

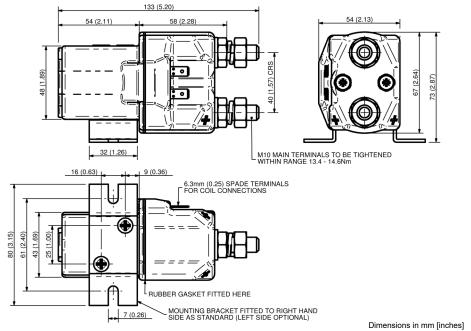
The SU280P has been designed for direct current loads, particularly motors as used on electronic vehicles such as industrial trucks, airport tractors and such like.

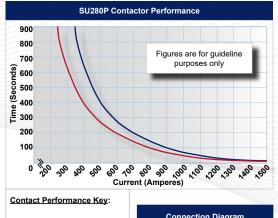
- · Interrupted current opening and closing on load with frequent switching (results in increased contact resistance).
- Uninterrupted current no or infrequent load switching requirements (maintains a lower contact resistance).

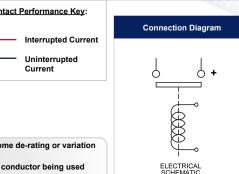
Thermal Current Rating (Ith)  Intermittent Current Rating:  30% Duty  450A  635A  40% Duty  390A  550A  50% Duty  300A  450A  635A  495A  50% Duty  300A  450A  70% Duty  300A  415A  Rated Fault Current Breaking Capacity (Icn) 5ms Time Constant:  (In accordance with UL583*)  SU280P  5U280P  5U2	Application	Interrupted	Uninterrupted		
A50A   635A	Thermal Current Rating ( <sup>/</sup> th)	250A	350A		
Any Duty  390A 550A  590 Duty  360A 495A  450D C.  550Bat 48V D.C.  66V D.C.  56V D.C.  56V D.C.  66V D.C.  56V D.C.	ntermittent Current Rating:				
360A 495A 360A 495A 360B Duty 320A 450A 370B Duty 320A 450A 370B Duty 320A 415A Rated Fault Current Breaking Capacity (Icn) 5ms Time Constant: In accordance with UL583*) SU280P 1500A at 48V D.C. Rated Fault Current Breaking Capacity (Icn) Resistive Load: In accordance with UL508*) SU280BP 1500A at 80V D.C. Rated Fault Current Breaking Capacity (Icn) Resistive Load: In accordance with UL508*) SU280BP 525A at 60V D.C. Maximum Recommended Contact Voltages (Ue): SU280BP 96V D.C. Maximum Recommended Contact Voltages (Ue): SU280BP 96V D.C. SU280BP 96V D.C. Typical Voltage Drop per pole across New Contacts at 250A Mechanical Durability 73 x 10 <sup>8</sup> Cycles Coil Voltage Available (Us) Recetifier board required for A.C.) Coil Power Dissipation: Highly Intermittent Rated Types 15 - 30 Watts Intermittently Rated types 30 - 40 Watts Prolonged Rated Types 15 - 30 Watts Continuously Rated Types 10 - 15 Watts Maximum Pull-In Voltage (Coil at 20° C) Guideline: Highly Intermittent Rated types Max 25% Duty Cycle) 60% Us Intermittently Rated types 60% Us Prolonged Operation Max 90% Duty Cycle) 60% Us Continuously Rated Types 66% Us Drop-Out Voltage Range 10 - 25% Us Typical Drop-Out Time (N/O Contacts to Open): Without Suppression 8ms With Diode and Resistor Subject to resistance value) 25ms With Diode and Resistor Subject to resistance value) 755 gms With Blowouts - 40° C to + 60° C Guideline Contactor Weight: SU280P 755 gms With Blowouts - 40° C Maximum Continuous Current Copper busbar 228mm² [0.353 inch²]	30% Duty	450A	635A		
320A   450A   300A   415A   300A	40% Duty	390A	550A		
Rated Fault Current Breaking Capacity (Icn) 5ms Time Constant: (In accordance with UL583*) SU280P  SU280BP  1500A at 48V D.C. Rated Fault Current Breaking Capacity (Icn) Resistive Load: (In accordance with UL508*) SU280BP  SU280BP  SU280BP  SU280BP  SU280BP  SU280BP  Maximum Recommended Contact Voltages (Ue): SU280P  Maximum Recommended Contact Voltages (Ue): SU280BP  Maximum Recommended Contact Voltages (Ue): SU280BP  Mechanical Durability  SU280P  Mechanical Durability  Mechanical Durability  SU280P  Mechanical Durability  SU280P  Mechanical Durability  SU280P  Mechanical Durability  SU280P  Mechanical Durability  Mechanical Durability  SU280P  Mechanical Durability  SU280P  Mechanical Durability  SU280P  Mechanical Durability  Mechanical Durability  SU280P  More Gold At 80 V D.C.  More Gold Durability  More Gold At 80 V D.C.  More Gold Durability  More Gold At 80 V D.C.  More Gold Durability  More Gold At 80 V D.C.  More Gold Durability  More Gold At 80 V D.C.  More Gold Durability  More Gold At 80 V D.C.  More Gold Durability  More Gold At 80 V D.C.  More Gold Durability  More Gold At 80 V D.C.  More Gold Durability  More Gold At 80 V D.C.  More Gold Durability  Mo	50% Duty	360A	495A		
