

VOTRONIC Solar Current Technology

Free Energy

General Technical Data Solar Charging Controller Series SR and MPP

Unit execution	12 V and 24 V
Overcharge protection:	Yes
Characteristic line of charging:	IU1oU2
Reverse current protection (night operation):	Yes
Integrated on-board mains suppression filter, unproblematic parallel operation of chargers, dynamos, generators at the same battery:	Yes
Protection against overload, overheating, short-circuit, reverse battery:	Yes
Automatic battery temperature compensation, designed separately for acid, gel and AGM batteries, temperature sensor, order no. 2001, required:	Yes
Automatic compensation of voltage loss on the charging cables:	Yes
Overvoltage limitation for protection of sensitive consumers:	Yes
Charging Timer:	2-fold
Ambient temperature range:	-20 to +45 °C
Ambient Conditions, Humidity of Air:	max. 95 % RH
Mark of conformity:	CE, E Test (EMV/Automotive Regulations)

VOTRONIC Solar Charging Controller in Shunt Controller Technology

Effective battery charging for camper, caravan, boat and self-contained solar systems etc.

- Main charging port I: Automatic charging and conservation of charge of the (main) board supply battery.
- Auxiliary charging port II: Current and voltage reduced for recharging as well as trickle charge of the vehicle's starter battery, thus ensuring continuous starting capacity (execution B).
- Continuous control, full batteries by immediate recharging in case of current consumption
- Automatic charging programs adjustable for gel, acid/lead-acid, AGM/fleece and LiFePO batteries (not SR 100 universal charging program)
- Indicators for operating state quintuplicate
- Least own electricity consumption
- Connection for battery temperature sensor (execution B), integrated temperature sensor (execution A)
- Control output EBL, prepared for "Elektroblok" with solar current display, cable set, order no. 2007, required
- Terminal "AES" with LED display: Automatic commutation of Dometic/ELECTROLUX refrigerators from gas operation to 12 V-operation in case of sufficient solar power by means of "AES" (Automatic Energy Selector).

Recommendation



Battery Temperature Compensation with VOTRONIC Temperature Sensor, order no. 2001

Unit Type	Order No.	Battery Voltage	Capacity Solar Module	Current Solar Module	Voltage Solar Module	Charg. Current Batt. I/Batt. II	Terminal AES	Connection Solar Computer	Output for EBL -Solar Current Display	Dimensions * (WxDxH) mm	Weight g	Execution
12 V												
SR 100 Dig.	3028	12	100	6.5	26	6.5/ -	-	-	-	90x60x29	60	A
SR 140 Duo Dig.	1610	12	140	9	28	9.0/0.8	-	Yes	Yes	131x77x40	150	B
SR 220 Duo Dig.	1615	12	220	14	28	14.0/0.8	-	Yes	Yes	131x77x40	155	B
SR 330 Duo Dig.	1620	12	330	21	28	21.0/1.5	12V/0.2A	Yes	Yes	131x77x40	165	B
SR 530 Duo Dig.	1625	12	530	33	28	33.0/1.5	12V/0.2A	Yes	Yes	131x77x40	170	B
24 V												
SR 300-24 Duo Dig.	6615	24	300	10	50	10.0/0.8	-	Yes	-	131x77x40	150	B

* Dimensions incl. mounting flanges, without connections

Delivery Scope: Manual

Recommendable Accessories: VOTRONIC Solar Computer (see page 19), VOTRONIC Temperature Sensor, order no. 2001, Cable set for connection of the solar controller to EBL, order no. 2007



Execution A



Execution B

VOTRONIC Solar Charging Controller in MPP Technology

MPP (Maximum Power Point): Optimum energy yield due to charging current being increased by 10 % to 30 %!
Effective battery charging for camper, caravan, boat and self-contained solar systems etc.

Controllers according to the MPP technology are continuously and automatically calculating the maximum power yield (MPP) of the solar modules several times per minute. The voltage surplus of the solar module will be transformed to a higher charging current for the battery (realised by high-frequency switching controller technology with high efficiency). This surplus of charging current ensures short charging times and the best possible power yield of the solar system.

- Main charging port **I** : Automatic charging and conservation of charge of the (main) board supply battery.
- Auxiliary charging port **II** : Reduced current and voltage rates for recharging and trickle charge of the vehicle's starter battery, thus ensuring continuous starting capacity.
- Continuous control, full batteries by immediate recharging in case of current consumption
- Fully automatic charging programs adjustable for gel, acid/lead-acid, AGM/fleece and LiFePO batteries for optimum charging results
- Indicators for operating state quintuplicate
- Very low own electricity consumption, high efficiency
- Input for battery temperature sensor for temperature compensation
- Control output EBL, prepared for Elektroblok with solar current display, cable set, order no. 2007, required
- Terminal "AES" with LED display: Automatic commutation of Dometic/ELECTROLUX refrigerators from gas operation to 12 V-operation in case of sufficient solar power by means of "AES" (Automatic Energy Selector).

Unit Type	Order No.	Battery Voltage V	Capacity Solar Module Wp	Current Solar Module A max.	Voltage Solar Module V max.	Charg. Current Batt. I/Batt. II A max.	Terminal AES	Connection Solar Computer	Output for EBL -Solar Current Display	Dimensions * (WxDxH) mm	Weight g	Execution
12 V												
MPP 165 Duo Dig.	1710	12	165	10	50	11.8/1.0	-	Yes	Yes	131x77x40	190	C
MPP 250 Duo Dig.	1715	12	250	15	50	17.5/1.0	12V/0.2A	Yes	Yes	131x77x40	210	C
MPP 350 Duo Dig.	1720	12	350	21	50	25.0/1.0	12V/0.2A	Yes	Yes	131x77x40	250	C
MPP 420 Duo Dig.	3039	12	420	25	50	32.0/1.0	-	Yes	-	160x100x71	680	D
24 V												
MPP 320/24 Duo Dig.	6136	24	320	9.5	50	12.0/1.0	-	Yes	-	160x100x71	620	D
MPP 480/24 Duo Dig.	6137	24	480	14	50	18.0/1.0	-	Yes	-	160x100x71	670	D

* Maße inkl. Befestigungs-Flansche, ohne Anschlüsse

Delivery Scope: Manual

Recommendable Accessories: VOTRONIC Solar Computer (see page 19); VOTRONIC Temperature Sensor, order no. 2001; Cable set for connection of the solar controller to EBL, order no. 2007



Execution C



Execution D

