

Alternatori 2 e 4 poli
per gruppi elettrogeni industriali

2 and 4 pole alternators
for industrial gen-sets



MORE CHOICE ON SINCRO INDUSTRIAL BRUSHLESS ALTERNATORS

SINCRO RANGE BECOMES WIDER.



SK series up to 2,600 kVA in 1,570 mm

2 NEW MODELS ON CATALOGUE

Sincro's offering for 4-pole industrial Brushless/AVR alternators becomes wider, thanks to the introduction of 2 new models in our catalogues:

- **SK225 MR** 85kVA/50Hz | 102kVA/60Hz
 - **SK225 MN** 100kVA/50Hz | 120kVA/60Hz
- available in SAE2, SAE3, IM B34 standard executions and other customized versions on request.

This range implementation is intended to give our customers an even greater choice when looking for industrial alternators, by fully covering their requests.

ONE OF THE MOST COMPLETE RANGES ON THE MARKET

Today, Sincro's offering of industrial Brushless/AVR alternators includes **over 180 models from 6,5 to 2,600 kVA** in 4 and 2 pole version, featured by **compactness**, proven **reliability** of performances, **durability**.

Starting from LV low-voltage IP23 standard models, we extend to marine, CSA/UL, air-to-air cooled IP55 executions up to MV medium-voltage executions .

One of the most complete ranges available within power generation industry.

PROUDLY MADE IN EUROPE

Also these new models are **Made in Europe** in Croatia in Sincro d.o.o. factory located in Rijeka, our productive plant specialized in the manufacturing of the biggest Sincro 4-pole industrial alternators (SK225-250, SK315-355, SK400-450, SK500).

We have **Made in Italy** production on our SK160, FB, HB, IB series, completely manufactured in our plant in Cereda di Cornedo, Vicenza.

COMPACTNESS IS A MUST

One key feature of our alternators is **COMPACTNESS**, for shorter-dimensioned gen-sets saving space, production materials, storage, transportation costs and so money.

In particular, SK160 models are very appreciated for their super-compactness by supplying up to 40kVA/50Hz in 51 cm length!



SK BRUSHLESS ALTERNATORS, SIMPLY SMART

Alternatori sincroni in bassa tensione AC | IP23

Synchronous low voltage AC alternators | IP23

Le potenze indicate si riferiscono alle seguenti condizioni di impiego:

- > altitudine non superiore a 1000 mt s.l.
- > p.f. 0,8
- > carico equilibrato non distorcente

Given powers refer to the following conditions:

- > altitude below 1000 m a.s.l.
- > p.f. 0,8
- > symmetrical non deforming load



A RICHIESTA | ON REQUEST

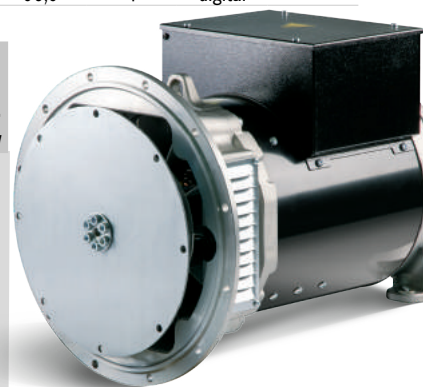
- AVR digitale su tutti i modelli
Digital AVR on all models
- Alternatori per applicazioni MARINE
Alternators for MARINE applications
- Versioni MEDIUM VOLTAGE e TEAAC
MEDIUM VOLTAGE and TEAAC versions
- Esecuzioni CSA/UL
CSA/UL executions
- **SK225 NEW RELEASE 2018 AVAILABLE**

