

ETA Systems

Technical Tip #5100

NEMA Plug Configurations (aka Edison Plugs)

Professionals in the audio, video, lighting, control, and production industries frequently refer to a device known as an "Edison Plug." This term derives from the original two bladed power connector used in early North American electrical systems. While not potentially confusing to industry insiders, a request for an Edison plug will generally result in an electrical contractor scratching his head in dismay.

Electricians use different nomenclature to describe the plugs and receptacles (fixtures) used for providing branch circuit power to an electrical device or appliance. Their terminology derives from the National Electrical Manufacturers Association (NEMA), the leading trade association in the US representing the interests of electroindustry manufacturers of products. Not only electrical contractors but engineers and building architects alike specify electrical fixtures according to NEMA established guidelines.

Manufacturers of devices like uninterruptible power supplies, power conditioners, surge protectors and similar devices along with safety agencies like Underwriter's Laboratories and ETL use NEMA nomenclature to standardize their references to electrical fixtures. For these reasons, it's valuable to have a reference of the NEMA plug and receptacle configurations that are most commonly used in low to medium power 120 volt and 208/240 volt applications in North America. This technical bulletin illustrates standard NEMA configurations for this purpose. The chart to the right shows the most common plugs and receptacles and the example below illustrates how to interpret the coding.

Nomenclature Example

NEMA 5-15P means:



* An "L" preceding the NEMA number indicates a twistlock or locking fixture

CURRENT RATING	TYPE	2 POLE - 3 WIRE GROUNDING		3 POLE 4 WIRE GROUNDING
		125V	250V	125/250V
15A	STRAIGHT BLADE	 5-15R	 6-15R	
	TWIST-LOCK	 L5-15R	 L6-15R	
20A	STRAIGHT BLADE	 5-20R	 6-20R	 14-20R
	TWIST-LOCK	 L5-20R	 L6-20R	 L14-20R
30A	STRAIGHT BLADE	 5-30R	 6-30R	 14-30R
	TWIST-LOCK	 L5-30R	 L6-30R	 L14-30R
50A	STRAIGHT BLADE	 5-50R	 6-50R	 14-50R
	TWIST-LOCK			 CS6364/65
60A	STRAIGHT BLADE			 14-60R
	TWIST-LOCK			

NOTES: : plug change suffix from "R" to "P" and mirror image, from "R" to "C".
d CS6365 plug are not NEMA.
utral (white), X & Y = hot (red & black).



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