

## CW48 Series

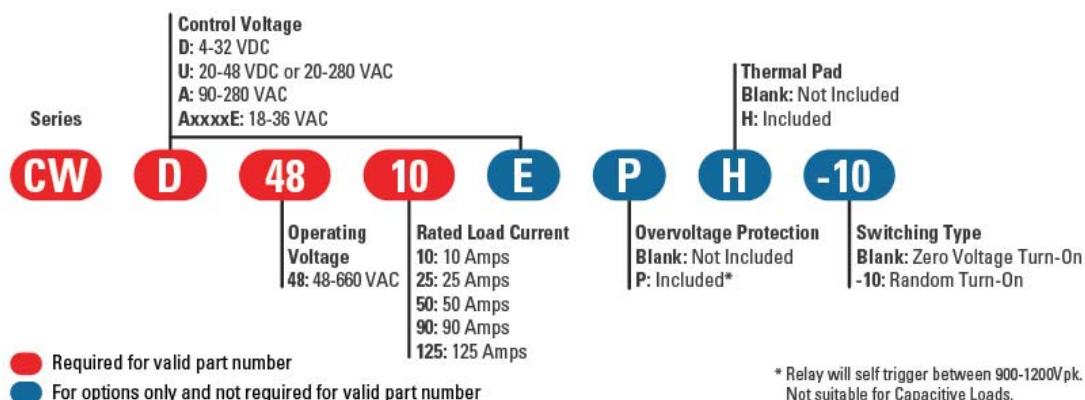


- Ratings from 10A to 125A @ 24-280 VAC and 48-660 VAC
- SCR output for heavy industrial loads
- EMC Compliant for reliable operation in harsh environments
- Removable IP 20 touch-safe cover
- DBC substrate for superior thermal performance
- LED input status indicator
- AC or DC input, and Universal AC/DC input
- Zero-crossing (resistive loads) or random-fire (inductive loads) output
- UL/CSA/TUV Approved, CE Compliant to EN60950-1

### PRODUCT SELECTION

| Description            | 10A      | 25A      | 50A      | 90A      | 125A      |
|------------------------|----------|----------|----------|----------|-----------|
| 4-32 VDC               | CWD4810  | CWD4825  | CWD4850  | CWD4890  | CWD48125  |
| 90-280 Vrms            | CWA4810  | CWA4825  | CWA4850  | CWA4890  | CWA48125  |
| 18-36 Vrms             | CWA4810E | CWA4825E | CWA4850E | CWA4890E | CWA48125E |
| 20-48 VDC/ 20-280 Vrms | CWU4810  | CWU4825  | CWU4850  | CWU4890  | CWU48125  |

### AVAILABLE OPTIONS



### OUTPUT SPECIFICATIONS (1)

| Description                                                                  | 10A       | 25A       | 50A       | 90A       | 125A        |
|------------------------------------------------------------------------------|-----------|-----------|-----------|-----------|-------------|
| Operating Voltage (47-440Hz) [Vrms] (8)                                      | 48-660    | 48-660    | 48-660    | 48-660    | 48-660      |
| Transient Overvoltage [Vpk]                                                  | 1200      | 1200      | 1200      | 1200      | 1200        |
| Maximum Off-State Leakage Current @ Rated Voltage [mA rms]                   | 1.0       | 1.0       | 1.0       | 1.0       | 1.0         |
| Minimum Off-State dv/dt @ Maximum Rated Voltage [V/μsec] (2)                 | 500       | 500       | 500       | 500       | 500         |
| Maximum Load Current (3) [A rms]                                             | 10        | 25        | 50        | 90        | 125         |
| Minimum Load Current [A rms]                                                 | 0.15      | 0.15      | 0.15      | 0.25      | 0.25        |
| Maximum 1 Cycle Surge Current (50/60) [Apk]                                  | 380/400   | 570/600   | 810/850   | 1290/1350 | 1900/2000   |
| Maximum On-State Voltage Drop @ Rated Current [Vpk]                          | 1.3       | 1.3       | 1.3       | 1.3       | 1.25        |
| Thermal Resistance Junction to Case [Rjc] [°C/W]                             | 0.35      | 0.35      | 0.2       | 0.14      | 0.13        |
| Maximum I <sup>2</sup> t for Fusing 50/60Hz (1/2 cycle) [A <sup>2</sup> sec] | 720/660   | 1620/1500 | 3280/3000 | 8320/7560 | 18000/16600 |
| Minimum Power Factor (with Maximum Load)                                     | 0.5       | 0.5       | 0.5       | 0.5       | 0.5         |
| HP Rating UL 508/IEC60947 [HP (KW)]: 120 VAC                                 | 0.5 (0.4) | 1 (0.7)   | 2 (1.5)   | 3 (2.2)   | 5 (3.7)     |
| HP Rating UL 508/IEC60947 [HP (KW)]: 240 VAC                                 | 1.5 (1.1) | 3 (2.2)   | 5 (3.7)   | 7.5 (5.6) | 10 (7.5)    |
| HP Rating UL 508/IEC60947 [HP (KW)]: 480 VAC                                 | 2.5 (1.9) | 5 (3.7)   | 7.5 (5.6) | 10 (7.4)  | 15 (11.2)   |

