

# Hardware

Code	Description	Quantity	Note
<b>Basic</b>	<b>Required for basic functionality</b>		
<b>BM-GW</b>	BTMS IOT Gateway	1 × BM-GW for up to 32 strings	All strings of one UPS should be on the same BM-GW
<b>BM-SS</b>	BTMS String master	1 × BM-SS for each string	
<b>BM-HS</b>	BTMS Hall sensor	1 × BM-HS for each string	Choose the type based on the maximum string current
<b>BM-CS</b>	BTMS Cell sensor	1 × BM-CS for each battery	Choose 2, 6 or 12 V sensors depending on the battery voltage
<b>PS-60-24</b>	BTMS Power supply	1 × PS-60-24 for each BTMS	One power supply can power several devices, if there are fewer of them than allowed according to the specification. Checks against the total consumption of powered devices.
<b>PS-30-12</b>	BM-GW Power supply	1 × PS-30-12 for each BM-GW	
<b>Optional</b>	<b>Depending on requirements</b>		
<b>BM-MC</b>	BTMS Master controller	1 × BM-MC for up to 32 strings	
<b>BM-C-A1</b>	BTMS Controller set	1 × BM-C-A1 for up to 32 strings	Consisting of <b>BM-MC</b> , <b>CAD-232-A2-IQ</b> and software
<b>CAD-232-A2-IQ</b>	BTMS COM converter	1 × BM-CAD per BM-HMI	They require BM-MC
<b>COM-PGM</b>	BTMS COM module	1 × BM-COM for up to 16 BM-CS	For more than 16 BM-CS (up to 32) use 2nd BM-COM
<b>BM-LC</b>	BTMS IO expansion module	1 × BM-LC for up to 8 strings	They require BM-MC
<b>BM-TH</b>	BTMS Temperature and humidity sensor	1 × BM-TH for every string	They require BM-MC
<b>BM-GS</b>	BTMS Insulation monitoring sensor	1 × BM-GS for every string	They require BM-MC and BM-COM
<b>BM-HMI</b>	BTMS Human-Machine Interfaces	1 × BM-HMI for up to 32 strings	They require BM-C-A1 (BM-MC + BM-CAD), 1 per BM-C-A1

Code	Description	Quantity	Note
<b>BM-AG</b>	BTMS IOT Aggregator	1 × BM-AG per Data center	Needed when there are multiple BM-GWs on the Data Center
<b>TH-MC</b>	Temperature and humidity monitoring Master controller	1 × TH-MC for up to 120 temperature-humidity sensors	
<b>TM-C-A1</b>	Temperature and humidity monitoring Controller set	1 × TH-MC for up to 120 temperature-humidity sensors	Consisting of <b>TH-MC</b> , <b>CAD-232-A2-IQ</b> and software

## System limitations

Device	Supports up to
BM-AG	unlimited BM-GW
BM-GW	32 × BM-SS, 1 × BM-MC
BM-MC	32 × BM-TH, 4 × BM-LC, 1 × BM-HMI
BM-SS	120 × BM-CS