Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin
Nationales Metrologieinstitut

DATA SHEET 13 TO EU-TYPE EXAMINATION CERTIFICATE PTB 23 ATEX 3003

Manufacturer: Bauer Gear Motor GmbH
Eberhard-Bauer-Straße 37, 73734 Esslingen, Germany

for three phase motor type D..XC..05... and D..XC..06...

Ratings

This certificate is valid for the following designs providing the motors of this type differ only negligibly from the sample tested as regards the electrical and thermal stresses:

Power up to:			0.37			kW
Voltage up to:	110	230	690	500	690	V
Current up to:	2.88	1.37	3.9	0.63	0.46	A
Frequency up to:			60			Hz
Number of poles:			2, 4, 6, 8 or 12			
Speed: (motor) up to			3600			min^{-1}
Duty Type:			S1			
Thermal classification:			155 (F)			

The mains voltage may vary by up to ± 5% and the mains frequency by up to ± 2% from the rated values, in keeping with range A according to IEC 60034-1.

The ambient temperature range is -20°C to +40°C. This range can be extended to -20°C to +60°C by special electrical or thermal design, e.g. by output power reduction, and is specified on the nameplate of the motor.
If it is necessary to use motor connection cables with increased temperature resistance, this is indicated on an additional label on the machine.

The manufacturer ensures through type tests that all motor designs covered by this data sheet meet the requirements of the standard EN 60079-0:2018+AC:2020 and EN 60079-31:2014 for the type of protection "tb" and the motors do not exceed the surface temperature stated on the nameplate in the range of 120°C...160°C even at the maximum permissible ambient temperature. For this purpose, PTC thermistors are installed in the motors with the following allocation:

Surface temperature 140°C to 160°C → PTC thermistor with the nominal response temperature of 140°C
Surface temperature <120°C to 140°C → PTC thermistor with a nominal response temperature of 120°C
The motors may only be used in the operating mode and under the environmental conditions which are stated on the nameplate and for which the motors were type tested by the manufacturer.

Temperature monitoring

The motors must be protected against impermissible heating with a function-tested, current-dependent, time-delayed protective device for monitoring all three phases in accordance with Directive 2014/34/EU. The current must not be set higher than the rated current of the machine. The protective device must respond within 2 hours at 1.2 times the set current.

DATA SHEET 13 TO EU-TYPE EXAMINATION CERTIFICATE PTB 23 ATEX 3003,

In addition, the motors must be equipped with a device for direct temperature monitoring be protected from impermissible heating. The device for direct temperature monitoring consists of three PTC thermistors embedded in the winding overhang in accordance with DIN VDE V 0898-1-401 and a tripping device that has been functionally tested for this in accordance with Directive 2014/34/EU.

The motors must be marked as follows::

- **II 2D Ex tb IIIC T120°C Db**
- **II 2D Ex tb IIIC T130°C Db**
- **II 2D Ex tb IIIC T140°C Db**
- **II 2D Ex tb IIIC T150°C Db**
- **II 2D Ex tb IIIC T160°C Db**

Test report PTB Ex 23-33037

Konformitätsbewertungsstelle, Sektor Explosionsschutz
On behalf of PTB:

Braunschweig, October 5, 2023

Dr.-Ing. M. Thedens
Direktor und Professor

Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin
Nationales Metrologieinstitut

DATA SHEET 12 TO EU-TYPE EXAMINATION CERTIFICATE PTB 23 ATEX 3004

Manufacturer: Bauer Gear Motor GmbH
Eberhard-Bauer-Straße 37, 73734 Esslingen, Germany

for three phase motor type D..XC..08...

Ratings

This certificate is valid for the following designs providing the motors of this type differ only negligibly from the sample tested as regards the electrical and thermal stresses:

Power up to:	1.1	kW
Voltage up to:	690	V
Current up to:	10.2	A
Frequency up to:	60	Hz
Number of poles:	2, 4, 6, 8 or 12	
Speed: (motor) up to	3600	min^{-1}
Duty Type:	S1	
Thermal classification:	155 (F)	

The mains voltage may vary by up to ± 5% and the mains frequency by up to ± 2% from the rated values, in keeping with range A according to IEC 60034-1.

The ambient temperature range is -20°C to +40°C. This range can be extended to -20°C to +60°C by special electrical or thermal design e.g. by output power reduction, and is specified on the nameplate of the motor.

If it is necessary to use motor connection cables with increased temperature resistance, this is indicated on an additional label on the machine.

