

Crydom tests are exhaustive, including 100% verification at final test. After units are fully assembled, they must pass a complete set of electrical tests, which are performed twice, once prior to encapsulation and then again afterward.

Because of our dedication to quality, Crydom was one of the first American companies to achieve full certification to the demanding standards of ISO 9001. In addition, most Crydom products are approved by UL, CSA, VDE, TUV and carry the CE Mark signifying conformance with the latest European directives.

Learn how an alliance with the world leader in solid state relays and power modules can pay off for you. For details, call your authorized Crydom distributor today.

Power Modules

Power Modules are power switching/control circuit elements integrated into convenient isolated-base packages, offering a broad spectrum of commonly used Diode, SCR, or SCR/Diode circuit configurations and ratings. Used in many types of equipment by a variety of industries, they utilize Crydom's renowned advanced thermal management techniques. The modules are mechanically and thermally optimized for ease of assembly, long life and reliable operation. Significant cost savings are realized from reductions in design, volume, mounting, connection, cooling, field maintenance, parts count, acquisition and inventory costs.

Typical Applications

AC motor drive front end	Medical Electronics
Appliances	Motor controls, AC
Battery charging	Motor controls, DC
Cathodic protection	Motor starters
Converters	Power Factor Correction
Conveyors	Power supplies
DC-choppers	Reverse polarity protection
Electroplating	Traction
Elevator controls	Transportation
Heater controls	UPS systems
HVAC controls	Welding
Inverters	

Custom Designs

Crydom's Sales and Technical Support teams work closely with you to define and develop customized solutions for your unique requirements. We can help you get that competitive edge necessary to be a leader in your industry. In-house capabilities include ceramic substrate production, SMT (surface mount technology) placement/insertion robotics assembly and elevated/low temperature monitored testing. All this interprets into fast-track design, prototype preparation, test, evaluate, adjust and finalize as necessary to achieve the specified performance criteria. Upon final customer approval we can quickly gear up to meet your production schedules in our ISO9001 certified manufacturing environment.



Crydom is an operation of Custom Sensors & Technologies (CST), a business unit of Schneider Electric.

AMERICAS

USA/CANADA

Crydom Inc
2320 Paseo de las Americas,
Suite 201
San Diego CA 92154
Sales Support
Tel.: +1 (877) 502 5500
Fax: +1 (619) 710 8540
sales@crydom.com
Tech Support
Tel.: +1 (877) 702 7700
support@crydom.com

MEXICO

Automatismo Crouzet S.A. de C.V.
Calzada Zavaleta 2505 - C
Col Sta Cruz Buenavista
C.P. 72150 - Puebla
MEXICO
Tel.: +52 (222) 409 7000
Fax: +52 (222) 409 7810
01 800 087 6333

SOUTHERN AND CENTRAL AMERICAN COUNTRIES

CST Latinoamerica
Alameda Rio Negro, 1.084-cl.A31
Centro Empresarial de Alphaville
CEP: 06454-000
Barueri - SP
BRASIL
Tel.: +55 (11) 4191 9797
Fax: +55 (11) 4191 9136
info@cst-latinoamerica.com

EUROPE MIDDLE EAST AFRICA

UNITED KINGDOM

Crydom SSR Ltd
Arena Business Centre
Holyrood, Close
Poole, Dorset BH17 7FJ
Sales Support
Tel.: +44 (0) 1202 606030
Fax: +44 (0) 1202 606035
sales-europe@crydom.com
Tech Support
tech-europe@crydom.com

