Can you afford to compromise safety?

Transformer | Voltage Stabilizer | HT Switchgear | IPS | UPS

INTEGRATED POWER

OFFICE : 162/3, West Rajasion, Birulia Road, Savar, Dhaka
FACTORY : 162/3, West Rajasion, Birulia Road, Savar, Dhaka
Cell : 01713 117 974, 01717 180 660
E-mail : int_power36@yahoo.com, faruqip@yahoo.com
Web : www.substationequipments.com

Distribution Transformer

INTEGRATED POWER

INTEGRATED POWER In The Country:

Integrated Power & Engineering is a leading manufacturer of Electrical &Electronic product such as; Transformer ,H.T-High Tension switchgear ,L.T- Low Tension switchgear, PFI-Power Factor Improvement Plant, BBT, DB-Distribution Board , AVR-Automatic Voltage Stabilizer , UPS-Un interruptible Power Supply IPS-Instant Power Supply, BC- Battery Charger WLC-Water Level controller etc with a reputation for quality, reliability and competitiveness .

Integrated Power & Engineering is professionally managed by persons with a great deal of experience in their relative fields . It identifies that energy resources are getting scarcer and increasing by exorbitant with time. Though load shedding is the regular phenomenon in power system but we have to pay magnanimous bill to utility because of large power losses and maximum KVA demand due to larger losses poor power factor respectively.

In that case Integrated Power & Engineering play an important role in identifying energy conservation opportunities in the Industrial sector, Apartment, Defense, BPDB, DESA, DESCO & REB. Now Integrated Power & Engineering Manufacturing quality Sub Station product regarding low losses. It has numerous professional Engineer & Technician which have received acclaim for their scope of work and the quality of output. The methodology of Integrated Power & Engineering sub station has been accepted by the consumers.

INTEGRATED POWER Products Ranges:

● Special Types of Transformer & Inductors ● Isolation Transformer ● AutoTransformer ● Control Transformer ● Cast Resin Transformer ● Oil / Air Cooled & Cast Resin C.T,P.T ● H.T Switchgear (VCB, LBS) ● L. T Switchgear ● Change- Over switch (Auto / Manual) ● PFI Panel (Auto / Manual) ● Motor Control Panel (Auto / Manual) ● DB, Star-Delta Starter (Auto / Manual) ● Automatic Voltage Stabilizer ● Industrial Voltage Stabilizer ● Uninterruptible Power Supply (UPS): Off-Line & On -Line ● Battery ● Battery Charger ● Inverter ● Instant Power Supply (IPS) ● CCTV ● Under Voltage and Over Voltage protector with surge suppressor ● Single Phase & Three Phase KWH Meter ● Test Lab For Industrial use

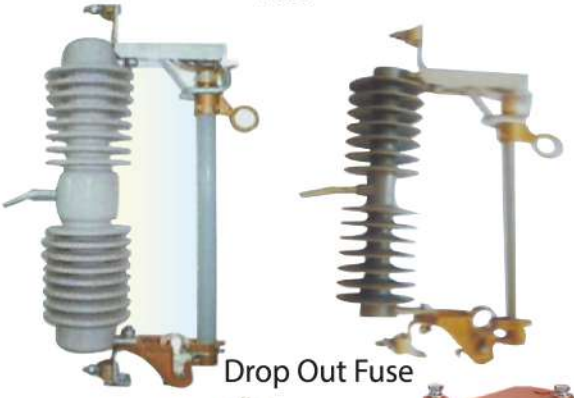
INTEGRATED POWER Mantains Standards:

STANDARD: Manufactured and tested in accordance with the latest applicable standard specifications and codes in the following list ; ● ANSI; American National Standards Institute ● IEEE; Institute of Electrical and Electronic Engineers ● NEMA; National Electrical Manufacturers Association ● ASTM;American Society of Testing Materials ● VDE;Regulation and DIN standard (VDE 0532/11) ● IEC;International Electrotechnical Commission ● BSI;British Standard Institution

HT SWITCHGEAR

The High Tension switchgear are used switching for system voltage of mid level (6.305KV - 33KV) as well as high level voltage (33KV-230KV). For lower capacity of sub-station it is used as LBS but for higher capacity of sub-station it used as VCB, MOCB, SF6-CB these are facilitating both manual or remote operation.

VCB



Drop Out Fuse

HT CT&PT

TECHNICAL INFORMATION OF HT SWITCHGEAR

TYPE	VCB			LBS		
Model	GPVHT630	GPVHT800	GPVHT1250	GPLHT630	GPLHT800	GPLHT1250
Rated voltage (KV)	12	12	12	12	12	12
Rated current (A)	630	800	1250	630	800	1250
Short circuit Breaking current(KA)	16/20	20/25	50/63/80	25	25	25
Basic impulse level (KV)	75	75	75	75	75	75
Short circuit Making current (KA)	50	63	63	50	50	50
Max. interrupting time(cycle)	3	3	3	3	3	3
Max. Opening Time(cycle)	2.5	2.5	2.5	2.5	2.5	2.5
Max. Closing Time(cycle)	2.5	2.5	2.5	3	3	3
Normal Operating Duty	O-3-CO-3-CO	O-3-CO-3-CO	O-3-CO-3-CO			
Dimension Fixed/Draw-out (LxWxH),cm	100×80×210	100×80×210	100×80×210	100×90×210	100×90×210	100×90×210

