



**flickcet**  <sup>®</sup>



*Manufacturers of :*

*Online UPS / Electrical Panels*

*Servo Voltage Stabilizers*

*[www.flickcet.com](http://www.flickcet.com)*



## About the product

**flickcet APEX** series is a Single Phase input & Single Phase Output Double Conversion OnLine Uninterruptible Power Supply with inbuilt Isolation Transformer. It offers unparalleled 0.9 power factor, enabling support for demanding IT and critical loads across segments. With upto 94% efficiency, it helps reduce operating cost.

## flickcet APEX Series Online UPS

**Capacity : 3 Kva - 15 Kva**

## Segments

- › BFSI
- › Office
- › Retails
- › Hotels
- › IT & ITes
- › HealthCare
- › Education
- › Online Data Centers
- › Infrastructure
- › Manufacturing
- › Residential & SOHO
- › Pharmaceuticals Co.

## Generic Features

- Sine wave pulse with modulation.
- Computer grade power.
- IGBT inverter design.
- Wide input voltage range.
- Pure sine wave output less than 3% THD.
- Expendable battery run time.
- Generator compatible.
- Compact sleek design.
- Design power factor of 0.9
- Input galvanic isolation transformer
- Crystal controlled output frequency 50 Hz+ 0.01%.
- High Crest factor 3:1.
- Intelligent battery management
- Over voltage cut-off device
- Automatic charging in UPS off mode.

## Technical Specification

Capacity	3 kVA	5 kVA	6 kVA	7.5 kVA	10 kVA	12.5 KVA
	2.7 KW	4.5 KW	5.4 KW	6.75 KW	9 KW	10.5 KW
Parameter						
INPUT	SINGLE PHASE					
Phase	Single phase with ground (L-N-G)					
Voltage Range	185 VAC - 280 VAC (based on load percentage)					
Frequency	50 Hz (auto sensing)					
Power Factor	*>0.99, >0.95 (above 25% load)					
THDi	<5% with full load					
OUTPUT						
Design PF	0.9					
Voltage	220 VAC / 230 VAC / 240 VAC					
Voltage Regulation	+/-1%					
Frequency	50 Hz +/-0.1 Hz (free running mode)					
Synchronization Range	45-50 Hz					
Voltage Distortion	≥2% (linear load)					
	≥5% (non-linear load)					
Output Waveform	Pure sine wave					
Crest Factor	3:1					
Efficiency (AC - AC)	Up to 90%			Up to 93%		
OVERLOAD	3 KVA			5 – 12.5 KVA		
	110% - 10 min			125% - 10 min		
	130% - 1 min			150% - 1 min		
	150% - 10 sec					
BATTERY						
Battery Type	Sealed Lead Acid Maintenance Free, Lead Acid Tubular (battery AH and quantity depending on backup time)					
DC Voltage	120 VDC – 192 VDC					
Charger	Built-in solid state three stage recharge (constant current, constant voltage with float charge) and with temperature compensation					
GENERAL						
Operating Temperature	0 to 45 deg. C					
Noise Level	50 dB at 1 meter	<55 dB at 1 meter				
Display & Indication	LCD display					
Status LED	Normal mode	Load on battery	System fault			
Audible Alarm	Mains failure alarm, Low battery alarm, UPS warning, Overload, Fault..					



## About the product

**flickcet APEX+** series is a Three Phase input & Single Phase Output Double Conversion OnLine Uninterruptible Power Supply with inbuilt Isolation Transformer. It offers unparalleled 0.9 power factor, enabling support for demanding IT and critical loads across segments. With upto 94% efficiency, it helps reduce operating cost.

## flickcet APEX+ Series Online UPS

**Capacity : 10 Kva - 30 Kva**

## Segments

- › BFSI
- › Office
- › Retails
- › Hotels
- › IT & ITes
- › HealthCare
- › Education
- › Online Data Centers
- › Infrastructure
- › Manufacturing
- › Residential & SOHO
- › Pharmaceuticals Co.

