

# CONSUMER ENERGY SOLUTIONS







**tuncmatik** was established in Istanbul in 1969 with the aim of making domestic production in the field of electricity and electronics in Turkey.

In 1970s **tuncmatik** started to manufacture the TV voltage regulators, which was a first in Turkey and this made our name well known all around the country.

Later in 1980s in order to find solution to the increasing energy shortage in our country, we started to manufacture alternators and generators. Then in 1990s by the newly popular technology of personal computers entering the Turkish market we started to invest in uninterruptible power supplies and since then; as the energy solution brand of Turkey; tuncmatik have been providing new solutions to Turkey's developing demands day by day.

Our vision is to ensure everyone's accessibility to the energy solutions and resources provided by us. Our mission is to deliver pure power to you in an uninterrupted and safe way.

With this mission we offer you the widest product family of Turkey in the field of energy with products such as,

- Uninterruptible Power Supplies
- Battery Solutions
- Regulators
- Industrial Energy Solutions
- Energy Conservation Sockets
- Solar Energy Solutions (Photovoltaic)

As **tuncmatik** our closeness to our customers enables us to understand them in a better manner.

while designing and developing our products in order to afford their demands as quickly as possible

Our values:

- Reliability
- Availability
- Quality
- Innovation
- Productivity
- Functionality
- Creativity

As Turkey's leading energy solution company, beside having 7 regional support offices and 58 technical service centres across Turkey; we also do export to more than 30 countries all over the world. We have won many awards both in domestic and international arena based on our products and designs and have been selected as the company of the year in Europe's energy and power solutions by Distree 2 years in a row, we have been repeatedly shown among the top 50 fastest growing companies in Turkey by the International Audit and Research Firm Deloitte.

As the **tuncmatik** team, we thank you for your support and trust in us.

We continue to work to offer you the best quality products with the strength and confidence we receive from you,

Loves and respects,

Mehmet ÖZER
Chairman

# tuncmatik

**CONSUMER**Energy Solutions



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## tuncmatik POWERSURGE 1

**SURGE PROTECTORS** 

1

It protects your computers and other valuable electrical/electronic devices against surge and lightning effects that occur in mains.



# SURGE PROTECTION SURGE PROTEC

#### **TECHNICAL SPECIFICATION**

- Protection Capacity: 525 Joules
- Maximum Current: 3000 Amper
- Maximum Peak Voltage: 6 kV
- Rated Current: 10 Amper
- 1 Childproof Outlets
- On/Off Button
- Socket Suitable For Connecting Large Adapters
- Right Angled Outlets For Practical Use
- 10 Amp Auto Fuse
- Fire Resistant Plastic Body





Black

White



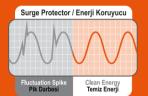


tuncmatik
POWERSURGE 2

**SURGE PROTECTORS** 

2

It protects your computers and other valuable electrical/electronic devices against surge and lightning effects that occur in mains.



#### **TECHNICAL SPECIFICATION**

- Protection Capacity: 525 Joules
- Maximum Current: 3000 Amper
- Maximum Peak Voltage: 6 kV
- Rated Current: 10 Amper
- 2 Childproof Outlets
- On/Off Button
- Socket Suitable For Connecting Large Adapters
- Right Angled Outlets For Practical Use
- 10 Amp Auto Fuse
- Fire Resistant Plastic Body













Black

White

525
Joules
Protection Capacity

3000
Amper
Maximum Current





















#### tuncmatik POWERSURGE

#### **SURGE PROTECTORS**

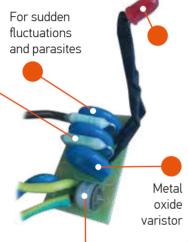
## TO SEE THE DIFFERENCE LOOK INSIDE

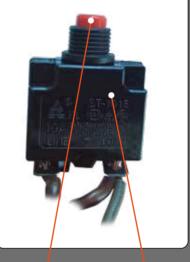
















Gas tube breaker to protect against high voltage due to lightning strikes

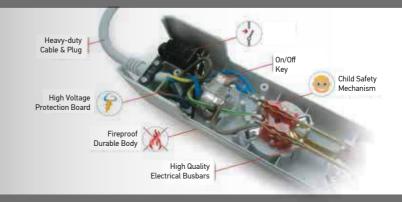
Button

fuse against temperature

Child safety mechanism

The protective mechanism that prevents your children from putting their fingers in the outlets.







## tuncmatik POWERSURGE 3

**SURGE PROTECTORS** 

3

It protects your computers and other valuable electrical/electronic devices against surge and lightning effects that occur in mains.



#### **TECHNICAL SPECIFICATION**

- Protection Capacity: 525 Joules
- Maximum Current: 3000 Amper
- Maximum Peak Voltage: 6 kV
- Rated Current: 10 Amper
- 3 Childproof Outlets
- On/Off Button
- Socket Suitable For Connecting Large Adapters
- Right Angled Outlets For Practical Use
- 10 Amp Auto Fuse
- Fire Resistant Plastic Body



525
Joules
Protection Capacity

3000
Amper
Maximum Current

Black

White























tuncmatik
POWERSURGE 5

**SURGE PROTECTORS** 

5

It protects your computers and other valuable electrical/electronic devices against surge and lightning effects that occur in mains.



#### **TECHNICAL SPECIFICATION**

- Protection Capacity: 1050 Joules
- Maximum Current: 8000 Amper
- Maximum Peak Voltage: 6 kV
- Rated Current: 10 Amper
- Voltage Class: 250 VAC, 50 Hz
- Clamping Tension: 1200 V
- 1-line Full Energy Protection P-N
- Response Time: <1 nanosecond
- 5 Childproof Outlets
- On/Off Button
- Socket Suitable For Connecting Large Adapters
- Right Angled Outlets For Practical Use
- 10 Amp Auto Fuse
- Heavy Duty Cable and Plug
- Fire Resistant Plastic Body



Black White

**1.5**<sub>m</sub>

1050

Joules
Protection Capaci

8000

Amper























#### tuncmatik **POWERSURGE 5+USB**

**SURGE PROTECTORS** 

5+USB

It protects your computers and other valuable electrical/electronic devices against surge and lightning effects that occur in mains.



#### **TECHNICAL SPECIFICATION**

- 2 x 2.4 A USB Inputs
- Protection Capacity: 1050 Joules
- Maximum Current: 8000 Amper
- Maximum Peak Voltage: 6 kV
- Rated Current: 10 Amper
- Voltage Class: 250 VAC, 50 Hz
- Clamping Tension: 1200 V
- 1-line Full Energy Protection P-N
- Response Time: <1 nanosecond
- 5 Childproof Outlets
- On/Off Button
- Socket Suitable For Connecting Large Adapters
- Right Angled Outlets For Practical Use
- 10 Amp Auto Fuse
- Heavy Duty Cable and Plug
- · Fire Resistant Plastic Body





























600/1000/2000/3000 VA

**ELECTRONIC MONOPHASE** REGULATOR

140-260V Input Voltage Range



It provides unregulated energy and full protection for all your sensitive devices.



- Automatic voltage regulation
- Wide voltage range from 140-260V
- Voltage indicator
- Digital control with CPU
- Fireproof plastic body
- Short circuit protection
- Overload protection with thermal fuse
- High/Low voltage protection
- High heat Protection

With the heat sensor inside the transformer windings, it provides protection against overheating that may occur for any reason, and offers safe operation.











#### **WORKING PRINCIPLE**

REGULINE series regulators monitor the mains voltage and are precision regulator devices with microprocessor that keep the voltage level within  $220V \pm 10\%$  tolerance limit, which does not pose a risk for electronic devices. When the mains voltage goes out of  $220V \pm 10\%$  tolerance, it decreases if the voltage is high, and increases it if it is low. If the mains voltage is too low or high to be regulated, it turns off its output in order to protect the devices it is connected to. (for example: if the mains voltage has increased to 300V)































Teknik Özellikleri

#### tuncmatik REGULINE 600/1000/2000/3000 VA

ELECTRONIC MONOPHASE REGULATOR





CAPACITY	600 VA 300 W	1000 VA 500 W	2000 VA 1000 W	3000 VA 1500 W				
INPUT								
Input Voltage		220	VAC					
Input Voltage Range		140 - 20	60 VAC					
Frequency Range		50 Hz ~	~ 60 Hz					
Fuse	3.5 A	4.5 A	10 A	16 A				
OUTPUT								
Output Voltage Range		220 V	± %10					
Protection	Sho	rt circuit, Over temperature, Out	put voltage, Overload protections	s				
INDICATORS								
High voltage mode (Boost)		Red	LED					
Low voltage mode (Buck)		Yellov	v LED					
DIMENSIONS & WEIGHT								
D x W x H (mm)	215 x 114 x 116 270 x 144 x 150							
Weight (kg)	2,05	2,66	4,85	5,8				
ENVIRONMENTAL	ENVIRONMENTAL							
Humidity	$0\text{-}40^\circ\text{C}$ temperature $0\text{-}90\%$ relative humidity (non-condensing)							
Noise level		< 40 dB, 1	meters					









#### tuncmatik LITE II 650/850/1000 VA

LINE-INTERACTIVE UPS





Audible alarms that are activated when line-interactive UPSs are in battery mode can be silenced with the smart button of the Lite II.

#### Line-Interactive design

Line-Interactive UPSs supply the computers and electronic devices connected to it with electricity directly from the mains. When the voltage from the network drops or rises, through the transformer inside, it provides electricity at the appropriate voltage to the loads it is connected to. When the electricity is cut off, it feeds the loads connected to the UPS from its battery.

#### Compact dimensions and modern design

Perfect compatibility with home and office.

#### Secure CPU control

To perform all its functions accurately and on time, Lite II is equipped with a high-speed CPU. High speed CPU, safe operation of UPS; manages overload, under voltage and over voltage protections. It also provides protection against low and high voltage.

#### Overload, low/high voltage and short circuit protection

Thanks to the many electronic protection features of Lite II, its useful life is extended. For instance; If you accidentally overload your Lite II, it will automatically detect the load and protect itself by turning itself off withou causing any damage to the UPS. It also provides protection against low and high voltage.

#### Automatic Voltage Regulation function (AVR)

Lite II also acts as a voltage regulator thanks to its wide voltage range transformer. If the voltage from the mains is too high or low, it brings the voltage to the optimum level and provides the most suitable voltage for the loads it is connected to.

#### Abilty to charge when closed

To charge the batteries, simply plug the Lite II into the socket.

#### Auto restart when mains return

When the power is cut, if the Lite II shuts down by depleting its battery, when the power comes back on, it automatically restarts and starts charging its batteries.

#### **Cold Start feature**

Lite II can be operated directly from batteries even when there is no mains electricity.

#### Simulated sine output

Lite II generates simulated sine, suitable for computers and electronic devices.

#### Fast charger that shortens charging time by 50%

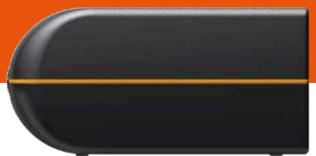
While many UPS can charge their batteries in only 8-10 hours, Lite II fills its batteries in about 4 hours, providing safe use in areas where power cuts are common.

#### USB communication port and software (1000 VA)

You can connect to Lite II via your computer via the USB port with the help of software(download from www.tuncmatik.com) and USB cable, get information about its current status and program how it will behave in case of electricity cut off. According to this program, when the mains power is cut off, according to your choice Lite II sequentially first turns off your computer and then itself

#### RJ45 protection port (1000 VA)

Lite II has a port that protects your data-modem line against power surges.







#### tuncmatik LITE II 650/850/1000 VA

LINE-INTERACTIVE UPS





CAPACITY	650 VA	850 VA	1000 VA						
INDIT	360 W	480 W	600 W						
INPUT		220 / 220 / 240 VAC							
Input Voltage		220 / 230 / 240 VAC							
Input Voltage Range		162-265 VAC							
Frequency		50 / 60 Hz ± %10							
OUTPUT									
Output Voltage	<u> </u>	220 VAC							
Output Voltage Range	<u> </u>	± %10							
Frequency Range (Synchronous mode)		50 / 60 Hz ± %4							
Frequency Range (Battery mode)		50 ± 0.25 Hz - 60 ± 0.3 Hz							
Transfer time		2 - 6 msn, 10 msn maxs.							
Waveform	l .	Simulated sine							
BATTERY									
Type & quantity	12V 7Ah x 1	12V 7Ah x 1 12V 9Ah x 1 12V							
Charge time		%90 up to capacity4-6 hours							
Charge voltage	14.0	VDC	27.0 VDC						
Charge current		1.0 A							
INDICATORS									
LED Display	Main	s operation, Battery operation, Error status							
Alarm	Ba	ttery mode, Low Battery, Overload, Error							
DIMENSIONS & WEIGHT									
D x W x H (mm)	322 x 12	2 x 160	392 x 179 x 209						
Weight (kg)	4.5	5.1	8.0						
ENVIRONMENTAL									
Working temperature	0-40°C								
Humidity	%20-90 relative humidity (non-condensing)								
Noise level	< 40 dBA								
<b>SOFTWARE &amp; MANAGEMENT</b>									
USB communication port	Windov	ws® 98/2000/2003/XP/Vista/2008, Windows® 7,	/8, Linux, MAC						
RJ45 protection port		(RJ45) Network - Modem protectio	n						









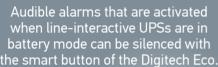
1 x 12V/7Ah battery 2 grounded socket outlet Auto insurance 1 x 12V/9Ah battery 2 grounded socket outlet Auto insurance 2 x 12V/7Ah battery 4 grounded socket outlet Auto insurance



# tuncmatik DIGITECH ECO 1500/2000 VA

LINE-INTERACTIVE UPS





#### Line-Interactive design

Line-Interactive UPSs supply the computers and electronic devices connected to it with electricity directly from the mains. When the voltage from the network drops or rises, through the transformer inside, it provides electricity at the appropriate voltage to the loads it is connected to. When the electricity is cut off, it feeds the loads connected to the UPS from its battery.

#### Compact dimensions and modern design

Perfect compatibility with home and office.

#### Secure CPU control

To perform all its functions accurately and on time, Digitech Eco is equipped with a high-speed CPU. High speed CPU, safe operation of UPS; manages overload, under voltage and over voltage protections. It also provides protection against low and high voltage.

#### Overload, low/high voltage and short circuit protection

Thanks to the many electronic protection features of Digitech Eco, its useful life is extended. For instance; If you accidentally overload your Digitech Eco, it will automatically detect the load and protect itself by turning itself off withou causing any damage to the UPS. It also provides protection against low and high voltage.

