



Servicios de Diseño, instalación y  
Mantenimiento en Plantas Industriales



Interventoría y Consultoría de Proyectos.



Trabajamos en todo el territorio  
Nacional



# CONFIABILIDAD CORPORATIVA

*Eklima*  
Confiabilidad energética corporativa

 **ISIMEC**  
Sistemas Integrados de Energía



[www.eklimasas.com](http://www.eklimasas.com)



**ISIMEC**  
Servicios Integrados de Ingeniería

**Eklima**

Consultoría energética corporativa

## Quienes Somos..

Somos una empresa de Ingenieros con visión y presencia a nivel nacional , conformada por profesionales altamente calificados, con calidad humana y altos valores éticos, cada uno con un alto sentido de servicio al cliente y enfocados a obtener grandes resultados a traves de la buenaadministración de los recursos y el conocimiento, con estandares de calidad que garantizan la satisfaccion del cliente.

Nuestros Servicios de Diseño, Construccion, Mantenimiento y Supervisión estan orientados a generar valor a nuestros clientes a través de la aplicación de nuevas tecnologías.



# PORTAFOLIO DE PRODUCTOS Y SERVICIOS

## Línea de Servicios de Ingeniería Eléctrica

- Consultoría (Ingeniería Conceptual, Diseño y desarrollo de Proyectos de Generación Distribuida de Energía Solar de menor y mayor escala, Llave en mano, en Sistemas Aislados y con conexión al Operador de Red.
- Energías Alternativas ( Instalación y puesta en marcha de Sistemas Solares Fotovoltaicos de acuerdo a las necesidades y requerimientos del cliente.
- Diseño, construcción y montaje de instalaciones eléctricas de alta, baja y media tensión para edificios, industrias, Plantas Farmacéuticas, de alimentos, centros comerciales, etc.
- Diseño de sistemas de Telecomunicaciones, Instalación y mantenimiento de Equipos.

## Nuestros Productos

- Sistemas ininterumpidos de energía UPS
- Sistemas de Soporte DC Rectificadores Eléctricos
- sistemas Inversores para AC a partir de Bancos de Baterías existentes
- Baterías tipo GEL , AGM, Inundadas, de diferentes tamaños
- Sistemas Solares de bombeo y apoyo agropecuario
- sistemas de Energía Solar Fotovoltaica
- Generadores de Energía Eléctrica
- Diseño y suministro de luminarias y sistemas de alumbrado público
- Soporte eléctrico para estaciones de Telecomunicaciones y redes de Computo
- Diseño de sistemas de protecciones y sistemas de puesta a tierra
- Drones aéreos y submarinos
- Sistemas de Control para aplicaciones de IOT
- Redes de computadores y adquisición de tecnologías de sistemas de educación digitales



# PORTAFOLIO DE PRODUCTOS Y SERVICIOS

## Línea de Diseño, fabricación, mantenimiento y montajes industriales

- Líneas y redes de tubería.
- Estructuras metálicas (Entramadas, colgantes, para techos y cubiertas, etc.)
- Torres de enfriamiento e intercambiadores de calor.
- Sistemas de transmisión y transporte.
- Mantenimiento general de tanques (Sandblasting, pintura, inspección cambio de elementos, etc.)
- Sistemas de dosificación y llenado de líquidos, granulado y sólidos.

## Línea de Automatización, instrumentación y control industrial

- Elaboración de filosofías de control, arquitectura, planos eléctricos y P&ID.
- Selección, suministro y mantenimiento de Instrumentación electrónica y neumática de piso de planta, válvulas de control y de seguridad, equipos de superficie O&G (Separadores, Gun barrel, Botas de gas, Scrubber, City Gate, etc.)
- Calibración y verificación de instrumentos para medición de variables (Presión, flujo, nivel, temperatura, etc.)
- Implementación de Sistemas Scada y programación de PLCs y HMI para telemetría y control en sitio.
- Automatización general de líneas de proceso.



# PORTAFOLIO DE PRODUCTOS Y SERVICIOS

## Línea de Suministro, montaje, alineación y mantenimiento de bombas

- Bombas centrifugas sumergibles, autocebantes para agua residual y combustibles.
- Bombas de engranajes en bronce y acero inoxidable para fluidos corrosivos.
- Bombas de paletas deslizantes para fluidos viscosos.
- Bombas peristálticas para fluidos altamente abrasivos y corrosivos.
- Servicio de alineación y mantenimiento en campo a bombas con alineador laser y chapas certificadas (Shims).

