



Series EF

50-170 Amp • DIODE • SCR/DIODE Modules

- High Thermal Efficiency
- Complete Power Control Circuits in a Single Package

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 (file no. E72445).

Manufactured in Crydom's ISO 9002 Certified facility for optimum product performance and reliability.

PART NUMBER IDENTIFICATION

Series Type EF-Case style	Current (Amps) 1Ø 3Ø AC SW.	Circuit Type (see schematic diagrams) Example: 01	Voltage B - 120 Vac C - 240 Vac E - 380 Vac F - 480 Vac G - 530 Vac	Options F - Free Wheeling Diode (Circuits 1, 2, 16, 19 Only)
Example: EFD02CF	D - 50 70 55 E - 75 100 85 F - 100 135 110 G - 125 170 140			

ELECTRICAL SPECIFICATIONS

SYMBOL SPECIFICATION

	CURRENT CODE	D	E	F	G
I_D Maximum DC Output Current ($T_c = 85^\circ\text{C}$)		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			
di/dt Critical Rate of Rise of On-State Current @ $T_J=125^\circ\text{C}$		100A/µs	100A/µs	100A/µs	100A/µs
dv/dt Critical Rate of Rise of Off-State Voltage [V/µs]		500V/µs	500V/µs	500V/µs	500V/µs
V_{RRM} Repetitive Peak Reverse Voltage (AC Line)			400 (120 Vac) 600 (240 Vac) 1000 (380 Vac) 1200 (480 Vac) 1400 (530 Vac)		
I_{TSM} Maximum Non-Repetitive Surge Current ($1/2$ Cycle, 60Hz)		400A	600A	1500A	1950A
I^2T Maximum I^2T for Fusing ($t=8.3\text{ms}$) [$A^2\text{sec}$]		670	1500	9340	15800
I_{GT} Maximum Required Gate Current to Trigger @25°C		60mA	80mA	150mA	150mA
V_{GT} Maximum Required Gate Voltage to Trigger @25°C		2.5V	3.0V	3.0V	3.0V
$P_{G(AV)}$ Average Gate Power		0.5W	0.5W	0.5W	0.5W
V_{GM} Maximum Peak Gate Voltage (Reverse)		5.0V	5.0V	5.0V	5.0V
$R_{\theta JC}$ Maximum Thermal Resistance Junction to Ceramic Base per Chip		0.8°C/W	0.7°C/W	0.36°C/W	0.3°C/W
V_{ISOL} Isolation Voltage		2500 V_{RMS}	2500 V_{RMS}	2500 V_{RMS}	2500 V_{RMS}

MECHANICAL SPECIFICATIONS

Weight: (typical)

7.0 oz. (198g)

©1998 CRYDOM CORP Specifications subject to change without notice.

For recommended applications and more information contact:

USA: (800) 8 CRYDOM • (800) 827-9366 • (619) 715-7200 • fax (619) 715-7280

Crydom Corp, 9525 Chesapeake Drive, San Diego, CA 92123 • e-mail: sales@crydom.com

WEB SITE: <http://www.crydom.com> FASTFAX Product Information: (888) 267-9191

UK: (44)1202 812300 • fax (44)1202 812340 Crydom International Ltd., 85, Condor Close,

Woolbridge Industrial Estate, Three-Legged Cross, Wimborne, Dorset, England BH21 6SU

GERMANY: (49) (0)6874 182580 • fax (49)(0)6874 182585 Crydom GmbH,

Gewerbegebiet Im Schachen, D-66687 Nunkirchen, Germany • e-mail: vertrieb@crydom.com



Series EF

50-170 Amp • DIODE • SCR/DIODE Modules

- High Thermal Efficiency
- Complete Power Control Circuits in a Single Package



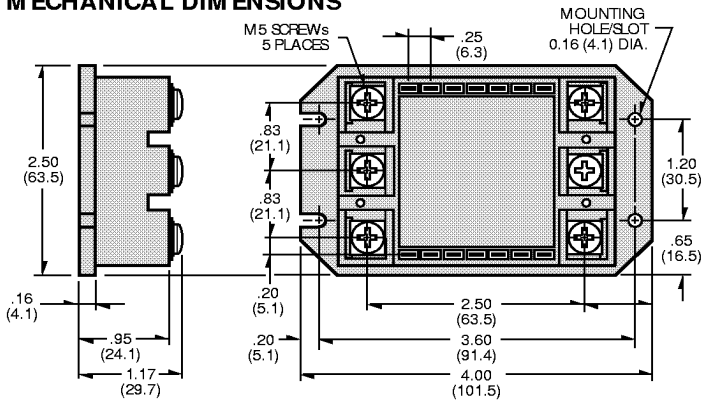
PART NUMBER IDENTIFICATION

Series Type EF-Case style	Current (Amps)	Circuit Type (see schematic diagrams) Example: 01	Voltage	Options
	1Ø	3Ø	AC SW.	
	D - 50	70	55	B - 120 Vac
	E - 75	100	85	C - 240 Vac
	F - 100	135	110	E - 380 Vac
	G - 125	170	140	F - 480 Vac
				G - 530 Vac