AUSTRIA

Tel.: +49 (0) 180 3000 506
Fax: +49 (0) 180 3205 227
vertrieb@crydom.com

BELGIUM

Tel.: +32 (0) 2 460 4413
Fax: +32 (0) 2 461 2614
sales-europe@crydom.com

FRANCE

0 810 123 963
0 810 057 605
sales-europe@crydom.com

GERMANY

Tel.: +49 (0) 180 3000 506
Fax: +49 (0) 180 3205 227
vertrieb@crydom.com

ITALY

Tel.: +39 (0) 2 665 99 260
Fax: +39 (0) 2 665 99 268
sales-europe@crydom.com

THE NETHERLANDS

Tel.: +31 (0) 71 582 0068
Fax: +31 (0) 71 542 1648
sales-europe@crydom.com

SPAIN

Tel.: +34 902 876 217
Fax: +34 902 876 219
sales-europe@crydom.com

PORTUGAL

Tel.: +44 (0) 1202 606034
Fax: +44 (0) 1202 606035
sales-europe@crydom.com

SWITZERLAND

Tel.: +49 (0) 180 3000 506
Fax: +49 (0) 180 3205 227
vertrieb@crydom.com

MIDDLE EAST, AFRICA AND OTHER EUROPEAN COUNTRIES

Tel.: +44 (0) 1202 606030
Fax: +44 (0) 1202 606035
sales-europe@crydom.com

ASIA PACIFIC

CHINA & HONG KONG

Custom Sensors & Technologies (Shanghai) Ltd.
2 Floor, Innovation Building,
No. 1009, Yi Shan Road,
Shanghai, 200233
Tel.: +86 (21) 2401 7766
Fax: +86 (21) 6249 0701
sales-cn@crydom.com

TAIWAN

Custom Sensors & Technologies
3F, No. 39, Ji-Hu Road
Nai-Hu Dist.
Taipei 114, Taiwan
Tel.: +886 2 8751 6388
Fax: +886 2 2657 8725
sales-tw@crydom.com

SOUTH KOREA

Custom Sensors & Technologies
5F, Jell Bldg.,
94-4E Youngdeungpo-dong 7-ga
Youngdeungpo-gu,
Seoul, 150-037
South Korea
Tel.: +82 2 2629 8312
sales-tw@crydom.com

INDIA

CST Sensors India Pvt Ltd
Unit 1301 and 1302 Prestige
Meridian II
30 M.G.Road,
Bangalore - 560001
INDIA
Tel.: +91 (80) 4113 2204/05
Fax: +91 (80) 4113 2206
india@cstsensors.com

OTHER ASIAN AND PACIFIC COUNTRIES

Custom Sensors & Technologies
3F, No. 39, Ji-Hu Road
Nai-Hu Dist.
Taipei 114, Taiwan
Tel.: +886 2 8751 6388
Fax: +886 2 2657 8725
sales-tw@crydom.com

THE GLOBAL EXPERT IN SOLID STATE POWER SWITCHING TECHNOLOGY



Motor Controls



Power Supplies



Motor Generator Exciters



Crydom has a distinguished record of providing advanced, high quality products with timely delivery and competitive pricing. Your success in today's fast-paced global markets

hinges on working with suppliers who respond quickly and appropriately to your every need.

In addition to an extensive selection catalog off-the-shelf items, Crydom offers custom-designed power switching modules. Fact is we specialize in satisfying the most demanding environmental and performance requirements our customer can devise. Give us your specs, and watch us exceed your expectations!

At Crydom's custom-built 100,000 square foot manufacturing facility, virtually everything is accomplished in-house to assure complete control over delivery, production and above all quality. With design, development, manufacturing and management personnel under one roof, we're geared for fast response to your requirements.

In **Design Engineering**, we focus on pushing performance, reliability and quality standards ever higher. Working under a conservative design and rating philosophy, Crydom's seasoned engineering team makes extensive use of CAD to optimize design of mechanical parts.

As a result of these efforts, Crydom has acquired and impressive list of patents in power switching technology, while continuing to create new circuit and technology-related inventions as part of our ongoing R & D programs.

Once the design is solidified, **Production Engineering** is responsible for the engineering control of the techniques used throughout manufacturing. This department works closely with our design engineering group, establishes assembly processes, and oversees a comprehensive on-premises machine shop which fabricates our assembly fixtures.

As the work progresses, **Material and Production Control** employ our advanced computer system, upgraded with our customized software to keep manufacturing operations humming. The Computer system employs integral MRP and MSP capabilities to generate detailed scheduling and planning information.

Ceramic Hybrid Manufacturing also is performed in-house. Crydom manufactures all metallized ceramic substrates used in our relays — a major factor in product performance and reliability, including direct bond copper substrates.

Quality Assurance conducts ongoing product reliability verification tests, gathering precise data on the quality of our power semiconductor vendors and the silicon chips they provide. Additional tests are performed to meet specific customer burn-in requirements.



www.crydom.com

© 2008 Crydom Inc., All Rights Reserved.

