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# SAFETY BREAKER EARTH LEAKAGE BREAKER

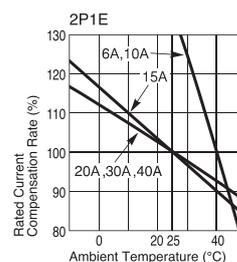
## Safety Breaker HB Type

Dimension (mm) Appearance Mounting Pitch (unit:mm)	<p>Unit : mm</p>	
Number of Poles & Elements	2P1E	
Type	6A	BS11106TV
	10A	BS1110TV
	15A	BS1111TV
	20A	BS1112TV
	30A	BS1113TV
	40A	BS1114TV
Rated Voltage (AC)	AC 240V 1.0kA (6A) AC 240V 1.5kA (10-15-20-30-40A)	
Terminal Specifications	Solderless Terminals (with strap) 5.5 mm <sup>2</sup> ~ 8 mm <sup>2</sup> Ø1.6 ~ Ø2.6 (When using electrical appliance wire or other stranded wire (1.25 - 3.5 mm <sup>2</sup> ) use bar lug terminals.)	
Weight	0.07 kg	
Structure	Tipping Mechanism	Terminal Method Operation
	Arc Quenching Method	Natural Quenching
Capacity	Interrupting Time	10 ms (100%)
	Passage of Short	23 X 10 <sup>3</sup> A <sup>2</sup> sec (100%)
Application Examples	Wire Protection (Over Current & Short Circuit Protection)	

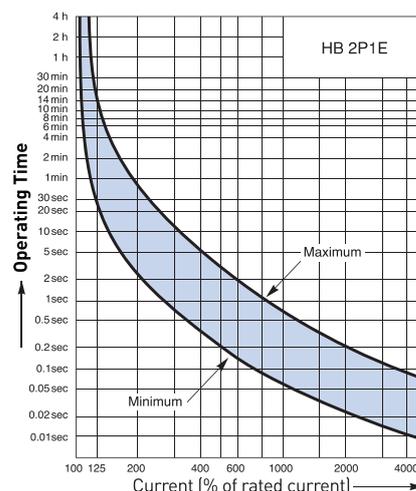
Note : 1. Use 20A for normal branch circuits, and 30A for high capacity dedicated circuits.  
 2. Use 15A or less for machine protection, after consideration of its characteristic: inrush current and usual current.  
 3. The data in capacity mentioned above are just for your reference, which are Panasonic's experimental ones.

### HB Type

#### Temperature Compensation Curves



#### Operating Characteristics Curves (with O.C.)

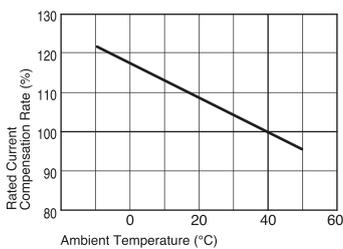


# Earth Leakage Breaker Small Type

Dimension (mm) Appearance Mounting Pitch (unit:mm)											
			Unit : mm								
Type	BJS30208A2	BJS30308A2	BJS1512S	BJS1522S	BJS1532S	BJS2012S	BJS2022S	BJS2032S	BJS3012S	BJS3022S	BJS3032S
Rated Current (A)	30A		15A			20A			30A		
Number of Poles & Elements	2P0E		2P2E								
Rated Voltage (AC)	AC 120 - 240V		AC 100 - 240V								
Residual Operating Current (mA)	15 mA	30 mA	10 mA	15 mA	30 mA	10 mA	15 mA	30 mA	10 mA	15 mA	30 mA
Residual Non-Operating Current (mA)	7.5 mA	15 mA	6 mA	7.5 mA	15 mA	6 mA	7.5 mA	15 mA	6 mA	7.5 mA	15 mA
Rated Short-Time Current	1.5 kA										
Phase and Wiring Configuration	1Ø2W		1Ø2W, 1Ø3W								
Operating Time	Within 0.1 sec										
Handle Type	standard		—								
Standard Terminal Specifications	Solderless Terminals (with strap) Ø1.6 - Ø2.6 5.5 - 8 mm <sup>2</sup>		Note : When using electrical appliance wire or other stranded wire (1.25 - 3.5 mm <sup>2</sup> ), use bar lug terminals. WV2500 1.25 - 2.0 mm <sup>2</sup> (WV2501 2.0 - 3.5 mm <sup>2</sup> )					Tightening Torque : 1.6 - 2.0 N·m 16.3 - 20.4 kgf·cm			
Connecting Method	For direct installation of electrical wiring										
Weight	0.1 kg		0.09 kg								
Overload Current Tripping Mechanism	None		Thermal Operation								
Application Examples											
Note : 1. "Rated short-time current" means that although short-circuit protection is not possible, the internal circuitry and conductors can withstand 1.5kA for 0.02 seconds. 2. Ambient Temperature Range For Usage : -10°C - +50°C 3. Disconnect electrical wiring before measuring insulation resistance between wires.			Note : 1. Ambient Temperature Range for Usage : -10°C - +50°C 2. Disconnect electrical wiring before measuring insulation resistance between wires.								

## Small Type

### Temperature Compensation Curves



### Operating Characteristics Curves (with O.C.)

