Miele PWM 909, PWM 509 Professional Washing Machine User Manual

PWM 509
PWM 909

Installation Plan Commercial Washing Machine

Contents

Installation notes

Installation requirements

⚠ **WARNING:** The washing machine must be installed by Miele Service or by properly trained staff of an authorized dealer.

▶ This washing machine must be installed in accordance with all relevant regulations and standards. Local energy supplier regulations must also be observed.

▶ This washing machine must only be operated in a room that has sufficient ventilation and which is frost-free.

The washing machine should not be installed or operated in any area where there is a risk of explosion.

Explanation of the safety notes and warnings on the machine

	Read the operating instructions
	Read all the instructions, e.g., the installation instructions
	Warning, hot surfaces
	Warning, voltage up to 1,000 volts
	Protective grounding
	Protective equipotential bonding

General operating conditions

This washing machine is intended only for use in a commercial environment and must only be operated indoors.
– Ambient temperature: 32-105°F (0-40°C)
– Relative humidity: non-condensing
– Maximum height above sea level of location site: 6500 ft (2000 m)
Depending on the nature of the installation site, sound emissions and vibration may occur.
Tip: Have the installation site inspected and seek the advice of a specialist in instances where increased noise may cause a nuisance.

Transportation and site access

The machine must not be moved without the transport safety device in place. Keep the transport safety device in a safe place. They must be reequipped if the machine is to be moved again (e.g., when relocating the machine).

Installation

This washing machine must be transported to its installation site using a suitable pallet truck. Remove the

transport packaging.
The washing machine must be set up on a completely level, horizontal, and firm surface with the minimum stated load bearing capacity (see “Technical data”).

Tip: A concrete floor is the most suitable installation surface for this machine. It is far less prone to vibration during the spin cycle than wooden floorboards or a carpeted surface.
The floor load created by the washing machine is the load exerted by the area of the machine in contact with and transferred to the installation surface.
The washing machine requires a gap of at least 2″ (50 mm) on each side to allow for movement during operation. Please ensure a minimum distance of 15 3/4″ (400 mm) is maintained between the rear of the appliance and the rear wall.
The washing machine must not be installed on a carpeted floor.
The feet of the washing machine must be secured to the fastening points on the floor using the fixtures and fastenings supplied.
The material provided is intended for use in bolting the machine to a concrete floor. If other floor types are present at the installation site, the fixtures and fastenings must be provided by the customer.

Installation on concrete base
The washing machine can be installed on a concrete base if desired.
The concrete materials and the durability of the concrete base must be assessed in accordance with the floor load bearing capacity given in “Technical data”.

- To guarantee the stability of the washing machine, make sure that the concrete base is sufficiently stable on the floor and that it is capable of withstanding any burden or force from the washing machine.
- The washing machine must be secured to the concrete base using the fixtures and fastenings supplied.

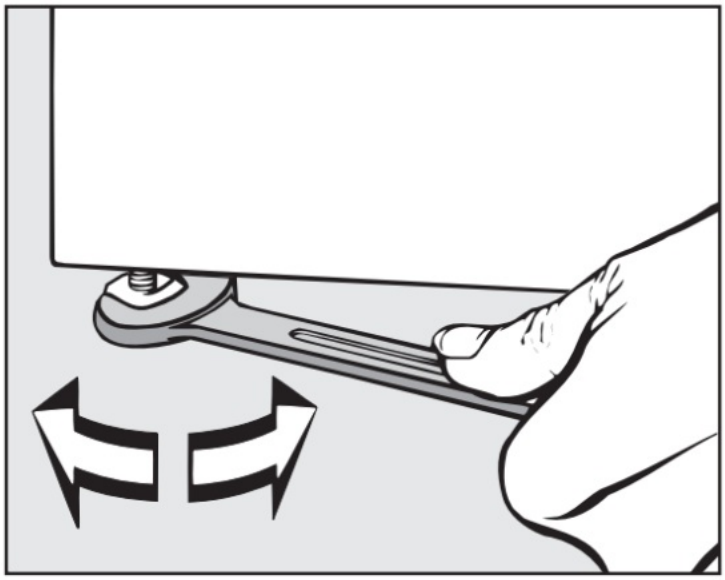
⚠ The washing machine must be secured to the base immediately after installation!
There is a risk of the washing machine falling off a raised base during a spin cycle if it is not secured.

