

Rittal – The System.

Faster – better – everywhere.

Blue e+ Brochure

World's first – The  principle



ENCLOSURES

POWER DISTRIBUTION

CLIMATE CONTROL

IT INFRASTRUCTURE

SOFTWARE & SERVICES



Rittal – The System.

Faster – better – everywhere.

World's first

The Blue e+ cooling unit series – the ultimate in efficiency.
Worldwide.

The principle

- Efficiency – 75% energy saved due to speed-regulated components and heat pipe technology
- Versatility – Suitable for international use due to unique multi-voltage capability
- Longevity – Longer service life of the components inside the enclosure and the cooling unit due to component-friendly cooling
- User-friendliness – Intuitive operation due to touch display and intelligent interfaces





A revolution in energy efficiency through innovative hybrid technology

Unbelievably efficient

- Let hybrid technology take your cooling units' energy efficiency to a whole new level
- Active cooling circuit with speed-regulated components for demand-based cooling
- Integral heat pipe for passive cooling. Dissipates heat from the enclosure as soon as the ambient temperature falls below the setpoint

Transparent efficiency comparisons

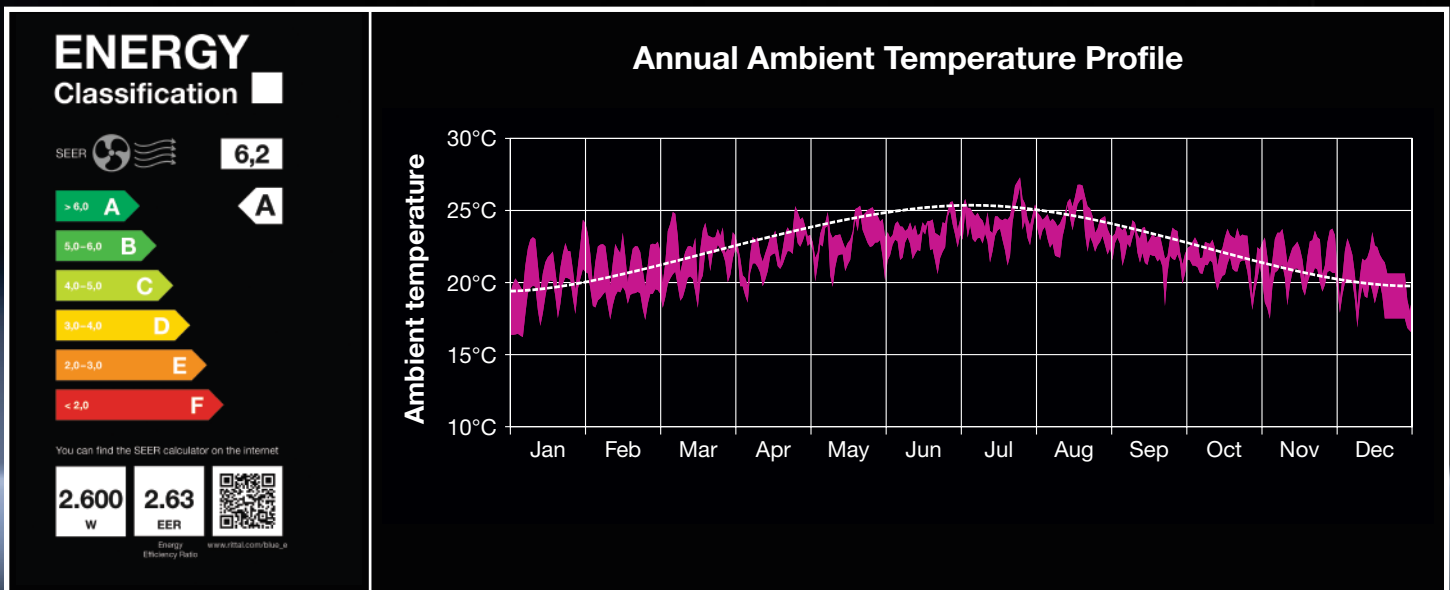
- Energy Efficiency Ratio: The standardized efficiency ratio
- Seasonal Energy Efficiency Ratio: The seasonal efficiency ratio for actual energy consumption

Amazingly economical

- Energy savings of up to 75%
- Component-friendly cooling for a longer service life
- A constant temperature inside the enclosure is ensured – with three control modes
- High operational reliability

Easier to calculate

- Determine your energy savings with the efficiency calculator
- TCO calculation includes all costs arising in the product's lifecycle
- Precise amortization calculation



Rittal specifies the SEER to indicate the actual efficiency of a cooling unit, since a precise calculation must also consider the seasonal temperature variation. The standard point for determining the EER does not make allowance for actual fluctuations in hall temperatures.



