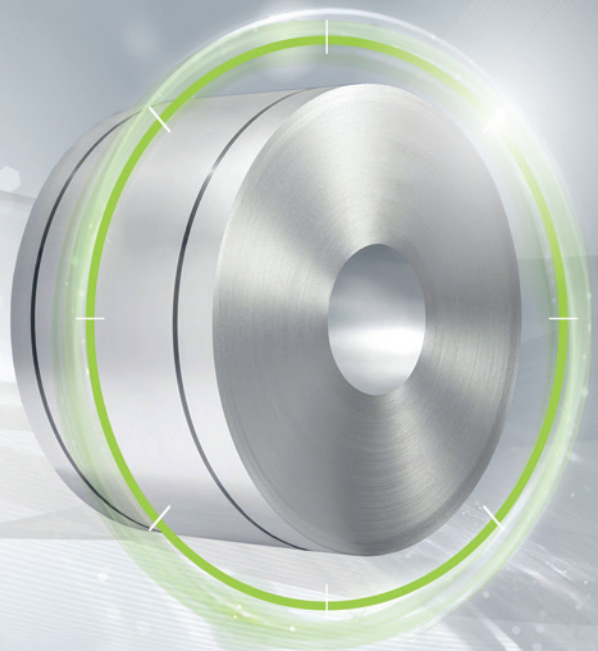


FULLY
PROCESSED

isovac 1300-100 A

The perfect solution for direct application

Manufactured in the most modern production lines, this fully processed isovac® grade exhibits highly homogeneous properties across the width and length of the entire strip. The result is excellent and consistent processability in the manufacture of highly efficient electrical components. Upon request, isovac 1300-100 A can be supplied with an electrical steel insulation system and can be used directly in as-delivered condition.

Convincing advantages:

- » Best processability through consistent mechanical properties and homogeneous, clean surfaces
- » Excellent stackability resulting from high dimensional accuracy in rolling direction and perpendicular to rolling direction (thickness tolerance)
- » Innovative electrical steel insulation systems upon request

voestalpine supplies isovac 1300-100 A, an electrical steel of the highest quality. We offer you a customer-focused overall package of products, service and logistics in addition to all the advantages of our integrated metallurgical facility and Steel Service Centers.

Grade named according to conventional international standards:

Grade named according to isovac®	DIN EN 10106		IEC 60404-8-4	JIS C2552	GOST 21427.2	ASTM A677	AISI	IS648	GB/T2521.1
	Material No.	Abbreviation							
isovac 1300-100 A	1.0897	M1300-100A	M1300-100A 5	100A1300	-	-	-	100C1300	-

Mechanical properties:

Tensile test according to DIN EN ISO 6892-1 and hardness according to DIN EN ISO 6507-1 (Typical values);
Test direction: Transverse

Grade named according to isovac®	Yield strength	0.2 %-Yield strength	Tensile strength	Elongation	Hardness
	R _{eH} [MPa]	R _{p0.2} [MPa]	R _m [MPa]	A ₈₀ [%]	HV10 [-]
isovac 1300-100 A	320	280	400	37	125

Magnetic properties:

in as-delivered condition (Typical values)

Test direction: Mean value from longitudinal and transverse measurements at 50 Hz (60 Hz), single-sheet test

Grade named according to isovac®	Specific total loss				Magnetic polarization			Relative permeability
	1.0 T P10		1.5 T P15		2500 A/m J25	5000 A/m J50	10000 A/m J100	1.5 T μ _r
	50 Hz [W/kg]	60 Hz [W/lb]	50 Hz [W/kg]	60 Hz [W/lb]	[T]	[T]	[T]	[-]
isovac 1300-100 A	3.80	2.32	8.90	5.43	1.65	1.73	1.84	2300