Leveling the machine

- Align the washing machine vertically and horizontally using the adjustable feet and a level.

The washing machine must stand perfectly level on all four feet to ensure safe and proper operation. Otherwise water and energy consumption will be increased and the machine could move.

- After aligning the machine tighten the lock nuts by turning them in a counterclockwise direction with a wrench. This will prevent the feet from moving.



Electrical connection

The electrical connection must only be carried out by a qualified electrician who must ensure that all electrical work is carried out in accordance with applicable electrical regulations and standards.

▶ The washing machine must be connected to an electrical supply that complies with local and national regulations. Please also observe your insurance and energy supplier's regulations as well as any health and safety at work regulations.

▶ The required voltage, power consumption and specifications for external fusing are quoted on the data plate on the washing machine. Ensure that the supply voltage complies with the voltage quoted on the data plate before connecting the washing machine to the power supply.

Connection to a supply voltage other than the one quoted on the data plate can lead to functional faults and damage the washing machine.

If more than one voltage is quoted on the data plate, the washing machine can be converted for connection to the voltages stated.

▶ Conversion to a different voltage must only be carried out by a Miele Service engineer or by an authorized Service Dealer. The wiring instructions given on the wiring diagram must be followed.

The washing machine can either be hard-wired or connected via a plug and socket that complies with national codes and regulations. For a hard-wired connection an all-pole isolation device must be installed on site.

For hard-wired machines connection should be made via a suitable switch with all-pole isolation which, when in the off position, ensures a 1/8″ (3 mm) gap between all open contacts. These include circuit breakers, fuses and relays.

If the power supply cannot be permanently disconnected, the isolator switch (including plug and socket) must be safeguarded against being switched on either unintentionally or without authorization.

Tip: We recommend connection to the power supply via a suitable plug and socket which must be easily accessible for servicing and maintenance work after the machine has been installed.

▶ If it is necessary to install a residual current device (RCD) in accor- dance with local regulations, a type B residual current device (sensitive to universal current) must be used.

An existing type A residual current device (RCD) must be exchanged for a type B RCD.

▶ If local and national installation specifications require equipotential bonding, good galvanic contact must be guaranteed. Equipotential bonding must have a ground current rating > 10 mA.

Water connection

The washing machine must be connected to a water supply system in accordance with local and national safety regulations. It can be connected to the water supply without a non-return valve, if national standards permit.

The flow pressure must amount to a minimum of 100 kPa (14.5 psi) and must not exceed an overpressure of 1,000 kPa (145 psi). If the flow pressure is higher than 1,000 kPa (145 psi), a pressure reducing valve must be used.

The machine must be connected to the water connection using the water inlet hoses provided.

⚠ The connection points are subject to water connection pressure.

Turn on the water supplies slowly and check for leaks. Correct the position of the seal and screw thread if

appropriate.

Cold water connection
For the cold water connection one faucet each with a ¾” screw thread is required.
If a water connection is not available, only a qualified installer may connect the washing machine to the drinking water supply.
The inlet hose for cold water is not suitable for connection to a hot water connection.

Hot water connection
The same connection requirements as for cold water also apply to hot water up to 158 °F (70 °C).
A suitable connection hose with a threaded union is supplied with the machine.
The machine with hot water connection also requires a cold water connection.
In the event that hot water is not available on site, a cold water supply must be used for the hot water connection.
The required amount of hot water should be added to the cold water volume.
Alternatively, the hot water connection should be blocked using the blind stopper supplied with the machine and the machine controls should be set to cold water intake.

Drain valve (depending on model)
In the case of washing machines with a drain valve, a motorized valve is used to drain the machine. An HT DN 70 (2 15/16″ | 75 mm) angle connector can be used for connecting the drain valve directly into the waste water system (without a siphon) or into a floor drain (on-site gully with odor trap).
Thanks to an improved closing mechanism and a larger cross-section, even the coarsest of soil does not leave any deposits or debris behind which could result in blockages.
The drain valve can also be operated manually to allow the suds container to be emptied in the event of a power failure.
A vented drainage system is vital for unimpeded drainage.
If several machines are connected to a single drain pipe, this should be sufficiently large to allow all machines to drain simultaneously.
If the slope for drainage is extremely steep, the piping must be vented to prevent formation of a vacuum in the washing machine’s drainage system.
Slow or obstructed drainage or a backup of water in the drum as a result of undersized pipework can result in faults occurring during program sequences, which will result in fault messages appearing in the machine display.
⚠ Outflowing suds can be as hot as 203°F (95°C). Danger of injury by burning! Avoid direct contact.