### INPUT SPECIFICATIONS (1)

| Description                        | CWD            | CWA             | CWAXxxxE        | CWU                           |
|------------------------------------|----------------|-----------------|-----------------|-------------------------------|
| Control Voltage Range              | 4-32 VDC       | 90-280 Vrms     | 18-36 Vrms      | 20-48 VDC/ 20-280 Vrms        |
| Minimum Turn-On Voltage            | 4 VDC          | 90 Vrms         | 18 Vrms         | 19 VDC/ Vrms                  |
| Minimum Turn-Off Voltage           | 1.0 VDC        | 10 Vrms         | 2 Vrms          | 5 VDC/ Vrms                   |
| Typical Input Current              | 10 mA @ 12 VDC | 6 mA @ 120 Vrms | 24 mA @ 24 Vrms | 10 mA @ 48VDC/17 mA @ 280Vrms |
| Nominal Input Impedance            | See note 5     | 14.2 K Ohms (6) | 1.0 K Ohms      | See note 5                    |
| Maximum Turn-On Time [msec] (4)(7) | 1/2 Cycle      | 50              | 50              | 17                            |
| Maximum Turn-Off Time [msec]       | 1/2 Cycle      | 50              | 50              | 30                            |

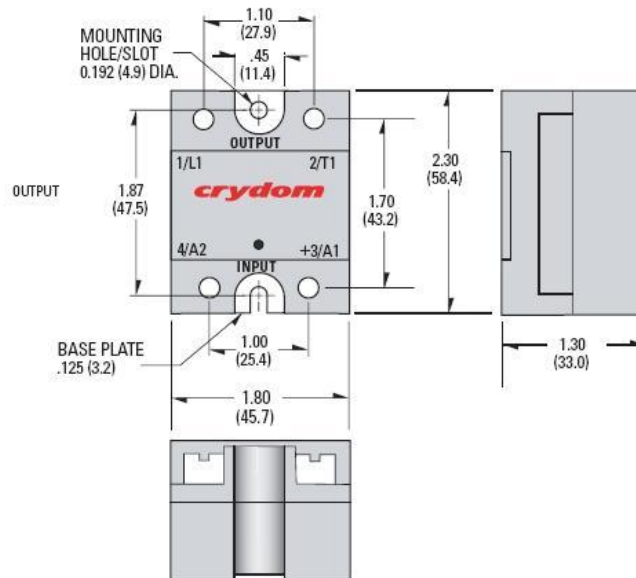
### GENERAL SPECIFICATIONS

| Description                                      | Parameters                                                                 |
|--------------------------------------------------|----------------------------------------------------------------------------|
| Dielectric Strength, Input/Output/Base (50/60Hz) | 4000 Vrms                                                                  |
| Minimum Insulation Resistance (@ 500 V DC)       | 10 <sup>9</sup> Ohm                                                        |
| Maximum Capacitance, Input/Output                | 8 pF                                                                       |
| Ambient Operating Temperature Range              | -40 to 80 °C                                                               |
| Ambient Storage Temperature Range                | -40 to 125 °C                                                              |
| Weight (typical)                                 | 3.0 oz (86.5 g)                                                            |
| Encapsulation                                    | None                                                                       |
| Terminals                                        | Screw Type, Finger Proof Output: 8-32, Combo rive Input: 6-32, Combo Drive |
| Max. Torque                                      | Output: 20 in lb (2.2Nm) Input: 10 in lb (1.1Nm)                           |
| Max. Wire Size                                   | Output: 2 x AWG 8 (3.8mm) Input: 2 x AWG 12 (2.5mm)                        |

