CTR Series


1/L1
3/L2
5/L3
+3/A1 -4/A2
crydom
25 AMP
48 - 600 VAC
PER CHANNEL
CTRD6025
2/T1
4/T2
6/T3

What is Unique with the the CTR Series?

Reinforces Crydom's 3 Phase Presence
– with a 3 Phase Solid State Contactor…

- **Very few competitors**
(Carlo Gavazzi, Omron, Siemens, Continental)
- **Epoxy-free design minimizes internal component stress**

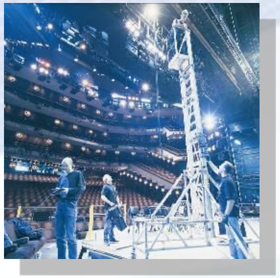
- **No external transient protection required**
- **Integral heat sink eliminates the need for complex thermal calculations and reduces the number of parts to buy.**
- **4 Unique Part Numbers**

CTR Series Key Metrics:

- **Ratings 25A per phase @ 600 VAC**
- **DIN rail or panel mount 90 mm (width) package**
- **100K-cycle UL 508 Endurance rating for enhanced reliability**
- **SCR output for heavy industrial load**
- **LED input status indicator**
- **AC or DC control**
- **Zero-crossing (resistive loads) or random-fire (inductive loads) output**
- **UL recognized, CE, RoHS and EMC compliant**
- **IP20 Touch Safe Housing**

Same specs as similar Crouzet product

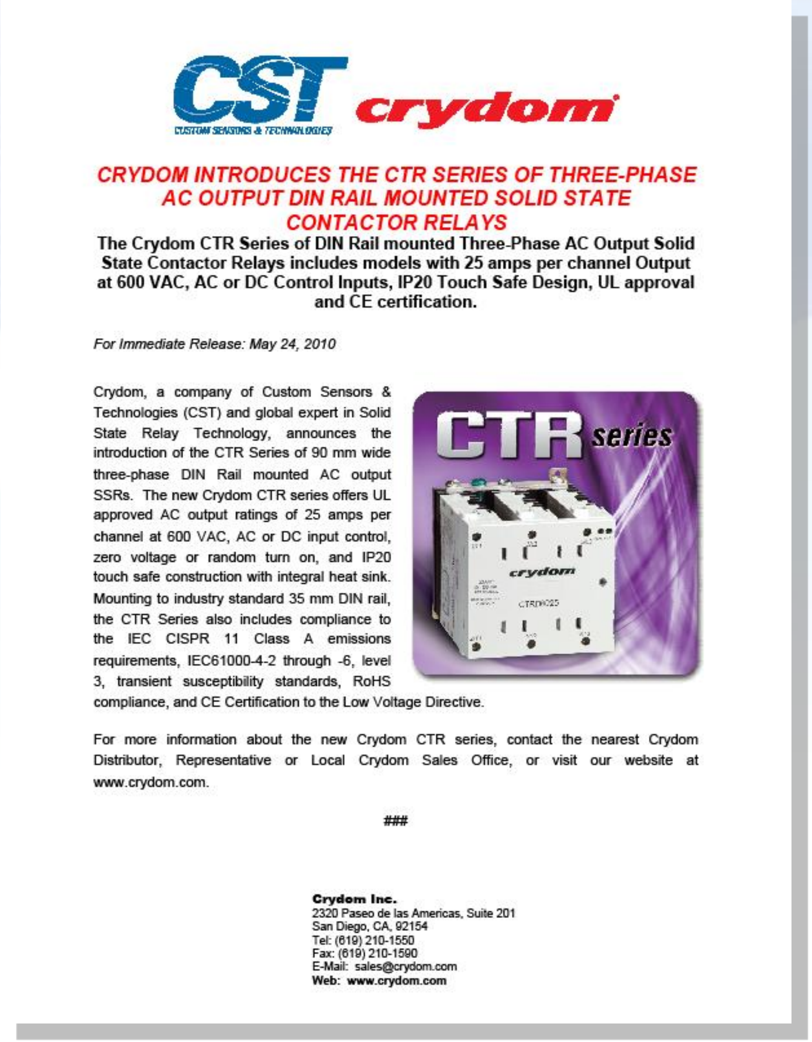
What Are the Target Markets/ Applications for the CTR Series?



