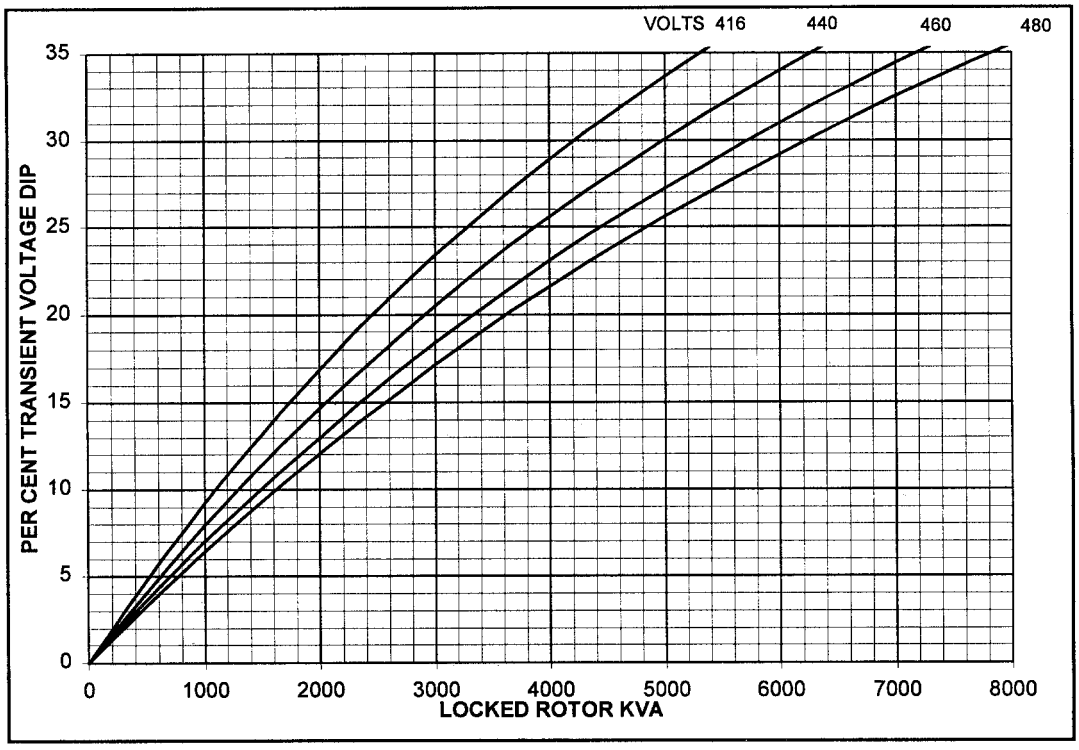
FRAME LVSI814D 50 Hz

SERIES 3 WINDING 312
LOCKED ROTOR MOTOR STARTING CURVE

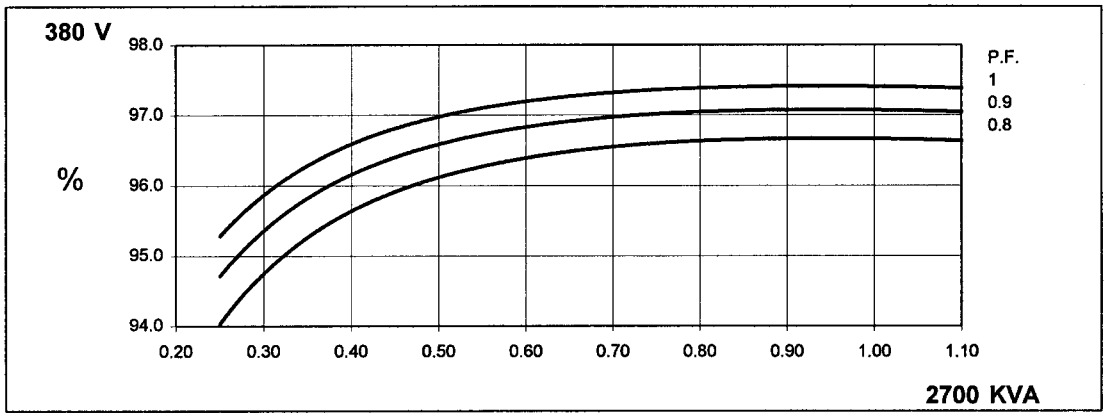


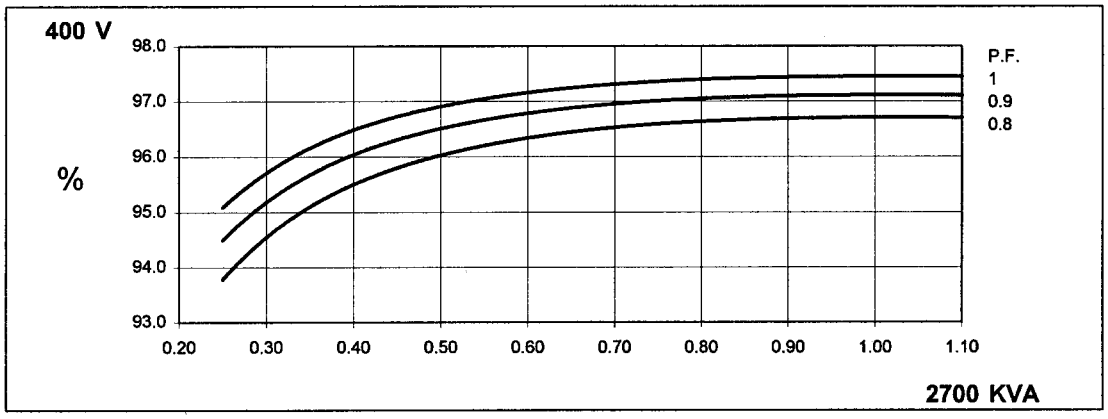
