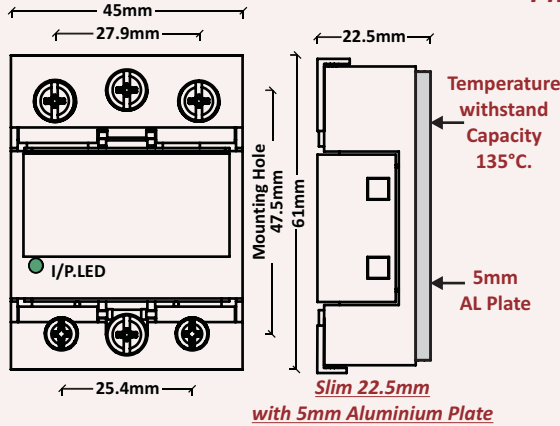




ISO 9001:2015 & ISO 14001:2015 CERTIFIED by InterConformity GmbH

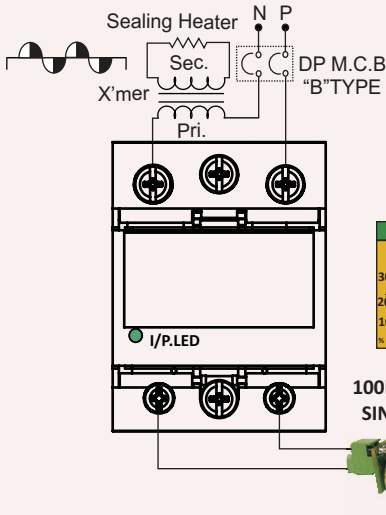
MODEL BS1F25R44S



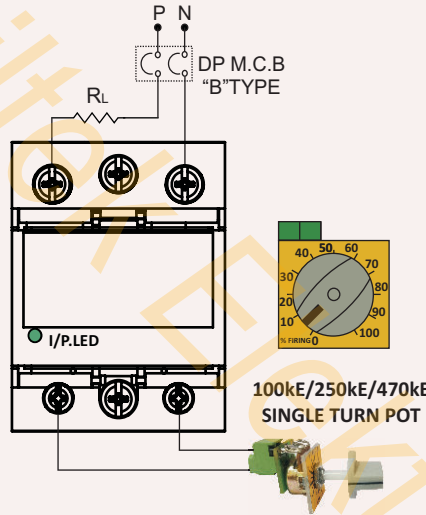
Phase Angle Control by POT - 4 Terminal Design

- Rating from 25 Amp and 40 Amp @25°C 110VAC/230VAC/440VAC.
- For 110 VAC use 100 kE POT
- For 230 VAC use 250 kE POT
- For 440 VAC use 470 kE POT
- Inbuilt transient voltage suppressor in SSR.
- "22.5 MM SLIM Height" SSR Design.
- Product Temperature withstand 150°C.
- With easy open & lock IP 20 protection Flaps on I/P and O/P Terminals.
- Fire Retardant Plastic as per UL94 VO GRADE.
- New improved SEMS Screw - Washers Output terminals.
- High resistance to aggressive chemicals and dust due to special Potting.
- Logic compatibility, Fast switching, Low coupling Capacitance.

