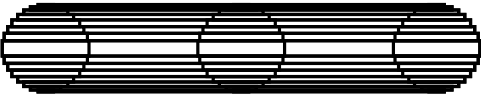
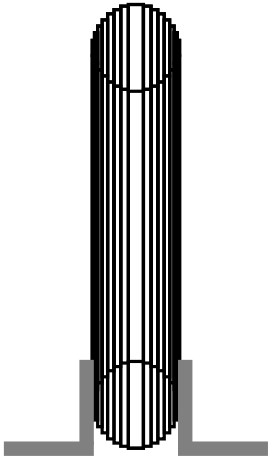
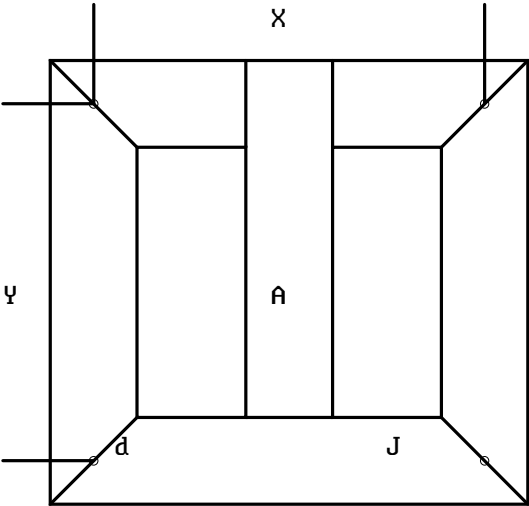


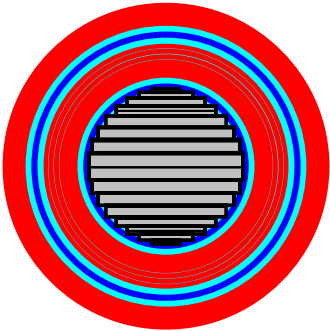
Core file name	: LTCM_EI0_3_L_1.USR	Fe-File name	: STEEL1.RDS
Core name	: EI0-3 260/1150x1050 H2	Fe-Name	: M 97-30 => M5 0.012" 3
Core type	: 3EI	Frequency	Hz: 50
Type of windings	: round	Remanence-Factor	*: 0.35
Number of legs	: 3	W/kg-Factor	*: 1
Core assembly	: (7) 4x45°+3x9	UAr/kg-Factor	*: 1
Leg/Diameter	cm: 25.89	Gap-Factor	*: 1
Window width	cm: 32	f/fn-Factor	*: 1
Window height	cm: 79.49	Fillfactor	*: 1
Stack	cm: 25.7	Annealed	-: Yes
Cross section	cm^2: 478.6		
Weight total	kg: 1917.		
With holes	-: Yes	Chassis	-:
Brackets	-: L-T&B	Vertical/Horizontal	-:

		Steps	1	2	3	4	5	6	7	8	9	10
X-Width	cm: 115	A-Leg	cm:25.5	24.5	22.5	20	16.5	13	9	4.5	0	0
Y-Height	cm: 105	J-Yoke	cm:25.5	24.5	22.5	20	16.5	13	9	4.5	0	0
d_Hole	cm: 2.55	R-Rearyoke	cm:0	0	0	0	0	0	0	0	0	0
h-Distance	cm: 2.55	S-Stack	cm:4.5	2.2	2	1.9	1.6	1.3	1	0.6	0	0
L-Laenght	cm: 25.5	Number lamin.	:									
Z-Width	cm: 0	Weight	kg:									



