





# ***Product catalog***

## ***Transformer & Switchgear***

**Farady Electric Group (UK) Co.,Ltd**

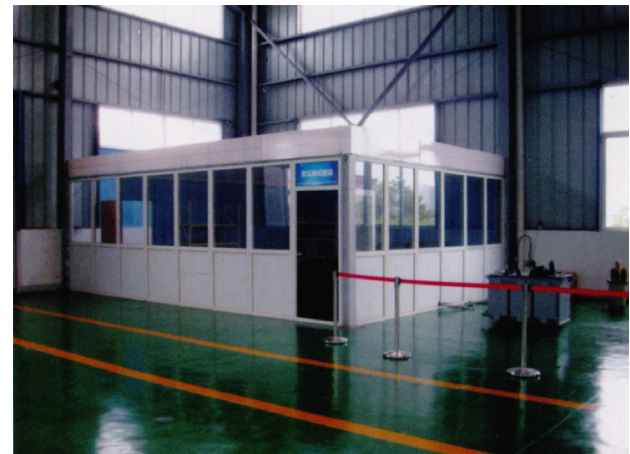
**ISO9001&14001**

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## About us

We Farady Electric Group(UK)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. After 10 years development. FARADY insist those concepts are Seiko 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.





# Single Phase pole Transformer



---CRGO SERIES  
---AMDT 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



## CRGO CORE TYPE



## Amorphouse core TYPE

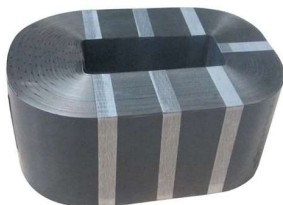


Table 1: Technical Parameter

Capacity (kVA)	Primary Rating (V)	Amorphous core		CRGO core	
		No load loss(W)	Load loss(W)	No load loss(W)	Load loss(W)
3	13800/7967 13200/7620 11000/6350 or others	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

# CSP completely self protection transformer



## ---CSP series

### General

Our completely self-protected distribution transformer is used to offer electricity to facilitate lighting system, agricultural production and industrial factory in rural places, remote areas and scattered villages, and it is also applicable for pole-mounted distribution lines for railways and urban power grids. It equipped with HJ international csp breaker with load signal lamp

### 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



### Technical Parameters

#### CSP Series with C.R.G.O wound Core

Model	Rated Capacity (kVA)	Primary rating (V)	Tapping Range (%)	Secondary Rating (V)	Loss(W)	
					No load loss	Load loss
CSP-10	10	34500/19920 33000/17321 20000/11547 13200/7620 11000/6350 or others	±2x2.5% Or others	120-240 240-480 250-500 Or others	50	120
CSP-15	15				65	195
CSP-25	25				105	290
CSP-37.5	37.5				140	360
CSP-50	50				180	500
CSP-75	75				250	650
CSP-100	100				275	850
CSP-167	167				455	1410

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

\*\*For those capacity above 50kVA tank with cooling radiator

# Three Phase oil immersed 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 10MVA
- Temperature rise:65°C
- Cooling type:ONAN&ONAF
- Three phase-Hert:60&50
- Primary voltage:2.4kV through 40.5kV
- Secondary voltage: 380V & 400V & 415V & 433V 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
20	6 6.3 10 10.5 11 13.2	380 400 415 433	Yyn0 Dyn11 Yzn11	90	530	2.3	55	230	720	440	855
30				100	600	2.1	75	305	750	500	990
50				130	870	2.0	80	405	800	480	1030
63				150	1040	1.9	95	455	830	615	1060
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
160				280	2200	1.6	140	810	910	700	1280
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				570	4300	1.3	215	1410	1310	750	1432
500				680	5100	1.2	260	1645	1365	765	1510
630				810	6200	1.1	310	2070	1485	815	1615
800				980	7500	1.0	370	2445	1640	930	1590
1000				1150	10300	1.0	425	2800	1860	1120	1630
1250				1360	12000	0.9	480	3320	1860	1120	1830
1600				1640	14500	0.8	550	4175	1975	1175	1900

# 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	$\pm 2 \times 2.5\%$	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	6.0	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



# 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/IEEEC57.12.00, 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 tapp 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

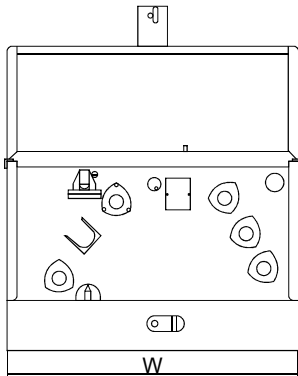
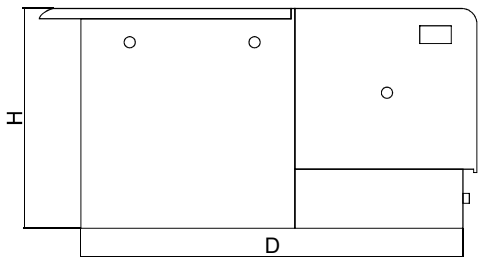
- 1)Liquid-filled
- 2)Dead front
- 3)Separable,insulated,high-voltage connectors,radial or loop feed
- 4)Standard or customer specific rating with a range of 10-167kVA
- 5)Unlta-high efficiency transformers
- 6)Extended additional warranty
- 7)Fuse Protection

