

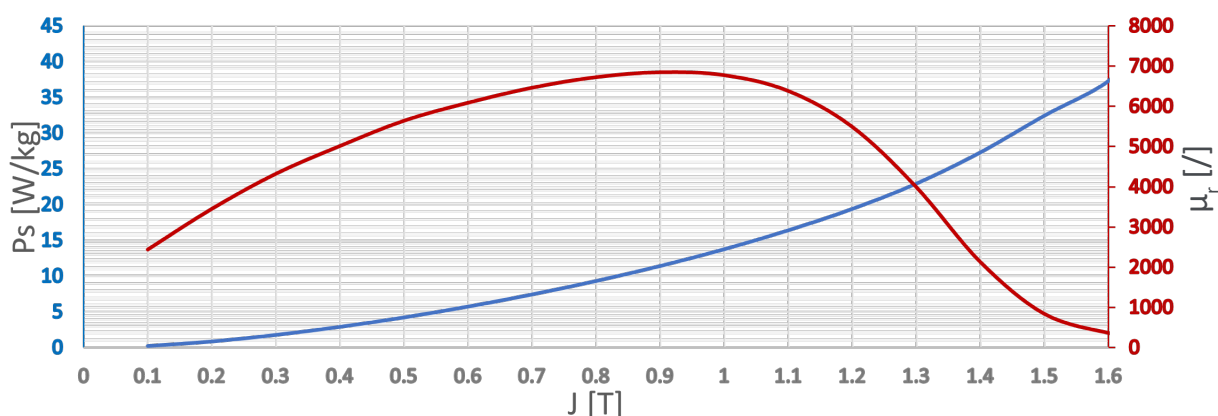
SIWATT^{...} NO 27-14

NGO ELECTRICAL STEEL FOR EV

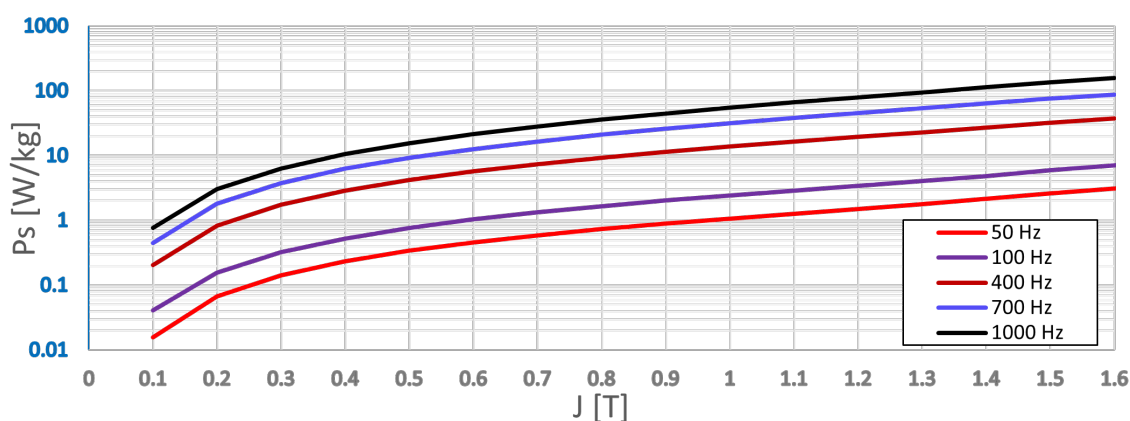
MAGNETIC PROPERTIES

	Guaranteed	Typical value
Core loss [W/kg] at 400 Hz and at 1.0 T	max. 14	13.7
Magnetic polarization [T] at 50 Hz and 2500 A/m	min. 1.48	1.54
Magnetic polarization [T] at 50 Hz and 5000 A/m	min. 1.59	1.64
Magnetic polarization [T] at 50 Hz and 10000 A/m	min. 1.69	1.74

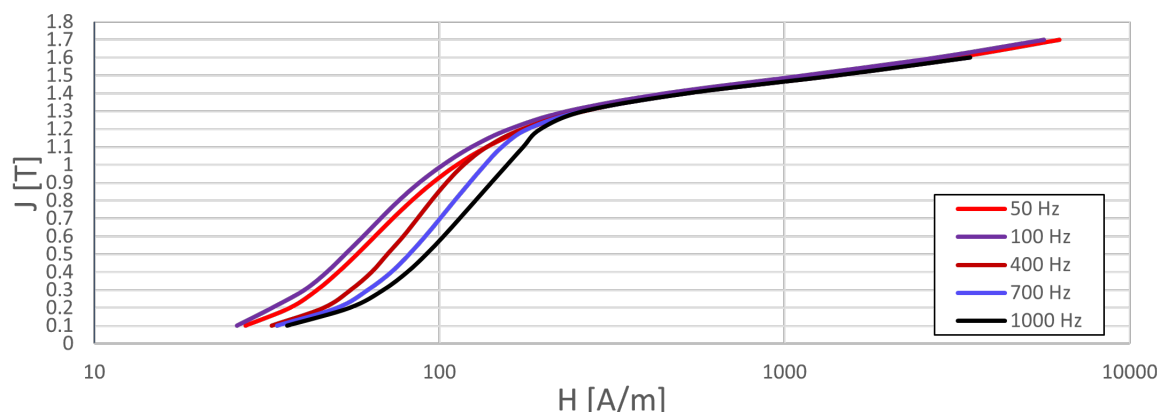
CORE LOSS AND RELATIVE PERMEABILITY CURVES AT 400 Hz (typical values)



CORE LOSS CURVES AT DIFFERENT FREQUENCIES (typical values)



MAGNETIZATION CURVES AT DIFFERENT FREQUENCIES (typical values)



MECHANICAL PROPERTIES

	Designation	Min.	Max.
Yield strength [MPa]	$R_{p0.2}$	420	490
Tensile strength [MPa]	R_m	450	550
Elongation [%]	A_{80}	12	28

Values for yield strength, tensile strength and elongation are given for the transverse direction.

PHYSICAL PROPERTIES

	Typical value
Density at 20 °C [kg/dm ³]	7.54
Specific electrical resistance [$10^{-8} \Omega m$]	63.20
Thermal conductivity [W/mK]	20.52

DELIVERY CONDITION

Cold rolled, finally annealed, coated. For coating types and properties, please see our general catalogue.

DIMENSIONAL RANGE

SIWATT NO 27-14 is supplied in strips and sheets of standard dimensions. For more information, please see our general catalogue.

Other dimensions are a matter of agreement between the customer and SIJ Acroni.

RELATED STANDARDS

SIWATT NO 27-14 is produced in accordance with the following standards:

- **EN 10303** – Thin magnetic steel sheet and strip for use at medium frequencies
- **EN 10251** – Magnetic materials - Methods of determination of the geometrical characteristics of electrical steel sheet and strip

The information and data in this product data sheet are intended for informative purpose only and may be revised at any time without notice. Presented typical properties and curves of the materials are described only to help readers make their own evaluations and decisions. They are not guaranteed.