Drain pump (depending on model)
In machines with drain pump, the suds are drained through a drain pump with a delivery head of max. 3.3 ft (1 m).
The drain hose must be installed free of kinks for the suds to drain freely.
There are the following options for draining the machine:
– drain hose connected to a plastic drain pipe with a rubber sleeve (there is no need to use a siphon)
– drain hose connected securely to a sink with a plastic nipple
– connected securely to a floor drain (gully)
If required, the hose can be extended to a length of up to 16.4 ft (5 m).
For a drain height of more than 3′ 3″ (1 m), a replacement drain pump for a delivery head of max. 6 ft (1.8 m) is may be needed.

Dispenser connection
The machine is equipped with an interface for external dispenser systems.
Adapters for pre-mixed suds or liquid detergent from external dispenser systems for up to 6 connections should be obtained from Miele Customer Service and connected.
A separate Connector Box is required for controlling the dispenser pumps electrically. This must be installed by your Miele dealer or Miele Customer Service. It is particularly important to observe the manufacturer’s instructions when using a combination of cleaning agents and special application products.

Optional accessories
Only use genuine Miele spare parts and accessories with this machine.
Using parts or accessories from other manufacturers may void the warranty, and Miele cannot accept liability.

Connector Box
The Connector Box allows external hardware from Miele and other suppliers to be connected to the Miele Professional washing machine.
The Connector Box is supplied with voltage by the Miele Professional washing machine.
The separately available set consists of the Connector Box and fasteners for installation on the machine or on the wall.

Peak load/energy management
A peak-load or energy management system can be connected via the Connector Box.
The energy management system monitors the energy consumption of a system and deactivates individual pieces of equipment temporarily by means of the peak-load negotiation in order to ensure that certain total load limits are not exceeded.
When the peak-load function is activated, the heating is deactivated and the program stopped. A message appears in the display to inform you of this.
The program is resumed automatically when the peak-load function finishes.

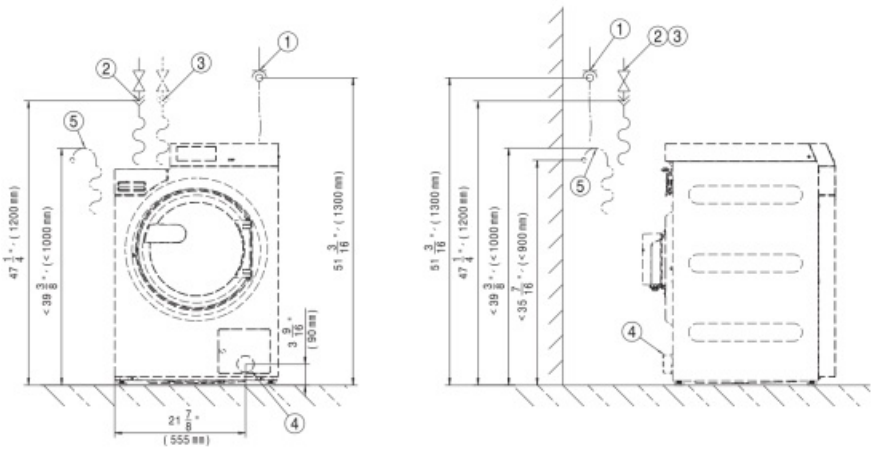
Liquid dispensing connection
External liquid dispenser pumps with a “container empty” indicatorand/or flowmeters can be used via the Connector Box to dispense liquid detergents.
It is particularly important to observe the manufacturer’s instructions when using a combination of cleaning agents and special application products.

Wi-Fi/LAN interface
The washing machine is equipped with a Wi-Fi/LAN interface for exchanging data.
The data interface provided on the LAN connection complies with SELV (Safety Extra Low Voltage). The LAN connection uses a RJ45 connector in accordance with EIA/TIA 568-B.
Connected machines must also comply with SELV.
Base (APCL 054 / 055 / 057)
The washing machine can be installed on a machine base (open or box base, available as an optional Miele accessory).
Elevating the washing machine gives a better ergonomic working position when loading or unloading. At the same time it facilitates the installation of a drain connection.

