

## Power & Distribution Transformer Brochure

- Oil type & Dry type
- Pole mounted & Pad mounted

**Farady Electric Co.,Ltd**

## About us

We Farady Electric Co.,Ltd establish at year 2006, is a professional manufacturer of all types of transformer and switchgear, focus on the comprehensive management of power quality and power equipment, production and marketing. Our company located in Wenzhou ,an industry city nearby SHANGHAI. After 18 years development . FARADY insist those concepts are high quality production, innovation, fast rise. We are also leading manufacturer of line voltage regulator in China. We have supply and marketing more than 80 countries with good quality electric equipments and perfect solution.





## END USER & UTILITY



# Prefabricated compact Transformer



---YBW SERIES

## Application



YBW series products is a kind of set of equipment which assembles the MV switch apparatus, transformer, LV distribution equipment together according to fixed connection scheme. This series substation is suitable for neighborhood unit, hotel, large-scale work site and high building that the voltage is 12kV /24kV/36kV/40.5kV, the frequency is 50Hz and the capacity is under 2500kVA. Standards: IEC60076, IEC1330, ANSI/IEEE C57.12.00, C57.12.20, C57.12.90, BS171, SABS 780

## Service condition



- a) Both indoor or outdoor
  - b) Air temperature:  
Maximum temperature: +40°C; Minimum temperature: -25°C
  - c) Humidity: Monthly average humidity 95%; Daily average humidity 90% .
  - d) Altitude above sea level: Maximum installation altitude: 2000m.
  - e) Ambient air not apparently polluted by corrosive and flammable gas, vapor etc.
  - f) No frequent violent shake
- Note: \* Beyond those services condition should enquiry to manufacturer technical dept during order  
Note: \*The above parameter is only subject to our standard design, special requirement can be customized

## Main technical specifications

Name	Unit	HV side	Transformer	LV side
Rated voltage	kV	6-40.5kV	6-40.5kV	0.4
Rated current	A	630	3/75-150/3750	Less than 4000
Frequency	Hz	50		
Rated Capacity	kVA	50-2500		
Pfr withstand	kV	42/50/70/95		2.5
BIL	kV	75/125/170/185		
Crust Protection Grade		IP23	Oil type 55; dry type65	IP23
Noisy Grade	dB			
Appearance Dimensions	mm	According to primacy wiring circuit schema		

\*Consult Farady Electric for availability of non-standard kVA sizes.

---S11 SERIES



## General

The Minera oil-immersed medium voltage power transformer is dedicated to all applications up to 66 kV and 31.5MVA. Farady Electric's R&D team has created a variety of Minera transformers to meet both utility and industrial requirements. The superior reliability of the transformer means that it is highly suitable for power substation. It is the key product in power substation to transfer high voltage to lower voltage for transmission line.

## Product range

- kVA:5MVA through 31.5MVA
- Temperature rise max 65°C
- Cooling type: ONAN&ONAF
- Rated Frequency:60Hz & 50Hz
- Primary voltage:33kV through 66kV
- Secondary voltage: 6.6KV to 11kV or other
- Taps Changer : OLTC & OCTC

## Technical Specification

Three phase two windings Power transformer

kVA	Voltage		VECTOR GROUP	LOSSES (kW)		No-load Current %	Weight(kg)		Overall dimension mm		
	H.V. kV	L.V kV		No-load loss	Load loss		Oil weight	Total weight	L	W	H
5000	33 35 34.5 38.5 or others	6.3 6.6 11 15 or others	Yd11 YNd11 Dyn11 YNyn0	4.32	31.38	0.48	2200	11000	3050	2500	3050
6300				5.25	35.06	0.48	2700	13000	3100	2760	3100
8000				7.20	38.48	0.42	3200	15700	3350	3050	3250
10000				8.70	45.32	0.42	3500	18000	3450	3300	3350
12500				10.8	53.87	0.40	3900	20800	3600	3500	3400
16000				12.16	65.84	0.40	4400	24500	3800	3600	3650
20000				14.4	79.52	0.40	4300	30000	4000	3850	3850
25000				17.02	94.05	0.32	6500	36300	4200	4000	4000
31500				20.22	112.86	0.32	8000	44000	4350	4150	4200

