

Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

Manufacturer	Miele & Cie. KG
Address	Carl-Miele-Str. 29, Guetersloh, 33332, Germany
Place of Production	Miele & Cie. KG Carl-Miele-Str. 29, Guetersloh, 33332, Germany
Place of Production	Miele technika s.r.o. Sumperska 1345-1348, 783 91 Unicov, Czech Republic
Type	Commercial and Domestic Appliances
Description	Professional washing machines & tumble dryer Washing machines: PWM507 DP MAR PWM906 DP MAR PWM908 DP MAR Tumble dryer: PDR507 EL MAR PDR507 HP MAR PDR908 EL MAR PDR908 HP MAR
Trade Name	PWM507, PWM906, PWM908, PDR507, PDR908

71 Fenchurch Street, London, EC3M 4BS,
United Kingdom

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Application	Washing machine and tumbler dryer for the use on-board ships in general power distribution zone.
Specified Standard	IEC 60335-1:2010+AMD1:2013+AMD2:2016 IEC 60335-2-7:2008+AMD1:2011+AMD2:2016 (for washing machines only) IEC60335-2-11:2008+AMD1:2012+AMD2:2015 (for dryer only)
Ratings	Power supply: Washing machine: 230 VAC / 400 VAC / 480 VAC Tumble dryer: 230 VAC / 400 VAC / 480 VAC Power consumption: Washing machine: 2.8 kW to 5.5 kW Tumble dryer: 1.2 kW to 6.4 kW Operating temperatures: Washing machine: +5 °C to +35 °C Tumble dryer: +5 °C to +35 °C For further details, pls. refer to appendix.
Additional Tests	Tests according to LR TestSpecification Number No. 1, May 2018: Visual inspection Performance test Insulation resistance Power supply variation Power supply failure Damp heat test 2 – steady state: +35 °C / 80 % / 96 h Low temperature test: +5 °C / 16 h Vibration test 1, Resonance search: 5 – 13.2 Hz (± 1.0 mm) / 13.2 – 100 Hz (± 0.7 g (6.9 ms ⁻²)) High voltage Immunity to conducted low frequency interference Immunity to conducted radio interference

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Immunity to radiated radio frequency fields
Immunity to fast low-energy transients (bursts)
Immunity to slow high-energy transients (surges)
Immunity to electrostatic discharge (ESD)
Radiated emission (acc. to general power distribution zone)
Conducted emission (acc. to general power distribution zone)

Tests according to IEC 60068-2-2: 2007
Dry heat test: +35 °C / 16 h (for washing machine)
Dry heat test: +55 °C / 16 h (for tumble dryer)

Tests according to IEC 60068-2-64:2008
Vibration, broadband random: 3 – 100 Hz / 1 g (r.m.s.) / 2.5 h

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

The Design Appraisal Document No. HTS/ETS 39926-20/MK/TW and its supplementary Type Approval Terms and Conditions form part of this Certificate.

Appendix

DESCRIPTION

Professional washing machines & tumble dryer

RATINGS

Type	Nom. power supply	Max. power consumption
Washing machine		
PWM507 DP MAR	1N AC, 230 V, 50/60 Hz 2N AC, 400 V, 50/60 Hz 3 AC, 230 V, 50/60 Hz 3 AC, 400-480 V, 50/60 Hz 3N AC, 400 V, 50/60 Hz	max. 2.85 kW max. 5.5 kW max. 5.5 kW max. 3.6/4.2/5.0 kW max. 4.8 kW
PWM906 DP MAR	2N AC, 400 V, 50/60 Hz 3 AC, 230 V, 50/60 Hz 3 AC, 400-480 V, 50/60 Hz 3N AC, 400 V, 50/60 Hz	max. 5.5 kW max. 4.4 kW max. 3.6/4.2/5.0 kW max. 4.8 kW
PWM908 DP MAR	2N AC, 400 V, 50/60 Hz 3 AC, 230 V, 50/60 Hz 3 AC, 400-480 V, 50/60 Hz 3N AC, 400 V, 50/60 Hz	max. 5.5 kW max. 4.4 kW max. 3.6/4.2/5.0 kW max. 4.8 kW
Tumble dryer		
PDR507EL MAR	1N AC, 230 V, 50/60 Hz 3 AC, 230 V, 50/60 Hz 3 AC, 400-480 V, 50/60 Hz 3N AC, 400 V, 50/60 Hz	max. 5.47 kW max. 6.4 kW max. 4.5/5.4/6.4 kW max. 6.4 kW
PDR507HP MAR	1N AC, 230 V, 50 Hz 1N AC, 230 V, 60 Hz	max. 1.44 kW max. 1.2 kW
PDR908EL MAR	1N AC, 230 V, 50/60 Hz 3 AC, 230 V, 50/60 Hz 3 AC, 400-480 V, 50/60 Hz 3N AC, 400 V, 50/60 Hz	max. 5.47 kW max. 6.4 kW max. 4.5/5.4/6.4 kW max. 6.4 kW
PDR908HP MAR	1N AC, 230 V, 50 Hz 1N AC, 230 V, 60 Hz	max. 1.44 kW max. 1.2 kW

Operating temperatures:

Washing machine: +5 °C to +35 °C

Tumble dryer: +5 °C to +35 °C