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Kategorie:EMV

EMV (Elektromagnetische Verträglichkeit)

Grundsatzbetrachtungen

In dieser Kategorie sind Informationen zu Elektromagnetische Verträglichkeit (EMV) zu finden. Darunter versteht man die Fähigkeit eines technischen Gerätes, andere Geräte nicht durch (ungewollte) elektrische oder elektromagnetische Effekte zu beeinflussen. Oder auch selbst durch andere Geräte gestört zu werden. Grundlegend für die Verträglichkeit ist dabei die Elektromagnetische Interference (EMI).

Dabei sollte eben die EMI dank EMV keine Störeffekte hervorrufen.

Übersicht der Störungskategorien

Wie die untenstehende Infografik zeigt, kann ein Produkt (in diesem Zusammenhang eine Testobjekt, Equipment Under Test, EUT) (hauptsächlich) durch

- Leitungsgeführte Störungen (**Conducted Emissions**) oder durch
- Störstrahlungen (**Radiated Emissions**)

beeinträchtigt werden.

In der Infografik werden dabei auch die relevanten Normen aufgeführt. Siehe auch [CISPR Guide 2019](#).

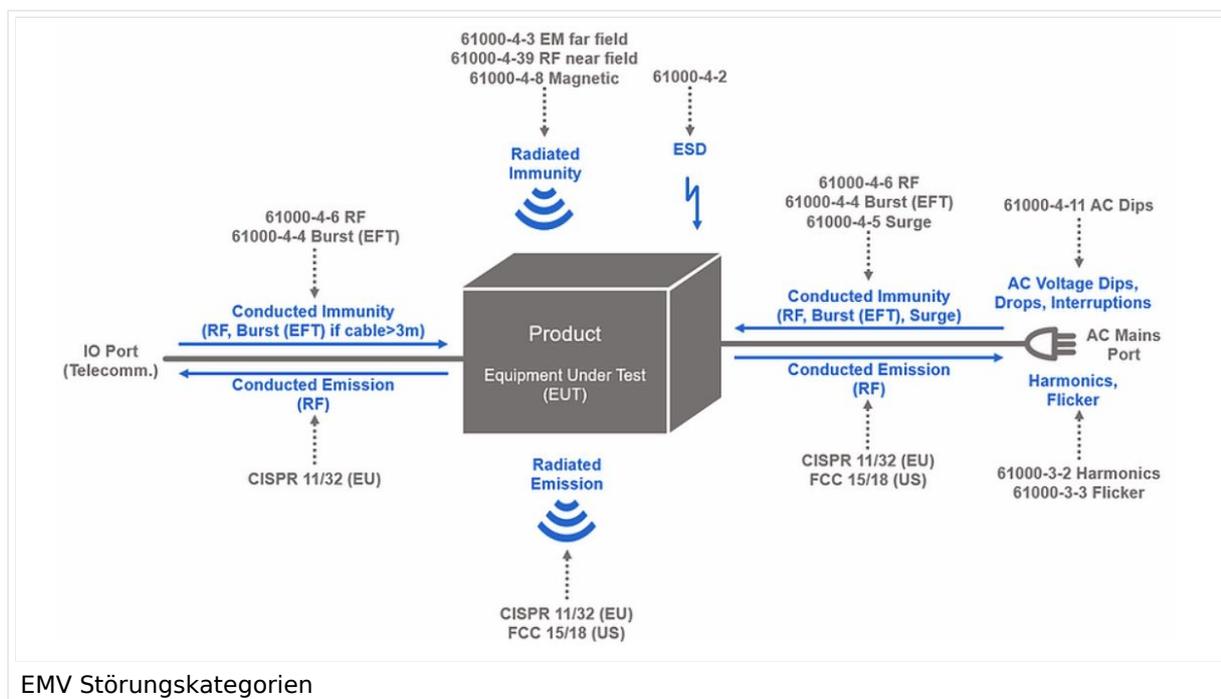


Bild: <https://www.academyofemc.com/emc-standards>

EMV-Normen

Bedingt durch die hochkomplexe Sachlage (es existiert eine grosse Anzahl komplexer Geräte, die zum Teil in kleiner Entfernung von einander betrieben werden) gibt es eine Reihe von internationalen Normen, die sich jedoch je nach Weltregion (EU; USA; Asien,...) weiter unterscheiden.

Siehe auch <https://www.academyofemc.com/emc-standards>.

