

1500kVA 模鑄非晶質比較表

1500KVA MOLDING AMORPHOUS COMPARISON TABLE

1500kVA模鑄式(60Hz)-非晶質變壓器與矽鋼片鐵心變壓器特性比較
 1500kVA(60Hz)Cast-Resin Tr. Performance comparison of Amorphous & SiFe core Tr.

特性 Performance	CNS 13390 Standard	高效率矽鋼片 Hi-eff. SiFe	JIS C4306(2013) Top runner Standard	巨磊高效率非晶質 CHU-LEI Hi-eff Amorphous
總損失(w) (鐵損+負載損) Total loss(w) (Core loss+load loss)	19700 (5000+14700)	12800 (2300+10500)	14600 (2300+10500)	11800 (800+11000)
效率(%) Efficiency	98.7	99.15	99.036	99.22
50%負載損(w) 50%Load loss	8675	4925	4250	3550
年消耗電(MWh) Energy consumption per year	76	43.1	37.23	31.1
Co2年產生量(ton) Co2 exhaust per year	39.6	22.5	19.43	16.23
每年電費(NT萬) Power bill per year	19.0	10.8	9.3	7

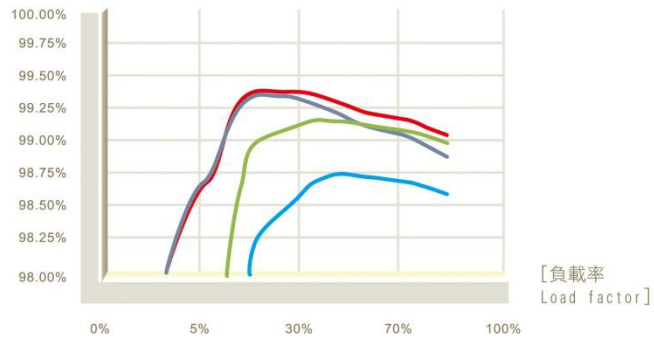
(1)依JIS C4306規範，容量500kVA以上變壓器能源消費效率(w)：鐵損+負載損 $\times 0.5^2$
 (2)電費以每KWH(度)NTD 2.5元計算。

效率曲線

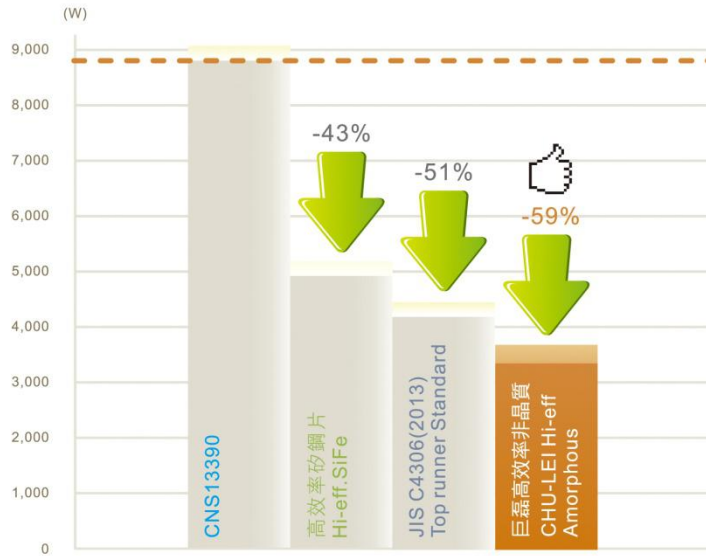
Efficiency curve

- CNS13390
- 高效率矽鋼片
Hi-eff. SiFe
- JIS C4306(2013)
Top runner Standard
- 巨磊高效率非晶質
CHU-LEI Hi-eff
Amorphous

