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**Тип документа**

Публикация конференции

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**ISBN**

978-166541434-0

**DOI**

10.1109/REEPE53907.2022.9731424

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# Vibration Diagnostics of the Brush-Collector Assembly, as Means of Assessing

[Filina, Olga<sup>a</sup>](#)  ; [Vakhitov, Khalil<sup>a</sup>](#); [Starodubets, Artyom<sup>a</sup>](#); [Salnikova, Olga<sup>b</sup>](#)  [Сохранить всех в список авторов](#)<sup>a</sup> Kazan State Power Engineering University, Kazan, Russian Federation<sup>b</sup> Kazan State University of Architecture and Engineering, Kazan, Russian Federation[Опции полного текста < ▾](#)  [Экспорт](#)**Краткое описание****Ключевые слова автора**

Включенные в указатель ключевые слова

**Краткое описание**

This paper is devoted to the problem of technical diagnostics in urban electric transport and electrical facilities. To find the solution to this problem, it is necessary to transfer the qualitative determination of the Vehicle into some quantitative basis. The formalization of qualitative definitions is essential to the construction of formal (computable) diagnostic procedures. Once service life has been reached, the operational reliability of DC motors decreases. Extending the full service life of DC motors is economically feasible. During the last decade the role of diagnostic equipment for power equipment control has increased sharply. This is due to the fact that the fleet of equipment of power enterprises is catastrophically obsolete. In this article, it is considered the methodology of calculation of operational reliability and carried out the research of brush-collector unit of DC motor using the developed mathematical model. If there is a problem with the operation of the equipment, it is necessary to make a technical diagnosis. © 2022 IEEE.

**Ключевые слова автора**

approximation; brush contact; brush holder; electric brush; vibration

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