# TG+ Series 3/3, 3/1

## **Low Frequency Online UPS**

10kVA~100kVA

3 Phase input/ 1 Phase output

10kVA~800kVA

3 Phase input / 3 Phase output





TM

#### **Product**

The TG series are Low Frequency UPS, which is commonly use in Industrial Power Supply. This Industrial UPS series is a Transformer Based UPS, which adopts Online Double Conversion technology to provide more comprehensive and complete protection for the equipment. Remote monitoring and network management through human-machine dialogue. The system has high system efficiency and complete protection functions.

It adopts the world's most advanced DSP digital control technology. It breaks through the technical bottleneck of the UPS industry, replaces the traditional analog circuit with an advanced digital circuit system, and realizes the parallel redundancy function of multiple UPS. It is an extraordinary innovation of EPI. In the digital circuit mode, the high-speed microcontroller and programmable logic device have more perfect circuit control, parameter setting and operation management, and the self-test and self-detection functions are more powerful.

### **Application**

Data Center, the network computer room, intelligent precision equipment, the financial, telecommunications, insurance, transport, taxation, military, security, enegy, education, government, manufacturing and other industries etc.

#### **Features**

- High reliable static switch
- · Self diagnose and self protection
- · Rechargeable battery intelligent management
- Strong English display interface
- · Double transformation is on-line design
- Flexible weaver technology
- · System with high efficiency

- Output transformer
- With optional 12 pulse rectifier
- Human-machine dialogue with the remote monitoring and network management
- Allowing 100% to balance working
- Intelligent battery management function to
- Protect the function is all ready
- · Sound and light alarm
- A variety of voltage output
- Color optional
- Load protection ability
- Strong adaptability to the environment
- · High battery optimize performance
- Network Management
- Energy saving and environmental protection design



160-250kVA

	TG3110	TG3115	TG3120	TG3130	TG3140	TG3150	TG3160	TG3180	TG31100				
Capacity	10 kVA	15 kVA	20 kVA	30 kVA	40 kVA	50 kVA	60 kVA	80 kVA	100 kVA				
Input													
Phase			3 Pha	ase+Neutral+G	round, 380V	/400V/415V(L-L vo	oltage)						
Input voltage range	304-456 VAC												
Input frequency range	50/60 Hz ± 5%												
Input PF					> 0.97								
Output													
Rated voltage	220/230 VAC												
Voltage regulation	± 1%												
Rated frequency	50/60 Hz												
Frequency precision	± 5%												
Output PF	0.9												
Output THDu	≤ 2% (linear load); ≤ 3% (non-linear load)												
Crest factor	3:1												
Inverter overload	5 min @ 110 - 150% load; 300 ms @ > 150% load												
Battery									N /				
Voltage				360\	/372V/384V	V/396Vdc			ivi				
Battery type		5	Sealed mainter	ance-free lead	- acid batter	ies, VRLA-AGM / G	EL / NiCd / Li-i	on					
Charging time				8 - 10	hours rechai	rged to 90%							
Backup time				Dependir	g on the exte	ernal batteries			/				
System							4						
Efficiency	92 %												
Protection function	Output short-circuit protection; current-limiting protection												
Transfer time	Normal mode to battery mode, 0 ms												
Display				L	CD+LED+Key	board							
IP Class	IP 20												
Communication interface	RS232, SNMP card (optional)												
Temperature				Operation; 0	- 40 °C, Sto	rage ; -25 - 55 °C							
Relative humidity	0 – 95%, no-condensing												
Altitude		<1500, V	Vithin 1500 to 4	1000m, pwer c	apacity decre	eases by 1% per 10	0 <mark>m incr</mark> easing	in altitude					
Noise (1 m away)	<55 dB <68 dB												
Physical													
Weight (kg)	80	100	108	150	172	220	230	290	430				
,		300x600x810		400x75	0v1010	450x830x1060		700x800x1500					

