

*Flipper Clipp*™



**ULTIMATE POWER, MONEY CAN BUY**



*Flipper Clipp Thank & Salute Benjamin Franklin – Father Of Electricity*

**W**hite horse signifies Purity, Strength and is a Savior.  
It is the Corporate Symbol of Flipper Clipp, and also our belief.

# PROFILE

## ABOUT FLIPPER CLIPP

Flipper Clipp was started in year 1998.

Upon sensing the great demand for high quality, uninterruptible power supply in the domestic market, a group of young, energetic, like minded professionals, decided to join together and invest their knowledge & expertise in an ambitious project - Flipper Clipp Power Systems Private Limited (FCPS), a company formed with limited liabilities under the Indian Companies Act. The result was world class UPS Systems capable enough to tame the wild Indian power.

The people behind are a group of Power Electronics Professionals from India and abroad. They are thorough professionals from Design to Marketing. Remarkably, Flipper Clipp has shown significant growth under their leadership. Although initially limited by capital & manpower, Flipper Clipp's devotion & hard toil has made the company into one of the leading brand names in the Indian market.

Within 5 years of Start, Flipper Clipp has grown from a small Business House to a Large Business House. The company **has opened its office in the US of America** (In Virginia) to facilitate international Technical tie-ups and Foreign Direct Investment besides an easy access to international technology.

Flipper Clipp takes pride in the good repute that its Organization & Products enjoys in the Indian market. Aggressively pursuing the Principle of Innovation, continuous update in technology & increasing sales performance, the future offers unlimited potential & possibilities for Flipper Clipp.

## COMPANY OBJECTIVES

- To make available the latest UPS System technology with Quality Components & Innovative Service support in India, at an attractive price tag.
- To be a best service provider and inculcate an International Service Quality in UPS industry thus enabling both employees & customers to have a harmonious relationship with one another.
- To continuously develop new products & technology in the endeavor for unlimited progress.
- To cultivate professional employees, providing training with promotional opportunities, thus enabling employees to continuously grow & nurture strong organizational skills, establishing mutual benefits for both the company & employees.
- To be responsible for a Foreign Direct Investment in Indian UPS industry.



## **ON-LINE UPS SYSTEMS**

Our On Line UPS System is christened as LIFE SPARK

We have rolled out 3 Versions in the On Line rand UPS Systems.

Version 3.0 is more innovative, advanced feature oriented version, than Version 2.0, and Version 4.0 veing the latest and more innovative. All the models adhere to the same technical Specifications.

We produce Online UPS Systems ranging from 2000 VA to 500 KVA

98% of our revenue is from the sales of Uninterruptible Power Supply System. Of which 85% of our revenue is accountable to On Line market. We build brand.

### **Features of Version 2.0**

- ☞ IGBT Power Module
- ☞ Dynamic Pulse Width Modulation Technology
- ☞ Compact Design
- ☞ Modular Construction Technique (MC technique)
- ☞ 95% efficiency
- ☞ 40% reduction in electronic components
- ☞ Complete output shot circuit protection
- ☞ SAMEER Tested
- ☞ UPS to UPS interfacing for redundancy
- ☞ Plug 'N' play cards for easy repair



## Technical Specifications - Version -2.0

Up to 7.5 KVA Single Phase Input & Single Phase Output (Standard)  
 7.5 KVA - 30 KVA Three Phase Input & Single Phase Output (standard) (optional) 3 phase output)  
 30 KVA - 150 KVA Three Phase Input & Three Phase Output (standard)