Specifications are subject to change without prior notice. Crydom and the Crydom logo are registered trademarks of Crydom Inc.





L
15-42.5Amp
Diode, SCR/Diode Modules
Low Profile
Designed for PCB Connections

Circuit Modules provide ratings up to 42.5 amps in a low profile package designed for printed circuit board connections. Available in three standard bridge circuits and an AC switch version, all models have 2500 Vrms isolation and are UL recognized under file E72445. Mounting clip available, order part no. LMC-1.

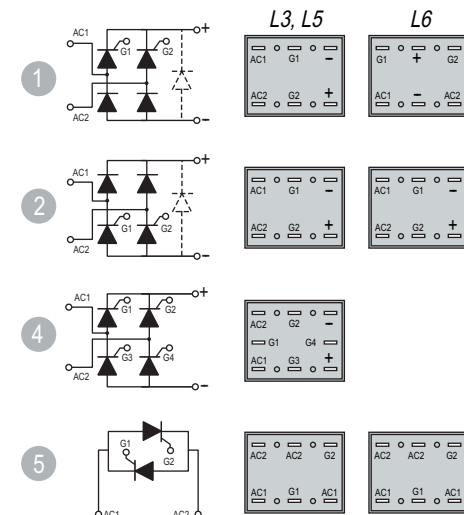
PART NUMBER IDENTIFICATION

Series	Current	Circuit Type	AC Line Voltage	Options
L	3 - 15 Amps 5 - 25 Amps 6 - 42.5 Amps*	1 - 5 (See schematic diagrams)	1 - 120 Vac 2 - 240 Vac 3 - 280 Vac 4 - 480 Vac	F - Free Wheeling Diode (Circuits 1, 2)

Example: L512F

* 42.5 Amp Rating Not Available in Circuit 4

ELECTRICAL SPECIFICATIONS		L3	L5	L6
I _D	Maximum DC Output Current @ T _C = 85°C	15A	25A	42.5A
V _F	Maximum Voltage Drop @ Amps Peak	2.2V @ 15A	1.65V @ 25A	1.6V @ 42.5A
T _J	Operating Junction Temperature Range	-40°C to +125°C	-40°C to +125°C	-40°C to +125°C
di/dt	Critical Rate of Rise of On-State Current @ T _J =125°C	100 A/μs	100 A/μs	100 A/μs
dv/dt	Critical Rate of Rise of Off-State Voltage	500 V/μs	500 V/μs	500 V/μs
V _{RMS}	AC Line Input Voltage (Repetitive Peak Reverse Voltage)	120 (400 V _{RRM}) 240 (800 V _{RRM}) 280 (800 V _{RRM}) 480 (1200 V _{RRM})	120 (400 V _{RRM}) 240 (800 V _{RRM}) 280 (800 V _{RRM}) 480 (1200 V _{RRM})	120 (400 V _{RRM}) 240 (800 V _{RRM}) 280 (800 V _{RRM}) 480 (1200 V _{RRM})
I _{TSM}	Maximum Non-Repetitive Surge Current (1/2 Cycle, 60Hz)	225 A	300 A	600 A
I ² T	Maximum I ² T for Fusing (t=8.3ms)	210A ² sec	375A ² sec	1500A ² sec
I _{GT}	Maximum Required Gate Current to Trigger @ 25°C	60 mA	60 mA	80 mA
V _{GT}	Maximum Required Gate Voltage to Trigger @ 25°C	2.5V	2.5V	3.0V
P _{GA(V)}	Average Gate Power	0.5W	0.5W	0.5W
V _{GM}	Maximum Peak Gate Voltage (Reverse)	5.0V	5.0V	5.0V
R _{θJC}	Maximum Thermal Resistance Junction to Ceramic Base per Chip	1.25°C/W	0.9°C/W	0.7°C/W
V _{ISOL}	Isolation Voltage	2500 V _{RMS}	2500 V _{RMS}	2500 V _{RMS}