## Generic Features

- Sine wave pulse with modulation.
- Computer grade power.
- IGBT inverter design.
- Wide input voltage range.
- Pure sine wave output less than 3% THD.
- Expendable battery run time.
- Generator compatible.
- Compact sleek design.
- Design power factor of 0.9
- Input galvanic isolation transformer
- Crystal controlled output frequency 50 Hz+ 0.01%.
- High Crest factor 3:1.
- Intelligent battery management
- Over voltage cut-off device
- Automatic charging in UPS off mode.

## Technical Specification

Capacity	10 KVA	15 KVA	20 KVA	25 KVA	30 KVA
	8 KW	12 KW	16 KW	20 KW	25KW
Parameter					
GENERAL CHARACTERISTICS	THREE PHASE INPUT & SINGLE PHASE OUTPUT				
Technology	On-line double conversion				
Waveform	Pure sine wave				
Architecture	Stand Alone				
INPUT CHARACTERISTICS					
Input Voltage	Range: 280 - 470V at 50% load & 300V - 460V at full load				
Input Frequency	50 Hz				
Input Voltage Range (Ph-Ph)	320-460 V				
THD of input current	<5% at full load				
Compatibility with Generators	Yes				
Input power factor	>0.99				
OUTPUT CHARACTERISTICS					
Output Voltage	220, 230, 240 V				
Efficiency	up to 96%				
Efficiency in ECO mode	up to 98,5%				
Output frequency (nominal)	50 Hz				
Output frequency tolerance	±0,1%Synch with Mains; ±0,01% Free Run				
Crest Factor	Up to 3:1				
THD of output voltage	< 2% at full linear load				
Output power factor	0.9				
Output voltage tolerance	± 1%				
Overload Capability	10 min at 110%; 60 sec at 125%				
Bypass	Manual (Optional)				
BATTERIES					
Battery type	VRLA – Maintenance free				
Internal batteries	No				
External Batteries	Yes				
DC Voltage	240 VDC to 360 VDC				
Charger	Built-in solid state three stage recharge (constant current, constant voltage with float charge) and with temperature compensation				
GENERAL					
Operating Temperature	0 to 45 deg. C				
Noise Level	<55 dB at 1 meter				
Display & Indication	LCD display				
Status LED	Normal mode / Load on battery / System fault				
Audible Alarm	Mains failure alarm, Low battery alarm, UPS warning, Overload, Fault.				



## About the product

**flickcet APEX-3** series is a Three Phase input & Three Phase Output Double Conversion OnLine Uninterruptible Power Supply with inbuilt Isolation Transformer. It offers unparalleled 0.9 power factor, enabling support for demanding IT and critical loads across segments. With upto 94% efficiency, it helps reduce operating cost.

## **flickcet APEX-3 Series Online UPS**

**Capacity : 10 Kva - 400 Kva**

## Segments

- › BFSI
- › Office
- › Retails
- › Hotels
- › IT & ITes
- › HealthCare
- › Education
- › Online Data Centers
- › Infrastructure
- › Manufacturing
- › Residential & SOHO
- › Pharmaceuticals Co.

## Generic Features

- Sine wave pulse with modulation.
- Computer grade power.
- IGBT inverter design.
- Wide input voltage range.
- Pure sine wave output less than 3% THD.
- Expendable battery run time.
- Generator compatible.
- Compact sleek design.
- Design power factor of 0.9
- Input galvanic isolation transformer
- Crystal controlled output frequency 50 Hz+ 0.01%.
- High Crest factor 3:1.
- Intelligent battery management
- Over voltage cut-off device
- Automatic charging in UPS off mode.