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CONSTRUCTION :

● Metal enclosed and air ventilated with sheet steel of SWG-14. ● Properly welded steel structure ● Low voltage compartment on the top of the cubicle ● Long creapaze distance ● Circuit breaker mounted fixed or withdrawable truck ● Single bus-bar ● Fully factory assembled ● Power coating point ● Cable entrance usually provided in the bottom of the cubicles ● Top entry can also be provided upon request

TYPE

● LBS (Load Break Switch) Manual ● LBS (Load Break Switch) Motor Drive ● VCB (Vacuum Circuit Breaker) ● MOCB (Minimum Oil Circuit Breaker) ● SF6-CB (Sulpher Hexa Floride Circuit Breaker)

PERSONNEL SAFETY

- All switching operations performed with front door enclosed.
- Earthed metal partitions prevent contact with line parts.

FEATURES :

● Circuit Breaker mounted on withdrawable truck also fixed type on request ● Suitable for rapid auto re-closing duty ● The charging time of the breaker is only 5 to 6 sec ● Adequate phase clearance and height as per standards to ensure safe operation ● The spring can be charged electrically, by DC or AC through ● Rectifier by DC also manually by charging motor ● Motor and manual operating device provides remote control function ● Instant trip function ● The electrical devices used in the units allow future changes design, there by assuring a high device of diversity ● The mounting, erection and commissioning is very simple ● The devices which are out of services in the equipment are easily accessible ● Additional accessories can be provided for VCB servicing such as;

- Auxiliary Switch (7NO+&NC),
- Closing Coil (24,30,48,110,220V DC/AC)
- Tripping Coil(24,30,48,110,220V DC/AC).

DISTRIBUTION TRANSFORMER

The core of the transformers consists of 0.27 mm thick M4 grade silicon steel sheet with grain-oriented Cold rolled (CRGO) laminations on both sides which distinguish themselves by low losses, high dimensional accuracy and flatness. The unpinned core construction with *MITRED* joints and special method of assembly result in low no-load losses and currents as well as minimum noise generation.

Depending on the type application and output, the low-voltage winding have copper conductors in the from of round wire or strip with paper insulation. The high-voltage winding normally consists of enameled round wire. The individual winding layers are insulated from one another with special insulation paper and with axial spacers.

The compact winding arrangement together with the strong clamp construction guarantees a high short-circuit strength, superior impulse withstand capacity, high dielectric strengthened thermal stability.

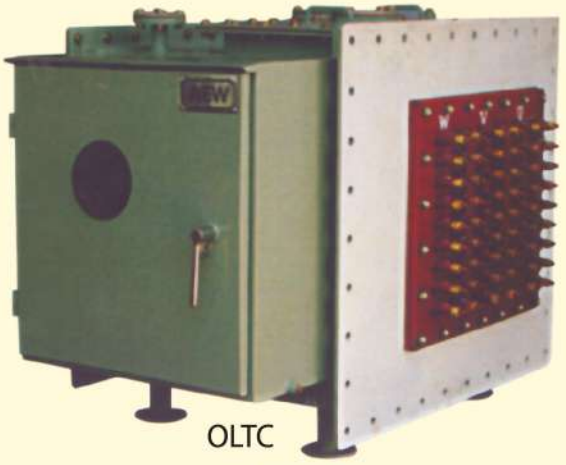
After mechanical and electrical pre-testing the active part is connected up and mounted in its tank. Usually tanks with radiators having elliptical tube are used. All tank are checked for oil tightness. Centrifuged oil is then filled under vacuum into the tanks.

Before the final painting an anticorrosive red oxide layer and a prime coat of paint is used for all indoor and outdoor transformer for comprehensive protection against corrosion and sun burn.

FEATURES :

- Using the best quality 0.27 mm M4 grade cold rolled silicon steel.
- Vacuum filling of oil ensuring highest possible oil insulation .
- Computer aided architecture providing smart out look and convenient installation.
- Disk thermometer for easy monitoring of temperature rise .
- Compact winding arrangement guarantees high, short circuit strength and superior thermal stability.

Assembled Core



OLTC

Power Transformer

Distribution Transformer

INTEGRATED POWER

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Distribution Transformer

INTEGRATED POWER

CAPACITY :

- 1-Phase upto 150 KVA , 50 Hz.
- 3- Phase upto 15 KVA to 10,000 KVA, 50 Hz System voltage
- Generally 33/11 KV, 11/ .415KV , 0.365/0.24 KV ,11/0.24 KV & 33/ 0.415 KV

As per customer requirement.

CORE:

- The core is made of Cold-Rolled High Grained Oriented (CRGO) silicon steel
- The core cut as an angle of 900 for rectangular shape 450 for MITRED shape also cut "V" notch.
- Staking and Wound core.

WINDING:

- The low voltage winding is in cylindrical shape, the high voltage winding is in cylindrical or foil type.
- HT & LT windings made of copper.
- So it will have sufficient capacity secured against short circuit
- And make the magnetic circuit more reasonable.

