Type Codes



Product Training

Type Codes, Volume 1

Drive Technology

Edition 07/2025

33091285/EN



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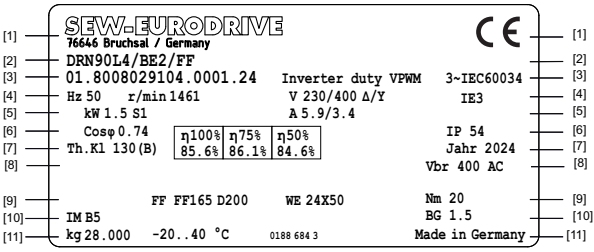
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1 Drives

1.1 DRN.. and DR2.. motors

1.1.1 Nameplate

The following figure shows an example of a nameplate:



18014420197253003

Line	Information
[1]	• Manufacturer, address • CE label
[2]	• Type designation
[3]	• Serial number • Suitability for inverter operation • Number of phases and underlying rating and performance standards (EN/IEC 60034-X and/or equivalent national standard)
[4]	• Rated frequency • Rated speed • Nominal voltage • Energy efficiency class according to IEC 60034-30-1
[5]	• Rated power and operating mode • Rated current
[6]	• Power factor • Degree of protection according to IEC 60034-5
[7]	• Thermal class • Rated efficiency for motors included in the validity of the IEC 60034-30-1 standard • Year of manufacture
[8]	• Brake voltage
[9]	• Flange • Shaft end • Braking torque
[10]	• Mounting position • Brake rectifier

Line	Information
[11]	• Mass • Permitted ambient temperature range • Part number nameplate • Country of manufacture

1.1.2 Type designation

The following table shows an example of a type designation:

DRN132M4/BE11/HR/FI/TF	
DRN	Motor series
132	Motor size
M	Motor length
4	Number of poles
BE11	Brake with size specification
HR	Manual brake release
FI	Motor design
TF	Thermal motor protection

Designation of the motors

Designation	
DRS..	Standard motor; standard efficiency IE1
DR2S..	Standard motor, Standard efficiency IE1 (2nd generation)
DRE..	Energy-efficient motor; high efficiency IE2
DRP..	Energy-efficient motor; premium efficiency IE3
DRN..	Energy-efficient motor, Premium Efficiency IE3
DRU..	Energy-efficient motor, Super Premium Efficiency IE4
DRL..	Asynchronous servomotor
DR2L..	Asynchronous servomotor (2nd generation)
DRK..	Single-phase operation with running capacitor
DRM..	Torque motor: AC motor for operation at speed n = 0
DR2M..	Torque motor: AC motor for operation at speed n = 0 (2nd generation)
DR..J	Line start permanent magnet motor
56 – 315	Sizes: 56, 63, 71, 80, 90, 100, 112, 132, 160, 180, 200, 225, 250, 280, 315
K, S, M, L, MC, LC, ME, MS, MK, H, LS, LM	Length
R, Q, P, I, B	Power identification (identification of motors of the same size but with different power ratings)
2, 4, 6, 8, 8/2, 8/4, 4/2, 12/2	Number of poles

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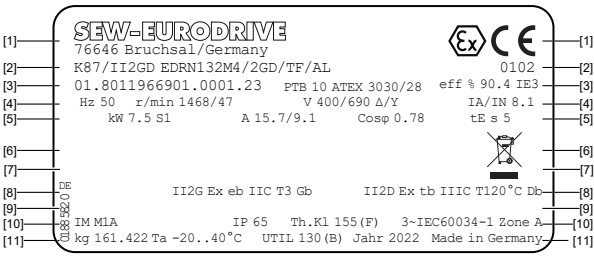
1.2 EDRN.. explosion-protected motors (ATEX/IECEx)

1.2.1 Nameplate

EDRN.. motor nameplate ATEX categories 2 and 3

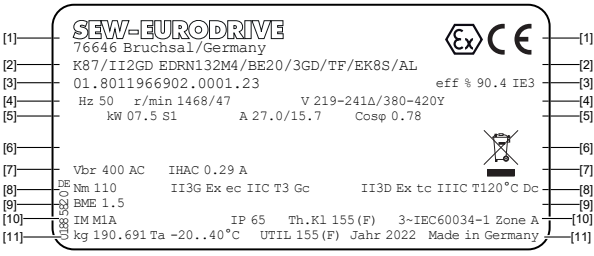
The following figures show an example of the nameplates of an EDRN.. motor in 2GD and 3GD design:

ATEX category 2



9007237415581579

ATEX category 3



9007237488489355

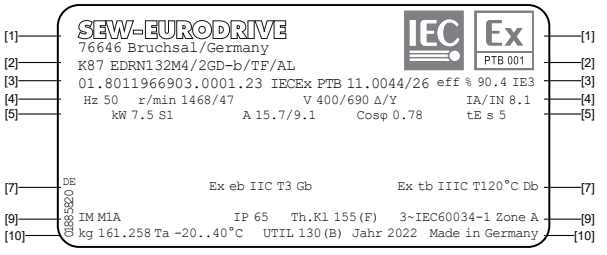
Line	Information
[1]	• Manufacturer; address • Explosion protection mark, CE mark The "Markings" on the upper edge of the nameplate are only present when the motor has been certified accordingly or when it includes the relevant components.
[2]	• Type designation • Number of the approval authority (only for category 2)
[3]	• Serial number • EU type examination certificate for line operation (only for category 2) • Rated efficiency and IE class for motors within the validity of the IEC 60034-30-1 standard
[4]	• Rated frequency • Rated motor speed/gear unit output speed • Nominal voltage • Ratio of starting current to rated current (only for category 2)
[5]	• Rated power, operating mode • Rated current • Power factor for AC motors • Heating time (only for category 2)
[6]	• WEEE mark
[7]	• Brake voltage • Brake holding current

Line	Information
[8]	• Braking torque • Indicates gas explosion protection II = equipment group II (above ground) 2 / 3 = equipment category 2 / 3 G = areas containing potentially explosive mixtures of gas, steam, mist, and air Ex eb / Ex ec = protection type IIC = gas group T3 = temperature class (gas) Gb / Gc = EPL (Equipment Protection Level) • Indicates dust explosion protection II = equipment group II (above ground) 2 / 3 = equipment category 2 / 3 D = for areas where dust may create potentially explosive atmospheres Ex tb / Ex tc = protection type IIIC = dust group T120 °C = surface temperature (dust) Db / Dc = EPL (Equipment Protection Level)
[9]	• Brake control • 2 free text cells
[10]	• Mounting position • Degree of protection according to IEC/EN 60034-5 • Thermal class • Number of phases and underlying rating and performance standards (IEC/EN 60034X and/or equivalent national standard) • Zone A = Section A from IEC/EN 60034-1
[11]	• Weight of (gear)motor • Ambient temperature • Thermal capacity utilization of the motor • Year of manufacture • Country of manufacture

EDRN.. motor nameplate IECEx EPL .b and EPL .c

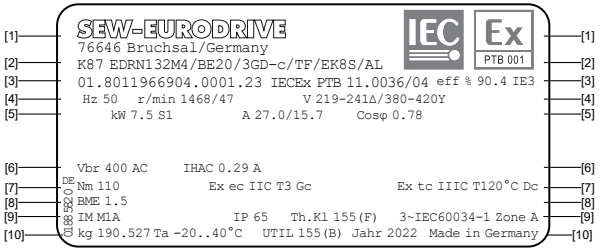
The following figures show an example of the nameplates of an EDRN.. motor in 2GD-b and 3GD-c designs:

IECEx EPL .b



38162223371

IECEx EPL .c



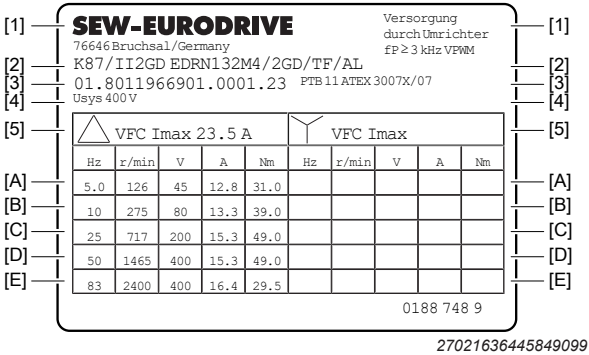
38233882763

Line	Information
[1]	• Manufacturer, address • IECEx conformity mark The "Markings" on the upper edge of the nameplate are only present when the motor has been certified accordingly or when it includes the relevant components.

