



Bharat Heavy Electricals Limited

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To
The Dy CEE, D&D,
CLW
Chittaranjan.

Ref: PES/PS-CLW/CLW/140

Date: 10th Feb'2023

Sir,

Sub: Application software for BHEL make propulsion equipment reg:-.

Ref:

- a) Meeting at BHEL, New Delhi dated 15/12/2024 between Railway board & BHEL.

In the meeting as referenced above, the software improvements to be implemented in the locomotives equipped with BHEL make propulsion system was discussed. In line with this we have updated the application software for Traction Converter, Auxiliary Converter and VCU as follows

Sl No	Equipment	Sw version	Improvements
1	Traction Converter	792	1) Harmonic Current detection delay of 1 Sec added for operation as well. Earlier this delay was only for starting 2) Harmonic contactor status for generating stuck errors now generated from MVB signals 3) Wheel diameter correction calculation optimized 4) Lifesign monitoring delay for control cards increased to 1sec from 0.2sec. 5) Voltage break detection logic optimized 6) Monitoring points added for subsystem isolation without background message.
2	Auxiliary Converter	889.8	1) LVPS failure logic due to FH error optimized 2) Lifesign monitoring delay for control cards increased to 1sec from 0.2sec. 3) Battery Voltage monitoring through software signals
3	VCU	61	1) Auto brake line pressure limits for AFL changes to 5.3bar from 5.1. 2) Filter disturbance logic optimized 3) VCU reset implemented for both

			passenger & freight locomotives. 4) Background data for Subsystem isolation added.
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Request you to kindly permit loading of above application software in 10 locomotives for trails and feedback.

Thanking you,

Yours faithfully



Agosh Chandran R S
Sr Manager (TE)