ELECTROMAGNETIC COMPATIBILITY

SOLE OUTLETS RANGES
FROM 16 A TO 400 A 1000 V

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ElectroMagnetic Compatibility (EMC) is the ability of a product to operate satisfactorily in its electromagnetic environment without introducing electromagnetic interference itself. But what does this mean concretely for the industrial sector? Here are some explanations.

WHERE DO THESE INTERFERENCE COME FROM?
Disruptions can have many causes:
- Natural factors, such as lightning,
- Devices designed to transmit/receive waves, such as mobile phones, radars, radio, television, etc.
- Devices that generate emissions, such as engines, digital circuits, etc.

WHAT ARE THE CONSEQUENCES?
Electromagnetic waves can disturb a signal, causing the electrical installation, a robot or machine to malfunction or transmit an incomplete or erroneous message (data, ignition order, etc.) or even completely block an industrial manufacturing process.
As a result, these disruptions can impact the proper functioning and productivity of a plant as well as the safety of the site.

HOW TO PROTECT YOURSELF FROM ELECTROMAGNETIC POLLUTION?
By ensuring the continuity of the shielded cable and thus the non-disruption of signals, using EMC products. Our range of electrical socket outlets DECONTACTOR™ EMC (industrial socket + integrated switch), up to 400 A and 1000 V, is designed for this purpose: to avoid as much as possible accidental production shutdowns due to electromagnetic disturbances.
The MARECHAL® solutions are made up of a DECONTACTOR™ EMC socket outlets range, specifically designed to this end, up to 400 A and 1000 V. They are thought to avoid as much as possible accidental shutdowns due to electromagnetic interference.

**COMPLETE EMC PROTECTION & AUTOMATIC IP65**
- Boxes and installation accessories in metal.
- All the mounting surfaces ensure optimal electrical conductivity.
- Special seals in metallic material in order to ensure an IP65 protection (waterproofness) as well as optimal EMC performances. The IP protection degree is obtained automatically when connecting the plug or shutting the lid. No other operation is necessary.
- On request, the plugs and socket outlets can be supplied with armoured cable glands.

**POWER AND CONTROL**
The DECONTACTOR™ EMC auxiliary contacts allow the process control such as connection control, motor thermal control, programmable logic controller (PLC), signal transmission, etc.

The EMC option is a special realisation that allows to reduce the power (in dB) of their inherent emission of electromagnetic waves. The electromagnetic compatibility (EMC) trials are carried out on our products according to the IEC 62153-4-5 : 2016 norm. In a frequency range between 30 MHz and 1000 MHz, the EMC option offers a reduction between 30 dB and 70 dB of electromagnetic emissions.

**OPTIMAL TRANSMISSION OF POWER**
The socket-outlets resist to corrosion and chemical agents.
The silver-nickel butt contact tips ensure a permanent contact pressure and an optimal conductivity even after years of intensive use. Our specifically designed cable terminals provide our socket-outlets with optimal resistance to vibrations (especially preventing cable loosening) and temperature variations as well as outstanding cable anchoring.

- All the external surfaces of the devices are not treated so as to ensure optimal electrical conductivity.
- The conductive sealings are made of either metallic fibers, Monel wires silicone or graphite-loaded wires silicone, ensuring excellent EMC performances.
16-25 A

**PN7c**

- 1-4 mm² flexible
- 1-6 mm² stranded

**UP TO 7 PIN**

**SOCKET-OUTLET** female
**PN7c (16/25 A)**

- 50 V AC
- 6P (16 A) 09P4060EMC
- 09P8060EMC

- 50 V AC
- 7P (16 A) 09P4070EMC
- 09P8070EMC

- 480 V AC
- 5P+E (25 A) 09P4051EMC
- 09P8051EMC

- 480 V AC
- 6P+E (16 A) 09P4061EMC
- 09P8061EMC

**INLET** male
**PN7c (16/25 A)**

For all other configurations, options and accessories, contact us or see our online catalog on marechal.com

16 A

**PN12C**

- 1-2.5 mm² flexible

**UP TO 12 PIN**

**SOCKET-OUTLET** female
**PN12C (16 A)**

- 480 V AC
- 12 contacts 09A4001EMC
- 09A8001EMC

**INLET** male
**PN12C (16 A)**

- Bag of 13 contacts 01AA213
- 01AA113

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### Compact Plugs & Sockets

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Configuration</th>
<th>PN (30 A)</th>
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</tr>
</thead>
<tbody>
<tr>
<td>20-24 V AC</td>
<td>2P</td>
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<td>09N808AEMC</td>
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<td>220-250 V AC</td>
<td>1P+N+E</td>
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<td>09N8015EMC</td>
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<td>380-440 V AC</td>
<td>3P</td>
<td>09N4013EMC</td>
<td>09N8013EMC</td>
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<td>220-250 V AC</td>
<td>3P+N+E</td>
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<tr>
<td>380-440 V AC</td>
<td>3P+N+E</td>
<td>09N4093EMC</td>
<td>09N8093EMC</td>
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<tr>
<td>480-500 V AC</td>
<td>3P+N+E</td>
<td>09N4097EMC</td>
<td>09N8097EMC</td>
</tr>
</tbody>
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### Decontactor™