## Línea de Servicios especializados

- Auditoría sobre la ejecución de proyectos Llave en Mano
- Precomisionamiento y comisionamiento en plantas de procesos industriales y sistemas y equipos de Telecomunicaciones,
- Arranque de planta y operación temprana
- Capacitación técnica.



# NUESTRA EXPERIENCIA

Nuestra experiencia esta basada en estandares de alta calidad y un equipo altamente especializado en servicios de ingenieria integrados para proyectos industriales



# PRODUCTOS DE ENERGIA FOTOVOLTAICA Y ENERGIAS RENOVABLES



## Baterías tipo GEL

VRLAe inundadas

## Analizadores de red y equipos para soluciones eléctricas



## Variadores de velocidad para bombas de agua y pozos

## Inversores de sistemas solares desconectados de red



Controladores de carga solar  
MPPT 150/75 y 150/60



## **Inversores de sistemas solares conectados a red**



Ministère de l'Énergie

## **Paneles solares hasta 600 W con calidad francesa**



## **Sistemas solares para bombeo.**



# **Sistemas fotovoltaicos para viviendas, escuela e industria.**



**Sistemas de energía  
convencionales y de respaldo.**



**Alumbrado público  
solar y luminarias LED.**



# PANELES SOLARES



ECO GREEN ENERGY  
Building a Greener World

| ECO- GREEN     | DESCRIPCION                                                                                                                                                                                                                                                                                            |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EGE-330W-420M  | Panel Solar Mono peric 120 celdas marca Ecogreen 330W, Vmp:33.87V, Ismp: 9.69A, VOC: 40.35V, ISC: 11.63A, Eficiencia: 20.45%, Dimensiones: Largo: 1780mm x ancho: 960mm, peso: 20.5 kg MC4 compatible celdas grado A, antiPID/Low LID protection Certificaciones IEC 61215/IEC 61701/IEC 61704/UL 6170 |
| EGE-340P-38    | Panel poly 340W Ecogreen                                                                                                                                                                                                                                                                               |
| EGE-400W-400L  | Panel poly 400W Ecogreen                                                                                                                                                                                                                                                                               |
| EGE-400W       | Panel mono peric media celda 400W Ecogreen                                                                                                                                                                                                                                                             |
| EGE-550W-MPEBC | Panel Mono Media Celda 550W Ecogreen                                                                                                                                                                                                                                                                   |



**INVERSORES SOLARES  
SISTEMAS DESCONECTADOS DE LA RED**

| EQUIPOS DE CONTROL VOLTRONIC                        |                                                                            |                                                                                   |
|-----------------------------------------------------|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| SERIE 0000 - AJUSTADA (200 VAC)                     |                                                                            |                                                                                   |
| CONTROL 00                                          | Controlador de potencia para 200 VAC - Regulador de potencia               |  |
| CONTROL 01                                          | Controlador de potencia para 200 VAC - Regulador de potencia               |                                                                                   |
| CONTROL 02                                          | Controlador de potencia para 200 VAC - Regulador de potencia               |                                                                                   |
| CONTROL 03                                          | Controlador de potencia para 200 VAC - Regulador de potencia               |                                                                                   |
| CONTROL 04                                          | Controlador de potencia para 200 VAC - Regulador de potencia               |                                                                                   |
| SERIE 0000 - AJUSTADA (2000 EN UNO) (200 VAC)       |                                                                            |                                                                                   |
| CONTROL 01                                          | Controlador de potencia para 2000 EN UNO (200 VAC) - Regulador de potencia |  |
| CONTROL 02                                          | Controlador de potencia para 2000 EN UNO (200 VAC) - Regulador de potencia |                                                                                   |
| CONTROL 03                                          | Controlador de potencia para 2000 EN UNO (200 VAC) - Regulador de potencia |                                                                                   |
| CONTROL 04                                          | Controlador de potencia para 2000 EN UNO (200 VAC) - Regulador de potencia |                                                                                   |
| CONTROL 05                                          | Controlador de potencia para 2000 EN UNO (200 VAC) - Regulador de potencia |  |
| CONTROL 06                                          | Controlador de potencia para 2000 EN UNO (200 VAC) - Regulador de potencia |                                                                                   |
| CONTROL 07                                          | Controlador de potencia para 2000 EN UNO (200 VAC) - Regulador de potencia |                                                                                   |
| CONTROL 08                                          | Controlador de potencia para 2000 EN UNO (200 VAC) - Regulador de potencia |                                                                                   |
| CONTROL 09                                          | Controlador de potencia para 2000 EN UNO (200 VAC) - Regulador de potencia |                                                                                   |
| SERIE 0000 - AJUSTADA REGULACIONES 12 VDC 0 04 V DC |                                                                            |                                                                                   |
| CONTROL 01                                          | Controlador de potencia para 12 VDC 0 04 V DC                              |  |
| CONTROL 02                                          | Controlador de potencia para 12 VDC 0 04 V DC                              |                                                                                   |
| CONTROL 03                                          | Controlador de potencia para 12 VDC 0 04 V DC                              |                                                                                   |
| CONTROL 04                                          | Controlador de potencia para 12 VDC 0 04 V DC                              |                                                                                   |