#### Automatic Voltage Regulation function (AVR)

Digitech Eco also acts as a voltage regulator thanks to its wide voltage range transformer. If the voltage from the mains is too high or low, it brings the voltage to the optimum level and provides the most suitable voltage for the loads it is connected to.



#### Abilty to charge when closed

To charge the batteries, simply plug the Digitech Eco into the socket.

#### Auto restart when mains return

When the power is cut, if the Digitech Eco shuts down by depleting its battery, when the power comes back on, it automatically restarts and starts charging its batteries.

#### Cold Start feature

Digitech Eco can be operated directly from batteries even when there is no mains electricity.

#### Simulated sine output

Digitech Eco generates simulated sine, suitable for computers and electronic devices.

#### Fast charger that shortens charging time by 50%

While many UPS can charge their batteries in only 8-10 hours, Digitech Eco fills its batteries in about 4 hours, providing safe use in areas where power cuts are common.

#### USB communication port and software (1000 VA)

You can connect to Digitech Eco via your computer via the USB port with the help of software(download from www.tuncmatik.com) and USB cable, get information about its current status and program how it will behave in case of electricity cut off. According to this program, when the mains power is cut off, according to your choice Digitech Eco sequentially first turns off your computer and then itself.

#### RJ45 protection port (1000 VA)

Digitech Eco has a port that protects your data-modem line against power surges.







#### tuncmatik DIGITECH ECO 1500/2000 VA

LINE-INTERACTIVE UPS



CAPACITY	1500 VA 900 W	2000 VA 1200 W				
INPUT	133 ()	,333 ()				
Input Voltage	220 / 230	/ 240 VAC				
Input Voltage Range	162-265 VAC					
Frequency	50 / 60 F	Hz ± %10				
OUTPUT						
Output Voltage	220	VAC				
Output Voltage Range	±Ç	%10				
Frequency Range (Synchronous mode)	50 / 60	Hz ± %4				
Frequency Range (Battery mode)	50 ± 0.25 Hz	- 60 ± 0.3 Hz				
Transfer time	2 - 6 msn, 10	) msn maxs.				
Waveform	Simulate	ed sine				
BATTERY						
Type & quantity	12V 9Ah x 2	12V 9Ah x 2				
Charge time	%90up to cap	acity 6 hours				
Charge voltage	27.0 VDC	27.0 VDC				
Charge current	1.0	) A				
INDICATORS						
LED Display	• • •	ery operation, Error status				
Alarm	Battery mode, Low	Battery, Overload, Error				
DIMENSIONS & WEIGHT						
D x W x H (mm)	392 x 17	77 x 211				
Weight (kg)	10.7	11.45				
ENVIRONMENTAL						
Working temperature	-	40 °C				
Humidity		humidity (non-condensing)				
Noise level		0 dBA				
SOFTWARE & MANAGEMENT						
USB communication port	Windows® 98/2000/2003/XP/Vista/20	108, Windows® 7/8, Linux, MAC				
RJ45 protection port	(RJ45) Network - N	Modem protection				



2 x 12V/9Ah battery 4 grounded socket outlet Auto insurance



2 x 12V/9Ah battery 4 grounded socket outlet Auto insurance







# tuncmatik DIGITECH PRO

650/850/1000/1600/2200 VA

LINE-INTERACTIVE UPS



Audible alarms that are activated when line-interactive UPSs are in battery mode can be silenced with the smart button of the Digitech Pro.









#### Modern and elegant look

Today's computer users not only want a working UPS, but also a device that looks pretty cool. The indicator of the Digitech Pro is unique because of its upward facing design. If you think that 90% of the UPSs are on the ground or under the table, Digitech Pro users can see the indicator without leaning to the ground.

#### Multi-functional LCD display

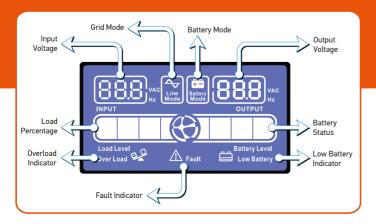
Digitech Pro by its distinctive LCD display provides the user with; visually presents information such as input/output voltage, load level, battery level and overload.

#### Secure CPU control

To perform all its functions accurately and on time, Digitech Pro is equipped with a high-speed CPU. High speed CPU, safe operation of UPS; manages overload, under voltage and over voltage protections. It also provides protection against low and high voltage

#### Overload, low/high voltage and short circuit protection

Thanks to the many electronic protection features of Digitech Pro, its useful life is extended. For instance; If you accidentally overload your Digitech Pro, it will automatically detect the load and protect itself by turning itself off withou causing any damage to the UPS. It also provides protection against low and high voltage.



#### Automatic Voltage Regulation function (AVR)

Digitech Pro also acts as a voltage regulator thanks to its wide voltage range transformer. If the voltage from the mains is too high or low, it brings the voltage to the optimum level and provides the most suitable voltage for the loads it is connected to.

#### Abilty to charge when closed

To charge the batteries, simply plug the Digitech Pro into the socket.

#### Auto restart when mains return

When the power is cut, if the Digitech Pro shuts down by depleting its battery, when the power comes back on, it <u>automatically restarts</u> and starts charging its batteries.

#### **Cold Start feature**

Digitech Pro can be operated directly from batteries even when there is no mains electricity.

#### Simulated sine output

Digitech Pro generates simulated sine, suitable for computers and electronic devices.

#### Fast charger that shortens charging time by 50%

While many UPS can charge their batteries in only 8-10 hours, Digitech Pro fills its batteries in about 4 hours, providing safe use in areas where power cuts are common.

#### USB communication port and software (1000 VA)

You can connect to Digitech Pro via your computer via the USB port with the help of software(download from www.tuncmatik.com) and USB cable, get information about its current status and program how it will behave in case of electricity cut off. According to this program, when the mains power is cut off, according to your choice Digitech Pro sequentially first turns off your computer and then itself.

#### Digitech Pro LCD Display

Digitech Pro immediately attracts attention with its elegant design and user-friendly advanced LCD display. Thanks to the multi-functional easy-to-read LCD display; warnings such as input/output voltage value, battery capacity and load level can be easily monitored.





#### tuncmatik DIGITECH PRO 650/850/1000/ 1600/2200 VA

LINE-INTERACTIVE UPS







	650 VA	850 VA	1000 VA 1600 VA 2200 VA					
CAPACITY	360 W	480 W	600 VA	960 W	1320 W			
INPUT								
Input Voltage			220 / 230 / 240 VAC					
Input Voltage Range		162-265 VAC						
Frequency		50 / 60 Hz ± %10						
OUTPUT								
Output Voltage			220 VAC					
Output Voltage Range		± %10						
Frequency Range (Synchronous mode)			50 / 60 Hz ± %4					
Frequency Range (Battery mode)	50 ± 0.25 Hz - 60 ± 0.3 Hz							
Transfer time		2 - 6 msn, 10 msn maxs.						
Waveform	Simulated sine							
BATTERY								
Type & quantity	12V 7Ah x 1	12V 9Ah x 1	12V 7Ah x 2 12V 9Ah x 2					
Charge time	%90up to capacity 4-6 hours							
Charge voltage	14.0 \	VDC	27.0	VDC				
Charge current			1.0 A					
INDICATORS								
LED Display		I	Mains operation, Battery operation, Error stat					
Alarm			Battery mode, Low Battery, Overload, Error	r				
DIMENSIONS & WEIGHT								
D x W x H (mm)	321 x 123	3.5 x 163.5	392 x 17	7 x 211				
Weight (kg)	4.4	5.1	8.4	10.7	11.45			
ENVIRONMENTAL								
Working temperature			0-40°C					
Humidity	%20-90 relative humidity (non-condensing)							
Noise level	< 40 dBA							
SOFTWARE & MANAGEMENT	NT							
USB communication port		Windows® 98/	2000/2003/XP/Vista/2008, Windows® 7/8, Li	nux, MAC				
RJ45 protection port	(RJ11) Phone p	protection	(RJ45) Network - Mod	em protection				



DIGITECH PRO 650: 1 x 12V/7Ah battery DIGITECH PRO 850: 1 x 12V/9Ah battery 2 grounded socket outlet Auto insurance







2 x 12V/7Ah battery 4 grounded socket outlet Auto insurance



SARJ TEKNOL

BAĞLANABIL

tuncmatik
NEWTECH PRO II X9

LCD 1/2/3 kVA

ONLINE UPS (1/1)





Online UPS is the most suitable choice, especially for computers and other sensitive devices. This type of UPS completely isolates your sensitive devices from the mains and feeds your sensitive devices connected with the help of filters in the mains. As a result, all unwanted situations that may occur in the network are filtered by the online UPS and your

#### High output power factor (PF=0.9)

The UPS provides 28% extra power at the output compared to the standard UPS which are 0.7 power factor. That's why, it supports more electrical/electronics devices.

#### Pure sinewave output

Full compatibility with all kinds of electrical devices, the ideal solution for your medical and similar critical applications.

#### Wide input voltage range (110-300 VAC)

Ability to work online even at very low and very high voltages without switching to the battery.

#### Input power factor correction (PF=0.99)

It does not impose an additional compensation load on your line. It saves on your electricity bills.

#### Intelligent charging technology for optimal battery performance

Since it charges the battery with a special charging technique, it extends the life of the battery, reduces your operating costs and provides savings.

#### High performance microprocessor

Thanks to the digital structure and high speed of the CPU-controlled control board is provides full protection by performing the protection functions of the UPS such as overload, short circuit, low-high voltage and over-temperature in a timely manner, thus ensuring that the UPS has a stable and reliable structure.



**NEWTECH PRO II X9** 

LCD 1 kVA (1/1)

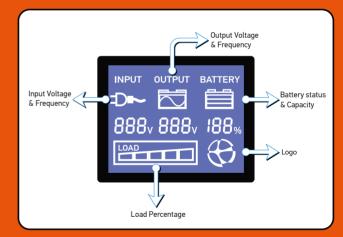
KAPASITE / CAPACITY











With the easy to read multifunctional LCD display everything is under control. Thanks to new advanced LCD screen, input-output values and alarms can be easily monitored.



- 208/220/230/240 VAC Output Voltage Setting
- 50/60 Hz Frequency Converter Mode
- ECO Mode Feature
- High Energy Saving





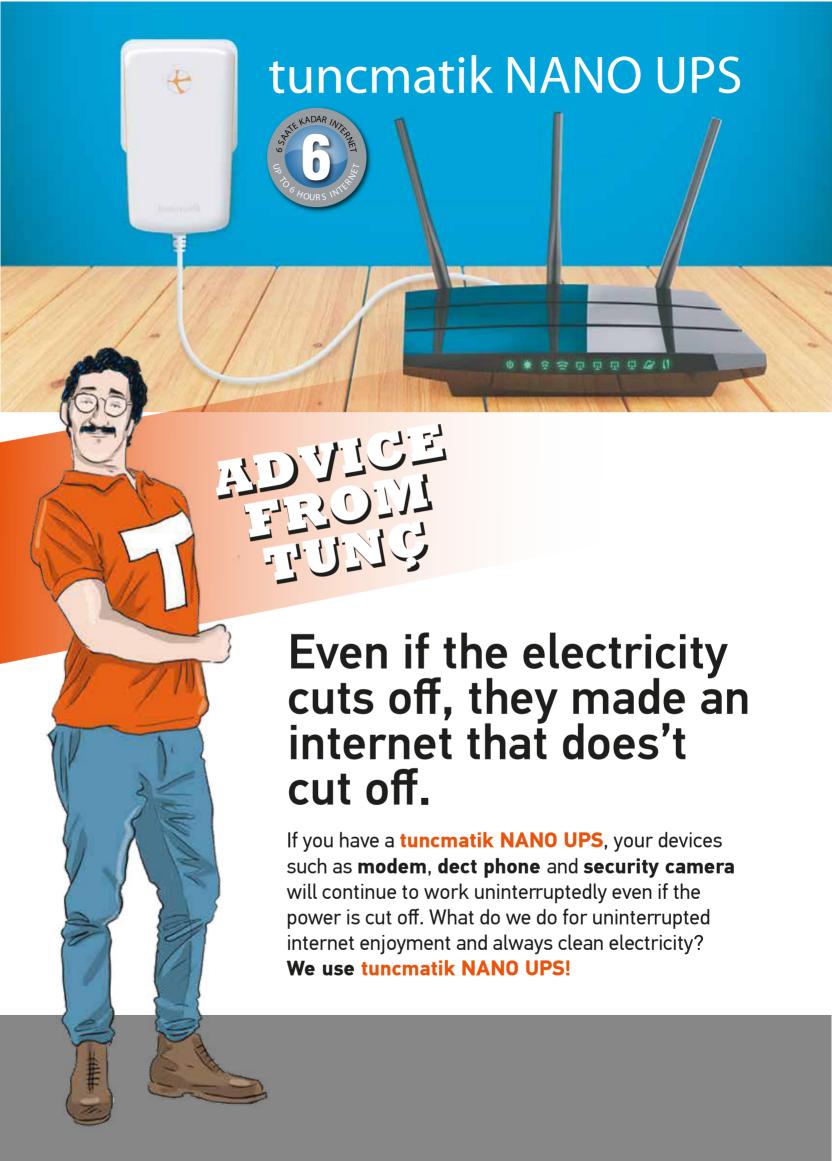
# tuncmatik NEWTECH PRO II X9 1/2/3 kVA ONLINE UPS







