Blue e IoT adaptor

The digital upgrade for cooling units in the Blue e series

Functional upgrade – digital retrofit

For many companies in the industry, digitalisation is a hot topic. Many plants have low levels of automation. Investing in the latest machines is costly, and interlinking them is a complex process.

But don't forget that existing machines and systems can also be digitalised. By retrofitting machines with suitable sensors and communications technology, they are readily integrated into a digital manufacturing system. This is called retrofitting, also known as a digital upgrade.

In conjunction with the IoT interface and the Blue e IoT adaptor, existing cooling units with an e-Comfort controller are easily incorporated into Industry 4.0 environments. This digital retrofit supports state-of-the-art condition monitoring and significantly boosts system availability.

Benefits of the digital retrofit

- Investment costs are lower than for a new purchase
- Logging of process and machine data for Industry 4.0
- Modernisation and adaptation to current software and system standards

Benefits of smart networking

- Condition monitoring of up to 10 cooling units in a master/slave arrangement
- Continuous monitoring of temperature levels
- A swift response if threshold values are exceeded
- Automatic notification of any cooling unit malfunctions
- Temperature records and energy efficiency analyses
- Avoidance of downtime costs and consequential damage
- Remote access: Device parameters can be configured remotely

Operating & monitoring

IoT, SCADA, MES and ERP systems

For more information about the
Blue e IoT adaptor (3124.310)

For more information about the
IoT interface (3124.300)

**Blue e IoT
adaptor**

Rittal cooling unit

IoT interface

Rittal TopTherm cooling units Generation Blue e

Benefits of Blue e technology

- Energy savings of up to 45%
- Smart control with Comfort controller, icing protection and motor monitoring
- Eco-mode control: The evaporator coil fan cuts out as necessary, depending on the enclosure internal temperature
- Longer service life of components in the enclosure and cooling units, because efficient components such as fans and compressors run at their optimum operating point
- The integral electric condensate evaporation system means that condensate evaporates and dissipates to the ambient air via the external fan
- The RiNano coating prevents the accumulation of dirt deposits on the condenser, thereby extending maintenance intervals and ensuring a constant long-term cooling output

Design	
	Model No.
① TopTherm wall-mounted cooling unit Blue e	
300 W	3302.XXX
500 W	3303.XXX
750 W	3361.XXX
1000 W	3304.XXX
1500 W	3305.XXX
2000 W	3328.XXX
2500 W	3329.XXX
4000 W	3332.XXX
② TopTherm wall-mounted cooling unit, horizontal format	
300 W	3302.XXX
③ TopTherm wall-mounted cooling unit Blue e, slimline	
1500 W	3366.XXX
④ Modular climate control concept – Cooling module Blue e	
1500 W	3307.XXX
2500 W	3310.XXX
⑤ TopTherm roof-mounted cooling unit Blue e	
500 W	3382.XXX
750 W	3359.XXX
1000 W	3383.XXX
1500 W	3384.XXX
2000 W	3385.XXX
3000 W	3386.XXX
4000 W	3387.XXX
⑥ TopTherm roof-mounted cooling unit Blue e for office a	
1100 W	3273.XXX

Monitoring	IoT interface
	Blue e IoT adaptor
Control	Basic controller
	e-Comfort controller
Voltage	115 V
	230 V
	400/460 V
Features	RiNano coating
	Integral condensate evaporation
Approvals	CE
	cURus
	cULus Listed
	CSA
	EAC
	cULus Listed FTTA
Installation types	External mounting
	Partial internal mounting
	Full internal mounting
Protection category to enclosure	IP
	NEMA
Temperature range	
Display	
Material	

[1] Full installation type not supported with 3332.540/640
[2] Cooling module Blue e for installation in VX25 climate contro
[3] No integral condensate evaporation
[4] No CSA certification

Accessories to match the various cooling units are available, s
air diverters and air duct systems. Further information can be

Standard					Stainless steel					NEMA 4X			NEMA 3R/4		
Model No. XXX					Model No. XXX					Model No. XXX			Model No. XXX		
100	110				200	210									
		500[3]	510[3]				600[3]	610[3]		504[3]	514[3]		508[3]	518[3]	
		500[3]	510[3]	540[3]			600[3]	610[3]	640[3]						
		500	510	540			600	610	640	504	514	544	508	518	548
		500	510	540			600	610	640	504	514	544	508	518	548
		500	510	540			600	610	640	504	514	544			
		500	510	540			600	610	640	504	514	544	508	518	548
				540[1]					640[1]						
300	310[4]														
		500	510	540			600	610	640						
		700	710	740											
		700	710	740											
		500	510				600	610							
		500	510	540			600	610	640						
		500	510	540			600	610	640						
		500	510	540			600	610	640						
		500	510	540			600	610	640						
				540					640						
				540					640						
		500													
		■	■	■			■	■	■	■	■	■	■	■	■
		■	■	■			■	■	■	■	■	■	■	■	■
■	■				■	■									
			■	■				■	■	■	■	■	■	■	■
	■		■			■		■			■			■	
■		■			■		■			■			■		
				■					■			■			■
■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
		■	■	■			■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■	■	■	■	■			
													■	■	■
■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
			■	■				■	■						
■	■	■	■	■ [1]	■	■	■	■	■ [1]						
IP 54					IP 54					IP 55			IP 56		
UL Type 12					UL Type 12					UL Type 4X			UL Type 12, 3R/4		
+10 °C to +55 °C					+10 °C to +55 °C					+10 °C to +55 °C			-20 °C to +50 °C		
Front					Front					Front			Rear		
Sheet steel					Stainless steel, AISI 304					Stainless steel, AISI 316L			Sheet steel, outdoor		

...ol doors for VX25 enclosure

...such as filter mats, metal filters, door operated switches, external condensate evaporation, master/slave cables, RiDiag diagnostic software,
...found in our Catalogue or on our website www.rittal.com.

