



OBAC

Ośrodek Badań, Atestacji i Certyfikacji Sp. z o.o.
44-121 Gliwice, ul. Łabędzka 21

(1)

Schedule No. 3

to

the certificate No. OBAC 14 ATEX 0048X

(2) Equipment, components and protective systems intended for use in potentially explosive atmospheres. Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014.

(3) Product: **Explosion-protected three-phase cage induction motor of Ex (S, 2SIE) (K, L) h 56 - * * * / ...type**

(4) Manufacturer: **Fabryka Silników Elektrycznych „BESEL” S.A.**

(5) Address: **ul. Elektryczna 8, 49-300 Brzeg**

(6) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018+AC:2020-02 EN 60079-7:2015+A1:2018 EN 60079-31:2014

(7) Description of changes:

- Structural changes resulting from the (UE) Commission Regulation No. 2019/1781 of 1st October 2019 establishing ecodesign requirements for electric motors and variable speed drives pursuant to Directive 2009/125/EC of the European Parliament and of the Council.
- Modification of rated data.



Head of Certification Body

Piotr Tarnawski M. Com.

Gliwice, 21 July 2023.



OBAC

Ośrodek Badań, Atestacji i Certyfikacji Sp. z o.o.
44-121 Gliwice, ul. Łabędzka 21

(1) **Schedule No. 3**
to
the certificate No. OBAC 14 ATEX 0048X

Rated data:

Performance „Ex eb” – category 2G and performance „Ex tb” – category 2D

Version	ExSh56-2A		Ex2SIE56-2B		ExSh56-4A		ExSh56-4B	
Rated power [kW]	0,09		0,12		0,06		0,09	
Rated voltage * [V], ±5%	230/400	265/460	230/400	265/460	230/400	265/460	230/400	265/460
Rated current * [A]	0,70/0,40	0,65/0,38	0,70/0,40	0,70/0,40	0,54/0,31	0,52/0,30	0,64/0,37	0,64/0,37
Frequency [Hz]	50	60	50	60	50	60	50	60
Power factor	0,60	0,55	0,70	0,62	0,57	0,50	0,59	0,53
Efficiency [%]	54,0	55,0	62,0	62,0	48,0	51,0	60,0	60,0
Rotational speed [rpm]	2760	3440	2750	3390	1380	1700	1370	1690
Type of operation	S1							
Class of insulation	F							
I _A /I _N	3,1	3,9	3,3	3,6	2,7	3,0	2,8	3,0
t _E [s] for T3 temp.class	45	45	38	34	64	64	64	64
t _E [s] for T4 temp.class	18	18	16	15	24	24	27	27
Thermistor rated temperature (version Ex t)	120°C							
Protection degree	IP66							
Ambient temperature	-20°C ≤ Ta ≤ +40°C							

* parameters for delta-star stator connections (see also special conditions of safe use)





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44-121 Gliwice, ul. Łabędzka 21


(1) **Schedule No. 3**
to
the certificate No. OBAC 14 ATEX 0048X

Marking:

Unchanged.

- (8) Explosion-proof execution was confirmed in the confidential product evaluation report:
OBAC/23/ATEX/0135.

The introduced changes meet the requirements for devices of group II category 2G and 2D.
The explosion-proof designation remains unchanged:

 **II 2G Ex eb IIC Tx Gb**

 **II 2D Ex tb IIIC T125°C Db**

- (9) Specific conditions of use:
– Unchanged – the same as in certificate No OBAC 14 ATEX 0048X.
- (10) Technical documentation:
The technical documentation is specified in the confidential report no. OBAC/23/ATEX/0135.





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Ośrodek Badań, Atestacji i Certyfikacji Sp. z o.o.
44-121 Gliwice, ul. Łabędzka 21

(1) **Schedule No. 3**
to
the certificate No. OBAC 14 ATEX 0047X

(2) Equipment, components and protective systems intended for use in potentially explosive atmospheres.
Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014.