## INVERSORES HIBRIDOS Y CONECTADOS A LA RED

| HIBRIDOS/ ON-GRID - CONEXIÓN A RED (120 VAC) |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | P & P |  |
|----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|--|
| 200W-250W-300W                               | 200W-250W-300W-350W-400W-450W-500W-550W-600W-650W-700W-750W-800W-850W-900W-950W-1000W-1050W-1100W-1150W-1200W-1250W-1300W-1350W-1400W-1450W-1500W-1550W-1600W-1650W-1700W-1750W-1800W-1850W-1900W-1950W-2000W-2050W-2100W-2150W-2200W-2250W-2300W-2350W-2400W-2450W-2500W-2550W-2600W-2650W-2700W-2750W-2800W-2850W-2900W-2950W-3000W-3050W-3100W-3150W-3200W-3250W-3300W-3350W-3400W-3450W-3500W-3550W-3600W-3650W-3700W-3750W-3800W-3850W-3900W-3950W-4000W-4050W-4100W-4150W-4200W-4250W-4300W-4350W-4400W-4450W-4500W-4550W-4600W-4650W-4700W-4750W-4800W-4850W-4900W-4950W-5000W-5050W-5100W-5150W-5200W-5250W-5300W-5350W-5400W-5450W-5500W-5550W-5600W-5650W-5700W-5750W-5800W-5850W-5900W-5950W-6000W-6050W-6100W-6150W-6200W-6250W-6300W-6350W-6400W-6450W-6500W-6550W-6600W-6650W-6700W-6750W-6800W-6850W-6900W-6950W-7000W-7050W-7100W-7150W-7200W-7250W-7300W-7350W-7400W-7450W-7500W-7550W-7600W-7650W-7700W-7750W-7800W-7850W-7900W-7950W-8000W-8050W-8100W-8150W-8200W-8250W-8300W-8350W-8400W-8450W-8500W-8550W-8600W-8650W-8700W-8750W-8800W-8850W-8900W-8950W-9000W-9050W-9100W-9150W-9200W-9250W-9300W-9350W-9400W-9450W-9500W-9550W-9600W-9650W-9700W-9750W-9800W-9850W-9900W-9950W-10000W-10050W-10100W-10150W-10200W-10250W-10300W-10350W-10400W-10450W-10500W-10550W-10600W-10650W-10700W-10750W-10800W-10850W-10900W-10950W-11000W-11050W-11100W-11150W-11200W-11250W-11300W-11350W-11400W-11450W-11500W-11550W-11600W-11650W-11700W-11750W-11800W-11850W-11900W-11950W-12000W-12050W-12100W-12150W-12200W-12250W-12300W-12350W-12400W-12450W-12500W-12550W-12600W-12650W-12700W-12750W-12800W-12850W-12900W-12950W-13000W-13050W-13100W-13150W-13200W-13250W-13300W-13350W-13400W-13450W-13500W-13550W-13600W-13650W-13700W-13750W-13800W-13850W-13900W-13950W-14000W-14050W-14100W-14150W-14200W-14250W-14300W-14350W-14400W-14450W-14500W-14550W-14600W-14650W-14700W-14750W-14800W-14850W-14900W-14950W-15000W-15050W-15100W-15150W-15200W-15250W-15300W-15350W-15400W-15450W-15500W-15550W-15600W-15650W-15700W-15750W-15800W-15850W-15900W-15950W-16000W-16050W-16100W-16150W-16200W-16250W-16300W-16350W-16400W-16450W-16500W-16550W-16600W-16650W-16700W-16750W-16800W-16850W-16900W-16950W-17000W-17050W-17100W-17150W-17200W-17250W-17300W-17350W-17400W-17450W-17500W-17550W-17600W-17650W-17700W-17750W-17800W-17850W-17900W-17950W-18000W-18050W-18100W-18150W-18200W-18250W-18300W-18350W-18400W-18450W-18500W-18550W-18600W-18650W-18700W-18750W-18800W-18850W-18900W-18950W-19000W-19050W-19100W-19150W-19200W-19250W-19300W-19350W-19400W-19450W-19500W-19550W-19600W-19650W-19700W-19750W-19800W-19850W-19900W-19950W-20000W-20050W-20100W-20150W-20200W-20250W-20300W-20350W-20400W-20450W-20500W-20550W-20600W-20650W-20700W-20750W-20800W-20850W-20900W-20950W-21000W-21050W-21100W-21150W-21200W-21250W-21300W-21350W-21400W-21450W-21500W-21550W-21600W-21650W-21700W-21750W-21800W-21850W-21900W-21950W-22000W-22050W-22100W-22150W-22200W-22250