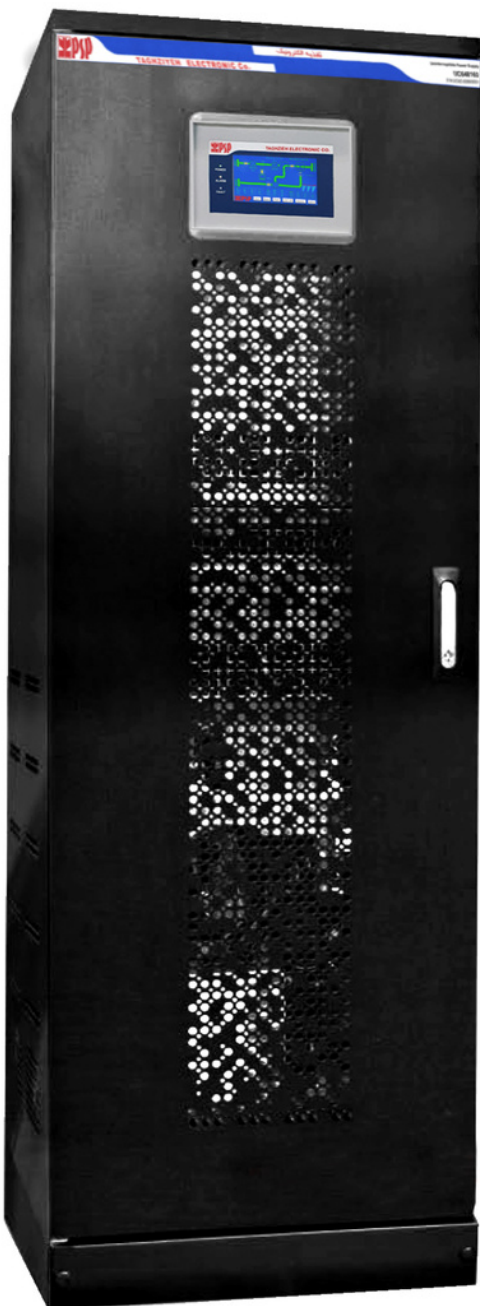


**POWER SUPPLY PRODUCTION Co.**

# PSP UC SERIES



**Semi industrial UPS solutions engineered by PSP Power Solutions have been protecting Industry, telecom & data center, Hospitals and Medical Centers, transportation, facilities, banks, chemical processing units, public buildings and Transmission & Distribution.**

