



#### **Features**

- Cold Start function
- Microprocessor control guarantees high reliability
- Sleek design with minimum foot print
- LCD display for monitoring

- Equipped with the comprehensive self-protection design
- ▶ In-built Isolation Transformer for protecting expensive equipments
- Operation systems and remote monitoring of the UPS (Optional)





APPLICATION : IT AS WELL AS INDUSTRIAL GRADE DESIGN

## Best Quality Power ensures better operation of Electronic Equipments

For best operation of electronic equipments quality of power plays a key role. Hykon online UPS with advanced topology ensures best quality power to the load which is being operated using UPS. Total harmonic distortion is very low compare to any other UPS. Also input power factor has been improved to ensure power quality.



# Alpha/Galaxy Series is a complete Power-conditioner

Optimises the product life & process uptime by 35%-40%.

- ▶ Galvanic isolation at the output.
- Improved frequency range
- Surge handling capability.
- Constant voltage



▶ Operating ambient temperature 0-50 degrees.

- Overload handling capability of 110% for 1 minute.
- ▶ High Grade Premium quality power.

() Customer support - 9020 121 121 / 1860 425 0121



# Galvanic Isolation Transformer provides protection to load

In order to reduce harmonics in the supply line we need to provide better protection to ensure our load is safe. The common problem of neutral drift can produce considerable increase in output voltage and permanently destroy your critical loads and data.

Isolation transformers increase load protection and ensure human safety by isolating the AC leakage current from developing a potential between the input and ground. Isolated output enhances the attenuation of common mode noise by increasing the impedance between the input and output.

Provides protection of loads against lightning. Galvanic isolation via transformer is the only way to safely protect loads from lightning. It provides protection from high energy transients, which are clamped at the AC input from propagating to the output.



# Smart digital LCD display & LED indications for analyzing UPS & Battery parameters

Alpha/Galaxy UPS comes with smart LCD Digital display that ensures all parameters of UPS and Battery are accessible to customers as well as service engineers for trouble shooting and monitoring performance of UPS & Battery.

#### The parameters that can be analyzed using display are as follows :

- AC input voltage
- AC output voltage
- Battery voltage

- Output frequency
- Output load percentage
- Charging current

Over Load

Trip

#### **LED indications**

Alpha/Galaxy UPS comes with LED indications as follows :

- Mains ON
- Inverter ON
- Battery Low



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### **RS 232 - Serial port**

Using RS 232 Serial port we can monitor an online UPS using RS 232 Serial cable through which we can fetch the live details of UPS as well as battery parameters and can check whether UPS working is proper. This can be done on by physically going near UPS and connect the same using cable. We require a software to analyze the parameters.

### **SNMP-Simple Network Monitoring Protocol**

**Remote Monitoring** 

**Trouble shooting** 

Preventive Action



# **Remote UPS monitoring software interface**

Remote management system allows the UPS to be monitored via a computer with status information and alarm messages being displayed on the computer itself. The software may also send out email and text alert messages to predefined addresses and mobile numbers if an alarm condition occurs. At a preset battery run time level, the UPS can be set to signal the remote management software to being an orderly shutdown of the computer system.