Accessories

Control/regulation

IoT interface

The IoT interface is a central component for the intelligent networking of Rittal cooling solutions or sensors for monitoring physical ambient conditions. Equipped with a wide range of interfaces and protocols, it is used to collate and transmit data to superordinate IT systems or to systems for the local monitoring of machine statuses.

Benefits:
– Digitalisation and networking offer huge opportunities for every company. With the IoT interface, Rittal cooling solutions and sensors for monitoring physical ambient conditions are easily connected to Industry 4.0 environments without affecting the automation logic.
– Plug and run: The IoT interface is quickly and conveniently configured and commissioned via the integral Web server, no programming required.

Material:
– Plastic to UL 94-V0

Colour:
– RAL 7016

Protection category IP to IEC 60 529:
– IP 20

Supply includes:
– IoT interface
– USB cable (USB-A connector on micro-USB-B connector)
– Angle bracket for Blue e+ cooling unit

Note:
– The IoT interface is only supported by Blue e+ cooling units from firmware version 1.11.0 or above. If applicable, update the firmware using the RiDiag III software (3159.300).
– To interlink cooling units in the Blue e series, the Blue e IoT adaptor (3124.310) is additionally required.

Assembly instruction:

– The IoT interface can be secured on a 35 x 7.5 top hat rail to DIN EN 60715 using a spring-loaded metal clip, or to the rear of a Blue e+ cooling unit using the angle bracket.

Accessories:

– Blue e IoT adaptor, see page 7

W x H x D mm	18 x 117 x 120
For	TopTherm cooling units with e-Comfort controller Blue e+ cooling units Blue e+ chillers Smart Monitoring System for NH fuse-switch disconnectors Rittal sensors
Operating temperature range	+0 °C...+70 °C
Protocols	OPC-UA/SNMPv1/SNMPv2c/SNMPv3/Modbus/TCP/TCP/IPv4/TCP/IPv6/Radius/Telnet/SSH/FTP/SFTP/HTTP/HTTPS/NTP/DHCP/DNS/SMTP/Syslog/LDAP
Interfaces	1 x Micro USB type B (device) for USB 2.0 1 x Micro-SD memory card slot for SD 2.0 1 x USB 2.0 high-speed functions (EHCI) 1 x acknowledgement button 1 x push-in spring connection terminal for NTC sensor 2 x RJ45 jack for RS 485 interface (climate control unit interface)
Network interface	Ethernet IPv4/IPv6 Ethernet to IEEE 802.3 via 10BASE-T, 100BASE-T and 1000BASE-T
Interface bus system	2 x RJ45 CAN bus
Type of electrical connection	Push-in spring connection terminal (24 V DC)
Weight kg	0.278
Packs of	1 pc(s).
Model No.	**3124.300**

Further technical information available on the Internet.

Blue e IoT adaptor

In conjunction with the IoT interface, the adaptor supports intelligent networking of cooling units in the Blue e series.

Benefits:
– Digitalisation and networking offer huge opportunities for every company. In conjunction with the IoT interface (3124.300), cooling units in the Blue e series are easily connected to Industry 4.0 environments without affecting the automation logic.
– Plug and run: The IoT interface is quickly and conveniently configured and commissioned via the integral Web server, no programming required.
– Condition monitoring of up to 10 cooling units in a master/slave arrangement

Material:
– Plastic
– Front: Smooth
– Enclosure: Textured

Colour:
– Front: RAL 9005
– Enclosure: RAL 7035

Protection category IP to IEC 60 529:
– IP 30

Supply includes:
– Blue e IoT adaptor
– Installation and Short User's Guide
– Mounting bracket
– Assembly parts
– Sub-D to RJ11 connection cable
– Mounting clips for securing top-hat rails

⚠ **Also required:**
– IoT interface, see page 6

To fit Model No.	3303.5/6xx/3304.5/6xx/3305.5/6xx/3328.5/6xx/3329.5/6xx/3332.5/6xx/ 3361.5/6xx/3366.5/6xx/3377.5/6xx/3307.7xx/3310.7xx/3382.5/6xx/3359.5/6xx/ 3383.5/6xx/3273.500/3384.5/6xx/3385.5/6xx/3386.5/6xx/3387.5/6xx/9776.550
W x H x D mm	80 x 30 x 40
For	TopTherm cooling units with e-Comfort controller
Operating temperature range	+0 °C…+55 °C
Interface bus system	2 x RJ45 CAN bus
Weight kg	0.201
Packs of	1 pc(s).
Model No.	**3124.310**

Rittal – The System.

Faster – better – everywhere.

FRIEDHELM **LOH** GROUP

- Enclosures
- Power Distribution
- Climate Control
- IT Infrastructure
- Software & Services

You can find the contact details of all
Rittal companies throughout the world here.

www.rittal.com/contact

ENCLOSURES POWER DISTRIBUTION CLIMATE CONTROL IT INFRASTRUCTURE SOFTWARE & SERVICES

RITTAL

FRIEDHELM **LOH** GROUP

XWW00197EN1909