Solar Systems of Schweizer:
List of components –
MSP PV mounting system

MSP PV Mounting Systems:
- MSP-PR for Pitched Roofs
- MSP-PR Inlay for Pitched Roofs with Inlay Profiles
- MSP-TT for Trapezoidal Metal Roofs
- MSP-FR-EW for Flat Roofs (East-West)
- MSP-FR-S for Flat Roofs (South)

Please note that: Items marked with an E expire and are only available for a limited time. Articles marked with N are new. Please check availability.

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Solar Systems of Schweizer:
PV mounting system for Pitched Roofs MSP-TT

The **MSP-PR PV mounting system** is designed for attaching to pitched roofs. A range of aluminium roof hooks with a sophisticated click-in fastening, supplemented by classic stainless steel roof hooks and also hanger bolts are available for attaching to roof structures. Supporting rails are fastened either in single-layers or cross-connected grid-systems using preassembled clamps. Connectors can be used to extend rails in large arrays. There are 2 types of module clamps for all common PV modules with frame heights between 30 mm and 50 mm.

Benefits

- Fast mounting thanks to clever click-in system.
- User-friendly: Parts pre-assembled means no screws or other small parts.
- Components don't rotate out of palace.
- Rails can be trod on which helps speed up installation.
- Saves costs: Only as many roof hooks as actually required per site.
- High quality and components balanced and all matched to the system for maximum safety.

Part Description		Material	Code	Packing Unit	Art.-No.
Roof hook MSP-PR-RHF		Aluminium EN AW-6063 T66	MSP-PR-RHF	12	2048538
Roof hook adjustable MSP-PR-RHA		Aluminium EN AW-6063 T66	MSP-PR-RHA	12	2048539
Roof hook for grid installation MSP-PR-RHC		Aluminium EN AW-6063 T66	MSP-PR-RHC	12	2048610
Roof hook MSP-PR-RHL low profile		Aluminium EN AW-6063 T66	MSP-PR-RHL	12	2065899
Base plate MSP-PR-BP height 39 mm		Aluminium EN AW-6063 T66	MSP-PR-BP 39 mm	24	2048535
Base plate MSP-PR-BP height 45 mm		Aluminium EN AW-6063 T66	MSP-PR-BP 45 mm	24	2048536
Spacer plate MSP-PR-SP		PA66 GF 30	MSP-PR-SP	25	2048537

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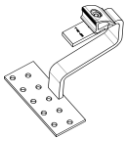
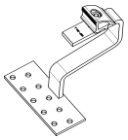
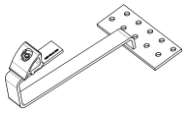
Part Description		Material	Code	Packing Unit	Art.-No.
Roof hook MSP-RHC 45/5		Stainless steel A2	MSP-PR-RHC 45/5	10	435495
Roof hook MSP-RHC 55/5		A2Stain-less steel A2	MSP-PR-RHC 55/5	10	435496
Roof hook MSP-RHC 41/8		Stainless steel A2	MSP-PR-RHC 41/8	10	435499
Roof hook MSP-RHC 55/8		Stainless steel A2	MSP-PR-RHC 55/8	10	435500
Roof hook MSP-RHC AA 35-45/8		Stainless steel A2	MSP-PR-RHC AA 35-45/8	10	435502
Roof hook MSP-RHC-B 30/5		Stainless steel A2	MSP-PR-RHC-B 30/5	10	435504
Wood screw MSP-PR-HS TX 40		Stainless steel A2	MSP-PR-HS 8x100 A2	100	424777
			MSP-PR-HS 8x120 A2	100	424778
Hanger bolt MSP-PR-HB A2		Stainless steel A2 (1.4301)	MSP-PR-HB 10x200 A2	20	2045294
			MSP-PR-HB 12x200 A2	50	2096330
			MSP-PR-HB 12x300 A2	20	424751
Earthing clamps set MSP-PR-GC		Various	MSP-PR-GC	10	21965 N Q2 2022

