

Airablo

(RELÂCHEUR / RELEASER)



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Toutes nos félicitations ! Votre choix prouve que vous aimez les équipements de haute technologie et les machines bien conçues. En effet, vous avez acheté l'un des équipements technologiques les plus avancés, soigneusement construit conformément aux normes les plus strictes du secteur. Il sera utile longtemps avec ses différentes applications. Cependant, nous vous conseillons de lire et de suivre scrupuleusement les instructions suivantes.

Congratulations! Your choice proves of your liking for high technology equipment and well designed machines. Indeed, you have purchased one of the most advanced technology equipment, carefully built in accordance with the highest standards of the industry. It will be of service a long time with its various applications. However, we advise you read and follow scrupulously the following instructions.

Comment ça marche

Une fois que le niveau de sève atteint la hauteur désirée, soit l'électrode, la fote ou la sonde capacitive active le commutateur pour démarrer la pompe. Après le pompage de la sève, le contrôle arrête la pompe

How does it work

Once sap level reaches the desired height, the electrode activates the switch to start the pump. After the sap is pumped-out, the electrode at the middle stops the pump

Installation

-L'extracteur doit être installé à une température ambiante d'au moins 1 ° C. Dans le cas contraire, le réservoir devra être drainé tous les jours.

-L'extracteur doit être nivelé correctement

Installation

-The extractor should be installed where ambient temperature is at least 1 deg C. Otherwise, the reservoir

will need to be drained everyday.

-Extractor need to be levelled properly

Exigences de branchement

-La pompe à vide doit être sélectionnée en fonction du nombre de prises.

-Utilisez des tuyaux en PVC ou en ABS. Taille en fonction de la pompe à vide (1 ½ ", 2 ", 2 ½ ", 3 ")

-Le régulateur de vide doit être installé entre la pompe à vide et la trappe d'humidité.

-Pour les pompes refroidies à l'huile uniquement, un séparateur d'humidité / de sève doit être installé entre la pompe à vide et l'extracteur pour une protection contre les inondations et éviter l'accumulation de sucre.

Hook-Up Requirements

- Vacuum pump to be selected according to number of taps.
- Use PVC or ABS pipe. Size depending on vacuum pump (1 ½'',2'',2 ½'',3'')
- Vacuum regulator must be installed between vacuum pump & extractor.
- For oil cooled pumps only, a humidity/Sap trap must be installed between vacuum pump & extractor for protection against flooding & avoid sugar build-up.

Entretien

Pré-saison:

- Inspecter : interrupteurs, fissures, pièces mobiles, flexibles, raccords et collets, o-ring etc.

En saison:

- Enlevez les couvercles transparents et nettoyez complètement l'extracteur avec du savon à vaisselle et une solution aqueuse.
- Rincer
- Ouvrir la valve de vidange pour éviter le gel
- Évitez toute source de chaleur à proximité de composants en plastique

Maintenance

Pre-season:

- Inspect: switch, cracks, mobile parts, hoses, fittings & clamps, covers gaskets, etc...

During season:

- Remove clear covers and clean entire extractor thoroughly with dish soap and water solution.
- Rinse
- Drain water pump to avoid freezing
- Avoid heating source near-by plastic components

Filtre anti-particules:

Votre déclencheur est équipé d'un filtre anti-particules à plaques. Une vérification régulière du filtre est nécessaire afin d'éviter toute obstruction par des corps étrangers.

Anti-particle filter:

Your releaser is equipped with a plate anti-particle filter. A regular verification of the filter is necessary in order to prevent foreign material obstruction.

9.3 Tableau de dépannage

| Problème | Cause possible et comment vérifier | Solution possible |
|--------------------------------|---|---|
| 1. La pompe ne fonctionne pas. | a) Pas d'alimentation au panneau de commande de la pompe. Procédure de contrôle : Vérifier la tension du panneau de commande. | S'il n'y a aucune tension sur le panneau de commande, vérifier si des circuits ont été déclenchés sur le panneau d'alimentation. |
| | b) Les fusibles ont sauté ou les disjoncteurs se sont déclenchés. Procédure de contrôle : Retirer les fusibles et vérifier la continuité avec un ohmmètre. | Remplacer les fusibles grillés ou réenclencher le disjoncteur. Si de nouveaux fusibles sautent ou si le disjoncteur se déclenche, l'installation électrique et le moteur doivent être vérifiés. |
| | c) Les surcharges de démarrage du moteur sont épuisées ou ont disjoncté (triphase uniquement). Procédure de contrôle : Vérifier la tension sur la ligne ou sur le côté de charge du démarreur du moteur. | Remplacer les appareils de chauffage grillés ou réinitialiser. Vérifier si le démarreur a subi d'autres dommages. Si l'appareil de chauffage se déclenche de nouveau, vérifier la tension d'alimentation et la bobine de maintien du démarreur. |
| | d) Le démarreur ne s'enclenche pas (triphase uniquement). Procédure de contrôle : Enclencher le circuit de commande et vérifier la tension sur la bobine de maintien. | S'il n'y a aucune tension, vérifier le circuit de commande. S'il y a de la tension, vérifier les courts-circuits sur la bobine de maintien. Remplacer la bobine défectueuse. |
| | e) Les commandes sont défectueuses. Procédure de contrôle : Vérifier le fonctionnement de tous les commutateurs de sécurité et de pression. Inspecter les contacts dans les dispositifs de commande. | Remplacer les pièces usées ou défectueuses. |
| | f) Le moteur ou le câble est défectueux. Procédure de contrôle : Couper l'alimentation. Débrancher les câbles conducteurs de moteur du boîtier de commande. Mesurer les résistances "conducteur à conducteur", avec l'ohmmètre (Rx1). Mesurer les valeurs "masse à conducteur" avec un ohmmètre (Rx100K). Enregistrer les valeurs mesurées. | Si le bobinage moteur ouvert ou la masse sont trouvés, sortir la pompe du puits et vérifier à nouveau les valeurs à la surface. Réparer ou remplacer le moteur ou le câble. |
| | g) Le condensateur est défectueux (monophasé uniquement). Procédure de contrôle : Couper l'alimentation, puis décharger le condensateur. Vérifier avec un ohmmètre (Rx100K). Lorsque l'ohmmètre est branché, l'aiguille doit faire un bond en avant et revenir lentement. | Si l'aiguille de l'ohmmètre reste immobile, remplacer le condensateur. |

