

SILNIKI INDUKCYJNE TRÓJFAZOWE
ENERGOOSZCZĘDNE klasy IE2

Charakterystyka silników katalogowych:

- silniki ogólnego przeznaczenia do pracy w warunkach klimatu umiarkowanego,
- praca ciągła S1 lub S3 (powyżej 80%),
- napięcia znamionowe 230V/400V (Δ/Y),
- częstotliwość zasilania 50/60 Hz,
- temperatura otoczenia od -30°C do +60°C,
- kolor malowania RAL 5010.

THREE-PHASE INDUCTION MOTORS
ENERGY EFFICIENT MOTORS class IE2

Description of the catalogue motors:

- general purpose motors; temperate climate,
- duty S1 oraz S3 (above 80%),
- rated voltage 230V/400V (Δ/Y),
- frequency 50/60 Hz,
- ambient temperature from -30°C to +60°C,
- standard paint colour RAL 5010

stopień ochrony: IP54 (IP55; IP56; IP65)
klasa izolacji F

degree of protection: IP54 (IP55; IP56; IP65)
insulation class F

| Typ | Moc | | Prędkość obrotowa [min ⁻¹] | Prąd [A] przy | | Sprawność η [%] przy obciążeniu | | | Współczynnik mocy cos φ _N | Moment znamionowy M _N [Nm] | Krotność prądu rozruchowego I _r /I _N | Krotność momentu rozruchowego M _r /M _N | M _{max} /M _N | Moment bezwładności J [kgm ²] | Masa [kg] |
|------------|--------------|------|----------------------------------------|----------------------|---------|------------------------------------|-----|-----|--------------------------------------|---------------------------------------|----------------------------------------------------------------|--------------------------------------------------------------|----------------------------------|-------------------------------------------|-------------------|
| | [kW] | [KM] | | 230 V Δ | 400 V Y | 100% | 75% | 50% | | | | | | | |
| Frame size | Rated output | | Rated speed [min ⁻¹] | Rated current [A] at | | Efficiency η [%] at % of full load | | | Power factor cos φ _N | Torque T _N [Nm] | Starting current/ rated current I _L /I _N | Starting torque/ rated torque T _L /T _N | T _b /T _N | Moment of inertia J [kgm ²] | Motor weight [kg] |
| | [kW] | [HP] | | 230 V Δ | 400 V Y | 100% | 75% | 50% | | | | | | | |

Silniki 2-biegowe, 3000 min⁻¹; 50Hz

2-pole motors, 3000 min⁻¹; 50Hz

| | | | | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|----------|------|
| 2SIE 71-2A* | 0,37 | 0,50 | 2840 | 1,75 | 1,00 | 73,0 | 72,0 | 70,0 | 0,73 | 1,24 | 4,8 | 3,2 | 3,3 | 0,00046 | 5,6 |
| 2SIE 71-2B* | 0,55 | 0,75 | 2820 | 2,50 | 1,45 | 75,0 | 74,0 | 70,0 | 0,72 | 1,86 | 4,7 | 3,0 | 3,0 | 0,00053 | 6,3 |
| 2SIE 71x-2C | 0,75 | 1,00 | 2780 | 3,10 | 1,80 | 78,0 | 77,0 | 73,0 | 0,81 | 2,57 | 4,8 | 2,1 | 2,2 | 0,000691 | 7,6 |
| 2SIE 80-2A | 0,75 | 1,00 | 2840 | 3,30 | 1,90 | 79,0 | 76,5 | 72,0 | 0,74 | 2,52 | 5,0 | 3,2 | 3,0 | 0,00080 | 8,5 |
| 2SIE 80-2B | 1,10 | 1,50 | 2840 | 4,80 | 2,70 | 80,0 | 80,0 | 77,0 | 0,75 | 3,70 | 5,5 | 3,4 | 3,4 | 0,00111 | 9,8 |
| 2SIE 80x-2C | 1,50 | 2,00 | 2820 | 5,70 | 3,30 | 81,3 | 81,0 | 79,0 | 0,82 | 5,07 | 5,0 | 2,8 | 2,8 | 0,00145 | 12,0 |
| Sh 90-2S/IE2 | 1,50 | 2,00 | 2820 | 5,70 | 3,30 | 81,3 | 81,0 | 79,0 | 0,82 | 5,07 | 5,0 | 2,8 | 2,8 | 0,00145 | 12,0 |
| ShR 90-2S/IE2 | 1,50 | 2,00 | 2800 | 5,50 | 3,20 | 81,3 | 79,0 | 77,5 | 0,87 | 5,10 | 5,5 | 2,8 | 2,6 | 0,0013 | 13,5 |
| ShR 90-2L/IE2 | 2,20 | 3,00 | 2810 | 8,10 | 4,70 | 83,2 | 81,5 | 79,0 | 0,79 | 7,50 | 6,2 | 3,3 | 3,0 | 0,0018 | 16,5 |