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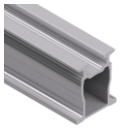
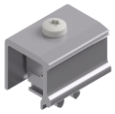
Part Description		Material	Code	Packing Unit	Art.-No.
Hanger bolt plate MSP-PR-HBP for M10 and M12		Aluminium EN AW-6063 T66	MSP-PR-HBP	20	2065896
Carrier profile MSP-PR-CH		Aluminium EN AW-6063 T66	MSP-PR-CH 3,3 m	1	2048618
			MSP-PR-CH 4,8 m	1	21997 N Q2022
			MSP-PR-CH 6,3 m	168	2050015 On demand
Sleeve MSP-PR-SL		Aluminium EN AW-6063 T66	MSP-PR-SL	8	2048619
Cross connector MSP-PR-CC		Aluminium EN AW-6063 T66 and stain-less steel 1.4404	MSP-PR-CC	24	2048622
End cap MSP-PR-CAP for carrier section MSP-PR-CH		Polypropyl-ene	MSP-PR-CAP	20	2065895
End clamp MSP-PR-EC 30-50 mm		Various	MSP-PR-EC 30-50 mm	12	2048616 E
End clamp MSP-PR-ECB 30-50 mm, black			MSP-PR-ECB 30-50 mm	12	2066231 E
End clamp MSP-PR-EC 30-50 mm			MSP-PR-EC 28-45 mm	12	22331 N
End clamp MSP-PR-ECB 30-50 mm, black			MSP-PR-ECB 28-45 mm	12	22623 N

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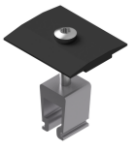
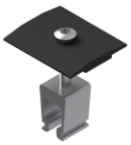
Part Description		Material	Code	Packing Unit	Art.-No.
Middle clamp MSP-PR-MC			MSP-PR-MC 30-50 mm	24	2048615 E
Middle clamp MSP-PR-MCG grounding			MSP-PR-MCG 30-50 mm	24	21855 E
Middle clamp MSP-PR-MCB black			MSP-PR-MCB 30-50 mm	24	2066232 E
Middle clamp MSP-PR-MCBG black, grounding			MSP-PR-MCBG 30-50 mm	24	2091461 E
Middle clamp MSP-PR-MC			MSP-PR-MC 28-45 mm	24	22624 N
Middle clamp MSP-PR-MCG grounding			MSP-PR-MCG 28-45 mm	24	22626 N
Middle clamp MSP-PR-MCB black			MSP-PR-MCB 28-45 mm	24	22625 N
Middle clamp MSP-PR-MCBG black, grounding			MSP-PR-MCBG 28-45 mm	24	22627 N

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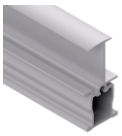
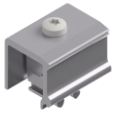
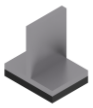
Solar Systems of Schweizer:
PV mounting system for Trapezoidal Metal Roofs MSP-PR Inlay.

In addition to the MSP-PR product range an **insertion rail system** is available for mounting PV modules without clamping. Modules are inserted into the inlay rails which are the top layer of a grid system and with MSP-PR-CC cross connecting to a lower level of vertically mounted MSP-PR-CH rails. Insertion rails can be extended with rail connectors and the PV modules are secured against shifting with a stopper.

Benefits

- Insertion system for mounting with only minimal loading of the PV modules.
- Compatible with the MSP-PR mounting system.
- Flexible attachment options include aluminium and stainless steel roof hooks and also hanger bolts.
- For PV modules with 35 mm or 40 mm high frames
- Module orientation can even be mixed (though not within each row).
- Available in black (RAL 9005 Jet Black)

Part Description		Material	Code	Packing Unit	Art.-No.
Insertion channel MSP-PR-IC 35		Aluminium EN AW-6063 T66	MSP-PR-IC 35 3.3 m	6	21863 On demand
Insertion channel MSP-PR-ICB 35 black			MSP-PR-ICB 35 3.3 m	6	21864 On demand
Insertion channel MSP-PR-IC 40			MSP-PR-IC 40 3.3 m	6	21865 On demand
Insertion channel MSP-PR-ICB 40 black			MSP-PR-ICB 40 3.3 m	6	21866 On demand
			MSP-PR-ICB 40 6.3 m	1	21021 On demand
Sleeve MSP-PR-SL		Aluminium EN AW-6063 T66	MSP-PR-SL	8	2048619
Cross connector MSP-PR-CC		Aluminium EN AW-6063 T66 and stain-less steel 1.4404	MSP-PR-CC	24	2048622
Edge stop MSP-PR-ESB		Stainless steel A2	MSP-PR-ESB	20	210250
Screw MSP-FR-S M6x16		ZnNi-coated steel	MSP-FR-S	200	2013705
Insertion stopper MSP-PR-IS		Various	MSP-PR-IS	12	21156

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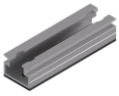
Solar Systems of Schweizer:
PV mounting system for Pitched Roofs MSP-TT

MSP-TT is for mounting on trapezoidal metal roofs and consists new of no more than 2 components apart from the clamps. Tracks come in 3 pre-cut lengths and it is a simple system suitable for all common types of trapezoidal metal roofs. Tracks are screwed directly to the roof with special thin-sheet screws without pre-drilling. High-quality EPDM sealing tape is applied between tracks and the roof providing weather sealing. Universal clamps - the same as in all MSP mounting systems - are used to fix the PV panels.