THREE PHASE BRUSHLESS/AVR

| model | S1 40°C • H class | | η | | leads ⁽¹⁾ | AVR | AVR power supply |
|----------------------|-------------------|---------------|---------------|---------------|----------------------|----------|---------------------------------------|
| | kVA 400V 50Hz | kVA 480V 60Hz | p.f. 0,8 50HZ | p.f. 0,8 60HZ | | | |
| FB4 SA | 6,5 | 7,8 | 83 | 83,2 | 6 | analogic | from auxiliary winding |
| FB4 SB | 8 | 9,6 | 83,5 | 83,4 | 6 | analogic | |
| FB4 MA | 10 | 12 | 83,8 | 83,8 | 6 | analogic | |
| FB4 MB | 12 | 14,4 | 84,5 | 84,7 | 6 | analogic | |
| HB4 SA | 15 | 18 | 84 | 84,8 | 12 | analogic | |
| HB4 SB | 17,5 | 21 | 84,4 | 85,2 | 12 | analogic | |
| HB4 CA | 22 | 26,4 | 84,8 | 85,6 | 12 | analogic | |
| IB4 SA | 25 | 30 | 84,7 | 88 | 12 | analogic | |
| IB4 SB | 30 | 36 | 87,6 | 88,2 | 12 | analogic | |
| IB4 MA | 36 | 43 | 87,8 | 88,2 | 12 | analogic | |
| IB4 MB | 45 | 54 | 87,5 | 88,2 | 12 | analogic | |
| IB4 LA | 50 | 60 | 90,7 | 91,2 | 12 | analogic | |
| SK 225 SM | 65 | 78 | 89,4 | 90 | 6 | analogic | from auxiliary winding PMG on request |
| SK 225 MS | 80 | 96 | 90,1 | 90,7 | 6 | analogic | |
| SK 225 MR <i>new</i> | 85 | 102 | 90,5 | 91,2 | 6 | analogic | |
| SK 225 MM | 93 | 112 | 90,9 | 91,5 | 6 | analogic | |
| SK 225 MN <i>new</i> | 100 | 120 | 91,3 | 91,9 | 6 | analogic | |
| SK 225 ML | 110 | 132 | 91,3 | 91,9 | 6 | analogic | |
| SK 225 LS | 125 | 150 | 91,7 | 92,3 | 6 | analogic | |
| SK 225 LM | 140 | 168 | 91,7 | 92,4 | 6 | analogic | |
| SK 250 SL | 160 | 192 | 91,4 | 91,5 | 6 | analogic | |
| SK 250 MS | 180 | 216 | 91,8 | 91,9 | 6 | analogic | |
| SK 250 MM | 200 | 240 | 92,1 | 92,3 | 6 | analogic | |
| SK 250 ML | 230 | 275 | 92,4 | 92,6 | 6 | analogic | |
| SK 250 LS | 250 | 300 | 92,6 | 92,7 | 6 | analogic | |
| SK 250 LM | 275 | 330 | 92,7 | 92,8 | 6 | analogic | |
| SK 250 LL | 300 | 360 | 92,9 | 93 | 6 | analogic | |
| SK 315 SS | 350 | 420 | 92,9 | 93,7 | 6 | digital | from PMG |
| SK 315 SM | 400 | 480 | 93,4 | 94 | 6 | digital | |
| SK 315 SL | 450 | 540 | 93,8 | 94,4 | 6 | digital | |
| SK 355 MS | 500 | 600 | 94,2 | 94,7 | 6 | digital | |
| SK 355 MM | 570 | 684 | 94,3 | 94,8 | 6 | digital | |
| SK 355 LS | 600 | 720 | 94,5 | 95 | 6 | digital | |
| SK 355 LM | 650 | 780 | 94,6 | 95,1 | 6 | digital | |
| SK 355 WL | 720 | 860 | 94,8 | 95,2 | 6 | digital | |
| SK 400 SD | 800 | 960 | 94,7 | 95,3 | 6 | digital | |
| SK 400 SE | 900 | 1080 | 94,9 | 95,5 | 6 | digital | |
| SK 400 SF | 1000 | 1200 | 95,1 | 95,6 | 6 | digital | |
| SK 400 SG | 1100 | 1320 | 95,2 | 95,7 | 6 | digital | |
| SK 450 ME | 1300 | 1560 | 95,6 | 96,1 | 6 | digital | |
| SK 450 MF | 1500 | 1800 | 95,8 | 96,3 | 6 | digital | |
| SK 450 MG | 1600 | 1920 | 95,9 | 96,4 | 6 | digital | |
| SK 450 LE | 1800 | 2160 | 96,1 | 96,6 | 6 | digital | |
| SK 500 MA | 1875 | 2250 | 95,5 | 96,1 | 4 | digital | |
| SK 500 MB | 2000 | 2400 | 96 | 96,6 | 4 | digital | |
| SK 500 MC | 2300 | 2760 | 96,2 | 96,7 | 4 | digital | |
| SK 500 MD | 2600 | 3120 | 96,4 | 96,9 | 4 | digital | |

