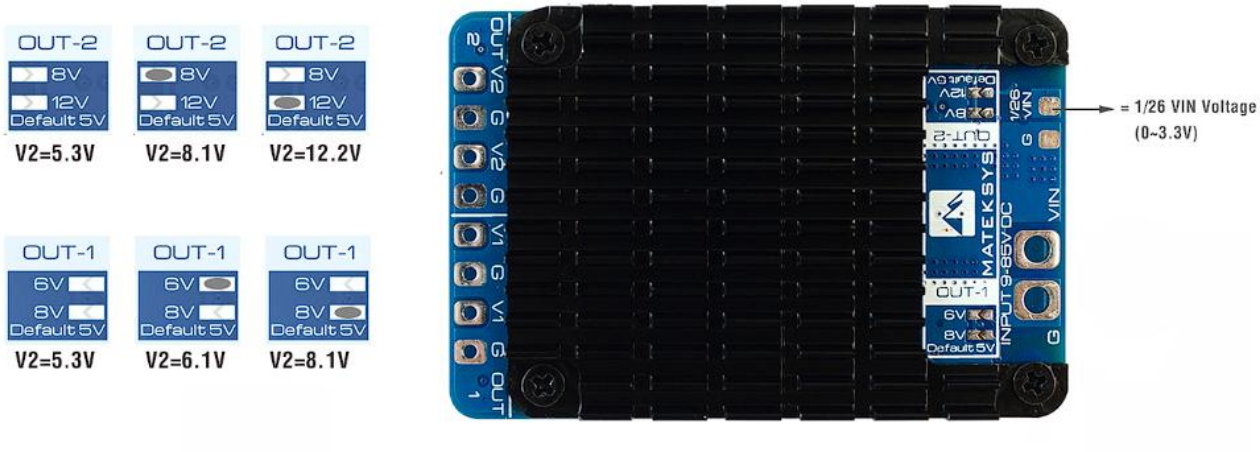


- PM20S-2 is made with 100V DC components.
- Support 9V to 85V DC operating Input voltage with 85V TVS protection
- 2x independent Step-Down Voltage Regulators
- Regulator 1 , 5.3V / 6.1V / 8.1V output options. supports typical continuous output current of up to 15A, Peak current of up to 22A.
- Regulator 2 , 5.3V / 8.1V / 12.2V output options. supports typical continuous output current of up to 15A, Peak current of up to 22A.
- 1K:25K voltage divider built-in for 3.3V based voltage ADC
- Size & Weight: 61x40x15mm, 63g
- 3D step file PM20S-2.zip

Regulator 1

- Output voltage 5.3V / 6.1V / 8.1V options.
- Output voltage tolerance 1.5%
- Synchronous switching step-down (or buck) regulator with typical efficiencies of 90% to 96%
- Supports typical continuous output current of up to 15A, Peak current of up to 22A.
- Output ripple 25mV (VIN=42V, Output 5.3V @ 5A), 35mV (VIN=58V, Output 5.3V @ 15A)
- Standby current: 10~30mA
- Reverse Input voltage protection: No
- Thermal Shutdown 150C
- Output Short-circuit tolerant (1 seconds)
- Overcurrent protection & self-recovery
- Tip: Input voltage >= 15V is required for continuous output current of 15A

Regulator 2

- Output voltage 5.3V / 8.1V/12.2V options.
- Output voltage tolerance 1.5%
- Synchronous switching step-down (or buck) regulator with typical efficiencies of 90% to 96%
- Supports typical continuous output current of up to 15A, Peak current of up to 22A.
- Output ripple 58mV (VIN=58V, Output 12V @ 5A)
- Standby current: 10~30mA
- Reverse Input voltage protection: No
- Thermal Shutdown 150C
- Output Short-circuit tolerant (1 seconds)
- Overcurrent protection & self-recovery
- Tip: Input voltage >= 15V is required for continuous output current of 15A

	4~8S Input	9-10S Input	11-14S Input	15~20S Input
Output	Single BEC continuous output. After continuous running for 5 minutes, the board temperature stabilized at 80~90℃. No Thermal shutdown @ Room Temperature 20℃.			
5.3v	15A	15A	15A	13A
6.1V	15A	15A	15A	12A
8.1V	15A	15A	13A	12A
12.2V	15A	13A	10A	10A
	Peak output current 22A. Peak current usually makes sense for servos. Servos do not always run at continuous high loads.			

