	follows
10 2 1 1	Switching mechanism: quick make and break
10.2.1.2.	One or three overload heaters, manual reset, trip indicating handle as required.
10.2.1.3.	NEMA rated for the area in which they are installed.
10.2.2.	Accessories.
10.2.2.1.	Toggle switch: standard heavy duty oiltight labeled as indicated.
10.2.2.2.	Indicating light: heavy duty oiltight type and colour as indicated.
10.2.2.2.	Locking tab to permit padlocking in "ON" and "OFF" positions
10.2.3.	Acceptable manufacturer shall be Telemecanique, Cutler-Hammer MS series,
	Allen-Bradly/Rockwell Bulletin 600 Series.
10.2 FUU	
10.3. FULL	Magnetic and combination magnetic starters of size, type and rating as indicated with
10.0.1.	components as follows:
10.3.1.1.	Contactor: solenoid-operated, rapid action type.
10.3.1.2.	Motor overload protective device in each phase, manually reset from outside
10 2 4 2	enclosure.
10.3.1.3.	Power and control terminal blocks Wiring and schematic diagram located inside starter enclosure in a visible location
10.3.1.5	Identify each wire and terminal for external connections, within starter, with permanent
	number marking identical to diagram.
10.3.1.6.	NEMA rated for the area in which they are installed.
10.3.2.	Combination type starters to include motor circuit protector with operating lever on outside
10 3 2 1	of enclosure to control motor circuit protector and provision for:
10.3.2.2.	Locking in "ON" position.
10.3.2.3.	Independent locking of enclosure door.
10.3.2.4.	Provision for preventing switching to "ON" position while enclosure door open.
10.3.3.	Accessories:
10.3.3.1.	Pushbuttons and selector switches: standard neavy duty olitight labeled as indicated.
10.3.3.2.	Indicating lights: LED. Push-to-test, heavy duty oiltight type and colour as indicated.
10.3.3.2.	1. Red - Running
10.3.3.3.	1-N.O. and 1-N.C. spare auxiliary contacts unless otherwise indicated.
10.3.3.4.	Control transformers:
10.3.3.4.	supply voltage and 120 V secondary, complete with secondary fuse, installed in
	with starter as indicated.
10.3.3.4	2. Size control transformer for control circuit load required plus 100% spare
10.3.4	capacity. Starter sizes shall be Electrical Code suitable to applied loads as indicated on drawings
10.3.4. 10.3.5.	capacity. Starter sizes shall be Electrical Code suitable to applied loads as indicated on drawings. Acceptable manufacturer is Telemecanique LE1 series, Cutler-Hammer Freedom series
10.3.4. 10.3.5.	capacity. Starter sizes shall be Electrical Code suitable to applied loads as indicated on drawings. Acceptable manufacturer is Telemecanique LE1 series, Cutler-Hammer Freedom series type AN16, Allen-Bradley/Rockwell Bulletin 509 or 505 Series.
10.3.4. 10.3.5.	capacity. Starter sizes shall be Electrical Code suitable to applied loads as indicated on drawings. Acceptable manufacturer is Telemecanique LE1 series, Cutler-Hammer Freedom series type AN16, Allen-Bradley/Rockwell Bulletin 509 or 505 Series.
10.3.4. 10.3.5. 10.4. TWO	capacity. Starter sizes shall be Electrical Code suitable to applied loads as indicated on drawings. Acceptable manufacturer is Telemecanique LE1 series, Cutler-Hammer Freedom series type AN16, Allen-Bradley/Rockwell Bulletin 509 or 505 Series.
10.3.4. 10.3.5. 10.4. TWC 10.4.1.	capacity. Starter sizes shall be Electrical Code suitable to applied loads as indicated on drawings. Acceptable manufacturer is Telemecanique LE1 series, Cutler-Hammer Freedom series type AN16, Allen-Bradley/Rockwell Bulletin 509 or 505 Series. SPEED MAGNETIC STARTERS Two speed magnetic starters of size, type and rating indicated with components as follows:
10.3.4. 10.3.5. 10.4. TWO 10.4.1. 10.4.1.6.	capacity. Starter sizes shall be Electrical Code suitable to applied loads as indicated on drawings. Acceptable manufacturer is Telemecanique LE1 series, Cutler-Hammer Freedom series type AN16, Allen-Bradley/Rockwell Bulletin 509 or 505 Series. SPEED MAGNETIC STARTERS Two speed magnetic starters of size, type and rating indicated with components as follows: One 3-pole contractor for each winding for separate winding motors.