THREE PHASE BRUSHLESS/AVR

| model | S1 40°C • H class | | η | | leads ⁽¹⁾ | AVR | AVR power supply |
|--------|-------------------|---------------|---------------|---------------|----------------------|----------|------------------------|
| | kVA 400V 50Hz | kVA 480V 60Hz | p.f. 0,8 50HZ | p.f. 0,8 60HZ | | | |
| FB2 SA | 12,5 | 15 | 84,8 | 84,5 | 6 | analogic | from auxiliary winding |
| FB2 SB | 14 | 16,8 | 85,4 | 84,9 | 6 | analogic | |
| FB2 MA | 16,5 | 19,8 | 86,6 | 86,1 | 6 | analogic | |
| FB2 MB | 19 | 22,8 | 87,1 | 86,6 | 6 | analogic | |
| IB2 SA | 28 | 34 | 84,2 | 84,1 | 6 | analogic | |
| IB2 SB | 33 | 40 | 85,3 | 85,4 | 6 | analogic | |
| IB2 MA | 44 | 55 | 88,1 | 88,1 | 6 | analogic | |
| IB2 MB | 55 | 67 | 89,5 | 89,8 | 6 | analogic | |
| IB2 LA | 66 | 80 | 90,4 | 90,9 | 6 | analogic | |



Alternatori sincroni in bassa tensione AC | IP23 | SUPERCOMPATTI

Synchronous low voltage AC alternators | IP23 | SUPERCOMPACT

THREE PHASE

BRUSHLESS/AVR

| model | S1 40°C • H class | | η | | leads ⁽¹⁾ | AVR | AVR power supply |
|-----------|-------------------|---------------|---------------|---------------|----------------------|----------|------------------------|
| | kVA 400V 50Hz | kVA 480V 60Hz | p.f. 0,8 50HZ | p.f. 0,8 60HZ | | | |
| SK 160 SA | 8,5 | 11 | 78,1 | 79,3 | 12 | analogic | from auxiliary winding |
| SK 160 CA | 11 | 14 | 80,3 | 81,8 | 12 | analogic | |
| SK 160 CB | 14 | 17,5 | 83,3 | 84,3 | 12 | analogic | |
| SK 160 MA | 17,5 | 22 | 84,5 | 85,5 | 12 | analogic | |
| SK 160 MB | 20 | 25 | 86 | 87,2 | 12 | analogic | |
| SK 160 LA | 25 | 30 | 87,4 | 88 | 12 | analogic | |
| SK 160 LB | 30 | 36 | 87,6 | 88,2 | 12 | analogic | |
| SK 160 WA | 36 | 43 | 87,8 | 88,4 | 12 | analogic | |
| SK 160 WB | 40 | 49 | 87,9 | 88,6 | 12 | analogic | |



THREE PHASE

BRUSHLESS/AVR

| model | S1 40°C • H class | | η | | leads ⁽¹⁾ | AVR | AVR power supply |
|------------|-------------------|---------------|---------------|---------------|----------------------|----------|------------------------|
| | kVA 400V 50Hz | kVA 480V 60Hz | p.f. 0,8 50HZ | p.f. 0,8 60HZ | | | |
| SK 160 CA2 | 15 | 18 | 82,5 | 82,5 | 6 | analogic | from auxiliary winding |
| SK 160 MA2 | 20 | 25 | 83,7 | 83,6 | 6 | analogic | |
| SK 160 LA2 | 28 | 34 | 84,2 | 84,1 | 6 | analogic | |
| SK 160 LB2 | 33 | 40 | 85,3 | 85,4 | 6 | analogic | |
| SK 160 WA2 | 44 | 55 | 88,1 | 88,1 | 6 | analogic | |



