

## Engineering Specifications of the APM30H, IBBS200T, IBBS200D, and TMC11H

The engineering specifications involve the cabinet weight, cabinet dimensions, base dimensions, space for the customer equipment, space for cabling and maintenance space in front of the cabinet, and installation options.

### Engineering Specifications of the APM30H

[Table 1](#) describes the engineering specifications of the APM30H.

Table 1 Engineering specifications of the APM30H		
Item	Specification	Remarks
Weight	≤ 72 kg	Total weight of the equipment <ul style="list-style-type: none"><li>Including the cabinet frame, inner air circulation fan, outer air circulation fan, core of the heat exchanger, EPS4890B-4830A, and cables</li><li>Excluding the BBU, transmission equipment of the customer, PMU, and PSU</li></ul>
	≤ 91 kg	Weight of the cabinet in full configuration <ul style="list-style-type: none"><li>Including the equipment, one PMU, three PSUs, and one BBU</li><li>Excluding the transmission equipment of the customer</li></ul>
Dimensions of the cabinet (width x height x depth)	600 mm x 700 mm x 480 mm	The base is not included.
Dimensions of the base (width x height x depth)	600 mm x 200 mm x 434 mm	-
Space for the customer equipment (width x height x depth)	19-inch x 7 U x 310 mm	The depth is measured from 30 mm in front of the column to the back of the cabinet, and the total measurement of the depth is 310 mm.
Space for cabling and maintenance space in front of the cabinet	70 mm	-
Installation option	The APM30H can be installed on the ground, on a wall, or on a pole, or stacked with the RFC or the IBBS200D/IBBS200T.	When installed in stack mode, the APM30H should be placed on the RFC or the IBBS200D/IBBS200T.

### Engineering Specifications of the IBBS200T

[Table 2](#) describes the engineering specifications of the IBBS200T.

**Table 2** Engineering specifications of the IBBS200T

Item	Specification	Remarks
Cabinet weight	≤ 70 kg	Built-in batteries are not configured.
Battery weight	Supporting front maintenance of 48 V 50 Ah or 48 V 92 Ah batteries <ul style="list-style-type: none"> <li>A single 12 V 50 Ah battery: 21.5 kg</li> <li>A single 12 V 92 Ah battery: 33.5 kg</li> </ul> <b>NOTE:</b> The batteries of different manufacturers may have different weights. The following description is based on common batteries.	Two 48 V 92 Ah battery packs can be connected in parallel to provide 48 V 184 Ah backup power.
Dimensions of the cabinet (width x height x depth)	600 mm x 700 mm x 480 mm	Excluding the 206 mm that is stretched out of the cabinet on the front door.
Base dimensions (width x height x depth)	600 mm x 200 mm x 480 mm	-
Installation option	The IBBS200T can be installed on the ground or stacked with the TMC11H or APM30H.	When installed in stack mode, the IBBS200T should be placed below the TMC11H or APM30H.

### Engineering Specifications of the IBBS200D

[Table 3](#) describes the engineering specifications of the IBBS200D.

**Table 3** Engineering specifications of the IBBS200D

Item	Specification	Remarks
Cabinet weight	≤ 50 kg	Built-in batteries are not configured.
Battery weight	Supporting front maintenance of 48 V 50 Ah or 48 V 92 Ah batteries <ul style="list-style-type: none"> <li>A single 12 V 50 Ah battery: 21.5 kg</li> <li>A single 12 V 92 Ah battery: 33.5 kg</li> </ul> <b>NOTE:</b> The batteries of different manufacturers may have different weights. The following description is based on common batteries.	Two 48 V 92 Ah battery packs can be connected in parallel to provide 48 V 184 Ah backup power.

**Table 3** Engineering specifications of the IBBS200D

Item	Specification	Remarks
Dimensions of the cabinet (width x height x depth)	600 mm x 700 mm x 480 mm	-
Base dimensions (width x height x depth)	600 mm x 200 mm x 480 mm	
Installation option	The IBBS200D can be installed on the ground or stacked with the RFC or APM30H.	When installed in stack mode, the IBBS200D should be placed below the RFC or APM30H.

