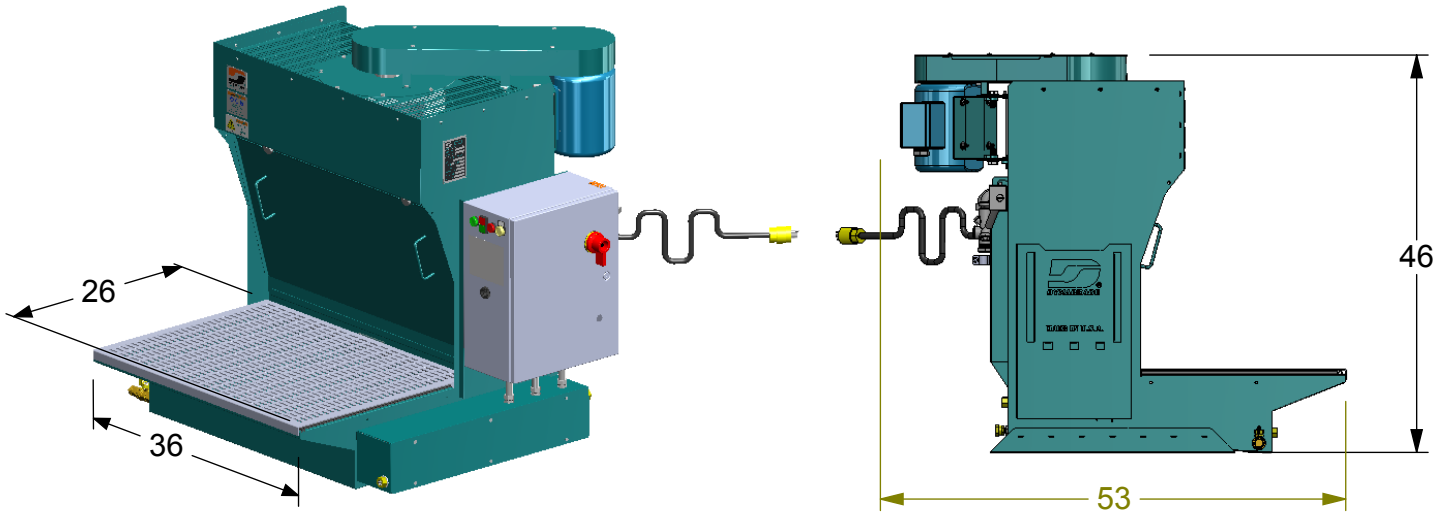


36" Metal Capture Station

Tool Manual - Safety, Operation and Maintenance

SAVE THIS DOCUMENT, EDUCATE ALL PERSONNEL



Model Number	Motor hp	Voltage	Frequency	FLA	Phase	Air Flow	Sound Level	Working Area Depth	Working Area Length	Shipping Weight
64300	1	230	60 Hz	3.05	3	1000 CFM	85 dB(A)	18"	36"	330 lbs
64304	1	460	60 Hz	1.52	3	1000 CFM	85 dB(A)	18"	36"	330 lbs
64350	1	230	60 Hz	3.05	3	1000 CFM	85 dB(A)	26"	36"	335 lbs
64354	1	460	60 Hz	1.52	3	1000 CFM	85 dB(A)	26"	36"	335 lbs

SAFETY LEGEND

	⚠ WARNING Read and understand tool manual before work starts to reduce risk of injury to operator, visitors and tool.	⚠ WARNING Practice safety requirements. Work alert. have proper attire and do not operate tools under the influence of alcohol or drugs	
	⚠ WARNING Eye protection must be worn at all times, eye protection to conform to ANSI Z87.1	⚠ WARNING Ear protection to be worn when exposure to sound, exceeds the limits of applicable Federal, State or Local statutes, ordinances and/or regulations	
	⚠ WARNING Respiratory protection to be used when exposed to contaminants that exceed the applicable threshold limit values required by law	⚠ WARNING Electric shock hazard. Avoid bodily contact with grounded objects, bodies of water. Do not damage cord set.	

IMPORTANT SAFETY INSTRUCTIONS

When operating this equipment, basic precautions should always be strictly followed including the instructions listed below:

METAL CAPTURE STATION SAFETY INSTRUCTIONS

1. Always use a grounded power supply. There is an increased risk of electric shock with an ungrounded power supply.
2. Don't expose to rain or wet conditions. There is an increased risk of electric shock if the switch, cord or motor are wet.
3. Do not abuse the power cord. Never use the cord to move the station. Never use the cord to pull the plug out of the outlet. A damaged cord increases the risk of electric shock.
4. Do not block more than 25% of work surface inlet holes
5. Use caution when opening or closing guards, screens, etc. Switch power off and unplug cord before opening. Remove all work pieces and tools before opening to avoid injury. Keep fingers and hands clear when closing to avoid injury
6. Never use to exhaust chemical vapors
7. Vibration may occur if unit is not level.
8. Unplug power cord when accessing blower compartment area
9. Power lockout disconnect switch must be off when servicing station

Metal Capture Station

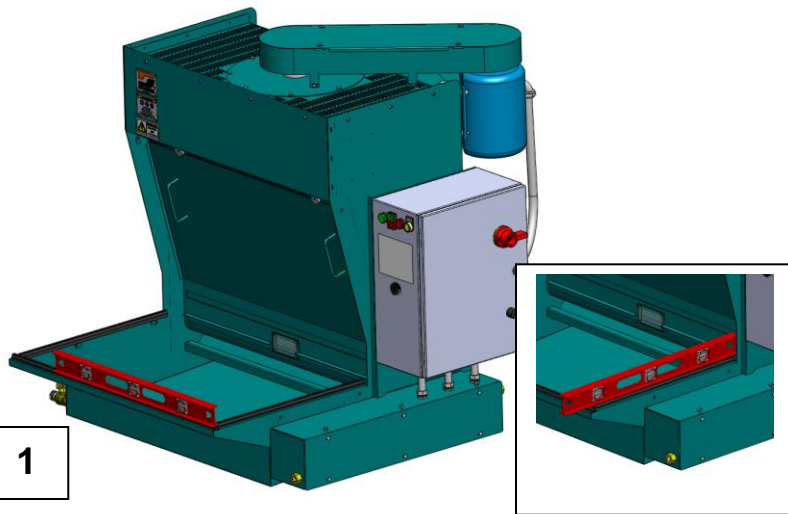
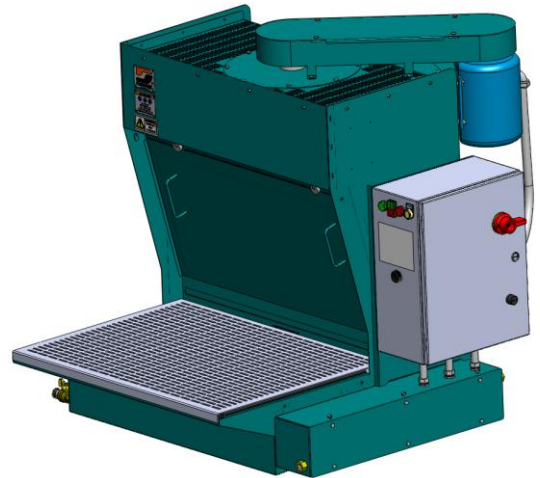
Machine Setup

The 64300, 64304, 64350 and 64354- 60hz Metal Capture Stations will be pallet shipped to their destination. The following details will describe the steps required for initial machine setup before operation. Read through the entire setup procedure to understand its requirements before trying to run machine.

Warning:

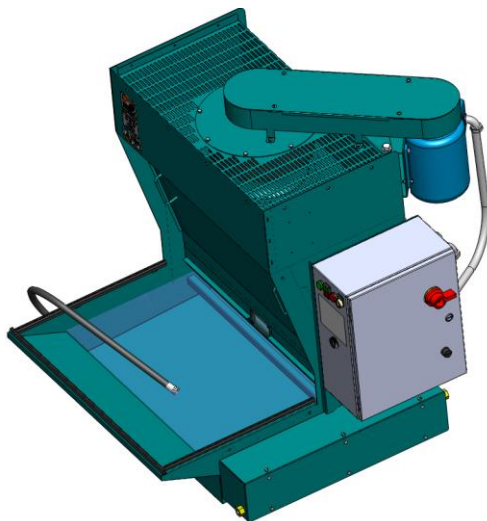
Failure to follow the required steps for machine setup may result in damage to machine or personal injury.

**Model 64350 shown throughout this user guide*



1

The first step is to level the machine. Having the machine level is crucial for the auto-fill sensor to operate properly, maintaining critical water level for proper filtration. After determining machine location and with work surface removed, utilize a level off the rigid top edges of the machine. Shim where required to provide a level machine on all four sides. Machine to be no more than 1/16" out of level over any 1-foot span.

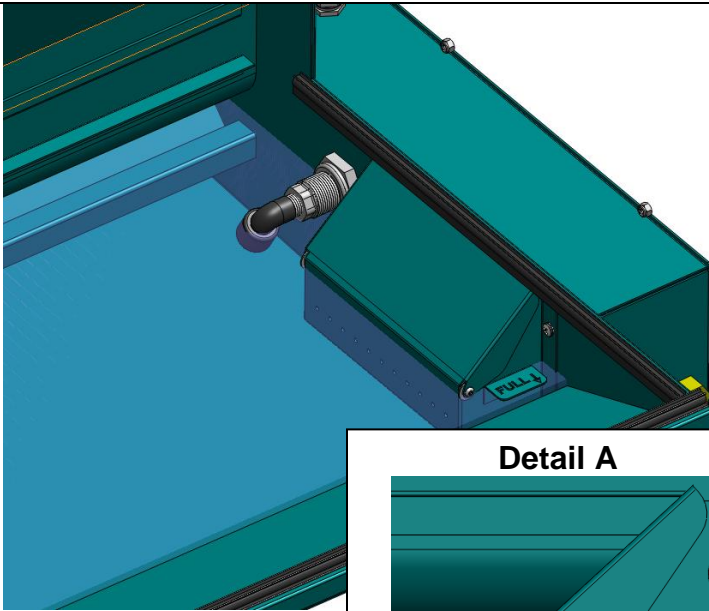


2

You must now fill your tank to the proper start up water level. For initial setup, manually filling the tank is suggested. Use a garden hose from your water source and drop to the bottom of the tank before beginning to fill.

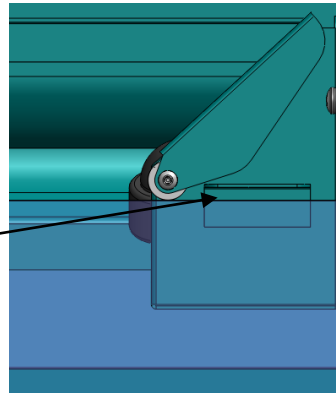
Metal Capture Station

Machine Setup



1/4"

Detail A



3

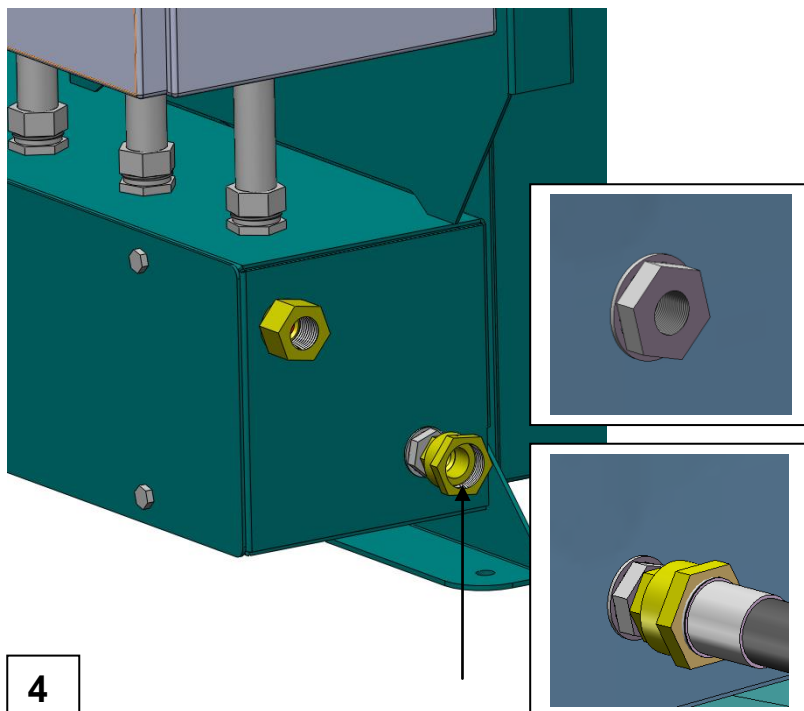
There is a "Full" tab located on the isolation chamber, which indicates the proper fill level for the machine in the "OFF" position. Continue filling the machine until the water is approximately $\frac{1}{4}$ " short from the bottom surface of the fill tab as shown in Detail A.

Do not allow the water to fill higher than this full tab. If level is greater than height of tab, proceed to remove water from machine until desired height is reached as indicated above.

CAUTION: If machine is overfilled past the fill tab more than 1", water will begin to overflow on to the shop floor.

Once the desired has been reached, remove hose from tank and place your work surfaces into position.

Note: The machines auto-fill system will bring the water level up to exact run height (Full), after the machines disconnect is turned to the "On" position as described in Step 8 of the **Machine Setup**. Ensure that the water in main collection tank is at the proper height before beginning operation of machine.



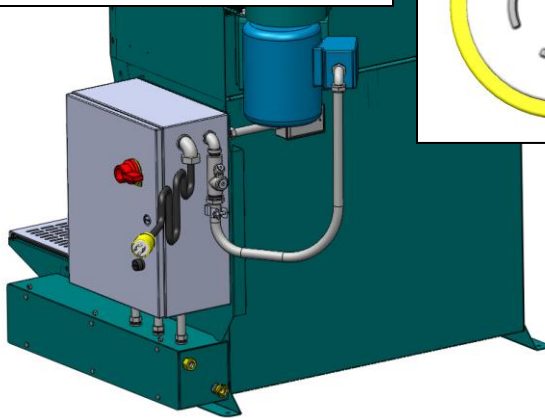
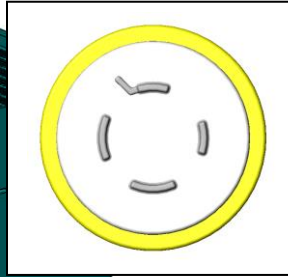
4

The machine is equipped with a self-filling water level system, which requires a constant water supply. The machine comes with a $\frac{3}{4}$ " female garden hose swivel connect located at the rear of the machine or you can remove the brass garden hose swivel connect and use the $\frac{1}{4}$ " NPT female bulkhead fitting for providing a water source.

Metal Capture Station

Machine Setup

64300: NEMA L15-20 250 VAC 20A
64304: NEMA L16-20 480 VAC 20A
64350: NEMA L15-20 250 VAC 20A
64354: NEMA L16-20 480 VAC 20A



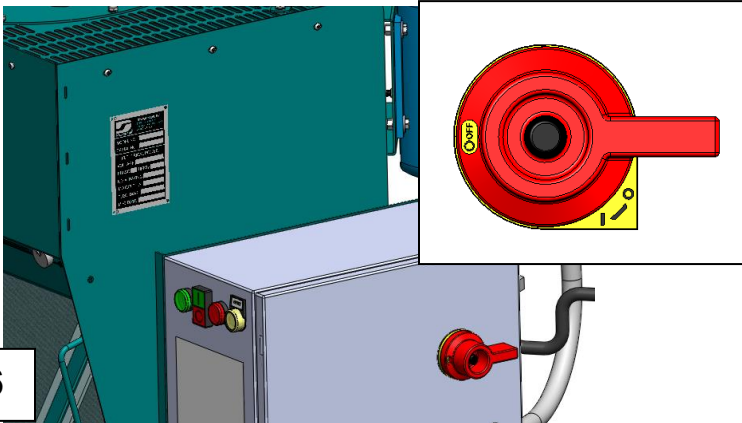
5

Next you will need to provide a power source for your machine. Refer to the parts page, as the model number will be used for determining the voltage rating for your specific machine.

Warning:

DO NOT attempt to wire the machine for any other voltage other than that stated for your model. There are internal components to the control box that are voltage specific and failure to provide proper voltage can cause damage to your machine and could cause personal injury.

Model: 64350, NEMA L15-20 shown

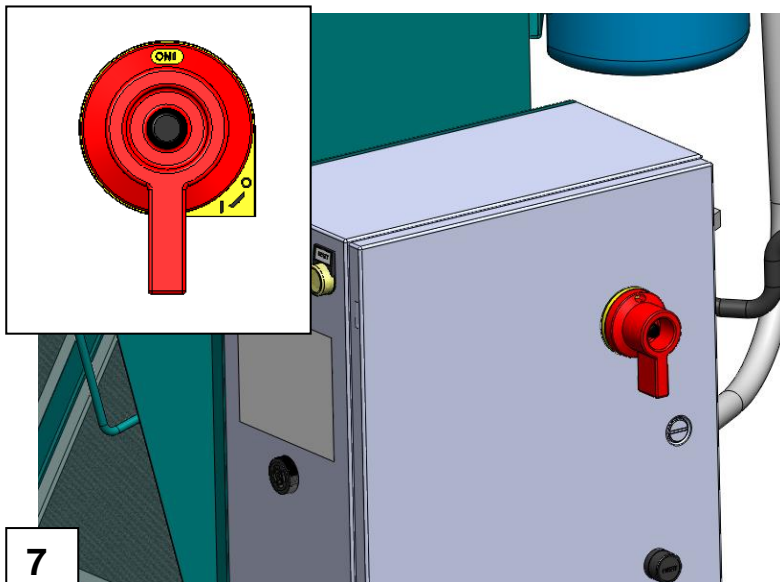


6

Before plugging in your machine, be sure that the lockout disconnect is in the "Off" position.

Note:

The disconnect is used as a lockout mechanism. For any maintenance required inside the control box, the disconnect will need to be in the off position to open the access door. If the disconnect is in the on position, the access door will remain locked.

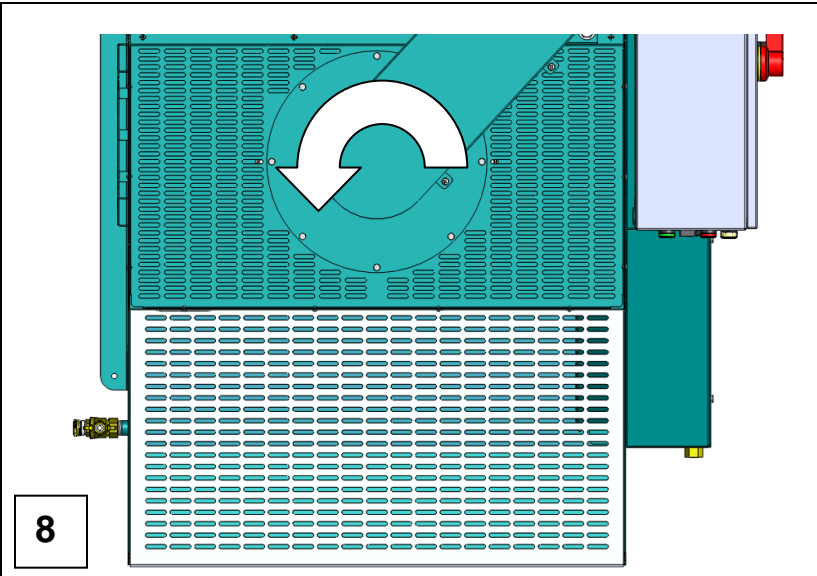


7

After plugging your machine in, proceed to move the lockout disconnect to the "On" position, providing power to the machine and sensory controls. Once power has been provided, the green pilot light will start a flashing sequence for a 25 second set-up stage. The auto-fill system will take over after the set-up stage is complete and bring the machines water level to the correct height before allowing the operator to turn on the machine. At the time the green pilot light glows solid, the machine is then ready to start.