- Heating
- Lighting
- Motion Control

Transportation (Rail, Back Up Power)
Industrial Automation
Process Control
Machine Tools (Hydraulic Pumps)
Semiconductor Equipment
HVAC (Heating, Ventilation & Air Conditioning)
Food Processing
Compressors
Elevators & Rolling Shutters
Plastics Industry
Material Handling & Packaging
Oil Services
Paper & Printing
Lighting

Press Release



CRYDOM INTRODUCES THE CTR SERIES OF THREE-PHASE AC OUTPUT DIN RAIL MOUNTED SOLID STATE CONTACTOR RELAYS

The Crydom CTR Series of DIN Rail mounted Three-Phase AC Output Solid State Contactor Relays includes models with 25 amps per channel Output at 600 VAC, AC or DC Control Inputs, IP20 Touch Safe Design, UL approval and CE certification.

For Immediate Release: May 24, 2010

Crydom, a company of Custom Sensors & Technologies (CST) and global expert in Solid State Relay Technology, announces the introduction of the CTR Series of 90 mm wide three-phase DIN Rail mounted AC output SSRs. The new Crydom CTR series offers UL approved AC output ratings of 25 amps per channel at 600 VAC, AC or DC input control, zero voltage or random turn on, and IP20 touch safe construction with integral heat sink. Mounting to industry standard 35 mm DIN rail, the CTR Series also includes compliance to the IEC CISPR 11 Class A emissions requirements, IEC61000-4-2 through -6, level 3, transient susceptibility standards, RoHS compliance, and CE Certification to the Low Voltage Directive.

For more information about the new Crydom CTR series, contact the nearest Crydom Distributor, Representative or Local Crydom Sales Office, or visit our website at www.crydom.com.

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Part Number Nomenclature

Series

CTR

Control Voltage

B: 90 to 140 VAC
C: 180 to 280 VAC
D: 4 to 32 VDC

Line Voltage Rating

60: 48 to 600 VAC

Output Rating

25: 25 Amps/phase

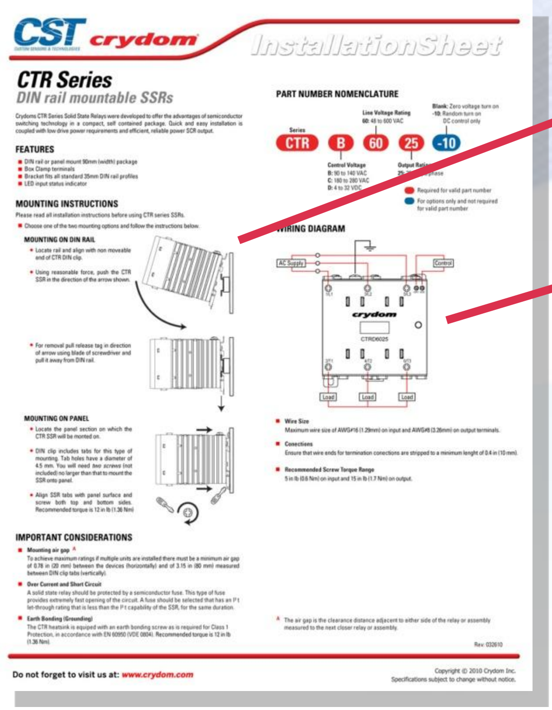
Blank: Zero voltage turn on
-10: Random turn on
DC control only

CTR D 60 25 -10

🔴 Required for valid part number

🔵 For options only and not required for valid part number

Installation Sheet



InstallationSheet

CTR Series
DIN rail mountable SSRs

Crydoms CTR Series Solid State Relays were developed to offer the advantages of semiconductor switching technology in a compact, self contained package. Quick and easy installation is coupled with low drive power requirements and efficient, reliable power SCR output.

