

# 280 VOLT DUAL SOLID STATE RELAYS



- ▶ 40 amp dual AC output relays
- ▶ Output voltage from 24 to 280 Vac
- ▶ Direct bond copper substrate
- ▶ Back to back dual SCR output
- ▶ 4000 Vac optical isolation
- ▶ Zero crossing or random turn on
- ▶ UL/cUL Recognized, CE Compliant



## Output Specifications

Voltage range (Vrms)	24-280Vac	
Peak Voltage (Vpk, t = 1 min.)	550	
Off-state leakage mArms	0.1	
(@ max. line voltage & Ta = 25°C)		
Output Current (Mounted on proper heat sink, see deratings)	25	40
Minimum Current (mArms)	100	100
1 cycle surge current 50-60 Hz (Apk, Ta = 25°C)	275-300	710-750
1 second surge current 50/60 Hz (Apk, Ta = 25°C)	85	150
Forward voltage drop (Vpk @ I <sub>max</sub> , Ta = 25°C)	1.4	1.3
I <sup>2</sup> T (50-60Hz, ½ cycle)	380-370	2520-2320
R <sub>jb</sub> (thermal res. Junction to baseplate, °C/W)	0.6	0.4
Static off-state dv/dt (V <sub>us</sub> , Ta = 25°C)	500	500

## Input Specifications

Input voltage	4-15Vdc	17-32Vdc
Drop out voltage	1Vdc	1Vdc
Min. input current (for on-state)	7.5mA	13mA
Maximum input current	34mA	24mA
Input Resistance (Ohms)	500	1500
Turn-on time*	8.33msec	8.33msec
Turn-off time	8.33msec	8.33msec

\* Random SSR's turn on in less than 100µs

## General Characteristics

Operating Temperature (°C)	-40 to + 80
Storage Temperature (°C)	-40 to + 100
Input to output isolation	4000Vrms
Input/output to ground isolation	2500Vrms
Input to output capacitance	8pF (typical)
Operating Frequency	47 to 63 Hz
Housing Material	UL 94V0 (self extinguishing)

## Standards of Compliance

CE Compliant with the LVD 73/23/EEC  
 UL / cUL Recognized per UL 508 and CSA C22.2 no. 14-M91

See next page thermal curves.

## Part Numbers 1/4" Quick Connect

### Zero Crossing Output

Rating	Output	Input	Part Number
25 Amp	24-280Vac	4-15Vdc	84140000
25 Amp	24-280Vac	17-32Vdc	84140010
40 Amp	24-280Vac	4-15Vdc	84140200
40 Amp	24-280Vac	17-32Vdc	84140210

### Random Fire Output

Rating	Output	Input	Part Number
25 Amp	24-280Vac	4-15Vdc	84140100
25 Amp	24-280Vac	17-32Vdc	84140110
40 Amp	24-280Vac	4-15Vdc	84140300
40 Amp	24-280Vac	17-32Vdc	84140310

## Part Numbers Locking Connector

### Zero Crossing Output

Rating	Output	Input	Part Number
25 Amp	24-280Vac	4-15Vdc	84140800
25 Amp	24-280Vac	17-32Vdc	84140810
40 Amp	24-280Vac	4-15Vdc	84140900
40 Amp	24-280Vac	17-32Vdc	84140910

### Random Fire Output

Rating	Output	Input	Part Number
25 Amp	24-280Vac	4-15Vdc	84140801
25 Amp	24-280Vac	17-32Vdc	84140811
40 Amp	24-280Vac	4-15Vdc	84140901
40 Amp	24-280Vac	17-32Vdc	84140911

Mating Connector: Molex # 14-56-2042

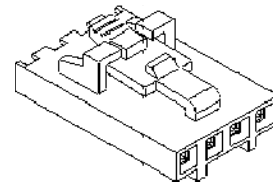
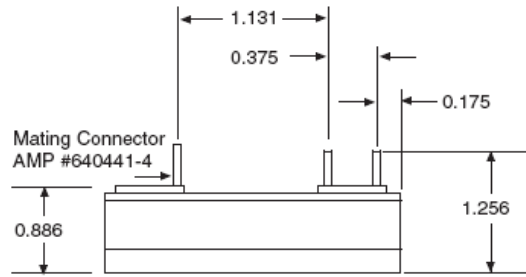
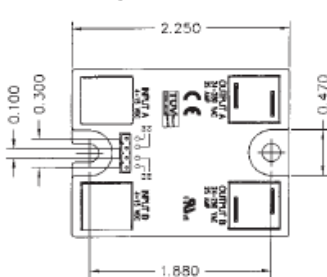
## Part Numbers Screw Terminals

### Zero Crossing Output

Rating	Output	Input	Part Number
25 Amp	24-280Vac	4-15Vdc	84140003
25 Amp	24-280Vac	17-32Vdc	84140013
40 Amp	24-280Vac	4-15Vdc	84140203
40 Amp	24-280Vac	17-32Vdc	84140213