## 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

# 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.

# KYN61-33kV Metal-clad switchgear

--KYN61 series



## General

KYN61-33 air-insulated metal-clad withdrawable switchgear (hereinafter as switchgear) is a kind of MV switchgear. It is designed as a withdrawable module type panel, and the withdrawable part is fitted with VD4-36E, VD4-36 withdrawable vacuum circuit breaker manufactured by FARADY Electric Company. It can also be fitted with isolation truck, PT truck, fuses truck and so on. It is applicable to three phase AC 50/60 Hz power system, and mainly used for the transmission and distribution of electrical power and control, protection, monitoring of the circuit.

## Service Conditions

Normal Operating Conditions

A. Ambient temperature:  $-15^{\circ}\text{C}\sim+40^{\circ}\text{C}$

B. Ambient humidity:

Daily average RH no more than 95%; Monthly average RH no more than 90%

Daily average value of the steam pressure no more than 2.2kPa, and monthly no more than 1.8kPa

C. Altitude no higher than 1000m;

D. The air around without any pollution of dust, smoke, or flammable air, steam or salty fog;

E. External vibration from switchgear and controlgear or land quiver can be neglected;

F. The voltage of the secondary electromagnetic interference induced in the system shall no more than 1.6kV.

## Technical Parameters

### Switchgear Technical Parameters

No.	Item		Unit	Parameters	
1	Rated Voltage		kV	36	40.5
2	Rated Frequency		Hz	50/60	
3	Rated Insulation Level	1 min power frequency withstand voltage(Valid)	kV	95	
		Lightening impulse withstand voltage(Peak)		185	
4	Rated Current		A	630 1250 1600 2000 2500 3150	
5	Rated Short Circuit Breaking Current		kA	25, 31.5	
6	Rated Short Circuit Making Current(Peak)		kA	63, 80	
7	Rated Short-time Withstand Current (4s)		kA	25, 31.5	
8	Rated Peak Withstand Current		kA	63, 80	
9	Auxiliary Control Circuit Rated Voltage		Cycle	DC110, DC220, AC220	

# KYN28-11kV Metal-cold switchgear

--KYN28 series



## General

KYN28 indoor metal-clad withdrawable switchgear[hereinafter short as switchgear]is a complete power distribution device for 3.6~24kV,3-phase AC 50Hz,single-bus and single-bus sectionalized system.

It is mainly used for power transmission of middle/small generators in power plants; power receiving, transmission for substations in power distribution and power system of factories, mines and enterprises, and starting of large high-voltage motor, etc.,so as to control, protect and monitor the system. The switchgear meets IEC298,GB3906-91.In addition to be used with domestic VS1 vacuum circuit breaker, it can also be used with VD4 from ABB,3AH5 from Siemens domestic ZN65A,and VB2 from GE, etc.,it is truly a power distribution device with good performance.

In order to meet the requirement for wall mounting and front-end maintenance, the switchgear is equipped with a special current transformer, so that the operator can maintain and inspect it in front of the cubicle.

## Service environment

- a) Air temperature: Maximum temperature: +40℃; Minimum temperature:-15℃
- b) Humidity: Monthly average humidity 95%; Daily average humidity 90% .
- c) Altitude above sea level: Maximum installation altitude: 1000M.
- d) Ambient air not apparently polluted by corrosive and flammable gas, vapor etc.
- e) No frequent violent shake

## Main technical parameters

No	Item		Unit	Parameter	
1	Rated voltage		kV	7.2kV, 12 kV,17.5kV,24kV	
2	Rated frequency		Hz	50/60	
3	Rated current		A	630,1250,1600,2000,2500,3150,4000	
4	Branch busbar Rated current		A	630,1250,1600,2000,2500,3150,4000	
5	Main busbar Rated current		A	630,1250,1600,2000,2500,3150,4000	
6	1min Power frequency withstand voltage	wet	kV	38	50/60
		dry	kV	48	60/65
7	Lightning impulse withstand voltage		kV	75	95/125
8	Rated short circuit breaking current(peak)		kA	40/50/63/80/100	
9	Short time withstand current(4s)		kA	20/25/31.5/40	
10	Protection type			IP4X for housing	

**Note:**\*The short circuit capacity should be considered alone.



# LV Metal clad switchgear

--GGD/GCS/GCK series



## General



GGD AC LV fixed type switchgear is applicable to the distribution system with AC 50Hz, rated working voltage 380V, rated current to 3150A below in power station, substation, plant enterprise etc., used for power transfer, distribution and control for power, lighting and distribution devices. The product has characteristics of high breaking capacity, fine dynamic and thermal stability, flexible electric project, convenient combination, better serial practicability, novel structure and high protection grade etc. It accords with the standards IEC439 "Low voltage complete switch device and control device" and GB7251.1 "Low voltage complete switch device" etc.

