

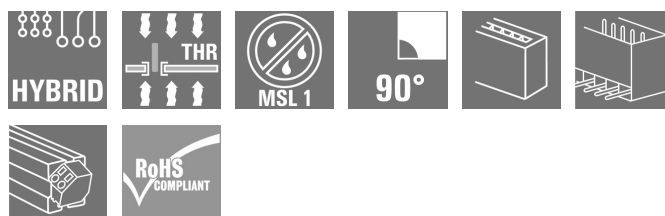
**MHS 7S/02-5/04 H T3 B T****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

**Product image****OMNIMATE® 4.0 - the next evolution step**

OMNIMATE® 4.0 follows the trend of One Cable Technology (OCT). The modular concept enables the fast configuration of hybrid interfaces, which transmit data, signals and energy in a single connector. As a result, you can reduce the cabling effort in a wide variety of applications, simplify maintenance and accelerate automation processes. The unique SNAP IN connection is the backbone and speeds up the wiring process.

**The fastest connection yet**

- Fast, safe, and tool-free wiring due to unique SNAP IN connection
- Ready for Robot through "wire ready" delivery with open clamping point
- Optical and acoustic feedback indicates proper wiring

**Create your own configuration**

- Flexible configuration and ordering via the Weidmüller Configurator (WMC)
- Dispatch within three days – even for individually configured products
- Automatic offer preparation for the configured product

**Simply configuration of modular hybrid connectors**

- Flexible combination options for power, signal and data transmission
- Future-proof Single-Pair Ethernet technology

**General ordering data**

|              |                                                                                                                        |
|--------------|------------------------------------------------------------------------------------------------------------------------|
| Version      | PCB plug-in connector, male header, THT/THR solder connection, Pitch in mm (P): 7.50 mm, Number of poles: 6, 90°, Tube |
| Order No.    | <a href="#">8000078341</a>                                                                                             |
| Type         | MHS 7S/02-5/04 H T3 B T                                                                                                |
| GTIN (EAN)   | 4064675623021                                                                                                          |
| Qty.         | 15 pc(s).                                                                                                              |
| Product data | IEC: 630 V / 30.4 A<br>UL: 300 V / 18.5 A                                                                              |
| Packaging    | Tube                                                                                                                   |

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## Technical data

## Dimensions and weights

|                          |         |                 |            |
|--------------------------|---------|-----------------|------------|
| Depth                    | 14 mm   | Depth (inches)  | 0.551 inch |
| Height                   | 15.1 mm | Height (inches) | 0.594 inch |
| Height of lowest version | 11.9 mm | Net weight      | 5.416 g    |

## Temperatures

|                     |                 |
|---------------------|-----------------|
| Ambient temperature | -50 °C...125 °C |
|---------------------|-----------------|

## System specifications

|                                                   |                           |                                 |                  |
|---------------------------------------------------|---------------------------|---------------------------------|------------------|
| Product family                                    | OMNIMATE 4.0              | Type of connection              | Board connection |
| Mounting onto the PCB                             | THT/THR solder connection | Pitch in mm (P)                 | 7.5 mm           |
| Outgoing elbow                                    | 90°                       | Number of poles                 | 6                |
| Number of solder pins per pole                    | 1                         | Solder pin length (l)           | 3.2 mm           |
| Solder pin dimensions                             | 1.0 x 1.0 mm              | Solder eyelet hole diameter (D) | 1.4 mm           |
| Solder eyelet hole diameter tolerance (D)+ 0,1 mm |                           | Outside diameter of solder pad  | 2.3 mm           |
| Template aperture diameter                        | 2.1 mm                    | L1 in mm                        | 7.5 mm           |
| L1 in inches                                      | 0.295 "                   | L2 in mm                        | 15 mm            |
| L2 in inch                                        | 0.591 "                   | Number of rows                  | 1                |
| Pin series quantity                               | 1                         | Plugging cycles                 | ≥ 25             |
| Plugging force/pole, max.                         | 9 N                       | Pulling force/pole, max.        | 8 N              |

## Material data

|                                  |          |                             |        |
|----------------------------------|----------|-----------------------------|--------|
| Insulating material              | PA 9T    | Colour                      | black  |
| Colour chart (similar)           | RAL 9011 | Insulating material group   | I      |
| Comparative Tracking Index (CTI) | ≥ 600    | Moisture Level (MSL)        | 1      |
| UL 94 flammability rating        | V-0      | Contact base material       | CuMg   |
| Contact material                 | Cu-alloy | Contact surface             | tinned |
| Tinning type                     | matt     | Storage temperature, min.   | -25 °C |
| Storage temperature, max.        | 55 °C    | Operating temperature, min. | -50 °C |
| Operating temperature, max.      | 100 °C   |                             |        |