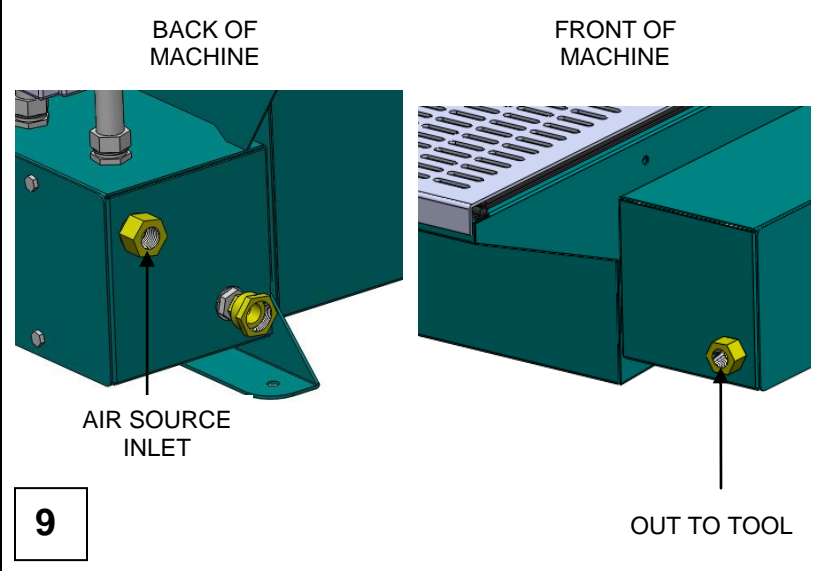
Metal Capture Station

Machine Setup



It is also important to recognize when wiring your machine, proper rotation of the impeller is essential for operation. From the top of the machine you can gain viewing access to the blower assembly. Blower should rotate in a counter-clockwise direction from this view of the machine as shown. If blower is rotating clockwise, interchange any two of the main power leads from the 3-phase supply.

8



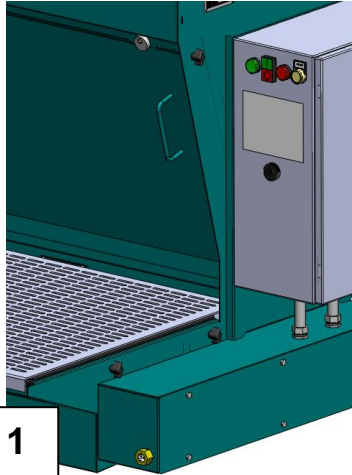
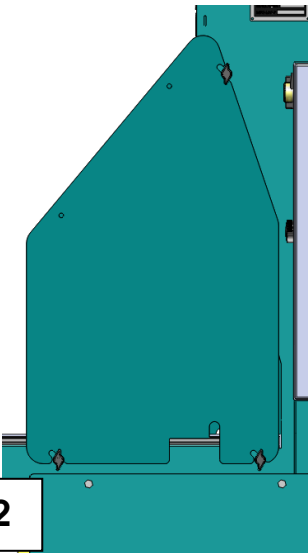
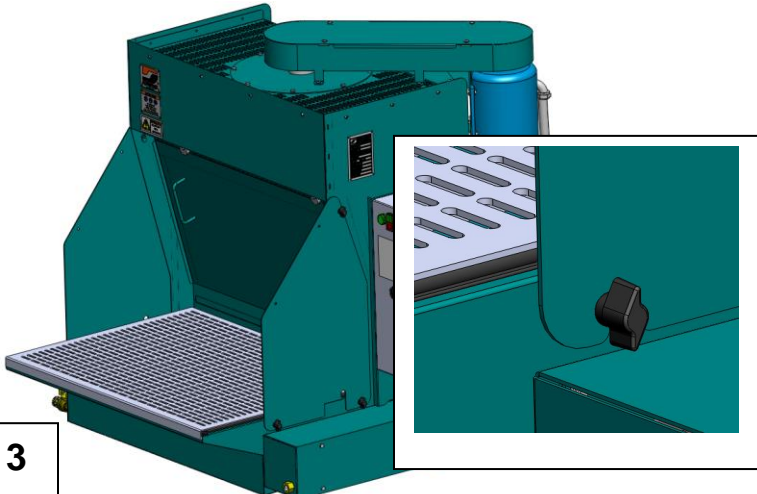
The machine is provided with a pneumatic interlock. The interlock will only provide air to the working tool after the machine has reached optimal run speed.

Maximum airflow: 95 SCFM

9

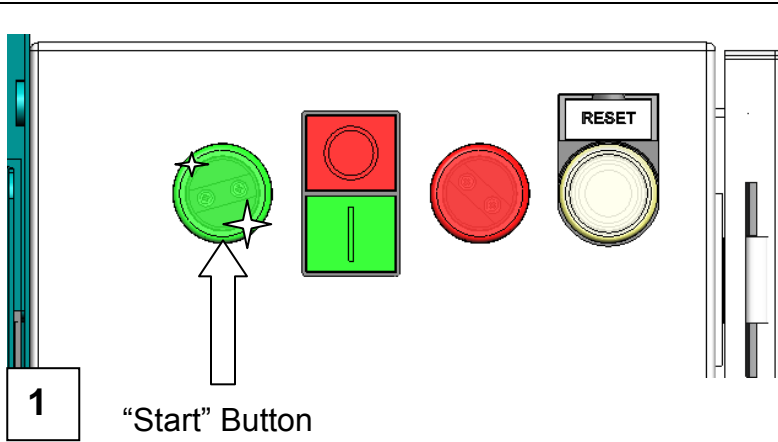
Metal Capture Station

Optional Shield Installation

 <p>1</p> <p>This diagram shows the Metal Capture Station with a white perforated shield assembly installed. A control panel is visible on the right side. An inset image shows a close-up of a locking knob being inserted into a hole on the teal-colored main tank.</p>	<p>To begin installing the machines shielding assembly, screw qty 6 locking knobs into the threaded holes located around the perimeter of the main tank. Leave a 1/8" gap as shown at all 6 locations, to allow for the installing of the panels.</p>
 <p>2</p> <p>This diagram shows a teal-colored shield panel being slid into place. An inset image shows a close-up of the panel's edge being aligned with the main tank, with an arrow pointing to a locking knob that is being used to secure the panel.</p>	<p>Slide the each panel into place, consistent With the angle of the slots in shield.</p>
 <p>3</p> <p>This diagram shows the final completed assembly. The shield is fully installed and secured. An inset image shows a close-up of a locking knob being tightened down on the main tank.</p>	<p>Complete installation by tightening down all 6 locking knobs hand tight.</p>

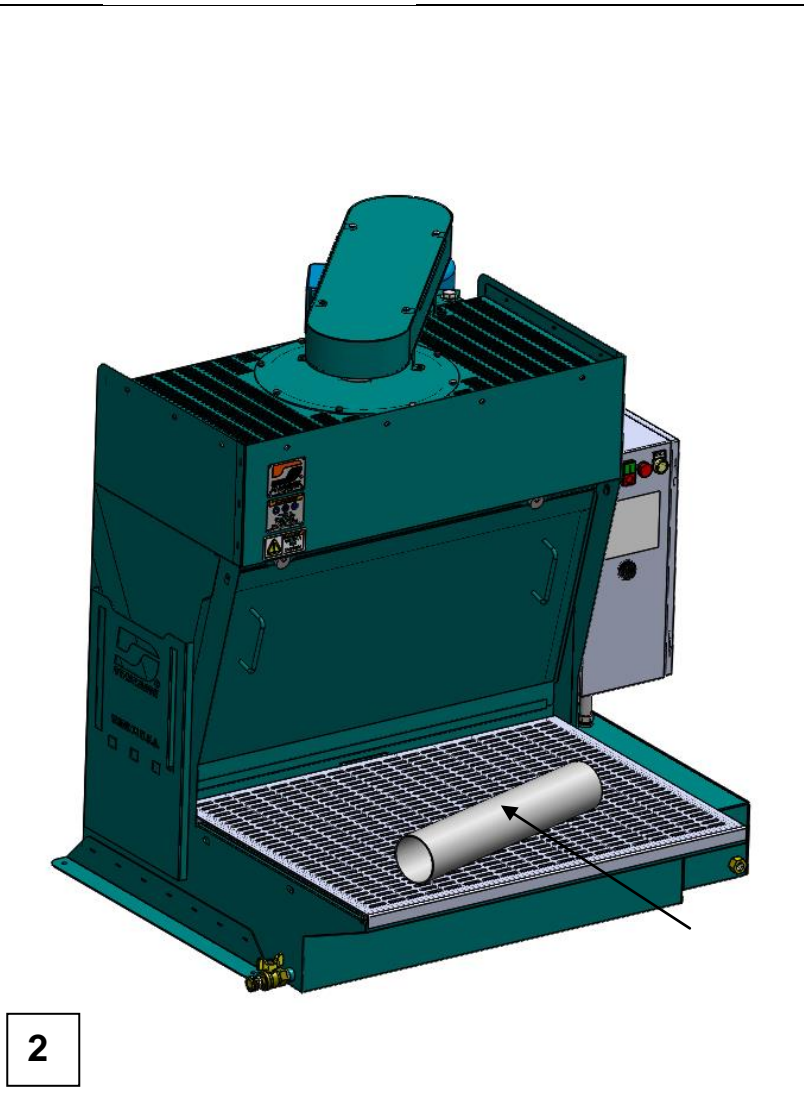
Metal Capture Station

Machine Operation



Once the green pilot light glows constant, you can then turn on the machine.

Press and release the "Start" button. The machines impeller will reach its optimal operating speed in approximately 10 seconds and air filtration will begin. You can now begin to grind your work piece.

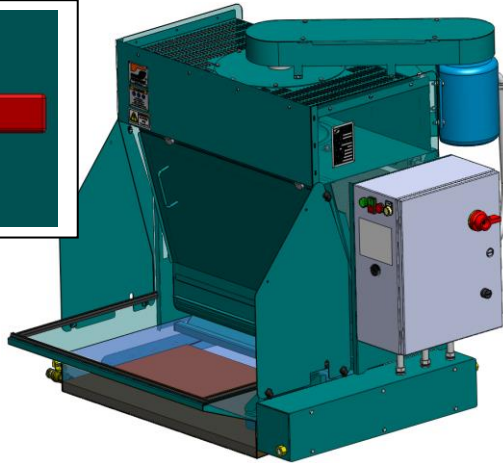
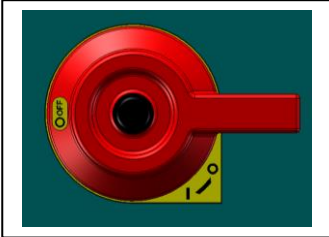


Direction of grind is very important when speaking to maximum dust collection. Be sure to manipulate both your work piece and tool to insure that the table is capturing the highest percentage of both metal fillings and small metal particles or dust.

Direct grind towards shielding for maximum capture rate.

Metal Capture Station

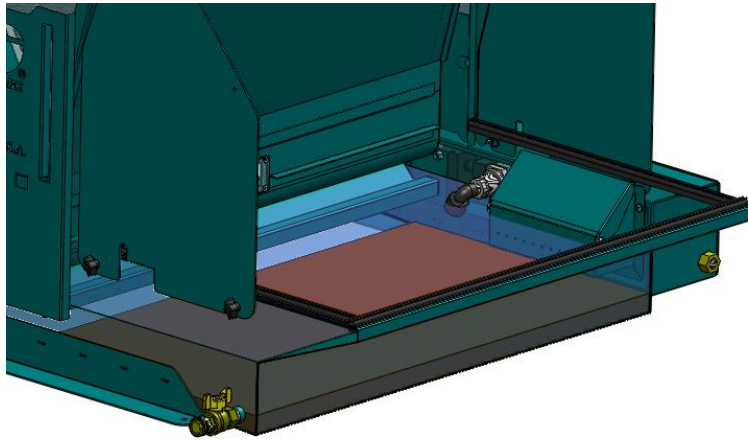
Maintenance Guide



Before beginning any maintenance to your machine, first make sure the lockout disconnect is in the off position.

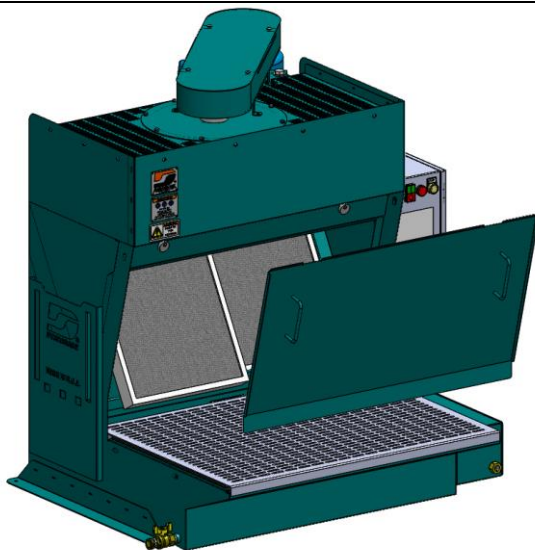
Remove work surface to gain access to the interior of the tank.

1



After machine use, sludge will collect at the bottom of the tank. It is required that sludge be removed daily. Remove sludge with a non-sparking scoop. Adhere to local codes to properly dispose of contaminated liquids/sludge.

2

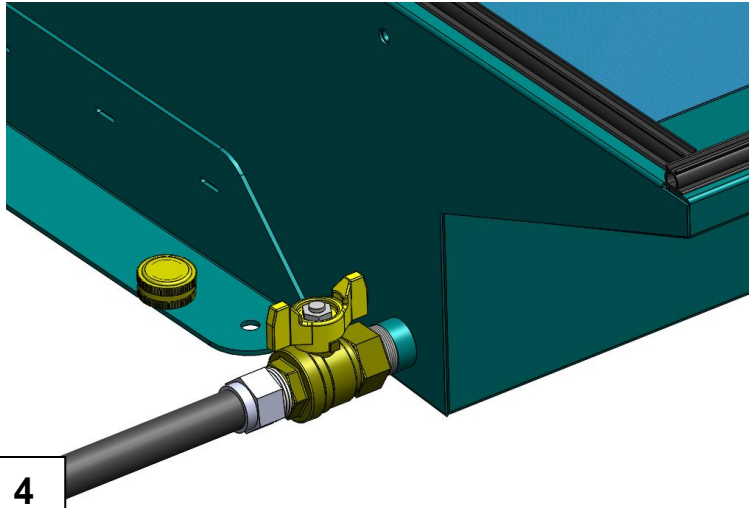


Continue by removing access panel and mist traps. This will allow you to clean the back of the machine.

3

Metal Capture Station

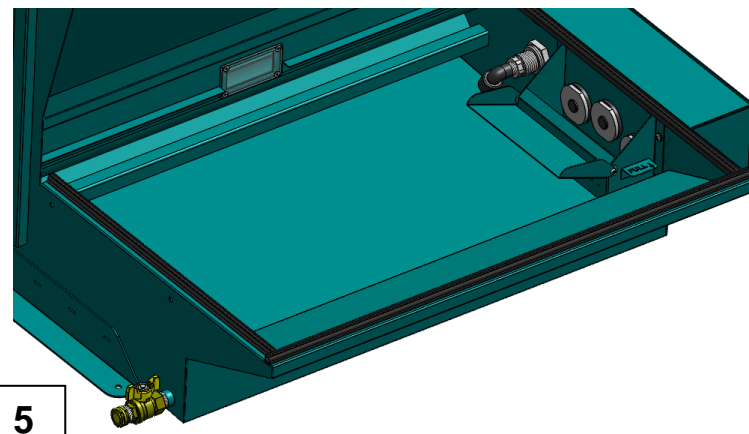
Maintenance Guide



To change water:

Remove cap from drain valve and connect a garden hose, open valve and remove all water from tank.

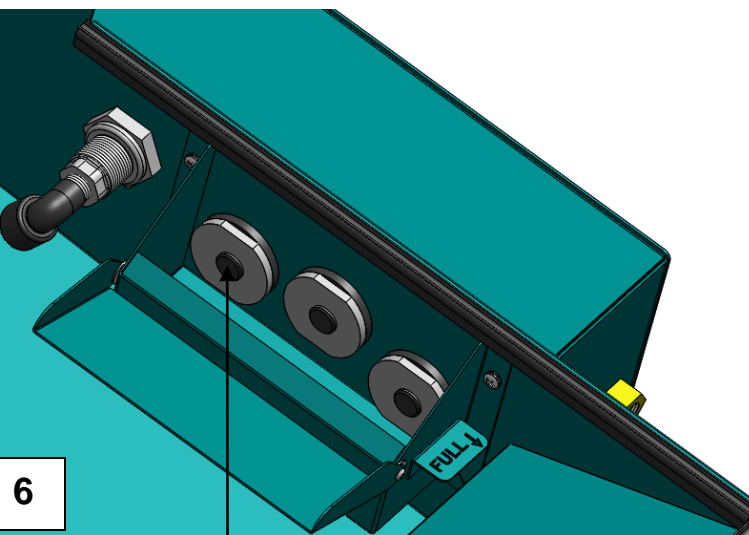
When tank is completely empty of water, remove garden hose, re-install cap on drain valve and lock valve in the closed position.



After draining all water, remove the sludge with a non-sparking scoop.

Adhere to local codes to properly dispose contaminated liquids/sludge.

Hose clean and re-install mist traps back into machine and lock down access panel.



Keeping the liquid level sensors clean from sludge and debris is very important in maintaining the machines proper water level both in "On" and "Off" mode. Located in the wall of the tank as shown, gently clean the black sensor faces with water of any grind build-up or foreign debris.

These sensors should be monitored and kept clean through the usage of the machine on a daily basis.

Follow the **Machine Setup** for Re-filling your machine and start-up.

Metal Capture Downdraft Table

Maintenance

Maintenance Schedule	Daily	Every 30 Days of use	Every 180 Days of use
Check Water Level	✓		
Remove sludge from collection tank	✓		
Remove any accumulated dust	✓		
Rinse mist traps with clean water	✓		
Replace water in collection tank		✓	
Inspect mist traps		✓	
Inspect V-Belt			✓
Clean Sensor Faces	✓		

Check Water Level:

Insure that water in main collection tank is at the proper height before beginning operation of machine.

Remove sludge from Collection Tank:

Sludge should be transported in a covered, vented steel container for storage or disposal in accordance with federal, state and local regulations- sludge containing aluminum should be mixed with inert material (dry clay) in the ratio 5 parts inert material to 1 part sludge.

Remove any accumulated dust:

Inspect the Metal Capture Station or Table exhaust vent, internal and external surfaces and surrounding work area for any fugitive dust accumulation exceeding 1/32" thickness- remove with non-sparking, conductive dustpans and natural bristle brushes.

Rinse Mist traps with clean water:

Remove mist traps from Metal Capture Station or Table and rinse with clean water to remove any trapped sludge or debris. Once clean re-install mist traps before operation of machine.

Replace water in collection tank:

Replace the water in the collection tank with clean water-Dispose of used water in accordance with federal, state and local regulations.

Inspect Mist Traps:

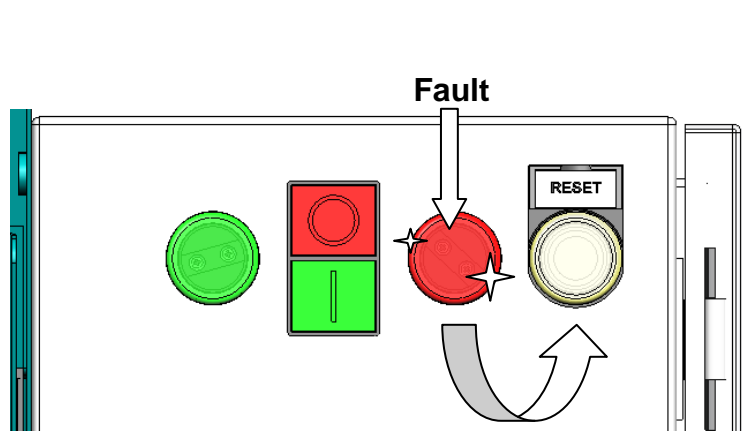
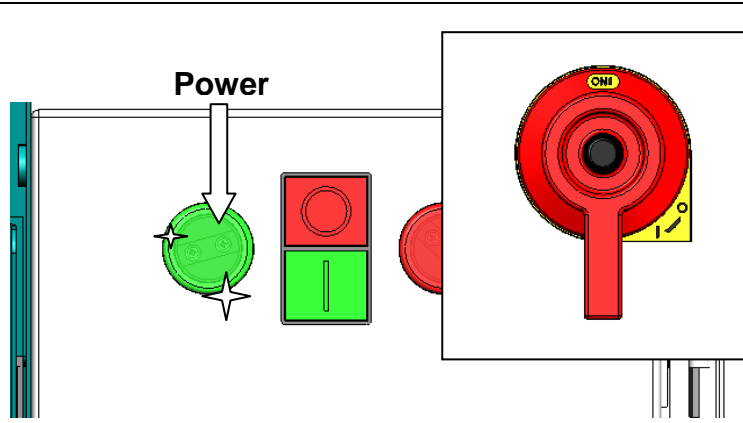
Inspect mist traps for signs of corrosion or damage. Replace if any corrosion or damage is found.

Inspect V-Belt:

Inspect V-Belt and replace if worn or damaged

Clean Sensor Faces:

Located in the isolation chamber, open lid and use a damp cloth to clean the face of each sensor, removing any grind build-up or foreign debris that has accumulated.



! WARNING

If reset is required, proper water height is not being sensed. Check to make sure that water source is providing sufficient supply. Water level sensors may also require cleaning. Refer to manual on proper care and maintenance of machine.