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### Powering the Nation

Rating		5KVA	6KVA	7.5KVA	10KVA				
Technology		DSP based, IGBT inverter-IGBT converter Online UPS.							
DC Bus		120/144/168/192/240 VDC 144/168/192/240 VDC 168/192/240 VDC							
Input									
Input Voltage			230VAC	, 1Ø & N					
Input Voltage Wir	ndow		170VAC -	- 270VAC					
Input	Frequency		45-5	5Hz					
Input PFC	100% load		> 0	.85					
Power walk in			Soft start for 0-20 se	conds power walk-in.					
Rectifier									
Туре			IGBT based	d full bridge					
Voltage Regulation	on		(±)	1%					
Ripple Voltage			< 2	2%					
Converter Protec	tion	Advar	ced Electronic Protectic	on for device safety back	ed up,				
			with MCB's/ MCCB	s & fast acting fuses					
Inverter									
Inverter Type		IGBT based MPWM with instantaneous Sinewave Control							
Output PF		0.8 lagging to Unity							
Nominal Voltage		230VAC, 1Φ, P-N							
Regulation		(±)1%							
Frequency		50 Hz ± 0.1Hz							
Waveform		True Sinewave							
Total Harmonic	Linear Load		< 2	2%					
Distortion	Non Linear Load		< {	5%					
Over Load	110%		1 Mi	nute					
Capacity	120%		30 Se	conds					
Efficiency		85 %							
Crest Factor		3 : 1							
Isolation			True Online with comp	lete galvanic isolation.					
Inverter Protectic	on	Advanced Electronic Protection for device safety backed up with MCB's/ MCCBs &							
		fast acting fuses, high speed pulse by pulse electronic device protection over voltage /							
			under voltage protection, Electronic over current trip.						
Bypass									
Manual Bypass		Provided							
Alarms									
		Input / Low / Fail • Output overload • Over temperature • Battery low							
LED Indications	(Single LED with mu	Iti function)							
		Mains ON · UPS ON · Battery Low · Overload							
		Input Voltage   Output Voltage   Load current   Output Frequency   Battery Voltage							
Dimension (W x	D x H) mm	235x600x470	275x645x475	275x8	50x685				

E KHS

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#### Powering the Nation

Rating		5KVA	6KVA	7.5KVA	10KVA	15KVA	20KVA	30KVA	
Technology			DSP b	ased, IGBT inv	verter-IGBT c	, onverter Onlin	e UPS.		
DC Bus		180 '	180 VDC 180/240 VDC 240/360 VDC 360 VDC					VDC	
Input									
Input Voltage				41	15VAC, 3Ø &	Ν			
Input Voltage Wi	ndow			33	0VAC - 470V	AC			
Input	Frequency				45-55Hz				
Input PFC	100% load		> 0.85						
Power walk in				Soft start for 0	-20 seconds	power walk-in			
Rectifier									
Туре				IGBT	F based full bi	idge			
Voltage Regulati	on				(±)1%				
Ripple Voltage					< 2%				
Converter Protec	ction		Advance	d Electronic Pr	rotection for d	evice safety b	acked up,		
				with MCB's/ I		-	•		
Inverter						-			
Inverter Type		IGBT based MPWM with instantaneous Sinewave Control							
Output PF		0.8 lagging to Unity							
Nominal Voltage		230VAC, 1Φ, Ρ-Ν							
Regulation		(±)1%							
Frequency		50 Hz ± 0.1Hz							
Waveform			True Sinewave						
Total Harmonic	Linear Load				< 2%				
Distortion	Non Linear Load				< 5%				
Over Load	110%				1 Minute				
Capacity	120%				30 Seconds				
Efficiency		85 %							
Crest Factor					3 : 1				
Isolation			Т	rue Online with	n complete ga	alvanic isolatio	n.		
Inverter Protection	on	Advance	ed Electronic I	Protection for c	device safety	backed up wit	h MCB's/ MCC	Bs &	
		fast acting fuses, high speed pulse by pulse electronic device protection over voltage /							
		under voltage protection, Electronic over current trip.							
Bypass	Bypass								
Manual Bypass	Manual Bypass		Provided						
Alarms									
		Input / Low / Fail • Output overload • Over temperature • Battery low							
LED Indications	(Single LED with mu	Ilti function)							
		Mains ON · UPS ON · Battery Low · Overload							
		Input Vo	oltage • Outp	out Voltage • L	oad current	Output Frequ	ency • Batter	y Voltage	
Dimension (W x	D x H) mm	235x600x470	270x645x475	275x85	50x685		660x650x960		