Rated Fault Current Breaking Capacity (Cn) 5ms Time Constant: (in accordance with UL583*)  SU280P	60% Duty	320A	450A		
Rated Fault Current Breaking Capacity (\frac{l}{cn}\) 5ms Time Constant: \(\frac{l}{l}\) in accordance with UL583*\)  SU280P	70% Duty	300A	415A		
Rated Fault Current Breaking Capacity (Icn) Resistive Load: (In accordance with UL508*)  SU280P  525A at 60V D.C.  Maximum Recommended Contact Voltages (Ue):  SU280BP  525A at 96V D.C.  Maximum Recommended Contact Voltages (Ue):  SU280BP  525A at 96V D.C.  Maximum Recommended Contact Voltages (Ue):  SU280BP  796V D.C.  Typical Voltage Drop per pole across New Contacts at 250A  Mechanical Durability  73 x 106 Cycles  From 6 to 240V A.C./D.C.  Coil Power Dissipation:  Highly Intermittent Rated Types  70 August 15 - 30 Watts  Perolonged Rated Types  71 August 15 - 30 Watts  Perolonged Rated Types  72 August 16 - 15 Watts  Maximum Pull-In Voltage (Coil at 20° C) Guideline:  Highly Intermittent Rated types  Max 25% Duty Cycle)  From 6 to 240V A.C./D.C.  From 6 to 240	Rated Fault Current Breaking Capa	icity ( <sup>/</sup> cn) 5ms Tir	ne Constant:		
Rated Fault Current Breaking Capacity (¹cn) Resistive Load: (in accordance with UL508*)  SU280P	SU280P	1500A at	t 48V D.C.		
SU280P   S25A at 60V D.C.	SU280BP	1500A at	t 80V D.C.		
Maximum Recommended Contact Voltages (Ue):  SU280P	Rated Fault Current Breaking Capa (in accordance with UL508*)	icity ( <sup>/</sup> cn) Resistiv	ve Load:		
Maximum Recommended Contact Voltages (Ue):  SU280P		525A at	60V D.C.		
Maximum Recommended Contact Voltages (Ue):  SU280P	SU280BP	525A at	96V D.C.		
SU280P 48V D.C. 60V D.C.  SU280BP 96V D.C.  Typical Voltage Drop per pole across New Contacts at 250A  Mechanical Durability >3 x 10° Cycles  Coil Voltage Available (U <sub>S</sub> ) (Rectifier board required for A.C.)  Coil Power Dissipation:  Highly Intermittent Rated Types 40 - 50 Watts Intermittently Rated types 30 - 40 Watts  Prolonged Rated Types 15 - 30 Watts  Continuously Rated Types 60% U <sub>S</sub> Maximum Pull-In Voltage (Coil at 20° C) Guideline:  Highly Intermittent Rated types 60% U <sub>S</sub> Max 25% Duty Cycle)  Prolonged Operation (Max 90% Duty Cycle)  Continuously Rated Types 66% U <sub>S</sub> Propo-Out Voltage Range 10 - 25% U <sub>S</sub> Typical Pull-In Time 30ms  Fypical Propo-Out Time (N/O Contacts to Open):  Without Suppression 8ms  With Diode and Resistor (Subject to resistance value)  Typical Contact Bounce Period 3ms  Operating Ambient Temperature - 40°C to + 60°C  Guideline Contactor Weight:  SU280P 755 gms  With Blowouts 400 Maximum Continuous Current  Copper busbar 228mm² [0.353 inch²]	Maximum Recommended Contact				
SU280BP 96V D.C.  Typical Voltage Drop per pole across New Contacts at 250A  Mechanical Durability >3 x 10° Cycles  Coil Voltage Available (U <sub>S</sub> ) (Rectifier board required for A.C.)  Coil Power Dissipation:  Highly Intermittent Rated Types 40 - 50 Watts Intermittently Rated types 15 - 30 Watts  Prolonged Rated Types 10 - 15 Watts  Maximum Pull-In Voltage (Coil at 20° C) Guideline:  Highly Intermittent Rated types 60% U <sub>S</sub> Max 25% Duty Cycle)  Intermittently Rated types 60% U <sub>S</sub> Prolonged Operation (Max 90% Duty Cycle)  Continuously Rated Types 66% U <sub>S</sub> Typical Pull-In Time 30ms  Typical Drop-Out Time (N/O Contacts to Open):  Without Suppression 8ms  With Diode and Resistor (Subject to resistance value)  Typical Contact Bounce Period 3ms  Operating Ambient Temperature - 40°C to + 60°C  Guideline Contactor Weight:  SU280P 755 gms  With Blowouts 228mm² [0.353 inch²]			60V D.C.		
