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Amperage chart 80% Power Factor - Three Phase					Single Phase	
kVA	kW	208V	240V	480V	kVA	120/240
6.3	5	17.3	15	7.5	5	20.8
12.5	10	34.7	30.1	15	10	41.7
18.8	15	52	45.1	22.5	15	62.5
31.3	25	87	75.2	37.6	25	104
37.5	30	104	90	45	30	125
50	40	139	120	60	40	167
56.3	45	156	135	68	45	188
62.5	50	173	150	75	50	208
75	60	208	180	90	60	250
93.8	75	260	226	113	75	313
100	80	278	241	120	80	333
125	100	347	301	150	100	417
156	125	343	376	188	125	521
188	150	520	451	225	150	625
219	175	607	526	263	175	729
250	200	694	601	301	200	833
281	225	781	677	338	225	938
313	250	867	752	376	250	1042
344	275	954	827	413	275	1146
375	300	1041	902	451	300	1250
438	350	1214	1052	526	350	1458
500	400	1388	1203	601	400	1667
563	450	1561	1353	677	450	1875
625	500	1735	1504	752	500	2083
750	600	2082	1804	902	 <b>anacorp.com</b> <b>562-450-3570</b>	
938	750	2602	2255	1128		
1000	800	2776	2406	1203		
1125	900	3123	2706	1353		
1250	1000	3470	3007	1504		
1563	1250	4337	3759	1879		
1875	1500	5205	4511	2255		
2188	1750	6072	5262	2631		
2500	2000	6940	6014	3007		

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**ALTERNATOR DATA  
 APPLICATION FORMULAS & USEFUL TABLES**

Desired Data	Single Phase	Three Phase
KILO VOLT- Amperes (KVA)	$\frac{\text{Volts} \times \text{Amps}}{1000}$ or $\frac{\text{KW}}{\text{P.F.}}$	$\frac{1.732 \times \text{Volts} \times \text{Amps}}{1000}$ or $\frac{\text{KW}}{\text{P.F.}}$
Kilowatts (KW)	$\frac{\text{Volts} \times \text{Amps} \times \text{P.F.}}{1000}$ or $\text{KVA} \times \text{P.F.}$	$\frac{1.732 \times \text{Volts} \times \text{Amps} \times \text{P.F.}}{1000}$ or $\text{KVA} \times \text{P.F.}$
Power Factor (P.F.)	$\frac{\text{KW}}{\text{KVA}}$	$\frac{\text{KW}}{\text{KVA}}$
Amperes - When KW is known	$\frac{\text{KW} \times 1000}{\text{Volts} \times \text{P.F.}}$	$\frac{\text{KW} \times 1000}{1.732 \times \text{Volts}}$
Amperes - When KVA is known	$\frac{\text{KVA} \times 1000}{\text{Volts}}$	$\frac{\text{KVA} \times 1000}{1.732 \times \text{Volts}}$
Required Prime Mover HP	$\frac{\text{KW}}{\text{Alternator Efficiency} \times 0.746}$	
Frequency (Hertz)	$\frac{\text{Number of Poles} \times \text{R.P.M}}{120}$	
Revolutions Per Minute (R.P.M.)	$\frac{\text{Hertz} \times 120}{\text{Number of Poles}}$	
Voltage Regulation (In %)	$\frac{\text{No Load Voltage} - \text{Full Load Voltage} \times 100}{\text{Full Load Voltage}}$	
Speed Regulations (In %)	$\frac{\text{No Load R.P.M} - \text{Full Load R.P.M} \times 100}{\text{Full Load R.P.M}}$	
Voltage Dip Factor (Motor)	$(100\% - \text{Voltage Dip } \%)$ 100	

NEMA CODES FOR STARTING KVA/HP THREE PHASE MOTORS*					
Code	Starting KVA/HP	Typical Size Range	Code	Starting KVA/HP	Typical Size Range
A	0 - 3.15	-	I	9.0 - 10.0	1 HP
B	3.15 - 3.55	-	M	10.0 - 11.2	Less than 1 HP
C	3.55 - 4.0	-	N	11.2 - 12.5	-
D	4.0 - 4.5	-	P	12.5 - 14.0	-
E	4.5 - 5.0	-	R	14.0 - 16.0	-
F	5.0 - 5.6	15 HP and up	S	16.0 - 18.0	-
G	5.6 - 6.3	10 HP	T	18.0 - 20.0	-
H	6.3 - 7.1	7.5 and 5 HP	U	20.0 - 22.4	-
J	7.1 - 8.0	3 HP	V	22.4 and up	-
K	8.0 - 9.0	2 and 1-1/2 HP			

\*Unless actual KVA for starting is known, use the higher value

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