Simple operation with touch display and intelligent interfaces

Get information faster

- Fast device analysis with RiDiag software via the USB interface
- Remote monitoring via Ethernet

Blue e+ app

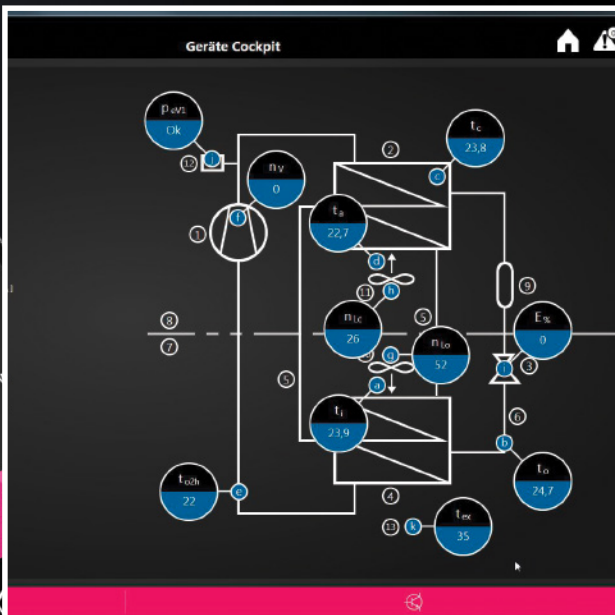
- Contactless information exchange and rapid, direct on-site analysis via a Near Field Communication, NFC, interface
- Simple repair, maintenance and spare parts inquiries may be sent directly via your smartphone
- Save device data directly on the unit

Easier to operate

- Fast parameterization, data reading and plain-text system messages on the intelligent, multi-lingual, industrial-grade display

IoT interface

- For linking Blue e+ air conditioning units and Blue e+ chillers to the customer's own monitoring, energy management and/or other data/communication systems
- Analysis and parametrization
- Device data can be supplied in most standard protocols
- Generate your own dashboards and analysis
- Attaches to the top hat rail or to the cooling unit itself





Versatility through standard assembly

Easy Assembly

- One version for external mounting, partial internal mounting and full internal mounting
- One mounting cut-out for external mounting, partial internal mounting and full internal mounting in multiple output categories
- Maintenance-friendly, tool-less filter mat replacement

Rapid Assembly

- Handle for convenient transport and positioning
- Mounting clip as securing aid
- Eyebolts for easy mounting

Maximum flexibility with unique multi-voltage capability

- One device for all voltages and networks, suitable for worldwide use thanks to inverter technology:
 - 110 – 240 V, 1~, 50 – 60 Hz
 - 380 – 480 V, 3~, 50 – 60 Hz
- International approvals and certifications:
 - cULus Listed
 - EAC
 - Tüv Nord GS



Blue e+ roof-mounted air conditioner



Benefits:

- Average 75% energy savings due to speed-regulated components and heat pipe technology
- Suitable for international use due to a unique multi-voltage capability
- Longer service life of the components inside the enclosure and the cooling unit due to component-friendly cooling
- Intuitive operation due to touch display and intelligent interfaces

Temperature control:

- e+ controller (factory setting +35°C)

Protection category IP to IEC 60 529:

- External circuit IP 54 with pleated filter
- Internal circuit IP 54 with pleated filter

Note:

- Only suitable for mounting on enclosures with minimum dimensions (W X D) 800 x 600 mm

Approvals:

- UL + cUL, -FTTA
- UR + cUR -ACVS2/8
- Tested safety GS

Power Category 4000 BTU (1300 W)