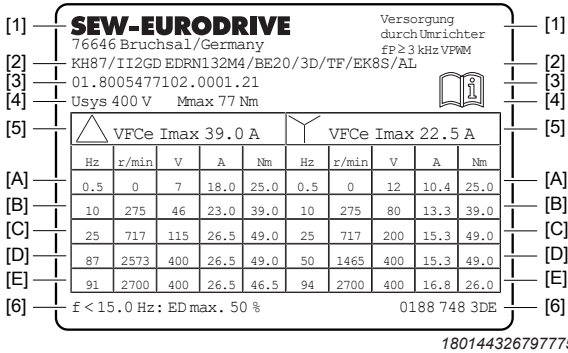
Line	Information
[2]	• Type designation
[3]	• Serial number • IECEx certificate number for line operation • Rated efficiency and IE class for motors within the validity of the IEC 60034-30-1 standard
[4]	• Rated frequency • Rated motor speed/gear unit output speed • Nominal voltage and connection type • Ratio of starting current to rated current (only for EPL Gb)
[5]	• Rated power, operating mode • Rated current • Power factor for AC motors • Heating time (only for EPL Gb)
[6]	• Brake voltage • Brake holding current
[7]	• Braking torque • Indicates gas explosion protection Ex eb / Ex ec = Protection type IIC = Gas group T3 = Temperature class (gas) Gb / Gc = EPL (Equipment Protection Level), protection level • Indicates dust explosion protection Ex tb / Ex tc = Protection type IIIC = Dust group T120 °C = Surface temperature (dust) Db / Dc = EPL (Equipment Protection Level), protection level
[8]	• Brake control • 2 free text cells
[9]	• Mounting position • Degree of protection according to IEC/EN 60034-5 • Thermal class • Number of phases and underlying rating and performance standards (IEC/EN 60034X and/or equivalent national standard) • Zone A = Section A from IEC/EN 60034-1
[10]	• Weight of (gear)motor • Ambient temperature • Thermal capacity utilization of the motor • Year of manufacture • Country of manufacture

Additional nameplate of EDRN.. motors for frequency inverter operation

The following figures show examples of additional nameplates for frequency inverter operation, regardless of certification:



27021636445849099



18014432679777547

Line	Information
[1]	• Manufacturer, address • Information in accordance with IEC 60079-0 for inverter operation
[2]	• Type designation
[3]	• Serial number (same number as on the main plate) • EU type examination certificate for frequency inverter operation (only for category 2) • ATEX/IECEx certificate number for frequency inverter operation
[4]	• System voltage – line voltage of the frequency inverter • Maximum permissible torque of the motor
[5]	• Connection type, together with the operating mode of the motor for inverter operation with VFC or VFCe operating data and maximum permitted peak current
[6]	• Maximum permitted cyclic duration factor of the brakemotor in the lower frequency range
[A] [B] [C] [D] [E]	The additional frequency inverter nameplate lists the thermal limit characteristic curve of the motor (points A to E) considering voltage and frequency. The minimum and maximum frequency can differ depending on the option.

1.2.2 Type designation

The following table shows an example of a type designation:

EDRN132S4/BE11/HR/FF/3GD/KCC/TF/EK8S/AL	
EDRN	Motor series
132	Motor size
S	Motor length
4	Number of poles
BE11	Brake with size specification
HR	Manual brake release
FF	Flange-mounted design
3GD	Explosion protection design
KCC	Connection alternative

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EDRN132S4/BE11/HR/FF/3GD/KCC/TF/EK8S/AL	
TF	Thermal motor protection
EK8S	Encoder
AL	Aluminum fan

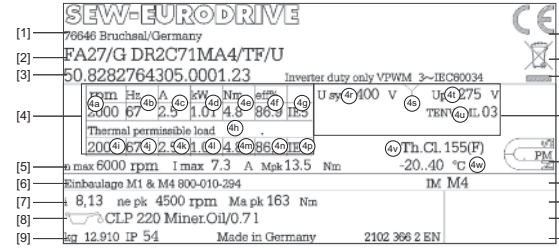
Designation of the motors

EDRN..	Explosion-protected AC motor that meets energy efficiency class IE3.
63 – 315	Sizes: 63, 71, 80, 90, 100, 112, 132, 160, 180, 200, 225, 250, 280, 315
S, MK, MS, M, ME, LS, LM, L, H	Lengths
4	Number of poles

1.3 DR2C..

1.3.1 Nameplate

The following figure shows the nameplate of a DR2C.. motor as an example:



18014437981332363

Line	Field	Information
1		• Manufacturer, address • CE mark; logos of other approvals
2		• Type designation • Other logos and approvals
3		• Serial number • Reference to inverter operation • Number of phases and underlying rated and performance standards
4		Electrical and mechanical data of the motor
	4a	Rated speed at operating point IE5
	4b	Rated frequency at operating point IE5
	4c	Rated current at operating point IE5
	4d	Rated power at operating point IE5
	4e	Rated torque at operating point IE5
	4f	Rated efficiency in accordance with IEC TS 60034-30-2 at operating point IE5
	4g	Energy efficiency class in accordance with IEC TS 60034-30-2 at operating point IE5
	4i	Rated speed at the thermally permitted operating point
	4j	Rated frequency at the thermally permitted operating point
	4k	Rated current at the thermally permitted operating point
	4l	Rated power at the thermally permitted operating point
	4m	Rated torque at the thermally permitted operating point
	4n	Rated efficiency in accordance with IEC TS 60034-30-2 at the thermally permitted operating point
	4p	IE class in accordance with IEC TS 60034-30-2 at the thermally permitted operating point
	4r	System voltage, output voltage of the supplying inverter
	4s	Connection type
	4t	Voltage at the open motor terminals at rated speed
	4u	Mounting location in accordance with UL

Line	Field	Information
	4v	Thermal class
	4w	Permitted ambient temperature range
5		• Maximum permitted motor speed • Short-term maximum permitted current • Short-term dynamic limit torque of the motor • Identification of permanent magnet motor
6		• Customer-specific free line • Mounting position
7		• Gear unit ratio • Maximum gear unit output speed • Maximum permitted output torque of the gear unit • Brake rectifier
8		• Lubricant • Lubricant quantity • Braking torque
9		• Total drive mass • Degree of protection in accordance with IEC 60034-5 • Country of manufacture • Brake voltage

1.3.2 Type designation

The following table shows an example of a type designation:

DR2C71MSAR4	
DR2C	Motor series
71	Motor size
MS	Motor length
A	Technology
R	Power label
4	Number of poles

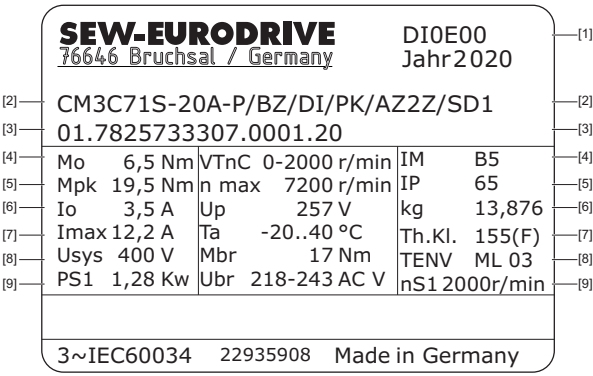
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1.4 CM3C motors

1.4.1 Nameplates

First nameplate

The following figure shows an example of the first nameplate of the motor:

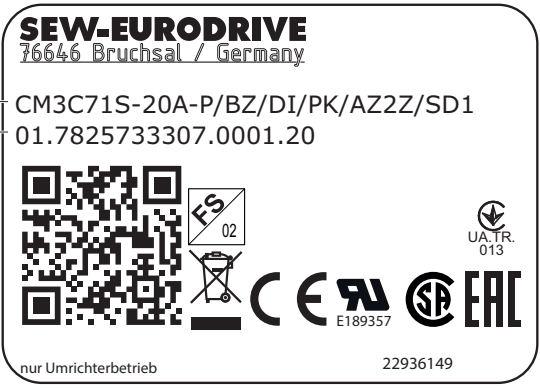


18014431285260171

Line	Specifications (from left to right)
[1]	• Type code of the MOVILINK® DDI interface
[2]	• Type designation
[3]	• Serial number
[4]	• Standstill torque • Variable torque • Speed class • Mounting position
[5]	• Dynamic limit torque of the motor • Maximum permitted speed • Degree of protection according to IEC 60034-5
[6]	• Standstill current • Voltage at the open terminals of the motor at rated speed • Mass
[7]	• Maximum permitted current • Permitted ambient temperature range • Thermal class
[8]	• System voltage, voltage of the supplying inverter • Nominal braking torque • TENV (Totally Enclosed Non-Ventilated) • Mounting location (plant code)
[9]	• Rated power continuous duty • Brake voltage • Rated speed continuous duty