If machine continues to shut down, consult factory for further assistance.

Dynabrade: 1-800-828-7333

Ready to Start:

After plugging your machine in, proceed to move the lockout disconnect lever to the on position, providing power to the machine and sensory controls. Once power has been provided, the green pilot light will start a flashing sequence for a 25 second setup stage. Be aware, you will not be able to power up the machine during this flashing stage. Once the green pilot light illuminates solid, you can then power up the machine.

***Note: Clean sensors are critical for the proper operation of this machines auto-fill system. Be sure to monitor and wash down sensors as required. Refer to Maintenance section for proper machine care.**

The red pilot light is used to signal different fault messages, depending upon its flash pattern.

A) Solid illumination:

Indicates that the water level is not sufficient for the Start-up of the machine. With proper water source connected, the machine will auto-fill to the correct sensory height. Once sensor is met, the solid red pilot light will dismiss and the green pilot light will illuminate solid, indicating it is back to the **Ready to Start** mode as indicated above.

**B) Flash Pattern 1:
"ON" 3 seconds, "Off" 3 second:**

During the above **Ready to Start** mode, the machine will allow the solenoid valve to open and fill the machine for a maximum of 10-minutes. If the **Ready to Start** sensor is not met in this 10-minute window, the machine will go into lockdown and will require a reset. Press the reset button briefly until it illuminates and then release. At this time, the machine will go back to the **Ready to Start** mode as indicated above.

**C) Flash Pattern 2:
"ON" 1 second, "Off" 1 second:**

Indicates that the machine has shut down. The water level is not sufficient in the run mode and the auto-fill has attempted to reach proper water level but has failed.

The machine will now require a reset. Press the reset button briefly and then release. At this time, the machine will go back to the **Ready to Start** mode as indicated above.

**D) Flash Pattern 3:
"ON" 5 second, "Off" 1 second:**

A motor overload will shut down the system and trigger this flashing sequence. At this time, a qualified electrician should determine why the motor overload was tripped and use of the machine should be stopped until the cause of overload is determined.

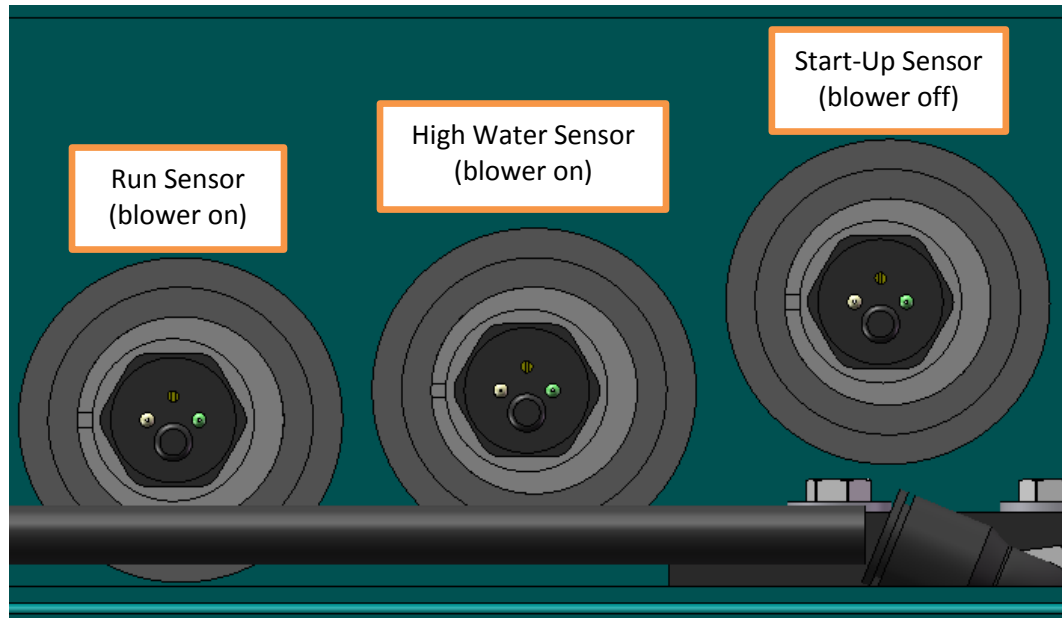
**E) Flash Pattern 4:
"ON" ½ second. " Off" ½ second:**

Indicates that the machine has shut down. The water level is too high during run mode. The machines water level should be manually emptied back down to the proper depth indicated by the full tab. Clean off all liquid level sensors to ensure proper read of water level.

The machine will now require a reset. Press the reset button briefly and then release. At this time, the machine will go back to the **Ready to Start** mode as indicated above.

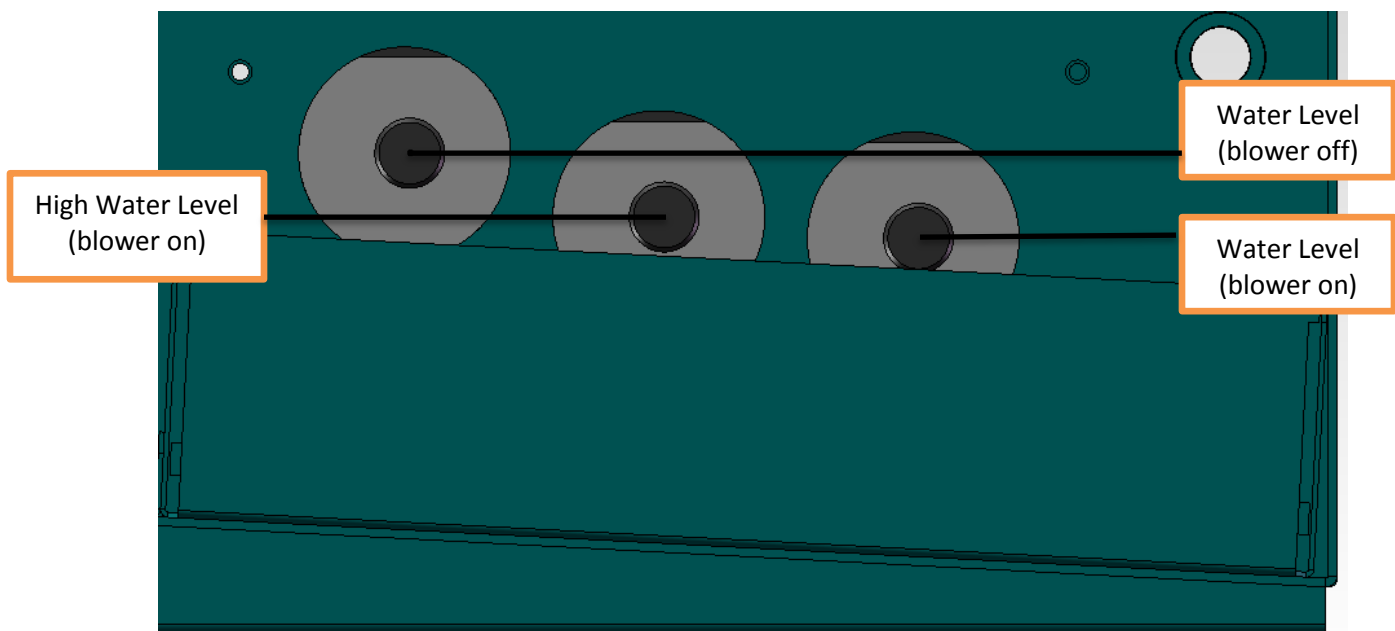
Metal Capture System Water Level Sensor Function and Adjustment

1. Water Level Sensors



2. Sensor Function

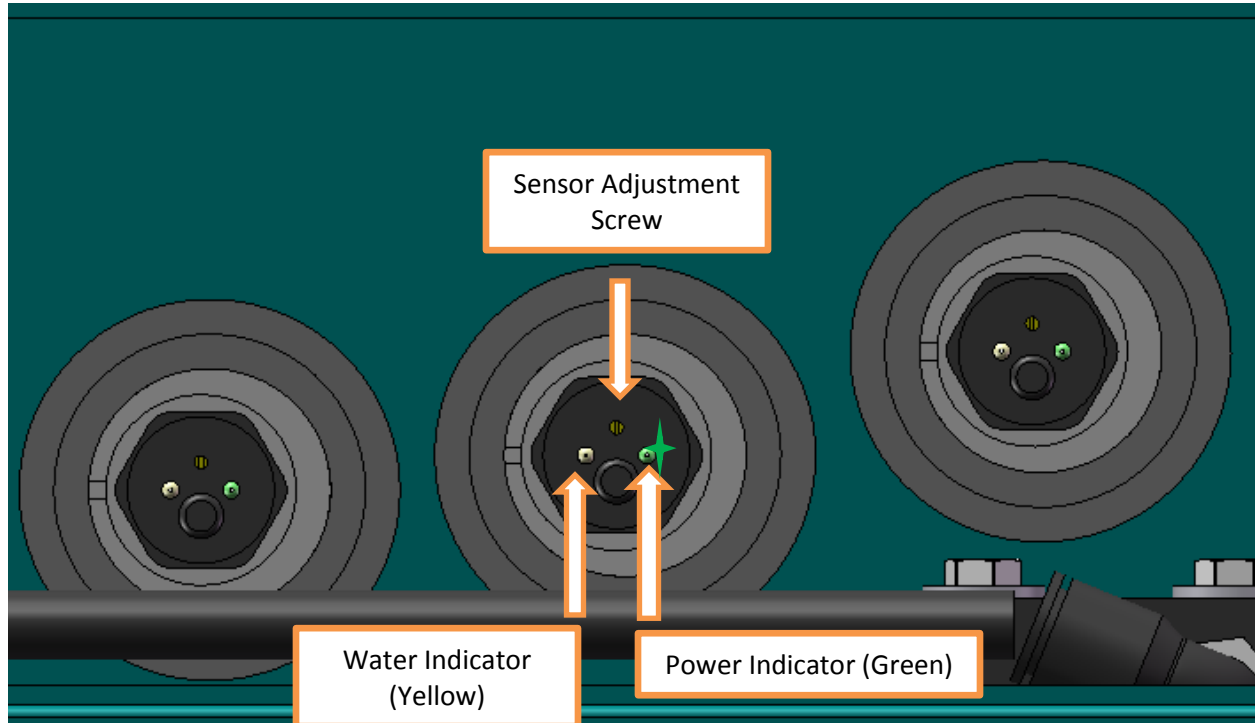
Water level with the blower off should be in the center of the Start-Up Sensor. Water level with the blower on should be in the center of the Run Sensor. Excessive water level is indicated by the High Water Sensor. Sensors will signal the control system to add water or to shut down the Metal Capture system and indicate a fault.



3. Sensor Adjustment

The water level sensors' sensitivity is adjusted to signal the presence of water.

- Whenever power is connected to the system, the green LEDs on all the sensors will be illuminated.
- Yellow LED on indicates water is sensed.
- Turn 1/16" slotted brass adjustment screw clockwise to increase sensitivity (lower water level) and counter clockwise to decrease sensitivity (raise water level).



- Adjustment screw driver (1/16").



Sensor adjustment con't

- If the Water Indicator is illuminated (A), adjust the sensitivity screw counter-clockwise until the Water Indicator LED turns off (B). Continue by turning the Sensor Adjustment Screw one full rotation in the clockwise direction (C). Water Indicator LED will now be illuminated.

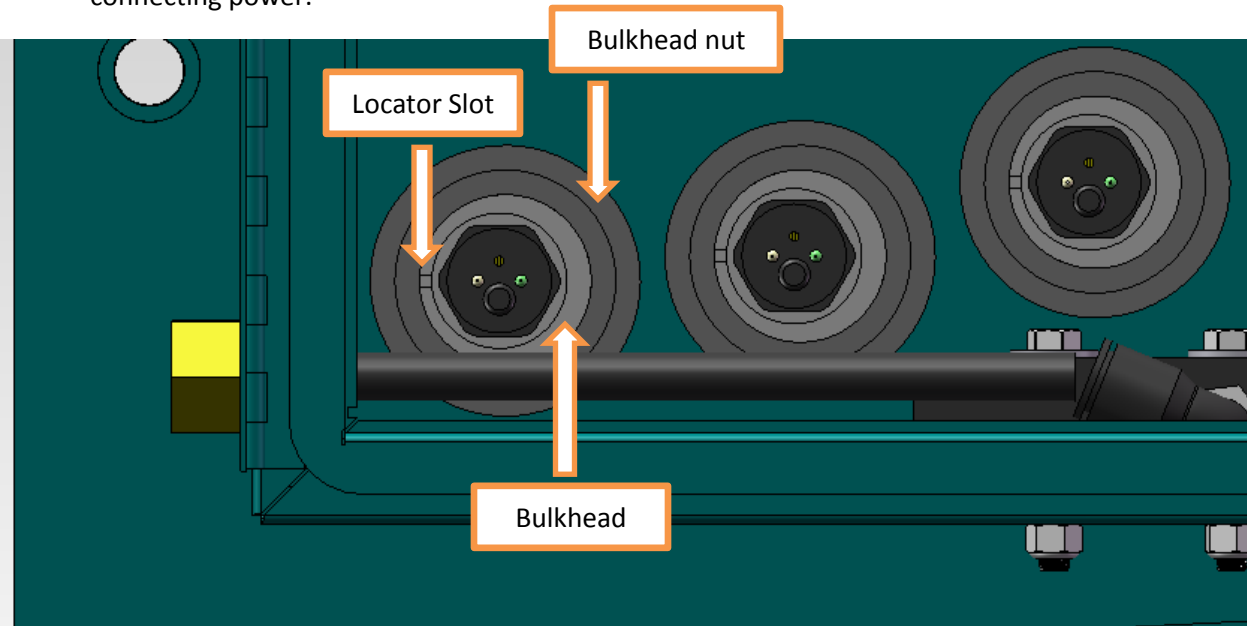


- If the Water Indicator is not illuminated (A), adjust the Sensor Adjustment Screw clockwise until the Water Indicator LED turns on (B). Continue by turning the Sensor Adjustment Screw one full rotation in the clockwise direction (C). Water Indicator LED will remain illuminated.



4. Sensor Height Adjustment

- Sensor height can be adjusted 1/8" by rotating the sensor bulkhead.
- Locator slot indicates mid-height when horizontal.
- With power disconnected and water drained below bulkhead level, loosen bulkhead nut and rotate bulkhead to increase or decrease sensor height. Re-tighten nut, add water and check for leaks before re-connecting power.



⚠ DANGER / DANGER / PELIGRO

HAZARDOUS VOLTAGE

- This equipment must be installed and serviced only by qualified electrical personnel.
- Turn off all power supplying this equipment before working on or inside equipment.
- Always use a properly rated voltage sensing device to confirm power is off.
- Replace all devices, doors, and covers before turning on power to this equipment.
- Maintain electrical clearances between cable and live parts.

Failure to follow these instructions will result in death or serious injury.

TENSION DANGEREUSE

- L'installation et l'entretien de cet appareil ne doivent être effectués que par du personnel qualifié.
- Coupez l'alimentation de cet appareil avant d'y travailler.
- Utilisez toujours un dispositif de détection de tension à valeur nominale approprié pour confirmer que toute alimentation est coupée.
- Remplacez tous les dispositifs, les portes et les couvercles avant de mettre cet appareil sous tension.
- Maintenez les distances d'isolement électrique entre le câble et les pièces sous tension.

Si ces précautions ne sont pas respectées, cela entraînera la mort ou des blessures graves

TENSION PELIGROSA

- Solamente el personal de mantenimiento eléctrico especializado deberá instalar y prestar servicios de mantenimiento a este equipo.
- Desenergice el equipo antes de realizar cualquier trabajo en él.
- Siempre utilice un dispositivo detector de tensión adecuado para confirmar la desenergización del equipo.
- Vuelva a colocar todos los dispositivos, las puertas y las cubiertas antes de energizar este equipo.
- Mantenga un espacio adecuado para la instalación eléctrica entre el cable y las piezas energizadas.

El incumplimiento de estas precauciones podrá causar la muerte o lesiones serias.

SWITCHES INTERRUPTEURS INTERRUPTORES

R9I3030FCC / R9I4030FCC
 R9J2030FJ / R9J3030FJ / R9J4030FJ
 R9J2060FJ / R9J3060FJ / R9J4060FJ

USED WITH UTILISEES AVEC UTILIZACIÓN CON



HANDLES POIGNEES MANDOS

PHB1N4XF PHB1N4XFT
 PHR1N4XF PHR1N4XFT
 PHB1N12F PHB1N4XS
 PHR1N12F PHR1N4XS

Double dimensions in/mm
 Doble dimensiones in/mm

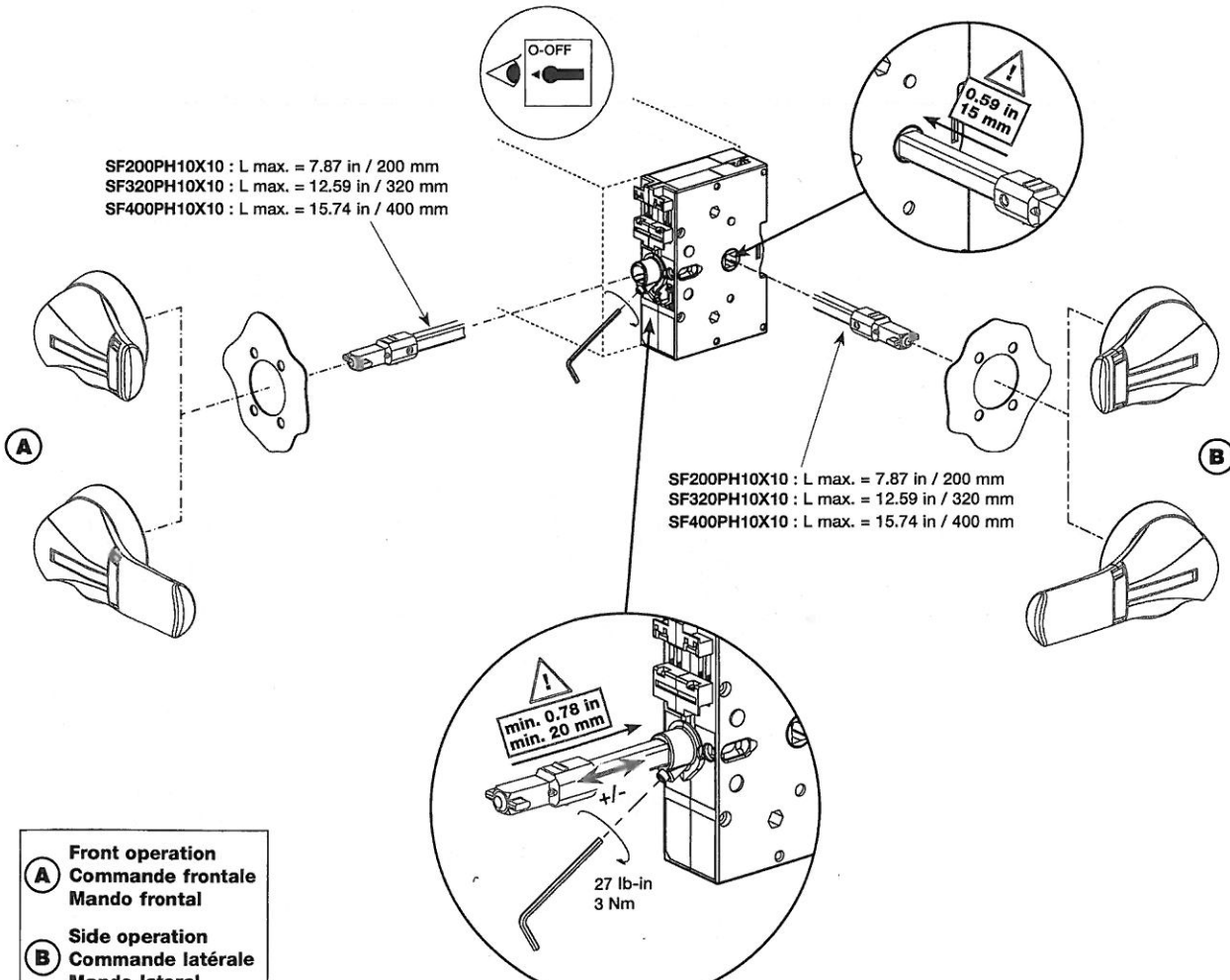
R9K2060FJ / R9K3060FJ / R9K4060FJ
 R9K2100FJ / R9K3100FJ / R9K4100FJ
 R9L2200FJ / R9L3200FJ / R9L4200FJ
 R9M3400FJ / R9M4400FJ



