

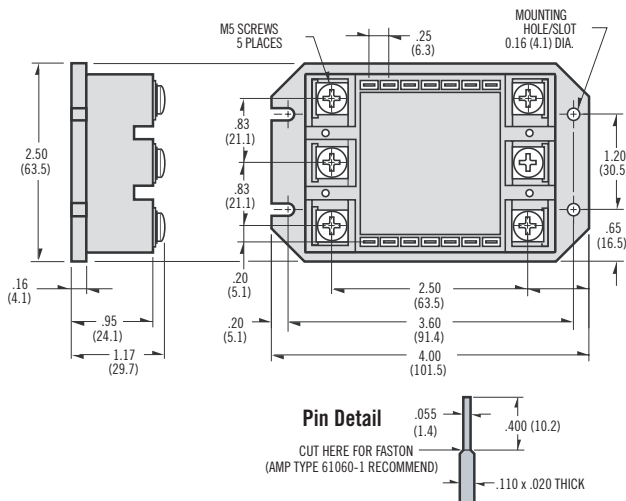


These circuits provide complete power control in a single package, utilizing high thermal efficiency to assure long life and reliable performance. Twelve standard models provide 2500 Vrms isolation from all terminals to ceramic base and are UL recognized E72445.

■ **High Thermal Efficiency**

Mechanical Dimensions

All dimensions are in inches (millimeters)



Electrical Specifications

		D	E	F	G
I_D	Maximum DC Output Current @ $T_c = 85^\circ\text{C}$ (A)	(See Part Number Identification for Ratings of Single-Phase, Three-Phase and AC Switch Circuits)			
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)
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ISO9001 CERTIFIED

Competitive part number cross-reference available at: www.cynergy3.com

Approvals

UL - E72445

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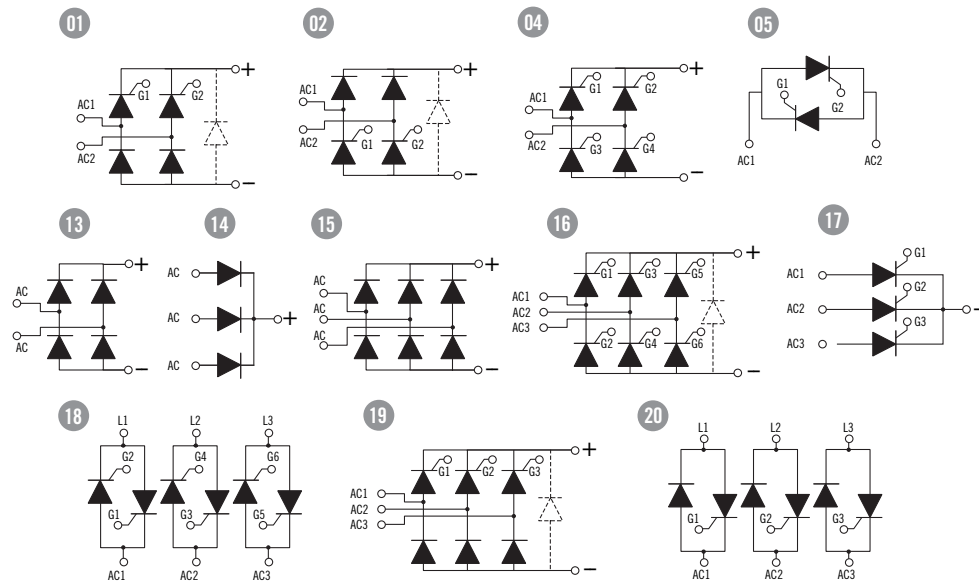
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Part Number Identification

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



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