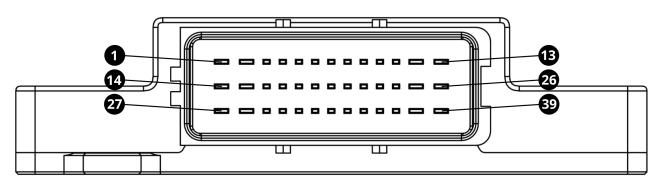


## PMU-24 DL Pinout v1.2

Device view:



## Connector part numbers:

Connector series	Sicma / FCI 39 Positions	
Terminal 1.5 mm	211CC2S2160P	13-17 AWG
Terminal 2.8 mm	211CC3S2120	14-16 AWG
Terminal 2.8 mm	211CC3S3120	10-12 AWG

Power pins		
Name	Count	Description
+12V battery	1	Main power supply connection for outputs and PMU itself.
		Connected through the stud in the middle of the device. Maximum constant current: 150 A.
+12V sw	1	+12V signal input to switch the PMU on or off.
		Should be connected to +12V after the ignition switch.
Ground	1	Ground connection for the device supply current, elements connected to inputs and flyback return path.
		Connect to the supply ground using the thickest and shortest connection possible to provide good flyback current path.
+5V output	1	+5V sensor supply. Can provide up to 500 mA of current.

Communication pins			
Name	Count	Description	
CAN1H/L	2	CAN bus, fixed 1 Mbps, used for communication with PC and peripheral devices.	
		Communication with PC software can only be done through this CAN bus. No internal termination resistor. External termination is required. Fully configurable communication.	
CAN2H/L	2	CAN bus, configurable speed, used for communication with peripheral devices.	
		Configurable speed: 125, 250, 500, and 1000 kbps.	
		Software controlled termination resistor.	
		Fully configurable communication	



Input pins			
Name	Count	Description	
Input A1-A8	8	Analog signal input. Input for analog signals (voltage). Analog signals must be connected between these inputs and ground. Pull resistor can be selected through software, independently for every input. The available options are $1M\Omega$ pull down, $10k\Omega$ pull down and $10k\Omega$ pull up. Measurement frequency: 500 Hz. Measurement resolution: 10 bit. Measurement voltage range: 0-5 V. Maximum input voltage: 20 V.	
Input A9-A16 (shared with Output O17-O24)	8	Analog signal input or power output. Input for analog signals (voltage). Analog signals must be connected between these inputs and ground. Those pins can be configured as input or output in the software. Pull resistors can be selected through software independently for every input. The available options are $1M\Omega$ pull down, $10k\Omega$ pull down, and $10k\Omega$ pull up. Measurement frequency: 500 Hz. Measurement resolution: 12 bit. Measurement voltage range: 0-20 V. Maximum input voltage: 30 V.	

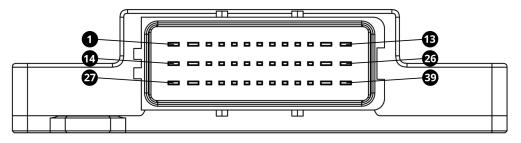
Output pins		
Name	Count	Description
Output O1-O5 Output O12-O16	10	25 A high side outputs.
		Power outputs that can be disconnected (Hi-Z) or connected to the supply voltage (+12 V). Outputs can be connected in parallel to increase current capabilities. Configurable overcurrent protection. Short circuit/overtemperature protection. Current measurement. Outputs O1 and O16 have integrated high power flyback diodes. PWM capability.
		Minimum current measured: 0-2 A (0.5 A typical). Maximum current measured: 120 A. Maximum peak current: 120 A. Maximum peak current time: 2s. Maximum constant current: 25 A. Minimum PWM frequency: 4 Hz. Maximum PWM frequency: 400 Hz. Voltage measurement range: 0-16 V. Turn off voltage clamp: 36 V.
Output O6-O11	6	<ul> <li>15 A high side outputs.</li> <li>Power outputs that can be disconnected (Hi-Z) or connected to the supply voltage (+12 V).</li> <li>Outputs can be connected in parallel to increase current capabilities.</li> <li>Configurable overcurrent protection.</li> <li>Short circuit/overtemperature protection.</li> <li>Current measurement.</li> <li>Integrated flyback diode.</li> <li>Output O8 has additional functionality to allow wipers motor braking.</li> </ul>
		Minimum current measured: 0-0.2 A. Maximum current measured: 60 A. Maximum peak current: 120 A. Maximum peak current time: 2s. Maximum constant current: 15 A. Voltage measurement range: 0-16 V.