⚠ The washing machine must be secured to the base immediately after installation. The base must be secured to the floor.
There is a risk of the washing machine falling off a raised base during a spin cycle if it is not secured.

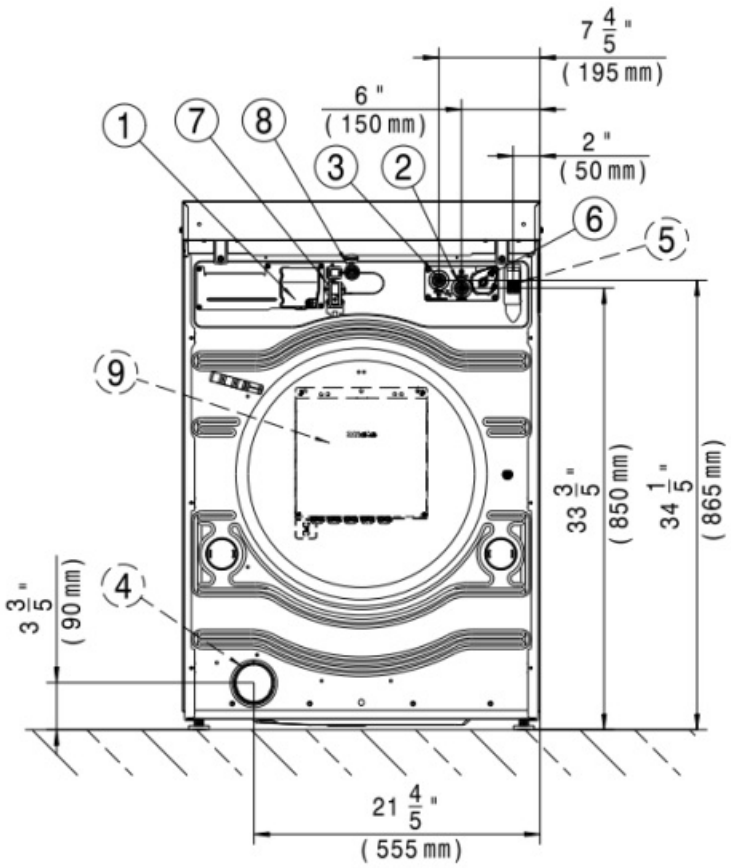
Installation

Standard



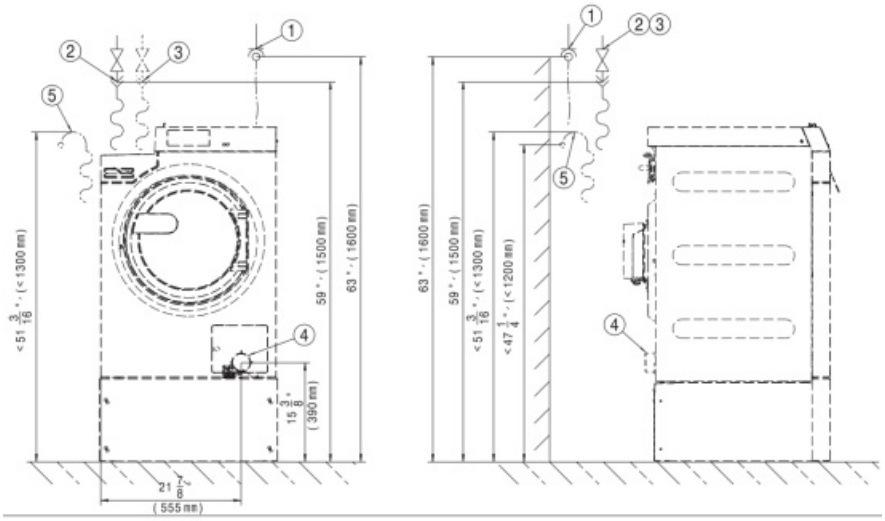
1. Electrical connection

2. Cold water connection
3. Hot water connection
4. Drain pipe (DV versions only)
5. Drain connection (DP versions only)

