

## *“LZGH<sub>2</sub>/8 Certified DP Contactor”*

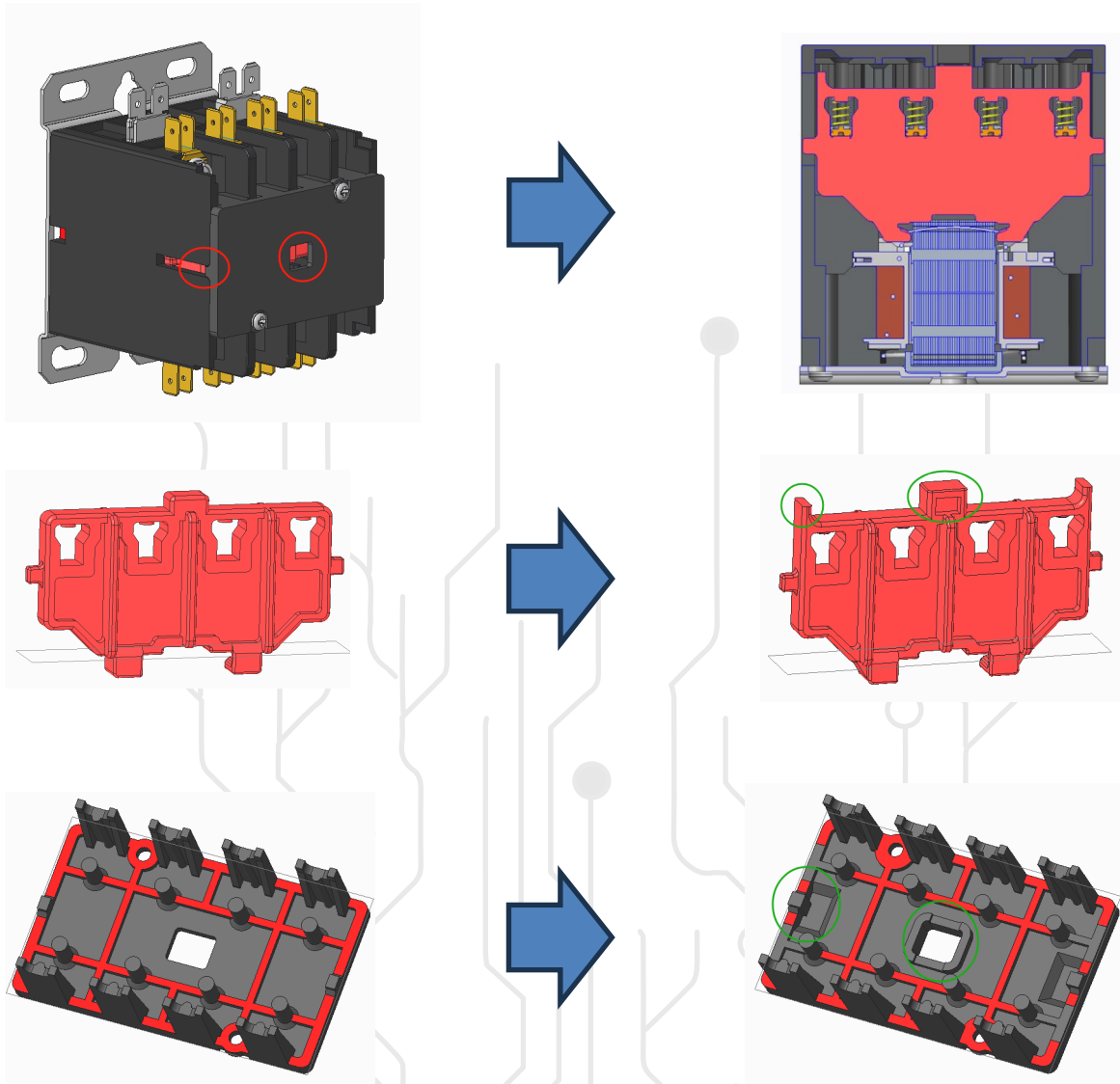
**ABOUT US:** *MeK-Tronics is a leading supplier in the HVAC and Refrigeration, Professional Appliance, Industrial and Home Appliance markets. MeK-Tronics offers a broad range of products which include transformers, relays, IEC Contactors, Capacitors, DP Contactors, Pressure Switches and more...*

**PRODUCT DESCRIPTION:** *This White Paper focuses on MeK-Tronics DP Contactor line. The line covers the standard range of the market needs; 1-Pole, 2-Pole, 3-Pole, and 4-Pole models with current ratings of 20A, 25A, 30A, 40A, 50A, 60A, 75A, and 90A.*

**PROBLEM STATEMENT:** *The HVAC/R markets are being challenged to meet new **UL Safety Standards** regarding refrigerants. These new refrigerants are categorized as A2L under ASHRAE's Standard 34 for refrigerant classifications. Although more environmentally friendly with a much lower global warming potential (GWP), these new refrigerants considered mildly flammable. With this shift away from HFC (hydrofluorocarbon) towards **A2L-class refrigerants**, OEMs are pressed to find components that will operate in this new environment without posing the threat of ignition if exposed to the mildly flammable A2L refrigerants.*

**NEED FOR CHANGE...** *Today's DP contactors are built to be cost effective and robust to meet the rigorous demands of HVAC/R systems. They are used heavily in the switching of motor, electric heat, and compressor loads. Historical designs do not consider air gaps in the DP Contactor since the refrigerant used in these systems is not flammable. In HVAC/R systems employing A2L Class refrigerants the gaps in switching components design have to be taken into consideration since the presence of air with the possible arcing is more likely to generate a point of ignition; Upon switching a load, there is an arc generated between the contacts of the DP Contactor when opening and closing the circuit. It is assumed that this arc, when exposed to the A2L refrigerants, could cause a thermal event in certain applications / environments. Based on this concern UL has updated the requirements for using possible spark-generating components in A2L refrigerant applications.*

*To meet the requirements outlined by UL, MeK-Tronics engineering had to modify our DP Contactors where the plastic mold was re-designed to minimize the size of these gaps, creating a quenching effect that limits contact between the A2L refrigerant and the potentially arcing components. This prevents the propagation of a flame beyond the contactor. Below are pictures highlighting the changes made.*



*The one constant in industry is change. With these changes MeK-Tronics is always working to stay ahead of the next industry requirement. We will continue to modify and improve our designs to meet the strictest of regulatory requirements. After having successfully passed the stringent UL testing under **UL 60335-2-40** for **Flame Arrest-protected Components**, we are happy to introduce our revamped **LZGH2/8 Certified DP Contactor line**, Compliant with the New UL Standard for use in Refrigeration and Air-conditioning Equipment Employing A2L Refrigerants.*

**What make us special?** We help customers consolidate their vendor list by offering a broad range of products. With our US-based Engineering and warehousing, competitive pricing and unmatched lead times, and customer satisfaction-oriented vision, **MeK-Tronics** always strives to stay on top of immersing market needs.

Visit [www.mek-tronics.com](http://www.mek-tronics.com) to learn more about our DP contactor offering and other electrical components we manufacture.