TANK:

- The tank is made of mild steel plates by welding its surface is treated by removing rust phosphorous
- The tank sprayed with good antiseptic dope, and this mild steel plates consist of sufficient radiating surface.

INSULATION CONSTRUCTION:

- The oil immersed power transformer is applied for class A insulation.
- The insulation is concentric arrangement for high and low voltage windings. The gaps between the windings are in the separated-board structure of the small oil gap for the thin paper web.

TAP CHANGER :

Each unit is provided with tap changer for off load, on load(on request) with voltage regulation range of ± 1X2.50% ,0, -2X2.5%,-3x2.5% in the HV side with 5 (five) & 7(seven)Tape.

COOLING SYSTEM

- AN (Air Natural)
- ONAN(Oil Natural & Air Natural)
- ONFA(Oil Natural & Forced Air)

ACCESSORIES

1. HV Bushing with terminal connector.
2. LV Bushing with terminal connector
3. Off Load Tap changer
4. Lifting lugs
5. Oil level indicator
6. Drain plug
7. Grounding terminal
8. Dehydration breather with silica jel
9. Technical data plate
10. Conservator tank
11. Thermometer pocket
12. Dial type thermometer
13. Arcing horns on HV bushing
14. Bi-directional rollers (on request)
15. Buchholz relay (on request)
16. Pressure release valve.

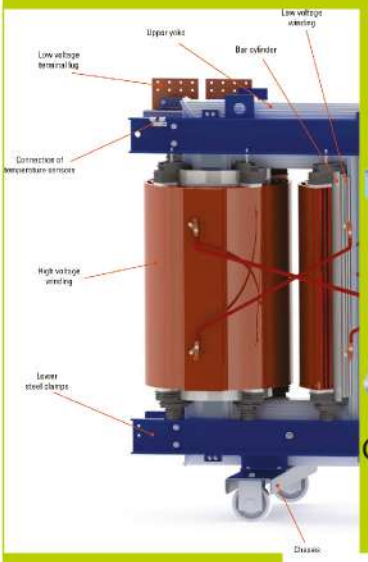
OVERLOAD

Transformer are based on average winding temperature rise that does not exceed the relevant temperature limits of the insulation of nominal rating.fig-1,shows the bearable overloads of a special ambient temperature of 40^{0}c.

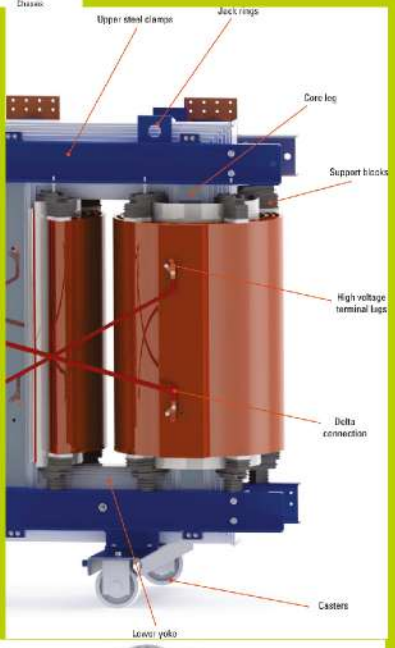
TECHNICAL INFORMATION OF TRANSFORMER

TESTING (Routine tests & Type test)

1. Winding resistance test
2. Ratio test
3. Meggar test(Insulation resistance test)
4. No-Load loss test
5. Full load loss & Impedance test
6. Power frequency high voltage test
7. Dielectric strength of oil
8. Polarity test
9. Vector group test



Cast Resin Transformer



Oil Type Transformer

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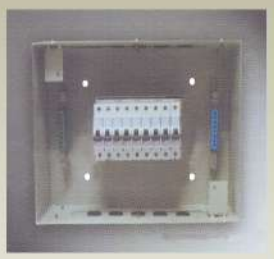
Distribution Transformer, 11/0.415kv, Three Phase, 50Hz

