

Special edition
Magazine from EBV Elektronik and Avnet Abacus

TQ + focus



EV CHARGING

SUCCESS FACTOR FOR A
SUSTAINABLE MOBILITY AND
ENERGY TRANSITION

CONTENTS

- 3 | MARKET OVERVIEW**
More power for electromobility
- 6 | CHARGING SOLUTIONS ARE THE COMMON LINK BETWEEN THE MOBILITY AND ENERGY REVOLUTIONS**
Electric cars are becoming part of the power grid
- 8 | A WIN FOR THE ELECTRICITY GRID**
Interview with Bruce Douglas, Eurelectric
- 12 | THE FOUNDATIONS FOR ELECTROMOBILITY**
Facts about electric vehicle charging

By **2030**, Europe will need up to **6.8 million** public charging stations.

TECHNOLOGY

- 30 | COMPONENTS OF A CHARGING STATION**
Basic questions to ask when selecting them
- 32 | THE VARIOUS TYPES OF CHARGING SYSTEMS**
Operating modes of charging stations
- 34 | MORE EFFICIENT CURRENT CONVERSION**
Inverters at a glance
- 36 | CONSISTENT COMMUNICATION**
Communication standards for charging stations
- 38 | ACCELERATING ELECTROMOBILITY**
Fast charging is on trend
- 42 | KEEP COOL**
Charging cables and plugs
- 44 | CHARGING SOLUTIONS FROM A ONE-STOP SHOP**
Interview with Sarah Ghaemi (Avnet Abacus), Bevan Braude (Avnet Embedded) and Andrej Orel (EBV Elektronik)

PAGE 36
STANDARDS FOR CONSISTENT COMMUNICATION

Charging capacity has tripled in just a few years

PAGE 18
INTERFACE BETWEEN MOBILITY AND ENERGY SECTORS

MARKET REQUIREMENTS

- 16 | TIPPING POINT IN ELECTRIC MOBILITY**
Electric vehicles in increasing demand
- 18 | CARS AS THE NEW POWERBANKS**
A solution to make the grid more flexible
- 22 | QUALITY OF SERVICE AS A KEY TO SUCCESS**
Charge conveniently, easily and securely
- 26 | ARE CHARGING STATIONS A NEW TARGET FOR HACKERS?**
Cybersecurity is becoming increasingly important

Charging is becoming as easy as refuelling

PAGE 52
FROM E-SCOOTER TO AIRCRAFT

VISIONS & VIEWS

Electrification can be found in all transport sectors

- 56 | A TECHNOLOGY OF THE FUTURE, WITH A LONG HISTORY**
Electromobility 100 years ago
- 58 | INNOVATIVE CHARGING SOLUTIONS**
New start-up solutions for charging
- 50 | INNOVATIVE ALTERNATIVES**
From wireless charging to charging robots
- 52 | CHARGING ON LAND, WATER AND EVEN FOR AIR TRAFFIC**
Electromobility in all sectors
- 60 | GLOSSARY**
- 62 | MEET THE TEAM**
- 63 | INFO-POINT/ IMPRINT**