

IP 65 & NEMA 4 compliant High Power MMM Converter

Flex-housing, water tight, shocks-resistant
Easy fixation directly on the housing
Connector is also IP 65 & NEMA 4 compliant
Good for single frequency and broad band operating regimes (MMM)
Resonant frequency operations: 20 kHz



Protected Flex-Housing Converter: MPI-5020S-6PS
(Large mounting area, Watertight, Shocks-resistant)

IP 65 vs NEMA 4

Here is a comparison of the European IP65 and American NEMA-4 standards:

	IP 65	NEMA 4
Method:	Stream of water	Stream of water
Nozzle size:	1/2-inch (12.5 mm)	1 inch (25.4 mm)
Distance:	9.8 ft (3 meters)	10 to 12 ft (3 to 3.5 m)
Duration:	15 minutes	5 minutes
Direction:	All angles	All angles
Pressure/Flow:	10 m of water at the head	65 gallons/min of water

In order to meet the standard:

IP 65

The test is deemed satisfactory if the amount of water which has entered the enclosure does not interfere with the operation of the equipment in the enclosure.

NEMA-4

The test is deemed satisfactory only if no water has entered the enclosure

Hoods/housings connector insert protection

The connector's housing, sealing and locking mechanism protect the connection from external influences such as mechanical shocks, foreign bodies, humidity, dust, water or other fluids such as cleansing and cooling agents, oils, etc.

The degree of protection the housing offers is explained in the IEC 60529, EN 60 529, standards that categorize enclosures according to foreign body and water protection.

The following table shows the different degrees of protection.

Code letters **First Index Figure** **Second Index Figure**
 (International Protection) (Foreign bodies protection) (Water protection)
IP **6** **5**

First index figure	Degree of protection		Second index figure	Degree of protection	
0	No protection against accidental contact, no protection against solid foreign bodies		0	No protection against water	
1	Protection against contact with any large area by hand and against large solid foreign bodies with $\varnothing > 50$ mm		1	Protection against vertical water drips	
2	Protection against contact with the fingers, protection against solid foreign bodies with $\varnothing > 12$ mm		2	Protection against water drips (up to a 15° angle)	
3	Protection against tools, wires or similar objects with $\varnothing > 2,5$ mm, protection against small foreign solid bodies with $\varnothing > 2,5$ mm		3	Protection against diagonal water drips (up to a 60° angle)	
4	As 3 however $\varnothing > 1$ mm		4	Protection against splashed water from all directions	
5	Full protection against contact. Protection against interior injurious dust deposits		5	Protection against water (out of a nozzle) from all directions	
6	Total protection against contact. Protection against penetration of dust		6	Protected against temporary flooding	
			7	Protected against temporary immersion	
			8	Protected against water pressure	

Description according to DIN VDE 0470, DIN EN 60 529, IEC 60529