		1							
CAPACITY		1000 VA 900 W		00 VA 800 W		00 VA 700 W			
INPUT									
Rated voltage			200 / 208 / 220	/ 230 / 240 VAC					
Low voltage transfer	%100-%80at load	d160 VAC ±%5, %80-%70 at I	oad 140 VAC ± %5, %	670-%60 at load120 VAC	±%5, %60-%0 at loa	d110 VAC ±%5, (<35°C)			
Voltage Low voltage correction		d175 VAC ±%5, %80-%70 at I							
range High voltage transfer		· · · · · · · · · · · · · · · · · · ·	300 VA	C ± %5	·				
High voltage correction			290 VA	C ± %5					
Frequency range		40 Hz ~ 70 Hz							
Power factor		%	100 at load 0.990 (ra	ited input voltage)					
Bypass voltage range	Bypass high voltage point 200/208/220/230/240 VAC output models: 230-264: range can be adjusted from the LCD panel. (Factory value: 264VAC)								
	Bypass high voltage	point 200/208/220/230/240 VA			from the LCD panel. (F	actory value: 170VAC)			
Phase			One phase	e + Earth					
OUTPUT									
Output Voltage			200 / 208 / 220 / 2						
Output power factor (PF)			0	.9					
AC voltage regulation (Battery mode)			± (	%1					
Frequency Range (Synchronous mode)			47 Hz ~ 53 Hz veya	57 Hz ~ 63 Hz					
Frequency Range (Battery mode)			50 Hz <b>or</b> 60 H	z ± 0.1 Hz					
Overload Line Mode		%105-110 10dk then by-pass, %	6110-130 1dk <b>then</b> by-	pass, %130-1 50 3sn then	oy-pass				
Battery Mode		%105 <b>-</b> 110 10	dk then by-pass, >%1	10 3sn then by-pass,					
Crest Factor			3:1 m						
Harmonic distortion			≤ %3 THD (li ≤ %6 THD (non-li						
Transfer Line ←→ Battery Mode			0 m	nsn					
time Inverter By-pass				(typical)					
Waveform (Battery mode)			Full Sir	ne Wave					
EFFICIENCY									
Line Mode		~ %88	~ %		~ %9	0			
Battery Mode			~ %	083					
BATTERY			,						
Type & quantity	12V9AH	It depends on the capacity of the external batteries.	12V9AH	It depends on the capacity of the external batteries.	12V9AH	It depends on the capacity of the external batteries.			
Battery quantity	2	2	4	4	6	6			
Support time			Depends or	battery capacity					
Charge voltage	27.4 VDC ± %1	27.4 VDC ± %1	54.7 VDC ± %1	54.7 VDC ± %1	82.1 VDC ± %1	82.1 VDC ± %1			
Charge current	1A	12A	1A	12A	1A	12A			
INDICATORS									
LED Display		UPS status, Load level, E				IS			
Alarm		Ma	ins fault, Low batter	y, Overload, System faul	t				
DIMENSIONS & WEIGHT									
D x W x H (mm)	293 x 144 x 209	293 x 144 x 209	399 x 144 x 209	399 x 144 x 209	460 x 191 x 337	460 x 191 x 337			
Weight (kg)	8.9	4.2	16.2	6.3	24.8	6.5			
ENVIRONMENTAL				2.5					
Working temperature				) ° C					
Humidity				idity (non-condensing)					
Noise level	-	< 50 dBA, 1 meters							
SOFTWARE & MANAGEMEN									
		Windows® 98/2000/2003/XP/Vista/2008, Windows® 7/8, Linux, MAC  Power management with SNMP manager and web browser							
Smart RS-232 or USB SNMP (Optional)									





#### tuncmatik NANO UPS

MODEM UPS











DEFA ŞARJ KAPASİTESİ

This product with advanced technology;

- MODEM
- DECT PHONE
- SECURITY CAMERAS

etc. Iis designed to power devices when mains power fails. NANO UPS is also used as a DC source instead of an adapter. Use NANO UPS for uninterrupted internet enjoyment.





	NANO UPS STANDART EDITION	NANO UPS TELECOM EDITION
Input	100-240 VAC 0.3A MAX	100-240 VAC 0.5A MAX
Output	5V DC 2A	12V DC 2A
	6V DC 2A,	
	9V DC 1.3A	
	12V DC 1A	
Capacity	6000mAh	6000mAh
Battery	Li-Polymer	Li-Polymer
Battery Charge Cycle	≈500 times	≈500 times
Battery Charging Time	8 hour	8 hour
Load Protection	>%100 >15second	>%100 >15 <b>second</b>
Short Circuit Protection	Yes	Yes
Dimensions (mm)	120x72x39	120x72x39
Weight	265 ar	265 ar



USAGE AREAS
MODEM, SECURITY CAMERA, SWITCH, DECT TELEFON













Before using these products carefully read the important informations, user guide and instructions manuel. **tuncmatik** cannot be held responsinle for network performance and/or the products of other manufacturers used on the network. Technical specifications can change without notice.



Tunçmatik Elektrik Malzemeleri Sanayi ve Ticaret A.Ş.

İstanbul Genel Müdürlük

Eyüp Sultan Mah. Müminler Cad. No:82 34885 Sancaktepe İSTANBUL T:+90 216 314 51 51 F:+90 216 420 35 29 info@tuncmatik.com

**tuncmatik** is a trademark of Tuncmatik Elektrik A.S., registered in Turkey and other countries.

PRODUCT CATALOG



PROFESSIONAL ENERGY SOLUTONS







**tuncmatik** was established in İstanbul in 1969 with the aim of making domestic production in the field of electricity and electronics in Turkey.

In 1970s **tuncmatik** started to manufacture the TV voltage regulators, which was a first in Turkey and this made our name well known all around the country.

Later in 1980s in order to find solution to the increasing energy shortage in our country, we started to manufacture alternators and generators. Then in 1990s by the newly popular technology of personal computers entering the Turkish market we started to invest in uninterruptible power supplies and since then; as the energy solution brand of Turkey; tuncmatik have been providing new solutions to Turkey's developing demands day by day.

Our vision is to ensure everyone's accessibility to the energy solutions and resources provided by us. Our mission is to deliver pure power to you in an uninterrupted and safe way.

With this mission we offer you the widest product family of Turkey in the field of energy with products such as,

- Uninterruptible Power Supplies
- Battery Solutions
- Regulators
- Industrial Energy Solutions
- Energy Conservation Sockets
- Solar Energy Solutions (Photovoltaic)

As **tuncmatik** our closeness to our customers enables us to understand them in a better manner.

while designing and developing our products in order to afford their demands as quickly as possible

Our values:

- Reliability
- Availability
- Quality
- Innovation
- Productivity
- Functionality
- Creativity

As Turkey's leading energy solution company, beside having 7 regional support offices and 58 technical service centres across Turkey; we also do export to more than 30 countries all over the world. We have won many awards both in domestic and international arena based on our products and designs and have been selected as the company of the year in Europe's energy and power solutions by Distree 2 years in a row, we have been repeatedly shown among the top 50 fastest growing companies in Turkey by the International Audit and Research Firm Deloitte.

As the **tuncmatik** team, we thank you for your support and trust in us.

We continue to work to offer you the best quality products with the strength and confidence we receive from you,

Loves and respects,

Mehmet ÖZER
Chairman

# Index

# tuncmatik

Energy Solutions



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#### tuncmatik NEWTECH PRO II LED 1/2/3 kVA

ONLINE UPS (1/1)





Online UPS is the most suitable choice, especially for computers and other sensitive devices. This type of UPS completely isolates your sensitive devices from the mains and feeds your sensitive devices connected with the help of filters in the mains. As a result, all unwanted situations that may occur in the network are filtered by the online UPS and your sensitive devices are fed with pure power.

#### High output power factor (PF=0.8)

The UPS provides 14% extra power at the output compared to the standard UPS which are 0.7 power factor. That's why, it supports more electrical/electronics devices.

#### Pure sinewave output

Full compatibility with all kinds of electrical devices, the ideal solution for your medical and similar critical applications.

#### Wide input voltage range (110-300 VAC)

Ability to work online even at very low and very high voltages without switching to the battery.

#### Input power factor correction (PF=0.99)

It does not impose an additional compensation load on your line. It saves on your electricity bills.

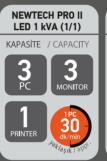
#### Intelligent charging technology for optimal battery performance

Since it charges the battery with a special charging technique, it extends the life of the battery, reduces your operating costs and provides savings.

#### High performance microprocessor

Thanks to the digital structure and high speed of the CPU-controlled control board is provides full protection by performing the protection functions of the UPS such as overload, short circuit, low-high voltage and over-temperature in a timely manner, thus ensuring that the UPS has a stable and reliable structure.











- 208/220/230/240 VAC Output Voltage Setting
- 50/60 Hz Frequency Converter Mode
- ECO Mode
- High Energy Saving



#### tuncmatik NEWTECH PRO II LED 1/2/3 kVA

ONLINE UPS (1/1)







				_				
CAPAC	`ITV		1000 VA	2000 VA		3000 VA		
CAIAC	<b>111</b>		900 W	1800 W		2700 W		
INPUT								
Nominal		200 / 208 / 220 / 230 / 240 VAC						
	Low voltage transfer	%100-%80at load160 VAC ±%5, %80-%70 at load140 VAC ± %5, %70-%60 at load120 VAC ±%5, %60-%0 at load110 VAC ±%5, (<35°C)						
Voltage	Low voltage correction	%100-%80at load	d175 VAC ±%5, %80-%70 at I	oad155 VAC ± %5, %	670-%60 at Ioad135 VAC	±%5, %60-%0 at loa	id125 VAC ±%5, (<35°C)	
range	High voltage transfer			300 VA	AC ± %5			
	High voltage correction			290 VA	AC ± %5			
Frequen	cy range	40 Hz ~ 70 Hz						
Power fa	ctor		%	100 at load 0.990 (ra				
Phase				Single phas	e + Earth			
OUTPU								
Output Vo				200 / 208 / 220 / 2				
	ower factor (PF)			0	.8			
AC voltage (Battery)	ge regulation mode)			±	%1			
	Range (Synchronous mode)			47 Hz ~ 53 Hz or 5	57 Hz ~ 63 Hz			
Frequenc	y Range (Battery mode)			50 Hz <b>or</b> 60 H				
Overload	Line Mode	-	%105-110 10dk then by-pass, %			oy-pass		
	Battery Mode		%105-110 1	dk then by-pass, >%1	10 3sn then by-pass,			
Crest Fact	or			3:1 m				
Harmonio	c distortion			≤ %3 THD (li ≤ %6 THD (non-li	•			
Transfer	Line  → Battery Mode			0 n	nsn			
time	Inverter <b>→→</b> By-pass			4 msn	(typical)			
	m (Battery mode)			Pure S	inewave			
EFFICIE								
Line Mod			~ %88	~ %		~ %9	90	
Battery M				~ %	583			
BATTER	₹Y			ı			1	
Type & qu	antity	12V7AH	It depends on the capacity of the external batteries.	12V7AH	It depends on the capacity of the external batteries.	12V7AH	It depends on the capacity of the external batteries.	
Battery q		2	2	4	4	6	6	
Support t				Depends or	battery capacity			
Charge vo	· ·	27.4	VDC ± %1	54.7	/DC ± %1	82.1 \	/DC ± %1	
Charge cu			1A		1A		1A	
INDICA								
LED Disp	lay		UPS status, Load level, E				JS	
Alarm	SIGNIC C MEIGHT		Lin	e failure, Low batter	y, Overload, System faul	t		
	SIONS & WEIGHT							
DxWxH		293 x 144 x 209	293 x 144 x 209	399 x 144 x 209	399 x 144 x 209	460 x 191 x 337	460 x 191 x 337	
Weight (k		8.9	4.2	16.2	6.3	24.8	6.5	
	NMENTAL	245.50						
	n temperature	0-40 °C						
Humidity Noise lev		%20-90 relative humidity (non-condensing)						
Noise lev		< 50 dBA, 1 meters						
	ARE & MANAGEMENT	Windows® 98/2000/2003/XP/Vista/2008, Windows® 7/8, Linux, MAC						
	5-232 or USB							
SNMP (0	ptional)	Power management with SNMP manager and web browser						



BAĞLANABILA

tuncmatik **NEWTECH PRO II X9** 

LCD 1/2/3 kVA

ONLINE UPS (1/1)





Online UPS is the most suitable choice, especially for computers and other sensitive devices. This type of UPS completely isolates your sensitive devices from the mains and feeds your sensitive devices connected with the help of filters in the mains. As a result, all unwanted situations that may occur in the network are filtered by the online UPS and your sensitive devices are fed with pure power.

#### High output power factor (PF=0.9)

The UPS provides 28% extra power at the output compared to the standard UPS which are 0.7 power factor. That's why, it supports more electrical/electronics devices.

#### Pure sinewave output

Full compatibility with all kinds of electrical devices, the ideal solution for your medical and similar critical applications.

#### Wide input voltage range (110-300 VAC)

Ability to work online even at very low and very high voltages without switching to the battery.

#### Input power factor correction (PF=0.99)

It does not impose an additional compensation load on your line. It saves on your electricity bills.

#### Intelligent charging technology for optimal battery performance

Since it charges the battery with a special charging technique, it extends the life of the battery, reduces your operating costs and provides savings.

#### High performance microprocessor

Thanks to the digital structure and high speed of the CPU-controlled control board is provides full protection by performing the protection functions of the UPS such as overload, short circuit, low-high voltage and over-temperature in a timely manner, thus ensuring that the UPS has a stable and reliable structure.



LCD 1 kVA (1/1)

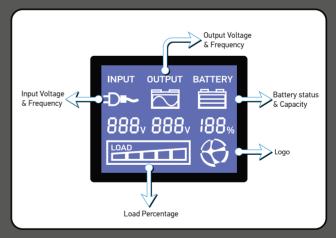
KAPASITE / CAPACITY











With the easy to read multifunctional LCD display everything is under control. Thanks to new advanced LCD screen, input-output values and alarms can be easily monitored.