Silniki 4-biegowe, 1500 min⁻¹; 50Hz

4-pole motors, 1500 min⁻¹; 50Hz

| | | | | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|-------|-----|-----|-----|----------|------|
| 2SIE 63-4A* | 0,12 | 0,17 | 1370 | 0,87 | 0,50 | 60,0 | 58,0 | 55,0 | 0,57 | 0,84 | 2,8 | 2,4 | 2,5 | 0,00024 | 3,5 |
| 2SIE 63-4B* | 0,18 | 0,25 | 1380 | 1,10 | 0,65 | 65,0 | 63,5 | 57,0 | 0,65 | 1,25 | 2,6 | 2,0 | 2,0 | 0,00031 | 4,1 |
| 2SIE 71-4A* | 0,25 | 0,33 | 1390 | 1,55 | 0,90 | 69,0 | 67,0 | 61,0 | 0,60 | 1,72 | 3,3 | 2,7 | 2,8 | 0,00072 | 5,5 |
| 2SIE 71-4B* | 0,37 | 0,50 | 1400 | 2,00 | 1,15 | 73,0 | 72,0 | 68,0 | 0,65 | 2,52 | 3,5 | 2,5 | 2,5 | 0,00085 | 6,4 |
| 2SIE 80-4A* | 0,55 | 0,75 | 1400 | 2,95 | 1,70 | 77,1 | 75,4 | 71,0 | 0,61 | 3,74 | 4,1 | 3,1 | 3,1 | 0,00160 | 8,0 |
| 2SIE 80-4B | 0,75 | 1,00 | 1400 | 3,70 | 2,20 | 80,0 | 77,0 | 70,0 | 0,65 | 5,12 | 4,2 | 3,1 | 3,2 | 0,002089 | 9,6 |
| 2SIE 80x-4C | 1,10 | 1,50 | 1380 | 5,20 | 3,00 | 81,4 | 78,0 | 72,0 | 0,65 | 7,61 | 3,7 | 2,3 | 2,1 | 0,00268 | 11,5 |
| Sh 90-4S/IE2 | 1,10 | 1,50 | 1380 | 5,20 | 3,00 | 81,4 | 78,0 | 72,0 | 0,65 | 7,61 | 3,7 | 2,3 | 2,1 | 0,00268 | 11,5 |
| ShR 90-4S/IE2 | 1,10 | 1,50 | 1390 | 4,30 | 2,50 | 81,4 | 79,5 | 78,0 | 0,79 | 7,60 | 5,6 | 2,1 | 2,8 | 0,0028 | 14,0 |
| ShR 90-4L/IE2 | 1,50 | 2,00 | 1410 | 5,90 | 3,40 | 82,8 | 81,8 | 80,0 | 0,78 | 10,20 | 4,8 | 2,4 | 2,5 | 0,0045 | 16,7 |