Typical Voltage Drop per pole across New Contacts at 250A  Mechanical Durability  Coil Voltage Available (U <sub>S</sub> ) (Rectifier board required for A.C.)  Coil Power Dissipation:  Highly Intermittent Rated Types Highly Intermittent Rated Types Prolonged Rated Types  Continuously Rated Types  Maximum Pull-In Voltage (Coil at 20° C) Guideline:  Highly Intermittent Rated types Max 25% Duty Cycle)  Intermittently Rated types Max 70% Duty Cycle)  Continuously Rated Types  Continuously Rated Types  Continuously Rated Types  Max 90% Duty Cycle)  Continuously Rated Types  (100% Duty Cycle)  Corpo-Out Voltage Range  Typical Pull-In Time  Typical Drop-Out Time (N/O Contacts to Open):  Without Suppression  With Diode and Resistor  (Subject to resistance value)  Typical Contact Bounce Period  Guideline Contactor Weight:  SU280P  755 gms  With Blowouts  Advised Connection Sizes for Maximum Continuous Current  Copper busbar  A 0 - 50 Watts  From 6 to 240V A.C./D.C.  From 6 to 240V A.C.		_			
Mechanical Durability  Coil Voltage Available (U <sub>S</sub> ) (Rectifier board required for A.C.)  From 6 to 240V A.C./D.C.  Coil Power Dissipation:  Highly Intermittent Rated Types Highly Intermittent Rated Types  Ocontinuously Rated Types  Maximum Pull-In Voltage (Coil at 20° C) Guideline:  Highly Intermittent Rated types  Maximum Pull-In Voltage (Coil at 20° C) Guideline:  Highly Intermittent Rated types  Max 25% Duty Cycle)  Intermittently Rated types  Max 25% Duty Cycle)  Prolonged Operation (Max 90% Duty Cycle)  Prolonged Operation (Max 90% Duty Cycle)  Continuously Rated Types  (100% Duty Cycle)  Propo-Out Voltage Range  Typical Pull-In Time  30ms  Typical Drop-Out Time (N/O Contacts to Open):  Without Suppression  With Diode and Resistor  (Subject to resistance value)  Typical Contact Bounce Period  Operating Ambient Temperature  Guideline Contactor Weight:  SU280P  755 gms  With Blowouts  Advised Connection Sizes for Maximum Continuous Current  Copper busbar	Typical Voltage Drop per pole		-		
Coil Power Dissipation:  Highly Intermittent Rated Types  At the Prolonged Rated Types  Prolonged Rated Types  Maximum Pull-In Voltage (Coil at 20° C) Guideline:  Highly Intermittent Rated types  Maximum Pull-In Voltage (Coil at 20° C) Guideline:  Highly Intermittent Rated types  Max 25% Duty Cycle)  Intermittently Rated types  Max 70% Duty Cycle)  Prolonged Operation  Max 90% Duty Cycle)  Continuously Rated Types  (100% Duty Cycle)  Continuously Rated Types  (100% Duty Cycle)  Propo-Out Voltage Range  Typical Pull-In Time  Typical Drop-Out Time (N/O Contacts to Open):  With Diode and Resistor  (Subject to resistance value)  Typical Contact Bounce Period  Guideline Contactor Weight:  SU280P  755 gms  With Blowouts  Advised Connection Sizes for Maximum Continuous Current  Copper busbar		>3 x 10	) <sup>6</sup> Cycles		
Highly Intermittent Rated Types  Intermittently Rated types  Prolonged Rated Types  Continuously Rated Types  Maximum Pull-In Voltage (Coil at 20° C) Guideline:  Highly Intermittent Rated types Max 25% Duty Cycle)  Prolonged Operation Max 90% Duty Cycle)  Prolonged Operation Max 90% Duty Cycle)  Continuously Rated Types 100% Duty Cycle)  Prop-Out Voltage Range  Typical Pull-In Time  Typical Drop-Out Time (N/O Contacts to Open):  With Diode Suppression  With Diode and Resistor (Subject to resistance value)  Typical Contact Bounce Period  Guideline Contactor Weight:  SU280P  Typical Connection Sizes for Maximum Continuous Current Copper busbar  40 - 50 Watts 30 - 40 Watts 40 - 50 Watts 30 - 40 Watts 40 - 50 Watts 30 - 40 Watts 40 - 50 Watts 40 - 40 Watts 40 - 50 W	Coil Voltage Available (U <sub>S</sub> )				
Intermittently Rated types  Prolonged Rated Types  Continuously Rated Types  Maximum Pull-In Voltage (Coil at 20° C) Guideline:  Highly Intermittent Rated types (Max 25% Duty Cycle)  Intermittently Rated types (Max 70% Duty Cycle)  Prolonged Operation (Max 90% Duty Cycle)  Continuously Rated Types (100% Duty Cycle)  Prop-Out Voltage Range  Typical Pull-In Time  30ms  Typical Drop-Out Time (N/O Contacts to Open):  Without Suppression  With Diode and Resistor (Subject to resistance value)  Typical Contact Bounce Period  Operating Ambient Temperature  Guideline Contactor Weight:  SU280P  755 gms  With Blowouts  Advised Connection Sizes for Maximum Continuous Current  Copper busbar  10 - 15 Watts  60% Us	Coil Power Dissipation:				
