

CLASSIC AND MATIC PRODUCT OVERVIEW

Temperature control and cooling units



CLASSIC PRODUCT RANGE

Our CLASSIC temperature control and cooling units are perfect as stand-alone solutions. They are both robust and easy to maintain. The use of proven technologies guarantees the durability of this product group.

Our CLASSIC range of temperature control units comes with digital networking capabilities. Units from our CLASSIC range are ideal solutions for applications in which your temperature control unit's main function is to control the temperature of the circulation medium.

Features and benefits of the CLASSIC range

- Service-friendly
- Robust and reliable
- User-friendly thanks to a minimalist user interface

Standard controller MP-888

Your temperature control unit contains a digital temperature controller. This ensures precise temperature control even at high temperatures. It displays the current and target temperature. The controller monitors the circulation of the medium and triggers an alarm if the flow rate drops. The digital temperature controller can be operated in °F or °C units and features analogue interfaces of 0–5 V, 0–10 V and 4–20 mA as standard.

Digital interface controller MP-988

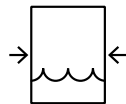
In addition to the standard digital controller we also offer a digital interface controller with RS-485, RS-232, 20 mA current loop, CAN-bus, Profibus and Profinet interfaces. These interfaces are accessible without having to insert any additional cards. Also included is a temperature difference display and over 30 integrated machine protocols.



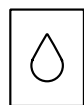
- 1** Universal temperature control units
CLASSIC Duo, Heat transfer medium water and oil
up to 90°C/150°C



- 2** Water temperature control units
CLASSIC Water, Heat transfer medium water
up to 90°C



- 3** Pressurised water temperature control units
CLASSIC Water, Heat transfer medium water
up to 160°C



- 4** Oil temperature control units
CLASSIC Oil, Heat transfer medium oil
up to 360°C



- 5** Cooling units
CLASSIC Cool
from -25°C up to +40°C

MATIC PRODUCT RANGE

The MATIC range of temperature control units covers all the needs of production environments leveraging industrial networks. The entire MATIC product range is equipped with the new and in-house developed IRIS controller, offering a broad range of connectivity features. It covers the time-tested serial and digital/analogue interfaces, classical fieldbus protocols, as well as current state-of-the-art industrial ethernet (Profinet, EtherNet/IP).

The MATIC temperature control units put your economic goals into practice. The energy-saving eco mode leverages the latest-generation variable-frequency drive installed in every MATIC unit. More intelligent look-ahead temperature control prevents unnecessary energy expenses for heating and cooling. All the while our proven immersed heaters offer a 100% conversion efficiency. In short, MATIC brings the energy consumption of your temperature control process, as well as downtimes, to a minimum.

Features and benefits of the MATIC temperature control units

- OPC-UA interface (coming soon)
- Web interface (LAN cable, WLAN coming soon)
- Intuitive user interface - quick to learn
- Precise and robust control
- Designed for energy efficiency and precision
- Economic thanks to new ECO mode
- Easily configured behaviour
- Fully-automated sub-steps and formula memory
- Information available at any time
- Constant data monitoring and validation
- Electronically accessible process documentation: optimum support for meeting ISO requirements



1 Universal temperature control units
MATIC Duo, Heat transfer medium water or oil
up to 90°C/150°C



2 Water temperature control units
MATIC Water, Heat transfer medium water
up to 90°C



3 Pressurized water temperature control units
MATIC Water, Heat transfer medium water
up to 160°C



4 Oil temperature control units
MATIC Oil, Heat transfer medium oil
up to 360°C

1 Universal temperature control units

CLASSIC Duo, **MATIC** Duo, Heat transfer medium water and oil up to 90°C/150°C

Product	Max. Temperature		Max. Filling amount	Heating capacity		Pump capacity	Pump pressure	Cooling system		Suction capacity vacuum	Controller	Temperature sensor	
	Water °C	Oil °C		Water kW	Oil kW			Tubular heat exchanger	At flow temperature °C				mWS
CLASSIC Duo TT-181	90	150	7	9	3	60	4	Indirect	35	90	8	MP-888	FeKo Typ J
CLASSIC Duo TT-188	90	150	7	9	3	60	4		35	90	8		
CLASSIC Duo TT-168 E	90	150	20	12	6*	60	4		45	90	8		
CLASSIC Duo TT-168 H	90	150	20	12	6*	60	7		45	90	8		
MATIC Duo 90/150 9 E	90	150	7	9	3*	60	4	Indirect	35	90	8	IRIS	Pt100
MATIC Duo 90/150 18 E	90	150	20	18	6*	60	4		45	90	8		
MATIC Duo 90/150 18 H	90	150	20	18	6*	60	7		45	90	8		