FRAME LVSI814D 60 Hz

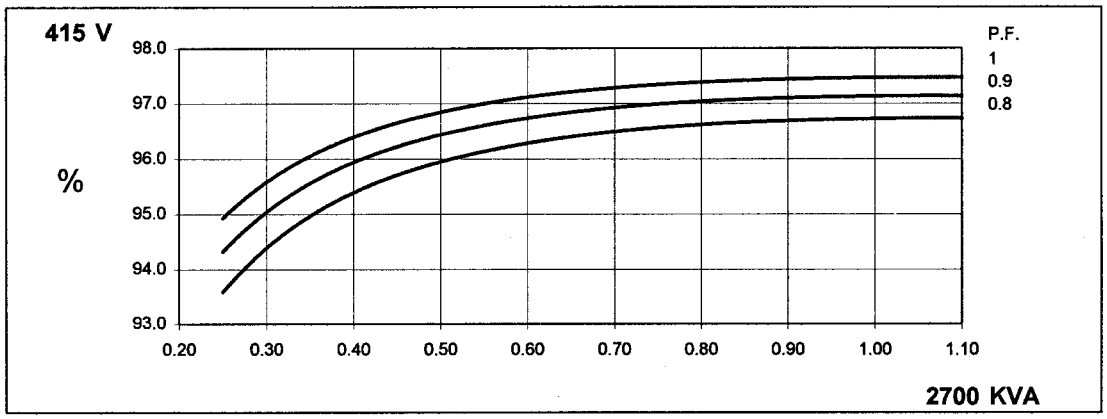
SERIES 3 WINDING 312
LOCKED ROTOR MOTOR STARTING CURVE

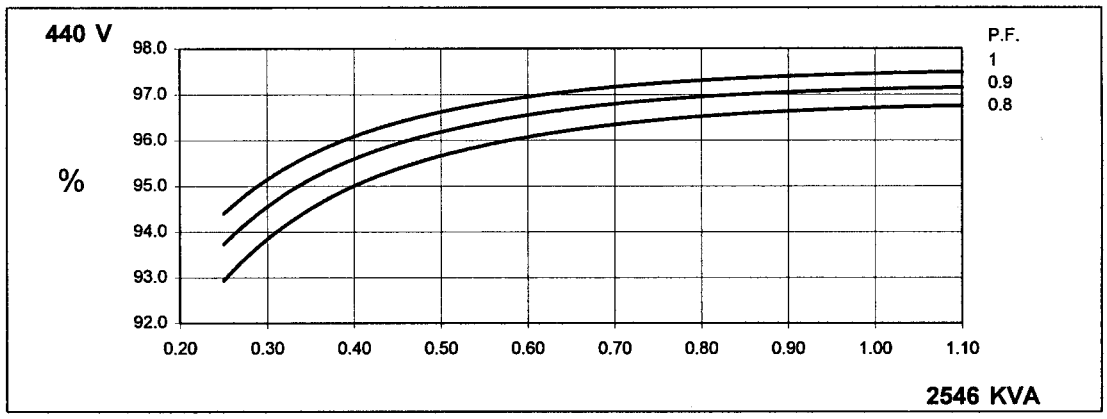


THREE PHASE EFFICIENCY CURVES









