Guidance and manufacturer's declaration - electromagnetic Immunity

EMC_EMV_IN 600_IN 605_ IN A60_08_2020_Ver.1.1

Instructions for use

The ME EQUIPMENT or ME SYSTEM is suitable for home healthcare environments and so on.

Warning: Don't near active HF surgical equipment and the RF shielded room of an ME system for magnetic resonance imaging, where the intensity of EM disturbances is high.

Warning: Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.

Warning: Use of accessories, transducers and cables other than those specified or provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation."

Warning: Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the device,

including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result

If any: a list of all cables and maximum lengths of cables (if applicable), transducers and other ACCESSORIES that are replaceable by the RESPONSIBLE ORGANIZATION and that are likely to affect compliance of the ME EQUIPMENT or ME SYSTEM with the requirements of Clause 7 (EMISSIONS) and Clause 8 (IMMUNITY). ACCESSORIES may be specified either generically (e.g. shielded cable, load impedance) or specifically (e.g. by MANUFACTURER and EQUIPMENT OR TYPE REFERENCE).

If any: the performance of the ME EQUIPMENT or ME SYSTEM that was determined to be ESSENTIAL PERFORMANCE and a description of what the OPERATOR can expect if the ESSENTIAL PERFORMANCE is lost or degraded due to EM DISTURBANCES (the defined term "ESSENTIAL PERFORMANCE" need not be used).

Technical description

1.all necessary instructions for maintaining BASIC SAFETY and ESSENTIAL PERFORMANCE with regard to electromagnetic disturbances for the excepted service life.

2. Guidance and manufacturer's declaration -electromagnetic emissions and Immunity Table 1

Guidance and manufacturer's declaration - electromagnetic emissions					
Emissions test	Compliance				
RF emissions CISPR 11	Group 1				
RF emissions CISPR 11	Class B				
Harmonic emissions IEC 61000-3-2	Class A				
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Applied				

Table 2

IEC61000-4-3

Guidance and manufacturer's declaration - electromagnetic Immunity								
Immunity Test	IEC 60601-1-2	Compliance level						
	Test level							
Electrostatic discharge (ESD)	±8 kV contact	±8 kV contact						
IEC 61000-4-2	±2 kV, ±4 kV, ±8 kV, ±15 kV air	±2 kV, ±4 kV, ±8 kV, ±15 kV air						
Electrical fast transient/burst	Power supply lines: ±2 kV	Power supply lines: ±2 kV						
IEC 61000-4-4	input/output lines: ±1 kV							
Surge	line(s) to line(s): ±1 kV.	line(s) to line(s): ±1 kV.						
IEC 61000-4-5	line(s) to earth: ±2 kV.	100 kHz repetition frequency						
	100 kHz repetition frequency							
Voltage dips, short interruptions and	0% 0.5 cycle	0% 0.5 cycle						
voltage variations on power supply	At 0°, 45 °, 90 °, 135 °, 180 °, 225	At 0°, 45 °, 90 °, 135 °, 180 °, 225						
input lines	°, 270 ° and 315 °	°, 270 ° and 315 °						
IEC 61000-4-11	0% 1 cycle	0% 1 cycle						
	And	And						
	70% 25/30 cycles	70% 25/30 cycles						
	Single phase: at 0	Single phase: at 0						
	0% 300 cycle	0% 300 cycle						
Power frequency magnetic field	30 A/m	30 A/m						
IEC 61000-4-8	50Hz/60Hz	50Hz/60Hz						
Conduced RF	150KHz to 80MHz:	150KHz to 80MHz:						
IEC61000-4-6	3Vrms	3Vrms						
	6Vrms (in ISM and amateur radio	6Vrms (in ISM and amateur radio						
	bands)	bands)						
	80% Am at 1kHz	80% Am at 1kHz						
Radiated RF	10 V/m	10 V/m						

80 MHz - 2.7 GHz

80 % AM at 1 kHz

NOTE U_T is the a.c. mians voltage prior to application of the test level.

80 MHz - 2.7 GHz

80 % AM at 1 kHz

Table 3

Guidance and manufacturer's declaration - electromagnetic Immunity										
Radiated RF	Test	Band	Service	Modulation	Modulation	Distance	IMMUNITY			
IEC61000-4-3	Frequency	(MHz)			(W)	(m)	TEST LEVEL			
(Test specifications	(MHz)						(V/m)			
for ENCLOSURE	385	380 –	TETRA 400	Pulse	1,8	0.3	27			
PORT IMMUNITY		390		modulation						
to				18 Hz						
RF wireless										
communications equipment)	450	380 –	GMRS 460,	FM	2	0.3	28			
equipment)	430	390	FRS 460	± 5 kHz		0.5	20			
		000	1110 400	deviation						
				1 kHz sine						
	710	704 –	LTE Band	Pulse	0,2	0.3	9			
	745	787	13,	modulation						
	780		17	217 Hz						
	810	000	GSM	Pulse		0.3	28			
	810	800 – 960	800/900,	modulation	2	0.3	28			
	870		TETRA	18 Hz						
			800,	10112						
	930		iDEN 820,							
			CDMA 850,							
			LTE Band 5							
	1720	1 700 –	GSM 1800;	Pulse	2	0.3	28			
	1845	1 990	CDMA	modulation						
	1640		1900;	217 Hz						
	1970		GSM 1900;							
			DECT;							
			LTE Band							
			1, 3,							
			4, 25;							
			UMTS							
	2450	2 400 –	Bluetooth,	Pulse	2	0.3	28			
		2 570	WLAN,	modulation						
			802.11	217 Hz						
			b/g/n,							
			RFID 2450,							
	5240	5 100 -	LTE Band 7 WLAN	Pulse	0,2	0.3	9			
	3240	5 800	WLAN 802.11 a/n	modulation 217 Hz	0,2	0.3	9			
	5240									
	5785									
		l								

IN 600, IN 605

Internal Battery: Capacity: 2570 mAh

Nominal voltage: 3.7 V dc

Type designation: Li-ion Polymer