W-22300W-22350W-22400W-22450W-22500W-22550W-22600W-22650W-22700W-22750W-22800W-22850W-22900W-22950W-23000W-23050W-23100W-23150W-23200W-23250W-23300W-23350W-23400W-23450W-23500W-23550W-23600W-23650W-23700W-23750W-23800W-23850W-23900W-23950W-24000W-24050W-24100W-24150W-24200W-24250W-24300W-24350W-24400W-24450W-24500W-24550W-24600W-24650W-24700W-24750W-24800W-24850W-24900W-24950W-25000W-25050W-25100W-25150W-25200W-25250W-25300W-25350W-25400W-25450W-25500W-25550W-25600W-25650W-25700W-25750W-25800W-25850W-25900W-25950W-26000W-26050W-26100W-26150W-26200W-26250W-26300W-26350W-26400W-26450W-26500W-26550W-26600W-26650W-26700W-26750W-26800W-26850W-26900W-26950W-27000W-27050W-27100W-27150W-27200W-27250W-27300W-27350W-27400W-27450W-27500W-27550W-27600W-27650W-27700W-27750W-27800W-27850W-27900W-27950W-28000W-28050W-28100W-28150W-28200W-28250W-28300W-28350W-28400W-28450W-28500W-28550W-28600W-28650W-28700W-28750W-28800W-28850W-28900W-28950W-29000W-29050W-29100W-29150W-29200W-29250W-29300W-29350W-29400W-29450W-29500W-29550W-29600W-29650W-29700W-29750W-29800W-29850W-29900W-29950W-30000W-30050W-30100W-30150W-30200W-30250W-30300W-30350W-30400W-30450W-30500W-30550W-30600W-30650W-30700W-30750W-30800W-30850W-30900W-30950W-31000W-31050W-31100W-31150W-31200W-31250W-31300W-31350W-31400W-31450W-31500W-31550W-31600W-31650W-31700W-31750W-31800W-31850W-31900W-31950W-32000W-32050W-32100W-32150W-32200W-32250W-32300W-32350W-32400W-32450W-32500W-32550W-32600W-32650W-32700W-32750W-32800W-32850W-32900W-32950W-33000W-33050W-33100W-33150W-33200W-33250W-33300W-33350W-33400W-33450W-33500W-33550W-33600W-33650W-33700W-33750W-33800W-33850W-33900W-33950W-34000W-34050W-34100W-34150W-34200W-34250W-34300W-34350W-34400W-34450W-34500W-34550W-34600W-34650W-34700W-34750W-34800W-34850W-34900W-34950W-35000W-35050W-35100W-35150W-35200W-35250W-35300W-35350W-35400W-35450W-35500W-35550W-35600W-35650W-35700W-35750W-35800W-35850W-35900W-35950W-36000W-36050W-36100W-36150W-36200W-36250W-36300W-36350W-36400W-36450W-36500W-36550W-36600W-36650W-36700W-36750W-36800W-36850W-36900W-36950W-37000W-37050W-37100W-37150W-37200W-37250W-37300W-37350W-37400W-37450W-37500W-37550W-37600W-37650W-37700W-37750W-37800W-37850W-37900W-37950W-38000W-38050W-38100W-38150W-38200W-38250W-38300W-38350W-38400W-38450W-38500W-38550W-38600W-38650W-38700W-38750W-38800W-38850W-38900W-38950W-39000W-39050W-39100W-39150W-39200W-39250W-39300W-39350W-39400W-39450W-39500W-39550W-39600W-39650W-39700W-39750W-39800W-39850W-39900W-39950W-40000W-40050W-40100W-40150W-40200W-40250W-40300W-40350W-40400W-40450W-40500W-40550W-40600W-40650W-40700W-40750W-40800W-40850W-40900W-40950W-41000W-41050W-41100W-41150W-41200W-41250W-41300W-41350W-41400W-41450W-41500W-41550W-41600W-41650W-41700W-41750W-41800W-41850W-41900W-41950W-42000W-42050W-42100W-42150W-42200W-42250W-42300W-42350W-42400W-42450W-42500W-42550W-42600W-42650W-42700W-42750W-42800W-42850W-42900W-42950W-43000W-43050W-43100W-43150W-43200W-43250W-43300W-43350W-43400W-43450W-43500W-43550W-43600W-43650W-43700W-43750W-43800W-43850W-43900W-43950W-44000W-44050W-44100W-44150W-44200W-44250W-44300W-44350W-44400W-44450W-44500W-44550W-44600W-44650W-44700W-44750