| Problème | Cause possible et comment vérifier | Solution possible |
|---|--|---|
| 2. La pompe tourne mais ne fournit pas d'eau. | a) Le niveau de l'eau souterraine dans le puits est trop bas ou le puits est endommagé. Procédure de contrôle : Vérifier l'abaissement de la nappe du puits. En cours de fonctionnement, le niveau d'eau doit être d'au moins de trois pieds au-dessus de l'interconnexion d'aspiration. | Si, en cours de fonctionnement, le niveau de l'eau n'est pas au moins de trois pieds au-dessus de l'interconnexion d'aspiration, lorsque cela est possible, abaisser la pompe, ou bien resserrer le robinet de déchargement et installer un régulateur de niveau d'eau. |
| | b) La vanne de contrôle intégral de la pompe est bloquée. Procédure de contrôle : Comparer les performances de la pompe à la courbe de celle-ci. Voir paragraphe 9.2 <i>Vérification des performances de la pompe</i> . | Si la pompe ne fonctionne pas de façon semblable à la courbe de pompe, sortir la pompe du puits et inspecter la section de refoulement. Éliminer l'obturation, réparer la vanne et le siège de soupape, si nécessaire. Vérifier d'autres dommages éventuels. Rincer la pompe et la réinstaller. |
| | c) La crépine d'aspiration est obstruée. Procédure de contrôle : Comparer les performances de la pompe à la courbe de celle-ci. Voir paragraphe 9.2 <i>Vérification des performances de la pompe</i> . | Si la pompe ne fonctionne pas de façon semblable à la courbe de pompe, sortir la pompe du puits et l'inspecter. Nettoyer la crépine d'aspiration, vérifier si le clapet antiretour intégral est bloqué, rincer la pompe et la réinstaller. |
| | d) La pompe est endommagée. Procédure de contrôle : Comparer les performances de la pompe à la courbe de celle-ci. Voir paragraphe 9.2 <i>Vérification des performances de la pompe</i> . | Si la pompe est endommagée, réparer si nécessaire. Rincer la pompe et la réinstaller. |
| 3. La pompe fonctionne à débit réduit. | a) Le sens de rotation est incorrect (triphase uniquement). Procédure de contrôle : Vérifier le branchement électrique dans le panneau de commande. | Modifier le câblage et remplacer les conducteurs, comme requis. |
| | b) L'abaissement de la nappe est plus important que prévu. Vérifier l'abaissement de la nappe pendant le fonctionnement de la pompe. | Abaissier la pompe, si possible. Dans le cas contraire, resserrer le robinet de déchargement et installer un régulateur de niveau d'eau. |
| | c) Des fuites sont constatées au niveau de la tuyauterie de refoulement ou du robinet. Procédure de contrôle : Examiner s'il y a des fuites dans le système. | Réparer les fuites. |
| | d) La crépine d'aspiration de la pompe ou le clapet anti-retour sont obstrués. Procédure de contrôle : Comparer les performances de la pompe à la courbe de celle-ci. Voir paragraphe 9.2 <i>Vérification des performances de la pompe</i> . | Si les performances de la pompe ne sont pas à semblables à la courbe de pompe, sortir la pompe du puits et l'inspecter. Nettoyer la crépine, vérifier si le clapet antiretour intégral est bloqué, rincer la pompe et la réinstaller. |
| | e) La pompe est usée. Procédure de contrôle : Comparer les performances de la pompe à la courbe de celle-ci. Voir paragraphe 9.2 <i>Vérification des performances de la pompe</i> . | Si les performances de la pompe ne sont pas semblables de la courbe de pompe, sortir la pompe du puits et l'inspecter. |

| Problème | Cause possible et comment vérifier | Solution possible |
|---|---|--|
| 4. Les cycles de la pompe sont trop importants. | a) Le commutateur manométrique est défectueux ou mal réglé. Procédure de contrôle : Vérifier le réglage et le fonctionnement du commutateur. Vérifier la tension entre les contacts fermés. | Réajuster le commutateur ou le remplacer en cas de défectuosité. |
| | b) Le contrôle de niveau n'est pas réglé correctement ou est défectueux. Procédure de contrôle : Vérifier le réglage et le fonctionnement. | Réajuster le réglage (voir les données du fabricant). Remplacer le contrôle de niveau s'il est défectueux. |
| | c) La pression est insuffisante dans le réservoir à diaphragme ou une fuite est constatée dans le réservoir ou la tuyauterie. Procédure de contrôle : Pomper de l'air dans le réservoir ou dans la chambre à diaphragme. Vérifier l'absence de fuites au niveau du diaphragme. Vérifier les fuites éventuelles dans le réservoir et la tuyauterie à l'aide d'une solution d'eau et de savon. Vérifier l'air pour le volume d'eau. | Réparer ou remplacer les pièces endommagées. |
| | d) La vanne reniflard ou l'orifice de purge sont bouchés. Procédure de contrôle : Vérifier si la vanne et l'orifice sont sales ou corrodés. | Nettoyer ou remplacer la vanne reniflard ou l'orifice de purge en cas de défectuosité. |
| | e) Le réservoir est trop petit. Procédure de contrôle : Vérifier la dimension du réservoir. Nous recommandons que le volume du réservoir soit d'environ 10 gallons pour chaque gpm ou bien de la capacité de la pompe. | Si le réservoir est trop petit, le remplacer par un réservoir de taille appropriée. |

4. Keypad and Programming Functions

4.1 LCD Keypad

4.1.1 Keypad Display and Keys



| DISPLAY | Description |
|-----------------------|---|
| LCD Display | Monitor inverter signals, view / edit parameters, fault / alarm display. |
| LED INDICATORS | |
| FAULT | LED ON when a fault or alarm is active. |
| FWD | LED ON when inverter is running in forward direction, flashing when stopping. |
| REV | On when inverter is running in reverse direction, flashing when stopping. |
| SEQ | LED ON when RUN command is from the external control terminals or from serial communication |
| REF | LED ON when Frequency Reference command is from the external control terminals or from serial communication |

| KEYS (8) | Description |
|--------------|---|
| RUN | RUN Inverter in Local Mode |
| STOP | STOP Inverter |
| ▲ | Parameter navigation Up, Increase parameter or reference value |
| ▼ | Parameter navigation Down, Decrease parameter or reference value |
| FWD/REV | Used to switch between Forward and Reverse direction |
| DSP/FUN | Used to scroll to next screen Frequency screen →Function selection→Monitor parameter |
| ◀ / RESET | Selects active seven segment digit for editing with the ▲▼ keys Used to reset fault condition. |
| READ / ENTER | Used to read and save the value of the active parameter |

Auto-Repeat Keys

Holding the ▲UP or ▼DOWN key for a longer period of time will initiate the auto-repeat function resulting in the value of the selected digit to automatically increase or decrease.

Note: HOA LCD keypad is available as an option.






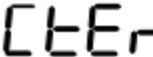

Table 10.2.1 Fault information and possible solutions

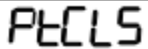



| LED display | Description | Cause | Possible solutions |
|---------------------|---|---|---|
| OC over current | The inverter output current exceeds the overcurrent level (200% of the inverter rated current). | <ul style="list-style-type: none"> Acceleration / Deceleration time is too short. Contactors at the inverter output side. A special motor or applicable capacity is greater than the inverter rated value. Short circuit or ground fault. | <ul style="list-style-type: none"> Extend acceleration / deceleration time. Check the motor wiring. Disconnect motor and try running inverter. |
| OC | | | |
| SC short circuit | Inverter output short circuit or ground fault. | <ul style="list-style-type: none"> Short circuit or ground fault (08-23 = 1). Motor damaged (insulation). Wire damage or deterioration. | <ul style="list-style-type: none"> Check the motor wiring. Disconnect motor and try running inverter. |
| SC | | | |
| GF Ground fault | The current to ground exceeds 50% of the inverter rated output current (08-23 = 1, GF function is enabled). | <ul style="list-style-type: none"> Motor damaged (insulation). Wire damage or deterioration. Inverter DCCT sensors defect. | <ul style="list-style-type: none"> Replace motor. Check the motor wiring. Disconnect motor and try running inverter. Check resistance between cables and ground. Reduce carrier frequency. |
| GF | | | |

