



# EMOBxxx test case e-mobility Product catalogue

Doc.No: 100352733 Version from: 01.01.2023

Subject to change without notice.

#### Device



# The test case EMOB32 for on-site-testing of AC charging stations

The *EMOB32* is a three-phase, portable and compact test case. It is used for on-site testing load of AC charging stations for electric vehicles of different types. For performing tests with the test case *EMOB32* an additional battery operated reference meter *MT310s2* is required. A mains supply for the test case *EMOB32* is not required while using the battery operated reference meter *MT310s2*.

Main functions:

• Direct measurement up to 32 A (AC)

- Protection class CAT II
- · Energy measurement during the charging procedure
- No mains supply required

 Software-guided test via separate Notepad or Notebook possible



## The test case EMOB200 for on-site-testing of AC and DC charging stations

The *EMOB200* is a portable, compact three-phase test case. It is used for on-site testing load of AC and DC charging stations for electric vehicles of different types.For performing tests with the test case *EMOB200* an additional battery operated reference meter *MT310s2* is required. A mains supply for the test case *EMOB200* is not required while using the battery operated reference meter *MT310s2*.

Main functions:

- Direct measurement up to 32 A (AC)
- Direct measurement up to 200 A (DC)
- Protection class CAT II
- · Energy measurement during the charging procedure
- No mains supply required

Software-guided test via separate Notepad or Notebook
 possible

Ord.No.

101468301

101620600

# ZERA

	<ul> <li>Three phase reference meter MT310s2 CAT IV Inclusive adjustment for <u>one</u> mains frequency and <u>one</u> Battery Pack BM4100.</li> <li><i>MT310s2</i> is light weight and compact reference meter for on-site verification and calibration of single or three phase meters.</li> <li>Test voltage and test current for the Reference Meter will be measured at mains on-site or can be generated and measured via external source (optional). (e.g. <i>MT400</i> oder <i>MT5xx</i>)</li> <li><i>MT310s2</i> is designed for testing of max. 1 test specimen.</li> <li>Configuration: <ul> <li>Direct current measurement up to 300 V / 12 A</li> <li>Protection class CAT IV</li> <li>Accuracy for power/energy measurement: &lt; ±0.1 %</li> <li>Burden measurement for instrument transformer installations</li> <li>Additional 4th voltage and current input channel</li> <li>Wide range of accessories (optional)</li> </ul> </li> </ul>	Ord.No.	101622700
Factory Calibration	on for New Instrument		
FACTORY 50 Hz Calibration	<ul> <li>Factory Calibration for EMOB32, AC 50 Hz incl. ZERA calibration report.</li> <li><i>This article applies only for a purchase of new device.</i></li> <li>Load points according to ZERA regulations.</li> <li>Summary of used load points can be downloaded at www.zera.de.</li> <li>Additional load points are subject to charges.</li> </ul>	Ord.No.	101242334
FACTORY 50 Hz Calibration	<ul> <li>Factory Calibration for EMOB200, AC 50 Hz and DC incl. ZERA calibration report.</li> <li>This article applies only for a purchase of new device.</li> <li>Load points according to ZERA regulations.</li> <li>Summary of used load points can be downloaded at www.zera.de.</li> </ul>	Ord.No.	101242351

Additional load points are subject to charges.