### GENERAL NOTES

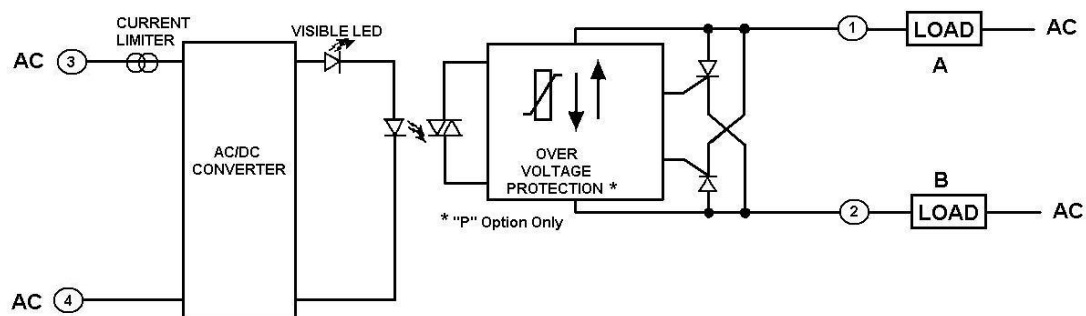
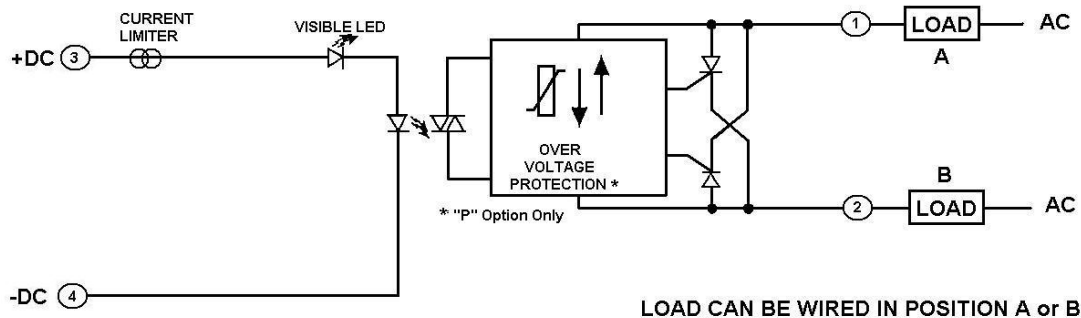
- 1) All parameters at 25°C unless otherwise specified.
- 2) Off-State dv/dt test method per EIA/NARM standard RS-443, paragraph 13.11.1
- 3) Heat sinking required, for derating curves see page 2.
- 4) Turn-on time for random turn-on version is 0.02 msec.
- 5) Input circuit incorporates active current limiter
- 6) 21.5K ohms for random turn-on version (-10 suffix)
- 7) For CWU random version is 7 msec.
- 8) CWU versions are approved by UL only..

## MECHANICAL SPECIFICATIONS



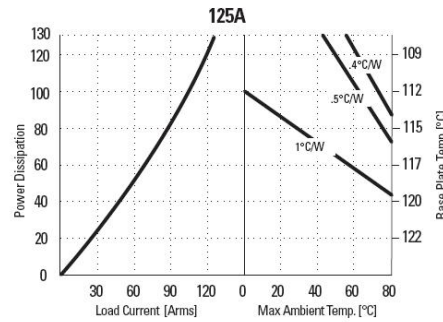
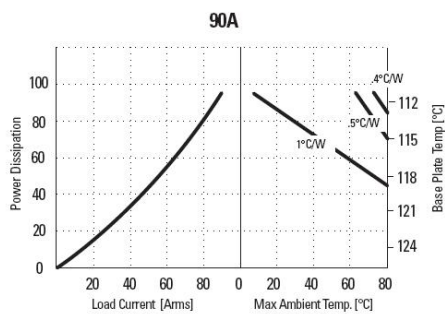
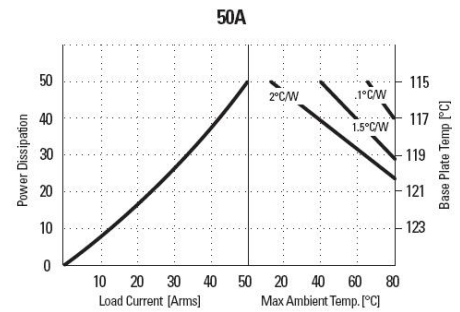
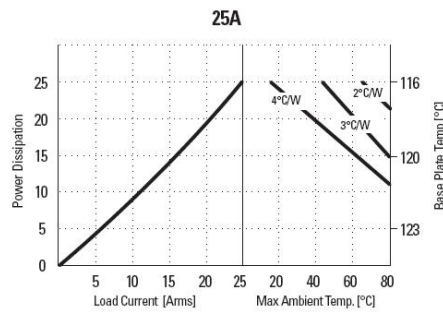
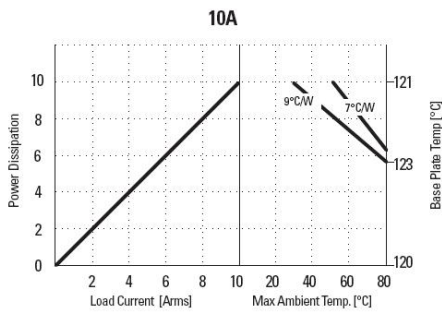
All dimensions are in inches (millimeters)

