

**Prestolite**  
*electric*

**Leece-Neville**

THE POWER OF EXCELLENCE

Refrigeration units

Unités de réfrigération

Unidades de refrigeración



PP4030  
Rev: 1 (0208)

2008

## OUR COMPANY

Prestolite is a rapidly expanding global company with manufacturing and distribution in North and South America, Europe and Asia. Having research and development facilities in each of these locations, the company combines the engineering know-how and manufacturing expertise of Lucas CAV, Leece-Neville, Butec and Motorola, to produce the best starters and alternators range in the market.



## OUR BRANDS

Effective from mid 2007 you will see that all of our products are dual branded 'Prestolite' and 'Leece-Neville'. We think it's important that our customers are able to make the link between these two great brands and it's a reminder that all 'Leece-Neville' products are available from Prestolite – and vice versa!

## OUR PRODUCTS

We offer a complete range of Heavy, Medium and Light Duty starters and alternators covering all major European Truck, Car and Van applications as well as comprehensive Bus & Coach, Off-Highway, Agricultural, Marine and Industrial application coverage. Look out for our new Refrigeration Equipment and Marine catalogues coming soon!



## OUR UNIQUE OFFER

Remember that the vast majority of a range comes to you BRAND NEW. Of course this offers you OE quality levels, no availability problems due to core shortages but also the advantage of NO CORE SURCHARGES! How many times have you sold an alternator or starter only to have your profit wiped out because your supplier won't accept your core? With Prestolite you can simply sell and forget.





a division of Prestolite Electric Inc.

**New Refrigeration Catalogue introduction**

*Dear Customer*

Welcome to the brand new Refrigeration catalogue for Prestolite Electric products. This is the second in this brand new format, and we've included lots of new features to ensure that you have the very best information to help service your Refrigeration customers. Inside you'll find product illustrations in a newly introduced 'Buyers Guide' section, technical information, wiring diagrams and application and cross reference information specific to Refrigeration applications.

This is part of the process of renewing our range of catalogues, if you have any suggestions on how we can further improve the information we give you, we'd be delighted to hear from you, contact us on [eu\\_info@prestolite.com](mailto:eu_info@prestolite.com)

Thanks for your continued support,

Eric Bippus  
Vice President - Global Aftermarket Sales  
Prestolite Electric Ltd

(LH0024\_09/07)

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Catalogue Ref No: PP4030  
 Issue no: 1 (02/08)

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## HOW TO USE THIS CATALOGUE

### SECTION A

This section gives a basic understanding of the operation of the Alternator and Starter Motor within the Refrigeration environment, and includes Alternator and Starter Motor function, general wiring diagrams and a Troubleshooting guide. If you have any queries that are not covered by this guide, please contact the Technical Helpline.

| REFRIGERATION APPLICATION GUIDE |     |  |           |           |                 | Leece-Neville                |  |
|---------------------------------|-----|--|-----------|-----------|-----------------|------------------------------|--|
| AC                              |     |  |           |           | OUTPUT<br>V / A | NOTES / NOTAS /<br>ANMERKUNG |  |
| CARRIER TRANSICOLD              |     |  |           |           |                 |                              |  |
| > TRAILER UNITS                 |     |  |           |           |                 |                              |  |
| Extra                           | All | Kubota CT4-134-TV (V2203-TV)<br>Diesel | 110-609RM | 12V / 65A |                 |                              |  |
| Extra                           | All | Kubota CT4-114-TV (V1902-TV)<br>Diesel | 110-607RM | 12V / 65A |                 |                              |  |

Vehicle Manufacturer (points to Extra)  
 Vehicle Model (points to Extra)  
 Vehicle Type (points to All)  
 Application Date (points to All)  
 Engine / Chassis Info (points to Kubota CT4-134-TV...)  
 Prestolite Alternator Part no. (points to 110-609RM)  
 Alternator Output (points to 12V / 65A)  
 Additional Notes (points to empty cell)


| REFRIGERATION APPLICATION GUIDE |       |                                   |          |             |                  | Leece-Neville                |  |
|---------------------------------|-------|-----------------------------------|----------|-------------|------------------|------------------------------|--|
| AC                              |       |                                   |          |             | OUTPUT<br>V / kW | NOTES / NOTAS /<br>ANMERKUNG |  |
| THERMO KING                     |       |                                   |          |             |                  |                              |  |
| > TRAILER UNITS                 |       |                                   |          |             |                  |                              |  |
| Super II                        | 83 >> | Isuzu 2.2L (TK D12.2, -SE) Diesel | 20513052 | 12V / 2.0kW |                  |                              |  |
| Super II                        | 83 >> | Isuzu 2.0L (TK C201) Diesel       | 20513075 | 12V / 2.0kW |                  |                              |  |

Vehicle Manufacturer (points to Super II)  
 Vehicle Model (points to Super II)  
 Vehicle Type (points to 83 >>)  
 Application Date (points to 83 >>)  
 Engine / Chassis Info (points to Isuzu 2.2L...)  
 Prestolite Starter motor Part no. (points to 20513052)  
 Starter Motor Output (points to 12V / 2.0kW)  
 Additional Notes (points to empty cell)

## HOW TO USE THIS CATALOGUE


**REFRIGERATION BUYER'S GUIDE ALTERNATORS**

Labels: Prestolite Part no., Voltage, Output Current, Insulated or Earth return, Shaft size, Rotation, Pulley info, Application listings, Alternator images

|   |     |     |  |      |           |      |             |
|---|-----|-----|--|------|-----------|------|-------------|
| <b>110-609RM</b>  | 12V | 65A | IR   | 5/8" | Clockwise | None | APPLICATION |
|  |     |     | CARRIER TRANSICOLD<br>> ENGINES - Various Models<br>> TRAILER UNIT - Extra, Genesis TM900 / TM1000/ TR100, Phoenix Ultra XL, Ultima 53 |      |           |      |             |

**REFRIGERATION BUYER'S GUIDE STARTER MOTORS**

Labels: Prestolite Part no., Voltage, Output Power, Insulated or Earth return, Rotation, Direct drive / Gear-reduced, No. of teeth, Pinion diameter, Pinion at rest, Full travel position, Application listings, Starter Motor images

|   |     |       |  |    |    |    |    |    |    |             |
|---|-----|-------|--|----|----|----|----|----|----|-------------|
| <b>20513032</b>   | 12V | 2.0kW | ER   | CW | GR | 15 | 50 | 20 | 33 | APPLICATION |
|  |     |       | THERMO KING<br>> ENGINES - Various Models<br>> TRAILER UNIT - URD-III MAX<br>> TRUCK UNIT - KD-II SR, MD-200 / MT, MD-300, MD-II MAX / SR / MAX SR, RD-II TLE, TS Spectrum, TS-200, TS-300, TS-500, TS-600, UTS, XDS |    |    |    |    |    |    |             |

**REFRIGERATION CROSS-REFERENCE GUIDE**

Labels: Alternative manufacturer / supplier, Prestolite Part no., Alternative manufacturer / supplier Part no.

| Original     | Prestolite | Original          | Prestolite | Original    | Prestolite | Original | Prestolite |
|--------------|------------|-------------------|------------|-------------|------------|----------|------------|
| <b>BOSCH</b> |            | 30-00349-01       | 110-683    | 128000-2881 | 20513585   | 110-639  | 110-639RM  |
| 0120484028   | 20140111   | 30-00349-01       | 110-683    | 128000-4900 | 20513588   | 110-679  | 110-612RM  |
| 0120488297   | 66021606   | 30-00363-00       | 110-683    | 228000-0990 | 20513059   | 310-65   | 110-159    |
| 9120060023   | 66021606   | 30-00363-00140954 | 110-683    | 228000-0991 | 20513059   | 8AR2018L | 110-683    |
| 9120060026   | 66021606   | 30-00363-00R      | 110-683    | 228000-1060 | 20513588   | 8AR2069F | 110-629    |

## REFERENCE KEY

| Starter Motor & Alternator Sections |                           |         |                           |
|-------------------------------------|---------------------------|---------|---------------------------|
| >>ch...                             | Up to chassis no.....     | gr      | Gear reduced              |
| a/c                                 | Air conditioning          | inj.    | Injection                 |
| a/t                                 | Automatic transmission    | int.fan | Internal fan              |
| B+                                  | Battery positive terminal | m/t     | Manual transmission       |
| B-                                  | Battery negative terminal | o.c.p   | Overrunning clutch pulley |
| c.c                                 | Cold climate              | p       | petrol                    |
| c.s                                 | Cold start                | p.m     | Permanent magnets         |
| carb                                | Carburettor               | ps      | Power steering            |
| cat                                 | Catalyst                  | r       | Phase terminal            |
| ch.                                 | Chassis no.               | td      | Turbo diesel              |
| ch...>>                             | From chassis no....       | w...    | With...                   |
| d                                   | Diesel                    | wo....  | Without....               |
| D+                                  | Warming lamp              | w/pump  | Water pump                |
| dd                                  | Direct drive              | w/tach  | with tachometer terminal  |

## GLOSSARY OF ALTERNATOR TERMS

**Earth return (ER)** alternators may only be fitted with a B+ (battery positive) terminal. The negative part of the electrical circuit is normally completed through the body of alternator to the vehicle, ie earthed / grounded. Also referred to as ground return. On certain vehicles a B- stud is fitted to the alternator. This is connected to the body of the alternator and must be connected to the negative earth lead where fitted.

**Insulated return (IR)** alternator have B+ (battery positive) and B- (battery negative) terminals, ie the battery leads at the alternator are insulated from the alternator frame, ie insulated return.

**B+ terminal** is the battery positive connection on the alternator.

**B- terminal** is the battery negative terminal on the alternator.

**WL** is the warning lamp terminal. (L when smartreg is used.)

**W** or  $\sim$  or **AC** is the phase terminal, used for tachometer

**EXC terminal** is used to provide initial start-up excitation current. This is connected to battery positive via ignition / switch.

**F2 terminal** is for exclusive use on Thermoking systems only and fitted Thermoking controller systems.

**S** is the sense lead / terminal. This is normally used where the voltage drop across battery leads are expected to be significant, ie long battery cable runs, where multiple battery banks and load splitters are used. This terminal monitors the voltage at the point of termination not the alternator terminals, and regulate alternator performance accordingly. This terminal is normally connected directly to the positive terminal of the charging system battery.



## GLOSSARY OF ALTERNATOR TERMS

CONTINUED...

**Batteryless alternators** are used to operate fixed load equipment, eg air-conditioning. The batteryless alternator does not operate in or as part of the charging system. See wiring diagram section.  
(This type of alternator is not designed to cope with the high demand of flat batteries)

**Alternator rotation.** External fan alternator rotation is determined by the fan design. By design the alternator is bi-directional and can operate in either CW or CCW direction. Straight vane fans are bi-directional, see fig.1. Curved vane fans are direction specific, and a rotation direction is indicated on the fan, see fig.2. Directional fan design generally provide more efficient cooling of alternator.

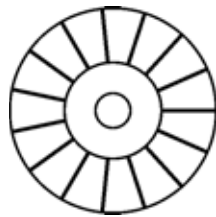


Fig.1

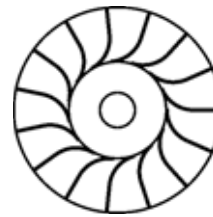


Fig.2

Internal fan alternators are rotation specific, normally CW. Consult the drawing or Technical Helpline for specific part number rotational direction.

Note: Directional rotation when looking at front of the alternator.

**Mounting configurations.** Various options are available, see fig.3 - fig.6

**Dual foot mount** on main mounting bracket, and single mounting on adjusted bracket.

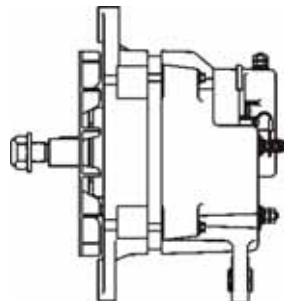


Fig.3

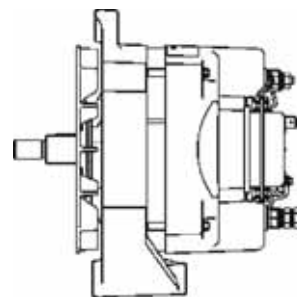


Fig.4

**Spool mount** on main mounting bracket, spool size from 25mm - 80 mm and single mounting on adjuster bracket.

**Pad mount**

4 Mounting point as shown.

**T-mount** is similar to pad mount, but with only 3 mounting point. (2 on drive end and 1 on rear end)

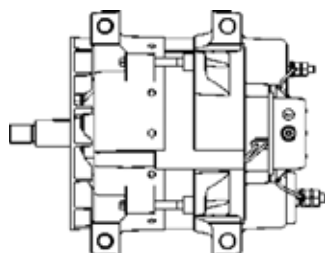


Fig.5

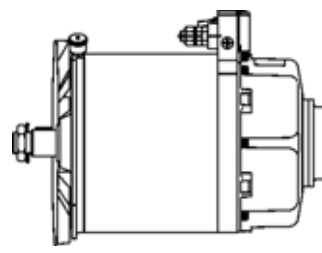


Fig.6

**Cradle mount**

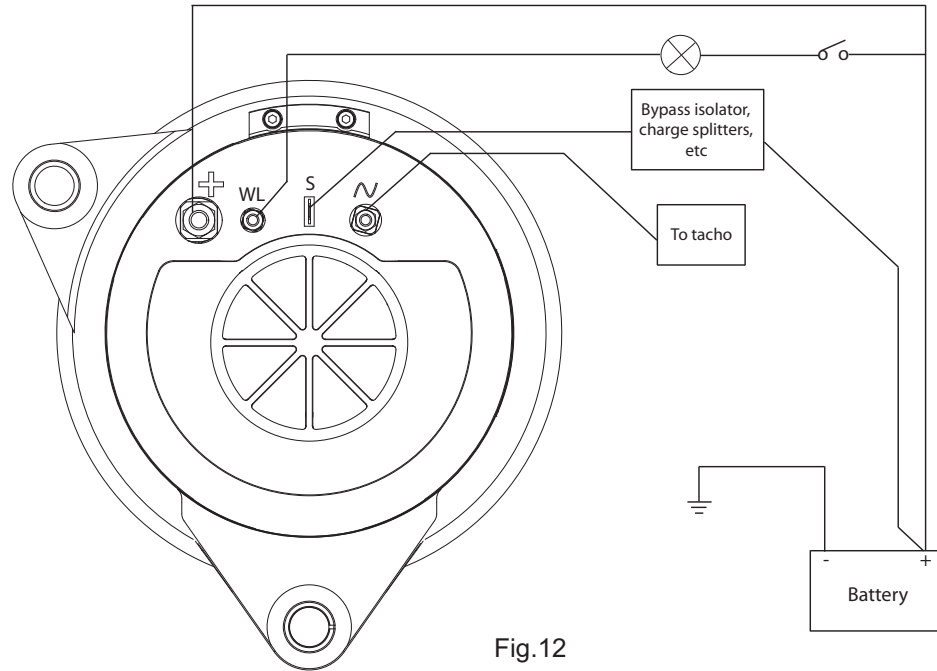
The alternator is mounted by clamping it around the alternator body.

## ALTERNATOR WIRING DIAGRAMS

The wiring diagrams shown below are typical and for reference only. For specific wiring diagrams or information, please contact the Technical Helpline.