### Random Fire Output

Rating	Output	Input	Part Number
25 Amp	24-280Vac	4-15Vdc	84140103
25 Amp	24-280Vac	17-32Vdc	84140113
40 Amp	24-280Vac	4-15Vdc	84140303
40 Amp	24-280Vac	17-32Vdc	84140313



Mating Connector for 841408xxx and 841409xxx  
 Molex # 50-57-9404 without pins  
 Crimp Pins Molex # 16-02-0103

# 660 VOLT DUAL SOLID STATE RELAYS



- ▶ 40 amp dual AC output relays
- ▶ Output voltage from 48 to 660 Vac
- ▶ Direct bond copper substrate
- ▶ Back to back dual SCR output
- ▶ 4000 Vac optical isolation
- ▶ Zero crossing or random turn on
- ▶ UL/cUL Recognized, CE Compliant



## Output Specifications

Voltage range (Vrms)	48-660Vac	
Peak Voltage (Vpk, t = 1 min.)	1000	
Off-state leakage mArms	0.25	
(@ max. line voltage & Ta = 25°C)		
Output Current (Mounted on proper heat sink, see deratings)	25	40
Minimum Current (mArms)	100	100
1 cycle surge current 50-60 Hz (Apk, Ta = 25°C)	275-300	710-750
1 second surge current 50/60 Hz (Apk, Ta = 25°C)	85	150
Forward voltage drop (Vpk @ Imax, Ta = 25°C)	1.4	1.3
I <sup>2</sup> T (50-60Hz, ½ cycle)	380-370	2520-2320
Rjb (thermal res. Junction to baseplate, °C/W)	0.6	0.4
Static off-state dv/dt (Vµs, Ta = 25°C)	500	500

## Input Specifications

Input voltage	4-15Vdc	17-32Vdc
Drop out voltage	1Vdc	1Vdc
Min. input current (for on-state)	7.5mA	13mA
Maximum input current	34mA	24mA
Input Resistance (Ohms)	500	1500
Turn-on time*	8.33msec	8.33msec
Turn-off time	8.33msec	8.33msec

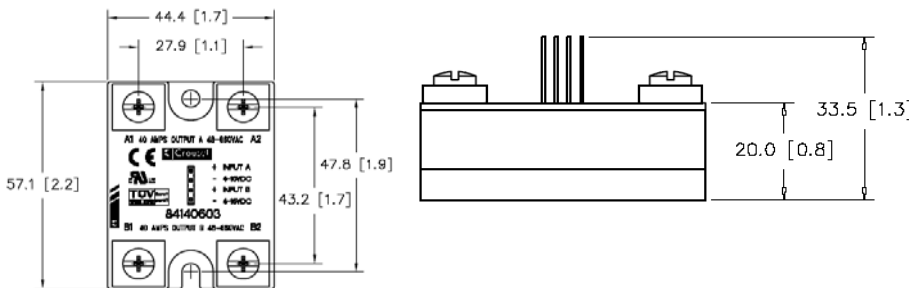
\* Random SSR's turn on in less than 100µs

## General Characteristics

Operating Temperature (°C)	-40 to + 80
Storage Temperature (°C)	-40 to + 100
Input to output isolation	4000Vrms
Input/output to ground isolation	2500Vrms
Input to output capacitance	8pF (typical)
Operating Frequency	47 to 63 Hz
Housing Material	UL 94V0 (self extinguishing)

## Standards of Compliance

CE Compliant with the LVD 73/23/EEC  
 UL / cUL Recognized per UL 508 and CSA C22.2 no. 14-M91



## Part Numbers 1/4" Quick Connect

QC, Standard Input Pins	Zero Crossing Output			
	Rating	Output	Input	Part Number
QC, Standard Input Pins	25 Amp	48-660Vac	4-15Vdc	84140500
	25 Amp	48-660Vac	17-32Vdc	84140510
	40 Amp	48-660Vac	4-15Vdc	84140600
	40 Amp	48-660Vac	17-32Vdc	84140610
Random Fire Output				
QC, Standard Input Pins	25 Amp	48-660Vac	4-15Vdc	84140501
	25 Amp	48-660Vac	17-32Vdc	84140511
	40 Amp	48-660Vac	4-15Vdc	84140601
	40 Amp	48-660Vac	17-32Vdc	84140611

## Part Numbers Screw Terminals

Standard Input Pins	Zero Crossing Output			
	Rating	Output	Input	Part Number
Standard Input Pins	25 Amp	48-660Vac	4-15Vdc	84140503
	25 Amp	48-660Vac	17-32Vdc	84140513
	40 Amp	48-660Vac	4-15Vdc	84140603
	40 Amp	48-660Vac	17-32Vdc	84140613
Random Fire Output				
Standard Input Pins	25 Amp	48-660Vac	4-15Vdc	84140530
	25 Amp	48-660Vac	17-32Vdc	84140531
	40 Amp	48-660Vac	4-15Vdc	84140630
	40 Amp	48-660Vac	17-32Vdc	84140631

