



Bonfiglioli

Vectron

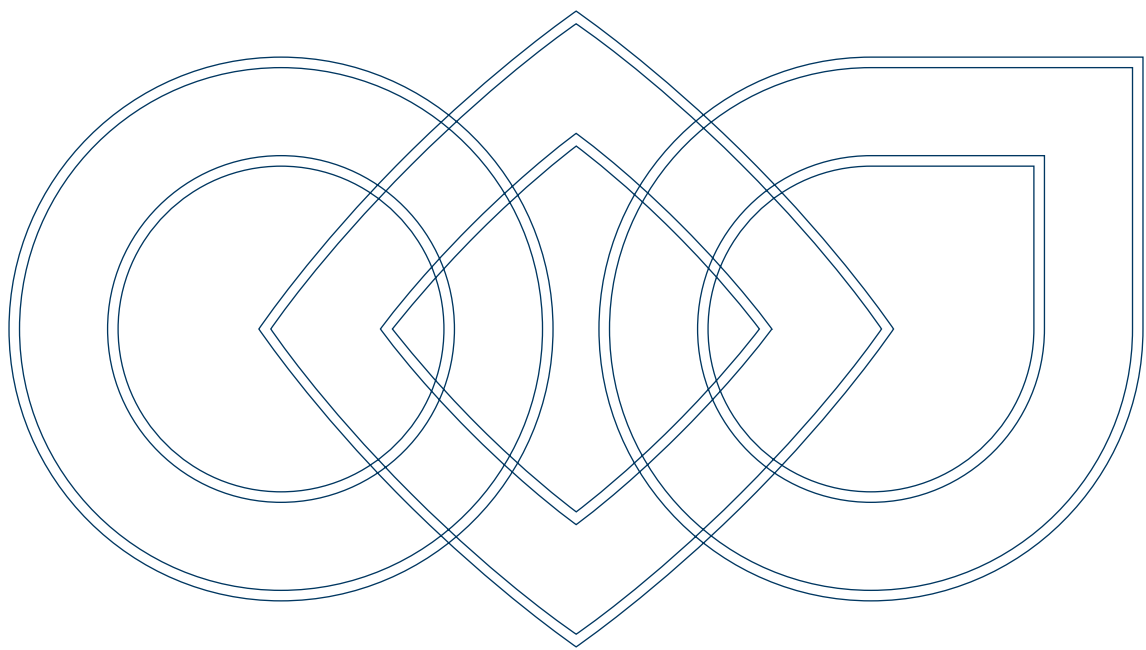
S2U

Variable Frequency Drive



PRODUCT

 **Bonfiglioli**
Forever Forward



Variable frequency Drive: the ideal drive for your lean application projects

Intuitive and simple, but powerful and effective, S2U is Bonfiglioli compact inverter for efficient speed and torque control of electric motors.

S2U range is made of 2 frame sizes and kW rating from 0.20 kW up to 2.2 kW.

The simple installation and use, together with connectivity and outstanding range of functions, make it the perfect drive for the control of those applications where productivity and short time to market are critical.

S2U can be easily integrated into any control architectures thanks to the built-in Modbus port and the wide range standard communication configuration protocols available. Easy plug in of PC VPlus software is granted via the integrated RJ45 connector in the front of the drive.

Comprehensive service for product dimensioning and selection is available in any Bonfiglioli branch office or distributor all around the world. Cabling is made easier by spring terminals and clear terminals marking.



Mechatronics - The **Challenge** to build **your Success**

Faster, better and cheaper - this is the new challenge for machine designers!

Increasing demands on the productivity of complex system machines, more flexible machines which run at highest efficiency level are requiring now new intelligent technical solutions that enhance growth tomorrow.

Bonfiglioli has implemented a precise and detailed strategy to precisely achieve this objective!

Mechatronic Drives & Solutions division is born with the mission to improve profitability by acting as a riskless partner and a provider of energy-efficient solutions over the total lifecycle in the field of industrial automation.