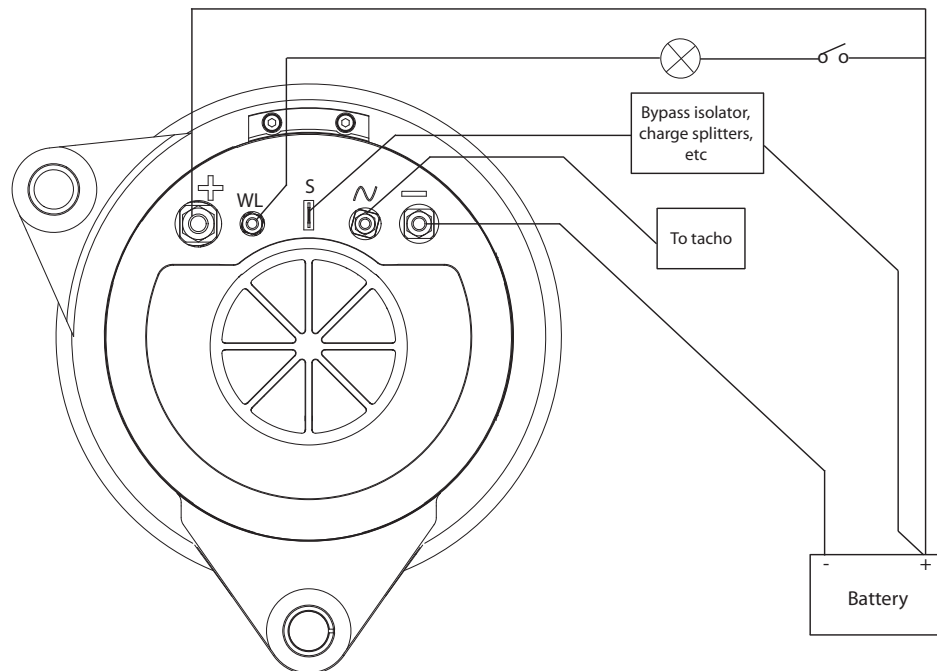
### EARTH RETURN

The negative circuit is supplied through the vehicle chassis and the alternator frame.



### INSULATED RETURN

The negative circuit is isolated from alternator frame and vehicle chassis.



## ALTERNATOR WIRING DIAGRAMS CONTINUED...

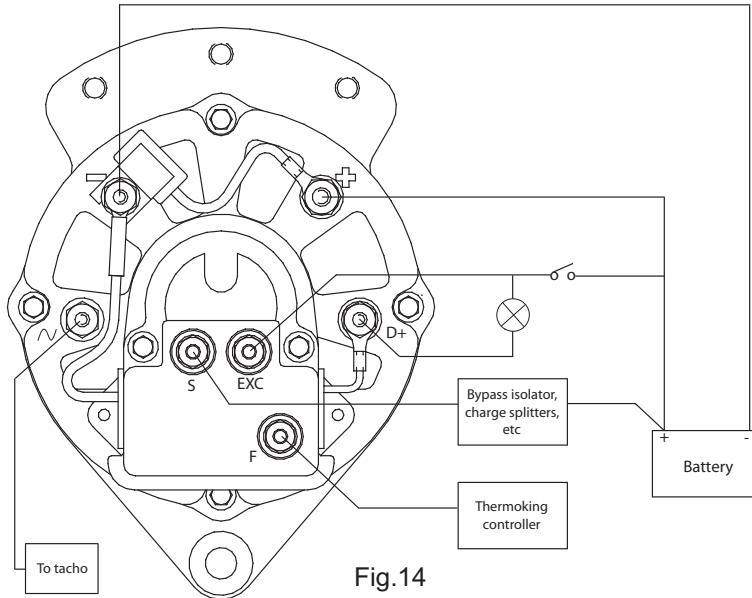


Fig.14

### FIELD CONNECTION

Thermoking applications only.  
The F terminal is connected  
to Thermoking controller.

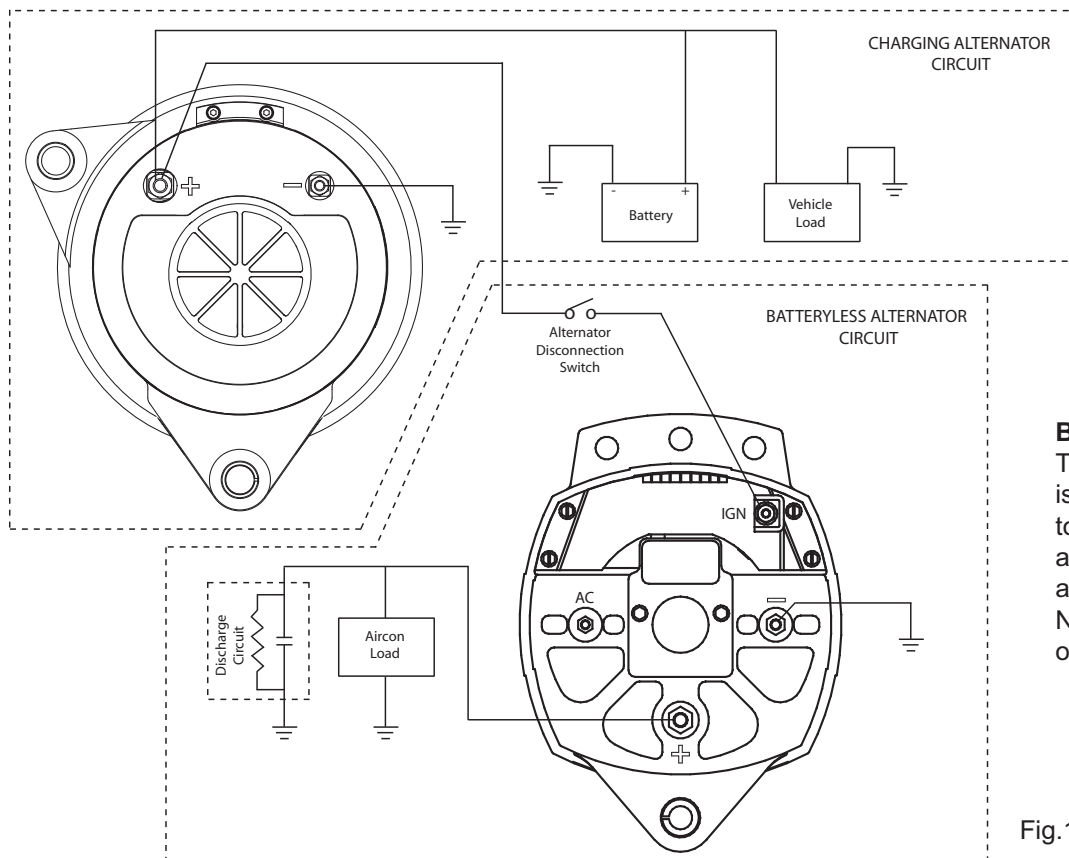


Fig.15

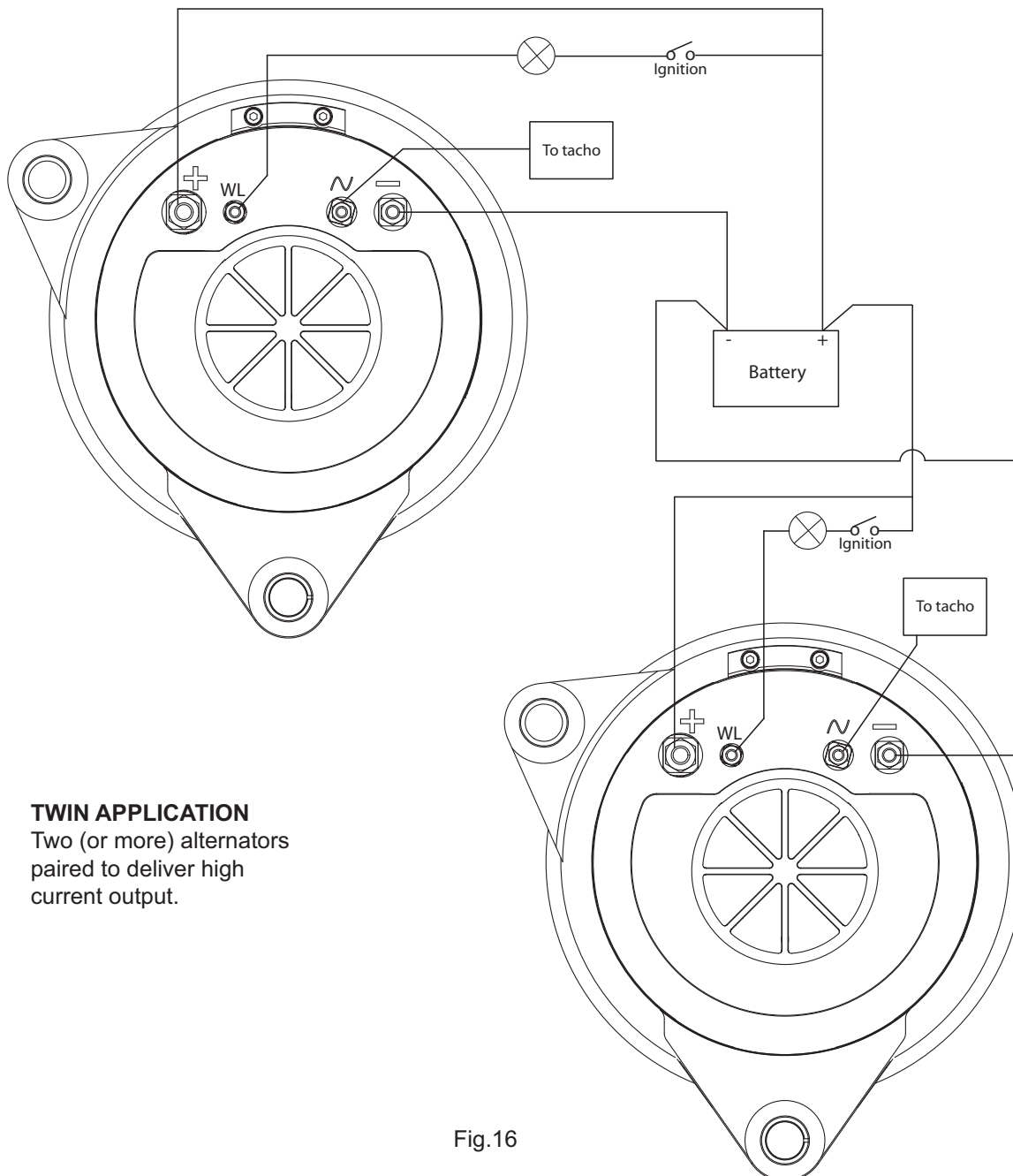
### BATTERYLESS

This type of alternator  
is used to supply power  
to operate fixed load  
auxiliary systems, eg.  
airconditioning.  
Note: Not for use as part  
of charging system .

## ALTERNATOR WIRING DIAGRAMS

CONTINUED...

**Multiple applications** are common placed where high current demand is required, typically on coaches. It is important that the regulated voltage of the alternators used are matched. In addition it is also important that the length of cables for the two alternators be kept the same to ensure that the voltage drops in the lines are identical (or as close as possible). The voltage drops must not exceed 1.0V.



### TWIN APPLICATION

Two (or more) alternators paired to deliver high current output.

Fig.16

## GLOSSARY OF STARTER MOTOR TERMS

**Earth return (ER)** starter motors will only be fitted with a B+ (battery positive) terminal. The negative part of the electrical circuit is completed through the body of starter motor and the vehicle chassis.

**Insulated return (IR)** starter motors have B+ (battery positive) and B- (battery negative) terminals, ie the battery leads at the alternator are insulated from the vehicle chassis.

**B- terminal** is the battery negative terminal on the alternator or starter motor.

**B+ / Terminal 30** is the battery positive connection terminal on starter motor, normally found on solenoid.

**SW / Terminal 50** is the positive feed connection to the solenoid.

**Terminal 15a** is a cold start terminal.

**Rotation** is generally in a clockwise (CW) direction, when looking at the front of the starter motor, however there are counter clockwise CCW applications.

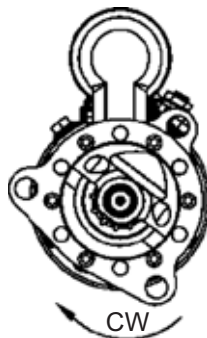


Fig.7



Fig.8

**Pinion at rest (PAR)** position is the measured distance between the mounting flange and the front face of pinion when the starter is not energised. (See Fig. 9)

**Pinion full travel position** is the measured distance between the mounting flange and the front face of the pinion when the starter motor is energised. (See Fig.9)

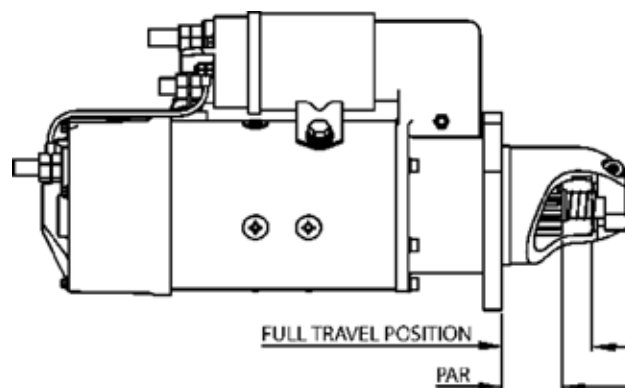


Fig.9

## GLOSSARY OF STARTER MOTOR TERMS

CONTINUED...

**Solenoid / Switch** is the part of the starter that activates the engagement / disengagement of the pinion / drive to the vehicle ringgear / flywheel, and also connects the battery to the motor via contact switch.

**Mounting configurations.** Several options are available, the most common are SAE1 and SAE3. See fig. 10 - fig.12.

**SAE1**

The 3 mounting holes are on a PCD of 127mm, spaced at 90°

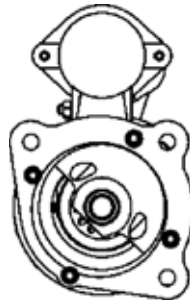


Fig.10



Fig.11

**SAE3**

The 3 mounting holes are on a PCD of 146mm, equi-spaced at 120°

**Starter drive** is the mechanism linking the starter rotational force and the vehicle engine, via ring gear / flywheel. This incorporates an overrun device to protect the motor in the event that the starter is not released when the engine has started.

**The pinion** is the geared component on the drive that interfaces with the ring gear / flywheel.

## STARTER MOTOR WIRING DIAGRAMS

The wiring diagrams shown below are typical and for reference only. For specific wiring diagrams or information, please contact the Technical Helpline.

The fitment of a Starter Lockout unit is recommended to prevent energising of starter motor whilst engine is running.

**EARTH RETURN**

The negative circuit is supplied through the vehicle chassis and the starter motor frame.

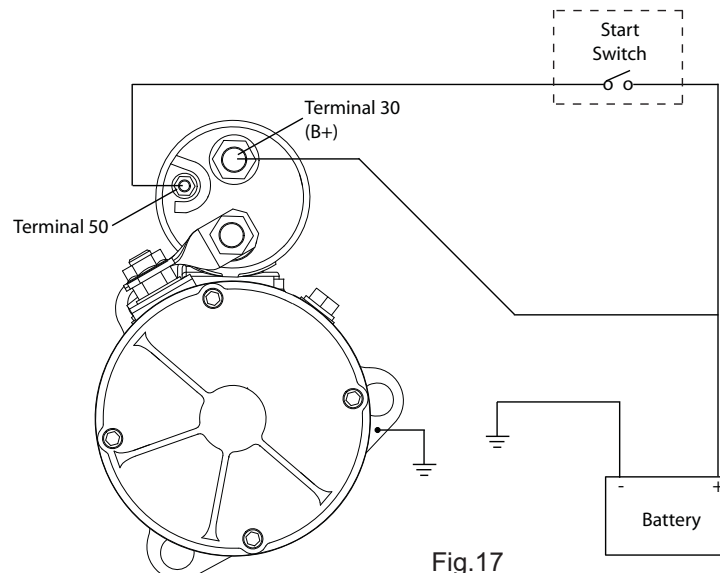


Fig.17

# STARTER MOTOR WIRING DIAGRAMS CONTINUED...

### INSULATED RETURN

The negative circuit is isolated from starter motor frame and vehicle chassis.