Second nameplate

The following figure shows an example of the second nameplate of the motor:



9007232030522251

Line	Information
[1]	• Type designation
[2]	• Serial number

1.4.2 Type designation

The following table shows an example of a type designation:

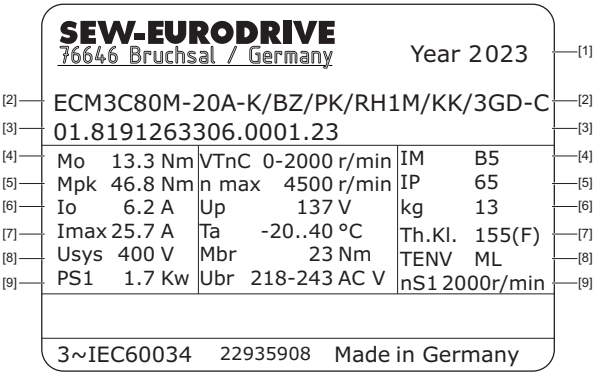
CM3C71S-20A-P/BZ/DI/PK/AZ2Z/SD1	
CM3C	Motor series
71	Motor size
S	Motor length
20	Speed class
A	System voltage
P	Shaft design
BZ	Brake
DI	DI = MOVILINK® DDI
PK	Temperature sensor
AZ2Z	Encoders
SD1	Connection variant

1.5 Explosion-protected CM3C motors (ATEX/IECEx)

1.5.1 Nameplates

First nameplate

The following figure shows an example of the first nameplate of the motor:



9007248470694155

Line	Information
[1]	• Year of manufacture
[2]	• Type designation
[3]	• Serial number
[4]	• Standstill torque • Variable torque • Speed class • Mounting position
[5]	• Dynamic limit torque of the motor • Maximum permitted speed • Degree of protection according to IEC 60034-5
[6]	• Standstill current • Voltage at the open terminals of the motor at rated speed • Mass
[7]	• Maximum permitted current • Permitted ambient temperature range • Thermal class
[8]	• System voltage, voltage of the supplying inverter • Nominal braking torque • TENV (Totally Enclosed Non-Ventilated) • Mounting location (plant code)
[9]	• Rated power continuous duty • Brake voltage • Rated speed continuous duty

Second nameplate

The following figure shows an example of the second nameplate of the motor:



9007248470696587

Line	Information
[2]	• Type designation
[3]	• Serial number

1.5.2 Type designation

The following table shows an example of a type designation:

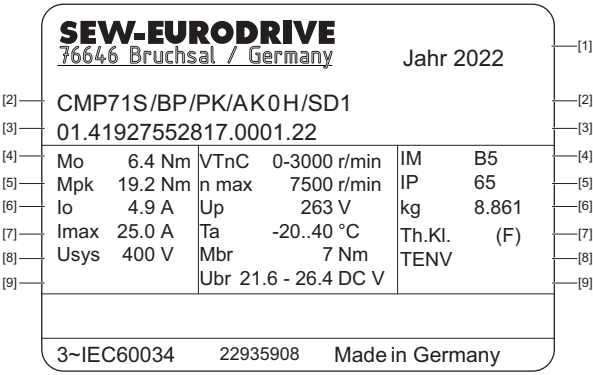
ECM3C80M-20A-K/BZ/PK/RH1M/KK/3GD-C	
ECM3C	Motor series
80	Motor size
M	Motor length
20	Speed class
A	System voltage
K	Shaft design
BZ	Brake
PK	Temperature sensor
RH1M	Encoder
KK	Connection variant
3GD-C	Explosion protection design

1.6 CMP motors

1.6.1 Nameplates

First nameplate

The following figure shows an example of the first nameplate of the motor:



43121998859

Line	Information
[1]	• Year of manufacture
[2]	• Type designation
[3]	• Serial number
[4]	• Standstill torque • Variable torque • Speed class • Mounting position
[5]	• Dynamic limit torque of the motor • Maximum permitted speed • Degree of protection according to IEC 60034-5
[6]	• Standstill current • Voltage at the open terminals of the motor at rated speed • Mass
[7]	• Maximum permitted current • Permitted ambient temperature range • Thermal class
[8]	• System voltage, voltage of the supplying inverter • Nominal braking torque • TENV (Totally Enclosed Non-Ventilated)
[9]	• Brake voltage

Second nameplate

The following figure shows an example of the second nameplate of the motor:



43122026891

Line	Information
[1]	• Type designation
[2]	• Serial number

1.6.2 Type designation

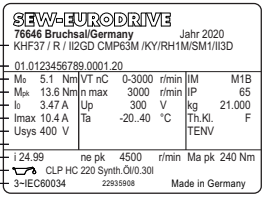
The following table shows an example of a type designation:

CMP71S/BP/DI/PK/AZ2Z/SD1	
CMP	Motor series
71	Motor size
S	Motor length
BP	Brake
DI	MOVILINK® DDI interface
PK	Temperature sensor
AZ2Z	Encoders
SD1	Connection variant

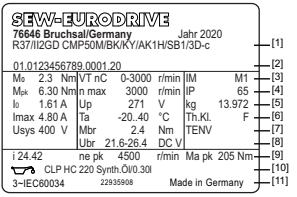
1.7 Explosion-protected CMP motors (ATEX/IECEx)

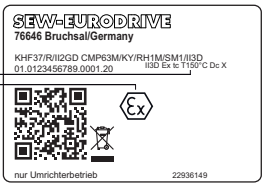
1.7.1 Nameplates

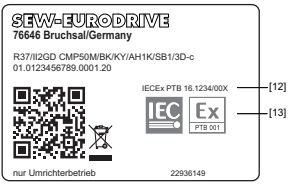
ATEX:



IECEx:







Line	Information
[1]	• Type designation
[2]	• Serial number
[3]	• Standstill torque • Variable torque • Mounting position
[4]	• Dynamic limit torque of the motor • Maximum permitted speed • Degree of protection according to IEC 60034-5
[5]	• Standstill current • Voltage at the open terminals of the motor at rated speed • Mass
[6]	• Maximum permitted current • Permitted ambient temperature range • Thermal class
[7]	• System voltage, voltage of the supplying inverter • Braking torque • TENV (Totally Enclosed Non-Ventilated)
[8]	• Brake voltage
[9]	• Gear ratio • Maximum permitted input speed for short-time duty • Maximum permitted torque in short-time duty
[10]	• Oil type and oil fill volume

Line	Information
[11]	• Number of phases and underlying rating and performance standards (EN/IEC 60034-X and/or equivalent national standard) • Part number nameplate • Country of manufacture
[12]	• ATEX explosion protection mark The marks on the top edge of the nameplate are only present when the motor has been certified accordingly or when it includes the relevant components.

1.7.2 Type designation

The following table shows an example of a type designation:

CMP50S/BP/KY/RH1M/SB1/II3GD	
CMP	Motor series
50	Motor size
S	Motor length
BPY	Holding brake
KY	Temperature sensor
RH1M	Encoder
SM1	Connection variant
II3GD	Explosion protection design

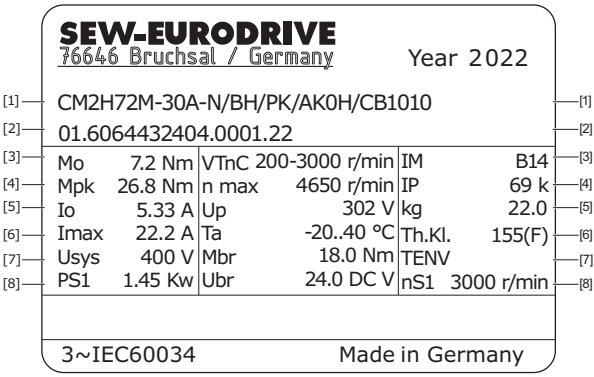
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1.8 CM2H.. stainless steel servomotors

