

645RT Series - Solid State Reversing

10 - 40 Amp



The 645RT series of solid state relays uses triacs for reversing phases on three phase loads. The most typical use is motor reversing. Inputs are DC operated. Load currents can range from 10 to 40 amps and up to a nominal voltage of 480VAC. Both random turn on or zero cross is available.



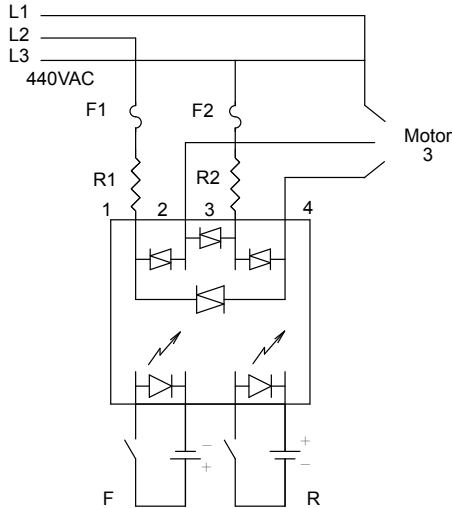
GENERAL SPECIFICATIONS (@ 25° C)

Input Characteristics	DC Input		
Input Voltage	4 - 32VDC		
Must Release Voltage	1VDC / 8VDC		
Maximum Input Current	80mA		
Reverse Polarity Protection	Yes		
Output Characteristics	10 Amp	25 Amp	40 Amp
Min. Load current to maintain on	100mA	120mA	250mA
Non-Repetitive Surge Current (1 cycle)	100A	250A	300A
Maximum I ² T for Fusing (Asquared sec)	50A ² S	312A ² S	450A ² S
Suggested Heatsink °C/W	0.5°C/W	0.14°C/W	0.14°C/W+FAN
Load Voltage Range	50 to 480VAC	50 to 480VAC	50 to 480VAC
Frequency Range	47 to 63 Hz	47 to 63 Hz	47 to 63 Hz
Peak Blocking Voltage	800 to 1200	800 to 1200	800 to 1200
Maximum Rate of Rise Off State Voltage (dv/dt)	250V/uS	250V/uS	250V/uS
Max. Off state leakage current (rms)	10mA	10mA	10mA
Max. On State Voltage Drop	1.6VAC	1.6VAC	1.6VAC
Maximum Turn-On Time @ 60 Hz	8.3mS	8.3mS	8.3mS
Maximum Turn-Off Time @ 60 Hz	8.3mS	8.3mS	8.3mS
Miscellaneous Characteristics			
Dielectric Strength - I or O to case	4000Vrms		
Operating Temperature Range	-30 to 80°C		
Storage Temperature Range	-40 to 100°C		
Weight	320g		
Input Terminal Size	M3.5		
Output Terminal Size	M4		

Motor Relays

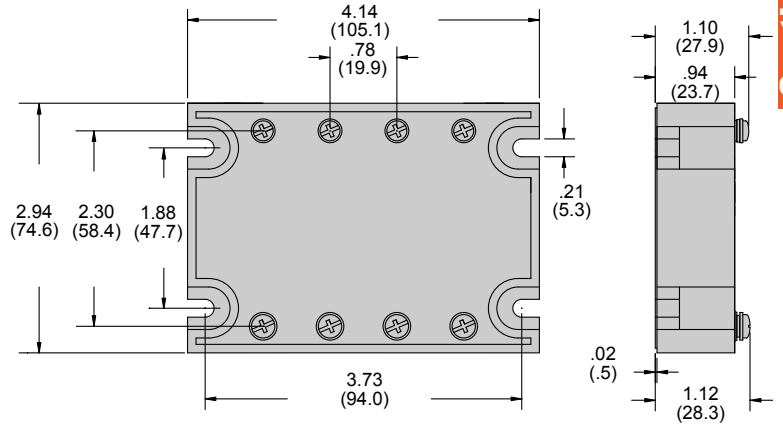
15 - 75 Amp

Foward / Reverse Motor Control Wire Diagram



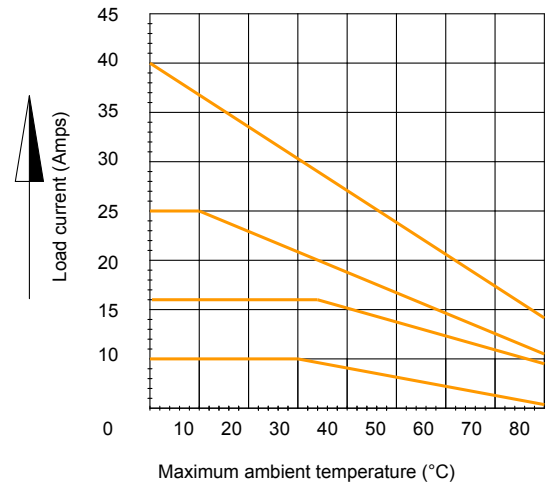
Outline Dimensions

Dimensions Shown in inches & (millimeters)



Section 3

Derating Curve



Ordering Code 645 T Z or R 4 10 4-32VDC

Series
645

Switching
Triac - CODE T

Turn on
Zero cross - CODE Z
Random turn on - R

Load Voltage
480VAC - CODE 4

Maximum Load Current
10, 25, 40 (Amp)

Input Voltage
4-32VDC

From: Brian Miller [mailto:bmiller@struthers-dunn.com]

Sent: Thursday, December 02, 2010 9:38 AM

To: Kevin Jackson

Subject: RE: Need Product Information

Hello Kevin,

On our 645 series when looking at the ordering code the first R is assumed. Please just add the T and R options to complete the part description.

I have attached our website PDF file to this email for you to review the options again. If this does not answer your question please email me back.

Thanks,

Brian Miller

Inside Sales Representative

Struthers-Dunn, LLC