



SubDrive Solar Controller - Generator / Motor Specifications

Generator Sizing for SubDrive Solar

Table 3 lists minimum generator sizes based on typical 80 °C rise continuous duty generators, for Franklin's three-wire, single- or three-phase motors. This is a general chart. The generator manufacturer should be consulted whenever possible, especially on larger sizes.

There are two types of generators available: externally and internally regulated. Most are externally regulated. They use an external voltage regulator that senses the output voltage. As the voltage dips at motor start-up, the regulator increases the output voltage of the generator. Internally regulated (self-excited) generators have an extra winding in the generator stator. The extra winding senses the output current to automatically adjust the output voltage.

Follow generator manufacturer's recommendations for de-rating at higher elevations or using natural gas.

MOTOR RATING		MINIMUM RATING OF GENERATOR			
HP	KW	EXTERNALLY REGULATED		INTERNALLY REGULATED	
		KW	KVA	KW	KVA
1.5	1.1	5	6.25	3	3.8
3	2.2	10	12.5	5	6.25

Table 3. Generator Sizing

Generator Sizing for SubDrive Solar - LOW POWER

MOTOR RATING		MINIMUM RATING OF GENERATOR	
HP	KW	Externally Regulated	
		KW	KVA
0.75	0.55	2.5	3.1

Generator Sizing - LOW POWER

Three-Phase Motor Specifications

MOTOR MODEL	RATING					FULL LOAD		MAXIMUM LOAD		LINE TO LINE RESISTANCE OHMS	KVA CODE
	HP	KW	VOLTS	HZ	S.F.	AMPS	WATTS	AMPS	WATTS		
2345049203	1.5	1.1	200	60	1.3	5.8	1460	6.8	1890	2.5 – 3.0	K
2343062604	3	2.2	200	60	1.15	10.9	2920	12.5	3360	1.3 – 1.7	K

Table 4. Motor Specification Data

Three-Phase Motor Specifications - LOW POWER

Motor Model	RATING					FULL LOAD		MAXIMUM LOAD		LINE TO LINE RESISTANCE OHMS	KVA CODE
	HP	KW	VOLTS	HZ	S.F.	AMPS	WATTS	AMPS	WATTS		
2349029204	0.75	0.55	100	60	1.5	6.9	830	8.6	1185	1.1 – 1.4	N

Motor Specification Data