1.8.1 Nameplates

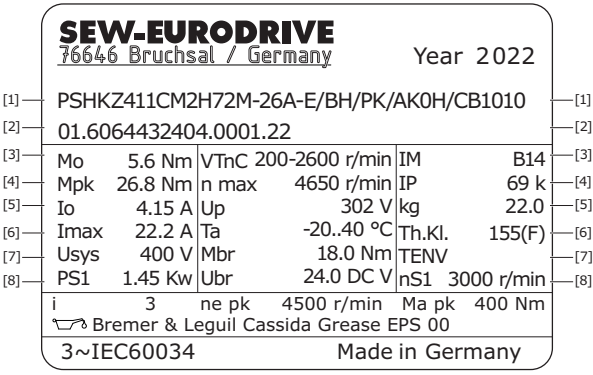
First nameplate

The following figure shows the first nameplate of a CM2H.. motor:



36013359883

The following figure shows the first nameplate of a CM2H.. gearmotor:



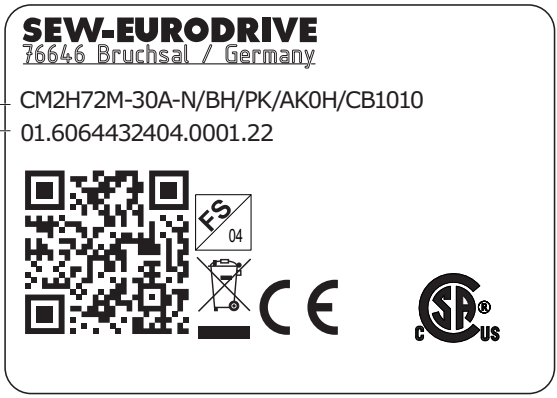
9007235487976459

Line	Information
[1]	• Type designation
[2]	• Serial number
[3]	• Standstill torque • Variable torque • Speed class • Mounting position
[4]	• Dynamic limit torque of the motor • Maximum permitted speed of the servomotor • Degree of protection according to IEC 60034-5

Line	Information
[5]	• Standstill current • Voltage at the open terminals of the motor at rated speed • Mass
[6]	• Maximum permitted current • Permitted ambient temperature range • Thermal class
[7]	• System voltage, voltage of the supplying inverter • Braking torque • TENV (Totally Enclosed Non-Ventilated)
[8]	• Rated power continuous duty • Brake voltage • Rated speed continuous duty

Second nameplate

The following figure shows the second nameplate of a CM2H.. motor:



51849565323

The following figure shows the second nameplate of a CM2H.. gearmotor:



51849511819

Line	Information
[1]	• Type designation
[2]	• Serial number

1.8.2 Type designation

The following table shows an example of a type designation:

PSHKZ411CM2H72M-30A-E/BH/PK/AK0H/CB1010	
PSH	Gear unit series
KZ	Shaft design
411	Gear unit size
CM2H	Motor series
72	Motor size
M	Motor length
30	Speed class
A	System voltage
E	Shaft with push-in pinion
BH	Brake
PK	Temperature sensor
AK0H	Encoder
CB1010	Connection variant

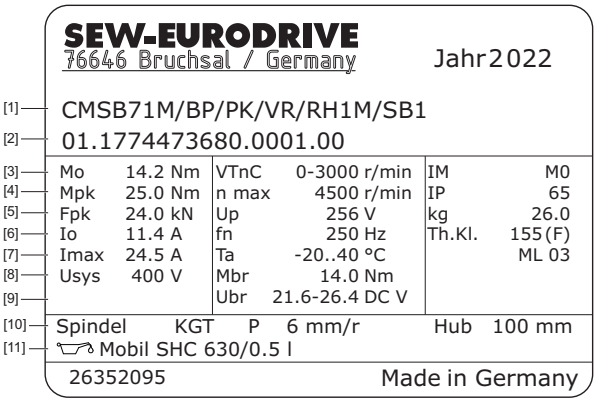
1.9 CMS../CMSM.. electric cylinder

1.9.1 CMS..

Nameplates

First nameplate

The following figure shows an example of the first nameplate of the electric cylinder:



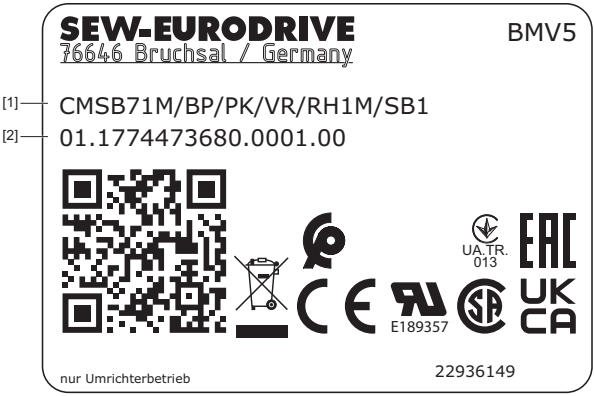
38263940235

Line	Information
[1]	• Type designation
[2]	• Serial number
[3]	• Standstill torque • Variable torque • Rated speed • Mounting position
[4]	• Dynamic limit torque of the motor • Maximum permitted speed • Degree of protection according to IEC 60034-5
[5]	• Peak feed force • Voltage at the open terminals of the motor at rated speed • Mass
[6]	• Standstill current • Rated frequency • Thermal class
[7]	• Maximum permitted current • Permitted ambient temperature range • Mounting location (plant code)
[8]	• System voltage, voltage of the supplying inverter • Braking torque
[9]	• Brake voltage

Line	Information
[10]	• Spindle type • Spindle pitch • Stroke
[11]	• Lubricant and lubricant quantity

Second nameplate

The following figure shows an example of the second nameplate of the electric cylinder:



38263942667

Line	Information
[1]	• Type designation
[2]	• Serial number

Type designation

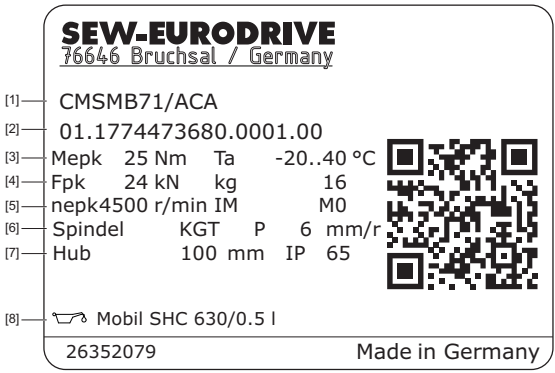
The following table shows an example of a type designation:

CMSB71M/BP/PK/VR/RH1M/SB1	
CMS	Electric cylinder
B	Bath lubrication
71	Motor size
M	Motor length
BP	Brake
PK	Temperature sensor
VR	Forced cooling fan
RH1M	Encoder
SB1	Connection variant

1.9.2 CMSM..

Nameplate

The following figure shows an example of the nameplate of the electric cylinder:



38263945099

Line	Information
[1]	• Type designation
[2]	• Serial number
[3]	• Maximum permitted input torque • Permitted ambient temperature range
[4]	• Peak feed force • Mass
[5]	• Maximum input speed • Mounting position
[6]	• Spindle type • Spindle pitch
[7]	• Stroke
[8]	• Lubricant and lubricant quantity

Type designation

The following table shows an example of a type designation:

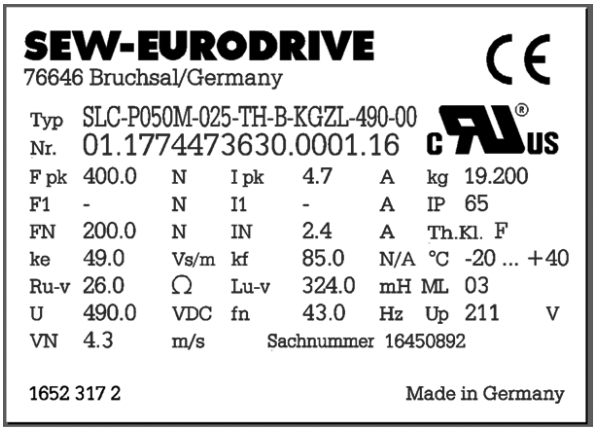
CMSMB63/ACA	
CMSM	Motor series
B	Bath lubrication
63	Motor size
ACA	Motor with key

Stroke length:

- **CMSMB50**: 70, 100, 150, 200, 300, 400, 600
- **CMSMB63**: 60, 100, 160, 180, 200, 400, 600
- **CMSMB71**: 100, 160, 200, 400, 600, 800, 1000, 1200

1.10 SLC.. synchronous linear motors

1.10.1 Nameplate



9007215087931531

Type	= Type code
No.	= Customer order number
F_{pk}	= Maximum force
F_N	= Rated data
k_e	= Voltage
R_{u-v}	= Winding resistance[1)]
V	= Voltage
v_N	= Nominal speed
I_{PK}	= Maximum current
I_N	= Rated current
k_f	= Force factor
L_{U-V}	= Inductance[1)]
f_N	= Rated frequency
kg	= Weight of the linear motor
IP	= Degree of protection
Th.cl.	= Thermal class of the linear motor
°C	= Ambient temperature range
ML	= Mounting location (UL)
V_p	= Internal voltage at v_N

1) Half the conductor value (UV value) is used for startup.