	Factory Calibration for MT3x0s2, 50 Hz incl. ZERA calibration report.	Ord.No.	101242326
50Hz	This article applies only for a purchase of a		
Calibration Calibration Cali- bration Calibration Calibra- tion Calibration Calibration Calibration Calibration Cali-	new device without a DAkkS DKD-Calibration.		
bration Calibration Calibra-	Load points according to ZERA regulations.		
	Summary of used load points can be downloaded at www.zera.de.		
	Additional load points are subject to charges.		
	Additional load points are subject to charges.		
DAkkS DKD-Calik	pration for Instrument		
	DAkkS DKD-Calibration for EMOB32, AC 50 Hz		
	in combination with MT310s2 incl. DKD-Calibration Certificate acc. IEC 17025	Ord.No.	101173962
50 Hz			
Calibration	Load points according to ZERA regulations. Summary of used load points		
	can be downloaded at www.zera.de.		
	Additional load points are subject to charges.		
	DAkkS DKD-Calibration for EMOB200 AC 50 Hz and DC	Ord.No.	101173970
(Dakks	in combination with MT310s2 incl. DKD-Calibration Certificate acc. IEC 17025	Olu.NO.	1011/39/0
50 Hz	Load points according to ZERA regulations.		
Calibration	Summary of used load points can be downloaded at www.zera.de.		
	Additional load points are subject to charges.		
	DAkkS DKD-Calibration for MT3x0s2, 50 Hz incl. DKD-Calibration Certificate acc. IEC 17025	Ord.No.	101173949
CALIBRATION 50Hz			
Calibration Calibration Calibration Calibration Calibration Calibration Calibration Calibration	Load points according to ZERA regulations. Summary of used load points		
Calibration Calibration Cali- bration Calibration Calibra-	can be downloaded at www.zera.de.		
	Additional load points are subject to charges.		

## **Power Cords** Power cord "Plug type A to figure-of-eight", Ord.No. 100277201 2.0 m For supply via mains supply. • 1x Plug type A • 1x Figure-of-eight socket (IEC 60320-1 C7) Power cord "Euro plug type C to figure-of-eight", Ord.No. 100067700 2.0 m For supply via mains supply. • 1x Euro plug type C (CEE 7/16) • 1x Figure-of-eight socket (IEC 60320-1 C7) Power cord "Plug type G to figure-of-eight", Ord.No. 100277200 2.0 m For supply via mains supply. • 1x Plug type G (BS1363) • 1x Figure-of-eight socket (IEC 60320-1 C7) Power cord "Plug type I to figure-of-eight", 2.0 m Ord.No. 100277202 For supply via mains supply. • 1x Plug type I (AS/NZS 3112, 2-pin) 1x Figure-of-eight socket (IEC 60320-1 C7) **Battery Pack and Accessories** Battery Pack BM4100 Ord.No. 101378200



Rechargeable Battery Pack with Li-ION Battery for operation of MT3x0s2 independent from the mains. 14,4 V / 6,6 Ah / 95,04 Wh

101486001

101213410

Ord.No.



#### DC/DC-Converter for Battery Pack BM4100 Converter for recharging battery pack BM4100 via cigarette lighter plug from cars. Input: DC 12 -16 V Output: DC 24 V, max. 6 A



AC Power supply for Battery Pack BM4100	
AC Power supply for recharging battery pack BM4100	Ord.No.
Input: AC 90 – 264 V / 47 – 63 Hz	
Output: DC 24 V, 1,67 A (max. 40 W)	



**Extension for DC cable** for connection with the battery module *BM4100* of the *MT310s2* Reference Meter

Current and Voltage Cables (see also Special Accessories)

Ord.No. **101488900** 

Ord.No.

Charging Cable with Plug Type 2 for EMOB32 /		
EMOB200	Ord.No.	101482610
 for connection with AC charging station and test case 5 m, cable with sense line, Plug type 2, max. 32 A, weight approx. 3.2 kg Optional cable lengths on request.		

#### Software



WinSAM software incl. standard test sequence

The operator software WinSAM is used for softwareguided testing of AC charging stations using an EMOB32 test case.

An external control computer is necessary for this purpose.

101549400

## Impulse Sensor (see also Special Accessories)



#### TK326-1, scanning head without holding device

For detection of rotor disc markings on Ferraris meters and LED signals on electronic meters.

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• Fixing: Via stretchable holding device for scanning heads TK326/TK118.



