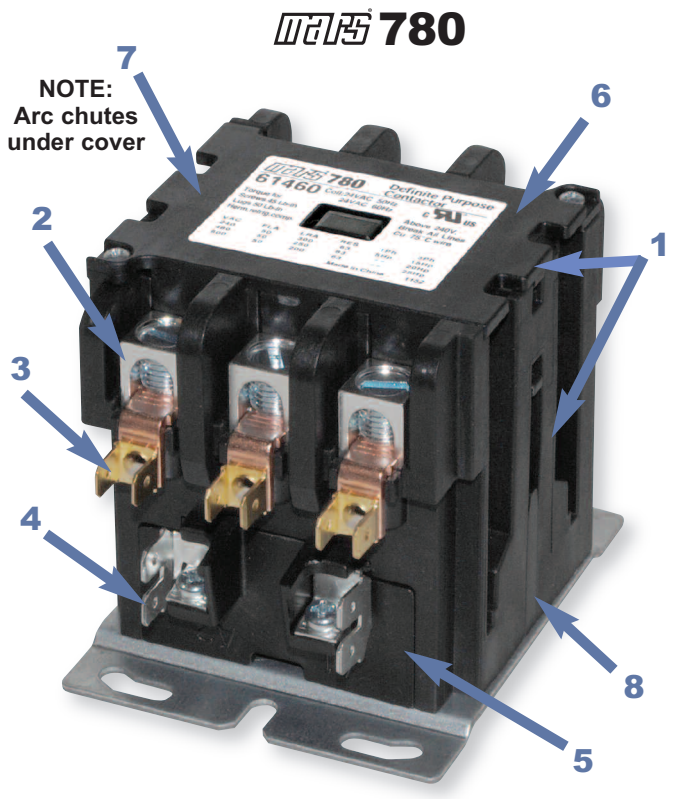
MARS® 780 Professional Grade

Do you know your definite purpose contactor?

The MARS 780 definite purpose contactor is engineered for today's most demanding commercial refrigeration and HVAC applications. The finest components and materials along with innovative engineering make the 780 the most trusted DP contactor available. While other contactors may look similar, only the MARS 780 is truly professional grade.

What Makes a Professional Grade Contactor?

1. **Enclosed Body** reduces the penetration of dirt and insects providing a quieter running contactor and a longer life expectancy.
2. **Heavy Walled 'Arch Window'** lugs resist breakage if over torqued.
3. **High performance Copper & Brass Conductors** maximize current carrying capability creating a cooler running contactor. Heat kills contact points and coils.
4. **Multi-purpose Coil Terminals** allow the use of QC terminals or stripped wires.
5. **Removable Coils** allow field replacement of damaged coils as well as the modification of inventory when different coil voltages are needed.
6. **Removable Cover** provides full access to the contacts for easy inspection and maintenance.
7. **Captive Arc Chutes** will not fall out and get lost when the cover is removed for maintenance.
8. **Thermoplastic Housing** resists dusting and contamination of the contacts to maintain maximum conductivity.



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Tech Tips for Definite Purpose Contactors

Problem with This	Do This
Buzzing/Chattering*	➤ Confirm the correct voltage is being applied to the coil ➤ Ensure there is no debris caught between the magnet & armature ➤ Ensure the VA rating on the control transformer is the OE VA rating
Humming	➤ Some humming is a result of the 60Hz of AC circuits and is normal ➤ Minimize humming by cleaning the magnet & armature pole faces with a dry swab; choose contactors made from non-dusting thermoplastic (MARS 780)
Not Pulling In	➤ Confirm the correct voltage is present and being applied to the coil ➤ Disconnect and check the resistance of the coil; – Infinite resistance ( ) is an open coil (bad coil) – Any other resistance is likely a good coil
Coil Swollen/Melted	➤ Confirm control circuit voltage to coil; low voltage / voltage-drop likely ➤ Check control circuit transformer; bad or incorrect transformer VA
Terminal Overheated/Burned	➤ Torque the power terminals to the rated value on the nameplate – Under torqued (loose) connections can overheat/burn/melt – Over torqued connections can break and overheat/burn/melt
Entire (single) Power Pole Burned	➤ Check other components in power circuit; over amp draw ➤ Check moveable contact for restriction or significant debris ➤ Ensure both Line & Load side terminals are correctly torqued
All Power Poles Burned	➤ Check control circuit for loose connection; contactor is chattering/arcing ➤ Check load for excessive amp draw ➤ Check for swollen coil that prohibits complete contact closure; if swollen check for low control circuit voltage on the coil
Contact Points Stuck	➤ Contacts weld when contactor chatters (rapid on/off) due to loose connection on coil or within the control circuit; check connections including thermostat relay output ➤ Bright 'blotchy' spots on silver contacts indicate welding has occurred

* Contact chatter is the rapid on/off cycling of the contactor. This causes excessive arcing which generates high enough heat to liquify the silver contacts causing them to stick together.