| LED display | Description | Cause | Possible solutions |
|-----------------------|--|---|--|
| OV Over voltage | DC bus voltage exceeds the OV detection level: 410Vdc: 230V class 20Vdc: 460V class (For 440V class, if input voltage 01-14 is set lower than 460V, the OV detection value will be decreased to 700Vdc). | <ul style="list-style-type: none"> Deceleration time set too short, resulting in regenerative energy flowing back from motor to the inverter. The inverter input voltage is too high. Use of power factor correction capacitors. Excessive braking load. Braking transistor or resistor defective. Speed search parameters set incorrectly. | <ul style="list-style-type: none"> Increase deceleration time Reduce input voltage to comply with the input voltage requirements or install an AC line reactor to lower the input voltage. Remove the power factor correction capacitor. Use dynamic braking unit. Replace braking transistor or resistor. Adjust speed search parameters. |
| OU | | | |
| UV Under voltage | DC bus voltage is lower than the UV detection level or the pre-charge contactor is not active while the inverter is running. 190Vdc: 230V class; 380Vdc: 460V class (The detection value can be adjusted by 07-13). | <ul style="list-style-type: none"> The input voltage is too low. Input phase loss. Acceleration time set too short. Input voltage fluctuation. Pre-charge contactor damaged. DC bus voltage feedback signal value not correct. | <ul style="list-style-type: none"> Check the input voltage. Check input wiring. Increase acceleration time. Check power source Replace pre-charge contactor Replace control board or complete inverter. |
| UU | | | |
| IPL input phase loss | Phase loss at the input side of the inverter or input voltage imbalance, active when 08-09 = 1 (enabled). | <ul style="list-style-type: none"> Wiring loose in inverter input terminal. Momentary power loss. Input voltage imbalance. | <ul style="list-style-type: none"> Check input wiring / faster screws. Check power supply. |
| IPL | | | |
| OPL output phase loss | Phase loss at the output side of the inverter, active when 08-10 = 1 (enabled). | <ul style="list-style-type: none"> Wiring loose in inverter output terminal. Motor rated current is less than 10% of the inverter rated current. | <ul style="list-style-type: none"> Check output wiring / faster screws. Check motor & inverter rating. |
| OPL | | | |
| OH1 Heatsink overheat | The temperature of the heat sink is too high. Note: when OH1 fault occurs three times within five minutes, it is required to wait 10 minutes before resetting the fault. | <ul style="list-style-type: none"> Ambient temperature too high. cooling fan failed Carrier frequency set too high. Load too heavy. | <ul style="list-style-type: none"> Install fan or AC to cool surroundings. Replace cooling fan. Reduce carrier frequency. Reduce load / Measure output current |
| OH1 | | | |
| OL1 Motor overload | Internal motor overload protection tripped, active when protection curve 08-05 = xxx1. | <ul style="list-style-type: none"> Voltage setting V/F mode too high, resulting in over-excitation of the motor. Motor rated current (02-01) set incorrectly. Load too heavy. | <ul style="list-style-type: none"> Check V/f curve. Check motor rated current Check and reduce motor load, check and operation duty cycle. |
| OL1 | | | |

| LED display | Description | Cause | Possible solutions |
|--|---|--|--|
| OL2 Inverter overload | Inverter thermal overload protection tripped. | <ul style="list-style-type: none"> • Voltage setting V/F mode too high, resulting • Over-excitation of the motor. • Inverter rating too small. • Load too heavy. | <ul style="list-style-type: none"> • Check V/f curve. • Replace inverter with larger rating. • Check and reduce motor load, check and operation duty cycle. |
| OL2 | If an inverter overload occurs 4 times in five minutes, it is required to wait 4 minutes before resetting the fault. | | |
| OT Over torque detection | Inverter output torque is higher than 08-15 (over torque detection level) for the time specified in 08-16. Parameter 08-14 = 0 to activate. | <ul style="list-style-type: none"> • Load too heavy. | <ul style="list-style-type: none"> • Check over torque detection parameters (08-15 / 08-16). • Check and reduce motor load, check and operation duty cycle. |
| OT | | | |
| UT Under torque detection | Inverter output torque is lower than 08-19 (under torque detection level) for the time specified in 08-20. Parameter 08-18 = 0 to activate. | <ul style="list-style-type: none"> • Sudden drop in load. • Belt break. | <ul style="list-style-type: none"> • Check under torque detection parameters (08-19 / 08-20). • Check load / application. |
| UT | | | |
| CE communicatio n error | No Modbus communication received in for the time specified in 09-06 (communication error detection time). Active when 09-07(= 0 to 2). | <ul style="list-style-type: none"> • Connection lost or wire broken. • Host stopped communicating. | <ul style="list-style-type: none"> • Check connection • Check host computer / software. |
| CE | | | |
| FB PID feedback loss | PID feedback signal falls below level specified in 10-12 (PID feedback loss | <ul style="list-style-type: none"> • Feedback signal wire broken • Feedback sensor broken. | <ul style="list-style-type: none"> • Check feedback wiring • Replace feedback sensor. |
| Fb | detection level) for the time specified in 10-13 (Feedback loss detection time). Active when parameter (10-11 = 2). | | |
| STO Safety switch | Inverter safety switches open. | <ul style="list-style-type: none"> • Terminal board Input F1 and F2 are not connected • 08-30 is set to 1: Coast to stop and digital input (58) is active. | <ul style="list-style-type: none"> • Check F1 and F2 connection |
| STO | | | |

| LED display | Description | • Possible causes | • Corrective action |
|-----------------------------|---|---|---|
| DEV Speed deviation | Inverter safety switches open. | <ul style="list-style-type: none"> When 08-30 is set to 0: Deceleration to stop, and digital input (58) is active. | <ul style="list-style-type: none"> Check if digital terminal (58) is active. |
| 551 | | | |
| EF1 External fault (S1) | External fault (Terminal S1) Active when 03-00= 25, and Inverter external fault selection 08-24=0 or 1. | <ul style="list-style-type: none"> Multifunction digital input external fault active. | <ul style="list-style-type: none"> Multi-function input function set incorrectly. Check wiring |
| EF1 | | | |
| EF2 External fault (S2) | External fault (Terminal S2) Active when 03-01= 25, and Inverter external fault selection 08-24=0 or 1. | | |
| EF2 | | | |
| EF3 External fault (S3) | External fault (Terminal S3) Active when 03-02= 25, and Inverter external fault selection 08-24=0 or 1. | | |
| EF3 | | | |
| EF4 External fault (S4) | External fault (Terminal S4) Active when 03-03= 25, and Inverter external fault selection 08-24=0 or 1. | | |
| EF4 | | | |
| EF5 External fault (S5) | External fault (Terminal S5) Active when 03-04= 25, and Inverter external fault selection 08-24=0 or 1. | | |
| EF5 | | | |
| EF6 External fault (S6) | External fault (Terminal S6) Active when 03-05= 25, and Inverter external fault selection 08-24=0 or 1. | | |
| EF6 | | | |
| CF07 Motor control fault | Motor control fault | <ul style="list-style-type: none"> SLV mode unable to run motor. | <ul style="list-style-type: none"> Perform rotational or stationary auto-tune Increase minimum output frequency (01-08) |
| CF07 | | | |
| FU fuse open | DC bus fuse blown DC fuse (Models 230V 50HP and above, 460V 75HP and above) open circuit. | <ul style="list-style-type: none"> IGBT damaged. Short circuit output terminals. | <ul style="list-style-type: none"> Check IGBTs Check for short circuit at inverter output. Replace inverter. |
| Fu | | | |