Output pins		
Name	Count	Description
Output O17-O24 (shared with Input A9-A16)	8	<ul> <li>7 A high side outputs.</li> <li>Power outputs that can be disconnected (Hi-Z) or connected to the supply voltage (+12 V).</li> <li>Those pins can be configured as input or output in the software.</li> <li>Outputs can be connected in parallel to increase current capabilities.</li> <li>Configurable overcurrent protection.</li> <li>Short circuit/overtemperature protection.</li> <li>Current measurement.</li> <li>Integrated flyback diode.</li> <li>Minimum current measured: 0-0.1 A.</li> <li>Maximum peak current: 70 A.</li> <li>Maximum peak current time: 2s.</li> <li>Maximum constant current: 7 A.</li> <li>Voltage measurement range: 0-20 V.</li> </ul>



## Device view:



1       Output O13       25 A high side output.         2       Output O12       25 A high side output.         3       Output O11       15 A high side output.         4       Output O10       15 A high side output.         5       Output O9       15 A high side output.         6       Input A9 / Output O17       Analog signal input or 7 A high side output. Selectable in software.         7       +12V signal input or 7 A high side output. Selectable in software.         9       Output O8       15 A high side output.         11       Output O6       15 A high side output.         12       Output O6       15 A high side output.         11       Output O6       15 A high side output.         12       Output O6       15 A high side output.         13       Output O6       15 A high side output.         14       Output O5       25 A high side output.         15       Hogt A14       25 A high side output.         16       Input A2       Analog signal input.         17       Input A4       Analog signal input.         18       Input A4       Analog signal input.         19       Input A5       Analog signal input or 7 A high side output. Selectable in software.         21	Pin	Name	Description
3       Output 011       15 A high side output.         4       Output 010       15 A high side output.         5       Output 09       15 A high side output.         6       Input A9 / Output 017       Analog signal input or 7 A high side output. Selectable in software.         7       +12V signal input or 7 A high side output. Selectable in software.         9       Output 02       Analog signal input or 7 A high side output. Selectable in software.         10       Output 05       15 A high side output.         11       Output 05       25 A high side output.         12       Output 05       25 A high side output.         13       Output 04       25 A high side output.         14       Output 04       25 A high side output.         15       Output 04       25 A high side output.         16       Input A4       Analog signal input.         17       Input A4       Analog signal input.         18       Input A4       Analog signal input.         19       Input A8       Analog signal input or 7 A high side output. Selectable in software.         21       Input A11 / Output 019       Analog signal input or 7 A high side output. Selectable in software.         22       Input A11 / Output 021       Analog signal input or 7 A high side output.	1	Output O13	25 A high side output.
4       Output 010       15 A high side output.         6       Output 09       15 A high side output.         6       Input A9 / Output 017       Analog signal input or 7 A high side output. Selectable in software.         7       +12V sw       +12V signal input or 7 A high side output. Selectable in software.         9       Output 02       Analog signal input or 7 A high side output.         11       Output 07       15 A high side output.         12       Output 05       25 A high side output.         13       Output 04       25 A high side output.         14       Output 05       25 A high side output.         13       Output 04       25 A high side output.         14       Output 04       25 A high side output.         15       +5V output       +5V sensor supply.         16       Input A2       Analog signal input.         17       Input A4       Analog signal input.         18       Input A5       Analog signal input.         19       Input A4       Analog signal input or 7 A high side output. Selectable in software.         21       Input A11 / Output 019       Analog signal input or 7 A high side output. Selectable in software.         22       Input A11 / Output 024       Analog signal input or 7 A high side output.	2	Output O12	25 A high side output.
5       Output O9       16 A high side output.         6       Input A9 / Output O17       Analog signal input or 7 A high side output. Selectable in software.         7       +12V sys       +12V signal input or 7 A high side output. Selectable in software.         9       Ouput O8 (wpern)       15 A high side output.         10       Output O7       15 A high side output.         11       Output O5       25 A high side output.         12       Output O5       25 A high side output.         13       Output O5       25 A high side output.         14       Output O4       25 A high side output.         15       high side output.       15         16       Input A2       Analog signal input.         17       Input A2       Analog signal input.         18       Input A4       Analog signal input.         19       Input A6       Analog signal input.         19       Input A8       Analog signal input or 7 A high side output. Selectable in software.         21       Input A11 / Output O21       Analog signal input or 7 A high side output. Selectable in software.         22       Input A13 / Output O24       Analog signal input or 7 A high side output. Selectable in software.         22       Input A11 / Output O24       Analog signal in	3	Output O11	15 A high side output.