W-44800W-44850W-44900W-44950W-45000W-45050W-45100W-45150W-45200W-45250W-45300W-45350W-45400W-45450W-45500W-45550W-45600W-45650W-45700W-45750W-45800W-45850W-45900W-45950W-46000W-46050W-46100W-46150W-46200W-46250W-46300W-46350W-46400W-46450W-46500W-46550W-46600W-46650W-46700W-46750W-46800W-46850W-46900W-46950W-47000W-47050W-47100W-47150W-47200W-47250W-47300W-47350W-47400W-47450W-47500W-47550W-47600W-47650W-47700W-47750W-47800W-47850W-47900W-47950W-48000W-48050W-48100W-48150W-48200W-48250W-48300W-48350W-48400W-48450W-48500W-48550W-48600W-48650W-48700W-48750W-48800W-48850W-48900W-48950W-49000W-49050W-49100W-49150W-49200W-49250W-49300W-49350W-49400W-49450W-49500W-49550W-49600W-49650W-49700W-49750W-49800W-49850W-49900W-49950W-50000W-50050W-50100W-50150W-50200W-50250W-50300W-50350W-50400W-50450W-50500W-50550W-50600W-50650W-50700W-50750W-50800W-50850W-50900W-50950W-51000W-51050W-51100W-51150W-51200W-51250W-51300W-51350W-51400W-51450W-51500W-51550W-51600W-51650W-51700W-51750W-51800W-51850W-51900W-51950W-52000W-52050W-52100W-52150W-52200W-52250W-52300W-52350W-52400W-52450W-52500W-52550W-52600W-52650W-52700W-52750W-52800W-52850W-52900W-52950W-53000W-53050W-53100W-53150W-53200W-53250W-53300W-53350W-53400W-53450W-53500W-53550W-53600W-53650W-53700W-53750W-53800W-53850W-53900W-53950W-54000W-54050W-54100W-54150W-54200W-54250W-54300W-54350W-54400W-54450W-54500W-54550W-54600W-54650W-54700W-54750W-54800W-54850W-54900W-54950W-55000W-55050W-55100W-55150W-55200W-55250W-55300W-55350W-55400W-55450W-55500W-55550W-55600W-55650W-55700W-55750W-55800W-55850W-55900W-55950W-56000W-56050W-56100W-56150W-56200W-56250W-56300W-56350W-56400W-56450W-56500W-56550W-56600W-56650W-56700W-56750W-56800W-56850W-56900W-56950W-57000W-57050W-57100W-57150W-57200W-57250W-57300W-57350W-57400W-57450W-57500W-57550W-57600W-57650W-57700W-57750W-57800W-57850W-57900W-57950W-58000W-58050W-58100W-58150W-58200W-58250W-58300W-58350W-58400W-58450W-58500W-58550W-58600W-58650W-58700W-58750W-58800W-58850W-58900W-58950W-59000W-59050W-59100W-59150W-59200W-59250W-59300W-59350W-59400W-59450W-59500W-59550W-59600W-59650W-59700W-59750W-59800W-59850W-59900W-59950W-60000W-60050W-60100W-60150W-60200W-60250W-60300W-60350W-60400W-60450W-60500W-60550W-60600W-60650W-60700W-60750W-60800W-60850W-60900W-60950W-61000W-61050W-61100W-61150W-61200W-61250W-61300W-61350W-61400W-61450W-61500W-61550W-61600W-61650W-61700W-61750W-61800W-61850W-61900W-61950W-62000W-62050W-62100W-62150W-62200W-62250W-62300W-62350W-62400W-62450W-62500W-62550W-62600W-62650W-62700W-62750W-62800W-62850W-62900W-62950W-63000W-63050W-63100W-63150W-63200W-63250W-63300W-63350W-63400W-63450W-63500W-63550W-63600W-63650W-63700W-63750W-63800W-63850W-63900W-63950W-64000W-64050W-64100W-64150W-64200W-64250W-64300W-64350W-64400W-64450W-64500W-64550W-64600W-64650W-64700W-64750W-64800W-64850W-64900W-64950W-65000W-65050W-65100W-65150W-65200W-65250W-65300W-65350W-65400W-65450W-65500W-65550W-65600W-65650W-65700W-65750W-65800W-65850W-65900W-65950W-66000W-66050W-66100W-66150W-66200W-66250W-66300W-66350W-66400W-66450W-66500W-66550W-66600W-66650W-66700W-66750W-66800W-66850W-66900W-66950W-67000W-67050W-67100W-67150W-67200W-67250