



PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

Perry Johnson Laboratory Accreditation, Inc. has assessed the Laboratory of:

Mantec S.r.l.

Via Goito, 22 - 15011 Acqui Terme (AL), Italy

(Hereinafter called the Organization) and hereby declares that Organization is accredited in accordance with the recognized International Standard:

ISO/IEC 17025:2017

This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (as outlined by the joint ISO-ILAC-IAF Communiqué dated April 2017):

Electrical Testing
(As detailed in the supplement)

Accreditation claims for such testing and/or calibration services shall only be made from addresses referenced within this certificate. This Accreditation is granted subject to the system rules governing the Accreditation referred to above, and the Organization hereby covenants with the Accreditation body's duty to observe and comply with the said rules.

For PJLA:

Tracy Szerszen
President/Operations Manager

Perry Johnson Laboratory
Accreditation, Inc. (PJLA)
755 W. Big Beaver, Suite 1325
Troy, Michigan 48084

Initial Accreditation Date:

April 20, 2020

Issue Date:

April 20, 2020

Expiration Date:

June 30, 2022

Accreditation No.:

107874

Certificate No.:

L20-264

The validity of this certificate is maintained through ongoing assessments based on a continuous accreditation cycle. The validity of this certificate should be confirmed through the PJLA website: [www](http://www.pjla.com)



Certificate of Accreditation: Supplement

Manteck S.r.l.

Via Goito, 22 Acqui Terme (AL), Italy
 Contact Name: Cristiano Seva Phone: +3289176821

Accreditation is granted to the facility to perform the following testing:

FIELD OF TEST	ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	RANGE (WHERE APPROPRIATE) AND DETECTION LIMIT
Electrical ^F	Electrical and electronic equipment	Radiofrequency emitted level, electromagnetic compatibility test	EN55011 (2018)	Measure range 9 kHz to 30 MHz (conducted emissions) Applied tolerance 7.15% 30 MHz to 1GHz (irradiated emissions) Applied tolerance 7.60% Limits complying with method used
			EN55015 (2015)	
			EN55014-1 (2019)	
			EN55032 (2015)	
			EN 61326-1(2013)	
			EN 61439-1 (2012)	
			EN 60730-1 (2016)	
			EN 60601-1-2 (2018)	
			EN 61000-6-4 (2019)	
			Immunity test (summary standard)	
		EN55014-2 (2019)		
		EN61547 (2010)		
		EN55035 (2018)		
		EN 61000-6-1 (2019)		
EN 61000-6-2 (2019)				



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Electrical ^F	Electrical and electronic equipment	Radiofrequency emitted level Electric safety test: Earth conductor Insulation Dielectric strength Leakage current	EN60204-1 (2018)	Measure range 9 kHz to 30 MHz (conducted emissions) Applied tolerance 7.15% 30 MHz to 1GHz (irradiated emissions) Applied tolerance 7.60% Limits complying with method used Electrical safety Earth conductor Tolerance applied 1 & Insulation Tolerance applied 1 & Dielectric strength Tolerance applied 3 & Leakage current tolerance applied 1
			EN60335-1 (2008)	Earth conductor Tolerance applied 1 &
			EN62368-1 (2016)	Insulation Tolerance applied 1 & Dielectric strength Tolerance applied 3 & Leakage current tolerance applied 1
		Radiofrequency emitted level	EN 61000-3-2 (2019)	Measure range 50 Hz to 2 000 Hz
		Radiofrequency emitted level in time	EN 61000-3-3 (2014)	Tolerance within 2.5% Limit complying with Listed method
		Immunity to electrostatic discharge	EN 61000-4-2 (2011)	Discharge range 2 kV,4 kV,6 kV,8 kV,15 kV Tolerance within 2.5%
		Immunity to irradiated radiofrequency field	EN 61000-4-3 (2007)	Emission range 80 MHz to 2 700 MHz Emission level 1,3,10,30 v7 m Tolerance within 5%
		Immunity to burts (fast impulse)	EN 61000-4-4 (2013)	Discharge range 0.5 kV,1 kV,2 kV,4 kV Frequency 5khz Tolerance within 5%



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Electrical ^F	Electrical and electronic equipment	Immunity to surge (high power impulse)	EN 61000-4-5 (2014)	Discharge range 0.5 kV, 1 kV, 2 kV, 4 kV Tolerance within 5%
		Immunity to conducted radiofrequency	EN 61000-4-6 (2014)	Generation range 150 KHz to 80 MHz Emission level 1 Vrms, 3 vVrms, 10 Vrms, 30 Vrms Tolerance within 5%
		Immunity to magnetic fields	EN 61000-4-8 (2013)	H field range (magnetic field) 1 A/m, 3 A/m, 10 A/m, 30 A/m Tolerance within 5%
		Immunity to tension interruptions and variations	EN 61000-4-11 (2006)	Application range 230 VAC Application time 10 ms 50 ms 100 ms 500 ms 1 s 5 s Tolerance within 5%

1. The presence of a superscript F means that the laboratory performs testing of the indicated parameter at its fixed location. Example: Outside Micrometer^F would mean that the laboratory performs this testing at its fixed location.
2. The presence of a superscript O means that the laboratory performs testing of the indicated parameter onsite at customer locations. Example: Outside Micrometer^O would mean that the laboratory performs this testing onsite at the customer's location.
3. The presence of a superscript FO means that the laboratory performs testing of the indicated parameter both at its fixed location and onsite at customer locations. Example: Outside Micrometer^{FO} would mean that the laboratory performs this testing at its fixed location and onsite at customer locations.