# TG+ Series 3/3, 3/1

## **Low Frequency Online UPS**

10kVA~100kVA

3Phase Input/1Phase Output

10kVA~1000kVA

3 Phase Input / 3 Phase Output





#### **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 design



160-800kVA

	TG+3110 TG+3115 TG+3120 TG+3130 TG+3140 TG+3150 TG+3						TG+3160	TG+3180	TG+31			
Capacity	10 kVA								100			
Input												
Phase	3 Phase+Neutral+Ground, 380V/400V/415V(L-L voltage)											
Input voltage range	304-456 VAC											
Input frequency range		50/60 Hz ± 5%										
Input PF		> 0.9										
Output												
Rated voltage					220/230 VA	С						
Voltage regulation		± 1%										
Rated frequency		50/60 Hz										
Frequency precision		± 5%										
Output PF					0.9							
Output THDu				≤ 2% (line	ear load); ≤ 3% (r	on-linear load	)					
Crest factor					3:1							
Inverter overload				5 min @ 110 -	150% load; 300	) ms @ > 150%	6 load					
Battery									TIV			
Voltage			192Vdc				3	84Vdc				
Battery type				Sealed main	ntenance-free lea	ad- acid batter						
Charging time					0 hours recharg							
Backup time					ling on the exter							
System	-				U				7			
Efficiency			92%					93%				
Protection function			Ou	tput short-circu	it protection; cur	rent-limiting p	rotection					
Transfer time				Normal	mode to battery	mode, 0 ms						
Display					LCD+LED+Keyb							
IP Class					IP 20							
Communication interface				RS2	32, SNMP card	(optional)						
Temperature				Operation;	0 - 40 °C, Stora	ige ; -25 – 55	c					
	0 – 95%, no-condensing											
Relative humidity		<1500, Within 1500 to 4000m, power capacity decreases by 1% per 100m increasing in altitude										
Relative		<1500,	Within 1500 to	Tooonii, powe	<55 dB <68 dB							
Relative humidity		<1500,			oupuon) uoono			<68 dB				
Relative humidity Altitude		<1500,			capacity access			<68 dB				
Relative humidity Altitude Noise (1 m away)	155	<1500, <sup>1</sup>			352	355	415	<68 dB	55			

Model	TG+33010	TG+33015	TG+33020	TG+33030	TG+33040	TG+33060	TG+33080	TG+33100	TG+3312		
Capacity	10kVA	15kVA	20kVA	30kVA	40kVA	60kVA	80kVA	100kVA	120kVA		
Input											
Phase					3-phase+N	l+G					
Rated Voltage					380/400/41	.5Vac					
Input Voltage Range					285-475V	ac					
Rated Frequency					50/60H	z					
Input Frequency Range					50H±10%, 60H	Iz±10%					
THDi					<10%						
Soft Start					1-100%, 5 sec	conds					
Bypass											
Phase					3-phase+N	l+G					
Voltage Range		380/400/415Vac ±15%									
Frequency Range		50/60H±10%									
Output											
Rated Voltage					380/400/41	.5Vac					
Voltage Regulation				±1% for bal	ance load; ±3%	for unbalance load					
Rated Frequency					50/60H	z					
Frequency Precision				50/6	OHz±0.05% (B	attery mode)					
Outout PF				•	0.9	, ,					
THDu				< 2% (lin		(non-linear load)					
Crest Factor				\ <b>2</b> 70 (III)	03:01	(non inical load)			7		
Dynamic Voltage Transient					5% (from 0 to 1	00% load)		- IM			
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Transient Recovery Time				4050/ 1	<10ms (±	· .					
Inverter Overload				125% 1080	i for 10 mins; 1:	50% load for 1min					
Battery					360Vdc		_				
Voltage				Coalad us							
Battery Type						lead-Acid Battery		_			
Charging Voltage						st charging: 435Vdc					
Charging Current	1	-	_	I-SUA, Sett	able according t	ine battery capacity					
System					040/						
Efficiency Protection Function			0		91%						
Transfer Time			U			urrent-limiting protect	ion				
				Norma	al mode to batte						
Display IP Class					LCD+LED+Key	yboard					
				DECISIO DE		NMP Card (optional)					
Communication Interface											
Temperature	Operation: 0-40 °C; storage: -25-55 °C										
Relative Humidity		/4500	\ \A/!\Lb!:: 4E00	4000:	0-95%, no-cond			مالئلان ما د			
Altitude	<1500. Within 1500 to 4000m, power capacity decreases by 1% per 100m increasing in altitude										
Noise (1-meter away)					<55dB						
Physical											
Weight (kg)	84         106         113         117         195         270         344         520         605										
Dimension (W*D*H)mm		300*610*810		400*75	0*1010	450*830*	1160	700*80	0*1500		