E KHS

**Customer support** - 9020 121 121 / 1860 425 0121



### Powering the Nation

Rating		10KVA	15KVA	20KVA	30KVA	40KVA	60KVA	80KVA	100KVA	
Technology		DSP based, IGBT inverter-IGBT converter Online UPS.								
DC Bus		240/360 VDC 360 VDC								
Input										
Input Voltage					415VAC,	3Ø & N				
Input Voltage Wir	ndow				330VAC -					
Input	Frequency				45-5					
Input PFC	100% load		> 0.85							
Power walk in				Soft star	for 0-20 see	conds powe	r walk-in.			
Rectifier										
Туре					IGBT based	d full bridge				
Voltage Regulation	on				(±)	-				
Ripple Voltage					< 2					
Converter Protec	tion		Advar	nced Electro	nic Protectio	n for device	safety back	ed up,		
					B's/ MCCBs		-			
Inverter										
Inverter Type			IGBT	based MPV	VM with inst	antaneous S	Sinewave Co	ontrol		
Output PF					0.8 laggin	g to Unity				
Nominal Voltage		400VAC, 30, P-P : 230VAC P-N								
Regulation	÷		(±)1%							
Frequency		50 Hz ± 0.1Hz								
Waveform			True Sinewave							
Total Harmonic	Linear Load			< 2%						
Distortion	Non Linear Load				< 5	5%				
Over Load	110%				1 Mi	nute				
Capacity	120%				30 Se	conds				
Efficiency		85 %								
Crest Factor					3	: 1				
Isolation				True Onlin	e with comp	lete galvani	c isolation.			
Inverter Protectio	n	Advanced Electronic Protection for device safety backed up with MCB's/ MCCBs &						3s &		
		fast acting fuses, high speed pulse by pulse electronic device protection over voltage /								
		under voltage protection, Electronic over current trip.								
Bypass										
Manual Bypass		Provided								
Alarms										
		Input / Low / Fail • Output overload • Over temperature • Battery low								
LED Indications (	LED Indications (Single LED with mu			ulti function )						
	Mains ON · UPS ON · Battery Low · Overload									
		Input Voltage   Output Voltage   Load current   Output Frequency   Battery Voltage					Voltage			
Dimension (W x	D x H) mm	750x660x1140 850x790x1560 1275x650x1370					50x1370			

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**Customer support** - 9020 121 121 / 1860 425 0121

# ONE LAKH CUSTOMERS AND COUNTING.....

Our esteemed customers have been using Hykon online UPS for various applications the country from past years and have certified the performance of the same.



#### **Hykon India Limited**

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Customer support - 9020 121 121 / 1860 425 0121



# Online UPS **HT Series**

1-10 KVA (1Φ-1Φ)



Control Panel

#### Web Module



#### **Remote Monitoring**

Remote management system allows the UPS to be monitored via a computer with status information and alarm messages being displayed on the computer itself. The software may also send out email and text alert messages to predefined addresses and mobile numbers if an alarm condition occurs. At a preset battery run time level, the UPS can be set to signal the remote management software to being an orderly shutdown of the computer system. Android Module



#### Features

High frequency and double conversion •> Automatic battery charge in UPS off mode ♦ online technology ♦ Short circuit & overload protection Fully digitized microprocessor control EMI/RFI noise filter •> •> Wide input voltage range Smart RS 232/SNMP communication with ♦ •> Highly efficient upto 92% monitoring software •> High input power factor 0.99 **Optional SNMP card slot** •> ♦ •> LCD display Highly reliable digital control Cold start function Fully protection function •> ۵ **IGBT** both Inverter & Rectifier stage Parallel redundancy from 5KVA UPS onwards •> •> Advanced battery management ♦ **Protection** Short Circuit Battery Deep Discharge Battery Over Charge Over Temperature Over Load