10.3.4. 10.3.5. 10.4. TWO 10.4.1. 10.4.1.6. 10.4.1.7. 10.4.1.8	capacity. Starter sizes shall be Electrical Code suitable to applied loads as indicated on drawings. Acceptable manufacturer is Telemecanique LE1 series, Cutler-Hammer Freedom series type AN16, Allen-Bradley/Rockwell Bulletin 509 or 505 Series. SPEED MAGNETIC STARTERS Two speed magnetic starters of size, type and rating indicated with components as follows: One 3-pole contractor for each winding for separate winding motors. 3 overload relays with three heater and manual reset for each speed. Dewer and central terminal blocks
10.3.4. 10.3.5. 10.4. TWO 10.4.1. 10.4.1.6. 10.4.1.7. 10.4.1.8. 10.4.1.9	capacity. Starter sizes shall be Electrical Code suitable to applied loads as indicated on drawings. Acceptable manufacturer is Telemecanique LE1 series, Cutler-Hammer Freedom series type AN16, Allen-Bradley/Rockwell Bulletin 509 or 505 Series. SPEED MAGNETIC STARTERS Two speed magnetic starters of size, type and rating indicated with components as follows: One 3-pole contractor for each winding for separate winding motors. 3 overload relays with three heater and manual reset for each speed. Power and control terminal blocks Identify each wire and terminal for external connections, within starter, with permanent
10.3.4. 10.3.5. 10.4. TWC 10.4.1. 10.4.1.6. 10.4.1.7. 10.4.1.8. 10.4.1.9.	capacity. Starter sizes shall be Electrical Code suitable to applied loads as indicated on drawings. Acceptable manufacturer is Telemecanique LE1 series, Cutler-Hammer Freedom series type AN16, Allen-Bradley/Rockwell Bulletin 509 or 505 Series. SPEED MAGNETIC STARTERS Two speed magnetic starters of size, type and rating indicated with components as follows: One 3-pole contractor for each winding for separate winding motors. 3 overload relays with three heater and manual reset for each speed. Power and control terminal blocks Identify each wire and terminal for external connections, within starter, with permanent number marking identical to diagram.
10.3.4. 10.3.5. 10.4. TWC 10.4.1. 10.4.1.6. 10.4.1.7. 10.4.1.8. 10.4.1.9. 10.4.1.10.	capacity. Starter sizes shall be Electrical Code suitable to applied loads as indicated on drawings. Acceptable manufacturer is Telemecanique LE1 series, Cutler-Hammer Freedom series type AN16, Allen-Bradley/Rockwell Bulletin 509 or 505 Series. SPEED MAGNETIC STARTERS Two speed magnetic starters of size, type and rating indicated with components as follows: One 3-pole contractor for each winding for separate winding motors. 3 overload relays with three heater and manual reset for each speed. Power and control terminal blocks Identify each wire and terminal for external connections, within starter, with permanent number marking identical to diagram. NEMA rated for the area in which they are installed.
10.3.4. 10.3.5. 10.4. TWC 10.4.1. 10.4.1.6. 10.4.1.7. 10.4.1.8. 10.4.1.9. 10.4.1.10. 10.4.1.11.	capacity. Starter sizes shall be Electrical Code suitable to applied loads as indicated on drawings. Acceptable manufacturer is Telemecanique LE1 series, Cutler-Hammer Freedom series type AN16, Allen-Bradley/Rockwell Bulletin 509 or 505 Series. SPEED MAGNETIC STARTERS Two speed magnetic starters of size, type and rating indicated with components as follows: One 3-pole contractor for each winding for separate winding motors. 3 overload relays with three heater and manual reset for each speed. Power and control terminal blocks Identify each wire and terminal for external connections, within starter, with permanent number marking identical to diagram. NEMA rated for the area in which they are installed. Made sprinkler proof in areas with sprinkler systems per electrical code section 26.009