- 208/220/230/240 VAC Output Voltage Setting
- 50/60 Hz Frequency Converter Mode
- ECO Mode
- High Energy Saving





# tuncmatik NEWTECH PRO II X9 LCD 1/2/3 kVA ONLINE UPS (1/1)







CAPACITY			1000 VA 900 W		000 VA 800 W		100 VA 700 W	
INPUT								
Nominal	voltage			200 / 208 / 220	/ 230 / 240 VAC			
	Low voltage transfer	%100-%80at load	d160 VAC ±%5, %80-%70 at I	oad 140 VAC ± %5, %	%70-%60 at load120 VAC	±%5, %60-%0 at loa	d110 VAC ±%5, (<35°C)	
Voltage	Low voltage correction	%100-%80at load	d175 VAC ±%5, %80-%70 at I	oad155 VAC ± %5, %	%70-%60 at load135 VAC	±%5, %60-%0 at loa	d125 VAC ±%5, (<35°C)	
range	High voltage transfer			300 VA	AC ± %5			
	High voltage correction			290 V	AC ± %5			
Frequen	cy range			40 Hz	~ 70 Hz			
Power fa	ctor	%100at load 0.990 (rated input voltage)						
Bypass v	voltage range		e point 200/208/220/230/240 VA e point 200/208/220/230/240 VA	•	-	•		
Phase				Single phase	e + Earth			
OUTPU	Т							
Output Vo	oltage			200 / 208 / 220 / 2	30 / 240 VAC			
Output po	ower factor (PF)			0	1.9			
AC voltag	ge regulation mode)			±	%1			
Frequency	y Range (Synchronous mode)			47 Hz ~ 53 Hz veya	57 Hz ~ 63 Hz			
Frequenc	cy Range (Battery mode)			50 Hz <b>or</b> 60 H	Iz ± 0.1 Hz			
	Line Mode		%105-110 10dk <b>then</b> by-pass, %	110-130 1dk then by-	pass, %130-1 50 3sn then I	py-pass		
Overload	Battery Mode		%105-110 1	dk then by-pass, >%1	10 3sn then by-pass,			
Crest Fact	or			3:1 m	iaxs.			
Harmoni	c distortion			≤ %3 THD (li ≤ %6 THD (non-li				
Transfer	Line <b>→</b> Battery Mode			0 n	nsn			
time	Inverter - By-pass			4 msn	(typical)			
Waveform	m (Battery mode)			Pure S	inewave			
EFFICIE	NCY							
Line Mod	e		~ %88	~ %	689	~ %9	00	
Battery M				~ %	683			
BATTER	RY							
Type & qu	uantity	12V9AH	It depends on the capacity of the external batteries.	12V9AH	It depends on the capacity of the external batteries.	12V9AH	It depends on the capacity of the external batteries.	
Battery q	uantity	2	2	4	4	6	6	
Support t				Depends or	n battery capacity			
Charge vo		27.4 VDC ± %1	27.4 VDC ± %1	54.7 VDC ± %1	54.7 VDC ± %1	82.1 VDC ± %1	82.1 VDC ± %1	
Charge cu		1A	12A	1A	12A	1A	12A	
INDICA								
LED Disp	lay		UPS status, Load level, E				IS	
Alarm			Lin	e failure, Low batter	y, Overload, System faul	t		
	SIONS & WEIGHT							
DxWxH		293 x 144 x 209 293 x 144 x 209 399 x 144 x 209 399 x 144 x 209 460 x 191 x 337					460 x 191 x 337	
Weight (k		8.9	4.2	16.2	6.3	24.8	6.5	
	NMENTAL							
_	n temperature				0 ° C			
Humidity		%20-90 relative humidity (non-condensing)						
Noise lev		< 50 dBA, 1 meters						
	ARE & MANAGEMENT							
	5-232 or USB				/2008, Windows® 7/8, l			
SNMP (0	ptional)		Power management with SNMP manager and web browser					



# tuncmatik PowerUP X9 6/10 kVA

ONLINE UPS (1/1)



Online UPS is the most suitable choice, especially for computers and other sensitive devices. This type of UPS completely isolates your sensitive devices from the mains and feeds your sensitive devices connected with the help of filters in the mains. As a result, all unwanted situations that may occur in the line are filtered by the online UPS and your sensitive devices are fed with pure power.

#### Pure sinewave output

Full compatibility with all kinds of electrical devices, the ideal solution for your medical and similar critical applications.

#### Wide input voltage range (120-276 VAC)

Ability to work online even at very low and very high voltages without switching to the battery.

#### Input power factor correction (PF=0.99)

It does not impose an additional compensation load on your line. It saves on your electricity bills.

#### High output power factor (PF=0.9)

The UPS provides 28% extra power at the output compared to the standard UPS which are 0.7 power factor. That's why, it supports more electrical/electronics devices.

#### Intelligent charging technology for optimal battery performance

Since it charges the battery with a special charging technique, it extends the life of the battery, reduces your operating costs and provides savings.

#### High performance microprocessor

Thanks to the digital structure and high speed of the CPU-controlled control board is provides full protection by performing the protection functions of the UPS such as overload, short circuit, low-high voltage and over-temperature in a timely manner, thus ensuring that the UPS has a stable and reliable structure.

#### High online efficiency

Thanks to its advanced technology, PowerUP X9 reaches an average efficiency level of %93 and pays of its investment cost in a short time.

#### Parallel structure (Optional)

PowerUP X9 UPS has the ability to parallel up to 4 units.











#### <u>MU</u>LTİ-FUNCTIONAL KEYS

- 208/220/230/240 VAC Output Voltage Setting
- 50/60 Hz Frequency Converter Mode
- EPO Emergency Power Off
- High Energy Saving



#### UNINTERRUPTIBLE POWER SUPPLIES



# tuncmatik PowerUP X9 6/10 kVA

ONLINE UPS (1/1)





CAPACITY	6 kVA 5400 W	10 kVA 9000 W			
INPUT					
Phase	Single phase + Neutral + Earth				
Nominal voltage	220/230/240 VAC				
Voltage range	120~2	120~276 VAC			
Frequency range	$45-55~\mathrm{Hz}$ de $50~\mathrm{Hz}$ / $54-66~\mathrm{Hz}$ de $60~\mathrm{Hz}$ (automatic selection)				
Current THDi	≤%3 (%100non-lineer load), ≤%5 (%100 lineer load)				
Bypass voltage range	220 VAC Max.voltage : +%25 (optional +%10,+%15,+%20 ); 230 VAC Max. voltaj: +%20 (optional +%10,+%15 ) 240 VAC Max.voltage : +%15 (optional +%10 ) Min. voltaj: -%45 (optional -%20,-%30) Bypass Frequency Range : ±%1, ±%2, ±%4, ±%5, ±%10				
Power factor	≥ 0.99(InputTHDV ≤%1)				
OUTPUT					
Phase	Single phase + Neutral + Earth				
Rated voltage	220/230/240 VAC				
Power factor	0,9				
Voltage regulation	±1.0%				
Frequency Normal mode	Same as mains frequency				
Battery mode	(50/60 ±0.1%) Hz				
Crest Factor	3	3:1			
THDi	≤%2 (%100 linear load), ≤%	5 (%100 non-linear load)			
Efficiency	≥92%				
BATTERY					
Type & quantity	12V 7Ah x 16	12V 9Ah x 16			
Charge current (A)	1.0	) A			
Transfer time	Line →Battery: 0 msn, Lir	ne→Bypass:0 msn			
PROTECTION	PROTECTION				
AC mode		Yük: %105-%110 60dk; %110~%125 10dk; %125~%150 1dk; >%150 200ms			
Overload Battery mode	Yük: %105-%110 10dk ; %110~%125 1dk ; >%125 200ms				
Bypass mode	40 A (Fuse)	63 A (Fuse)			
Over heating	Alarm				
Battery low	Alarm & Shut down				
Test	With software				
EPO (Opsional)	USB turns off immediately Intelligent battery management				
Battery S WEIGHT	intelligent patte	ery management			
DIMENSIONS & WEIGHT	//0.16	M. F00			
D x W x H (mm)	460 x 19				
Weight (kg)	60 kg	121 kg			
	INDICATORS				
Status LED & LCD	Line mode, Bypass mode, Low battery, Battery fault, Overload & UPS fault Input voltage, Input frequency, Output voltage, Output frequency, Load persantage & temperature				
LCD Panel					
Audio & Visual ENVIRONMENTAL	Line failure, Low battery, Overload, System fault				
Operating temperature	000 /000				
Humidity	0°C∼40°C 0∼%95 non-condensing				
Altitude	50 - 5/8975 Holl-contacting <1500 m				
Noise level	<55 dB 1 meters				
	DFTWARE & MANAGEMENT				
Interfaces	USB, RS232, SNMP card (optional)				
STANDARD CERTIFICATES	OBB, NBZBZ, BINIMIP CALU (UPLIUTIAL)				
EMC EMC	IECK20/0-2 IECK1000-7-2 IECK1000 / 2 IECK1000 / 7 IECK1000 / 5				
	IEC62040-2, IEC61000-4-2, IEC61000-4-3, IEC61000-4-4, IEC61000-4-5				
Security	IEC62040—1, GB4943-2005				

#### UNINTERRUPTIBLE POWER SUPPLIES



# tuncmatik POWER UP RACK TOWER 1/2/3 kVA

ONLINE UPS (1/1)





Online UPS is the most suitable choice, especially for computers and other sensitive devices. This type of UPS completely isolates your sensitive devices from the mains and feeds your sensitive devices connected with the help of filters in the mains. As a result, all unwanted situations that may occur in the line are filtered by the online UPS and your sensitive devices are fed with pure power.

#### Pure sinewave output

Full compatibility with all kinds of electrical devices, the ideal solution for your medical and similar critical applications.

#### Wide input voltage range (110-300 VAC)

Ability to work online even at very low and very high voltages without switching to the battery.

#### Input power factor correction (PF=0.99)

It does not impose an additional compensation load on your line. It saves on your electricity bills.

#### High output power factor (PF=0.9)

The UPS provides 28% extra power at the output compared to the standard UPS which are 0.7 power factor. That's why, it supports more electrical/electronics devices.

#### Intelligent charging technology for optimal battery performance

Since it charges the battery with a special charging technique, it extends the life of the battery, reduces your operating costs and provides savings.

#### High performance microprocessor

Thanks to the digital structure and high speed of the CPU-controlled control board is provides full protection by performing the protection functions of the UPS such as overload, short circuit, low-high voltage and over-temperature in a timely manner, thus ensuring that the UPS has a stable and reliable structure.





POWER UP

**RACK TOWER 1 kVA** 





**POWER UP** 

**RACK TOWER 2 kVA** 

KAPASITE / CAPACITY









With the easy to read multifunctional LCD display everything is under control. Thanks to new advanced LCD screen, input-output values and alarms can be easily monitored. Rotateable LCD display that can be adjusted according to the horizontal or vertical use of the UPS.

#### **MULTI-FUNCTIONAL KEYS**

- 208/220/230/240 VAC Output Voltage Setting
- 50/60 Hz Frequency Converter Mode
- EPO Emergency Power Off
- High Energy Saving



#### UNINTERRUPTIBLE POWER SUPPLIES



# tuncmatik POWER UP RACK TOWER 1/2/3 kVA

ONLINE UPS (1/1)



CAPA	CITY	1000 VA	2000 VA	3000 VA			
		900 W	1800 W	2700 W			
INPUT							
	Low voltage transfer	160 VAC - %80-100, 140 VAC - %70-80, 120 VAC - %60-70, 110 VAC - %0-60					
Voltage	Low voltage correction	170 VAC - %80-100, 150 VAC - %70-80, 130 VAC - %60-70, 120 VAC - %0-60					
range	High voltage transfer	300 VAC ± %5					
_	High voltage correction	290 VAC ± %5					
Frequen	cy range	40 Hz ~ 70 Hz					
Phase		Single phase + Neutral + Earth					
Power fa		≥ 0.99, %100 load					
OUTPU'		000 /000 /000 /010 /4					
Output Vo			208 / 220 / 230 / 240 VAC				
	ower factor (PF)	0.8					
	e regulation (Battery mode)	±%1					
	Range (Synchronous mode)	47 Hz ~ 53 Hz or 57 Hz ~ 63 Hz					
Frequenc	y Range (Battery mode)	50 Hz ± 0.2 Hz or 60 Hz ± 0.2 Hz					
Overload	Line Mode	%105-110 aşırı yük alarmı, %110-130 30sn sonra by-pass, %130-150 1,5sn sonra by-pass					
Crest Fact	Battery Mode	%105-110 aşırı yük alarmı , %110-130 30sn sonra kapanır, %130-150 1,5sn sonra kapanır					
Crest Faci	tor	3:1 maks					
Harmoni	c distortion	≤%2 THD (linear load) ≤%8THD (non-linear load)					
Transfer	Line <b>→→</b> Battery Mode	0 msn					
time	Inverter - By-pass	4 msn (typical)					
Waveforn	n (Battery mode)	Pure Sinewave					
EFFICIE	ENCY						
Line Mode	e	~ %86	~ %86	~ %88			
Battery M		~ %83	~ %85	~ %86			
BATTER							
Type & qu	antity	12V 9Ah x 2	12V 9Ah x 4	12V 9Ah x 6			
Support t			Up to 90% capacity 5 hours (typical)				
Charge voltage			1.0 A				
Charge cu		27.4 VDC ± %1	54.8 VDC ± %1	82.1 VDC ± %1			
INDICA							
LED Disp	lay	UPS status, Load level, Battery Level, Input/Output voltage, Discharge counter, Error status					
Alarm	SIGNIC C MEIGHT		Line failure, Low battery, Overload, System fault				
	SIONS & WEIGHT	445 440 00 [2]	545 440 00 52113	625 440 00 5211			
DxWxH		415 x 440 x 89 [2U]	515 x 440 x 89 [2U]	635 x 440 x 89 [2U]			
Weight (k		13.2	20.6	29			
	DNMENTAL	0.1005					
	n temperature ,	0-40 ° C					
Humidity		%20-90 relative humidity (non-condensing)					
Noise lev		< 50 dBA, From 1 meter					
	ARE & MANAGEMEN						
	S-232 or USB	Windows® 98/2000/2003/XP/Vista/2008, Windows® 7/8, Linux, MAC					
SNMP (0		Power management with SNMP manager and web browser					
EPO (Opt	lional)	UPS immediatly shuts down					

UNINTERRUPTIBLE POWER

SUPPLIES

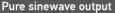
### tuncmatik **POWER UP RACK TOWER 6/10 kVA**

ONLINE UPS (1/1)





Online UPS is the most suitable choice, especially for computers and other sensitive devices. This type of UPS completely isolates your sensitive devices from the mains and feeds your sensitive devices connected with the help of filters in the mains. As a result, all unwanted situations that may occur in the network are filtered by the online UPS and your sensitive devices are fed with pure power.



Full compatibility with all kinds of electrical devices, the ideal solution for your medical and similar critical applications.

#### Wide input voltage range (110-300 VAC)

Ability to work online even at very low and very high voltages without switching to the battery.

#### Input power factor correction (PF=0.99)

It does not impose an additional compensation load on your line. It saves on your electricity bills.

#### High output power factor (PF=0.9)

The UPS provides 28% extra power at the output compared to the standard UPS which are 0.7 power factor. That's why, it supports more electrical/electronics devices.

#### Intelligent charging technology for optimal battery performance

Since it charges the battery with a special charging technique, it extends the life of the battery, reduces your operating costs and provides savings.

#### High performance microprocessor

Thanks to the digital structure and high speed of the CPU-controlled control board is provides full protection by performing the protection functions of the UPS such as overload, short circuit, low-high voltage and over-temperature in a timely manner, thus ensuring that the UPS has a stable and reliable structure.



With the easy to read multifunctional LCD display everything is under control. Thanks to new advanced LCD screen, input-output values and alarms can be easily monitored.