Benefits

- Minimal number of components
- Universal clamps – same as in all MSP mounting systems
- Flexibility: Array length unlimited, thermal expansion automatically absorbed
- No special trapezoidal sheet metal fasteners or bridges: Attachment is straight onto the metal beads without the need for custom parts

Part Description		Material	Code	Packing Unit	Art.-No.
Track MSP-TT-CHA preassembled		Aluminium EN AW-6063 T66, EPDM	MSP-TT-CHA 270 mm	12	21859
			MSP-TT-CHA 370 mm	12	21560
Track MSP-TT-CHV preassembled		Aluminium EN-AW-6063 T66, EPDM	MSP-TT-CHV 100 mm	24	21874
Thin Sheet Metal Screw MSP-TT-TS 6x25 TX 8		Stainless steel A2	MSP-TT-TS 6x25	200	19944
End clamp MSP-PR-EC TX 30		Various	MSP-PR-EC 30-50 mm	12	2048616 E
End clamp MSP-PR-ECB TX 30, black			MSP-PR-ECB 30-50 mm	12	2066231 E
End clamp MSP-PR-EC TX 30			MSP-PR-EC 28-45 mm	12	22331 N
End clamp MSP-PR-ECB TX 30, black			MSP-PR-ECB 28-45 mm	12	22623 N

[1]) Equipotential tested by VDE with track MSP-TT-CHA

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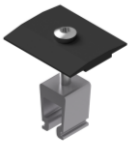
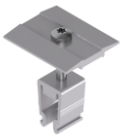
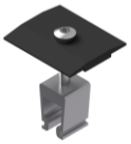
Part Description		Material	Code	Packing Unit	Art.-No.
Middle clamp MSP-PR-MC			MSP-PR-MC 30-50 mm	24	2048615 E
Middle clamp MSP-PR-MCG grounding			MSP-PR-MCG 30-50 mm	24	21855 E
Middle clamp MSP-PR-MCB black			MSP-PR-MCB 30-50 mm	24	2066232 E
Middle clamp MSP-PR-MCBG black, grounding			MSP-PR-MCBG 30-50 mm	24	2091461 E
Middle clamp MSP-PR-MC			MSP-PR-MC 28-45 mm	24	22624 N
Middle clamp MSP-PR-MCG grounding			MSP-PR-MCG 28-45 mm	24	22626 N
Middle clamp MSP-PR-MCB black			MSP-PR-MCB 28-45 mm	24	22625 N
Middle clamp MSP-PR-MCBG black, grounding			MSP-PR-MCBG 28-45 mm	24	22627 N

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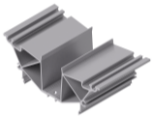
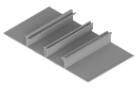
Solar Systems from Schweizer:
PV mounting system for Flat Roofs MSP-FR-EW.

MSP-FR-EW is for mounting PV modules on **flat roofs facing East-West**, though azimuth deviation hardly matters. The amount of ballasting required is uniquely low. Base plates (supports) do not interfere with roof drainage (avoiding water build-up) and are available in various sizes to suit all types of thermal insulation. A special wind-deflector is available (MSP-FR-EW-WD) and can be used in parts of an array where there is not enough space for a full East-West module gable.