10.3.4. 10.3.5. 10.4. TWC 10.4.1. 10.4.1.6. 10.4.1.7. 10.4.1.8. 10.4.1.9. 10.4.1.10. 10.4.1.11. 10.4.2.	capacity. Starter sizes shall be Electrical Code suitable to applied loads as indicated on drawings. Acceptable manufacturer is Telemecanique LE1 series, Cutler-Hammer Freedom series type AN16, Allen-Bradley/Rockwell Bulletin 509 or 505 Series. SPEED MAGNETIC STARTERS Two speed magnetic starters of size, type and rating indicated with components as follows: One 3-pole contractor for each winding for separate winding motors. 3 overload relays with three heater and manual reset for each speed. Power and control terminal blocks Identify each wire and terminal for external connections, within starter, with permanent number marking identical to diagram. NEMA rated for the area in which they are installed. Made sprinkler proof in areas with sprinkler systems per electrical code section 26-008. Combination type starters to include motor circuit protector with operating lever on outside
10.3.4. 10.3.5. 10.4. TWC 10.4.1. 10.4.1.6. 10.4.1.7. 10.4.1.8. 10.4.1.9. 10.4.1.10. 10.4.1.11. 10.4.2.	capacity. Starter sizes shall be Electrical Code suitable to applied loads as indicated on drawings. Acceptable manufacturer is Telemecanique LE1 series, Cutler-Hammer Freedom series type AN16, Allen-Bradley/Rockwell Bulletin 509 or 505 Series. SPEED MAGNETIC STARTERS Two speed magnetic starters of size, type and rating indicated with components as follows: One 3-pole contractor for each winding for separate winding motors. 3 overload relays with three heater and manual reset for each speed. Power and control terminal blocks Identify each wire and terminal for external connections, within starter, with permanent number marking identical to diagram. NEMA rated for the area in which they are installed. Made sprinkler proof in areas with sprinkler systems per electrical code section 26-008. Combination type starters to include motor circuit protector with operating lever on outside of enclosure to control motor circuit protector and with the following features:
10.3.4. 10.3.5. 10.4. TWO 10.4.1. 10.4.1.6. 10.4.1.7. 10.4.1.8. 10.4.1.9. 10.4.1.10. 10.4.1.11. 10.4.2. 10.4.2.1.	capacity. Starter sizes shall be Electrical Code suitable to applied loads as indicated on drawings. Acceptable manufacturer is Telemecanique LE1 series, Cutler-Hammer Freedom series type AN16, Allen-Bradley/Rockwell Bulletin 509 or 505 Series. SPEED MAGNETIC STARTERS Two speed magnetic starters of size, type and rating indicated with components as follows: One 3-pole contractor for each winding for separate winding motors. 3 overload relays with three heater and manual reset for each speed. Power and control terminal blocks Identify each wire and terminal for external connections, within starter, with permanent number marking identical to diagram. NEMA rated for the area in which they are installed. Made sprinkler proof in areas with sprinkler systems per electrical code section 26-008. Combination type starters to include motor circuit protector with operating lever on outside of enclosure to control motor circuit protector and with the following features: Locking in "OFF" position with up to 3 padlocks.
10.3.4. 10.3.5. 10.4. TWC 10.4.1. 10.4.1.6. 10.4.1.7. 10.4.1.8. 10.4.1.9. 10.4.1.10. 10.4.1.11. 10.4.2. 10.4.2.1. 10.4.2.2. 10.4.2.2.	capacity. Starter sizes shall be Electrical Code suitable to applied loads as indicated on drawings. Acceptable manufacturer is Telemecanique LE1 series, Cutler-Hammer Freedom series type AN16, Allen-Bradley/Rockwell Bulletin 509 or 505 Series. SPEED MAGNETIC STARTERS Two speed magnetic starters of size, type and rating indicated with components as follows: One 3-pole contractor for each winding for separate winding motors. 3 overload relays with three heater and manual reset for each speed. Power and control terminal blocks Identify each wire and terminal for external connections, within starter, with permanent number marking identical to diagram. NEMA rated for the area in which they are installed. Made sprinkler proof in areas with sprinkler systems per electrical code section 26-008. Combination type starters to include motor circuit protector with operating lever on outside of enclosure to control motor circuit protector and with the following features: Locking in "OFF" position with up to 3 padlocks. Locking in "ON" position.