# Single Phase pole mounted Transformer



- CRGO SERIES
- AMDT SERIES
- CSP SERIES

## Application

The Farady overhead transformer may be used alone for the supply of a single phase load or as one of three units in a bank for the supply of a three phase load. Our single phase overhead distribution transformer is commonly used in various places including rural areas, remote regions and scattered villages to provide high quality power supply for daily lighting, agricultural production and industrial plants. grid.etc



## Standards

IEEE & ANSI C57 12.00, IEEE & ANSI C57 12.20, IEEE & ANSI C57 12.90

## Product range



- kVA:10 through 500
- Temperature rise:65°C
- Cooling type:ONAN
- Single phase-Hert:60&50
- Polarity:Additive or subtractive
- Primary voltage:2400V through 34500GrdY/19920V
- Secondary voltage: 120/240V,240/480V,139/277V,600V
- Taps:±2X2.5% HV side

---Complete self protection type

## CRGO CORE TYPE



## Amorphouse core TYPE



Table 1: Technical Parameter

Capacity (kVA)	Primary Rating (V)	Amorphous core		CRGO core	
		No load loss(W)	Load loss(W)	No load loss(W)	Load loss(W)
3	4160 7200 7620 12470 13200 13800 24940 19920	8	45	9	45
5		8	75	19	75
10		12	120	36	120
15		15	195	50	195
25		18	290	80	290
37.5		30	360	105	360
50		32	500	135	500
75		45	650	190	650
100		50	850	210	850
167		65	1410	350	1410

Note: \*The above parameter is only subject to our standard design, special requirement can be customized

# Three Phase oil distribution Transformer



---S11 SERIES

## General

Farady offers a complete range of distribution transformers designed to grant the reliability, durability, and efficiency required in utility, industrial, and commercial applications. Farady's liquid-filled transformers are manufactured in accordance with the most demanding industry and international standards. Compliance with important standards, from IEC to VDE, is a matter of course, just as much as the exclusive use of high-quality materials. Qualified employees implement the demanding standards in daily practice.



## Product range

- kVA: 10kVA through 5MVA
- Temperature rise: 65°C
- Cooling type: ONAN & ONAF
- Rated Frequency: 60Hz & 50Hz
- Primary voltage: 2.4kV through 40.5kV
- Secondary voltage: 380V & 400V & 415V & 433V or other
- Taps:  $\pm 2 \times 2.5\%$  HV side or other

## Technical Specification

S11 series three phase two windings off-load tap changer transformer

kVA	Voltage		VECTOR GROUP	LOSSES		No-load Current	Weight(kg)		Overall dimension mm				
	H.V. kV	L.V V		No-load loss	Load loss		Oil weight	Total weight	L	W	H		
50	6	380	Yyn0 Dyn11 Yzn11	130	870	2.0	80	405	800	480	1030		
80				180	1250	1.9	105	510	840	580	1115		
100				200	1500	1.8	120	530	890	645	1145		
125				240	1800	1.7	130	670	910	600	1185		
200				340	2600	1.5	160	890	1000	760	1240		
250				400	3050	1.4	175	1020	1285	730	1290		
315				480	3650	1.4	185	1170	1280	740	1385		
400				6.3	400	570	4300	1.3	215	1410	1310	750	1432
500				10	415	680	5100	1.2	260	1645	1365	765	1510
630				10.5	433	810	6200	1.1	310	2070	1485	815	1615
800				11	433	980	7500	1.0	370	2445	1640	930	1590
1000				13.2		1150	10300	1.0	425	2800	1860	1120	1630
1250				33		1360	12000	0.9	480	3320	1860	1120	1830
1600						1640	14500	0.8	550	4175	1975	1175	1900
2000						2520	17820	0.4	890	4600	1970	1200	1950
2500						2970	20700	0.4	1150	4950	2100	1250	2000
3150						3510	24300	0.4	1400	5250	2500	1300	2150
4500						4320	28800	0.4	1900	6350	3000	2000	2300