## Technical Specification

Capacity	10 KVA	15 KVA	20 KVA	25 KVA	30 KVA	40 KVA	50 KVA
	8 KW	12 KW	16 KW	20 KW	25KW	32 KW	40KW
Parameter							
GENERAL CHARACTERISTICS	THREE PHASE INPUT & THREE PHASE OUTPUT						
Technology	On-line double conversion						
Waveform	Pure sine wave						
Architecture	Stand Alone						
INPUT CHARACTERISTICS							
Input Voltage	Range: 280 - 470V at 50% load & 300V - 460V at full load						
Input Frequency	50 Hz						
Input Voltage Range (Ph-Ph)	318-459 V						
THD of input current	<5% at full load						
Compatibility with Generators	Yes						
Input power factor	>0.99						
OUTPUT CHARACTERISTICS							
Output Voltage	380, 400, 415V (3Ph+N)						
Efficiency	up to 96%						
Efficiency in ECO mode	up to 98,5%						
Output frequency (nominal)	50 Hz						
Output frequency tolerance	±0,1%Synch with Mains; ±0,01% Free Run						
Crest Factor	Up to 3:1						
THD of output voltage	< 2% at full linear load						
Output power factor	0.9						
Output voltage tolerance	± 1%						
Overload Capability	10 min at 110%; 60 sec at 125%						
Bypass	Manual (Optional)						
BATTERIES							
Battery type	VRLA – Maintenance free						
Internal batteries	No						
External Batteries	Yes						
DC Voltage	240 VDC to 360 VDC						
Charger	Built-in solid state three stage recharge (constant current, constant voltage with float charge) and with temperature compensation						
GENERAL							
Operating Temperature	0 to 45 deg. C						
Noise Level	<55 dB at 1 meter						
Display & Indication	LCD display						
Status LED	Normal mode / Load on battery / System fault						
Audible Alarm	Mains failure alarm, Low battery alarm, UPS warning, Overload, Fault.						

## Servo Voltage Stabilizer Single Phase Air Cooled / Oil Cooled (Dimmer Type)

### SALIENT FEATURES

- Fast corrections rate and very high efficiency.
- Works over wide input frequency range and no waveform distortion.
- Specially designed high performance I.C. based control circuit for ultrahigh reliability.
- Auto/Manual operation facility.
- Over voltage and under voltage Indicators.
- Output voltage adjustability provided on panel.
- Unaffected by load Power Factor.
- All components used are of reputed makes confirming to relevant IS/BS standards.
- Stabilizers are subject to routine and type tests in accordance with latest IS Standards (IS:9815-94).



### ADVANTAGE OF SERVO VOLTAGE STABILIZER

- Corrects voltage automatically and continuously.
- Induction motor operate at high efficiency when supplied with constant voltage.
- Protects costly equipment from menace of High / Low Voltage, thus cutting down the maintenance cost.
- Low Production Losses & better efficiency in plant.
- Increased Productivity. 100 % depreciation as per Income Tax Act. Reduces MDI and saves Power.
- Redution in electricity bills up to the level of approximately 15% (This depends on the input variation loading and the number of working hours) & saves on diesel cost, as generation not required to run at High / Low input voltage.
- The average pay back period of servo Controlled Voltage Stabilizer owing to it high energy saving capability is approx 18 months.

### FIELD OF APPLICATION

Information Technology and call centers / Computer and Micro - Processor Controlled Equipments / Sophisticated research instruments used in Scientific / Medical / Agriculture / Educational and other Research Institutions / Offset Printing Presses / Color Scanners / Processors / Phototypesetters / Photographic Equipments / Photo Copies / Packaging Industries / Medical Equipments / X-Ray Machines E.C.G Machines / Monitors / MRI / CT Scans / Defence Installations / LPTs / HPTs / Broadcasting & Telecommunications / Lifts / Escalators and Elevators / Central Air -Conditioning Plants / Processing plants / Chemical Industrial / Textile Industries / CNC Machines / Laser Machines / Moulding Machines / Commercial Building and Complexes / Complete Hospital and Nursing Homes.