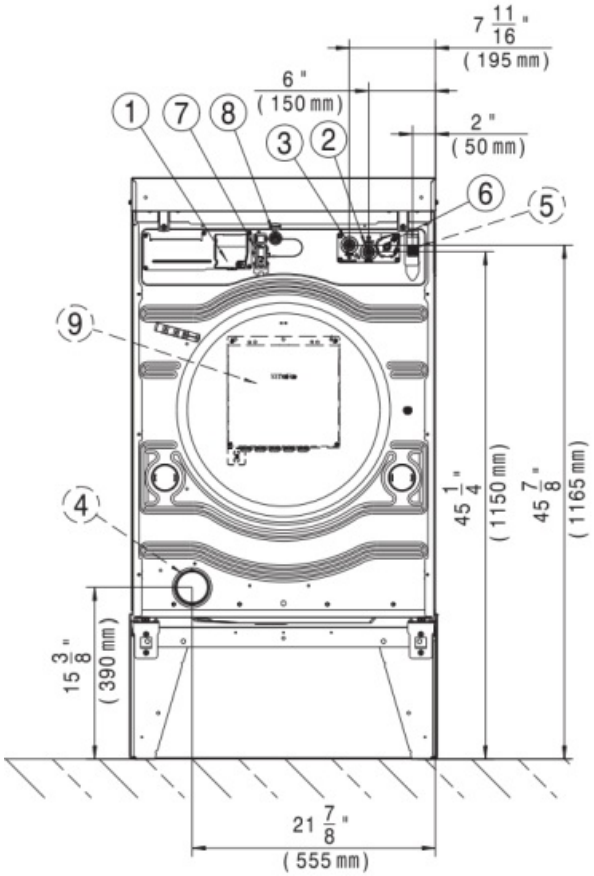


1. Electrical connection
2. Cold water connection
3. Hot water connection
4. Drain pipe (DV versions only)
5. Drain connection (DP versions only)
6. Dispenser pump connection
7. Connection for Connector Box
8. LAN connection
9. Connector Box (optional)

Base



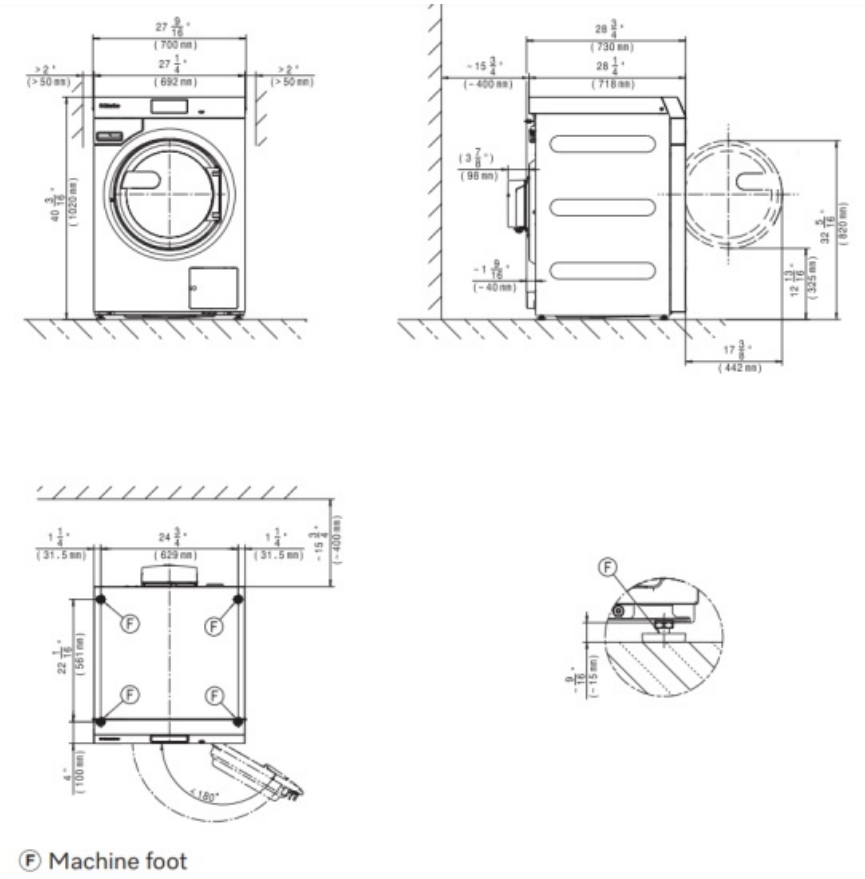
1. Electrical connection
2. Cold water connection
3. Hot water connection
4. Drain pipe (DV versions only)
5. Drain connection (DP versions only)