SINGLE PHASE

BRUSHLESS/AVR

| model | S1 40°C • H class | | η | | leads ⁽¹⁾ | AVR | AVR power supply |
|-------------|-------------------|---------------|-------------|-------------|----------------------|----------|------------------------|
| | kVA 230V 50Hz | kVA 240V 60Hz | p.f. 1 50HZ | p.f. 1 60HZ | | | |
| SK 160 SZ 1 | 7 | 9 | 82,6 | 83,6 | 4 | analogic | from auxiliary winding |
| SK 160 SA 1 | 9 | 12 | 84 | 85 | 4 | analogic | |
| SK 160 CA 1 | 12 | 14,5 | 86 | 86,8 | 4 | analogic | |
| SK 160 CB 1 | 14 | 17,5 | 87,1 | 87,6 | 4 | analogic | |
| SK 160 MA 1 | 18 | 22 | 88,8 | 89,5 | 4 | analogic | |
| SK 160 LA 1 | 22 | 27 | 89,8 | 90,6 | 4 | analogic | |

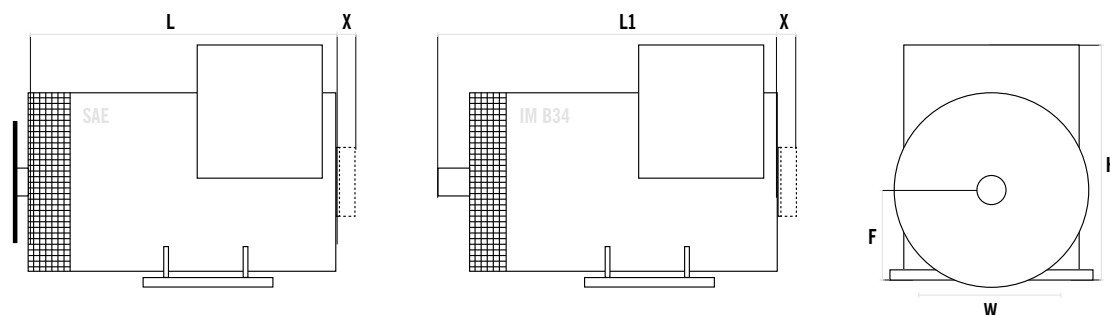


⁽¹⁾altre con gurazioni su richiesta • other con gurations on request

ACCOPIAMENTI STANDARD PER SAE - STANDARD COUPLINGS FOR SAE

| | series | FB2 FB4 | | | HB4 | | | IB2 IB4 | | SK160 | | | SK225 | | | | SK250 | | | SK315 SK355 | | | SK400 SK450 | | | SK500 | |
|------------|--------|------------|---|---|-----|---|---|------------|---|-------|---|---|-------|---|---|---|-------|---|---|----------------|-----|---|----------------|---|----|-------|---|
| | flange | 5 | 4 | 3 | 5 | 4 | 3 | 4 | 3 | 5 | 4 | 3 | 4 | 3 | 2 | 1 | 3 | 2 | 1 | 1 | 1/2 | 0 | 1/2 | 0 | 00 | 00 | |
| disk joint | 6,5 | • | • | | • | • | | • | | • | • | | | | | | | | | | | | | | | | |
| | 7,5 | • | • | | • | • | | • | | • | • | | | | | | | | | | | | | | | | |
| | 8 | • | • | • | • | • | • | • | • | • | • | | • | • | • | | | | | | | | | | | | |
| | 10 | | • | • | | • | • | | • | • | • | | • | • | • | | | | | | | | | | | | |
| | 11,5 | | | • | | | • | | • | | • | | | • | • | • | • | • | • | | | | | | | | |
| | 14 | | | | | | | | | | | | | | • | | | • | | • | • | • | | | | | |
| | 18 | | | | | | | | | | | | | | | | | | | | • | | • | • | • | | |
| | 21 | | | | | | | | | | | | | | | | | | | | | | | • | | | • |

