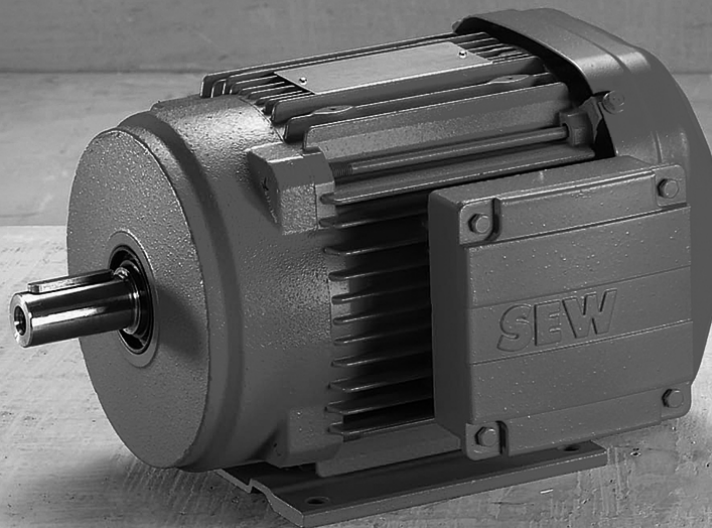




Addendum to the Operating Instructions



Explosion-Protected AC Motors

EDR..71 – 315, EDRN63 – 315

IECEx

Appendix EDRN63 – 315 Motors with CCC Certificate

3.7.x CCC Mark / GB/T

The following figure shows an example of a motor nameplate

[1]	SEW-EURODRIVE	三相异步电动机	[1]
	76646 Bruchsal / Germany		
[2]	EDRN90L4/FF/2GD-b/KCC/TF/ES7S/AL		[2]
[3]	01.13233948.01.0001.20	eff % 85,6 IE3	[3]
[4]	Hz 50 r/min 1461	V 220Δ/380Y	[4]
[5]	kW 1.5 S1	A 6.50/3.80 cosφ 0,74	[5]
[6]	○ 生产厂 SEW USOCOME SAS / Mommenheim 67670	○	[6]
[7]	防爆标志 Ex eb IIC T3 Gb	Ex tb IIIC T120°C Db	[7]
[8]	防爆合格证编号 GYJ20.1162X	制造商 SEW-EURODRIVE GmbH & Co KG	[8]
[9]			[9]
[10]			[10]
[11]	IM B5	绝缘等级155(F) IP 65 3~IEC60034-1 区域A	[11]
[12]	kg 23.000	Ta -20...40 °C UTIL 130(B) 2020年 21021562CN 法国制造	[12]

When using the motor as a gearmotor, the type designation of the gear unit is placed in front of the type designation of the motor

[1]	SEW-EURODRIVE	三相异步电动机	[1]
	76646 Bruchsal / Germany		
[2]	K57 EDRN90L4/BE5/3GD-c/KCC/TF/ES7S/AL		[2]
[3]	01.13233948.01.0001.20	eff % 85,6 IE3	[3]
[4]	Hz 50 r/min 1461/41	V 220Δ/380Y	[4]
[5]	kW 1.5 S1	A 6.20/3.55 cosφ 0,74	[5]
[6]	○ 生产厂 SEW USOCOME SAS / Mommenheim 67670	○	[6]
[7]	防爆标志 Ex ec IIC T3 Gc	Ex tc IIIB T120°C Dc	[7]
[8]	防爆合格证编号 GYJ20.1162X	制造商 SEW-EURODRIVE GmbH & Co KG	[8]
[9]	制动器 Vbr220V AC Ihac 0,245 Nm 20	BME1.5	[9]
[10]			[10]
[11]	IM M1A	绝缘等级155(F) IP 65 3~IEC60034-1 区域A	[11]
[12]	kg 56.000	Ta -20...40 °C UTIL 155(F) 2020年 21021562CN 法国制造	[12]

	描述	Description
1	制造商，地址	Manufacturer, address of sales organization
	CCC 和批准机构标记	CCC and approval authority marking
	三相异步电动机	Three phase asynchronous motor
2	型号	Type designation
3	序列号	Serial number
	额定效率	Rated efficiency
	I _A /I _N 起动电流比 ¹⁾	Relation between starting current and rated current
4	额定频率	Rated frequency
	电机转速 /减速机输出转速（配减时）	Rated speed/ output speed of gear box in case of a gearmotor
	额定电压	Nominal voltage
	t _E 时间 ¹⁾	tE time