Prolonged Rated Types 15 - 30 Watts  Continuously Rated Types 10 - 15 Watts  Maximum Pull-In Voltage (Coil at 20° C) Guideline:  Highly Intermittent Rated types (Max 25% Duty Cycle) 60% U <sub>S</sub> Intermittently Rated types (Max 70% Duty Cycle) 60% U <sub>S</sub> Prolonged Operation (Max 90% Duty Cycle)  Continuously Rated Types (100% Duty Cycle) 66% U <sub>S</sub> Drop-Out Voltage Range 10 - 25% U <sub>S</sub> Typical Pull-In Time 30ms  Typical Drop-Out Time (N/O Contacts to Open):  Without Suppression 8ms  With Diode and Resistor (Subject to resistance value) 755 gms  With Diode Contactor Weight:  SU280P 755 gms  With Blowouts 40 - 40°C to + 60°C  Guideline Contaction Sizes for Maximum Continuous Current  Copper busbar 228mm² [0.353 inch²]	Highly Intermittent Rated Types	40 - 5	0 Watts		
Prolonged Rated Types 15 - 30 Watts  Continuously Rated Types 10 - 15 Watts  Maximum Pull-In Voltage (Coil at 20° C) Guideline:  Highly Intermittent Rated types (Max 25% Duty Cycle) 60% U <sub>S</sub> Intermittently Rated types (Max 70% Duty Cycle) 60% U <sub>S</sub> Prolonged Operation (Max 90% Duty Cycle)  Continuously Rated Types (100% Duty Cycle) 66% U <sub>S</sub> Drop-Out Voltage Range 10 - 25% U <sub>S</sub> Typical Pull-In Time 30ms  Typical Drop-Out Time (N/O Contacts to Open):  Without Suppression 8ms  With Diode and Resistor (Subject to resistance value) 755 gms  With Diode Contactor Weight:  SU280P 755 gms  With Blowouts 40 - 40°C to + 60°C  Guideline Contaction Sizes for Maximum Continuous Current  Copper busbar 228mm² [0.353 inch²]		30 - 4	0 Watts		
Continuously Rated Types  Maximum Pull-In Voltage (Coil at 20° C) Guideline:  Highly Intermittent Rated types (Max 25% Duty Cycle)  Intermittently Rated types (Max 70% Duty Cycle)  Prolonged Operation (Max 90% Duty Cycle)  Continuously Rated Types (100% Duty Cycle)  Drop-Out Voltage Range  Typical Pull-In Time  Typical Drop-Out Time (N/O Contacts to Open):  With Diode Suppression  With Diode and Resistor (Subject to resistance value)  Typical Contact Bounce Period  Operating Ambient Temperature  Guideline Contactor Weight:  SU280P  Typical Connection Sizes for Maximum Continuous Current Copper busbar  10 - 15 Watts  60% U <sub>S</sub> 60% U <sub>S</sub> 66% U <sub>S</sub> 10 - 25% U <sub>S</sub> 30ms  755 gms  40°C to + 60°C  Guideline Contactor Weight:  SU280P  755 gms  Advised Connection Sizes for Maximum Continuous Current  Copper busbar					
Maximum Pull-In Voltage (Coil at 20° C) Guideline:  Highly Intermittent Rated types (Max 25% Duty Cycle) Intermittently Rated types (Max 70% Duty Cycle) Intermittently Rated types (Max 90% Duty Cycle) Continuously Rated Types (100% Duty Cycle) Drop-Out Voltage Range Intermittently Rated types (Max 90% Duty Cycle) Continuously Rated Types (Max 90% Duty Cycle) Drop-Out Voltage Range Intermittently Rated types (Max 90% Duty Cycle) (Max 90% Duty Cycl		_			
Highly Intermittent Rated types (Max 25% Duty Cycle) Intermittently Rated types (Max 70% Duty Cycle) (Max 70% Duty Cycle) (Max 70% Duty Cycle) (Max 90% Duty					
Intermittently Rated types (Max 70% Duty Cycle)  Prolonged Operation (Max 90% Duty Cycle)  Continuously Rated Types (100% Duty Cycle)  Drop-Out Voltage Range  Typical Pull-In Time  Typical Drop-Out Time (N/O Contacts to Open):  Without Suppression  With Diode Suppression  With Diode and Resistor (Subject to resistance value)  Typical Contact Bounce Period  Typical Contact Bounce Period  Suppression  Typical Contact Bounce Period	Highly Intermittent Rated types				