F18
25-105Amp
Diode, SCR/Diode Modules
Standard Package and Circuits

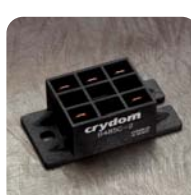
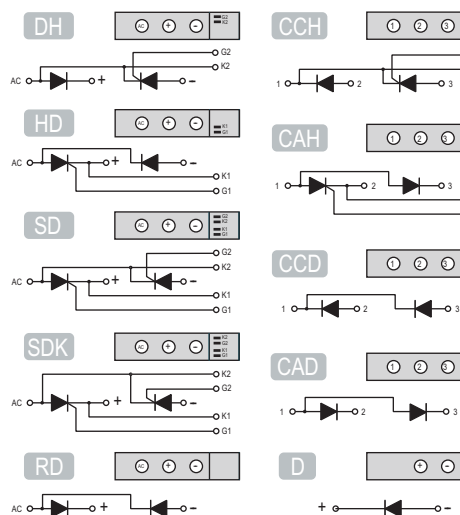
Modules come in an industry standard package, offering nine circuits that can be used singly or as power control building blocks. All models feature highly efficient thermal management for greatly extended cycle life and are UL recognized under file E72445.

PART NUMBER IDENTIFICATION

Series	Current	Circuit Type	AC Line Voltage
F18	27 - 25 Amps 42 - 40 Amps 57 - 55 Amps 92 - 90 Amps 107 - 105 Amps	(See schematic diagrams) Example: SD	400 - 120 Vac 600 - 240 Vac 1000 - 380 Vac 1200 - 480 Vac 1400 - 530 Vac 1600 - 600 Vac

Example: F1892SD1200

ELECTRICAL SPECIFICATIONS		27	42	57	92	107
I _D	Maximum DC Output Current @ T _C = 85°C	25A	40A	55A	90A	105A
V _F	Maximum Voltage Drop @ Amps Peak	1.55V @ 75Apk	1.4V @ 120Apk	1.4V @ 165Apk	1.4V @ 270Apk	1.65V @ 300Apk
T _J	Operating Junction Temperature Range	-40°C to +125°C	-40°C to +125°C	-40°C to +125°C	-40°C to +125°C	-40°C to +125°C
di/dt	Critical Rate of Rise of On-State Current @ T _J =125°C	100 A/μs	100 A/μs	100 A/μs	100 A/μs	100 A/μs
dv/dt	Critical Rate of Rise of Off-State Voltage	500 V/μs	500 V/μs	500 V/μs	500 V/μs	500 V/μs
V _{RRM}	Repetitive Peak Reverse Voltage (AC Line Input Voltage)	120 (400 V _{RRM}) 240 (800 V _{RRM}) 280 (800 V _{RRM}) 480 (1200 V _{RRM}) 530 (1400 V _{RRM}) 600 (1600 V _{RRM})	120 (400 V _{RRM}) 240 (800 V _{RRM}) 280 (800 V _{RRM}) 480 (1200 V _{RRM}) 530 (1400 V _{RRM}) 600 (1600 V _{RRM})	120 (400 V _{RRM}) 240 (800 V _{RRM}) 280 (800 V _{RRM}) 480 (1200 V _{RRM}) 530 (1400 V _{RRM}) 600 (1600 V _{RRM})	120 (400 V _{RRM}) 240 (800 V _{RRM}) 280 (800 V _{RRM}) 480 (1200 V _{RRM}) 530 (1400 V _{RRM}) 600 (1600 V _{RRM})	120 (400 V _{RRM}) 240 (800 V _{RRM}) 280 (800 V _{RRM}) 480 (1200 V _{RRM}) 530 (1400 V _{RRM}) 600 (1600 V _{RRM})
I _{TSM}	Maximum Non-Repetitive Surge Current (1/2 Cycle, 60Hz)	400A	1000A	1500A	1950A	2250A
I ² T	Maximum I ² T for Fusing (t=8.3ms)	670A ² sec	4150A ² sec	9350A ² sec	15800A ² sec	25000A ² sec
I _{GT}	Maximum Required Gate Current to Trigger @ 25°C	150mA	150mA	150mA	150mA	150mA
V _{GT}	Maximum Required Gate Voltage to Trigger @ 25°C	3.0V	3.0V	3.0V	3.0V	3.0V
P _{GA(V)}	Average Gate Power	0.5W	0.5W	0.5W	0.5W	0.5W
V _{GM}	Maximum Peak Gate Voltage (Reverse)	5.0V	5.0V	5.0V	5.0V	5.0V
R _{θJC}	Maximum Thermal Resistance Junction to Ceramic Base per Module	0.4°C/W	0.28°C/W	0.25°C/W	0.14°C/W	0.135°C/W
V _{ISOL}	Isolation Voltage	2500V _{RMS}	2500V _{RMS}	2500V _{RMS}	2500V _{RMS}	2500V _{RMS}