	描述	Description
5	额定功率/工作制	Rated power/ operating mode
	额定电流	Rated current
	功率因数	Power factor for AC motors
6	生产厂名称/地址	Factory name/address
7	防爆标志 气体防爆依据 GB/T 3836.1、GB/T 3836.3 粉尘防爆依据 GB/T 3836.31	Explosion protection type according GB/T 3836.1、GB/T 3836.3 Gas
		Explosion protection type according GB/T 3836.31 Dust
8	防爆合格证编号	Number of Explosion Protection Certificate of Conformity
	制造商	Manufacturer
9	制动器	Brake data
	制动电压	Nominal voltage brake
	制动保持电流	Nominal holding current brake
	制动扭矩	Braking torque
	制动器控制单元	Brake control
10	空白行，供客户特殊要求使用。	Free customer specific text
11	安装型式	Mounting position
	绝缘等级	Thermal class
	防护等级	Degree of protection according to IEC 60034-5
	区域 A，按照 IEC 60034-1	Section A from IEC 60034-1
12	电机重量/减速电机重量	Motor weight/gearmotor
	Ta / 环境温度	Ambient temperature
	电机容许温度	Thermal capacity utilization of the motor
	制造年份	Year of manufacture
	生产厂所在国家	Country of manufacture

¹⁾ Ex eb-protected motors only

Warning label



This label is affixed to the terminal box cover.

GYJ20.1162X Explosion protected Certificate Annex I

The EDR series of three-phase asynchronous motors manufactured by SEW-EURODRIVE GmbH & Co KG, as tested by the National Supervision and Inspection Center for Explosion Protection and Safety Instrumentation (NEPSI), meets the following criteria:

GB/T 3836.1-2021 Explosive Atmospheres - Part 1: Equipment - General Requirements

GB/T 3836.3-2021 Explosive Atmospheres - Part 3: Equipment Protection by Increased Safety “e”

GB/T 3836.31-2021 Explosive Atmospheres - Part 8: Equipment Protection by Type of Protection “n”

Product explosion protection marks: Ex eb IIC T2...T4 Gb, Ex eb IIB T2...T4 Gb,

Ex tb IIIC T120°C...T140°C Db, Ex tb IIB T120°C...T140°C Db, Ex ec IIC T2...T4 Gc

Ex ec IIB T2...T4 Gc, Ex tc IIIC T120°C...T140°C Dc, Ex tc IIB T120°C...T140°C Dc, and the explosion protection certificate number is GYJ20.1162X.

Specifically approved product model numbers:

EDR **a b c d e f g h i**

a: energy efficiency class, with optional identifiers: S, E, and N;

b: motor mount dimensions, with optional identifiers: 63, 71, 80, 90, 100, 112, 132, 160, 180, 200, 225, 250, 280, and 315;

c: motor mount length, with optional identifiers: K, S, MK, MS, M, ME, LC, LS, LM, L, and H;

d: number of poles, with optional identifiers: 2, 4, and 6;

e: optional brakes, with optional identifiers: /BE**, HR, HF (applicable to Zone 2 or Zone 22 only)

f: mounting type, with optional identifiers: /FI, /FG, /FF, /FT, /FL, /FM, /FE, /FY, /FK;

g: optional reverse stop, with an identifier of /RS

h: class of protection, with optional identifiers: 2G-b, 2D-b, 2GD-b, 3G-c, 3D-c, and 3GD-c

i: optional: temperature sensors, with optional identifiers: /TF, /KY, /PT, and /PK;

encoders (applicable to Zone 2 or Zone 22 only), with optional identifiers: /ES7S, /EG7S, /EV7S, /EH7S, or /ES7R, /EG7R, /EV7R, /EH7R, or ES7C, /EG7C, /EV7C, /EH7C, or /AS7W, /AG7W, AV7W, or /AS7Y, /AG7Y, /AV7Y, /AH7Y, or /ES7A, /EG7A, or /XV.A, /XV..., or /EH7T, or, /EV.A, or, /EV2T, /EV2R, /EV2S, /EV2C, /EK8S, /EV8S, /EK8R, /EV8R, /EK8A, /EK8C, /EV8C, /AK8W, /AV8W, /AK8Y, /AV8Y, /AK8H, /AV8H, /XK8., /XV8..;

power connection type, with an optional identifier of /KCC;

ventilation, with optional identifiers: /VE (applicable to Zone 2 or Zone 22 only),

or /AI (required selection for Zone 21 or 22), or /C;

bearings, with optional identifiers: /NS, /ERF, or /NIB; optional identifiers for other features: /2W, etc.