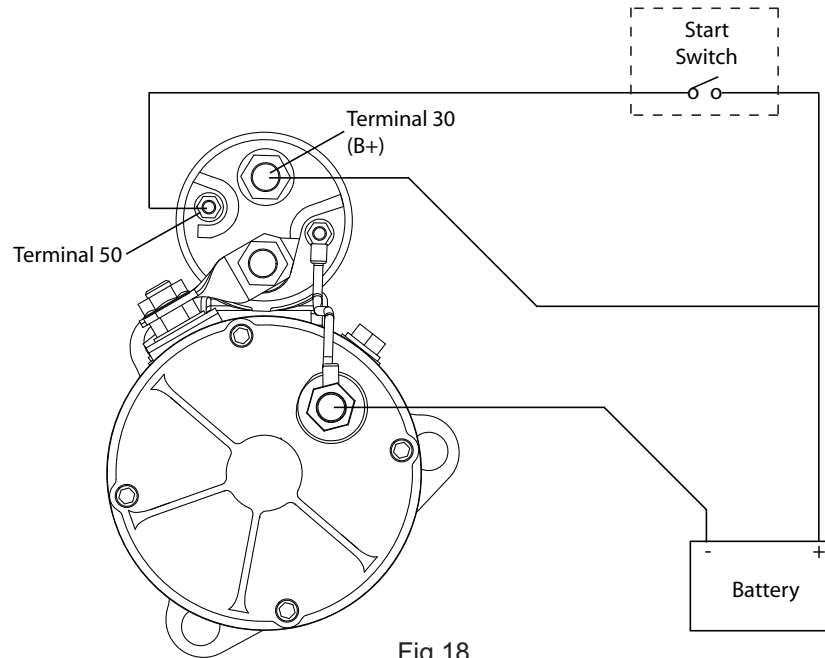


Fig.18

### AUXILIARY SOLENOID

Used on gear reduction starters due to high current in solenoid.

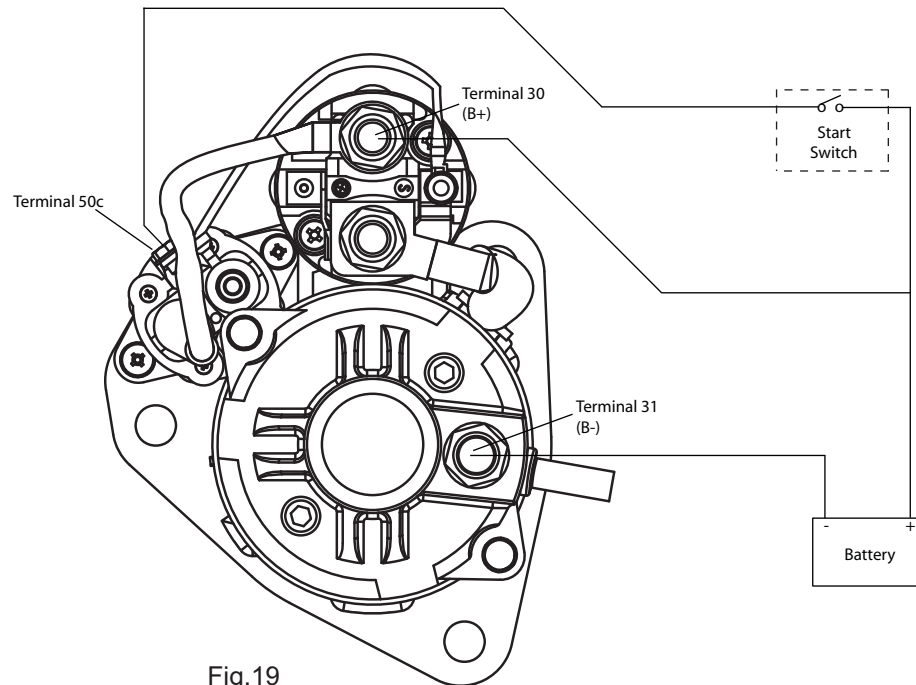


Fig.19

## ALTERNATOR FUNCTION

The alternator essentially consists of 3 components; the rotor / stator assy, the rectifier and the regulator.

The rotor and stator assembly utilised basic physics to generate electricity by rotating an electromagnetic field (rotor) within a series of windings (stator). This produces a 3 phase alternating current (AC) output from the stator.

The AC output is not suitable for DC system. The rectifier utilised a series of diodes to convert the original AC output to a direct current (DC) output, which is supplied to the vehicle loads and batteries.

The regulator controls the output of the alternator by increasing and decreasing the magnetic field of the rotor as required.

The alternator must be able to supply current to all required loads and have sufficient capacity to charge the vehicle batteries.

Most vehicles have some kind of warning light function that indicates when the alternator is not functioning as expected. This warning light will be illuminated when the ignition is switched on, but engine not started.

Once the engine has been started and is idling the warning light go out. This warning light circuit normally also serves as an excitation for the alternator, supplying approx 2.0-2.8W. On these alternators it will not charge if the warning light is not connected.

Some alternators have a separate EXC terminal (which must be connected), in which case the WL is an electronic switch, and is an optional feature.

For alternator wiring details refer to Fig.12 - to Fig.16. These illustrations are for reference only, please contact the Technical Helpline for specific wiring information.

## ALTERNATOR TROUBLESHOOTING GUIDE

| Problem  | Possible cause                             | Action   |
|--|--|--|
| No warning light when switched on                    | Flat battery                               | Check battery, charge in accordance with battery manufacturer's specification if required. |
|  | Blown warning light bulb or fuse           | Check warning light bulb or fuse.  |
|  | Poor / incorrect connections               | Check wiring and connections.  |
| Warning light does not go out when engine idling     | Poor / incorrect connections               | Check wiring and connections.  |
|  | Warning light shorted to earth             | Check wiring and connections.  |
|  | Excessive voltage drop in ignition circuit | Check wiring and connections.  |
|  | Faulty rectifier                           | Check rectifier circuit and diodes.  |
|  | Faulty regulator or alternator             | Remove and test regulator and alternator.  |
| Low output   | Slipping drive                             | Check Pulley, belts or coupling.   |
|  | Faulty regulator or alternator             | Remove and test regulator and alternator.  |
| Flickering warning light                             | Slipping drive                             | Check Pulley, belts or coupling.   |
|  | Volt drop in sensing line                  | Check wiring and connections.  |
|  | Faulty regulator or alternator             | Remove and test regulator and alternator.  |
| Battery overcharging, high alternator output voltage | Faulty regulator                           | Remove and test regulator.   |



## STARTER MOTOR FUNCTION

The basic components of the starter motor is the solenoid (switch), the motor, the shift assembly and the drive assembly.

When the circuit is energised, via the start button, the solenoid is activated into 1st stage contact, which engages the linkage system in the shift assembly and in turn moves the drive towards the ringgear. At this point a small current will flow through the motor causing a slow rotation of the motor and drive, this is to allow for the pinion to engage the ringgear correctly.

Once the pinion has engaged the ringgear, the solenoid 2nd contact will be activated and full current will be supplied to the motor, causing the motor to rotate at full speed and torque, cranking the engine via the drive and ringgear.

Once the engine has started and the engine speed is higher than that of the starter motor the overrunning protection function of the drive will prevent the engine accelerating the starter motor. As soon as the engine has started the driver / operator should release the starter button.

Please note that the over-run clutch protection function will be damaged by wreckless & prolonged over-cranking.

Gear-reduction starter motors are becoming increasingly popular due to compact design. These starters operate in the same manner, but is fitted with a small gearbox between the motor and the shift / drive assembly.

For starter motor wiring details refer to Fig.17, Fig.18 and Fig.19. These illustrations are for reference only, please contact the Technical Helpline for specific wiring information.

## STARTER MOTOR TROUBLESHOOTING GUIDE

| Problem                                       | Possible cause                        | Action   |
|---|---------------------------------------|--|
| Starter does not engage                       | Flat battery                          | Check battery, charge in accordance with battery manufacturer's specification if required.   |
|   | Poor / incorrect connections          | Check wiring and connections.  |
|   | Faulty ignition or start button       | Check battery voltage is available at the starter motor solenoid terminals when ignition / button operated.  |
|   | Faulty solenoid / auxiliary solenoid  | Test operation of the solenoid / auxiliary solenoid.   |
|   | Faulty starter                        | Remove and rectify.  |
| Starter engages but does not crank the engine | Flat battery                          | Check battery, charge in accordance with battery manufacturer's specification if required.   |
|   | Poor / incorrect connections          | Check wiring and connections.  |
|   | Excessive volt drop in main cables    | Check voltage drop by measuring voltage between starter terminals and battery terminals. Also, check earth circuit when ignition / button is operated. |
|   | Incorrect starter timing              | Remove and rectify.  |
|   | Faulty starter                        | Remove and rectify.  |
| Starter engages but cranks slowly             | Flat battery                          | Check battery, charge in accordance with battery manufacturer's specification if required.   |
|   | Poor / incorrect connections          | Check wiring and connections.  |
|   | Excessive volt drop in main cables    | Check voltage drop by measuring voltage between starter terminals and battery terminals. Also, check earth circuit when ignition / button is operated. |
|   | Faulty solenoid                       | Remove and replace.  |
|   | Faulty starter                        | Remove and rectify.  |
| Starter spins against flywheel                | Spacer or mounting flange unnecessary | Check if spacer is required and discard if unnecessary   |
|   | Incorrect starter timing              | Remove and rectify.  |
|   | Faulty starter                        | Remove and rectify.  |





# REFRIGERATION APPLICATION GUIDE

## ALTERNATORS



OUTPUT  
V / A

NOTES / NOTAS

### CARRIER TRANSICOLD





Alternators

#### > ENGINES

|                |       |                                     |           |            |                                |
|----------------|-------|-------------------------------------|-----------|------------|--------------------------------|
| Various Models | 80 >> | Mercedes OM636 Diesel               | 110-629   | 12V / 37A  |                                |
| Various Models | 80 >> | Perkins 4.108 Diesel                | 110-629   | 12V / 37A  |                                |
| Various Models | All   | Kubota CT2-29 (D482) Diesel         | 110-610RM | 12V / 37A  |                                |
| Various Models | All   | CT4-91-TV 1.5L Diesel               | 110-611RM | 12V / 65A  |                                |
| Various Models | All   | Kubota CT4-114 (V1902) Diesel       | 110-629   | 12V / 37A  |                                |
| Various Models | All   | Kubota CT4-114 (V1902) Diesel       | 110-527   | 12V / 51A  |                                |
| Various Models | All   | Kubota CT4-114 (V1902) Diesel       | 110-612RM | 12V / 65A  | Motorola 65A                   |
| Various Models | All   | Kubota CT4-114 (V1902-DI) Diesel    | 110-629   | 12V / 37A  |                                |
| Various Models | All   | Kubota CT4-114 (V1902-DI) Diesel    | 110-527   | 12V / 51A  |                                |
| Various Models | All   | Kubota CT4-114 (V1902-DI) Diesel    | 110-612RM | 12V / 65A  |                                |
| Various Models | All   | Kubota CT4-114-TV (V1902-TV) Diesel | 110-607RM | 12V / 65A  | 6203 DE Bearing                |
| Various Models | All   | Kubota CT4-114-TV (V1902-TV) Diesel | 110-609RM | 12V / 65A  | 6303 DE Bearing                |
| Various Models | All   | Kubota CT4-134 (V2203) Diesel       | 110-629   | 12V / 37A  |                                |
| Various Models | All   | Kubota CT4-134 (V2203-DI) Diesel    | 110-629   | 12V / 37A  |                                |
| Various Models | All   | Kubota CT4-134 (V2203-DI) Diesel    | 110-527   | 12V / 51A  | Motorola 51A (Ext. Reg.)       |
| Various Models | All   | Kubota CT4-134 (V2203-DI) Diesel    | 110-647   | 12V / 51A  | Motorola 51A (Int. Reg.)       |
| Various Models | All   | Kubota CT4-134 (V2203-DI) Diesel    | 110-607RM | 12V / 65A  | 6203 DE Bearing                |
| Various Models | All   | Kubota CT4-134 (V2203-DI) Diesel    | 110-609RM | 12V / 65A  | 6303 DE Bearing                |
| Various Models | All   | Kubota CT4-134 (V2203-DI) Diesel    | 110-612RM | 12V / 65A  | Motorola 65A (Int. Reg.)       |
| Various Models | All   | Kubota CT4-134 (V2203-DI) Diesel    | 110-608RM | 12V / 105A |                                |
| Various Models | All   | Kubota CT4-134-TV (V2203-TV) Diesel | 110-629   | 12V / 37A  |                                |
| Various Models | All   | Kubota CT4-134-TV (V2203-TV) Diesel | 110-527   | 12V / 51A  | Motorola 51A (Ext. Reg.)       |
| Various Models | All   | Kubota CT4-134-TV (V2203-TV) Diesel | 110-647   | 12V / 51A  | Motorola 51A (Int. Reg.)       |
| Various Models | All   | Kubota CT4-134-TV (V2203-TV) Diesel | 110-607RM | 12V / 65A  | Motorola 65A (6203 DE Bearing) |
| Various Models | All   | Kubota CT4-134-TV (V2203-TV) Diesel | 110-609RM | 12V / 65A  | Motorola 65A (6303 DE Bearing) |
| Various Models | All   | Kubota CT4-134-TV (V2203-TV) Diesel | 110-611RM | 12V / 65A  | Motorola 65A Alternator        |
| Various Models | All   | Kubota CT4-134-TV (V2203-TV) Diesel | 110-612RM | 12V / 65A  | Motorola 65A Alternator        |