B48-2T, B48-2
35-50Amp
Diode Modules
Single and Three Phase Circuits
Up to 1600 Volt Blocking Standard

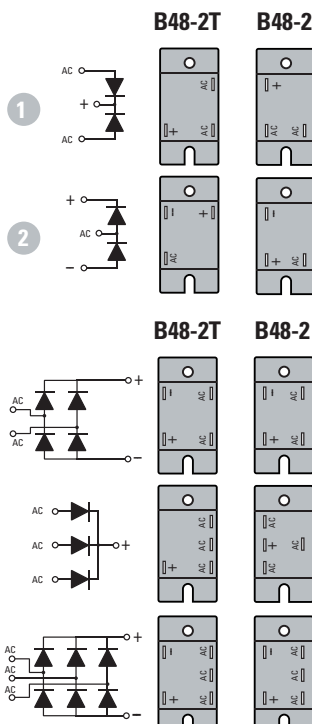
Single- and three-phase diode circuits come in panel mount package that provides 2500 Vrms isolation from the terminals to the ceramic base. Available in ratings up to 1600 Volts, all models are UL recognized under file E72445.

PART NUMBER IDENTIFICATION

Series	Circuit Type	Voltage	Case Style
B48	1 - 5 (see schematic diagrams)	B - 400 (120Vac) C - 600 (240Vac) E - 1000 (380Vac) F - 1200 (480Vac) G - 1400 (530Vac) H - 1600 (600Vac)	-2T (Standard) -2 With Isolation Barriers

Example: B483C-2T

ELECTRICAL SPECIFICATIONS		SINGLE PHASE		THREE PHASE	
I _D	Maximum DC Output Current @ T _C = 85°C	35A	50A		
V _F	Maximum Voltage Drop @ Amps Peak	1.25V @ 35A	1.35V @ 50A		
T _J	Operating Junction Temperature Range	-40°C to +125°C	-40°C to +125°C		
di/dt	Critical Rate of Rise of On-State Current @ T _J =125°C	100 A/μs	100 A/μs		
dv/dt	Critical Rate of Rise of Off-State Voltage	500 V/μs	500 V/μs		
V _{RRM}	Repetitive Peak Reverse Voltage (AC Line Input Voltage)	120 (400 V _{RRM}) 240 (800 V _{RRM}) 280 (800 V _{RRM}) 480 (1200 V _{RRM}) 530 (1400 V _{RRM}) 600 (1600 V _{RRM})	120 (400 V _{RRM}) 240 (800 V _{RRM}) 280 (800 V _{RRM}) 480 (1200 V _{RRM}) 530 (1400 V _{RRM}) 600 (1600 V _{RRM})	120 (400 V _{RRM}) 240 (800 V _{RRM}) 280 (800 V _{RRM}) 480 (1200 V _{RRM}) 530 (1400 V _{RRM}) 600 (1600 V _{RRM})	120 (400 V _{RRM}) 240 (800 V _{RRM}) 280 (800 V _{RRM}) 480 (1200 V _{RRM}) 530 (1400 V _{RRM}) 600 (1600 V _{RRM})
I _{TSM}	Maximum Non-Repetitive Surge Current (1/2 Cycle, 60Hz)	600A	600A		
I ² T	Maximum I ² T for Fusing (t=8.3ms)	1500A ² sec	1500A ² sec		
R _{θJC}	Maximum Thermal Resistance Junction to Ceramic Base per Chip	0.9°C/W	0.9°C/W		
V _{ISOL}	Isolation Voltage	2500 V _{RMS}	2500 V _{RMS}		



B-2T, B-2
25-42.5Amp
SCR/Diode Modules
Eight Standard Circuits
AC or DC Variable Voltage Output to 15KW