Model	Rated capacity (KVA)	%Impedance Volt at 75 °C	No Load Loss (W)	Full Load Loss 75 °C (W)	% Regulation		% Efficiency		Total (Kg)	Dimension LxWxH (cm)
					At pf=1	At pf=0.8	At pf=1	At pf=0.8		
GPT503	50	3.5	180	860	2.30	2.42	90.28	96.62	200	81 X 51 X 128
GPT1003	100	4.0	285	1420	1.63	2.81	97.94	97.44	450	87 X 77 X 128
GPT1503	150	4.0	380	1750	1.43	2.72	98.20	97.76	540	91 X 83 X 128
GPT2003	200	4.0	410	2400	1.32	2.80	98.43	98.04	600	96 X 84 X 135
GPT2503	250	4.0	480	2750	1.16	2.58	98.58	98.23	700	102 X 87 X 140
GPT3153	315	4.0	560	3200	1.15	2.89	98.64	98.30	900	107 X 92 X 140
GPT4003	400	4.0	650	3860	1.48	3.52	98.40	98.01	1250	108 X 95 X 140
GPT5003	500	4.5	740	4450	1.40	3.35	98.43	98.33	1550	122 X 102 X 145
GPT6303	630	4.5	850	5100	1.29	3.60	98.61	98.23	1650	127 X 101 X 150
GPT7503	750	5.0	1000	5800	1.21	3.62	99.02	98.85	1850	137 X 107 X 160
GPT8003	800	5.5	1040	6200	1.18	3.95	99.07	98.87	2100	142 X 122 X 170
GPT10003	1000	6.0	1150	7100	1.15	3.96	99.04	98.89	2650	172 X 121 X 205
GPT12503	1250	6.5	1210	8500	1.12	4.14	99.14	98.95	3080	202 X 121 X 215
GPT15003	1500	6.5	1420	9100	1.10	4.20	99.15	98.93	3400	211 X 121 X 215
GPT16003	1600	6.5	1500	10500	1.02	4.25	99.10	98.94	3800	215 X 126 X 220
GPT20003	2000	7.0	1650	13200	0.96	4.45	99.12	98.96	4500	226 X 131 X 250
GPT25003	2500	7.0	2200	14600	0.92	4.52	99.17	99.02	5900	229 X 137 X 250
GPT30003	3000	7.5	2600	18600	0.91	4.48	99.20	99.15	7800	235 X 141 X 255
GPT50003	5000	7.5	3200	21400	0.88	5.10	99.25	99.20	9500	253 X 153 X 270
GPT100003	10000	8.0	4300	33000	0.85	5.55	99.45	99.21	18000	275 X 185 X 310



Internal View

Front View

Open Door View

Distribution Transformer,LT

INTEGRATED POWER

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MDB, DB LT (Low Tension Switchgear)

LT Switchgear (Low Tension Switchgear)

INTEGRATED POWER

CONSTRUCTION AND FEATURES

- Metal enclosed and air ventilated with sheet steel of SWG-14, Free standing and floor mounting type for indoor installation.
- Well furnished with hard-drawn electrolytic copper bus-bar, Easy inspection and maintenance.
- Adequate creepage distance, Ample cabling space, Cable entry from bellow.
- All cubicle are composed of 5(five) bus-bar; L1, L2, L3, N, E, Flexibility of future extension.
- Powder coating panel, The operating handle takes out grouping the panel.

MCCB

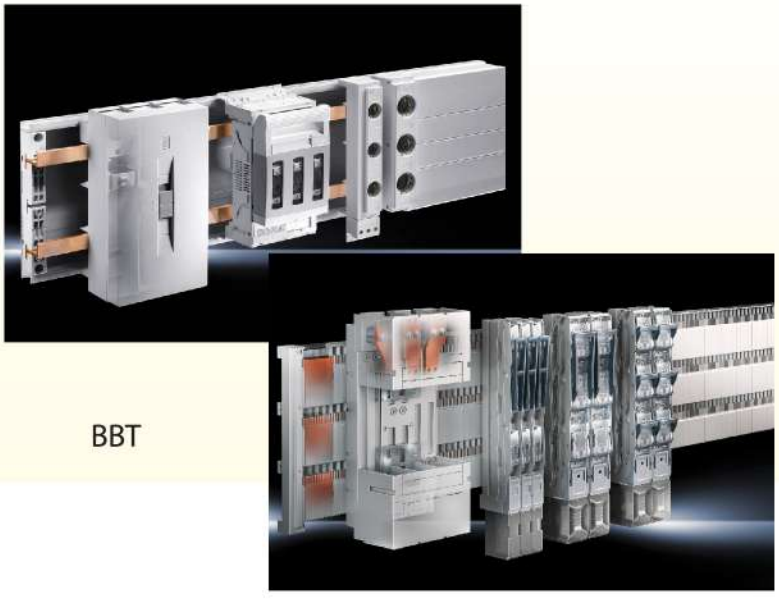
TECHNICAL DATA

- Rated voltage Ue upto 660 V/415 V
- Rated current Iu upto 5000A
- Peak withstand current up to 176KA
- Frequency 40-60Hz

ACB

BBT

LT Panel



BBT

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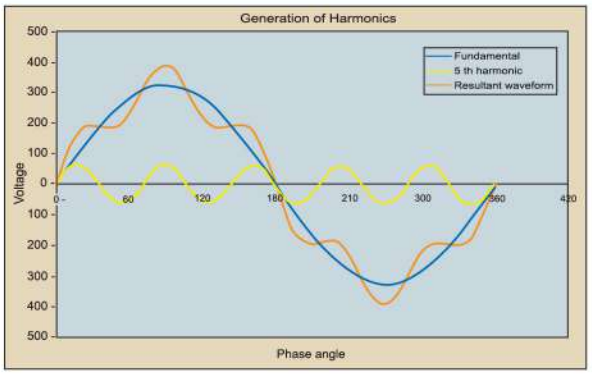
PFI (POWER FACTOR IMPROVEMENT PLANT)

Power Factor is defined as the ratio of real power (KW) to the apparent power (KVA) and is cosine of the angle by which the current lags or leads the voltage.

Most frequently an industrial installation is fed from a high voltage system and comprises:

- A transformer station,
- Resistive loads, such as ovens, radiators, filament lamps, etc.
- Inductive loads, such as transformer, motors, etc.

Among this larger load are inductive in nature. The inductive load is the cause of low Power Factor.



