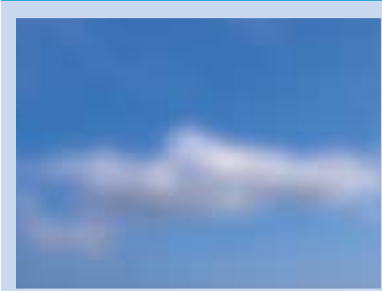


90-NET

up to 800 kVA

CHLORIDE
POWER PROTECTION



Good flexibility: adaptable to meet your needs

An important goal has been reached by Chloride R&D department with the development of the HFC (High Fault Clearance) parallel configuration. This enables simultaneous switching on all available standby lines (both UPS and system). The resulting very high short circuit current ensures excellent selectivity of the protection systems downstream of the UPS.

The HFC parallel configuration is an addition to two other configurations:

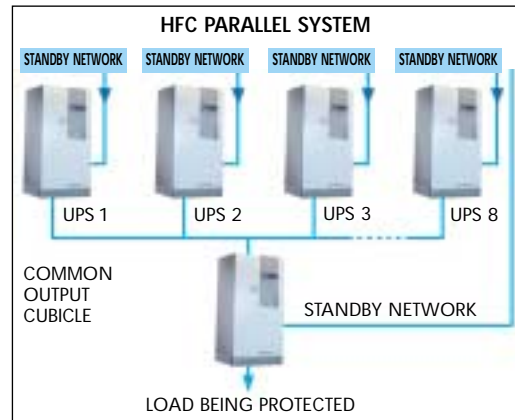
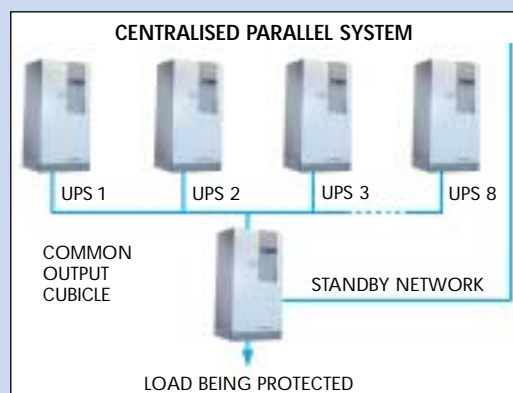
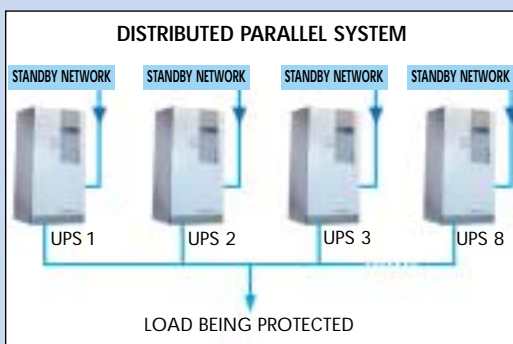
- The distributed parallel configuration increases the power of the energy supply system but keeps costs low.
- The centralised parallel configuration protects with absolute reliability thanks to the addition of a common output cubicle with a common standby line for the whole system.

Now, for the first time, the distributed parallel configuration can be converted into the centralised one, and vice versa, to meet the ever changing needs of customers.

This versatility to meet current demands, and flexibility to adapt to future changes, are indispensable attributes to respond to technological developments. Indeed, they are features which characterise the new 90-NET parallel configuration.

The guarantee of LIFE2000

When your UPS demands require assistance 24 hours a day, 365 days a year, LIFE2000 becomes an indispensable tool. This is the first and only remote diagnosis program designed to solve all



problems in real time.

Your UPS is continuously and remotely connected to the Chloride Life Command Center. This means that any disturbance or fault to your system is not only identified and diagnosed by our service personnel, but also rectified, even before you are aware that any problem has arisen.

You will also be sent a routine report detailing all the functioning information relating to your UPS.