Benefits

- No roof penetrations required
- Fast installation: less than 20 minutes per kW and installer
- Highly efficient installation work flow
- No interference with water drainage
- Optimal spread of loading to minimize impact on roofing membrane
- Minimal ballasting required
- Very low area loads, starting at 7 kg/m^2
- Excellent mechanical and chemical protection of roofing membrane

Part Description		Material	Code	Packing Unit	Art.-No.
Support low MSP-FR-EW-SL		Aluminium EN AW-6063 T66	MSP-FR-EW-SL8	18	19927
			MSP-FR-EW-SL10	18	2072553
Support high MSP-FR-SH		Aluminium EN AW-6063 T66	MSP-FR-EW-SH	12	2072554
Base profile MSP-FR-EW-BP width 250 mm		Aluminium EN AW-6063 T66	MSP-FR-EW-BP 150	10	2072555
			MSP-FR-EW-BP 300	10	2072556
			MSP-FR-EW-BP 450	10	2072557
			MSP-FR-EW-BP 600	10	2072558
			MSP-FR-EW-BP 900	10	2072559
			MSP-FR-EW-BP 1200	10	2072560
Wind deflector MSP-FR-EW-WD for EW support		Aluminium EN AW-6063 T66	MSP-FR-EW-WD	5	20771

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Part Description		Material	Code	Packing Unit	Art.-No.
MSP-Connection channel MSP-FR-EW-C		Aluminium EN AW-6063 T66	MSP-FR-EW-C 300-360	12	2072368
			MSP-FR-EW-C 470-530	12	20679
			MSP-FR-EW-C 950-1010	24	2072369
			MSP-FR-EW-C 1011-1075	24	21464
			MSP-FR-EW-C 1076-1140	24	21872
			MSP-FR-EW-C 1141-1205	24	21873
			MSP-FR-EW-C 1230-1290	10	19945 E
			MSP-FR-EW-C 1206-1270	10	22250 N Q2 2022
			MSP-FR-EW-C 1271-1335	10	22277 N Q2 2022
			MSP-FR-EW-C 1495-1559	10	19616 E
			MSP-FR-EW-C 1555-1619	10	21999 N Q2 2022
			MSP-FR-EW-C 1620-1684	10	2072551
			MSP-FR-EW-C 1685-1749	10	21465
			MSP-FR-EW-C 1750-1814	10	21794
			MSP-FR-EW-C 1815-1879	10	21856
			MSP-FR-EW-C 1880-1944	10	21857
			MSP-FR-EW-C 1945-2009	10	2072552
			MSP-FR-EW-C 2010-2074	10	21810
			MSP-FR-EW-C 2075-2139	10	21793
			MSP-FR-EW-C 2140-2204	10	22083 N Q2 2022
			MSP-FR-EW-C 2205-2269	10	22084 N Q2 2022
			MSP-FR-EW-C 2270-2334	10	22085 N Q2 2022
			MSP-FR-EW-C 2335-2399	10	22086 N Q2 2022

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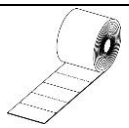
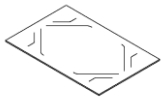
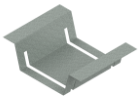
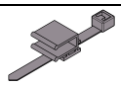
Part Description		Material	Code	Packing Unit	Art.-No.
Protection sheet MSP-FR-EW-PSF perforated 10 m roll		Fleece	MSP-FR-EW-PSF	1	2072561 E
Protection sheet MSP-FR-PSF with corner slots for MSP-FR-BP		Fleece	MSP-FR-PSF 150	60	21034
			MSP-FR-PSF 300	30	21035
			MSP-FR-PSF 450	60	21979 N Q2 2022
			MSP-FR-PSF 600	60	21980 N Q2 2022
			MSP-FR-PSF 900	30	21981 N Q2 2022
			MSP-FR-PSF 1200	30	21982 N Q2 2022
Ballast tray MSP-FR-S-WD		Galvanized sheet steel	MSP-FR-S-WD 1620-1684	6	20680
			MSP-FR-S-WD 1685-1749	6	21562
			MSP-FR-S-WD 1750-1814	6	21811
Ballast tray holder MSP-FR-S-SB		Galvanized sheet steel SVZ EN 10346	MSP-FR-S-SB	24	20682
Screw MSP-FR-S M6x16		ZnNi-coated steel	MSP-FR-S	200	2013705
Screw MSP-FR-TS 6,3x22		Stainless steel A2	MSP-FR-TS	200	21348
Grounding screw MSP-FR-GS 6x60		Stainless steel A2	MSP-FR-GS	100	2013706
Cable holder MSP-FR-CH8		PA6 UV-resistant	MSP-FR-CH8	100	418916 E
Cable holder with edge clip MSP-FR-CHE		PA6.6 UV-resistant	MSP-FR-CHE	100	22628 N
End clamp MSP-PR-EC TX 30		Various	MSP-PR-EC 30-50 mm	12	2048616 E
End clamp MSP-PR-EC TX 30, black			MSP-PR-ECB 30-50 mm	12	2066231 E

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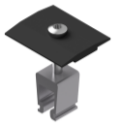
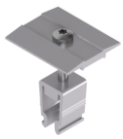
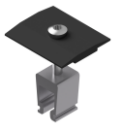
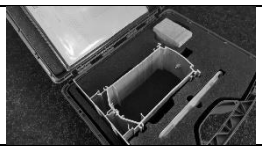
Solar Systems from Schweizer:
PV mounting system for Flat Roofs MSP-FR-EW.