#### **MULTI-FUNCTIONAL KEYS**

- 208/220/230/240 VAC Output Voltage Setting
- 50/60 Hz Frequency Converter Mode
- EPO Emergency Power Off
- High Energy Saving





























## tuncmatik POWER UP RACK TOWER 6/10 kVA

ONLINE UPS (1/1)







CAPACITY		6000 VA 5400 W	10000 VA 9000 W				
INPUT							
	Low voltage transfer	176 VAC - %100 yükte, 110 VAC - %50 yükte					
Voltage	Low voltage correction	186 VAC - %100 yükte, 1	20 VAC - %50 yükte				
range	High voltage transfer	300 VA	C ± %5				
	High voltage correction	290 VA	C ± %5				
Frequenc	cy range	For 50Hz system 46 Hz~54 Hz, F	For 60 Hz system 56 Hz~64 Hz				
Power fa	ctor	≥ 0.9 ,%1	00 load				
Phase		Single phase + N	Neutral + Earth				
OUTPU'	T						
Output Vo	oltage	208 / 220 / 23	0 / 240 VAC				
Output po	ower factor (PF)	0	8				
AC voltag (Battery r	ge regulation mode)	±	%1				
Frequency	y Range (Synchronous mode)	50 Hz için 46 Hz ~ 54 Hz / 6	0 Hz için 56 Hz ∼ 64 Hz				
Frequenc	y Range (Battery mode)	50 Hz ± 0.2 Hz or	60 Hz ± 0.2 Hz				
	Line Mode	%105-110 10dk then by-pass, %110-130 1dk then	by-pass, %130-1 50 3sn then by-pass				
Overload	Battery Mode	%105-110 1dk then by-pass, >	%110 3sn then by-pass,				
Crest Fact	or	3:1 maxs					
Harmonio	c distortion	≤ %3 THD (linear load) ≤ %6 THD (non-linear load)					
Transfer	Line  → Battery Mode	0 msn					
time	Inverter <b>↔ By-pass</b>	4 msn (typical)					
Waveforr	m (Battery mode)	Pure Sinewave					
EFFICIE	ENCY						
Line Mod	le	~ %89					
Battery M		~ %88					
BATTER							
Type & qu	uantity	12V 7Ah x 20	12V 9Ah x 20				
Support t		90% capacity up to 5 hours (typical)					
Charge vo		1.0 A					
Charge cu		273 VDC ±%1					
INDICA							
LED Disp	olay	UPS status, Load level, Battery Level, Input/Output voltage, Discharge counter, Error status					
Alarm		Line failure, Low battery,	Overload, System fault				
DIMEN	SIONS & WEIGHT						
DxWxH	H (mm)	UPS: 580 x 438 x 133 [3U] Battery Module: 580 x 438 x 133 [3U]	UPS: 668 x 438 x 133 [3U] Battery Module: 668 x 438 x 133 [3U]				
Weight (	kg)	UPS: 17 Battery Module : 57	UPS: 20 Battery Module: 63				
Weight (kg)		13.2	29				
ENVIRONMENTAL							
Operation temperature		0-40°C					
Humidity		%20-90 relative humidity (non-condensing)					
Noise level		<55dBA, From 1meter	<58dBA, From 1meter				
SOFTW	ARE & MANAGEMEN	Г					
Smart RS	S-232 or USB	Windows® 98/2000/2003/XP/Vista/20	08, Windows® 7/8, Linux, MAC				
Smart RS-232 or USB SNMP (Optional)		SNMP yöneticisi ve web ta	rayıcı ile güç yönetimi				
SNMP (0		SNMP yöneticisi ve web tarayıcı ile güç yönetimi UPS immediatly shuts down					



## tuncmatik LONG 1/2/3/6/10 kVA

#### ONLINE UPS (1/1)

























#### Special design for applications requiring long support time

Long series, which can be connected to a large-capacity external battery for a long support time, has a much stronger charging capacity than normal products.

#### True double conversion online technology

Online UPS is the most suitable choice, especially for computers and other sensitive devices. This type of UPS completely isolates your sensitive devices from the mains and feeds your sensitive devices connected with the help of filters in the mains. As a result, all unwanted situations that may occur in the line are filtered by the online UPS and your sensitive devices are fed with pure power.

## High output power factor (1/2/3kVA PF=0.9; 6/10kVA PF=0.9)

The 1/2/3 kVA UPS provides 15% and the 6/10 kVA UPS provides 28% extra power at the output compared to the standard UPS which are 0.7 power factor. That's why, it supports more electrical/electronics devices.

#### Pure sinewave output

Full compatibility with all kinds of electrical devices, the ideal solution for your medical and similar critical applications.

#### Wide input voltage range (110-300 VAC)

Ability to work online even at very low and very high voltages without switching to the battery.

#### Input power factor correction (PF=0.99)

It does not impose an additional compensation load on your line. It saves on your electricity bills.

### Intelligent charging technology for optimal battery performance

Since it charges the battery with a special charging technique, it extends the life of the battery, reduces your operating costs and provides savings.

#### High performance microprocessor

Thanks to the digital structure and high speed of the CPU-controlled control board is provides full protection by performing the protection functions of the UPS such as overload, short circuit, low-high voltage and over-temperature in a timely manner, thus ensuring that the UPS has a stable and reliable structure.





## tuncmatik LONG 1/2/3/6/10 kVA

ONLINE UPS (1/1)





MODE	-,	1 13/4	213/4	212/4	6 kVA	10 10/4			
MODE	iL .	1 kVA	2 kVA	3 kVA	O KVA	10 kVA			
Phase	0/4.81/ \	400011 / 00011		Single phase + earth	/aaa.u. = /aau.u	1000014 (000014			
INPUT	r (VA/Watts)	1000VA / 800W	2000VA / 1600W	3000VA / 2400W	6000VA/5400W	10000VA/9000W			
Nominal			200/208/220/230/240VAC		208/22	0/230/240VAC			
Voltage Range	Low voltage transfer		160Vac±5% @100%-80% load; 140Vac±5% @80%-70% load; 120Vac±5% @70%-60% load; 110Vac±5% @60%-0% load; (<35°C)						
Voltage	Under voltage correction		175Vac±5% @100%-80% load; 155Vac±5% @80%-70% load; 135Vac±5% @70%-60% load; 125Vac±5% @00%-0% load; (<35°C)		120~276Vac				
	High voltage transfer		300Vac ±5%		276Vac ±5%	320Vac, 1 hour (static)			
	High voltage correction		290Vac ±5%			276Vac ±5%			
Frequen			40-70Hz	0.000.01000/110111111111		45-65Hz			
Power F	actor From Generator			0.990 @100% load (Nominal input voltage) Yes	l				
OUTPU				Tes					
Output v			200/208/220/230/240Vac		2	08/220/230/240Vac			
Power F	actor		0.8			0.9			
Voltage I	Regulation			±1% (Battery Mode)					
Frequenc	Line Mode (synchronized)	47-53Hz veya 57-63Hz							
	Battery Mode	(50/60±0.1)Hz							
Crest Fa			≤3% THD lineer load	3:1		:2% THD lineer load			
	ic Distortion (THDv)		≤6% THD non-lineer load ≤5% THD non-lineer load						
Waveflor	W AC mode <-> Bat. mode	Pure Sinewave Zero							
Transfer '	Inverter <->bypass	4ms (Typical)							
Efficienc	у	>88% (AC mode) >83% (DC mode)	>89% (AC mode) >87% (DC mode)	>90% (AC mode) >88% (DC mode)		>90% (AC mode) >88% (DC mode)			
BATTE	RY								
Battery (	Quantity	2	4	6		pcs adjustable			
Charge \	Voltage	27.4 VDC ±1%	54.7 VDC ±1%	82.1 VDC ±1%	219/246/274 Vdc ±1%				
Charge (	Current	12A	12A	12A	6A	6A			
SYSTE	M FEATURES								
Overload	Line Mode		105 1	Ambient temperature.<35°C %-110%: KGK 10 minutes later transfers the loa 10%-130%: KGK 1 minutes later transfers the loa >130%: KGK 3 seconds later transfers the load	nd to the bypass.				
	Bypass Mode	8A(Input Fuse)	16A(Input Fuse)	25A(Input Fuse)	50A(Input Fuse)	100A(Input Fuse)			
Protection				IP20					
EPO (Op	tional) Visual Alarms	UPS shuts down							
	nication Interface	Line failure, Battery low, Overload, System fault  USB(or RS232), SNMP adapter(optional), Relay board (optional)							
ENVIRONMENTAL		озо <sub>к</sub> и пэгэг, элчиг adaptet (upuonat), netay boat a (upuonat)							
Operation Temperature			0°C~40°C						
Storage Temperature				-25°C ~55°C					
Humidty Altitude				20-90 RH @ 0- 40°C (non-condensing < 1500m	)				
Noise Le			< 50dBA 1 from meter	< 1500m	< 55	dBA 1 from meter			
	ISION & WEIGHT		SOUBS I HOMPHOLE						
DxWxH (	• •	293*144*209	399*144*209	399*144*209	355*191*330	415*191*330			
Weight (		4.2	6.3	6.5	10	12			
Safety			EC/EN62040-1,IEC/EN60950-1		IEC62040	-1, GB4943			
Electro N	Magnetic Compatibility	IEC/EN62040-2,IEC61000	-4-2,IEC61000-4-3,IEC61000-4-4, IEC61000-4-5,	EC61000-4-6,IEC61000-4-8	IEC62040-2, IEC60664-1 1.2/5	0uS+8/20uS 6kV/3kA karşılanır			



## X-LONG ONE 5 kVA

ONLINE UPS (1/1)



## X-LONG ONE

3 phase working capabilty by connecting 3 products together, easy and fast charging abilty by 60A strong battery charge capaci-

## tuncmatik **SOLARTECH ONE**

SOLAR UPS (1/1)

5 kVA



nectable with solar panels. Built-in 80A MPPT solar charger, easy and fast charging abilty by 60 A strong battery charge capacity















#### Pure sinewave output

Full compatibility with all kinds of electrical devices, the ideal solution for your medical and similar critical applications.

#### Wide input voltage range (110-280 VAC)

Ability to work online even at very low and very high voltages without switching to the battery.

#### Input power factor correction (PF=0.99)

It does not impose an additional compensation load on your line. It saves on your electricity bills.

#### High output power factor (PF=1)

The UPS provides 43% extra power at the output compared to the standard UPS which are 0.7 power factor. That's why, it supports more electrical/electronics devices.

#### Parallel function (optional)

Parallel operation in singe phase with up to 9 units. The maximum supported output power is 45kW/45kVA.

#### **Generator Function**

Capability to generator power.

























# tuncmatik X-LONG ONE 5 kVA

ONLINE UPS (1/1)



## tuncmatik SOLARTECH ONE 5 kVA

**SOLAR UPS (1/1)** 



CAPACITY	5 kVA 5000 W	5 kVA 5000 W			
INPUT					
Voltage range	110-2	80 VAC			
Frequency range	For 50Hz system 46 Hz~54 Hz, For 60 Hz system 56 Hz~64 Hz				
Phase	Single phase + Neutral + Earth				
Power factor	≥ 0.9 ,%1	00 load			
OUTPUT					
Output Voltage	220 / 230 /	240 VAC			
Output power factor (PF)	1				
AC voltage regulation (Battery mode)	± %1	± %5			
Frequency Range (Synchronous mode)	For 50Hz system 46 Hz~54 Hz, Fo	or 60 Hz system 56 Hz~64 Hz			
Frequency Range (Battery mode)	50 Hz <b>or</b> 60 H				
Overload Line Mode	%105 -110 10 min then by-pass, %110-130 1min th				
Battery Mode	%105-110 1minthen by-pass,				
Crest Factor	3:1 m				
Harmonic distortion	≤ %3 THD ( ≤ %6 THD (non-l	(linear load) linear load)			
Transfer  Line	0 m	isn			
time Inverter By-pass	4 msn (t				
Waveform (Battery mode)	Pure Sin	ewave			
EFFICIENCY					
Line Mode	~ % 9				
ECO Mode	~ % 99.5 ~ % 91	~ % 99 ~ % 90			
BATTERY	~ %91	~ % 70			
Battery voltage	48 VI				
Battery charge voltage	54.6 VDC	54 VDC			
Overload protection	66 V				
Charge current	60A	60A			
MPPT SOLAR CHARGER & AC	CHARGER				
Max. PV	-	4000 W			
MPPT range	-	60-115 VDC			
Max. PV	-	145 VDC			
Max. solar charge current	-	A08			
INDICATORS					
LED Display	UPS status, Load level, Battery Level, Input/0	utput voltage, Discharge counter, Error status			
Alarm	Line failure, Low battery	, Overload, System fault			
DIMENSIONS & WEIGHT					
D x W x H (mm)	465x190x318 Battery Module: 580 x 438 x 133 [3U]	465x190x336 Battery Module: 668 x 438 x 133 [3U]			
Weight (kg)	15.5	16			
ENVIRONMENTAL					
Operation temperature	0-50° C	-10-50 C			
Humidity	%0-95 relative humidity (non-condensing)	%5-95 relative humidity (non-condensing)			
Noise level	<55dBA, From 1meter	<55dBA, From 1meter			
SOFTWARE & MANAGEMENT		20 W. L. & T/O.L. MAG			
Smart RS-232 or USB	Windows® 98/2000/2003/XP/Vista/200				
SNMP (Optional)	Power management with SNMP ma	-			
EPO (Optional)	UPS immediatly sh	IULS UUWII			



## tuncmatik NEWTECH PRO X9 DSP 10/20/30 kVA

ONLINE UPS (3/1)





Online UPS is the most suitable choice, especially for computers and other sensitive devices. This type of UPS completely isolates your sensitive devices from the mains and feeds your sensitive devices connected with the help of filters in the mains. As a result, all unwanted situations that may occur in the network are filtered by the online UPS and your sensitive devices are fed with pure power.



Full compatibility with all kinds of electrical devices, the ideal solution for your medical and similar critical applications.

#### Wide input voltage range (110-300 VAC)

Ability to work online even at very low and very high voltages without switching to the battery.

#### Input power factor correction (PF=0.99)

It does not impose an additional compensation load on your line. It saves on your electricity bills.

#### High output power factor (PF=0.9)

The UPS provides 28% extra power at the output compared to the standard UPS which are 0.7 power factor. That's why, it supports more electrical/electronics devices.

#### Intelligent charging technology for optimal battery performance

Since it charges the battery with a special charging technique, it extends the life of the battery, reduces your operating costs and provides savings.

#### High performance microprocessor

Thanks to the digital structure and high speed of the CPU-controlled control board is provides full protection by performing the protection functions of the UPS such as overload, short circuit, low-high voltage and over-temperature in a timely manner, thus ensuring that the UPS has a stable and reliable structure.







60 60 PC MONITOR



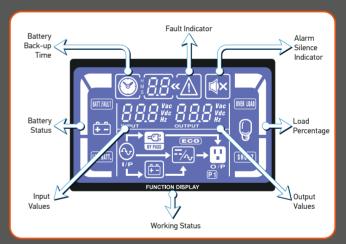


KAPASITE / CAPACITY









With the easy to read multifunctional LCD display everything is under control. Thanks to new advanced LCD screen, input-output values and alarms can be easily monitored.