This program means that you can delegate responsibility for your system to the Chloride Life Command Center.

From maximum reliability to maximum savings

The reliability of 90-NET is confirmed by the use of the most efficient architecture available on the market today: Double Conversion. Even under heavy-duty power supply conditions, this architecture offers maximum protection against non-linear loads, fluctuations, harmonic distortion and all other power supply disturbances. The IGBT inverter, controlled by the Vector Control system, functions at all times and supplies the load by adjusting output voltage and frequency.

90-NET is able to combine the reliability offered by Double Conversion technology with the efficiency provided by Digital Interactive topology. By selecting Digital Interactive technology consistent energy savings will be assured.

Excellent performance

An important development is the reduction of harmonic distortion achieved by adopting 12 step rectifiers and THD filters. This ensures perfect compatibility with all systems.

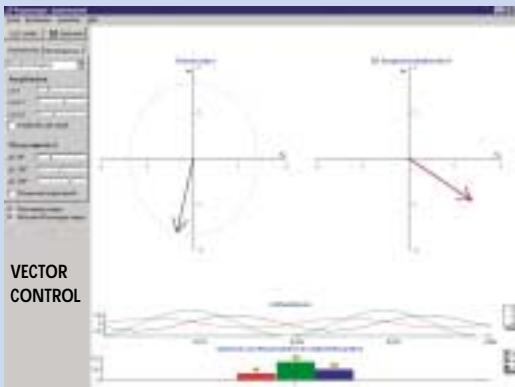
The 90-NET range of UPS systems ensures an ample selection of performance characteristics:

- Automatic increase of nominal output power as a function of ambient temperature (10% more power in controlled environments).
- IGBT (Insulated Gate Bipolar Transistor) inverter.



- Oversized neutral conductor. This ensures compatibility with non-linear loads (high crest factor).
- Excellent performance even with unbalanced loads.

These UPS come into their own when constant power supply quality cannot be guaranteed. This is ably demonstrated by the excellent tolerance to voltages and frequencies differing from the nominal values. This means that voltages up to 25% less than the nominal value can be tolerated, without adversely affecting the batteries.



Advanced Battery Care

The batteries, the UPS standby power supply, ensure that there is a continuous power supply even if the mains power supply is cut. 90-NET performs a check-up on the battery. A fully automatic routine test, programmable by you, checks battery efficiency. Furthermore, the Battery Management option means that the tests can be done individually on each battery block.

Above all 90-NET automatically adapts battery recharge voltage as a function of temperature. These and other important factors increase autonomy by 30%. All of this means a significant reduction in operating costs.

Customising Your UPS

The innovative performance levels of the 90-NET are further improved by integration with the CROSS static switch assembly. This provides protection against all potential problems in the distribution system by immediately switching to a backup system in the event of a fault.

The switch is synchronised thanks to the MBSM (Multiple Bus Syncro Module) which ensures UPS synchronisation.

The automatic conversion by CROSS from one secure power source to another provides genuine "double" redundancy. This ensures total final load reliability.

What better reliability than 90-NET integrated with CROSS?

The 90-NET also establishes continuous contact with the customer. The system automatically records all the data and keeps you informed of its status in a way most suited to your needs. Integration with the modem means that 90-NET can benefit from the protection offered by LIFE2000.

The system is fitted with a twin serial port and a computer interface for connection with software applications. A liquid crystal display describes functioning parameter status in 6 different languages.

The customer is ensured a wide range of power and autonomy levels, as well as numerous options.

Some of the main ones are listed below:

- Graphics software, including PPVIs for local control and detailed diagnosis.
- Kit for communication with J-BUS or profi-bus protocol and the ManageUPS card enabling Tel Net, network and SNMP monitoring.
- Galvanic isolation transformer.
- Remote synoptic to accompany you anywhere.

It's good to know that you can depend on a continuously reliable UPS that can be adapted to your needs and which grows with your company.