Input(V)	Input(A)	Output(V)	Output(A)	efficiency	Power loss(W)	Vpp(mV)
25.00	1.12	5.31	5	94.82%	1.37	20
25.00	2.25	5.31	10	94.40%	2.97	23
25.00	3.43	5.31	15	92.89%	5.67	27
42.00	0.70	5.32	5	90.48%	2.53	25
42.00	1.36	5.31	10	92.96%	3.74	30
42.00	2.05	5.31	15	92.51%	5.97	33
58.00	0.51	5.32	5	89.93%	2.68	30
58.00	1.01	5.31	10	90.65%	4.97	32
58.00	1.51	5.31	15	90.95%	7.21	35
75.00	0.41	5.32	5	86.50%	3.59	
75.00	0.79	5.31	10	89.62%	5.51	
75.00	1.19	5.31	15	89.24%	8.57	
85.00	0.36	5.32	5	86.93%	3.48	
85.00	0.70	5.31	10	89.24%	5.71	
85.00	1.05	5.31	15	89.24%	8.57	

Input(V)	Input(A)	Output(V)	Output(A)	efficiency	Power loss(W)	Vpp(mV)
25.00	1.29	6.12	5	94.88%	1.57	25
25.00	2.58	6.12	10	94.88%	3.13	35
25.00	3.92	6.12	15	93.67%	5.81	
42.00	0.80	6.12	5	91.07%	2.73	28
42.00	1.55	6.12	10	94.01%	3.67	39
42.00	2.34	6.12	15	93.41%	6.05	
58.00	0.58	6.12	5	90.96%	2.77	29
58.00	1.15	6.12	10	91.75%	5.05	40
58.00	1.73	6.12	15	91.49%	7.81	
75.00	0.46	6.12	5	88.70%	3.46	
75.00	0.90	6.12	10	90.67%	5.71	
75.00	1.35	6.12	15	90.67%	8.57	
85.00	0.42	6.12	5	85.71%	4.37	
85.00	0.80	6.12	10	90.00%	6.12	
85.00	1.20	6.12	15	90.00%	9.18	

Input(V)	Input(A)	Output(V)	Output(A)	efficiency	Power loss(W)	Vpp(mV)
25.00	1.71	8.16	5	95.44%	1.86	26
25.00	3.42	8.16	10	95.44%	3.72	38
25.00	5.18	8.16	15	94.52%	6.71	
42.00	1.03	8.16	5	94.31%	2.32	43
42.00	2.03	8.16	10	95.71%	3.50	50
42.00	3.07	8.16	15	94.93%	6.21	
58.00	0.76	8.16	5	92.56%	3.04	50
58.00	1.49	8.16	10	94.42%	4.55	56
58.00	2.25	8.16	15	93.79%	7.60	
75.00	0.60	8.16	5	90.67%	3.81	
75.00	1.17	8.16	10	92.99%	5.72	
75.00	1.75	8.16	15	93.26%	8.25	
85.00	0.53	8.16	5	90.57%	3.85	
85.00	1.03	8.16	10	93.20%	5.55	
85.00	1.55	8.16	15	92.90%	8.69	

Input(V)	Input(A)	Output(V)	Output(A)	efficiency	Power loss(W)	Vpp(mV)
25.00	2.54	12.24	5	96.38%	2.22	40
25.00	5.08	12.24	10	96.38%	4.43	45
25.00	7.65	12.24	15	96.00%	7.34	
42.00	1.53	12.24	5	95.24%	2.91	50
42.00	3.03	12.24	10	96.18%	4.67	56
42.00	4.57	12.24	15	95.65%	7.98	
58.00	1.14	12.24	5	92.56%	4.55	58
58.00	2.23	12.24	10	94.63%	6.57	62
58.00	3.34	12.24	15	94.78%	9.59	
75.00	0.88	12.20	5	92.42%	4.62	
75.00	1.72	12.20	10	94.57%	6.62	
75.00	2.58	12.20	15	94.57%	9.93	
85.00	0.78	12.20	5	92.01%	4.88	
85.00	1.53	12.20	10	93.81%	7.55	
85.00	2.29	12.20	15	94.01%	10.95	