W-67300W-67350W-67400W-67450W-67500W-67550W-67600W-67650W-67700W-67750W-67800W-67850W-67900W-67950W-68000W-68050W-68100W-68150W-68200W-68250W-68300W-68350W-68400W-68450W-68500W-68550W-68600W-68650W-68700W-68750W-68800W-68850W-68900W-68950W-69000W-69050W-69100W-69150W-69200W-69250W-69300W-69350W-69400W-69450W-69500W-69550W-69600W-69650W-69700W-69750W-69800W-69850W-69900W-69950W-70000W-70050W-70100W-70150W-70200W-70250W-70300W-70350W-70400W-70450W-70500W-70550W-70600W-70650W-70700W-70750W-70800W-70850W-70900W-70950W-71000W-71050W-71100W-71150W-71200W-71250W-71300W-71350W-71400W-71450W-71500W-71550W-71600W-71650W-71700W-71750W-71800W-71850W-71900W-71950W-72000W-72050W-72100W-72150W-72200W-72250W-72300W-72350W-72400W-72450W-72500W-72550W-72600W-72650W-72700W-72750W-72800W-72850W-72900W-72950W-73000W-73050W-73100W-73150W-73200W-73250W-73300W-73350W-73400W-73450W-73500W-73550W-73600W-73650W-73700W-73750W-73800W-73850W-73900W-73950W-74000W-74050W-74100W-74150W-74200W-74250W-74300W-74350W-74400W-74450W-74500W-74550W-74600W-74650W-74700W-74750W-74800W-74850W-74900W-74950W-75000W-75050W-75100W-75150W-75200W-75250W-75300W-75350W-75400W-75450W-75500W-75550W-75600W-75650W-75700W-75750W-75800W-75850W-75900W-75950W-76000W-76050W-76100W-76150W-76200W-76250W-76300W-76350W-76400W-76450W-76500W-76550W-76600W-76650W-76700W-76750W-76800W-76850W-76900W-76950W-77000W-77050W-77100W-77150W-77200W-77250W-77300W-77350W-77400W-77450W-77500W-77550W-77600W-77650W-77700W-77750W-77800W-77850W-77900W-77950W-78000W-78050W-78100W-78150W-78200W-78250W-78300W-78350W-78400W-78450W-78500W-78550W-78600W-78650W-78700W-78750W-78800W-78850W-78900W-78950W-79000W-79050W-79100W-79150W-79200W-79250W-79300W-79350W-79400W-79450W-79500W-79550W-79600W-79650W-79700W-79750W-79800W-79850W-79900W-79950W-80000W-80050W-80100W-80150W-80200W-80250W-80300W-80350W-80400W-80450W-80500W-80550W-80600W-80650W-80700W-80750W-80800W-80850W-80900W-80950W-81000W-81050W-81100W-81150W-81200W-81250W-81300W-81350W-81400W-81450W-81500W-81550W-81600W-81650W-81700W-81750W-81800W-81850W-81900W-81950W-82000W-82050W-82100W-82150W-82200W-82250W-82300W-82350W-82400W-82450W-82500W-82550W-82600W-82650W-82700W-82750W-82800W-82850W-82900W-82950W-83000W-83050W-83100W-83150W-83200W-83250W-83300W-83350W-83400W-83450W-83500W-83550W-83600W-83650W-83700W-83750W-83800W-83850W-83900W-83950W-84000W-84050W-84100W-84150W-84200W-84250W-84300W-84350W-84400W-84450W-84500W-84550W-84600W-84650W-84700W-84750W-84800W-84850W-84900W-84950W-85000W-85050W-85100W-85150W-85200W-85250W-85300W-85350W-85400W-85450W-85500W-85550W-85600W-85650W-85700W-85750W-85800W-85850W-85900W-85950W-86000W-86050W-86100W-86150W-86200W-86250W-86300W-86350W-86400W-86450W-86500W-86550W-86600W-86650W-86700W-86750W-86800W-86850W-86900W-86950W-87000W-87050W-87100W-87150W-87200W-87250W-87300W-87350W-87400W-87450W-87500W-87550W-87600W-87650W-87700W-87750W-87800W-87850W-87900W-87950W-88000W-88050W-88100W-88150W-88200W-88250W-88300W-88350W-88400W-88450W-88500W-88550W-88600W-88650W-88700W-88750W-88800W-88850W-88900W-88950W-89000W-89050W-89100W-89150W-89200W-89250W-89300W-89350W-89400W-89450W-89500W-89550W-89600W-896 |       |  |