# Pad-Mounted Transformer



---THREE PHASE SERIES



## General

Farady Electric's three phase pad mounted distribution transformers provide a reliable and affordable solution for clients who need to reduce their overall operating costs. they are low-profile, compartment-type transformers, which are generally used for step-down purposes from an underground primary cable supply suitable for mounting outdoors on pads without additional protective enclosures, and meet the following standard:  
IEC60076,ANSI/IEEE C57.12.00, C57.12.20,C57.12.38, C57.12.90, BS171, SABS 780 etc

## Standards

IEEE & ANSI C57 12.00, IEEE & ANSI C57 12.34, IEEE & ANSI C57 12.90

## Accessories



## Application

The transformers described herein are designed for the application conditions normally encountered on electric power distribution systems. As such, they are suitable for use under the "usual service conditions" described in IEEE Standard C57.12.00 general requirements for liquid-immersed distribution, power and regulating transformers.

## KVA and Standard Voltage Offerings

kvA	H.V.	BIL(kV)	L.V.
30	2400	60	240△/120 280Y/120 480Y/277 240△ 480△ 600Y/347
45	4160	75	
75	4800	95	
112.5	7200	95	
150	7620	95	
225	7970	95	
300	11400	125	
500	12000	125	
750	13200	125	
1000	13800	125	
1500	14400	125	
2000	19920	150	
2500			
3000			

# Pad-Mounted Transformer



---SINGLE PHASE SERIES

## Application

Our single phase pad-mounted distribution transformer is commonly used in various places including rural areas, remote regions and scattered villages to provide high quality power supply for daily lighting, agricultural production and industrial plants. Aside from these, it is also suitable for the energy saving projects for railway and urban grid.



## Feature

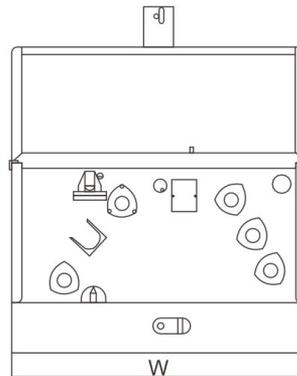
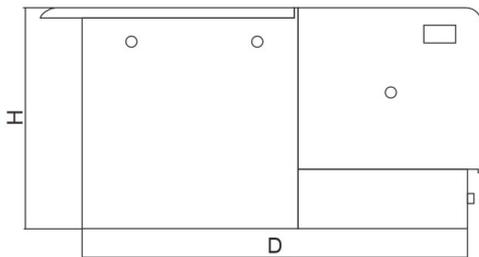
- 1) Liquid-filled
- 2) Dead front
- 3) Separable, insulated, high-voltage connectors, radial or loop feed
- 4) Standard or customer specific rating with a range of 10-167kVA
- 5) Ultra-high efficiency transformers
- 6) Extended additional warranty
- 7) Fuse Protection

## Standards

IEEE & ANSI C57 12.00, IEEE & ANSI C57 12.38, IEEE & ANSI C57 12.90

## Technical Specification

Outline dimensions and weight



kVA	Width	Depth	Length	Approx weight(kgs)
10	900	840	610	335
15	900	840	610	347
25	900	840	610	358
37.5	900	840	610	369
50	900	840	610	423
75	900	940	610	488
100	900	990	760	554
167	970	1020	760	795
250	1000	1020	880	985
333	1200	1120	980	1085

# SC&SG Dry type transformer



---SC&SG series



## General

Farady Electric manufacture a complete range of three phase distribution transformers, including oil-immersed type & cast resin dry-type transformer, we always designed with increased margins of safety and reliability, and meet the following standard:

IEC60076, IEEE Std, GB1094

## Application

SC(B)11&SG(B)11 series three phase resin-cast dry-type distribution transformer are in conformity with standard of IEC60076, with features of low loss, compact and light weight, low noise level, clamp-proof, anti-fouling, high mechanical strength, flame resisting, strong overload ability and low partial discharge quality, they are application to power transmission and distribution system, hotel, restaurant, commercial building, stadiums, chemical plants, stations, airports, offshore drilling platforms, especially to heavy load centers and places with special fire protection requirements



## Technical Parameters

Type	Voltage combination			Vector group	Loss(W)		Impedance %	Dimension (L*W*H) mm	Weight (kg)
	Primary (KV)	Tapping range	Secondary (KV)		No Load loss	Full load loss			
SC(B)11-30/10	6 6.3 6.6 10 10.5 11 13.2 13.8 15	±2× 2.5%	0.4 or other	Yyn0 or Dyn11	171	665	4.0	680*400*686	300
SC(B)11-50/10					243	941		690*400*686	360
SC(B)11-80/10					324	1302		730*450*796	500
SC(B)11-100/10					360	1492		730*500*816	600
SC(B)11-125/10					423	1748		780*600*950	700
SC(B)11-160/10					486	2014		950*650*1124	850
SC(B)11-200/10					558	2394		990*650*1164	950
SC(B)11-250/10					648	2613		1020*650*1207	1100
SC(B)11-315/10					792	3287		1050*750*1320	1250
SC(B)11-400/10					873	3781		1100*800*1450	1550
SC(B)11-500/10					1044	4636		1140*800*1430	1850
SC(B)11-630/10					1206	5577	1250*800*1500	1900	
SC(B)11-800/10					1368	6603	1330*800*1540	2200	
SC(B)11-1000/10					1584	7714	1400*960*1640	2750	
SC(B)11-1250/10					1881	9206	1450*960*1690	3300	
SC(B)11-1600/10					2205	11144	1560*960*1930	4000	
SC(B)11-2000/10					2988	13728	1680*960*1930	4800	
SC(B)11-2500/10	3240	16312	1720*1010*1950	5500					

Note: \*The above parameter is only subject to our standard design, special requirement can be customized



## General

Facing energy on the rise worldwide, the need for friendly and reliable natural energy sources is one of the most significant challenges of our time. Besides wind and water, sunlight - clean, CO<sub>2</sub>, and infinite air - is our most valuable resource. To make renewable energy the dominant energy source worldwide, we aim to make them as affordable as conventional energy sources. Farady offer complete design of solar & wind renewable transformer substation for clean energy grid.

## Product range

- kVA:500kVA through 8MVA
- Temperature rise:65°C
- Cooling type: ONAN&ONAF
- Rated Frequency:60Hz & 50Hz
- Primary voltage:2.4kV through 40.5kV
- Secondary voltage: 690V & 800V double output or other
- Taps:±2X2.5% HV side or other

## Technical Specification

S11 series three phase two windings off-load tap changer transformer

kVA	Voltage		VECTOR GROUP	LOSSES		No-load Current	Weight(kg)		Overall dimension mm				
	H.V. kV	L.V V		No-load loss	Load loss		Oil weight	Total weight	L	W	H		
50	6	380	Yyn0 Dyn11 Yzn11	130	870	2.0	80	405	800	480	1030		
80				180	1250	1.9	105	510	840	580	1115		
100				200	1500	1.8	120	530	890	645	1145		
125				240	1800	1.7	130	670	910	600	1185		
200				340	2600	1.5	160	890	1000	760	1240		
250				400	3050	1.4	175	1020	1285	730	1290		
315				480	3650	1.4	185	1170	1280	740	1385		
400				6.3	400	570	4300	1.3	215	1410	1310	750	1432
500				10	415	680	5100	1.2	260	1645	1365	765	1510
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2000						2520	17820	0.4	890	4600	1970	1200	1950
2500						2970	20700	0.4	1150	4950	2100	1250	2000
3150						3510	24300	0.4	1400	5250	2500	1300	2150
4500			4320	28800	0.4	1900	6350	3000	2000	2300			



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