**Three Phase Input**

**Single & Three Phase output**

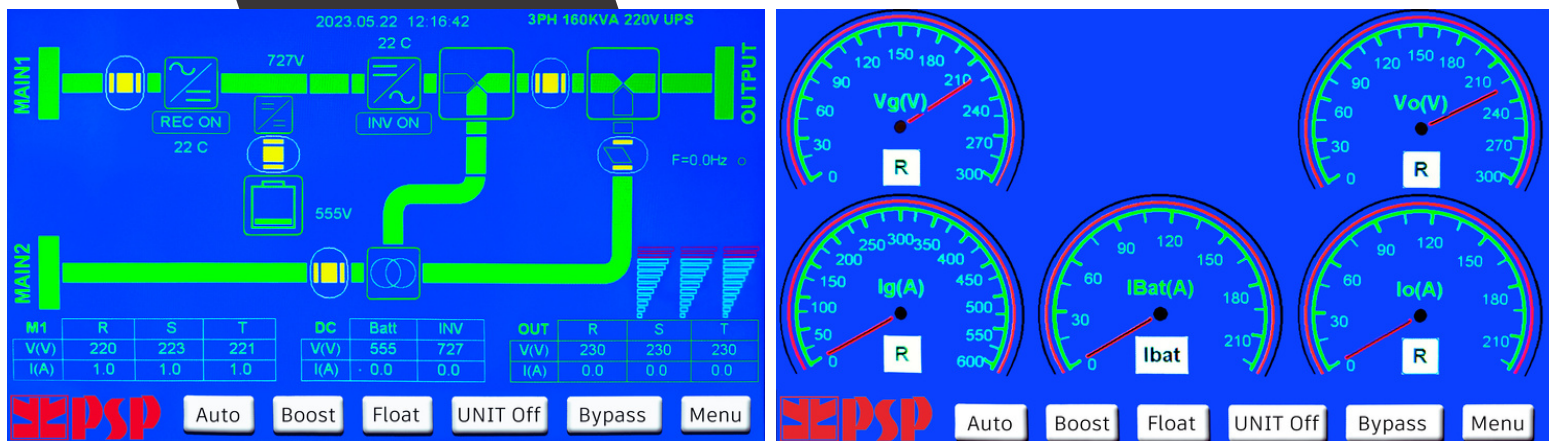
**Single and Parallel Configuration**

**UCS → Single Phase Output: 10-150 KVA**

**UCT → Three Phase Output: 20-500 KVA**

**Engineering is Our Business:**

**Commercial UPS solutions engineered by PSP Power Solutions have been protecting Industry, telecom & data center, Hospitals and Medical Centers, transportation, infrastructure and Transmission & Distribution that Designed for semi-industrial applications.**

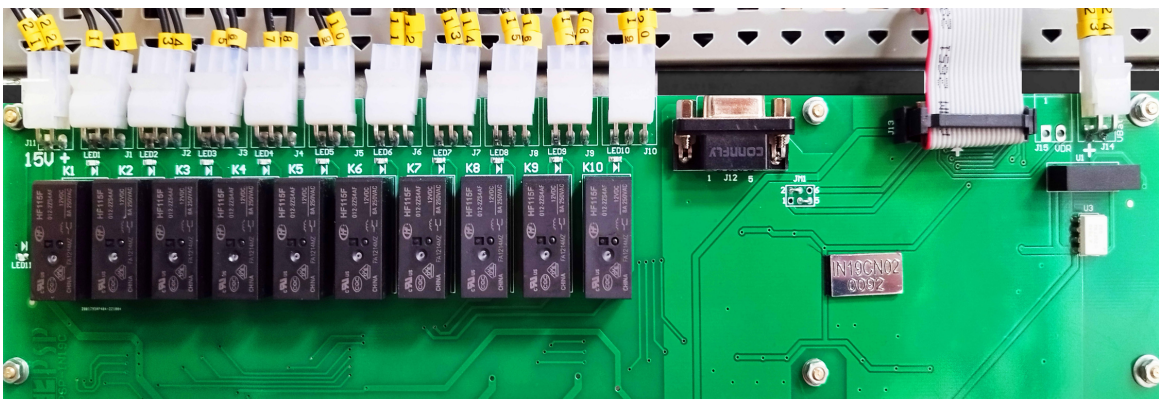


## MODERN HUMAN MACHINE INTERFACE:

The 10inch touchscreen of UC series facilitates a comprehensive and flexible human machine interface (HMI). An easy and intuitive operation and control of the system is achieved through:

- Intuitive menu structure
- Color display
- Mimic diagram
- LED status indications

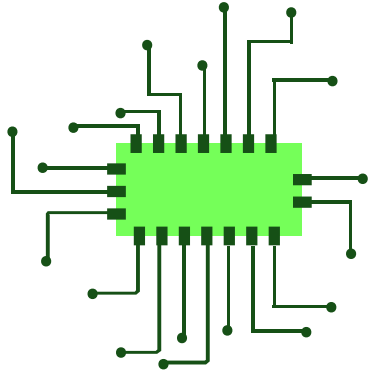
Includes many advantageous features in standard configuration:



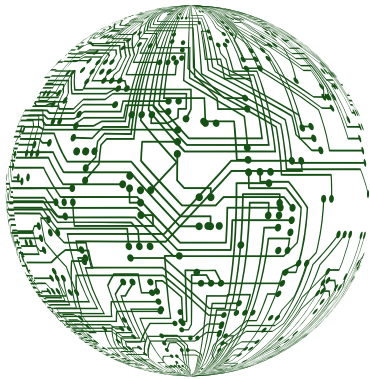
In contrast to the market standard, the UC system includes many advantageous features already in the standard configuration, such as:

- SNMP (Ethernet) communication board
- HTTP (Ethernet) communication board
- Dry-contact relay board
- Alarm relay card
- Large colour touchscreen
- Input-, output- and manual bypass switches

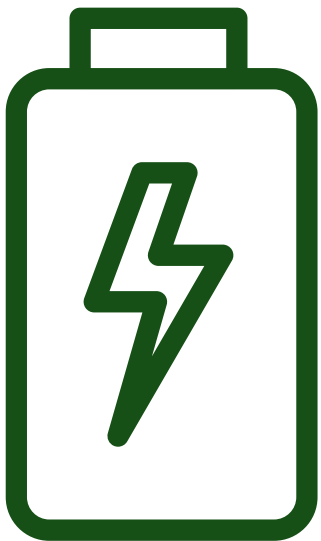
## Key features through new design:



- Improving load side voltage harmonic distortion of main in load side
- Fast transient response to main voltage fluctuations
- Output voltage regulation lower than 2.0% with very high-resolution controller
- Lower maintenance service in comparison with traditional designs
- Automatic bypass capability under unit failure lower than 4ms
- Double conversion online UPS with high efficiency (up to 94 %)
- Output Power transformer inverter design for robustness and isolating from input ground



## Reliable battery use and management:



- Battery monitoring and management is a key factor for a reliable and durable power back-up. The UC has class leading built-in features, such as:**
- **Battery connect/disconnect check**
  - **Battery monitoring (battery capacity)**
  - **Automated / manual partial discharge testing**
  - **Compatible with different battery types**
  - **Two charge voltages battery**
  - **Battery healthy check**
  - **Boost Charge Mode reduces battery recharge time**

# Features and Benefits:



Online UPS with high efficiency large power range 20–500 kVA



Power factor Corrected (PFC) rectifier without input power transformer and no reactive power consumption



Consistent operation over full range



Touchscreen with large control panel various communication possibilities



Designed for medium and high-power applications



Designed of redundant configurations



Built-in inverter transformer with DC-AC galvanic separation



IGBT, PWM controlled inverter with high efficiency and low output THD



High personalization grade with new mimic for signals, alarms, meters



Bypass line compatible with grid or generator voltage



Advanced Battery Care (ABC) extends battery lifetime



High efficiency thanks to Power Efficiency Mode (PEM)