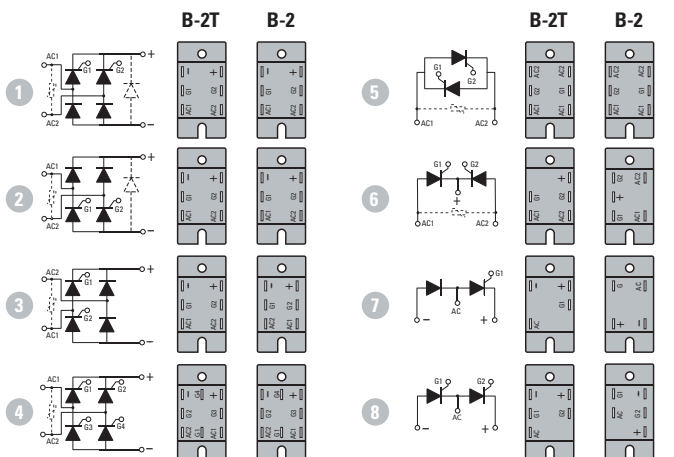
Modules come in eight standard circuits and are designed to control AC and DC variable voltage output up to 15KW. The package comes with standard .250 quick-connect terminals. All models have 2500 Vrms isolation and are UL recognized under file E72445. Optional isolation barriers are available.

PART NUMBER IDENTIFICATION

Series	Current	Circuit Type	AC Line Voltage	Options*	Case Style
B	5 - 25 Amps 6 - 42.5 Amps	1 - 8 (see schematic diagrams)	1 - 120 Vac 2 - 240 Vac 3 - 280 Vac 4 - 480 Vac	F - Free Wheeling Diode (Circuits 1 & 2 Only) SE - External Suppressor (-2T Only, Circuits 1-8 Only)	-2T (Standard) -2 With Isolation Barriers

Example: B512FSE-2T

ELECTRICAL SPECIFICATIONS		B5	B6
I _D	Maximum DC Output Current @ T _C = 85°C	25A	42.5A
V _F	Maximum Voltage Drop @ Amps Peak	1.65V @ 25A	1.6V @ 42.5A
T _J	Operating Junction Temperature Range	-40°C to +125°C	-40°C to +125°C
di/dt	Critical Rate of Rise of On-State Current @ T _J =125°C	100A/μs	100A/μs
dv/dt	Critical Rate of Rise of Off-State Voltage	500V/μs	500V/μs
V _{RMS}	AC Line Input Voltage (Repetitive Peak Reverse Voltage)	120 (400 V _{RRM}) 240 (800 V _{RRM}) 280 (800 V _{RRM}) 480 (1200 V _{RRM})	120 (400 V _{RRM}) 240 (800 V _{RRM}) 280 (800 V _{RRM}) 480 (1200 V _{RRM})
I _{TSM}	Maximum Non-Repetitive Surge Current (1/2 Cycle, 60Hz)	250A	600A
I ² T	Maximum I ² T for Fusing (t=8.3ms)	260A ² sec	1500A ² sec
I _{GT}	Maximum Required Gate Current to Trigger @ 25°C	60mA	80mA
V _{GT}	Maximum Required Gate Voltage to Trigger @ 25°C	2.5V	3.0V
P _{GA(V)}	Average Gate Power	0.5W	0.5W
P _{VGM}	Maximum Peak Gate Voltage (Reverse)	5.0V	5.0V
R _{θJC}	Maximum Thermal Resistance Junction to Ceramic Base per Chip	0.9°C/W	0.7°C/W
V _{ISOL}	Isolation Voltage	2500 V _{RMS}	2500 V _{RMS}



*F option available in 1 and 2 circuits only, SE option available on -2T in circuits 1-6 only.



