

# HE60 SURGE ARRESTERS

FOR DC RAILWAY APPLICATIONS

## Main features

The HE60 surge arrester is used for the protection of DC rail networks against switching and atmospheric overvoltages.

The surge arrester which has a polymeric housing and a void free construction can be used in various types of rail applications.

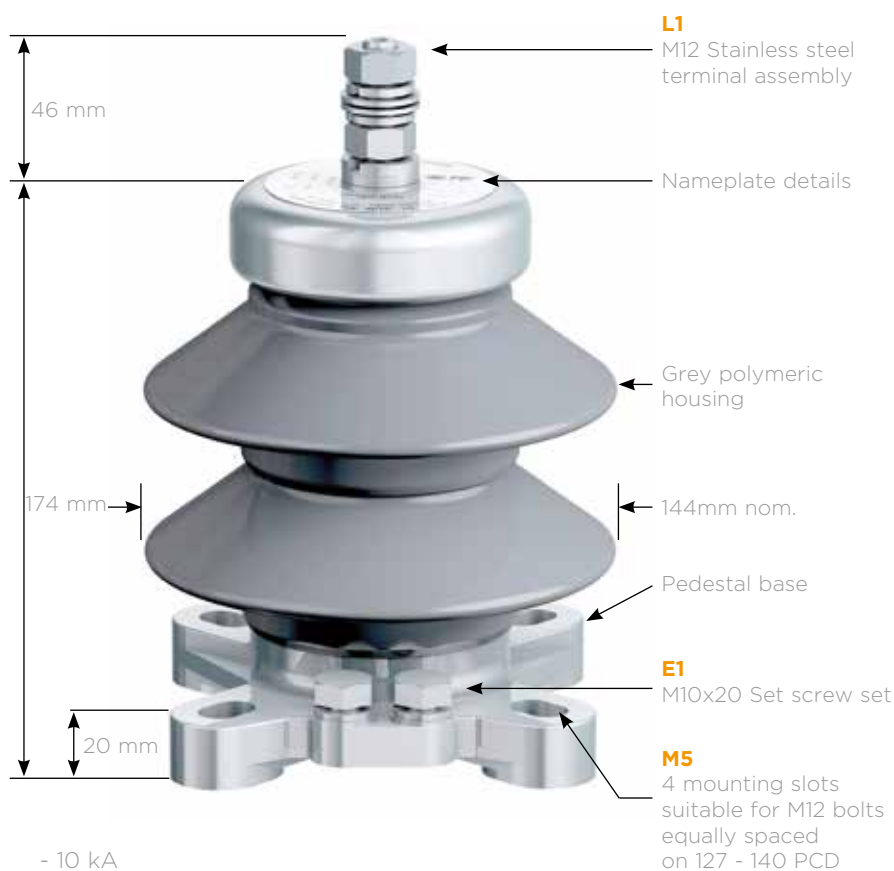
## Qualification testing:

- Tested to EN50123-5 standard
- Insulation withstand tests on the arrester housing
- Insulation withstand tests on the arrester housing
- Residual voltage test
- Long duration current impulse withstand test
- Operating duty tests
- Short-circuit tests
- Internal partial discharge test
- Tightness Test
- Power frequency voltage versus time characteristics on the arrester

## Electrical performance

Nominal discharge current 8/20  $\mu$ s  
 Voltage rating  
 High current operating duty 4/10  $\mu$ s  
 High current single impulse energy  
 Long Duration Current 2 ms