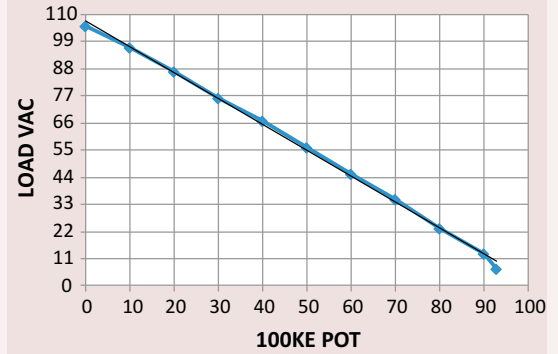
FULL CONTROL Impulse Sealing Heater



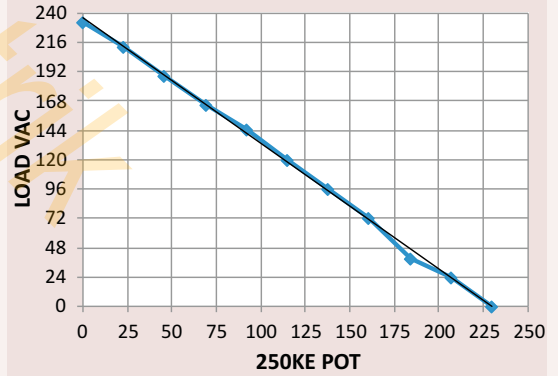
FULL CONTROL Resistive Heater



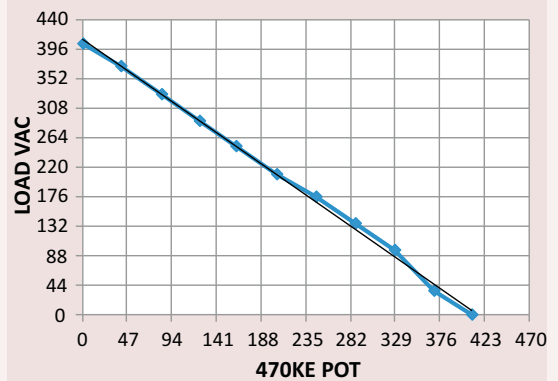
110 VAC LOAD VOLTAGE VS 100KE POT GRAPH



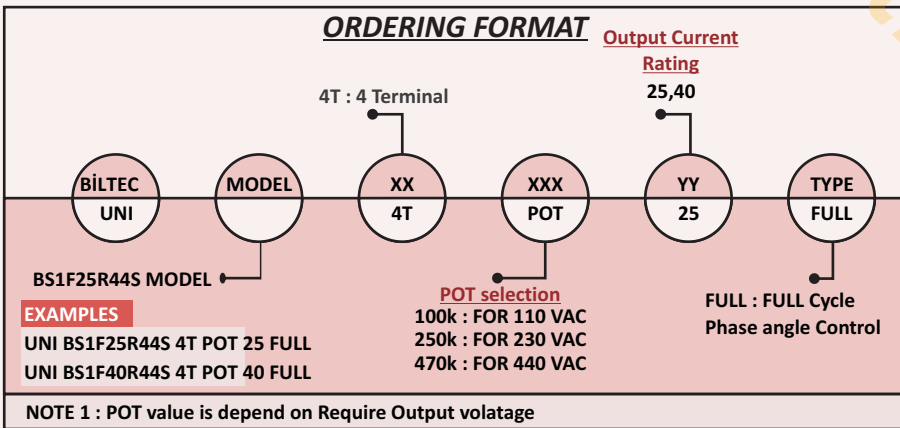
230 VAC LOAD VOLTAGE VS 250KE POT GRAPH



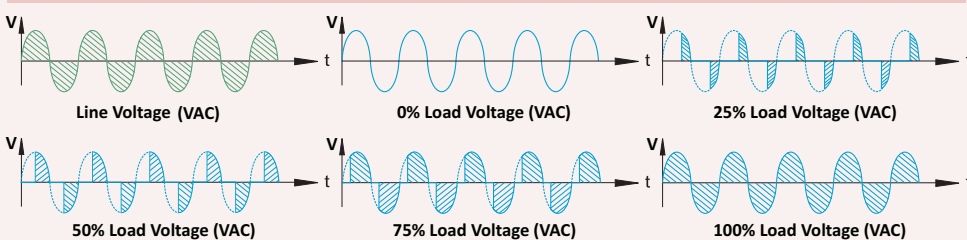
440 VAC LOAD VOLTAGE VS 470KE POT GRAPH



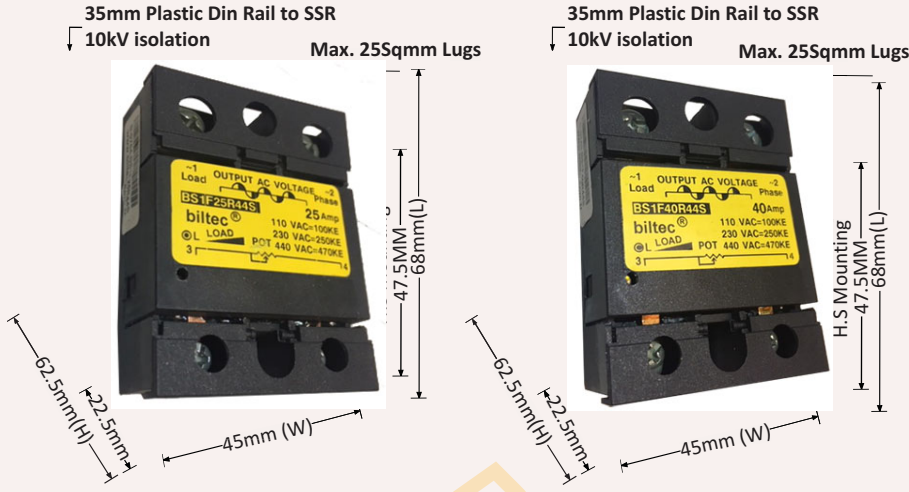
ORDERING FORMAT



Analog Phase Angle Controller - Time Base



25AMP- MODEL BS1F25R44S 4T POT 25 FULL 40AMP- MODEL BS1F40R44S 4T POT 40 FULL



General Specification	
Max Barrier Layer Temperature (T _{max})	< 125 °C
Ambient Temperature Range (T _{amb})	0-85 °C
SSR Storage Temperature Range (T _{st})	-40°C to 80°C
Output Terminal Screw Torque Range	T = 2.5 N.m (Max.)
Power Factor COSφ @Max. Load @480VAC	> 0.55
Housing Material	UL-94 V0 Grade
Base Plate	Aluminium
SSR Weight	≤ 120 grams
Control Input Electrical Wire Size (Max.)	Up to 2.1 sq mm(14 AWG)
Power Output Electrical Wire Size (Max.)	Up to 33.6 sq mm(2 AWG)
Test Standards:	ROHS,IP20
Pending Approvals:	UL 508,VDE ,TUV ,CSA 22-2 IEC 60947-5-1:2016 IEC 62314:2006

HEAT SINK SELECTION GUIDE			
BS1F25R44S MODEL / HEATSINK	HEATSINK RATING	25 AMP FULL SSR	40 AMP FULL SSR
G-68	26	20	25
B-48	36	-	40



Output Technical Specifications @ 25°C Unless Specified					
Parameters	Symbol	Unit	25 Amp	40 Amp	
Operating Voltage Range	V _{AC}	V _{RMS}	110 VAC/230 VAC/440 VAC with appropriate selection of POT		
Operating Frequency Range	f	Hz	47-63 Hz		
Peak Inverse Voltage	PIV	V _{PK}	800	800	
Max. Surge Voltage With Stand Capacity (<1 Second)	V _{surge}	V _{RMS}	2700 V _{RMS} (3800 V _{PK})		