FEATURES

- DIN rail or panel mount 90mm (width) package
- Box Clamp terminals
- Bracket fits all standard 35mm DIN rail profiles
- LED input status indicator

MOUNTING INSTRUCTIONS

Please read all installation instructions before using CTR series SSRs.

- Choose one of the two mounting options and follow the instructions below.

MOUNTING ON DIN RAIL

- Locate rail and align with non moveable end of CTR DIN clip.
- Using reasonable force, push the CTR SSR in the direction of the arrow shown.
- For removal pull release tag in direction of arrow using blade of screwdriver and pull it away from DIN rail.

MOUNTING ON PANEL

- Locate the panel section on which the CTR SSR will be monted on.
- DIN clip includes tabs for this type of mounting. Tab holes have a diameter of 4.5 mm. You will need *two screws* (not included) no larger than that to mount the SSR onto panel.
- Align SSR tabs with panel surface and screw both top and bottom sides. Recommended torque is 12 in lb (1.36 Nm)

IMPORTANT CONSIDERATIONS

- **Mounting air gap** [A]
  To achieve maximum ratings if multiple units are installed there must be a minimum air gap of 0.78 in (20 mm) between the devices (horizontally) and of 3.15 in (80 mm) measured between DIN clip tabs (vertically).
- **Over Current and Short Circuit**
  A solid state relay should be protected by a semiconductor fuse. This type of fuse provides extremely fast opening of the circuit. A fuse should be selected that has an I^2t let-through rating that is less than the I^2t capability of the SSR, for the same duration.
- **Earth Bonding (Grounding)**
  The CTR heatsink is equiped with an earth bonding screw as is required for Class 1 Protection, in accordance with EN 60950 (VDE 0804). Recommended torque is 12 in lb (1.36 Nm).

PART NUMBER NOMENCLATURE

WIRING DIAGRAM

- **Wire Size**
  Maximum wire size of AWG#16 (1.29mm) on input and AWG#8 (3.26mm) on output terminals.
- **Conections**
  Ensure that wire ends for termination conections are stripped to a minimum lenght of 0.4 in (10 mm).
- **Recommended Screw Torque Range**
  5 in lb (0.6 Nm) on input and 15 in lb (1.7 Nm) on output.

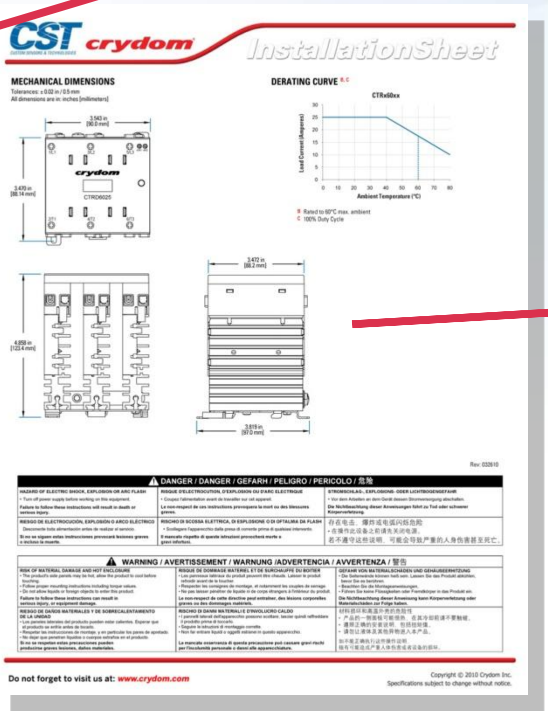
[A] The air gap is the clearance distance adjacent to either side of the relay or assembly measured to the next closer relay or assembly.