<b>TECHNOLOGY</b>	<ul style="list-style-type: none"> <li>Type Of UPS System</li> <li>Type Of Inverter</li> <li>Power Module</li> <li>Switching Frequency</li> </ul>	Double Conversion type Pulse Width Modulation (PWM) IGBT & Hybrid Integrated Circuits 12.5 KHz
<b>INPUT</b>	<ul style="list-style-type: none"> <li>Voltage</li> <li>Frequency</li> </ul>	(3 Phase) 420 AC-20%+10% (1 Phase) 220/230(+/-20%) 50Hz+/-6%
<b>OUTPUT</b>	<ul style="list-style-type: none"> <li>Voltage</li> <li>Frequency</li> <li>Wave Form</li> <li>Inverter Efficiency</li> <li>Overall Efficiency</li> <li>Overload Capacity</li> <li>Load Power Factor</li> <li>Crest Factor</li> </ul>	110/220/230 VAC / 415 / 440 VAC 50Hz / 60Hz+0.1% True Sine Wave 98% 95% 125% for 25 minutes 150% for 1 minute 200% for 30 seconds 0.8 (lag) to Unity 5:1
<b>HARMONIC DISTORTION</b>	<ul style="list-style-type: none"> <li>On Non Linear Load</li> <li>On linear Load</li> </ul>	< 5% < 3%
<b>CHARGER TYPE</b>	<ul style="list-style-type: none"> <li>DC Power Manager (DCPM) Positive Float Cum Booster Charger)</li> </ul>	
<b>BATTERY BACK UP</b>	<ul style="list-style-type: none"> <li>DC Voltage</li> <li>Minimum</li> <li>Maximum</li> </ul>	60/72/120/180 240/360VDC 10 Minutes 720 Minutes
<b>BATTERY STAND</b>	<ul style="list-style-type: none"> <li>Wooden or MS rack with acid proof painting (optional at an extra cost)</li> <li>Note : Battery Stand can also be custom made.</li> </ul>	
<b>ENVIRONMENTAL SPECIFICATIONS</b>	<ul style="list-style-type: none"> <li>Noise Level</li> <li>Ambient Temperature</li> <li>Humidity</li> </ul>	55 dBA 0 - 40 Degree Celsius 0 - 95% (non condensing)
<b>PROTECTION</b>	<ul style="list-style-type: none"> <li>Input MCB</li> <li>High Speed fuses</li> <li>Electronic Current Limiting Circuit for Extending the Battery Life.</li> <li>Electronic Circuitry to monitor continuously and alarm during battery Low / High condition.</li> </ul>	
<b>INDICATIONS/</b>	<ul style="list-style-type: none"> <li>Overload</li> <li>Mains On/Off</li> <li>Inverter On/Off</li> <li>Charger On/Off</li> </ul>	<b>METERING*</b> (Optional) Input/Output Volt meter DC Meter Output Frequency Meter Output Current Meter Battery Voltage
<b>ALARM SYSTEM</b>	A beep every second when battery is near exhaustion.	

**QUALITY & PERFORMANCE :** Tested by ETDC, SAMEER

**SAFETY :** Compliance to EMC Standards

Note : Technology at Flipper Clipp is a continuous research, and may better without prior notice.

\* Specifications above 150KVA is available on request

# 1KVA ~ 500 KVA

## VERSION-3.0



- ❖ Three phases in, three phases out
- ❖ True on-line dual conversion design
- ❖ SPWM
- ❖ IGBT inverter design
- ❖ UPS can carry 100% non-balance load
- ❖ Extendable run time
- ❖ On-line, battery status / LED / LCD display (Touch Screen\*)
- ❖ Advanced Paralleling Option
- ❖ Generator compatible
- ❖ Cold start
- ❖ Load/battery capacity display
- ❖ Overload
- ❖ Advanced Battery Management
- ❖ RS-232
- ❖ Optional SNMP card

### Features of Version 3.0

#### MICROPROCESSOR BASED DESIGN

"Brain Built In" - UPS System functions with the help of factory fed bios in the Microprocessor. There is no better way for the mankind to achieve 100% accuracy. Pure Computer Graded 220 Volts & 50Hz frequency is assured always.

#### GALVANIC ISOLATION TECHNIQUE

An International Technique of Isolating The Input Power From the Input Power Source. This Is the First Stage of Stabilization Process For the Wild Power. The UPS System Owns & Operates On It's Own Pulses From This Point To Create A Smooth Inflow Of Power To The Inverter & Converter Sections.