#### **MULTI-FUNCTIONAL KEYS**

- 208/220/230/240 VAC Output Voltage Setting
- 50/60 Hz Frequency Converter Mode
- EPO Emergency Power Off
- High Energy Saving



## tuncmatik NEWTECH PRO X9 DSP 10/20/30 kVA

ONLINE UPS (3/1)







CAPACITY		10 kVA	20 kVA	30 kVA			
_		9000 W	18000 W	27000 W			
INPUT							
	Low voltage transfer	%50 load 110 VAC ± %3, %100 load 176 VAC ± %3					
Voltage range	Low voltage correction	%50 loa	ad 120 VAC ± %3, %100 load 186 VAC ± %	3			
range	High voltage transfer		300 VAC ± %5				
	High voltage correction	F FOU	290 VAC ± %5	// II-			
	ncy range		z system 46 Hz~54 Hz, For 60 Hz system 56 Hz	~64 HZ			
Power fa	actor	%100at load 0.990 (rated input voltage)  Three Phase + Neutral + Earth					
OUTPU	IT		Till ee Tilase + Neutrat + Lartii				
Phase	/ I		Single Phase + Neutral + Earth				
Output V	/oltage		200 / 208 / 220 / 230 / 240 VAC				
	ower factor (PF)		0.9				
	ge regulation		± %1				
	ry Range (Synchronous mode)	For 50H	z system 46 Hz~54 Hz, For 60 Hz system 56 Hz-	~64 Hz			
	cy Range (Battery mode)	101 001.	50 Hz or 60 Hz ± 0.1 Hz				
	I ine Mode	%100 ~%	110:10 min, %110 ~ %130:1min, > %130	:1sec			
Overload	Battery Mode		10:30 sec, %110 ~ %130:10 sec, > %130				
Crest Fac			3:1 maxs.				
Harmoni	ic distortion		≤ %2 THD (linear load) ≤ %5 THD (non-linear load)				
T (	Line <b>↔</b> Battery Mode		0 msn				
Transfer time	Inverter ←→ By-pass	0 msn					
EFFICII		VIIISII					
Line Mod		%91.5	%91.8	%92.1			
Battery N	Mode	%87	%88	%89			
BATTE	RY						
	Type & Quantity	12V 9Ah x 20	12V 9Ah x 40	12V 9Ah x 60			
Standard	Charge time	·	5 hours up to 90% capacity				
Model	Charge current	1.0 A ± %10 maks.	2.0 A $\pm$ %10 maks.	4.0 A ± %10 maks.			
	Charge voltage		273 VDC ± %1				
Long	Type & Quantity		e: Depends on the applications - 18-20 peice				
Run	Charge time	It depends on the capacity of the external batteries.					
Model	Charge current	4.0 A ± %10 maxs.	8.0 A ± %10 maxs.	12.0 A ± %10 maxs.			
INDICA	Charge voltage		286 VDC ± %1				
LED Disp		UPS status, Load level, Battery Level, Input/Output voltage, Discharge counter, Error status					
Alarm			ne fault, Low battery, Overload, System faul				
	SIONS & WEIGHT		The react, Low Battery, Overload, System radio	<u> </u>			
	D v W v H (mm)	592 x 250 x 576	815 x 250 x 826	815x300x1000			
Standard Model	Weight (kg)	83	164	234			
Long	D x W x H (mm)	592x250x576	592x250x576	815x250x826			
Run Model	Weight (kg)	26	40	64			
ENVIRO	ONMENTAL						
	temperature		0-40 °C				
Humidity	/		%20-95 relative humidity (non-condensing)				
Noise lev	vel	< 58 dBA, 1 meters	< 60 dBA, 1 meters	< 65 dBA, 1 meters			
	ARE & MANAGEMENT						
	S-232 or USB		2000/2003/XP/Vista/2008, Windows® 7/8,				
SNMP (0		Power mar	nagement with SNMP manager and web bro	wser			
EPO (Opt	tional)		UPS immediatly shuts down				

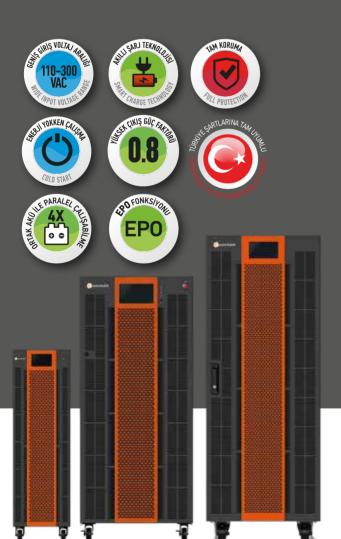


## tuncmatik E-SERIES

40/60/80/125/160/225/250 kVA

ONLINE UPS (3/3)

- Double loop on-line design
- Coloured, Touch screen LCD Display (5-7")
- Ability to warn by voice
- Pure sinewave output
- HI-tech design with DSP technology
- Output power factor 0.8
- Front access for easy maintenance
- Fast service and extra security with internal modular structure
- Active power correction in each phase
- Generator compatible
- Paralleliziable up to 4 devices with common batteries
- EPO Function
- Technology to work between 32-40 batteries











## tuncmatik **E-SERIES**

40/60/80/125/160/225/250 kVA

ONLINE UPS (3/3)



MODEL	40 KL	60 KL	80 KL	125 KL	160 KL	225KL	250 KL
Capacity	40KVA / 32KW	60KVA / 48KW	80KVA / 64KW	125KVA / 100KW	160KVA / 128KW	225KVA / 180KW	250KVA / 200KW
Parallel structure	up to 4						
INPUT							
Nominal Voltage	3 x 360/380/400/415 VAC (3Ph+N)						
Voltage Range			110-300 VAC @	50% load; 176-276 V	AC @ 100% load		
Frequency Range				40~70 Hz			
Power Factor				≥ 0.99 100% load			
Harmonic distortion (THDi)				< 4% lineer full load			
OUTPUT							
Output Voltage			3 x 360 <sup>3</sup>	/380*/400/415 VAC (	3Ph+N)		
AC Voltage Regulation (Batery Mode)				± 1%			
Frequency Range (Synchronous)				46~54Hz or 56~64Hz			
Frequency Range (Battery Modu)				50/60 Hz ± 1%			
Crest Factor				3:1 (max.)			
Harmonic Distortion			≥	2% THD (Lineer Load	d)		
Transfer AC Mode to Battery Mode Time Inverter to Bypass				Zero			
inverter to Bypass				Zero Full sine wave			
Waveform (Battery Modu)  Overload Capacity			100-110% 10 minute,		>1200/4 1c chut down	•	
BYPASS			100-11070 1011IIIIdle,	111-130% 1 Illillate,	>13070 15 SHUL UOWI		
Nominal Voltage			3 x 360	/380/400/415 VAC (3	Ph+N)		
Voltage Range			0 % 0 0 0	305VAC~457VAC			
Frequency Range (Synchronous)				46~54Hz or 56~64Hz			
Overload Capacity				130% 1 minute (typic			
EFFICIENCY							
AC Mode				95,5%			
ECO Mode				98,5%			
Battery Mode				94,5%			
BATTERY							
Battery (VRLA AGM)	2x32 12V9Ah (Internal)			External Battery Pack			
Number of Batteries				2~40 peice (adjustabl		I	
Charge current (max.)	1-12A, adjustable	1-18A, ad	•		djustable	3-54A, ad	justable
Charge Voltage			+	/-13.65V*N (N = 16~	20)		
DIMENSION & WEIGHT		015 200 1000			07//0	01/00	
DxWxH (mm)	74	815 x 300 x 1000 85	87	2/1	974 x 60 286	286	382
Weight(kg)	74	65	0/	241	200	200	302
ENVIRONMENTAL Operating Temperature				0-40°C			
Humidty			-0	5% ve non-condensi	na		
Altitude**			``	0 ~ 1000m tfull load			
Noise Level	0 ~ 1000m τταιι toad  <65 dB @ 1 Metre						
SOFTWARE & MANAGEMENT							
Smart RS-232/USB			Windo	ows, Linux ve MAC su	ipport		
SNMP (Optional)				ent via web browser o			
EPO (Optional)			UPS	immediatly shuts do	own		
	or a minieutacy and a down						

<sup>\*</sup>When the Output Voltage is set to 3 x 360VAC or 3 x 380VAC, the output power will be reduced to 90%.
\*\*When the uninterruptible power supply is operated at a higher altitude than the maximum altitude, the output power will decrease by 1% for every 100 m altitude



## tuncmatik ULTRA ONE 10/15/20/30/40 kVA

ONLINE UPS (3/3)

ULTRAONE

#### True double conversion online technology

Online UPS is the most suitable choice, especially for computers and other sensitive devices. This type of UPS completely isolates your sensitive devices from the mains and feeds your sensitive devices connected with the help of filters in the mains. As a result, all unwanted situations that may occur in the network are filtered by the online UPS and your sensitive devices are fed with pure power.

#### Pure sinewave output

Full compatibility with all kinds of electrical devices, the ideal solution for your medical and similar critical applications.

#### Wide input voltage range (305-478 VAC)

Ability to work online even at very low and very high voltages without switching to the battery.

#### Input power factor correction (PF=0.99)

It does not impose an additional compensation load on your line. It saves on your electricity bills.

#### High output power factor (PF=1)

The UPS provides 28% extra power at the output compared to the standard UPS which are 0.7 power factor. That's why, it supports more electrical/electronics devices.

#### Intelligent charging technology for optimal battery performance

Since it charges the battery with a special charging technique, it extends the life of the battery, reduces your operating costs and provides savings.

#### High performance microprocessor

Thanks to the digital structure and high speed of the CPU-controlled control board is provides full protection by performing the protection functions of the UPS such as overload, short circuit, low-high voltage and over-temperature in a timely manner, thus ensuring that the UPS has a stable and reliable structure.

#### Capacity up to 40kVA in compact structure

It allows high-power devices to be placed in tight spaces such as server rooms.



#### High online efficiency

Thanks to its advanced technology, PowerUP X9 reaches an average efficiency level of %93 and pays of its investment cost in a short time.

#### Parallel structure (Optional)

PowerUP X9 UPS has the ability to parallel up to 4 units. A communication cable is sufficient for this.

#### Generator compatibility

By facilitating power transition from generator to load, it allows you to use generator with lower capacity.





# tuncmatik ULTRA ONE 10/15/20/30/40 kVA ONLINE UPS (3/3)





MODEL			10 kVA	15 kVA	20 kVA	30 kVA	40 kVA		
CAPACITY	(kVA/kW)		10	15	20	30	40		
INPUT									
Nominal voltag	ge				380/400/415Vac, (3Ph+N+PE)	)			
Input voltage ra	ange			305~478V	ac (Full Load); 208~478Vac (5	50% Load)			
Frequency					40Hz-70Hz				
Power factor					≥0.99				
THDi					≤3% (100% nonlinear load)				
Bypass voltage	e range			230Vac Ma 240Vac	voltage: +25%(optional +10%, ax.voltage: +20%(optional +10 : Max.voltage: +15%(optional voltage: -45% (optional -20%,	0%,+15%) +10%)			
Bypass Synchr	onization			±1%/±2%/	±4%/±5%/±10% optional (defa	ault:±10%)			
Generator Inpu	ut				Support				
OUTPUT									
Power factor					0.9/1.0				
Nominal AC Vo	oltage				380/400/415Vac, (3Ph+N+PE)	)			
Voltage Regula	ation				±1%				
Transient Volta	age Response				±5% (linear load)				
Frequency				· (	ronize with input; when input ±1%/±2%/±4%/±5% optional) ±0.1%)Hz. 2.Battery Mode:(50	,			
Crest factor					3:1				
Harmonic dist	ortion (THDv)		< 2% (linear load), <5% (non linear load)						
Overload	AC Mode		Load≤110%: last 60min change to bypass, ≤125%: last 10min, change to bypass, ≤150%: last 1min change to bypass, >150% change to bypass immediately						
Capacity I	Battery Mode			≤125%: last 1min, ≤1	Load≤110%: last 10min, 50%: last 5S, >150% shut o	down UPS immediately			
Efficiency I	Normal Mode		Up to 93.5% Up to 94.5%						
Transfer Time	е		Utility to Battery : 0ms; Utility to bypass: 0ms						
BATTERY									
Battery voltag	Standa unit	rd	±120Vdc (20pcs 12V9AH); (2x20pcs 12V9AH optional)	±120 (2x20pcs		±120Vdc (3x20pcs 12V9AH)	±180Vdc (2x30pcs 12V9AH)		
Buttery vottag	Long ru unit	un		(16~20 pcs, 16 pcs	0kVA: ±96/108/120Vdc; batter s define, Standard unit and 20 ver factor 0.8/0.9; 16 pcs outp	pcs no power derating;			
Charge Curren (charge curren to battery capa	nt can be set acco	ording	Standard unit: 1.35A (2.7A optional); Long run unit: Max. current 14A (limited by input current)	Standard unit: 2.7A; Long run unit: Max. current 16A (limited by input current)	Standard unit: 2.7A; Long run unit: Max. current 18A (limited by input current)	Standard unit: 4.05A; Long run unit: Max. current 20A (limited by input current)	Standard unit: 2.7A; Long run unit: Max. current 20A (limited by input current)		
SYSTEM F	EATURE								
Alarms			overload, utility abnormal, UPS fault, battery low, etc.						
Protection			short circuit, overload, over temperature, battery low, fan fault alarm, EPO (optional)						
Communicatio ENVIRONI			USB, RS232,RS485, Parallel port, Dry contact, Intelligent slot, SNMP card (optional), Relay card (optional), Battery temperature sensor(optional)						
Operating Temperature			0°C~40°C						
	Storage Temperature		-25°C~55°C(no battery)						
Humidity					0∼95% non condensing				
Acoustical Noise (from 1M distance)		ance)		<55dB	<58dB	<61dB	<64dB		
Altitude					nen>1500m,lower the rated po	ower for use			
	NS & WEIGHT								
W×D×H (mm)				Standard unit:	250×900×868 Long run unit	: 250×580×655			
Weight (kg)			129/35	186/39	187/40	236/43	239/46		
STANDAR	RDS								
Safety certifica	ations				EC/EN62040-1,IEC/EN60950-	1			
EMC			CE, IEC/EN	62040-2, IEC61000-4-2, IEC6	1000-4-3, IEC61000-4-4, IEC6	61000-4-5, IEC61000-4-6, IEC	C61000-4-8		
EMC			CE, IEC/EN	62040-2, IEC61000-4-2, IEC6	1000-4-3, IEC61000-4-4, IEC	51000-4-5, IEC61000-4-6, IEC	L61UUU-4-8		



## tuncmatik ULTRAONE

60/80/100/120/160/200 kVA

ONLINE UPS (3/3)



#### True double conversion online technology

Online UPS is the most suitable choice, especially for computers and other sensitive devices. This type of UPS completely isolates your sensitive devices from the mains and feeds your sensitive devices connected with the help of filters in the mains. As a result, all unwanted situations that may occur in the network are filtered by the online UPS and your sensitive devices are fed with pure power.

