



TELAAC

HB-PANORAMA

HB Range



TELARC's multipurpose DC and AC current switches for multiple application

Rolling Stock



Energy generation



Substation equipment

Industrial application

HB General Characteristics

HB is a range of DC HSCB based on powerful and flexible technical solutions

Designed to Railway Standards, HB models can be used in multiple applications, from Rolling Stock traction power systems, to Light Rail Wayside current control, as well as inside Energy Conversion equipment and Industrial Power control applications.

HB HSCB are based on a standardized body, that carries 2 different types of arc chutes for the nominal voltage differentiation when breaking the current.

The main pole arrangement is designed for 1800VDC applications and with a smaller arc chute can be used in 900VDC applications.

The HSCB is fully bidirectional without critical currents and with high breaking capability thanks to a metallic arc chute and a very high speed of contacts during opening operation. The special shape of the arc chute limits the exit of the gas in order to reduce insulating distances.

The activation coil uses an economizing circuit. Nonetheless, the economizing device is provided by Telarc in the form of an electronic card which controls the functions of the HSCB without the need of external control circuits. The electronic card is multivoltage input so that it can cover from 24Vdc to 110Vdc with the same product.

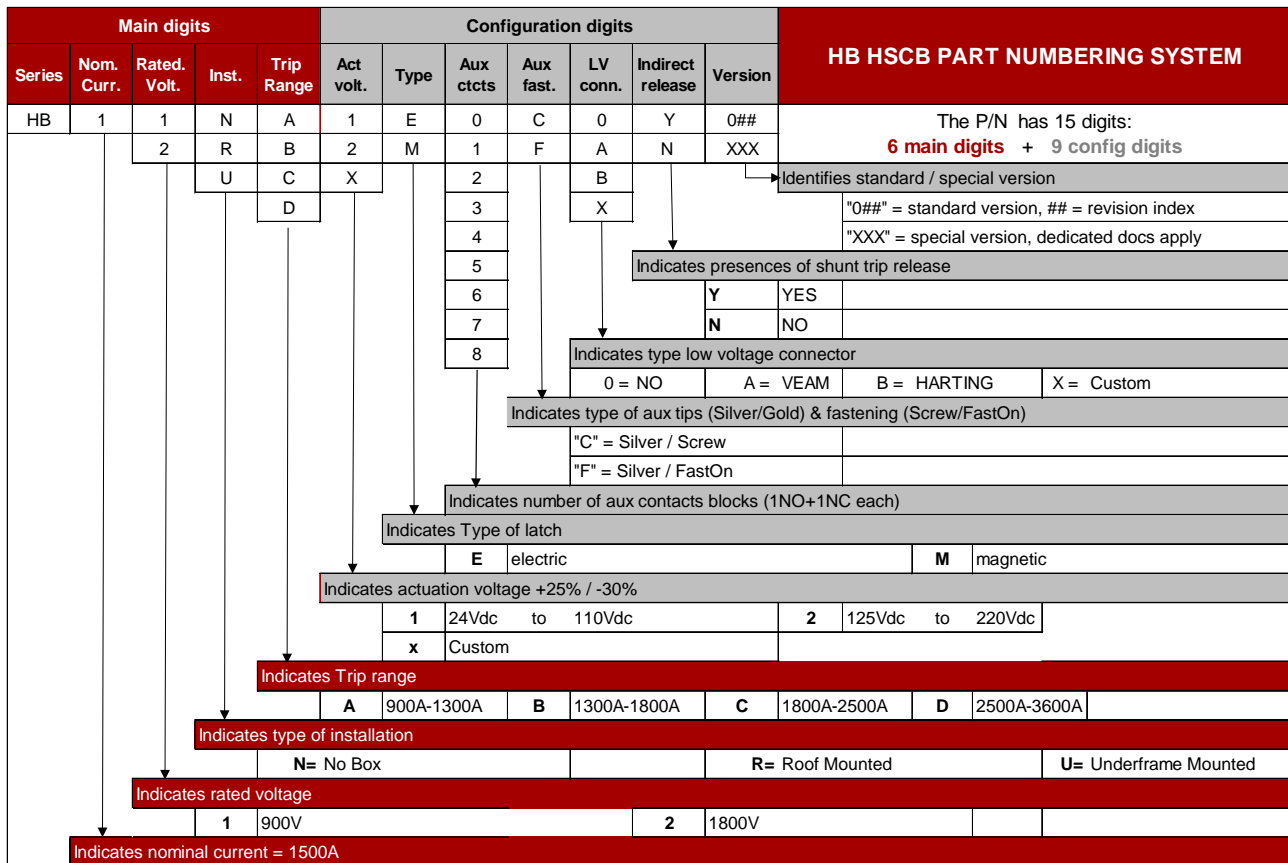
The fixing interface can be customized to fit any installation requirement as well as the low voltage connector or wiring scheme. Customized busbars shapes are available on request.

The HB serie can be provided with box for roof or underframe installation or in a stand alone version for a flexible installation within an existing box.

The box provided by Telarc is an innovative solution to allow easy access and maintenance to all the main consumables. With a simple rotation of the part with the arc chute inside, the HSCB is automatically opened for visual inspection on the train.