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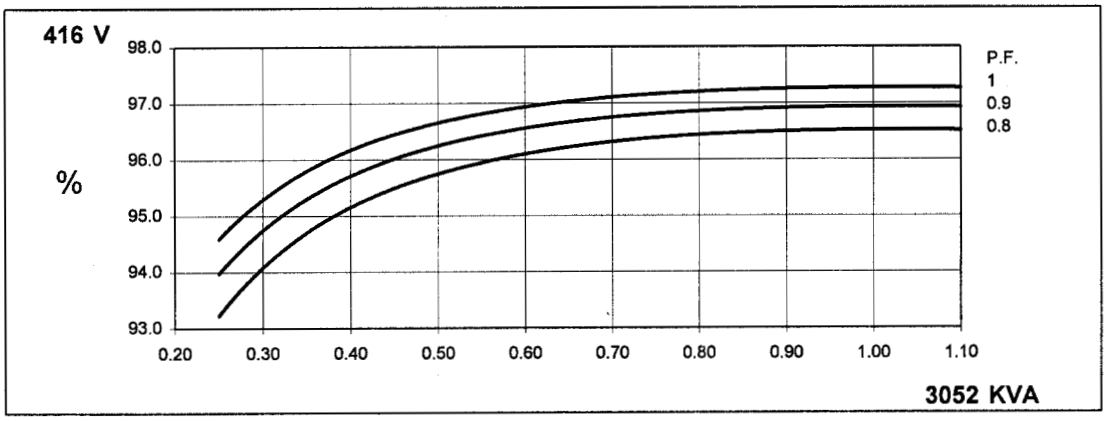
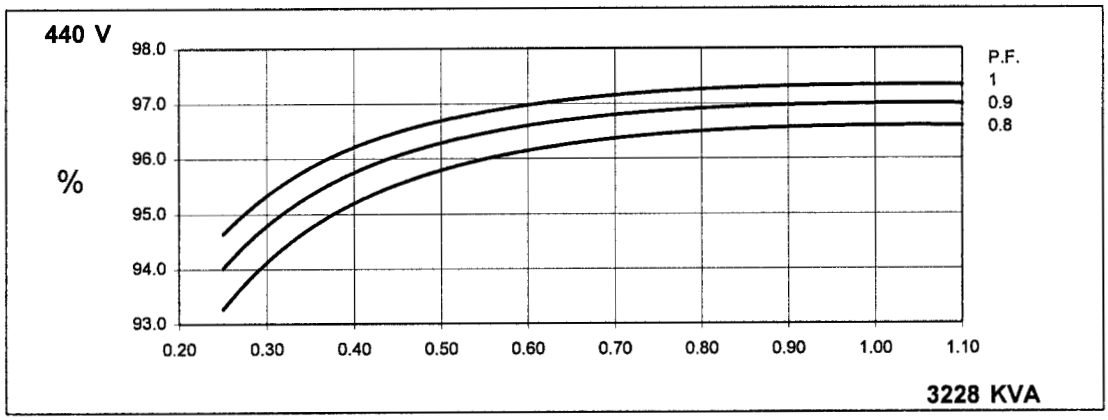
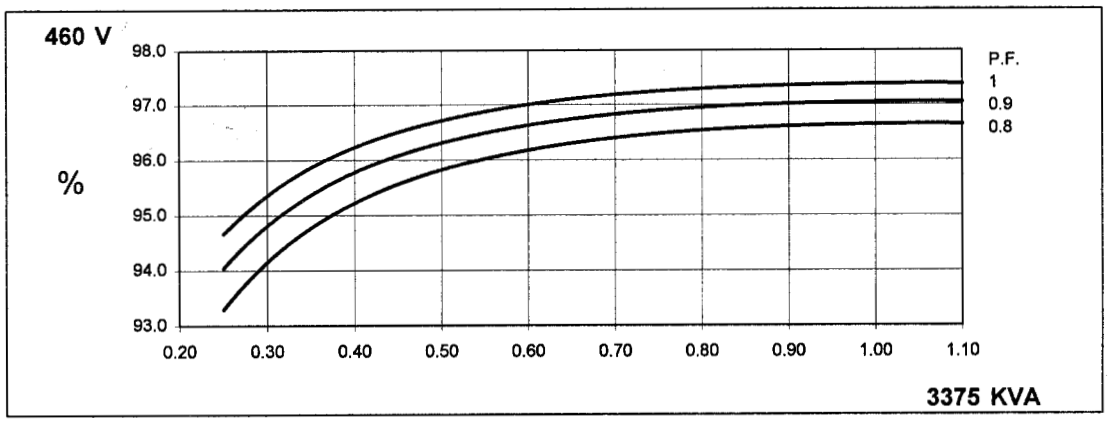
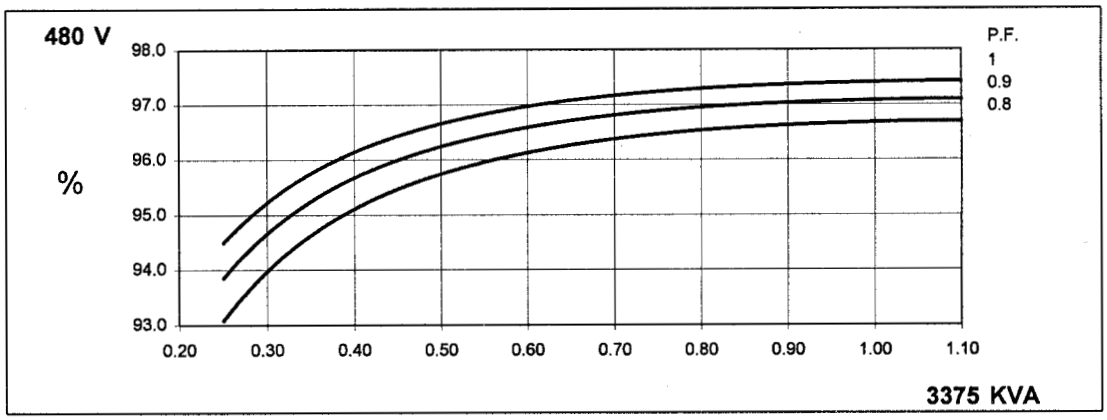