| LED display | Description | • Possible causes | • Corrective action |
|---|---|---|--|
| LOPBT Low flow fault  | Low flow fault | <ul style="list-style-type: none"> The feedback signal is disconnected. Feedback value is lower than minimum flow limit. | <ul style="list-style-type: none"> Check feedback signal connection. Check if feedback value is lower than minimum flow limit (23-51). |
| | | | |
| HIPBT High flow fault  | High flow fault | <ul style="list-style-type: none"> Feedback value is greater than maximum flow value. | <ul style="list-style-type: none"> Check feedback value Check if feedback value is lower than maximum flow limit (23-48). |
| | | | |
| LPBFT Low pressure fault  | Low pressure fault | <ul style="list-style-type: none"> The feedback signal is not connected. Feedback value is lower than minimum feedback value. | <ul style="list-style-type: none"> Check feedback signal connection. Check if feedback value is lower than minimum limit (23-15). |
| | | | |
| OPBFT High pressure fault  | High pressure fault | <ul style="list-style-type: none"> Feedback value is greater than maximum feedback value. | <ul style="list-style-type: none"> Check feedback signal connection. Check if feedback value is greater than maximum limit (23-12). |
| | | | |
| LSCFT Low suction fault  | Low suction fault | <ul style="list-style-type: none"> Low water flow or not enough suction Difference between setpoint and feedback value is too high. Output current is too low. | <ul style="list-style-type: none"> Check water flow Check feedback value Check output current |
| | | | |
| CF00 Operator Communication Error LCD display only* | LCD keypad data communication fault | <ul style="list-style-type: none"> No communication between LCD keypad and inverter for more than 5 seconds after power up. | <ul style="list-style-type: none"> Disconnect the keypad and then reconnect. Replace the control board Check keypad cable |
| | | | |
| CF01 Operator Communication Error 2 LCD display only* | LCD keypad data communication fault | <ul style="list-style-type: none"> Communication errors between LCD keypad and inverter for more than 2 seconds. | <ul style="list-style-type: none"> Disconnect the keypad and then reconnect. Replace the control board Check keypad cable |
| | | | |
| CT Fault  | Input voltage fault | <ul style="list-style-type: none"> Abnormal input voltage, too much noise or malfunctioning control board. | <ul style="list-style-type: none"> Check input voltage signal and the voltage on the control board. |
| | | | |
| Double Communication Error  | Both Profibus and Modbus communication selected | <ul style="list-style-type: none"> Two communication protocols are active simultaneously. | <ul style="list-style-type: none"> Select only one communication protocol. |
| | | | |

| LED display | Description | Possible causes | Corrective action |
|--|--|--|---|
| PTC Signal Loss  | Motor PTC Signal Loss detected. | <ul style="list-style-type: none"> Motor PTC disconnected for more for more than 10 seconds | <ul style="list-style-type: none"> Check if MT terminal and GND terminal are connected. |
| OPR Disconnection  | Run command is set to keypad operation (00-02=0). Operator was removed during running. Parameter 16-09 determines if the inverter stops or displays a fault. | <ul style="list-style-type: none"> The inverter set for keypad run (00-02=0), Warning of operator disconnected/ removed occurs. | <ul style="list-style-type: none"> Check if operator has removed. |
| FBLSS PID Feedback Signal Loss  | When 23-19 > 0, the inverter will display a fault when the feedback pressure falls below the operation pressure setting (23-02) x detection proportion of loss pressure (23-19) for the times specified in parameters (23-18). | <ul style="list-style-type: none"> Feedback loss (23-19) is enabled feedback signal falls below Feedback device broken wire or not connected properly. | <ul style="list-style-type: none"> Check if the proportion of loss pressure (23-19) is set correctly. Make sure feedback sensor is wired correctly and PID feedback signal reads correctly. |
| SC Short Circuit  | Inverter output short circuit. | <ul style="list-style-type: none"> Short circuit or ground fault (08-23=1) occurs from the damage to motor, insulation deterioration or wire break. | <ul style="list-style-type: none"> Check motor and wiring. |

| Problème | Cause possible et comment vérifier | Solution possible |
|---|--|---|
| 5. Les fusibles sautent ou les disjoncteurs se déclenchent. | a) La tension est trop basse ou trop élevée. Procédure de contrôle : Vérifier la tension du panneau de commande de la pompe. Si elle n'est pas comprise dans la plage de ± 10 %, vérifier la taille du câble et la longueur de course au panneau de commande de la pompe. | Si la taille du câble est correcte, contacter la compagnie d'électricité. Si ce n'est pas le cas, rectifier ou remplacer si nécessaire. |
| | b) Le déséquilibre de courant triphasé est trop élevé ou trop faible. Procédure de contrôle : Vérifier la consommation de courant sur chaque conducteur. Le déséquilibre doit être compris dans la plage de ± 5 %. | Si le déséquilibre de courant n'est pas compris dans la plage de ± 5 %, contacter la compagnie de fourniture d'électricité. |
| | c) Le câblage du boîtier de commande et des composants est incorrect ou défectueux (monophasé uniquement). Procédure de contrôle : Vérifier que les pièces du boîtier de commande correspondent à la liste des pièces. Vérifier que le câblage correspond au schéma de câblage. Vérifier si des câbles ou des bornes sont desserrés ou rompus. | Y remédier au besoin. |
| | d) Le condensateur est défectueux (monophasé uniquement). Procédure de contrôle : Couper l'alimentation, puis décharger le condensateur. Vérifier à l'aide d'un ohmmètre (Rx100K). Lorsque l'ohmmètre est branché, l'aiguille doit faire un bond en avant et revenir lentement. | Si l'aiguille de l'ohmmètre reste immobile, remplacer le condensateur. |
| | e) Le relais de démarrage est défectueux (certains types de monophasés uniquement). Procédure de contrôle : Vérifier la résistance de la bobine du relais au moyen d'un ohmmètre (Rx1000K). Vérifier l'usure des contacts. | Remplacer le relais de démarrage défectueux. |

Troubleshooting

-Problem: Sap reservoir stays full --> check for leaks/cracks, fittings, check valve

-Problem: Pump will not start --> check vacuum pump switch by activating manually

| Problem | Possible cause/how to check | Possible remedy |
|-----------------------|---|--|
| 1. Pump does not run. | a) No power at pump control panel. How to check: Check for voltage at control panel. | If no voltage at control panel, check feeder panel for tripped circuits. |
| | b) Fuses are blown or circuit breakers are tripped. How to check: Remove fuses and check for continuity with ohmmeter. | Replace blown fuses or reset circuit breaker. If new fuses blow or circuit breaker trips, the electrical installation and motor must be checked. |
| | c) Motor starter overloads are burnt or have tripped out (three-phase only). How to check: Check for voltage on line or load side of starter. | Replace burnt heaters or reset. Inspect starter for other damage. If heater trips again, check the supply voltage and starter holding coil. |
| | d) Starter does not energize (three-phase only). How to check: Energize control circuit and check for voltage at the holding coil. | If no voltage, check control circuit. If voltage, check holding coil for short circuits. Replace bad coil. |
| | e) Defective controls. How to check: Check all safety and pressure switches for operation. Inspect contacts in control devices. | Replace worn or defective parts. |
| | f) Motor and/or cable are defective. How to check: Turn off power. Disconnect motor leads from control box. Measure the lead-to-lead resistances with the ohmmeter (Rx1). Measure lead-to-ground values with ohmmeter (Rx100K). Record measured values. | If open motor winding or ground is found, pull pump from the well and recheck values at the surface. Repair or replace motor or cable. |
| | g) Defective capacitor (single-phase only). How to check: Turn off the power, then discharge capacitor. Check with an ohmmeter (Rx100K). When meter is connected, the needle should jump forward and slowly drift back. | If there is no ohmmeter needle movement, replace the capacitor. |