CAPACITY	1KVA	2KVA	3KVA	5KVA	6KVA	7.5KVA	10KVA	
INPUT								
Nominal Voltage	220VAC/230VAC							
Operating Voltage Range		160 ~ 280 VAC						
Operating Frequency Range		45~55 Hz						
Power Factor				0.99				
THDi (Current harmonics)		<2	% for linear l	oad, <5% for r	on-linear loa	ds		
RECTIFIER				IGBT				
OUTPUT				IGBT				
Output Voltage			220	/ac / 230 Vac	±1%			
AC Volt. Reg. (Batt. Mode)				±1%				
Frequency Range				50 Hz ± 1%				
Crest Factor				3:1 (max)				
THDv (Voltage harmonics)		<2	% for linear l	oad, <5% for r	on-linear loa	ds		
Overload			125% :	1min; 150 % :	200ms			
Transfer Time			0 m:	s Mains to Ba <sup>.</sup>	,			
				2 ms Bypass				
Power Factor	0.8, 0.9 (optional)							
Isolation transformer		Inbuilt (optional)						
EFFICIENCY								
Overall				90%~92%				
BATTERY								
Battery Voltage	24V/36V 72V/96V 192V/240V							
Charging Current (max)				5-15A				
DISPLAY			Battery	ltage, Load cu Voltage, UPS	Status			
INDICATIONS		Load On Mai	ns, Load on B	attery, Battery	/ Low, Overloa	ad, UPS Fault		
ALARM	Input / Low / Fail, Output Overload, Over Temperature, Battery low							
ENVIRONMENT								
Temperature	0° C to 40° C							
Operational Humidity	0 to 95%							
Noise Level	< 60dB (1m from the surface level)							
PARALLEL REDUNDANCY	5KVA onwards (Optional)							
COMMUNICATION	USB, RS 485, RS 232, SNMP (Optional)							
DIMENSION (W*D*H) mm	144*419*215 191*478*339 220*481*438 250*500*650 220*481*438 250*500*650						250*500*650	
CERTIFICATIONS		ISO 90	01:2015, ISC	14001:2015	, CE , ROHS, O	OHSAS		





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Unit-2 Coimbatore, TN INDIA-641062

Unit-3 Pune, Maharashtra INDIA-412105

Unit 4 Kuttanellur, Thrissur INDIA-680014

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www.hykonindia.com



# Online UPS **HT Series**

(0)

10-800 KVA (30 - 10 & 30 - 30)

Protection

Over Load



茵

Battery Over

Charge



Android Module

Over

Temperature



#### Remote Monitoring

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Remote management system allows the UPS to be monitored via a computer with status information and alarm messages being displayed on the computer itself. The software may also send out email and text alert messages to predefined addresses and mobile numbers if an alarm condition occurs. At a preset battery run time level, the UPS can be set to signal the remote management software to being an orderly shutdown of the computer system.

- True On-Line, Double-Conversion
- DSP Technology Guarantees High Performance
- Wide Input Voltage Range 190~520V AC 3Ph
- Output Power Factor 0.9
- Active Power Factor Correction
- 50Hz/60Hz Frequency Converter Mode
- ECO Mode Operation for Energy Saving (ECO)
- Emergency Power Off Function (EPO)

- Generator Compatible
- 3-Stage Extendable Charging Design for Optimized Battery Performance
- Maintenance Bypass Available
- SNMP+USB+RS232 Multiple Communications Facility Available
- Optional Parallel Operation



CAPACITY	10KVA 15KVA 20KVA	25KVA 30KVA 40KVA 50KVA 60KVA	80KVA-800KVA			
INPUT						
Nominal Voltage		415V 3 Ø & N				
Operating Voltage Range	330-470 Vac @100% load, Three Phase (4 wire)					
Operating Frequency Range		50Hz±10%				
Input Power Factor		> 0.99				
THDi	<29	% (linear load), <3% (nonlinear load)				
RECTIFIER		IGBT				
OUTPUT (INVERTER)		IGBT				
Output Voltage		380/400/415 Vac				
AC Volt. Reg. (Batt. Mode)		± 1%				
Frequency Range		50 Hz ± 0.1Hz				
Crest Factor		3:1				
THDv	<	2% linear load, <3% nonlinear load				
Transfer Time		0 ms Mains to Battery				
	0 ms Bypass					
Output Power Factor	0.8 , 0.9 (optional)					
Isolation transformer	Inbuilt (optional)					
EFFICIENCY						
Overall	> 90% , 95% (optional)					
BATTERY						
Battery Voltage	240 Vdc	360 Vdc	600 Vdc			
Charging Current (max.)		10 A				
DISPLAY	LCD Display indicating (I/p V, O/P V,I/P Freq, O/P Freq, Load capacity, Battery V					
INDICATIONS		Mains, AC Mode, DC Mode, Low battery				
ALARM	Battery low volta	age, abnormal power supply, UPS failure	Overload			
ENVIRONMENT						
Temperature		0-40°C				
Operational Humidity	0-95%					
Noise Level	<55 dB (1 meter)					
COMMUNICATION	RS 232, SNMP (OPTIONAL)					
PROTECTION	Protection for battery low voltage, overload, short circuit and over temperature					
ENCLOSURE	IP 20					
EPO (EMERGENCY POWER OFF)	Standard					
PARALLEL OPERATION		Up to 8 units				
CERTIFICATIONS	ISO 9001:2	2015, ISO 14001:2015 , CE , ROHS, OH	SAS			





