

Lenze motors: Introduction of a new temperature sensor.

From the KTY to the PT1000:
A summary of the most important information.

Changeover to a standard that conforms with the market and is ready for the future.

For the reliable and precise operation of electric motors, the use of temperature sensors installed in the winding is indispensable. The sensor **monitors the motor in order to prevent it from overheating** and ensures optimum closed-loop control of the drive.

The KTY temperature sensor used by Lenze up to now has been **discontinued by the manufacturer**. In a manufacturer-spanning work group of ZVEI, Lenze has therefore qualified the PT1000 temperature sensor as a suitable successor. We are now successively changing over to this **successor, which can meet the requirements of the future**.

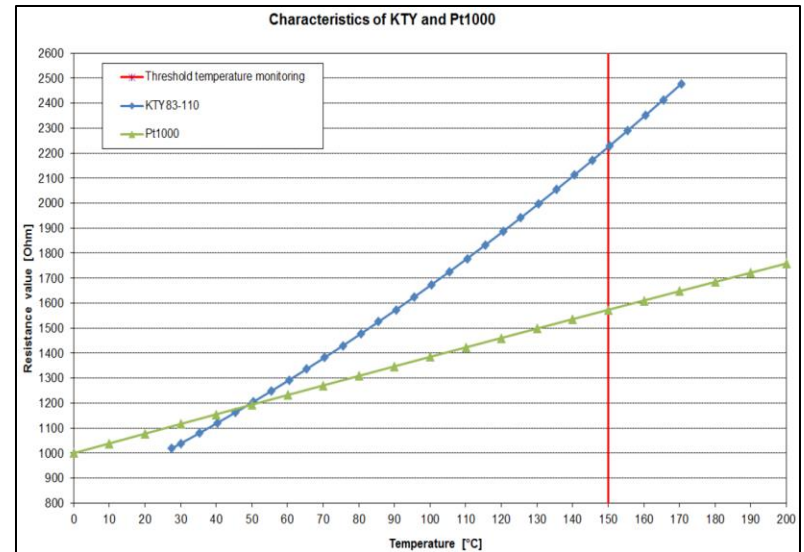
In the following, we provide you with some important technical information and an **idea** of the future availability of the two temperature sensors.

Our new series of inverters are PT1000-ready.

The **characteristic of the PT1000** has been standardised to EN 60751.

With the help of the current firmware versions of our inverters* and the current versions of our engineering tools, you can now use the motors with the new PT1000 temperature sensor **without the need for any additional work.**












For **tips on how to proceed** in the case of existing equipment (new motor with existing inverter or existing motor with new inverter), simple take a look round in our [Application Knowledge Base \(AKB\)](#).



* Inverter	PT1000-ready with firmware version
8400 TopLine	V17.xx
9400 HighLine	V14.xx
9400 ServoPLC	V08.xx
i700	V01.10 and V02.10

Future availability ensured.

The **incorporation of the PT1000** in the individual motors series will take place successively:

Motors	PT1000 available from (unrestricted)	KTY available until (unrestricted)	KTY available until (by means of quantity contracts*)	KTY available until (repairs & replacement parts)
 m850 synchronous servo motor	Nov. 2017	The m850 is not available with the KTY.		
 MCS synchronous servo motor	Nov. 2017	April 2019	April 2021	Dec. 2027
 MCA asynchronous servo motor				
 MQA asynchronous servo motor	April 2018	April 2019	April 2021	Dec. 2027
 SDSGA asynchronous servo motor				
 m540 IE3 three-phase AC motor				
 MH IE2 three-phase AC motor	April 2018	April 2019	April 2021	Dec. 2027
 MD IE1 three-phase AC motor				
 MF FI three-phase AC motor				
 Servo-Synchronmotor MCM	April 2020**	April 2020	April 2021	Dec. 2027
 m550-P IE3 three-phase AC motor				

* Quantity contracts must be made by April 2019

** Earlier availability on request

Identifying motors with PT1000 easily & quickly.

Motors with PT1000 can be clearly identified as follows :

1. Nameplate data

Notation:

- PT1000
- PT1k+2PTC
- TKO/PT1k

2. Reference tag on the motor

3. Supplementary sheet of the operating instructions (in the case of motors with a terminal box)

Lenze		Hans-Lenze-Straße 1 31855 Aerzen Germany		CE EAC	
Made in Germany		DE		Hz	50 60 87
3~Mot EN60034 inverter duty motor		kW		0.25 0.25 0.45	
G50AB045MHAR2C00		1832		V	Y 400 460
MDEMAXX063-42C0U		c=0.94		D	230 400 E210321
i=28.808		M2=48Nm			
n2=47.6r/min		50Hz 8.0 KG			
004 A - F		0.31 CLP HC 220 USDA H1		A	Y 0.82 0.75 S1
				D	1.40 1.40 1.40 ISO CL.F
				r/min	1370 1680 2480 IP55
				η %	66.0 66.0 74.0 PT1000
				cos φ	0.67 0.60 0.63
16132137				C86	1239 1239 1240

Nameplate example of an geared motor

Lenze		Hans-Lenze-Straße 1 31855 Aerzen Germany		EAC UL CE	
Made in Germany		DE		E210321	EN60034
3~Mot		IP54	Ta≤40°C	C86 1320	
MCS09L41-SKMP1		ISO CL.F	295V	4.5Nm	270Hz 4050r/min
AM128-8V-H		4.20A		M0=2.5Nm	Uin=284V
Brake 24 V DC 16W 6Nm		1.90kW		PT1k+2PTC 10.2 KG	
16147586					
		1832			

Nameplate example of an MCS servo motor

Achtung: Auf PT1000 geänderter Temperatursensor!
Die Temperatur-Kennlinie des PT1000 unterscheidet sich deutlich von der Kennlinie des Vorgänger Typs KTY83-110 bzw. KTY84-130.
Im Inverter ist die Motortemperatur-Auswertung zwingend anzupassen, um den Motorschutz zu gewährleisten!
Hintergründe und erforderliche Maßnahmen sind in dem FAQ-Artikel 201700193 in der Lenze Application Knowledge Base beschrieben:
<http://www.lenze.com/download/application-knowledge-base/>

Caution: Thermal sensor changed to PT1000!
The temperature characteristic of the PT1000 differs considerably from the characteristic of the previous type KTY83-110 and KTY84-130.
The motor temperature evaluation in the inverter must be adapted to guarantee the motor protection!
Backgrounds and required actions are described in the FAQ article 201700193 in the Lenze Application Knowledge Base:
<http://www.lenze.com/download/application-knowledge-base/>

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Anschluss Temperaturüberwachung PT1000

Ergänzung zur Betriebsanleitung DE

Connection of PT1000 temperature monitoring

Supplement to Operating Instructions EN

Raccordement de la sonde thermique PT1000

Supplément aux instructions de mise en service FR

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If you have any further questions on this topic, please get in touch with your contact person at [Lenze Sales](#).

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