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30 A

**DN9C**

- 1-6 mm² flexible
- 1.5-10 mm² stranded

**EMC**
- IP65
- IK09
- -40°C
- +60°C

**SOCKET-OUTLET female**
- **DN9C (30 A)**

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Contacts</th>
<th>Code EMC</th>
<th>Code EMCI</th>
</tr>
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<tbody>
<tr>
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<td>415 V AC</td>
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<td>1914051EMC</td>
<td>1918051EMC</td>
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<td>415 V AC</td>
<td>8P+E</td>
<td>1914081EMC</td>
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</table>

**INLET male**
- **DN9C (30 A)**

- **DECONTACTOR™**

**INDUSTRIAL SOCKET WITH INTEGRATED SWITCH**

- **MULTI-CONTACT CONNECTORS**
- **UP TO 9 CONTACTS**

**SOCKET-OUTLET female**
- **DS6 (90 A)**

<table>
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<tbody>
<tr>
<td>220-250 V AC</td>
<td>1P+N+E</td>
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<td>220-250 V AC</td>
<td>3P+N+E</td>
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<td>660-690 V AC</td>
<td>3P+E</td>
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<td>3968019EMC</td>
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<tr>
<td>380-400 V AC</td>
<td>3P+N+E</td>
<td>3964179EMC</td>
<td>3968179EMC</td>
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<tr>
<td>1 000 V AC</td>
<td>3P+E</td>
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<td>3968223EMC</td>
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<tr>
<td>Auxiliaries 5 A/500 V AC</td>
<td>+ 2 contacts</td>
<td>Ref. + 972</td>
<td>Ref. + 972</td>
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<tr>
<td>Auxiliaries 5 A/500 V AC</td>
<td>+ 4 contacts</td>
<td>Ref. + 264</td>
<td>Ref. + 264</td>
</tr>
</tbody>
</table>

- **METAL**
- **10-25 mm² flexible**
- **10-35 mm² stranded**

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90 A

**DS6**

- **DECONTACTOR™**

**INDUSTRIAL SOCKET WITH INTEGRATED SWITCH**

**SOCKET-OUTLET female**
- **DS6 (90 A)**

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### DECONTACTOR™

**INDUSTRIAL SOCKET WITH INTEGRATED SWITCH**

#### DS9 (150 A)

<table>
<thead>
<tr>
<th>Voltage Range</th>
<th>Option</th>
<th>Part No. (EMC)</th>
<th>Part No. (EMC)</th>
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<tbody>
<tr>
<td>220-250 V AC</td>
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<td>220-250 V AC</td>
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<td>660-690 V AC</td>
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<td>380-400 V AC</td>
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<td>1 000 V AC</td>
<td>3P+E</td>
<td>3994223EMC</td>
<td>3998223EMC</td>
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</table>

**Auxiliaries**
- 10 A/400 V AC + 2 contacts Ref. + 262
- 10 A/400 V AC + 4 contacts Ref. + 264
- 10 A/400 V AC + 6 contacts Ref. + 976

#### DS2 (250 A)

<table>
<thead>
<tr>
<th>Voltage Range</th>
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<th>Part No. (EMC)</th>
<th>Part No. (EMC)</th>
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<tr>
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<td>3P+N+E</td>
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<td>3928197EMC</td>
</tr>
<tr>
<td>1 000 V AC</td>
<td>3P+E</td>
<td>3924223EMC</td>
<td>3928223EMC</td>
</tr>
</tbody>
</table>

**Auxiliaries**
- 5 A/400 V AC + 2 contacts Ref. + 972
- 5 A/400 V AC + 4 contacts Ref. + 174
- 5 A/400 V AC + 6 contacts Ref. + 976

For all other configurations, options and accessories, contact us or see our online catalog on marechal.com
400 A

DS4

COMPACT HEAVY-DUTY
PLUGS & SOCKETS

EMC  IP65  METAL  IK09
-40°C  +60°C

SOCKET-OUTLET female
DS4 (400 A)

INLET male
DS4 (400 A)

380-440 V AC  3P+E+ 2pil.  3944013EMC  3948013EMC
660-690 V AC  3P+E+ 2pil.  3944193EMC  3948193EMC
1 000 V AC  3P+E+ 2pil.  3944223EMC  3948223EMC

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THE REGULATIONS REGARDING EMC HAS BEEN DEVELOPED FROM EUROPEAN DIRECTIVES EXPLAINING THAT:

• The electromagnetic interferences generated must be limited to a level allowing radio devices, telecommunications and other devices to work in compliance with their scope of use.
• The devices must have some intrinsic immunity level against electromagnetic interferences allowing them to work in compliance with their scope of use.

Since December 19th, 2018, a new EMC directive 2014/30/UE has been applicable. It replaces the EMC directive 2004/108/CE.

95-150 mm² flexible
95-185 mm² stranded

All construction sites with armoured cable don't require EMC plugs. Contact us for more information.
• Configure your product specification with our online configurator.
• Retrieve your business contacts.
• Download our documentation related to your field of activity.
• Download our products drawings.
• Learn more about our group.
• Discover our new products.
• Follow our current events.

FIND ALL INFORMATION ON OUR WEBSITE:
marechal.com
NON CONTRACTUAL DOCUMENT AND PICTURES

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