# Swift Free Standing Pole Mount Energy System - Packing List

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Qty.</th>
<th>Packaging Dimensions</th>
<th>Shipping Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>PO2-157</td>
<td>Free Standing Pole Mounting System</td>
<td>1</td>
<td>9000mm x Dia 300mm</td>
<td>450kg</td>
</tr>
<tr>
<td>PO2-110-120-130</td>
<td>PMG and Nacelle Assembly</td>
<td>1</td>
<td>570 x 420 x 500mm</td>
<td>37kg</td>
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<tr>
<td>PO2-140</td>
<td>Furling System</td>
<td>1</td>
<td>140 x 330 x 100mm</td>
<td>7.5kg</td>
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<tr>
<td>PO2-101</td>
<td>Rotor Assembly</td>
<td>1</td>
<td>Dia 2100mm</td>
<td>16kg</td>
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<tr>
<td>PO2-160</td>
<td>Swift Inverter</td>
<td>1</td>
<td>560 x 400 x 230mm</td>
<td>13kg</td>
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<tr>
<td>PO2-203</td>
<td>Bolts and Bits - FSPMS</td>
<td>1</td>
<td>TBC</td>
<td>~10kg (TBC)</td>
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</table>

# Installation Parts List - See Page Two for Exploded Diagram

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Part Number</th>
<th>Description</th>
<th>Qty.</th>
<th>Parts List</th>
<th>Tools Required</th>
<th>Torque</th>
<th>Threadlock</th>
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<td>Dual Supply Warning Sticker, FR/ENG</td>
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NOTES:

1. ITEM 37 IS NOT SHOWN.
2. REFERENCE BLOCKS, SEE SHEET 11.
3. DIAMONDS SHOW LOCATION OF SERIAL NUMBERS, TO BE RECORDED UPON INSTALLATION.

A. NACELLE ASSEMBLY
B. FURLING SYSTEM ASSEMBLY
C. ROTOR ASSEMBLY
D. SWIFT INVERTER
E. WOODEN POLE DETAILS
NOTES:
1. REFER TO SYSTEM OVERVIEW PARTS LIST [SHEET 2] FOR REFERENCE OF NUMBERING SYSTEM.
2. DIAMONDS SHOW LOCATION OF SERIAL NUMBERS, TO BE RECORDED UPON INSTALLATION.

FEED THE MAST CABLE THROUGH THE WOODEN POLE ADAPTOR.

USE ITEM 8 GLAND TO SEAL THREADED HOLE

ISSUE B SEE SHEET 1 FOR DETAILS

TORQUE SEQUENCE FOR YAW CLAMP

RENEWABLE DEVICES LTD

FITTING THE NACELLE
NOTES
2. ATTACH THE 10MM² EARTH [ITEM 11] TO THE ADAPTOR USING THE M8 NUT [ITEM 9], M8 BOLT [ITEM 10] AND RING TERMINAL
3. FEED THE EARTH AND MAST CABLE INTO THE PROTECTIVE CONDUIT [1500023]
4. ATTACH CONDUIT TO THE WOODEN POLE USING THE CLIPS AND SCREWS
5. ATTACH THE EARTH CABLE FROM THE BASE OF THE CONDUIT TO THE BASE OF THE POLE USING STAPLES
6. STRIP THE BOTTOM 2.0M OF EARTH WIRE OF INSULATION AND STAPLE TO THE WOODEN POLE
7. COIL THE EARTH UNDERneath THE BASE OF THE WOODEN POLE FIX IN PLACE USING BRASS STAPLES
TEST E1: BRAKE RELEASE AND DC VOLTAGE

CLOCKWISE ROTATION OF SHAFT

1[L-]

2[L+]

3[S]