#### > GENERATOR SETS

|        |     |                                  |           |           |  |
|--------|-----|----------------------------------|-----------|-----------|--|
| 69GC15 | All | Kubota CT4-134 (V2203-DI) Diesel | 110-612RM | 12V / 65A |  |
| 69GC15 | All | Kubota CT4-114 (V1902) Diesel    | 110-629   | 12V / 37A |  |

|  |  |  |  | OUTPUT<br>V / A | NOTES / NOTAS            |
|---|---|---|--|-----------------|--------------------------|
| 69GC15  | All   | Kubota CT4-114 (V1902) Diesel   | 110-612RM  | 12V / 65A       |                          |
| RG15  | All   | Kubota CT4-134 (V2203-DI) Diesel  | 110-612RM  | 12V / 65A       |                          |
| UG15  | All   | Kubota CT4-134 (V2203-DI) Diesel  | 110-612RM  | 12V / 65A       |                          |
| <b>&gt; HEATING UNITS</b>   |   |   |  |                 |                          |
| Solara  | All   | Kubota CT2-29 (D482) Diesel   | 110-610RM  | 12V / 37A       |                          |
| <b>&gt; TRAILER UNITS</b>   |   |   |  |                 |                          |
| Eagle Plus  | All   | Kubota CT4-134-TV (V2203-TV) Diesel   | 110-629  | 12V / 37A       |                          |
| Eagle Plus  | All   | Kubota CT4-134-TV (V2203-TV) Diesel   | 110-527  | 12V / 51A       | Motorola 51A (Ext. Reg.) |
| Eagle Plus  | All   | Kubota CT4-134-TV (V2203-TV) Diesel   | 110-647  | 12V / 51A       | Motorola 51A (Int. Reg.) |
| Eagle Plus  | All   | Kubota CT4-134-TV (V2203-TV) Diesel   | 110-612RM  | 12V / 65A       |                          |
| Eagle Plus  | All   | Kubota CT4-134 (V2203-DI) Diesel  | 110-629  | 12V / 37A       |                          |
| Eagle Plus  | All   | Kubota CT4-134 (V2203-DI) Diesel  | 110-527  | 12V / 51A       | Motorola 51A (Ext. Reg.) |
| Eagle Plus  | All   | Kubota CT4-134 (V2203-DI) Diesel  | 110-647  | 12V / 51A       | Motorola 51A (Int. Reg.) |
| Eagle Plus  | All   | Kubota CT4-134 (V2203-DI) Diesel  | 110-612RM  | 12V / 65A       |                          |
| Eagle Plus  | All   | Kubota CT4-134 (V2203) Diesel   | 110-629  | 12V / 37A       |                          |
| Eagle Plus  | All   | Kubota CT4-114 (V1902-DI) Diesel  | 110-629  | 12V / 37A       |                          |
| Eagle Plus  | All   | Kubota CT4-114 (V1902-DI) Diesel  | 110-527  | 12V / 51A       |                          |
| Eagle Plus  | All   | Kubota CT4-114 (V1902-DI) Diesel  | 110-612RM  | 12V / 65A       |                          |
| Eagle Plus  | All   | Kubota CT4-114 (V1902) Diesel   | 110-629  | 12V / 37A       |                          |
| Eagle Plus  | All   | Kubota CT4-114 (V1902) Diesel   | 110-527  | 12V / 51A       |                          |
| Eagle Plus  | All   | Kubota CT4-114 (V1902) Diesel   | 110-612RM  | 12V / 65A       |                          |
| Europhoenix   | All   | Kubota CT4-114 (V1902) Diesel   | 110-611RM  | 12V / 65A       |                          |
| Extra   | All   | Kubota CT4-134-TV (V2203-TV) Diesel   | 110-607RM  | 12V / 65A       |                          |
| Extra   | All   | Kubota CT4-134-TV (V2203-TV) Diesel   | 110-609RM  | 12V / 65A       |                          |
| Extra   | All   | Kubota CT4-114-TV (V1902-TV) Diesel   | 110-607RM  | 12V / 65A       |                          |
| Extra   | All   | Kubota CT4-114-TV (V1902-TV) Diesel   | 110-609RM  | 12V / 65A       |                          |
| Genesis TM900   | All   | Kubota CT4-134 (V2203-DI) Diesel  | 110-607RM  | 12V / 65A       | 6203 DE Bearing          |
| Genesis TM900   | All   | Kubota CT4-134 (V2203-DI) Diesel  | 110-609RM  | 12V / 65A       | 6303 DE Bearing          |
| Genesis TM900   | All   | Kubota CT4-134 (V2203-DI) Diesel  | 110-608RM  | 12V / 105A      |                          |
| Genesis TM1000  | All   | Kubota CT4-134 (V2203-DI) Diesel  | 110-607RM  | 12V / 65A       | 6203 DE Bearing          |
| Genesis TM1000  | All   | Kubota CT4-134 (V2203-DI) Diesel  | 110-609RM  | 12V / 65A       | 6303 DE Bearing          |
| Genesis TM1000  | All   | Kubota CT4-134 (V2203-DI) Diesel  | 110-608RM  | 12V / 105A      |                          |

Alternators

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#### > TRAILER UNITS

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|                   |     |                                     |           |            |                                |
|-------------------|-----|-------------------------------------|-----------|------------|--------------------------------|
| Genesis TR100     | All | Kubota CT4-134-TV (V2203-TV) Diesel | 110-607RM | 12V / 65A  | 6203 DE Bearing                |
| Genesis TR100     | All | Kubota CT4-134-TV (V2203-TV) Diesel | 110-609RM | 12V / 65A  | 6303 DE Bearing                |
| NDB40             | All | Perkins 4.108 Diesel                | 110-629   | 12V / 37A  |                                |
| NDE40             | All | Perkins 4.108 Diesel                | 110-629   | 12V / 37A  |                                |
| NDF40             | All | Kubota CT4-114 (V1902) Diesel       | 110-629   | 12V / 37A  |                                |
| NDJ40             | All | Kubota CT4-114 (V1902) Diesel       | 110-629   | 12V / 37A  |                                |
| NDJ40             | All | Perkins 4.108 Diesel                | 110-629   | 12V / 37A  |                                |
| NDS40             | All | Kubota CT4-114 (V1902) Diesel       | 110-527   | 12V / 51A  |                                |
| NDS40             | All | Perkins 4.108 Diesel                | 110-629   | 12V / 37A  |                                |
| NDT40             | All | Perkins 4.108 Diesel                | 110-629   | 12V / 37A  |                                |
| Optima            | All | CT4-91-TV 1.5L Diesel               | 110-611RM | 12V / 65A  | Motorola 65A Alternator        |
| Phoenix Advantage | All |                                     | 110-629   | 12V / 37A  |                                |
| Phoenix Advantage | All |                                     | 110-527   | 12V / 51A  |                                |
| Phoenix Advantage | All |                                     | 110-612RM | 12V / 65A  | Motorola 65A Alternator        |
| Phoenix Ultra     | All | Kubota CT4-134 (V2203-DI) Diesel    | 110-608RM | 12V / 105A |                                |
| Phoenix Ultra     | All | Kubota CT4-134-TV (V2203-TV) Diesel | 110-611RM | 12V / 65A  | Motorola 65A Alternator        |
| Phoenix Ultra XL  | All | Kubota CT4-134 (V2203-DI) Diesel    | 110-607RM | 12V / 65A  | Models NDA93M, 94M (Small Brg) |
| Phoenix Ultra XL  | All | Kubota CT4-134 (V2203-DI) Diesel    | 110-609RM | 12V / 65A  | Models NDA93M, 94M (Large Brg) |
| Phoenix Ultra XL  | All | Kubota CT4-134 (V2203-DI) Diesel    | 110-611RM | 12V / 65A  | Motorola 65A Alternator        |
| Thunderbird       | All | Kubota CT4-114 (V1902) Diesel       | 110-629   | 12V / 37A  |                                |
| Thunderbird       | All | Kubota CT4-114 (V1902) Diesel       | 110-527   | 12V / 51A  |                                |
| Thunderbird       | All | Kubota CT4-114 (V1902) Diesel       | 110-612RM | 12V / 65A  |                                |
| Thunderbird       | All | Kubota CT4-114 (V1902-DI) Diesel    | 110-629   | 12V / 37A  |                                |
| Thunderbird       | All | Kubota CT4-114 (V1902-DI) Diesel    | 110-527   | 12V / 51A  |                                |
| Thunderbird       | All | Kubota CT4-114 (V1902-DI) Diesel    | 110-612RM | 12V / 65A  |                                |
| UDE Series        | All | Kubota CT4-114 (V1902) Diesel       | 110-629   | 12V / 37A  |                                |
| UDE Series        | All | Mercedes OM636 Diesel               | 110-629   | 12V / 37A  |                                |
| UDE Series        | All | Perkins 4.108 Diesel                | 110-629   | 12V / 37A  |                                |
| UDG Series        | All | Kubota CT4-114 (V1902) Diesel       | 110-629   | 12V / 37A  |                                |
| UDG Series        | All | Kubota CT4-114 (V1902) Diesel       | 110-527   | 12V / 51A  |                                |
| UDG Series        | All | Mercedes OM636 Diesel               | 110-629   | 12V / 37A  |                                |
| Ultima 53         | All | Kubota CT4-134 (V2203-DI) Diesel    | 110-607RM | 12V / 65A  | 6203 DE Bearing                |

|  AC  |  |  |  | OUTPUT<br>V / A | NOTES / NOTAS      |
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| Ultima 53  | All   | Kubota CT4-134 (V2203-DI) Diesel  | 110-609RM  | 12V / 65A       | 6303 DE Bearing    |
| <b>&gt; TRUCK UNITS</b>  |   |   |  |                 |                    |
| Silverhawk Magnum  | All   | Kubota CT3-52 (ZB600) Diesel  | 110-629  | 12V / 37A       |                    |
| Silverhawk Plus  | All   | Kubota CT3-52 (ZB600) Diesel  | 110-629  | 12V / 37A       |                    |
| TDB  | All   | Kubota CT3-52 (ZB600) Diesel  | 110-629  | 12V / 37A       |                    |
| TDS  | All   | Kubota CT3-52 (ZB600) Diesel  | 110-629  | 12V / 37A       |                    |
| <b>THERMO KING</b>   |   |   |  |                 |                    |
| <b>&gt; BATTERYLESS SYSTEMS</b>  |   |   |  |                 |                    |
| Bus A/C Units  |   | With 24V Electrical Systems   | 110-575  | 24V / 150A      | 24V Excitation     |
| Bus A/C Units  |   | With 12V Electrical Systems   | 110-576  | 24V / 150A      | 12V Excitation     |
| Bus A/C Units  |   | With 12V Electrical Systems   | 110-555JHO   | 12V / 160A      |                    |
| <b>&gt; TRAILER UNITS</b>  |   |   |  |                 |                    |
| HK, HK-II, HK-III  | 92 >>   | TK 2.49 Diesel  | 110-581  | 12V / 23A       |                    |
| HK, HK-II, HK-III  | 92 >>   | TK 2.49 Diesel  | 110-600  | 12V / 65A       |                    |
| HK-30  | 80-88   | TK 2.44 Diesel  | 110-699  | 12V / 37A       |                    |
| HK-30  | 89 >>   | TK 2.44 Diesel  | 110-699  | 12V / 37A       |                    |
| HK-30  | 80-88   | TK 2.44 Diesel  | 110-600  | 12V / 65A       |                    |
| HK-30  | 89 >>   | TK 2.44 Diesel  | 110-600  | 12V / 65A       |                    |
| HK-60  | 80-88   | TK 2.44 Diesel  | 110-699  | 12V / 37A       |                    |
| HK-60  | 89 >>   | TK 2.44 Diesel  | 110-699  | 12V / 37A       |                    |
| HK-60  | 80-88   | TK 2.44 Diesel  | 110-600  | 12V / 65A       |                    |
| HK-60  | 89 >>   | TK 2.44 Diesel  | 110-600  | 12V / 65A       |                    |
| HK-100   | 80-88   | TK 2.44 Diesel  | 110-699  | 12V / 37A       |                    |
| HK-100   | 89 >>   | TK 2.44 Diesel  | 110-699  | 12V / 37A       |                    |
| HK-100   | 80-88   | TK 2.44 Diesel  | 110-600  | 12V / 65A       |                    |
| HK-100   | 89 >>   | TK 2.44 Diesel  | 110-600  | 12V / 65A       |                    |
| LND 30   | 83 >>   | Yanmar 353 (TK 3.53) Diesel   | 110-159  | 12V / 37A       |                    |
| LND 30   | 83 >>   | Yanmar 353 (TK 3.53) Diesel   | 110-543  | 12V / 51A       |                    |
| LND 50   | 91 >>   | Yanmar 353 (TK 3.53) Diesel   | 66021606   | 12V / 65A       |                    |
| SB-190   | 99 >>   | Isuzu 2.2L (TK DI2.2, -SE) Diesel   | 66021606   | 12V / 65A       | Bosch 37A / 65A    |
| SB-200   | 99 >>   | Yanmar 486 (TK 4.86) Diesel   | 66021606   | 12V / 65A       | Bosch 37A / 65A    |
| SB-210   | 99 >>   | Yanmar 486 (TK 4.86) Diesel   | 66021606   | 12V / 65A       | Bosch 37A / 65A    |
| SB-300   | 99 >>   | Yanmar 486 (TK 4.86) Diesel   | 66021606   | 12V / 65A       | Bosch 37A / 65A    |
| SB-310   | 99 >>   | Yanmar 486 (TK 4.86) Diesel   | 66021606   | 12V / 65A       | Bosch 37A / 65A    |
| SB-I   | 74-81   | Isuzu 2.2L (TK DI2.2, -SE) Diesel   | 110-543  | 12V / 51A       | Motorola 37A / 51A |
| SB-II  | 80 >>   | Isuzu 2.2L (TK DI2.2, -SE) Diesel   | 110-543  | 12V / 51A       |                    |

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## ALTERNATORS



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#### > TRAILER UNITS

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|------------|-------|-----------------------------------|----------|------------|-----------------|
| SB-II      | 80 >> | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 110-159  | 12V / 37A  |                 |
| SB-II      | 80 >> | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 110-543  | 12V / 51A  |                 |
| SB-II      | 80 >> | Isuzu 2.0L (TK C201) Diesel       | 110-159  | 12V / 37A  |                 |
| SB-II      | 80 >> | Isuzu 2.0L (TK C201) Diesel       | 110-543  | 12V / 51A  |                 |
| SB-II      | 84 >> | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 110-699  | 12V / 37A  |                 |
| SB-II      | 84 >> | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 110-600  | 12V / 65A  |                 |
| SB-II      | 84 >> | Isuzu 2.0L (TK C201) Diesel       | 110-699  | 12V / 37A  |                 |
| SB-II      | 84 >> | Isuzu 2.0L (TK C201) Diesel       | 110-600  | 12V / 65A  |                 |
| SB-II      | 89 >> | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 110-699  | 12V / 37A  |                 |
| SB-II      | 89 >> | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 110-600  | 12V / 65A  |                 |
| SB-II      | 89 >> | Isuzu 2.0L (TK C201) Diesel       | 110-699  | 12V / 37A  |                 |
| SB-II      | 89 >> | Isuzu 2.0L (TK C201) Diesel       | 110-600  | 12V / 65A  |                 |
| SB-II      | 91 >> | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 66021606 | 12V / 65A  | Bosch 37A / 65A |
| SB-II      | 91 >> | Isuzu 2.0L (TK C201) Diesel       | 66021606 | 12V / 65A  | Bosch 37A / 65A |
| SB-II MAX  | 91 >> | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 66021606 | 12V / 65A  | Bosch 37A / 65A |
| SB-II SR   | 91 >> | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 66021606 | 12V / 65A  | Bosch 37A / 65A |
| SB-II SR   | 98 >> | Yanmar 486 (TK 4.86) Diesel       | 66021606 | 12V / 65A  | Bosch 37A / 65A |
| SB-III     | 80-89 | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 110-543  | 12V / 51A  |                 |
| SB-III     | 80-89 | Isuzu 2.0L (TK C201) Diesel       | 110-543  | 12V / 51A  |                 |
| SB-III     | 90 >> | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 110-581  | 12V / 23A  |                 |
| SB-III     | 90 >> | Isuzu 2.0L (TK C201) Diesel       | 110-581  | 12V / 23A  |                 |
| SB-III MAX | 91 >> | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 66021606 | 12V / 65A  | Bosch 37A / 65A |
| SB-III MAX | 91 >> | Isuzu 2.0L (TK C201) Diesel       | 66021606 | 12V / 65A  | Bosch 37A / 65A |
| SB-III SR  | 93 >> | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 66021606 | 12V / 65A  | Bosch 37A / 65A |
| SB-III SR  | 99 >> | Yanmar 486 (TK 4.86) Diesel       | 20140111 | 12V / 120A |                 |
| SB-III SR  | 99 >> | Yanmar 486 (TK 4.86) Diesel       | 66021606 | 12V / 65A  | Bosch 37A / 65A |
| SDZ        | 91 >> | Kubota Z400 Diesel                | 66021606 | 12V / 65A  | Bosch 37A / 65A |
| SDZ        | 91 >> |                                   | 66021606 | 12V / 65A  | Bosch 37A / 65A |
| Sentry     | 85 >> | Isuzu 2.0L (TK C201) Diesel       | 110-159  | 12V / 37A  |                 |
| Sentry     | 85 >> | Isuzu 2.0L (TK C201) Diesel       | 110-543  | 12V / 51A  |                 |
| Sentry     | 89 >> | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 110-581  | 12V / 23A  |                 |
| Sentry     | 85 >> | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 110-159  | 12V / 37A  |                 |
| Sentry     | 85 >> | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 110-543  | 12V / 51A  |                 |
| Sentry     | 91 >> | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 66021606 | 12V / 65A  | Bosch 37A / 65A |