Max 90% Duty Cycle)  Continuously Rated Types (100% Duty Cycle)  Drop-Out Voltage Range  Typical Pull-In Time  Soms  Typical Drop-Out Time (N/O Contacts to Open):  Without Suppression  With Diode Suppression  With Diode and Resistor (Subject to resistance value)  Typical Contact Bounce Period  Operating Ambient Temperature  Guideline Contactor Weight:  SU280P  Typical Connection Sizes for Maximum Continuous Current  Copper busbar  Typical Contactor Weight:  SU280P  Typical Contactor Weight:  Typical C	ntermittently Rated types	609	% U <sub>s</sub>		
100% Duty Cycle   10 - 25% U <sub>S</sub>   10 - 25% U		609	60% U <sub>S</sub>		
Typical Pull-In Time 30ms  Typical Drop-Out Time (N/O Contacts to Open):  Without Suppression 8ms  With Diode Suppression 60ms  With Diode and Resistor 25ms  Typical Contact Bounce Period 3ms  Operating Ambient Temperature - 40°C to + 60°C  Guideline Contactor Weight:  SU280P 755 gms  With Blowouts + 50 gms  Advised Connection Sizes for Maximum Continuous Current  Copper busbar 228mm² [0.353 inch²]		669	66% U <sub>s</sub>		
Typical Drop-Out Time (N/O Contacts to Open):  Without Suppression 8ms  With Diode Suppression 60ms  With Diode and Resistor (Subject to resistance value) 25ms  Typical Contact Bounce Period 3ms  Operating Ambient Temperature -40°C to +60°C  Guideline Contactor Weight:  SU280P 755 gms  With Blowouts +50 gms  Advised Connection Sizes for Maximum Continuous Current  Copper busbar 228mm² [0.353 inch²]	Drop-Out Voltage Range	10 - 2	10 - 25% U <sub>s</sub>		
Without Suppression 8ms  With Diode Suppression 60ms  With Diode and Resistor (Subject to resistance value) 25ms  Typical Contact Bounce Period 3ms  Operating Ambient Temperature - 40°C to + 60°C  Guideline Contactor Weight:  SU280P 755 gms  With Blowouts + 50 gms  Advised Connection Sizes for Maximum Continuous Current  Copper busbar 228mm² [0.353 inch²]	Typical Pull-In Time	30	30ms		
With Diode Suppression 60ms  With Diode and Resistor (Subject to resistance value) 25ms  Typical Contact Bounce Period 3ms  Operating Ambient Temperature -40°C to +60°C  Guideline Contactor Weight:  SU280P 755 gms  With Blowouts +50 gms  Advised Connection Sizes for Maximum Continuous Current  Copper busbar 228mm² [0.353 inch²]	Typical Drop-Out Time (N/O Contact	cts to Open):			
With Diode and Resistor (Subject to resistance value)  Typical Contact Bounce Period  Operating Ambient Temperature  Guideline Contactor Weight:  SU280P  755 gms  With Blowouts  40'C to + 60°C  For a subject to to + 60°C	Without Suppression	8	8ms		
(Subject to resistance value)  Typical Contact Bounce Period  Operating Ambient Temperature  Guideline Contactor Weight:  SU280P  755 gms  With Blowouts  Advised Connection Sizes for Maximum Continuous Current  Copper busbar  228mm² [0.353 inch²]	With Diode Suppression	60	)ms		
Operating Ambient Temperature - 40°C to + 60°C  Guideline Contactor Weight:  SU280P 755 gms  With Blowouts + 50 gms  Advised Connection Sizes for Maximum Continuous Current  Copper busbar 228mm² [0.353 inch²]		25	25ms		
Guideline Contactor Weight: SU280P 755 gms With Blowouts + 50 gms  Advised Connection Sizes for Maximum Continuous Current Copper busbar 228mm² [0.353 inch²]	Typical Contact Bounce Period	3	3ms		
SU280P 755 gms  With Blowouts + 50 gms  Advised Connection Sizes for Maximum Continuous Current  Copper busbar 228mm² [0.353 inch²]	Operating Ambient Temperature	- 40°C t	o + 60°C		
With Blowouts + 50 gms  Advised Connection Sizes for Maximum Continuous Current  Copper busbar 228mm² [0.353 inch²]	Guideline Contactor Weight:				
Advised Connection Sizes for Maximum Continuous Current  Copper busbar 228mm² [0.353 inch²]	SU280P	755	gms		
Advised Connection Sizes for Maximum Continuous Current  Copper busbar 228mm² [0.353 inch²]					
Copper busbar 228mm² [0.353 inch²]	Advised Connection Sizes for Ma				
	••				