Rated Operational Current AC51a @ 20°C (Resistive Load)	I _T	Amp	25	40	
NON Repetitive Surge Peak ON-State Current @ Rated V _{RRM} applied for 1/2 Cycle t=10 mS / t=8.33 mS (50 Hz/60 Hz)	I _{TSM} @ 50 Hz	A _p	260	420	
	I _{TSM} @ 60 Hz	A _p	273	441	
Max. I ² t for Fusing @ t=10 mS (50Hz)	I ² t	A ² s	340	880	
Max. I ² t for Fusing @ t=8.33 mS (60Hz)	I ² t	A ² s	305	795	
Max. Peak ON-state voltage Drop at Full Control	V _{TM}	V _{RMS}	≤1.2	≤1.2	
Minimum Isolation Resistance between Input Terminals (3,4) to Output Terminals (~1,~2) @ 500 VDC	Ω	GΩ	50	50	
Isolation Voltage Input & Output Terminal (3,4,~1,~2) to Body Isolation for 1 Minute	V _{ISO}	kV	2.5	2.5	
Max. Rate of Rise OFF-State Voltage	dV/dt	V/μS	400	500	
Max. Rate of Rise OFF-State Current	di/dt	A/μS	22	50	
Max. Peak Repetitive Forward OFF-State Voltage	V _{DRM}	V	800	800	
Max. Peak Repetitive Forward OFF-State current	I _{DRM}	mA	0.05	0.05	
Max. Peak repetitive reverse off-state Voltage	V _{RRM}	V	800	800	
Max. Peak repetitive reverse off-state current	I _{RRM}	mA	0.05	0.05	
Max. DC Gate Trigger Voltage	V _{GT}	V	1.2	1.5	
Max. DC Gate Trigger Current	I _{GT}	mA	50	50	
Turn OFF Time	t _q	μS	20	35	
Maximum Latching Current	I _L	mA	100	100	
Maximum Holding Current	I _H	mA	75	60	
Thermal Resistance R _θ (Junction to case)	R _{θ(j-c)}	°C/W	0.6	0.52	
OFF State SSR Leakage Current @ Rated Voltage & Frequency (Snubber Leakage)	I _{leak}	mA	For 230 VAC < 1 mA For 440 VAC < 2 mA		
SCCR Current Rating (less than 100 μS)	I _{SCCR}	kA	-		
Weight	W	gm	≤ 110	≤ 110	

Digital Oscilloscope



SCR Parameter Tester



V_{TM} Tester



H.V. Insulation Break Down Tester



dv/dt Tester



I_{TSM} Tester