Model No.	Packs of	3185.730
Material	Sheet steel	■
Color	RAL 7035	■
Total cooling output 50 Hz L35 L35 toDIN EN 14511 BTU (kW)		4436 (1.3)
Total cooling output 50/60 Hz L35 L35 BTU (kW)		4436 / 4436 (1.3 / 1.3)
Rated operating voltage V, ~, Hz		110 - 240, 1~, 50/60 380 - 480, 3~, 50/60
Width Inches (mm)		28 (700)
Height inches (mm)		12 (308)
Depth inches (mm)		20 (500)
Power consumption PeI 50/60 Hz L35 L35 kW		0.67 / 0.67
Power consumption PeI 50/60 Hz L35 L50 kW		0.61 / 0.61
Operating temperature range °F (°C)		-4°F...+131°F (-20°C...+55°C)
Setting range °F (°C)		+68°F...+122°F (+20°C...+50°C)
Storage temperature range °F (°C)		-40°F... +158°F (-40°C...+70°C)
Energy efficiency ratio (EER) 50 Hz L35 L35 to DIN EN 14511		2.0
Seasonal energy efficiency ratio (SEER) 50 / 69 Hz		5.3
Refrigerant g		R134a, 590
Permissible operating pressure (p. max.) bar		24
Weight lbs (kg)		84 (38)
Accessories		
IoT interface	1 pc(s).	3124.300
RiDiag	1 pc(s).	3159.300
Temperature sensor	1 pc(s).	3124.400
Door-operated switch	1 pc(s).	4127.010

Metric Measurements are exact. Imperial measurements are rounded.

Blue e+ wall-mounted air conditioners



Benefits:

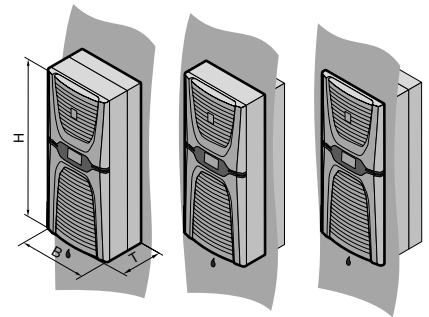
- 75% energy saved due to speed-regulated components and heat pipe technology
- Suitable for international use due to a unique multi-voltage capability
- Longer service life of the components inside the enclosure and the cooling unit due to component-friendly cooling
- Intuitive operation due to touch display and intelligent interfaces

Temperature control:

- e+ controller (factory setting +35°C)

Protection category IP to IEC 60 529:

- Internal circuit IP 55



Power Category 5000 BTU (1600 W)

Model No.		Packs of	3185.530	3185.830
Material	Sheet steel		-	■
	Stainless steel		■	-
Color	RAL 7035		-	■
	RAL 9007		■	-
Total cooling output 50 Hz L35 L35 to DIN EN 14511 BTU (kW)			5459 (1.6)	5459 (1.6)
Total cooling output 50/60 Hz L35 L35 BTU (kW)			5459 / 5459 (1.6 / 1.6)	5459 / 5459 (1.6 / 1.6)
Total cooling output 50/60 Hz L35 L50 BTU (kW)			4095 / 4095 (1.2 / 1.2)	4095 / 4095 (1.2 / 1.2)
Rated operating voltage V, ~, Hz			110 - 240, 1~, 50/60 380 - 480, 3~, 50/60	110 - 240, 1~, 50/60 380 - 480, 3~, 50/60
Width (B) Inches (mm)			16 (400)	16 (400)
Height (H) inches (mm)			37 (950)	37 (950)
Depth (T) inches (mm)			12 (310)	12 (310)
Power consumption Pel 50/60 Hz L35 L35 kW			0.54 / 0.54	0.54 / 0.54
Power consumption Pel 50/60 Hz L35 L50 kW			0.61 / 0.61	0.61 / 0.61
Operating temperature range °F (°C)			-4°F...+140°F (-20°C...+60°C)	-4°F...+140°F (-20°C...+60°C)
Setting range °F (°C)			+68°F...+122°F (+20°C...+50°C)	+68°F...+122°F (+20°C...+50°C)
Storage temperature range °F (°C)			-40°F... +158°F (-40°C...+70°C)	-40°F... +158°F (-40°C...+70°C)
Energy efficiency ratio (EER) 50 Hz L35 L35 to DIN EN 14511			3.1	3.1
Seasonal energy efficiency ratio (SEER) 50 / 69 Hz			6.4	6.4
Refrigerant g			R134a, 750	R134a, 750
Permissible operating pressure (p. max.) bar			24	24
Air throughput of fans (unimpeded air flow), Internal circuit/external circuit CFM (m³/h)			412 / 526 (700 / 895)	412 / 526 (700 / 895)
Weight lbs (kg)			67 (30.5)	67 (30.5)

Accessories

IoT interface	1 pc(s).	3124.300	3124.300
Filter mats	3 pc(s).	3285.800	3285.800
Metal filters	1 pc(s).	3285.810	3285.810
Temperature sensor	1 pc(s).	3124.400	3124.400
Door-operated switch	1 pc(s).	4127.010	4127.010

Metric Measurements are exact. Imperial measurements are rounded.

