

REPORT EN 12184:2022

TUV SUD Test Report for electrically powered wheelchairs, scooters and their chargers - Requirements and test methods

chargers - Requirements and test methods						
Report No.:		713309139				
Date of issue:		2024-03-25				
Project handler:		Matthias Müller				
Testing laboratory:		TÜV SÜD Product Service GmbH				
Address:		Masurenweg 1-3, DE-30163 Hanover				
Testing location:		as above				
Client:		Sunrise Medical GmbH				
Client number:		1300036070				
Address:		Kahlbachring 2-4, 69254 Malsch / Heidelberg, Germany				
Contact person:		Mr. Gerhard Weis				
Standard:		EN 12184:2022				
TRF number and revision:		TRF EN 12184:2022 Rev. 0:2023-05				
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TRF originated by:		TUV SUD Product Service, Mr. Matthias Müller				
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Scheme:		☐ TUV Mark	⊠ without certification	☐ AoC/CoC for EU-Directive / EU-Regulation:		
N		☐ GS Mark ☐ NRTL Mark ☐ other:				
Non-standard test method:						
National deviations:		N/A				
Number of pages (Report):		89				
Number of pages (Attachments):		N/A				
Compiled by:	Matthias Müller		Approved by:	Eike-Henning Hans		
(+ signature)	signature) SIGN-ID 898941 25.03.2024		(+ signature)	SIGN-ID 899030 25.03.2024		

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Test sample:	HAN-755292-1, HAN-755292-2			
Type of test object:	Add-on propulsion unit for manual wheelchairs			
Trademark:	SUNRISE MEDICAL.			
Model and/ or type reference:	Empulse M90			
Rating(s):	See copy of marking plate			
Manufacturer:	Concourse Manufacturing			
Manufacturer number:	N/A			
Address:	9 Hamley Road, Mount Kuring-Gai, NSW 2080, Australia			
Name and address of factory(is	es)			
N/A				
	1			
Sub-contractors / tests (clause):	N/A			
Name:	N/A			
	□ Complete test according to TRF			
	☐ Partial test according to manufacturer's specifications			
Order description:	☐ Preliminary test			
	☐ Spot check			
	☐ Others:			
Date of order:	2023-04-04			
Date of receipt of test item:	2023-03-04			
Date(s) of performance of test:	2023-04-10 to 2024-03-25			

Test item particulars:

Add-on propulsion unit for manual wheelchairs, type Empulse M90

NOTE: A manual wheelchair (Sunrise Medical GmbH, type Easy Life) was used for testing purpose but was not part of this evaluation.





Purpose of the product (description of intended use):

The Empulse M90 is a power assist device and is suitable for manual wheelchair users who are limited in their field of activities because of their physical conditions. The device can expand their field of activities by providing assistive propulsion power.

Characteristic data (not shown on the marking plate):				
total weight:	11.9 kg			
rated voltage:	21.6 V _{DC}			
max. user weight:	120 kg			
max. load	150 kg			
rated slope:	6°			
max. speed:	6 km/h			
driving wheel:				
- size:	24"			
- tyres:	air-filled 🛛 / rubber 🗌			
power electronics:	On-board control by Sunrise Medical GmbH			
driving motor:	Maxon, EC60 fl. BL Y: 24 VDC, 150 W			
battery:	Concourse Manufacturing, 6INR21700/40T: 24 V _{DC} , 4 Ah, 96 Wh			
battery charger:	Powertron Electronics Corp.			
	PA1120-270T1A0444			
	Input: 100-240 V _{AC} , 50-60 Hz, 2A Output: 27 V _{DC} , 4.44 A			
Charging dock	Concourse			
Charging dock	CAT-SW-1WCD			
	28 V _{DC} , 1.5 A			
Attachments:				
N/A				



If additional information is necessary, please provide

Ambient temperature range during testing: 21.1°C to 23.3°C