## BATERIAS



| Table 1. (continued) Characteristics of the study |           | Continued |
|---------------------------------------------------|-----------|-----------|
| 2010-2011                                         | 2010-2011 | 2010-2011 |
| 2012-2013                                         | 2012-2013 | 2012-2013 |
| 2014-2015                                         | 2014-2015 | 2014-2015 |
| 2016-2017                                         | 2016-2017 | 2016-2017 |
| 2018-2019                                         | 2018-2019 | 2018-2019 |
| 2020-2021                                         | 2020-2021 | 2020-2021 |
| 2022-2023                                         | 2022-2023 | 2022-2023 |
| 2024-2025                                         | 2024-2025 | 2024-2025 |
| 2026-2027                                         | 2026-2027 | 2026-2027 |
| 2028-2029                                         | 2028-2029 | 2028-2029 |
| 2030-2031                                         | 2030-2031 | 2030-2031 |
| 2032-2033                                         | 2032-2033 | 2032-2033 |
| 2034-2035                                         | 2034-2035 | 2034-2035 |
| 2036-2037                                         | 2036-2037 | 2036-2037 |
| 2038-2039                                         | 2038-2039 | 2038-2039 |
| 2040-2041                                         | 2040-2041 | 2040-2041 |
| 2042-2043                                         | 2042-2043 | 2042-2043 |
| 2044-2045                                         | 2044-2045 | 2044-2045 |
| 2046-2047                                         | 2046-2047 | 2046-2047 |
| 2048-2049                                         | 2048-2049 | 2048-2049 |
| 2050-2051                                         | 2050-2051 | 2050-2051 |
| 2052-2053                                         | 2052-2053 | 2052-2053 |
| 2054-2055                                         | 2054-2055 | 2054-2055 |
| 2056-2057                                         | 2056-2057 | 2056-2057 |
| 2058-2059                                         | 2058-2059 | 2058-2059 |
| 2060-2061                                         | 2060-2061 | 2060-2061 |
| 2062-2063                                         | 2062-2063 | 2062-2063 |
| 2064-2065                                         | 2064-2065 | 2064-2065 |
| 2066-2067                                         | 2066-2067 | 2066-2067 |
| 2068-2069                                         | 2068-2069 | 2068-2069 |
| 2070-2071                                         | 2070-2071 | 2070-2071 |
| 2072-2073                                         | 2072-2073 | 2072-2073 |
| 2074-2075                                         | 2074-2075 | 2074-2075 |
| 2076-2077                                         | 2076-2077 | 2076-2077 |
| 2078-2079                                         | 2078-2079 | 2078-2079 |
| 2080-2081                                         | 2080-2081 | 2080-2081 |
| 2082-2083                                         | 2082-2083 | 2082-2083 |
| 2084-2085                                         | 2084-2085 | 2084-2085 |
| 2086-2087                                         | 2086-2087 | 2086-2087 |
| 2088-2089                                         | 2088-2089 | 2088-2089 |