Part Description		Material	Code	Packing Unit	Art.-No.
End clamp MSP-PR-EC TX 30			MSP-PR-EC 28-45 mm	12	22331 N
End clamp MSP-PR-EC TX 30, black			MSP-PR-ECB 28-45 mm	12	22623 N
Middle clamp MSP-PR-MC		Various	MSP-PR-MC 30-50 mm	24	2048615 E
Middle clamp MSP-PR-MCG grounding			MSP-PR-MCG 30-50 mm	24	21855 E
Middle clamp MSP-PR-MCB, black			MSP-PR-MCB 30-50 mm	24	2066232 E
Middle clamp MSP-PR-MCBG black, grounding			MSP-PR-MCBG 30-50 mm	24	2091461 E
Middle clamp MSP-PR-MC			MSP-PR-MC 28-45 mm	24	22624 N
Middle clamp MSP-PR-MCG grounding			MSP-PR-MCG 28-45 mm	24	22626 N
Middle clamp MSP-PR-MCB, black			MSP-PR-MCB 28-45 mm	24	22625 N
Middle clamp MSP-PR-MCBG black, grounding			MSP-PR-MCBG 28-45 mm	24	22627 N
MSP test set fric-tion coefficient		Various	MSP test set friction coeffi-cient	1	21998 N Q2 2022

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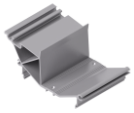
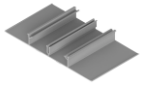
Solar Systems from Schweizer:
PV mounting system for Flat Roofs MSP-FR-S.

MSP-FR-S is for mounting PV modules on **flat roofs facing South**. The amount of ballasting required is very low. Base plates (supports) do not interfere with roof drainage (avoiding water build-up) and are available in various sizes to suit all types of thermal insulation and not to damage roofing membranes.
MSP-FR-S for flat roofs South is compatible with MSP-FR-EW for flat roofs East-West and most components are common with both mounting systems.

Benefits
- No roof penetrations required
- Fast installation: less than 20 minutes per kW and installer
- Highly efficient installation work flow
- No interference with water drainage
- Optimal spread of loading to minimize impact on roofing membrane
- Minimal ballasting required
- Very low area loads, starting at 7 kg/m^2
- Excellent mechanical and chemical protection of roofing membrane

Part Description		Material	Code	Packing Unit	Art.-No.
Support low MSP-FR-S-SL		Aluminium EN AW-6063 T66	MSP-FR-S-SL8	30	21877
			MSP-FR-S-SL10	30	20678
Support high MSP-FR-SH		Aluminium EN AW-6063 T66	MSP-FR-SH	12	20677
Base profile MSP-F-EW-BP width 250 mm		Aluminium EN AW-6063 T66	MSP-FR-EW-BP 150	10	2072555
			MSP-FR-EW-BP 300	10	2072556
			MSP-FR-EW-BP 450	10	2072557
			MSP-FR-EW-BP 600	10	2072558
			MSP-FR-EW-BP 900	10	2072559
			MSP-FR-EW-BP 1200	10	2072560
Protection sheet MSP-FR-EW-PSF perforated 10 m roll		Fleece	MSP-FR-EW-PSF	1	2072561 E