10.3.4. 10.3.5. 10.4. TWC 10.4.1. 10.4.1.6. 10.4.1.7. 10.4.1.8. 10.4.1.9. 10.4.1.10. 10.4.1.10. 10.4.1.11. 10.4.2. 10.4.2.1. 10.4.2.3. 10.4.2.3. 10.4.2.4	capacity. Starter sizes shall be Electrical Code suitable to applied loads as indicated on drawings. Acceptable manufacturer is Telemecanique LE1 series, Cutler-Hammer Freedom series type AN16, Allen-Bradley/Rockwell Bulletin 509 or 505 Series. SPEED MAGNETIC STARTERS Two speed magnetic starters of size, type and rating indicated with components as follows: One 3-pole contractor for each winding for separate winding motors. 3 overload relays with three heater and manual reset for each speed. Power and control terminal blocks Identify each wire and terminal for external connections, within starter, with permanent number marking identical to diagram. NEMA rated for the area in which they are installed. Made sprinkler proof in areas with sprinkler systems per electrical code section 26-008. Combination type starters to include motor circuit protector with operating lever on outside of enclosure to control motor circuit protector and with the following features: Locking in "OFF" position with up to 3 padlocks. Locking in "ON" position. Independent locking of enclosure door. Prevention of switching to "ON" position while enclosure door open
10.3.4. 10.3.5. 10.4.1. 10.4.1.6. 10.4.1.7. 10.4.1.8. 10.4.1.9. 10.4.1.10. 10.4.1.10. 10.4.1.11. 10.4.2.1. 10.4.2.1. 10.4.2.3. 10.4.2.3. 10.4.2.4. 10.4.2.5.	capacity. Starter sizes shall be Electrical Code suitable to applied loads as indicated on drawings. Acceptable manufacturer is Telemecanique LE1 series, Cutler-Hammer Freedom series type AN16, Allen-Bradley/Rockwell Bulletin 509 or 505 Series. SPEED MAGNETIC STARTERS Two speed magnetic starters of size, type and rating indicated with components as follows: One 3-pole contractor for each winding for separate winding motors. 3 overload relays with three heater and manual reset for each speed. Power and control terminal blocks Identify each wire and terminal for external connections, within starter, with permanent number marking identical to diagram. NEMA rated for the area in which they are installed. Made sprinkler proof in areas with sprinkler systems per electrical code section 26-008. Combination type starters to include motor circuit protector with operating lever on outside of enclosure to control motor circuit protector and with the following features: Locking in "OFF" position with up to 3 padlocks. Locking in "OFF" position. Independent locking of enclosure door. Prevention of switching to "ON" position while enclosure door open. Mechanical interlocks to prevent simultaneous energization of both speed circuits with
10.3.4. 10.3.5. 10.4. TWC 10.4.1. 10.4.1.6. 10.4.1.7. 10.4.1.8. 10.4.1.9. 10.4.1.10. 10.4.1.10. 10.4.1.11. 10.4.2.1. 10.4.2.1. 10.4.2.2. 10.4.2.3. 10.4.2.4. 10.4.2.5.	 capacity. Starter sizes shall be Electrical Code suitable to applied loads as indicated on drawings. Acceptable manufacturer is Telemecanique LE1 series, Cutler-Hammer Freedom series type AN16, Allen-Bradley/Rockwell Bulletin 509 or 505 Series. SPEED MAGNETIC STARTERS Two speed magnetic starters of size, type and rating indicated with components as follows: One 3-pole contractor for each winding for separate winding motors. 3 overload relays with three heater and manual reset for each speed. Power and control terminal blocks Identify each wire and terminal for external connections, within starter, with permanent number marking identical to diagram. NEMA rated for the area in which they are installed. Made sprinkler proof in areas with sprinkler systems per electrical code section 26-008. Combination type starters to include motor circuit protector with operating lever on outside of enclosure to control motor circuit protector and with the following features: Locking in "OFF" position with up to 3 padlocks. Locking in "ON" position. Independent locking of enclosure door. Prevention of switching to "ON" position while enclosure door open. Mechanical interlocks to prevent simultaneous energization of both speed circuits with adjustable time delay when changing from high to low speeds. Time delay shall be