CHLORIDE

POWER PROTECTION

TECHNICAL CHARACTERISTICS	60	80	100	120	160	200	250	300	400	500	600	800
Apparent nominal output power at 25° C (kVA)	66	88	110	132	176	220	275	330	440	550	660	880
Apparent nominal output power at 40°C (kVA)	60	80	100	120	160	200	250	300	400	500	600	800
INPUT												
Nominal input voltage/voltage tolerance (V)	400 ± 15% (380 V, 415 V selectable) three-phase											
Nominal reserve voltage/voltage tolerance (V)	400 ± 10% (380 V, 415 V selectable) three-phase + neutral											
Nominal input frequency/frequency tolerance (Hz)	50/60 ± 5% (Hz)											
Input current distortion to nominal input current THD (%)	30	30	30	30	30	30	5	5	5	5	5	5
OUTPUT												
Nominal output voltage (V)	400 (380 V, 415 V selectable) three-phase + neutral											
Output voltage stability (%) by load variation 0-100%												
- static	± 1											
- dynamic	± 5											
Output frequency (nominal) (Hz)	50/60 Hz (selectable)											
Output frequency variation (%)												
- with network synchronisation	± 0.75 (1.5, 2.5, 6.0 selectable)											
- with own oscillator	± 0,05											
Inverter overload capacity	125% for 10 min., 150% for 1 min.											
Output power factor	PF 0,8											
Automatic adjustment of nominal power	110% at 25° C; 100% at 40° C											
GENERAL												
Operating temperature (°C)	0 - 40											
Recommended battery temperature (°C)	+ 15 / + 25											
Relative humidity (without condensation at 20° C)	< 90%											
Protection level	IP 20											
Colour	Cubicle RAL 7035, base RAL 7010											
Noise at 1 m (dBA)	62	62	62	64	65	65	68	68	70	72	75	75
AC/AC efficiency (%) in double conversion mode	92,0	92,0	92,5	92,5	93,0	93,0	91,1	91,5	92	92	92	92
AC/AC efficiency (%) in digital interactive mode	97,0	97,0	97,0	97,0	97,0	97,0	97,0	97,0	97,0	97,0	97,0	97,0
Parallel configuration	up to 8 units in centralized, modular and HFC configuration											
DIMENSIONS AND WEIGHT												
Height (mm)	1780	1780	1780	1780	1780	1780	1780	1780	1780	1780	1780	1980
Width (mm)	820	820	1020	1020	1420	1420	2040	2040	2040	2840	3860	3860
Depth (mm)	858	858	858	858	858	858	858	858	858	858	1058	1058
UPS weight (kg)	750	750	1050	1050	1300	1300	1900	1900	2700	2900	4450	5400

The research and development work done by Chloride means that an important goal has been reached in the electrical power supply sector.
The new 90-NET uninterruptible power supply system is the result of modern digital technology applied to power supply protection.

Reliability, power and flexibility are ensured even under the most critical power supply conditions, whatever the company or economic sector, be it telecommunications, e-commerce, finance, transport or health services.



VECTOR CONTROL: reliability in real time

The watchword for 90-NET is VECTOR CONTROL, the first digital control system for UPS systems.

VECTOR CONTROL technology enables all overloads, frequency variations, transient disturbances, brief interruptions and blackouts to be eliminated in real time, thanks to digital control based on DSP. This new method of digitally processing signals is 10 times quicker than current analogue methods. This ensures levels of security that were unheard of before today, especially with very critical loads.

The jewel in the Chloride UPS crown is available up to 800 kVA, and can be expanded up to a power of 6400 kVA when configuring in parallel up to 8 UPS with the same power capacity.

Chloride also enables you to integrate the UPS with the CROSS static switch assembly. The whole system up to the final load will benefit from very high levels of reliability.

90-NET performance is at its best when the UPS is integrated with the LIFE2000 remote control system to ensure absolute security 24 hours a day, 365 days a year.

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