GENERAL DESCRIPTION

ORCA Inceptive is an On-Board fast charging and discharging station, designed in Italy and fully manufactured in the USA.

ORCA Inceptive is compact and can be easily installed in the trunk of an Electric Vehicle (EV). It can jumpstart a stranded EV by means of two EV plugs, transferring energy from an EV (CHAdeMO) to another EV (CCS or CHAdeMO). It operates up to 50 kW and it is networked (OCPP 1.6, OpenADR 2.0b, and MODBUS/IP).

From an optional port, ORCA Inceptive accepts AC from the Grid (input only) or DC from a Microgrid (input and output).

At maximum performance the ORCA Inceptive can recharge the battery of a stranded EV (battery energy capacity 25 KWh) from 0% to 20% in 5 minutes.

FEATURES

- Modern Italian design.
- Compact, fully embedded in the EV trunk.
- Portable fast charger for CCS or CHAdeMO® EVs.
- Up to 9 m (30 ft) cables for jumpstarting.
- Charges 0% to 20% in 5 minutes(1).
- Maximum output power: 50 kW, 500 V, 125 A.
- Efficiency: 95% @ 50 kW.
- User-friendly interface on any Wi-Fi connected device.
- Simple “Start” and “Stop” button operation.
- Flexible power input hardware to easily accommodate to local electric service capabilities (AC or DC).
- Integrated breakers for main and auxiliary circuits.
- Dimensions W x D x H: 34 x 13 x 22 in (87 x 33 x 55 cm).
- Weight: from 205 lbs (93 kg).
- Standards: CCS ISO/IEC 15118, CHAdeMO 0.9 and 1.0.

OPTIONS

- Enclosure: NEMA 3R stainless steel or painted steel.
- Embedded ORCA-VEN (for Energy Demand Management).
- Flexible range of auxiliary input power (AC or DC, see Table 1).
- Communication: Wireless IEEE 802.11g, 4G, or Ethernet.
- Networked by InCISIVE ORCA-NET.
- Remotely controllable via OCPP 1.6, OpenADR 2.0b, and MODBUS/IP.
- Smartphone app to control/monitor charging and discharging.

Andromeda Power is a member of CHAdeMO®.
### Table 1. Choice of Power Input Configurations (Factory Configured)

<table>
<thead>
<tr>
<th>PI</th>
<th>Power Input Type</th>
<th>Power Input Wires</th>
<th>Power Input Voltage (V)</th>
<th>Max Input Current (A)</th>
<th>Max Input Power (kW)</th>
<th>Max Output Power (kW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>DC</td>
<td>(+), (-), Earth</td>
<td>250-350</td>
<td>222</td>
<td>56</td>
<td>50</td>
</tr>
<tr>
<td>02(3)</td>
<td>DC</td>
<td>(+), (-), Earth</td>
<td>350-600</td>
<td>154</td>
<td>54</td>
<td>50(4)</td>
</tr>
<tr>
<td>03(6)</td>
<td>DC</td>
<td>(+), (-), Earth</td>
<td>500-900</td>
<td>108</td>
<td>54</td>
<td>50</td>
</tr>
<tr>
<td>04</td>
<td>AC(2,5)</td>
<td>3-phase, Earth</td>
<td>480</td>
<td>63</td>
<td>54</td>
<td>50</td>
</tr>
<tr>
<td>05</td>
<td>AC(2,5)</td>
<td>3-phase, Earth</td>
<td>400</td>
<td>76</td>
<td>53</td>
<td>50</td>
</tr>
<tr>
<td>06</td>
<td>AC(2)</td>
<td>1-phase, Earth</td>
<td>240</td>
<td>88</td>
<td>21</td>
<td>20</td>
</tr>
<tr>
<td>07</td>
<td>AC(2,5)</td>
<td>3-phase, Earth</td>
<td>208-240</td>
<td>148</td>
<td>53</td>
<td>50</td>
</tr>
</tbody>
</table>

(2) AC frequency can be 50 or 60 Hz.
(3) Solar panel application. PV nominal power without solar tracker should be at least twice the max output power(4) for stable operation under any solar irradiation condition.
(6) DC Microgrid application.

### Table 2. Physical and Environmental Specifications

<table>
<thead>
<tr>
<th>Description</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power supply options</td>
<td>See Table 1</td>
</tr>
<tr>
<td>Dimensions W x D x H</td>
<td>25 x 16 x 40&quot; (63 x 40 x 100 cm)</td>
</tr>
<tr>
<td>CCS or CHAdeMO cable length</td>
<td>4, 6, 7.5, or 9 m (13, 20, 25, or 30 ft)</td>
</tr>
<tr>
<td>Operation</td>
<td>Start, Stop, and Emergency buttons</td>
</tr>
<tr>
<td>Outdoor cabinet (optional) protection</td>
<td>IP34 / NEMA 3R</td>
</tr>
<tr>
<td>Operating environment</td>
<td>Ambient temperature: -30 to 50°C (22 to 122°F) Ambient humidity: 5 to 80% Altitude: 1,000 m (3,281 ft) or lower Atmosphere: Containing no corrosive gas</td>
</tr>
</tbody>
</table>

### Table 3. CCS or CHAdeMO Output Cable Length

<table>
<thead>
<tr>
<th>Length</th>
<th>L</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 m (13’)</td>
<td>1</td>
</tr>
<tr>
<td>6 m (20’)</td>
<td>2</td>
</tr>
<tr>
<td>7.5 m (25’)</td>
<td>3</td>
</tr>
<tr>
<td>9 m (30’)</td>
<td>4</td>
</tr>
</tbody>
</table>

### Table 4. Network Connectivity

<table>
<thead>
<tr>
<th>Connection</th>
<th>WI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wireless IEEE 802.11g</td>
<td>Wi</td>
</tr>
<tr>
<td>4G cellular</td>
<td>4G</td>
</tr>
</tbody>
</table>

### ORDER INFORMATION

**ORCA-I3-PI-L-SS-WI-000000**

- **Product Family Name**: Inceptive 3
- **Model**: I3
- **Secondary Power Input**: (see Table 1)
- **Cable Length**: (see Table 3)
- **Communication**: (see Table 4)
- **Enclosure Material**:
  - SS = Stainless Steel
  - PS = Painted Steel

**Custom Options**

- 000001 = Secondary Power Input
- 001000 = CCS output cable
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This technical information specifies the Orca Mobile charger but promises no characteristics. No warranty or guarantee expressed or implied is made regarding delivery, performance or suitability.

PHYSICAL DIMENSIONS

- **Width:** 86 cm (34”)
- **Height:** 55 cm (22”)
- **Depth:** 33 cm (13”)

**Grommets (3) for Cables:**
- 2 EV Cables
- 1 Secondary Input

**EV Mounting Bolts (4)**

**Mounting Brackets (2)**

Front View

**Recessed Control Panel**

**Removable Eyebolts (2)**

**EV Trunk Footprint**

**Ventilation Grids (4)**

Front View