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### Features

- High frequency and double conversion online technology
- Fully digitized microprocessor control
- Wide input voltage range
- LCD display
- UPS start up without battery
- Cold start
- Advanced battery management
- Automatic battery charging in UPS off mode
- Lightning and surge protection
- Fan speed adjusted by load automatically

- Network/fax/modem surge protection
- Optional extension battery pack
- Battery voltage display
- Load capacity display
- EMI/RFI noise filter
- Smart RS323 communication with monitoring software
- Optional SNMP card slot
- EPO function (optional)
- Input L and N reversed alarm function

# **Hyken** Powering the Nation

CAPACITY		1KVA	2KVA	3KVA	5KVA	6KVA	7.5KVA	10KVA
INPUT								
Nominal Voltage			220/230VAC, 380/400/415 VAC					
Operating Voltag					VAC ; 30			
Operating Freque	-		46Hz-		, 50HZ/56I			
Power Factor	, ,				≥0.99	-		
THDi			<2% (lin	ear load)	, <5% (10	0% nonli	near load)	
RECTIFIER					IGBT		,	
OUTPUT (INVER	TER)				IGBT			
Output Voltage			20	8VAC/22	0VAC/230	)VAC/240	OVAC	
AC Volt. Reg. (Ba	attery Mode)				±1%			
Frequency Range	5			(50	0/60 ± 0.2	2) Hz		
Crest Factor					3:1 (ma	x)		
THDv		<2%	(100%%	linear lo	ad), <3% (	(100%%	nonlinear	oad)
Overload			10	8%±5% <i< td=""><td>oad ≤ 150</td><td>)%±5% &gt;</td><td>30s</td><td></td></i<>	oad ≤ 150	)%±5% >	30s	
Overioau			150	%±5% <lo< td=""><td>ad &lt; 200%</td><td><math>4 \pm 5\% &gt; 3</math></td><td>00ms</td><td></td></lo<>	ad < 200%	$4 \pm 5\% > 3$	00ms	
Transfer Time	AC mode to Battery Mode				0 ms			
	Inverter to Bypass				<4ms			
Power Factor					0.9			
EFFICIENCY								
Overall					≥92%			
BATTERY			11/1/4		10.170.100		70/00/	
Long-run Model	Battery Voltage	1KVA/36V, 2KVA/72/96V, 3KVA/72/96V 10KVA/240V, 15KVA/240V, 20KVA/240V						
Long-run moder	Charging Curnt. (max.)		TURV	N/240V, I	5-7 A	0, 201	R/ 240 V	
DISPLAY	()	I/P V/freq, O/P V/freq, Battery V, Load Watts/VA value & percent, Inverter temperature, Operation mode such as online, on battery or on bypass						
INDICATIONS		Green LED for normal operation, Yellow LED for warning condition, Red led for abnormal operation						
ALARM		Input / L	ow / Fail,	Output O	verload, O	ver Temp	erature, Ba	attery low
PHYSICAL								
Long-run Model	1U = 1.75" height		•	<i>,</i> .	(2U) , 3K 15KVA(6	· /·	6KVA (3U) A(6U)	
ENVIRONMENT								
Temperature	0° C ~ 40° C							
Operational Hum	0% ~ 95% (non-condensing)							
Noise Level	<45 dB							
COMMUNICATIO	Rs232 , SNMP (optional)							
PROTECTION		Lightnin	g & Surge	e protecti	on, Short	circuit &	overload p	rotection
CERTIFICATIONS	;	ISO 9001:2015, ISO 14001:2015 , CE , ROHS, OHSAS						
	Corp. Office		nit-1	Unit-2	, I	Unit-3		Unit 4