Windings	1	2	3	4	5	6	7	8	9	10
Groups-Circuits	2-Yn	2-Yn	2-Yn	2-Yn	1-Yn					
Connection	ser.	ser.	ser.	ser.	ser.					
Turns per leg	6.0	6.0	6.0	6.0	1200.0					
Build	%				87.85					
Weight per leg	kg	150.19	16.86	17.69	13.88	220.50				
WIRE										
Type	Foil	Foil	Foil	Foil	flat					
Thicknes	mm	4.00	0.40	0.40	0.30	2.20				
Width	mm	350.00	350.00	350.00	350.00	3.00				
WG-thicknes		0	0	0	0	22				
WG-width		0	0	0	0	30				
Al/Cu	Cu	Cu	Cu	Cu	Cu	Cu				
STRAND/LITZ							7			
Thickne insula.	mm	4.00	0.40	0.40	0.30	4.52				
Width insulata.	mm	350.0	350.0	350.0	350.0	3.1				
Parallel wires		1	1	1	1	2				
side by side		1	1	1	1	1				
one upon the other		1	1	1	1	2				
Transposition	Cyl	Cyl	Cyl	Cyl	Cyl	Cyl				
Cross section	mm^2	1400.0	140.0	140.0	105.0	13.2				
SECTOR										
Number	2	2	2	2	8					
Serie/Parallel	par.	par.	par.	par.	ser.					
Turns	6	6	6	6	150					
Turns/Layer	1	1	1	1	21.45					
Layers	6	6	6	6	6.990					
Insul./Layer	µm	100.0	100.0	100.0	100.0	200.0				
Transposition	None	None	None	None	None	None				
Thicknes	mm	24.60	3.00	3.00	2.40	32.84				
Height	mm	350.00	350.00	350.00	350.00	70.125				
Heights Wind/Sect	6	6	6	6	6.990					
SPACES/CHANNELS/INS.										
C/I Outside	WICW	WCW	WCW	WCW	WCICW					
Insulation	mm	5.0	5.0	5.0	5.0	5.0				
Channel	mm	15.0	6.0	6.0	6.0	15.0				
C/I Inside	WICW	WCW	WCW	WCW	WCICW					
Insulation	mm	5.0	5.0	5.0	5.0	5.0				
Channel	mm	15.0	6.0	6.0	6.0	15.0				
C/I Horizontal	CC	CC	CC	CC	CC					
Sector-Sector	mm	10.0	10.0	10.0	10.0	12.0				
Turn-Turn	mm	5.0	5.0	5.0	5.0	5.0				
Distance to yoke	mm	42.5	42.5	42.5	42.5	75.0				

Coil insulation mm: 0.00 Diatancw coil to coil : 38.38
D1i/D1e: 298.9 348.1
D2i/D2e: 360.1 366.1
D3i/D3e: 378.1 384.1
D4i/D4e: 396.1 400.9
D5i/D5e: 470.9 536.6
D6i/D6e: /
D7i/D7e: /
D8i/D8e: /



Water Cooling
Cooling power W: 0
Coolertemper. gradC: 0.
Watertemper. gradC: 50.
Pipe diameter mm: 10.0
Water speed. m/s: 1.00
Water t. rise gradK: 0.0
Pressure drop mBar: 0.0
Insul.thicknfs mm: 0.00
Insul. condu. W/Kmm: 0.15
Cooler position -: 0.0

Frequency	Hz: 50	Ventilation/outside	m/s: 0	Fillfactor/channels	‰: 80
Ambient temperature	C: 40	Ventilation/channel	m/s: 0	Varnish in windings	‰: 100
Convection outside	*: 1	Rth-Insulation	*: 1	Varnish/gaps/stomack	‰: 100
Convection/channels	*: 1	Rth-Varnish	*: 1	Stomack	mm: 1.00
Emission	*: 1	Rth-Epoxy	*: 1	Gap	mm: 0.10