Troubleshooting

| Problem | Possible cause/how to check | Possible remedy |
|--|--|--|
| 2. Pump runs but does not deliver water. | a) Integral pump check valve is blocked. How to check: Check the pump's performance against its curve; see section 9.2 Checking pump performance on page 19. | If the pump is not operating close to the pump curve, pull pump from the well and inspect discharge section. Remove blockage, repair valve and valve seat if necessary. Check for other damage. Rinse out pump and re-install. |
| | b) Inlet strainer is clogged. How to check: Check the pump's performance against its curve; see section 9.2 Checking pump performance on page 19. | If pump is not operating close to the pump curve, pull pump from the well and inspect. Clean inlet strainer, inspect integral check valve for blockage, rinse out pump and re-install. |
| | c) Pump is damaged. How to check: Check the pump's performance against its curve; see section 9.2 Checking pump performance on page 19. | If pump is damaged, repair as necessary. Rinse out pump and re-install. |
| 3. Pump runs but at reduced capacity. | a) Wrong direction of rotation (three phase only). How to check: Check for proper electrical connection in control panel. | Correct wiring and change leads as required. |
| | b) Drawdown is larger than anticipated. Check drawdown during pump operation. | Lower the pump if possible. If not, throttle discharge valve and install water level control. |
| | c) Discharge piping or valve leaking. How to check: Examine system for leaks. | Repair leaks. |
| | d) Pump inlet strainer or check valve are clogged. How to check: Check the pump's performance against its curve; see section 9.2 Checking pump performance on page 19. | If not close to the pump curve, pull pump from the well and inspect. Clean strainer, inspect integral check valve for blockage, rinse out pump and re-install. |
| | e) Pump is worn. How to check: Check the pump's performance against its curve; see section 9.2 Checking pump performance on page 19. | If not close to pump curve, pull pump from the well and inspect. |

Troubleshooting

| Problem | Possible cause/how to check | Possible remedy |
|--|---|---|
| 5. Fuses blow or circuit breakers trip | a) High or low voltage. How to check: Check voltage at pump control panel. If not within $\pm 10\%$, check cable size and length of run to pump control panel. | If cable size is correct, contact power company. If not, correct and/or replace as necessary. |
| | b) Three-phase current imbalance. How to check: Check current draw on each lead. Imbalance must be within $\pm 5\%$. | If current imbalance is not within $\pm 5\%$, contact power supply company. |
| | c) Control box wiring and components (single-phase only). How to check: Check that control box parts match the parts list. Check to see that wiring matches wiring diagram. Check for loose or broken wires or terminals. | Correct as required. |
| | d) Defective capacitor (single-phase only). How to check: Turn off power and discharge capacitor. Check by means of an ohmmeter (Rx100K). When the ohmmeter is connected, the needle should jump forward and slowly drift back. | If there is no ohmmeter needle movement, replace the capacitor. |
| | e) Starting relay (certain types of single-phase only). How to check: Check resistance of relay coil by means of an ohmmeter (Rx1000K). Check contacts for wear. | Replace defective starting relay. |

GARANTIE:

Votre relâcheur est garanti par le fabricant contre tout défaut de fabrication pendant une période de 2 ans s'il est utilisé dans l'industrie acéricole. La responsabilité du fabricant concernant cette garantie est limitée dans le remplacement des pièces de réparation. Toutes les pièces modifiées sous garantie deviennent la propriété du fabricant.

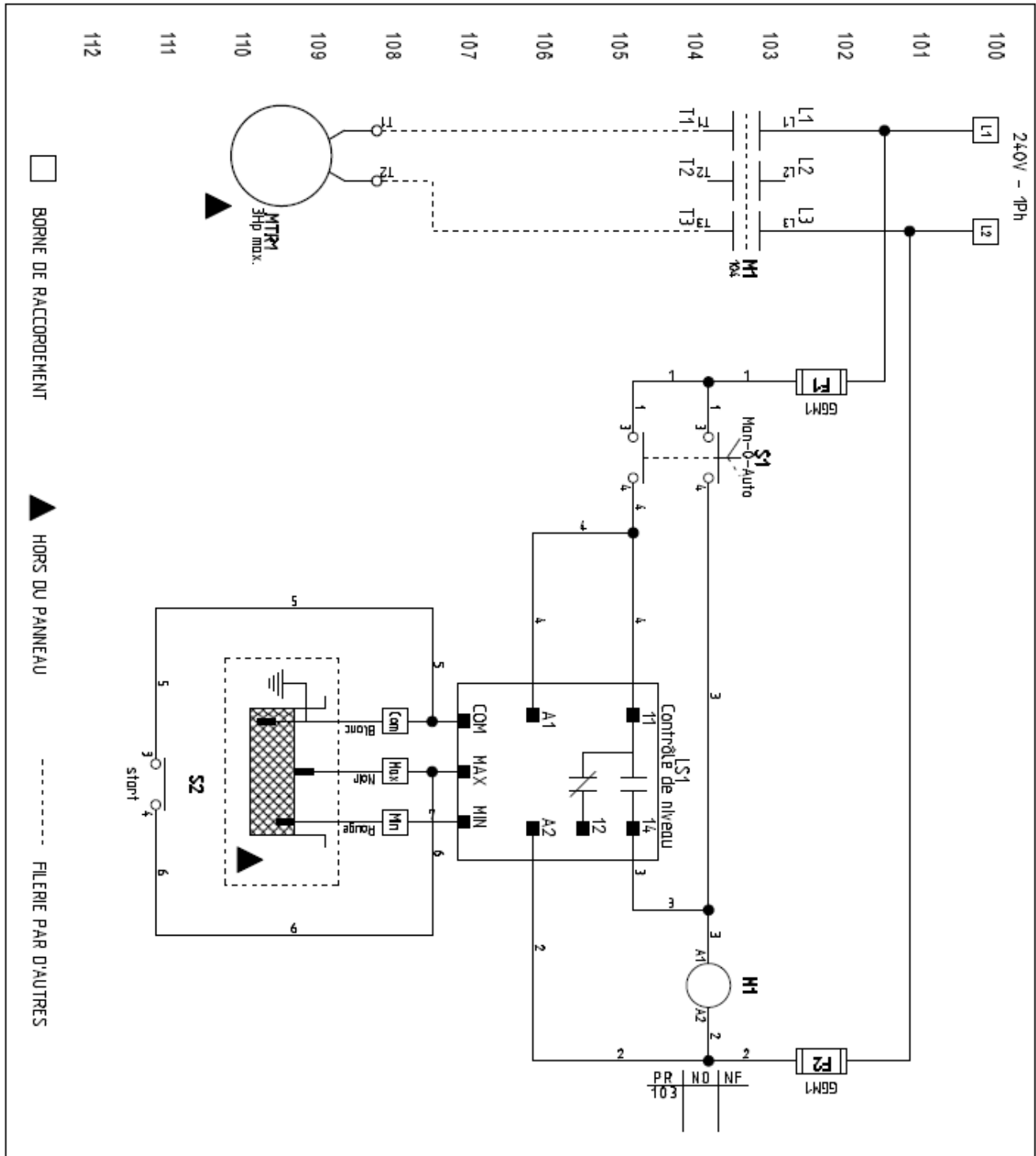
Le fabricant ne saurait être tenu responsable des dommages résultant d'une imprudence, d'un abus ou du non-respect des instructions d'utilisation, ou de blessures infligées à une personne.

GUARANTEE:

Your releaser is guaranteed by the manufacturer against any fabrication defects for a 2 year period if used in maple industry. The manufacturer's responsibility regarding this guarantee is restricted in replacing the parts as he pleases or doing the repairs. All the parts that are changed under guarantee become the property of the manufacturer.

The manufacturer would not be responsible for any damage resulting from carelessness, abuse or non respect of the operating instructions, or injuries inflicted to an individual.