## Characteristics

- ◆ The body of GGD AC LV fixed type switchgear adopts universal cabinet type. Framework is assembled with 8MF cold bending bar steel through part welding. Framework components and special mating elements are matched by bar steel pointed manufactory for ensuring the precision and quality of cabinet. Components of universal cabinet is designed according to module principle, and with 20 modulus mounting hole and high universal coefficient.
- ◆ Completely in view of the heat rejection during cabinet running. Heat rejection slots of different quantities are installed in upper and underside both ends of cabinet.
- ◆ According to the requirements on mold design for modern industry products, adopting the method of golden mean ratio to design cabinet outline and parting dimensions of each part, to make the whole cabinet beautiful and decent.
- ◆ Cabinet gate is connected with framework with rotation axis type movable hinge. With convenient installation and disassembly. One mount type rubber strip is set in edge fold of gate. Filler rod between gate and framework has certain compression stroke when closing the gate. It can prevent gate from impacting cabinet directly and also advance the protection grade for gate.
- ◆ Connect the meter gate set with electrical components with framework by multistrand soft copper wire. Connect the mounting pieces inside the cabinet with framework by knurled screws. The whole cabinet constructs complete earthing protective circuit.
- ◆ Top cover of cabinet can be disassembled if necessary for convenience to the assembly and adjustment for main bus bar at site. Four squares of cabinet are set with slinger for hoisting and shipping.

## Main technical parameters

Type	Rated voltage (V)	Rated current (A)	Rated short circuit breaking current(kA)	Rated short time withstand current(kA)	Rated peak withstand current(kA)
GGD1	380	1000 600 (630) 400	15	15 (1S)	30
GGD2	380	1500 1600 1000	30	30 (1S)	63
GGD3	380	3150 (2500) 2000	50	50 (1S)	105

## Conditions for normal operating environment

1. Ambient air temperature: -5℃~+40℃ and the average temperature should not exceed +35℃ in 24h.
2. Install and use indoors. Altitude above sea level for operation site should not exceed 2000M'.
3. Relative humidity should not exceed 50% at max temperature +40℃ . Higher relative humidity is allowed at lower temperature. Ex. 90% at +20℃. But in view of the temperature change, it is possible that moderate dews will produce casually.
4. Installation gradient not exceed 5°.
5. Install in the places without fierce vibration and shock and the sites insufficient to erode the electrical components.
6. Any specific requirement, consult with manufactory.

# LV Metal clad switchgear

--MNS series



## General

MNS LV withdrawable switchgear (hereinafter referred to as device) is manufactured by standard module through consulting MNS series low voltage switch cabinet of Switzerland ABB Company, and synthetically improved. The device is applicable to the system with AC 50Hz, rated working voltage 660V and below, used as control device for various power generation, transmission, distribution, power transfer and power consumption device. It is widely used in low voltage distribution system of various mining enterprise, tall building and hotel, municipal construction etc. Besides the general land use, after special disposal, it also can be used for marine petrol drill taken platform and nuclear power station. The device accords with international standard IEC439-1 and national standard GB7251.1.

## Characteristics

- ◆ Compact design: Contain more function units with less space.
- ◆ Strong versatility for structure, flexible assembly. C type bar section of 25mm modulus can meet the demands of various structure and type, protection grade and operating environment.
- ◆ Adopt standard module design, can be combined into protection, operation, transfer, control, regulation, measurement, indication etc such standard units. User can choose assembly according to requirement at will. Cabinet structure and drawer unit can be formed with more than 200 components.
- ◆ Fine security: Adopt high strength anti flaming type engineering plastic pack in large quantity to effectively enhance the protective safety performance.
- ◆ High technical performance: Main parameters reach the advanced level at home.

## Main technical parameters

Rated working voltage (V)	Rated insulation voltage (V)	Rated working current(A)		Virtual value (IS)/ peak value (kA) of rated short time withstand current		IP30、IP40 Protection grade of shell
		Horizontal bus bar	Vertical bus bar	Horizontal bus bar	Vertical bus bar	Outline dimension H × W × D
380、660	660、1000	630-5000	800-2000	50-100/ 105-250	60/130-150	2200×600 (800、1000) ×800 (1000)

Rated working current of vertical bus bar:

Draw-out type MCC with single side or double sides operation: 800A. MCC with 1000mm depth and single operation: 800~2000A.

## Conditions for normal operating environment

- ◆ Ambient air temperature: -5℃~+40℃ and the average temperature should not exceed +35℃ in 24h.
- ◆ Air condition: With clean air. Relative humidity should not exceed 50% at +40℃. Higher relative humidity is allowed at lower temperature. Ex. 90% at +20℃. But in view of the temperature change, it is possible that moderate dews will produce casually.
- ◆ Altitude above sea level should not exceed 2000M.
- ◆ The device is suitable to the transportation and store with following temperature :-25℃ ~+55℃, in short time (within 24h) it reaches +70℃. Under the limiting temperature, device should not suffer damage that can't recover, and it can works normally under normal conditions.
- ◆ If the above operating conditions not meet user's demand. Consult with manufactory.
- ◆ Technical agreement should be signed additionally if the device is used for marine petrol drill taken platform and nuclear power station.