Silniki 6-biegowe, 1000 min⁻¹; 50Hz

6-pole motors, 1000 min⁻¹; 50Hz

| | | | | | | | | | | | | | | | |
|-------------|------|------|-----|------|------|------|------|------|------|------|-----|-----|-----|---------|------|
| 2SIE 71-6A* | 0,18 | 0,25 | 900 | 1,20 | 0,70 | 58,0 | 54,0 | 50,0 | 0,63 | 1,90 | 2,6 | 2,3 | 2,3 | 0,00074 | 5,0 |
| 2SIE 71-6B* | 0,25 | 0,33 | 900 | 1,30 | 0,75 | 64,0 | 63,0 | 61,0 | 0,74 | 2,65 | 2,8 | 2,0 | 2,0 | 0,00122 | 7,3 |
| 2SIE 80-6A* | 0,37 | 0,50 | 920 | 1,90 | 1,10 | 73,0 | 73,0 | 70,0 | 0,70 | 3,84 | 3,2 | 2,0 | 2,2 | 0,00207 | 8,6 |
| 2SIE 80-6B* | 0,55 | 0,75 | 900 | 2,40 | 1,40 | 74,0 | 74,0 | 72,0 | 0,75 | 5,80 | 3,6 | 2,0 | 2,2 | 0,00293 | 10,8 |
| 2SIE 80x-6C | 0,75 | 1,00 | 920 | 3,45 | 2,00 | 76,0 | 75,0 | 72,0 | 0,71 | 7,80 | 3,8 | 2,3 | 2,3 | 0,00345 | 7,3 |

Silniki odpowiadają wymaganiom normy IEC 60034-30
(* draft normy, silniki o mocy od 0,12kW - poniżej 0,75kW)

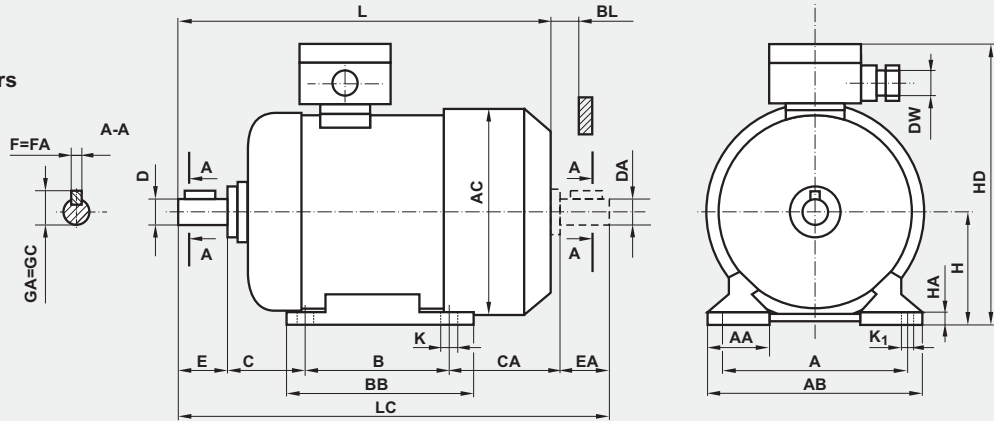
Motors meet requirements of Standard IEC 60034-30.
(* draft, motors rated power from 0,12kW up to 0,75kW)

Wszystkie silniki posiadają znak CE.

All motors are provided with CE mark.