#### HIGH SWITCHING FREQUENCY

UPS System Is Very Quick In Reacting To Any Input Violence. Sizeable Deduction In Size.

#### DB9 CONNECTIVITY FOR BMS APPLICATIONS & SNMP OR RS 232 COMMUNICATION INTERFACE FOR PC/SERVERS

The Power management Information System (P-MIS). Software To Monitor The UPS System Through an SNMP Protocol. Compatible To All Popular Operating Systems.

#### TOSHIBA HYBRID Ics

Symbol of Safety - 100% Out Put Short Circuit Protection

#### INVERTER SECTION

"EDD Technology" (Electronic Digital Devices) for The First Time In India.

## Technical Specifications - Version -3.0

	1 Ph to 1 Ph					3ph to 1 ph				3ph to 3 ph													
Model	1000	2000	3000	6000	7500	1000	15000	20000	30000	10000	15000	20000	30000	40000	60000	80000	100000	120000	140000	160000	200000	250000	300000
Capacity	1	2	3	6	7.5	10	15	20	30	10	15	20	30	40	60	80	100	120	140	160	200	250	300
Operating Mode & Principle																							
True Online,Static by Pass (Uninterrupted Switch) Dual Conversion,Output Galvanic Isolation																							
AC Input																							
Phase	1 Phase+N+G					3 Phase+N+G																	
Voltage	230 + 25%					380 V + 25%																	
Frequency	50 Hz ± 5 %					50 Hz + 5 %																	
P.F	Unity					Unity																	
Soft Start	0-100 % 5 S					0-100 % 5 S																	
Bypass input																							
Phase	Single Phase					3 Phase + N + G																	
Voltage	220 V ± 20%					380 V + 25%																	
Frequency	50 Hz ± 5 %					50 Hz + 5 %																	
Transfer Time	0 ms,Inverter to Bypass					0 ms, Inverter to By pass (overload)																	
DC System																							
Voltage	96 / 180 / 240					360 / 364 / 480																	
Charging Current	1A to 50 A (adjustable,Charge Current)																						
AC Output																							
Phase	Single Phase					3 Phases + N + G																	
Voltage	220 ± 1% (Stable Load); 220 ± 1%(Fluctuated Load)					380 + 1%(stable Load); 380 + 5% (Fluctuated Load)																	
Frequency	50 ± 0.05%					50 + 0.05%																	
Power Factor	0.8					0.8																	
Wave form	True Sine Wave					True Sine Wave																	
Harmonic Distortion	< 3%(Linear Load) < 5%(Non-Linear Load)					< 3%(Linear Load) < 5%(Non-Linear Load)																	
Dynamic	Instantaneously changing of Load(0 to 100%)Changing of Out Voltage <5%					Instantaneously changing of Load(0 to 100%)Changing of Out Voltage <5%																	
Transient Time	Tansient Recovery Time < 10ms					Tansient Recovery Time < 10ms																	
Overload	125% for 25Min,150%for 1 Min,200% for 30 Sec					125% for 25Min,150%for 1 Min,200% for 30 Sec																	
Cooling	Force Wind					Force Wind																	
System																							
Effeciency	93% & Above																						
Interface	RS 232, SNMP (Optional)																						
Tempreture	0-40 % (Operating)																						
Humidity	30-90%																						
Noise(dB)	45-60					53-65				55-65			53-65			55-65			58-65				
Dimension	Standard and Custom design available																						