10.3.4. 10.3.5. 10.4. TWO 10.4.1. 10.4.1.6. 10.4.1.7. 10.4.1.8. 10.4.1.9. 10.4.1.10. 10.4.1.11. 10.4.2. 10.4.2.1. 10.4.2.3. 10.4.2.4. 10.4.2.5.	 capacity. Starter sizes shall be Electrical Code suitable to applied loads as indicated on drawings. Acceptable manufacturer is Telemecanique LE1 series, Cutler-Hammer Freedom series type AN16, Allen-Bradley/Rockwell Bulletin 509 or 505 Series. SPEED MAGNETIC STARTERS Two speed magnetic starters of size, type and rating indicated with components as follows: One 3-pole contractor for each winding for separate winding motors. 3 overload relays with three heater and manual reset for each speed. Power and control terminal blocks Identify each wire and terminal for external connections, within starter, with permanent number marking identical to diagram. NEMA rated for the area in which they are installed. Made sprinkler proof in areas with sprinkler systems per electrical code section 26-008. Combination type starters to include motor circuit protector with operating lever on outside of enclosure to control motor circuit protector and with the following features: Locking in "OFF" position. Independent locking of enclosure door. Prevention of switching to "ON" position while enclosure door open. Mechanical interlocks to prevent simultaneous energization of both speed circuits with adjustable time delay when changing from high to low speeds. Time delay shall be adjusted on site to suit the deceleration of the driven load to prevent back generation by a part or other circuit protector of the driven load to prevent back generation
10.3.4. 10.3.5. 10.4. TWC 10.4.1. 10.4.1.6. 10.4.1.7. 10.4.1.8. 10.4.1.9. 10.4.1.10. 10.4.1.11. 10.4.2. 10.4.2.1. 10.4.2.3. 10.4.2.3. 10.4.2.4. 10.4.2.5.	capacity. Starter sizes shall be Electrical Code suitable to applied loads as indicated on drawings. Acceptable manufacturer is Telemecanique LE1 series, Cutler-Hammer Freedom series type AN16, Allen-Bradley/Rockwell Bulletin 509 or 505 Series. SPEED MAGNETIC STARTERS Two speed magnetic starters of size, type and rating indicated with components as follows: One 3-pole contractor for each winding for separate winding motors. 3 overload relays with three heater and manual reset for each speed. Power and control terminal blocks Identify each wire and terminal for external connections, within starter, with permanent number marking identical to diagram. NEMA rated for the area in which they are installed. Made sprinkler proof in areas with sprinkler systems per electrical code section 26-008. Combination type starters to include motor circuit protector with operating lever on outside of enclosure to control motor circuit protector and with the following features: Locking in "OFF" position. Independent locking of enclosure door. Prevention of switching to "ON" position while enclosure door open. Mechanical interlocks to prevent simultaneous energization of both speed circuits with adjustable time delay when changing from high to low speeds. Time delay shall be adjusted on site to suit the deceleration of the driven load to prevent back generation by an over-running motor. Accessories:
10.3.4. 10.3.5. 10.4.1. 10.4.1.6. 10.4.1.7. 10.4.1.8. 10.4.1.9. 10.4.1.10. 10.4.1.10. 10.4.1.11. 10.4.2.1. 10.4.2.1. 10.4.2.3. 10.4.2.3. 10.4.2.4. 10.4.2.5.	capacity. Starter sizes shall be Electrical Code suitable to applied loads as indicated on drawings. Acceptable manufacturer is Telemecanique LE1 series, Cutler-Hammer Freedom series type AN16, Allen-Bradley/Rockwell Bulletin 509 or 505 Series. SPEED MAGNETIC STARTERS Two speed magnetic starters of size, type and rating indicated with components as follows: One 3-pole contractor for each winding for separate winding motors. 3 overload relays with three heater and manual reset for each speed. Power and control terminal blocks Identify each wire and terminal for external connections, within starter, with permanent number marking identical to diagram. NEMA rated for the area in which they are installed. Made sprinkler proof in areas with sprinkler systems per electrical code section 26-008. Combination type starters to include motor circuit protector with operating lever on outside of enclosure to control motor circuit protector and with the following features: Locking in "OFF" position. Independent locking of enclosure door. Prevention of switching to "ON" position while enclosure door open. Mechanical interlocks to prevent simultaneous energization of both speed circuits with adjustable time delay when changing from high to low speeds. Time delay shall be adjusted on site to suit the deceleration of the driven load to prevent back generation by an over-running motor. Accessories: Pushbuttons and selector switches: standard heavy duty oiltight labeled as indicated.