Silniki na łapach
Forma wykonania
IMB3

Foot - mounted motors
Type of construction
IMB3



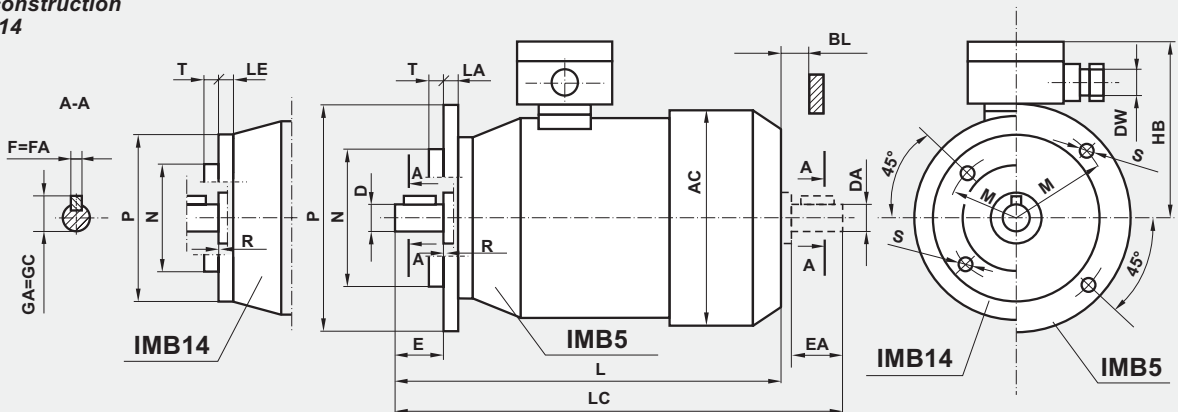
Forma wykonania IMB3

Type of construction IMB3

| Typ | Wymiary (mm) | | | | | | | | | | | | | | | | Dimensions (mm) | | | | Łożyska Bearings | |
|---------------|--------------|-----|----|-----|------|------|------|-------|--------------------|----|----------------|-----|----|-----|-----|-----|-------------------|----|-----|-----|---------------------|-----------|
| | A | B | C | CA | D=DA | E=EA | F=FA | GA=GC | H | K | K ₁ | DW | AA | AB | AC | BB | BL _{min} | HA | HD | L | | LC |
| 2SIE 71-2A | 112 | 90 | 45 | 88 | 14j6 | 30 | 5h9 | 16 | 71 _{-0,5} | 7 | 10 | M20 | 45 | 142 | 141 | 116 | 12 | 8 | 182 | 245 | 283 | 6203 2Z |
| 2SIE 71-2B | | | | 106 | | | | | | | | | | | | | | | | 263 | 301 | |
| 2SIE 71x-2C | | | | 88 | | | | | | | | | | | | | | | | 245 | 283 | |
| 2SIE 71-4A | | | | 65 | | | | | | | | | | | | | | | | 223 | 261 | |
| 2SIE 71-4B | | | | 88 | | | | | | | | | | | | | | | | 245 | 283 | |
| 2SIE 71-6A | | | | 88 | | | | | | | | | | | | | | | | 245 | 283 | |
| 2SIE 80-2A | 125 | 100 | 50 | 87 | 19j6 | 40 | 6h9 | 21,5 | 80 _{-0,5} | 10 | 13 | M20 | 55 | 160 | 157 | 130 | 15 | 9 | 200 | 266 | 317 | 6204 2Z |
| 2SIE 80-2B | | | | 99 | | | | | | | | | | | | | | | | 278 | 329 | |
| 2SIE 80x-2C | | | | 120 | | | | | | | | | | | | | | | | 306 | 357 | |
| 2SIE 80-4A | | | | 87 | | | | | | | | | | | | | | | | 266 | 317 | |
| 2SIE 80-4B | | | | 99 | | | | | | | | | | | | | | | | 278 | 329 | |
| 2SIE 80x-4C | | | | 120 | | | | | | | | | | | | | | | | 306 | 357 | |
| 2SIE 80-6A | | | | 99 | | | | | | | | | | | | | | | | 278 | 329 | |
| 2SIE 80-6B | | | | 120 | | | | | | | | | | | | | | | | 306 | 357 | |
| 2SIE 80x-6C | | | | 138 | | | | | | | | | | | | | | | | 318 | 369 | |
| Sh 90-S/IE2 | | | | 140 | | | | | | | | | | | | | | | | 100 | 56 | |
| ShR 90-2S/IE2 | 140 | 100 | 56 | 117 | 24j6 | 50 | 8h9 | 27 | 90 _{-0,5} | 10 | 13 | M20 | 63 | 170 | 166 | 153 | 15 | 12 | 210 | 317 | 378 | 6205 2ZC3 |
| ShR 90-4S/IE2 | | 125 | | | | | | | | | | | | | | | | | | 327 | 388 | |
| ShR 90-2L/IE2 | | 178 | | | | | | | | | | | | | | | | | | 347 | 408 | |
| ShR 90-4L/IE2 | | 178 | | | | | | | | | | | | | | | | | | 357 | 418 | |

