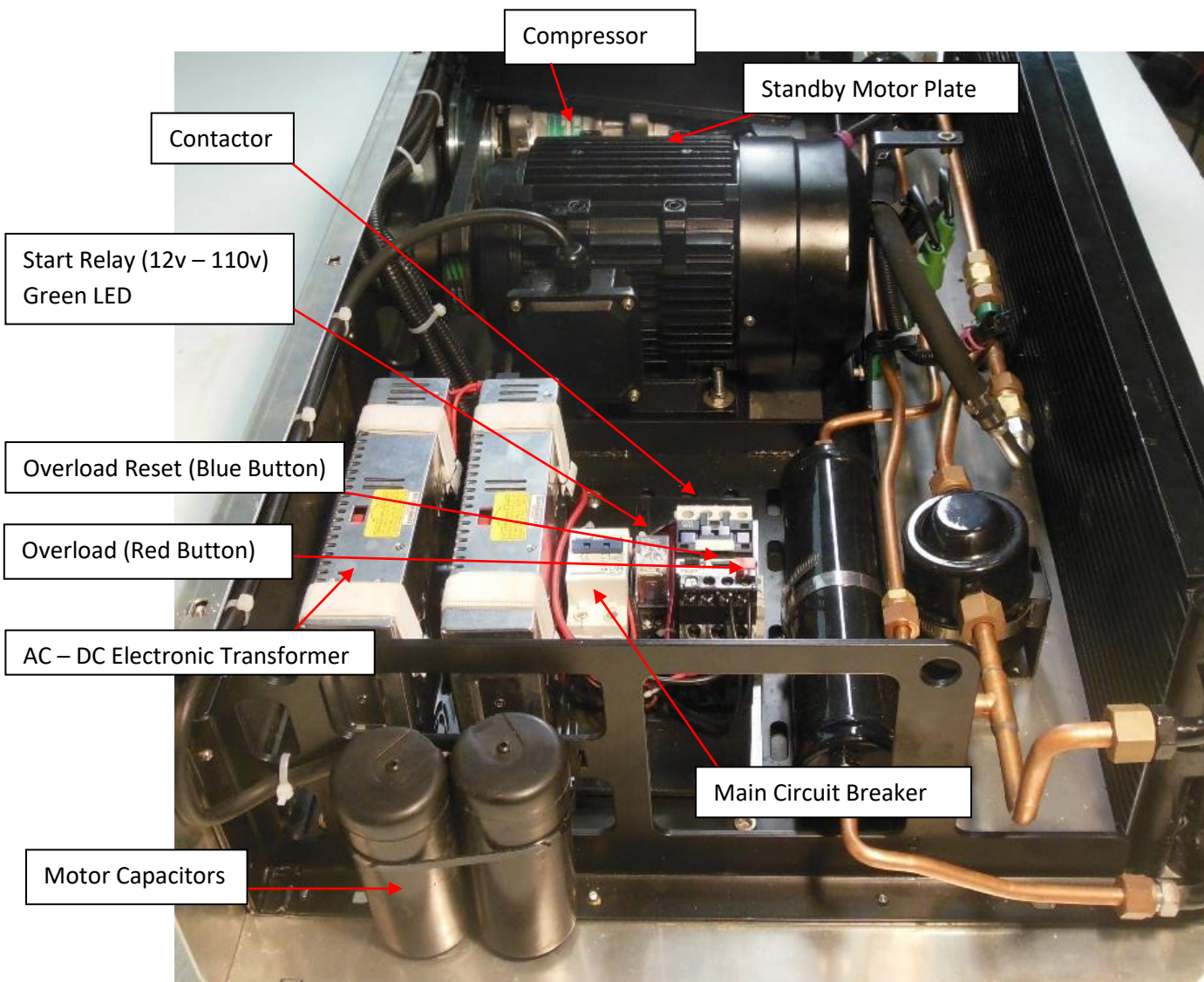


STANDBY DIRECT DRIVE "RVE" REEFER OPERATION - FAULT DISAGNOSIS

Possible Issues That Can Happen with Electric Standby Motor Operation:

- 1 Standby Motor (SM) will not start
- 2 SM attempts to start but turns very slowly
- 3 SM Starts but is extremely noisy and then cuts out on overload
- 4 SM Starts but cuts out after a short period of time



Before checking any fault in the standby system make sure the following is correct:

- 1 There must be a proper power supply source within 5% of the Standby motor rated voltage (115v for RVE Reefers)
- 2 The Power cable going to the reefer should not be longer than 25 feet from the wall socket to the reefer. Only use 12-3 SJOW cable size
- 3 Under no circumstances USE EXTENSION CORDS – The power cable must be one piece and not joined with other cables
- 4 The wall socket should be ideally 30-amp fuse power supply for the reefer to operate correctly. A 20 Amp power supply may be adequate provided the cable size and plugs are correct, but a 30-amp supply is ideal for optimum starting performance.
- 5 Check the wall socket, power cable and the reefer appliance inlet for general condition and wear or corrosion (un plug cable from mains power supply first before checking)
- 6 If there is no power at the cab controller there is an issue with Transformer 12v feed, check transformer connections and 110v input
- 7 Check if the reefer has been commissioned correctly by Reefervan dealer
- 8 Make sure reefer is not overcharged with refrigerant

FAULT DIAGNOSIS – STANDBY MOTOR WILL NOT START:

Fault 1: Standby Motor (SM) will not start

- 1 Check main circuit breaker is not tripped
- 2 Check high voltage power at contactor (115vac)
- 3 With reefer turned on check power to 12v contactor glass relay (green LED should be lit) Relay switches 115vac power to pull in motor contactor
- 4 Check Motor load reset if it is tripped or not (always set to “manual trip” reset and not auto as motor may overheat and cause damage to motor)
- 5 Check that SM main contactor energizes properly
- 6 Check the high voltage across the contactor and make sure that the voltage going to motor is not lower than main inlet voltage 110v
- 7 If contactor energizes check the SM capacitors for operation and or condition (burst or swelling)
- 8 Change capacitor – contactor – circuit breaker to rectify fault

Fault 2: Standby Motor (SM) attempts to start but turns very slowly then cuts out on overload

- 1 Check all as per **FAULT 1**
- 2 Install gauges check the standby compressor suction and head pressure
- 3 Close down fully the suction regulator valve (CPR) to the standby compressor reducing below 30 PSI to take the load of the motor on start up
- 4 Then restart the reefer and adjust the CPR valve to the correct SM amp draw of 18 amps
- 5 If SM motor still runs slowly, change both start and run capacitors
- 6 If capacitors do not work the motor is faulty and requires replacing

Fault 3: Standby Motor (SM) Starts but is extremely noisy and then cuts out on overload

- 1 Check everything as per **FAULT 2** procedure
- 2 If SM persists and cuts out the internal start run switch in the motor is faulty
- 3 Replace SM

Fault 4: Standby Motor (SM) Starts but cuts out on overload protection after a period of time

- 1 Check gas pressures with the reefer operating – The pressures and running amps must be relative to ambient temperature
- 2 SM motor must not draw more current than noted on the specification plate of the SM
- 3 Adjust SM running amperage to the operating Amperage noted on the motor name plate regardless of the ambient temperature IT MUST NOT BE HIGHER THAN THE NOTED AMPERAGE
- 4 SM must be “tuned” to as per Reefervan commissioning sheet and operating parameters
- 5 The operating amps should be adjusted or checked when servicing

Call Reefervan if you need further assistance 1888 445 4481