(3) Product: **Explosion-protected three-phase cage induction motor
of Ex (S, 2SIE) (K, L) h 63 - * * * / ... type**

(4) Manufacturer: **Fabryka Silników Elektrycznych „BESEL” S.A.**

(5) Address: **ul. Elektryczna 8, 49-300 Brzeg**

(6) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018+AC:2020-02 EN 60079-7:2015+A1:2018 EN 60079-31:2014

(7) Description of changes:

- Structural changes resulting from the (UE) Commission Regulation No. 2019/1781 of 1st October 2019 establishing ecodesign requirements for electric motors and variable speed drives pursuant to Directive 2009/125/EC of the European Parliament and of the Council.
- Modification of rated data.



Head of Certification Body

Piotr Tarnawski M. Com.

Gliwice, 21 July 2023.



OBAC

Ośrodek Badań, Atestacji i Certyfikacji Sp. z o.o.
44-121 Gliwice, ul. Łabędzka 21

(1)

Schedule No. 3

to

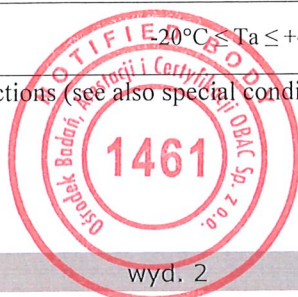
the certificate No. OBAC 14 ATEX 0047X

Rated data:

Performance „Ex eb” – category 2G and performance „Ex tb” – category 2D

Version	Ex2SIE63-2A		Ex2SIE63-2B		Ex2SIE63-4A		Ex2SIE63-4B		ExSh63-6B	
Rated power [kW]	0,18		0,25		0,12		0,18		0,06	
Rated voltage* [V], ±5%	230/400	265/460	230/400	265/460	230/400	265/460	230/400	265/460	230/400	265/460
Rated current* [A]	1,05/0,60	0,95/0,55	1,55/0,90	1,40/0,80	0,70/0,40	0,70/0,40	0,95/0,55	0,90/0,50	0,95/0,55	0,95/0,55
Frequency [Hz]	50	60	50	60	50	60	50	60	50	60
Power factor	0,70	0,67	0,60	0,58	0,65	0,65	0,70	0,65	0,39	0,34
Efficiency [%]	64,0	64,0	67,0	68,0	66,0	64,0	67,5	70,0	40,0	40,0
Rotational speed [rpm]	2820	3440	2870	3480	1400	1710	1380	1700	940	1140
Type of operation	S1									
Class of insulation	F									
I _A /I _N	4,8	5,6	5,7	6,6	4,5	4,8	3,8	4,5	2,4	2,5
t _E [s] for T3 temp.class	28	22	17	14	40	35	100	80	110	110
t _E [s] for T4 temp. class	11	9	7	6	90	75	45	36	40	40
Thermistor rated temperature (version Ex t)	120°C									
Protection degree	IP66									
Ambient temperature	20°C ≤ Ta ≤ +40°C									

* parameters for delta-star stator connections (see also special conditions of safe use)





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(1) **Schedule No. 3**
to
the certificate No. OBAC 14 ATEX 0047X

Marking:

Unchanged.

- (8) Explosion-proof execution was confirmed in a confidential product evaluation report:
OBAC/23/ATEX/0134.

The introduced changes meet the requirements for devices of group II of category 2G and 2D.
The explosion-proof designation remains unchanged:

 II 2G Ex eb IIC Tx Gb

 II 2D Ex tb IIC T125°C Db

- (9) Specific conditions of use:
– Unchanged – the same as in certificate No OBAC 14 ATEX 0047X
- (10) Technical documentation:
The technical documentation is specified in the confidential report no. OBAC/23/ATEX/0134.