DISADVANTAGE OF LOW POWER FACTOR:

1. Large KVA rating of equipment, KVA = KW/ cos ϕ
2. Greater Conductor size; IL = KW/v3 VL cos ϕ
3. Large Copper losses; IL = KW/v3 VL cos ϕ
4. Poor Voltage Regulative
5. Larger line drop.
6. Reduced handling capacity of system.

ADVANTAGE OF MOST ECONOMICAL POWER FACTOR:

1. Increase carrying capacity of the power station.
2. Reduce billing of the system.
3. Increase voltage.
4. Good voltage regulation.
5. least conductor size.
6. Least copper losses.
7. Reduce KVA demand

CHOOSE CAPACITY OF POWER FACTOR IMPROVEMENT PLANT

CKVAR = KW x (tan ϕ_1 - tan ϕ_2)

Where : CKVAR = Capacitor KVAR required

KW=existing load .

ϕ_1 = cos $^{-1}$ (existing power factor)

ϕ_2 = cos $^{-1}$ (desired power factor)

Check your billing meter if it is less than 0.96 then you are a looser.

USE INTEGRATED POWER PFI PAY REDUCE BILL AND SAVE YOUR MOTOR.

USE TABLE -1 TO IDENTIFY CAPACITY OF POWER FACTOR IMPROVEMENTT PLANT :

cos # 1		0.80	0.81	0.82	0.83	0.84	0.85	0.86	0.87	0.88	0.89	0.90	0.91	0.92	0.93	0.94	0.95	0.96	0.97	0.98	0.99	1.00
cos # 2	1.00	0.750	0.724	0.698	0.672	0.646	0.620	0.593	0.567	0.540	0.512	0.484	0.456	0.426	0.395	0.363	0.329	0.292	0.251	0.203	0.143	
	0.99	0.609	0.581	0.555	0.529	0.503	0.477	0.450	0.424	0.397	0.369	0.341	0.313	0.283	0.252	0.220	0.186	0.149	0.108	0.060		
	0.98	0.547	0.521	0.495	0.469	0.443	0.417	0.390	0.364	0.337	0.309	0.281	0.253	0.223	0.192	0.160	0.126	0.089	0.048			

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Power Factor Improvement Plant

INTEGRATED POWER

AVR, IVS (Industrial Voltage Stabilizer)

Technical Parameters

For User

Use INTEGRATED POWER IVS / AVR to protect your system from low voltage, high voltage, fad out, black out surge, sag, spike, transient, phase missing, phase sequence protection.

FUNCTION & SURVICE

- Easy start function.
- Wide AC Input Voltage Range.
- Strong compatibility (efficient Inverter).
- Automatic Back - up.
- Output Overload & Short circuit Protection.
- Advanced PWM Simulated Sine Wave Inverter Output.
- Status Indication LED Display.
- Smart charger & Inverter.
- Low & High Voltage Protection.
- UPS / Generator Compatibility.

More Features

1. Electronic controlled.
2. LED / LCD Status display.
3. Generator Compatibility.
4. Status indicator.
5. Wide range regulation.
6. Overload, Short circuit protection
7. Auto - Manual regulation option.
8. Three phase balance system (Individual Phase Control).
9. Voltage, Current indicator meter.
10. Varriac carries low inertia.
11. Rust proof, air ventilated, powder coated as well as cable grouping facilities.

Technical Data

PHASE	SINGLE PHASE	THREE PHASE
Capacity	3KVA~50KVA	3KVA~2000KVA
Input Voltage Range	120V~260V or 150~270V	300V~460V~260~480V
Output Voltage	220 / 230 V (C)ntineous)	380V / 400 V / 415V / 440V
Freqency	50Hz	50Hz
Control System	Servo Type / Electronic Switching	Servo Type Phase to Phase Control.
Protection	Over voltage, under voltage, over load, Short circuit, surge, sag, spike, transient	Over voltage, under voltage, over load, Short circuit, surge, sag, spike, transient
Correction Accuracy	and Phase Missing Protction	Phase Sequenc and Phase Missing Protction.
Correction Speed	± 2% / ± 5% / ± 7%	±1% / ±3%
Colling System	30V / Sec	30V / Sec
Waveform Distortion	Natural Air / Forced Air / Oil immersed	
Transient Suppression	Negligible	
Load Power Factor Effect	Upto 800V Peak	
Duty Cycle	Nil	
Humidity	100% Contineous	
Over Load Capacity	Maximum 98 %	
Temperature Co-efficient	100% for 15 Second 0.025% 0C in the rage of 0-700C	

AVR, IVS (Industrial Voltage Stabilizer)

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UPS (Uninterruptible Power Supply)