1.10.2 Type designation

The following table shows an example of a type designation:

Primary

SLC-P050M-025-TH-B-KGZL-490-00	
SLC	Motor series
P	Component designation
050	Active width of the primary
M	Length of the primary
025	Speed class
TH	Motor protection
B	Motor design
KGZL	Electrical connection
490	DC link voltage
00	Design

Secondary

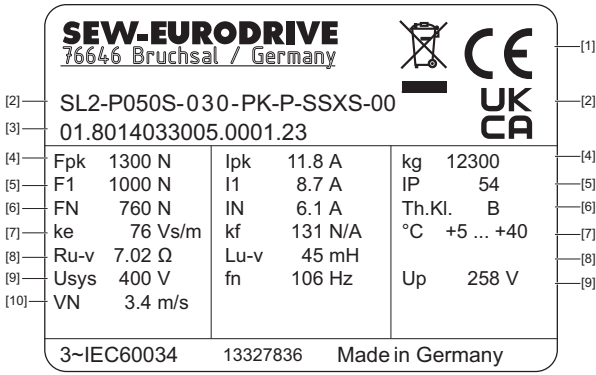
SLC-S050-200-01	
SLC	Motor series
S	Component designation
050	Active magnet width of the secondary
200	Length of the secondary
01	Design

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1.11 SL2.. synchronous linear servomotors

1.11.1 Nameplate

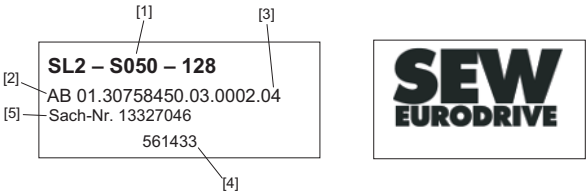
The following figure shows an example of the nameplate of the SL2 linear motor:



43841569291

Line	Information
[1]	• Mark
[2]	• Type designation • Mark
[3]	• Serial number
[4]	• Peak feed force • Maximum permitted current • Mass
[5]	• Maximum permitted force available up to V_1 • Maximum permitted current at F_1 • Degree of protection according to IEC 60034-5
[6]	• Rated force • Rated current • Thermal class
[7]	• Voltage constant • Force factor • Permitted ambient temperature range
[8]	• Winding resistance • IE class
[9]	• DC link voltage • Rated frequency • Internal voltage
[10]	• Rated speed

Label of the secondary



[1] Type code
[2] Serial number
[3] Year of manufacture
[4] Production number
[5] Part number

1.11.2 Type designation

The following table shows an example of a type designation:

SL2-P050S-030-PK-P-SSXS-00	
SL2	Motor series
P	Primary section
050	Motor size
S	Motor length
030	Speed class
PK	Temperature sensor
P	Motor design
SSXS	Connection variant
00	Design

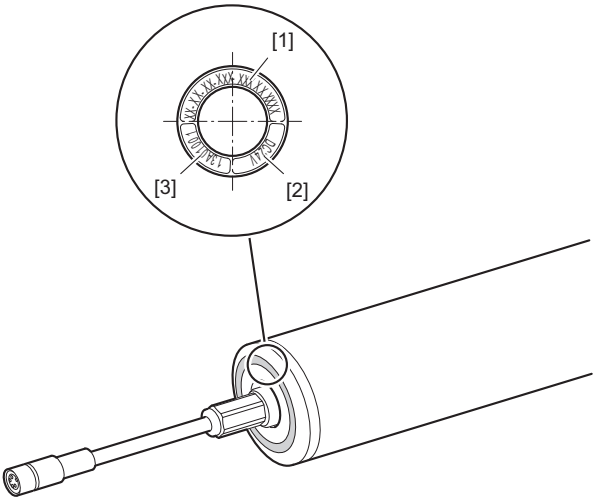
Linear encoders

Example: AL2H			
Encoder type	A	• A = Absolute encoder	
Linear encoder	L	• L = Linear encoder	
Encoder variant	2	• 1 = L230 • 2 = TTK70	• 3 = STL70
Encoder interface	H	• H = HIPERFACE® • Y = SSI	

1.12 Drive system for ECDrives for roller conveyors

1.12.1 Nameplate and type designation of ECR roller drive

Nameplate



19516478219

[1] Type designation, e.g.: ECR-A2M-50-450-045-Z-B-V0
[2] Voltage
[3] Serial number

Type designation

Example: ECR-A2M-50-450-045-Z-A-V1		
Product family	EC	EC = ECDriveS® device family
Product type	R	R = Roller
	–	
Device variant		• Without identifier = external commutation electronics • H = Holding roller (24 V holding brake without motor) • I = Integrated electronics
Design	A	• A = IP54 degree of protection (standard) • W = IP66 degree of protection (wet area application) • Z = Operation up to -30 °C (deep-freeze application)
Voltage	2	• 2 = 24 V • 4 = 48 V

Example: ECR-A2M-50-450-045-Z-A-V1		
Motor connection	M	• M = Motor cable M8, 1000 mm for design A + H: 4-pin, 1000 mm cable for design I: 5-pin, 500 mm cable • J = Motor cable JST connector 9-pin, 500 mm
	–	
Optional brake		• without identifier = standard • B = Brakemotor (integrated 24 V holding brake)
Roller diameter	50	• 50 = 50 mm • 48 = 48.6 mm[1)]
	–	
Length between frames (BF)	450	Length between frames (BF) in mm
	–	
Speed class	045	Speed in m/min • 008 = 1.1 – 10.1 m/min^{-1} • 015 = 2.0 – 20.3 m/min^{-1} • 020 = 2.7 – 27.7 m/min^{-1} • 025 = 3.4 – 33.8 m/min^{-1} • 035 = 4.9 – 49.9 m/min^{-1} • 045 = 6.0 – 60.8 m/min^{-1} • 060 = 8.2 – 83.1 m/min^{-1} • 075 = 10.1 – 101.4 m/min^{-1} • 095 = 13.3 – 133.8 m/min^{-1} • 125 = 18.1 – 182.5 m/min^{-1} • 175 = 24.7 – 249.3 m/min^{-1} • 215 = 30.2 – 304.1 m/min^{-1} • 018 = 1.8 – 24.6 m/min^{-1} (only for 48 V) • 028 = 3.0 – 33.6 m/min^{-1} (only for 48 V) • 038 = 4.8 – 60.0 m/min^{-1} (only for 48 V) • 048 = 6.0 – 73.2 m/min^{-1} (only for 48 V) • 068 = 8.4 – 100.2 m/min^{-1} (only for 48 V)
	–	

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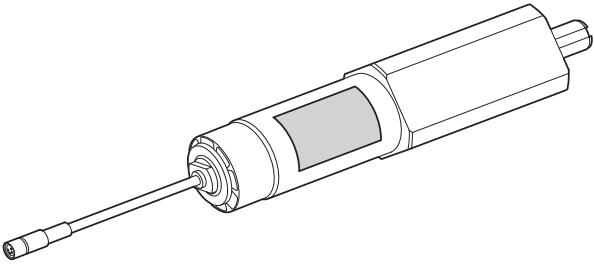
Example: ECR-A2M-50-450-045-Z-A-V1		
Tube options	Z	• Z = Galvanized steel (standard) • J = Stainless design • U = PU coating 2 mm (3 mm for 1.9 inch rollers) • P = PVC hose 2 mm • K = Cone 1.8° on galvanized steel tube • C = Cone 1.8° on steel in stainless steel design • D = PVC hose on steel in stainless steel design • E = PU hose 2 mm on steel in stainless steel design (3 mm for 1.9 inch rollers) • O = Kastalon hose, orange 3 mm (only available in USA with 1.9 inch) • B = Rubber, black 3 mm (only available in USA with 1.9 inch) • X = Special design
	–	
Axis option	A	• A = Cable side: M12 × 1.25 on 11 mm hexagon Opposite side: M8 female thread • B = Cable side: M12 × 1.25 on 11 mm hexagon Opposite side: smooth 11 mm hexagon spring axis • C = Cable side: smooth 11 mm hexagon spring axis Opposite side: M8 female thread • D = Cable side: smooth 11 mm hexagon spring axis Opposite side: smooth 11 mm hexagon spring axis
	–	

Example: ECR-A2M-50-450-045-Z-A-V1		
Transmission heads	V1	• A0 = Smooth tube without groove or drive head • V1 = Drive head for Poly-V belt in shape PJ according to ISO 9982/DIN 7867 • G0 = Tube with groove head • G1 = Grooved tube with groove position 50/80 • GX = Grooved tube with special groove position

1) Only available in the USA (1.9 inch).

