

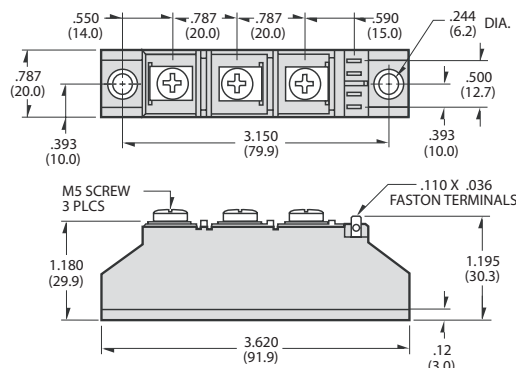


Modules come in an industry standard package, offering nine circuits that can be used singly or as power control building blocks. All models feature highly efficient thermal management for greatly extended cycle life and are UL recognized E72445.

- **Standard Package and Circuits**
- **Power Control Building Blocks**

Mechanical Dimensions

All dimensions are in inches (millimeters)



Electrical Specifications	RATINGS					
	27	42	57	92	107	
I_D Maximum DC Output Current @ $T_c = 85^\circ\text{C}$ (A)	25	40	55	90	105	
V_F Maximum Voltage Drop @ Amps Peak	1.55@75A	1.4@120A	1.4@165A	1.4@270A	1.65@300A	
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)					
	1000 (380Vac)					
	1200 (480Vac)					
	1400 (530Vac)					
I_{TSM} Maximum Non-Repetitive Surge Current (A) [1/2 Cycle, 60Hz]	1600 (600Vac)					
	400	1000	1500	1950	2250	
	I^2T Maximum I^2T for Fusing ($A^2\text{sec}$) [$t=8.3\text{ms}$]	670	4150	9350	15800	25000
	I_{GT} Maximum Required Gate Current to Trigger @ 25°C (mA)	150				
	V_{GT} Maximum Required Gate Voltage to Trigger @ 25°C (V)	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	0.4	0.28	0.25	0.14	0.135	
V_{ISOL} Isolation Voltage	2500 V_{RMS}					

Mechanical Specifications

Weight (Typical)	4.75 oz. (135g)
Torque Required	Terminal Stud Screw : 30 inch lb Mounting Screw : 20 inch lb

ISO9001 CERTIFIED

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

Approvals

UL - E72445

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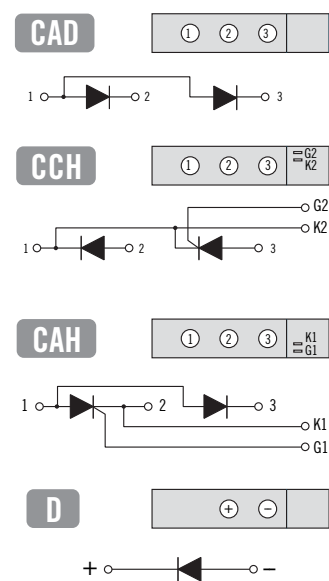
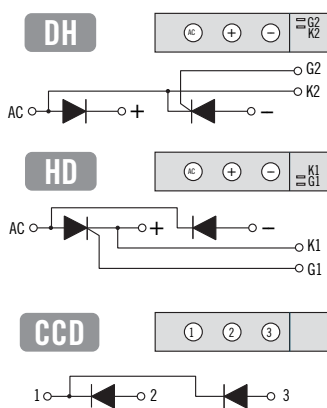
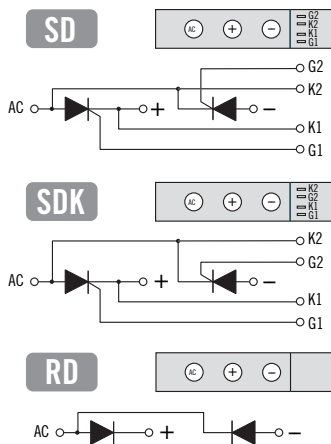
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Part Number Identification

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

Example: : F1892SD1200



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