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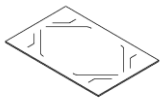
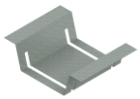
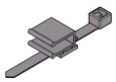
Part Description		Material	Code	Packing Unit	Art.-No.
Protection sheet MSP-FR-PSF with corner slots for MSP-FR-BP		Fleece	MSP-FR-PSF 150	60	21034
			MSP-FR-PSF 300	30	21035
			MSP-FR-PSF 450	60	21979 N
			MSP-FR-PSF 600	60	21980 N
			MSP-FR-PSF 900	30	21981 N
			MSP-FR-PSF 1200	30	21982 N
Wind deflector / ballast tray MSP-FR-S-WD		Galvanized sheet steel	MSP-FR-S-WD 1620-1684	6	20680
			MSP-FR-S-WD 1685-1749	6	21562
			MSP-FR-S-WD 1750-1814	6	21811
Ballast tray holder MSP-FR-S-SB		Galvanized sheet steel SVZ EN 10346	MSP-FR-S-SB	24	20682
Screw MSP-FR-S M6x16		ZnNi-coated steel	MSP-FR-S	200	2013705
Screw MSP-FR-TS 6,3x22		Stainless steel A2	MSP-FR-TS	200	21348
Grounding screw MSP-FR-GS 6x60		Stainless steel A2	MSP-FR-GS	100	2013706
Cable holder MSP-FR-CH8		PA6 UV-resistant	MSP-FR-CH8	100	418916 E
Cable holder with edge clip MSP-FR-CHE		PA6.6 UV-resistant	MSP-FR-CHE	100	22628 N

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Part Description	Material	Code	Packing Unit	Art.-No.	Part Description
MSP-Connection channel MSP-FR-EW-C		Aluminium EN AW-6063 T66	MSP-FR-EW-C 300-360	12	2072368
			MSP-FR-EW-C 470-530	12	20679
			MSP-FR-EW-C 950-1010	24	2072369
			MSP-FR-EW-C 1011-1075	24	21464
			MSP-FR-EW-C 1076-1140	24	21872
			MSP-FR-EW-C 1141-1205	24	21873
			MSP-FR-EW-C 1230-1290	10	19945 E
			MSP-FR-EW-C 1206-1270	10	22250 N Q2 2022
			MSP-FR-EW-C 1271-1335	10	22277 N Q2 2022
			MSP-FR-EW-C 1495-1559	10	19616 E
			MSP-FR-EW-C 1555-1619	10	21999 N Q2 2022
			MSP-FR-EW-C 1620-1684	10	2072551
			MSP-FR-EW-C 1685-1749	10	21465
			MSP-FR-EW-C 1750-1814	10	21794
			MSP-FR-EW-C 1815-1879	10	21856
			MSP-FR-EW-C 1880-1944	10	21857
			MSP-FR-EW-C 1945-2009	10	2072552
			MSP-FR-EW-C 2010-2074	10	21810
			MSP-FR-EW-C 2075-2139	10	21793
			MSP-FR-EW-C 2140-2204	10	22083 N Q2 2022
			MSP-FR-EW-C 2205-2269	10	22084 N Q2 2022
			MSP-FR-EW-C 2270-2334	10	22085 N Q2 2022
			MSP-FR-EW-C 2335-2399	10	22086 N Q2 2022

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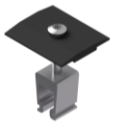
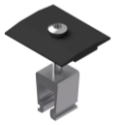
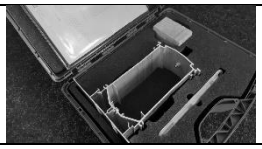
Solar Systems from Schweizer:
PV mounting system for Flat Roofs MSP-FR-S.

Part Description		Material	Code	Packing Unit	Art.-No.
End clamp MSP-PR-EC TX 30		Various	MSP-PR-EC 30-50 mm	12	2048616 E
End clamp MSP-PR-EC TX 30, black			MSP-PR-ECB 30-50 mm	12	2066231 E
End clamp MSP-PR-EC TX 30			MSP-PR-EC 28-45 mm	12	22331 N
End clamp MSP-PR-EC TX 30, black			MSP-PR-ECB 28-45 mm	12	22623 N
Middle clamp MSP-PR-MC			MSP-PR-MC 30-50 mm	24	2048615 E
Middle clamp MSP-PR-MCG grounding			MSP-PR-MCG 30-50 mm	24	21855 E
Middle clamp MSP-PR-MCB, black			MSP-PR-MCB 30-50 mm	24	2066232 E
Middle clamp MSP-PR-MCBG black, grounding			MSP-PR-MCBG 30-50 mm	24	2091461 E
Middle clamp MSP-PR-MC			MSP-PR-MC 28-45 mm	24	22624 N
Middle clamp MSP-PR-MCG grounding			MSP-PR-MCG 28-45 mm	24	22626 N
Middle clamp MSP-PR-MCB, black			MSP-PR-MCB 28-45 mm	24	22625 N
Middle clamp MSP-PR-MCBG black, grounding			MSP-PR-MCBG 28-45 mm	24	22627 N
MSP test set friction coefficient		Various	MSP test set friction coefficient	1	21998 N Q2 2022

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