

Part Number	Item	Link	System quantity	TBO Quantity	Price	Total	Item Description
SS8P3L-M3/86A	Diode	<a href="https://www.digikey.com/en/products/detail/vishay-general-semiconductor-diodes-division/SS8P3L-M3-86A/2048210">https://www.digikey.com/en/products/detail/vishay-general-semiconductor-diodes-division/SS8P3L-M3-86A/2048210</a>	2	5	0.72	3.6	Diode for current protection after use of mosfet
150060RS75000	Red LED	<a href="https://www.digikey.com/en/products/detail/w%C3%BCrth-elektronik/150060RS75000/4489901">https://www.digikey.com/en/products/detail/w%C3%BCrth-elektronik/150060RS75000/4489901</a>	1	5	0.15	0.75	Red LED for displaying the charge status of the charging controller
150060VS75000	Green LED	<a href="https://www.digikey.com/en/products/detail/w%C3%BCrth-elektronik/150060VS75000/4489906">https://www.digikey.com/en/products/detail/w%C3%BCrth-elektronik/150060VS75000/4489906</a>	1	5	0.15	0.75	Green LED for displaying the status of if the battery is done charging
RG2012N-121-W-T1	120 Resistor	<a href="https://www.digikey.com/en/products/detail/susumu/RG2012-N-121-W-T1/600666">https://www.digikey.com/en/products/detail/susumu/RG2012-N-121-W-T1/600666</a>	1	5	0.94	4.7	120 Ohm resistor
LB3218T470K	47 uH Inductor	<a href="https://www.digikey.com/en/products/detail/taiyo-yuden/LB3218T470K/1788929">https://www.digikey.com/en/products/detail/taiyo-yuden/LB3218T470K/1788929</a>	1	5	0.14	0.7	47 uH Inductor
C0805C224K5RAC7800	220 nF Capacitor	<a href="https://www.digikey.com/en/products/detail/kemet/C0805C224K5RAC7800/754753">https://www.digikey.com/en/products/detail/kemet/C0805C224K5RAC7800/754753</a>	1	5	0.14	0.7	220 nF Capacitor
CC0805KRX7R9BB104	100 nF Capacitor	<a href="https://www.digikey.com/en/products/detail/yageo/CC0805KRX7R9BB104/302874">https://www.digikey.com/en/products/detail/yageo/CC0805KRX7R9BB104/302874</a>	1	5	0.1	0.5	100 nF Capacitor
CL10A475KP8NNNC	4.7 uF Capacitor	<a href="https://www.digikey.com/en/products/detail/samsung-electro-mechanics/CL10A475KP8NNNC/3886702">https://www.digikey.com/en/products/detail/samsung-electro-mechanics/CL10A475KP8NNNC/3886702</a>	2	5	0.1	0.5	4.7 uF Capacitor
AO3407A	AO3407A MOSFET	<a href="https://www.digikey.com/en/products/detail/alpha-omega-semiconductor-inc/AO3407A/1855778">https://www.digikey.com/en/products/detail/alpha-omega-semiconductor-inc/AO3407A/1855778</a>	1	5	0.33	1.65	P channel mosfet for driving the charge conditions
865230542002	10 uF	<a href="https://www.digikey.com/en/products/detail/w%C3%BCrth-elektronik/865230542002/5727890">https://www.digikey.com/en/products/detail/w%C3%BCrth-elektronik/865230542002/5727890</a>	2	5	0.2	1	10 uF
GRM21BR71H474KA88L	470 nF	<a href="https://www.digikey.com/en/products/detail/murata-electronics/GRM21BR71H474KA88L/702992">https://www.digikey.com/en/products/detail/murata-electronics/GRM21BR71H474KA88L/702992</a>	1	5	0.24	1.2	470 nF
PE2512FKM070R05L	Rcs	<a href="https://www.digikey.com/en/products/detail/yageo/PE2512FKM070R05L/5914956">https://www.digikey.com/en/products/detail/yageo/PE2512FKM070R05L/5914956</a>	1	5	0.63	3.15	Current sensing resistor
RMCF0805FT13K0	13k	<a href="https://www.digikey.com/en/products/detail/stackpole-electronics-inc/RMCF0805FT13K0/1760663">https://www.digikey.com/en/products/detail/stackpole-electronics-inc/RMCF0805FT13K0/1760663</a>	1	5	0.1	0.5	13k resistor
RR1220P-102-D	1k	<a href="https://www.digikey.com/en/products/detail/susumu/RR1220-P-102-D/432291">https://www.digikey.com/en/products/detail/susumu/RR1220-P-102-D/432291</a>	2	5	0.1	0.5	1k resistor
691137710002	Terminal	<a href="https://www.digikey.com/en/products/detail/w%C3%BCrth-elektronik/691137710002/6644051">https://www.digikey.com/en/products/detail/w%C3%BCrth-elektronik/691137710002/6644051</a>	3	6	0.4	2.4	2 port screw in terminal
	Solar Cable	<a href="https://www.amazon.com/Renogy-Controller-Connector-Adaptor-Extension/dp/B00DGXGKWA?th=1">https://www.amazon.com/Renogy-Controller-Connector-Adaptor-Extension/dp/B00DGXGKWA?th=1</a>	1	2	18.91	37.82	Male and female connector for solar panels
<a href="https://www.digikey.com/short/IqQ7p1t">https://www.digikey.com/short/IqQ7p1t</a>					Total Cost:	60.42	
<a href="https://www.amazon.com/hz/wishlist/s/XCBXI5ELJ4L7ref=w_l_share">https://www.amazon.com/hz/wishlist/s/XCBXI5ELJ4L7ref=w_l_share</a>							