SYSTEM
INTEGRATION



EXPERTISE



ENERGY
SAVING

Type of applications

- High environment immunity
- High braking ability without braking resistor
- High torque at low speed
- Heat sink designed for dusty environment



PACKAGING
INDUSTRY



FANS, PUMPS
AND MIXERS



TEXTILE
MACHINES

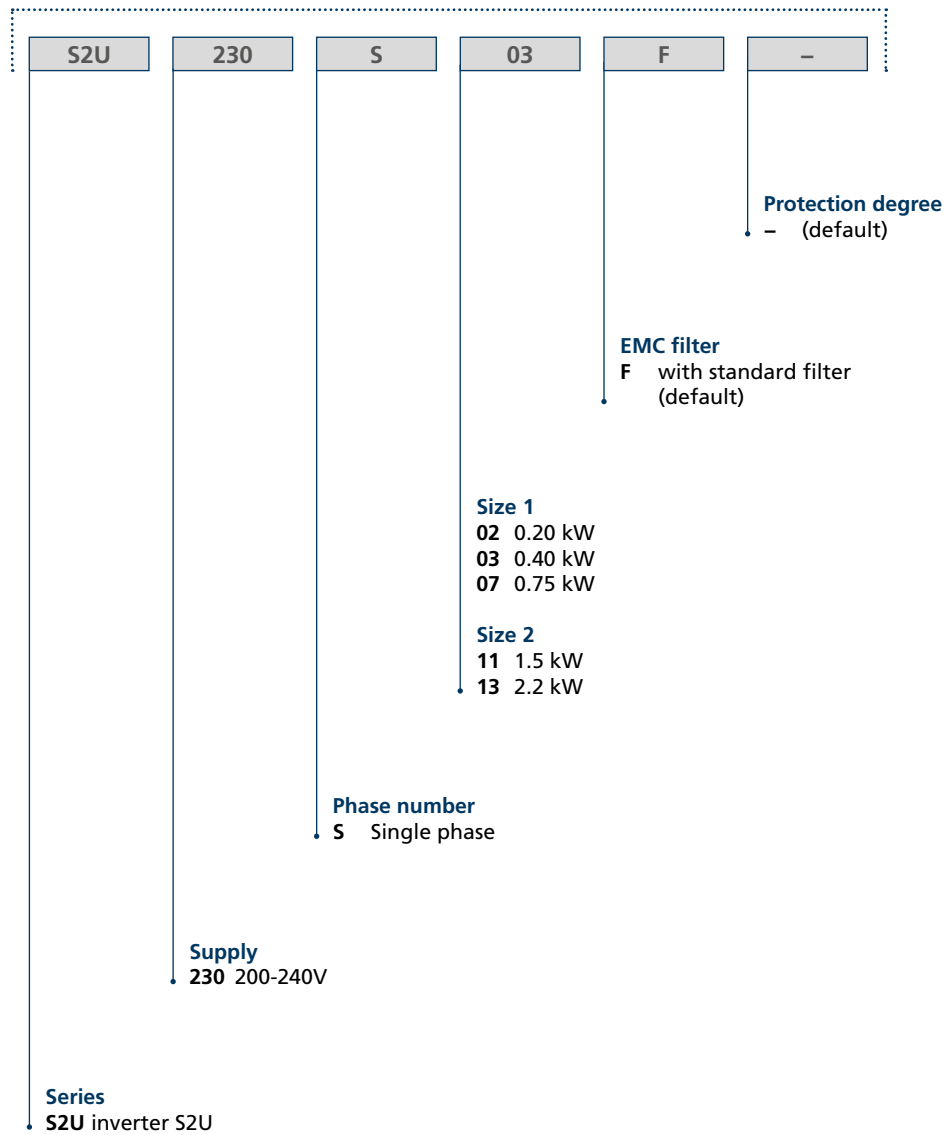


MATERIAL
HANDLING

Designation

S2U series

Basic variants



Features

- 32 bit CPU design strengthens the software's functionality, increases A/D responding speed, and enables automatic torque compensation
- Output frequency up to 650 Hz
- Modbus RS485 communication built-in for one-to-one and one-to-many control
- Links with Profibus, Devicenet, CANopen, Ethernet (TCP/IP) through gateways
- Built-in standard keypad including potentiometer for easy speed adjustment
- Links with PC VPlus software through RJ45
- EMI filter built-in for magnetic interference suppression complying with (IEC) EN61800-3 standard
- Micro size for easy installation including side-by-side and Dinrail mounting option
- PID feedback control built-in
- Suitable for conveyors, automated knitting machines, food packing machines, simple windmills and pumps
- Full protective functions
- Fanless design can effectively extend product life
- Emergency stop function built-in complying with global standard
- Panel mounting by heatsink or Dinrail option
- Earthing terminals built-in into heatsink to effectively provide grounding protection
- Flip form communication interface for easy link and dust-proof feature, with operational and protective functions

Type	Power kW
S2U230S-02	0.20
S2U230S-03	0.40
S2U230S-07	0.75
S2U230S-11	1.5
S2U230S-13	2.2



Size 1



Size 2

General technical data

Item	S2U series
Control mode	V/F control + Auto-torque compensation function
FREQUENCY	
Range	0.01 ... 650 hz
Setting resolution	Digital input: 0.01 Hz / Analog input: 0.06/60 Hz
Setting	Keypad: Set directly with keys or the VR on the keypad External terminal: AVI (0-10V/2-10V), ACI (0-20mA/4-20mA) input Multifunction input up/down function (group3) communication settings