The manufacturer ensures through type tests that all motor designs covered by this data sheet meet the requirements of the standard EN 60079-0:2018+AC:2020 and EN 60079-31:2014 for the type of protection "tb" and the motors do not exceed the surface temperature stated on the nameplate in the range of 120°C...160°C even at the maximum permissible ambient temperature. For this purpose, PTC thermistors are installed in the motors with the following allocation:
Surface temperature 140°C to 160°C → PTC thermistor with the nominal response temperature of 140°C
Surface temperature <120°C to 140°C → PTC thermistor with a nominal response temperature of 120°C
The motors may only be used in the operating mode and under the environmental conditions which are stated on the nameplate and for which the motors were type tested by the manufacturer.

Temperature monitoring

The motors must be protected against impermissible heating with a function-tested, current-dependent, time-delayed protective device for monitoring all three phases in accordance with Directive 2014/34/EU. The current must not be set higher than the rated current of the machine. The protective device must respond within 2 hours at 1.2 times the set current.

DATA SHEET 12 TO EU-TYPE EXAMINATION CERTIFICATE PTB 23 ATEX 3004,

In addition, the motors must be equipped with a device for direct temperature monitoring be protected from impermissible heating. The device for direct temperature monitoring consists of three PTC thermistors embedded in the winding overhang in accordance with DIN VDE V 0898-1-401 and a tripping device that has been functionally tested for this in accordance with Directive 2014/34/EU.

The motors must be marked as follows::

- **II 2D Ex tb IIIC T120°C Db**
- **II 2D Ex tb IIIC T130°C Db**
- **II 2D Ex tb IIIC T140°C Db**
- **II 2D Ex tb IIIC T150°C Db**
- **II 2D Ex tb IIIC T160°C Db**

Test report PTB Ex 23-33038

Konformitätsbewertungsstelle, Sektor Explosionsschutz
On behalf of PTB

Braunschweig, October 5, 2023

Dr.-Ing. M. Thedens
Direktor und Professor

Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin
Nationales Metrologieinstitut

DATA SHEET 15 TO EU-TYPE EXAMINATION CERTIFICATE PTB 23 ATEX 3005

Manufacturer: Bauer Gear Motor GmbH
Eberhard-Bauer-Straße 37, 73734 Esslingen, Germany

for three phase motor type D..XC..09...

Ratings

This certificate is valid for the following designs providing the motors of this type differ only negligibly from the sample tested as regards the electrical and thermal stresses:

Power up to:	2.2	kW
Voltage up to:	690	V
Current up to:	18.5	A
Frequency up to:	60	Hz
Number of poles:	2, 4, 6, 8 or 12	
Speed: (motor) up to	3600	min^{-1}
Duty Type:	S1	
Thermal classification:	155 (F)	

The mains voltage may vary by up to ± 5% and the mains frequency by up to ± 2% from the rated values, in keeping with range A according to IEC 60034-1.

The ambient temperature range is -20°C to +40°C. This range can be extended to -20°C to +60°C by special electrical or thermal design, e.g. by output power reduction, and is specified on the nameplate of the motor.

If it is necessary to use motor connection cables with increased temperature resistance, this is indicated on an additional label on the machine.

The manufacturer ensures through type tests that all motor designs covered by this data sheet meet the requirements of the standard EN 60079-0:2018+AC:2020 and EN 60079-31:2014 for the type of protection "tb" and the motors do not exceed the surface temperature stated on the nameplate in the range of 120°C...160°C even at the maximum permissible ambient temperature. For this purpose, PTC thermistors are installed in the motors with the following allocation:
Surface temperature 140°C to 160°C → PTC thermistor with the nominal response temperature of 140°C
Surface temperature <120°C to 140°C → PTC thermistor with a nominal response temperature of 120°C
The motors may only be used in the operating mode and under the environmental conditions which are stated on the nameplate and for which the motors were type tested by the manufacturer.

Temperature monitoring

The motors must be protected against impermissible heating with a function-tested, current-dependent, time-delayed protective device for monitoring all three phases in accordance with Directive 2014/34/EU. The current must not be set higher than the rated current of the machine. The protective device must respond within 2 hours at 1.2 times the set current.

DATA SHEET 15 TO EU-TYPE EXAMINATION CERTIFICATE PTB 23 ATEX 3005,

In addition, the motors must be equipped with a device for direct temperature monitoring be protected from impermissible heating. The device for direct temperature monitoring consists of three PTC thermistors embedded in the winding overhang in accordance with DIN VDE V 0898-1-401 and a tripping device that has been functionally tested for this in accordance with Directive 2014/34/EU.