Rev: 032610

Do not forget to visit us at: www.crydom.com

Mounting instructions

Wiring diagram



InstallationSheet

MECHANICAL DIMENSIONS

Tolerances: ± 0.02 in / 0.5 mm
All dimensions are in: inches [millimeters]

DERATING CURVE [B, C]

[B] Rated to 60°C max. ambient
[C] 100% Duty Cycle

Rev: 032610

DANGER / DANGER / GEFARH / PELIGRO / PERICOLO / 危险

HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH • Turn off power supply before working on this equipment. **Failure to follow these instructions will result in death or serious injury.**	**RISQUE D'ELECTROCUTION, D'EXPLOSION OU D'ARC ELECTRIQUE** • Coupez l'alimentation avant de travailler sur cet appareil. **Le non-respect de ces instructions provoquera la mort ou des blessures graves.**	**STROMSCHLAG-, EXPLOSIONS- ODER LICHTBOGENGEFAHR** • Vor dem Arbeiten an dem Gerät dessen Stromversorgung abschalten. **Die Nichtbeachtung dieser Anweisungen führt zu Tod oder schwerer Körperverletzung.**
RIESGO DE ELECTROCUCIÓN, EXPLOSIÓN O ARCO ELÉCTRICO Desconecte toda alimentación antes de realizar el servicio. **Si no se siguen estas instrucciones provocará lesiones graves o incluso la muerte.**	**RISCHIO DI SCOSSA ELETTRICA, DI ESPLOSIONE O DI OFTALMIA DA FLASH** • Scollegare l'apparecchio dalla presa di corrente prima di qualsiasi intervento. **Il mancato rispetto di queste istruzioni provocherà morte o gravi infortuni.**	存在电击、爆炸或电弧闪烁危险 • 在操作此设备之前请先关闭电源。 若不遵守这些说明，可能会导致严重的人身伤害甚至死亡。

WARNING / AVERTISSEMENT / WARNUNG /ADVERTENCIA / AVVERTENZA / 警告

RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE	**RISQUE DE DOMMAGE MATERIEL ET DE SURCHAUFFE DU BOITIER**	**GEFAHR VON MATERIALSCHÄDEN UND GEHÄUSEERHITZUNG**
RIESGO DE DAÑOS MATERIALES Y DE SOBRECALENTAMIENTO DE LA UNIDAD	**RISCHIO DI DANNI MATERIALI E D'INVOLUCRO CALDO**	材料损坏和高温外壳的危险性

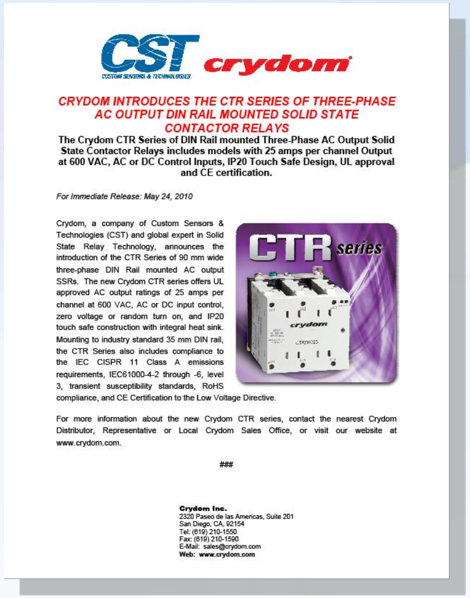
Do not forget to visit us at: www.crydom.com