Su richiesta esecuzioni speciali • Special executions available on request

PRINCIPALI DIMENSIONI D'INGOMBRO - MAIN OVERALL DIMENSIONS

4 POLES

| model | F mm | L mm | L1 mm | W mm | H mm | mass SAE Kg |
|-----------|---------|---------|----------|---------|---------|----------------|
| FB4 SA | 132 | 450 | 503 | 220 | 330 | 52 |
| FB4 SB | 132 | 450 | 503 | 220 | 330 | 58 |
| FB4 MA | 132 | 510 | 563 | 220 | 330 | 69 |
| FB4 MB | 132 | 510 | 563 | 220 | 330 | 75 |
| HB4 SA | 160 | 505 | 563 | 254 | 366 | 87 |
| HB4 SB | 160 | 505 | 563 | 254 | 366 | 93 |
| HB4 CA | 160 | 545 | 603 | 254 | 366 | 112 |
| IB4 SA | 160 | 510 | 568 | 254 | 433 | 119 |
| IB4 SB | 160 | 510 | 568 | 254 | 433 | 129 |
| IB4 MA | 160 | 570 | 628 | 254 | 433 | 152 |
| IB4 MB | 160 | 570 | 628 | 254 | 433 | 164 |
| IB4 LA | 160 | 640 | 698 | 254 | 433 | 193 |
| SK 225 SM | 225 | 558 | 673 | 330 | 555 | 215 |
| SK 225 MS | 225 | 693 | 808 | 330 | 555 | 264 |
| SK 225 MR | 225 | 693 | 808 | 330 | 555 | 270 |
| SK 225 MM | 225 | 693 | 808 | 330 | 555 | 280 |
| SK 225 MN | 225 | 693 | 808 | 330 | 555 | 292 |
| SK 225 ML | 225 | 693 | 808 | 330 | 555 | 308 |
| SK 225 LS | 225 | 803 | 918 | 330 | 555 | 350 |
| SK 225 LM | 225 | 803 | 918 | 330 | 555 | 388 |
| SK 250 SL | 250 | 677 | 801 | 405 | 665 | 459 |
| SK 250 MS | 250 | 787 | 911 | 405 | 665 | 507 |
| SK 250 MM | 250 | 787 | 911 | 405 | 665 | 540 |
| SK 250 ML | 250 | 787 | 911 | 405 | 665 | 601 |
| SK 250 LS | 250 | 887 | 1011 | 405 | 665 | 647 |
| SK 250 LM | 250 | 887 | 1011 | 405 | 665 | 680 |
| SK 250 LL | 250 | 887 | 1011 | 405 | 665 | 725 |
| SK 315 SS | 315 | 899 | 1048 | 590 | 905 | 855 |
| SK 315 SM | 315 | 899 | 1048 | 590 | 905 | 910 |
| SK 315 SL | 315 | 899 | 1048 | 590 | 905 | 1005 |
| SK 355 MS | 355 | 994 | 1143 | 590 | 945 | 1090 |
| SK 355 MM | 355 | 994 | 1143 | 590 | 945 | 1180 |
| SK 355 LS | 355 | 1119 | 1268 | 590 | 945 | 1290 |
| SK 355 LM | 355 | 1119 | 1268 | 590 | 945 | 1420 |
| SK 355 WL | 355 | 1224 | 1373 | 590 | 945 | 1630 |