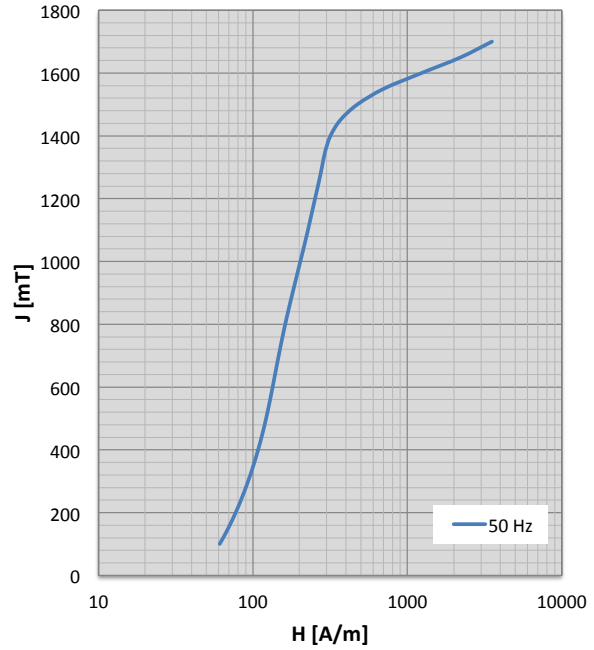
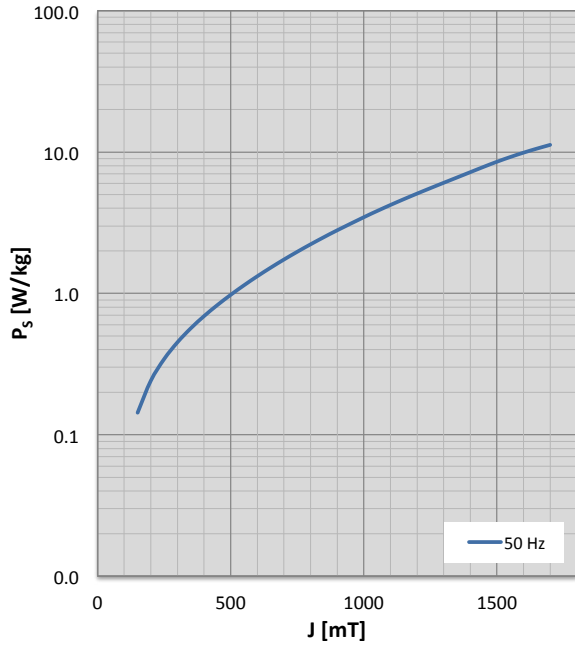
Physical properties:

Typical values

Grade named according to isovac®	Density ρ [g/cm³]	Specific electrical resistance ρ _s [μΩcm]	Thermal conductivity λ [W/mK]
isovac 1300-100 A	7.80	28.2	42

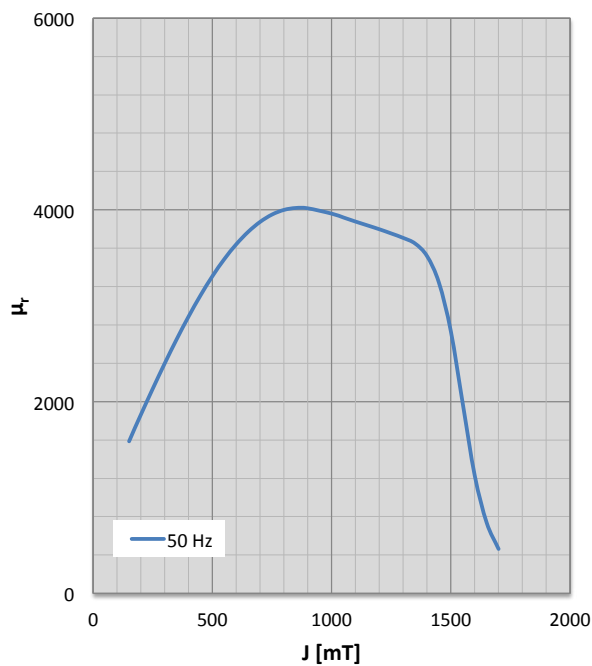
Characteristics P_s/J loss curve and characteristics J/H magnetization curve

Test direction: Mean value from longitudinal and transverse measurements at indicated frequencies, single-sheet test



Characteristics μ_r/J permeability curve

Test direction: Mean value from longitudinal and transverse measurements at 50 Hz, single-sheet test



Frequency dependence of magnetic properties

Test direction: Mean value longitudinal and transverse at indicated frequencies and polarizations, single-sheet test

— 50 Hz			
J [mT]	H [A/m]	P _s [W/kg]	μ _r [-]
100	61	0.05	1307
150	69	0.14	1587
200	77	0.24	1864
250	85	0.34	2135
300	93	0.45	2398
350	101	0.57	2650
400	108	0.69	2887
450	115	0.83	3108
500	122	0.98	3308
550	128	1.14	3487
600	134	1.32	3641
650	140	1.52	3771
700	147	1.74	3875
750	154	1.97	3951
800	162	2.23	4000
850	171	2.50	4020
900	181	2.80	4016
1000	203	3.46	3961
1050	215	3.83	3920
1100	227	4.22	3878
1150	239	4.64	3838
1200	252	5.08	3798
1250	266	5.56	3754
1300	280	6.06	3707
1350	294	6.61	3649
1400	318	7.21	3518
1450	368	7.86	3240
1500	475	8.54	2732
1550	704	9.23	1976
1600	1236	9.91	1229
1650	2213	10.58	738
1700	3528	11.25	463

Available Dimensions

Grade named according to isovac®	Delivery form	Width [mm]	Length [mm]
isovac 1300-100 A	Wide strip / Slit strip	19 – 1600	-
	Cut-to-length sheets	300 – 1600	300 – 5000

Deliverable coating systems

Grade named according to isovac®	Uncoated	C-3	Backlack	C-5	C-6
isovac 1300-100 A	✔	✔	☰	✔	✔

✔ Available ☰ On request

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