**Engineering Specifications of the TMC11H**

[Table 4](#) describes the engineering specifications of the TMC11H.

**Table 4** Engineering specifications of the TMC11H

Item	Specification	Remarks
Weight	≤ 57 kg	Total weight of the equipment <ul style="list-style-type: none"> <li>• Including the cabinet frame, fan box, and core of the heat exchanger</li> <li>• Excluding the BBU and transmission equipment of the customer</li> </ul>
Dimensions of the cabinet (width x height x depth)	600 mm x 700 mm x 480 mm	The appearance and base of the TMC11H are the same as those of the APM30H.
Base dimensions (width x height x depth)	600 mm x 200 mm x 480 mm	
Space for the customer equipment (width x height x depth)	19-inch x 11 U x 310 mm	The depth is measured from 30 mm in front of the column to the back of the cabinet, and the total measurement of the depth is 310 mm.
Space for cabling and maintenance space in front of the cabinet	70 mm	-
Installation option	The TMC11H can be installed on the ground or on a pole or stacked with the RFC or the IBBS200D/IBBS200T.	When installed in stack mode, the TMC11H should be placed on the RFC or the IBBS200D/IBBS200T.

**Table 1** Electrical specifications of the APM30H

Item		Specification
AC input	Typical input voltage	200 V AC to 240 V AC (single-phase 220 V AC)
		200 V AC to 240 V AC or 346 V AC to 415 V AC (three-phase 220 V AC or 380 V AC)
		100 V AC to 120 V AC or 200 V AC to 240 V AC (dual-live-wire 110 V AC)
		120 V AC to 127 V AC or 208 V AC to 220 V AC (dual-live-wire 120 V AC)
	Operating voltage range	176 V AC to 290 V AC (single-phase 220 V AC)
		176 V AC to 290 V AC or 304 V AC to 500 V AC (three-phase 220 V AC)
		90 V AC to 135 V AC or 180 V AC to 270 V AC (dual-live-wire 110 V AC)
		105 V AC to 150 V AC or 176 V AC to 260 V AC (dual-live-wire 120 V AC)
	Frequency of the input voltage	50 Hz or 60 Hz
	Maximum input current	16 A (three-phase 220 V AC or 380 V AC)
		40 A (dual-live-wire 110 V AC, dual-live-wire 120 V AC, or single-phase 220 V AC)
DC output	Input mode	<ul style="list-style-type: none"> <li>• Three-phase 220 V AC or 380 V AC</li> <li>• Dual-live-wire 110 V AC</li> <li>• Dual-live-wire 120 V AC</li> <li>• Single-phase 220 V AC</li> </ul>
	AC input power	The AC input power varies according to AC load. <ul style="list-style-type: none"> <li>• When the PSU is configured: <math>\leq 5,274</math> W</li> <li>• When the PSU, heater, and heating film are configured: <math>\leq 6,074</math> W</li> <li>• When the PSU, heater, heating film, and SOU are configured: <math>\leq 8,274</math> W</li> </ul>
	Output voltage range	-43.2 V DC to -57 V DC
	Output current range	<ul style="list-style-type: none"> <li>• When two PSUs are configured: 0 A to 60 A</li> <li>• When three PSUs are configured: 0 A to 90 A</li> </ul>