Custom made Specification is Acceptable

\* All specification are subject to change without notice

\* Specifications above 300kVA is available on request



## 30 KVA ~ 400 KVA

VERSION - 4.0

3 Phase - 3 Phase



### Features of Version 4.0

- ☞ New Generation Of Online Double Conversion Digital Ups Systems
- ☞ Advanced IGBT Rectifier To Have Low THDi And High PF
- ☞ Wide Input Voltage Range And Frequency Tolerance
- ☞ Load Bus Synchronization (LBS)
- ☞ Function To Protect Your Investment
- ☞ Flexibility Of Configurable Battery Quantity
- ☞ Front Accessible Module Design For Ease Of Maintenance
- ☞ Low Audible Noise: <65db
- ☞ Low Output Voltage THD
- ☞ Parallel Redundancy
- ☞ Eco Mode
- ☞ Back-feed Protection
- ☞ Cold Start
- ☞ Provide LCD Indication And Audible Alarm Function
- ☞ Surge, Short Circuit And Overload Protection
- ☞ Intelligent Battery Management

1. Mains breaker
2. Bypass breaker
3. Maintenance breaker
4. Output breaker
5. PFC module 1
6. PFC module 2
7. INV module 1
8. INV module 2
9. SNMP slot (just for SNMP card)
10. Intelligent slot
11. Communication Interface

**MODBUS:** This port, supporting the MODBUS protocol, is used to connect the external battery monitoring system.

**RS232:** A port access to the computer with monitoring software. The port is used for local monitoring and can be set to parallel monitoring mode.

**RS485:** the UPS has two RS485 ports

12. LCD display and UPS control button
13. Dry contact port: fire/smog/lightning
14. EPO button: Emergency shutdown
15. Cold start button: start by battery
16. Fuse: over-current protection for output socket
17. Output socket: Nominal current is 5A, it outputs the voltage just the one when UPS works normally and provides max.5A current, which makes the testing, maintenance and running more convenient.
18. Parallel port




## Technical Specifications - Version -4.0

Model	HI3310	HI3312	HI3316	HI3320	
Capacity	100 KVA	120KVA	160KVA	200KVA	
Input	Current limit	280A			
	Rated Voltage	380/400/415VAC			
	Voltage range	Load < 50%: 208±5VAC ~ 478 ±5VAC			
		Load < 50%: 304±5VAC ~ 478 ±5VAC			
	Frequency range	40±0.5Hz~70±0.5Hz			
	Phase	3 phase 4 wire (3ph+N)			
	Power factor	>0.99			
THDI	Input THD < 1.0%, Linear load: < 3.0%				
	Input THD < 1.0%, Non-linear: < 7.0%				
Output	Rated voltage	380/400/415VAC			
	Current (Rated full load) 380V	121A	145A	194A	242A
	Current (Rated full load) 400V	116A	139A	186A	232A
	Current (Rated full load) 415V	111A	133A	178A	222A
	Voltage waveform	Sinusoidal waveform			
	Crest Factor	> 3:1			
	Frequency	50Hz/60Hz±0.5Hz (battery mode)			
		Linear load : < 2.0%			
	THD	Non-linear load: < 4.5%			
	Phase	3 phase 4 wire (3ph + N)			
Power factor	0.8				
DC Component	< 500mVDC				
Voltage regulation	Balanced load: ±1.0%				
	Unbalanced load: ±3.0%				
Bypass	Overload capability	< 110% 60mins; < 125% 10min; < 150% 1min			
	Voltage range	380V: 208/266/304±5VAC~399/418/437/475±5VAC			
		400V: 220/280/320±5VAC~420/440/460±5VAC			
		415V: 228/290/332±5VAC~436/457/477±5VAC			
Frequency range	50Hz±10%/60Hz±10%				
Phase	3 phase 4 wire (3ph+N)				
Overload capability	125%~170% 10min				
ECO mode	Voltage range	380V: 304±5VAC~399/418±5VAC			
		400V: 320±5VAC~420/440±5VAC			
		415V: 332±5VAC~436/457±5VAC			
Frequency range	50Hz±10%/60Hz±10%				
Phase	3p4w (3p+N)				
Battery	Type	Sealed lead acid maintenance free (VRLA)			
	Configuration	32/34/36/38/40pcs			
	Discharging current (320Vdc)	270A		430A	
Max charging current	30A		60A		
System	Efficiency in AC mode	> 90%			
	Efficiency in bat. mode	> 93%			
	Efficiency in ECO mode	> 97%			
	Loss in AC mode without load	< 3%			
	Loss in ECO mode without load	< 2%			
	Noise	<62dB (1m)		<65dB (1m)	
	Temperature	0~40C			
	Humidity	0%RH~95%RH (non condensing)			
	Altitude	<1000m			
	Display	LCD+LED			
	Air switch/Fuse	225A		315A	
	Remote control	Dry contact			
	Communication	RS232/RS485/SNMP			
	Safety	3C/EN60950/EN50091-1			
	EMI	EN 61000-4-4,3,4, 6,8,11 Level III Radiation: IEC 62040-2 C3			
	EMS	En 61000-4-2,3,4,5,6,8,11 Level III			
	MTBF	Inverter MTBF > 50,000h, single UPS MTBF>250,000h, 1+1 parallel system MTBF > 400,000h			
	MTTR	Single UPS MTTR<30min			
	Insulation resistance	500V DC Voltage, >2MΩ			
Dielectric strength	Voltage tolerance: 2820Vdc, No arc in 1min				
Surge protection	IEC60664-1 level IV				
Lightning protection	6000V/3000A				
Shock and vibration	ISTA (International Safe Transmission Association) 1B				
Shipment	ISTA (International Safe Transmission Association) 1B				
IP	Ip20				
Dimension (WxDxH)mm	600 x 730 x 1800		1200 x 730 x 1800		
Packing(WxDxH)mm	735 x 845 x 1990		1335 x 845 x 1990		
Net weight (kg)	295		590		
Gross weight (kg)	363		720		