* with booster function and when using Tool-Therm SH3 up to 3 times the capacity

■ standard, □ optional, - not possible

I/O Modul 1, Manufacturer protocols (RS-232, RS-485, CAN, Current-Loop)

I/O Modul 2, Profinet, EtherNet/IP, Profibus

I/O Modul 3, 3 x Digital output (changeover switch), 2 x Digital input (on/off), 2 x Analog output, 2 x Analog input, 1 x ext. Temperature sensor

¹ included in I/O module 1, ² included in I/O module 2, ³ included in I/O module 3

^{up)} Update available per Q2/2024

2 Water temperature control units

CLASSIC Water, **MATIC** Water, Heat transfer medium water up to 90°C

Product	Max. Temperature °C	Max. Filling amount l	Heating capacity kW	Pump capacity l/min.	Pump pressure bar	Cooling system Tubular heat exchanger kW	Plate heat exchanger kW	Direct cooling kW	At flow temperature °C	Suction capacity vacuum mWS	Controller	Temperature sensor
CLASSIC Water TT-170 L	90	5	3	19	2.9	^{a)} 30	-	-	90	-	MP-888	FeKo Typ J
CLASSIC Water TT-1548 E	90	20	12	60	4	^{b)} 5	-	-	70	8		
CLASSIC Water TT-108 E	90	20	6	60	4	^{c)} -	-	100	90	8		
CLASSIC Water TT-108 E	90	20	12	60	4	^{c)} -	-	100	90	8		
CLASSIC Water TT-108 E	90	20	18	60	4	^{c)} -	-	100	90	8		
CLASSIC Water TT-108 K	90	40	18	200	4.3	^{c)} -	-	260	90	8		
CLASSIC Water TT-108 K	90	40	27	200	4.3	^{c)} -	-	260	90	8		
CLASSIC Water TT-108 K	90	40	36	200	4.3	^{c)} -	-	260	90	8		
CLASSIC Water TT-108 K	90	40	45	200	4.3	^{c)} -	-	260	90	8		
CLASSIC Water TT-1500 W	90	75	48	285	4.6	^{c)} -	-	285	80	-		
CLASSIC Water TT-1368 W	90	70	24	250	4.5	^{a)} -	400	-	70	-		
CLASSIC Water TT-1368 W	90	70	48	250	4.5	^{a)} -	400	-	70	-		
CLASSIC Water TT-1368 W	90	100	72	250	4.5	^{a)} -	400	-	70	-		
CLASSIC Water TT-1368 W	90	100	96	250	4.5	^{a)} -	400	-	70	-		
CLASSIC Water TT-1368 V	90	100	72	580	4.1	^{a)} -	400	-	80	-		
CLASSIC Water TT-1368 V	90	100	96	580	4.1	^{a)} -	400	-	80	-		
CLASSIC Water TT-1368 V	90	100	144	580	4.1	^{a)} -	400	-	80	-		
MATIC Water 90 18 E PHE	90	20	18	60	4	^{a)} 50	130	-	90	8	IRIS	Pt100
MATIC Water 90 18 H PHE	90	20	18	60	7	^{a)} 50	130	-	90	8		
MATIC Water 90 18 K PHE	90	40	18	200	4.3	^{a)} 200	400	-	90	8		
MATIC Water 90 27 K PHE	90	40	27	200	4.3	^{a)} 200	400	-	90	8		
MATIC Water 90 36 K PHE	90	40	36	200	4.3	^{a)} 200	400	-	90	8		
MATIC Water 90 45 K PHE	90	40	45	200	4.3	^{a)} 200	400	-	90	8		

^{a)} indirect, ^{b)} air cooled, ^{c)} direct, ■ standard, □ optional, - not possible
 I/O Modul 1, Manufacturer protocols (RS-232, RS-485, CAN, Current-Loop)
 I/O Modul 2, Profinet, EtherNet/IP, Profibus

I/O Modul 3, 3 x Digital output (changeover switch), 2 x Digital input (on/off), 2 x Analog output, 2 x Analog input, 1 x ext. Temperature sensor

¹⁾ included in I/O module 1, ²⁾ included in I/O module 2, ³⁾ included in I/O module 3, ⁴⁾ included in MP-988

^{up)} Update available per Q2/2024

	Flow control	Leakstopper device	Mould drain	Temperature regulation at the consumer	Time-limited water refill	Automatic refill	Level control	Visual fault indications	Acoustic warning	Pressure regulation	0-10 V input/output	4-20 mA input	4-20 mA output	RS-232, RS-485, Current-Loop, CAN	Profibus interface	Profinet interface	Ethernet/IP	OPC-UA interface	Web interface (LAN cable, WiFi)
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3 Pressurised water temperature control units

