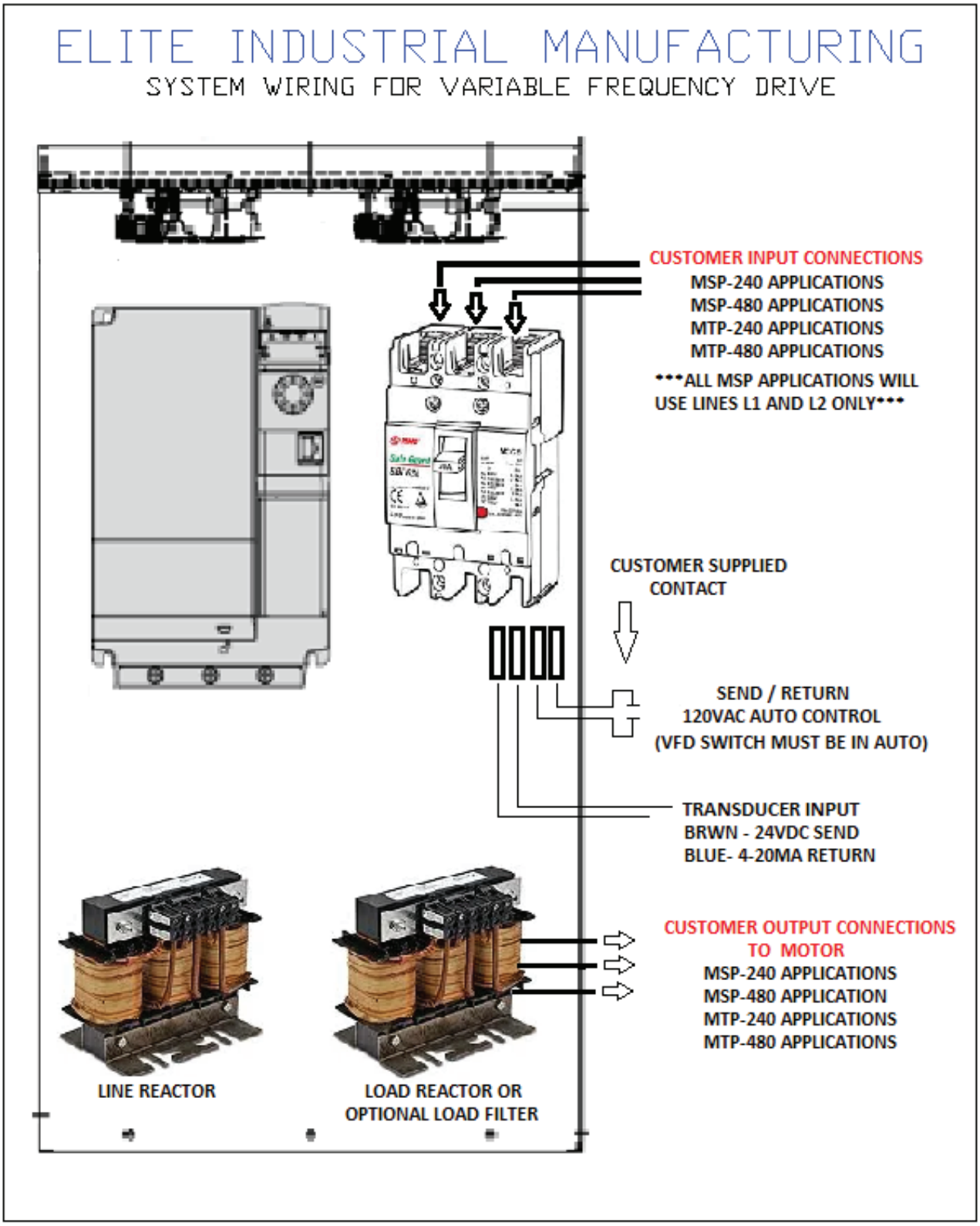MSP & MTP SCHEMATIC