Frequency limit	The lower and upper limit of frequency 3 jump frequency can be set
RUN	
Operation set	Panel: run, stop button control External terminal: Multi-operation-mode2, 3 wireselection, Jog operation, Communication operation
COMMONLY CONTROL	
V/F curve setting	6 fixed curve, an arbitrary curve
Carrier frequency	1-16 kHz (default 5 kHz)
Acceleration and deceleration control	2 Acc/Dec time can be set 4 S curve can be set
Multifunction input	19 functions (refer to description on group3)
Multifunction output	14 functions (refer to description on group3)
Multifunction analog output	5 functions (refer to description on group3)
Other features	Overload detection, 8 preset speeds, Auto-run, Acc/Dec switch (2stages), Main/Alt run command select, Main/Alt frequency command select, PID control, torque boost, V/F start frequency, abnormality reset and ect.
DISPLAY	
LED	Display: parameter, parameter value, frequency, line speed, DC voltage, output voltage, output current, PID feedback, input and output terminal status, Heat sink temperature, Program version, Fault log and etc.
Status indicator	Instructions: run, stop, forward, reverse, and etc.
PROTECTIVE FUNCTIONS	
Overload protection	The relays to protect the motor and the inverter
Over voltage	Over 410 V dc
Under voltage	Under 190 V dc
Momentary power loss restart	Inverter can auto-restart after power instantaneously loss
Stall prevention	Stall prevention for Acc/Dec operation
Short-circuit output terminal	Electronic circuit protection
Grounding fault	Electronic circuit protection
Other protection features	Protection for overheating of heat sink, the carrier frequency decreasing with the temperature function, fault output, reverse prohibit, for direct start after power up and error recovery parameter lock up
ENVIRONMENT	
Communication control	Built-in RS485 modbus, one to one or one to many control
Operating temperature	-10°C ... 50°C
Storage temperature	-20°C ... 60°C
Humidity	95% RH or less (no condensation)
Shock	20 Hz or less 1G (9.8 m/s ²) 20-50 Hz 0.6G (5.88 m/s ²)
Protection class	IP20

