ELLEGO

EVV™ CONSTANT VOLTAGE CHARGER

EVV™
Constant Voltage Charger

A reliable thyristor controlled battery charger for demanding applications.
Manufactured since 1987.

- Output voltage range 24-440 Vdc
- Output current range 3-1000 Adc
- Wide variety of models
- Long service life, up to 30 years
- High reliability
- Inherently resistant to cyber threats

Typical applications:

- transformer stations
- process industry
- power stations
- ship building industry
- nuclear power plants

The device does not incorporate a digital element as defined under EU regulation. Therefore it is suitable for use in applications with stringent cybersecurity requirements. For cybersecurity related inquiries, and reporting vulnerabilities or incidents, please contact **cert@ellego.fi**

EVV™ CONSTANT VOLTAGE CHARGER

Electrical characteristics:	
Input voltage	230/400/440/480/690 VAC +/- 10%; 50/60 Hz +/- 5%
Output voltage range	3-1000 Adc
Output current range	24-440 Vdc
Typical efficiency	24 V >84 %; 48 V >89 %; 110/220 V >90 %
Typical power factor	>0,75
Typical cos φ	>0,85
Charging curve	IU
Float-charge voltage	1,0-1,2 * Un (in the supply network range)
Boost-charge voltage	1,0-1,2 * Un (in the supply network range)
Current limiting	0,7-1,0 * In
Static stability	+(-) 1 % or better
Output ripple voltage	<4 % without battery pack (typically <2 %)

Environmental conditions:	
Ambient temperature	-5...+40°C
Storage temperature	-30...+50°C
Relative humidity	<90 %, non-condensing
Altitude above sea level	<1000 m

Standard equipment:	
Mains switch with indicator light	
Float-/boost-charge switch	
Combined V/A meter	
Automatic boost-charge switching in response to undervoltage and cut-off by a timer circuit	
Potential-free common alarm relay for remote monitoring of alarms	
Remote voltage measurement of battery pack terminals for compensating cable losses	
LED indicators:	Float-charging
	Boost-charging
	Overvoltage
	Undervoltage
	Output fuse fault
	Mains/phase fault

Accessories:	
BV	Battery pack monitoring
IR	Charge voltage temperature compensation
KV	Float-charge voltage monitoring (+/- 2 %)
LH	Individual alarm relay outputs
LS	Additional output voltage filter
MH	Earth fault monitoring
UIP	Stepless current and/or voltage control with panel potentiometers
VELA	Monitoring unit with a touchscreen

*) EVV type V/A	Max output power kW	Mains fuse, A	Input voltage, V	Enclosure type	Weight, kg
24/12	0,35	6	1/230	SM1	26
24/25	0,72	10	1/230	SM2	40
24/35	1,01	4	3/400	LM1	70
24/50	1,44	6	3/400	LM1	90
24/100	2,88	16	3/400	LM2	100
24/150	4,32	25	3/400	LM2	135
24/200	5,76	35	3/400	LM2	165
48/12	0,69	6	1/230	SM2	36
48/25	1,44	10	1/230	LM1	65
48/50	2,88	6	3/400	LM1	105
48/100	5,76	16	3/400	LM2	138
110/3	0,39	6	1/230	SM2	30
110/6	0,79	10	1/230	SM2	41
110/12	1,58	16	1/230	SM2	49
110/25	3,30	10	3/400	LM1	100
110/50	6,60	20	3/400	LM2	160
110/100	13,20	50	3/400	LMx	230
220/3	0,79	10	1/230	SM2	36
220/6	1,58	16	1/230	LM1	52
220/12	3,17	10	3/400	LM1	91
220/25	6,60	20	3/400	LM2	160
220/35	9,24	35	3/400	LM2	160
220/50	13,20	50	3/400	LM2	210
220/100	26,40	80	3/400	LMx	340
440/150	79,20	200	3/400	2x LMx	800

*) Standard models, other models on request

Enclosure dimensions:

Model	Height mm	Width mm	Depth mm	
SM1	290	450	275	SM =
SM2	540	450	275	wall-mounted model
LM1	790	500	365	LM =
LM2	1020	700	510	floor-standing model
LM3	2100	800	600	IP21, RAL 7035

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