

Model version: 2

Overall length	1165 mm (46")
Overall width ¹	650–790 mm (25.5"–31")
Stowage length	955 mm (38")
Stowage width	650–790 mm (25.5"–31")
Stowage height	875 mm (34.5")
Weight including batteries (total mass)	189 kg (417 lb.)
Mass of the heaviest part	Backrest 7.5 kg (16.5 lb.)
Static stability forward	19° (most), 10° (least)
Static stability rearward	19° (most), 19° (least)
Static stability sideways	16° (most), 10° (least)
Theoretical continuous driving range ²	30 km (18 mi)
Theoretical maneuvering distance range ²	9.0 km (5.6 mi)
Dynamic stability rearward on ramp	10°
Dynamic stability forward on ramp	10°
Dynamic stability sideways on ramp	10°
Dynamic stability sideways while turning in a circle	1.5 m (5 feet)
Dynamic stability sideways while turning suddenly	Yes
Dynamic stability rearward traversing step forward	75 mm (3")
Dynamic stability rearward traversing step rearward	75 mm (3")
Dynamic stability forward traversing forward up a step	75 mm (3")
Dynamic stability forward traversing forward down a step	75 mm (3")
Travelling forward at an oblique angle down a step	75 mm (3")
Maximum obstacle height that can be climbed and descended ³	65 mm (2.5")
Maximum speed (forward on horizontal)	12 km/h (7.5 mph)
Minimum braking distance from maximum speed (normal, reverse, and emergency)	2.8 m (9.2 feet), 2.8 m (9.2 feet), 2.8 m (9.2 feet)
Parking brakes, maximum slope rearward and forward	19°, 19°
Seat plane angle	–45° to 50°
Effective seat depth	370–570 mm by 25 mm increments (14"–22" by 1" increments)
Seat width	420–570 mm by 50 mm increments (17"–23" by 2" increments)
Seat to floor height including cushion (seat surface height at front edge)	490–880 mm (19"–35")
Backrest angle	85°–180°
Backrest height	480–620 mm by 25 mm increments (19"–24" by 1" increments)
Footrest to seat distance	330–590 mm (13"–23")
Leg to seat surface angle	90°–180°
Armrest to seat distance (armrest height)	180–260 mm (7"–10")
Front armrest-to-backrest distance	120–410 mm (5"–16")
Horizontal location of axle	330 mm (13")
Minimum turning diameter	1490 mm (59")
Pivot width	1200 mm (47")
Ground clearance with user weight	80 mm (3")
Required width of angled corridor	860 mm (34")
Required doorway entry depth	1330 mm (52")
Required corridor width for side opening entering the corridor	900 mm (35")

1. Based on the joystick module being in the forward position.
2. Actual driving range will vary based on driving conditions, battery conditions, and terrain.
3. The maximum obstacle height that can be climbed and descended is tested with maximum user weight.

The wheelchair conforms to the following standards:

- a. requirements and test methods for static, impact and fatigue strengths (ISO 7176-8:1998)
- b. power and control systems for electric wheelchairs – requirements and test methods (ISO 7176-14:2008)
- c. climatic test in accordance with ISO 7176-9:2009
- d. requirements for resistance to ignition in accordance with ISO 7176-16:2012
- e. requirements and test methods for electromagnetic compatibility of electrically powered wheelchairs and scooters, and battery chargers (ISO 7176-21:2009)
- f. batteries and chargers for powered wheelchairs (ISO 7176-25:2013).

The above standards comprise both sitting and stand-up position for the wheelchair when applicable.