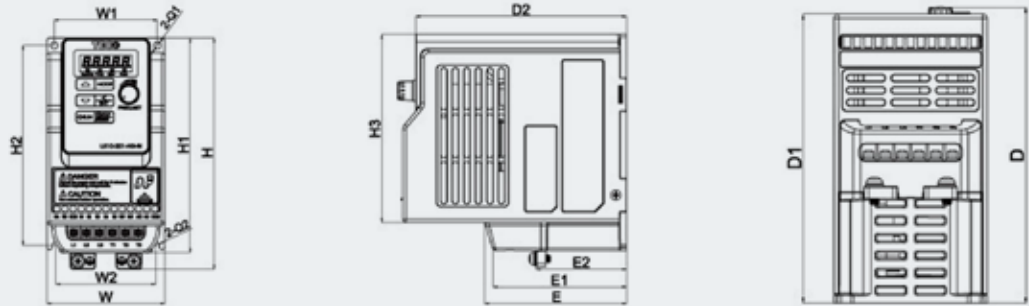
Technical data

S2U230S-		02	03	07	11	13
----------	--	----	----	----	----	----

Max applicable motor output	kW	0.2	0.4	0.75	1.5	2.2
Rated output current	A	1.8	2.6	4.3	7.5	10.5
Rated capacity	kVa	0.68	1.0	1.65	2.9	4.0
Max input voltage	-	Single phase 200-240V / 50-60 Hz (+10%/-15%)				
Max output voltage	-	Three phase 0-240V				
Input current	A	4.9	7.2	11	15.5	21
Allowable momentary power loss time	-	1 second			2 seconds	
Protection level	-	IP20				

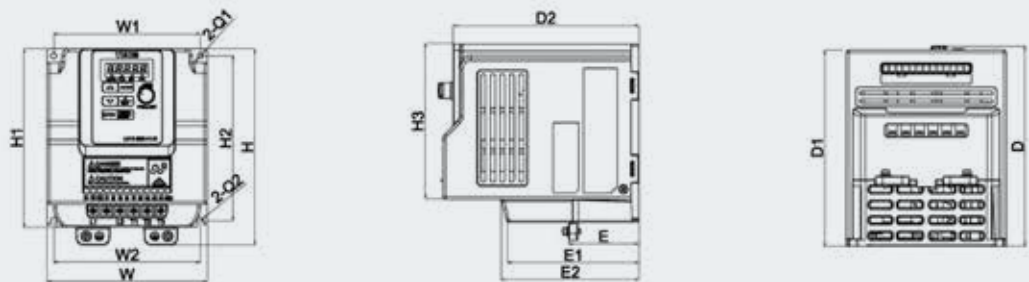
Dimensions

Size 1



Type	W	W1	W2	H	H1	H2	D	D1
[mm]								
S2U230S-02 F	72	63	61	141	131	122	139.2	136
S2U230S-03 F	72	63	61	141	131	122	139.2	136
S2U230S-07 F	72	63	61	141	131	122	139.2	136