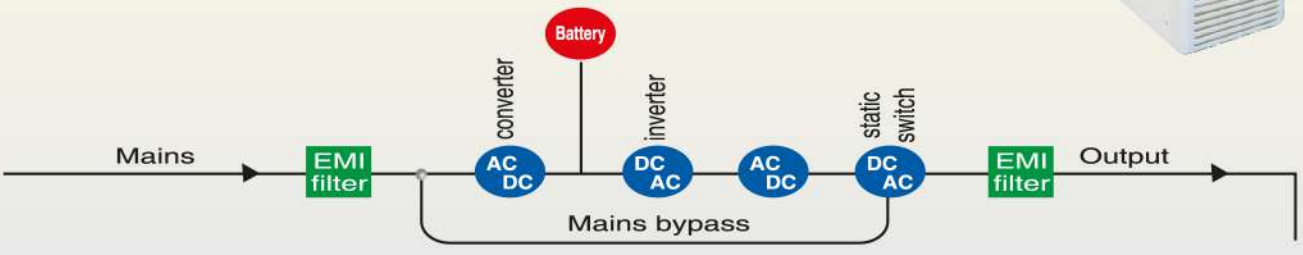
True On-Line Double Conversion

Technical Specifiation

MODEL			GPOL-1K-S	GPOL-2K-S	GPOL-3K-S	GPOL-5K-S	GPOL-6K-S	GPOL-7.5K-S	GPOL-10K-S
INPUT	Nominal Voltage		220V	220V	220V	220V	220V	220V	220V
	Input Voltage Range		150-280W	150-280W	150-280W	150-280W	150-280W	150 -280W	150 -280W
	Frequency		50/60Hz ± 5%						
	Efficiency		>86%						
OUTPUT	VA Rating		1000VA	2000VA	3000VA	5KVA	6KVA	7.5KVA	10KVA
	Frequency		50Hz or 60Hz (Auto Tracking)						
	Output Voltage		220V/230V AC						
	Output Voltage Tolarence		± 1%						
	Frequency Stability		± 1%						
	Outpur Wave Shape		True Sind Wave						
	Load Power Factor		0.8 Lag						
	Step load change		± 7% for 100% Load variation						
	Harmonic Distrotion		Linear load <1.3%, Non linear load <3%						
	Over load		115% load for 50 seconds.						
	Crest Ratio		3:1						
Battery	DC Voltage		36V	96V	96V	192V	192V	192V	192V
	Battery Type		12V 7AH/12V 17AH SMF						
	Back-up Time	Full Load	15/3060/120 min.	15/3060/120 min.	15/3060/120 min.	15/3060/120 min.	15/3060/120 min.	15/3060/120 min.	
		Half Load	30/60/120/240 min.	30/60/120/240 min.	30/60/120/240 min.	30/60/120/240 min.	30/60/120/240 min.	30/60/120/240 min.	
	Charging Time		8 Hours for 90% charging						
	Charging mode		Continuous voltage plus Trickle						
Protection	Lignting, Transient, Spike, Sag, Surge, Blackout, Brownout, Flicker, Revers Polarity Protection, Overload, Under and Over voltage,Short circuit, Battery Over charge, Battery Low (deep discharge) and noise (EMI & RFI) as per international safety practices.								
Transfer Time	Line Fails/Recovers		(0) Zero						
	After Over load		Auto Transfer to Mains						
Audible	@ 1 Meter		<50 DBA						
Indicator	LED/LCD Display		Input voltage, Output voltage, Input frequency, Output frequency, output load etc.						
Alarm Mode	Two State Audible								
Audible Alarms	DC Mode, Low Battery, Over/ Under voltage,Over/ Under frequency, high temperature, Over load Alarm.								
Auto Shut Down	Built in								
Interface	Compter		RS - 232						
Environment	Temperature		0^0C-48^0C						
	Humidity		10% - 95 % Non-condensing						

Application :

Computer and Computerized sensitive Equipments
Medical Equipments.
Laboratory Equipments.
Tele communication Equipments.
Any other microprocessor based sensitive electrical Equipments.
Defence Equipments.
ATM Machine
ISP
Lan/Wan



UPS : True On-Line

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IPS (Instant Power Supply)

Technical Specififation

Model		IPS-400	IPS-600	IPS-1000	IPS-1500	IPS-2000
Capacity		320W/400VA	480W/600VA	800W/1KVA	1200W/1.5KVA	1600W/2KVA
AC Mode	Input Voltage	220V 50Hz, Single Phase				
	Output Voltage	220V 50Hz				
Inverter Mode	Output Voltage	230~240V AC, (At no load) 209~231V AC (220V AC+5%) (At full load)				
Protection	Over load, Short circuit & Deep discharge protection					
	Tolerance	5%				
	Wave from	Square Wave (Quasi) / SINE WAVE				
	Change Over Time	Less than 1 second				
Charging	Charging Time	90% at 10~12 Hours, 100% at 20 Hours				
	Charging Voltage (Input Voltage RAnge)	160~260V AC				
Battery	Battery Type	Automotive/Industrial				
	Battery Voltage	12V/24 Voltage				
Back up Time		2 Hours (Minimum) or Above				

Model Wise Load Distributio

Model	WATT	CONNECTED LOAD	POWER CONSUMPTION
IPS-400	320W	2 Tube Light + 1 Fan + 21" Color TV	4 Tube Light-60W 56" Fan-100W 21" Color TV-100W
IPS-600	480W	2 Tube Light + 2 Fan + 21" Color TV	
IPS-1000	800W	4 Tube Light + 4 Fan + 21" Color TV	
IPS-1500	1200W	6 Tube Light + 6 Fan + 21" Color TV	
IPS-2000	1600W	9 Tube Light + 9 Fan + 21" Color TV	