10.3.4. 10.3.5. 10.4.1. 10.4.1.6. 10.4.1.7. 10.4.1.8. 10.4.1.9. 10.4.1.10. 10.4.1.10. 10.4.1.11. 10.4.2.1. 10.4.2.1. 10.4.2.3. 10.4.2.3. 10.4.2.4. 10.4.2.5. 10.4.3.1. 10.4.3.1. 10.4.3.1.	capacity. Starter sizes shall be Electrical Code suitable to applied loads as indicated on drawings. Acceptable manufacturer is Telemecanique LE1 series, Cutler-Hammer Freedom series type AN16, Allen-Bradley/Rockwell Bulletin 509 or 505 Series. SPEED MAGNETIC STARTERS Two speed magnetic starters of size, type and rating indicated with components as follows: One 3-pole contractor for each winding for separate winding motors. 3 overload relays with three heater and manual reset for each speed. Power and control terminal blocks Identify each wire and terminal for external connections, within starter, with permanent number marking identical to diagram. NEMA rated for the area in which they are installed. Made sprinkler proof in areas with sprinkler systems per electrical code section 26-008. Combination type starters to include motor circuit protector with operating lever on outside of enclosure to control motor circuit protector and with the following features: Locking in "OFF" position. Independent locking of enclosure door. Prevention of switching to "ON" position while enclosure door open. Mechanical interlocks to prevent simultaneous energization of both speed circuits with adjustable time delay when changing from high to low speeds. Time delay shall be adjusted on site to suit the deceleration of the driven load to prevent back generation by an over-running motor. Accessories: Pushbuttons and selector switches: standard heavy duty oiltight labeled as indicated. Hand-Off-Auto - 3 Position Selector Switch
10.3.4. 10.3.5. 10.4. TWC 10.4.1. 10.4.1.6. 10.4.1.7. 10.4.1.8. 10.4.1.9. 10.4.1.10. 10.4.1.10. 10.4.1.11. 10.4.2.1. 10.4.2.1. 10.4.2.1. 10.4.2.3. 10.4.2.3. 10.4.2.4. 10.4.2.5. 10.4.3.1. 10.4.3.1. 10.4.3.1. 10.4.3.2. 40.4.0.20	capacity. Starter sizes shall be Electrical Code suitable to applied loads as indicated on drawings. Acceptable manufacturer is Telemecanique LE1 series, Cutler-Hammer Freedom series type AN16, Allen-Bradley/Rockwell Bulletin 509 or 505 Series. SPEED MAGNETIC STARTERS Two speed magnetic starters of size, type and rating indicated with components as follows: One 3-pole contractor for each winding for separate winding motors. 3 overload relays with three heater and manual reset for each speed. Power and control terminal blocks Identify each wire and terminal for external connections, within starter, with permanent number marking identical to diagram. NEMA rated for the area in which they are installed. Made sprinkler proof in areas with sprinkler systems per electrical code section 26-008. Combination type starters to include motor circuit protector with operating lever on outside of enclosure to control motor circuit protector and with the following features: Locking in "OFF" position. Independent locking of enclosure door. Prevention of switching to "ON" position while enclosure door open. Mechanical interlocks to prevent simultaneous energization of both speed circuits with adjustable time delay when changing from high to low speeds. Time delay shall be adjusted on site to suit the deceleration of the driven load to prevent back generation by an over-running motor. Accessories: Pushbuttons and selector switches: standard heavy duty oiltight labeled as indicated. 1. Hand-Off-Auto - 3 Position Selector Switch Indicating lights: LED, Push-to-test, heavy duty oiltight labeled as indicated.
10.3.4. 10.3.5. 10.4. TWC 10.4.1. 10.4.1.6. 10.4.1.7. 10.4.1.8. 10.4.1.9. 10.4.1.10. 10.4.1.10. 10.4.1.11. 10.4.2.1. 10.4.2.1. 10.4.2.3. 10.4.2.3. 10.4.2.3. 10.4.2.5. 10.4.3.1. 10.4.3.1. 10.4.3.2. 10.4.3.3. 10.4.3.2. 10.4.3.2. 10.4.3.2. 10.4.3.2. 10.4.3.2. 10.4.3.2. 10.4.3.2. 10.4.3.3. 10.4.3.2. 10.4.3.2. 10.4.3.3. 10.4.3.2. 10.4.3.3. 10.4.3.2. 10.4.3.3. 10.4.3.2. 10.4.3.3. 10.4.3.2. 10.4.3.3. 10.4.3.2. 10.4.3.3. 10.4.3.3. 10.4.3.2. 10.4.3.3. 10.4.3.5. 10.4.5.5. 10.4.5.5. 10.4.5.5. 10.4.5.5. 10.	capacity. Starter sizes shall be Electrical Code suitable to applied loads as indicated on drawings. Acceptable manufacturer is Telemecanique LE1 series, Cutler-Hammer Freedom series type AN16, Allen-Bradley/Rockwell Bulletin 509 or 505 Series. SPEED MAGNETIC STARTERS Two speed magnetic starters of size, type and rating indicated with components as follows: One 3-pole contractor for each winding for separate winding motors. 