1.12.2 Nameplate and type designation of ECG gearmotor

Nameplate



19516434699

Type designation

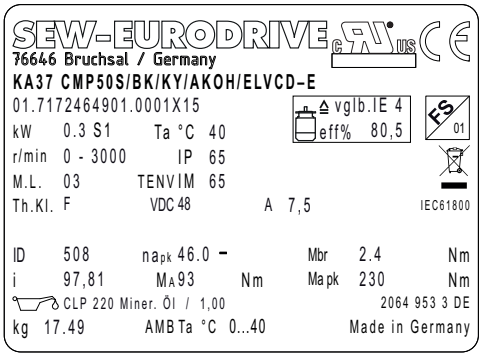
Example: ECG-A2M-67-A-K0		
Product family	EC	EC = ECDriveS® device family
Product type	G	G = Gearmotor
	–	
Device variant		• Without mark = External commutation electronics • I = Integrated electronics
Design	A	• A = Degree of protection IP54 (standard)
Voltage	2	• 2 = 24 V • 4 = 48 V
Motor options	M	M8 plug connector
	–	
Gear unit ratio	67	Gear ratio i: • 67 • 45 • 33 • 27 • 18 • 15 • 11 • 9
	–	
Design	A	A = Standard mounting 4 × M5×7
	–	
Output shaft	K0	K0 = Key
	X	X = Special design

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1.13 CMP ELVCD extra-low voltage drives

1.13.1 Nameplate

The nameplate lists information about the device type. The following figure shows an example of a nameplate:



18014419438701195

[1] ID number of ELVCD drive
[2] Ambient temperature
[3] FS logo

1.13.2 Type designation

The following table shows an example of a type designation:

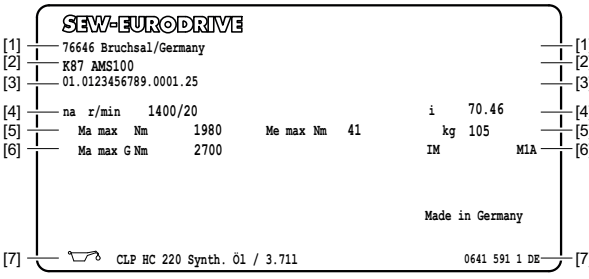
KA37CMP50S/BK/KY/AK0H/ELVCD-EC-C	
KA	Gear unit type
37	Gear unit size
CMP	Motor series
50	Motor size
S	Motor length
BK	Brake
KY	Temperature sensor
AK0H	Encoder
ELVCD-EC-C	Drive design

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2 Gear units

2.1 Standard gear units R, F, K, S, W

2.1.1 Nameplate 1



63050415465234059

Line	Information
[1]	• Manufacturer, address
[2]	• Type designation
[3]	• Serial number
[4]	• Input speed / output speed • Gear ratio
[5]	• Maximum permitted output torque of the gear unit / adapter combination • Maximum permitted input torque • Mass
[6]	• Maximum permitted output torque of the open gear unit without additional component • Mounting position
[7]	• Oil type and oil fill volume

Explanation of the production number:

01.	0123456789.	0001.	25
Sales organization	Order number	Item number	Year of manufacture

2.1.2 Type designation

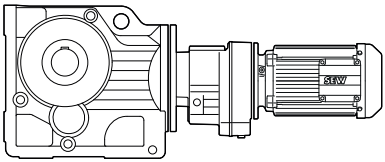
The following table shows an example of a type designation:

K37/R AQSA 80 /1	
K	Gear unit type
37	Gear unit size
R	Gear unit option
AQSA	Adapter type
80	Adapter size
1	Variants

2.1.3 Type designation of a DRN.. compound gearmotor

The following table shows an example of a type designation:

K107R77 DRN100LS4 /TF	
K	Gear unit design
107	Gear unit size
R	Gear unit design
77	Gear unit size
DRN	Motor series
100	Motor size
LS	Motor length
4	Number of poles
TF	Thermal motor protection



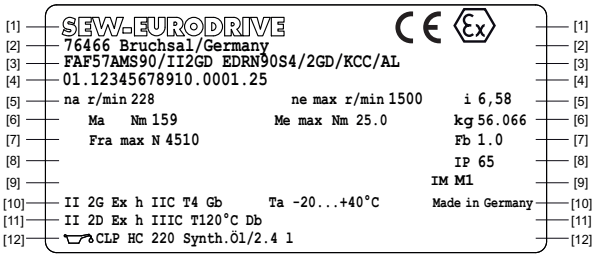
K107 R77 DRN100LS4/TF

53456542347

2.2 Explosion-protected standard gear units R, F, K, S, W (ATEX)

2.2.1 Nameplate

The following figure shows an example of the nameplate of an explosion-protected gearmotor. The Ex mark [1] depends on the country-specific certification of the gearmotor. For a description of the nameplate and the declarations of conformity for the ordered certificate, refer to the additional document enclosed with the operating instructions.



[1] Company name and country-specific Ex mark
[2] Address
[3] Type designation of the gear unit, type designation of the motor
[4] Serial number
[5] Output speed, maximum input speed, gear ratio
[6] Output torque, maximum input torque, weight
[7] Maximum overhung load acting on the output shaft, service factor
[8] Degree of protection
[9] Mounting position
[10] Indicates gas explosion protection, ambient temperature, country of manufacture
[11] Indicates dust explosion protection
[12] Oil type, oil quantity

For explosion-protected gearmotors, the nameplates of the motor and gear unit must be compared. When you compare the values (e.g. dust or ambient temperature) on the nameplates, the least common multiple determines the overall unit of motor and gear unit.

The gear unit designs and options are described in chapter "Type designation".

2.2.2 Type designation

The following table shows an example of a type designation:

KF87/II2GD	
K	Gear unit type
F	Flange-mounted design
87	Gear unit size
II2GD	Explosion protection design

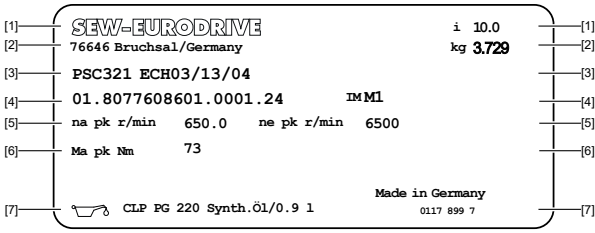
For a detailed overview of type designations and additional information, refer to the following documents:

- "Explosion-protected gearmotors" catalog
- "Explosion-protected AC motors" catalog

2.3 PS.F, PS.C planetary servo gear units

2.3.1 Nameplates for PS.C.. with ECH.. adapter

The following figure shows an example of the first nameplate for a planetary gear unit PSC.. with adapter ECH:



27021626777966859

Line	Information
[1]	• Manufacturer • Gear ratio
[2]	• Address • Weight
[3]	• Type designation
[4]	• Serial number • Mounting position
[5]	• Maximum permitted output speed for short-time duty • Maximum permitted input speed for short-time duty
[6]	• Maximum permitted output torque of the gear unit/adapter combination for short-time duty
[7]	• Oil type and oil fill volume

The following figure shows an example of the second nameplate:



54043229167531275



Product label with QR code. The QR code on the product can be scanned. You will be redirected to the digital services of SEW-EURODRIVE. There, you have access to product-specific data, documents, and further services.

The product manual of the device with further information is available in the "Documentation" > "Data and documents" area.