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IPS (Instant Power Supply)
INTEGRATED POWER

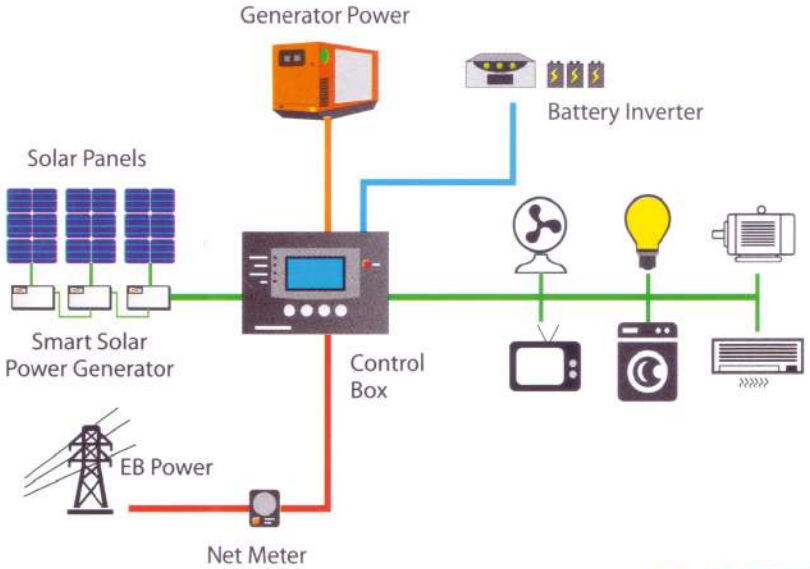
Solar System

How it works?

* DC Power from the PV Panel converted into grid matching AC Power.
* Several such panels are connected in parallel to produce the desired watts.

Advantages

* Modular,scalable and net meter ready
* Single panel to megawatt
* Maximises the energy harvest
* Works seamlessly in synchronization with utility (Generator, Battery Inverter, PDB)
* Maintenance free
* Reduces
    * Installation cost * Utility Bill * Generator Fuel * Consumptions
    * Numbers of Batteries.



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Diesel Genarating Sets

IPS (Instant Power Supply)

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Technical Information of Generator

Model	Alternator						Diesel Engine		GenSets	
	Type	Rated Output KW/KVA	Rated Voltage (V)	Rated Currecnt (A)	Freq (Hz)	Poweer Factor	Model (KW)	Fuel Cons.	Dimension LxWxH (M)	Net Weight
GF3 - 10KW	ST / STC	10 / 12.5	200 / 400	48 / 18	50	1.0 / 0.8	295D (14.7)	2L / hr.	1.75 x 0.80 x 1.10	830 KG
GF3 - 12KW	ST / STC	12 / 15	200 / 400	57.6 / 21.6	50	1.0 / 0.8	2100D (14.7)	2.5L / hr.	1.75 x 0.80 x 1.10	900 KG
GF3 - 16KW	ST / TFS	16 / 20	200 / 400	76.8 / 28.8	50	1.0 / 0.8	495D (26.5)	3.5L / hr.	2.00 x 1.05 x 1.15	1010 KG
GF3 - 20KW	ST / TFS	20 / 25	200 / 400	96 / 36	50	1.0 / 0.8	495D (26.5)	3.5L / hr.	2.05 x 1.05 x 1.15	1080 KG
GF3 - 24KW	TFS	24 / 30	400	43.2	50	0.8	4100D (30.1)	4L / hr.	2.10 x 1.05 x 1.15	1090 KG
GF3 - 32KW	TFS	32 / 40	400	57.6	50	0.8	4100ZD (41.0)	5L / hr.	2.15 x 1.05 x 1.25	1170 KG
GF3 - 40KW	TFS	40 / 50	400	72	50	0.8	4100ZD (41.0)	5.5L / hr.	2.35 x 1.10 x 1.30	1310 KG
GF3 - 50KW	TFS	50 / 62.5	400	90	50	0.8	4105ZD (56.0)	6L / hr.	2.35 x 1.20 x 1.30	1500 KG
GF3 - 64KW	TFW2	64 / 80	400	115.2	50	0.8	6105AZD (90.0)	7L / hr.	2.80 x 1.28 x 1.50	1670 KG
GF3 - 75KW	TFW2	75 / 93.75	400	135	50	0.8	6105AZD (90.0)	7.5L / hr.	2.80 x 1.28 x 1.50	1820 KG
GF3 - 90KW	TFW2	90 / 112.5	400	162	50	0.8	6105AZLD (110.0)	8L / hr.	3.02 x 1.28 x 1.70	1870 KG
GF3 - 100KW	TFW2	100 / 125	400	180	50	0.8	6105IZLD (135.0)	9L / hr.	3.02 x 1.28 x 1.70	1980 KG
GF3 - 120KW	TFW2	120 / 150	400	216	50	0.8	6113AZD (155.0)	10L / hr.	3.10 x 1.28 x 1.70	2150 KG
GF3 - 150KW	TFW2	150 / 187.5	400	270	50	0.8	6135AZD (178.0)	14L / hr.	3.50 x 1.32 x 1.86	2930 KG