## Servo Voltage Stabilizer Three Phase Air Cooled & Oil Cooled (Dimmer Type)



Parameters	Performance
Capacity	5 KVA to 50 KVA ( Single Phase) 10 KVA to 1500 KVA (Three Phase)
Input Voltage	160v - 260 V, 140V - 270V (Single Phase) 300V - 450V, 240V - 270V (Three phase) (other ranges available on specific order)
Output Voltage	220V / 230V / 240V Single Phase adjustable) 330V / 400V / 415V Three Phase (adjustable)
Regulation	+/- 1% or better.
Supply Frequency	47 Hz- 53 Hz.
Efficiency	better than 98%
Effect of Load Power Factor	Nil
Wave form Distortion	Nil
Rate of Correction	Better than 36V / sec. in air cooled models Better than 30V / sec. in Oil cooled Models
Duty Cycle	100%continuous
Response Time	Less than 100 ms
Cooling	Air / Oil as per requirement
Over Load Capability	Upto 200% Momentarily
No Load Losses	Less than 0.8% over entire range
Suitability	Suitable for 3Ph.unbalanced / Balanced supply& unbalanced / balanced load
Mounting	On Wheels
Earthing	Earthing Terminals Provided

Technical Specification



## Servo Voltage Stabilizer Single Phase Oil Cooled (Linear Type)

Automatic Voltage Stabilizers hold its potential for units having either L. T. Supply or Low capacity H.T. Connection. The same can be manufactured for Balanced Supply for unbalanced Loads or Unbalanced Supply for Unbalanced Loads. The range of input supply for which the stabilizer is designed depends upon the voltage condition at the supply point. However some standard ranges for L. T. Stabilizer are as under:

### Technical Specification

Parameters	Performance
Capacity	100 KVA to 2000KVA
Input Voltage	300-460V, 340-460V, 360-460V (Phase to Phase)
Output Voltage	400V /415Volts±1% (Phase to Phase)
Type	Suitable for: Balanced Load & Balanced Supply
Application	Indoor/ Outdoor Type (Optional)
Phase	3-Ph, 4Wires
Frequency	50 Hz
Response Time	Fraction of Second
Speed of Correction	8-16 V/Sec
Mode of Operation	Automatic/ Manual/ hand Control
Suitability	Suitable for all Power Factors
Wave Form Distortion	Nil
Duty Cycle	100% Continuous
Efficiency	98%
Cooling	ONAN (Oil Natural Air Natural)
IS Standard	IS : 2026
Transformer Oil	IS : 335
Operating Temp	0°C - 50°C Above Ambient
Laminations Used	CRGO Laminations - M4 Grade
Copper Used	99.9% Pure Electrolytic Grade
Carbon Rollers Used	High Grade Graphite Rollers



## Segments

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*Main LT Panel / PCC (Power Control Center) / Auto/Mannual Synchronising / Load Sharing Panels  
AMF Panels / MCC (Motor Control Center) / Control and Relay Panel / Control Desk & Mimic Panels  
Intelligent Switchboards with Computer & BMS Interface / Capacitor Panels / Feeder Pillar /  
Meter Board / Main Distribution Board (MDB) / Bus Ducts & Rising Mains*

## Salient Features

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- *Design tested at CPRI for short circuit & temperature rise as per IS/IEC Standards.*
- *One of rthe first to get designs type tested at 100KA STC with Switchgare.*
- *4000 A Panels successfully tested at CPRI for TR,STC, EPC,IP-54, C&CD as per IS standards.*
- *Form 1/2/3a/3b/4a/4b design, in DOP - IP - 54.*
- *Computer Aided Design (CAD) Systems.*
- *Panel enclouser degree of protection IP - 54, IP - 55 & IP - 65.*
- *Anti corrosion treatment.*
- *Non hygroscopic SMC bus bar supports or best mechanical & electrical strengths for fault current withstand.*
- *Bus bars and interlinks are insulatedwith heat shrinkable PVC Sleeves.*
- *Provision for future expansion for both sides.*
- *All live parts are shrouded with polycarbonate sheet.*

*All specifications are subject to change due to technology upgradation without notice.\**

## Some of our Prestigious Clients

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NEPHRO CARE HEALTH SERVICES / CLUB MAHINDRA / DIAGOCURE (INDIA).

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*Manufactured By:*

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