Output power	kVA: 1601.6	Input power	kVA: 1623.8	Pulse factor (Cp/Cs)^0.5	: 0.0
Input current harm. 1	A: 26.8	Input current real	A: 26.7	Input current imag.	A: -2.0
harm. 0	A: 0.0	Input current real	A: 0.0	Input current imag.	A: 0.0
harm. 0	A: 0.0	Input current real	A: 0.0	Input current imag.	A: 0.0
harm. 0	A: 0.0	Input current real	A: 0.0	Input current imag.	A: 0.0
harm. 0	A: 0.0	Input current real	A: 0.0	Input current imag.	A: 0.0
Fe-Losses	UA: 7932	Fe-active losses	W: 2414.	Fe-reactive losses	UAr: 7556
No-load current	‰: 0.50	No load curr. active	‰: 0.2	No load curr. react.	‰: 0.5
I ⁱⁿ /I ^{nom} -Factor	: 3.53	I ⁱⁿ rms/I ^{nom} rms-Factor	: 2.74	No load induction	T: 1.589
I ⁱⁿ	kA: 0.13	I ⁱⁿ rms	kA: 0.07	Induction	T: 1.583
Icc cold.input	kA: 0.38	Iccr active cold	kA: 0.05	Iccx reactive cold	kA: -0.38
Ucc cold.onput=100I ⁿ /Icc	‰: 7.02	Uccr active at 75 °C	‰: 1.138	Uccx inductive	‰: -6.97
CuAl-losses	W: 17145.4	Efficiency	‰: 98.793	Qnx leaking losses	UAr: 112483
Cu/Al temp.rise avarage	°K: 41.0	Max. dT Fe	°K: 28.2	Cu/Al temperature rise max	°K: 44.8
Oil temperature rise min.	°K: 15.0	Oil temperature rise avarage	°K: 18.8	Oil temperature rise max.	°K: 22.5

Windings	1	2	3	4	5	6	7	8	9	10
Groups-Circuits	2-Yn	2-Yn	2-Yn	2-Yn	1-Yn					
Connection	ser.	ser.	ser.	ser.	ser.					
Time1	60.0	60.0	60.0	60.0	60.0					
Load1	1.00	1.00	1.00	1.00	1.00					
Time2	60.0	60.0	60.0	60.0	0.0					
Load2	1.00	1.00	1.00	1.00	0.00					
Voltage rms in/out U	0	0	0	399.2	20200					
Voltage rms	U 100.3	99.73	99.70	99.43	20200					
U-Phasen delay	° -4.47	-4.17	-3.85	-3.38	0					
No-load voltage	U 101.0	101.0	101.0	101.0	20200					
Regulation	‰ 0.7	1.3	1.3	1.6	0.0					
Current rms in/out A	0	0	0	1337.	26.79					
Current rms	A 1337.3	1337.3	1337.3	1337.3	26.795					
K-Factor	1.00	1.00	1.00	1.00	1.00					
Power	kVA 134.1	133.3	133.3	132.9	541.2					
I-Phase delay	° 0.5	0.2	-0.1	-0.6	-4.2					
Resistance cold mOhm	0.038	0.428	0.449	0.626	2516.6					
Losses warm	W 362.3	928.7	978.2	1334.	2111.					
RacRdc (total)	1.17	1.01	1.01	1.00	1.01					
Icc.all cold	kA 19.09	19.09	19.09	19.09	0.38					
Radial tension N/mm2	0.7	27.73	51.6	103.6	6.5					
dTcc after 4.0 s °K	26.14	137.8	137.8	224.4	45.49					
Icc.group cold	kA 19.09	0.00	0.00	0.00	0.00					
Circ.losses	W 279.86	21.91	16.65	10.54	31.40					
Cur.density A/mm^2	0.48	4.78	4.78	6.37	2.03					
SECTORS										
1 RacRdc	1.17	1.01	1.01	1.00	1.01					
Current	A 698.1	667.3	664.0	666.0	26.79					
dT	°K 26.7	35.8	36.5	35.8	29.7					
2 RacRdc	1.18	1.01	1.01	1.00	1.01					
Current	A 639.46	670.06	673.43	671.40	26.795					
dT	°K 27.2	41.0	40.6	38.7	29.8					
3 RacRdc					1.01					
Current	A				26.795					
dT	°K				30.0					
4 RacRdc					1.01					
Current	A				26.795					
dT	°K				30.2					
5 RacRdc					1.01					
Current	A				26.795					
dT	°K				30.3					
6 RacRdc					1.01					
Current	A				26.795					
dT	°K				30.5					
7 RacRdc					1.01					
Current	A				26.795					
dT	°K				30.6					
8 RacRdc					1.01					
Current	A				26.795					
dT	°K				30.7					

