SIWATT M270-35A

NON-ORIENTED FULLY PROCESSED ELECTRICAL STEEL

MECHANICAL PROPERTIES

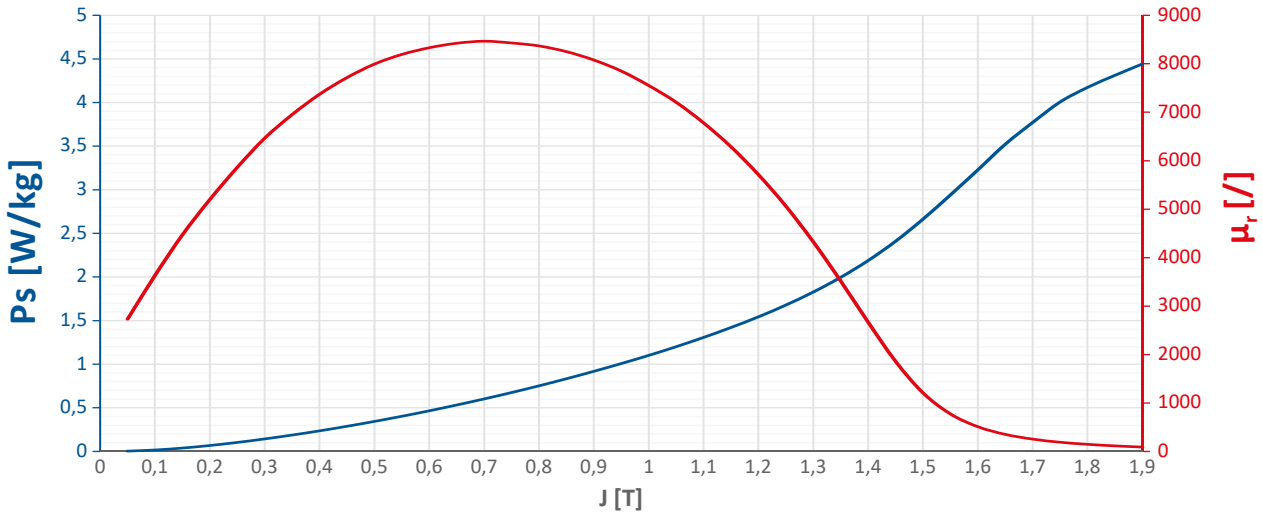
	Designation	Min.	Max.
Hardness	HV_{10}	120	170
Yield strength [MPa]	$R_{p0.2}$	260	360
Tensile strength [MPa]	R_m	380	490
Elongation [%]	A_{80}	21	34

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	-	1.08
Core loss [W/kg] at 50 Hz and at 1.5 T	max. 2.70	2.64
Magnetic polarization [T] at 50 Hz and 2500 A/m	min. 1.49	1.60
Magnetic polarization [T] at 50 Hz and 5000 A/m	min. 1.60	1.69
Magnetic polarization [T] at 50 Hz and 10000 A/m	min. 1.70	1.80

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



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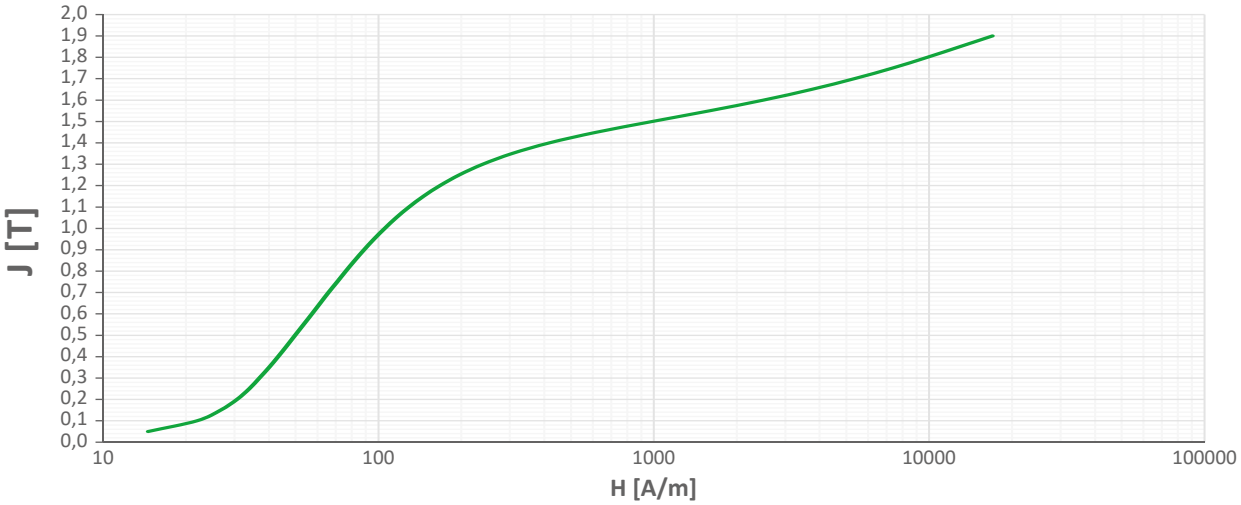
MAGNETIZATION CURVE AT 50 Hz (TYPICAL VALUES)



PHYSICAL PROPERTIES

	Typical value
Density at 20 °C [kg/dm³]	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 M270-35A 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 M270-35A 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

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