MULTIMETER

12V BATTERY OR POWER SUPPLY
NOTES:
1. REFER TO SYSTEM OVERVIEW PARTS LIST [SHEET 2] FOR REFERENCE OF NUMERATING SYSTEM.
2. DIAMONDS SHOW LOCATION OF SERIAL NUMBERS, TO BE RECORDED UPON INSTALLATION.
NOTES
1. ITEM 37: DUAL SUPPLY STICKERS TO BE ATTACHED ON SWIFT INVERTER AND DISTRIBUTION BOARD WITH DETAILS OF WHERE THE TURBINE CAN BE ISOLATED.
2. WIRING SIZING FOR THE DC SIDE [CONNECTOR BLOCK TO SWIFT INVERTER]
   - 0-100m = 2.5mm²
   - 100-200m = 4.0mm²
3. WIRE SIZING FOR 240V AC SIDE (INVERTER TO CONSUMER UNIT) MUST BE SIZED FOR NO GREATER THAN 4% VOLTAGE DROP AT 10A RMS.
4. ALL INTERNAL WIRING [MIN 2.5mm²] TO BE CONTAINED WITHIN CONDUIT OR OF THE SWA TYPE.
5. EARTH WIRE - 4.0mm²
6. REFER TO SYSTEM OVERVIEW PARTS LIST [SHEET 2] FOR REFERENCE OF NUMBERING.

See Sheet 8 for connection.

Mast cable to molex connector and earth connector.

Mast earth: 10mm² earth [yellow and green] see note 5.

See note 5.
SWITCH POSITION - OFF

TO TURBINE
- TRI RATED CABLE
- SEE ELECTRICAL SCHEMATIC FOR CABLE SIZING

TO SWIFT INVERTER
- TRI RATED CABLE
- SEE ELECTRICAL SCHEMATIC FOR SIZING

SWITCH POSITION - BRAKE

SWITCH POSITION - ON

SWITCH POSITION - RESET

NOTES

KEY

T+ TURBINE POSITIVE BROWN
T- TURBINE NEGATIVE GREY
I+ INVERTER POSITIVE BROWN
I- INVERTER NEGATIVE GREY
TS TURBINE SIGNAL BLACK WITH YELLOW SLEEVE
IS INVERTER SIGNAL YELLOW
E EARTH GREEN + YELLOW

- THE DC ISOLATOR SHOULD BE INSTALLED SO THAT IT IS ACCESSIBLE TO THE SWIFT INVERTER BUT AS CLOSE TO THE TURBINE AS POSSIBLE.
- THE DC ISOLATOR MUST BE SUPPLIED BY RDST LTD.
- (NORMAL DC ISOLATORS DO NOT MEET THE SPEC)
- REFER TO SYSTEM OVERVIEW PARTS LIST [SHEET 2] FOR REFERENCE OF NUMBERING SYSTEM

RENEWABLE DEVICES LTD

DC ISOLATOR WIRING SCHEMATIC

SC0018
NOTES
1. REFER TO SYSTEM OVERVIEW PARTS LIST [SHEET 2] FOR REFERENCE OF NUMBERING SYSTEM.
2. DIAMONDS SHOW LOCATION OF SERIAL NUMBERS, TO BE RECORDED UPON INSTALLATION.
NOTES
1. HOE/AUGER DIAMETER DEPENDS ON THE NOMINAL DIAMETER OF POLE TO BE INSTALLED.
2. DIMENSION SHOWS DEPTH OF HOLE WITH RELATION TO THE GROUND.
3. TURBINE CAN BE LIFTED INTO POSITION USING THE CORRECT EQUIPMENT, WHEN LIFTING.
   TAKE CARE NOT TO DAMAGE THE TURBINE WIRING AND CONDUIT.
4. CHECK THAT THE ADAPTOR AND BOTH REFERENCE BLOCKS ARE PARALLEL BEFORE LIFTING.
5. TWO REFERENCE/LEVELLING BLOCKS ARE USED TO ACHIEVE THE CORRECT POLE/TURBINE ORIENTATION
   FROM GROUND LEVEL.
6. REFER TO SYSTEM OVERVIEW PARTS LIST [SHEET 2] FOR REFERENCE OF NUMBERING SYSTEM.
7. DIAMONDS SHOW LOCATION OF SERIAL NUMBERS, TO BE RECORDED UPON INSTALLATION.
NOTES:
1. DWG AND DXF FILES OF THE ABOVE VIEWS ARE AVAILABLE FOR USE ON ALL DRAWINGS.
2. PLEASE CONTACT RENEWABLE DEVICES SWIFT TURBINES FOR ELECTRONIC COPIES.
   • P02 - PLANNING FMS.DWG
   • P02 - PLANNING FMS.DXF
NOTES:
1. NACELLE BODY, GENERATOR AND BOOMS ARE FINISHED TO RAL: 9016 (TRAFFIC WHITE).
2. FINS AND ROTOR ARE FINISHED TO MATT BLACK.
3. BUILDING/WALL SHOWN IN VIEWS IS FOR VISUALISATION ONLY.
4. ALL LOADS ARE INDICATIVE ONLY AND WILL BE SITE AND INSTALLATION SPECIFIC. IT IS RECOMMENDED THAT STRUCTURAL ADVICE IS SOUGHT PRIOR TO INSTALLATION.
NOTES:

1. THE FLANGE MOUNTING SYSTEM CAN TYPICALLY BE MOUNTED:
   - BOLTED TO STRUCTURE (HARDWARE INCLUDED IN SYSTEM)
   - 6 OFF M12 X 100mm BOLTS AND ANTI VIBRATION BUSHES AND GASKET
   - REQUIRING 6 OFF Ø13.0 HOLES (SEE DRAWING, REF B1)
   - FULL SPECIFICATION AVAILABLE FROM RDSI.

2. STUD AND BOLT, LENGTH AND DEPTHS WILL BE SITE AND INSTALLATION SPECIFIC.
NOTES:
1. DWG AND DXF FILES OF THE ABOVE VIEWS ARE AVAILABLE FOR USE ON ALL DRAWINGS.
2. PLEASE CONTACT RENEWABLE DEVICES SWIFT TURBINES FOR ELECTRONIC COPIES.
   • P02 - PLANNING FRMS.DWG
   • P02 - PLANNING FRMS.DXF
NOTES:
1. NACELLE BODY, GENERATOR AND BOOMS ARE FINISHED TO RAL: 9016 (TRAFFIC WHITE).
2. FINS AND ROTOR ARE FINISHED TO MATT BLACK.
3. BUILDING WALL SHOWN IN VIEWS IS FOR VISUALISATION ONLY.
4. ALL LOADS ARE INDICTIONATIVE ONLY AND WILL BE SITE AND INSTALLATION SPECIFIC. IT IS RECOMMENDED THAT STRUCTURAL ADVICE IS SOUGHT PRIOR TO INSTALLATION.
NOTES:

1. THE FLAT ROOF STAND MOUNTING SYSTEM, DEPENDING ON SUBSTRATE CAN TYPICALLY BE MOUNTED USING EITHER;
   - FISCHER RESIN ANCHORS
     - 16 OFF. A4-70 M10 X 300MM FISCHER STUDS
     - REQUIRING, 16 OFF. Ø12.0 - Ø14.0mm DRILLED HOLES (DEPENDING ON LOAD BEARING SUBSTRATE).
     - FULL SPECIFICATION AVAILABLE FROM RDST.
   - BOLTED TO STRUCTURE
     - 16 OFF A2-70 M10 HEX HEAD BOLTS.
     - REQUIRING, 16 OFF Ø10.5mm (M10 CLEARANCE) HOLES IN LOAD BEARING STRUCTURE.

2. STUD AND BOLT, LENGTH AND DEPTHS WILL BE SITE AND INSTALLATION SPECIFIC.
NOTES:
1. NACELLE BODY, GENERATOR AND BOOMS ARE FINISHED TO RAL: 9016 (TRAFFIC WHITE)
2. FINS AND ROTOR ARE FINISHED TO MATT BLACK.
3. BUILDING/ WALL SHOWN IN VIEWS IS FOR VISUALISATION ONLY.
4. ALL LOADS ARE INDICATIVE ONLY AND WILL BE SITE AND INSTALLATION SPECIFIC. IT IS RECOMMENDED THAT STRUCTURAL ADVICE IS SOUGHT PRIOR TO INSTALLATION.
FISCHER RESIN ANCHORS
• Requires 2 x M14.0- 16.0mm drilled holes (depending on load bearing substrate) per mounting bracket.
• Full specification available from RDS.
• Stud length, depth and specification is site and installation specific.
• Dimensions shown are for a typical installation