6       Input A9 / Output 017       Analog signal input or 7 A high side output. Selectable in software.         7       +12V sw       +12V signal input or 7 A high side output. Selectable in software.         9       Ouput 08 (wpers)       15 A high side output. Additional functionality for wipers motor braking.         10       Output 06       15 A high side output.         11       Output 06       15 A high side output.         12       Output 06       15 A high side output.         13       Output 04       25 A high side output.         14       Output 04       25 A high side output.         15       +5V output       +5V sensor supply.         16       Input A2       Analog signal input.         17       Input A4       Analog signal input.         18       Input A4       Analog signal input.         19       Input A4       Analog signal input.         19       Input A11 / Output 019       Analog signal input or 7 A high side output. Selectable in software.         21       Input A13 / Output 021       Analog signal input or 7 A high side output. Selectable in software.         22       Input A13 / Output 021       Analog signal input or 7 A high side output. Selectable in software.         22       Input A16 / Output 021       Analog signal input.       Input	4	Output O10	15 A high side output.
7       +12V signal input to switch the PMU on or off.         8       Input A14 / Output O22       Analog signal input or 7 A high side output. Selectable in software.         9       Output O3 (ween)       15 A high side output. Additional functionality for wipers motor braking.         10       Output O7       15 A high side output.         11       Output O6       15 A high side output.         12       Output O5       25 A high side output.         13       Output O4       25 A high side output.         14       Output O4       25 A high side output.         15       +5V output       +5V sensor supply.         16       Input A2       Analog signal input.         17       Input A4       Analog signal input.         18       Input A4       Analog signal input.         19       Input A4       Analog signal input.         19       Input A4       Analog signal input.         10       Input A4       Analog signal input.         19       Input A13 / Output O21       Analog signal input.         20       Input A13 / Output O24       Analog signal input.         21       Input A16 / Output O24       Analog signal input.         22       Input A16 / Output O24       Analog signal input. <td>5</td> <td>Output O9</td> <td>15 A high side output.</td>	5	Output O9	15 A high side output.
8         Input A14 / Output O22         Analog signal input or 7 A high side output. Selectable in software.           9         Output O8 (wjers)         15 A high side output.           11         Output O6         15 A high side output.           12         Output O5         25 A high side output.           13         Output O4         25 A high side output.           14         Output O4         25 A high side output.           15         +5V output         25 A high side output.           16         Input A2         Analog signal input.           17         Input A4         Analog signal input.           18         Input A4         Analog signal input.           19         Input A8         Analog signal input.           20         Input A8         Analog signal input.           19         Input A8         Analog signal input.           20         Input A11 / Output O19         Analog signal input or 7 A high side output. Selectable in software.           21         Input A13 / Output O24         Analog signal input or 7 A high side output. Selectable in software.           23         CAN14 / (Pc comm)         CAN bus, configurable speed, used for communication with peripheral devices.           24         CAN2H         CAN bus, configurable speed, used for communication with	6	Input A9 / Output O17	Analog signal input or 7 A high side output. Selectable in software.
9       Ouput O8 (wipers)       15 A high side output.         10       Output O7       15 A high side output.         11       Output O6       15 A high side output.         12       Output O5       25 A high side output.         13       Output O4       25 A high side output.         14       Output O4       25 A high side output.         15       +5V output       25 A high side output.         16       Input A2       Analog signal input.         17       Input A4       Analog signal input.         18       Input A6       Analog signal input.         19       Input A11 / Output O19       Analog signal input.         19       Input A11 / Output O19       Analog signal input.         21       Input A11 / Output O21       Analog signal input or 7 A high side output. Selectable in software.         22       Input A16 / Output O24       Analog signal input or 7 A high side output. Selectable in software.         22       Input A16 / Output O24       Analog signal input or 7 A high side output. Selectable in software.         23       CAN141 (rC comm)       CAN bus, configurable speed, used for communication with peripheral devices.         24       CAN24       CAN bus, output.         25       Ground       Device ground. </td <td>7</td> <td>+12V sw</td> <td>+12V signal input to switch the PMU on or off.</td>	7	+12V sw	+12V signal input to switch the PMU on or off.
10       Output 07       15 A high side output.         11       Output 06       15 A high side output.         12       Output 04       25 A high side output.         13       Output 04       25 A high side output.         14       Output 01       25 A high side output.         15       +5V output       +5V sensor supply.         16       Input A2       Analog signal input.         17       Input A4       Analog signal input.         18       Input A4       Analog signal input.         19       Input A8       Analog signal input.         10       Input A11 / Output 019       Analog signal input.         20       Input A11 / Output 019       Analog signal input.         21       Input A13 / Output 021       Analog signal input or 7 A high side output. Selectable in software.         22       Input A16 / Output 024       Analog signal input or 7 A high side output. Selectable in software.         22       CANHH (>C comm)       CAN bus, fixed 1Mbps, used for communication with PC and peripheral devices.         24       CANHH (>C comm)       CAN bus, onfigurable speed, used for communication with peripheral devices.         25       Ground       Device ground.       26         26       Output 015       25 A high side outpu	8	Input A14 / Output O22	Analog signal input or 7 A high side output. Selectable in software.