*All the above generating sets have 1500RPM, Voltage : Steady Regulation 1% Flactuation 1.5%, Frequency : Steady-State Egulation 5% Flactuation 1.5%, Stead Time : 5s

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Miscellaneous Collection of Integrated Power

CCTV

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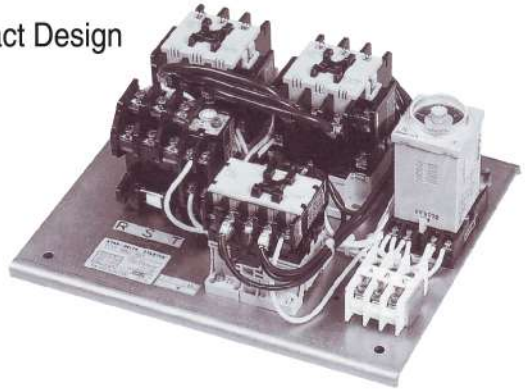
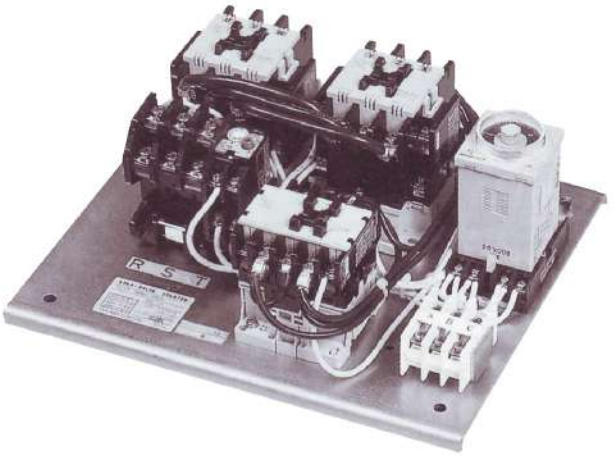
Star-Delta Starter :

Strong : Significantly Extended Lifetime.

Silent : Noise Free

Small : Compact Design





Industrial Plug-Sockets

More robust and simpler to install, we offers you a low-cost, straightforward solutution for all your commercial or industrial equipment.

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Soft Inverter

SPD (Surge Protection Device)
Earth Leakage Circuit Breaker

IPS (Instant Power Supply)

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DISTRIBUTION TRANSFORMER, SINGLE PHASE

IPS (Instant Power Supply)

INTEGRATED POWER

SPECIFICATION OF SINGLE PHASE DISTRIBUTION TRANSFORMERS

1.	Design Standard	:	ANSI C57.12.00 & C57.12.20
2.	Type	:	Single-phase wound core
3.	Winding material	:	High conductivity Cu
4.	Core type and material	:	Wound Core, CRGO Silicon Steel
5.	Nominal voltage	:	HT = 6350 V LT = 240 V
6.	BIL :		HT Winding = 95 KV LT Winding = 30 KV
7.	Max. % Impedance at rated KVA	:	2.5 % (max)
8.	Polarity	:	Additive
9.	Cooling Method	:	Class – OA (Self-cooled)
	a. Winding	:	Shall not exceed 65°C (resistance method)
	b. Insulating Liquid	:	Shall not exceed 65°C
10.	Bushing		
	a. Type & Material	:	Outdoor type, Porcelain
	b. Connectors	:	Bolted ring type
	c. Quantity	:	HT = 1, LT = 2
	d. Mounting Position	:	HT - on the tank cover, LT - on the tank side
11.	Tank		
	a. Design	:	Sealed type complete with cover & gasket
	b. Ground Provision	:	With bolted ring type connector
	c. LV ground Provision	:	With removable Cu Strap
	d. Lifting facilities	:	Facilities for lifting the core & coil
	e. Support lug	:	Shall have support lugs
	f. Pressure relief device	:	Self sealing pressure relief device
	g. Painting	:	Light Gray, ANSI Color # 70
12.	Insulating Oil	:	New, unused, mineral oil as per ASTM standard

DIFFERENT PARAMETER OF SINGLE PHASE DISTRIBUTION TRANSFORMERS

Rated primary voltage – 6.35 KV, Rated Secondary voltage – 0.240 KV, Rated Frequency – 50 HZ

Rating (KVA)	Rated Voltage (V)		Frequency (Hz)	Impedance (Max)%	F/L Current (Amp)		Dimension		Weight (kg)		No Load Loss (W)	Full Load Loss (W)
	High	Low			High	Low	Diameter	Height	Total	Oil		
5.0	6350	240	50	2.50	0.787	20.83	310	560	76	17	23	108
10.0	6350	240	50	2.50	1.575	41.67	340	610	100	20	30	200
15.0	6350	240	50	2.50	2.362	62.50	405	660	130	29	39	265
25.0	6350	240	50	2.50	3.937	104.17	405	715	165	36	52	375
37.5	6350	240	50	2.50	5.906	156.25	515	915	255	69	71.5	525
50.0	6350	240	50	2.50	7.874	208.33	515	915	300	70	80	575
75.0	6350	240	50	2.50	11.811	312.50	559	965	450	116.5	140	758
100.0	6350	240	50	2.50	15.748	416.67	610	1016	525	148	160	1049

The technical details & product characteristics described correspond to the state at the time of printing & can be subject to modification

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