



POWER SUPPLY PRODUCTION COMPANY

PSP.UM/UN

INDUSTRIAL UPS

Single parallel and Redundant Configurations

Three Phase Input

UM → Single Phase Output

1-150 kVA

UN → Three Phase Output

5-400 kVA

Engineering is what drives us

Industrial UPS solutions engineered by PSP Power Solutions have been protecting oil and gas infrastructure, power stations and other industrial applications for more than 46 years.

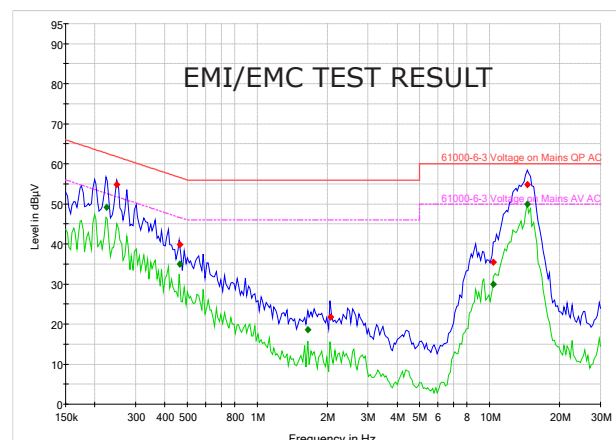
Designed for all industrial applications

PSP.UM/UN, the latest generation of our UPS product range is extremely robust, both electrically and mechanically. It is custom-designed for use in harsh industrial environments to meet the toughest product customization requirements:

- » Specific mechanical protection degree
- » Specific input and output voltage
- » Customized documentation

PSP UPS for Industrial Applications

- » Oil and gas (Petrochemicals, Offshore, On-shore, Pipelines)
- » Energy and electricity generation (Power generation, Transmission, Distribution)
- » Water (Desalination, Treatment)
- » Instrumentation and process control (Chemicals, mining, steel, paper)
- » Emergency lighting
- » Telecommunication systems



61000-6-3 Voltage on Mains QP AC Preview Result 1-PRK+ Final Result 1-OPK
61000-6-3 Voltage on Mains AV AC Preview Result 2-AVG Final Result 2-AVG



PSP.UM/UN Specification

Features and Benefits

- Full set of battery charging methods
- 6-pulse or 12-pulse Thyristor rectifier bridge
- Load voltage regulation with very high resolution
- Custom designed for high power applications
- Custom designed for redundant configurations
- Built-in inverter transformer With DC-AC galvanic separation
- IGBT, PWM controlled inverter With high efficiency and low output THD
- Bypass line isolation transformer with new generation of dynamic voltage restorer with active filter features
- Improving load side voltage harmonic distortion of main in load side
- Fast transient response to main voltage fluctuations
- Output voltage regulation lower than 1.0% with very high resolution controller
- Lower maintenance service in comparison with traditional designs

Model (UM/UN)	U-115 --	U-115 --	U-115 --	U-115 --	U-115 --	U-220 --	U-220 --
	U-220 --	U-220 --	U-220 --	U-220 --	U-220 --	U-400 --	U-400 --
Single Phase Nominal Power KVA	1-3	3-10	10-30	30-50	50-75	75-120	120-150
Three Phase Nominal Power KVA	5-20	20-50	50-100	100-150	150-200	200-300	300-400
RECTIFIER UNIT	6 and 12 Pulse Topology						
Nominal AC Input Voltage	380/400 V ±10 % (3-PHASE)						
Charging Modes	1. Float (2.23 (V/C) for Lead/Sealed Acid and 1.4 (V/C) for NiCad Battery) 2. Boost/Equalize (2.33 (V/C) for Lead Acid and 1.5 (V/C) for NiCad Battery) 3. Initial (2.7 (V/C) for Lead Acid and 1.7 (V/C) for NiCad Battery) 4. Automatic mode: Time-Current-Voltage-Energy 5. Free Mode						
Nominal DC Voltage	110V-480V						
INVERTER UNIT							
Nominal Output AC Voltage	110V/220V/230V(SINGLE PHASE) 380V/400V(3-PHASE)						
Output voltage static response	< ±1 %						
Recovery time	< 4ms						
Frequency	50/60 Hz (selectable), ±0.001 Hz free running, ±2 Hz synchronized with mains						
Crest Factor	Max 3						
Total Harmonic Distortion-THD	<3 % linear load; < 5 % non -linear load						
Overload capacity	125% for 10 min; 150% for 1 min; 200% for 100 ms						
Static Bypass Switch	Equipped with new generation of Stabilizer unit						
Efficiency	Up to 92%						