Part Number	Item	Link	System quantity	TBO Quantity	Price	Total	Item Description
INA260AIPW	INA260 Chip	<a href="https://www.digikey.com/en/products/detail/texas-instruments/INA260AIPW/6589219?gclid=aw.ds&amp;utm_adgroup=&amp;utm_source=google&amp;utm_medium=cpc&amp;utm_campaign=PMax%20Shopping_Product_Medium%20ROAS%20Categories&amp;utm_term=&amp;utm_content=&amp;utm_id=go_cmp-20223376311_adg-ad-dev-c_ext-prd-6589219_sig-Cj0KCCQIAwOe8BhCCARIsAGKeD56DP1-paNTWdNafBnTWE1asidB8Na4NO5szP0duSUyEqdWFHuPCa-8aArL2EALw_wcB&amp;qclsrc=aw.ds">https://www.digikey.com/en/products/detail/texas-instruments/INA260AIPW/6589219?gclid=aw.ds&amp;utm_adgroup=&amp;utm_source=google&amp;utm_medium=cpc&amp;utm_campaign=PMax%20Shopping_Product_Medium%20ROAS%20Categories&amp;utm_term=&amp;utm_content=&amp;utm_id=go_cmp-20223376311_adg-ad-dev-c_ext-prd-6589219_sig-Cj0KCCQIAwOe8BhCCARIsAGKeD56DP1-paNTWdNafBnTWE1asidB8Na4NO5szP0duSUyEqdWFHuPCa-8aArL2EALw_wcB&amp;qclsrc=aw.ds</a>	1	5	5.73	28.65	Current/Voltage/Power sensor chip for battery management system
150060RS75000	Red LED	<a href="https://www.digikey.com/en/products/detail/w%C3%BCrth-elektronik/150060RS75000/4489901">https://www.digikey.com/en/products/detail/w%C3%BCrth-elektronik/150060RS75000/4489901</a>	1	5	0.15	0.75	Red LED for displaying the charge status of the charging controller
150060VS75000	Green LED	<a href="https://www.digikey.com/en/products/detail/w%C3%BCrth-elektronik/150060VS75000/4489906">https://www.digikey.com/en/products/detail/w%C3%BCrth-elektronik/150060VS75000/4489906</a>	1	5	0.15	0.75	Green LED for displaying the status of if the battery is done charging
RMCF0805FT10K0	10k	<a href="https://www.digikey.com/en/products/detail/stackpole-electronics-inc/RMCF0805FT10K0/1760676">https://www.digikey.com/en/products/detail/stackpole-electronics-inc/RMCF0805FT10K0/1760676</a>	4	15	0.1	1.5	10k Resistor
SS8P3L-M3/86A	Diode	<a href="https://www.digikey.com/en/products/detail/vishay-general-semiconductor-diodes-division/SS8P3L-M3-86A/2048210">https://www.digikey.com/en/products/detail/vishay-general-semiconductor-diodes-division/SS8P3L-M3-86A/2048210</a>	2	5	0.72	3.6	Diode for current protection after use of mosfet
CC0805KRX7R9BB104	100 nF Capacitor	<a href="https://www.digikey.com/en/products/detail/yageo/CC0805KRX7R9BB104/302874">https://www.digikey.com/en/products/detail/yageo/CC0805KRX7R9BB104/302874</a>	1	5	0.1	0.5	100 nF Capacitor
CL10A475KP8NNNC	4.7 uF Capacitor	<a href="https://www.digikey.com/en/products/detail/samsung-electro-mechanics/CL10A475KP8NNNC/3886702">https://www.digikey.com/en/products/detail/samsung-electro-mechanics/CL10A475KP8NNNC/3886702</a>	2	7	0.1	0.7	4.7 uF Capacitor
865230542002	10 uF	<a href="https://www.digikey.com/en/products/detail/w%C3%BCrth-elektronik/865230542002/5727890">https://www.digikey.com/en/products/detail/w%C3%BCrth-elektronik/865230542002/5727890</a>	2	5	0.2	1	10 uF
RMCF0805FT13K0	13k	<a href="https://www.digikey.com/en/products/detail/stackpole-electronics-inc/RMCF0805FT13K0/1760663">https://www.digikey.com/en/products/detail/stackpole-electronics-inc/RMCF0805FT13K0/1760663</a>	1	5	0.1	0.5	13k resistor
RR1220P-102-D	1k	<a href="https://www.digikey.com/en/products/detail/susumu/RR1220P-102-D/432291">https://www.digikey.com/en/products/detail/susumu/RR1220P-102-D/432291</a>	2	5	0.1	0.5	1k resistor
691137710002	Terminal	<a href="https://www.digikey.com/en/products/detail/w%C3%BCrth-elektronik/691137710002/6644051">https://www.digikey.com/en/products/detail/w%C3%BCrth-elektronik/691137710002/6644051</a>	3	5	0.4	2	2 port screw in terminal
					Total:	40.45	

R				
R1				
R2	120k			
R3	22k			
RCS				
C				
C1	Electrolytic C for low frequency filtering	ceramic C 5 uF	High freq C >100 nF	
C2	100 nF			
C3	10 uF electrolytic C	Ceramic 5 uF		
C4	220 nF			
D				
D2				
D3 (bulb)				
M				
M1				
M2				
L	30 uH			