CLASSIC Water, **MATIC** Water, Heat transfer medium water up to 160°C

Product	Max. Temperature °C	Heating capacity kW	Pump capacity l/min.	Pump pressure bar	with booster pump	Cooling system	Tubular heat exchanger kW	Plate heat exchanger kW	Direct cooling kW	Suction capacity vacuum mWS	Controller	Temperature sensor
CLASSIC Water TT-1398 N	140	6	110	5	-	o)	20	-	-	-	MP-888	FeKo Typ J
CLASSIC Water TT-142 N	140	12	110	5	-	o)	60	-	-	8		
CLASSIC Water TT-137 N	140	12	110	5	-	o), o)	50	-	60 at 50°C	8		
CLASSIC Water TT-138 N	140	24	110	5	-	o), o)	70	-	60 at 60°C	8		
CLASSIC Water TT-1358 W	130	24	250	4.5	-	o)	180	400 at 70°C	-	-		
CLASSIC Water TT-1358 W	130	48	250	4.5	-	o)	180	400 at 70°C	-	-		
CLASSIC Water TT-30/160											MP-888	FeKo Typ J
Cold water circuit	90	6	75	6.5	■	o)		200 at 90°C				
Hot water circuit	160	12	75	6.5	■	o)	80 at 160 °C					
CLASSIC Water TT-DW 160	160	9	36	5	■	o)	-	40 at 150°C	-	-	MP-888	FeKo Typ J
CLASSIC Water TT-DW 160	160	18	36	5	■	o)	-	40 at 150°C	-	-		
MATIC Water 160 12 B BP	160	12	75	6.5	■	o), o)	65	-	60 at 50°C	8	IRIS	Pt100
MATIC Water 160 24 B BP	160	24	75	6.5	■	o), o)	85	-	60 at 60°C	8		

o) indirect, b) air cooled, o) direct, ■ standard, □ optional, - not possible

I/O Modul 1, Manufacturer protocols (RS-232, RS-485, CAN, Current-Loop)

I/O Modul 2, Profinet, EtherNet/IP, Profibus

I/O Modul 3, 3 x Digital output (changeover switch), 2 x Digital input (on/off), 2 x Analog output, 2 x Analog input, 1 x ext. Temperature sensor

¹ included in I/O module 1, ² included in I/O module 2, ³ included in I/O module 3, ⁴ included in MP-988

^{up)} Update available per Q2/2024

4 Oil temperature control units

CLASSIC Oil, MATIC Oil, Heat transfer medium oil up to 360°C

Product	Max. Temperature °C	Max. Filling amount l	Expansion volume l	Heating capacity kW	Pump capacity l/min.	Pump pressure bar	Axial face sealed	Magnetic drive	Cooling system	Tubular heat exchanger kW	Plate heat exchanger kW	At flow temperature °C	Suction capacity vacuum mWS	Controller	Temperature sensor
CLASSIC Oil TT-248	200	8	6	8	100	5.5	■	□ ^{a)}	20	-	200	8	MP-888	FEKO Typ J	
CLASSIC Oil TT-288	250	9	11	8	100	5.5	■	□ ^{a)}	60	-	250	8			
CLASSIC Oil TT-OIL 300	300	9	17	12	100	5.5	■	□ ^{a)}	60	-	290	8			
CLASSIC Oil TT-390 Z	360	15	16	16	100	5.5	■	□ ^{a)}	90	-	360	8			
CLASSIC Oil TT-390 Z	360	21	16	24	100	5.5	■	□ ^{a)}	90	-	360	8			
CLASSIC Oil TT-508 X	300	75	75	48	260	4	■	□ ^{a)}	480	-	300	-			
CLASSIC Oil TT-510 X	300	125	100	96	260	4	■	□ ^{a)}	480	-	300	-			
CLASSIC Oil TT-708 Y	300	100	100	72	500	4	■	□ ^{a)}	600	-	300	-			
CLASSIC Oil TT-708 Y	300	200	100	120	500	4	■	□ ^{a)}	600	-	300	-			
CLASSIC Oil TT-708 Y	300	200	100	144	500	4	■	□ ^{a)}	600	-	300	-			
CLASSIC Oil TT-407 Z	240	11	16	8	100	5.5	■	□ ^{a)}	67	143 at 80°C	230	-	MP-988	Pt100	
CLASSIC Oil TT-409 Z	240	60	36	24	100	5.5	■	□ ^{a)}	93	150 at 80°C	230	-			
CLASSIC Oil TT-410 X	240	75	75	48	260	4	■	□ ^{a)}	150	175 at 80°C	230	-			
CLASSIC Oil TT-608 Z													MP-888	FEKO Typ J	
Hot oil circuit	300	50	75	24	100	5.5	■	-	-	-	-	-			
Cold oil circuit	80	50	-	-	100	5.5	■	□ ^{a)}	93	90	-	-			
CLASSIC Oil TT-608 Z													MP-888	FEKO Typ J	
Hot oil circuit	300	50	75	48	100	5.5	■	-	-	-	-	-			
Cold oil circuit	80	50	-	-	100	5.5	■	□ ^{a)}	93	90	-	-			
MATIC Oil 360 16	360	15	16	16	100	5.5	■	□ ^{a)}	90	-	360	8			
MATIC Oil 360 24	360	21	16	24	100	5.5	■	□ ^{a)}	90	-	360	8			
MATIC Oil 360 32	360	27	36	32	100	5.5	■	□ ^{a)}	160	-	360	8			
MATIC Oil 360 48	360	70	36	48	100	5.5	■	□ ^{a)}	230	-	360	8			
Dual units															
CLASSIC Oil TT-288/2	250	16	6	2 x 8	2 x 100	5.5	■	□ ^{a)}	2 x 20	-	200	8	MP-888	FEKO Typ J	
CLASSIC Oil TT-390/2 16	360	30	36	2 x 16	2 x 100	5.5	■	□ ^{a)}	2 x 90	-	360	8			
CLASSIC Oil TT-390/2 24	360	42	36	2 x 24	2 x 100	5.5	■	□ ^{a)}	2 x 90	-	360	8			
CLASSIC Oil TT-390/2 36	360	24	41	2 x 36	2 x 100	5.5	■	□ ^{a)}	2 x 90	-	360	8			
MATIC Oil 360/2 16	360	30	36	2 x 16	2 x 100	5.5	■	□ ^{a)}	2 x 90	-	360	8	IRIS	Pt100	
MATIC Oil 360/2 24	360	42	36	2 x 24	2 x 100	5.5	■	□ ^{a)}	2 x 90	-	360	8			

