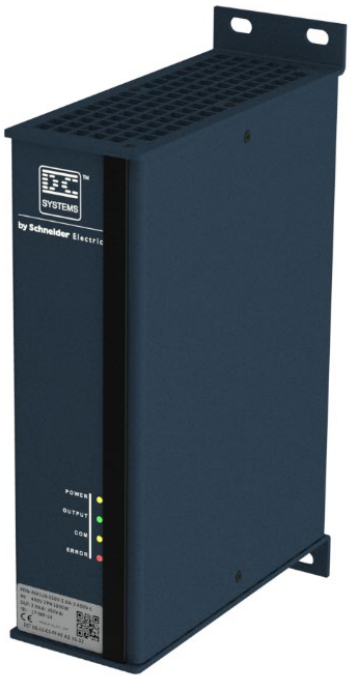


AM1L DATASHEET

dc.systems

CurrentOS

SYSTEMS™
by Schneider Electric

About

AM1L is an AC/DC power supply with solid-state protection for DC public lighting applications. It provides up to 91% system efficiency including cable losses and communication, with lines up to 3.5km. Measured from AC to LED. It can also be used for Smart Grids based on DC² ±350Vdc application.

Applications

- Public lighting
- Smart grid ±350Vdc

Features

- Full DC protection
- Natural cooling (no fans)
- Soft inrush on the AC grid Type B 6A breaker can be used
- DC galvanic separation from the AC grid
- DC TCN connection
- Digital I/O: 2x User input and 2x User output
- No breaking current
- Fully DC RCD functionality <0.1sec @1...50mA fault current
- Full control by Power Line Communication
- PLC CENELEC A Band G3
- PLC Mesh, star, or point-to-point network topology
- Electrical Mesh, star, or point-to-point
- Superior AC/DC efficiency >95% including housekeeping, management, communication, and Power Line communication.
- Bipolar ±350Vdc or single 350Vdc grids
- RS485 MODBUS for user configuration or by USB-B
- Current/OS server v1.0
- 100% digital based on a DSP
- Firmware can be updated
- Long lines up to 3.5km cable length

AM1L

Logistic data

Specification item	Value
Product reference	AM1LN-350V-1kW-2-400V-LCR1PLC1R1

Electrical input data

Specification item	Value	Unit	Condition
Nominal input voltage	400	V ac	
Max. input voltage	440	V ac	Nominal working
Min. input voltage	380 230	V ac	Nominal working 50% output
Max input power	1045	W	@1000W output
Max input current	2.5	A	@1000W output
Efficiency	>95	%	100% output
Standby power	8	W	Power Line Communication (PLC) Active
Power Factor	>0.98		

Electrical output data

Specification item	Value	Unit	Condition
Nominal output voltage	350	V dc	
Max output voltage	380	V dc	
Min output voltage	320	V dc	
Max output current	3	A dc	
Overload current	3.1 3.3	A dc A dc	60sec 15sec
Short circuit current at output	15	A dc	Excluding pulse system capacitance
Turn-off delay short circuit	<1	us	Electronic delay for short-circuit detection and short clear.
Fault leakage current detection RCD	1…50	mA	Configuration 1…100ms

Electrical connections

Specification item	Value	Unit
Incoming cable min. cross section	0.75	mm²
Incoming cable max. cross section	4	mm²
Outgoing cable min. cross section	1	mm²
Outgoing cable max. cross section	4	mm²

Surge protection AC

Specification item	Value	Unit	Condition
Peak current Rating per 8/20us	6	kA	25 °C
Absolute clamp voltage	1240	V	@50A

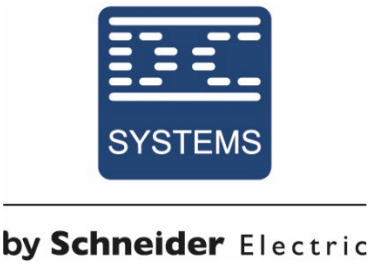
Note: DC output must be protected externally

Physical data

Specification item	Value	Unit
Height	300	mm
Width	75	mm
Depth	191	mm
Weight	2000	grams
IP rating	IP20	

Environmental Conditions

Specification item	Value	Unit	Condition
Max ambient temperature	70	°C	Standby
Max ambient temperature 100%	50	°C	Full power w/o derating, depending on position and airflow
Min ambient temperature	-20	°C	Standby
Ambient temperature (T-Life)	40	°C	
Maximal case temperature	70	°C	
Storage temperature	10…30	°C	
Humidity operation	95	%	Non-condensing
Humidity storage	80	%	



For more information, visit
www.dc.systems/applications/products

DC Systems
Oosteinderweg 127C
1432 AH Aalsmeer