Model	TG+33160	TG+33200	TG+33250	TG+33300	TG+33400	TG+33500	TG+33600	TG+33800	TG+331000	
Capacity	160kVA	200kVA	250kVA	300kVA	400kVA	500kVA	600kVA	800kVA	1000kVA	
Input										
Phase	3-phase+N+G									
Rated Voltage		380/400/415Vac								
Input Voltage Range	285-475Vac									
Rated Frequency	50/60Hz									
Input Frequency Range		45-65Hz								
THDi		<10%								
Soft Start	1-100%, 5 seconds 1-100%, 5-600 seconds									
Bypass										
Phase					3-р	hase+N+G				
Voltage Range		380Vac ±15% ( ±10%, ±15%, ±20%, settable)								
Frequency Range				50/60	H±2% (±0.5%	/±1%/±2%/±3%, settal	ble)			
Output										
Rated Voltage					380/4	400/415Vac				
Voltage Regulation				<b>±1</b> % f	or balance loa	d; ±3% for XRbalance lo	oad			
Rated Frequency					5	0/60Hz				
Frequency Precision					50/60Hz±0.0	5% ( Battery mode)				
Output PF						0.9				
THDu					< 1%	(linear load)				
Crest Factor						3:1				
Dynamic Voltage Transient					< 5% (fron	n 0 to 100% load)			TM /	
Transient Recovery Time					< 1	0ms (±5%)			7	
Inverter Overload				105%-110%	6, 60mins; <b>11</b> 0	0%-125%, 10 mins; > 1	50%,10s			
Battery										
Voltage		384Vdc				480	Vdc			
Battery Type				Sea	led maintenar	nce-free lead-acid batter	у			
Charging Voltage				Float charging	: 13.5Vdc/blo	ck; boost charging: 13.8	3Vdc/block			
Charging Current		5/10/15/20/25/30/35/40A, settable								
System										
Efficiency						92%				
Protection FXRction				Output sho	rt circuit prote	ction; current-limiting pr	otection			
Transfer Time	_				Normal mode	to battery mode, 0ms				
Display					LCD+L	ED+Keyboard				
IP Class						IP20				
CommXRication Interface				RS232, RS4	85, SNMP care	d (optional), dry contact	(optional)			
Temperature					peration: 0-40	0°C; storage: -25-55°C				
Relative Humidity		0-95%, no-condensing								
Altitude		< 15	00. Within 15	500 to 4000m	n, power capac	city decreases by 1% pe	r 100m increa	asing in altitud	le	
Noise (1-meter away)			< 65dB				< 6	8dB		
Physical										
Weight (kg)	702	800	850	1350	1550	1900	2500	3200	4000	
Dimension (W*D*H)mm	7	00*800*150	0	700*80	0*1700	1400*1000*1900	2400*12	00*1950	2800*1400*2000	



**EPI UPS (Asia-Pacific) Pte Ltd** (a member of EPI UPS Group)

Email: sales@epi-ups.com www.epi-ups.com **EPI UPS (Italy) SRL** Via Decio Raggi, 411 Forli 447121, Italy

www.epi-uk.com