3 overload relays with three heater and manual reset for each speed. Power and control terminal blocks Identify each wire and terminal for external connections, within starter, with permanent number marking identical to diagram. NEMA rated for the area in which they are installed. Made sprinkler proof in areas with sprinkler systems per electrical code section 26-008. Combination type starters to include motor circuit protector with operating lever on outside of enclosure to control motor circuit protector and with the following features: Locking in "OFF" position with up to 3 padlocks. Locking in "OFF" position with up to 3 padlocks. Locking in "ON" position. Independent locks to prevent simultaneous energization of both speed circuits with adjustable time delay when changing from high to low speeds. Time delay shall be adjusted on site to suit the deceleration of the driven load to prevent back generation by an over-running motor. Accessories: Pushbuttons and selector switches: standard heavy duty oiltight labeled as indicated. Hand-Off-Auto - 3 Position Selector Switch Indicating lights: LED, Push-to-test, heavy duty oiltight labeled as indicated. RED - Running Lock and Selector subjector switch Combination spee and selector subjector switch Combination spee and selector subjector switch Combination spee and the selector switch Combination spee ci
10.3.4. 10.3.5. 10.4. TWC 10.4.1. 10.4.1.6. 10.4.1.7. 10.4.1.8. 10.4.1.9. 10.4.1.10. 10.4.1.10. 10.4.2.1. 10.4.2.1. 10.4.2.1. 10.4.2.3. 10.4.2.3. 10.4.2.3. 10.4.2.5. 10.4.2.5. 10.4.3.1. 10.4.3.1. 10.4.3.2. 10.4.3.2. 10.4.3.3. 10.4.3.4. 10.4	capacity. Starter sizes shall be Electrical Code suitable to applied loads as indicated on drawings. Acceptable manufacturer is Telemecanique LE1 series, Cutter-Hammer Freedom series type AN16, Allen-Bradley/Rockwell Bulletin 509 or 505 Series. SPEED MAGNETIC STARTERS Two speed magnetic starters of size, type and rating indicated with components as follows: One 3-pole contractor for each winding for separate winding motors. 3 overload relays with three heater and manual reset for each speed. Power and control terminal blocks Identify each wire and terminal for external connections, within starter, with permanent number marking identical to diagram. NEMA rated for the area in which they are installed. Made sprinkler proof in areas with sprinkler systems per electrical code section 26-008. Combination type starters to include motor circuit protector with operating lever on outside of enclosure to control motor circuit protector and with the following features: Locking in "OFF" position. Independent locking of enclosure door. Prevention of switching to "ON" position while enclosure door open. Mechanical interlocks to prevent simultaneous energization of both speed circuits with adjustable time delay when changing from high to low speeds. Time delay shall be adjusted on site to suit the deceleration of the driven load to prevent back generation by an over-running motor. Accessories: Pushbuttons and selector switches: standard heavy duty oiltight labeled as indicated. Hand-Off-Auto - 3 Position Selector Switch Indicating lights: LED, Push-to-test, heavy duty oiltight labeled as indicated. RED - Running 1-N.O. and 1-N.C. spare auxiliary contacts unless otherwise indicated. Control transformers:
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$\begin{array}{c} 10.3.4.\\ 10.3.5.\\ 10.4. TWC\\ 10.4.1.\\ 10.4.1.6.\\ 10.4.1.7.\\ 10.4.1.8.\\ 10.4.1.9.\\ 10.4.1.9.\\ 10.4.1.10.\\ 10.4.1.11.\\ 10.4.2.\\ 10.4.2.1.\\ 10.4.2.3.\\ 10.4.2.3.\\ 10.4.2.3.\\ 10.4.2.4.\\ 10.4.2.5.\\ \end{array}$	capacity. Starter sizes shall be Electrical Code suitable to applied loads as indicated on drawings. Acceptable manufacturer is Telemecanique LE1 series, Cutler-Hammer Freedom series type AN16, Allen-Bradley/Rockwell Bulletin 509 or 505 Series. SPEED MAGNETIC STARTERS Two speed magnetic starters of size, type and rating indicated with components as follows: One 3-pole contractor for each winding for separate winding motors. 