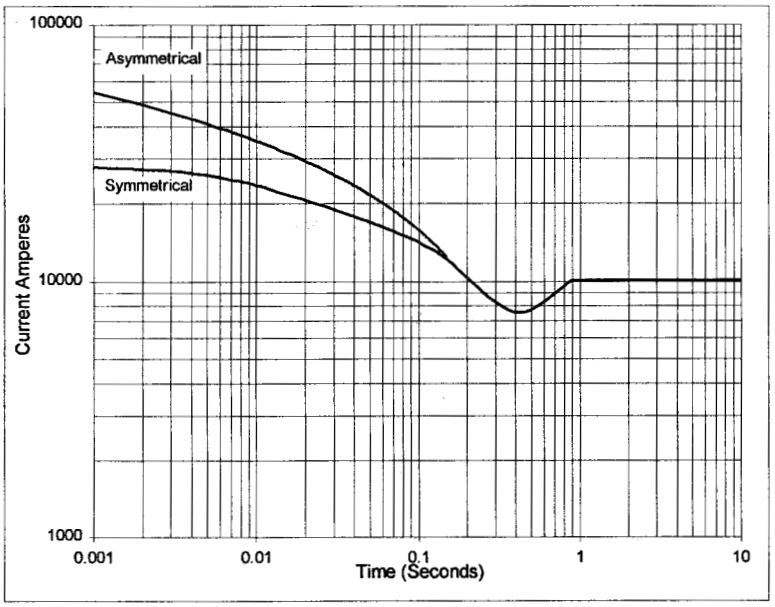




FRAME LVSI814D 50 Hz

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

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
380 V	X 1.00
400 V	X 1.05
415 V	X 1.10
440 V	X 1.16

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	10 SEC	5 SEC	2 SEC

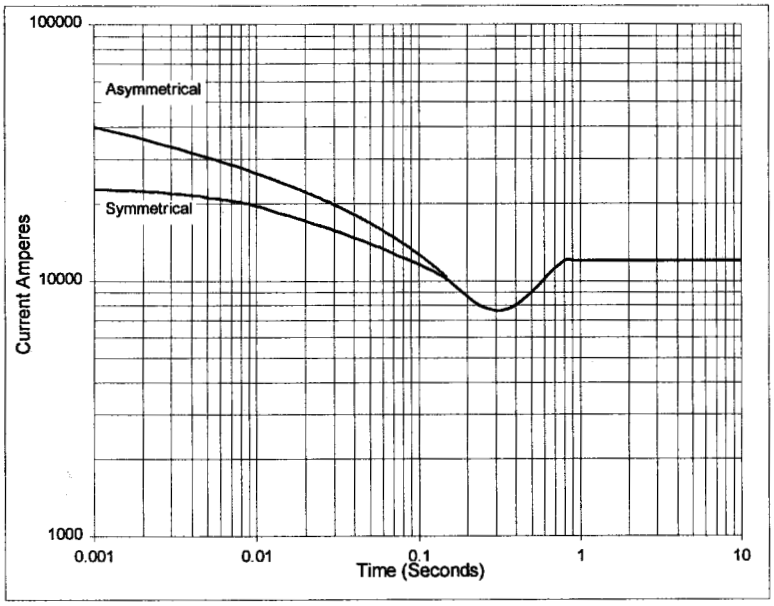
ALL OTHER TIMES ARE UNCHANGED

SUSTAINED SHORT CIRCUIT =10108 Amps

FRAME LVSI814D 60 Hz

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

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
416 V	X 1.00
440 V	X 1.06
460 V	X 1.10
480 V	X 1.16

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	10 SEC	5 SEC	2 SEC

ALL OTHER TIMES ARE UNCHANGED

SUSTAINED SHORT CIRCUIT = 12028 Amps

NEWAGE
INTERNATIONAL

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