# Technical specification:

Rating kVA	30	40	60	80	100	125	160	200	250	300	400	500
<b>Rated active output power (cos = 1) kW</b>	30	40	60	80	100	125	160	200	250	300	400	500
AC / AC efficiency @ 25 % load	92.0 %	92.0 %	93.0 %	93.0 %	93.0 %	93.0 %	93.0 %	94.5 %	94.5 %	94.5 %	94.8 %	94.8 %
(VFI - online double @ 50 % load conversion)	93.5 %	93.5 %	94.5 %	94.5 %	94.5 %	94.5 %	94.5 %	95.5 %	95.5 %	95.8 %	96.0 %	96.0 %
@ 75 % load	94.0 %	94.0 %	95.0 %	95.0 %	95.0 %	95.0 %	95.0 %	96.0 %	96.0 %	96.0 %	96.0 %	96.0 %
@ 100 % load	94.0 %	94.0 %	95.0 %	95.0 %	95.0 %	95.0 %	95.0 %	95.5 %	95.5 %	95.5 %	95.6 %	95.6 %
Rated input voltage	400 V AC											
Tolerance	-20 / +15 %											
Input frequency (selectable)	50-60 Hz											
Tolerance	+ / -10 %											
Input current harmonic @ 25 % load distortion (THDi)	< 5											
@ 50 % load	< 4											
(at rated voltage, @ 75 % load)	< 3											
THDv < 0.5 % @ 100 % load	< 3											
Output voltage static stability	+ / -1 %											
<b>Rated output current (@ 400 V AC)</b>	44 A	58 A	87 A	115 A	144 A	180 A	231 A	289 A	361 A	433 A	577 A	700 A
Overload capability >100...125 % / 110 % for 160-500 kVA unit	10 min											
>110...125 % / Only for 160-500 kVA unit	5 min											
>125...150 %	30 s											
>150 %	100 ms											
Short circuit current	101 A	133 A	265 A	330 A	400 A	490 A	640 A	720 A	900 A	1050 A	1400 A	1800 A
Short circuit characteristic	Current limited electronic protection. Automatic stop after 5 seconds.											
Output wave form	Sinusoidal											
Automatic bypass	Electronic thyristor switch											
Protection	Fuses											
Rated input voltage (selectable)	380 - 400 - 415 V AC											
Tolerance	+ / -10 %											
Overload capability	150 % continuously											
	1000 for 1 cycle											
Manual bypass	- Electronically controlled											
	- No-break assisted re-start procedure											
<b>Rating kVA</b>	30	40	60	80	100	125	160	200	250	300	400	500
<b>Rated active output power (cos = 1) kW</b>	30	40	60	80	100	125	160	200	250	300	400	500
<b>General Data</b>												
Ambient temperature	UPS 0÷40 °C											
Relative humidity (non condensing)	< 95 %											
Altitude	< 1000 m (above sea level)											
Power derating for altitude > 1000 m	IEC/EN 62040-3 0.5 % every 100 m											
Cooling	Forced											
Acoustic noise (IEC/EN 62040-3)	< 57 dB	< 60 dB					< 65 dB			< 72 dB		
Protection degree	IP20											
Colour / Paint	RAL 9005 (other colour optional)											
Safety	IEC/EN 62040-1											
EMC	IEC/EN 62040-2											
Performance & Test	IEC/EN 62040-3											
Conformity	CE-Label											
Accessibility	100 mm from the wall											
Installation	Front and side access Against the wall											
Front panel	LCD			Touchscreen 7"					Touchscreen 10"			
Serial communication interface	Standard: RS232/USB Optional: RS485 (ModBus RTU protocol)											
Parallel configuration (optional)	Up to 5+1 (parallel redundant) Up to 6 (power parallel)											

# About PSP Co.



*"Anything worth having takes time."*

PSP is a company specialized in custom design, manufacturing and servicing of power electronics equipment for ICT, industrial, oil & gas and energy applications. PSP R&D department is one of the most complete regarding the different disciplines in the field of power conversion.

Long experience in semiconductors and magnetic component design is combined with the most advanced digital regulation algorithms and microcontroller programming know-how. PSP has a leading position in the oil and gas market thanks to its proven customizing expertise and continuous