The motors must be marked as follows::

- **II 2D Ex tb IIIC T120°C Db**
- **II 2D Ex tb IIIC T130°C Db**
- **II 2D Ex tb IIIC T140°C Db**
- **II 2D Ex tb IIIC T150°C Db**
- **II 2D Ex tb IIIC T160°C Db**

Test report PTB Ex 23-33039

Konformitätsbewertungsstelle, Sektor Explosionsschutz
On behalf of PTB:

Braunschweig, October 5, 2023

Dr.-Ing. M. Thedens
Direktor und Professor

Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin
Nationales Metrologieinstitut

DATA SHEET 16 TO EU-TYPE EXAMINATION CERTIFICATE PTB 23 ATEX 3006

Manufacturer: Bauer Gear Motor GmbH
Eberhard-Bauer-Straße 37, 73734 Esslingen, Germany

for three phase motor type D..XC..11...

Ratings

This certificate is valid for the following designs providing the motors of this type differ only negligibly from the sample tested as regards the electrical and thermal stresses:

Power up to:	5.5	kW
Voltage up to:	690	V
Current up to:	42	A
Frequency up to:	60	Hz
Number of poles:	2, 4, 6, 8 or 12	
Speed: (motor) up to	3600	min^{-1}
Duty Type:	S1	
Thermal classification:	155 (F)	

The mains voltage may vary by up to ± 5% and the mains frequency by up to ± 2% from the rated values, in keeping with range A according to IEC 60034-1.

The ambient temperature range is -20°C to +40°C. This range can be extended to -20°C to +60°C by special electrical or thermal design, e.g. by output power reduction, and is specified on the nameplate of the motor.

If it is necessary to use motor connection cables with increased temperature resistance, this is indicated on an additional label on the machine.

The manufacturer ensures through type tests that all motor designs covered by this data sheet meet the requirements of the standard EN 60079-0:2018+AC:2020 and EN 60079-31:2014 for the type of protection "tb" and the motors do not exceed the surface temperature stated on the nameplate in the range of 120°C...160°C even at the maximum permissible ambient temperature. For this purpose, PTC thermistors are installed in the motors with the following allocation:
Surface temperature 140°C to 160°C → PTC thermistor with the nominal response temperature of 140°C
Surface temperature <120°C to 140°C → PTC thermistor with a nominal response temperature of 120°C
The motors may only be used in the operating mode and under the environmental conditions which are stated on the nameplate and for which the motors were type tested by the manufacturer.

Temperature monitoring

The motors must be protected against impermissible heating with a function-tested, current-dependent, time-delayed protective device for monitoring all three phases in accordance with Directive 2014/34/EU. The current must not be set higher than the rated current of the machine. The protective device must respond within 2 hours at 1.2 times the set current.

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DATA SHEET 16 TO EU-TYPE EXAMINATION CERTIFICATE PTB 23 ATEX 3006,

In addition, the motors must be equipped with a device for direct temperature monitoring be protected from impermissible heating. The device for direct temperature monitoring consists of three PTC thermistors embedded in the winding overhang in accordance with DIN VDE V 0898-1-401 and a tripping device that has been functionally tested for this in accordance with Directive 2014/34/EU.

The motors must be marked as follows::

- **II 2D Ex tb IIIC T120°C Db**
- **II 2D Ex tb IIIC T130°C Db**
- **II 2D Ex tb IIIC T140°C Db**
- **II 2D Ex tb IIIC T150°C Db**
- **II 2D Ex tb IIIC T160°C Db**

Test report PTB Ex 23-33029

Konformitätsbewertungsstelle, Sektor Explosionsschutz
On behalf of PTB

Braunschweig, October 5, 2023

Dr.-Ing. M. Thedens
Direktor und Professor

Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin
Nationales Metrologieinstitut

DATA SHEET 05 TO EU-TYPE EXAMINATION CERTIFICATE PTB 23 ATEX 3007

Manufacturer: Bauer Gear Motor GmbH
Eberhard-Bauer-Straße 37, 73734 Esslingen, Germany

for three phase motor type D..XC..13...

Ratings

This certificate is valid for the following designs providing the motors of this type differ only negligibly from the sample tested as regards the electrical and thermal stresses:

Power up to:	9.5	kW
Voltage up to:	690	V
Current up to:	39	A
Frequency up to:	60	Hz
Number of poles:	2, 4, 6, 8 or 12	
Speed: (motor) up to	3600	min^{-1}
Duty Type:	S1	
Thermal classification:	155 (F)	

The mains voltage may vary by up to ± 5% and the mains frequency by up to ± 2% from the rated values, in keeping with range A according to IEC 60034-1.

