



# TEC 990 G4 | Tadasan 10 kVA ~ 100kVA (3:3) PF 1.0

- 10 kVA ~ 60 kVA:
  - High frequency on-line double conversion technology
  - Advanced dual-core US control technology and 3-level technology
  - Output power factor 1.0
  - Active Power Factor Correction Technology, input power factor up to 0.99
  - System efficiency improved to 96%. energy saving rate is doubled
  - Working efficiency up to 99% in ECO mode
  - Dual input design, supporting independent bypass
  - Advanced digital and parallel technology, providing higher reliability than single system
  - Wide input voltage range. 50 / 60 Hz auto-sensing frequency
  - 50 HZ 60 Hz frequency conversion mode
  - Compact internal layout. small footprint
  - Fan speed varies intelligently with temperature, reducing noise and extending its service life
  - Features strong fault tolerance, one fan damaged takes 50% of the load, two fans damaged take 30% of the load
  - Conformal coating technology to make UPS operate in harsh environment for a long time
  - Effective hardware and software protection, robust self-diagnosis function, abundant event logs for future check
  - Linear downgrading in low voltage input reducing battery discharging times
  - Flexible battery configuration setting, selectable battery numbers: 30 ~ 44 pcs
  - Digitally controlled charger (Max. 48 A)
  - Ability to switch on the UPS by battery in the absence of mains power (Cold start)
  - Zero switching time for UPS power supply mode when the mains power is unstable, ensuring output uninterrupted
  - Settable delayed start time when mains power is restored
  - 5 inches LCD colorful touch screen, friendly human & machine interface
  - Powerful background software for parameters configuration and online upgrade
  - Advanced multi-platform communication for UPS monitoring: RS232, USB, RS485, RJ45, dry contacts, SNMP card, Wi-Fi card and GPRS
  - Intelligent battery management, automatic equalized and float charging control, charger dormancy control, improving the reliability of charger and extending the battery life
  - Options and accessories: RS232. USB. RS485. RJ45. parallel. dry contacts. EPO and battery temperature compensation interlaces supplied; optional SNMP card, Wi-Fi card, GPRS card, battery temperature sensor, EMD detector and SMS alarms
- 80 kVA ~ 100 kVA:
  - High frequency on-line double conversion technology
  - Advanced dual-core DSP control technology and 3-level technology
  - Active power factor correction (APFC), input power factor up to 0.99
  - System efficiency is improved to 96%, energy saving rate is doubled
  - Output power factor 1.0
  - Dual input design, supporting independent bypass
  - Advanced digital and parallel technology, providing higher reliability than single system
  - Wide input voltage range
  - 50 / 60 Hz auto-sensing frequency
  - 50 / 60 Hz frequency conversion mode
  - Work efficiency up to 98% in ECO mode
  - Fan speed varies intelligently with load, reducing noise and extending its service life
  - Conformal coating technology to make UPS operate in harsh environment for a long time
  - Flexible battery configuration setting, selectable battery numbers: 32- 40 pcs
  - Digitally controlled charger
  - Ability to switch on the UPS by battery in the absence of mains power (Cold start)
  - Zero switching time for UPS power supply mode when the mains power is unstable, ensuring the output is uninterrupted
  - Compact internal layout, small footprint
  - 5 inches LCD colorful touch screen, friendly human & machine interface
  - Powerful background software for parameters configuration and online upgrade
  - Advanced multi-platform communication for UPS monitoring: RS232, USB, RS485, dry contacts, SNMP card, Wi-Fi card and GPRS card
  - Linear derating in low voltage input, reducing battery discharging times, extending the service life of battery
  - Intelligent battery management, automatic equalized and float charging control, charger dormancy control, improving the reliability of charger and extending the battery life
  - Effective hardware and software protection, robust self-diagnosis function, abundant event logs for future check
  - Standard RS232, USB, RS485, EPO, Dry contacts, Parallel port
  - Optional SNMP card, Wi-Fi card, GPRS card, SMS alarms