2.3.2 Type designation for PS.F.. with EPH.. adapter

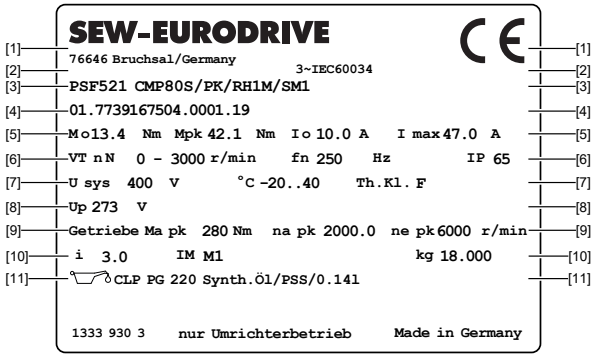
The following table shows an example of a type designation:

PS.F721 EPH05/14/13	
PS.F	Gear unit type
721	Gear unit size
EPH	Adapter type
05	Performance class key figure
14	Code for flange geometry
13	Coupling bore key figure

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2.3.3 Nameplate of directly mounted PS.F..

The figure shows an example for the nameplate of a PS.F.. planetary gear unit with directly mounted servomotor:



Line	Information
[1]	• Manufacturer, address • CE label
[2]	• Number of phases and underlying rating and performance standards (EN/IEC 60034-X and/or equivalent national standard)
[3]	• Type designation
[4]	• Serial number
[5]	• Standstill torque • Maximum permitted torque in short-time duty • Standstill current • Maximum permitted current
[6]	• Rated speed • Rated frequency • Degree of protection according to IEC 60034-5
[7]	• System voltage still to be clarified • Permitted ambient temperature range • Thermal class
[8]	• U_p still to be clarified
[9]	• Maximum permitted output torque for short-time duty • Maximum permitted output speed for short-time duty • Maximum permitted input speed for short-time duty
[10]	• Gear ratio • Mounting position • Weight
[11]	• Oil type and oil fill volume

2.3.4 Type designation of PS.F.. with directly mounted CMP.. motor

The following table shows an example of a type designation:

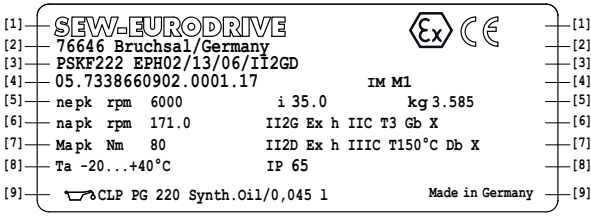
PS.F521 CMP80S /PK /RH1M /SM1	
PS.F	Gear unit type
521	Gear unit size
CMP	Motor series
80	Motor size
S	Motor length
PK	Temperature sensor
RH1M	Encoder
SM1	Connector for M23 motor

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2.4 Explosion-protected PS.F, PS.C planetary servo gear units (ATEX)

2.4.1 Nameplate of PS.F.. with EPH.. adapter

The following figure shows an example of a nameplate for a PS.F.. planetary gear unit with EPH.. adapter:

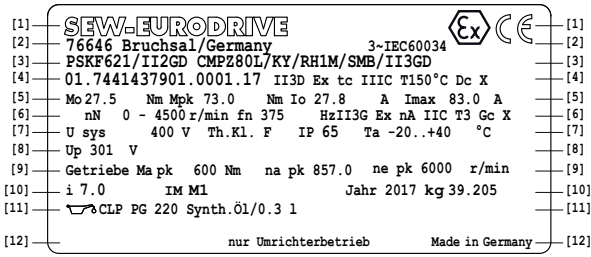


22159391115

[1] Company name, ATEX marking, CE marking
[2] Address
[3] Type designation of the gear unit
[4] Serial number, mounting position
[5] Maximum input speed, gear ratio, mass
[6] Maximum output speed, gas explosion protection marking
[7] Maximum output torque, dust explosion protection marking
[8] Ambient temperature, IP degree of protection
[9] Oil type, oil quantity, country of manufacture

2.4.2 Nameplate of directly mounted PS.F..

The following figure shows an example of a nameplate for a directly mounted PS.F.. planetary gear unit:



9007202567379851

[1] Company name, ATEX marking, CE marking
[2] Address, standard
[3] Type designation gearmotor
[4] Serial number, gas explosion protection marking
[5] Rated torque, maximum limit torque, rated current, maximum permitted current
[6] Rated speed, maximum permitted frequency, dust explosion protection marking
[7] Maximum voltage, thermal class, IP degree of protection, ambient temperature
[8] Rotor voltage
[9] Maximum input torque, maximum input speed
[10] Gear ratio, mounting position, manufacturing year, mass
[11] Oil type, oil quantity
[12] Operating mode, country of manufacture

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2.4.3 Type designation

The following table shows an example of a type designation:

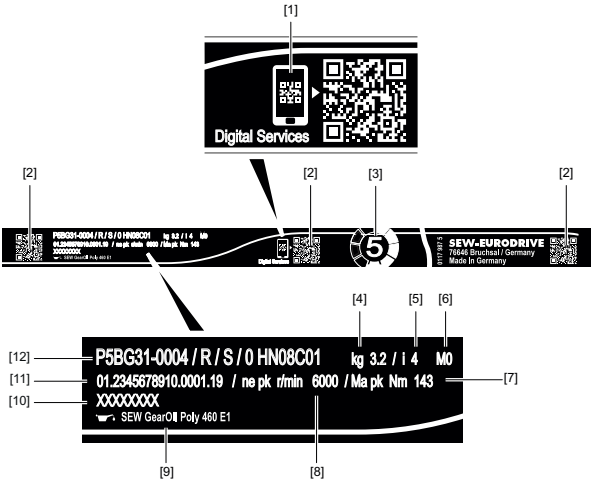
PSKF121/II2GD CMP40M/KY/RH1M/SM/II3GD	
PS.F	Gear unit type
121	Gear unit size
II2GD	Explosion protection design
CMP	Motor series
40	Motor size
M	Motor length
KY	Temperature sensor
RH1M	Encoder
SM	Motor connector
II3GD	Explosion protection design

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2.5 PxG planetary servo gear units

2.5.1 Nameplate

The following figure shows an example of the nameplate for the gear unit:



37201598091

	Information
[1]	• Digital Services
[2]	• Data matrix code
[3]	• Performance class
[4]	• Weight
[5]	• Gear ratio
[6]	• Mounting position
[7]	• Peak torque, output end
[8]	• Peak speed, input end
[9]	• Lubricant
[10]	• Customer-specific designation (optional)
[11]	• Serial number
[12]	• Type designation

2.5.2 Type designation

Example 1: P5BG31-0004/R/S/0 HN08C01 Example 2: P5BG31-0004/R/S/0 MD071A		
P	Gear unit type	Servo gear unit
5	Performance class	Dynamics
B	Output design	Flange block shaft (without index hole)
G	Gear unit design	Planetary gear units
3	Size	Size 3
1	Number of stages	1-stage
0004	Gear ratio	i = 4
R	Rotational clearance	R: Reduced
S	Lubricant	Standard lubricant – oil
0	Design	0: Standard
Example 1:		
H.	Adapter type	Smooth shaft
.N	Adapter design	Rigid shaft, clamp-force-optimized
08C01	Adapter key	08: Size of adapter shaft and flange – 08 C: With coupling sleeve C 01: Flange code number
Example 2:		
MD	Adapter type	MD compact mounting
071	CM3C.. motor size	Size 71
A	Version	Version A

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2.6 BS.F helical-bevel servo gear units

Designation	Description
BSF..	Solid shaft without key (smooth)
BSKF..	Solid shaft with key
BSBF..	Solid shaft with flange block shaft
BSHF..	Hollow shaft with shrink disk
BSAF..	Hollow shaft with keyway
BSF..B	Solid shaft without key (smooth) and foot/front-end mounting
BSKF..B	Solid shaft with key and foot/front-end mounting
BSBF..B	Solid shaft with flange block shaft and foot/front-end mounting
BSHF..B	Hollow shaft with shrink disk and foot/front-end mounting
BSAF..B	Hollow shaft with keyway and foot/front-end mounting

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2.7 BS.F explosion-protected helical-bevel servo gear units (ATEX)

2.7.1 Type designation

The following table shows an example of a type designation:

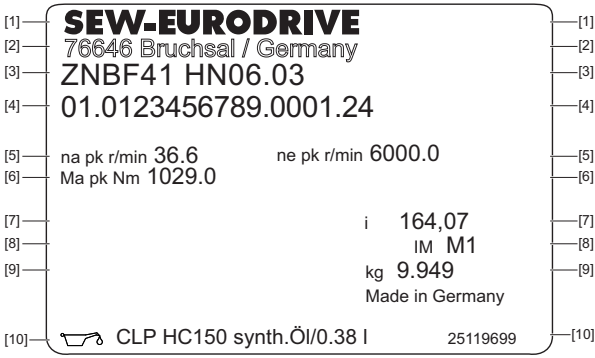
BSF502/R/EBH07/21/13/II2GD	
BS.F	Gear unit type
502	Gear unit size
R	Rotational clearance
EBH	Adapter type
07	Performance class key figure
12	Coupling bore key figure
II2GD	Explosion protection design