PHB2N4XF PHB2N4XFT
 PHR2N4XF PHR2N4XFT
 PHB2N12F PHB2N4XS
 PHR2N12F PHR2N4XS

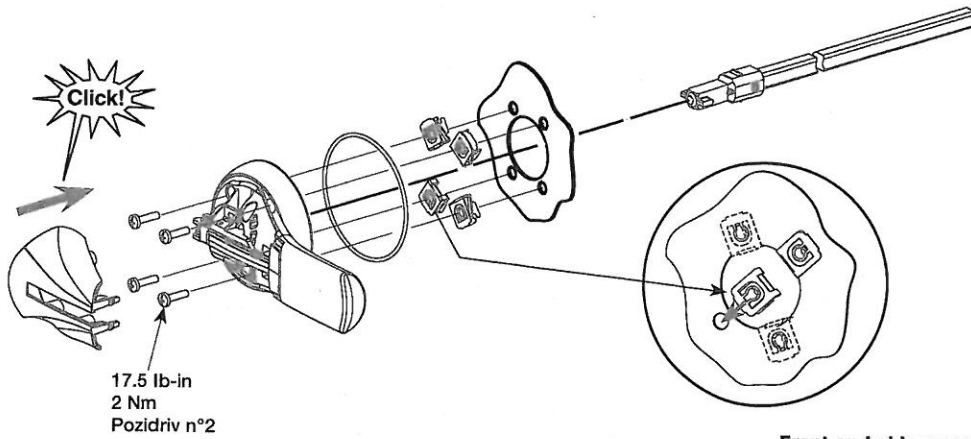
RECTO-VERSO / S blanc offset 100g/m² / I Noire pantone black C -Rouge pantone 485U / F 420x297

SF200PH10X10 : L max. = 7.87 in / 200 mm
 SF320PH10X10 : L max. = 12.59 in / 320 mm
 SF400PH10X10 : L max. = 15.74 in / 400 mm

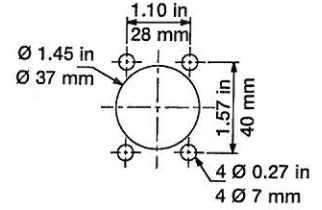


- A** Front operation
Commande frontale
Mando frontal
- B** Side operation
Commande latérale
Mando lateral

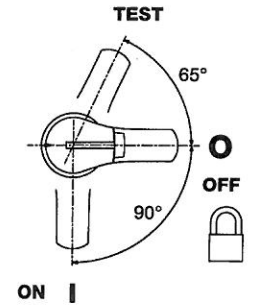
A Front operation
 Commande frontale
 Mando frontal



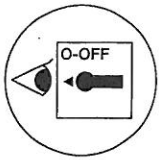
Door drilling
 Perçage de porte
 Perforación de puerta



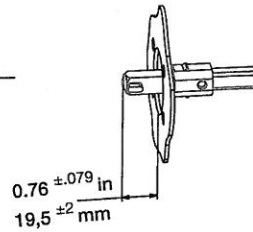
Padlocking position
 Position cadenassage
 Posicion con candado



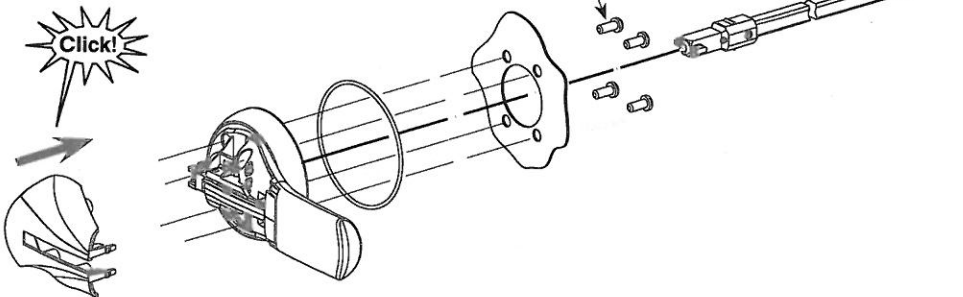
Front and side operation.
 Commande frontale et latérale.
 Mando frontal y lateral.



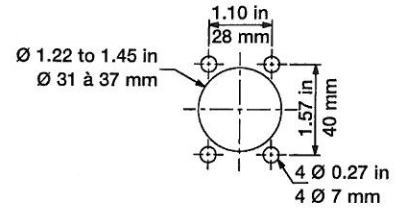
OU / OR / O



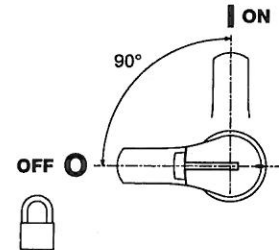
17.5 lb-in
 2 Nm
 Pozidriv n°2



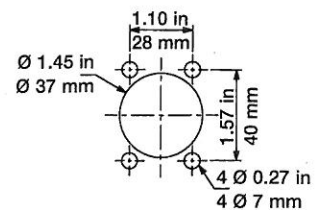
Door drilling
 Perçage de porte
 Perforación de puerta



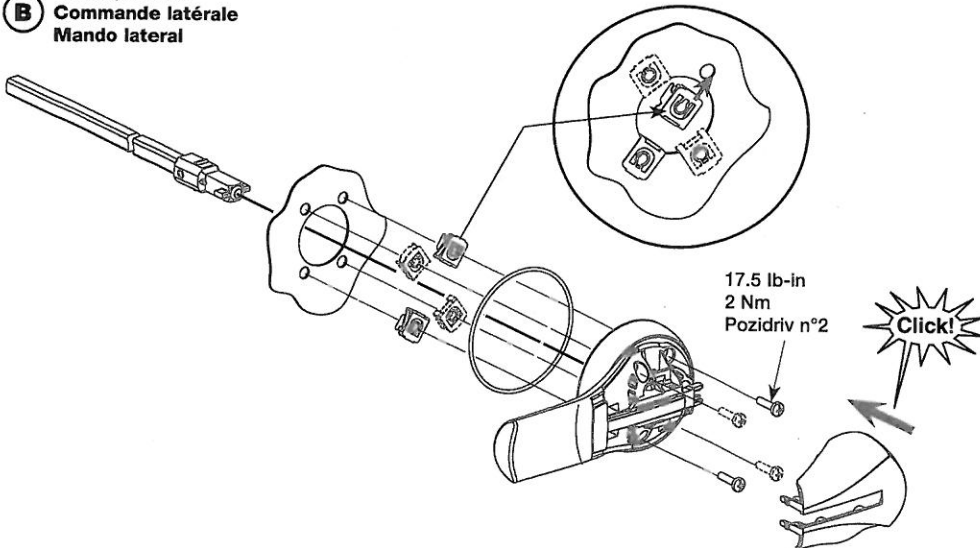
Padlocking position
 Position cadenassage
 Posicion con candado



Door drilling
 Perçage de porte
 Perforación de puerta

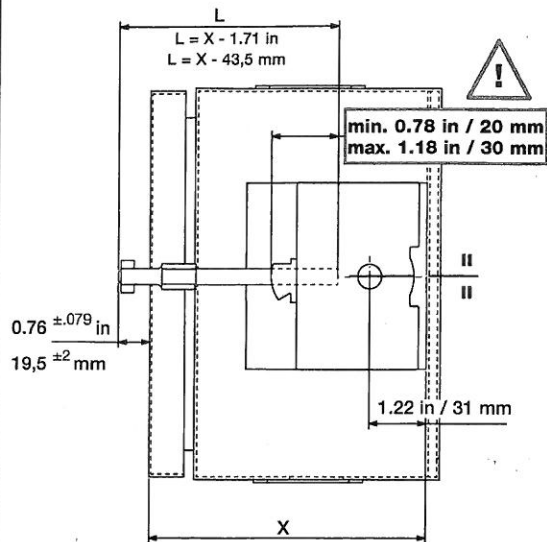


B Side operation
 Commande latérale
 Mando lateral



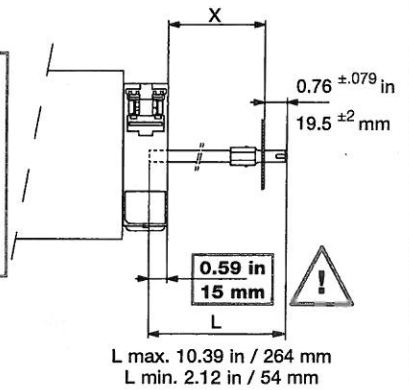
A Front operation
Commande frontale
Mando frontal

Shaft length
Longueur d'axe
Longitud del eje

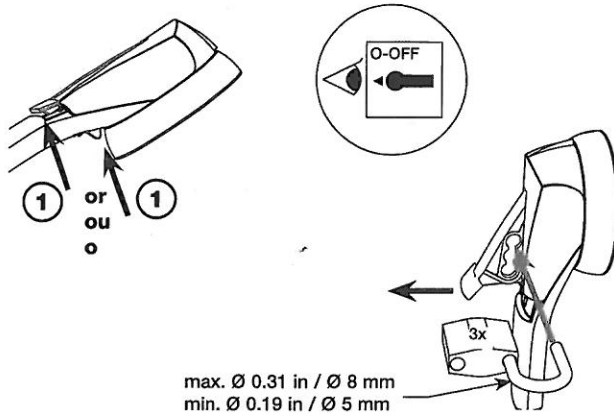


- ① Insert the shaft until the end stopper.
Engager axe à fond dans la mécanique.
Insertar hasta el fondo.
- ② Set up the length (L). Cut.
Définir longueur (L). Couper.
Calcular la medida (L). Cortar.
- ③ Check the 0.76 ±0.079 in / 19.5 ±2 mm dimension.
Vérifier cote 0.76 ±0.079 in / 19,5 ±2 mm
Verificar la medida 0.76 ±0.079 in / 19,5 ±2 mm

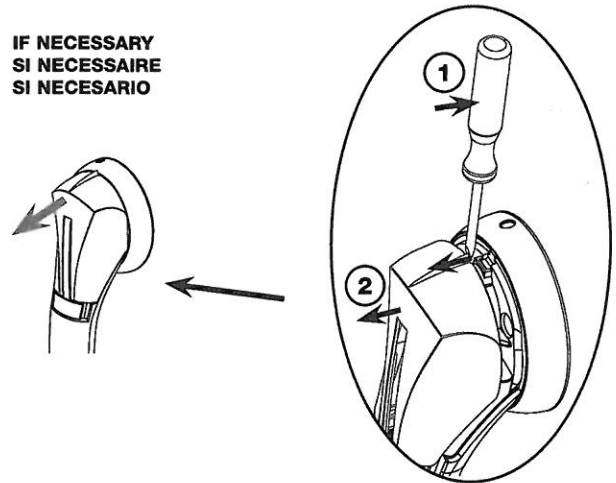
B Side operation
Commande latérale
Mando lateral



Padlocking the handle - Front and Side operation
Cadenassage de la poignée - Commande frontale et latérale
Bloqueable por candados - Mando frontal y lateral



IF NECESSARY
SI NECESSAIRE
SI NECESARIO

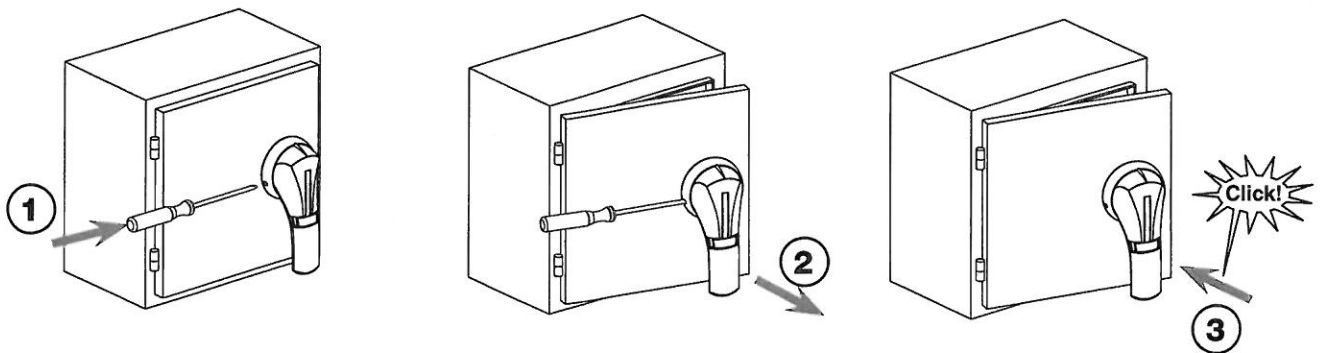


Defeating the interlock in ON position
Déverrouillage de porte en position I
Desenganche del cerrojo en posición I



⚠ DANGER / DANGER / PELIGRO

HAZARDOUS VOLTAGE	TENSION DANGEREUSE	TENSION PELIGROSA
<ul style="list-style-type: none"> • Disconnect all power before servicing. • Be sure enclosure is closed securely before operating device. • Testing of live equipment should only be performed by qualified service personnel in accordance with local regulations. 	<ul style="list-style-type: none"> • Couper l'alimentation avant intervention. • S'assurer de la fermeture du coffret avant manoeuvre de l'appareil. • Les essais des équipements sous tensions ne doivent être effectués que par du personnel qualifié. 	<ul style="list-style-type: none"> • Desenergice el equipo antes de una itervención. • Asegurarse del cierre de la caja antes de manipular el equipo. • Solamente el personal especializado deberra probar los equipos sobre tension.
<p>Failure to follow these instructions will result in death or serious injury.</p>	<p>si ces précautions ne sont pas respectées cela entraînera la mort ou des blessures graves.</p>	<p>El incumplimiento de estas precauciones podrá causar la muerte o lesiones serias.</p>



⚠ DANGER / DANGER / PELIGRO

HAZARDOUS VOLTAGE

- This equipment must be installed and serviced only by qualified electrical personnel.
- Turn off all power supplying this equipment before working on or inside equipment.
- Always use a properly rated voltage sensing device to confirm power is off.
- Replace all devices, doors, and covers before turning on power to this equipment.

Failure to follow these instructions will result in death or serious injury.

TENSION DANGEREUSE

- L'installation et l'entretien de cet appareil ne doivent être effectués que par du personnel qualifié.
- Coupez l'alimentation de cet appareil avant d'y travailler.
- Utilisez toujours un dispositif de détection de tension à valeur nominale approprié pour confirmer que toute alimentation est coupée.
- Remplacez tous les dispositifs, les portes et les couvercles avant de mettre cet appareil sous tension.

Si ces précautions ne sont pas respectées, cela entraînera la mort ou des blessures graves

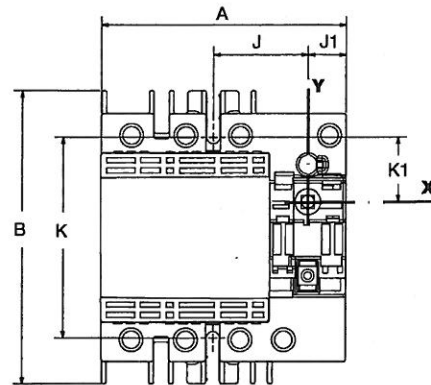
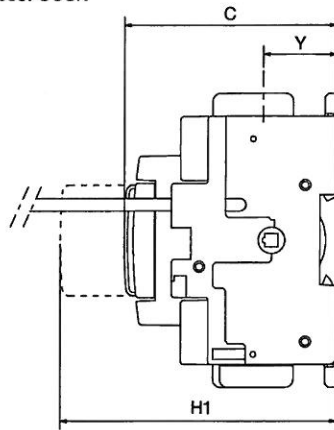
TENSION PELIGROSA

- Solamente el personal de mantenimiento eléctrico especializado deberá instalar y prestar servicios de mantenimiento a este equipo.
- Desenergice el equipo antes de realizar cualquier trabajo en él.
- Siempre utilice un dispositivo detector de tensión adecuado para confirmar la desenergización del equipo.
- Vuelva a colocar todos los dispositivos, las puertas y las cubiertas antes de energizar este equipo.

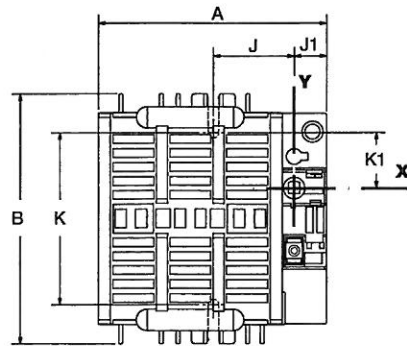
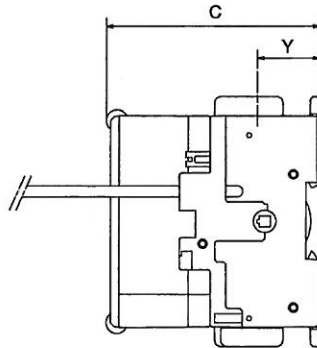
El incumplimiento de estas precauciones podrá causar la muerte o lesiones serias.

Dual dimensions in/mm
 Double dimensions in/mm
 Doble dimensiones in/mm

① R4H3030FCC / R4H3030FCCSN

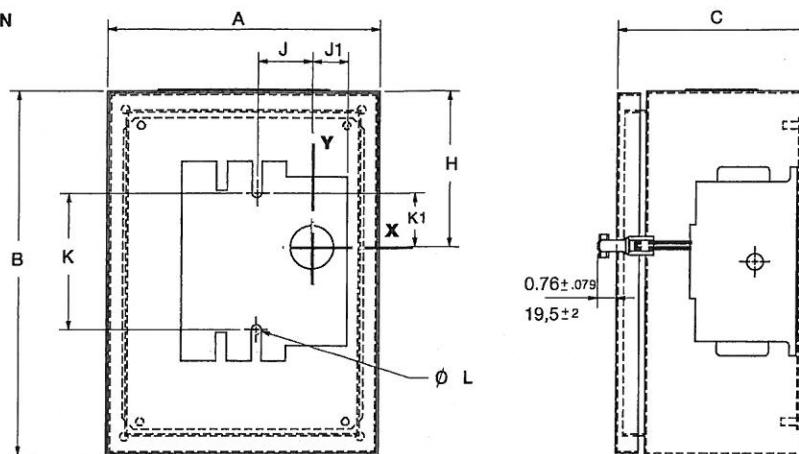


② R4H3030FJ / R4H3030FJSN



	A		B		C		H		H1		H2		H3		J		J1		K		K1		Y	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
① 3P/4P	3.78	96	4.56	116	3.28	83,5	/	/	5.19	132	/	/	/	/	1.47	37,5	0.59	15	3.13	79,5	1	25,5	1.12	28,5
② 3P/4P	4.13	105	4.56	116	3.89	99	/	/	/	/	/	/	/	/	1.47	37,5	0.59	15	3.30	84	1	25,5	1.12	28,5

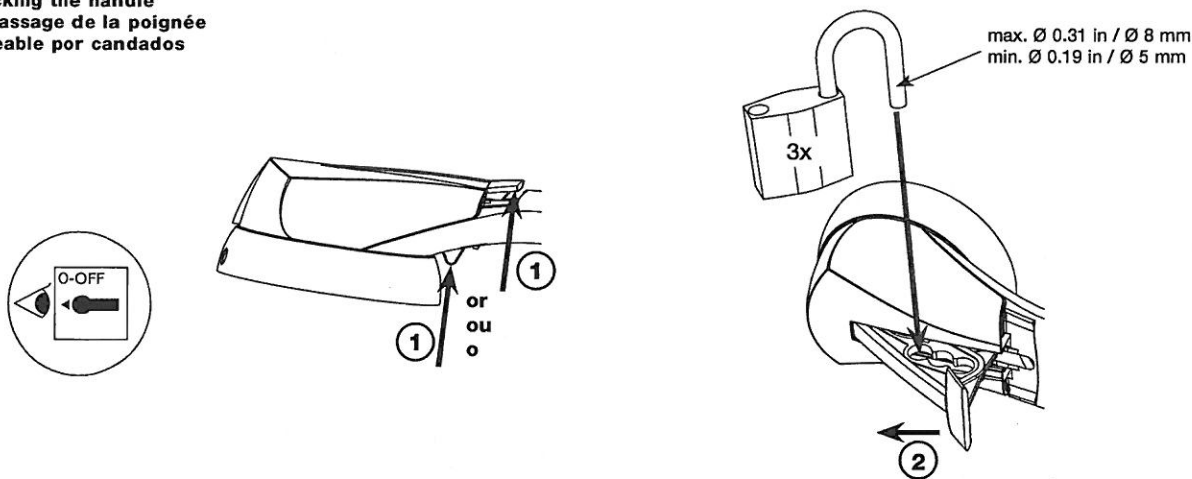
- ① R4H3030FCC / R4H3030FCCSN
- ② R4H3030FJ / R4H3030FJSN



Minimum enclosure dimensions
Dimensions minimums des coffrets
Dimensiones minimas de las cajas

	A		B		C		H		J		J1		K		K1		ØL	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
① 3P/4P	6	153	8	204	6	153	3.5	89	1.47	37,5	0.59	15	3.13	79,5	1	25,5	0.21	5,5
② 3P/4P	6	153	8	204	6	153	3.5	89	1.47	37,5	0.59	15	3.30	84	1	25,5	0.21	5,5

Padlocking the handle
Cadenassage de la poignée
Bloqueable por candados



Defeating the interlock in ON position
Déverrouillage de porte en position I
Desenganche del cerrojo en posición I

⚠ DANGER / DANGER / PELIGRO

HAZARDOUS VOLTAGE

- Disconnect all power before servicing.
- Be sure enclosure is closed securely before operating device.
- Testing of live equipment should only be performed by qualified service personnel in accordance with local regulations.