## Rated data acc. to IEC

|                                                                           |                        |                                                                       |        |
|---------------------------------------------------------------------------|------------------------|-----------------------------------------------------------------------|--------|
| tested acc. to standard                                                   | IEC 60664-1, IEC 61984 | Rated current, min. number of poles (Tu=20°C)                         | 30.4 A |
| Rated current, max. number of poles (Tu=20°C)                             | 26.9 A                 | Rated current, min. number of poles (Tu=40°C)                         | 27 A   |
| Rated current, max. number of poles (Tu=40°C)                             | 23.9 A                 | Rated voltage for surge voltage class / pollution degree II/2         | 630 V  |
| Rated voltage for surge voltage class / pollution degree III/2            | 500 V                  | Rated voltage for surge voltage class / pollution degree III/3        | 400 V  |
| Rated impulse voltage for surge voltage class/ pollution degree II/2      | 4 kV                   | Rated impulse voltage for surge voltage class/ pollution degree III/2 | 6 kV   |
| Rated impulse voltage for surge voltage class/ contamination degree III/3 | 6 kV                   |                                                                       |        |

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## Technical data

## Rated data acc. to UL 1059

Institute (cURus)



Certificate No. (cURus)

E60693

Rated voltage (Use group B / UL 1059) 300 V

Rated voltage (Use group D / UL 1059) 600 V

Rated current (Use group B / UL 1059) 18.5 A

Rated current (Use group D / UL 1059) 5 A

Reference to approval values

Specifications are maximum values, details - see approval certificate.

Rated voltage (Use group C / UL 1059) 300 V

Rated voltage (Use group F / UL 1059) 760 V

Rated current (Use group C / UL 1059) 18.5 A

Rated current (Use group F / UL 1059) 18.5 A

## Technical data - hybrid (power)

|                                                                               |              |
|-------------------------------------------------------------------------------|--------------|
| Number of rows (Power)                                                        | 1            |
| Contact material (Power)                                                      | CuMg         |
| Rated current (Use group B / UL 1059) (Power)                                 | 18.5 A       |
| Rated current (Use group D / UL 1059) (Power)                                 | 10 A         |
| Rated current, max. number of poles (Tu=20°C) (Power)                         | 26.9 A       |
| Rated current, max. number of poles (Tu=40°C) (Power)                         | 23.9 A       |
| Rated voltage (Use group C / UL 1059) (Power)                                 | 300 V        |
| Rated voltage for surge voltage class / pollution degree II/2 (Power)         | 630 V        |
| Rated voltage for surge voltage class / pollution degree III/3 (Power)        | 400 V        |
| Rated impulse voltage for surge voltage class/ pollution degree III/2 (Power) | 4 kV         |
| Volume resistance (Power)                                                     | ≤5 mΩ        |
| Clearance distance, min. (Power)                                              | 6.5 mm       |
| Solder pin dimensions (Power)                                                 | 1.0 x 1.0 mm |
| Diameter of solder eyelet (Power)                                             | 1.4 mm       |
| Template aperture diameter (Power)                                            | 2.1 mm       |

|                                                                               |          |
|-------------------------------------------------------------------------------|----------|
| Number of rows (Signal)                                                       | 1        |
| Contact surface (Power)                                                       | tinned   |
| Rated current (Use group C / UL 1059) (Power)                                 | 18.5 A   |
| Rated current, min. number of poles (Tu=20°C) (Power)                         | 30.4 A   |
| Rated current, min. number of poles (Tu=40°C) (Power)                         | 27 A     |
| Rated voltage (Use group B / UL 1059) (Power)                                 | 300 V    |
| Rated voltage (Use group D / UL 1059) (Power)                                 | 300 V    |
| Rated voltage for surge voltage class / pollution degree III/2 (Power)        | 500 V    |
| Rated impulse voltage for surge voltage class/ pollution degree II/2 (Power)  | 4 kV     |
| Rated impulse voltage for surge voltage class/ pollution degree III/3 (Power) | 4 kV     |
| Creepage distance, min. (Power)                                               | 7.09 mm  |
| Solder pin length (Power)                                                     | 3.2 mm   |
| Tolerance of the diameter of the solder eyelet (Power)                        | + 0,1 mm |
| Outside diameter of solder pad (Power)                                        | 2.3 mm   |