Plan électrique Electrical drawing

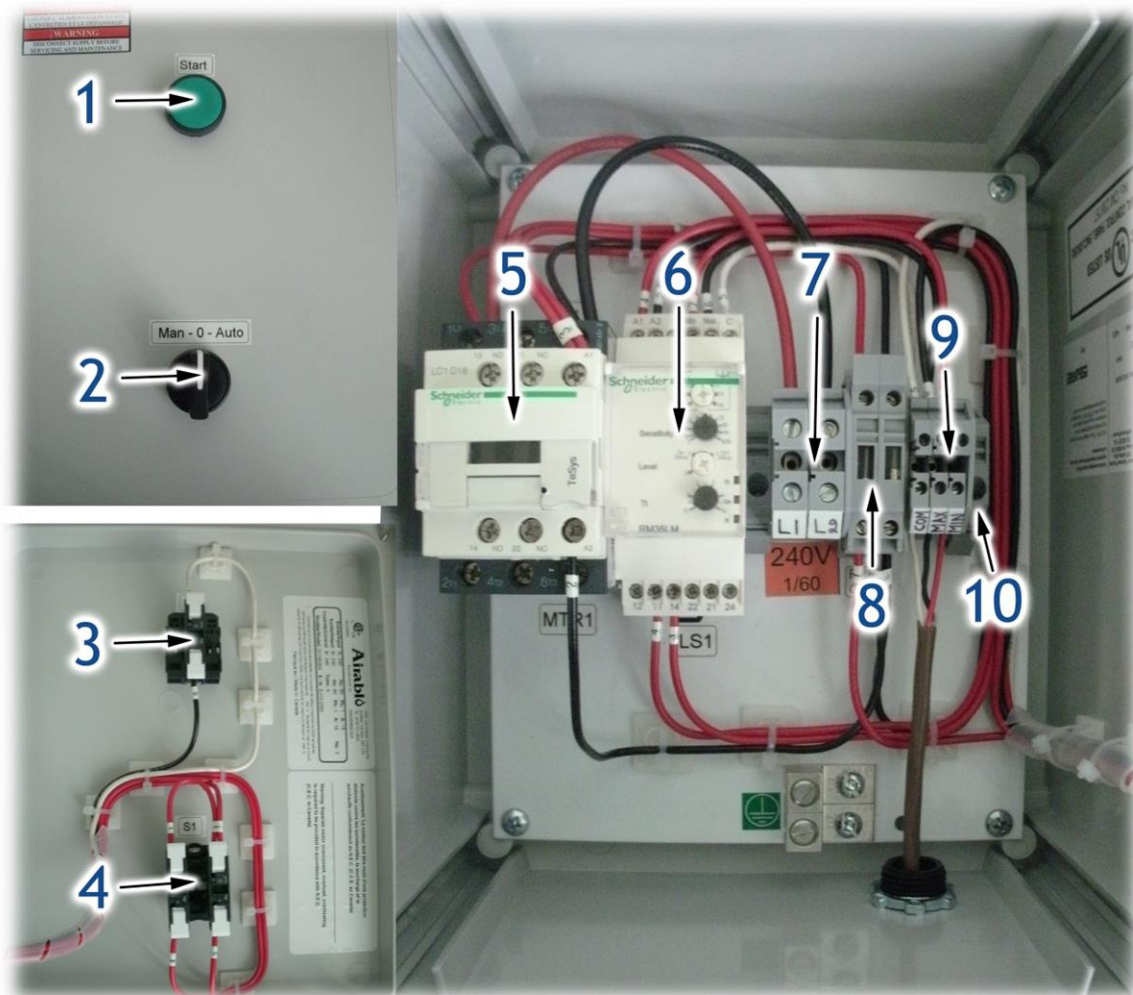


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| Descriptions de Page: Max. 3Hp 240V | Page Dessinee.: M.C. | No. de Dessin: 01155304 | Rev.: | Page Rev. Date: |
| | Date: 2011-11-08 | Projet: Contrôle de niveau | | Page: 1 / 1 |



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Boite électrique Electrical box part



| | | |
|----|----------|---|
| 1 | 01155461 | PUSH BUTTOM SCHNEIDER |
| 2 | 01155436 | SELECTOR 3 POSITIONS SCHNEIDER |
| 3 | 01155438 | CONTACT NO CLAMP SWITCH SCHNEIDER |
| 4 | 01155437 | ADAPTOR BASE SWITCH SCHNEIDER |
| 5 | 01155404 | CONTACTOR LC1D18 240VAC SCHNEIDER |
| 6 | 01155460 | ELECTROD LEVEL CONTROL SCHNEIDER |
| 7 | 01155254 | TERMINAL BLOCK 22-6 AWG CTS10U |
| 8 | 01155250 | TERMINAL BLOCK FUSE 22-10 AWG CSFL4U |
| 8 | 01155348 | ELECTROD LEVEL CONTROL SCHNEIDER |
| 9 | 01155248 | TERMINAL BLOCK 22-12 AWG CTS2.5U-N |
| 10 | 01155261 | TERMINAL BLOCK END STOP CA802 |
| * | 01155009 | BOX HOFFMAN POLYPRO NEMA 4X 10X8X4 |
| * | 01150922 | STAINLESS BACK PLATE 8.75" * 6.88" |

4. Keypad and Programming Functions

4.1 LCD Keypad

4.1.1 Keypad Display and Keys



| DISPLAY | Description |
|-----------------------|---|
| LCD Display | Monitor inverter signals, view / edit parameters, fault / alarm display. |
| LED INDICATORS | |
| FAULT | LED ON when a fault or alarm is active. |
| FWD | LED ON when inverter is running in forward direction, flashing when stopping. |
| REV | On when inverter is running in reverse direction, flashing when stopping. |
| SEQ | LED ON when RUN command is from the external control terminals or from serial communication |
| REF | LED ON when Frequency Reference command is from the external control terminals or from serial communication |

| KEYS (8) | Description |
|--------------|---|
| RUN | RUN Inverter in Local Mode |
| STOP | STOP Inverter |
| ▲ | Parameter navigation Up, Increase parameter or reference value |
| ▼ | Parameter navigation Down, Decrease parameter or reference value |
| FWD/REV | Used to switch between Forward and Reverse direction |
| DSP/FUN | Used to scroll to next screen Frequency screen →Function selection→Monitor parameter |
| ◀ / RESET | Selects active seven segment digit for editing with the ▲▼ keys Used to reset fault condition. |
| READ / ENTER | Used to read and save the value of the active parameter |

Auto-Repeat Keys

Holding the ▲UP or ▼DOWN key for a longer period of time will initiate the auto-repeat function resulting in the value of the selected digit to automatically increase or decrease.

Note: HOA LCD keypad is available as an option.