The contactors have double breaking main contacts with silver alloy tips, which are weld resistant, hard wearing and have excellent conductivity. The SU280P offers greater environmental protection (IP66) and is easy to install, with a range of mounting brackets available. To ensure IP66, mounting holes are not accessible. Mounting can be vertical or horizontal, when vertical the M10 contact studs should point upwards. If the requirement is for downwards orientation we can adjust the contactor to compensate for this.









Additionally Contacto					
Auxiliary Contacts - V3	Χ				
Magnetic Blowouts†	0	В			
Magnetic Blowouts - High Powered†	0	В			
Armature Cap	X				
Mounting Brackets (Right side fit standard, left optional)	•				
Magnetic Latching <sup>†</sup> (Not fail safe)	0	М			
Closed Contact Housing	•				
Environmentally Protected IP66	•	Р			
EE Type (Steel Shroud)	X				
Contacts					
Large Tips	Χ				
Textured Tips	0	Т			
Silver Plating	Χ				
Coil					
AC Rectifier Board (Fitted)	Χ				
Coil Suppression <sup>†</sup>	0				
Flying Leads	X				
Manual Override Operation	X				
M4 Stud Terminals	0				
M5 Terminal Board	Χ				
Vacuum Impregnation	Χ				
<b>Key:</b> Optional ○ Standard • Not Available X					
† Connections become polarity sensitive					

SU280P Available Options
General

**Auxiliary Contacts** 

Performance data provided should be used as a guide only. Some de-rating or variation from figures may be necessary according to application.

- Thermal current ratings stated are dependant upon the size of conductor being used
- For further technical advice email: technical@albrightinternational.com
- Albright reserve the right to change data without prior notice

Note: Where applicable values shown are at 20°C

\* Please check our web site for product UL status

Suffix