**Table 1** Electrical specifications of the APM30H

Item		Specification
	Typical output voltage	-53.5 V DC
	Number of DC outputs	The number of DC outputs varies according to application scenario. <ul style="list-style-type: none"> <li>When working with a distributed base station: 16 DC outputs</li> <li>When working with a separated base station: 12 DC outputs</li> </ul>
	DC output power	≤ 3,200 W (two active PSUs and + one standby PSU)
Protection	Input protection	<ul style="list-style-type: none"> <li>Overvoltage protection: The system generates an alarm when the input voltage reaches the AC overvoltage alarm threshold, which is 280 V by default.</li> <li>Undervoltage protection: The system generates an alarm when the input voltage is lower than the AC undervoltage alarm threshold, which is 180 V by default.</li> </ul>
	Output protection	<ul style="list-style-type: none"> <li>Overvoltage protection: The system generates an alarm when the busbar voltage reaches the DC overvoltage alarm threshold, which is -58 V by default.</li> <li>Undervoltage protection: The system generates an alarm when the busbar voltage is lower than the DC undervoltage alarm threshold, which is -45 V by default.</li> <li>Overcurrent protection and short-circuit protection</li> </ul>
Permissible heat consumption in the cabinet		≤ 700 W

### Electrical specifications of the TMC11H

[Table 2](#) describes the electrical specifications of the TMC11H.

**Table 2** Electrical specifications of the TMC11H

Item		Specification
DC input	Input voltage range	-38.4 V DC to -57 V DC
	Typical input voltage	-53.5 V DC
	Maximum input current	21 A
	Input mode	-48 V DC power input, supporting M6 2-hole OT terminals
	DC input power	≤ 800 W

Table 2 Electrical specifications of the TMC11H		
Item		Specification
DC output	DC distribution	Nine -48 V DC outputs: LOAD0 to LOAD8 for the customer equipment <b>NOTE:</b> When configured with different types of DCDU-03, the TMC11H can meet different current requirements.
	Typical output voltage	-48 V DC
Protection		Overcurrent and short-circuit protection for DC power distribution
Permissible heat consumption in the cabinet		≤ 700 W

The SGC shall declare the equipment power consumption for the indoor outdoor node-B and indoor outdoor BTS in the following conditions:

1. idle.
2. 25% of maximum traffic load
3. 50% of maximum traffic load.
4. 75% of maximum traffic load
5. 100% traffic load.

Different tables shall be provided according to the traffic type:

- A. Traffic is GSM only (3+3+3)
- B. Traffic is UMTS only (both 900MHZ and UMTS2100) 2+2+2
- C. Traffic is GSM/UMTS together (900MHz only). 2+2+2 GSM + 1+1+1 UMTS

Ambient temperature of 30°C shall be assumed.

#### Huawei Response:

Table for GSM only:

GSM only S3/3/3 25W TOC	power consumption(W)				
	Idle	25% traffic	50% traffic	75% traffic	100% traffic
Indoor BTS3900L(three MRFU 900M)	630	740	870	1005	1140
Indoor BTS3900L(three MRFU 1800M)	670	775	920	1055	1190
Outdoor BTS3900A(three MRFU 900M)	610	715	850	985	1110
Outdoor BTS3900A(three MRFU 1800M)	650	755	900	1035	1170
Outdoor -48V DBS3900(three 3MRRU 900M)	410	503	566	620	671
Outdoor -48V DBS3900(three 3MRRU 1800M)	401	491	545	596	644

Table for UMTS only:

UMTS only S2/2/2 40W TOC	power consumption(W)				
	Idle	25% traffic	50% traffic	75% traffic	100% traffic
Indoor BTS3900L(three WRFU 2100M)	520	640	750	850	980

Indoor BTS3900L(three MRFU 900M)	640	660	720	785	850
Outdoor BTS3900A(three WRFU 2100M)	510	615	730	830	960
Outdoor BTS3900A(three MRFU 900M)	620	640	700	765	830
Outdoor -48V DBS3900(three 3MRRU 2100M)	409	487	562	631	697
Outdoor -48V DBS3900(three 3MRRU 900M)	397	487	562	634	703

Table for GSM/UMTS:

GSM S2/2/2+UMTS S1/1/1 900M only	power consumption(W)				
	Idle	25% traffic	50% traffic	75% traffic	100% traffic
Indoor BTS3900L(six MRFU 900M)	1120	1270	1420	1585	1740
Outdoor -48V BTS3900A(six MRFU 900M)	1100	1250	1420	1580	1750
Outdoor -48V DBS3900(six 3MRRU 900M)	744	810	882	948	1008