

## data sheet single engine four battery bank split charge system

12 volt .... P2200 part number .... 12200-000

### contactor current rating

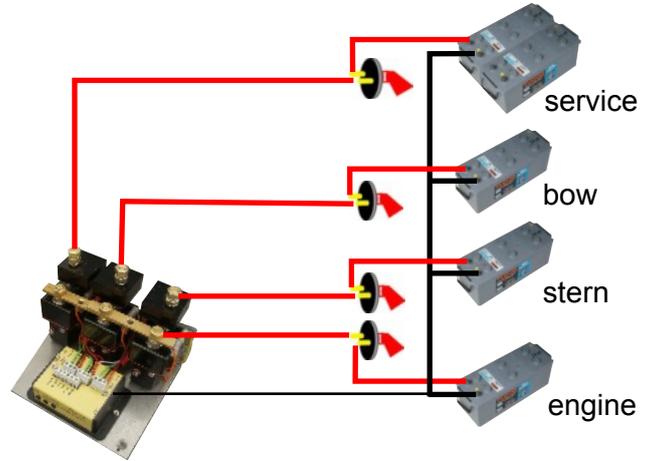
continuous ..... 100 amp @ 50 mV  
 engine start ..... 250 amp intermittent  
 surge ..... 500 amp

**operation** ..... bi-directional split charge, standard  
 connect voltage ..... 13.8V 13.9 13.95 V  
 drop-out voltage ..... 13.0V  
 adjustment ..... contactor engagement and drop out  
 protection ..... waterproof to IP66  
 emergency link start ... includes button to engage link start timed period.

**system protection** . . 5 internal PTC fuses, auto re-set

size / weight

contactor ... 175 x 150 x 135 mm / 1.3 Kgs



### standard pre-fitted options

contactor drop-out with engine starter motor operation .... to protect solar panel and secondary charge systems from high current.  
 bow contactor drop out with bow thruster use ..... forces bow thruster to use local battery, avoiding charge system overload.  
 stern contactor drop out with stern thruster use ..... forces stern thruster to use local battery, avoiding charge system overload.  
 emergency link start ..... allows engine to be started from service battery bank, timed engagement, remote switch on display.

### split charge contactors

The system employs heavy duty contactors, these carry far higher loads than typical VSR relays, making them ideal for emergency engine starting. They also feature a high fault current rupture rating ( 150 amp to UL508 ), allowing the disconnection of high current loads at low voltage. The contacts are sealed to IP66, making them suitable for operation in a marine environment, protecting contacts from corrosion and avoiding flash from open contactor units.

**emergency link start** allows the engine to be started from the service bank for timed period, if the engine battery has a low capacity.

**operating voltage** units are normally set to standard switching voltages, we are happy to set modules to customer requirements, or they can be adjusted on site. Alternate voltages can be supplied to order, please contact technical section.

**operation initial charge** to engine battery, the service battery is connected when battery voltage reaches 13.8 volt, the bow battery in connected at 13.9 volt, stern thruster battery at 13.85 volt batteries are isolated when voltage levels fall to 13.0 volt. The system uses the pulse engagement system first introduced in 1982, with a low battery capacity, on the contactor closing it is held for a period, then disengaged, recharging the engine battery and allowing heat generated within the alternator to disperse, before re-engaging the alternator to a high load. Once the load is within the alternators operating parameters the contactor remains closed.

### options to order

contact rating ..... 100 and 350 amp,  
 coil voltages ..... 12 volt DC to 48 volt DC

## data sheet **single engine four battery bank split charge system**

**12 volt** .... P2230      part number .... 12230-000

**24 volt** .... P2240      part number .... 12240-000

### contactor current rating

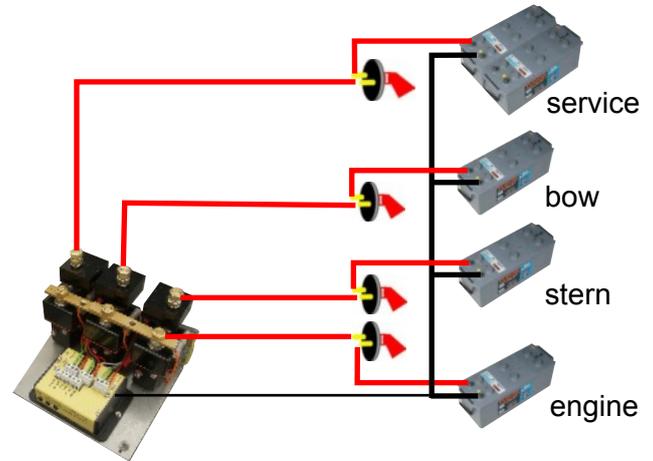
continuous ..... 200 amp @ 40 mV / contact / 100 A  
 engine start ..... 400 amp intermittent  
 surge ..... 800 amp

**operation** ..... bi-directional split charge, standard  
 connect voltage ..... 13.8V / 27.6V, 13.9 / 27.8, 13.95 / 27.9  
 drop-out voltage ..... 13.0V / 26.0V  
 adjustment ..... contactor engagement and drop out  
 protection ..... waterproof to IP66  
 emergency link start ... includes button to engage link start timed period.

**system protection** ... 5 internal PTC fuses, auto re-set

size / weight

contactor .. ..... 175 x 150 x 135 mm / 1.9 Kgs



### standard pre-fitted options

contactor drop-out with engine starter motor operation .... to protect solar panel and secondary charge systems from high current.  
 bow contactor drop out with bow thruster use ..... forces bow thruster to use local battery, avoiding charge system overload.  
 stern contactor drop out with stern thruster use ..... forces stern thruster to use local battery, avoiding charge system overload.  
 emergency link start ..... allows engine to be started from service battery bank, timed engagement, remote switch on display.

### split charge contactors

The system employs heavy duty contactors, these carry far higher loads than typical VSR relays, making them ideal for emergency engine starting. They also feature a high fault current rupture rating ( 300 amp to UL508 ), allowing the disconnection of high current loads at low voltage. The contacts are sealed to IP66, making them suitable for operation in a marine environment, protecting contacts from corrosion and avoiding flash from open contactor units.

**emergency link start** allows the engine to be started from the service bank for timed period, if the engine battery has a low capacity.

**operating voltage** units are normally set to standard switching voltages, we are happy to set modules to customer requirements, or they can be adjusted on site. Alternate voltages can be supplied to order, please contact technical section.

**operation initial charge** to engine battery, the service battery is connected when battery voltage reaches 13.8 volt, the bow battery in connected at 13.9 volt, stern thruster battery at 13.85 volt batteries are isolated when voltage levels fall to 13.0 volt. The system uses the pulse engagement system first introduced in 1982, with a low battery capacity, on the contactor closing it is held for a period, then disengaged, recharging the engine battery and allowing heat generated within the alternator to disperse, before re-engaging the alternator to a high load. Once the load is within the alternators operating parameters the contactor remains closed.

### options to order

contact rating ..... 100 and 350 amp,  
 coil voltages ..... 12 volt DC to 48 volt DC