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Ośrodek Badań, Atestacji i Certyfikacji Sp. z o.o.
44-121 Gliwice, ul. Łabędzka 21

(1) **Schedule No. 3**
to
the certificate No. OBAC 15 ATEX 0114X

(2) Equipment, components and protective systems intended for use in potentially explosive atmospheres.
Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014

(3) Product: **Explosion protected three-phase cage induction motor
of Ex 2SIE (K, L) 71 - * * * / ...type**

(4) Manufacturer: **Fabryka Silników Elektrycznych „BESEL” S.A.**

(5) Address: **ul. Elektryczna 8, 49-300 Brzeg**

(6) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018+AC:2020-02 EN 60079-7:2015+A1:2018 EN 60079-31:2014

(7) Description of changes:

- Structural changes resulting from the (UE) Commission Regulation No. 2019/1781 of 1st October 2019 establishing ecodesign requirements for electric motors and variable speed drives pursuant to Directive 2009/125/EC of the European Parliament and of the Council.
- Change of type designation; previous type designation: **Ex (S, 2SIE) (K, L) h 71 - * * * / ...**
- Modification of rated data.



Gliwice, 21 July 2023

Head of Certification Body

Piotr Tarnawski M. Com.



OBAC

Ośrodek Badań, Atestacji i Certyfikacji Sp. z o.o.
44-121 Gliwice, ul. Łabędzka 21

(1)

Schedule No. 3

to

the certificate No. OBAC 15 ATEX 0114X

Rated data:

Performance „Ex eb” – category 2G and performance „Ex tb” – category 2D

Version	Ex2SIE71-2A		Ex2SIE71-2B		Ex2SIE71-4A		Ex2SIE71-4B	
Rated power [kW]	0,37		0,55		0,25		0,37	
Rated voltage * [V], ±5%	230/400	265/460	230/400	265/460	230/400	265/460	230/400	265/460
Rated current * [A]	1,65/0,95	1,55/0,90	2,25/1,30	2,00/1,15	1,45/0,85	1,30/0,75	2,00/1,15	1,80/1,05
Frequency [Hz]	50	60	50	60	50	60	50	60
Power factor	0,80	0,72	0,82	0,80	0,62	0,60	0,64	0,59
Efficiency [%]	70,5	72,0	74,5	75,5	70,0	72,0	72,7	76,0
Rotational speed [rpm]	2870	3490	2850	3470	1410	1720	1410	1720
Type of operation	S1							
Class of insulation	F							
I _A /I _N	5,2	6,0	5,1	6,5	3,7	4,7	4,1	4,9
t _E [s] for T3 temp. class	18	15	20	18	55	55	34	34
t _E [s] for T4 temp. class	7	6	8	8	25	25	13	15
Thermistor rated temperature (version Ex t)	120°C							
Protection degree	IP66							
Ambient temperature	-20°C ≤ Ta ≤ +40°C							

* parameters for delta-star stator connections (see also special conditions of safe use)





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(1) **Schedule No. 3**
to
the certificate No. OBAC 15 ATEX 0114X

Performance „Ex eb” – category 2G and performance „Ex tb” – category 2D, continued

Version	Ex2SIE71-6A		Ex2SIE71-6B	
Rated power [kW]	0,18		0,25	
Rated voltage * [V], ±5%	230/400	265/460	230/400	265/460
Rated current * [A]	1,15/0,65	1,05/0,60	1,55/0,90	1,40/0,80
Frequency [Hz]	50	60	50	60
Power factor	0,64	0,58	0,65	0,59
Efficiency [%]	63,5	65,0	64,0	67,0
Rotational speed [rpm]	910	1130	910	1130
Type of operation	S1			
Class of insulation	F			
I _A /I _N	3,1	3,6	2,9	3,7
t _E [s] for T3 temp.class	90	70	50	40
t _E [s] for T4 temp. class	40	35	20	18
Thermistor rated temperature (version Ex t)	120°C			
Protection degree	IP66			
Ambient temperature	-20°C ≤ Ta ≤ +40°C			

* parameters for delta-star stator connections (see also special conditions of safe use)





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Ośrodek Badań, Atestacji i Certyfikacji Sp. z o.o.
44-121 Gliwice, ul. Łabędzka 21

(1) **Schedule No. 3**
to
the certificate No. OBAC 15 ATEX 0114X

Marking:

Explosion-protected three-phase cage induction motor type:

Ex 2SIE (K, L) 71 - * * * / ...