Failure to follow these instructions will result in death or serious injury.

TENSION DANGEREUSE

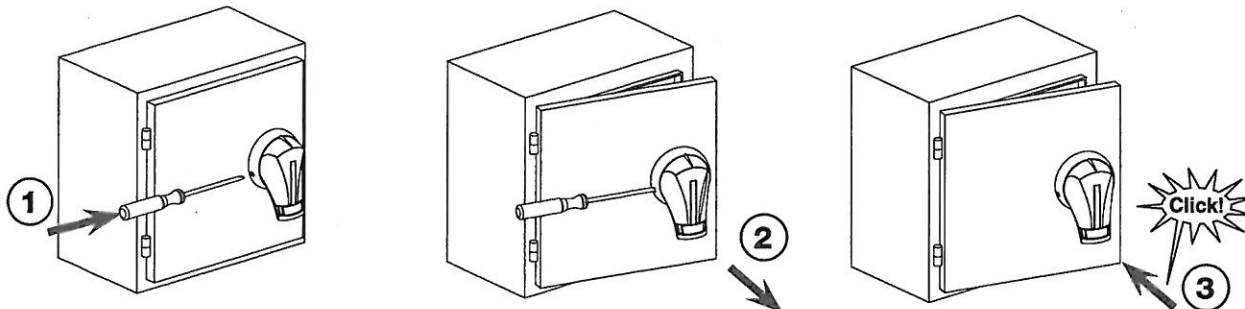
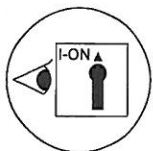
- Couper l'alimentation avant intervention.
- S'assurer de la fermeture du coffret avant manoeuvre de l'appareil.
- Les essais des équipements sous tensions ne doivent être effectués que par du personnel qualifié.

si ces précautions ne sont pas respectées cela entraînera la mort ou des blessures graves.

TENSION PELIGROSA

- Desenergice el equipo antes de una intervención.
- Asegurarse del cierre de la caja antes de manipular el equipo.
- Solamente el personal especializado debiera probar los equipos sobre tension.

El incumplimiento de estas precauciones podrá causar la muerte o lesiones serias.



⚠ DANGER / DANGER / PELIGRO

HAZARDOUS VOLTAGE

- This equipment must be installed and serviced only by qualified electrical personnel.
- Turn off all power supplying this equipment before working on or inside equipment.
- Always use a properly rated voltage sensing device to confirm power is off.
- Replace all devices, doors, and covers before turning on power to this equipment.

Failure to follow these instructions will result in death or serious injury.

TENSION DANGEREUSE

- L'installation et l'entretien de cet appareil ne doivent être effectués que par du personnel qualifié.
- Coupez l'alimentation de cet appareil avant d'y travailler.
- Utilisez toujours un dispositif de détection de tension à valeur nominale approprié pour confirmer que toute alimentation est coupée.
- Remplacez tous les dispositifs, les portes et les couvercles avant de mettre cet appareil sous tension.

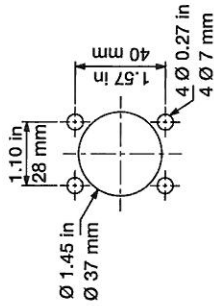
Si ces précautions ne sont pas respectées, cela entraînera la mort ou des blessures graves

TENSION PELIGROSA

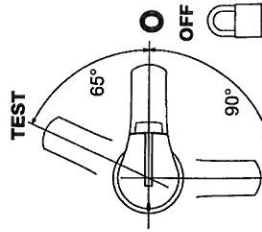
- Solamente el personal de mantenimiento eléctrico especializado deberá instalar y prestar servicios de mantenimiento a este equipo.
- Desenergice el equipo antes de realizar cualquier trabajo en él.
- Siempre utilice un dispositivo detector de tensión adecuado para confirmar la desenergización del equipo.
- Vuelva a colocar todos los dispositivos, las puertas y las cubiertas antes de energizar este equipo.

El incumplimiento de estas precauciones podrá causar la muerte o lesiones serias.

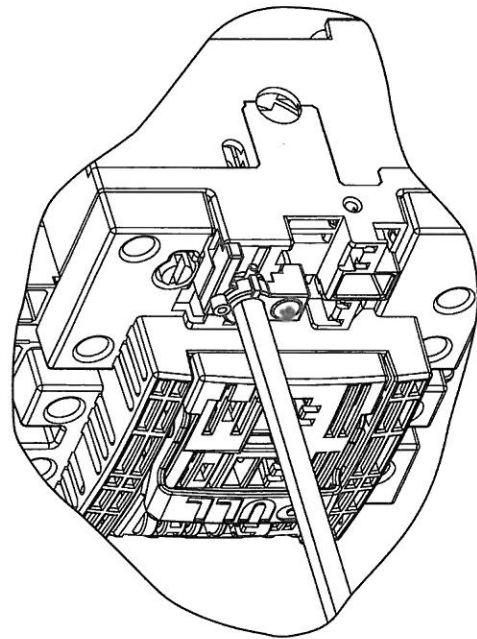
Door drilling Perçage de porte Perforación de puerta



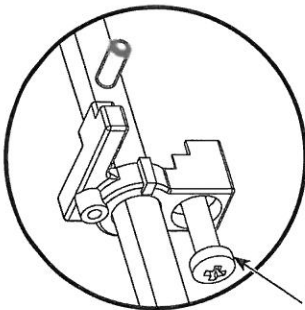
Padlocking position Position cadenasage Posición con candado



Dual dimensions Double dimensions Doble dimensiones

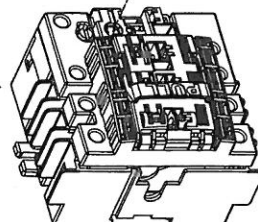


R4H3030FCC / R4H3030FCCSN
R4H3030FJ / R4H3030FJSN



17.5 lb-in
2 Nm
Philips n°2

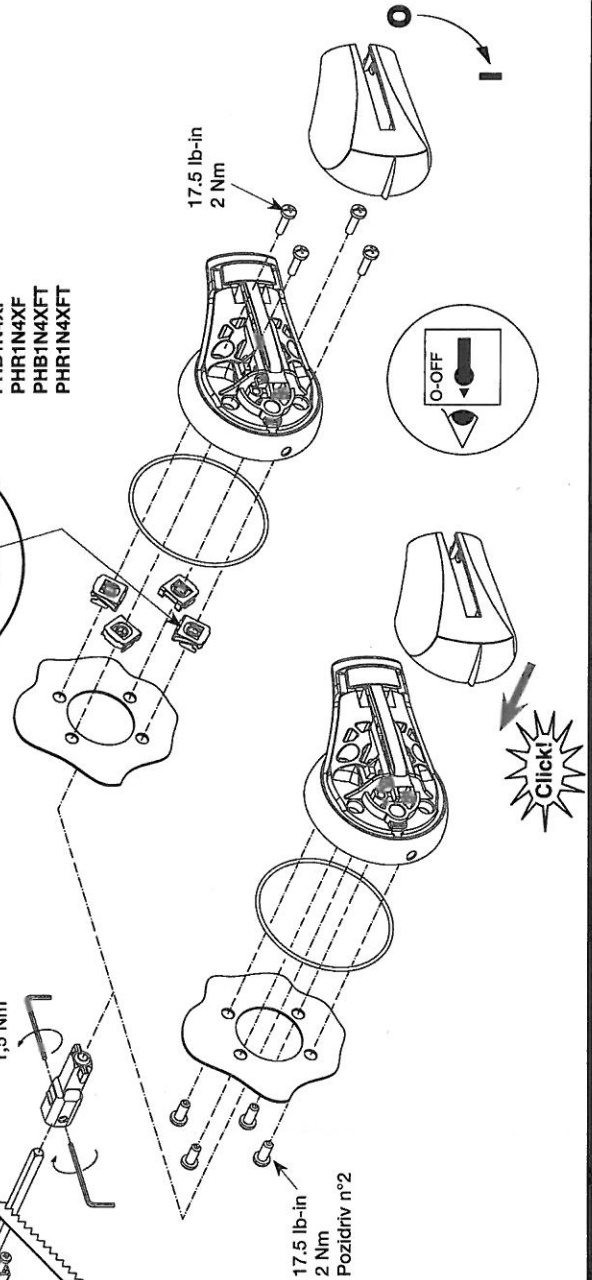
4 - 10 AWG
2 - 6 mm²
0.5 in
12 mm



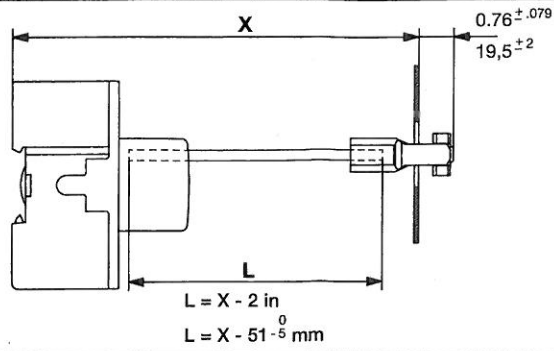
SF200PH5X5
SF320PH5X5
SF400PH5X5

Allen key size 2
6 pans de 2
13 lb-in
1.5 Nm

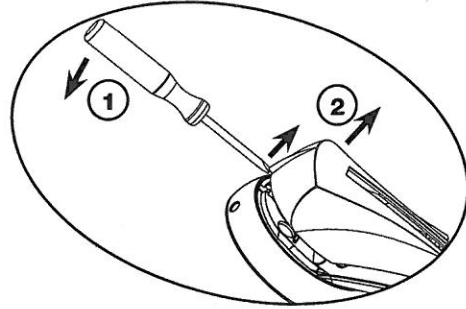
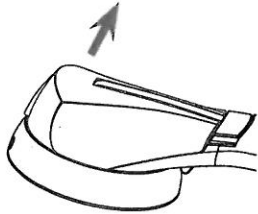
PHB1N12F
PHR1N12F
PHB1N4XF
PHR1N4XF
PHB1N4XFT
PHR1N4XFT



Shaft length
 Longueur d'axe
 Longitud del eje



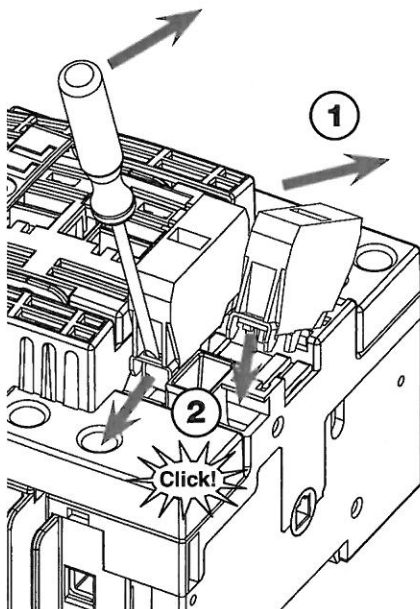
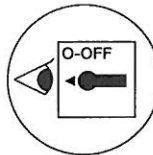
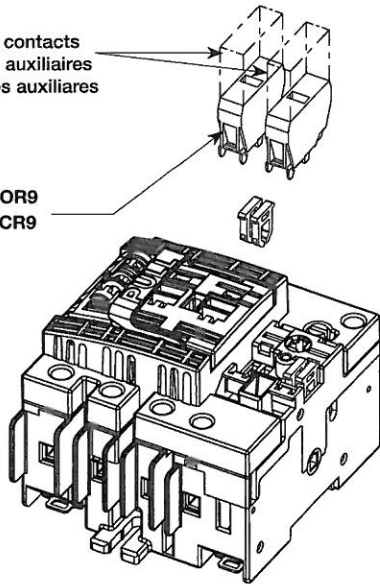
IF NECESSARY
 SI NECESSAIRE
 SI NECESARIO



R4H3030FCC / R4H3030FCCSN
 R4H3030FJ / R43030FJSN (Max : 2 Auxiliary contacts / 2 contacts auxiliaires / 2 contactos auxiliares)

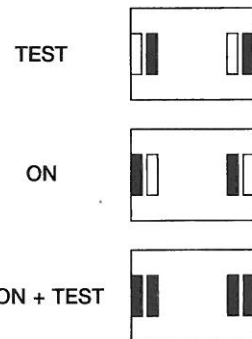
Max : 4 Auxiliary contacts
 Max : 4 contacts auxiliaires
 Max : 4 contactos auxiliares

1 NO : AC1NOR9
 1 NC : AC1NCR9



Peg
 Poussoir
 Leva

 No peg
 Pas de poussoir
 No leva



⚠ DANGER

Hazardous voltage.
Can cause severe injury
or death.
Turn off main power
before opening panel.

⚠ DANGER

Tension dangereuse.
Peut causer des blessures
graves ou la mort.
Coupez l'alimentation en
électricité avant d'ouvrir le
panneau.

⚠ PELIGRO

Voltaje peligroso.
Puedo ocasionar lesiones
graves o la muerte.
Desconecte el interruptor
principal de suministro
eléctrico antes de abrir el.

Installation Instructions

Turn off power ahead of
this load center before
installing this kit.

Install ground bar on
either right or left side of
the load center using
mounting holes
provided. Torque
mounting screws to
15 lb-in.

Bar wire holes are
suitable for (1) #14-4 or
up to (3) #14-10
aluminum or copper
wire. Multiple wires in a
single hole must be of
same size and material.

ote:
2/0 lug is provided, this
is suitable for (1)
6-2/0 aluminum or copper
wire.

orque wire pressure
screws as follows:

14-10 AWG	20 lb-in.
8 AWG	25 lb-in.
6-4 AWG	35 lb-in.
3-2/0 AWG	50 lb-in.

Installations de montage

1. E teindre le courant en
amont de ce panneau
d'utilisation avant
installation.

2. Installer la barre de terre
à droite ou à gauche du
panneau d'utilisation,
au moyen des trous de
montage fournis. Serrer
les vis de montage à 15
lv-po.

3. Les trous de la barre
sont prévus pour un fil
électrique en aluminium
ou cuivre de #14-4 à jus
qu'à trois fils de #14-10.
Les fils passant par un
même trou doivent être
de même métal et de
même taille.

Note:
Si un bloc 2/0 est fourni,
il convient pour 1 fil
électrique en aluminium ou
en cuivre de #6-2/0.

Serrer les vis de maintien
des fils comme ci-après:

#14-10 AWG	20 lv-po.
#8 AWG	25 lv-po.
#6-4 AWG	35 lv-po.
#3-2/0 AWG	50 lv-po.

**Instrucciones para la
instalación**

1. Apague la alimentación
al centro de carga antes
de instalar este juego.

2. Instale la barra de tierra
en el lado izquierdo o
derecho del centro de
carga, utilizando los
orificios de montaje que
se proporcionan. Apriete
los tornillos de montaje
hasta un máximo de 15
lb-plg.

3. Los orificios para los
alambres de la barra
sirven para (1) alambre
#14-4 o hasta (3)
alambres #14-10 de
aluminio o cobre.
Cuando por un orificio
se pasan varios
alambres, estos deben
tener el mismo calibre y
ser del mismo material.

Nota:
Si se suministra una
terminal 2/0, ésta sirve
para (1) alambre #6-2/0 de
aluminio o cobre.

Apriete los tornillos que
presionan los alambres
como se indica a
continuación:

#14-10 AWG	20 lb-plg.
#8 AWG	25 lb-plg.
#6-4 AWG	35 lb-plg.
#3-2/0 AWG	50 lb-plg.

Ground Bar Kit
Ensemble de barre de terre
Juego de barra de tierra

GBK5	GBK1420	GBK14CS	GBK10P
GBK520	GBK21	GBK1420CS	GBK12P
GBK10	GBK5CS	GBK21CS	GBK14P
GBK1020	GBK520CS	GBK5P	GBK21P
GBK14	GBK1020CS	GBK8P	

Contents:

- 1 Ground Bar
- 2 #10-32 x 5/8"
Self-threading Screws

Contenu:

- 1 Barre de terre
- 2 Vis autotaraudeuses
#10-32 x 5/8 po

Contenido:

- 1 Barre de terre
- 2 Tornillos autorroscadores
#10-32 x 5/8 plg

Tools Required:

- Medium blade
Screwdriver
- Torque Wrench

Matériel nécessaire:

- Tournevis à lame plate
de taille moyenne
- Clé dynamométrique

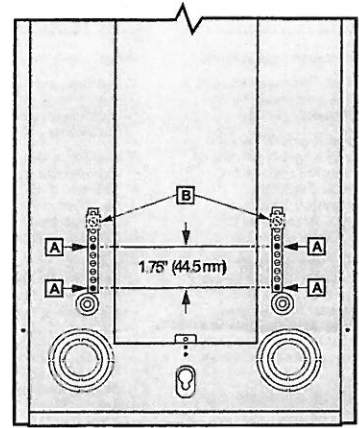
Herramientas requeridas:

- Destornillador de
hoja mediana
- Llave dinamométrica

Installation instructions
on reverse side.

Instructions de montage
au verso.

Instrucciones para la
instalación al dorso.



Ground Bar Mounting Locations
Emplacements de montage de la barre de terre
Ubicaciones de montaje de la barra de tierra

A Mounting Screw
Torque 15 lb-in.

Vis de montage
Serrerà 15 lv-po.

Tornillo de montaje
Par de torsión
de 15 lb-plg.

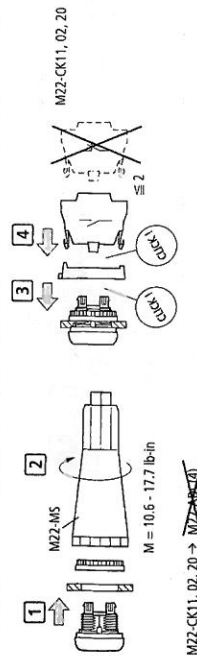
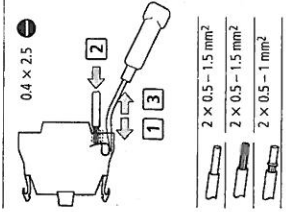
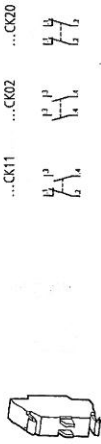
B 2/0 Lug
if Provided.

Bloc 2/0
Si fournit.

Terminal 2/0
Si se suministra.

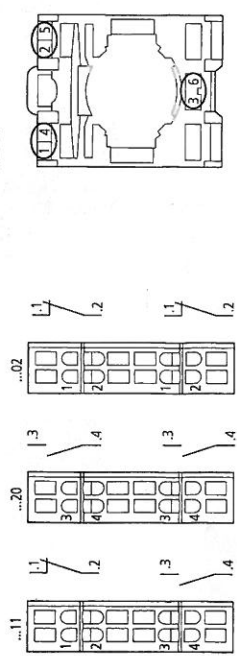
EATON

1000 Cherrington Parkway

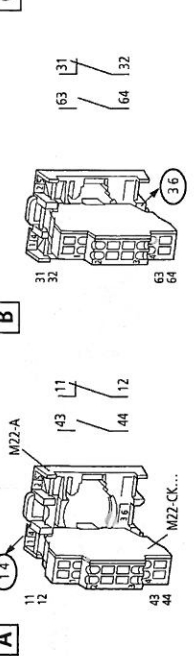


M22-CK11, 02, 20 → ~~M22-MS~~

Reference numbers - Ordinales - Ordnungsziffern - Numeri di riferimento - Справочные номера - 参考番号



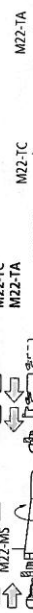
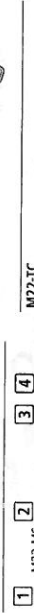
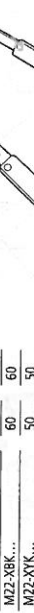
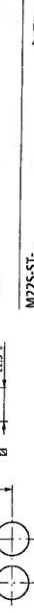
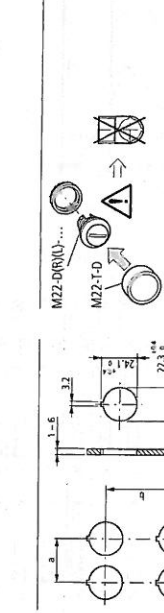
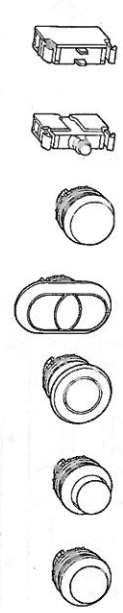
Example - Ejemplo - Esempio - Beispiel - Esempio - Пример - 举例



M22-A → 1 } 11, 12
 M22-CK → 1, 2 }
 M22-A → 4 } 43, 44
 M22-CK → 3, 4 }
 4/4

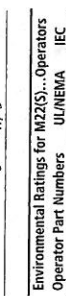
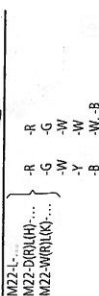
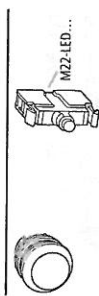
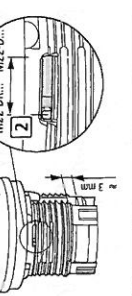
Installation Instructions
 Istruzioni per il montaggio
 Instrucciones de montaje
 Notice d'installation
 Montageanweisung

M22-..., M22S-...