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## Technical data

## Technical data - hybrid (signal)

|                                                                                |              |                                                                                |          |
|--------------------------------------------------------------------------------|--------------|--------------------------------------------------------------------------------|----------|
| Number of poles (Signal)                                                       | 4            | Number of solder pins per pole (Signal)                                        | 1        |
| Contact material (Signal)                                                      | CuMg         | Contact surface (Signal)                                                       | tinned   |
| Rated current (Use group B / UL 1059) (Signal)                                 | 14 A         | Rated current (Use group D / UL 1059) (Signal)                                 | 10 A     |
| Rated current, min. number of poles (Tu=20°C) (Signal)                         | 26.8 A       | Rated current, max. number of poles (Tu=20°C) (Signal)                         | 19.7 A   |
| Rated current, min. number of poles (Tu=40°C) (Signal)                         | 23.1 A       | Rated current, max. number of poles (Tu=40°C) (Signal)                         | 16.9 A   |
| Rated voltage (Use group B / UL 1059) (Signal)                                 | 300 V        | Rated voltage (Use group D / UL 1059) (Signal)                                 | 300 V    |
| Rated voltage for surge voltage class / pollution degree II/2 (Signal)         | 400 V        | Rated voltage for surge voltage class / pollution degree III/2 (Signal)        | 320 V    |
| Rated voltage for surge voltage class / pollution degree III/3 (Signal)        | 250 V        | Rated impulse voltage for surge voltage class/ pollution degree II/2 (Signal)  | 4 kV     |
| Rated impulse voltage for surge voltage class/ pollution degree III/2 (Signal) | 4 kV         | Rated impulse voltage for surge voltage class/ pollution degree III/3 (Signal) | 4 kV     |
| Volume resistance (Signal)                                                     | ≤5 mΩ        | Creepage distance, min. (Signal)                                               | 5.4 mm   |
| Clearance distance, min. (Signal)                                              | 4 mm         | Solder pin length (Signal)                                                     | 3.2 mm   |
| Solder pin dimensions (Signal)                                                 | 1.0 x 1.0 mm | Tolerance of the diameter of the solder eyelet (Signal)                        | + 0,1 mm |
| Diameter of solder eyelet (Signal)                                             | 1.4 mm       | Outside diameter of solder pad (Signal)                                        | 2.3 mm   |
| Template aperture diameter (Signal)                                            | 2.1 mm       |                                                                                |          |

## Classifications

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC002637    | ETIM 7.0    | EC002637    |
| ETIM 8.0    | EC002637    | ETIM 9.0    | EC002637    |
| ETIM 10.0   | EC002637    | ECLASS 9.0  | 27-44-04-02 |
| ECLASS 9.1  | 27-44-04-02 | ECLASS 10.0 | 27-44-04-02 |
| ECLASS 11.0 | 27-46-02-01 | ECLASS 12.0 | 27-46-03-01 |
| ECLASS 13.0 | 27-46-03-01 | ECLASS 14.0 | 27-46-03-01 |
| ECLASS 15.0 | 27-46-03-01 |             |             |

## Environmental Product Compliance

|                        |                             |
|------------------------|-----------------------------|
| RoHS Compliance Status | Compliant without exemption |
| REACH SVHC             | No SVHC above 0.1 wt%       |

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## Technical data

## Important note

|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IPC conformity | Conformity: The products are developed, manufactured and delivered according international recognized standards and norms and comply with the assured properties in the data sheet resp. fulfill decorative properties in accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request.                                                                                                                                                                                                                                                                                                                                                                                                     |
| Notes          | <ul style="list-style-type: none"> <li>Rated current related to rated cross-section &amp; min. No. of poles.</li> <li>P on drawing = pitch</li> <li>Rated data refer only to the component itself. Clearance and creepage distances to other components are to be designed in accordance with the relevant application standards.</li> <li>Diameter of solder eyelet D = 1.4+0.1mm</li> <li>In accordance with IEC 61984, OMNIMATE-connectors are connectors without breaking capacity (COC). During designated use, connectors are not allowed to be engaged or disengaged when live or under load</li> <li>Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months</li> </ul> |