11       Output 06       15 A high side output.         12       Output 05       25 A high side output.         13       Output 04       25 A high side output.         14       Output 014       25 A high side output.         15       +5V output       +5V sensor supply.         16       Input A2       Analog signal input.         17       Input A6       Analog signal input.         18       Input A6       Analog signal input.         19       Input A8       Analog signal input.         20       Input A11 / Output 019       Analog signal input.         21       Input A11 / Output 021       Analog signal input.         22       Input A11 / Output 024       Analog signal input or 7 A high side output. Selectable in software.         23       CAN1H (PC comm)       CAN bus, fixed 1Mbps, used for communication with PC and peripheral devices.         24       CAN2H       CAN bus, configurable speed, used for communication with peripheral devices.         25       Ground       Device ground.         26       Output 03       25 A high side output.         27       Output 015       25 A high side output.         28       Output 016       25 A high side output.         29       Input A1       Analo	9	Ouput O8 (wipers)	15 A high side output. Additional functionality for wipers motor braking.
12       Output O5       25 A high side output.         13       Output O4       25 A high side output.         14       Output O14       25 A high side output.         15       +5V output       +5V sensor supply.         16       Input A2       Analog signal input.         17       Input A4       Analog signal input.         18       Input A5       Analog signal input.         19       Input A6       Analog signal input.         20       Input A11 / Output O19       Analog signal input or 7 A high side output. Selectable in software.         21       Input A13 / Output O21       Analog signal input or 7 A high side output. Selectable in software.         22       Input A16 / Output O24       Analog signal input or 7 A high side output. Selectable in software.         22       Input A16 / Output O24       Analog signal input or 7 A high side output. Selectable in software.         23       CAN1H (PC comm)       CAN bus, fixed 1Mbps, used for communication with PC and peripheral devices.         25       Ground       Device ground.         26       Output O3       25 A high side output.         27       Output O15       25 A high side output.         28       Output O16       25 A high side output.         29       Input A1	10	Output O7	15 A high side output.
13       Output 04       25 A high side output.         14       Output 014       25 A high side output.         15       +5V output       +5V sensor supply.         16       Input A2       Analog signal input.         17       Input A4       Analog signal input.         18       Input A5       Analog signal input.         19       Input A8       Analog signal input.         20       Input A11 / Output 019       Analog signal input or 7 A high side output. Selectable in software.         21       Input A13 / Output 021       Analog signal input or 7 A high side output. Selectable in software.         22       Input A16 / Output 024       Analog signal input or 7 A high side output. Selectable in software.         22       Input A16 / Output 024       Analog signal input or 7 A high side output. Selectable in software.         23       CAN1H (PC comm)       CAN bus, fixed 1Mbps, used for communication with PC and peripheral devices.         24       CAN2H       CAN bus, configurable speed, used for communication with peripheral devices.         25       Ground       Device ground.         26       Output 03       25 A high side output.         27       Output 016       25 A high side output.         28       Output 016       25 A high side output.	11	Output O6	15 A high side output.
14       Output 014       25 A high side output.         15       +5V output       +5V sensor supply.         16       Input A2       Analog signal input.         17       Input A4       Analog signal input.         18       Input A6       Analog signal input.         19       Input A8       Analog signal input.         20       Input A11 / Output 019       Analog signal input or 7 A high side output. Selectable in software.         21       Input A13 / Output 021       Analog signal input or 7 A high side output. Selectable in software.         22       Input A16 / Output 024       Analog signal input or 7 A high side output. Selectable in software.         23       CAN1H (PC comm)       CAN bus, fixed 1Mbps, used for communication with PC and peripheral devices.         24       GAN2H       CAN bus, configurable speed, used for communication with peripheral devices.         25       Ground       Device ground.         26       Output 03       25 A high side output.         27       Output 016       25 A high side output.         28       Output 016       25 A high side output.         29       Input A1       Analog signal input.         31       Input A5       Analog signal input.         32       Input A5       Analog signal i	12	Output O5	25 A high side output.
