



# START T20 - Modular

6~1560kVA

1:1 T20 1106 / T20 1110

3:1 T20 3106 / T20 3110

T20 3310 / T20 3315 / T20 3320 / T20 3325 /

T20 3330 / T20 3340 / T20 3352 / T20 3380 /

T20 33104 / T20 33156



UPS Cabinet Control Panel



Module Control Panel

## Features

- High frequency and double conversion on-line technology
- Advanced PFC technology
- 3U frame, rack-mounted and tower convertible
- EPO function
- Wide input voltage range
- Fully digitized microprocessor control
- Parallel redundancy
- Advanced battery management
- Lightning and surge protection, short circuit and overload protection
- Multilingual LCD and LED display
- EMI/RFI noise filter
- Smart RS232 communication with monitoring software
- Optional SNMP card slot

### single module(3U)



6kVA / 10kVA 1:1 phase  
6kVA / 10kVA 3:1 phase



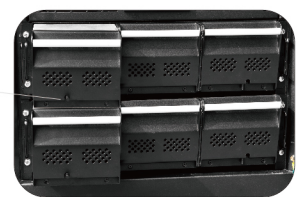
10kVA / 15kVA / 20kVA / 25kVA / 30kVA 3:3 phase



40kVA 3:3 phase



Battery Cabinets(Optional)



3 U Battery Box Optional



## Technical Specifications:

MODEL		T20-1106-30KVA	T20-1110-50KVA	T20-3106-30KVA	T20-3110-50KVA	T20-3110-100KVA	T20-3320-60KVA	T20-3320-100KVA	T20-3320-200KVA	
Capacity (VA/watts)	UPS cabinet	6~30k / 4.8~24k	6~50k / 4.8~40k	6~30k / 4.8~24k	6~50k / 4.8~40k	6~100k / 4.8~80k	10~60k / 9~54k	10~100k / 9~90k	10~200k / 9~180k	
	HPM module	6k / 4.8k, 10k / 8k					10k / 9k, 15k / 13.5k, 20k / 18k			
<b>INPUT</b>										
Nominal voltage		220/230Vac		380/400Vac (3Ph+N+PE) or 220/230Vac			380/400/415Vac, (3Ph+N+PE)			
Operating voltage range		120~276Vac		208~478Vac or 120~276Vac			208~478Vac			
Operating frequency range		40~70Hz								
Power factor		≥0.99								
Bypass voltage range		Max.voltage: 220V +25%(optional +10%,+15%,+20%) 230V 20% (optional +10%,+15%) 240V 15%(optional +10%) Min. voltage: -45% (optional -20%,-30%) Frequency protection range: ±10%								
Harmonic distortion (THDi)		5%(100% non-linear load)					2%(100% nonlinear load)			
Generator input		Support								
<b>OUTPUT</b>										
Output voltage		220/230Vac					380/400/415Vac, (3Ph+N+PE)			
Voltage regulation		±1%								
Power factor		0.8					0.9/1 (Customized)			
Output frequency		1.Line Mode: ±1%、±2%、±4%、±5%、±10% of the rated frequency (optional) 2.Battery Mode: (50/60±0.1%)Hz								
Crest factor		3:1								
Harmonic distortion (THDv)		≤2% with linear load ≤5% with non linear load								
Efficiency		93.5%					95.5%			
<b>BATTERY</b>										
Battery voltage		±96\±108\±120Vdc; battery quantity(optional)					±192\±204\±216\±228\±240Vdc; battery quantity(optional)			
Charge Current	UPS cabinet	30A (Max.)	60A (Max.)	30A (Max.)		60A (Max.)	18A (Max.)	30A (Max.)	60A (Max.)	
	HPM module	6A (Max.) (charge current can be set according to battery capacity installed)								
Backup time		Depends on the capacity of external batteries								
<b>SYSTEM FEATURES</b>										
Transfer time		Utility to Battery : 0ms; Utility to bypass: 0ms								
Overload	Line Mode	Load≤110%: last 60min, ≤125%: last 10min, ≤150%: last 1min, ≥150% turn to bypass mode immediately								
	Bat. Mode	Load≤110%: last 30S, ≤125%: last 1S, ≤150%: last 200ms, ≥150% shut down UPS immediately					Load≤110%: last 10min, ≤125%: last 1min, ≤150%: last 1S, ≥150% shut down UPS immediately			
	Bypass Mode	Breaker (6kVA:40A / 10kVA:60A)								
Short circuit		Hold whole system								
Noise suppression		Complies with EN62040-2								
Communication interface		1. UPS cabinet : RS232, RS485, Dry Contact, Intelligent slot x 2(SNMP card, Relay card optional ) 2. HPM series UPS module: RS232								
<b>ENVIRONMENTAL</b>										
Operating temperature		0 ~ 40°C								
Storage temperature		-25 ~ 55°C								
Humidity range		0 ~ 95% (non condensing)								
Altitude		<1500m								
Noise level		<55dB					<65dB			
<b>PHYSICAL</b>										
Dimension D × W × H (mm)	UPS cabinet	840 × 600 × 1400	840 × 600 × 2000	840 × 600 × 1400		840 × 600 × 2000	840 × 600 × 1400		1100 × 600 × 2000	
	HPM module	443×580×131 (3U)								
Net weight (Kg)	UPS cabinet	138	150	138	150	213	149	152	290	
	HPM module	6kVA/23; 10kVA/25					10kVA/26; 15kVA/30; 20kVA/31			
<b>STANDARDS</b>										
Safety		IEC/EN62040-1, IEC/EN60950-1								
EMC		IEC/EN62040-2, IEC61000-4-2, IEC61000-4-3, IEC61000-4-4, IEC61000-4-5, IEC61000-4-6, IEC61000-4-8								

Specifications are subject to change without prior notice.