M50 SCR/Diode Modules
50-100Amp

Over 40KW Output Capability

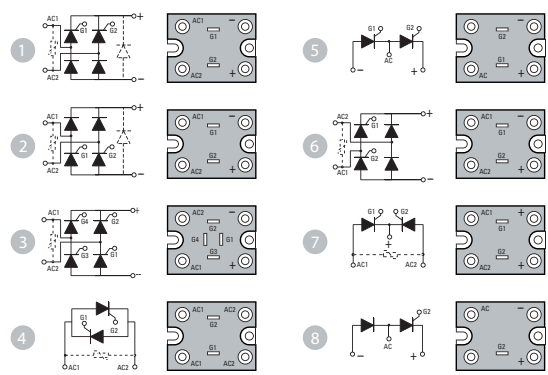
The M50 Series modules utilize highly efficient thermal management to provide high surge capability, long lifetime and reliable performance. Available in eight standard circuits, all models come in an industry standard package, provide 2500 Vrms from all terminals to the base plate and are UL recognized under file E72445.

PART NUMBER IDENTIFICATION

Series	Current	Circuit Type	AC Line Voltage	Options*
M50	50 - 50 Amps 100 - 100 Amps	1 - 8 (see schematic diagrams)	1 - 120 Vac 2 - 240 Vac 3 - 280 Vac 4 - 380 Vac 5 - 480 Vac	F - Free Wheeling Diode V - External Suppressor

Example: M505012FV

ELECTRICAL SPECIFICATIONS		M5050	M50100
I _D	Maximum DC Output Current @ T _C = 85°C	50A	100A
V _F	Maximum Voltage Drop @ Amps Peak	1.7V @ 50A	1.4V @ 100A
T _J	Operating Junction Temperature Range	-40°C to +125°C	-40°C to +125°C
di/dt	Critical Rate of Rise of On-State Current @ T _J =125°C	100A/μs	100A/μs
dv/dt	Critical Rate of Rise of Off-State Voltage	500V/μs	500V/μs
V _{RMS}	AC Line Input Voltage (Repetitive Peak Reverse Voltage)	120 (400 V _{RRM}) 240 (800 V _{RRM}) 280 (800 V _{RRM}) 480 (1200 V _{RRM})	120 (400 V _{RRM}) 240 (800 V _{RRM}) 280 (800 V _{RRM}) 480 (1200 V _{RRM})
I _{TSM}	Maximum Non-Repetitive Surge Current (1/2 Cycle, 60Hz)	600A	1500A
I ² T	Maximum I ² T for Fusing (t=8.3ms)	1500A ² sec	9350A ² sec
I _{GT}	Maximum Required Gate Current to Trigger @ 25°C	150mA	150mA
V _{GT}	Maximum Required Gate Voltage to Trigger @ 25°C	3.0V	3.0V
P _{GA(V)}	Average Gate Power	0.5W	0.5W
P _{VGM}	Maximum Peak Gate Voltage (Reverse)	5.0V	5.0V
R _{θJC}	Maximum Thermal Resistance Junction to Ceramic Base per Chip	0.7°C/W	0.36°C/W
V _{ISOL}	Isolation Voltage	2500 V _{RMS}	2500 V _{RMS}



*F option available in 1 and 2 circuits only, V option available in circuits 1,2,3,4,6 and 7 only.



M50 Diode Modules
60-100Amp

High Surge Current Rectifier Circuits
Up to 1600 Volt Blocking Standard

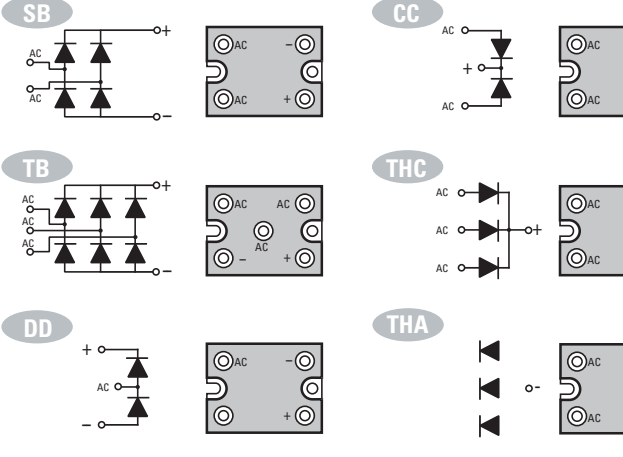
Single- and three-phase diode circuits incorporate highly efficient thermal management to provide high surge capability, extended life, and reliable performance. Available in five circuits, all models come in an industry standard package, provide 2500 Vrms from all terminals to the baseplate, and are UL recognized under file E72445.