|  |  |  |  | OUTPUT<br>V / A | NOTES / NOTAS            |
|---|---|---|--|-----------------|--------------------------|
| Sentry  | 89 >>   | Isuzu 2.2L (TK DI2.2, -SE) Diesel   | 110-600  | 12V / 65A       | Motorola 65A (Int. Reg.) |
| SL100   | 96 >>   | Yanmar 482 / 486 (TK 4.82 / 4.86)   | 66021606   | 12V / 65A       | Bosch 37A / 65A          |
| SL100e  | 02 >>   | Yanmar 486 (TK 4.86) Diesel   | 66021606   | 12V / 65A       | Bosch 37A / 65A          |
| SL200   | 96 >>   | Yanmar 482 / 486 (TK 4.82 / 4.86)   | 66021606   | 12V / 65A       | Bosch 37A / 65A          |
| SL200e  | 02 >>   | Yanmar 486 (TK 4.86) Diesel   | 66021606   | 12V / 65A       | Bosch 37A / 65A          |
| SL300   | 96 >>   | Yanmar 482 / 486 (TK 4.82 / 4.86)   | 66021606   | 12V / 65A       | Bosch 37A / 65A          |
| SL400   | 96 >>   | Yanmar 482 / 486 (TK 4.82 / 4.86)   | 66021606   | 12V / 65A       | Bosch 37A / 65A          |
| SL400 SR2   | 02 >>   | Yanmar 486 (TK 4.86) Diesel   | 66021606   | 12V / 65A       | Bosch 37A / 65A          |
| SL400e  | 02 >>   | Yanmar 486 (TK 4.86) Diesel   | 66021606   | 12V / 65A       | Bosch 37A / 65A          |
| SMX   | 91 >>   |   | 66021606   | 12V / 65A       | Bosch 37A / 65A          |
| SMX II  | 91 >>   |   | 66021606   | 12V / 65A       | Bosch 37A / 65A          |
| SMX SR  | 91 >>   |   | 66021606   | 12V / 65A       | Bosch 37A / 65A          |
| SNWD  | 74 >>   |   | 110-159  | 12V / 37A       |                          |
| SNWD  | 74 >>   |   | 110-543  | 12V / 51A       |                          |
| Super II  | 83 >>   | Isuzu 2.2L (TK DI2.2, -SE) Diesel   | 110-699  | 12V / 37A       |                          |
| Super II  | 83 >>   | Isuzu 2.2L (TK DI2.2, -SE) Diesel   | 110-600  | 12V / 65A       |                          |
| Super II  | 83 >>   | Isuzu 2.0L (TK C201) Diesel   | 110-699  | 12V / 37A       |                          |
| Super II  | 83 >>   | Isuzu 2.0L (TK C201) Diesel   | 110-600  | 12V / 65A       |                          |
| Super II  | 89 >>   | Isuzu 2.2L (TK DI2.2, -SE) Diesel   | 110-699  | 12V / 37A       |                          |
| Super II  | 89 >>   | Isuzu 2.2L (TK DI2.2, -SE) Diesel   | 110-600  | 12V / 65A       |                          |
| Super II  | 89 >>   | Isuzu 2.0L (TK C201) Diesel   | 110-699  | 12V / 37A       |                          |
| Super II  | 91 >>   | Isuzu 2.2L (TK DI2.2, -SE) Diesel   | 66021606   | 12V / 65A       | Bosch 37A / 65A          |
| Super II MAX  | 89 >>   | Isuzu 2.2L (TK DI2.2, -SE) Diesel   | 110-581  | 12V / 23A       |                          |
| Super II MAX  | 89 >>   | Isuzu 2.2L (TK DI2.2, -SE) Diesel   | 110-699  | 12V / 37A       |                          |
| Super II MAX  | 89 >>   | Isuzu 2.2L (TK DI2.2, -SE) Diesel   | 110-600  | 12V / 65A       |                          |
| Super II SR   | 91 >>   | Isuzu 2.2L (TK DI2.2, -SE) Diesel   | 66021606   | 12V / 65A       |                          |
| Super II SR   | 91 >>   | Isuzu 2.2L (TK DI2.2, -SE) Diesel   | 66021606   | 12V / 65A       |                          |
| Super II TC   | 91 >>   | Isuzu 2.2L (TK DI2.2, -SE) Diesel   | 66021606   | 12V / 65A       | Bosch 37A / 65A          |
| Super II TC   | 99 >>   | Yanmar 486 (TK 4.86) Diesel   | 20140111   | 12V / 120A      |                          |
| Super II TC   | 99 >>   | Yanmar 486 (TK 4.86) Diesel   | 66021606   | 12V / 65A       | Bosch 37A / 65A          |
| Super NWD   | 84 >>   | Isuzu 2.2L (TK DI2.2, -SE) Diesel   | 110-159  | 12V / 37A       |                          |
| Super NWD   | 84 >>   | Isuzu 2.2L (TK DI2.2, -SE) Diesel   | 110-543  | 12V / 51A       | Motorola 37A / 51A       |
| Super NWD   | 84 >>   | Isuzu 2.0L (TK C201) Diesel   | 110-159  | 12V / 37A       |                          |
| Super NWD   | 84 >>   | Isuzu 2.0L (TK C201) Diesel   | 110-543  | 12V / 51A       | Motorola 37A / 51A       |
| TD-I  | 80 >>   | Isuzu 2.2L (TK DI2.2, -SE) Diesel   | 110-159  | 12V / 37A       |                          |
| TD-I  | 80 >>   | Isuzu 2.2L (TK DI2.2, -SE) Diesel   | 110-543  | 12V / 51A       |                          |

Alternators

# REFRIGERATION APPLICATION GUIDE

## ALTERNATORS



OUTPUT  
V / A

NOTES / NOTAS

### THERMO KING





#### > TRAILER UNITS

|             |       |                                   |           |           |                  |
|-------------|-------|-----------------------------------|-----------|-----------|------------------|
| TD-II       | 80 >> | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 110-159   | 12V / 37A |                  |
| TD-II       | 80 >> | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 110-543   | 12V / 51A |                  |
| TD-II       | 89 >> | Yanmar 388 (TK 3.88) Diesel       | 110-581   | 12V / 23A |                  |
| TD-II       | 89 >> | Yanmar 388 (TK 3.88) Diesel       | 110-600   | 12V / 65A |                  |
| URD         | 96 >> | Yanmar 353 (TK 3.53) Diesel       | 110-521   | 12V / 72A |                  |
| URD         | 96 >> | Yanmar 353 (TK 3.53) Diesel       | 66021624  | 12V / 90A | Bosch 90A Alt    |
| URD         | 96 >> | Yanmar 353 (TK 3.53) Diesel       | 110-639RM | 12V / 90A | Motorola 90A Alt |
| URD-III MAX | 96 >> | Yanmar 395 (TK 3.95) Diesel       | 110-639RM | 12V / 90A |                  |

#### > TRUCK UNITS

|              |       |                             |           |           |                    |
|--------------|-------|-----------------------------|-----------|-----------|--------------------|
| KD-I         | 78 >> | Yanmar 235 (TK 2.35) Diesel | 110-159   | 12V / 37A |                    |
| KD-I         | 78 >> | Yanmar 235 (TK 2.35) Diesel | 110-543   | 12V / 51A |                    |
| KD-II        | 89 >> | Yanmar 366 (TK 3.66) Diesel | 110-581   | 12V / 23A |                    |
| KD-II MAX    | 89 >> | Yanmar 366 (TK 3.66) Diesel | 110-581   | 12V / 23A |                    |
| KD-II SR     | 89 >> | Yanmar 374 (TK 3.74) Diesel | 110-581   | 12V / 23A |                    |
| MD-200       |       | Yanmar 374 (TK 3.74) Diesel | 110-581   | 12V / 23A |                    |
| MD-200-MT    |       | Yanmar 374 (TK 3.74) Diesel | 110-581   | 12V / 23A |                    |
| MD-300       |       | Yanmar 374 (TK 3.74) Diesel | 110-581   | 12V / 23A |                    |
| MD-I         | 83 >> | Yanmar 235 (TK 2.35) Diesel | 110-159   | 12V / 37A |                    |
| MD-I         | 83 >> | Yanmar 235 (TK 2.35) Diesel | 110-543   | 12V / 51A |                    |
| MD-II        | 89 >> | Yanmar 366 (TK 3.66) Diesel | 110-581   | 12V / 23A |                    |
| MD-II MAX    | 89 >> | Yanmar 374 (TK 3.74) Diesel | 110-581   | 12V / 23A |                    |
| MD-II MAX SR | 89 >> | Yanmar 374 (TK 3.74) Diesel | 110-581   | 12V / 23A |                    |
| MD-II SR     | 89 >> | Yanmar 374 (TK 3.74) Diesel | 110-581   | 12V / 23A |                    |
| MD-II TCI    | 89 >> | Yanmar 366 (TK 3.66) Diesel | 110-581   | 12V / 23A |                    |
| MD-II TCI    | 89 >> | Yanmar 366 (TK 3.66) Diesel | 110-699   | 12V / 37A |                    |
| MD-II TCI    | 89 >> | Yanmar 366 (TK 3.66) Diesel | 110-636RM | 12V / 65A |                    |
| NWD Series   | 74 >> | Isuzu 2.0L (TK C201) Diesel | 110-159   | 12V / 37A |                    |
| NWD Series   | 74 >> | Isuzu 2.0L (TK C201) Diesel | 110-543   | 12V / 51A | Motorola 37A / 51A |
| RD-I         | 80 >> | Yanmar 235 (TK 2.35) Diesel | 110-159   | 12V / 37A |                    |
| RD-I         | 80 >> | Yanmar 235 (TK 2.35) Diesel | 110-543   | 12V / 51A |                    |
| RD-II        | 92 >> | Yanmar 388 (TK 3.88) Diesel | 110-581   | 12V / 23A |                    |
| RD-II        | 92 >> | Yanmar 388 (TK 3.88) Diesel | 110-699   | 12V / 37A |                    |
| RD-II        | 92 >> | Yanmar 388 (TK 3.88) Diesel | 110-600   | 12V / 65A |                    |
| RD-II MAX    | 92 >> | Yanmar 388 (TK 3.88) Diesel | 110-581   | 12V / 23A |                    |

Alternators

|  |  |  |  | OUTPUT<br>V / A | NOTES / NOTAS |
|---|---|---|--|-----------------|---------------|
| RD-II MAX   | 92 >>   | Yanmar 388 (TK 3.88) Diesel   | 110-699  | 12V / 37A       |               |
| RD-II MAX   | 92 >>   | Yanmar 388 (TK 3.88) Diesel   | 110-600  | 12V / 65A       |               |
| RD-II MAX SR  | 92 >>   | Yanmar 388 (TK 3.88) Diesel   | 110-581  | 12V / 23A       |               |
| RD-II MAX SR  | 92 >>   | Yanmar 388 (TK 3.88) Diesel   | 110-699  | 12V / 37A       |               |
| RD-II MAX SR  | 92 >>   | Yanmar 388 (TK 3.88) Diesel   | 110-600  | 12V / 65A       |               |
| RD-II TCI   | 92 >>   | Yanmar 388 (TK 3.88) Diesel   | 110-699  | 12V / 37A       |               |
| RD-II TCI-Z   |   |   | 110-699  | 12V / 37A       |               |
| RD-II TCI-Z   |   |   | 110-600  | 12V / 65A       |               |
| RD-II TCI-Z   |   |   | 66021624   | 12V / 90A       |               |
| RD-II TLE   | 96 >>   | Yanmar 395 (TK 3.95) Diesel   | 110-699  | 12V / 37A       |               |
| RD-II TLE   | 96 >>   | Yanmar 395 (TK 3.95) Diesel   | 110-638RM  | 12V / 90A       |               |
| TS Spectrum   | 02 >>   | TK 3.76 Diesel  | 110-638RM  | 12V / 90A       |               |
| TS-200  | 00 >>   | Yanmar 374 (TK 3.74) Diesel   | 110-581  | 12V / 23A       |               |
| TS-200  | 00 >>   | Yanmar 374 (TK 3.74) Diesel   | 110-635RM  | 12V / 37A       |               |
| TS-300  | 00 >>   | Yanmar 374 (TK 3.74) Diesel   | 110-581  | 12V / 23A       |               |
| TS-300  | 00 >>   | Yanmar 374 (TK 3.74) Diesel   | 110-635RM  | 12V / 37A       |               |
| TS-500  | 00 >>   | Yanmar 395 (TK 3.95) Diesel   | 110-581  | 12V / 23A       |               |
| TS-500  | 00 >>   | Yanmar 395 (TK 3.95) Diesel   | 110-635RM  | 12V / 37A       |               |
| TS-600  | 00 >>   | Yanmar 395 (TK 3.95) Diesel   | 110-581  | 12V / 23A       |               |
| TS-600  | 00 >>   | Yanmar 395 (TK 3.95) Diesel   | 110-635RM  | 12V / 37A       |               |
| UTS   |   | Yanmar 395 (TK 3.95) Diesel   | 110-639RM  | 12V / 90A       |               |
| XDS   | 99 >>   |   | 110-581  | 12V / 23A       |               |
| <b>ZANOTTI</b>  |   |   |  |                 |               |
| <b>&gt; TRAILER UNIT</b>  |   |   |  |                 |               |
| T620  | All   | Lombardini  | 20110326   | 12V / 65A       |               |

Alternators










# REFRIGERATION BUYER'S GUIDE

## ALTERNATORS



Alternator Buyer's Guide

|                 |     |      |    |      |                |            |  |
|-----------------|-----|------|----|------|----------------|------------|--|
| <b>20110326</b> | 12V | 65A  | ER | 17mm | Clockwise      | 4K, 59.7mm | <b>APPLICATION</b>   |
|                 |     |      |    |      |                |            | <b>ZANOTTI</b><br>> TRAILER UNIT - T620  |
| <b>20140111</b> | 12V | 120A | IR | 17mm | Clockwise      | None       | <b>APPLICATION</b>   |
|                 |     |      |    |      |                |            | <b>THERMO KING</b><br>> TRAILER UNIT - SB-III SR, Super II TC  |
| <b>66021606</b> | 12V | 65A  | IR | 17mm | Bi-directional | None       | <b>APPLICATION</b>   |
|                 |     |      |    |      |                |            | <b>THERMO KING</b><br>> TRAILER UNIT - LND 50, SB, SB-II, SB-III, SDZ, Sentry, SL, SMX, Super II Series                                    |
| <b>66021624</b> | 12V | 90A  | IR | 17mm | Bi-directional | None       | <b>APPLICATION</b>   |
|                 |     |      |    |      |                |            | <b>THERMO KING</b><br>> TRAILER UNIT - URD<br>> TRUCK UNIT - RD-II TCI-Z   |
| <b>110-159</b>  | 12V | 37A  | IR | 5/8" | Clockwise      | None       | <b>APPLICATION</b>   |
|                 |     |      |    |      |                |            | <b>THERMO KING</b><br>> TRAILER UNIT - LND 30, SB-II, Sentry, SNWD, Super NWD, TD-I, TD-II<br>> TRUCK UNIT - KD-I, MD-I, RD-I & NWD Series |

|   |     |      |    |      |                                     |      |  |
|---|-----|------|----|------|-------------------------------------|------|--|
| <b>110-521</b>  | 12V | 72A  | IR | 5/8" | Bi-directional                      | None | <b>APPLICATION</b>   |
|    |     |      |    |      |                                     |      | <b>THERMO KING</b><br>> TRAILER UNIT - URD   |
| <b>110-527</b>  | 12V | 51A  | IR | 5/8" | Bi-directional<br>(No fan supplied) | None | <b>APPLICATION</b>   |
|    |     |      |    |      |                                     |      | <b>CARRIER TRANSICOLD</b><br>> ENGINES - Various Models<br>> TRAILER UNIT - Eagle Plus, NDS40, Phoenix Advantage, Thunderbird, UDG Series                |
| <b>110-543</b>  | 12V | 51A  | IR | 5/8" | Clockwise                           | None | <b>APPLICATION</b>   |
|  |     |      |    |      |                                     |      | <b>THERMO KING</b><br>> TRAILER UNIT - LND 30, SB-I, SB-II, SB-III, Sentry, SNWD, Super NWD, TD-I, TD-II<br>> TRUCK UNIT - KD-I, MD-I, RD-I & NWD Series |
| <b>110-555JHO</b>   | 12V | 160A | IR | 7/8" | Clockwise                           | None | <b>APPLICATION</b>   |
|  |     |      |    |      |                                     |      | <b>THERMO KING</b><br>> BATTERYLESS SYSTEMS - Bus A/C Units  |
| <b>110-575</b>  | 24V | 150A | IR | 7/8" | Clockwise                           | None | <b>APPLICATION</b>   |
|  |     |      |    |      |                                     |      | <b>THERMO KING</b><br>> BATTERYLESS SYSTEMS - Bus A/C Units  |