Dangerous Electrical Current!
 Only skilled qualified persons may carry out the following operations.
¡Corriente eléctrica! ¡Peligro de muerte!
 El trabajo a continuación descrito debe ser realizado por personal cualificado y advertido.
Tension électrique dangereuse!
 Seules les personnes qualifiées et averties doivent exécuter les travaux ci-après.
Lebensgefahr durch elektrischen Strom!
 Nur Elektrofachkräfte und elektrischerisch ausgebildetes Personal dürfen die im Folgenden beschriebenen Arbeiten ausführen.
Tensione elettrica: Pericolo di morte!
 Solo persone abilitate e qualificate possono eseguire le operazioni di seguito riportate.
Электрический ток Опасно для жизни!
 Только специально обученные лица могут выполнять следующие операции.

Only skilled qualified persons may carry out the following operations.
 只有合格人員及經過此等培訓的人員方可進行下列工作。
 2.2 0.4 x 2.5
 0.6 x 3.5
 0.8 x 5.5



Environmental Ratings for M22(S)-Operators
 Operator Part Numbers U/I/NE/MA IEC

M22-...	4X, 13	IP66
M22-ST...		(IP67)
M22-XAK...		
M22-XZK...		
M22-XK31		
M22-XYK1		
M22-DD...	3R, 12	IP66
M22-AMC		IP40

MZ2-W/R... MZ2-W/RK... MZ2-W/RK4

	I	0	II
60°	✓	✓	✓
50°	✓	✓	✓
60°	✓	✓	✓
50°	✓	✓	✓
40°	✓	✓	✓
60°	✓	✓	✓
40°	✓	✓	✓
50°	✓	✓	✓
40°	✓	✓	✓
50°	✓	✓	✓
40°	✓	✓	✓

MZ2-KC-Y
MZ2-KC-R
MZ2-KC-G

	0	I	B
60°	✓	✓	✓
50°	✓	✓	✓
40°	✓	✓	✓
50°	✓	✓	✓
40°	✓	✓	✓

MZ2-W...3...
MZ2-XW

MZ2-S-D0(L).... + MZ2-T-DD

MZ2-PV... MZ2(S)-PV MZ2-PVL MZ2-PVS MZ2-PV(L)T

MZ2-S-T-X

MZ2-A
MZ2-E...
MZ2-T-C

MZ2(S)-D0(L).... + MZ2-T-DD

MZ2-AMC

0.8 x 5.5
2 x 0.5 - 1.5 mm²
XI = +

MZ2(S)-D0(L).... + MZ2-T-DD

MZ2-S-T-X

MZ2-A
MZ2-E...
MZ2-T-C

MZ2-PL-PV

MZ2(S)-B
MZ2(L)....
MZ2-E...
MZ2-PL-PV

MZ2(S)-D0(L).... + MZ2-T-DD

MZ2-S-T-X

MZ2-A
MZ2-E...
MZ2-T-C

MZ2-AMC

0.8 x 5.5
2 x 0.5 - 1.5 mm²
XI = +

MZ2(S)WR4 MZ2-W/R4/M MZ2-W/RK4 MZ2-DA... MZ2-XCK MZ2-DA4

	a ±	b ±
MZ2(S)WR4	45	50
MZ2(W)R4/M	45	50
MZ2(S)WRK4	45	50
MZ2(S)-DA...	55	55
MZ2-XCK...	50	50

M = 10.6 - 17.7 Dp-In

MZ2-MS

MZ2-MS

MZ2(S)-D0(L).... + MZ2-T-DD

MZ2-S-T-X

MZ2-A
MZ2-E...
MZ2-T-C

MZ2(S)WR4 MZ2-W/R4/M MZ2-W/RK4 MZ2-DA...

MZ2(S)WR4
MZ2-W/RK4

MZ2(W)R4/M
MZ2-DA...

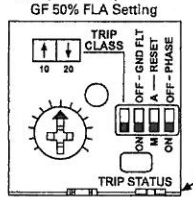
XTOE/ZEB IEC Electronic Overload - Self Powered

Dangerous Electrical Current!
Only skilled qualified persons may carry out the following operations.

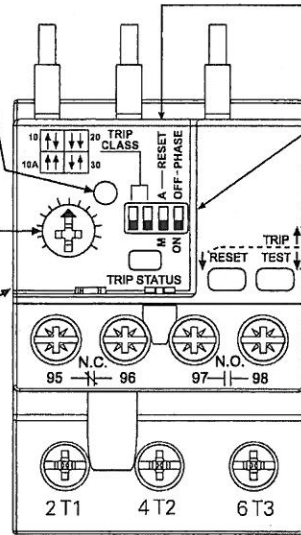
WARNING Automatic or network reset is not intended for two-wire control devices.
Un renclenchement automatique, ou un de réseau ne convient pas aux dispositifs de contrôle à deux conducteurs.

UNIT STATUS	LED
Motor is running, Current < 1.15 Times the Dial Setting.	1 flash / 2 seconds
Motor is running, Current ≥ 1.15 Times the Dial Setting.	2 flash / 2 seconds
If the orange trip flag is visible, a trip has occurred.	No Flash
If the orange trip flag is not visible, motor is off or drawing < min FLA.	No Flash

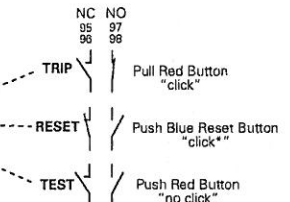
Ground Fault Unit
3Ø Systems only
GF 50% FLA Setting



Motor Service Factor
Overload Tripping Current = 115%



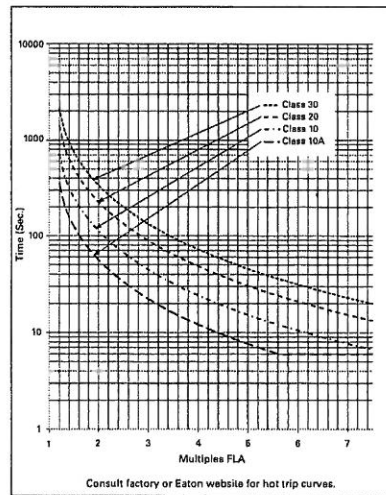
Phase Imbalance Selection



* Approximately 450g (1 lbf)

Description	Terminal Capacity AWG	Terminal Capacity mm ²	Torque lb-in	Torque N-m
Control	2 x (18 - 12)	2 x (0,75 - 4)	7 - 11	0,8 - 1,2
Load 45 mm	1 x (12 - 10)	1 x (4 - 6)	20 - 25	2,3 - 2,8
Load 55 mm	1 x (8 - 6)	1 x (6 - 16)	25 - 30	2,8 - 3,4
Load 110mm	1 x (6 - 1)	1 x (16 - 50)	25 - 30	2,8 - 3,4
	1 x (8-4/0)	1 x (10-95)	124	14

STANDARD UNIT 3Ø or 1Ø



Optional Accessories

- ZEB-XRB Reset Bar
- ZEB-XSC Tamper Proof Cover

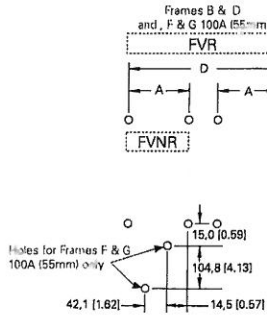
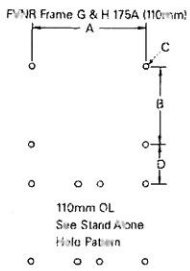
Expansion Port

- Options:
C440-XCOM
ZEB-XRR-120
ZEB-XRR-24
See page 2 for details
- Modbus
 - Devicenet
 - Profibus
 - I/O

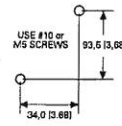
Remove Dust Cover for options



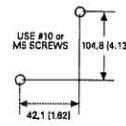
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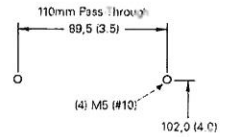
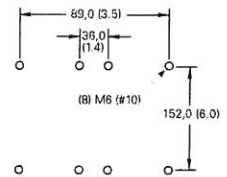
45mm Stand Alone



55mm Stand Alone



110mm Stand Alone



70mm² (2/0)
Wire Max

XTOE/ZEB Starters	A mm (in)	B mm (in)	C mm (in)	D mm (in)
XT Frame B C440 OVLD 0.33 to 15A (45mm)	35,0 (1.38)	60,2 (2.36)	M4 (#8)	80,3 (3.16)
XT Frame C C440 OVLD 0.33 to 32A (45mm)	35,0 (1.38)	75,0 (2.95)	M4 (#8)	80,3 (3.16)
XT Frame D C440 OVLD 9 to 45A (45mm)	45,0 (1.77)	105,0 (4.13)	M4 (#8)	135,0 (5.31)
XT Frame D C440 OVLD 20 to 100A (55mm)	45,0 (1.77)	105,0 (4.13)	M4 (#8)	135,0 (5.31)
XT Frame F C440 OVLD 20 to 100A (55mm)	70,0 (2.75)	156,0 (6.14)	M6 (#10)	160,0 (6.30)
XT Frame G C440 OVLD 20 to 100A (55mm)	70,0 (2.75)	156,0 (6.14)	M6 (#10)	160,0 (6.30)
XT Frame G C440 OVLD 35-175A (110mm)	70,0 (2.75)	156,0 (6.14)	M6 (#10)	21,3 (0.84)
XT Frame H C440 OVLD 30-175A (110mm) *	120,0 (4.72)	160,0 (6.30)	M6 (#10)	26,7 (1.05)

* NOTE: MOUNT OL TO PANEL BEFORE LOOSENING LOAD-SIDE TERMINALS.

Description	Catalog Number	
Expansion Module (24V dc Remote Reset/Modbus RTU, RS485) - 6pin	C440-XCOM	
Remote Reset Module (120V ac) - 2pin	ZEB-XRR-120	
Remote Reset Module (24V ac) - 2pin	ZEB-XRR-24	
Tamper Proof FLA DIAL Cover	ZEB-XSC	
RESET BAR	ZEB-XRB	
Communication Adapter	C440-COM-ADP	

Communication Kits	Catalog No.	
Device Net Com module kit - 120V ac I/O	C440-DN-120	
Device Net Com module kit - 24V dc I/O	C440-DN-24	
Profibus Com module kit - 120V ac I/O	C440-DP-120	
Profibus Com module kit - 24V dc I/O	C440-DP-24	
Modbus Com module kit - 120V ac I/O	C440-MOD-120	
Modbus Com module kit - 24V dc I/O	C440-MOD-24	

Approved External CT to be used with 1-5A Stand Alone Overload	
CT Package (60-300A)	ZEB-XCT300
CT Package (120-600A)	ZEB-XCT600
CT Package (200-1000A)	ZEB-XCT1000
CT Package (300-1500A)	ZEB-XCT1500

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United States
877-ETN-CARE (877-386-2273)
Eaton.com

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Publication No. IL04210005E
May 2011 Rev.006



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Electronic Overload Expansion Module Product Installation

Figure 1.

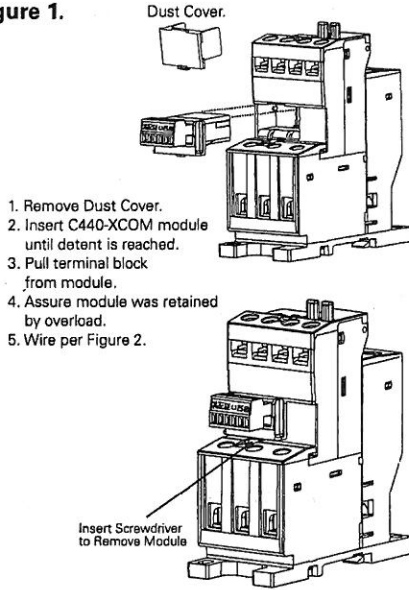


Figure 2.

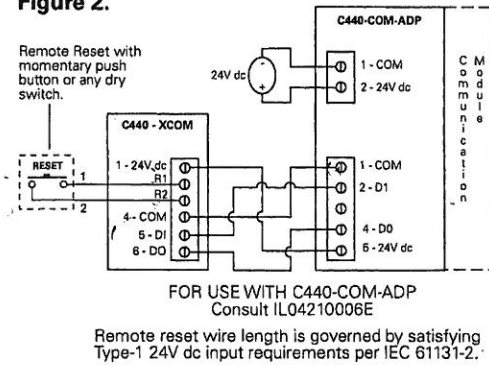


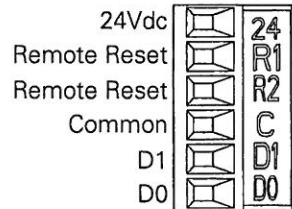
Table 1. Modbus Settings

Parameter	Value
Mode	Slave Mode Only
Modbus Address/Slave Address	Network Settable, Default = 1 (0 = for broadcast)
Baud Rate	19.2kb
Byte Characteristics	8-bit, Even Parity, 1-Stop Bit
Commands Supported	0x03 – Read Holding Registers 0x04 – Read Input Registers 0x06 – Write Single Register 0x10 – Write Multiple Holding Registers 0x2B/0x0E – Read Device Identification
Protocol Supported	Modbus RTU
Electrical Signaling	RS-485 (ANSI/TIA/EIA-485), Two Wire
Checksum	CRC16bit 0x8005 (or CRC-CCITT 0x1021)
Max. Number of Devices	32 (1 unit load per RS-485) Note: Line polarization will reduce max. # of devices by 4
Max. Cable Length	Dependent on Baud Rate, cable characteristics, number of loads. Reference Modbus-IDA over Serial Line Specification and Implementation Guide and EIA-485 for details

Table 2. Wiring Configuration

Pin #		Description
1	24Vdc	24V dc power supply connection
2	R1	Remote Reset Dry Contact Source. This is a 24VDC signal to be applied to a dry contact (ie pushbutton).
3	R2	Remote Reset Dry Contact Input
4	GND	Common or Ground power supply connection
5	D1	RS485
6	D0	RS485

Figure 3. Modbus Wiring Configuration



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Table 3. Environmental Ratings of the Module

Transportation and Storage	Temperature	-40°C to 85°C (-40°F to 185°F)
	Humidity	5-95% non-condensing
	Shock IEC 60068-2-27	15G
Operating	Temperature	-25°C to 65°C (-13°F to 149°F)
	Humidity	5-95% non-condensing
	Altitude	Above 2000 meters (6600 feet) Consult FACTORY
	Vibration IEC-60068-2-6	3G
	Polution Degree	3

Table 4. Approvals/Certifications


Agency Certifications	UL508 CUL (CSA C22.2 No. 14) CE (Low Voltage Directive)	
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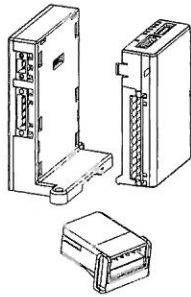
Table 5. Module Electrical Requirements

Voltage Range	18 - 30 V dc
Current Draw	Approx. 100 mA

Notes:

For use with Eaton UL Listed Power Supply Catalog Numbers, PSS55A, PSS55B, PSS55C, or PS160E.

Any UL Listed isolated power supply with a maximum of 30Vdc out may be used, provided that a UL Listed or Recognized Fuse rated at no more than 3A maximum be installed.

Communication Kits	Catalog No.	
Device Net Com module kit - 120V ac I/O	C440-DN-120	
Device Net Com module kit - 24V dc I/O	C440-DN-24	
Profibus Com module kit - 120V ac I/O	C440-DP-120	
Profibus Com module kit - 24V dc I/O	C440-DP-24	
Modbus Com module kit - 120V ac I/O	C440-MOD-120	
Modbus Com module kit - 24V dc I/O	C440-MOD-24	
Ethernet IP Com module kit - 120V ac I/O	Not Available	

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July 2010 Rev.002



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■ Features :

- Single and two phase wide input range 180 ~ 550VAC
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- Built-in constant current limiting circuit
- Can be installed on DIN rail TS-35/7.5 or 15
- UL508(industrial control equipment)approved
- EN61000-6-2(EN50082-2) industrial immunity level
- 100% full load burn-in test
- Built-in DC OK relay contact
- 3 years warranty

