



Powercords, cables and connection systems for specific applications



PATELEC GROUP HQ
ITALY



PATELEC ELPENA
POLAND



PATELEC NINGBO
CHINA



DUTEX
ITALY



PATELEC NINGBO
JAXING BRANCH



Global leader in the production of power cords, cables, and connection systems

Patelec GROUP has been on the market for over 50 years with high technological know-how and a worldwide recognized experience in the production of electrical cables and power cords, with a complete integrated vertical process. Our production covers a variety of applications from power tools to cleaning products and pumps, electro-medical instruments, from small to large consumer and professional electrical appliances.

Strategically very effective, unlike other competitors, Patelec Group responds to specific needs of different markets through a wide range of solutions and homologated products, always ensuring a full quality control, for each manufacturing step.

Recently, the group has acquired a new business unit, a major step that has allowed us to complete the current range of products (electrical cords and cables), with the production of wire harnesses and cable-set, addressed mainly to the white industry and submersible pumps.

Today Patelec Group has more than 800 employees and a strong geographic presence in Europe with the headquarters in Italy (Cerrina Monferrato - Alessandria), a manufacturing plant of wire harnesses in Lombardia, near Milan (Italy), a strategic facility in Poland (Legnica), close to the border with Germany and in the Far East, with factories located in China (Ningbo). The production of the five plants is interchangeable and currently we can export in more than 35 countries: our strategic localization and our large range of worldwide homologations enables us to serve our customers located worldwide and to support them in their global export.

Our strengths are:

- vertical and integrated production processes, from the copper rod to the assembling of electrical cables and power cords for specific applications
- high production capacity
- flexibility in the logistic solutions and worldwide homologations
- ability to produce customized products from small to mass production.



COPPER

Copper rod transformation into single and multi wires, in compliance with the **EN13602** and **EN60228** standards



CABLES

Low voltage PVC and Rubber Cables, including cable system, according to specific customer requirements for various applications



CORDSETS



The widest range of customized cordsets with worldwide homologation for specific industrial, professional and consumer applications



WIRE HARNESSSES

Customized cords, cable assemblies and wire harnesses with various components to realize complete connection systems.

WORLDWIDE HOMOLOGATIONS

| | | | |
|---|---|--------|-------------------------|
|  |  | ENEC | European UNION |
|  |  | IMQ | ITALY |
|  |  | VDE | GERMANY |
|  |  | DEKRA | HOLLAND |
|  |  | SEMKO | SWEDEN |
|  |  | PSE | JAPAN |
|  |  | IRAM | ARGENTINA |
|  |  | UCIEE | BRAZIL |
|  |  | BSI | UNITED KINGDOM |
|  |  | SABS | SOUTH AFRICA |
|  |  | DEMKO | DENMARK |
|  |  | SEV | SWITZERLAND |
|  |  | NEMKO | NORWAY |
|  |  | SPRING | SINGAPORE |
|  |  | CCC | CHINA |
|  |  | SAA | AUSTRALIA |
|  |  | SII | ISRAEL |
|  |  | KC | KOREA |
|  |  | cUL | UNITED STATES CANADA |
|  |  | SASO | SAUDI ARABIA |
|  |  | GMARK | GULF STATES |



SPECIFIC CORDSET FOR SPECIFIC APPLICATION

Patelec is a perfect global partner, offering to the industrial, professional and consumer markets, a full range of products in terms of customer final applications and worldwide homologations.

Our production covers a variety of markets: from power tools to cleaning products and pumps, electro-medical instruments, from white industry to the professional lighting market, from small to large consumer and professional appliances.

Our strategic localization serves our customers located worldwide with full control of the manufacturing process and quality system, also granted by our vertical integrated manufacturing process, that enables us to serve the market with the highest flexibility in terms of batch sizes per plug and cable type reducing the **MOQ** in case of small runners.





White Industry

Our products range includes:

- Main European and worldwide plugs;
- Heat resistant cords in PVC, Rubber or Silicone for cooking application (H05V2V2-F/ H05BB-F/ H05GG-F/ H05SS-F);
- Green products (H05Z1Z1-F);
- Customized assemblies and connection solutions;
- Cable sets and cords assemblies including terminal blocks;
- Re-wirable plugs (Norway Plug).



White Hoods

Our products range includes:

- PVC cords with main European plugs and worldwide plugs;
- Finishing with splices on customer requirement;
- IEC Connectors.

