

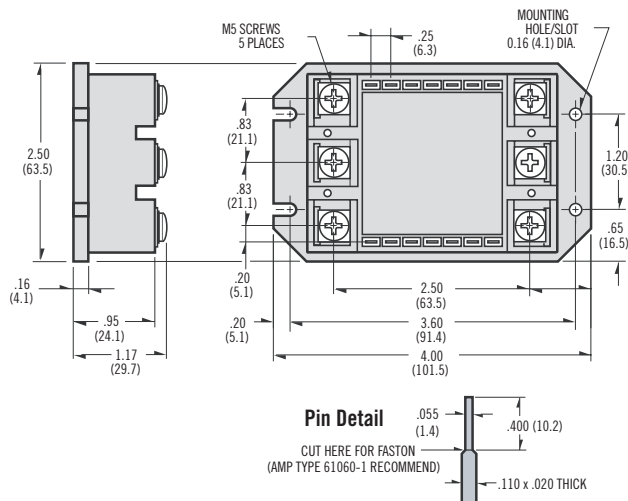


These circuits provide complete power control in a single package, utilizing high thermal efficiency to assure long life and reliable performance. Twelve standard models provide 2500 Vrms isolation from all terminals to ceramic base and are UL recognized E72445.

■ **High Thermal Efficiency**

**Mechanical Dimensions**

All dimensions are in inches (millimeters)



**Electrical Specifications**

		D E F G (See Part Number Identification for Ratings of Single-Phase, Three-Phase and AC Switch Circuits)			
$I_D$	Maximum DC Output Current @ $T_c = 85^\circ\text{C}$ (A)				
$V_F$	Maximum Voltage Drop @ Amps Peak	1.7V @ 50A	1.85@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 @ $T_J=125^\circ\text{C}$ (A/μs)	100			
dv/dt	Critical Rate of Rise of Off-State Voltage	500			
$V_{RMS}$	Repetitive Peak Reverse Voltage (AC Line Input Voltage)	400 (120Vac)	600 (240Vac)	800 (280Vac)	1000 (380Vac)
		1200 (480Vac)	1400 (530Vac)		
$I_{TSM}$	Maximum Non-Repetitive Surge Current (A) [ $1/2$ Cycle, 60Hz]	400	600	1500	1960
$I^2T$	Maximum $I^2T$ for Fusing ( $A^2\text{-sec}$ ) [ $t=8.3\text{ms}$ ]	670	1500	9350	15800
$I_{GT}$	Maximum Required Gate Current to Trigger @ 25°C (mA)	60	80	150	150
$V_{GT}$	Maximum Required Gate Voltage to Trigger @ 25°C (V)	2.5	3.0	3.0	3.0
$P_{G(AV)}$	Average Gate Power	0.5W			
$V_{GM}$	Maximum Peak Gate Voltage (Reverse)	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 $V_{RMS}$			

**Mechanical Specifications**

Weight (Typical)	7.0 oz. (198g)
------------------	----------------

ISO9001 CERTIFIED

Competitive part number cross-reference available at: [www.cynergy3.com](http://www.cynergy3.com)

**Approvals**

UL - E72445

**USA**

Sales & Tech Support (866) 258-5057  
 Email: [sales@cynergy3.com](mailto:sales@cynergy3.com)  
 Cynergy3 Components  
 2320 Paseo de las Americas, Suite 104  
 San Diego, CA 92154

**EUROPE - UK**

Telephone +44 (0) 1202 897969  
 Fax +44 (0) 1202 891918  
 Email: [sales@cynergy3.com](mailto:sales@cynergy3.com)  
 Cynergy3 Components Ltd.  
 7 Cobham Road  
 Ferndown Industrial Estate  
 Wimborne, Dorset BH21 7PE

**ASIA - Thailand**

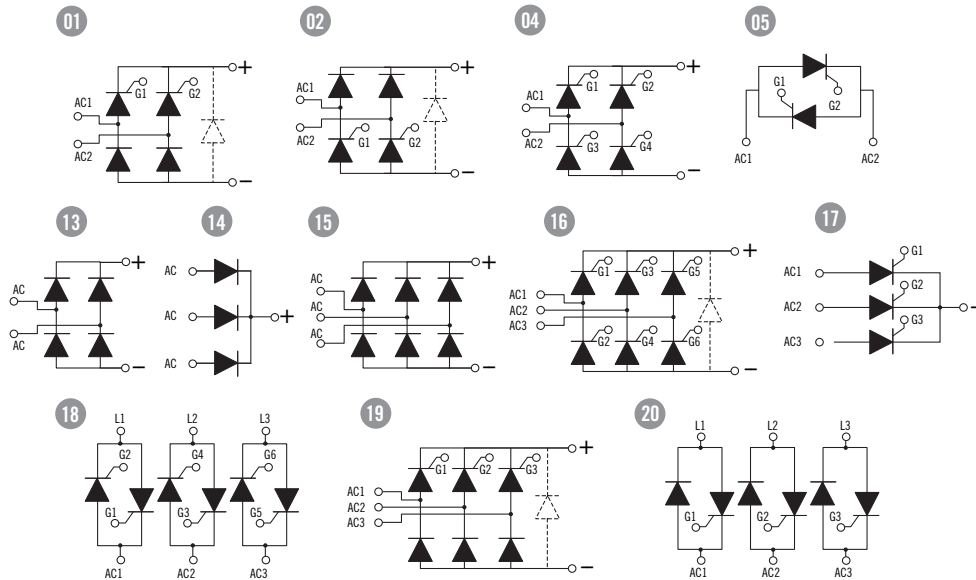
Telephone +66 (0)2 665 2517  
 Fax +66 (0)2 665 2588  
 Cynergy 3 Components, Asia  
 18/8 Fico Place 12th Floor  
 Soi Sukhumvit 21 (Asoke)  
 Klongtoey Nua, Wattana  
 Bangkok, Thailand 10110



**Part Number Identification**

Series	Current (Amps)	Circuit Type	Voltage	Options
	1Ø 3Ø AC SW			
EF	D - 50 70 55	(see schematic diagrams)	B - 400 (120Vac)	F - Free Wheeling Diode (Circuits 1, 2, 16 and 19)
	E - 75 100 85		C - 500 (240Vac)	
	F - 100 135 110		E - 1000 (380Vac)	
	G - 125 170 140	Example: 01	F - 1200 (480Vac)	
			G - 1400 (530Vac)	

Example: EFD02CF



ISO9001 CERTIFIED

Competitive part number cross-reference available at: [www.cynergy3.com](http://www.cynergy3.com)

**Approvals**

UL - E72445

**USA**

Sales & Tech Support (866) 258-5057

Email: [sales@cynergy3.com](mailto:sales@cynergy3.com)

Cynergy3 Components

2320 Paseo de las Americas, Suite 104

San Diego, CA 92154

**EUROPE - UK**

Telephone +44 (0) 1202 897969

Fax +44 (0) 1202 891918

Email: [sales@cynergy3.com](mailto:sales@cynergy3.com)

Cynergy3 Components Ltd.

7 Cobham Road

Ferndown Industrial Estate

Wimborne, Dorset BH21 7PE

**ASIA - Thailand**

Telephone +66 (0)2 665 2517

Fax +66 (0)2 665 2588

Cynergy 3 Components, Asia

18/8 Fico Place 12th Floor

Soi Sukhumvit 21 (Asoke)

Klongtoey Nua, Wattana

Bangkok, Thailand 10110