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Design for high power applications

- Automatic bypass capability under unit failure lower than 4ms
- High personalization grade with new mimic for signals, alarms, meters
- Comprehensive set of communication options for total remote monitoring of equipment operation.
- Optional input passive harmonic filters for reducing input current total harmonic distortion

General Data																																
Dimensions WxD (cm)	Height is 210 cm or 160 cm , width varies with output voltage range and rating																															
	60x60 60x100 90x90 120x100																															
Color	Ral 7035 , Ral7032 and other options																															
Operating temperature	-10 °C ~ +50 °C																															
Storage temperature	-20 °C ~ +70 °C																															
Altitude	<2000 m (according to EN 62040)																															
Humidity	95% non condensing																															
Audible noise at 1 meter (dBA)	<60 dB(A) - depending on rating																															
Cooling	Natural/Forced ventilation																															
Protection degree (IEC 60529)	IP20/IP21/IP42 (other options)																															
Connectivity	SPDT contact relay card Optional: RS485 Modbus-RTU serial ports Ethernet SNMP/WEB adapter, remote monitoring software																															
INDICATORS & ALARMS																																
RECTIFIER/INVERTER/AVR FAIL	<p>10" Touchable LED On Front Panel & Free Contact</p>																															
INPUT AC ABNORMAL																																
OVER HEAT ALARM/TRIP																																
OVER LOAD/SHORT CIRCUIT																																
BATTERY/OUTPUT DC LOW/HIGH																																
WEAK/DEAD BATTERY																																
RECTIFIER/INVERTER/AVR ON/OFF																																
FREQUENCY HIGH/LOW																																
DC/AC EARTH FAULT																																
INPUT SEQUENCE/PHASE FAIL																																
AC/DC BREAKER POSITION INDICATOR																																
RECTIFIER/BATTERY CURRENT LIMIT																																
BATTERY TEST/DISCONNECT STATUS																																
CHARGING MODE																																
MBS MODE																																
BATT. REVERSE CONNECTION																																
<table border="1"> <thead> <tr> <th colspan="2">IN</th> <th colspan="3">DC</th> <th colspan="2">INV</th> <th colspan="3">OUT</th> </tr> <tr> <th>V(V)</th> <th>I(A)</th> <th>R</th> <th>Batt</th> <th>V(v)</th> <th>I(A)</th> <th>V(V)</th> <th>R</th> <th>S</th> <th>T</th> </tr> </thead> <tbody> <tr> <td>228</td> <td>2.0</td> <td>228</td> <td>2.0</td> <td>246</td> <td>0.0</td> <td>230</td> <td>0.0</td> <td>0.0</td> <td>0.0</td> </tr> </tbody> </table>		IN		DC			INV		OUT			V(V)	I(A)	R	Batt	V(v)	I(A)	V(V)	R	S	T	228	2.0	228	2.0	246	0.0	230	0.0	0.0	0.0	
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Who we are

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 developed a leading position in 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.



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1976
2021

Listening to our customers and delivering state-of-the-art, tailored systems has been our vocation for more than 46 years.

Services

With over 46 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 rapid response 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.