\* All specification are subject to change without notice

\* Specifications above 200KVA is available on request

## WHY FLIPPER CLIPP...

Year Of Establishment	Since 1998, in India
Presence	PAN India
Clients	More Than 6000 clients who would swear by our name
Motto	Ultimate Power Money can Buy
Service Motto	100% Customer Satisfaction through factory trained Engineers on 24/7 basis
Product & Price Motto	To make available, an International product at an affordable price for Indian Market.
Product Specialty	One of the First UPS Companies In India to introduce PLUG N PLAY cards designs for UPS Systems with the use of this we are able to reduce the repair time to less than one hour
	40% deduction in electronic component count helps Flipper Clipp UPSs to fail much lesser, compared to other UPSs.
	*A Microprocessor Based Design* Based On 16- BIT Computer Processor, We have used this finest method of 100% accuracy man has ever invented. It does the Pulse sampling, Voltage Sampling, current sampling to give pure computer graded power at all times.
	Galvanic Isolation Technology, The best method of isolating the input power from the input power source. Thus even the UPS which itself would get clean power to do the further process.
Strengths	 <ol style="list-style-type: none"> <li>1. India's leading UPS Systems manufacturer.</li> <li>2. Present in India since 1998</li> <li>3. Enjoys a wide client base, which is the who-is-who of various industries.</li> <li>4. Provides a 24/7 Customer service operations.</li> <li>5. Has an enormous list of client</li> <li>6. Promotes the latest, next generation – feature oriented fault free , proven technology, in UPS Systems</li> <li>7. Believes in International technology at an affordable price</li> </ol>
Weaknesses	<ol style="list-style-type: none"> <li>1. Lesser known brand name.</li> <li>2. Maximum available capacity is 500Kva</li> </ol>
Opportunities	<ol style="list-style-type: none"> <li>1. Being a growing company, a business tie with Flipper Clipp will be regarded as the Most Wanted Business of the times, because of our urge and eagerness to grow based on our product quality and service</li> </ol>
Threats	<ol style="list-style-type: none"> <li>1. Competition from Fly by night companies is the only factor of threat.</li> <li>2. This has already been overcome by our decade long existence, , and the client base who would swear by our name</li> </ol>

FEW OF OUR CUSTOMERS



LOGOS ARE OWNED BY RESPECTIVE OWNERS



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