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## ALTERNATORS



Alternator Buyer's Guide

|                  |     |      |    |      |                   |      |   |
|------------------|-----|------|----|------|-------------------|------|---|
| <b>110-576</b>   | 24V | 150A | IR | 7/8" | Clockwise         | None | <b>APPLICATION</b>  |
|                  |     |      |    |      |                   |      | <b>THERMO KING</b><br>> BATTERYLESS SYSTEMS - Bus A/C Units   |
| <b>110-581</b>   | 12V | 23A  | IR | 5/8" | Bi-directional    | None | <b>APPLICATION</b>  |
|                  |     |      |    |      |                   |      | <b>THERMO KING</b><br>> TRAILER UNIT - HK, HK-II, HK-III, SB-III, Sentry, Super II MAX, TD-II<br>> TRUCK UNIT - KD-II / SR / MAX, MD-200 / MT, MD-300, MD-II / MAX / MAX SR / SR / TCI, RD-II / MAX / MAX SR, TS-200 / 300 / 500 / 600, XDS |
| <b>110-600</b>   | 12V | 65A  | IR | 5/8" | Clockwise         | None | <b>APPLICATION</b>  |
|                  |     |      |    |      |                   |      | <b>THERMO KING</b><br>> TRAILER UNIT - HK, HK-II, HK-III, HK-30 / 60 / 100, SB-II, Sentry, Super II / MAX, TD-II<br>> TRUCK UNIT - RD-II / MAX / MAX SR / TCI-Z   |
| <b>110-607RM</b> | 12V | 65A  | IR | 5/8" | Counter Clockwise | None | <b>APPLICATION</b>  |
|                  |     |      |    |      |                   |      | <b>CARRIER TRANSICOLD</b><br>> ENGINES - Various Models<br>> TRAILER UNIT - Extra, Genesis TM900 / TM 1000 / TR100, Phoenix Ultra XL, Optima 53   |
| <b>110-608RM</b> | 12V | 105A | IR | 5/8" | Counter Clockwise | None | <b>APPLICATION</b>  |
|                  |     |      |    |      |                   |      | <b>CARRIER TRANSICOLD</b><br>> ENGINES - Various Models<br>> TRAILER UNIT - Genesis TM900 / TM1000, Phoenix Ultra   |



|   |     |     |    |      |                                     |      |  |
|---|-----|-----|----|------|-------------------------------------|------|--|
| <b>110-609RM</b>  | 12V | 65A | IR | 5/8" | Clockwise                           | None | <b>APPLICATION</b>   |
|    |     |     |    |      |                                     |      | <b>CARRIER TRANSICOLD</b><br>> ENGINES - Various Models<br>> TRAILER UNIT - Extra, Genesis TM900 / TM1000/ TR100, Phoenix Ultra XL, Ultima 53  |
| <b>110-610RM</b>  | 12V | 37A | IR | 5/8" | Clockwise                           | None | <b>APPLICATION</b>   |
|    |     |     |    |      |                                     |      | <b>CARRIER TRANSICOLD</b><br>> ENGINES - Various Models<br>> HEATING UNIT - Solara   |
| <b>110-611RM</b>  | 12V | 65A | IR | 5/8" | Bi-directional<br>(No fan supplied) | None | <b>APPLICATION</b>   |
|  |     |     |    |      |                                     |      | <b>CARRIER TRANSICOLD</b><br>> ENGINES - Various Models<br>> TRAILER UNIT - Europhoenix, Optima, Phoenix Ultra / XL  |
| <b>110-612RM</b>  | 12V | 65A | IR | 5/8" | Bi-directional                      | None | <b>APPLICATION</b>   |
|  |     |     |    |      |                                     |      | <b>CARRIER TRANSICOLD</b><br>> ENGINES - Various Models<br>> GENERATOR SET - 69GC15, RG15, UG15<br>> TRAILER UNIT - Eagle Plus, Phoenix Advantage, Thunderbird   |
| <b>110-629</b>  | 12V | 37A | IR | 5/8" | Clockwise                           | None | <b>APPLICATION</b>   |
|  |     |     |    |      |                                     |      | <b>CARRIER TRANSICOLD</b><br>> ENGINES - Various Models<br>> GENERATOR SET - 69GC15<br>> TRAILER UNIT - Eagle Plus, NDB40, NDE40, NDF40, NDJ40, NDS40, NDT40, Phoenix Advantage, Thunderbird, UDE, UDG Series<br>> TRUCK UNIT - Silverhawk Magnum / Plus, TDB, TDS |


# REFRIGERATION BUYER'S GUIDE

## ALTERNATORS

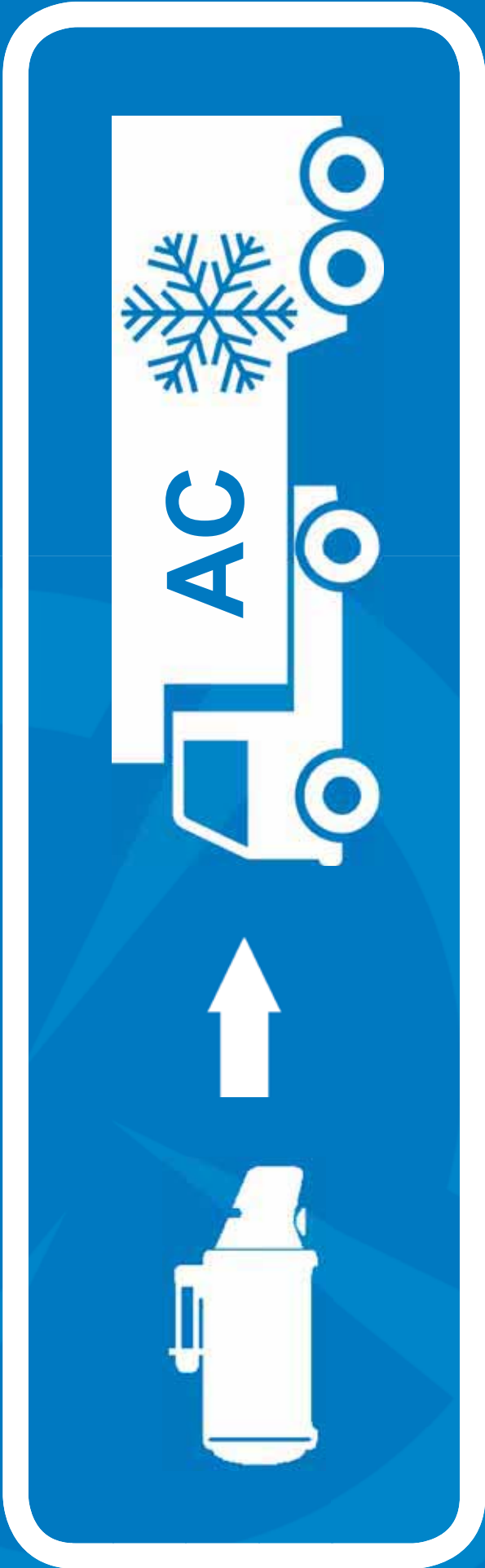


Alternator Buyer's Guide

|                  |     |     |    |      |                |      |  |
|------------------|-----|-----|----|------|----------------|------|--|
| <b>110-635RM</b> | 12V | 37A | IR | 5/8" | Clockwise      | None | <b>APPLICATION</b>   |
|                  |     |     |    |      |                |      | <b>THERMO KING</b><br>> TRUCK UNIT - TS-200 / 300 / 500 / 600                          |
| <b>110-636RM</b> | 12V | 65A | IR | 5/8" | Clockwise      | None | <b>APPLICATION</b>   |
|                  |     |     |    |      |                |      | <b>THERMO KING</b><br>> TRUCK UNIT - MD-II TCI   |
| <b>110-638RM</b> | 12V | 90A | IR | 5/8" | Bi-directional | None | <b>APPLICATION</b>   |
|                  |     |     |    |      |                |      | <b>THERMO KING</b><br>> TRUCK UNIT - RD-II TLE, TS Spectrum                            |
| <b>110-639RM</b> | 12V | 90A | IR | 5/8" | Bi-directional | None | <b>APPLICATION</b>   |
|                  |     |     |    |      |                |      | <b>THERMO KING</b><br>> TRAILER UNIT - URD, URD-III MAX<br>> TRUCK UNIT - UTS          |
| <b>110-647</b>   | 12V | 51A | IR | 5/8" | Clockwise      | None | <b>APPLICATION</b>   |
|                  |     |     |    |      |                |      | <b>CARRIER TRANSICOLD</b><br>> ENGINES - Various Models<br>> TRAILER UNIT - Eagle Plus |

| 110-699   | 12V | 37A | IR | 5/8" | Clockwise | None | APPLICATION   |
|---|-----|-----|----|------|-----------|------|---|
|  |     |     |    |      |           |      | <p><b>THERMO KING</b></p> <ul style="list-style-type: none"> <li>&gt; TRAILER UNIT - HK-30 / 60 / 100, SB-II, Super II / MAX</li> <li>&gt; TRUCK UNIT - MD-II TCI, RD-II / MAX / MAX SR / TCI/ TCI-Z / TLE</li> </ul> |





# REFRIGERATION APPLICATION GUIDE

## STARTER MOTORS



OUTPUT  
V / kW

NOTES / NOTAS

### CARRIER TRANSICOLD

#### > ENGINES

|                |     |                       |          |             |                     |
|----------------|-----|-----------------------|----------|-------------|---------------------|
| Various Models | All | CT4-91-TV 1.5L Diesel | 20513059 | 12V / 1.4kW | Denso 1.2kW / 1.4kW |
|----------------|-----|-----------------------|----------|-------------|---------------------|

#### > TRAILER UNITS

|        |     |                       |          |             |  |
|--------|-----|-----------------------|----------|-------------|--|
| Maxima | All | CT4-91-TV 1.5L Diesel | 20513059 | 12V / 1.4kW |  |
| Optima | All | CT4-91-TV 1.5L Diesel | 20513059 | 12V / 1.4kW |  |

### THERMO KING

#### > ENGINES

|                |       |                                   |          |             |                |
|----------------|-------|-----------------------------------|----------|-------------|----------------|
| Various Models | 71 >> | Isuzu 2.0L (TK C201) Diesel       | 20513075 | 12V / 2.0kW | Hitachi System |
| Various Models | 80 >> | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 20513052 | 12V / 2.0kW |                |
| Various Models | 89 >> | Yanmar 366 (TK 3.66) Diesel       | 20513587 | 12V / 1.4kW |                |
| Various Models | 89 >> | Yanmar 374 (TK 3.74) Diesel       | 20513032 | 12V / 2.0kW |                |
| Various Models | 89 >> | Yanmar 388 (TK 3.88) Diesel       | 20513587 | 12V / 1.4kW |                |
| Various Models | 96 >> | Yanmar 395 (TK 3.95) Diesel       | 20513032 | 12V / 2.0kW |                |
| Various Models | 96 >> | Yanmar 482 (TK 4.82) Diesel       | 20513057 | 12V / 2.0kW |                |
| Various Models | 96 >> | Yanmar 486 (TK 4.86) Diesel       | 20513057 | 12V / 2.0kW |                |
| Various Models | 99 >> | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 20513052 | 12V / 2.0kW |                |

#### > GENERATOR SETS

|           |     |                                   |          |             |  |
|-----------|-----|-----------------------------------|----------|-------------|--|
| CGCM      | All | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 20513052 | 12V / 2.0kW |  |
| CGCO      | All | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 20513052 | 12V / 2.0kW |  |
| CGEO      | All | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 20513052 | 12V / 2.0kW |  |
| CG-II     | All | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 20513052 | 12V / 2.0kW |  |
| CG-II M12 | All | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 20513052 | 12V / 2.0kW |  |
| CG-II M12 | All | Isuzu 2.0L (TK C201) Diesel       | 20513075 | 12V / 2.0kW |  |
| CG-II M20 | All | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 20513052 | 12V / 2.0kW |  |
| CG-II M20 | All | Isuzu 2.0L (TK C201) Diesel       | 20513075 | 12V / 2.0kW |  |
| CG-II M22 | All | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 20513052 | 12V / 2.0kW |  |
| CG-II M22 | All | Isuzu 2.0L (TK C201) Diesel       | 20513075 | 12V / 2.0kW |  |
| CG-II M30 | All | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 20513052 | 12V / 2.0kW |  |
| CG-II M30 | All | Isuzu 2.0L (TK C201) Diesel       | 20513075 | 12V / 2.0kW |  |
| CGSM      | All | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 20513052 | 12V / 2.0kW |  |
| SGCM      | All | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 20513052 | 12V / 2.0kW |  |
| SGCO      | All | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 20513052 | 12V / 2.0kW |  |
| SGSM      | All | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 20513052 | 12V / 2.0kW |  |