Model	TG33010	TG33015	TG33020	TG33030	TG33040	TG33060	TG33080	TG33100	TG33		
Capacity	10kVA	15kVA	20kVA	30kVA	40kVA	60kVA	80kVA	100kVA	120		
Input											
Phase	3-phase+N+G										
Rated Voltage	380/400/415Vac										
Input Voltage Range		285-475Vac									
Rated Frequency		50/60Hz									
Input Frequency Range				Ę	50H±10%, 60I	Hz±10%					
THDi					<10%	•					
Soft Start					<b>1-100%</b> , 5 se	econds					
Bypass											
Phase					3-phase+N	N+G					
Voltage Range				3	80/400/4 <b>1</b> 5V	ac ±15%					
Frequency Range					50/60H±1	L0%					
Output											
Rated Voltage					380/400/43	15Vac					
Voltage Regulation				±1% for bala	nce load; ±3%	for unbalance load					
Rated Frequency					50/60H	z					
Frequency Precision				50/60	Hz±0.05% (Ba	attery mode)					
Outout PF					0.9						
THDu				<2% (line	ar load); < 4%	(non-linear load)					
Crest Factor					03:01			= / 4	1		
Dynamic Voltage Transient				<5	5% (from 0 to 1	LOO% load)					
Transient Recovery Time					<10ms (±	:5%)					
Inverter Overload				125% load	for 10 mins; 1	.50% load for 1min					
Battery					,						
Voltage					360Vd	C					
Battery Type	-		Sea	led maintena	nce-free lead-	Acid Battery, VRLA-A	GM/GEL/N	iCd / Li-ion			
Charging Voltage				Float charging	g: 405Vdc; boo	ost charging: 435Vdc	;				
Charging Current			-	1-50A, setta	ble according	the battery capacity					
System											
Efficiency					91%						
Protection Function	-		Out	out short circu	it protection; o	current-limiting prote	ction				
Transfer Time	Normal mode to battery mode, Oms										
Display	LCD+LED+Keyboard										
IP Class	IP20										
Communication Interface	RS232, RS485(optional), SNMP Card (optional)										
Temperature	Operation: 0-40 °C; storage: -25-55 °C										
Relative Humidity					0-95%, no-con	densing					
Altitude		<1500. Wit	hin 1500 to 4	000m, power	capacity decr	eases by 1% per 100	Om increasing	in altitude			
Noise (1-meter away)					<65dE		-				
Physical	1				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
Weight (kg)	84	106	113	177	195	270	344	520	60		
- · -		300*610*81	r	400*75	50*1010	450*830*1	1500	700*800	1*1500		

Model	TG33160	TG33200	TG33250	TG33300	TG33400	TG33500	TG33600	TG33800			
Capacity	160 kVA	200 kVA	250 kVA	300 kVA	400 kVA	500 kVA	600 kVA	800 kVA			
Input											
Phase			3-phase+N-	+G			3-				
							phase+				
Data divalta da					2001/		G				
Rated voltage		380Vac									
Input voltage range	285 – 475 Vac										
Rated frequency					50/60 H	7					
Input frequency											
range					50/60 Hz ±	10%					
THDi					< 10%						
Soft start		1	- 100%, 5 se	conds			5-600 seconds, set	table			
Bypas							·				
Phase					3-phase+N	+G					
Voltage range				3	80/400/415 Va						
Frequency range					50/60 Hz ±						
Output					-,						
Rated voltage					380/400/41	5 Vac					
Voltage											
regulation				± 1% for bal	ance load; ± 3%	for unbalance load					
Rated frequency					50/60 H	Z		TM			
Frequency				F0.//							
precision				50/6	60Hz±0.05% (ba	attery mode)					
Output PF					0.9						
Output THDu		≤ 2% (linear l	oad); ≤ 4% (no	on-linear load)		≤ <b>1</b> % (li	near load); ≤ 3% (no	n-linear load)			
Crest factor					3:1						
Dynamic voltage					5% (from 0 to 1	00% load)					
transient					570 (HOHI O tO 1	0070 load)					
Transient					< 10 ms (±	5%)					
recovery time				/a-a/ /							
Inverter overload				125% load	for 10 mins; 15	50% load for 1 min					
Battery	A										
Voltage					384V/396Vdc			480Vdc			
Battery type						ies, VRLA-AGM / GEL					
Charging voltage	Float charging: 13.5V/block; Boost charging: 14.5V/block										
Charging current				1- 50A, sett	able according t	the battery capacity					
System											
Efficiency			91%				94%				
Protection function			0	utput short-circ	uit protection; c	urrent-limiting protec	tion				
Transfer time	Normal mode to battery mode, 0 ms										
Display	LCD+LED+Keyboard										
IP Class					IP20						
Communication interface				RS232, RS4	85(optional), SI	NMP card (optional)					
Temperature				Operation	1.0 - 40 oc Sto	rage ; -25 - 55 °C					
Relative humidity					) - 95%, no-con						
		Z4E00	Within 1500				Im increasing in state	udo			
Altitude	<1500, Within 1500 to 4000m, power capacity decreases by 1% per 100m increasing in altitude										
Noise (1 m away)			<65 dB			71 dB	72 dB	74 dB			
Physical		655	0==	40-0	4===	40.55	0				
Weight (kg) Dimension	710	800	850	1350	1550	1900	2500	3200			
		700*800*170		1035*840	1200*1000	1400*1000*19	2400*1				