Mechanical Dimensions

Official Launch
May 24

Distribution of press release in 6 different languages

English
Spanish
French
Italian
Simplified Chinese
German



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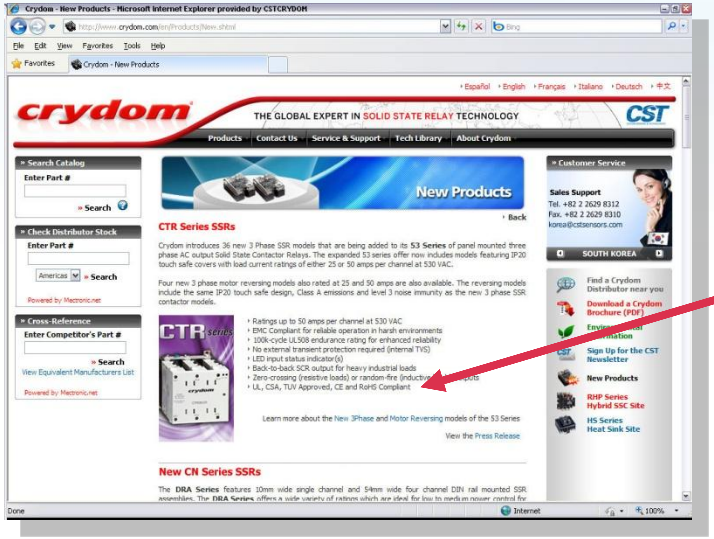

CTR Series SSRs

Crydom introduces 36 new 3 Phase SSR models that are being added to its **53 Series** of panel mounted three phase AC output Solid State Contactor Relays. The expanded 53 series offer now includes models featuring IP20 touch safe covers with load current ratings of either 25 or 50 amps per channel at 530 VAC.

Four new 3 phase motor reversing models also rated at 25 and 50 amps are also available. The reversing models include the same IP20 touch safe design, Class A emissions and level 3 noise immunity as the new 3 phase SSR contactor models.

- Ratings up to 50 amps per channel at 530 VAC
- EMC Compliant for reliable operation in harsh environments
- 100k-cycle UL508 endurance rating for enhanced reliability
- No external transient protection required (internal TVS)
- LED input status indicator(s)
- Back-to-back SCR output for heavy industrial loads
- Zero-crossing (resistive loads) or random-fire (inductive [illegible] puts
- UL, CSA, TUV Approved, CE and RoHS Compliant

Learn more about the New 3Phase and Motor Reversing models of the 53 Series

View the Press Release

New CN Series SSRs

The **DRA Series** features 10mm wide single channel and 54mm wide four channel DIN rail mounted SSR assemblies. The **DRA Series** offers a wide variety of ratings which are ideal for low to medium power control for

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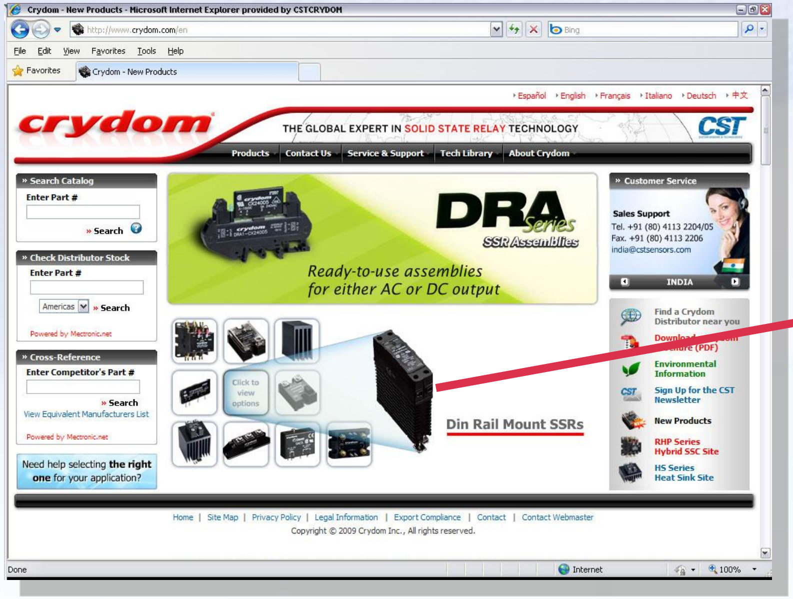
Product highlight in the *New Products* section on website

Official Launch
May 24



THE GLOBAL EXPERT IN SOLID STATE RELAY TECHNOLOGY

DRA Series SSR Assemblies

Ready-to-use assemblies for either AC or DC output

Sales Support
Tel. +91 (80) 4113 2204/05
Fax. +91 (80) 4113 2206
india@cstsensors.com

Need help selecting **the right one** for your application?