Einteilung der EMV Normen

Basisnormen

Diese Gruppe ist ihrerseits unterteilt

- Generelle Standards
- Umwelt
- Emission
- Immunität
- Installation/Abhilfemassnahmen

Produktstandards

Standards für Produktfamilien

Generische Standards

Weiterführende Informationen

Internationales Elektrotechnisches Vokabular: <http://www.electropedia.org/>

Detaillierte Einführung in EMV: <https://www.academyofemc.com/>

EMV-Glossar: <https://www.academyofemc.com/emc-vocabulary>

Unterkategorien

Diese Kategorie enthält nur die folgende Unterkategorie:

E

- ► [EMV/Normenarbeit \(IARU\)](#) (leer)

Seiten in der Kategorie „EMV“

Folgende 10 Seiten sind in dieser Kategorie, von 10 insgesamt.

C

- [CISPR Guide 2019](#)

E

- [Elektromagnetische Umweltverträglichkeit](#)
- [ENAMS](#)
- [ENAMS Auswertungen Heatmaps](#)
- [ENAMS Auswertungen Noise Floor](#)
- [ENAMS Auswertungen Spektren](#)

F

- [Fallstudie TV Box: Declaration of Conformity](#)

S

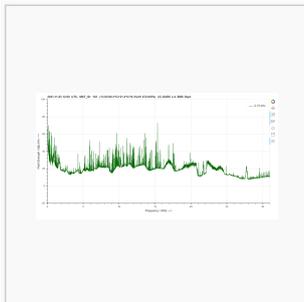
- [Smart Meter](#)
- [Störungen durch PLC \(Powerline Communications\)](#)

W

- [WPT-EV](#)

Medien in der Kategorie „EMV“

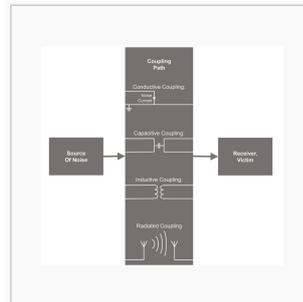
Folgende 12 Dateien sind in dieser Kategorie, von 12 insgesamt.



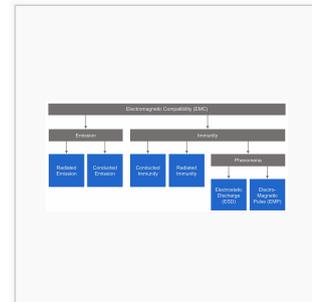
2021-11-25 1200 UTC
Spectrum 0-30MHZ.
png 3.323 × 1.746;
379 KB

| Statistic | Value | Note |
|---------------------------------------|-----------------|---|
| Count | 3593 1416 | Lower frequency of CENELEC A-weighting (reference value: 35) |
| Sum | 9623 810 | Higher frequency of CENELEC A-weighting (reference value: 10) |
| Parameter's model reference value: | 19e-22, 89e 127 | Class: R.A.2.1 of IEC 61010-1 |