15       +5V output       +5V sensor supply.         16       Input A2       Analog signal input.         17       Input A4       Analog signal input.         18       Input A6       Analog signal input.         19       Input A8       Analog signal input.         20       Input A11 / Output O19       Analog signal input or 7 A high side output. Selectable in software.         21       Input A13 / Output O21       Analog signal input or 7 A high side output. Selectable in software.         22       Input A16 / Output O24       Analog signal input or 7 A high side output. Selectable in software.         23       CAN1H (PC comm)       CAN bus, fixed 1Mbps, used for communication with PC and peripheral devices.         24       CAN2H       CAN bus, configurable speed, used for communication with peripheral devices.         25       Ground       Device ground.         26       Output O3       25 A high side output.         27       Output O16       25 A high side output.         28       Output O16       25 A high side output.         29       Input A3       Analog signal input.         30       Input A5       Analog signal input.         31       Input A5       Analog signal input.         32       Input A10 / Output O18       Analo	13	Output O4	25 A high side output.
16       Input A2       Analog signal input.         17       Input A4       Analog signal input.         18       Input A6       Analog signal input.         19       Input A8       Analog signal input.         20       Input A11 / Output O19       Analog signal input or 7 A high side output. Selectable in software.         21       Input A13 / Output O21       Analog signal input or 7 A high side output. Selectable in software.         22       Input A16 / Output O24       Analog signal input or 7 A high side output. Selectable in software.         23       CAN1H (PC comm)       CAN bus, fixed 1Mbps, used for communication with PC and peripheral devices.         24       CAN2H       CAN bus, configurable speed, used for communication with peripheral devices.         25       Ground       Device ground.         26       Output O3       25 A high side output.         27       Output O16       25 A high side output.         28       Output O16       25 A high side output.         29       Input A1       Analog signal input.         30       Input A3       Analog signal input.         31       Input A5       Analog signal input.         32       Input A10 / Output O18       Analog signal input or 7 A high side output. Selectable in software. <td< td=""><td>14</td><td>Output O14</td><td>25 A high side output.</td></td<>	14	Output O14	25 A high side output.
17       Input A4       Analog signal input.         18       Input A6       Analog signal input.         19       Input A8       Analog signal input.         20       Input A11 / Output O19       Analog signal input or 7 A high side output. Selectable in software.         21       Input A13 / Output O21       Analog signal input or 7 A high side output. Selectable in software.         22       Input A16 / Output O24       Analog signal input or 7 A high side output. Selectable in software.         23       CAN1H (PC comm)       CAN bus, fixed 1Mbps, used for communication with PC and peripheral devices.         24       CAN2H       CAN bus, configurable speed, used for communication with peripheral devices.         25       Ground       Device ground.         26       Output O3       25 A high side output.         27       Output O15       25 A high side output.         28       Output O16       25 A high side output.         29       Input A1       Analog signal input.         30       Input A5       Analog signal input.         31       Input A5       Analog signal input.         32       Input A1       Analog signal input.         33       Input A10 / Output O18       Analog signal input or 7 A high side output. Selectable in software. <td< td=""><td>15</td><td>+5V output</td><td>+5V sensor supply.</td></td<>	15	+5V output	+5V sensor supply.
18       Input A6       Analog signal input.         19       Input A8       Analog signal input.         20       Input A11 / Output O19       Analog signal input or 7 A high side output. Selectable in software.         21       Input A13 / Output O21       Analog signal input or 7 A high side output. Selectable in software.         22       Input A16 / Output O24       Analog signal input or 7 A high side output. Selectable in software.         23       CAN1H (PC comm)       CAN bus, fixed 1Mbps, used for communication with PC and peripheral devices.         24       CAN2H       CAN bus, configurable speed, used for communication with peripheral devices.         26       Ground       Device ground.         27       Output O3       25 A high side output.         28       Output O15       25 A high side output.         29       Input A1       Analog signal input.         30       Input A3       Analog signal input.         31       Input A5       Analog signal input.         32       Input A1       Analog signal input.         33       Input A1       Analog signal input.         34       Input A17       Analog signal input or 7 A high side output. Selectable in software.         34       Input A12 / Output O20       Analog signal input or 7 A high side output. Selectable i	16	Input A2	Analog signal input.