Silniki kołnierzowe
Formy wykonania
IMB5, IMB14

Flange - mounted motors
Types of construction
IMB5, IMB14



Forma wykonania IMB5
Type of construction IMB5

| Typ Frame size | Wymiary (mm) | | | | | | | | | | Dimensions (mm) | | | | | | | | Łożyska Bearings |
|-------------------|--------------------|-----|---------|-------|-------|------|------|------|-------|------|-----------------|-----|-----|-----|-----------|-----|-----|-----|-------------------------|
| | Kolnierz Flange | P | M | N | S | D=DA | E=EA | F=FA | GA=GC | LA | T | R | DW | AC | BL min | HB | L | LC | |
| 2SIEK 71-2A | B5 | 160 | 130 | 110j6 | 10 | 14j6 | 30 | 5h9 | 16 | 9 | 3,5 | 0 | M20 | 141 | 12 | 111 | 245 | 283 | 6203 2Z |
| 2SIEK 71-2B | | | | | | | | | | | | | | | | | 263 | 301 | |
| 2SIEK 71x-2C | | | | | | | | | | | | | | | | | 245 | 283 | |
| 2SIEK 71-4A | | | | | | | | | | | | | | | | | 223 | 261 | |
| 2SIEK 71-4B | | | | | | | | | | | | | | | | | 245 | 283 | |
| 2SIEK 71-6A | | | | | | | | | | | | | | | | | 266 | 317 | |
| 2SIEK 71-6B | 278 | 329 | 6204 2Z | | | | | | | | | | | | | | | | |
| 2SIEK 80-2A | B5 | 200 | | 165 | 130j6 | 12 | 19j6 | 40 | 6h9 | 21,5 | 10 | 3,5 | 0 | M20 | 157 | 15 | 120 | 306 | 357 |
| 2SIEK 80-2B | | | | | | | | | | | | | | | | | | 266 | 317 |
| 2SIEK 80x-2C | | | | | | | | | | | | | | | | | | 278 | 329 |
| 2SIEK 80-4A | | | | | | | | | | | | | | | | | | 306 | 357 |
| 2SIEK 80-4B | | | | | | | | | | | | | | | | | | 266 | 317 |
| 2SIEK 80x-4C | | | 278 | | | | | | | | | | | | | | | 329 | |
| 2SIEK 80-6A | B5 | 200 | 165 | 130j6 | 12 | 24j6 | 50 | 8h9 | 27 | 10 | 3,5 | 0 | M20 | 157 | 15 | 118 | 306 | 357 | 6204 2Z (P) 6205 2Z (N) |
| 2SIEK 80-6B | | | | | | | | | | | | | | | | | 278 | 329 | |
| 2SIEK 80x-6C | | | | | | | | | | | | | | | | | 306 | 357 | |
| SKh 90-.S/IE2 | | | | | | | | | | | | | | | | | 318 | 369 | |
| SKhR 90-2S/IE2 | B5 | 200 | 165 | 130j6 | 12 | 24j6 | 50 | 8h9 | 27 | 10 | 3,5 | 0 | M20 | 166 | 15 | 120 | 317 | 378 | 6205 2ZC3 |
| SKhR 90-4S/IE2 | | | | | | | | | | | | | | | | | 327 | 388 | |
| SKhR 90-2L/IE2 | | | | | | | | | | | | | | | | | 347 | 408 | |
| SKhR 90-4L/IE2 | | | | | | | | | | | | | | | | | 357 | 418 | |