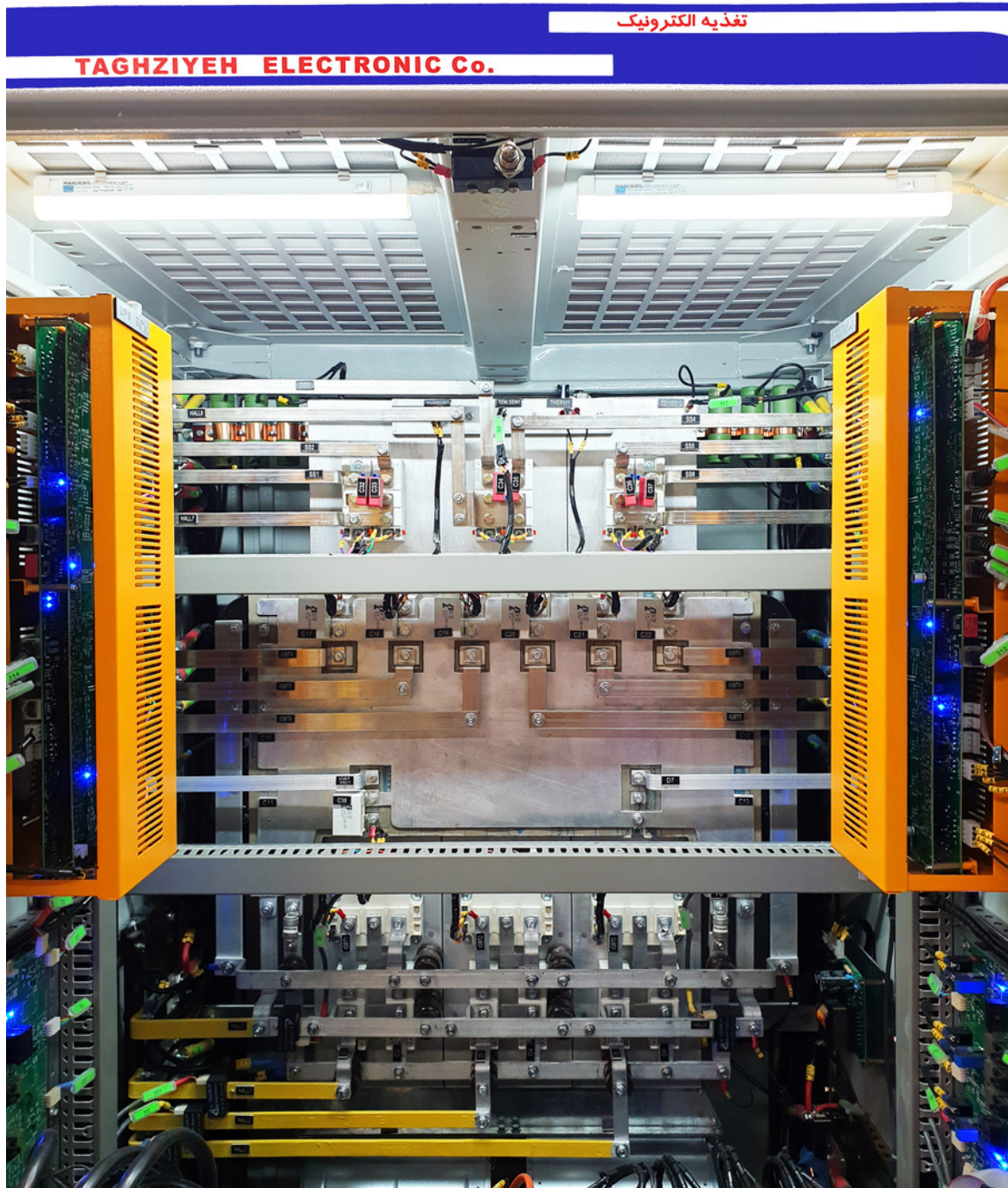
pursuit of excellence in a state-of-the-art product. However, wide experience in several branches of power electronics such as UPS systems for data centers and inverters make PSP a leader in this technology not only for oil and gas applications.

# Services:

With over 48 years of expertise in power electronic systems, PSP is renowned for its unparalleled services and technical support in critical application environments. The reliability of your installed power solution is supported by a global service team renowned for its short response time and trouble shooting efficiency. Choosing PSP preventive maintenance options gives you the ultimate peace of mind reassuring complete cost control, security and uninterrupted power supply in utmost critical situations.

**LISTENING TO OUR CUSTOMERS AND  
DELIVERING STATE-OF-THE-ART,  
TAILORED SYSTEMS HAS BEEN OUR  
VOCATION FOR MORE THAN 48  
YEARS.**

# Tolid Manabe Taghzieh Electronic (PSP)Co.



[www.psp.ir](http://www.psp.ir)



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