PART NUMBER IDENTIFICATION

Series	Current	Circuit Type	Voltage
M50	60 - 60 Amps 100 - 100 Amps	(see schematic diagrams) Example: TB	400 (120Vac) 600 (240Vac) 1200 (480Vac) 1400 (530Vac) 1600 (600Vac)

Example: M50100TB1200

ELECTRICAL SPECIFICATIONS		M5060	M50100
I _D	Maximum DC Output Current @ T _C = 85°C	60A	100A
V _F	Maximum Voltage Drop @ Amps Peak	1.35V @ 60A	1.2V @ 100A
T _J	Operating Junction Temperature Range	-40°C to +125°C	-40°C to +125°C
di/dt	Critical Rate of Rise of On-State Current @ T _J =125°C	100A/μs	100A/μs
dv/dt	Critical Rate of Rise of Off-State Voltage	500V/μs	500V/μs
V _{RRM}	Repetitive Peak Reverse Voltage (AC Line)	120 (400 V _{RRM}) 240 (800 V _{RRM}) 280 (800 V _{RRM}) 480 (1200 V _{RRM}) 530 (1400 V _{RRM}) 600 (1600 V _{RRM})	120 (400 V _{RRM}) 240 (800 V _{RRM}) 280 (800 V _{RRM}) 480 (1200 V _{RRM}) 530 (1400 V _{RRM}) 600 (1600 V _{RRM})
I _{TSM}	Maximum Non-Repetitive Surge Current (1/2 Cycle, 60Hz)	800A	1500A
I ² T	Maximum I ² T for Fusing (t=8.3ms)	2650A ² sec	9350A ² sec
R _{θJC}	Maximum Thermal Resistance Junction to Ceramic Base per Chip	0.45°C/W	0.3°C/W
V _{ISOL}	Isolation Voltage	2500 V _{RMS}	2500 V _{RMS}



EF
50-170Amp
Diode, SCR/Diode Modules
High Thermal Efficiency

These circuits provide complete power control in a single package, utilizing high thermal efficiency to assure long life and reliable performance. Twelve standard models provide 2500 Vrms isolation from all terminals to ceramic base and are UL recognized under file E72445.

PART NUMBER IDENTIFICATION

Series	Current	(Amps)	Circuit Type	Voltage	Options
EF	10 - 30 D - 50 E - 75 F - 100 G - 125	30 70 100 135 170	AC SW (see schematic diagrams) Example: 01	B - 400 (120 Vac) C - 500 (240 Vac) E - 1000 (380 Vac) F - 1200 (480 Vac) G - 1400 (530 Vac)	F - Free Wheeling Diode (Circuits 1,2,16,19)

Example: EFD02CF

ELECTRICAL SPECIFICATIONS		D	E	F	G
I _D	Maximum DC Output Current @ T _C = 85°C	See Part Number Identification Above for Ratings of Single Phase, Three Phase and AC Switch Circuits			
V _F	Maximum Voltage Drop @ Amps Peak	1.7V @ 50A	1.85V @ 75A	1.4V @ 100A	1.55V @ 125A
T _J	Operating Junction Temperature Range	-40°C to +125°C	-40°C to +125°C	-40°C to +125°C	-40°C to +125°C
di/dt	Critical Rate of Rise of On-State Current @ T _J =125°C	100A/μs	100A/μs	100A/μs	100A/μs
dv/dt	Critical Rate of Rise of Off-State Voltage	500V/μs	500V/μs	500V/μs	500V/μs
V _{RRM}	Repetitive Peak Reverse Voltage (AC Line)	120 (400 V _{RRM}) 240 (800 V _{RRM}) 280 (800 V _{RRM}) 480 (1200 V _{RRM}) 530 (1400 V _{RRM})	120 (400 V _{RRM}) 240 (800 V _{RRM}) 280 (800 V _{RRM}) 480 (1200 V _{RRM}) 530 (1400 V _{RRM})	120 (400 V _{RRM}) 240 (800 V _{RRM}) 280 (800 V _{RRM}) 480 (1200 V _{RRM}) 530 (1400 V _{RRM})	120 (400 V _{RRM}) 240 (800 V _{RRM}) 280 (800 V _{RRM}) 480 (1200 V _{RRM}) 530 (1400 V _{RRM})