19Input A8Analog signal input.20Input A11 / Output O19Analog signal input or 7 A high side output. Selectable in software.21Input A13 / Output O21Analog signal input or 7 A high side output. Selectable in software.22Input A16 / Output O24Analog signal input or 7 A high side output. Selectable in software.23CAN1H (PC comm)CAN bus, fixed 1Mbps, used for communication with PC and peripheral devices.24CAN2HCAN bus, configurable speed, used for communication with peripheral devices.25GroundDevice ground.26Output O325 A high side output.27Output O1525 A high side output.28Output O1625 A high side output.29Input A1Analog signal input.30Input A3Analog signal input.31Input A5Analog signal input.32Input A10 / Output O18Analog signal input.33Input A10 / Output O18Analog signal input.34Input A10 / Output O20Analog signal input or 7 A high side output. Selectable in software.35Input A10 / Output O21Analog signal input or 7 A high side output. Selectable in software.36CAN1L (PC comm)CAN bus, configurable speed, used for communication with PC and peripheral devices.36CAN1L (PC comm)CAN bus, configurable speed, used for communication with peripheral devices.36CAN1L (PC comm)CAN bus, configurable speed, used for communication with peripheral devices.37CAN2LCAN bus, configurable speed, use	17	Input A4	Analog signal input.
20       Input A11 / Output O19       Analog signal input or 7 A high side output. Selectable in software.         21       Input A13 / Output O21       Analog signal input or 7 A high side output. Selectable in software.         22       Input A16 / Output O24       Analog signal input or 7 A high side output. Selectable in software.         23       CAN1H (PC comm)       CAN bus, fixed 1Mbps, used for communication with PC and peripheral devices.         24       CAN2H       CAN bus, configurable speed, used for communication with peripheral devices.         25       Ground       Device ground.         26       Output O3       25 A high side output.         27       Output O16       25 A high side output.         28       Output O16       25 A high side output.         29       Input A1       Analog signal input.         30       Input A3       Analog signal input.         31       Input A3       Analog signal input.         32       Input A1       Analog signal input.         33       Input A5       Analog signal input.         34       Input A7       Analog signal input.         35       Input A10 / Output O18       Analog signal input or 7 A high side output. Selectable in software.         34       Input A12 / Output O20       Analog signal input or 7 A high side out	18	Input A6	Analog signal input.
21Input A13 / Output O21Analog signal input or 7 A high side output. Selectable in software.22Input A16 / Output O24Analog signal input or 7 A high side output. Selectable in software.23CAN1H (PC comm)CAN bus, fixed 1Mbps, used for communication with PC and peripheral devices.24CAN2HCAN bus, configurable speed, used for communication with peripheral devices.25GroundDevice ground.26Output O325 A high side output.27Output O1525 A high side output.28Output O1625 A high side output.29Input A1Analog signal input.30Input A3Analog signal input.31Input A5Analog signal input.33Input A10 / Output O18Analog signal input.34Input A10 / Output O20Analog signal input or 7 A high side output. Selectable in software.35Input A1Analog signal input or 7 A high side output. Selectable in software.34Input A10 / Output O18Analog signal input or 7 A high side output. Selectable in software.35Input A12 / Output O20Analog signal input or 7 A high side output. Selectable in software.36CAN1L (PC comm)CAN bus, fixed 1Mbps, used for communication with PC and peripheral devices.37CAN2LCAN bus, configurable speed, used for communication with peripheral devices.38Output O125 A high side output.	19	Input A8	Analog signal input.
22Input A16 / Output O24Analog signal input or 7 A high side output. Selectable in software.23CAN1H (PC comm)CAN bus, fixed 1Mbps, used for communication with PC and peripheral devices.24CAN2HCAN bus, configurable speed, used for communication with peripheral devices.25GroundDevice ground.26Output O325 A high side output.27Output O1525 A high side output.28Output O1625 A high side output.29Input A1Analog signal input.30Input A3Analog signal input.31Input A5Analog signal input.32Input A7Analog signal input.33Input A10 / Output O18Analog signal input or 7 A high side output. Selectable in software.34Input A10 / Output O20Analog signal input or 7 A high side output. Selectable in software.35Input A15 / Output O20Analog signal input or 7 A high side output. Selectable in software.36CAN1L (PC comm)CAN bus, fixed 1Mbps, used for communication with PC and peripheral devices.37CAN2LCAN bus, configurable speed, used for communication with PC and peripheral devices.38Output O125 A high side output.	20	Input A11 / Output O19	Analog signal input or 7 A high side output. Selectable in software.
23       CAN1H (PC comm)       CAN bus, fixed 1Mbps, used for communication with PC and peripheral devices.         24       CAN2H       CAN bus, configurable speed, used for communication with peripheral devices.         25       Ground       Device ground.         26       Output 03       25 A high side output.         27       Output 015       25 A high side output.         28       Output 016       25 A high side output.         29       Input A1       Analog signal input.         30       Input A3       Analog signal input.         31       Input A5       Analog signal input.         32       Input A7       Analog signal input.         33       Input A10 / Output O18       Analog signal input or 7 A high side output. Selectable in software.         34       Input A12 / Output O20       Analog signal input or 7 A high side output. Selectable in software.         35       Input A15 / Output O23       Analog signal input or 7 A high side output. Selectable in software.         35       Input A15 / Output O23       Analog signal input or 7 A high side output. Selectable in software.         36       CAN1L (PC comm)       CAN bus, fixed 1Mbps, used for communication with PC and peripheral devices.         37       CAN2L       CAN bus, configurable speed, used for communication with peripheral devices.	21	Input A13 / Output O21	Analog signal input or 7 A high side output. Selectable in software.