Wheels	
Tire types for the drive wheels	Air/solid
Drive wheel tire dimensions	3.00–8"
Tire types for the caster wheels	Solid
Caster tire dimensions	2.50–3" (210 x 65)
Recommended tire pressure	250 kPa (35 psi)

Batteries	
Battery type and nominal voltage	Sealed lead acid, 2 x 12 V, group 24
Battery cycle life	450 cycles
Battery capacity (C20)	85 Ah

Miscellaneous	
Maximum user weight	150 kg (330 lb.)
Mass of test dummy used in test ¹	150 kg (330 lb.)
Occupant mass group	III
Overall height	1090–1170 mm (43"–46")
Armrest length	260, 335, 410, 460 mm (10", 13", 16", 18")
Backrest width	360–510 mm by 50 mm increments (14"–20" by 2" increments)
Wheelchair class	B
Wheelchair group	Group 4
Drive electronics	R-net PM 120
Storage environmental specification	–40°C to 65°C (–40°F to 149°F), IPX4
Operation environmental specification	–25°C to 50°C (–13°F to 122°F), IPX4
Force necessary to operate joystick and key pad switches	2 N
Maximum obstacle height that can be climbed and descended (approach distance 50 cm [20"]) ²	75 mm (3")
Ability to climb rated slope	6°

1. The mass can vary depending on the test. For specific weight information, see the standard in question.
2. The maximum obstacle height that can be climbed and descended is tested with maximum user weight.

ConnectMe	
GSM	Not supported
UMTS	RF band B2, B4, B5
LTE	CAT-1, RF band B2, B4, B5, B12
Network antenna	Internal
Connectivity	Bluetooth 4.1
Connectivity antenna	Internal
GNSS	GPS, GLONASS, Galileo, BeiDou
GNSS antenna	Internal
Dimensions (length x width x height)	85 x 48 x 19 mm excluding cable (3.3" x 1.9" x 0.7" excluding cable)
Cable length	1000 mm (39")
External connector	6-pin MODU, 4-pin R-net
Weight	0.06 kg / 0.14 kg including cable (0.13 lb. / 0.32 lb. including cable)
Power operation	24 VDC, max = 430 mA, Iavg = 60 mA
Standby	24 VDC, max 0.5 mA
Main fuse	500 mA
Maximum radio frequency power	UMTS: +23dBm, LTE: +23dBm, 2.4Ghz, Bluetooth: +4dBm

The specifications in this product data sheet are for the tested configuration. Please contact Permobil Customer Support for configuration options and details.

Electromagnetic emissions

Guidance and manufacturer's declaration

F5 Corpus and the battery charger (616270 & 616347) are intended for use in the electromagnetic environment specified below. The customer or the user of F5 Corpus and the battery charger (616270 & 616347) should assure that they are used in such an environment.

Emissions test	Compliance		Electromagnetic environment guidance
	F5 Corpus	Battery charger (616270 & 616347)	
RF emissions CISPR 11	Group 1	Group 1	F5 Corpus and the battery charger (616270 & 616347) use RF energy only for their internal functions. Therefore, their RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	Class B	F5 Corpus and the battery charger (616270 & 616347) are suitable for use in all establishments, including domestic establishments and those directly connected to the public low voltage power supply network that supplies power to buildings that are used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Not applicable	Not applicable	
Voltage fluctuations/flicker emissions IEC 61000-3-3	Not applicable	Not applicable	

Electromagnetic immunity

Guidance and manufacturer's declaration

F5 Corpus and the battery charger (616270 & 616347) are intended for use in the electromagnetic environment specified below. The customer or the user of F5 Corpus and the battery charger (616270 & 616347) should assure that they are used in such an environment

F5 Corpus			
Immunity test	Test level IEC 60601	Compliance level	Electromagnetic environment guidance
Electrostatic discharge (ESD) IEC 61000-4-2	±2 kV, ±4 kV, ±6 kV contact ±2 kV, ±4 kV, ±8 kV air	±2 kV, ±4 kV, ±6 kV contact ±2 kV, ±4 kV, ±8 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	30 A/m	30 A/m	If image distortion occurs, it may be necessary to position F5 Corpus further from sources of power frequency magnetic fields or to install magnetic shielding. The power frequency magnetic field should be measured in the intended installation location to assure that it is sufficiently low.