#### Pure sinewave output

Full compatibility with all kinds of electrical devices, the ideal solution for your medical and similar critical applications.

#### Wide input voltage range (305-478 VAC)

Ability to work online even at very low and very high voltages without switching to the battery.

#### Input power factor correction (PF=0.99)

It does not impose an additional compensation load on your line. It saves on your electricity bills.

#### High output power factor (PF=1)

The UPS provides 28% extra power at the output compared to the standard UPS which are 0.7 power factor. That's why, it supports more electrical/electronics devices.

#### Intelligent charging technology for optimal battery performance

Since it charges the battery with a special charging technique, it extends the life of the battery, reduces your operating costs and provides savings.

#### High performance microprocessor

Thanks to the digital structure and high speed of the CPU-controlled control board is provides full protection by performing the protection functions of the UPS such as overload, short circuit, low-high voltage and over-temperature in a timely manner, thus ensuring that the UPS has a stable and reliable structure.

#### Capacity up to 200kVA in compact structure

It allows high-power devices to be placed in tight spaces such as server rooms.















#### High online efficiency

Thanks to its advanced technology, PowerUP X9 reaches an average efficiency level of %93 and pays of its investment cost in a short time.

#### Parallel structure (Optional)

PowerUP X9 UPS has the ability to parallel up to 6 units. A communication cable is sufficient for this.

#### Generator compatibility

By facilitating power transition from generator to load, it allows you to use generator with lower capacity.





## **tuncmatik**

# tuncmatik ULTRA **ONE**60/80/100/120/160/200 kVA

ONLINE UPS (3/3)



MODEL		60 kVA	80 kVA	100 kVA	120 kVA	160 kVA	200 kVA		
CAPACIT	ΓΥ (kVA/kW)	60	80	100	120	160	200		
INPUT									
Rated volta	ige			380/400/415	VAC				
Voltage ran	ige			138~485 \	/AC				
Frequency range 40 Hz-70 Hz									
Power facto	or			≥ 0.99					
Current THI	Di			≤3% (100% non-line	eer load)				
Bypass volt	tage range	Max.voltage: 220 \		0%, +15%, +20%); 230 VA nal+10%); Min. voltage:- Frequency Protection R	45 %(optional-10%, -20				
Generator i	nput			Suppor	ts				
OUTPUT									
Rated volta	ige			380/400/415	VAC				
Power facto	or			1					
Voltage reg	gulation			±1%					
Frequency				Mode: sync with login; inp /±2%/±4%/±5% optional; 2.Battery Mode:(50	, output (50/60±0.1%)Hz				
Crest Factor	r			3:1					
THDv				≤2% lineer load ≤4% r	on-lineer load				
Eficiency				95%					
Transfer tir	ne		Normal to battery: 0ms; Normal to bypass: 0ms						
	AC Mode	Load ≤110%: 60 min. ≤125%: 10 min. ≤150%: 1 min.							
Overload	Battery Mode	Load ≤110%: 60 min. ≤125%: 10 min. ≤150%: 1 min.							
	By-pass Mode	Temperature ≤30°C, load ≤ 135%: works for a long time / Temperature ≤ 40°C, load ≤ 125% works for a long time / 1000% load: runs up to 100ms							
BATTERY									
		Optional Voltage: ±180V/192V/±204V/±216V/±228V/±240/±252/±264/±276/±288/±300Vdc (30/32/ 34/36/38/40/42/44/46/48/50 peice optional) 360Vdc~600Vdc (30~50 peice, 30 peice defined, 32 ve 50 peice without power loss; 30 peice output power factor 0.8)							
Voltage		360Vdc~60	. (3)	0/32/ 34/36/38/40/42/44/	46/48/50 peice optional)		ctor 0.8)		
Charge cur	according to	360Vdc~60 20A	. (3)	0/32/ 34/36/38/40/42/44/	46/48/50 peice optional)	0 peice output power fa	ctor 0.8)		
Charge cur adjustable battery cap	according to		. (3)	0/32/ 34/36/38/40/42/44/ eice defined, 32 ve 50 pei	46/48/50 peice optional)	0 peice output power fa			
Charge cur adjustable battery cap	according to pacity		(30 0Vdc (30~50 peice, 30 p	0/32/ 34/36/38/40/42/44/ eice defined, 32 ve 50 pei	46/48/50 peice optional) ce without power loss; 3	0 peice output power fa			
Charge curradjustable battery cap	according to pacity FEATURES		(30 0Vdc (30~50 peice, 30 p	0/32/ 34/36/38/40/42/44/ eice defined, 32 ve 50 pei 40A	46/48/50 peice optional) ce without power loss; 3	0 peice output power fa			
Charge curriadjustable battery cap SYSTEM I	according to pacity FEATURES		0Vdc (30~50 peice, 30 p	0/32/ 34/36/38/40/42/44/ eice defined, 32 ve 50 pei 40A pad, Line abnormal, UPS	46/48/50 peice optional) ce without power loss; 3  ault, Low battery, etc.	0 peice output power fa			
Charge curi adjustable battery cap SYSTEM I Alarm EPO (Optio	according to pacity FEATURES nal)	20A	0Vdc (30~50 peice, 30 p	0/32/ 34/36/38/40/42/44/ eice defined, 32 ve 50 pei 40A ead, Line abnormal, UPS i	46/48/50 peice optional) ce without power loss; 3  ault, Low battery, etc. bwn e, Undercurrent, Fan faul	0 peice output power fa	0A		
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Charge cur adjustable battery cap SYSTEM I Alarm EPO (Optio Protection Comunicat Status LED LCD Panel	according to bacity  FEATURES  nal)	20A USB, RS232, RS485,	Overlo  Short circuit, Overallel port, REPO por Line mode, Bypas	20/32/ 34/36/38/40/42/44/eice defined, 32 ve 50 pei 40A 20 ve 50 pei 40A 20 ve 50 pei 40A 21 ve 50 pei 40A 22 ve 50 pei 40A 23 ve 50 pei 40A 24 ve 50 pei 40A 25 ve 60A 26 ve 60A 27 ve 60A 28 ve 60	46/48/50 peice optional) ce without power loss; 3 fault, Low battery, etc. bwn e, Undercurrent, Fan faul rt, Intelligent slot, SNMP tery faulty, Overload & U	t alarm card (optional), Relay bo	0A		
Charge cur adjustable battery cap SYSTEM I Alarm EPO (Optio Protection Comunicat Status LED LCD Panel	according to bacity FEATURES  nal)  ion & LCD  ONS & WEIGHT	20A USB, RS232, RS485,	Overlo  Short circuit, Overallel port, REPO por Line mode, Bypas voltage, Input frequence	20/32/ 34/36/38/40/42/44/eice defined, 32 ve 50 pei 40A 20 ve 50 pei 40A 20 ve 50 pei 40A 21 ve 50 pei 40A 22 ve 50 pei 40A 23 ve 50 pei 40A 24 ve 50 pei 40A 25 ve 60A 26 ve 60A 27 ve 60A 28 ve 60	46/48/50 peice optional) ce without power loss; 3 fault, Low battery, etc. own e, Undercurrent, Fan faul rt, Intelligent slot, SNMP tery faulty, Overload & U frequency, Load percent	t alarm card (optional), Relay bo	0A		
Charge curiadjustable battery cap SYSTEM I Alarm EPO (Optio Protection Comunicat Status LED LCD Panel DIMENSIG	according to pacity FEATURES  nal)  ion & LCD  DNS & WEIGHT  mm)	USB, RS232, RS485,	Overlo  Short circuit, Overallel port, REPO por Line mode, Bypas voltage, Input frequence	20/32/ 34/36/38/40/42/44/ eice defined, 32 ve 50 pei  40A  bad, Line abnormal, UPS i  UPS shuts do erload, Over temperature t, LBS port, Backfeed poi s mode, Battery low, Bat y, Output voltage, Output	46/48/50 peice optional) ce without power loss; 3 fault, Low battery, etc. own e, Undercurrent, Fan faul rt, Intelligent slot, SNMP tery faulty, Overload & U frequency, Load percent	it alarm card (optional), Relay bo	0A		
Charge curiadjustable battery cap SYSTEM I Alarm EPO (Optio Protection Comunicat Status LED LCD Panel DIMENSIO DXWXH (r	according to pacity FEATURES  nal)  ion & LCD  DNS & WEIGHT  mm)	USB, RS232, RS485, Input	Overlo  Short circuit, Overallel port, REPO por Line mode, Bypas voltage, Input frequence	20/32/ 34/36/38/40/42/44/ eice defined, 32 ve 50 pei  40A  bad, Line abnormal, UPS of the shuts do the shuts	46/48/50 peice optional) ce without power loss; 3 fault, Low battery, etc. own e, Undercurrent, Fan faul rt, Intelligent slot, SNMP tery faulty, Overload & U frequency, Load percent	t alarm card (optional), Relay be per failure tage, Battery voltage	0A		
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Charge curiadjustable battery cap SYSTEM I Alarm EPO (Optio Protection Comunicat Status LED LCD Panel DIMENSIO D x W x H (r Weight (kg) ENVIRON	according to pacity FEATURES  nal)  ion & LCD  DNS & WEIGHT  mm) ) MENTAL	USB, RS232, RS485, Input	Overlo  Short circuit, Overallel port, REPO por Line mode, Bypas voltage, Input frequence	20/32/ 34/36/38/40/42/44/ eice defined, 32 ve 50 pei  40A  20ad, Line abnormal, UPS i  UPS shuts do erload, Over temperature tt, LBS port, Backfeed poi s mode, Battery low, Bat y, Output voltage, Output (850 x 2000	46/48/50 peice optional) ce without power loss; 3 fault, Low battery, etc. bwn e, Undercurrent, Fan faul rt, Intelligent slot, SNMP tery faulty, Overload & U frequency, Load percent	t alarm card (optional), Relay be per failure tage, Battery voltage	0A		
Charge curiadjustable battery cap SYSTEM I Alarm EPO (Option Protection Comunicat Status LED LCD Panel DIMENSIG D x W x H (r Weight (kg) ENVIRON Operating to	according to pacity FEATURES  nal)  ion & LCD  DNS & WEIGHT  mm) ) MENTAL	USB, RS232, RS485, Input	Overlo  Short circuit, Overallel port, REPO por Line mode, Bypas voltage, Input frequence	2/32/ 34/36/38/40/42/44/eice defined, 32 ve 50 pei 40A  20ad, Line abnormal, UPS i UPS shuts de erload, Over temperature t, LBS port, Backfeed poi s mode, Battery low, Bat y, Output voltage, Output 2/850 x 2000 537  0-40°C 0-95% relative humid <71dB	46/48/50 peice optional) ce without power loss; 3  fault, Low battery, etc. own e, Undercurrent, Fan faul rt, Intelligent slot, SNMP tery faulty, Overload & U frequency, Load percent  12  ity (non-condensing)  <72dB	it alarm card (optional), Relay be respectively. Expression of the state of the sta	0A		
Charge curiadjustable battery cap SYSTEM I Alarm EPO (Option Protection Comunicat Status LED LCD Panel DIMENSIC DxWxH (rweight (kg) ENVIRON Operating to Humidity	according to bacity  FEATURES  nal)  ion & LCD  ONS & WEIGHT  mm)  MENTAL temperature	USB, RS232, RS485, Input 600 x 850 x 160 398	Overlo  Short circuit, Overallel port, REPO por Line mode, Bypas voltage, Input frequence	2/32/ 34/36/38/40/42/44/eice defined, 32 ve 50 pei 40A  20ad, Line abnormal, UPS i UPS shuts de erload, Over temperature t, LBS port, Backfeed poi s mode, Battery low, Bat y, Output voltage, Output 2/850 x 2000 537  0-40°C 0-95% relative humid	46/48/50 peice optional) ce without power loss; 3  fault, Low battery, etc. own e, Undercurrent, Fan faul rt, Intelligent slot, SNMP tery faulty, Overload & U frequency, Load percent  12  ity (non-condensing)  <72dB	it alarm card (optional), Relay be respectively. Expression of the state of the sta	oard (optional)		
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Charge curiadjustable battery cap SYSTEM I Alarm EPO (Optio Protection Comunicat Status LED LCD Panel DIMENSIO Dx W x H (r Weight (kg) ENVIRON Operating thumidity Noise level Storage ter Altitude	according to bacity  FEATURES  nal)  ion & LCD  ONS & WEIGHT  mm)  MENTAL temperature	20A  USB, RS232, RS485,  Input  600 x 850 x 160  398  <70dB	Overlo  Short circuit, Overlo  Short circuit, Overlo  Line mode, Bypas voltage, Input frequence  00 600 x	2/32/ 34/36/38/40/42/44/eice defined, 32 ve 50 pei 40A  2 ve 50 pei 40A  2 ve 50 pei 40A  2 ve 50 pei 40A  2 ve 50 pei 40A  2 ve 50 pei 40A  2 ve 50 pei 40A  2 ve 50 pei 40A  2 ve 50 pei 40A  2 ve 50 pei 40A  2 ve 50 pei 40A  40A  2 ve 50 pei 40A  40A  2 ve 50 pei 40A  40A  40A  40A  40A  40A  40A  40A	46/48/50 peice optional) ce without power loss; 3  fault, Low battery, etc.  bwn e, Undercurrent, Fan faul rt, Intelligent slot, SNMP tery faulty, Overload & U frequency, Load percent  12  c; ity (non-condensing)  <72dB  without battery)	it alarm card (optional), Relay be reage, Battery voltage 200 x 850 x 2000 794	oard (optional)		
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Charge curiadjustable battery cap SYSTEM I Alarm EPO (Optio Protection Comunicat Status LED LCD Panel DIMENSIO D x W x H (r Weight (kg) ENVIRON Operating I Humidity Noise level Storage ter Altitude SOFTWAR Operating I Department of the storage ter Altitude SOFTWAR Operating I Department of the storage ter Altitude SOFTWAR Operating I Department of the storage ter Altitude SOFTWAR Operating I Department of the storage terms of	according to bacity FEATURES  nal)  ion & LCD  ONS & WEIGHT  mm) ) MENTAL temperature  mperature  RE & MANAGEMEN  Systems	20A  USB, RS232, RS485,  Input  600 x 850 x 160  398  <70dB	Overlo  Short circuit, Overloe  Short circuit, Overloe  Short circuit, Overloe  Line mode, Bypas  voltage, Input frequence  00 600 >	2/32/ 34/36/38/40/42/44/eice defined, 32 ve 50 pei  40A  2 ve 50 pei  40A  2 ve 50 pei  40A  2 ve 50 pei  40A  2 ve 50 pei  40A  2 ve 50 pei  40A  2 ve 50 pei  40A  2 ve 50 pei  40A  40A  2 ve 50 pei  40A  40A  2 ve 50 pei  40A  40A  40A  40A  40A  40A  40A  40	46/48/50 peice optional) ce without power loss; 3  fault, Low battery, etc. own e, Undercurrent, Fan faul rt, Intelligent slot, SNMP tery faulty, Overload & U frequency, Load percent  12  ity (non-condensing)  <72d B without battery) duce the rated power for  ws 10 64 bit	it alarm card (optional), Relay by PS failure tage, Battery voltage 200 x 850 x 2000 794	oard (optional)		
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## tuncmatik ULTRAONE 300/400/500/600 kVA















ONLINE UPS (3/3)

## ULTRAONE

#### Ultra silent, Ultra compact, Ultra easy maintenance

In the logic of a moduler UPS, with a modular design and can continue to operate partially with a missing module, our ultra quiet and compact <u>Ultra series UPSs</u>, offers unique ease of use to our valued customers.