In order to increase our commercial presence in this market we are developing also our connectors range specific for hoods.



Small Appliances

Our products range includes:

- Main European plugs and worldwide plugs;
- Heat resistant PVC and Rubber cords for hot and oil applications;
- Green products;
- Coffee machines connectors;
- Customized assemblies and connection solutions.



Personal Care

We are developing the market of professional hair dryer offering products with the following main features:

- Extra flexible and pull resistance cords;
- Very light and shiny PVC cables;
- Heat resistant cords;
- Full color range available;
- Customized marking;
- ALCI for UL market.



Lighting

The main features of typical products for this market are:

- Inline switch according UL Standards;
- Water resistant housing IP44 or higher (splash proof);
- SOOW cords and cables range (water-resistant for heavy duty applications);
- Cords assemblies with silicone cables for high temperatures applications, till 180°C approved;
- Patelec offers also customized products for the lamp industry and used in floodlights for movie sets outside or inside TV studios;
- Textile braided cable.



Professional Cleaning

We are able to fulfill typical field requirements as:

- Extra flexible and pull resistance cords;
- Plug inserts and cords construction specifically develop to resist to extra pull and mechanical stress typical of professional cleaning usage;
- Outdoor and Water resistant cable combined with splash proof European and UL Plugs (IP44 or higher);
- Customized strain relief & assemblies;
- Customized coiling;
- Green cable and power cords for outdoor and water resistant application;
- GFCI assemblies for European and US market.



Health Care

We are able to fulfill typical field requirements as:

- Extra flexible cords;
- Spiral cords;
- Full color range available;
- Customized solution in power connection systems;
- Hospital Grade 5-15 for the USA market:
 - > in the standard version;
 - > with LEDs to indicate the voltage;
 - > with Ground Pin with a high mechanical resistance.



Powertools

The main features of the typical products for this market are:

- Heavy Duty cordsets for heavy professional powertool application;
- Pull resistance cords;
- Extra flexible cords appliance and plug side;
- Re-wirable plugs for Industrial Application (for example the 300TW PLUG FOR INDUSTRIAL PURPOSE-REWIRABLE TYPE);
- Green products (PAH COMPLIANT RN/SJ).

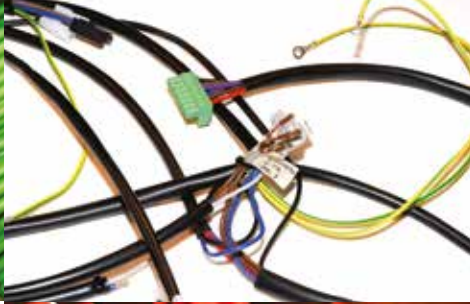


Pumps Industry

We are able to fulfill typical field requirements as:

































- Extra flexible and pull resistance;
- Cable length up to 40 meters;
- Special cables as H07RN8-F and H05RN-F in Sub-water Version;
- Outdoor and Water resistant cable combined with splash proof European and UL cords in rubber or PVC (IP44 or higher);
- Customized pump cords finishing – i.e. special cut in resin window for sealing application;
- Resin sealing on pump cords;
- Green products (PAH COMPLIANT RN/SJ/SJOW)
- Drinkable cable POSEIDON © CLEAN.

WIRE HARNESSES



WORLD POWER SUPPLY CONFIGURATIONS




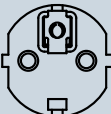



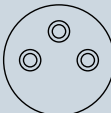



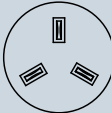
NEMA Configurations:

| VOLTAGE RATING | 15AMP | | 30AMP | | | | 50AMP | |
|------------------------------|--|--|--|--|--|--|--|---|
| | Receptacle | Plug | Receptacle | Plug | Receptacle | Plug | Receptacle | Plug |
| 125V 2 Pole 2 Wire | 1-15R  | 1-15P  | | | | | | |
| 250V 2 Pole 2 Wire | 2-15R  | 2-15P  | 2-20R  | 2-20P  | 2-30R  | 2-30P  | | |
| 125V 2 Pole 3 Wire Ground | 5-15R  | 5-15P  | 5-20R  | 5-20P  | 5-30R  | 5-30P  | 5-50R  | 5-50P  |
| 250V 2 Pole 3 Wire Ground | 6-15R  | 6-15P  | 6-20R  | 6-20P  | 6-30R  | 6-30P  | 6-50R  | 6-50P  |
| 277V 2 Pole 3 Wire Ground | 7-15R  | 7-15P  | 7-20R  | 7-20P  | 7-30R  | 7-30P  | 7-50R  | 7-50P  |