Starter Motors



| THERMO KING     |       |                                   |          |             |                |
|-----------------|-------|-----------------------------------|----------|-------------|----------------|
| > TRAILER UNITS |       |                                   |          |             |                |
| Model           | Year  | Engine                            | Part No. | Output      | Notes          |
| LND II 50       | 93 >> | Yanmar 388 (TK 3.88) Diesel       | 20513587 | 12V / 1.4kW |                |
| SB-190          | 99 >> | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 20513052 | 12V / 2.0kW |                |
| SB-200          | 99 >> | Yanmar 486 (TK 4.86) Diesel       | 20513057 | 12V / 2.0kW |                |
| SB-210          | 99 >> | Yanmar 486 (TK 4.86) Diesel       | 20513057 | 12V / 2.0kW |                |
| SB-300          | 99 >> | Yanmar 486 (TK 4.86) Diesel       | 20513057 | 12V / 2.0kW |                |
| SB-310          | 99 >> | Yanmar 486 (TK 4.86) Diesel       | 20513057 | 12V / 2.0kW |                |
| SB-I            | 74-81 | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 20513052 | 12V / 2.0kW |                |
| SB-II           | 80 >> | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 20513052 | 12V / 2.0kW |                |
| SB-II           | 80 >> | Isuzu 2.0L (TK C201) Diesel       | 20513075 | 12V / 2.0kW | Hitachi System |
| SB-II MAX       | 91 >> | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 20513052 | 12V / 2.0kW |                |
| SB-II SR        | 91 >> | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 20513052 | 12V / 2.0kW |                |
| SB-II SR        | 98 >> | Yanmar 486 (TK 4.86) Diesel       | 20513057 | 12V / 2.0kW |                |
| SB-III          | 80-89 | Isuzu 2.0L (TK C201) Diesel       | 20513075 | 12V / 2.0kW |                |
| SB-III          | 90 >> | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 20513052 | 12V / 2.0kW |                |
| SB-III MAX      | 91 >> | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 20513052 | 12V / 2.0kW |                |
| SB-III MAX      | 91 >> | Isuzu 2.0L (TK C201) Diesel       | 20513075 | 12V / 2.0kW |                |
| SB-III SR       | 93 >> | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 20513052 | 12V / 2.0kW |                |
| SB-III SR       | 99 >> | Yanmar 486 (TK 4.86) Diesel       | 20513057 | 12V / 2.0kW |                |
| Sentry          | 85 >> | Isuzu 2.0L (TK C201) Diesel       | 20513075 | 12V / 2.0kW | Hitachi System |
| Sentry          | 85 >> | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 20513052 | 12V / 2.0kW |                |
| SL100           | 96 >> | Yanmar 482 / 486 (TK 4.82 / 4.86) | 20513057 | 12V / 2.0kW |                |
| SL100e          | 02 >> | Yanmar 486 (TK 4.86) Diesel       | 20513057 | 12V / 2.0kW |                |
| SL200           | 96 >> | Yanmar 482 / 486 (TK 4.82 / 4.86) | 20513057 | 12V / 2.0kW |                |
| SL200e          | 02 >> | Yanmar 486 (TK 4.86) Diesel       | 20513057 | 12V / 2.0kW |                |
| SL300           | 96 >> | Yanmar 482 / 486 (TK 4.82 / 4.86) | 20513057 | 12V / 2.0kW |                |
| SL400           | 96 >> | Yanmar 482 / 486 (TK 4.82 / 4.86) | 20513057 | 12V / 2.0kW |                |
| SL400 SR2       | 02 >> | Yanmar 486 (TK 4.86) Diesel       | 20513057 | 12V / 2.0kW |                |
| SL400e          | 02 >> | Yanmar 486 (TK 4.86) Diesel       | 20513057 | 12V / 2.0kW |                |
| SMX             | 91 >> |                                   | 20513052 | 12V / 2.0kW |                |
| SMX II          | 91 >> |                                   | 20513052 | 12V / 2.0kW |                |
| SMX SR          | 91 >> |                                   | 20513052 | 12V / 2.0kW |                |
| SNWD            | 74 >> |                                   | 20513075 | 12V / 2.0kW |                |
| Spectrum SB     | 01 >> | Yanmar 486 (TK 4.86) Diesel       | 20513057 | 12V / 2.0kW |                |

Starter Motors

# REFRIGERATION APPLICATION GUIDE

## STARTER MOTORS



OUTPUT  
V / kW

NOTES / NOTAS

### THERMO KING

#### > TRAILER UNITS





|              |       |                                   |          |             |  |
|--------------|-------|-----------------------------------|----------|-------------|--|
| Spectrum SL  | 01 >> | Yanmar 486 (TK 4.86) Diesel       | 20513057 | 12V / 2.0kW |  |
| Super II     | 83 >> | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 20513052 | 12V / 2.0kW |  |
| Super II     | 83 >> | Isuzu 2.0L (TK C201) Diesel       | 20513075 | 12V / 2.0kW |  |
| Super II MAX | 89 >> | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 20513052 | 12V / 2.0kW |  |
| Super II SR  | 91 >> | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 20513052 | 12V / 2.0kW |  |
| Super II TC  | 91 >> | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 20513052 | 12V / 2.0kW |  |
| Super II TC  | 99 >> | Yanmar 486 (TK 4.86) Diesel       | 20513057 | 12V / 2.0kW |  |
| Super NWD    | 84 >> | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 20513052 | 12V / 2.0kW |  |
| Super NWD    | 84 >> | Isuzu 2.0L (TK C201) Diesel       | 20513075 | 12V / 2.0kW |  |
| TD-I         | 80 >> | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 20513052 | 12V / 2.0kW |  |
| TD-II        | 80 >> | Isuzu 2.2L (TK DI2.2, -SE) Diesel | 20513052 | 12V / 2.0kW |  |
| TD-II        | 89 >> | Yanmar 388 (TK 3.88) Diesel       | 20513587 | 12V / 1.4kW |  |
| URD-III MAX  | 96 >> | Yanmar 395 (TK 3.95) Diesel       | 20513032 | 12V / 2.0kW |  |

#### > TRUCK UNITS

|              |       |                             |          |             |                |
|--------------|-------|-----------------------------|----------|-------------|----------------|
| KD-II        | 89 >> | Yanmar 366 (TK 3.66) Diesel | 20513587 | 12V / 1.4kW |                |
| KD-II MAX    | 89 >> | Yanmar 366 (TK 3.66) Diesel | 20513587 | 12V / 1.4kW |                |
| KD-II SR     | 89 >> | Yanmar 374 (TK 3.74) Diesel | 20513032 | 12V / 2.0kW |                |
| MD-200       |       | Yanmar 374 (TK 3.74) Diesel | 20513032 | 12V / 2.0kW |                |
| MD-200-MT    |       | Yanmar 374 (TK 3.74) Diesel | 20513032 | 12V / 2.0kW |                |
| MD-300       |       | Yanmar 374 (TK 3.74) Diesel | 20513032 | 12V / 2.0kW |                |
| MD-II        | 89 >> | Yanmar 366 (TK 3.66) Diesel | 20513587 | 12V / 1.4kW |                |
| MD-II MAX    | 89 >> | Yanmar 374 (TK 3.74) Diesel | 20513032 | 12V / 2.0kW |                |
| MD-II MAX SR | 89 >> | Yanmar 374 (TK 3.74) Diesel | 20513032 | 12V / 2.0kW |                |
| MD-II SR     | 89 >> | Yanmar 374 (TK 3.74) Diesel | 20513032 | 12V / 2.0kW |                |
| MD-II TCI    | 89 >> | Yanmar 366 (TK 3.66) Diesel | 20513587 | 12V / 1.4kW |                |
| NWD Series   | 74 >> | Isuzu 2.0L (TK C201) Diesel | 20513075 | 12V / 2.0kW | Hitachi System |
| RD-II        | 92 >> | Yanmar 388 (TK 3.88) Diesel | 20513587 | 12V / 1.4kW |                |
| RD-II MAX    | 92 >> | Yanmar 388 (TK 3.88) Diesel | 20513587 | 12V / 1.4kW |                |
| RD-II MAX SR | 92 >> | Yanmar 388 (TK 3.88) Diesel | 20513587 | 12V / 1.4kW |                |
| RD-II TCI    | 92 >> | Yanmar 388 (TK 3.88) Diesel | 20513587 | 12V / 1.4kW |                |
| RD-II TCI-Z  |       |                             | 20513587 | 12V / 1.4kW |                |
| RD-II TLE    | 96 >> | Yanmar 395 (TK 3.95) Diesel | 20513032 | 12V / 2.0kW |                |
| TS Spectrum  | 02 >> | TK 3.76 Diesel              | 20513032 | 12V / 2.0kW |                |

Starter Motors



|  |  |  |  | OUTPUT<br>V / kW | NOTES / NOTAS |
|---|---|---|--|------------------|---------------|
| TS-200  | 00 >>   | Yanmar 374 (TK 3.74) Diesel   | <a href="#">20513032</a>   | 12V / 2.0kW      |               |
| TS-300  | 00 >>   | Yanmar 374 (TK 3.74) Diesel   | <a href="#">20513032</a>   | 12V / 2.0kW      |               |
| TS-500  | 00 >>   | Yanmar 395 (TK 3.95) Diesel   | <a href="#">20513032</a>   | 12V / 2.0kW      |               |
| TS-600  | 00 >>   | Yanmar 395 (TK 3.95) Diesel   | <a href="#">20513032</a>   | 12V / 2.0kW      |               |
| UTS   |   | Yanmar 395 (TK 3.95) Diesel   | <a href="#">20513032</a>   | 12V / 2.0kW      |               |
| XDS   | 99 >>   |   | <a href="#">20513032</a>   | 12V / 2.0kW      |               |





# REFRIGERATION BUYER'S GUIDE

## STARTER MOTORS



**20513032** 12V 2.0kW ER CW GR 15 50 20 33

### APPLICATION



#### THERMO KING

- > ENGINES - Various Models
- > TRAILER UNIT - URD-III MAX
- > TRUCK UNIT - KD-II SR, MD-200 / MT, MD-300, MD-II MAX / SR / MAX SR, RD-II TLE, TS Spectrum, TS-200, TS-300, TS-500, TS-600, UTS, XDS

**20513052** 12V 2.0kW ER CW GR 9 33 20 32.6

### APPLICATION



#### THERMO KING

- > ENGINES - Various Models
- > GENERATOR SET - CGCM, CGCO, CGEO, CG-II / M12 / M20 / M22 / M30, CGSM, SGCM, SGCO, SGSM
- > TRAILER UNIT - SB-190, SB-I, SB-II / MAX / SR, SB-III / MAX / SR, Sentry, SMX / II, SMX SR, Super II / Max / SR / TC, Super NWD, TD-I, TD-II

**20513057** 12V 2.0kW ER CW GR 9 36.5 20 33

### APPLICATION



#### THERMO KING

- > ENGINES - Various Models
- > TRAILER UNIT - SB-200 / 210 / 300 / 310, SB-II SR, SB-III SR, SL100 / 100e / 200 / 200e / 300 / 400 / 400SR2 / 400e, Spectrum SB / SL, Super II TC

**20513059** 12V 1.4kW ER CW GR 9 29 17 29

### APPLICATION



#### CARRIER TRANSICOLD

- > ENGINES - Various Models
- > TRAILER UNIT - Maxima, Optima



**20513075** 12V 2.0kW ER CW GR 9 32.5 20 32.5

### APPLICATION



#### THERMO KING

- > ENGINES - Various Models
- > GENERATOR SET - CG-II M12 / M20 / M22 / M30
- > TRAILER UNIT - SB-II, SB-III, SB-III MAX, Sentry, SNWD, Super II, Super NWD
- > TRUCK UNIT - NWD Series

| 20513587  | 12V | 1.4kW | ER | CW | GR | 11 | 41.0 | 25 | 38 | APPLICATION   |
|---|-----|-------|----|----|----|----|------|----|----|---|
|  |     |       |    |    |    |    |      |    |    | <b>THERMO KING</b><br>> ENGINES - Various Models<br>> TRAILER UNIT - LND II 50, TD-II<br>> TRUCK UNIT - KD-II, KD-II MAX, MD-II, MD-II TCI, RD-II, RD-II MAX / SR / TCI / TCI-Z |
| 20513591  | 12V | 2.0kW | ER | CW | GR | 9  | 34.5 | 24 | 38 | APPLICATION   |
|  |     |       |    |    |    |    |      |    |    | <b>CARRIER TRANSICOLD</b><br>> GENERATOR SET - RG, UG<br>> TRAILER UNIT - Extra, Genesis TR, Phoenix Ultra, Ultima 53, Ultra XTC  |





# REFRIGERATION CROSS-REFERENCE GUIDE



| Original                  | Prestolite | Original          | Prestolite | Original             | Prestolite | Original   | Prestolite |
|---------------------------|------------|-------------------|------------|----------------------|------------|------------|------------|
| <b>BOSCH</b>              |            | 30-00363-00       | 110-683    | 19020581             | 20115022   | 110-639    | 110-639RM  |
| 0120484028                | 20140111   | 30-00363-00140954 | 110-683    | <b>DENSO</b>         |            | 110-679    | 110-612RM  |
| 0120488297                | 66021606   | 30-00363-00R      | 110-683    | 028000-5730          | 20513587   | 310-65     | 110-159    |
| 9120060023                | 66021606   | 30-00363-00RM     | 110-683    | 128000-0050          | 20513059   | 8AR2018L   | 110-683    |
| 9120060026                | 66021606   | 30-00363-01       | 110-683    | 128000-0710          | 20513032   | 8AR2069F   | 110-629    |
| 9120060027                | 66021606   | 30-00363-03       | 110-487    | 228000-0990          | 20513059   | 8AR2070K   | 110-647    |
| 9120060038                | 66021624   | 30-00363-04       | 110-683    | 228000-0991          | 20513059   | 8AR2070KA  | 110-647    |
| 9127041233                | 20115022   | 30-00393-00       | 20115022   | 228000-1070          | 20513589   | 8AR2169F   | 110-629    |
| 9127041241                | 20115022   | 30-00393-01       | 20115022   | 228000-1071          | 20513589   | 8EA2001F   | 110-629    |
| 9127041242                | 20115022   | 30-00393-02       | 20115022   | 228000-3660          | 20513059   | 8EA2001FA  | 110-629    |
| <b>CARRIER TRANSICOLD</b> |            | 30-00398-00       | 110-532    | 428000-0930          | 20513591   | 8EK2005NA  | 110-636RM  |
| 7101798                   | 20140112   | 30-00409-03       | 110-608RM  | 428000-0931          | 20513591   | 8EK2005NB  | 110-636RM  |
| 7101799                   | 20140113   | 30-00409-04       | 110-607RM  | <b>HITACHI</b>       |            | 8EK2005NC  | 110-636RM  |
| 7102937                   | 20140112   | 30-00409-06       | 110-607RM  | S12-41A              | 20513075   | 8EK2005ND  | 110-636RM  |
| 20-44-3325                | 110-159    | 30-00409-07       | 110-607RM  | S12-59               | 20513075   | 8EK2006FA  | 110-635RM  |
| 20-44-3325RM              | 110-159    | 30-00409-08       | 110-606RM  | S13-207              | 20513057   | 8EK2006FB  | 110-635RM  |
| 20-44-6257                | 110-543    | 30-00409-10       | 110-606RM  | S13-207C             | 20513057   | 8EK2006FC  | 110-635RM  |
| 20-44-6257RM              | 110-543    | 30-00409-12       | 110-609RM  | S13-84               | 20513075   | 8EK2007N   | 110-600    |
| 20-44-6266                | 110-543    | 30-00409-14       | 110-610RM  | S13-84A              | 20513075   | 8EK2007NA  | 110-600    |
| 20-44-6266RM              | 110-543    | 30-00409-15       | 110-610RM  | S13-84B              | 20513075   | 8EK2007NB  | 110-600    |
| 20-45-1263                | 20513052   | 30-00409-17       | 8MR2323LA  | S13-89A              | 20513052   | 8EK2007NC  | 110-600    |
| 20-45-1263RM              | 20513052   | 30-00409-18       | 8MR2323LA  | S13-89B              | 20513052   | 8EK2007ND  | 110-600    |
| 20-45-1285                | 20513075   | 30-00409-64       | 110-606RM  | S13-89C              | 20513052   | 8EK2008F   | 110-699    |
| 20-45-1285RM              | 20513075   | 30-00423          | 110-612RM  | <b>ISKRA</b>         |            | 8EK2008FA  | 110-699    |
| 20-45-1312                | 20513032   | 30-00423-00       | 110-612RM  | 11.201.695           | 20110326   | 8EK2008FB  | 110-699    |
| 20-45-1671                | 20513052   | 30-030600         | 110-629    | AAK4556              | 20110326   | 8EK2008FC  | 110-699    |
| 25-15370-00               | 20513059   | 30-50005          | 110-629    | <b>ISUZU</b>         |            | 8EK2008FD  | 110-699    |
| 25-15520-00RM             | 20513059   | 30-50009-00       | 110-629    | 8941475492           | 20513052   | 8EK2009FA  | 110-699    |
| 25-35458                  | 20513059   | 30-50306-00       | 8MR2130F   | <b>KUBOTA</b>        |            | 8EK2009FB  | 110-699    |
| 25-35458-00               | 20513059   | 30-50307          | 110-683    | 19013-63012          | 20513589   | 8EK2009FC  | 110-699    |
| 25-38750-00               | 20513589   | 30-50307-00       | 110-683    | <b>LEECE-NEVILLE</b> |            | 8EK2010NA  | 110-600    |
| 25-38750-00RM             | 20513589   | 30-50326-00       | 20115022   | 110-273              | 110-629    | 8EK2010NB  | 110-600    |
| 25-39316-00               | 20513591   | 30-50336-00       | 8MR2120L   | 110-274              | 110-647    | 8EK2010NB  | 110-600    |
| 30-00251                  | 110-159    | 30-50337-00       | 8MR2119F   | 110-299              | 110-527    | 8EK2010NC  | 110-600    |
| 30-00251-11               | 110-159    | 30-50341-00       | 8MR2317F   | 110-303              | 110-543    | 8EK2010ND  | 110-600    |
| 30-00281                  | 110-656    | 30-50342-00       | 8MR2319L   | 110-304              | 110-543    | 8EK2010ND  | 110-600    |
| 30-00281-00               | 110-656    | 30-60050-00       | 20140112   | 110-307              | 110-521    | 8EK2012NA  | 110-600    |
| 30-00281-01               | 110-656    | 30-60050-01       | 20140113   | 110-329              | 110-629    | 8EK2012NB  | 110-600    |
| 30-00281-02               | 110-656    | 30-60050-02       | 20140112   | 110-342              | 110-532    | 8EK2170F   | 110-635RM  |
| 30-00281-10               | 110-656    | 30-60050-03       | 20140112   | 110-400              | 110-600    | 8EM2001FA  | 110-532    |
| 30-00281-11               | 110-656    | 30-60050-04       | 20140112   | 110-542              | 110-543    | 8EM2012N   | 110-612RM  |
| 30-00306                  | 110-629    | 30-60050-06       | 20140113   | 110-606              | 110-606RM  | 8EM2012NA  | 110-612RM  |
| 30-00306-00               | 110-629    | 30-60050-07       | 20140114   | 110-607              | 110-607RM  | 8EM2012NAS | 110-612RM  |
| 30-00306-02               | 110-629    | 30-66603-00       | 8SC3114V   | 110-608              | 110-608RM  | 8EM2012NB  | 110-612RM  |
| 30-00306-03               | 110-629    | TA61-5000-01      | 110-629    | 110-608              | 110-608RM  | 8HA2003F   | 110-159    |
| 30-00306-04               | 110-629    | <b>DELCO REMY</b> |            | 110-609              | 110-609RM  | 8HA2003FS  | 110-159    |
| 30-00306-05               | 110-629    | 10465347          | 20513075   | 110-610              | 110-610RM  | 8HA2005K   | 110-253    |
| 30-00331                  | 110-159    | 10465438          | 20513052   | 110-611              | 110-611RM  | 8HA2008F   | 110-543    |
| 30-00331-00               | 110-159    | 10465440          | 20513032   | 110-612              | 110-612RM  | 8HA2008FA  | 110-543    |
| 30-00349-01               | 110-683    | 19020507          | 66021606   | 110-635              | 110-635RM  | 8HA2009K   | 110-543    |
| 30-00349-01               | 110-683    | 19020508          | 66021606   | 110-636              | 110-636RM  | 8HA2009KA  | 110-543    |