Blue e+ wall-mounted air conditioners



Benefits:

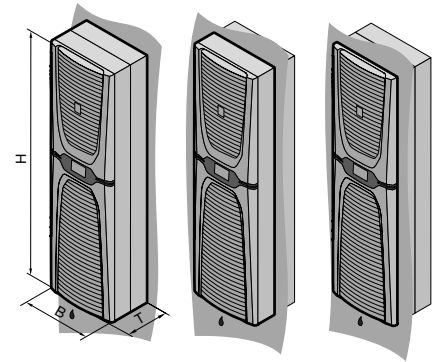
- 75% energy saved due to speed-regulated components and heat pipe technology
- Suitable for international use due to a unique multi-voltage capability
- Longer service life of the components inside the enclosure and the cooling unit due to component-friendly cooling
- Intuitive operation due to touch display and intelligent interfaces

Temperature control:

- e+ controller (factory setting +35°C)

Protection category IP to IEC 60 529:

- Internal circuit IP 55



Power Category 6800 – 9000 BTU (2000W – 2600W)

Model No.		3186.630	3186.930	3187.630	3187.930
Material	Sheet Steel	-	■	-	■
	Stainless Steel	■	-	■	-
Color	RAL 7035	-	■	-	■
	RAL 9007	■	-	■	-
Total cooling output 50 Hz L35 L35 to DIN EN 14511 BTU (kW)		6830 (2)	6830 (2)	8879 (2.6)	8879 (2.6)
Total cooling output 50/60 Hz L35 L35 BTU (kW)		6830 / 6830 (2 / 2)	6830 / 6830 (2 / 2)	8879 / 8879 (2.6 / 2.6)	8879 / 8879 (2.6 / 2.6)
Total cooling output 50/60 Hz L35 L50 BTU (kW)		4405 / 4405 (1.29 / 1.29)	4405 / 4405 (1.29 / 1.29)	6215 / 6215 (1.82 / 1.82)	6215 / 6215 (1.82 / 1.82)
Rated operating voltage V, ~, Hz		110 - 240, 1~, 50/60 380 - 480, 3~, 50/60	110 - 240, 1~, 50/60 380 - 480, 3~, 50/60	110 - 240, 1~, 50/60 380 - 480, 3~, 50/60	110 - 240, 1~, 50/60 380 - 480, 3~, 50/60
Width (B) inches (mm)		18 (450)	18 (450)	18 (450)	18 (450)
Height (H) inches (mm)		63 (1600)	63 (1600)	63 (1600)	63 (1600)
Depth (T) inches (mm)		12 (294)	12 (294)	12 (294)	12 (294)
Power consumption Pel 50/60 Hz L35 L35 kW		0.57 / 0.57	0.57 / 0.57	0.99 / 0.99	0.99 / 0.99
Power consumption Pel 50/60 Hz L35 L50 kW		0.6 / 0.6	0.6 / 0.6	0.94 / 0.94	0.94 / 0.94
Operating temperature range °F (°C)		-4°F...+140°F (-20°C...+60°C)	-4°F...+140°F (-20°C...+60°C)	-4°F...+140°F (-20°C...+60°C)	-4°F...+140°F (-20°C...+60°C)
Setting range °F (°C)		+68°F...+122°F (+20°C...+50°C)	+68°F...+122°F (+20°C...+50°C)	+68°F...+122°F (+20°C...+50°C)	+68°F...+122°F (+20°C...+50°C)
Storage temperature range °F (°C)		-40°F...+158°F (-40°C...+70°C)	-40°F...+158°F (-40°C...+70°C)	-40°F...+158°F (-40°C...+70°C)	-40°F...+158°F (-40°C...+70°C)
Energy efficiency ratio (EER) 50 Hz L35 L35 to DIN EN 14511		3.5	3.5	2.6	2.6
Refrigerant g		R134a, 1150	R134a, 1150	R134a, 1150	R134a, 1150
Permissible operating pressure (p. max.) bar		24	24	24	24
Air throughput of fans (unimpeded air flow), Internal circuit/external circuit CFM (m³/h)		735 / 735 (1250 / 1250)	735 / 735 (1250 / 1250)	735 / 735 (1250 / 1250)	735 / 735 (1250 / 1250)
Weight lbs (kg)		121 (55.2)	121 (55.2)	121 (55.2)	159 (72.4)
Note on Model No.		-	-	-	-

Metric Measurements are exact. Imperial measurements are rounded.