^{a)} indirect, ^{b)} air cooled, ^{c)} direct, ■ standard, □ optional, - not possible

I/O Modul 1, Manufacturer protocols (RS-232, RS-485, CAN, Current-Loop)

I/O Modul 2, Profinet, EtherNet/IP, Profibus

I/O Modul 3, 3 x Digital output (changeover switch), 2 x Digital input (on/off), 2 x Analog output, 2 x Analog input, 1 x ext. Temperature sensor

¹⁾ included in I/O module 1, ²⁾ included in I/O module 2, ³⁾ included in I/O module 3, ⁴⁾ included in MP-988

^{up)} Update available per Q2/2024

	Flow control	Leakstopper device	Mould drain	Temperature regulation at the consumer	Level control	Visual fault indications	Acoustic warning	Pressure regulation	2-circuit version		0-10 V input/output	4-20 mA input	4-20 mA output	RS-232, RS-485, Current-Loop, CAN	Profibus interface	Profinet interface	Ethernet/IP	OPC-UA interface	Web interface (LAN cable, WiFi)
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5 Cooling units

CLASSIC Cool, from -25°C up to +40°C

Product	Temperature range °C	Ambient temperatures	Refrigerating agent	Heating switchable kW	Content water tank l	Cooling capacity nominal kW	Pump system	Motor kW	Max. Pump pressure bar	Max. Flow capacity l/min.	Flow capacity internal max. l/min.	Compressor	Condenser Air-cooled	Condenser Water-cooled	Air volume m³/h
CLASSIC Cool TT-5'500 E	+10°C to +40°C	+45°C	R-134a	5	25	5	E	0.75	4.5	75		hermetically s.	■ -	-	1'700
CLASSIC Cool TT-14'500 H	+10°C to +40°C	+45°C	R-134a	6	50	14	H	1.5	8.5	75		hermetically s.	■ □	-	2'850
CLASSIC Cool TT-28'500	+10°C to +40°C	+45°C	R-134a	9	150	28	CR5-7	1.1	5	145		hermetically s.	■ □	-	5'700
CLASSIC Cool TT-29'800 WK	-25°C to +25°C	+45°C	R-404a	-	170	54	CR5-7	1.5	4.8	140		hermetically s.	■ □	-	-
CLASSIC Cool TT-54'500	+10°C to +40°C	+45°C	R-134a	12	250	54	CR10-6	2.2	6.2	250		hermetically s.	■ □	-	8'000
CLASSIC Cool TT-108'000	+10°C to +40°C	+45°C	R-134a	-	360	108	CR10-6	2.2	6/4	100/200	200	hermetically s.	■ □	-	2x8'000
CLASSIC Cool TT-216'000	+10°C to +40°C	+45°C	R-134a	-	600	216	CR15-4	4	5/3.5	200/400	500	hermetically s.	■ □	-	4x8'000
CLASSIC Cool TT-300'000	+10°C to +15°C	-	-	-	-	300	CR32-2	3	-	600	-	hermetically s.	■ □	-	4x8'000

■ standard, □ optional, - not possible

⁴ included in MP-988



HERE FOR OUR CUSTOMERS



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