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Ever wondered how to calculate the maximum current draw for a 3-phase Grieve oven?

This can probably be applied to general 3-phase equipment, but for Grieve Ovens, they come in 208V 3-phase, 230V 3-phase, and 460V 3-phase combinations. To calculate the size breaker you need, first find the “Heat Input” requirement in kilowatts. This is in the specifications on the griev website (<http://www.grievcorp.com>). You’ll also need the size of the blower, which is specified in horsepower. This should be on the same page. Next, apply the following equation:

$$3\text{-Phase heater amperage} = (\text{KW} \times 1000) / (\text{Voltage which is } 208, 230, \text{ or } 460\text{V} \times \text{square root of } 3 \text{ which is } 1.732)$$

ADD 6 amperes, to cover a larger control circuit if this is a gas oven

ADD 1 ampere, to cover the control circuit if this is an electric oven

ADD amperage for the blower motor. (see table below)

ADD amperage for any other motors, if there is more than 1 in your system. Find that with the following table:

Horespower	Current required, Amperes		
	Blower	208 3-phase	230 3-phase
1/3	1.5	1.4	0.7
1/2	2.2	2.0	1.0
3/4	3.1	2.8	1.4
1	4.0	3.6	1.8
1 1/2	5.8	5.2	2.6
2	7.5	6.8	3.4
3	10.6	9.6	4.8
5	16.8	15.2	7.6
7 1/2	24.2	22.0	11.0
10	30.8	28.0	14.0
15	46.2	42.2	21.0
20	59.4	54.0	27.0
25	74.8	68.0	34.0

Viola! You know the maximum current draw for your oven installation! It’s up to you to size the breaker from here, and obey any applicable local electrical codes.