The ambient temperature range is -20°C to +40°C. This range can be extended to -20°C to +60°C by special electrical or thermal design e.g. by output power reduction and is specified on the nameplate of the motor.
If it is necessary to use motor connection cables with increased temperature resistance, this is indicated on an additional label on the machine.
The manufacturer ensures through type tests that all motor designs covered by this data sheet meet the requirements of the standard EN 60079-0:2018+AC:2020 and EN 60079-31:2014 for the type of protection "tb" and the motors do not exceed the surface temperature stated on the nameplate in the range of 120°C...160°C even at the maximum permissible ambient temperature. It must also be ensured that the maximum permissible operating temperatures of the seals, clamps and other components are not exceeded. For this purpose, PTC thermistors are installed in the motors with the following allocation:
Surface temperature 140°C to 160°C → PTC thermistor with the nominal response temperature of 140°C
Surface temperature <120°C to 140°C → PTC thermistor with a nominal response temperature of 120°C
The motors may only be used in the operating mode and under the environmental conditions which are stated on the nameplate and for which the motors were type tested by the manufacturer.

Temperature monitoring

The motors must be protected against impermissible heating with a function-tested, current-dependent, time-delayed protective device for monitoring all three phases in accordance with Directive 2014/34/EU. The current must not be set higher than the rated current of the machine. The protective device must respond within 2 hours at 1.2 times the set current.

Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin
Nationales Metrologieinstitut

DATA SHEET 05 TO EU-TYPE EXAMINATION CERTIFICATE PTB 23 ATEX 3007

In addition, the motors must be equipped with a device for direct temperature monitoring be protected from impermissible heating. The device for direct temperature monitoring consists of three PTC thermistors embedded in the winding overhang in accordance with DIN VDE V 0898-1-401 and a tripping device that has been functionally tested for this in accordance with Directive 2014/34/EU.

The motors must be marked as follows::

- **II 2D Ex tb IIIC T120°C Db**
- **II 2D Ex tb IIIC T130°C Db**
- **II 2D Ex tb IIIC T140°C Db**
- **II 2D Ex tb IIIC T150°C Db**
- **II 2D Ex tb IIIC T160°C Db**

Test report PTB Ex 23-33030

Konformitätsbewertungsstelle, Sektor Explosionsschutz
On behalf of PTB:

Braunschweig, October 5, 2023

Dr.-Ing. M. Thedens
Direktor und Professor

Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin
Nationales Metrologieinstitut

DATA SHEET 09 TO EU-TYPE EXAMINATION CERTIFICATE PTB 23 ATEX 3008

Manufacturer: Bauer Gear Motor GmbH
Eberhard-Bauer-Straße 37, 73734 Esslingen, Germany

for three phase motor type D..XC..16...

Ratings

This certificate is valid for the following designs providing the motors of this type differ only negligibly from the sample tested as regards the electrical and thermal stresses:

Power up to:	18.5	kW
Voltage up to:	690	V
Current up to:	74	A
Frequency up to:	60	Hz
Number of poles:	2, 4, 6, 8 or 12	
Speed: (motor) up to	3600	min^{-1}
Duty Type:	S1	
Thermal classification:	155 (F)	

The mains voltage may vary by up to ± 5% and the mains frequency by up to ± 2% from the rated values, in keeping with range A according to IEC 60034-1.

The ambient temperature range is -20°C to +40°C. This range can be extended to -20°C to +60°C by special electrical or thermal design e.g. by output power reductionand is specified on the nameplate of the motor.
If it is necessary to use motor connection cables with increased temperature resistance, this is indicated on an additional label on the machine.

The manufacturer ensures through type tests that all motor designs covered by this data sheet meet the requirements of the standard EN 60079-0:2018+AC:2020 and EN 60079-31:2014 for the type of protection "tb" and the motors do not exceed the surface temperature stated on the nameplate in the range of 120°C...160°C even at the maximum permissible ambient temperature. For this purpose, PTC thermistors are installed in the motors with the following allocation:

Surface temperature 140°C to 160°C → PTC thermistor with the nominal response temperature of 140°C
Surface temperature <120°C to 140°C → PTC thermistor with a nominal response temperature of 120°C
The motors may only be used in the operating mode and under the environmental conditions which are stated on the nameplate and for which the motors were type tested by the manufacturer.