## WIRING DIAGRAM



### THERMAL DERATE INFORMATION

#### CURRENT DERATING CURVES



### AGENCY APPROVALS

Designed in accordance with the requirements of IEC 62314  
 EN60950 : Meets the requirements of sections 1.5: 1.7: 2.9: 2.10.5.3: 4.2: 4.5: 4.7:  
 IEC 61000-4-2 : Electrostatic Discharge – Level 3 (Level 4 with “P” option)  
 IEC 61000-4-3 : Radiated Electromagnetic Noise – Level 3  
 IEC 61000-4-4 : Electrically Fast Transients – Level 3 (Level 4 with “P” option)  
 IEC 61000-4-5 : Electrical Surges – Level 3  
 IEC 61000-4-6 : Conducted Electromagnetic Noise – Level 3



Rev. 032013

|  <b>DANGER / PELIGRO / DANGER /GEFAHR / PERICOLO / PERIGO</b>                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH.</b> <ul style="list-style-type: none"> <li>Disconnect all power before installing or working with this equipment.</li> <li>Verify all connections and replace all covers before turning on power.</li> </ul> <p>Failure to follow these instructions will result in death or serious injury.</p> | <b>RIESGO DE DESCARGA ELECTRICA O EXPLOSION.</b> <ul style="list-style-type: none"> <li>Desconectar todos los suministros de energia a este equipo antes de trabajar con este equipo.</li> <li>Verificar todas las conexiones y colocar todas las tapas antes de energizar el equipo.</li> </ul> <p>El incumplimiento de estas instrucciones puede provocar la muerte o lesiones serias.</p> | <b>RISQUE DE DESCARGE ELECTRIQUE OU EXPLOSION</b> <ul style="list-style-type: none"> <li>Eteindre toutes les sources d'énergie de cet appareil avant de travailler dessus de cet appareil</li> <li>Vérifier tous connections, et remettre tous couverts en place avant de mettre sous</li> </ul> <p>De non-suivi de ces instructions provoquera la mort ou des lésions sérieuses sérieuses.</p> | <b>GEFAHR EINES ELEKTRISCHE N SCHLAGES ODER EINER EXPLOSION.</b> <ul style="list-style-type: none"> <li>Stellen Sie jeglichen Strom ab, der dieses Gerät versorgt, bevor Sie an dem Gerät Arbeiten durchführen</li> <li>Vor der Inbetriebnahme alle Anschlüsse überprüfen und alle Gehäuseteile montieren.</li> </ul> <p>Unterlassung dieser Anweisungen können zum Tode oder zu schweren Verletzungen führen.</p> | <b>RISCHIO DI SCOSSA ELETTRICA O DELL'ESPLOSIONE.</b> <ul style="list-style-type: none"> <li>Spenda tutta l'alimentazione e che fornisce questa apparecchiatura prima del lavorare a questa apparecchiatura</li> <li>Verificare tutti i collegamenti e sostituire tutte le coperture prima della rotazione sull'alimentazione</li> </ul> <p>L'omissione di seguire queste istruzioni provocherà la morte o di lesioni serie</p> | <b>RISCO DE DESCARGA ELÉTRICA OU EXPLOÇÃO</b> <ul style="list-style-type: none"> <li>Desconectar o equipamento de toda a energia antes de instalar ou trabalhar com este equipamento</li> <li>Verificar todas as conexões e recolocar todas as tampas antes de religar o equipamento</li> </ul> <p>O não cumprimento destas instruções pode levar a morte ou lesões sérias.</p> |