Blue e+ wall-mounted air conditioners

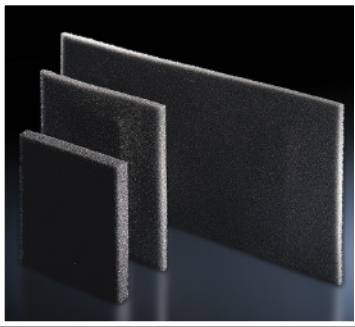
Power Category 14000 – 20000 BTU (4200W – 5800W)

Model No.		3188.640	3188.940	3189.640	3189.940
Material	Sheet Steel	-	■	-	■
	Stainless Steel	■	-	■	-
Color	RAL 7035	-	■	-	■
	RAL 9007	■	-	■	-
Total cooling output 50 Hz L35 L35 toDIN EN 14511 BTU (kW)		14340 (4.2)	14340 (4.2)	19808 (5.8)	19808 (5.8)
Total cooling output 50/60 Hz L35 L35 BTU (kW)		14340 / 14340 (4.2/ 4.2)	14340 / 14340 (4.2/ 4.2)	19808 / 19808 (5.8/ 5.8)	19808 / 19808 (5.8/ 5.8)
Total cooling output 50/60 Hz L35 L50 BTU (kW)		10313 / 10313 (3.02 / 3.02)	10313 / 10313 (3.02 / 3.02)	14340 / 14340 (4.2 / 4.2)	14340 / 14340 (4.2 / 4.2)
Rated operating voltage V, ~, Hz		380 - 480, 3~, 50/60	380 - 480, 3~, 50/60	380 - 480, 3~, 50/60	380 - 480, 3~, 50/60
Width (B) inches (mm)		18 (450)	18 (450)	18 (450)	18 (450)
Height (H) inches (mm)		63 (1600)	63 (1600)	63 (1600)	63 (1600)
Depth (T) inches (mm)		15 (393)	15 (393)	15 (393)	15 (393)
Power consumption Pel 50/60 Hz L35 L35 kW		1.21 / 1.21	1.21 / 1.21	2.2 / 2.2	2.2 / 2.2
Power consumption Pel 50/60 Hz L35 L50 kW		1.28 / 1.28	1.28 / 1.28	2.2 / 2.2	2.2 / 2.2
Operating temperature range °F (°C)		-4°F...+140°F (-20°C...+60°C)	-4°F...+140°F (-20°C...+60°C)	-4°F...+140°F (-20°C...+60°C)	-4°F...+140°F (-20°C...+60°C)
Setting range °F (°C)		+68°F...+122°F (+20°C...+50°C)	+68°F...+122°F (+20°C...+50°C)	+68°F...+122°F (+20°C...+50°C)	+68°F...+122°F (+20°C...+50°C)
Storage temperature range °F (°C)		-40°F...+158°F (-40°C...+70°C)	-40°F...+158°F (-40°C...+70°C)	-40°F...+158°F (-40°C...+70°C)	-40°F...+158°F (-40°C...+70°C)
Energy efficiency ratio (EER) 50 Hz L35 L35 to DIN EN 14511		3.5	3.5	2.6	2.6
Refrigerant g		R134a, 1750	R134a, 1750	R134a, 1750	R134a, 1750
Permissible operating pressure (p. max.) bar		24	24	24	24
Air throughput of fans (unimpeded air flow), Internal circuit/external circuit CFM (m³/h)		1354 / 1354 (2300 / 2300)	1354 / 1354 (2300 / 2300)	1354 / 1354 (2300 / 2300)	1354 / 1354 (2300 / 2300)
Weight lbs (kg)		159 (72.4)	159 (72.4)	159 (72.4)	159 (72.4)
Note on Model No.		Full installation not possible	Full installation not possible	Full installation not possible	Full installation not possible

Accessories	Packs of				
IoT interface	1 pc(s).	3124.300	3124.300	3124.300	3124.300
RiDiag	1 pc(s).	3159.300	3159.300	3159.300	3159.300
Filter mat	3 pc(s).	3285.900	3285.900	3285.900	3285.900
Metal filter	1 pc(s).	3285.910	3285.910	3285.910	3285.910
Temperature sensor	1 pc(s).	3124.400	3124.400	3124.400	3124.400
Door-operated switch	1 pc(s).	4127.010	4127.010	4127.010	4127.010
Condensate hose	1 pc(s).	3301.612	3301.612	3301.612	3301.612
Eyebolts	4 pc(s).	4568.000	4568.000	4568.000	4568.000

Metric Measurements are exact. Imperial measurements are rounded.

Accessories



Filter mats

Rittal cooling units are low-maintenance and are supplied without filter mats. Filter mats may be used for extreme conditions.