Temperature monitoring

The motors must be protected against impermissible heating with a function-tested, current-dependent, time-delayed protective device for monitoring all three phases in accordance with Directive 2014/34/EU. The current must not be set higher than the rated current of the machine. The protective device must respond within 2 hours at 1.2 times the set current.

DATA SHEET 09 TO EU-TYPE EXAMINATION CERTIFICATE PTB 23 ATEX 3008,

In addition, the motors must be equipped with a device for direct temperature monitoring be protected from impermissible heating. The device for direct temperature monitoring consists of three PTC thermistors embedded in the winding overhang in accordance with DIN VDE V 0898-1-401 and a tripping device that has been functionally tested for this in accordance with Directive 2014/34/EU.

The motors must be marked as follows::

- **II 2D Ex tb IIIC T120°C Db**
- **II 2D Ex tb IIIC T130°C Db**
- **II 2D Ex tb IIIC T140°C Db**
- **II 2D Ex tb IIIC T150°C Db**
- **II 2D Ex tb IIIC T160°C Db**

Test report PTB Ex 23-33031

Konformitätsbewertungsstelle, Sektor Explosionsschutz
On behalf of PTB:

Braunschweig, October 5, 2023

Dr.-Ing. M. Thedens
Direktor und Professor

Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin
Nationales Metrologieinstitut

DATA SHEET 01 TO EU-TYPE EXAMINATION CERTIFICATE PTB 23 ATEX 3009

Manufacturer: Bauer Gear Motor GmbH
Eberhard-Bauer-Straße 37, 73734 Esslingen, Germany

for three phase motor type D..XC..18...

Ratings

This certificate is valid for the following designs providing the motors of this type differ only negligibly from the sample tested as regards the electrical and thermal stresses:

Power up to:	30	kW
Voltage up to:	690	V
Current up to:	100	A
Frequency up to:	60	Hz
Number of poles:	2, 4, 6, 8 or 12	
Speed: (motor) up to	3600	min^{-1}
Duty Type:	S1	
Thermal classification:	155 (F)	

The mains voltage may vary by up to ± 5% and the mains frequency by up to ± 2% from the rated values, in keeping with range A according to IEC 60034-1.

The ambient temperature range is -20°C to +40°C. This range can be extended to -20°C to +60°C by special electrical or thermal design, e.g. by output power reduction, and is specified on the nameplate of the motor.

If it is necessary to use motor connection cables with increased temperature resistance, this is indicated on an additional label on the machine.

The manufacturer ensures through type tests that all motor designs covered by this data sheet meet the requirements of the standard EN 60079-0:2018+AC:2020 and EN 60079-31:2014 for the type of protection "tb" and the motors do not exceed the surface temperature stated on the nameplate in the range of 120°C...160°C even at the maximum permissible ambient temperature. For this purpose, PTC thermistors are installed in the motors with the following allocation:
Surface temperature 140°C to 160°C → PTC thermistor with the nominal response temperature of 140°C
Surface temperature <120°C to 140°C → PTC thermistor with a nominal response temperature of 120°C
The motors may only be used in the operating mode and under the environmental conditions which are stated on the nameplate and for which the motors were type tested by the manufacturer.

Temperature monitoring

The motors must be protected against impermissible heating with a function-tested, current-dependent, time-delayed protective device for monitoring all three phases in accordance with Directive 2014/34/EU. The current must not be set higher than the rated current of the machine. The protective device must respond within 2 hours at 1.2 times the set current.

DATA SHEET 01 TO EU-TYPE EXAMINATION CERTIFICATE PTB 23 ATEX 3009

In addition, the motors must be equipped with a device for direct temperature monitoring be protected from impermissible heating. The device for direct temperature monitoring consists of three PTC thermistors embedded in the winding overhang in accordance with DIN VDE V 0898-1-401 and a tripping device that has been functionally tested for this in accordance with Directive 2014/34/EU.

The motors must be marked as follows::

- **II 2D Ex tb IIIC T120°C Db**
- **II 2D Ex tb IIIC T130°C Db**
- **II 2D Ex tb IIIC T140°C Db**
- **II 2D Ex tb IIIC T150°C Db**
- **II 2D Ex tb IIIC T160°C Db**

Test report PTB Ex 23-33032

Konformitätsbewertungsstelle, Sektor Explosionsschutz
On behalf of PTB:

Braunschweig, October 5, 2023

Dr.-Ing. M. Thedens
Direktor und Professor