Windings	1	2	3	4	5	6	7	8	9	10
Test voltage kU:	4.0	4.0	4.0	5.0	85.0					
Outside of window										
Space type	ig-	-g-	-g-	-g-	gig					
Insulation mm:	5.0	0	0	0	5.0					
Eac.rms isol. kU/mm:	1.6	0.0	0.0	0.0	1.3					
Eabd.ac isol. kU/mm*	18.1	0.0	0.0	0.0	18.1					
Gap mm:	15.0	6.0	6.0	6.0	15.0					
Eac.rms gap kU/mm:	0.3	0.7	0.7	0.8	2.8					
Ebd.ac in gap kU/mm*	9.2	9.6	9.6	9.5	9.0					
Epd.ac in gap kU/mm*	5.4	7.4	7.4	7.4	5.4					
Ecb.ac in gap kU/mm*	4.8	7.3	7.3	7.3	4.8					
INSIDE of window										
Space type	ig-	-g-	-g-	-g-	gig					
Insulation mm:	5.0	0	0	0	5.0					
Eac.rms isol. kU/mm:	0.0	0.0	0.0	0.0	0.0					
Ebd.rms isol. kU/mm*	0	0	0	0	0					
Gap mm:	15.0	6.0	6.0	6.0	15.0					
Eac.rms gap kU/mm:	0.0	0.0	0.0	0.0	0.0					
Ebd.ac in gap kU/mm*	0	0	0	0	0					
Epd.ac in gap kU/mm*	0	0	0	0	0					
Ecb.ac in gap kU/mm*	0	0	0	0	0					
MARGIN -----										
Coil to yoke mm:	42.5	42.5	42.5	42.5	75.0					
Tube over coil mm:	-15.0	-15.0	-15.0	-15.0	70.1					
Yoke Insulation mm:	2x2mm	2x2mm	2x2mm	2x2mm	2x2mm					
Eg in gap kU/mm:	0.09	0.09	0.09	0.12	1.13					
Creeping mm*	0.0	0.0	0.0	0.0	170.2					
BIL-----										
Pulse voltage kU:	0.0	0.0	0.0	0.0	120.0					
Sections -:	2	2	2	2	8					
Volage/Section kU:	0.0	0.0	0.0	0.0	15.0					
L. or D./Section :	6.0	6.0	6.0	6.0	7.0					
Voltage/L.or D. kU:	0.0	0.0	0.0	0.0	2.1					
E /screen kU/mm:	2.1	2.1	2.1	2.1	2.1					
Q screen uC:	0.0	0.0	0.0	0.0	0.0					
Qp to ground uC:	0.0	0.0	0.0	0.0	42.1					
Qs /turns uC:	0.0	0.0	0.0	0.0	0.4					
((Qp-Qscr)/Qs)^1/2 :	0.0	0.0	0.0	0.0	10.1					
axVoltsge t-t U:	0	0	0	0	1013					

RECOMMENDED SPACING in mm for dry transformrs and fhe test boltsge in kU/1 min/50Hz

Test voltage	a01	d01	t01	l01	e01	a12	d12	l12	l02	e02
3	10	2x0.5	5	15	22	10	2x0.5	5	15	22
10	14	2.6	10	130	50	15	2.5	10	20	50
16	27	5	25	55	90	22	4	25	45	90
14	10	6	40	90	120	40	5	40	90	120

Power/Test RECOMMENDED SPACING in mm for oil transformrs and fhe test boltsge in kU/1 min/50Hz

kVA/kU	a01	d01	t01	l01	e01	a12	d12	l12	l02	e02
25-630/ 5	4-5	2x0.5	-	15	-	-	-	-	-	-
1000-2500/ 5	15	4	6	15	--	-	-	-	-	-
<5000/18 25 35	8-18	4	6	20-50	25-60	8-18	4	10-25	20-50	25-60
45	20	85.0	10	50	80	20	5	25	50	80
55	25	5	13	55	90	25	5	35	55	90
85	4.00	6	19	75-80	115	30	6	40	75-80	115