Options: **F** - Free Wheeling Diode (Circuits 1, 2, 16, 19 Only)

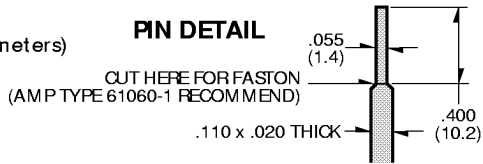
Example: EFD02CF

MECHANICAL DIMENSIONS

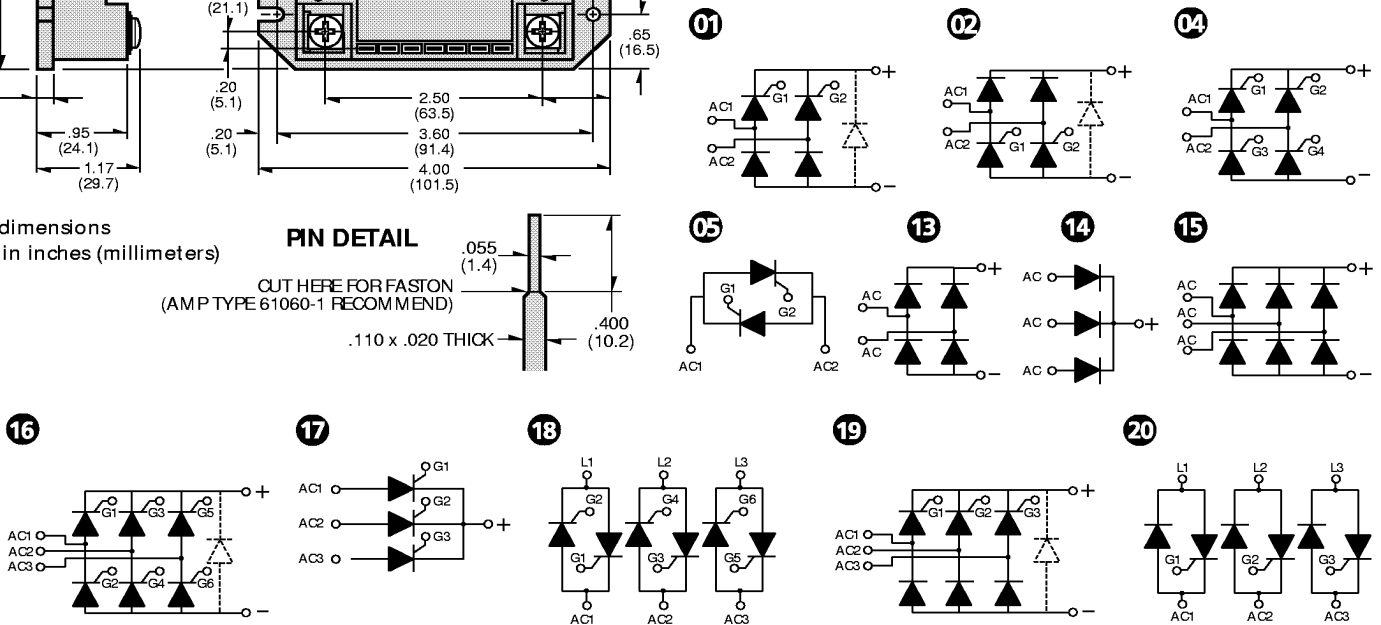


All dimensions are in inches (millimeters)

PIN DETAIL



SERIES EF CIRCUITS



©1998 CRYDOM CORP Specifications subject to change without notice.

For recommended applications and more information contact:

USA: (800) 8 CRYDOM • (800) 827-9366 • (619) 715-7200 • fax (619) 715-7280
 Crydom Corp, 9525 Chesapeake Drive, San Diego, CA 92123 • e-mail: sales@crydom.com
WEB SITE: http://www.crydom.com **FASTFAX Product Information:** (888) 267-9191
UK: (44)1202 812300 • fax (44)1202 812340 Crydom International Ltd., 85, Condor Close,
 Woolsbridge Industrial Estate, Three-Legged Cross, Wimborne, Dorset, England BH21 6SU
GERMANY: (49) (0)6874 182580 • fax (49)(0)6874 182585 Crydom GmbH,
 Gewerbegebiet Im Schachen, D-66687 Nunkirchen, Germany • e-mail: vertrieb@crydom.com