Explosion-protected motor _____

Motor type: _____

2SIE – 3-phase motor with efficiency class IE2

Type of installation (according to IEC): _____

(without marking) – lug-type installation

K – flange installation

L – lug-flange installation

Height of shaft axis IEC _____

Number of pair poles: 2p= **2, 4, 6** _____

Stator plate pack length: **A, B** _____

Flange size: _____

(without marking) – IM B5 flange (large)

1 – IM B14/1 flange (middle)

2 – IM B14/2 flange (small)

Version _____






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44-121 Gliwice, ul. Łabędzka 21

(1) **Schedule No. 3**
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the certificate No. OBAC 15 ATEX 0114X

- (8) Explosion-proof execution was confirmed in a confidential product evaluation report:
OBAC/23/ATEX/0136.

The introduced changes meet the requirements for devices of group II category 2G and 2D.
The explosion-proof designation remains unchanged:

 II 2G Ex eb IIC Tx Gb

 II 2D Ex tb IIC T125°C Db

- (9) Specific conditions of use:
– Unchanged – the same as in certificate No. OBAC 15 ATEX 0114X
- (10) Technical documentation:
The technical documentation is specified in the confidential report no. OBAC/23/ATEX/0136.





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Ośrodek Badań, Atestacji i Certyfikacji Sp. z o.o.
44-121 Gliwice, ul. Łabędzka 21

(1) **Schedule No. 3**
to
the certificate No. OBAC 16 ATEX 0118X

(2) Equipment, components and protective systems intended for use in potentially explosive atmospheres.
Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014.

(3) Product: **Explosion-protected three-phase cage induction motor
of Ex (2SIE, 3SIE) (K, L) 80 - * * * / ... type**

(4) Manufacturer: **Fabryka Silników Elektrycznych „BESEL” S.A.**

(5) Address: **ul. Elektryczna 8, 49-300 Brzeg**

(6) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN IEC 60079-0:2018+AC:2020-02 EN 60079-7:2015+A1:2018 EN 60079-31:2014

(7) Description of changes:
– Structural changes resulting from the (UE) Commission Regulation No. 2019/1781 of 1st October 2019 establishing ecodesign requirements for electric motors and variable speed drives pursuant to Directive 2009/125/EC of the European Parliament and of the Council.
– Change of type designation; previous type designation: **Ex (S, 2SIE, 3SIE) (K, L) h 80 - * * * / ...**
– Modification of rated data.



Head of Certification Body

Piotr Tarnawski M. Com.

Gliwice, 21 July 2023.



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Ośrodek Badań, Atestacji i Certyfikacji Sp. z o.o.
44-121 Gliwice, ul. Łabędzka 21

(1)

Schedule No. 3

to

the certificate No. OBAC 16 ATEX 0118X

Rated data:

Performance „Ex eb” – category 2G and performance „Ex tb” – category 2D

Version	Ex3SIE80-2A		Ex3SIE80-2B		Ex2SIE80-4A		Ex3SIE80-4B	
Rated power [kW]	0,75		1,10		0,55		0,75	
Rated voltage * [V], ±5%	230/400	265/460	230/400	265/460	230/400	265/460	230/400	265/460
Rated current * [A]	3,10/1,80	2,75/1,60	4,35/2,50	3,80/2,20	2,60/1,50	2,25/1,30	3,60/2,10	3,30/1,90
Frequency [Hz]	50	60	50	60	50	60	50	60
Power factor	0,76	0,76	0,77	0,76	0,68	0,66	0,63	0,63
Efficiency [%]	80,7	78,0	82,7	84,0	78,5	80,5	82,5	83,5
Rotational speed [rpm]	2890	3500	2900	3510	1420	1730	1430	1740
Type of operation	S1							
Class of insulation	F							
I _N /I _N	7,3	9,1	9,0	10,0	5,4	6,5	5,7	6,6
t _E [s] for T3 temp.class	7	7	6	6	24	21	21	21
t _E [s] for T4 temp. class	-	-	-	-	8	8	7	8
Thermistor rated temperature	120°C							
Protection degree	IP66							
Ambient temperature	-20°C ≤ Ta ≤ +40°C							

