

SIWATT^{...} M470-50A

NON-ORIENTED FULLY PROCESSED ELECTRICAL STEEL

MECHANICAL PROPERTIES

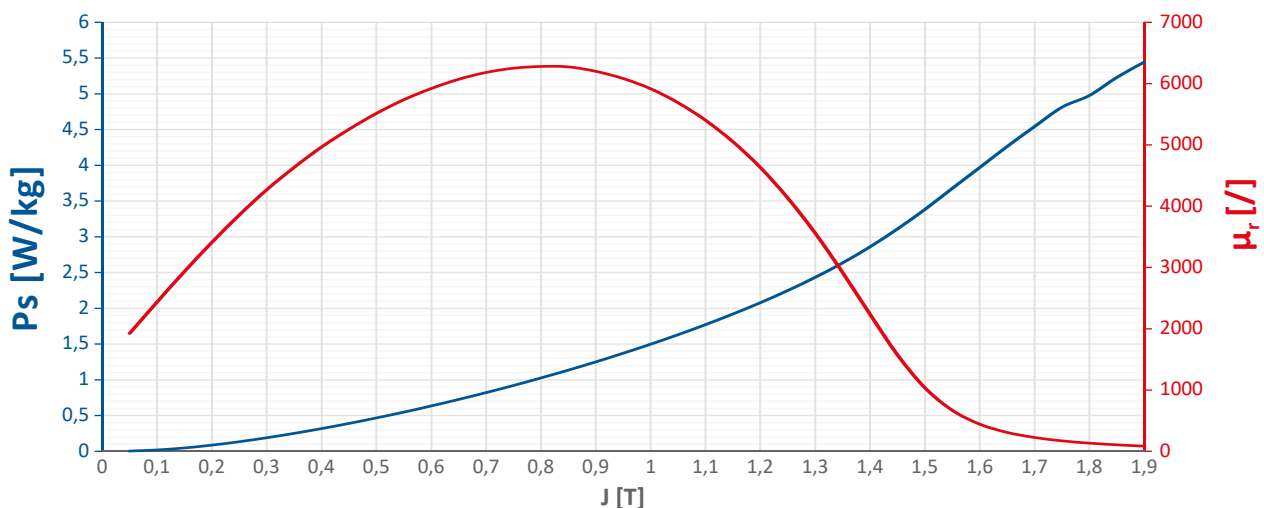
	Designation	Min.	Max.
Hardness	HV ₁₀	130	180
Yield strength [MPa]	R _{p0.2}	300	400
Tensile strength [MPa]	R _m	440	520
Elongation [%]	A ₈₀	23	33

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

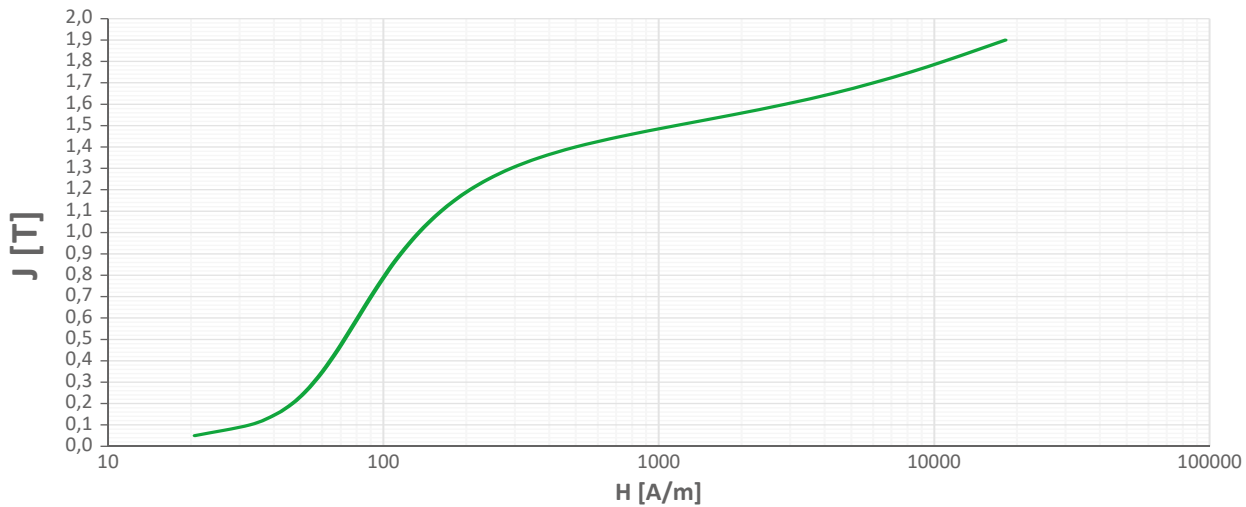
MAGNETIC PROPERTIES

	Guaranteed	Typical value
Core loss [W/kg] at 50 Hz and at 1.0 T	-	1.50
Core loss [W/kg] at 50 Hz and at 1.5 T	max. 4.70	3.42
Magnetic polarization [T] at 50 Hz and 2500 A/m	min. 1.54	1.59
Magnetic polarization [T] at 50 Hz and 5000 A/m	min. 1.64	1.67
Magnetic polarization [T] at 50 Hz and 10000 A/m	min. 1.74	1.79

CORE LOSS AND RELATIVE PERMEABILITY CURVES AT 50 Hz (TYPICAL VALUES)



MAGNETIZATION CURVE AT 50 Hz (TYPICAL VALUES)



PHYSICAL PROPERTIES

	Typical value
Density at 20 °C [kg/dm ³]	7.69
Specific electrical resistance [10 ⁻⁸ Ωm]	42.2
Thermal conductivity [W/mK]	29.2

DELIVERY CONDITION

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

DIMENSIONAL RANGE

SIWATT M470-50A 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 customer and SIJ Acroni.

RELATED STANDARDS

SIWATT M470-50A is produced in accordance with the following standards:

- EN 10106 – Cold rolled non-oriented electrical steel sheet and strip delivered in the fully processed state
- 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 of the materials are described only to help readers make their own evaluations and decisions. They are not guaranteed.