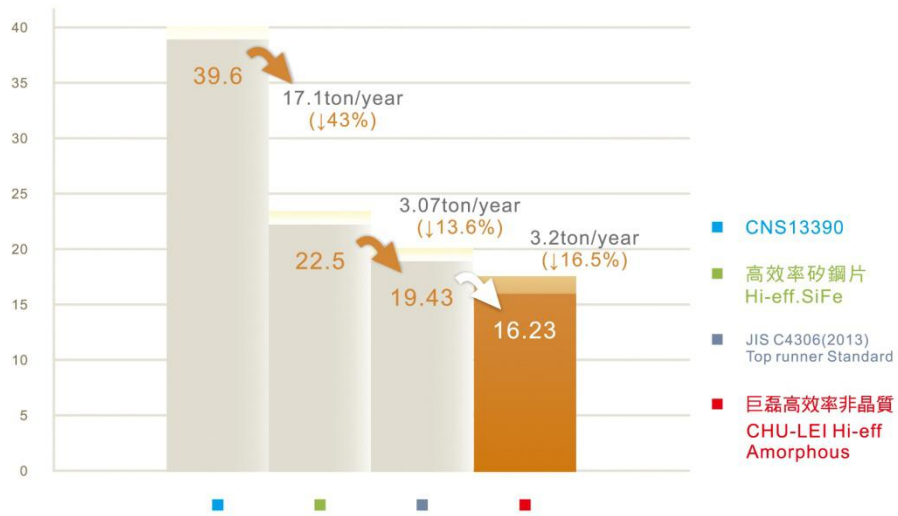
[效率 Efficiency]



50%負載率時損失比較 Total loss comparison at 50% load



二氧化碳在50%負載率時排放量比較 Co² emission comparison at average 50% load factor



<High efficiency series>

Three phase HV 12kV amorphous cast resin

dry type transformers performance list

1. 相數：3 相 / NO. of phase : 3
2. 額定電壓：HV電壓12kV以下
Rated voltage : for HV under 12kV and LV under 600V
3. 依據標準：CNS 13390或IEC 60076-11或依客戶要求
Standard : CNS 13390 or 60076-11 or Customer specification requirement
4. 溫升限制：100°C (F Class) / Temp rise : 100°C (F Class)
5. 頻率：60Hz / Frequency : 60Hz
6. 效率、負載損、電壓變動率、阻抗電壓以換算至75°C為基準
Efficiency、Load loss、Voltage regulation and Impedance based on 75°C
7. 表列特性為參考值，各項特性請以認可資料或試驗報告為主
The listed performance are only for reference, Each PERFORMANCE on delivered Transformers are as approval or test report.

Rated Capacity kVA	Loss(W)		Efficiency η (%)		Voltage regulation ε (%)	Exciting current I_o (%)	Impedance IZ (%)	Noise dB(A)
	No-load	Full Loss	Efficiency η (%)					
			100%	50%				
300	285	3375	98.89	99.30	1.4	0.6	6.0	56
400	330	4410	99.91	99.33	1.4	0.6	6.0	56
500	390	4730	99.06	99.41	1.2	0.5	6.0	56
600	420	5590	99.08	99.43	1.2	0.5	6.0	58
750	485	6830	99.10	99.45	1.2	0.4	6.0	58
1000	595	8045	99.20	99.51	1.0	0.4	6.0	58
1250	750	9800	99.22	99.52	1.0	0.4	6.0	59
1500	820	11620	99.23	99.53	1.0	0.4	6.0	59
2000	1050	14760	99.27	99.55	0.9	0.4	6.0	60
2500	1190	16690	99.34	99.60	0.9	0.3	6.0	62
3000	1340	20000	99.34	99.60	0.9	0.3	6.0	63

<High efficiency series>

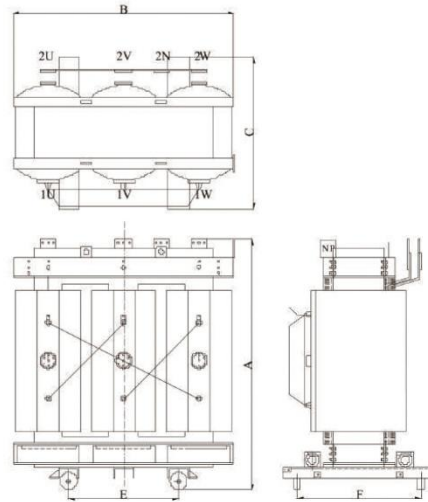
Three phase HV amorphous cast resin dry type transformers 12 kV level Size oil weight table (IP00)

- | | |
|--|---|
| 1. 頻率: 60Hz
Frequency: 60Hz | 3. 無外箱: IP00
No enclosure: IP00 |
| 2. 相序: Dd0或Dyn1
Vector Symbol:
Dd0 or Dyn1 | 4. F Class 100°C
Temp rise:
100°C (F Class) |

依據標準: CNS 13390或IEC 60076-11
Standard: CNS 13390 or IEC 60076-11

圖面資料為參考, 實際依認可製造圖面為主

The listed dimensions are only for reference,
Real dimensions should follow the Approva
Drawing.