1. Electrical connection
2. Cold water connection
3. Hot water connection
4. Drain pipe (DV versions only)
5. Drain connection (DP versions only)
6. Dispenser pump connection

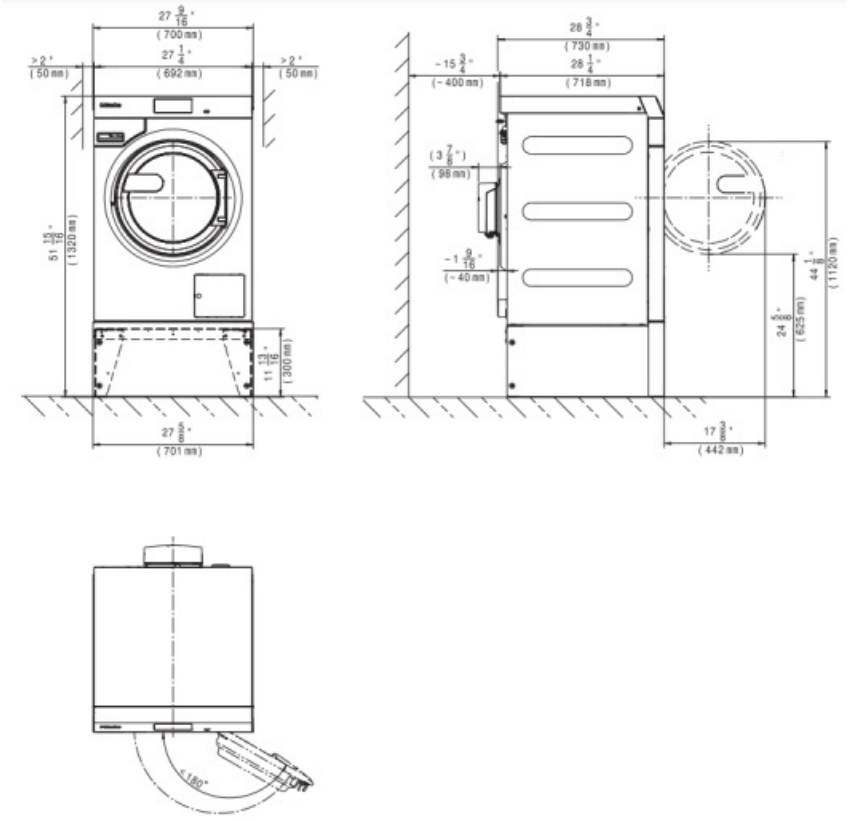
7. Connection for Connector Box
8. LAN connection
9. Connector Box (optional)

Standard



Ⓕ Machine foot

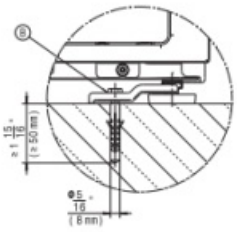
Base

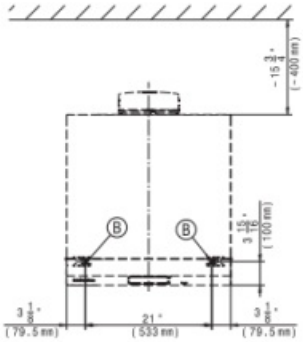


Ⓕ Machine foot

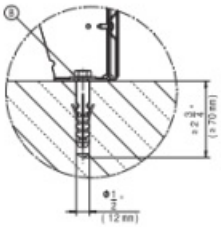
Floor anchoring

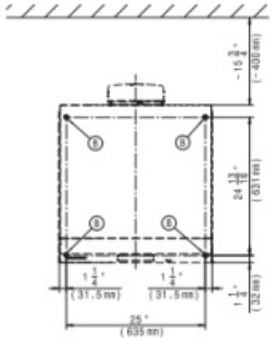
Standard





Base





Dimensions in inches (mm)