Benefits:

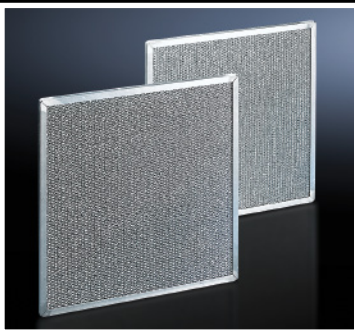
- Temperature-resistant from -40°C...+80°C

Material:

- Open-celled polyurethane foamed plastic
- Thickness: 10 mm

For Blue e+ air conditioners

To fit model No.	Packs of	Model No.
3185.830	3 pc(s).	3285.800
3186.930/ 3187.930/ 3188.940/ 3189.940	3 pc(s).	3285.900



Metal filter

Particularly when cooling units are used in dusty and oily environments, it is advisable to use washable metal filters. If air or steam condenses on the metal surfaces, any particles present will adhere to the metal, and can easily be washed out with water or grease-dissolving solvents.

Material:

- Aluminum
- Thickness: 10 mm

For Blue e+ air conditioners

To fit model No.	Packs of	Model No.
3185.830	1 pc(s).	3285.810
3186.930/ 3187.930/ 3188.940/ 3189.940	1 pc(s).	3285.910



Temperature sensor

NTC sensor to regulate Blue e+ cooling units according to an individual measurement point within the enclosure (control based on an external sensor).

Supply includes:

- External sensor with connection cable (length 2.5 m)

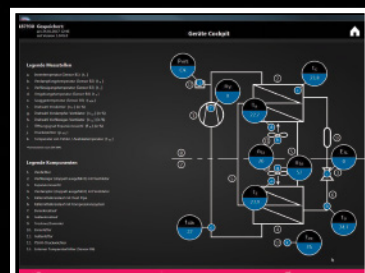
Packs of.	1 pc(s)
Model No.	3124.400.

Accessories

RiDiag

Software for the parameterization, diagnosis and analysis of Rittal cooling units.

Model No.	3159.300
For	Blue e+ chillers Blue e+ air conditioners
Design	RiDiag III
Product-specific scope of supply	Full, downloadable version in English and German. Release of additional functions with chargeable license under Model No. 3159.300
Packs of	1 pc(s).



IoT interface

The IoT interface is used to link Rittal components such as Blue e+ cooling units, Blue e+ chillers, smart monitoring systems etc. to the customer's own monitoring and/or energy management systems. Data may be integrated both horizontally and vertically into data collectors and processors, to allow the long-term logging and evaluation of device data, statuses and system messages.

Communication protocols:

SNMPv1, SNMPv2c, SNMPv3, OPC-UA, Modbus/TCP, CAN bus, Profinet

Network protocols:

Telnet, SSH, FTP, SFTP, HTTP, HTTPS, NTP, DHCP, DNS, SMTP, Syslog, LDAP, RADIUS

Benefits:

– The IoT interface is middleware, whose interfaces allow a variety of devices and systems to communicate with one another. The data can then be forwarded into superordinate systems.

Material:

– Plastic to UL 94-V0

Color:

– RAL 7016 Anthracite grey

Protection category IP to IEC 60529:

– IP 20

Supply includes:

- Connection cable (1 m) with RJ 45 connector
- Angle bracket for Blue e+ cooling unit



Assembly instruction:

- The IoT interface can be secured on a 35 x 7.5 top hat rail to DIN EN 60 715 using a springloaded metal clip, or to the rear of a Blue e+ cooling unit using the angle bracket.