|  <b>WARNING / AVERTISSEMENT / WARNUNG /ADVERTENCIA / AVVERTENZA / AVISO</b>                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE</b> <ul style="list-style-type: none"> <li>The product's side panels may be hot, allow the product to cool before touching.</li> <li>Follow proper mounting instructions including torque values.</li> <li>Do not allow liquids or foreign objects to enter this product.</li> </ul> <p>Failure to follow these instructions can result in serious injury, or equipment damage.</p>                                                                           | <b>RISQUE DE DOMMAGE MATERIEL ET DE SURCHAUFFE DU BOITIER</b> <ul style="list-style-type: none"> <li>Les panneaux latéraux du produit peuvent être chauds. Laisser le produit refroidir avant de le toucher.</li> <li>Respecter les consignes de montage, et notamment les couples de serrage.</li> <li>Ne pas laisser pénétrer de liquide ni de corps étrangers à l'intérieur du produit.</li> </ul> <p>Le non-respect de cette directive peut entraîner, des lésions corporelles graves ou des dommages matériels.</p> | <b>GEFAHR VON MATERIALSCHÄDEN UND GEHÄUSEERHITZUNG</b> <ul style="list-style-type: none"> <li>Die Seitenwände können heiß sein. Lassen Sie das Produkt abkühlen, bevor Sie es berühren.</li> <li>Beachten Sie die Montageanweisungen, Führen Sie keine Flüssigkeiten oder Fremdkörper in das Produkt ein.</li> </ul> <p>Die Nichtbeachtung dieser Anweisung kann Körperverletzung oder Materialschäden zur Folge haben.</p>                             |
| <b>RIESGO DE DAÑOS MATERIALES Y DE SOBRECALENTAMIENTO DE LA UNIDAD</b> <ul style="list-style-type: none"> <li>Los paneles laterales del producto pueden estar calientes. Esperar que el producto se enfríe antes de tocarlo.</li> <li>Respetar las instrucciones de montaje, y en particular los pares de apretado.</li> <li>No dejar que penetren líquidos o cuerpos extraños en el producto.</li> </ul> <p>Si no se respetan estas precauciones pueden producirse graves lesiones, daños materiales.</p> | <b>RISCHIO DI DANNI MATERIALI E D'INVOLUCRO CALDO</b> <ul style="list-style-type: none"> <li>I pannelli laterali dell'apparecchio possono scottare; lasciar quindi raffreddare il prodotto prima di toccarlo.</li> <li>Seguire le istruzioni di montaggio corrette.</li> <li>Non far entrare liquidi o oggetti estranei in questo apparecchio.</li> </ul> <p>La mancata osservanza di questa precauzione può causare gravi rischi per l'incolumità personale o danni alle apparecchiature.</p>                           | <b>RISCO DE DANO MATERIAL E DE AQUECIMENTO</b> <ul style="list-style-type: none"> <li>Os painéis laterais do produto podem estar quentes; dê tempo ao produto para arrefecer antes de lhe tocar.</li> <li>Siga devidamente as instruções de montagem.</li> <li>Não permita a entrada de líquidos e de objectos estranhos no produto.</li> </ul> <p>A não observância destas precauções pode provocar a morte, ferimentos graves ou danos materiais.</p> |

## ANNEX - ENVIROMENTAL INFORMATION

The environmental information disclosed in this annex including the EIP Pollution logo are in compliance with People's Republic of China Electronic Industry Standard SJ/T11364 – 2006, Marking for Control of Pollution Caused by Electronic Information Products.

| Part Name         | Toxic or hazardous Substance and Elements |              |              |                               |                                |                                       |
|-------------------|-------------------------------------------|--------------|--------------|-------------------------------|--------------------------------|---------------------------------------|
|                   | Lead (Pb)                                 | Mercury (Hg) | Cadmium (Cd) | Hexavalent Chromium (Cr (VI)) | Polybrominated biphenyls (PBB) | Polybrominated diphenyl ethers (PBDE) |
| Semiconductor die | X                                         | O            | O            | O                             | O                              | O                                     |
| Solder            | X                                         | O            | O            | O                             | O                              | O                                     |

此附件所标示的包括电子信息产品污染图标的环境信息  
符合中华人民共和国电子行业标准 **SJ/T11364 - 2006**,  
电子信息产品污染控制标识要求



| 部件名称  | 有毒有害物质或元素 |        |        |               |            |              |
|-------|-----------|--------|--------|---------------|------------|--------------|
|       | 铅 (Pb)    | 汞 (Hg) | 镉 (Cd) | 六价铬 (Cr (VI)) | 多溴联苯 (PBB) | 多溴二苯醚 (PBDE) |
| 半导体芯片 | X         | O      | O      | O             | O          | O            |
| 焊接点   | X         | O      | O      | O             | O          | O            |



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.