## Approvals

Approvals



|                         |                                                                                                                                                                             |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Approvals MAMID         | <a href="https://mdcop.weidmueller.com/mediadelivery/rendition/900_319230/-T1z1mm-S800/">https://mdcop.weidmueller.com/mediadelivery/rendition/900_319230/-T1z1mm-S800/</a> |
| ROHS                    | Conform                                                                                                                                                                     |
| UL File Number Search   | UL Website                                                                                                                                                                  |
| Certificate No. (cURus) | E60693                                                                                                                                                                      |

## Downloads

|                                             |                                                                                                        |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">CoC_cURus_E60693_MPS_MHS_202207.pdf</a><br><a href="#">Declaration of the Manufacturer</a> |
| Engineering Data                            | <a href="#">CAD data – STEP</a>                                                                        |

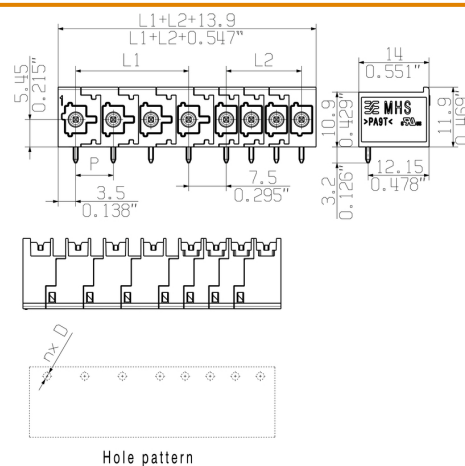
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# Drawings

## Product image



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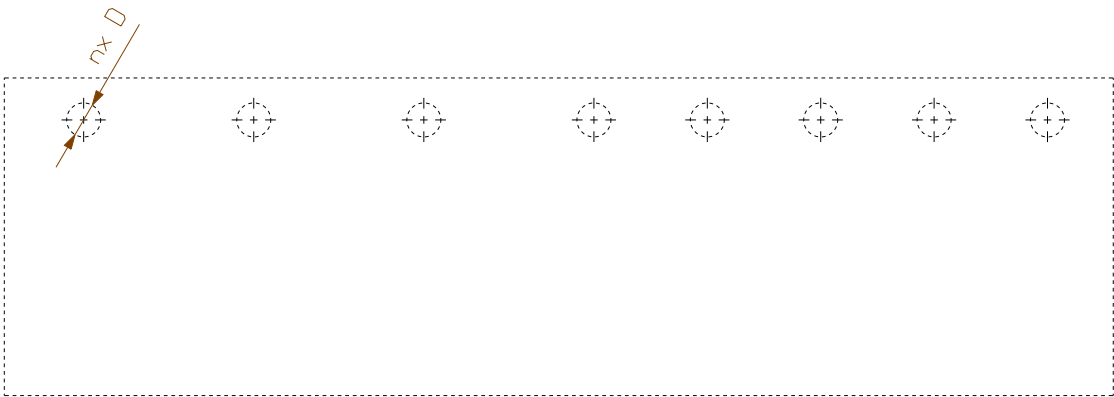
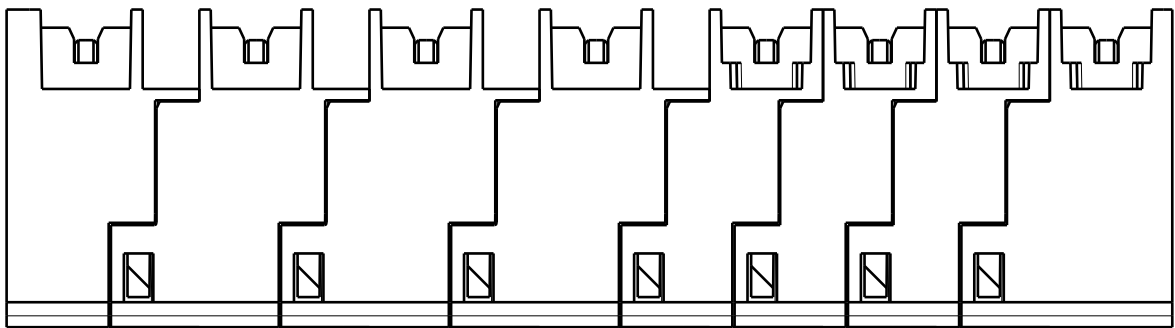
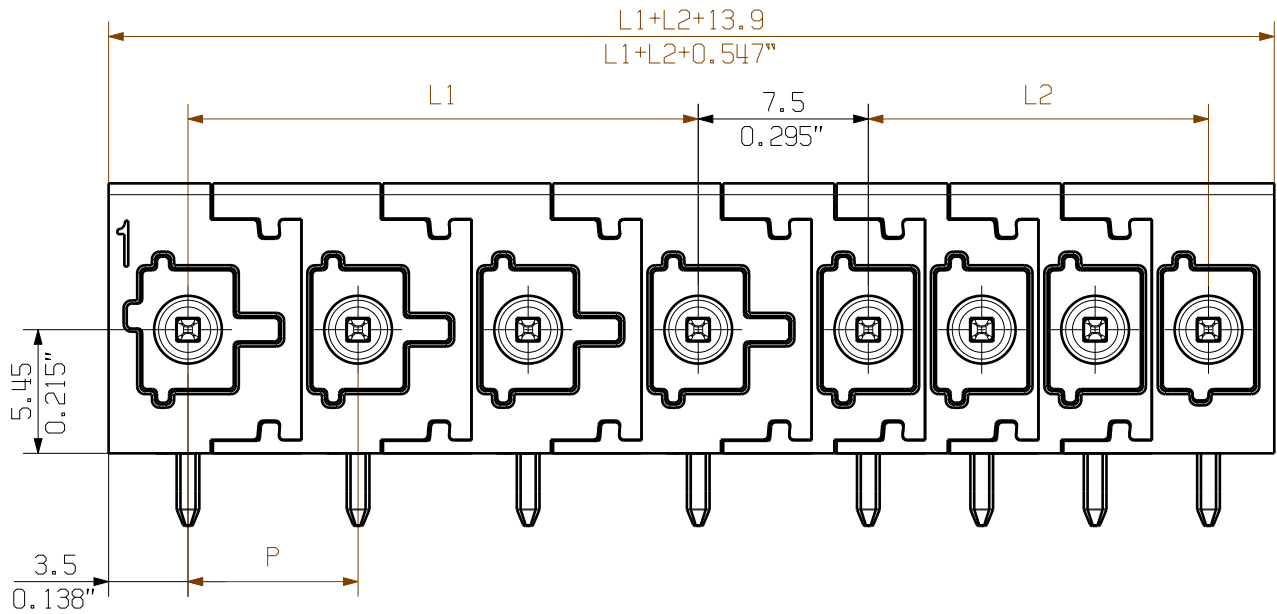
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Dimensions without tolerances are no check dimensions