Cross-Reference











| Original   | Prestolite | Original           | Prestolite | Original   | Prestolite | Original      | Prestolite |
|------------|------------|--------------------|------------|------------|------------|---------------|------------|
| 8LHA2070VE | 110-555JHO | <b>LESTER</b>      |            | 44-8091    | 110-699    | 5D35741G01    | 110-699    |
| 8MA2019K   | 110-527    | 7444               | 110-159    | 44-8535    | 110-699    | 5D35741G02    | 110-699    |
| 8MA2019KA  | 110-527    | 7479               | 110-699    | 44-8904    | 110-600    | 5D35741G04    | 110-699    |
| 8MR2013L   | 110-487    | 7480               | 110-600    | 44-8939    | 110-699    | 5D35742G01    | 110-600    |
| 8MR2050FA  | 110-532    | 7482               | 110-543    | 44-8940    | 110-600    | 5D35742G02    | 110-699    |
| 8MR2058P   | 110-521    | 7489               | 110-521    | 44-8949    | 66021606   | 5D35742G03    | 110-600    |
| 8MR2058PA  | 110-521    | 12223              | 66021606   | 44-8950    | 66021606   | 5D36221G01    | 20140110   |
| 8MR2118FA  | 110-610RM  | 12224              | 66021606   | 44-8996    | 110-555JHO | 5D37920G01    | 66021624   |
| 8MR2121L   | 110-609RM  | 12225              | 20115022   | 44-9570    | 66021606   | 5D38603G01    | 66021606   |
| 8MR2121LA  | 110-609RM  | 16657              | 20513032   | 44-9571    | 66021606   | 5D38604G01    | 66021606   |
| 8MR2122U   | 110-608RM  | 17088              | 20513075   | 44-9572    | 66021606   | 5D44463G01    | 110-581    |
| 8MR2122UB  | 110-608RM  | 18067              | 20513052   | 44-9716    | 66021624   | 5D44464G01    | 110-699    |
| 8MR2123L   | 110-611RM  | 18175              | 20513589   | 44-9750    | 110-699    | 5D44466G01    | 110-699    |
| 8MR2123LA  | 110-611RM  | <b>PARIS RHONE</b> |            | 44-9751    | 110-699    | 5D44466G02    | 110-699    |
| 8MR2124L   | 110-606RM  | A13N237            | 20140112   | 44-9753    | 110-600    | 5D44466G03    | 110-699    |
| 8MR2125L   | 110-607RM  | A13N260            | 20140112   | 44-9754    | 110-699    | 5D44467G01    | 110-581    |
| 8MR2125LA  | 110-607RM  | A13N291            | 20140112   | 44-9755    | 110-600    | 5D44467G01    | 110-600    |
| 8MR2126U   | 110-608RM  | A13N293            | 20140112   | 45-1229    | 20513075   | 5D44467G02    | 110-600    |
| 8MR2126UA  | 110-608RM  | A13N296            | 20140114   | 45-1263    | 20513052   | 5D50461G01    | 20140111   |
| 8MR2128FA  | 110-610RM  | A13N297            | 20140113   | 45-1285    | 20513075   | 7318C39G01    | 110-521    |
| 8MR2129L   | 110-612RM  | <b>THERMO KING</b> |            | 45-1312    | 20513587   | P274934       | 20140110   |
| 8MR2150L   | 110-600    | 41044000           | 20513052   | 45-1671    | 20513052   | <b>YANMAR</b> |            |
| 8MR2171F   | 110-699    | 41-2194            | 110-581    | 45-1688    | 20513057   | 121120-77011  | 20513032   |
| 8MR2172F   | 110-699    | 41-2196            | 110-699    | 45-1718    | 20513587   | 129486-77011  | 20513057   |
| 8MR2175F   | 110-699    | 41-2197            | 110-699    | 844-3325   | 110-159    |               |            |
| 8MR2180L   | 110-636RM  | 41-2197            | 110-699    | 844-6257   | 110-543    |               |            |
| 8MR2181L   | 110-699    | 41-2198            | 110-699    | 844-6266   | 110-543    |               |            |
| 8MR2185L   | 110-600    | 41-2198            | 110-699    | 844-7925   | 110-699    |               |            |
| 8MR2195TA  | 110-638RM  | 41-2199            | 110-699    | 844-7927   | 110-600    |               |            |
| 8MR2197T   | 110-639RM  | 41-2200            | 110-600    | 844-9571   | 66021606   |               |            |
| 8MR2198LS  | 110-612RM  | 41-2201            | 110-600    | 844-9572   | 66021606   |               |            |
| 8MR2199KS  | 110-656    | 41-2571            | 20140111   | 845-1263   | 20513052   |               |            |
| 8MR2215D   | 110-581    | 41-3020            | 110-575    | 845-1285   | 20513075   |               |            |
| 8MR2324L   | 110-607RM  | 41-5456            | 20140111   | 1E32215G01 | 66021606   |               |            |
| 8MR2325U   | 110-608RM  | 41-5458            | 66021606   | 2D72786G02 | 110-600    |               |            |
| 8MR2325U   | 110-608RM  | 41-6780            | 66021606   | 2D72786G03 | 110-699    |               |            |
| 8MR2326L   | 110-606RM  | 44-2918            | 20513075   | 3D97252G01 | 110-555JHO |               |            |
| 8MR2327L   | 110-609RM  | 44-3325            | 110-159    | 3D97386G01 | 110-699    |               |            |
| 8MR2328F   | 110-610RM  | 44-4021            | 110-316    | 3D97386G03 | 110-699    |               |            |
| 8MR2329L   | 110-611RM  | 44-4100            | 110-190    | 3D97387G01 | 110-600    |               |            |
| 8MR2330L   | 110-612RM  | 44-4181            | 110-253    | 4003D30G01 | 110-190    |               |            |
| 8MR2346    | 110-635RM  | 44-5004            | 110-647    | 4006D20G01 | 110-159    |               |            |
| 8MR2346    | 110-636RM  | 44-5443            | 20513075   | 4006D20G02 | 110-159    |               |            |
| 8MR2349    | 110-639RM  | 44-6257            | 110-543    | 4006D20G03 | 110-253    |               |            |
| 8SC3017V   | 110-575    | 44-6266            | 110-543    | 4116D22G03 | 110-699    |               |            |
| 8SC3017VA  | 110-575    | 44-6368            | 110-576    | 4117D21G01 | 110-543    |               |            |
| 8SC3018V   | 110-576    | 44-6918            | 110-575    | 4117D21G02 | 110-543    |               |            |
| 8SC3018VA  | 110-576    | 44-6981            | 110-521    | 4125D55G01 | 110-575    |               |            |
| 8SC3019U   | 110-316    | 44-7156            | 110-600    | 4125D55G02 | 110-576    |               |            |
| 8TA2010ES  | 110-190    | 44-7925            | 110-699    | 5D33839G01 | 66021606   |               |            |
| RM310-089  | 110-543    | 44-7927            | 110-600    | 5D33841G01 | 66021606   |               |            |












# REFRIGERATION SERVICE PARTS LIST



| ALTERNATOR | ROTOR   | STATOR  | RECTIFIER   | REGULATOR   | BRUSHBOX   | BEARING (FRONT)   | BEARING (REAR)  | FAN   |
|------------|---|---|---|---|--|---|---|---|
|            |                                  |  |  |  |  |  |  |  |
|            | 1   | 2   | 3   | 4   | 5  | 6   | 7   | 8   |
| 110-159    | 112-1   | 113-1   | 101-1 (+)<br>101-2 (-)  | 105-124   | 103-15   | 111-40  | 110-23  | 107-8   |
| 110-521    | 112-27  | 113-86  | 101-63 (+)<br>101-201 (-)<br>101-130 (trio)                                       | 105-327   | 103-46   | 111-21  | 111-21  | 107-114   |
| 110-527    | 112-7   | 113-75  | 101-235 (+)<br>101-193 (-)<br>101-130 (trio)                                      | -   | 103-6  | 111-21  | 111-21  | 107-114   |
| 110-543    | 112-2   | 113-75  | 101-241 (+)<br>101-236 (-)<br>101-130 (trio)                                      | -   | 103-6  | 111-40  | 111-23  | 107-8   |
| 110-555JHO | Refer to SP-1004, available from <a href="http://www.prestolite.com">www.prestolite.com</a> or Technical services |   |   |   |  |   |   |   |
| 110-575    | 112-84  | 113-93  | 101-231 (+)<br>101-232 (-)  | 105-389   | 103-27   | 111-34  | 111-73  | 102-955   |
| 110-576    | 112-58  | 113-93  | 101-231 (+)<br>101-232 (-)  | 105-383   | 103-27   | 111-34  | 111-73  | 102-955   |
| 110-581    | 112-83  | 113-91  | 101-235 (+)<br>101-193 (-)<br>101-130 (trio)                                      | 105-335   | 103-46   | 111-78  | 111-21  | 107-114   |
| 110-600    | 112-103   | 113-71  | 101-235 (+)<br>101-193 (-)<br>101-130 (trio)                                      | 105-335   | 103-46   | 111-78  | 111-21  | 107-8   |
| 110-607RM  | 112-40  | 113-71  | 101-250 (+)<br>101-193 (-)  | 105-365   | 103-46   | 111-21  | 111-21  | 107-9   |
| 110-608RM  | 112-46  | 113-69  | 101-248 (+)<br>101-249 (-)  | 105-365   | 103-46   | 111-78  | 111-21  | 107-9   |
| 110-609RM  | 112-40  | 113-71  | 101-250 (+)<br>101-193 (-)<br>101-130 (trio)                                      | 105-365   | 103-46   | 111-78  | 111-21  | 107-8   |

Parts

| ALTERNATOR | ROTOR   | STATOR  | RECTIFIER   | REGULATOR   | BRUSHBOX   | BEARING (FRONT)   | BEARING (REAR)  | FAN   |
|------------|---|---|---|---|--|---|---|---|
|            |  |  |  |  |  |  |  |  |
|            | 1   | 2   | 3   | 4   | 5  | 6   | 7   | 8   |
| 110-610RM  | 112-83  | 113-74  | 101-250 (+)<br>101-193 (-)  | 105-367   | 103-46   | 111-21  | 111-21  | 107-8   |
| 110-611RM  | 112-101   | 113-71  | 101-235 (+)<br>101-193 (-)<br>101-130 (trio)                                      | 105-303   | 103-46   | 111-78  | 111-21  | -   |
| 110-612RM  | 112-40  | 113-71  | 101-235 (+)<br>101-193 (-)<br>101-130 (trio)                                      | 105-303   | 103-46   | 111-21  | 111-21  | 107-114   |
| 110-629    | 112-1   | 113-74  | 101-241 (+)<br>101-236 (-)<br>101-130 (trio)                                      | 105-307   | 103-46   | 111-21  | 111-23  | 107-8   |
| 110-635RM  | 112-83  | 113-74  | 101-235 (+)<br>101-193 (-)<br>101-130 (trio)                                      | 105-335   | 103-46   | 111-78  | 111-21  | 107-8   |
| 110-636RM  | 112-103   | 113-71  | 101-235 (+)<br>101-193 (-)<br>101-130 (trio)                                      | 105-335   | 103-46   | 111-78  | 111-21  | 107-8   |
| 110-638RM  | 112-46  | 113-89  | 101-275 (+)<br>101-271 (-)<br>101-272 (trio)                                      | 105-335   | 103-46   | 111-78  | 111-21  | 107-114   |
| 110-639RM  | 112-46  | 113-89  | 101-275 (+)<br>101-271 (-)<br>101-272 (trio)                                      | 105-335   | 103-46   | 111-78  | 111-21  | 107-114   |
| 110-647    | 112-89  | 113-75  | 101-241 (+)<br>101-236 (-)<br>101-130 (trio)                                      | 105-307   | 103-46   | 111-3   | 111-23  | 107-8   |
| 110-699    | 112-83  | 113-74  | 101-235 (+)<br>101-193 (-)<br>101-130 (trio)                                      | 105-335   | 103-46   | 111-78  | 111-21  | 107-8   |











Please photocopy this page and fax your comments to: (800) 997-6202

**Section 1 - Request For New Part Number**

Your Name: \_\_\_\_\_

Your Company: \_\_\_\_\_

Application Details: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

OE References: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Competitor References: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Estimated Annual Volume: \_\_\_\_\_ Target Price: \_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

**Section 2 - Corrections**

Please Advise Any Errors or Suggestions

Your Name: \_\_\_\_\_

Your Company: \_\_\_\_\_

Details Of Error / Suggestion: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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