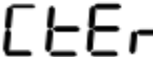

Table 10.2.1 Fault information and possible solutions

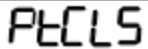

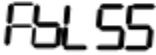

| LED display | Description | Cause | Possible solutions |
|-------------------------------|---|---|---|
| OC over current OC | The inverter output current exceeds the overcurrent level (200% of the inverter rated current). | <ul style="list-style-type: none"> Acceleration / Deceleration time is too short. Contactors at the inverter output side. A special motor or applicable capacity is greater than the inverter rated value. Short circuit or ground fault. | <ul style="list-style-type: none"> Extend acceleration / deceleration time. Check the motor wiring. Disconnect motor and try running inverter. |
| SC short circuit SC | Inverter output short circuit or ground fault. | <ul style="list-style-type: none"> Short circuit or ground fault (08-23 = 1). Motor damaged (insulation). Wire damage or deterioration. | <ul style="list-style-type: none"> Check the motor wiring. Disconnect motor and try running inverter. |
| GF Ground fault GF | The current to ground exceeds 50% of the inverter rated output current (08-23 = 1, GF function is enabled). | <ul style="list-style-type: none"> Motor damaged (insulation). Wire damage or deterioration. Inverter DCCT sensors defect. | <ul style="list-style-type: none"> Replace motor. Check the motor wiring. Disconnect motor and try running inverter. Check resistance between cables and ground. Reduce carrier frequency. |

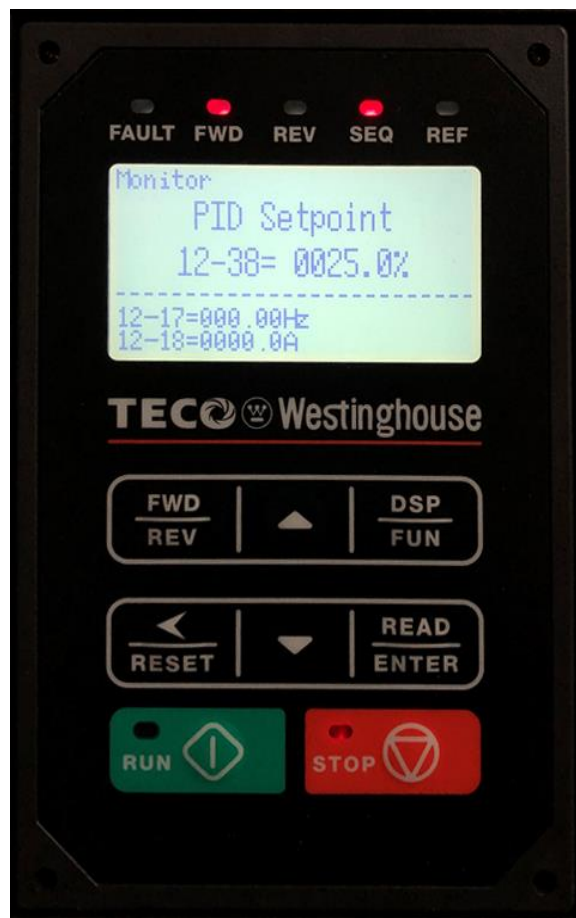
| LED display | Description | Cause | Possible solutions |
|-----------------------------|--|---|--|
| OV Over voltage | DC bus voltage exceeds the OV detection level: 410Vdc: 230V class 20Vdc: 460V class (For 440V class, if input voltage 01-14 is set lower than 460V, the OV detection value will be decreased to 700Vdc). | <ul style="list-style-type: none"> Deceleration time set too short, resulting in regenerative energy flowing back from motor to the inverter. The inverter input voltage is too high. Use of power factor correction capacitors. Excessive braking load. Braking transistor or resistor defective. Speed search parameters set incorrectly. | <ul style="list-style-type: none"> Increase deceleration time Reduce input voltage to comply with the input voltage requirements or install an AC line reactor to lower the input voltage. Remove the power factor correction capacitor. Use dynamic braking unit. Replace braking transistor or resistor. Adjust speed search parameters. |
| OU | | | |
| UV Under voltage | DC bus voltage is lower than the UV detection level or the pre-charge contactor is not active while the inverter is running. 190Vdc: 230V class; 380Vdc: 460V class (The detection value can be adjusted by 07-13). | <ul style="list-style-type: none"> The input voltage is too low. Input phase loss. Acceleration time set too short. Input voltage fluctuation. Pre-charge contactor damaged. DC bus voltage feedback signal value not correct. | <ul style="list-style-type: none"> Check the input voltage. Check input wiring. Increase acceleration time. Check power source Replace pre-charge contactor Replace control board or complete inverter. |
| UU | | | |
| IPL input phase loss | Phase loss at the input side of the inverter or input voltage imbalance, active when 08-09 = 1 (enabled). | <ul style="list-style-type: none"> Wiring loose in inverter input terminal. Momentary power loss. Input voltage imbalance. | <ul style="list-style-type: none"> Check input wiring / faster screws. Check power supply. |
| IPL | | | |
| OPL output phase loss | Phase loss at the output side of the inverter, active when 08-10 = 1 (enabled). | <ul style="list-style-type: none"> Wiring loose in inverter output terminal. Motor rated current is less than 10% of the inverter rated current. | <ul style="list-style-type: none"> Check output wiring / faster screws. Check motor & inverter rating. |
| OPL | | | |
| OH1 Heatsink overheat | The temperature of the heat sink is too high. Note: when OH1 fault occurs three times within five minutes, it is required to wait 10 minutes before resetting the fault. | <ul style="list-style-type: none"> Ambient temperature too high. cooling fan failed Carrier frequency set too high. Load too heavy. | <ul style="list-style-type: none"> Install fan or AC to cool surroundings. Replace cooling fan. Reduce carrier frequency. Reduce load / Measure output current |
| OH1 | | | |
| OL1 Motor overload | Internal motor overload protection tripped, active when protection curve 08-05 = xxx1. | <ul style="list-style-type: none"> Voltage setting V/F mode too high, resulting in over-excitation of the motor. Motor rated current (02-01) set incorrectly. Load too heavy. | <ul style="list-style-type: none"> Check V/f curve. Check motor rated current Check and reduce motor load, check and operation duty cycle. |
| OL1 | | | |

| LED display | Description | Cause | Possible solutions |
|--|---|--|--|
| OL2 Inverter overload | Inverter thermal overload protection tripped. | <ul style="list-style-type: none"> Voltage setting V/F mode too high, resulting Over-excitation of the motor. Inverter rating too small. Load too heavy. | <ul style="list-style-type: none"> Check V/f curve. Replace inverter with larger rating. Check and reduce motor load, check and operation duty cycle. |
| OL2 | If an inverter overload occurs 4 times in five minutes, it is required to wait 4 minutes before resetting the fault. | | |
| OT Over torque detection | Inverter output torque is higher than 08-15 (over torque detection level) for the time specified in 08-16. Parameter 08-14 = 0 to activate. | <ul style="list-style-type: none"> Load too heavy. | <ul style="list-style-type: none"> Check over torque detection parameters (08-15 / 08-16). Check and reduce motor load, check and operation duty cycle. |
| OT | | | |
| UT Under torque detection | Inverter output torque is lower than 08-19 (under torque detection level) for the time specified in 08-20. Parameter 08-18 = 0 to activate. | <ul style="list-style-type: none"> Sudden drop in load. Belt break. | <ul style="list-style-type: none"> Check under torque detection parameters (08-19 / 08-20). Check load / application. |
| UT | | | |
| CE communicatio n error | No Modbus communication received in for the time specified in 09-06 (communication error detection time). Active when 09-07(= 0 to 2). | <ul style="list-style-type: none"> Connection lost or wire broken. Host stopped communicating. | <ul style="list-style-type: none"> Check connection Check host computer / software. |
| CE | | | |
| FB PID feedback loss | PID feedback signal falls below level specified in 10-12 (PID feedback loss | <ul style="list-style-type: none"> Feedback signal wire broken Feedback sensor broken. | <ul style="list-style-type: none"> Check feedback wiring Replace feedback sensor. |
| Fb | detection level) for the time specified in 10-13 (Feedback loss detection time). Active when parameter (10-11 = 2). | | |
| STO Safety switch | Inverter safety switches open. | <ul style="list-style-type: none"> Terminal board Input F1 and F2 are not connected 08-30 is set to 1: Coast to stop and digital input (58) is active. | <ul style="list-style-type: none"> Check F1 and F2 connection |
| STO | | | |