24CAN 2HCAN bus, configurable speed, used for communication with peripheral devices.25GroundDevice ground.26Output O325 A high side output.27Output O1525 A high side output.28Output O1625 A high side output.29Input A1Analog signal input.30Input A3Analog signal input.31Input A5Analog signal input.32Input A7Analog signal input.33Input A10 / Output O18Analog signal input.34Input A12 / Output O20Analog signal input or 7 A high side output. Selectable in software.35Input A15 / Output O23Analog signal input or 7 A high side output. Selectable in software.36CAN1L (PC comm)CAN bus, fixed 1Mbps, used for communication with PC and peripheral devices.38Output O125 A high side output.	22	Input A16 / Output O24	Analog signal input or 7 A high side output. Selectable in software.
25       Ground       Device ground.         26       Output O3       25 A high side output.         27       Output O15       25 A high side output.         28       Output O16       25 A high side output.         29       Input A1       Analog signal input.         30       Input A3       Analog signal input.         31       Input A5       Analog signal input.         32       Input A7       Analog signal input.         33       Input A10 / Output O18       Analog signal input or 7 A high side output. Selectable in software.         34       Input A12 / Output O20       Analog signal input or 7 A high side output. Selectable in software.         35       Input A15 / Output O23       Analog signal input or 7 A high side output. Selectable in software.         36       CAN1L (PC comm)       CAN bus, fixed 1Mbps, used for communication with PC and peripheral devices.         37       CAN2L       CAN bus, configurable speed, used for communication with peripheral devices.         38       Output O1       25 A high side output.	23	CAN1H (PC comm)	CAN bus, fixed 1Mbps, used for communication with PC and peripheral devices.
26Output O325 A high side output.27Output O1525 A high side output.28Output O1625 A high side output.29Input A1Analog signal input.30Input A3Analog signal input.31Input A5Analog signal input.32Input A7Analog signal input.33Input A10 / Output O18Analog signal input or 7 A high side output. Selectable in software.34Input A12 / Output O20Analog signal input or 7 A high side output. Selectable in software.35Input A15 / Output O23Analog signal input or 7 A high side output. Selectable in software.36CAN1L (PC comm)CAN bus, fixed 1Mbps, used for communication with PC and peripheral devices.37CAN2LCAN bus, configurable speed, used for communication with peripheral devices.38Output O125 A high side output.	24	CAN2H	CAN bus, configurable speed, used for communication with peripheral devices.
27Output O1525 A high side output.28Output O1625 A high side output.29Input A1Analog signal input.30Input A3Analog signal input.31Input A5Analog signal input.32Input A7Analog signal input.33Input A10 / Output O18Analog signal input or 7 A high side output. Selectable in software.34Input A12 / Output O20Analog signal input or 7 A high side output. Selectable in software.35Input A15 / Output O23Analog signal input or 7 A high side output. Selectable in software.36CAN1L (PC comm)CAN bus, fixed 1Mbps, used for communication with PC and peripheral devices.38Output O125 A high side output.	25	Ground	Device ground.
28Output O1625 A high side output.29Input A1Analog signal input.30Input A3Analog signal input.31Input A5Analog signal input.32Input A7Analog signal input.33Input A10 / Output O18Analog signal input or 7 A high side output. Selectable in software.34Input A12 / Output O20Analog signal input or 7 A high side output. Selectable in software.35Input A15 / Output O23Analog signal input or 7 A high side output. Selectable in software.36CAN1L (PC comm)CAN bus, fixed 1Mbps, used for communication with PC and peripheral devices.37CAN2LCAN bus, configurable speed, used for communication with peripheral devices.38Output O125 A high side output.	26	Output O3	25 A high side output.
29Input A1Analog signal input.30Input A3Analog signal input.31Input A5Analog signal input.32Input A7Analog signal input.33Input A10 / Output O18Analog signal input or 7 A high side output. Selectable in software.34Input A12 / Output O20Analog signal input or 7 A high side output. Selectable in software.35Input A15 / Output O23Analog signal input or 7 A high side output. Selectable in software.36CAN1L (PC comm)CAN bus, fixed 1Mbps, used for communication with PC and peripheral devices.37CAN2LCAN bus, configurable speed, used for communication with peripheral devices.38Output O125 A high side output.	27	Output O15	25 A high side output.