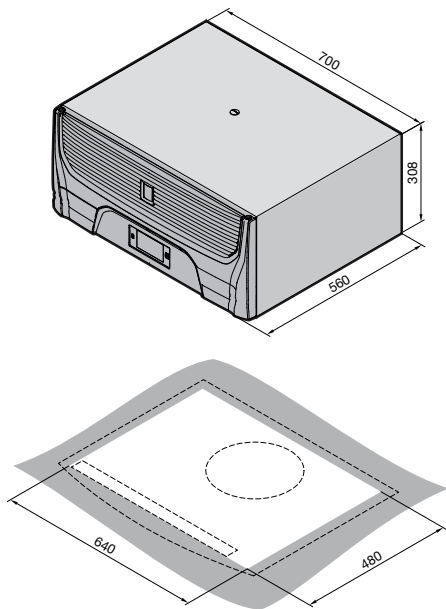


Model No.	3124.300
W X H X D in. (mm)	0.7 x 4.6 x 4.72 (18 x 117 x 120)
For	Blue e+ cooling units, Blue e+ chillers, Smart monitoring system, CMC III sensors
Operating temperature range °F (°C)	+32°F...+158°F (+0°C...+70°C)
Protocols	SNMP, OPC-US, Modbus/TCP, CAN bus, Profinet
Interfaces	1 x Micro USB 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 3-pole push-in spring connection terminal for NTC sensor 2 x RJ45 jack for RS 485 interface (climate control unit interface)
Network interface	E 802.3 via 10BASE-T, 100BASE-T and 1000BASE-T
Type of electrical connection	3-pole push-in spring connection terminal (24 V DC)

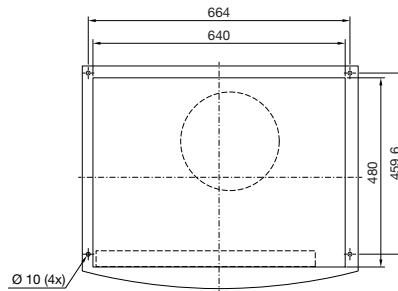
Blue e+ air conditioners

Technical details

Blue e+ roof-mounted air conditioner SK 3185.730



Mounting cut-out



Note:

Only suitable for mounting on enclosures with minimum dimensions 800 x 600 (W x D)

Blue e+ wall-mounted air conditioners SK 3185.530, SK 3185.830

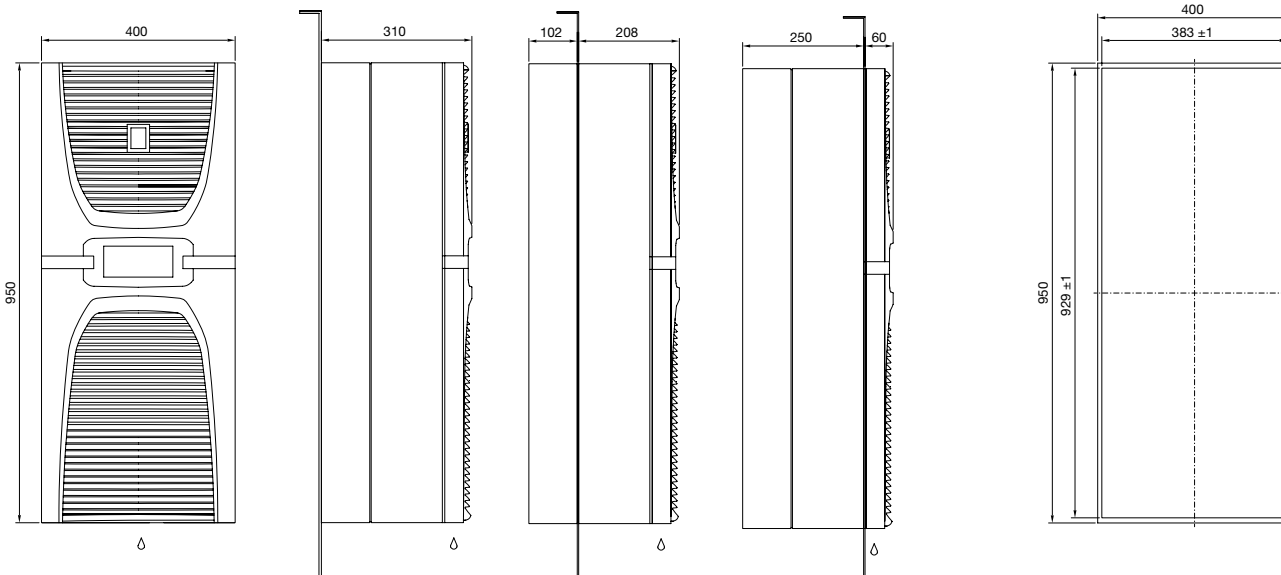
Installation options
SK 3185.530, SK 3185.830