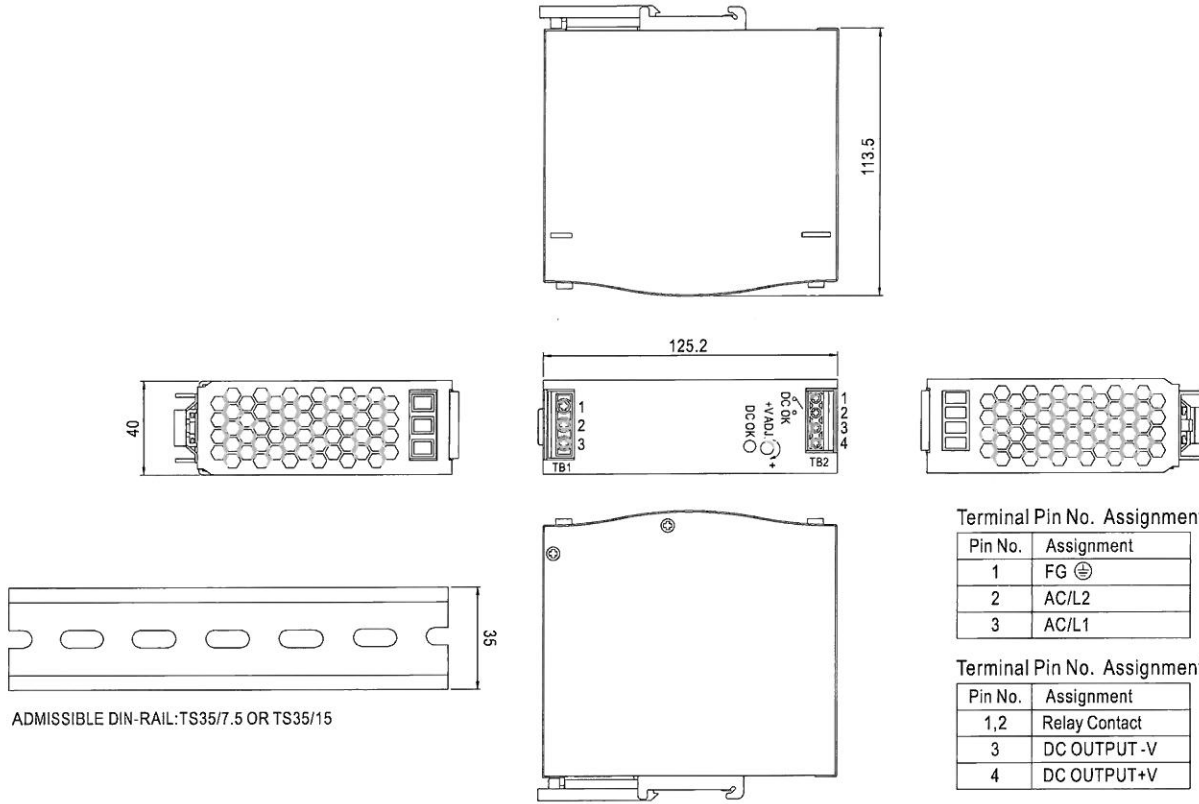


SPECIFICATION

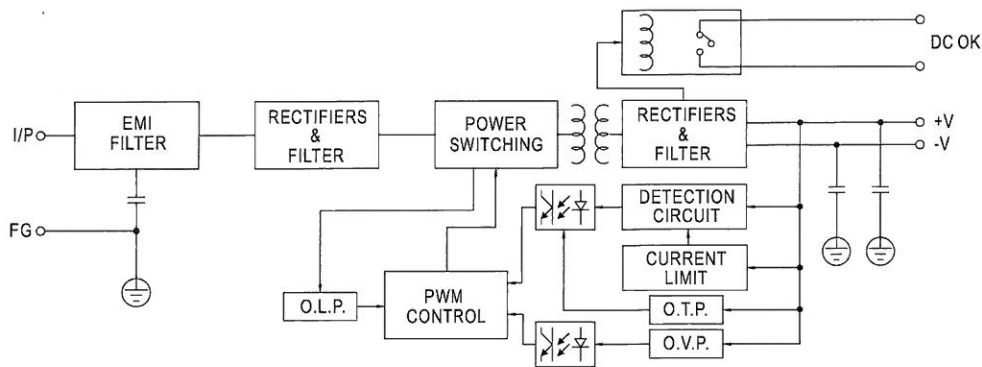
MODEL	WDR-120-12	WDR-120-24	WDR-120-48	
OUTPUT	DC VOLTAGE	12V	24V	48V
	RATED CURRENT	10A	5A	2.5A
	CURRENT RANGE	0 ~ 10A	0 ~ 5A	0 ~ 2.5A
	RATED POWER	120W	120W	120W
	RIPPLE & NOISE (max.) Note.2	120mVp-p	120mVp-p	150mVp-p
	VOLTAGE ADJ. RANGE	12 ~ 15V	24 ~ 29V	48 ~ 58V
	VOLTAGE TOLERANCE Note.3	±1.5%	±1.0%	±1.0%
	LINE REGULATION	±0.5%	±0.5%	±0.5%
	LOAD REGULATION	±0.5%	±0.5%	±0.5%
SETUP, RISE, HOLD UP TIME	2000ms, 70ms, 50ms/400VAC 2000ms, 70ms, 10ms/230VAC at full load			
INPUT	VOLTAGE RANGE	180 ~ 550VAC 254 ~ 780VDC		
	FREQUENCY RANGE	47 ~ 63Hz		
	EFFICIENCY (Typ.)	89.5% / 400V	91% / 400V	92% / 400V
	AC CURRENT	0.55A/400VAC 1.2A/230VAC		
	INRUSH CURRENT (max.)	COLD START 50A		
LEAKAGE CURRENT	<3.5mA / 530VAC			
PROTECTION	OVERLOAD	105 ~ 130% rated output power Protection type : Constant current limiting, recovers automatically after fault condition is removed		
	OVER VOLTAGE	16 ~ 18V	31 ~ 37V	60 ~ 67V
	OVER TEMPERATURE	105°C ±5°C (12V), 110°C ±5°C (24V) (TSW1) detect on heatsink of power transistor ; 100°C ±5°C (48V) (TSW1) detect on heatsink of power diode Protection type : Shut down o/p voltage, recovers automatically after temperature goes down		
FUNCTION	DC OK SIGNAL	Relay contact rating(max.) : 30V / 1A resistive		
ENVIRONMENT	WORKING TEMP.	-25 ~ +70°C (Refer to output load derating curve)		
	WORKING HUMIDITY	20 ~ 90% RH non-condensing		
	STORAGE TEMP, HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH		
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)		
	VIBRATION	Component: 10 ~ 500Hz, 2G 10min / 1cycle, 60min each along X, Y, Z axes, Mounting clip. Compliance to IEC60068-2-6		
SAFETY & EMC (Note 4)	SAFETY STANDARDS	UL508 approved, IEC60950-1 CB approved by SIQ, design refer to GL		
	WITHSTAND VOLTAGE	I/P-O/P: 3KVAC I/P-FG: 1.5KVAC O/P-FG: 0.5KVAC O/P-DC OK: 0.5KVAC		
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG: 100M Ohms / 500VDC / 25°C / 70% RH		
	EMI CONDUCTION & RADIATION	Compliance to EN55011 (CISPR11), EN55022 (CISPR22), EN61204-3 Class B		
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, ENV50204, EN61204-3, EN61000-6-2 (EN50082-2), heavy industry level, criteria A		
OTHERS	MTBF	268Khrs min. MIL-HDBK-217F (25°C)		
	DIMENSION	40*125.2*113.5mm (W*H*D)		
	PACKING	0.65Kg, 20pcs/14Kg/1.16CUFT		
NOTE	<p>1. All parameters NOT specially mentioned are measured at 400VAC input, rated load and 25°C of ambient temperature.</p> <p>2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.</p> <p>3. Tolerance : includes set up tolerance, line regulation and load regulation.</p> <p>4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.</p> <p>5. Length of set up time is measured at cold first start. Turning ON/OFF the power supply very quick may lead to increase of the set up time.</p>			

Mechanical Specification

Case No.992B Unit:mm



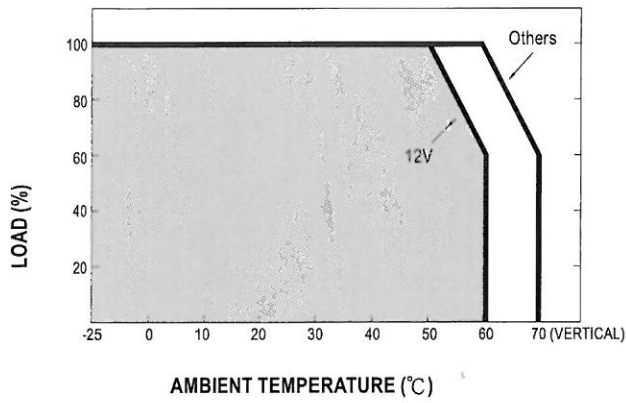
Block Diagram



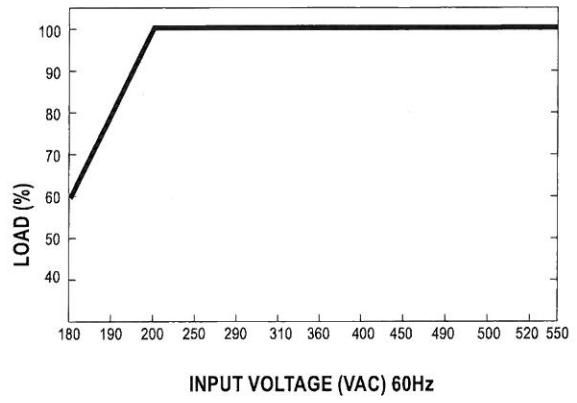
DC OK Relay Contact

Contact Close	PSU turns on / DC OK.
Contact Open	PSU turns off / DC Fail.
Contact Ratings (max.)	30V/1A resistive load.

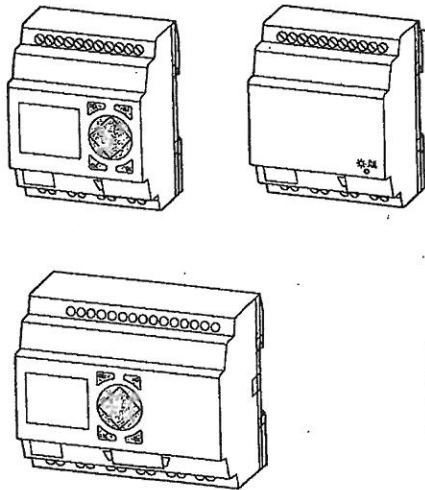
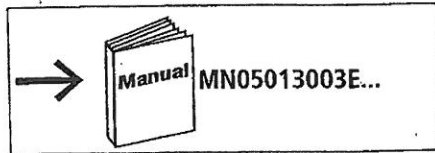
■ Derating Curve



■ Static Characteristics



EZ719-DC-RCX



Electric current! Danger to life!
 Only skilled or instructed persons may carry out the following operations.

The power supply units are mounting devices. The national regulations/specifications must be observed for the installation of the devices.

¡Corriente eléctrica! ¡Peligro de muerte!
 El trabajo a continuación descrito debe ser realizado por personas cualificadas y advertidas. Las fuentes de alimentación son aparatos de montaje. Para la instalación de los aparatos han de tenerse en cuenta las normativas/especificaciones a nivel local.

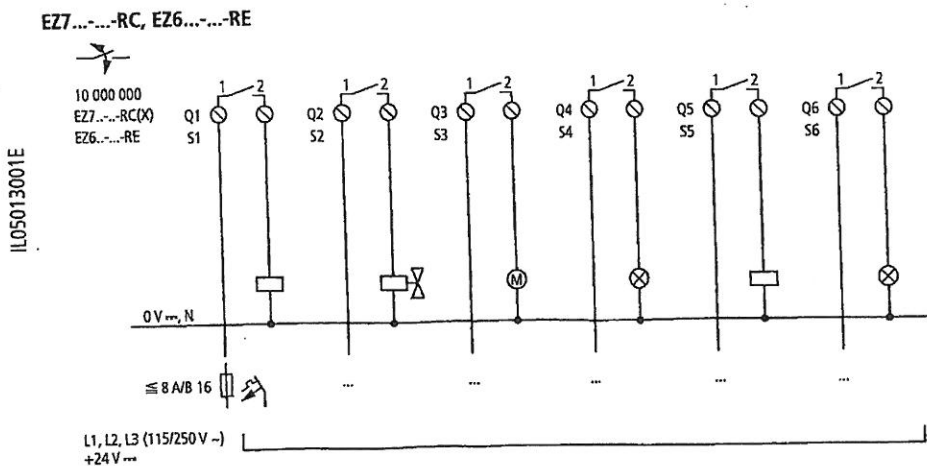
Tension électrique dangereuse !
 Seules les personnes qualifiées et averties doivent exécuter les travaux ci-après. Les blocs d'alimentation sont des appareils faisant partie intégrante d'une installation. Veuillez respecter les normes de mise en œuvre spécifiques aux différents pays.

Lebensgefahr durch elektrischen Strom!
 Nur Elektrofachkräfte und elektrotechnisch unterwiesene Personen dürfen die im Folgenden beschriebenen Arbeiten ausführen. Die Stromversorgungsgeräte sind Einbaugeräte. Beachten Sie für die Installation der Geräte die länderspezifischen Vorschriften.

Tensione elettrica: Pericolo di morte!
 Solo persone abilitate e qualificate possono eseguire le operazioni di seguito riportate. Gli alimentatori sono unità per montaggio interno. Per l'installazione degli apparecchi è necessario rispettare le normative specifiche di ciascun paese.

Standard connection, outputs – Conexión estándar, salidas – Raccordement standard, sorties – Standardanschluss, Ausgänge – Collegamento standard, uscite

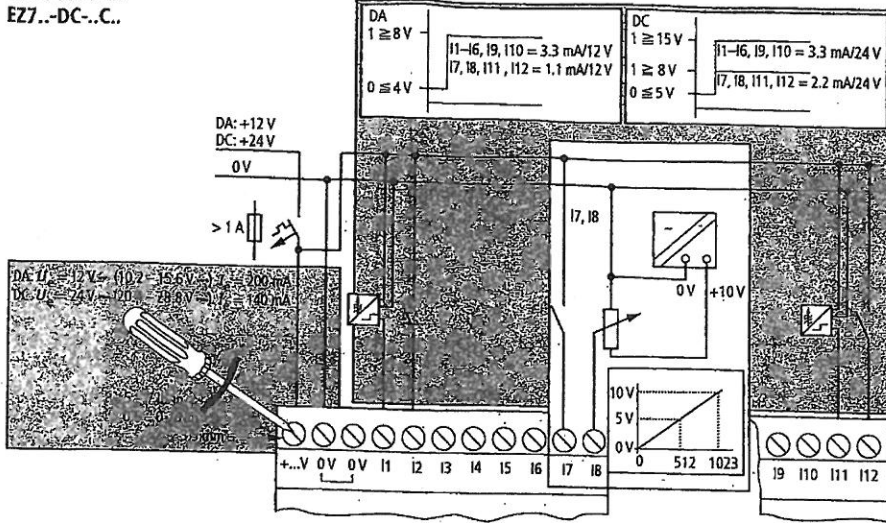
Relay outputs – Salidas con relé – Sorties à relais – Relais-Ausgänge – Uscite a relé



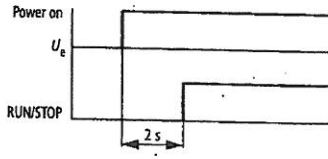
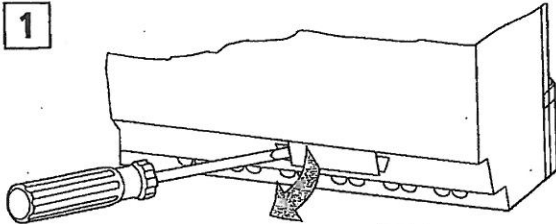
Standard connection, inputs – Conexión estándar, entradas – Raccordement standard, entrées – Standardanschluss, Eingänge – Collegamento standard, ingressi

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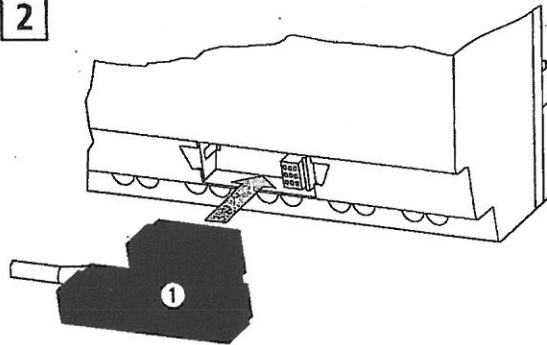
EZ7...DA...C..
EZ7...DC...C..



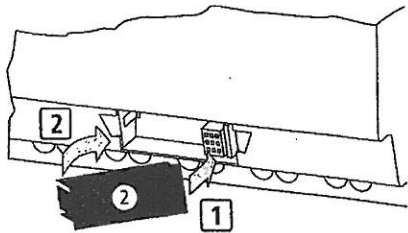
1



2



3



IL05013001E



EZ...-AC...

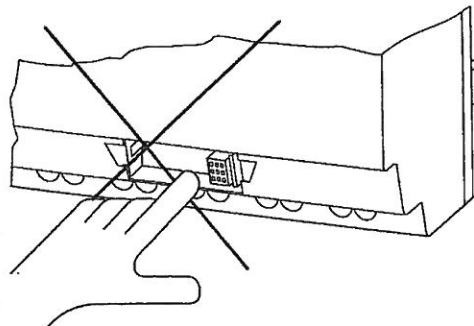
When operating with 115/230 V keep interface closed!

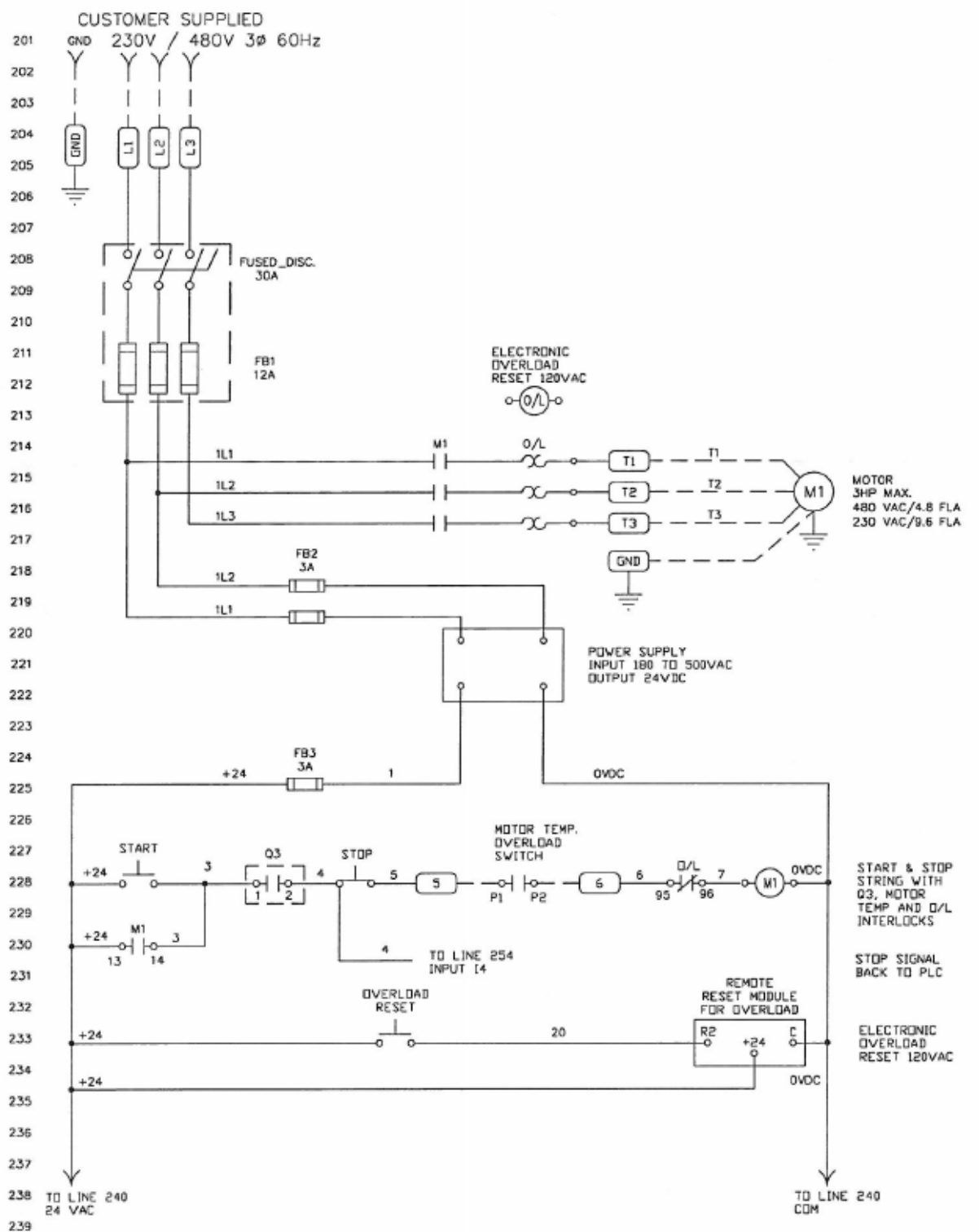
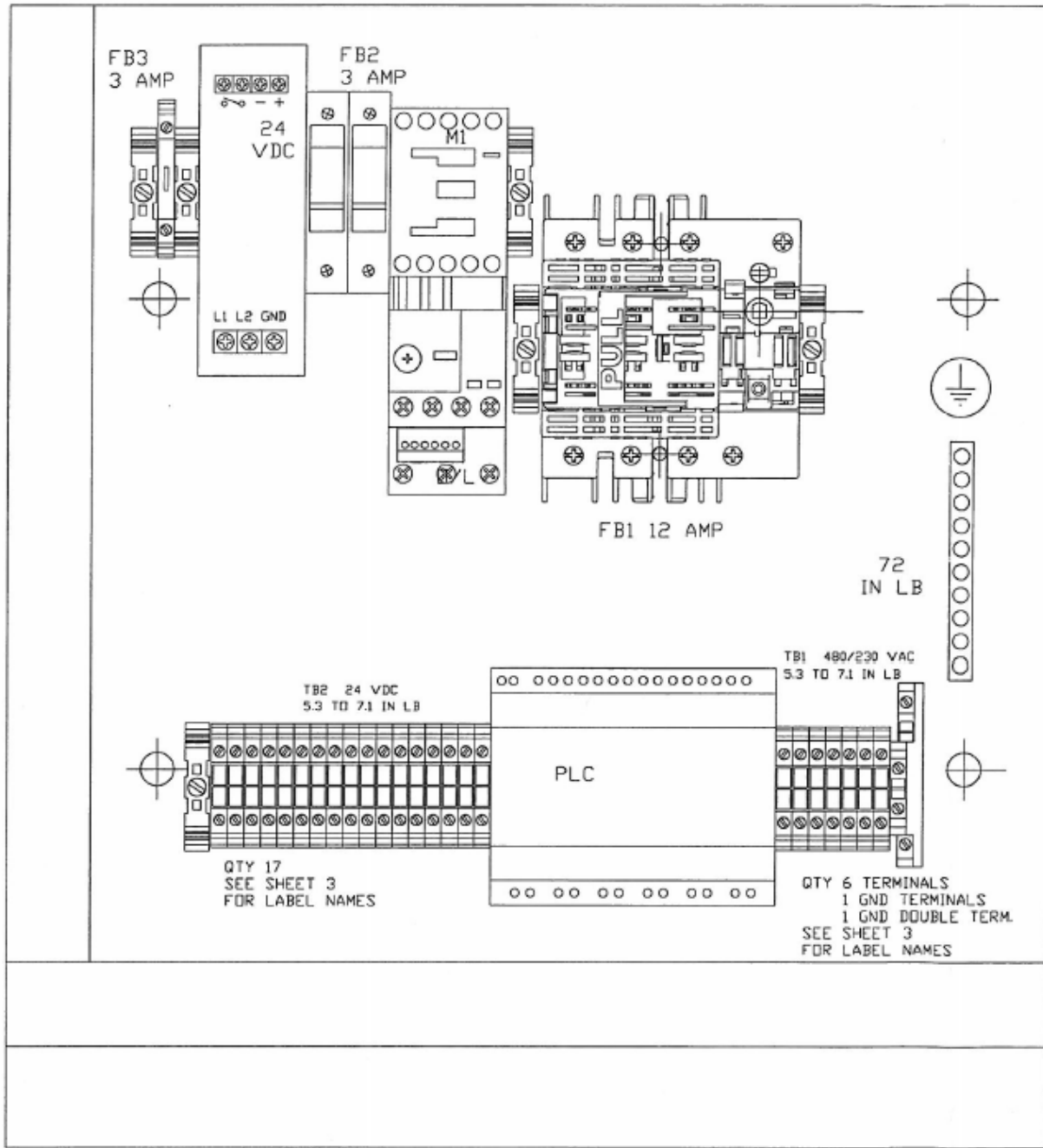
¡Mantener interfaz cerrado con accionamiento a 115/230 V!