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#### www.hykonindia.com



Modular Design

Up to 20power module in parallel online hot-swappable N+X redundancy

#### Independent Charger

Independent charger for each module and intelligently control the whole charging process, prolong the life time of the battery

# Battery Cold Start

UPS can be powered on from the battery without utility

- Easy Connection Access
   Top and bottom cable entry connection are supported, more convenient for site installation

  High Power Density
- 200kVA with footprint of about 0.5m , 2 saving valuable data center space
- Integrated IGBT Design Integrated IGBT in one module, less failure points with higher performance and reliability
- Friendly Interface Touch LCD display with abundant information
- Independent Air Channel Cooling air runs in isolated channel, keeping PCB free of dust

	R
Powering the Na	tion

D		Hykon HM 11/31/33 Series (6-60KVA)				
	ARAMETERS Rack capacity	24K, 40K, 60K // 120K, 180K, 200K, 300K				
	. ,	6KVA, 10KVA, 15KVA // 20KVA, 30KVA				
INIO	dule capacity	οκνά, τύκνα, τόκνα // Ζυκνά, σύκνα				
No	INPUT minal Voltage	200/220/220/240VAC 41EV 2 Ø 8 N				
	ing Voltage Range	208/220/230/240VAC, 415V 3 Ø & N 176-276 Vac, 330-470 Vac @100% load				
	g Frequency Range	40-70 Hz				
	t Power Factor					
IIIpu		> 0.99				
	THDi RECTIFIER	<4% for 100% load IGBT				
	PUT (INVERTER)	IGBT				
	itput Voltage	380/400/415 Vac				
	. Reg. (Batt. Mode)	± 1%				
	quency Range	50 Hz ± 0.1Hz				
	Crest Factor	3:1				
	armonic Distortion	<1% linear load, <5% linear load				
ΤΟΙΔΙ Πα	AC mode to Batt . Mode	Oms				
Transfer Time	Inverter to Bypass	Oms				
Outpu	ut Power Factor	0.8 , 0.9 & 1 (unity) (optional)				
E	FFICIENCY					
	Overall	> 94% , from 20KVA 96%				
	Inverter	>92% , from 20KVA 96%				
Ν	Module size	6KVA, 10KVA, 15KVA (3U), 20KVA (2U/3U), 30KVA (2U/3U)				
C	Cabinet size	24K, 40K, 60K (19U), 120K(2U 20KVA*6), 180K(2U 30 KVA*6), 200K(3U 20KVA*10), 300K(3U 30KVA*10)				
	BATTERY					
	Battery Type	SMF/ TUBULAR				
Long-run Model	Battery Voltage	+/- 240V				
model	Charging Current. (max.)	20% of system power				
	DISPLAY	LCD Display indicating (I/p V, O/P V, I/P Freq, O/P Freq, Load capacity, Battery V, Discharge timer, Fault condition				
LED	INDICATIONS	Mains, AC Mode, DC Mode, Low battery, Overload				
	ALARM	Battery low voltage, abnormal power supply, UPS failure, Overload				
	IVIRONMENT					
	emperature	0~40°C				
Opera	ational Humidity	0~95%				
1	Noise Level	<55 dB (1 meter)				
CON	MMUNICATION	RS 232/USB, SNMP				
Р	ROTECTION	Protection for battery low voltage, overload, short circuit and over temperature				
Valional Award	Corp. Office Hykon house Thrissur, Keral INDIA-68000	e Thrissur, Kerala Coimbatore, TN Pune, Maharashtra Kuttanellur, Thrissur INDIA-680306 INDIA-641062 INDIA-412105 INDIA-680014				
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