MODEL	TEC9010	TEC9020	TEC9030	TEC9040	TEC9060
Power rating	10 KVA/10KW	20 KVA/20KW	30 KVA/30KW	40 KVA/40KW	60 KVA/60KW
<b>INPUT</b>					
Rated voltage	380 / 400 / 415 Vac (3Φ + N + PE)				
Voltage range	304-478Vac, full load 228V-304Vac, load decrease linearly according to the min phase voltage				
Rated frequency	304 - 485 Vac (no downgrading), 138 - 304 Vac (linear downgrading between 40% ~ 100% load)				
Frequency range	50 / 60 Hz				
Power factor	40 ~ 70 Hz				
Bypass voltage range	Selectable, default -20%~+15% Up limited: +10%, +15%, +20%, +25%; Down limited: -10%, -15%, -20%, -30%, -40%				
Bypass frequency range	Selectable, ±1Hz, ±3Hz, ±5Hz				
Input current THDi	<3% (linear load)				
Bypass overload	25%: long term operation; 125%~130%: 10min; 130%~150%: 1min; 150%~400%: 1s; >400%, less than 200ms				
<b>OUTPUT</b>					
Rated voltage	380 / 400 / 415 Vac (3Φ + N + PE)				
Voltage precision	±1% (linear load)				
Frequency	Synchronized with utility in mains mode, 50/60 Hz ±0.1% in battery mode				
Waveform	Sinusoidal				
Power factor	1				
Total harmonic distortion (THDv)	<1% (full linear load); <3% (full non-linear load according to IC/EN62040-3)				
Crest factor	3:1				
Overload	<110%, 60min; 110%~125%, 10min; 125%~150%, 1min; >150%, 200ms				
<b>BATTERIES</b>					
DC voltage	Long time model: ± 240VDC (selectable, 32 - 40pcs)				
Standard model battery voltage	(10+10) × 9AH	(20+20) × 9AH	(15+15) × 9AH × 2 strings	(20+20) × 9AH × 2 strings	/
Charging current	10A Max			15A Max	20A Max
Charger voltage precision	1%				
<b>SYSTEM</b>					
Display	5 inches touch screen				
Efficiency	95% Max			96% Max	
Transfer time	0 ms				
Interface	Standard: RS232, RS485, USB, battery cold start Option: programmable dry contact, SNMP, parallel kit				
<b>ENVIRONMENT</b>					
Operating temperature	0° ~ 40°C				
Storage temperature	-40°C ~ 70°C				
Relative humidity	0 ~ 95% (non-condensing)				
Altitude	<1000m, load derated 1% per 100m from 1000 - 2000m				
Noise level at 1 m	58 dB Max			62 dB Max	
<b>OTHERS</b>					
Dimensions (W × D × H) (mm)	250 × 720 × 560 (S) 250 × 720 × 560 (H)	250 × 800 × 700 (S) 250 × 720 × 560 (H)	250 × 840 × 930 (S) 250 × 840 × 650 (H)	350 × 800 × 1280(S) 250 × 720 × 560 (H)	250 × 790 × 560 (H)
Packaged dimensions (W × D × H) (mm)	350 × 800 × 722 (S) 350 × 800 × 718 (H)	350 × 900 × 862(S) 350 × 800 × 718 (H)	350 × 950 × 1102(S) 350 × 980 × 810 (H)	450 × 900 × 1400(S) 350 × 800 × 718 (H)	350 × 850 × 818 (H)
Netweight (kg)	82 (S) 31 (H)	145 (S) 33 (H)	215 (S) 42 (H)	300 (S) 42 (H)	48 (H)
Gross weight (kg)	93 (S) 40 (H)	156 (S) 42 (H)	227 (S) 52 (H)	310 (S) 52 (H)	58 (H)

• S means standard model, H means long time model.

• Derate capacity to 90% when the number of batteries is set to 32 pcs for 40kVA/60kVA model.

• Custom-made specifications are acceptable

• All specifications are subject to change without notice.

MODEL	TEC9080	TEC90100
Capacity	80 KVA/80KW	100 KVA/100KW
<b>INPUT</b>		
Input wiring	Three-phase five-wire (3Φ + N + PE)	
Rated voltage	380 / 400 / 415 Vac	
Voltage range	304 - 485 Vac (no downgrading), 138 - 304 Vac (linear downgrading between 40% ~ 100% load)	
Rated frequency	50 / 60 Hz (auto-sensing)	
Frequency range	40 ~ 70 Hz	
Power factor	≥0.99	
Bypass voltage range	-60% ~ +20% (settable)	
Total harmonic distortion (THDi)	≤3%	
<b>OUTPUT</b>		
Output wiring	Three-phase five-wire (3Φ + N + PE)	
Rated voltage	380 / 400 / 415 Vac	
Voltage regulation	±1%	
Frequency	Synchronized with utility in mains mode, 50 / 60 Hz + 0.1 Hz in battery mode	
Waveform	Sinusoidal	
Power factor	1	
Total harmonic distortion (THDv)	≤ 1% (linear load): ≤ 4% (non-linear load)	
Crest factor	3:1	
Overload	105% ~110% for 60 min, 110% - 125% for 10 min, 125% - 150% for 1 min, >150% for 0.2 s	
<b>BATTERIES</b>		
DC voltage	±192 Vdc (+ 180 ~ ± 264 Vdc settable) 40 kVA built-in battery: ± 240 Vdc (80 pcs 9 Ah/12 V)	
Number of battery	32 pcs (30 - 44 pcs settable)	
Charging current (max.)	24 A	
Recharge time	Depend on the capacity of battery	
<b>SYSTEM</b>		
Efficiency	Max. 96% in online mode, 99% in ECO mode	
Transfer time	0 ms	
Protections	Short-circuit, overload, overtemperature, excessive low battery, overvoltage, undervoltage, fans failure	
Max. number of parallel connections	4	
Communications	Standard configuration: RS232, USB, RS485, RJ45, dry contacts; Optional configuration: SNMP card, Wi-Fi card, GPRS card	
Display	5 inches colorful LCD touch screen	
<b>OTHERS</b>		
Operating temperature	0°~40°C	
Storage temperature	-25°C~55°C (without battery)	
Relative humidity	0% - 95% (non-condensing)	
Altitude	≤ 1000 m; above 1000 m, downgrading 1% for each additional 100 m	
IP rating	IP 20	
Noise level at 1 m	≤ 65 dB	
Dimensions (W × D × H) (mm)	360 × 850 × 1200	440 × 850 × 1200
Packaged dimensions(W×D×H)(mm)	450 × 940 × 1370	530 × 940 × 1370
Netweight (kg)	156	158
Gross weight (kg)	172	180

• All specifications are subject to change without notice.

• Custom-made specifications are acceptable.

• Derate capacity to 90% when the number of batteries is set to 30 pcs.