Size 2

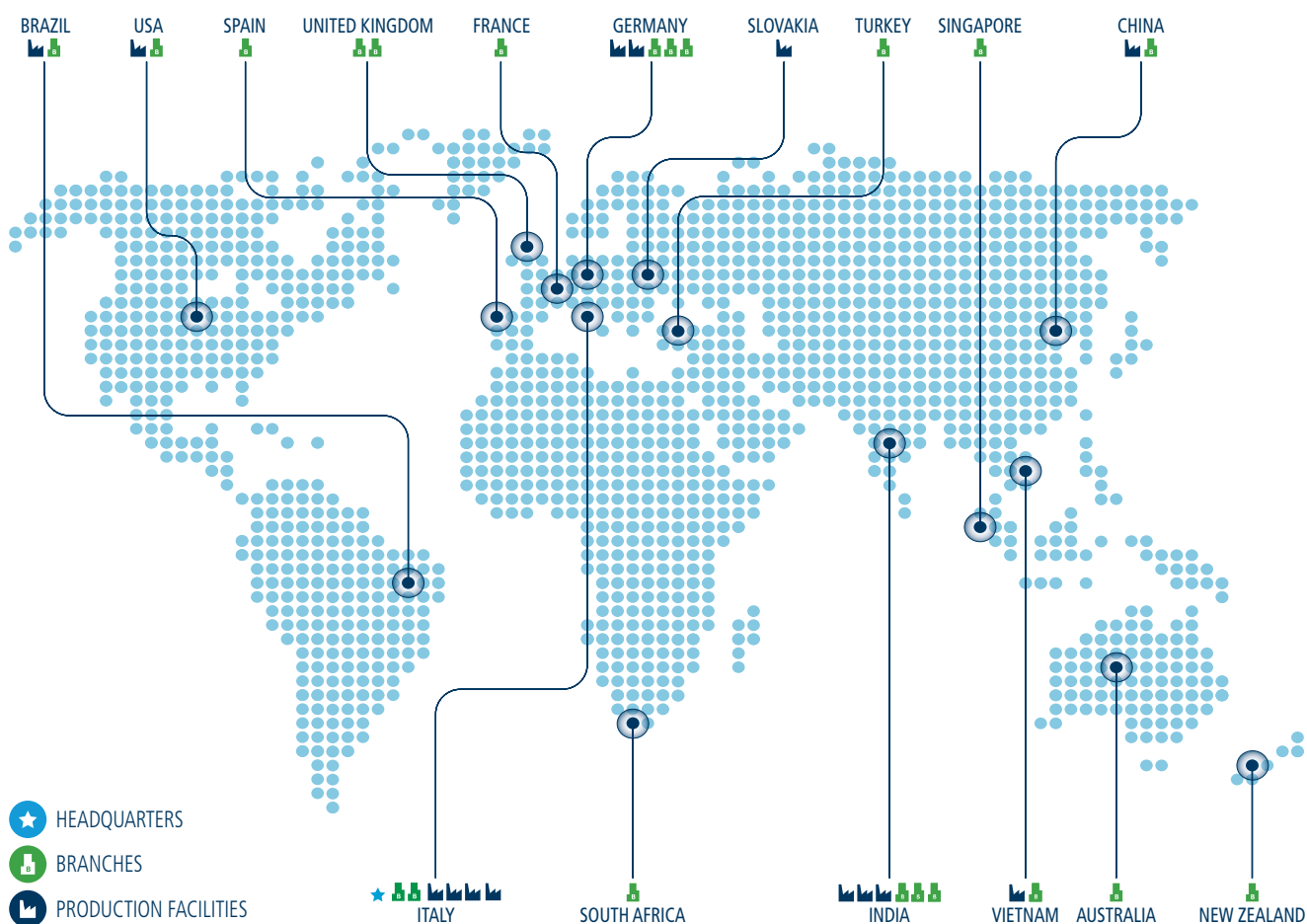


Type	W	W1	W2	H	H1	H2	D	D1
[mm]								
S2U230S-11 F	118	108	108	144	131	121	147.3	144.2
S2U230S-13 F	118	108	108	144	131	121	147.3	144.2

Bonfiglioli worldwide presence

Bonfiglioli is located in regions and countries around the world that enable us to provide faster sales and service to customers.

We are around the world, and around the corner.



LOCAL SUPPORT
Sales, Customer Service,
Warranty, Tech support,
Spare parts



**21 BRANCH OFFICES
IN 15 COUNTRIES**



**WORLDWIDE
DISTRIBUTION
NETWORK**

Bonfiglioli worldwide locations

Australia

www.bonfiglioli.com.au
2, Cox Place Glendenning NSW 2761
Locked Bag 1000 Plumpton NSW 2761
Tel. + 61 2 8811 8000

Brazil

www.bonfigliolidobrasil.com.br
Travessa Cláudio Armando 171
Bloco 3 - CEP 09861-730 - Bairro Assunção
São Bernardo do Campo - São Paulo
Tel. +55 11 4344 2322

China

www.bonfiglioli.cn
Bonfiglioli Drives (Shanghai) Co., Ltd.
#68, Hui-Lian Road, QingPu District,
201707 Shanghai
Tel. +86 21 6700 2000

France

www.bonfiglioli.fr
14 Rue Eugène Pottier
Zone Industrielle de Moimont II - 95670 Marly la Ville
Tel. +33 1 34474510