| LED display | Description | • Possible causes | • Corrective action |
|-----------------------------|---|---|---|
| DEV Speed deviation | Inverter safety switches open. | <ul style="list-style-type: none"> When 08-30 is set to 0: Deceleration to stop, and digital input (58) is active. | <ul style="list-style-type: none"> Check if digital terminal (58) is active. |
| 551 | | | |
| EF1 External fault (S1) | External fault (Terminal S1) Active when 03-00= 25, and Inverter external fault selection 08-24=0 or 1. | <ul style="list-style-type: none"> Multifunction digital input external fault active. | <ul style="list-style-type: none"> Multi-function input function set incorrectly. Check wiring |
| EF1 | | | |
| EF2 External fault (S2) | External fault (Terminal S2) Active when 03-01= 25, and Inverter external fault selection 08-24=0 or 1. | | |
| EF2 | | | |
| EF3 External fault (S3) | External fault (Terminal S3) Active when 03-02= 25, and Inverter external fault selection 08-24=0 or 1. | | |
| EF3 | | | |
| EF4 External fault (S4) | External fault (Terminal S4) Active when 03-03= 25, and Inverter external fault selection 08-24=0 or 1. | | |
| EF4 | | | |
| EF5 External fault (S5) | External fault (Terminal S5) Active when 03-04= 25, and Inverter external fault selection 08-24=0 or 1. | | |
| EF5 | | | |
| EF6 External fault (S6) | External fault (Terminal S6) Active when 03-05= 25, and Inverter external fault selection 08-24=0 or 1. | | |
| EF6 | | | |
| CF07 Motor control fault | Motor control fault | <ul style="list-style-type: none"> SLV mode unable to run motor. | <ul style="list-style-type: none"> Perform rotational or stationary auto-tune Increase minimum output frequency (01-08) |
| CF07 | | | |
| FU fuse open | DC bus fuse blown DC fuse (Models 230V 50HP and above, 460V 75HP and above) open circuit. | <ul style="list-style-type: none"> IGBT damaged. Short circuit output terminals. | <ul style="list-style-type: none"> Check IGBTs Check for short circuit at inverter output. Replace inverter. |
| Fu | | | |

| LED display | Description | • Possible causes | • Corrective action |
|---|---|---|--|
| LOPBT Low flow fault  | Low flow fault | <ul style="list-style-type: none"> The feedback signal is disconnected. Feedback value is lower than minimum flow limit. | <ul style="list-style-type: none"> Check feedback signal connection. Check if feedback value is lower than minimum flow limit (23-51). |
| | | | |
| HIPBT High flow fault  | High flow fault | <ul style="list-style-type: none"> Feedback value is greater than maximum flow value. | <ul style="list-style-type: none"> Check feedback value Check if feedback value is lower than maximum flow limit (23-48). |
| | | | |
| LPBFT Low pressure fault  | Low pressure fault | <ul style="list-style-type: none"> The feedback signal is not connected. Feedback value is lower than minimum feedback value. | <ul style="list-style-type: none"> Check feedback signal connection. Check if feedback value is lower than minimum limit (23-15). |
| | | | |
| OPBFT High pressure fault  | High pressure fault | <ul style="list-style-type: none"> Feedback value is greater than maximum feedback value. | <ul style="list-style-type: none"> Check feedback signal connection. Check if feedback value is greater than maximum limit (23-12). |
| | | | |
| LSCFT Low suction fault  | Low suction fault | <ul style="list-style-type: none"> Low water flow or not enough suction Difference between setpoint and feedback value is too high. Output current is too low. | <ul style="list-style-type: none"> Check water flow Check feedback value Check output current |
| | | | |
| CF00 Operator Communication Error LCD display only* | LCD keypad data communication fault | <ul style="list-style-type: none"> No communication between LCD keypad and inverter for more than 5 seconds after power up. | <ul style="list-style-type: none"> Disconnect the keypad and then reconnect. Replace the control board Check keypad cable |
| | | | |
| CF01 Operator Communication Error 2 LCD display only* | LCD keypad data communication fault | <ul style="list-style-type: none"> Communication errors between LCD keypad and inverter for more than 2 seconds. | <ul style="list-style-type: none"> Disconnect the keypad and then reconnect. Replace the control board Check keypad cable |
| | | | |
| CT Fault  | Input voltage fault | <ul style="list-style-type: none"> Abnormal input voltage, too much noise or malfunctioning control board. | <ul style="list-style-type: none"> Check input voltage signal and the voltage on the control board. |
| | | | |
| Double Communication Error  | Both Profibus and Modbus communication selected | <ul style="list-style-type: none"> Two communication protocols are active simultaneously. | <ul style="list-style-type: none"> Select only one communication protocol. |
| | | | |

| LED display | Description | Possible causes | Corrective action |
|--|--|--|---|
| PTC Signal Loss  | Motor PTC Signal Loss detected. | <ul style="list-style-type: none"> Motor PTC disconnected for more for more than 10 seconds | <ul style="list-style-type: none"> Check if MT terminal and GND terminal are connected. |
| OPR Disconnection  | Run command is set to keypad operation (00-02=0). Operator was removed during running. Parameter 16-09 determines if the inverter stops or displays a fault. | <ul style="list-style-type: none"> The inverter set for keypad run (00-02=0), Warning of operator disconnected/ removed occurs. | <ul style="list-style-type: none"> Check if operator has removed. |
| FBLSS PID Feedback Signal Loss  | When 23-19 > 0, the inverter will display a fault when the feedback pressure falls below the operation pressure setting (23-02) x detection proportion of loss pressure (23-19) for the times specified in parameters (23-18). | <ul style="list-style-type: none"> Feedback loss (23-19) is enabled feedback signal falls below Feedback device broken wire or not connected properly. | <ul style="list-style-type: none"> Check if the proportion of loss pressure (23-19) is set correctly. Make sure feedback sensor is wired correctly and PID feedback signal reads correctly. |
| SC Short Circuit  | Inverter output short circuit. | <ul style="list-style-type: none"> Short circuit or ground fault (08-23=1) occurs from the damage to motor, insulation deterioration or wire break. | <ul style="list-style-type: none"> Check motor and wiring. |



Pour ajuster le niveau de vide avec le variateur de vitesse

- 1- Appuyer sur les flèches pour se rendre au paramètre 12-38
- 2- Appuyer sur READ/ENTER pour changer la valeur en utilisant les flèches
- 3- Appuyer sur READ/ENTER pour confirmer votre valeur en % lorsque vous êtes en mode automatique sur le boîtier électrique gris installé près du variateur qui correspond au niveau d'eau dans le relâcheur
- 4- Si vous êtes en mode manuel sur le boîtier électrique gris à côté du variateur de vitesse la valeur du paramètre 12-38 doit être à 100% pour fonctionner à la capacité maximum en hertz soit 60Hertz étant la valeur maximal ce qui est égal à 100%

Si besoin d'information supplémentaire n'hésitez pas à nous contacter 819-751-2882 ou airablo@airablo.com

How to set water level on the VFD

- 1- Press the arrows to go to parameter 12-38
- 2- Press READ / ENTER to change the value using the arrows
- 3- Press READ / ENTER to confirm your % value when you are in automatic mode on the gray electrical box installed near the drive. This value is to adjust level inside the releaser
- 4- If you are in manual mode on the gray box next to the bo. You can increase value of parameter to 100% to have the maximum capacity of the pump but don't forget to decrease this parameter when you change to automatic mode because the pump will never start.

If you need further information, please do not hesitate to contact us at 819-751-2882 or airablo@airablo.com