| model | F mm | L mm | L1 mm | X mm | W mm | H mm | mass SAE Kg |
|-----------|---------|---------|----------|---------|---------|---------|----------------|
| SK 400 SD | 400 | 1136 | 1396 | 106 | 740 | 1173 | 1610 |
| SK 400 SE | 400 | 1136 | 1396 | 106 | 740 | 1173 | 1700 |
| SK 400 SF | 400 | 1136 | 1396 | 106 | 740 | 1173 | 1765 |
| SK 400 SG | 400 | 1136 | 1396 | 106 | 740 | 1173 | 1900 |
| SK 450 ME | 450 | 1411 | 1671 | 106 | 740 | 1223 | 2230 |
| SK 450 MF | 450 | 1411 | 1671 | 106 | 740 | 1223 | 2490 |
| SK 450 MG | 450 | 1411 | 1671 | 106 | 740 | 1223 | 2660 |
| SK 450 LE | 450 | 1511 | 1771 | 106 | 740 | 1223 | 2940 |
| SK 500 MA | 500 | 1578 | 1897 | 155 | 850 | 1372 | 3420 |
| SK 500 MB | 500 | 1578 | 1897 | 155 | 850 | 1372 | 3605 |
| SK 500 MC | 500 | 1578 | 1897 | 155 | 850 | 1372 | 3885 |
| SK 500 MD | 500 | 1578 | 1897 | 155 | 850 | 1372 | 4230 |

2 POLES

| model | F mm | L mm | L1 mm | W mm | H mm | mass SAE Kg |
|--------|---------|---------|----------|---------|---------|----------------|
| FB2 SA | 132 | 450 | 503 | 220 | 330 | 76 |
| FB2 SB | 132 | 450 | 503 | 220 | 330 | 81 |
| FB2 MA | 132 | 510 | 563 | 220 | 330 | 90 |
| FB2 MB | 132 | 510 | 563 | 220 | 330 | 98 |
| IB2 SA | 160 | 510 | 568 | 254 | 433 | 107 |
| IB2 SB | 160 | 510 | 568 | 254 | 433 | 117 |
| IB2 MA | 160 | 570 | 628 | 254 | 433 | 139 |
| IB2 MB | 160 | 570 | 628 | 254 | 433 | 159 |
| IB2 LA | 160 | 640 | 698 | 254 | 433 | 184 |

4 POLES | SUPERCOMPACT

| model | F mm | L mm | W mm | H mm | mass SAE Kg |
|-----------|---------|---------|---------|---------|----------------|
| SK 160 SA | 160 | 258 | 295 | 335 | 62 |
| SK 160 CA | 160 | 303 | 295 | 335 | 73 |
| SK 160 CB | 160 | 303 | 295 | 335 | 80 |
| SK 160 MA | 160 | 348 | 295 | 335 | 89 |
| SK 160 MB | 160 | 348 | 295 | 335 | 99 |
| SK 160 LA | 160 | 415 | 295 | 335 | 103 |
| SK 160 LB | 160 | 415 | 295 | 335 | 118 |
| SK 160 WA | 160 | 516 | 254 | 376 | 125 |
| SK 160 WB | 160 | 516 | 254 | 376 | 136 |

2 POLES | SUPERCOMPACT

| model | F mm | L mm | W mm | H mm | mass SAE Kg |
|------------|---------|---------|---------|---------|----------------|
| SK 160 CA2 | 160 | 303 | 295 | 335 | 68 |
| SK 160 MA2 | 160 | 348 | 295 | 335 | 81 |
| SK 160 LA2 | 160 | 440 | 254 | 376 | 97 |
| SK 160 LB2 | 160 | 440 | 254 | 376 | 107 |
| SK 160 WA2 | 160 | 516 | 254 | 376 | 124 |

4 POLES | SUPERCOMPACT

| model | F mm | L mm | W mm | H mm | mass SAE Kg |
|-------------|---------|---------|---------|---------|----------------|
| SK 160 SZ 1 | 160 | 258 | 295 | 335 | 60 |
| SK 160 SA 1 | 160 | 258 | 295 | 335 | 63 |
| SK 160 CA 1 | 160 | 303 | 295 | 335 | 79 |
| SK 160 CB 1 | 160 | 303 | 295 | 335 | 86 |
| SK 160 MA 1 | 160 | 348 | 295 | 335 | 104 |
| SK 160 LA 1 | 160 | 415 | 295 | 335 | 117 |

WE MAKE INNOVAT

ITALIAN DESIGN & INDUSTRIAL MANUFACTURING
MOTORS, ALTERNATORS, CONTROLLERS, DRIVERS
FOR ENERGY & AUTOMATION

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