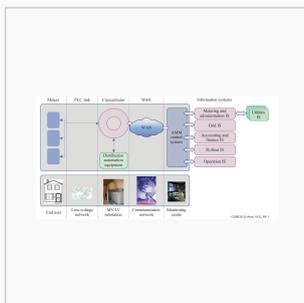
CENELEC-A.jpg 1.328
× 374; 160 KB



Coupling Path.jpg 951
× 861; 73 KB



EMC Overview.jpg
1.142 × 528; 115 KB

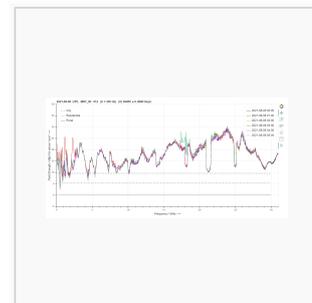


G3-PLC Network
Architecture.jpg 1.329
× 679; 266 KB

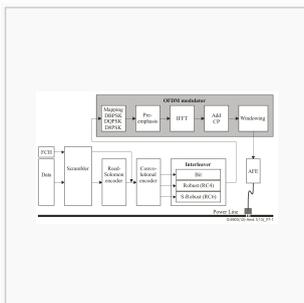
Comparison of PLC G3 and PRIME

isplc 2011 hoch.pdf
1.239 × 1.754, 5
Seiten; 322 KB

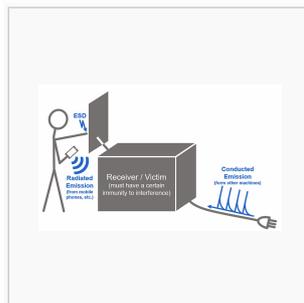
- SERIES OF IEC RECOMMENDATIONS
- IEC 61000-4-2: Immunity to electrostatic discharge (ESD) immunity test
 - IEC 61000-4-3: Immunity to radio frequency electromagnetic field (RF) immunity test
 - IEC 61000-4-4: Immunity to fast transients, burst emission, common mode conducted emission
 - IEC 61000-4-5: Immunity to surge
 - IEC 61000-4-6: Immunity to conducted common mode radio frequency interference (CMRFI) immunity test
 - IEC 61000-4-7: Immunity to magnetic field (MF) immunity test
 - IEC 61000-4-8: Immunity to power frequency magnetic field (PFMF) immunity test
 - IEC 61000-4-9: Immunity to low frequency magnetic field (LFMF) immunity test
 - IEC 61000-4-11: Immunity to voltage dips, voltage sags, voltage interruptions, and short duration voltage dips
 - IEC 61000-4-12: Immunity to voltage fluctuations and flicker
 - IEC 61000-4-13: Immunity to voltage transients
 - IEC 61000-4-14: Immunity to voltage dips, voltage sags, voltage interruptions, and short duration voltage dips
 - IEC 61000-4-15: Immunity to voltage fluctuations and flicker
 - IEC 61000-4-16: Immunity to voltage transients
 - IEC 61000-4-17: Immunity to voltage dips, voltage sags, voltage interruptions, and short duration voltage dips
 - IEC 61000-4-18: Immunity to voltage fluctuations and flicker
 - IEC 61000-4-19: Immunity to voltage transients
 - IEC 61000-4-20: Immunity to voltage dips, voltage sags, voltage interruptions, and short duration voltage dips
 - IEC 61000-4-21: Immunity to voltage fluctuations and flicker
 - IEC 61000-4-22: Immunity to voltage transients
 - IEC 61000-4-23: Immunity to voltage dips, voltage sags, voltage interruptions, and short duration voltage dips
 - IEC 61000-4-24: Immunity to voltage fluctuations and flicker
 - IEC 61000-4-25: Immunity to voltage transients
 - IEC 61000-4-26: Immunity to voltage dips, voltage sags, voltage interruptions, and short duration voltage dips
 - IEC 61000-4-27: Immunity to voltage fluctuations and flicker
 - IEC 61000-4-28: Immunity to voltage transients
 - IEC 61000-4-29: Immunity to voltage dips, voltage sags, voltage interruptions, and short duration voltage dips
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 - IEC 61000-4-37: Immunity to voltage transients
 - IEC 61000-4-38: Immunity to voltage dips, voltage sags, voltage interruptions, and short duration voltage dips
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 - IEC 61000-4-40: Immunity to voltage transients
 - IEC 61000-4-41: Immunity to voltage dips, voltage sags, voltage interruptions, and short duration voltage dips
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 - IEC 61000-4-43: Immunity to voltage transients
 - IEC 61000-4-44: Immunity to voltage dips, voltage sags, voltage interruptions, and short duration voltage dips
 - IEC 61000-4-45: Immunity to voltage fluctuations and flicker
 - IEC 61000-4-46: Immunity to voltage transients
 - IEC 61000-4-47: Immunity to voltage dips, voltage sags, voltage interruptions, and short duration voltage dips
 - IEC 61000-4-48: Immunity to voltage fluctuations and flicker
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 - IEC 61000-4-99: Immunity to voltage fluctuations and flicker
 - IEC 61000-4-100: Immunity to voltage transients



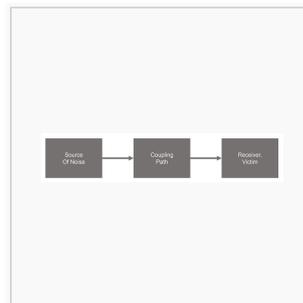
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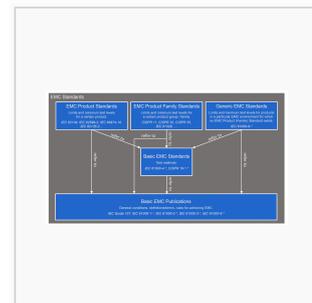
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Receiver-Victim.jpg
1.201 × 731; 158 KB



Source-Coupling-
Receiver.jpg 1.104 ×
221; 30 KB



Standards.jpg 1.248 ×
697; 249 KB