Rated Capacity kVA	Primary Voltage V	Secondary Voltage V	Outline Dimension mm					Weight Kg
			A(H)	B(W)	C(L)	E	F	
300	11400	600 below (380/220)	1300	1350	800	700	700	1900
400			1350	1350	800	700	700	2100
500			1350	1500	800	700	700	2300
600			1550	1500	800	700	700	2800
750			1600	1550	900	800	800	3200
1000			1700	1550	1000	800	800	3700
1250			1750	1600	1100	900	900	4300
1500			1850	1700	1200	1000	900	4800
2000			2100	1800	1300	1100	1000	6120
2500			2150	1900	1400	1100	1100	7800
3000			2200	1950	1400	1100	1200	8400

<Standard series>

Three phase HV 24kV amorphous cast resin

dry type transformers performance

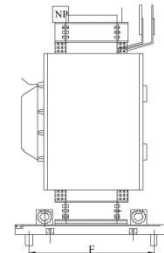
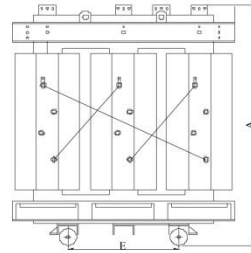
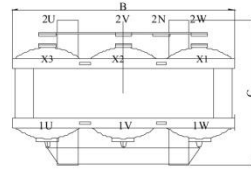
1. 相數：3 相 / NO. of phase : 3
2. 額定電壓：HV電壓24kV以下
Rated voltage : for HV under 24kV and LV under 600V
3. 依據標準：CNS 13390或IEC 60076-11或依客戶要求
Standard : CNS 13390 or 60076-11 or Customer specification requirement
4. 溫升限制：100°C (F Class) / Temp rise : 100°C (F Class)
5. 頻率：60Hz / Frequency : 60Hz
6. 效率、負載損、電壓變動率、阻抗電壓以換算至75°C為基準
Efficiency、Load loss、Voltage regulation and Impedance based on 75°C
7. 表列特性為參考值，各項特性請以認可資料或試驗報告為主
The listed performance are only for reference, Each PERFORMANCE on delivered Transformers are as approval or test report.

Rated Capacity kVA	Loss(W)		Efficiency η (%)		Voltage regulation ε (%)	Exciting current I_0 (%)	Impedance IZ (%)	Noise dB (A)
	No-load	Full Loss	Efficiency η (%)					
			100%	50%				
300	300	3570	98.82	99.26	1.4	0.6	6.0	56
400	340	4430	98.90	99.32	1.4	0.6	6.0	56
500	400	4950	99.02	99.39	1.2	0.5	6.0	56
600	430	5850	99.03	99.41	1.2	0.5	6.0	58
750	500	6980	99.08	99.44	1.2	0.4	6.0	58
1000	610	8130	99.19	99.50	1.0	0.4	6.0	58
1250	760	9980	99.21	99.51	1.0	0.4	6.0	59
1500	835	11735	99.22	99.53	1.0	0.4	6.0	59
2000	1050	14900	99.26	99.55	0.9	0.4	6.0	60
2500	1200	17100	99.32	99.59	0.9	0.3	6.0	62
3000	1350	20400	99.32	99.59	0.9	0.3	6.0	63

<High efficiency series>

Three phase HV amorphous cast resin dry type transformers 24 kV level Size oil weight table (IP00)

1. 頻率: 60Hz
Frequency: 60Hz
2. 相序: Dd0或Dyn1
Vector Symbol:
Dd0 or Dyn1
3. 無外箱: IP00
No enclosure: IP00
4. F Class 100°C
Temp rise:
100°C (F Class)



依據標準: CNS 13390或IEC 60076-11

Standard: CNS 13390 or IEC 60076-11

圖面資料為參考, 實際依認可製造圖面為主

The listed dimensions are only for reference,
Real dimensions should follow the Approval
Drawing.

Rated Capacity kVA	Primary Voltage V	Secondary Voltage V	Outline Dimension mm					Weight Kg
			A(H)	B(W)	C(L)	E	F	
300	11400 / 22800 or 22800	380/220	1400	1450	800	900	600	2180
400			1500	1450	800	900	600	2460
500			1500	1550	800	1000	700	2700
600			1600	1550	800	1000	700	2950
750			1675	1600	900	1000	800	3300
1000			1750	1600	1000	1000	900	4000
1250			1800	1600	1100	1000	900	4300
1500			1900	1720	1200	1000	1000	5300
2000			2200	1850	1300	1100	1000	7000
2500			2200	1950	1400	1100	1200	7800
3000			2200	1950	1400	1100	1200	8800