HB Models

HB-HSCB follow a „talking“ Part Number System to differentiate between its versions (*):



*aux contact in gold can be ordered as NON standard, with following codes : G=screws and H=Fast ON

The main digits identify:

1. Nominal current,
2. nominal voltage
3. installation type
4. Trip range

HB P/N & Docs

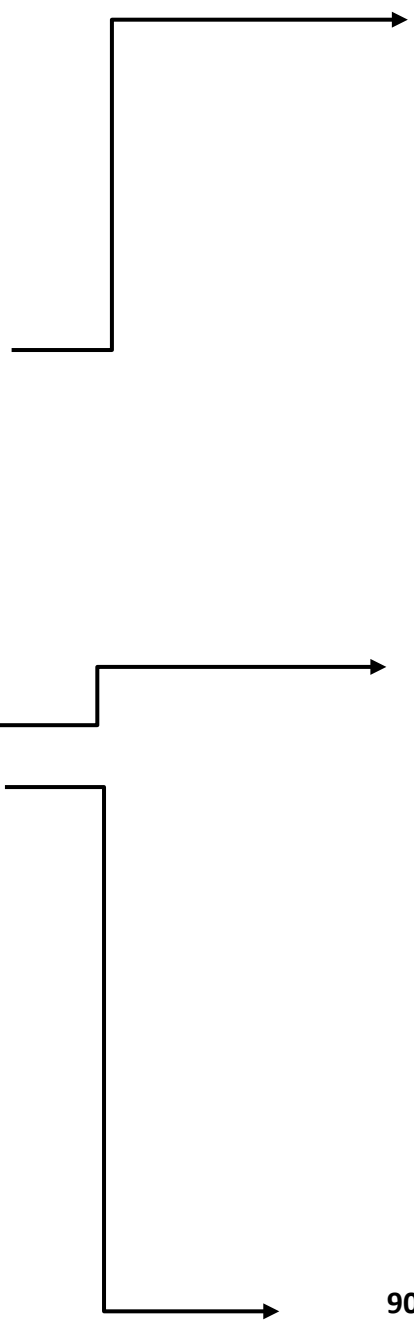
The configuration digit are used to define

1. Aux voltage
2. Accessories
3. Standard / special versions (e.g. dedicated to specific project)

Product documentation is released and updated online at www.telarc.it and includes:

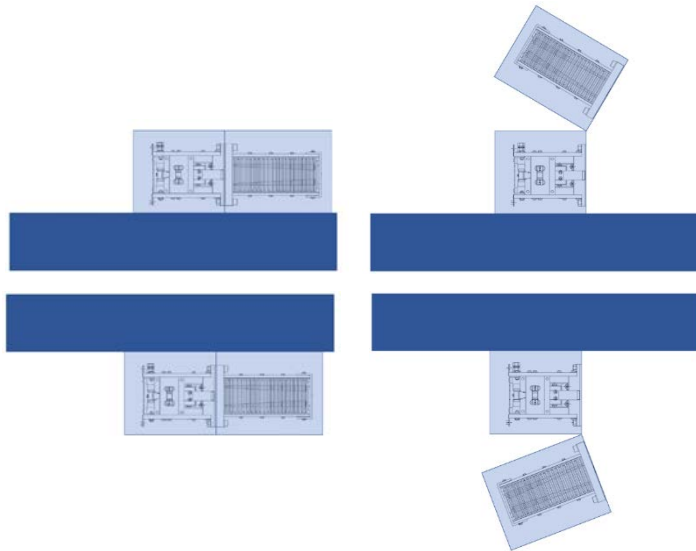
1. A Product Chart PC for every applicable combination of main digits (standard versions), including all technical details, drawings, configuration information and spares part numbers.
2. A Validation Report VR, including all details of type tests carried out on HB range
3. A Product Manual PM, with detailed installation and maintenance instructions

(* Please note that the Magnetic latch version and the indirect release will be available in 2020)



R

U



900V
1800V
Arc chutes



HB Data Sheet

HB technical data are listed according to series-parallel combinations of voltage and current versions

HB TECHNICAL DATA CHART		pole size				
			HB-1-1-N	HB-1-2-N		
Main electrical characteristics	Rated Operational Voltage		Ue	900	1800	V
	Rated insulation voltage		Ui	2300		V
	Rated impulse withstand voltage		Uimp	18	18	kV
	Free air thermal current @40°C		Ith	1500	1500	A
	Rated operational current		Ie	1500	1500	A
	Rated short-time withstand current		Icw/ 20ms	NA		kA
	Maximum breaking capacity DC T=15ms		Ibc	30	17	kA
	Maximum breaking capacity DC T2,T3,T4		Iba	30	30	kA
	Maximum making capacity DC T=15ms		Imc	3000		A
	Electrical endurance @Ue / Ie			1.000		cycles
	Critical current reversing polarization			<1		A
Other mechanical and control characteristics	Overvoltage category EN50124-1		PD3/OV3			
	Component category/ Operational frequency		A2/C3			
	Shock and vibration		EN 61373 cat.1B			
	Mechanical endurance		500.000			cycles
	Closing Power consumption		1000	1000		W
	Holding Power consumption (w/out economizer on NO		10	10		W
	Mechanical operation time [open -close]		50-70			msec
	Weight		28	38		kg
	Operational Temperature (IEC50125-1)		-40°C +75°C			°C
	Storage Temperature		-50°C + 85°C			°C
Operational altitude		<2000			m	
Routine test	Operation tolerance @20°C ambient		70%-125% Uc			
	Assembly verification		100%			

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