- 10 kA
- 1.3 kV to 5.2 kV Ur
- 100 kA
- 2.3 kJ/kV at Ur
- 1000 A



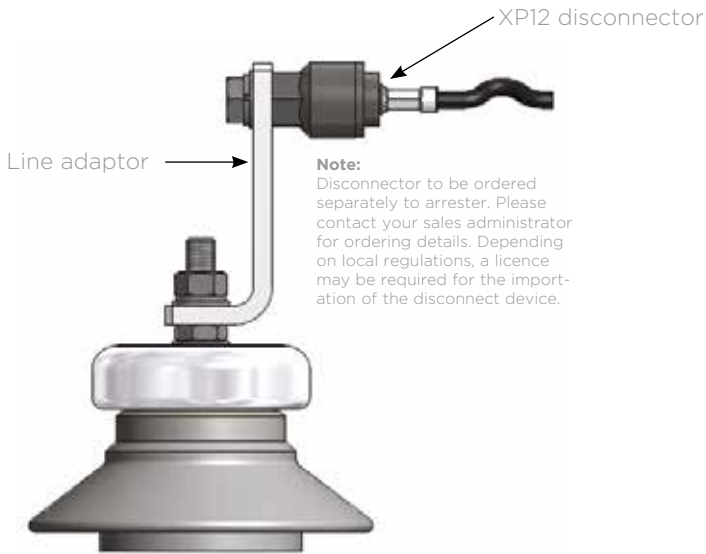
## STANDARD ELECTRICAL DATA

HE60MDxx	U rated kV(r.m.s)	U continuous kV(r.m.s)	U residual in kV when tested to the following impulse waveforms							
			Lightning current (8/20 $\mu$ s)					Steep lightning (1/20 $\mu$ s)	Switching (30/60 $\mu$ s)	
			0.5 kA	1 kA	5 kA	10 kA	20 kA	20 kA	125 A	500 A
HE60MD08	1.0	0.8	2.0	2.1	2.6	3.0	3.3	4.0	1.9	2.1
HE60MD10	1.3	1.0	4.1	4.3	5.3	6.1	6.8	8.3	3.8	4.3
HE60MD20	2.6	2.0	6.2	6.5	8.0	9.2	10.2	12.4	5.7	6.4
HE60MD30	3.9	3.0	8.3	8.6	10.6	12.2	13.6	16.5	7.5	8.6
HE60MD40	5.2	4.0	10.3	10.8	13.3	15.3	17.0	20.6	9.4	10.7

## HOUSING PARAMETERS

Product code	Creepage length (mm)	Flashover distance (mm)	Overall height (mm)	Cantilever long term load (SLL) Nm	Approx weight (kg)	Drawing reference
HE60MD08	246	125	174	225	3.6	BOW-3-013
HE60MD10	246	125	174	225	3.6	BOW-3-013
HE60MD20	246	125	174	225	3.6	BOW-3-013
HE60MD30	246	125	174	225	3.6	BOW-3-013
HE60MD40	246	125	174	225	3.6	BOW-3-013

Standard termination options



**L5** Line adaptor (typically used with the XP12 disconnecter)



**L1** M12 Stainless steel terminal assembly

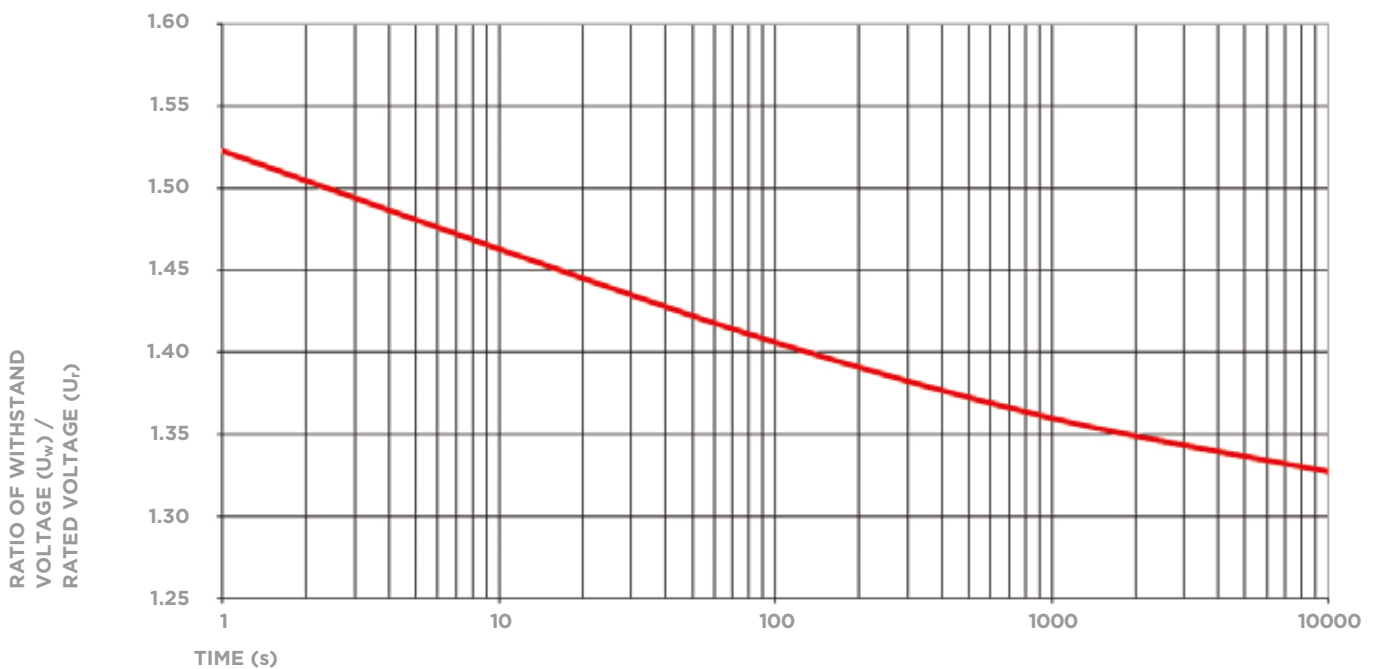


**M5 Mounting base**  
Pedestal Base with 4 slots to suit M12 bolts equally spaced on 127 - 140 PCD



**E1** M10x20 Set screw set

Power frequency voltage versus time with prior energy



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