* parameters for delta-star stator connections (see also special conditions of safe use)





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Ośrodek Badań, Atestacji i Certyfikacji Sp. z o.o.
44-121 Gliwice, ul. Łabędzka 21

(1)

Schedule No. 3

to

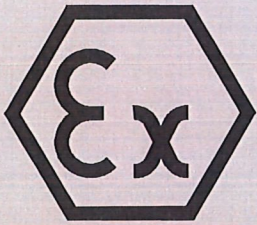
the certificate No. OBAC 16 ATEX 0118X

Performance „Ex eb” – category 2G and performance „Ex tb” – category 2D, continued

Version	Ex2SIE80-6A		Ex2SIE80-6B	
Rated power [kW]	0,37		0,55	
Rated voltage * [V], ±5%	230/400	265/460	230/400	265/460
Rated current * [A]	1,75/1,00	1,55/0,90	3,30/1,90	3,00/1,75
Frequency [Hz]	50	60	50	60
Power factor	0,76	0,71	0,57	0,53
Efficiency [%]	72,0	75,5	73,2	75,0
Rotational speed [rpm]	920	1130	950	1160
Type of operation	S1			
Class of insulation	F			
I _A /I _N	3,5	4,2	4,3	4,9
t _E [s] for T3 temp.class	90	55	25	25
t _E [s] for T4 temp. class	40	25	10	10
Thermistor rated temperature	120°C			
Protection degree	IP66			
Ambient temperature	-20°C ≤ Ta ≤ +40°C			

* parameters for delta-star stator connections (see also special conditions of safe use)





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(1) **Schedule No. 3**
to
the certificate No. OBAC 16 ATEX 0118X

Marking:

Explosion-protected three-phase cage induction motor type:

Ex (2SIE, 3SIE) (K, L) 80 - * * * / ...

Explosion-protected motor

Motor type:

- 2SIE** – three-phase motor with efficiency class IE2
- 3SIE** – three-phase motor with efficiency class IE3

Type of installation (according to IEC):

- (without marking) – lug-type installation
- K** – flange installation
- L** – lug-flange installation

Height of shaft axis IEC

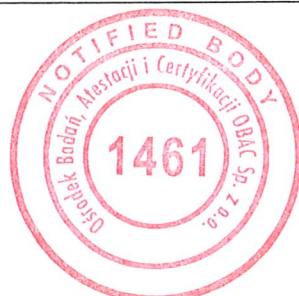
Number of pair poles: $2p= 2, 4, 6$

Stator plate pack length: **A, B**

Flange size:

- (without marking) – IM B5 flange (large)
- 1** – IM B14/1 flange (middle)
- 2** – IM B14/2 flange (small)

Version






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(1) **Schedule No. 3**
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- (8) Explosion-proof execution was confirmed in a confidential product evaluation report:
OBAC/23/ATEX/0137.

The introduced changes meet the requirements for devices of the group II category 2G and 2D
The explosion-proof designation remains unchanged:

 II 2G Ex eb IIC Tx Gb

 II 2D Ex tb IIC T125°C Db

- (9) Specific conditions of use:
– Unchanged – the same as in certificate no. OBAC 16 ATEX 0118X
- (10) Technical documentation:
The technical documentation is specified in the confidential report no OBAC/23/ATEX/0137.