Germany

www.bonfiglioli.de
Sperberweg 12 - 41468 Neuss
Tel. +49 0 2131 2988 0

Industrial

Europark Fichtenhain B6 - 47807 Krefeld
Tel. +49 0 2151 8396 0

O&K Antriebstechnik

Ruhrallee 8-12 - 45525 Hattingen
Tel. +49 0 2324 2050 1

India

www.bonfiglioli.in
Mobile, Wind
Bonfiglioli Transmissions Pvt. Ltd.
Plot No. AC7-AC11, SIDCO Industrial Estate,
Thirumudivakkam - 600 044 Chennai
Tel. +91 44 2478 1035

Industrial

Survey No. 528, Porambakkam High Road,
Mannur Village, Sriperambudur Taluk - 602 105 Chennai
Tel. +91 44 6710 3800
Plot No. A-95, Phase IV, MIDC Chakan, Village Nighoje
Pune, Maharashtra - 410 501

Italy

www.bonfiglioli.it
Headquarters
Bonfiglioli Riduttori S.p.A.
Via Giovanni XXIII, 7/A
Lippo di Calderara di Reno - 40012 Bologna
Tel. +39 051 647 3111

Mobile, Wind

Via Enrico Mattei, 12 Z.I. Villa Selva - 47100 Forlì
Tel. +39 0543 789111

Industrial

Via Bazzane, 33/A - 40012 Calderara di Reno
Tel. +39 051 6473111
Via Trinità, 1 - 41058 Vignola
Tel. +39 059 768511
Via Sandro Pertini lotto 7b - 20080 Carpiano
Tel. +39 02 985081

Bonfiglioli Mechatronic Research

Via F. Zeni 8 - 38068 Rovereto
Tel. +39 0464 443435/36

New Zealand

www.bonfiglioli.co.nz
88 Hastie Avenue, Mangere Bridge, 2022 Auckland
PO Box 11795, Ellerslie
Tel. +64 09 634 6441

Singapore

www.bonfiglioli.com
24 Pioneer Crescent #02-08
West Park Bizcentral - Singapore, 628557
Tel. +65 6268 9869

Slovakia

www.bonfiglioli.com
Robotnícka 2129
Považská Bystrica, 01701 Slovakia
Tel. +421 42 430 75 64

South Africa

www.bonfiglioli.co.za
55 Galaxy Avenue, Linbro Business Park - Sandton
Tel. +27 11 608 2030

Spain

www.tecnotrans.bonfiglioli.com
Tecnotrans Bonfiglioli S.A.
Pol. Ind. Zona Franca, Sector C, Calle F, nº 6
08040 Barcelona
Tel. +34 93 447 84 00

Turkey

www.bonfiglioli.com.tr
Atatürk Organize Sanayi Bölgesi, 10007 Sk. No. 30
Atatürk Organize Sanayi Bölgesi, 35620 Çiğli - İzmir
Tel. +90 0 232 328 22 77

United Kingdom

www.bonfiglioli.co.uk

Industrial

Unit 7, Colemeadow Road
North Moons Moat - Redditch, Worcestershire B98 9PB
Tel. +44 1527 65022

Mobile, Wind

3 - 7 Grosvenor Grange, Woolston
Warrington - Cheshire WA1 4SF
Tel. +44 1925 852667

USA

www.bonfiglioliusa.com
3541 Hargrave Drive
Hebron, Kentucky 41048
Tel. +1 859 334 3333

Vietnam

www.bonfiglioli.vn
Lot C-9D-CN My Phuoc Industrial Park 3
Ben Cat - Binh Duong Province
Tel. +84 650 3577411



We have a relentless commitment to excellence, innovation and sustainability. Our team creates, distributes and services world-class power transmission and drive solutions to keep the world in motion.



HEADQUARTERS

Bonfiglioli Riduttori S.p.A.
Via Giovanni XXIII, 7/A
40012 Lippo di Calderara di Reno
Bologna (Italy)
tel: +39 051 647 3111
fax: +39 051 647 3126
bonfiglioli@bonfiglioli.com
www.bonfiglioli.com