### SP PRO INVERTER MODEL specs

#### Continuous Power and Charge Current at nominal DC & AC voltage @ 25°C

<table>
<thead>
<tr>
<th>Model</th>
<th>Type</th>
<th>Continuous Power</th>
<th>Charge Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPMC240</td>
<td>SPMC241</td>
<td>3 kW</td>
<td>125 A</td>
</tr>
<tr>
<td>SPMC481</td>
<td>SPMC482</td>
<td>4.5 kW</td>
<td>188 A</td>
</tr>
<tr>
<td>SPMC1201</td>
<td>SPLC1202</td>
<td>5 kW</td>
<td>104 A</td>
</tr>
</tbody>
</table>

#### Continuous Ratings at 25°C

<table>
<thead>
<tr>
<th>kW</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>125</td>
</tr>
<tr>
<td>4.5</td>
<td>188</td>
</tr>
<tr>
<td>5</td>
<td>104</td>
</tr>
<tr>
<td>7.5</td>
<td>156</td>
</tr>
<tr>
<td>7.5</td>
<td>63</td>
</tr>
<tr>
<td>20</td>
<td>167</td>
</tr>
</tbody>
</table>

#### Short Term Ratings @ 25°C

<table>
<thead>
<tr>
<th>kW</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4.5</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
<tr>
<td>7.5</td>
<td></td>
</tr>
<tr>
<td>7.5</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
</tr>
</tbody>
</table>

#### Nominal battery voltage

- 24 V
- 48 V
- 120 V

#### DC input voltage range (V d.c.)

- 20 - 34 V
- 40 - 68 V
- 100 - 170 V

#### DC consumption: idle

- 8 W

#### Peak Efficiency – all modes

- 95%
- 95%
- 96%
- 96%
- 97%
- 97.2%

#### 20% load

- 93%
- 93%
- 94%
- 94%
- 95%
- 96.8%

#### 30% load

- 95%
- 95%
- 96%
- 96%
- 97%
- 97.2%

#### 50% load

- 94%
- 95%
- 95%
- 96%
- 96%
- 97.1%

#### 100% load

- 90%
- 91%
- 93%
- 93%
- 94%
- 95.5%

#### EU efficiency

- 92%
- 92%
- 93%
- 92.5%
- 93%
- 95.6%

#### THD

- <3% @ 0-200% rated load

#### Frequency

- 50 or 60 Hz ±0.005%

#### AC OUTPUT standalone

<table>
<thead>
<tr>
<th>Setting range and accuracy</th>
<th>&lt;2.25% droop @ 0-100% (load power)</th>
</tr>
</thead>
<tbody>
<tr>
<td>210 to 240 V±0.5%</td>
<td>0.2% @ 100%</td>
</tr>
<tr>
<td>&lt;3.5% @150%, &lt;5% @ 200%</td>
<td></td>
</tr>
<tr>
<td>&lt;1% @150%</td>
<td></td>
</tr>
<tr>
<td>&lt;10% @300%</td>
<td></td>
</tr>
<tr>
<td>&lt;1.5% @200%</td>
<td></td>
</tr>
</tbody>
</table>

#### AC SOURCE

<table>
<thead>
<tr>
<th>Nominal voltage</th>
<th>210 to 240 V a.c.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal input frequency</td>
<td>50/60Hz</td>
</tr>
<tr>
<td>Tolerance on nominal voltage</td>
<td>-1% to -15%; +1 to +10%</td>
</tr>
<tr>
<td>Tolerance on nominal frequency</td>
<td>+1% to +10%</td>
</tr>
</tbody>
</table>

#### Generator can be started by:

- battery SoC
- DC voltage
- battery load
- unit temperature
- time & remote control

#### TRANSFER CONTACTOR

| AC transfer current capacity (internal) | 63 A |
| AC transfer current capacity (external) | 125 A |

#### Max total output to Load, AC source + inverter

- 15 kW
- 30 kW

#### AC transfer time

- "no-break" (< 1/2 cycle)

#### Disconnect time if grid (source) fails

- <= 30 ms

#### DC Circuit Breakers

- Yes

#### Operating Temperature Range

- -10 °C to 60 °C

#### Storage Temperature Range

- -25 °C to 70 °C

#### Battery temperature sensor

- Yes

#### Mid-point battery voltage sensing

- Yes

#### Inverter display

- 22 x LEDs with auto adjusting intensity
- AC status LEDs powered from AC voltage
- generator control button
- output mode button
- alarm silence button

#### Digital Inputs

- 4 off, 12V to 60V True, < 3V False

#### Shunt Inputs

- Two user definable: Suitable for current shunts rated at 25mA - 100mA and 25 A - 500 A

#### Analogue Inputs

- 2 general purpose logged 0-60V

#### Relay Outputs

- 4 off: 60 V, 500 mA

#### Communication port 1

- USB (slave) or RS232 or 3-phase sync  (adjustable baud rate of up to 57,600)

#### Communication port 2

- RS485 or RS232  (adjustable baud rate of up to 57600)

#### AC Coupling

- with control of KACO inverters via RS485

#### PWM modulation frequency

- 20 kHz

#### Memory retention of settings

- permanent

#### Memory retention of logged data

- permanent

#### SP LINK configuration and monitoring software

- standard

#### Dimensions h x w x d (mm)

- 690 x 375 x 220
- 870 x 540 x 290

#### Mass (unpacked with wall mount)

- 35 kg
- 39 kg
- 40 kg
- 42 kg
- 42 kg
- 115 kg

#### STANDARDS

<table>
<thead>
<tr>
<th>Safety  (UPS)</th>
<th>IEC 62040-1-1:2002 / AS 62040-1-1:2003 with CB certificates</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMC (Domestic limits)</td>
<td>EN 61000.6.3:2007</td>
</tr>
<tr>
<td>EMC (Industrial limits)</td>
<td>-</td>
</tr>
<tr>
<td>Grid Connect</td>
<td>AS4777</td>
</tr>
<tr>
<td>Ctick</td>
<td>Yes</td>
</tr>
<tr>
<td>Protection</td>
<td>IP43</td>
</tr>
<tr>
<td>Warranty</td>
<td>5 - 8 years (country dependent)</td>
</tr>
</tbody>
</table>