

Electricity

As a result of the numerous power problems during the 2013 edition of the eat! BRUSSELS festival, we feel it is worthwhile to repeat some elementary electricity notions. We provide you with a 3x16A electrical distribution (3 single-phased line feeders) per food stand.

The formula to calculate the electrical power of a line is:

$\mathbf{P} = \mathbf{V} \times \mathbf{C}$

P = po	ower.		
Expre	ssed in	watts	(W).

U = voltage. Expressed in volts (V). I = current. Expressed in amperes (A).

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The standard electrical voltage is 220 volts (single-phased). When the voltage is 380 volts, we speak of a three-phased line (the plug is different).

A 3x16A electrical distribution coincides with 10,5kW or 10560 watts maximum per stand. Indeed:

 $P = V \times C$

P = what we are calculating

U = 220 volts (pas it is single-phased)

I = 16 amperes

So, P = 220 volts x 16 amperes. P = 3560 watts. <u>1 line = 3560 watts maximum</u>.

We provide 3 lines of 16A, thus: 3560 watts x 3 = 10560 watts maximum per stand or 10,5kW.

For your information, please find below the energy consumption of some household appliances:

	Voltage	Power
2 rings	single-phased (220 volts)	2500 watts
1 microwave	single-phased (220 volts)	1000 watts
1 700L fridge	single-phased (220 volts)	456 watts
1 combi steamer	three-phased (380 volts)	16,5 kW or 16500 watts
1 electric oven 4GN	single-phased (220 volts)	2500 kW
1 electric griddle	three-phased (380 volts)	6 kW or 6000 watts
1 induction griddle	single-phased (220 volts)	3500 watts
1 fryer	single-phased (220 volts)	3500 watts



As soon as the maximum power per line is reached, the fuse blows, causing a power cut.

Example: On a 16A line, or 3560 watts, we connect: 3 fridges of 700L = 456 watts x 3 =1368 watts 2 microwaves = 1000 watts x 2 = 2000 watts Total on the line: 3368 watts. The maximum electrical power is reached. If you add one extra appliance, the fuse blows. This means your power is cut.