#### Transformase-free structure

The use of transformase-free technology results in a significant reduction in the volumes and weights of the devices. Also the device provides improvements in important coefficients such as the ratio between the power of the device and the area it occupies. Since there is no transformer at the inverter outputs of transformerless UPSs, the electrical power loss of the device decreases and the efficiency of the device increases. This increase in efficiency reduces electricity costs. In addition, there is a reduction in acoustic noise level in transformerless UPSs. Since the DC intermediate circuit voltage is low in conventional UPSs, the increase in the UPS output voltage to the voltage level to be applied to the load is only achieved by using a step-up transformer at the inverter output; in transformerless UPSs, since the DC intermediate circuit voltage is already high enough, the voltage boost feature of the transformer is not needed.

#### Wide input voltage range

138-485 VAC. No load reduction is required when the input voltage is  $\geq$  305 VAC.

#### **Power Saving**

High input power factor, PF=0.99. It does not impose an additional compensation load on your main. It saves on your electricity bill.

#### High output power factor

Output power factor PF=1. UPS can power 100% unbalanced load. High adaptability for load, full inductive load or full capacitive load can be connected.













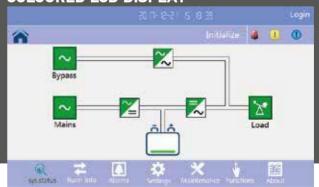
#### Parallel structure (Optional)

Ability to parallel up to 6 units, to achieve power redundancy, without the need for additional investment costs. A communication cable is sufficient for this.

#### Generator compatibility

By facilitating power transition from generator to load, it allows you to use generator with lower capacity.

#### **COLOURED LCD DISPLAY**





# tuncmatik ULTRA ONE 300/400/500/600 kVA ONLINE UPS (3/3)









CAPACIT	-v	300 kVA	400 kVA	500 kVA	600 kVA			
		300 kW	400 kW	500 kW	600 kW			
INPUT								
Phase			Three Phase+I					
Rated volta			380/400/4	415 VAC				
Voltage ran	ge		138~48					
Frequency i	ange		40 Hz-	·70 Hz				
Current THE	Di .		≤3% (100% <b>non-l</b>					
Bypass volt	age range	Max.voltage: 220 240 VA	VAC:+25 %( optional +10%, +15%, + AC:+15 %( optional +10%); Min. volta Frequency Protectior	ge:-45 %(optional-10%, -20%,-30%	1%, +15%); %)			
Power facto	r		≥ 0.	.99				
OUTPUT								
Rated volta	ge		380/400/4	415 VAC				
Power facto	br			1				
Voltage reg	julation		±1	%				
Frequency			1.Line Mode: sync with login; in (±1%/±2%/±4%/±5% optiona 2.Battery Mode:(\frac{1}{2}}	al), output (50/60±0.1%)Hz.				
Crest Factor			3:	1				
THDi			≤2% lineer load ≤49	% non-lineer load				
Eficiency			95 <sup>1</sup>	%				
Transfer tin	ne	Normal to battery: 0ms; Normal to bypass: 0ms						
AC Mode		Load ≤110%: 60 min. ≤125%: 10 min. ≤150%: 1 min.						
Overload	Battery Mode	Load ≤110%: 60 min. ≤125%: 10 min. ≤150%: 1 min.						
	By-pass Mode	Temperature ≤30°C, load ≤ 135%: works for a long time / Temperature ≤ 40°C, load ≤ 125% works for a long time / 1000% load: runs up to 100ms						
BATTERY								
Voltage		±180V/192V/±204V/±216V /±228V/±240/±252/±264/±276/±288/±300 VDC (30/32/34/36/38/40/42/44/46/48/50 peice optional) 360 VDC~600 VDC (30~50 piece, 40 piece defined; 30 adet çıkış güç faktörü 0.8)						
battery cap	according to acity	100 A	120 A	160 A	180 A			
	FEATURES	Mind Day of Day ( h o d lot)Po( )						
Status LED	& LCD	Mains mdu, Bypass mode, Battery low, Battery faulty, Overload & UPS failure						
LCD Panel		Input voltage, Input frequency, Output voltage, Output frequency, Load percentage, Battery voltage						
Audio & Vis	ual	Line failure, Low battery, Overload, System fault						
EPO (Opsio			UPS shuts	s down				
DIMENSIO	ONS & WEIGHT							
DxWxH(n	nm)	600 x 850 x 1600	600 x 850 x 2000	1200 x 85	0 x 2000			
Weight (kg)		398	537	79	94			
ENVIRON	MENTAL							
Operating t	emperature	0-40°C						
Humidity			0-95% relative hum	nidity (non-condensing)				
Noise level		<70dB	<71dB	<72dB	<73dB			
Storage ten	nperature	-25°C∼55°C (without battery)						
Altitude		<1500m. > when 1500m, reduce the rated power for use						
SOFTWAF	RE & MANAGEMENT	т						
Operating 9	Systems		Muser 5000: Win	dows 10 64 bit				
Interfaces			CAN, RS485, FE, LBS, Parallel, relay	y card, SNMP card (optional)				
STANDAF	RDS							
EMC		IEC/EN62040-3,IEC	61000-4-2,IEC61000-4-3,IEC61000-	-4-4,IEC61000- 4-5,IEC61000-4-6,IE	EC61000-4-8			
Safety			CE,EN/IEC 62040-3,	EN/IEC 62040-1-1				

### tuncmatik

## **MODULTECH** 30/1560 kVA

ONLINE UPS



#### Why modular UPS

The most obvious advantage of modular UPSs is that they can reach larger powers in a smaller space. In critical applications where each square meter is extremely important and expensive, such as datacenters, UPSs should optain maximum power in minimum areas. Modular UPSs meet this requirement. In addition, thanks to its high efficiency, it provides low energy consumption because of that the product pays itself back in a short time. It minimizes your system downtime costs thanks to its fast maintenance and repairing without stopping the system abilities.

#### Advantages of modular structure

- Fast installation
- Fast maintenance and repair without stoping the system
- Low maintenance cost
- Low cost capacityincreasing
- N+X redundancy
- Plug and play power modules
- Flexible scalable UPS cabinet
- Flexible scalable battery cabinet

#### Modular systems for capacity increase and high security

- High security N+X structure
- kVA=kW, more active power thanks to output power factor equaling 1 (possibility of connecting more loads to the same power UPS)
- Thanks to the modular structure, it grows with your business (capacity increasing ability with horizontal and vertical architecture)
- High efficiency (low energy cost)
- Easy and fast service opportunity thanks to its modular structure; hence reduced service and maintenance costs.
- Thanks to its low THDi value, it does not damage the line it is connected to and provides economy by reducing losses.

  • More than one device can be fed from the same battery group.
- Full compatibility with all country conditions thanks to its wide input voltage and frequency range.







UPS Kabini Kontrol Paneli

#### Grows with your business

The most suitable architecture for future capacity increases. For example; For a data center with a need of 240 kVA, 240kVA is obtained by using a cabinet with a capacity of 10 modules and 8 30kVA modules. There are 2 empty module slots in the cabin. As the data center load increases, 30kVA modules can be added to the cabinet to increase up to 300kVA without any additional investment.

#### High input power factor

Power supplies draw reactive energy as well as active energy from the line. The high reactive energy brings additional costs by increasing the losses. In MODULTECH UPS devices, as the power factor (PF) approaches 1 reactive energy consumption decreasesand these losses do not occur.

#### Low input current harmonics

It is the measure of how close the current to be drawn from the network fed by the power source is in sinusoidal form. It is expressed by the abbreviation THDi. This value is expected to be low in a quality power source. Currents with high harmonic values increase power losses and voltage distortions and adversely affect other loads fed from the same source. Modular UPS devices meet low harmonic expectations with <3% THDi value.

#### **Applications**

Datacenters, Hospitals, Airports, Factories, Lighting, Emergency Power Systems, Smart Buildings











## Modulin

## 10 kVA Modular RT UPS

#### DSP technology guarantees high reliability

Digital Signal Processor (DSP) technology, digitizes data and mathematically processes it to provide an advanced solution with higher performance.

#### Output power factor 1.0

Modulin UPS which has 1.0 power factor for can provide high efficiency and improved performance in the critical aplications.

#### Operation in ECO mode to save energy

Efficiency is increased by up to 97% to reduce energy use and cost thanks to ECO mode. In this mode, loads are supply directly from the mains. The UPS provides uninterrupted power to the connected device, When mains is shot down.

#### **Generator Operation**

Modulin UPS can be operating with generator for your critical loads.

#### Hot swappable structure for power increase, installation and maintenance

It has a patented modular design to provide power increase and maintenance flexibility. By simply unscrewing the four screws on the connector box; the power module can be easily removed from the cabinet without disconnecting all the cables. This also simplifies the maintenance and replacement process.

#### True Double-Convertion online technology

It has online double conversion technology to effectively protect against mains disruptions and provide longer design life.

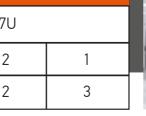
#### Ability to operation in parallel with common battery packs

Compared with the general parallel system; multiple Modulin UPS can form a parallel power backup system by sharing common battery packs, which can greatly reduce the cost and achieve the same performance.

#### 19" design suitable for use in Vertical / Horizontal cabinet

It is designed for vertical / horizontal use to increase ease of use. Thanks to its 19" rack design, it makes it easy to optimize costs in changing power demands.

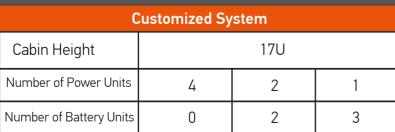
Customized System						
Cabin Height	17U					
Number of Power Units	4	2	1			
Number of Battery Units	0	2	3			











<sup>\*</sup>This customized system will be an embedded 1U central communication unit.





## Modulin

## 10 kVA Modular RT UPS



MODEL		Madulia DT 2/2 10//	Madulia DT 2/1 10V	Madulia DT 1/1 10V			
		Modulin RT 3/3-10K	Modulin RT 3/1-10K	Modulin RT 1/1-10K			
PHASE		2100 2100 2100 2100 2100 2100 2100 2100					
CAPACITY PARALLEL CA	ADADII ITV	10000 VA / 10000 W					
INPUT	APABILITY		10				
Nominal Volta							
Nominal Volta	age	3 x 360VAC/380VAC/ 400V 190-520 VAC (3F		208/220/230/240 VAC (1Ph+N+PE) 110-300 VAC @ 50% load			
Voltage Range	e	305-478 VAC (3P		176-276 VAC @ 100% load			
Frequency Ra	inge		40 Hz ~ 70 Hz				
Power Factor			≤0.99 @ 100% load				
THDi			< 4% @ full linear load				
OUTPUT							
Output Voltage		360VAC/380VAC/400VA0		208/220/230/240 VAC (1Ph+N)			
	egulation (Batt. Mode)		± 1%				
	ange (Synchronized)		46~54Hz or 56~64Hz				
	ange (Batt. Mode)		50 Hz ± 0.1 Hz or 60 Hz ± 0.1 Hz				
Current Crest			3:1 (max.)				
Harmonic Dist		2%1	THD (Linear Load) ; ≤ 3% THD (Non-linear Load)				
Transfer	AC Mode to Batt. Mode		Zero				
Time	Inverter to Bypass		Zero				
Waveform (B	·	Pure Sinewave					
AC Mode	CY	2/0/	2/2/	22.5%			
ECO Mode		94%	94%	93,5%			
ECU Mode		97%	97%	97%			
Battery Mode	At Full Load Peak	93% 93,5%	92,5% 93%	92% 92,5%			
BATTERY	1 Curt	73,370	70,70	72,070			
Battery Voltag	ge		± 12V / 9 Ah				
Battery Numb	pers	16 ~ 20 pcs (adjustable) x 2					
Nominal Volta	age	+/-192V (12V x 32 pcs)					
Maximum Vol	ltage	+/- 240V (12V x 40 pcs)					
Minimum Volt	tage	+/-192V (12V x 32 pcs)					
Charging Volta	age	± 218V					
Typical Recha	rging Time	9 hours recover to 90% capacity					
Charging Curr	rent	± 4A					
INDICATO	RS						
LCD/LED Disp	play	UPS status, Load level, Battery level, Input/Output voltage, Discharge timer, and Fault conditions					
DIMENSI0	NS & WEIGHT						
D X W X H (mi	m)	678 x 418 x 129 [3U]					
Weight (kgs)		20,5					
ENVIRONN	MENTAL						
Operation Hur	midity	0-95 % RH @ 0- 40°C (non-condensing)					
Noise Level		Less than 55dB @ 1 Meter					
SOFTWAR	E & MANAGEMENT						
Smart RS-232		Win	dows® 2000/2003/XP/Vista/2008/7/8/10, Linux ar	nd MAC			
SNMP (Option	nal)	Pov	ver management from SNMP manager and web b	rowser			
EPO (Optiona			UPS immediatly shuts down				
EPO (Optional)		OF 3 ITTITIEUTALLY STULES UUWIT					

<sup>\*</sup>Derate capacity to 90% of capacity when the output voltage is adjusted to 208VAC. Product specifications are subject to change without further notice



Before using these products carefully read the important informations, user guide and instructions manuel. **tuncmatik** cannot be held responsinle for network performance and/or the products of other manufacturers used on the network. Technical specifications can change without notice.



Tunçmatik Elektrik Malzemeleri Sanayi ve Ticaret A.Ş.

İstanbul Headquarters

Eyüp Sultan Mah. Müminler Cad. No:82 34885 Sancaktepe ISTANBUL T: +90 216 314 51 51 F: +90 216 420 35 29 info@tuncmatik.com