





TYPE APPROVAL TEST REPORT

ARAI/AED/20222023/3000028370/CT/2189
ULR No. TC508523310000329F

Dt. 17-Mar-2023
Discipline: Mechanical

CONFIDENTIAL
Group: Performance

1.0	Name & Address of the Customer	M/s. MECWIN TECHNOLOGIES INDIA PRIVATE LIMITED 4F and 5F, No.9C, Prasad Global Solutions Chokkasandra Main Road, Industrial Area Stage 2, Bengaluru
2.0	Customer Reference	email dated: 10 th Jan 2023
3.0	Test Objective	To measure Net Power and Maximum 30 Minute Power as per the requirements of AIS-041 (Rev. 1)/2015 notified under CMV Rule No.124 vide S.O. 411(E) Dt.9.02.2016.
4.0	Condition of Test Component at Receipt	The test component was received in good condition.
5.0	Test Motor Configuration	
5.1	Motor	Make: Mecwin Technologies India Pvt Ltd Type: BLDC motor Model No.: MWEV10HUB100TO3000Wp
5.2	Controller	Make: Star Engineers Pvt. Ltd. Type: BLDC motor Controller Model No.: MWEV48TO72VUPTO3000Wp Software Version: 20210127 Hardware Version: 100023
6.0	Test Equipment	
6.1	Chassis Dynamometer: BEP-USA make	
7.0	Test Date: 3 rd Feb 2023	
8.0	Test Component Photos (Motor Mounted in Vehicle)	
8.1	Note: The Motor was mounted on the vehicle to perform the motor power test as per AIS-041 rev.1 on chassis dynamometer.	
		
9.0	CONCLUSION:	
9.1	The measured max power of the motor M/s. Mecwin Technologies India Pvt Ltd (Model No.: MWEV10HUB100TO3000Wp) is 1.9 kW @ 1128 rpm when tested as per AIS-041 (Rev. 1)/2015 notified under CMV Rule No.124 vide S.O. 411(E) Dt. 9.02.2016.	
9.2	The measured max 30 min power of the motor M/s. Mecwin Technologies India Pvt Ltd (Model No.: MWEV10HUB100TO3000Wp) is 1.2 kW @ 835 rpm when tested as per AIS-041 (Rev. 1)/2015 notified under CMV Rule No.124 vide S.O. 411(E) Dt.9.02.2016.	

		
S M SUPNEKAR TEAM LEAD	M M DESAI Dy. DIRECTOR	A A DESHPANDE Sr. Dy. DIRECTOR & HoD

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10.0	Test Results																																				
10.1	The vehicle tyres were inflated to the pressure specified by the manufacturer.																																				
10.2	<p>Determination of Net Power: Test was performed on full charged battery The test vehicle was driven on chassis dynamometer with accelerator at max position and max power was recorded at various speeds in the range 1182 rpm to 209 rpm. The max power of 1.9 kW was recorded at speed of 1128 rpm.</p> <table><tr><th>Speed (km/h)</th><th>Wheel RPM</th><th>Power (kW)</th></tr><tr><td>56.6</td><td>1182</td><td>1.7</td></tr><tr><td>56</td><td>1170</td><td>1.7</td></tr><tr><td>54</td><td>1128</td><td>1.9</td></tr><tr><td>52</td><td>1086</td><td>1.8</td></tr><tr><td>50</td><td>1044</td><td>1.4</td></tr><tr><td>42</td><td>877</td><td>1.3</td></tr><tr><td>40</td><td>835</td><td>1.5</td></tr><tr><td>20</td><td>418</td><td>1.5</td></tr><tr><td>18</td><td>376</td><td>1.5</td></tr><tr><td>12</td><td>251</td><td>1.1</td></tr><tr><td>10</td><td>209</td><td>1.0</td></tr></table>	Speed (km/h)	Wheel RPM	Power (kW)	56.6	1182	1.7	56	1170	1.7	54	1128	1.9	52	1086	1.8	50	1044	1.4	42	877	1.3	40	835	1.5	20	418	1.5	18	376	1.5	12	251	1.1	10	209	1.0
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10.3	<p>Determination of Max 30 Min Power: The manufacturer has declared max 30 min power of 1.2 kW. It was confirmed that the max power at 30 min power speed of 835 rpm is more than 90% of max power of the vehicle. The test vehicle was driven on the chassis dynamometer at 835 rpm and accelerator position so as to get power of 1.2 kW for 30 min. The test vehicle was able to run at 835 rpm and deliver power of 1.2 kW ± 5% for 30 min.</p>																																				

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Place of Issue: PUNE

	
S M SUPNEKAR TEAM LEAD	M M DESAI Dy. DIRECTOR