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2.8 ZN servo gear units (cycloidal gear units)

2.8.1 Nameplate

The nameplate of the ZN.. cycloidal servo gear unit is always attached to the gear unit. The following figure shows an example for the nameplate of a ZN.. cycloidal servo gear unit:



44548843915

Line	Information
[1]	• Manufacturer
[2]	• Address
[3]	• Type designation
[4]	• Serial number
[5]	• Peak speed output in short-time duty • Peak speed input in short-time duty
[6]	• Peak torque output in short-time duty
[7]	• Gear ratio
[8]	• Mounting position
[9]	• Weight
[10]	• Oil type and oil fill volume

Product label



54043229167531275

	Product label with QR code. The QR code on the product can be scanned. You will be redirected to the digital services of SEW-EURODRIVE. There, you have access to product-specific data, documents, and further services. **The product manual of the device with further information is available in the "Documentation" > "Data and documents" area.**

2.8.2 Type designation

The following table shows an example of a type designation:

Example 1:

ZNBF31 HN14C01	
Z	Gear unit type
N	Gear unit series
B	Shaft design
F	Gear unit design
31	Gear unit size
H.	Adapter type
.N	Adapter design
14C01	Adapter key

Example 2:

ZNBF31 MD063A	
Z	Gear unit type
N	Gear unit series
B	Shaft design
F	Gear unit design
31	Gear unit size
MD	Adapter type
063	CM3C.. motor size
A	Version

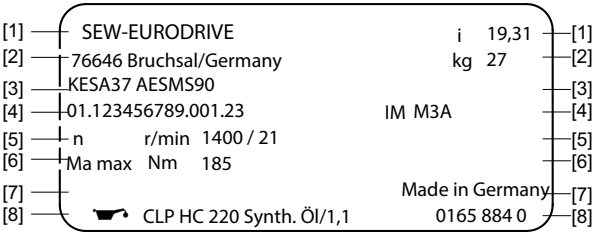
2.9 RES, KES stainless steel gear units

2.9.1 Nameplate

Due to the hygienic design, the nameplate is located inside the adapter.

In general 2 nameplates are included in the delivery. The second nameplate is intended to be additionally attached to the machine by the customer.

The following figure shows an example of a nameplate for helical-bevel gear units in stainless steel design:



18014400799257995

Line	Information
[1]	• Manufacturer • Gear unit ratio
[2]	• Address • Weight
[3]	• Type designation
[4]	• Production number • Specification of the mounting position
[5]	• Maximum permitted input speed
[6]	• Maximum permitted output torque
[7]	• Country of manufacture
[8]	• Oil type and oil fill volume • Nameplate number

2.9.2 Type designation

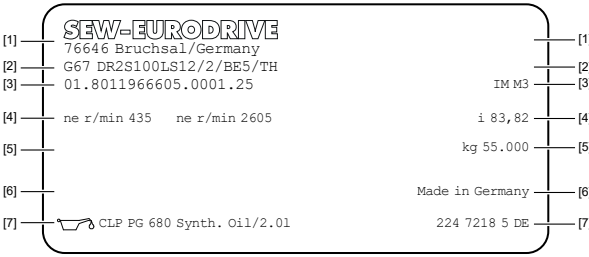
The following table shows an example of a type designation:

KESF37AESMS 63	
K	Gear unit type
ES	Gear unit design
37	Gear unit size
AESMS	Adapter type
63	Adapter size

2.10 G.7 hoist gear units

2.10.1 Gear unit nameplate – G..7 DR2S.. (12/2-pole)

The following figure shows the English nameplate as an example:

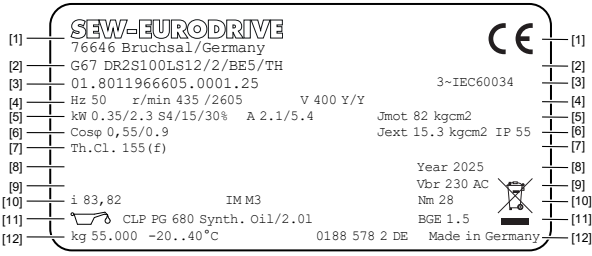


9007238855312139

Line	Information
[1]	• Manufacturer, address
[2]	• Type designation
[3]	• Serial number • Mounting position
[4]	• Input speed for high number of poles • Input speed for low number of poles • Gear unit ratio
[5]	• Gearmotor weight
[6]	• Country of manufacture
[7]	• Oil type and oil fill volume • Nameplate number

2.10.2 Motor nameplate – G..7 DR2S.. (12/2-pole)

The following figure shows the English nameplate as an example:

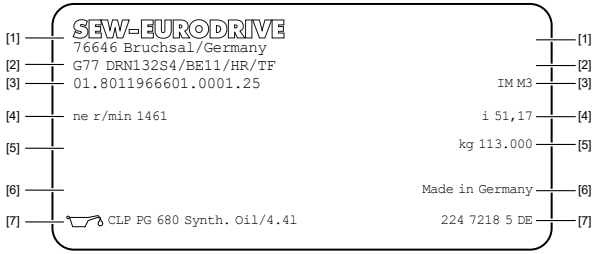


9007238855465867

Line	Information
[1]	• Manufacturer, address, CE mark
[2]	• Type designation
[3]	• Serial number • Degree of protection according to IEC 60034
[4]	• Rated frequency • Rated speed of the motor for high or low number of poles • Nominal voltage
[5]	• Rated power and operating mode • Rated current • Mass moment of inertia of the motor
[6]	• Power factor • Mass moment of inertia (extern) reduced to the motor shaft • Degree of protection according to IEC/EN 60034-5
[7]	• Thermal class
[8]	• Year of manufacture
[9]	• Brake voltage • Waste disposal according to WEEE Directive
[10]	• Gear unit ratio • Mounting position • Nominal braking torque
[11]	• Oil type and oil fill volume • Brake control
[12]	• Gearmotor weight • Permitted ambient temperature range of the motor • Nameplate number • Country of manufacture

2.10.3 Gear unit nameplate – – G..7 DRN.. (4-pole)

The following figure shows the English nameplate as an example:

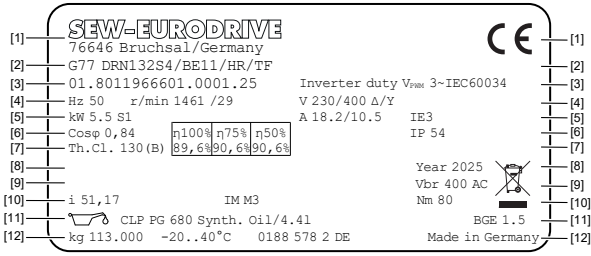


9007238865645067

Line	Information
[1]	• Manufacturer, address
[2]	• Type designation
[3]	• Serial number • Mounting position
[4]	• Input speed • Gear unit ratio
[5]	• Gearmotor weight
[6]	• Country of manufacture
[7]	• Oil type and oil fill volume • Nameplate number

2.10.4 Motor nameplate – G..7 DRN.. (4-pole)

The following figure shows the English nameplate as an example:



9007238865900171

Line	Information
[1]	• Manufacturer, address, CE mark
[2]	• Type designation
[3]	• Serial number • Suitable for inverters, standard specification
[4]	• Rated frequency • Rated speed of the motor / speed of the gear unit output shaft • Nominal voltage
[5]	• Rated power and operating mode • Rated current • IE class for motors included in the validity of the IEC 60034-30-1 standard
[6]	• Power factor • Efficiency at X% of the rated power • Degree of protection according to IEC/EN 60034-5
[7]	• Thermal class
[8]	• Year of manufacture • Waste disposal according to WEEE Directive
[9]	• Brake voltage
[10]	• Gear unit ratio • Mounting position • Nominal braking torque
[11]	• Oil type and oil fill volume • Brake control
[12]	• Gearmotor weight • Permitted ambient temperature range of the motor • Nameplate number • Country of manufacture

2.10.5 Type designation

The following table shows an example of a type designation:

G77 DRN112M4/BE5HR/TF	
G	Gear unit type
77	Gear unit size
DRN	Motor series
112	Motor size
M	Motor length
4	Number of poles
BE5	Brake with size specification
HR	Manual brake release
TF	Motor protection

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