1. Special Conditions for Safe Product Use

An "X" added after the explosion protection certificate number indicates specific conditions for safe product use:

- 1) When the product is used and maintained in an explosive atmosphere, the principle of "potential electrostatic charge hazard - see instruction manual" must be adhered to.
- 2) When the product is operating in Zone 1 or Zone 21, the motor is not permitted to operate as a group drive.
- 3) Three-phase asynchronous motors of this type may only be operated with converters that conform with the specified requirements.
- 4) When the product is operating in Zone 1 or Zone 21, the nominal current of the inverter should not be more than twice the nominal current of the motor.
- 5) The current monitoring unit for the frequency converter must be able to detect the effective value of the motor current with a tolerance of $\pm 5\%$ based on the motor current rating.
- 6) Before putting the system into operation, it has to be checked to ensure that converter-induced overvoltage with a peak of more than 1700 volts cannot occur at the terminals of the electrical machine

2. Precautions for Product Use

- 1) Product ambient temperature range: $-40^{\circ}\text{C} \sim +60^{\circ}\text{C}$.
- 2) The product's power supply voltage is 110V up to 690 V AC or wide voltage 105 – 115 V up to 655 – 725 V AC; the maximum power is 200 kW, and when used for frequency conversion, the frequency range is 0.3 – 120 Hz, with a maximum voltage not exceeding 500 V. See the product nameplate and instruction manual for details.
- 3) Measures should be taken to ensure that the product's components do not exceed temperature tolerances.
- 4) The backstop may serve only to prevent the return of the machine in case of power failure or in the off state. It must not be used as a safeguard against incorrect direction of rotation, due to switching to lock.
- 5) Components attached or installed (e.g. terminal compartments, bushings, cable glands, connectors) must be of a technical standard that complies with the standards listed in this Annex and obtain an explosion protection certificate of conformity approved by a nationally authorized explosion protection inspection agency prior to their use in explosive hazardous areas.
- 6) If an anti-condensation heater is in place, an interlocking system must ensure that the anti-condensation heater can only operate when the motor is at a standstill.

- 7) In particular, at ambient temperatures greater than +40 °C, the maximum service temperature of the materials, components and seals shall be duly considered in the electro-thermal tests.
- 8) When the product is installed in an explosive gas atmosphere, the cable entry must be inspected and approved by a nationally authorized explosion protection inspection agency, conform to the Ex eb IIB/IIC T3 Gb或Ex ec IIB/IIC T3 Gc explosion protection class as stipulated in the GB/T 3836.1-2021 and GB/T 3836.3-2021 national standards, and to enclosure protection class IP6X or IP5X for cable leads or plugs, prior to its use in explosive hazardous areas.
- 9) When the product is installed in an explosive dust atmosphere, the cable entry must be inspected and approved by a nationally authorized explosion protection inspection agency and conform to the Ex tb IIIB/IIIC T120° C/T140° C Db or Ex tc IIIB/IIIC T120° C/T140° C Dc explosion protection class for cable leads or plugs as stipulated in the GB/T 3836.31-2021 national standards prior to its use in explosive hazardous areas.
- 10) When the product is used and maintained in an explosive dust atmosphere, the principle of “do not open in the presence of combustible dusts” must be adhered to.
- 11) When the product is used and maintained in an explosive dust atmosphere, its surface should be cleaned regularly to prevent the accumulation of dust on the surface of the casing, however, not using compressed air.
- 12) Users should not replace product parts on their own, but rather work with the product manufacturer to resolve operational malfunctions to prevent damage from occurring.
- 13) During installation, use and maintenance of the product, users must strictly abide by the product instruction manual and the following standards:
 - GB/T 3836.13-2021 Explosive atmospheres - Part 13: Repair, overhaul, restoration and modification of equipment
 - GB/T 3836.15-2021 Explosive atmospheres Part 15: Design, selection and installation of electrical installations
 - GB/T 3836.16-2021 Explosive atmospheres Part 16: Inspection and maintenance of electrical installations
 - GB 50257-2014 Code for Construction and Acceptance of Electric Device for Explosion Atmospheres and Fire Hazard Electrical Equipment Installation Engineering
 - GB 15577-2018 Safety Regulations for Dust Explosion Prevention and Protection