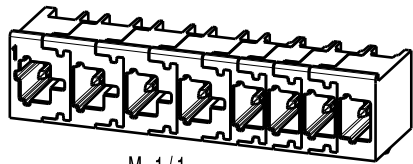
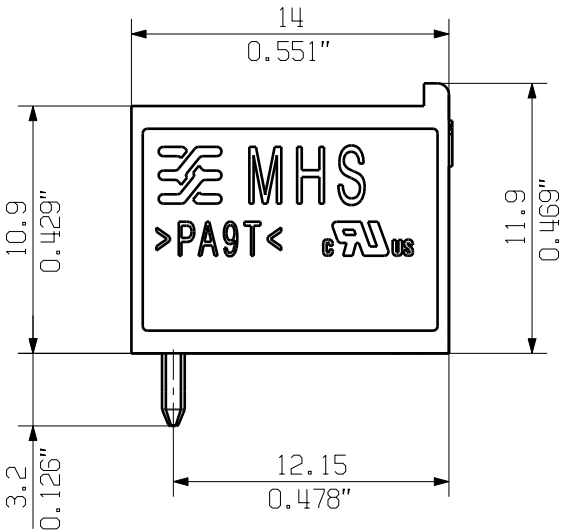
The English version is binding

Allgemeingültige Kundenzeichnung, aktueller Stand nur auf Anfrage  
General customer drawing, topical version only if required

Shown: MHS 7S/04-5/04 H T3



Hole pattern



M 1/1

Further dim. & info. see data sheet

For the mounting of PCBs, it should be noted that the rated data relates only to the PCB components alone.  
The necessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to IEC 664 / VDE 0110.  
The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 326 part 3 very fine.  
  
