Morningstar’s ProStar is the world’s leading mid-range solar controller for both professional and consumer applications. This second generation ProStar:

- Adds new features and protections using highly advanced technology
- Provides longer battery life and improved system performance
- Sets new standards for reliability and self-diagnostics

**Standard Features:**
- Versions available: 15 or 30 amp
  - 12 / 24 or 48 volt
  - negative or positive ground
- Estimated 15 year life
- PWM series battery charging (not shunt)
- 3-position battery select: gel, sealed or flooded
- Very accurate control and measurement
- Jumper to eliminate telecom noise
- Parallel for up to 300 amps
- Temperature compensation
- Tropicalization: conformal coating, stainless-steel fasteners & anodized aluminum heat sink
- No switching or measurement in the grounded leg
- 100% solid state
- Very low voltage drops
- Current compensated low voltage disconnect (LVD)
- LED’s indicate battery status and faults
- Capable of 25% overloads
- Remote battery voltage sense terminals

**Electronic Protections:**
- Short-circuit — solar and load
- Overload — solar and load
- Reverse polarity
- Reverse current at night
- High voltage disconnect
- High temperature disconnect
- Lightning and transient surge protection
- Loads protected from voltage spikes
- Automatic recovery with all protections
**ProStar Options:**
- Digital meter
  - Highly accurate voltage and current display
  - Low self-consumption (1 mA)
  - Includes manual disconnect button
  - Displays 5 different protection functions and disconnect conditions
  - Self-diagnostics (self-test) provides a comprehensive test of the ProStar — Displays 9 different controller status parameters, including temperature
  - Displays detected faults
- Positive ground
- Remote temperature probe

**Optimized Battery Charging:**
The ProStar has 4 stages of charging to provide increased battery capacity and life.

**Electrical Specifications:**
- **ProStar Versions:**
  - PS-15
  - PS-30
  - PS15M-48V

<table>
<thead>
<tr>
<th>Option</th>
<th>PS-15</th>
<th>PS-30</th>
<th>PS15M-48V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated Solar Current</td>
<td>15A</td>
<td>30A</td>
<td>15A</td>
</tr>
<tr>
<td>Rated Load Current</td>
<td>15A</td>
<td>30A</td>
<td>15A</td>
</tr>
<tr>
<td>System Voltage</td>
<td>12/24V</td>
<td>12/24V</td>
<td>48V</td>
</tr>
<tr>
<td>Options:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Digital Meter</td>
<td>yes</td>
<td>yes</td>
<td>standard</td>
</tr>
<tr>
<td>Positive Ground</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Remote Temp. Probe</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
</tbody>
</table>

**Battery Voltage Setpoints***
- **Gel**
  - Regulation Voltage: 14.0
  - Float: 13.7
  - Equalization: n/a
  - Load Disconnect: 11.4
  - Load Reconnect: 12.6

- **Sealed**
  - Regulation Voltage: 14.15
  - Float: 13.7
  - Equalization: 14.35
  - Load Disconnect: 11.4
  - Load Reconnect: 12.6

- **Flooded**
  - Regulation Voltage: 14.4
  - Float: 13.7
  - Equalization: 14.9/15.1
  - Load Disconnect: 11.4
  - Load Reconnect: 12.6

*Note: values are for 12V. Use 2X for 24V and 4X for 48V.*

**Mechanical Specifications:**
- **Weight:**
  - 12 oz (0.34 kg)
- **Wire Size:**
  - #6 AWG (16 mm²)

**Warranty:** Five year warranty period. Contact Morningstar or your authorized distributor for complete terms.

**Authorized Morningstar Distributor:**

8 Pheasant Run
Newtown, PA 18940 USA
Tel: +1 215-321-4457  Fax: +1 215-321-4458
E-mail: info@morningstarcorp.com
Website: www.morningstarcorp.com

© 2008-2011 MORNINGSTAR CORPORATION  PRINTED IN USA 211E-R3-2/11