



POWER SUPPLY
FOR CONVERTERS
ENERGY
TRANSFORMATION

 **celme**
we make transformers

+ 60

YEARS OF EXPERIENCE

70.000

TRANSFORMERS PRODUCED

+ 70

COUNTRIES WHERE OUR TRANSFORMERS
ARE INSTALLED

we are all over the world



○ Countries where our transformers are installed

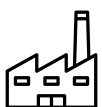
● Celme's Partner

we make transformers

for
**CONVERTER
TRANSFORMER**

Transformers for variable frequency systems are applied whenever variation on speed / torque is requested, for instance in case of soft-starters of big motors for Marine and Industrial applications or Oil&Gas sector (in the range from 0 to 70 Hz).

**DESIGNING IS FULLY IN COMPLIANCE
WITH INTERNATIONAL STANDARDS
LIKE IEC 61378-1 AND
THE BEST INDUSTRY PRACTICE.**





Current and voltage harmonics' effects are duly considered to avoid the risk of overheating and to limit hot-spots by a finite element analysis.

THE EXPECTED TRANSFORMER LONG-LASTING LIFETIME CAN THEREFORE BE PRESERVED EVEN WHEN IT UNDERGOES CONSTANT HIGH LOADS IN THE MOST DEMANDING ENVIRONMENTS.



To satisfy diode and thyristor rectifiers solutions, multipulse (up to 48) transformer can be designed in several configurations. LV or HV windings' phase shifts are effectively produced according with required winding configuration (zig-zag, extended delta or polygon) or according with the most suggestable solution able to limit the current harmonic content.

CELME MULTIPULSE SOLUTIONS RELIABLY COMPLY THE STRICTEST TOLERANCES ON VOLTAGE RATIOS, PHASE SHIFTS AND SHORT-CIRCUIT IMPEDANCES.



Loosely coupled, strictly coupled or fully uncoupled options can be made, and high insulation requirements on valve windings can be achieved to sustain the homopolar voltages arising in serie connected rectifiers.

THE DESIGN CAN BE CUSTOMISED ACCORDING WITH SPECIFIC REQUIREMENTS AND ACCESSORIES, SUCH AS OFF-CIRCUIT OR ON-LOAD TAP CHANGERS.





RENEWABLE
BESS



RENEWABLE
PHOTOVOLTAIC / WIND



HYDROGEN



INDUSTRIAL



DISTRIBUTION



POWER SUPPLY FOR CONVERTERS
ENERGY TRANSFORMATION



OIL AND GAS
OFFSHORE / ONSHORE
HAZARDOUS / SAFE AREAS



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we make transformers

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