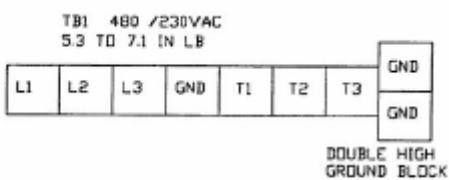
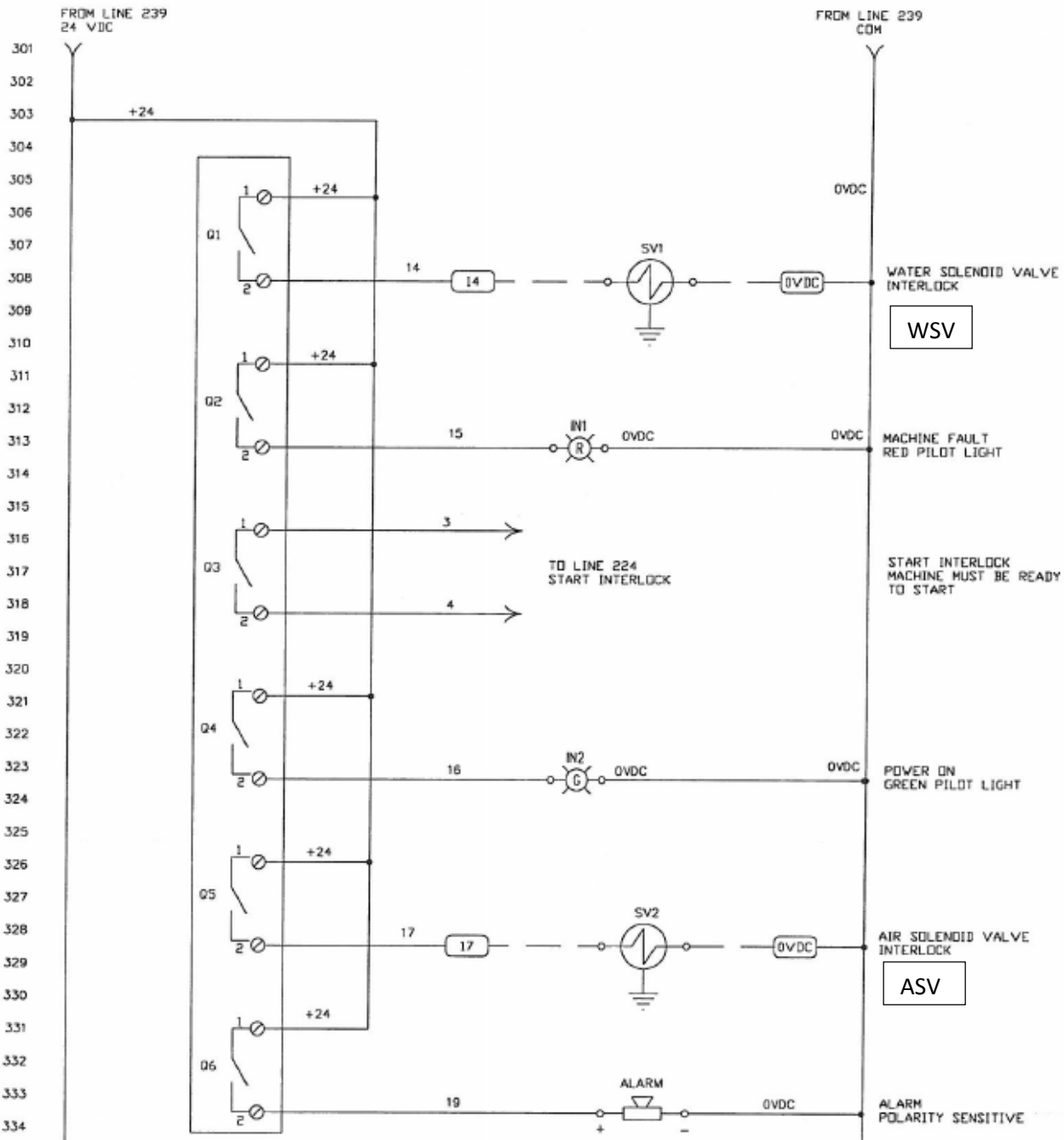
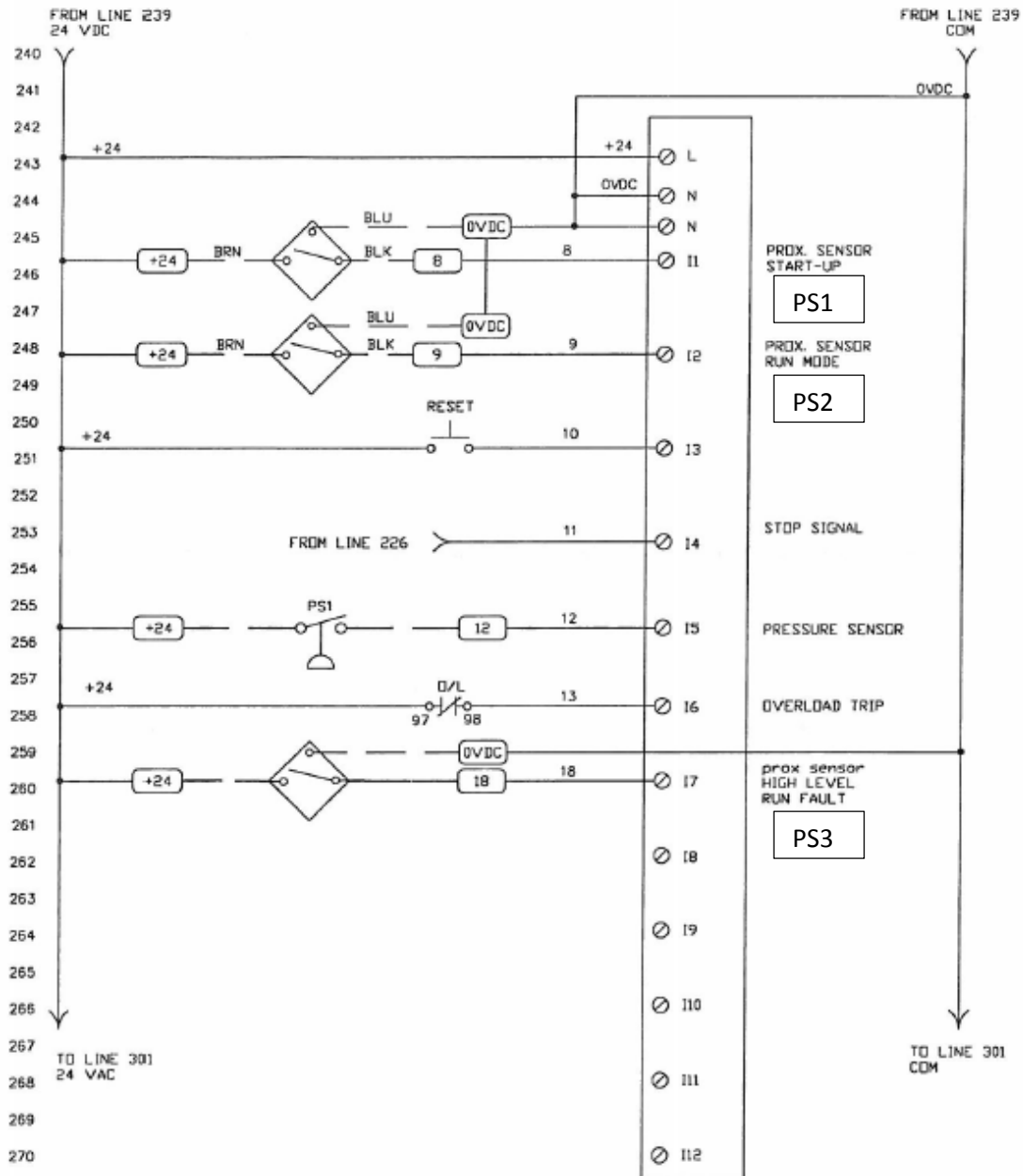
En cas de fonctionnement sous 115/230 V, s'assurer que l'emplacement destiné à la cartouche mémoire et au câble PC soit obturé afin d'éviter tout danger!

Schnittstelle bei Betrieb mit 115/230 V geschlossen halten!

Tenere chiusa l'interfaccia per il funzionamento con 115/230 V!







KJ ELECTRIC
Industrial Control Panel Div.
8804 East Motory Road
Syracuse, New York 13211
Tel: 315-454-5535
Fax: 315-454-5584
www.kjelectric.com

Panel # P-1257 Drawing # P1957-1 TO-3

Supply 1 480 VAC 60 HZ 3 PH 10 FLA SCCR 10 KA
Supply 2 230 VAC 60 HZ 3 PH 10 FLA SCCR 10 KA

FLA of Largest Motor 30 Amps

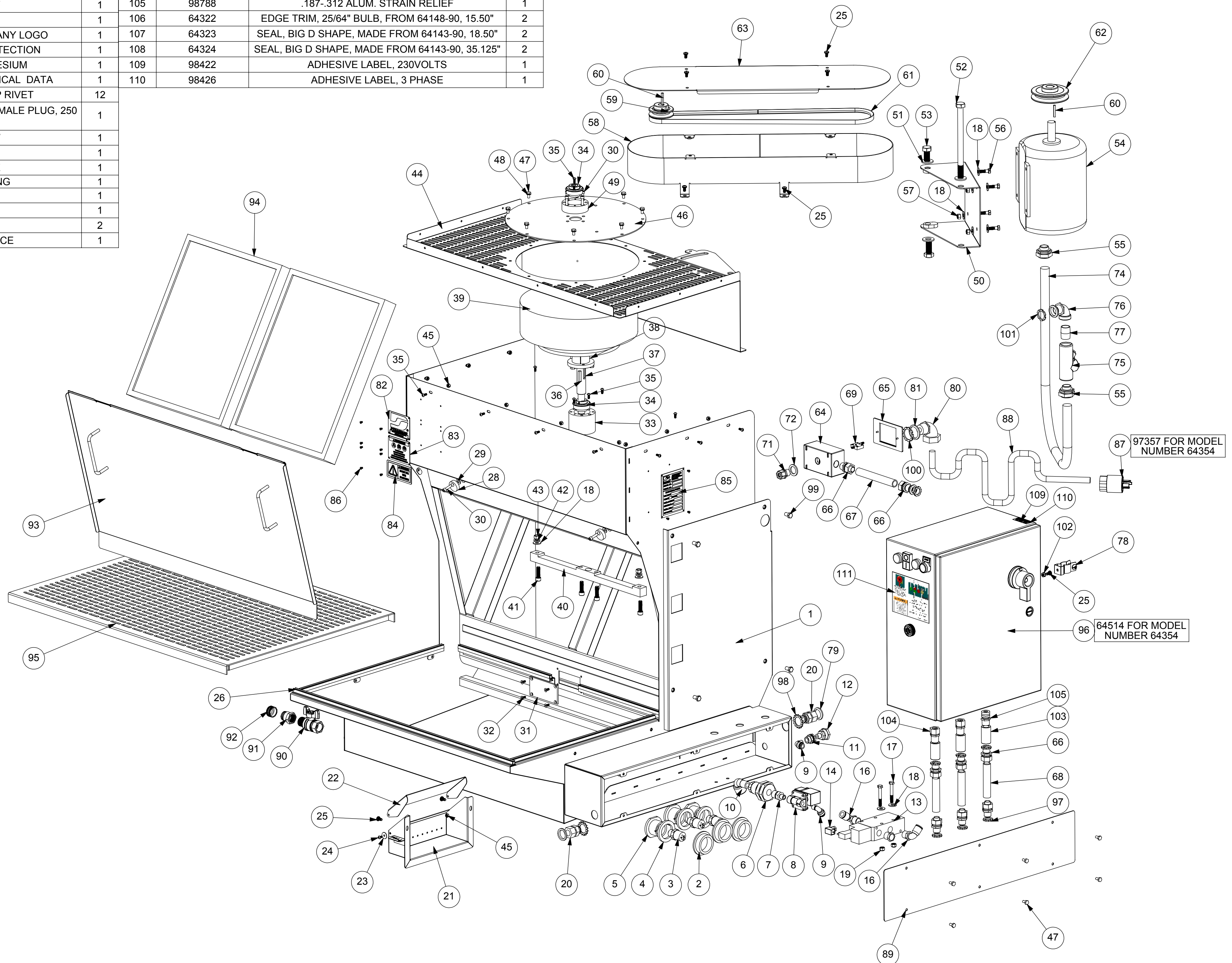
Control Volts 24 DC Enclosure Type Nema1 12

Build Date: 04/15/2013

BOM Table			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	64351	MAIN TANK	1
2	97369	BULKHEAD NUT	3
3	97200	Liquid Level Sensor	3
4	97423	BULKHEAD GASKET	3
5	97738	SENSOR BULKHEAD	3
6	97413	Bulk Head	1
7	97333	REDUCER, 1/2 NPT MALE TO 1/4 NPT MALE	1
8	97448	SOLENOID VALVE	1
9	97332	QUICK CONNECT 90°, 3/8 OD TUBE X 1/4" NPT	2
10	97415	Fitting 1/2", 90 Degree Elbow, Fem X Male	1
11	97313	BULKHEAD, 1/4 NPT X 1/4 NPT	1
12	97360	3/4" FEMALE GHT TO 1/4" MALE NPT SWIVEL	1
13	98523	3-WAY SOLENOID VALVE	1
14	98525	COIL CONNECTOR	1
15	98533	.50 NPT BREATHER VENT	1
16	98534	.50 NPT QUICK CONNECT, 90 DEG SWIV.	2
17	97033	Hex Head Cap Screw 5/16"-24 Thread, 2-1/4"	2
18	95183	5/16 WASHER	12
19	97127	Nylon-Insert Hex Locknut 5/16"-24	2
20	98522	Through-Wall Cplg for 1/2" Tube OD X 1/2" NPT	2
21	64382	ISOLATION CHAMBER	1
22	64368	IC LID	1
23	97370	#10 WASHER	2
24	97377	10-32 x 3/8" BHSCS	2
25	97192	1/4-20 x 1/2" BHMS/INTERNAL LOCK WASHER	11
26	64319	EDGE TRIM, 25/64" BULB	1
27	64353	EDGE TRIM, 25/64" BULB, MADE FROM 64148-90, 23"	2
28	64164	LOCKING CAM	2
29	95935	1/4" WASHER	4
30	97668	1/4 -20 X 1" SHCS	6
31	64312	SCROLL WINDOW SIGHT	1
32	97239	10-32 X 1/2 FSHCS	4
33	64499	BEARING SUPPORT HUB	1
34	98931	ER Bearing	2
35	97673	10-32 x 1/2" BHSCS	18
36	98511	.25 X .25 X 1.25 SQ.KEY	1
37	64395	Drive Shaft	1
38	98930	SPLIT TAPER BUSHING	1
39	98928	IMPELLER	1
40	64399	Lower Bearing Arm	1
41	98516	Socket Head Cap Screw 3/8"-16 Thread, 1-1/4"	4
42	95044	3/8 LOCK WASHER	2
43	97217	3/8" HEX NUT	2
44	64392	HOOD/EXHAUST	1
45	97177	10-32 LOCKNUT	12
46	64393	Fan Assemby Plate	1
47	95206	3/8-16 x 5/8" HEX HEAD BOLT, ZINC	14
48	95167	1/4" LOCK WASHER	8
49	64394	BEARING SUPPORT HUB	1
50	64371	MOTOR MOUNT PLATE	1
51	98514	Flat Washer SAE, 5/8"	5
52	98517	HHCS 5/8"-11 Thread, 8-1/2" Length	1
53	98512	Hex Head Cap Screw 5/8"-11	2
54	64391	Explosion Proof Motor	1
55	98942	Liquid Tight Conduit Fitting, Straight	2
56	95036	Hex Head Cap Screw 5/16"-18 Thread, 1-1/4"	4
57	64239	Nylon-Insert Hex Locknut 5/16"-18	4
58	64389	PULLY GUARDING	1
59	97409	Pulley	1
60	97460	CHAMFER KEY	2
61	97428	PULLEY BELT	1
62	97408	Pulley	1
63	64390	BELT GUARD COVER	1
64	68015	WEATHERPROOF J-BOX, SINGLE DEVICE	1
65	98519	SINGLE DEVICE COVER	1
66	98725	1/2" STRAIGHT CONDUIT CONNECT	8
67	98403-01	1/2" CONDUIT	1
68	98403-01	1/2" CONDUIT	3
69	98535	PRESSURE SWITCH	1
70	97450	INSULATED FEMALE BARREL TERMINAL	2

BOM Table			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
71	98700	STRAIN RELIEF	1
72	97386	RUBBER WASHER	1
73	98751	1/2" SEALING RING	1
74	98944-01	3/4" CONDUIT	1
75	98938	ENY SEALING FITTING	1
76	98937	90 DEGREE ELBOW	1
77	98939	3/4 x 1 3/8" NPT NIPPLE	1
78	97163	Conduit Hanger	1
79	98936	1/2" SEALING RING	3
80	97353	90 DEGREE ELBOW	1
81	97356	1/2" SEALING RING	1
82	66084	DESCRIPTION PLATE, COMPANY LOGO	1
83	64930	WARNING LABEL, EYE PROTECTION	1
84	97102	WARNING LABEL, MAGNESIUM	1
85	65059	DESCRIPTIVE PLATE, ELECTRICAL DATA	1
86	97062	1/8" ALUMINUM BLIND POP RIVET	12
87	97185	TURN-LOCK DEVICE NEMA L15-20, MALE PLUG, 250 VAC, 20 Amp	1
88	97352	CORD, 12/4 SEOW	1
89	64397	COVER	1
90	98542	BRASS BALL VALVE	1
91	98543	GARDEN HOSE FITTING	1
92	97362	GH CAP/GASKET	1
93	64308	ACCESS PANEL	1
94	64311	MIST TRAP	2
95	64352	26 X 36" WORK SURFACE	1

BOM Table			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
96	64515	HYBRID CONTROL BOX, 4-20A	1
97	98746	1/2" LOCK NUT	7
98	97429	External-Tooth Lock Washer 1"	2
99	95182	3/8-16 x 5/8" HEX HEAD BOLT, ZINC	4
100	97354	1/2" LOCK NUT	1
101	98746	1/2" LOCK NUT	1
102	97459	1-4 20 STAR LOCK NUT	1
103	97203	COUPLER, 1/2" NPT X 1 5/16, FEM	3
104	97430	.187-.312 ALUM. STRAIN RELIEF	2
105	98788	.187-.312 ALUM. STRAIN RELIEF	1
106	64322	EDGE TRIM, 25/64" BULB, FROM 64148-90, 15.50"	2
107	64323	SEAL, BIG D SHAPE, MADE FROM 64143-90, 18.50"	2
108	64324	SEAL, BIG D SHAPE, MADE FROM 64143-90, 35.125"	2
109	98422	ADHESIVE LABEL, 230VOLTS	1
110	98426	ADHESIVE LABEL, 3 PHASE	1



Q	5280	8/14/2013	TEF		DESIGN CHANGE
REV.	ECN	DATE	DRW	CHK'D	APPR

REVISIONS

DESCRIPTION

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES: EXCEPT AS NOTED		PROJECT NUMBER: 06V002		PROJECT NAME: 36" METAL FINISH STAT		MATERIAL: 36" METAL FINISH STAT		FINISH:	
DRAWN: TEF		DATE: 8/1/2013		CHECKED:		DATE:		APPROVED:	
SHEET: 1 OF 1		SIZE: D		DRAWING NUMBER: 64350-00		SCALE: 1:7		REV: Q	