## Technical Specifications:

MODEL		T20-3325-250KVA	T20-3330-90KVA	T20-3330-150KVA	T20-3330-300KVA	T20-3340-200KVA	T20-3340-320KVA	T20-3340-400KVA	T20-3340-520KVA	T20-3340-800KVA	T20-3340-1280KVA	T20-3340-1560KVA	
Capacity (VA/watts)	UPS cabinet	250k / 225k	90k / 81k	150k / 135k	300k / 270k	200k/180k	320k/288k	400k / 360k	520k / 468k	800k / 720k	1280k / 1152k	1560k / 1404k	
	HPM module	25k / 22.5k	25k / 22.5k, 30k / 27k				40k / 36k						
<b>INPUT</b>													
Nominal voltage		380 / 400 / 415Vac, (3Ph+N+PE)											
Operating voltage range		208-478Vac											
Operating frequency range		40~70Hz											
Power factor		≥0.99											
Bypass voltage range		Max.voltage: 220V +25%(optional +10%,+15%,+20%) 230V 20% (optional +10%,+15%) 240V 15%(optional +10%) Min. voltage: -45% (optional -20%,-30%) Frequency protection range: ± 10%											
Harmonic distortion (THDi)		3%(100% nonlinear load)											
Generator input		Support											
<b>OUTPUT</b>													
Output voltage		380/400/415Vac, (3Ph+N+PE)											
Voltage regulation		± 1%											
Power factor		0.9											
Output frequency		1.Line Mode: ± 1%、± 2%、± 4%、± 5%、± 10% of the rated frequency (optional) 2.Battery Mode: (50/60± 0.1%)Hz											
Crest factor		3:1											
Harmonic distortion (THDv)		≤2% with linear load ≤5% with non linear load											
Efficiency		95.0%											
<b>BATTERY</b>													
Battery voltage		± 192\ ± 204\ ± 216\ ± 228\ ± 240Vdc; battery quantity(optional)											
Charge Current	UPS cabinet	60A (Max.)	30A(Max.)	50A(Max.)	100A(Max.)	50A(Max.)	80A(Max.)	100A(Max.)	130A (Max.)	200A (Max.)	320A (Max.)	390A (Max.)	
	HPM module	6A (Max.)	25kVA:6A (Max.) / 30kVA:10A (Max.)				10A (Max.)						
Backup time		Depends on the capacity of external batteries											
<b>SYSTEM FEATURES</b>													
Transfer time		Utility to Battery : 0ms; Utility to bypass: 0ms											
Overload	Line Mode	Load≤110%: last 60min, ≤125%: last 10min, ≤150%: last 1min, ≥150% turn to bypass mode immediately											
	Bat. Mode	Load≤110%: last 10min, ≤125%: last 1min, ≤150%: last 1s, ≥150% shut down UPS immediately				Load≤110%: last 60min, ≤125%: last 10min, ≤150%: last 1min, ≥150% shut down UPS immediately							
	Bypass Mode	Breaker (25kVA:40A)	Breaker ( 25kVA:40A / 30kVA:60A)				40kVA:95A						
Short circuit		Hold whole system											
Noise suppression		Complies with EN62040-2											
Communication interface		1. UPS cabinet : RS232, RS485, Dry Contact, Intelligent slot x 2(SNMP card,Relay card optional) 2. HPM series UPS module: RS232											
<b>ENVIRONMENTAL</b>													
Operating temperature		0 ~ 40°C											
Storage temperature		-25 ~ 55°C											
Humidity range		0 ~ 95% (non condensing)											
Altitude		<1500m											
Noise level		<70dB				<65dB	<70dB	<73dB					
<b>PHYSICAL</b>													
Dimension D × W × H (mm)	UPS cabinet	600 × 1100 × 2000	600 × 840 × 1400		600 × 1100 × 2000	600 × 860 × 1600	600 × 860 × 2000	1200 × 860 × 2000		3400 × 860 × 2000		4800 × 1100 × 2000	
	HPM module	443 × 580 × 131 (3U)											
Net weight (Kg)	UPS cabinet	290	158	170	307	249	312	514	1200	1400	2800		
	HPM module	32	25kVA/32; 30kVA/33.5				34						
<b>STANDARDS</b>													
Safety		IEC/EN62040-1, IEC/EN60950-1											
EMC		IEC/EN62040-2, IEC61000-4-2, IEC61000-4-3, IEC61000-4-4, IEC61000-4-5, IEC61000-4-6, IEC61000-4-8											

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