IEC 60320 Configurations:

| CONNECTORS | TEMP RATING | CLASS | AMPERE RATING |
|--|-------------|-------|---------------|
| C1/C2  | 70°C | II | 0,2 |
| C3/C4  | 70°C | 0 | 2,5 |
| C5/C6  | 70°C | I | 2,5 |
| C7/C8  | 70°C | II | 2,5 |
| C9/C10  | 70°C | II | 6 |
| C11/C12  | 70°C | 0 | 10 |
| C13/C14  | 70°C | I | 10 |
| C15/C16  | 120°C | I | 10 |
| C17/C18  | 70°C | II | 10 |
| C19/C20  | 70°C | I | 16 |
| C21/C22  | 155°C | I | 16 |
| C23/C24  | 70°C | II | 16 |

International Plugs Configurations:

| PLUG CONFIGURATION | TYPE OF PLUG |
|---|--|
|  | North America NEMA 1 - 15 (ungrounded) |
|  | North America Nema 5 - 15P |
|  | Europe EN 50 075 (ungrounded) |
|  | Europe CEE 7 "Schuko" |
|  | Europe Denmark |
|  | Europe Switzerland SEV 1011 |
|  | Europe Italy CEI 23 - 16/VI |
|  | Old British Standard BS 546 |
|  | British Standard 1363 |
|  | Australia AS 3112 (ungrounded) |
|  | Australia AS 3112 |
|  | Israel |



LOW VOLTAGE CABLES

Patelec through its verticalized and integrated manufacturing process, offers a wide range of customized low voltage power and control cables, in compliance with major international standards (HAR, IEC, UL, AUSTRALIAN, CHINESE, JAPANESE) with an extended range of high performing materials, suitable for industrial, outdoor and heavy duty applications as well as specific uses in drinking and ATEX environments.



SYSTEM FOR DESIGNATION OF HARMONIZED CABLES

1 2 3 4 5 6 7 8 9

| | | |
|---|---|--|
| H | 1 | SPECIFICATION REFERENCE Cable according to harmonized specification Recognized national type of cable |
| 03 05 07 | 2 | RATED VOLTAGE U₀/U U ₀ /U = 300/300 V U ₀ /U = 300/500 V U ₀ /U = 450/750 V |
| V R G Z1 | 3 | INSULATING MATERIALS Polyvinyl-chloride Syntetic rubber EVA Halogen Free |
| V R B N T N4 N8 G Q Z1 | 4 | SHEATH MATERIALS Polyvinyl-chloride Syntetic rubber Syntetic rubber - 90° Polychloroprene or equivalent Textile braid Polychloroprene or equivalent Polychloroprene or equivalent EVA Polyurethane Halogen Free |
| H H2 | 5 | SPECIAL CONSTRUCTION AND SHAPES Flat construction of divisible cables Flat construction of non-divisible cables |
| F | 6 | TYPE OF CONDUCTOR Flexible conductor and High flexible conductor |
| | 7 | NUMBER OF CORES |
| H H2 | 8 | With green/yellow wire Without green/yellow wire |
| | 9 | NOMINAL CROSS SECTION CONDUCTOR (mm²) |

Discover our products on www.patelec.eu



PATELEC

Via Nazionale, 6
15020 Cerrina Monferrato (AL)
Italy
Phone: (+39) 0142 950211
Fax: (+39) 0142 950224

pi@patelec.eu

PATELEC Elpena Sp. z o.o.

ul. Sw. Wojciecha, 24
59 220 Legnica
Poland
Phone: (+48) 76 72 25 111
Fax: (+48) 76 72 25 113

pe@patelec.eu

PATELEC Ningbo Electric Co., Ltd.

Hehuaqiao Industrial Zone
Yunlong Town - Ningbo
315135 Zhejiang - China
Phone: (+86) 574 8806 0108
Fax: (+86) 574 8806 0101

ningbo@patelec.eu

PATELEC - DUTEX SRL

Viale dell'Artigianato, 21
24049 Verdello (BG)
Italy
Phone: (+39) 035 4829559
Fax: (+39) 035 0662435

dutex@patelec.eu

Our certified quality management system ensures
that our customers can rely on our products and services