30Input A3Analog signal input.31Input A5Analog signal input.32Input A7Analog signal input.33Input A10 / Output O18Analog signal input or 7 A high side output. Selectable in software.34Input A12 / Output O20Analog signal input or 7 A high side output. Selectable in software.35Input A15 / Output O23Analog signal input or 7 A high side output. Selectable in software.36CAN1L (PC comm)CAN bus, fixed 1Mbps, used for communication with PC and peripheral devices.37CAN2LCAN bus, configurable speed, used for communication with peripheral devices.38Output O125 A high side output.	28	Output O16	25 A high side output.
31       Input A5       Analog signal input.         32       Input A7       Analog signal input.         33       Input A10 / Output O18       Analog signal input or 7 A high side output. Selectable in software.         34       Input A12 / Output O20       Analog signal input or 7 A high side output. Selectable in software.         35       Input A15 / Output O23       Analog signal input or 7 A high side output. Selectable in software.         36       CAN1L (PC comm)       CAN bus, fixed 1Mbps, used for communication with PC and peripheral devices.         37       CAN2L       CAN bus, configurable speed, used for communication with peripheral devices.         38       Output O1       25 A high side output.	29	Input A1	Analog signal input.
32       Input A7       Analog signal input.         33       Input A10 / Output O18       Analog signal input or 7 A high side output. Selectable in software.         34       Input A12 / Output O20       Analog signal input or 7 A high side output. Selectable in software.         35       Input A15 / Output O23       Analog signal input or 7 A high side output. Selectable in software.         36       CAN1L (PC comm)       CAN bus, fixed 1Mbps, used for communication with PC and peripheral devices.         37       CAN2L       CAN bus, configurable speed, used for communication with peripheral devices.         38       Output O1       25 A high side output.	30	Input A3	Analog signal input.
33       Input A10 / Output O18       Analog signal input or 7 A high side output. Selectable in software.         34       Input A12 / Output O20       Analog signal input or 7 A high side output. Selectable in software.         35       Input A15 / Output O23       Analog signal input or 7 A high side output. Selectable in software.         36       CAN1L (PC comm)       CAN bus, fixed 1Mbps, used for communication with PC and peripheral devices.         37       CAN2L       CAN bus, configurable speed, used for communication with peripheral devices.         38       Output O1       25 A high side output.	31	Input A5	Analog signal input.
34       Input A12 / Output O20       Analog signal input or 7 A high side output. Selectable in software.         35       Input A15 / Output O23       Analog signal input or 7 A high side output. Selectable in software.         36       CAN1L (PC comm)       CAN bus, fixed 1Mbps, used for communication with PC and peripheral devices.         37       CAN2L       CAN bus, configurable speed, used for communication with peripheral devices.         38       Output O1       25 A high side output.	32	Input A7	Analog signal input.
35       Input A15 / Output O23       Analog signal input or 7 A high side output. Selectable in software.         36       CAN1L (PC comm)       CAN bus, fixed 1Mbps, used for communication with PC and peripheral devices.         37       CAN2L       CAN bus, configurable speed, used for communication with peripheral devices.         38       Output O1       25 A high side output.	33	Input A10 / Output O18	Analog signal input or 7 A high side output. Selectable in software.
36       CAN1L (PC comm)       CAN bus, fixed 1Mbps, used for communication with PC and peripheral devices.         37       CAN2L       CAN bus, configurable speed, used for communication with peripheral devices.         38       Output O1       25 A high side output.	34	Input A12 / Output O20	Analog signal input or 7 A high side output. Selectable in software.
37     CAN2L     CAN bus, configurable speed, used for communication with peripheral devices.       38     Output O1     25 A high side output.	35	Input A15 / Output O23	Analog signal input or 7 A high side output. Selectable in software.
38     Output O1     25 A high side output.	36	CAN1L (PC comm)	CAN bus, fixed 1Mbps, used for communication with PC and peripheral devices.
	37	CAN2L	CAN bus, configurable speed, used for communication with peripheral devices.
39     Output O2     25 A high side output.	38	Output O1	25 A high side output.
	39	Output O2	25 A high side output.



## Document revision history:

Revision	Date	Changes
1.2	2024-03-14	- removed the PWM capability 7 A outputs
1.1	2023-10-06	<ul> <li>battery connection maximum current value added</li> <li>minor corrections</li> </ul>
1.0	2023-09-27	- first public version