Holding device for scanning head TK326/ TK118		
Stretchable holding device to fix the scanning head TK326	Ord.No.	100319600
or TK118 at the electricity meter. • Maximum wingspan: 19.0 cm.		



K121, S0 pulse converter with measuring leads			
For pulse detection of floating contacts as well as of	Ord.No.	100004210	
S0 pulse output on electricity meters. Including two			
laboratory			
cables with safety plug/connection pin.			



Connection cable for scanning head input (SC) on		
ZERA instruments with RJ10 socket	Ord.No.	Z10353027
The spiral cable connects TKxxx and K121 to the instrument.		
• 2x Modular connector RJ10		
• Length: 1.00 m / expanded: 6.00 m		



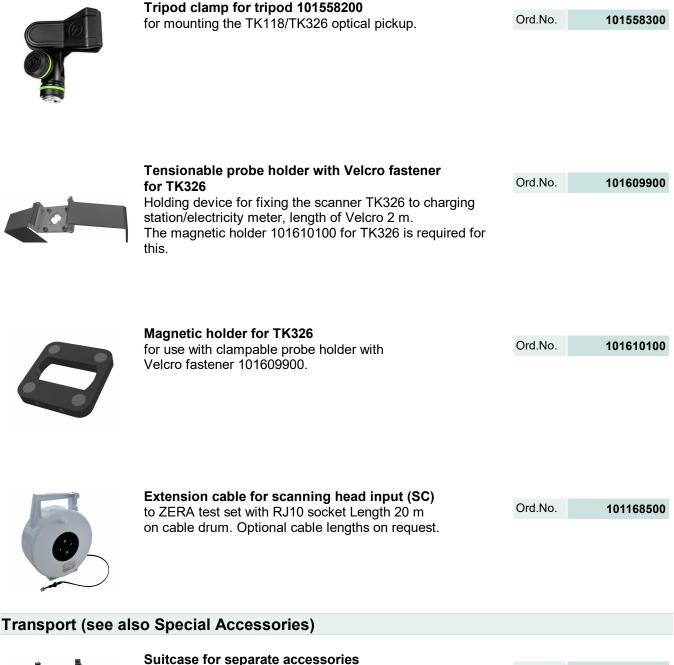
Microphone stand<br/>for mounting and free positioning of the<br/>TK118/TK326 optical pickup.Ord.No.101558200

The stand clamp 101558300 is required for this purpose.



## Version from: 01.01.2023

101064901





Version from: 01.01.2023



Suitcase for separate accessories incl. suitcase lid organizer

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Ord.No.	101492900

Standard Accessories (see also Special Accessories)



	1.1.1.1.1	20.00	
			-

Microsoft SurfacePro4 Notebook Ord.No. 101488000 for software-guided testing. A license for WinSAM-V7-Lizenz is required. Grey protection shell Ord.No. 101488200 for Microsoft Surface Pro4 Tablet 12" Electric van heater 3 kW as optional load Ord.No. 101489000 for the use of the test case EMOB32 3 heaters are required for a 3 phase load



Connection cable for EMOB32 for connection of max. 3 electric van heater and test case 2.5 m, plug type 2



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**Connection cable for external loads** for connection of test case and load 0,3 m, Plug type 2 to 32A CEE coupling.

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	Connection cable for EMOB200 to connect electric vehicle with test case.	Ord.No.	101561750
	Connect electric venicle with test case.		
Documentation			
	Documentation EMOB32, German		
ZERA Exemption Particular of the second sec		Ord.No.	101335580
	Complete documentation as pdf files on USB Stick		
		Ord.No.	100090716
Special Accessor	ies		
	AC charging cable, 3-phase, grey-black, 5 m	<b>a</b>	



AC charging cable, 3-phase, grey-black, 5 m for connecting test case with electric vehicle

Ord.No. **101482200** 



101594000



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### Notes on using the product catalogue

When ordering, always state the order number.

Pictures can differ from original product.

We follow ZVEI terms of delivery, see on www.zera.de