| 2090-2091                                         | 2090-2091 | 2090-2091 |
| 2092-2093                                         | 2092-2093 | 2092-2093 |
| 2094-2095                                         | 2094-2095 | 2094-2095 |
| 2096-2097                                         | 2096-2097 | 2096-2097 |
| 2098-2099                                         | 2098-2099 | 2098-2099 |
| 2100-2101                                         | 2100-2101 | 2100-2101 |
| 2102-2103                                         | 2102-2103 | 2102-2103 |
| 2104-2105                                         | 2104-2105 | 2104-2105 |
| 2106-2107                                         | 2106-2107 | 2106-2107 |
| 2108-2109                                         | 2108-2109 | 2108-2109 |
| 2110-2111                                         | 2110-2111 | 2110-2111 |
| 2112-2113                                         | 2112-2113 | 2112-2113 |
| 2114-2115                                         | 2114-2115 | 2114-2115 |
| 2116-2117                                         | 2116-2117 | 2116-2117 |
| 2118-2119                                         | 2118-2119 | 2118-2119 |
| 2120-2121                                         | 2120-2121 | 2120-2121 |
| 2122-2123                                         | 2122-2123 | 2122-2123 |
| 2124-2125                                         | 2124-2125 | 2124-2125 |
| 2126-2127                                         | 2126-2127 | 2126-2127 |
| 2128-2129                                         | 2128-2129 | 2128-2129 |
| 2130-2131                                         | 2130-2131 | 2130-2131 |
| 2132-2133                                         | 2132-2133 | 2132-2133 |
| 2134-2135                                         | 2134-2135 | 2134-2135 |
| 2136-2137                                         | 2136-2137 | 2136-2137 |
| 2138-2139                                         | 2138-2139 | 2138-2139 |
| 2140-2141                                         | 2140-2141 | 2140-2141 |
| 2142-2143                                         | 2142-2143 | 2142-2143 |
| 2144-2145                                         | 2144-2145 | 2144-2145 |
| 2146-2147                                         | 2146-2147 | 2146-2147 |
| 2148-2149                                         | 2148-2149 | 2148-2149 |
| 2150-2151                                         | 2150-2151 | 2150-2151 |
| 2152-2153                                         | 2152-2153 | 2152-2153 |
| 2154-2155                                         | 2154-2155 | 2154-2155 |
| 2156-2157                                         | 2156-2157 | 2156-2157 |
| 2158-2159                                         | 2158-2159 | 2158-2159 |
| 2160-2161                                         | 2160-2161 | 2160-2161 |
| 2162-2163                                         | 2162-2163 | 2162-2163 |
| 2164-2165                                         | 2164-2165 | 2164-2    |



# PRODUCTOS DE REDES Y COMPUTO

## COMPUTADORES Y SOPORTE



## ENTRENADORES ENERGIAS ALTERNATIVAS Y OTROS

Provençallos Motos y más



## RECTIFICADORES E INVERSORES ELECTRICOS





Confiabilidad energética corporativa

## CONTÁCTENOS

[www.eklimasas.com](http://www.eklimasas.com)

[proyectos@eklimasas.com](mailto:proyectos@eklimasas.com)

Dirección: Calle 8a bis #79-65  
Castilla Bogotá