Din Rail Mount SSRs

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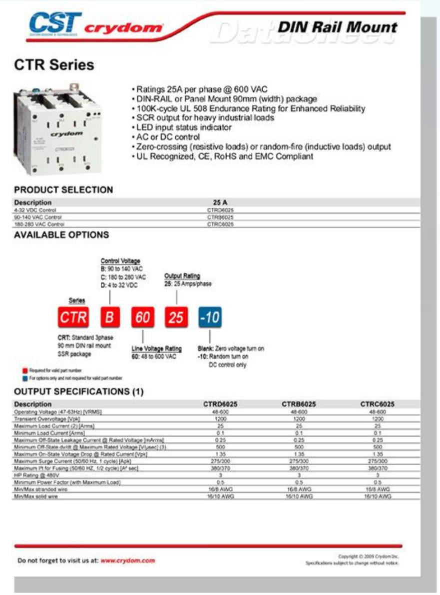
You may access the datasheets through the homepage product group selector choosing "DIN Rail Mount SSRs"



CTR Series

- Ratings 25A per phase @ 600 VAC
- DIN-RAIL or Panel Mount 90mm (width) package
- 100K-cycle UL 508 Endurance Rating for Enhanced Reliability
- SCR output for heavy industrial loads
- LED input status indicator
- AC or DC control
- Zero-crossing (resistive loads) or random-fire (inductive loads) output
- UL Recognized, CE, RoHS and EMC Compliant

PRODUCT SELECTION

Description	25 A
4-32 VDC Control	CTRD6025
90-140 VAC Control	CTRB6025
180-280 VAC Control	CTRC6025

AVAILABLE OPTIONS

Control Voltage
B: 90 to 140 VAC
C: 180 to 280 VAC
D: 4 to 32 VDC

Output Rating
25: 25 Amps/phase

CRT: Standard 3phase 90 mm DIN rail mount SSR package

Line Voltage Rating
60: 48 to 600 VAC

Blank: Zero voltage turn on
-10: Random turn on DC control only

🟥 Required for valid part number
🟦 For options only and not required for valid part number

OUTPUT SPECIFICATIONS (1)

Description	CTRD6025	CTRB6025	CTRC6025
Operating Voltage (47-63Hz) [VRMS]	48-600	48-600	48-600
Transient Overvoltage [Vpk]	1200	1200	1200
Maximum Load Current (2) [Arms]	25	25	25
Minimum Load Current [Arms]	0.1	0.1	0.1
Maximum Off-State Leakage Current @ Rated Voltage [mArms]	0.25	0.25	0.25
Minimum Off-State dv/dt @ Maximum Rated Voltage [V/µsec] (3)	500	500	500
Maximum On-State Voltage Drop @ Rated Current [Vpk]	1.35	1.35	1.35
Maximum Surge Current (50/60 Hz, 1 cycle) [Apk]	275/300	275/300	275/300
Maximum I²t for Fusing (50/60 HZ, 1/2 cycle) [A² sec]	380/370	380/370	380/370
HP Rating @ 480V	3	3	3
Minimum Power Factor (with Maximum Load)	0.5	0.5	0.5
Min/Max stranded wire	16/8 AWG	16/8 AWG	16/8 AWG
Min/Max solid wire	16/10 AWG	16/10 AWG	16/10 AWG

Do not forget to visit us at: www.crydom.com

Datasheet of CTR series in on-line catalog