Forma wykonania IMB14
Type of construction IMB14

| Typ Frame size | Wymiary (mm) | | | | | | | | | | Dimensions (mm) | | | | | | | | Łożyska Bearings | | | | | | | | |
|-------------------|--------------------|-----|-----|-------|----|------|------|------|-------|------|-----------------|---|-----|-----|-----------|-----|-----|-----|-------------------------|-----|---|-----|-----|----|-----|-----|-----|
| | Kolnierz Flange | P | M | N | S | D=DA | E=EA | F=FA | GA=GC | LE | T | R | DW | AC | BL min | HB | L | LC | | | | | | | | | |
| 2SIEK 71-2A1 | B14/1 | 140 | 115 | 95j6 | M8 | 14j6 | 30 | 5h9 | 16 | 14 | 3 | 0 | M20 | 141 | 12 | 111 | 245 | 283 | 6203 2Z | | | | | | | | |
| 2SIEK 71-2A2 | B14/2 | 105 | 85 | 70j6 | M6 | | | | | 12 | 2,5 | | | | | | | | | | | | | | | | |
| 2SIEK 71-2B1 | B14/1 | 140 | 115 | 95j6 | M8 | | | | | 14 | 3 | | | | | | | | | | | | | | | | |
| 2SIEK 71-2B2 | B14/2 | 105 | 85 | 70j6 | M6 | | | | | 12 | 2,5 | | | | | | | | | | | | | | | | |
| 2SIEK 71x-2C1 | B14/1 | 140 | 115 | 95j6 | M8 | | | | | 14 | 3 | | | | | | | | | | | | | | | | |
| 2SIEK 71x-2C2 | B14/2 | 105 | 85 | 70j6 | M6 | | | | | 12 | 2,5 | | | | | | | | | | | | | | | | |
| 2SIEK 71-4A1 | B14/1 | 140 | 115 | 95j6 | M8 | | | | | 14 | 3 | | | | | | 245 | 283 | | | | | | | | | |
| 2SIEK 71-4A2 | B14/2 | 105 | 85 | 70j6 | M6 | | | | | 12 | 2,5 | | | | | | | | | | | | | | | | |
| 2SIEK 71-4B1 | B14/1 | 140 | 115 | 95j6 | M8 | | | | | 14 | 3 | | | | | | | | | | | | | | | | |
| 2SIEK 71-4B2 | B14/2 | 105 | 85 | 70j6 | M6 | | | | | 12 | 2,5 | | | | | | | | | | | | | | | | |
| 2SIEK 71-6A1 | B14/1 | 140 | 115 | 95j6 | M8 | | | | | 14 | 3 | | | | | | | | | | | | | | | | |
| 2SIEK 71-6A2 | B14/2 | 105 | 85 | 70j6 | M6 | | | | | 12 | 2,5 | | | | | | | | | | | | | | | | |
| 2SIEK 71-6B1 | B14/1 | 140 | 115 | 95j6 | M8 | 14 | 3 | 223 | 261 | | | | | | | | | | | | | | | | | | |
| 2SIEK 71-6B2 | B14/2 | 105 | 85 | 70j6 | M6 | 12 | 2,5 | | | | | | | | | | | | | | | | | | | | |
| 2SIEK 80-2A1 | B14/1 | 160 | 130 | 110j6 | M8 | 19j6 | 40 | 6h9 | 21,5 | 14 | 3,5 | 0 | M20 | 157 | 15 | 120 | 266 | 317 | 6204 2Z | | | | | | | | |
| 2SIEK 80-2A2 | B14/2 | 120 | 100 | 80j6 | M6 | | | | | 12 | 3 | | | | | | | | | | | | | | | | |
| 2SIEK 80-2B1 | B14/1 | 160 | 130 | 110j6 | M8 | | | | | 14 | 3,5 | | | | | | | | | | | | | | | | |
| 2SIEK 80-2B2 | B14/2 | 120 | 100 | 80j6 | M6 | | | | | 12 | 3 | | | | | | | | | | | | | | | | |