Ⓑ screw/anchor point

Technical details

Electrical connections

Connection voltage	208/240 V 2 Ph 3 Wire
Frequency	60 Hz
Total amps.	22.4 A
Max. fuse (time delay fuse)	30 A
Minimum circuit ampacity	22.4 A

Water connection
Cold water connection

Maximum permissible hot water temperature	158 °F (70 °C)
Required flow pressure	14.5-145 psi (100-1000 kPa/1-10 bar)
Maximum flow rate	10 l/min
Threaded union required (male thread, in accordance with DIN 4 4991, flat	3/4″
sealing) Length of water inlet hose supplied	61″ (1.55 m)

Drain valve (DV)

Maximum waste water temperature	203 °F (95 °C)
Waste water connection (on machine)	Plastic pipe HT DN 70
Drain (on site)	Connection DN 70
Maximum drainage rate	200 l/min

Drainage (DP)

Maximum waste water temperature	203 °F (95 °C)
Waste water connection (on machine)	External diameter 22 (DN 22 / 22 mm / 7/8″)
Maximum drainage rate	26 l/min

Equipotential bonding

Connection with male thread	10×35 mm
Washers and nuts	M10

If local and national installation specifications require equipotential bonding, good galvanic contact must be guaranteed. Accessories for equipotential bonding are not supplied and need to be ordered separately.

Installation dimensions

Casing width (without add-on components)	27 1/4″ (692 mm)
Casing height (without add-on components)	39 13/16″ (1012 mm)
Casing depth (without add-on components)	28 1/4″ (718 mm)
Overall machine width	27 9/16″ (700 mm)
Overall machine height	40 3/16″ (1020 mm)
Overall machine depth	28 3/4″ (730 mm)
Minimum width of transport opening	31 1/2″ (800 mm)
Minimum safety distance between wall and rear of machine	15 3/4″ (400 mm)
Door opening diameter	14 9/16″ (370 mm)
Door opening angle	180°

Anchoring
Standard

Required anchor points	2
DIN 571 wood screw (diameter x length)	1/2″ x 3 1/2″ (12 mm x 90 mm)
Rawl plugs (diameter x length)	5/8″ x 3 1/8″ (16 mm x 80 mm)

With base (APCL)

Required anchor points	4
DIN 571 wood screw (diameter x length)	1/2″ x 3 1/2″ (12 mm x 90 mm)
Rawl plugs (diameter x length)	5/8″ x 3 1/8″ (16 mm x 80 mm)

Concrete plinth

Required anchor points	2
DIN 571 wood screw (diameter x length)	1/2″ x 3 1/2″ (12 mm x 90 mm)
Rawl plugs (diameter x length)	5/8″ x 3 1/8″ (16 mm x 80 mm)

Transport data, weight and floor load

Packaging width	29 1/2″ (750 mm)
Packaging height	47 13/16″ (1214 mm)
Packaging depth	32 3/16″ (817 mm)
Gross volume	2 x 744 L
Gross weight*	346.2 lb / 178.6 lb (157 kg / 81 kg)
Net weight*	319.7 lb / 152.1 lb (145 kg / 69 kg)
Maximum floor load during operation*	3250 N

*depending on equipment configuration

Emissions data

Workplace-related sound pressure level, washing	50 dB (A)
Sound power level, washing	59.2 dB (A)
Workplace-related sound pressure level, spinning	63 dB (A)
Sound power level, spinning	73.7 dB (A)
Average heat dissipation rate to installation site	2.3 MJ/h
Emission sound pressure level	65 dB (A) re 20 µPa

Please have the model and serial number of your machine available when contacting Technical Service.

U.S.A.
Miele, Inc.
National Headquarters
9 Independence Way
Princeton, NJ 08540
Phone: 800-991-9380
www.mieleusa.com/professional
prosales@mieleusa.com
Technical Service & Support
Phone: 800-991-9380
proservice@mieleusa.com

Manufacturer | Fabricant : Miele & Cie. KG
Carl-Miele-Straße 29, 33332 Gütersloh, Germany | Allemagne

Documents / Resources

	**Miele PWM 909, PWM 509 Professional Washing Machine** [pdf] User Manual PWM 909, PWM 509, PWM 909 PWM 509 Professional Washing Machine, PWM 909 PWM 509 , Professional Washing Machine, Washing Machine, Machine

References

- **User Manual**