Weidmueller PCB components are tested according to the DIN EN 61984 or to the DIN EN 60947-7-4 standard, and are valid for its field of application.  
Provided that the components are used to the intended purpose, all requirements with respect to the occurring of electrical, mechanical, thermic and corrosive stress will be satisfied.

|                |                  |            |              |                |            |              |
|----------------|------------------|------------|--------------|----------------|------------|--------------|
| MHS 7S/01-5/09 | 1                | .          | .            | 9              | 40.00      | 1.575        |
| MHS 7S/02-5/08 | 2                | 7.50       | 0.295        | 8              | 35.00      | 1.378        |
| MHS 7S/01-5/08 | 1                | .          | .            | 8              | 35.00      | 1.378        |
| MHS 7S/02-5/07 | 2                | 7.50       | 0.295        | 7              | 30.00      | 1.181        |
| MHS 7S/01-5/07 | 1                | .          | .            | 7              | 30.00      | 1.181        |
| MHS 7S/03-5/06 | 3                | 15.00      | 0.591        | 6              | 25.00      | 0.984        |
| MHS 7S/02-5/06 | 2                | 7.50       | 0.295        | 6              | 25.00      | 0.984        |
| MHS 7S/01-5/06 | 1                | .          | .            | 5              | 20.00      | 0.787        |
| MHS 7S/04-5/05 | 4                | 22.50      | 0.886        | 5              | 20.00      | 0.787        |
| MHS 7S/03-5/05 | 3                | 15.00      | 0.591        | 5              | 20.00      | 0.787        |
| MHS 7S/02-5/05 | 2                | 7.50       | 0.295        | 5              | 20.00      | 0.787        |
| MHS 7S/01-5/05 | 1                | .          | .            | 5              | 20.00      | 0.787        |
| MHS 7S/04-5/04 | 4                | 22.50      | 0.886        | 4              | 15.00      | 0.591        |
| MHS 7S/03-5/04 | 3                | 15.00      | 0.591        | 4              | 15.00      | 0.591        |
| MHS 7S/02-5/04 | 2                | 7.50       | 0.295        | 4              | 15.00      | 0.591        |
| MHS 7S/01-5/04 | 1                | .          | .            | 4              | 15.00      | 0.591        |
| MHS 7S/05-5/03 | 5                | 30.00      | 1.181        | 3              | 10.00      | 0.394        |
| MHS 7S/04-5/03 | 4                | 22.50      | 0.886        | 3              | 10.00      | 0.394        |
| MHS 7S/03-5/03 | 3                | 15.00      | 0.591        | 3              | 10.00      | 0.394        |
| MHS 7S/02-5/03 | 2                | 7.50       | 0.295        | 3              | 10.00      | 0.394        |
| MHS 7S/01-5/03 | 1                | .          | .            | 3              | 10.00      | 0.394        |
| MHS 7S/06-5/02 | 6                | 37.50      | 1.476        | 2              | 5.00       | 0.197        |
| MHS 7S/05-5/02 | 5                | 30.00      | 1.181        | 2              | 5.00       | 0.197        |
| MHS 7S/04-5/02 | 4                | 22.50      | 0.886        | 2              | 5.00       | 0.197        |
| MHS 7S/03-5/02 | 3                | 15.00      | 0.591        | 2              | 5.00       | 0.197        |
| MHS 7S/02-5/02 | 2                | 7.50       | 0.295        | 2              | 5.00       | 0.197        |
| MHS 7S/01-5/02 | 1                | .          | .            | 2              | 5.00       | 0.197        |
| Name           | n Poles<br>P=7.5 | L1<br>[mm] | L1<br>[inch] | n Poles<br>P=5 | L2<br>[mm] | L2<br>[inch] |

|                   |                                |                    |                        |                       |                       |  |
|-------------------|--------------------------------|--------------------|------------------------|-----------------------|-----------------------|--|
|                   | First Issue Date<br>21.04.2021 | Max. nos.          | Prim PLM Part No.: .   |                       | Prim ERP Part No.: .  |  |
|                   |                                | Modification       |                        |                       | 74534                 |  |
|                   | Drawn                          | Date<br>21.04.2021 | Name<br>Tauber-Reglin, | Drawing no. Issue no. |                       |  |
|                   | Responsible                    |                    |                        | Sheet 2 of 2 sheets   |                       |  |
| Scale: 3/1        | Size: A3                       | Approved           | Date<br>06.05.2021     | Name<br>Schwartz, Dom | MHS 7S/...-5/... H T3 |  |
| Drawings Assembly |                                |                    |                        |                       | Product file: .       |  |