| 2SIEK 80x-2C1 | B14/1 | 160 | 130 | 110j6 | M8 | | | | | 14 | 3,5 | | | | | | | | | | | | | | | | |
| 2SIEK 80x-2C2 | B14/2 | 120 | 100 | 80j6 | M6 | | | | | 12 | 3 | | | | | | | | | | | | | | | | |
| 2SIEK 80-4A1 | B14/1 | 160 | 130 | 110j6 | M8 | | | | | 14 | 3,5 | | | | | | 266 | 317 | | | | | | | | | |
| 2SIEK 80-4A2 | B14/2 | 120 | 100 | 80j6 | M6 | | | | | 12 | 3 | | | | | | | | | | | | | | | | |
| 2SIEK 80-4B1 | B14/1 | 160 | 130 | 110j6 | M8 | | | | | 14 | 3,5 | | | | | | | | | | | | | | | | |
| 2SIEK 80-4B2 | B14/2 | 120 | 100 | 80j6 | M6 | | | | | 12 | 3 | | | | | | | | | | | | | | | | |
| 2SIEK 80x-4C1 | B14/1 | 160 | 130 | 110j6 | M8 | | | | | 14 | 3,5 | | | | | | | | | | | | | | | | |
| 2SIEK 80x-4C2 | B14/2 | 120 | 100 | 80j6 | M6 | | | | | 12 | 3 | | | | | | | | | | | | | | | | |
| 2SIEK 80-6A1 | B14/1 | 160 | 130 | 110j6 | M8 | 14 | 3,5 | 278 | 329 | | | | | | | | | | | | | | | | | | |
| 2SIEK 80-6A2 | B14/2 | 120 | 100 | 80j6 | M6 | 12 | 3 | | | | | | | | | | | | | | | | | | | | |
| 2SIEK 80-6B1 | B14/1 | 160 | 130 | 110j6 | M8 | 14 | 3,5 | 306 | 357 | | | | | | | | | | | | | | | | | | |
| 2SIEK 80-6B2 | B14/2 | 120 | 100 | 80j6 | M6 | 12 | 3 | | | | | | | | | | | | | | | | | | | | |
| 2SIEK 80x-6C1 | B14/1 | 160 | 130 | 110j6 | M8 | 14 | 3,5 | 318 | 369 | | | | | | | | | | | | | | | | | | |
| 2SIEK 80x-6C2 | B14/2 | 120 | 100 | 80j6 | M6 | 12 | 3 | | | | | | | | | | | | | | | | | | | | |
| SKh 90-.S1/IE2 | B14/1 | 160 | 130 | 110j6 | M8 | 24j6 | 50 | 8h9 | 27 | 10 | 3,5 | 0 | M20 | 157 | 15 | 118 | 316 | 376 | 6204 2Z (P) 6205 2Z (N) | | | | | | | | |
| SKh 90-.S2/IE2 | B14/2 | 140 | 115 | 95j6 | M8 | | | | | 10 | 3 | | | | | | | | | | | | | | | | |
| SKhR 90-2S1/IE2 | B14/1 | 160 | 130 | 110j6 | M8 | | | | | 24j6 | 50 | | | | | | 8h9 | 27 | | 3,5 | 0 | M20 | 166 | 15 | 120 | 317 | 378 |
| SKhR 90-2S2/IE2 | B14/2 | 140 | 115 | 95j6 | | | | | | | | | | | | | | | | 3 | | | | | | | |
| SKhR 90-4S1/IE2 | B14/1 | 160 | 130 | 110j6 | | | | | | | | | | | | | | | | 3,5 | | | | | | | |
| SKhR 90-4S2/IE2 | B14/2 | 140 | 115 | 95j6 | | | | | | | | | | | | | | | | 3 | | | | | | | |
| SKhR 90-2L1/IE2 | B14/1 | 160 | 130 | 110j6 | | | | | | | | | | | | | | | | 3,5 | | | | | | | |
| SKhR 90-2L2/IE2 | B14/2 | 140 | 115 | 95j6 | | | | | | | | | | | | | | | | 3 | | | | | | | |
| SKhR 90-4L1/IE2 | B14/1 | 160 | 130 | 110j6 | | | | | | | | | | | | | | | | 3,5 | | | | | | | |
| SKhR 90-4L2/IE2 | B14/2 | 140 | 115 | 95j6 | | | | | | | | | | | | | | | | 3 | | | | | | | |