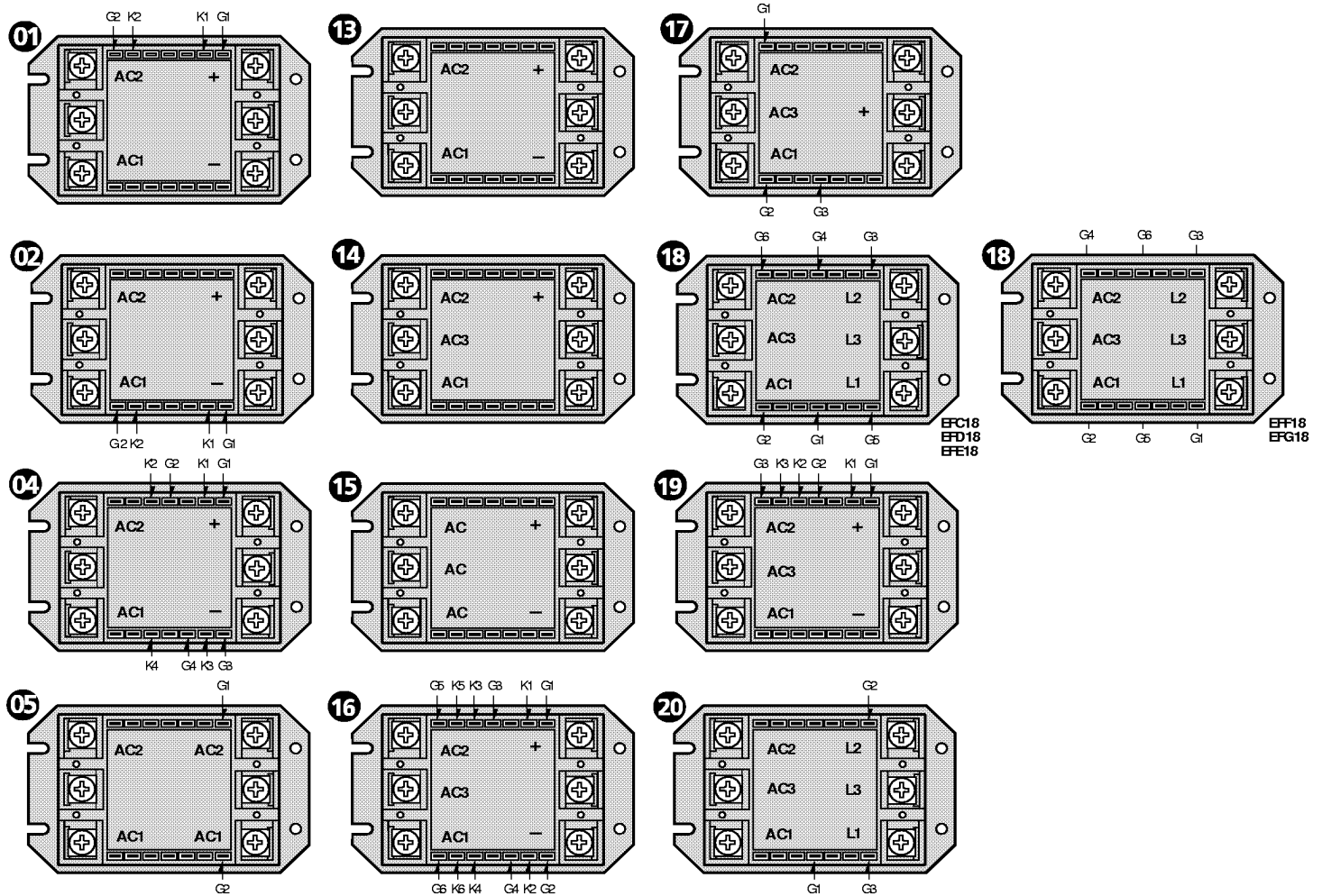
Series EF

50-170 Amp • DIODE • SCR/DIODE Modules

CRYDOM

Control over power

TERMINAL ORIENTATION



©1998 CRYDOM CORP Specifications subject to change without notice.

For recommended applications and more information contact:

USA: (800) 8 CRYDOM • (800) 827-9366 • (619) 715-7200 • fax (619) 715-7280

Crydom Corp, 9525 Chesapeake Drive, San Diego, CA 92123 • e-mail: sales@crydom.com

WEB SITE: <http://www.crydom.com> **FASTFAX Product Information:** (888) 267-9191

UK: (44)1202 812300 • fax (44)1202 812340 Crydom International Ltd., 85, Condor Close,

Woolbridge Industrial Estate, Three-Legged Cross, Wimborne, Dorset, England BH21 6SU

GERMANY: (49) (0)6874 182580 • fax (49)(0)6874 182585 Crydom GmbH,

Gewerbegebiet Im Schachen, D-66687 Nunkirchen, Germany • e-mail: Vertrieb@crydom.com

FastFax Document No. 230
SERIES EF.062498, PAGE 3 OF 3