3 overload relays with three heater and manual reset for each speed. Power and control terminal blocks Identify each wire and terminal for external connections, within starter, with permanent number marking identical to diagram. NEMA rated for the area in which they are installed. Made sprinkler proof in areas with sprinkler systems per electrical code section 26-008. Combination type starters to include motor circuit protector with operating lever on outside of enclosure to control motor circuit protector and with the following features: Locking in "OFF" position with up to 3 padlocks. Locking in "OFF" position with up to 3 padlocks. Locking in "ON" position. Independent locking of enclosure door. Prevention of switching of volon" position while enclosure door open. Mechanical interlocks to prevent simultaneous energization of both speed circuits with adjustable time delay when changing from high to low speeds. Time delay shall be adjusted on site to suit the deceleration of the driven load to prevent back generation by an over-running motor. Accessories: Pushbuttons and selector switches: standard heavy duty oiltight labeled as indicated. Hand-Off-Auto - 3 Position Selector Switch Indicating lights: LED, Push-to-test, heavy duty oiltight labeled as indicated. RED - Running 1-N.O. and 1-N.C. spare auxiliary contacts unless otherwise indicated. Control transformers: Single phase, dry type, control transformer with primary voltage matched to the supply voltage and 120 V secondary, complete with secondary fuse, installed in with starter as indicated. Size control transformer for control circui
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10.3.4. 10.3.5. 10.4. TWC 10.4.1. 10.4.1.6. 10.4.1.7. 10.4.1.8. 10.4.1.9. 10.4.1.10. 10.4.1.10. 10.4.2.1. 10.4.2.1. 10.4.2.3. 10.4.2.3. 10.4.2.3. 10.4.2.4. 10.4.2.5. 10.4.3.1. 10.4.3.1. 10.4.3.2. 10.4.3.2. 10.4.3.4. 10.4.3.4. 10.4.3.4. 10.4.3.4. 10.4.3.4. 10.4.3.4. 10.4.3.7.	capacity. Starter sizes shall be Electrical Code suitable to applied loads as indicated on drawings. Acceptable manufacturer is Telemecanique LE1 series, Cutler-Hammer Freedom series type AN16, Allen-Bradley/Rockwell Bulletin 509 or 505 Series. SPEED MAGNETIC STARTERS Two speed magnetic starters of size, type and rating indicated with components as follows: One 3-pole contractor for each winding for separate winding motors. 3 overload relays with three heater and manual reset for each speed. Power and control terminal blocks Identify each wire and terminal for external connections, within starter, with permanent number marking identical to diagram. NEMA rated for the area in which they are installed. Made sprinkler proof in areas with sprinkler systems per electrical code section 26-008. Combination type starters to include motor circuit protector with operating lever on outside of enclosure to control motor circuit protector and with the following features: Locking in "OFF" position with up to 3 padlocks. Locking in "OFF" position with up to 3 padlocks. Locking in "OFF" position with up to 3 padlocks. Locking in "OFF" position with up to 3 padlocks. Locking in "OFF" position tor dimuteneous energization of both speed circuits with adjustable time delay when changing from high to low speeds. Time delay shall be adjusted on site to suit the deceleration of the driven load to prevent back generation by an over-running motor. Accessories: Pushbuttons and selector switches: standard heavy duty oiltight labeled as indicated. Hand-Off-Auto - 3 Position Selector Switch Indicating lights: LED, Push-to-test, heavy duty oiltight labeled as indicated. RED - Running 1-N.O. and 1-N.C. spare auxiliary contacts unless otherwise indicated. Control transformers: Single phase, dry type, control transformer with primary voltage matched to the supply voltage and 120 V secondary, complete with secondary fuse, installed in with starter as indicated. Size control transformer for control circuit load required plus 100% spare capacity.

11. MISCELLANEOUS MECHANICAL SYSTEMS

11.1. Provide all labour and materials as necessary to install, wire, connect and put into satisfactory operation the control panels and mechanical equipment supplied under other divisions, including:

11.1.1. Electrical motors and actuated valves
11.1.2. Motor starters, contactors, and interlocks where specified as components of "packaged" equipment

11.1.3. Miscellaneous plumbing and HVAC equipment including fans, hot water tanks, air handling units, etc.

C Ā · _ 1 Control θ C t e **_ B** C a C CERTI Issued for Construction - 07.17.2020 This drawing must not be scaled. Contractor responsible to verify all dimensions and data on site prior to commencement of work. Any discrepancies shall be reported to the Architect. The copyrights to all designs and drawings are the property of Scratch Architecture inc. No reproduction may be made without permission. INCE OF MAN B.S. MEMBER 20894 POFESS1C 2020-07-24 PROJECT: City Hall Administration Building Roof Replacement 510 Main Street of Winnipeg City C APPROVED BY: **B. Janz** date: July 2020 BID OPPORTUNITY: 430-2020 PROJECT NO.: **19-0701** DWG NO.: E302