Battery charger (616270 & 616347)			
Immunity test	Test level IEC 60601	Compliance level	Electromagnetic environment guidance
Electrostatic discharge (ESD) IEC 61000-4-2	±2 kV, ±4 kV, ±6 kV, ±8 kV contact ±2 kV, ±4 kV, ±8 kV air	±2 kV, ±4 kV, ±6 kV contact ±2 kV, ±4 kV, ±8 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical fast transient/burst IEC 61000-4-4	±1 kV AC supply lines	±1 kV AC supply lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±1 kV line(s) to line(s)	±1 kV differential mode	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	0% U_T for 0.5 cycle 0% U_T for 1 cycle 70% U_T for 30 cycles 0% U_T for 5 s	0% U_T for 0.5 cycle 0% U_T for 1 cycle 70% U_T for 30 cycles 0% U_T for 5 s	Mains power quality should be that of a typical commercial or hospital environment. If the user of the battery charger (616270 & 616347) requires continued operation during power mains interruptions, it is recommended that the battery charger (616270 & 616347) be powered from an uninterruptible power supply or a battery.

Note: U_T is the a.c. mains voltage prior to application of the test level.

F5 Corpus and the battery charger (616270 & 616347) are intended for use in the electromagnetic environment specified below. The customer or the user of F5 Corpus and the battery charger (616270 & 616347) should assure that they are used in such an environment

F5 Corpus			Electromagnetic environment guidance
Immunity test	Test level according to IEC 60601	Compliance level	Portable and mobile RF communications equipment should be used no closer to any part of F5 Corpus and the battery charger (616270 & 616347), including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.
Radiated RF IEC 61000-4-3	20 V/m 80 MHz-2.5 GHz	20 V/m	
Battery charger (616270 & 616347)			Recommended separation distance
Immunity test	Immunity test	Compliance level	$d = [3.5/V_1] \sqrt{P}$ $d = [3.5/E_1] \sqrt{P}$, 80 MHz-800 MHz $d = [7/E_1] \sqrt{P}$, 800 MHz-2.5 GHz where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey ^a , should be less than the compliance level. Interference may occur in the vicinity of equipment marked with the following symbol:
Conducted RF IEC 61000-4-6 Radiated RF IEC 61000-4-3	3 V _{ms} 150 kHz-80 MHz 3 V/m 80 MHz-2.5 GHz	3 V _{ms} 3 V/m	



NOTE 1: At 80 MHz and 800 MHz, the higher frequency range applies.

NOTE 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

^a Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which F5 Corpus and the battery charger (616270 & 616347) are used exceeds the applicable RF compliance level above, F5 Corpus and the battery charger (616270 & 616347) should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating F5 Corpus or the battery charger (616270 & 616347).

Recommended separation distance

Guidance and manufacturer's declaration

F5 Corpus and the battery charger (616270 & 616347) are intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of F5 Corpus and the battery charger (616270 & 616347) can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and F5 Corpus and/or the battery charger (616270 & 616347) as recommended below, according to the maximum output power of the communications equipment.

Rated maximum output power of transmitter	Recommended separation distance according to frequency range of the transmitter				
	F5 Corpus		Battery charger (616270 & 616347)		
	80 MHz-800 MHz	800 MHz-2.5 GHz	150 KHz-80 MHz	80 MHz-800 MHz	800 MHz-2.5 GHz
0.01 W	0.018 m	0.035 m	0.12 m	0.12 m	0.23 m
0.1 W	0.056 m	0.11 m	0.37 m	0.37 m	0.73 m
1 W	0.18 m	0.35 m	1.2 m	1.2 m	2.3 m
10 W	0.55 m	1.1 m	3.7 m	3.7 m	7.3 m
100 W	1.8 m	3.5 m	12 m	12 m	23 m

For transmitters rated at a maximum output power not listed above, the recommended separation distance d in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

NOTE 1: At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

NOTE 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.