External
mounting

Partial internal
mounting

Internal
mounting

Mounting cut-out
External mounting, partial internal mounting,
internal mounting

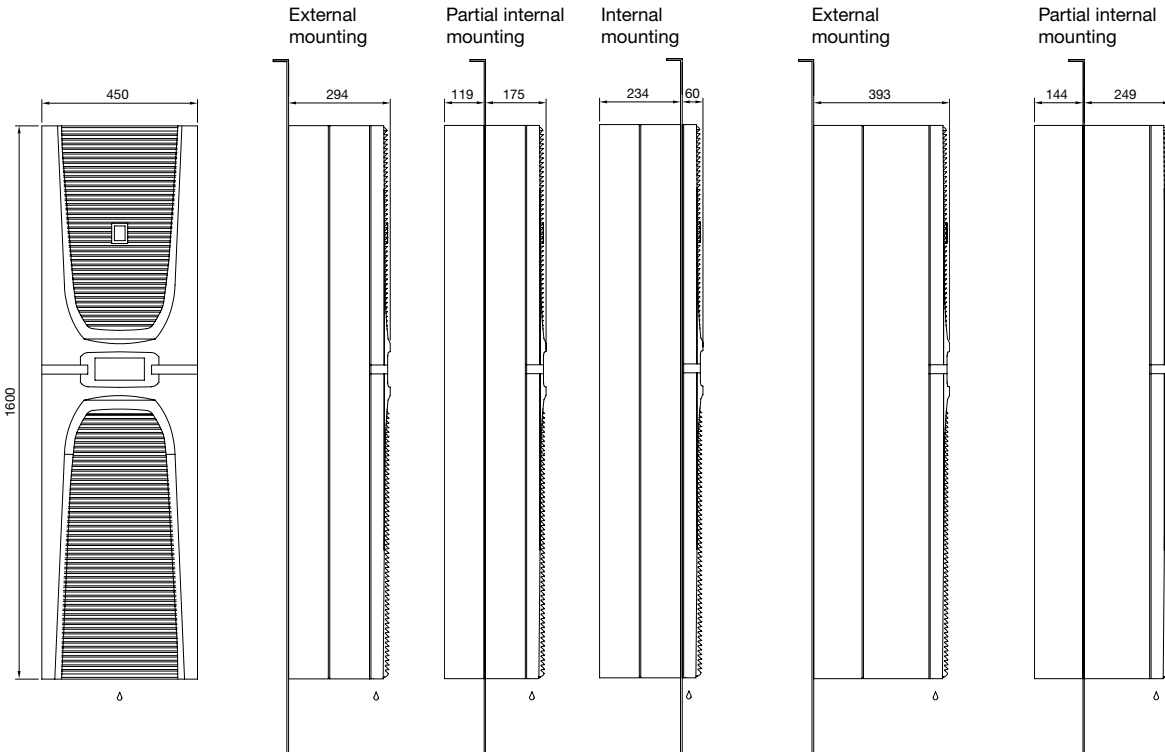


Blue e+ wall-mounted air conditioners

SK 3186.630, SK 3186.930, SK 3187.630, SK 3187.930, SK 3188.640, SK 3188.940, SK 3189.640, SK 3189.940

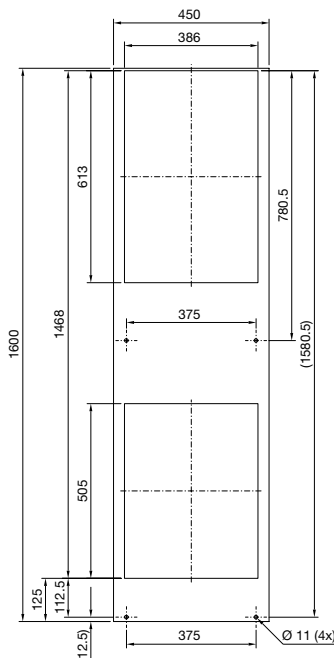
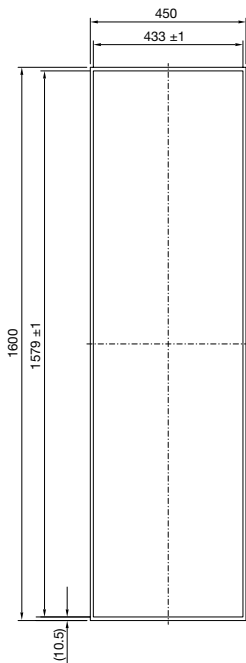
Installation options
SK 3186.630, SK 3186.930 SK 3187.630, SK 3187.930

Installation options
SK 3188.640, SK 3188.940 SK 3189.640, SK 3189.940



Mounting cut-out
External mounting, partial internal mounting, internal mounting for door, rear and side panel, $W \geq 600$ mm

Mounting cut-out
External mounting rear and side panel, $W + 500$ mm



Important installation instructions for full internal mounting

- Not generally possible for 4.2 and 5.8 kW
- For 600 mm wide enclosure doors, please note: Move the cut-out towards the door hinge by 25 mm, and dismantle the tubular door frame

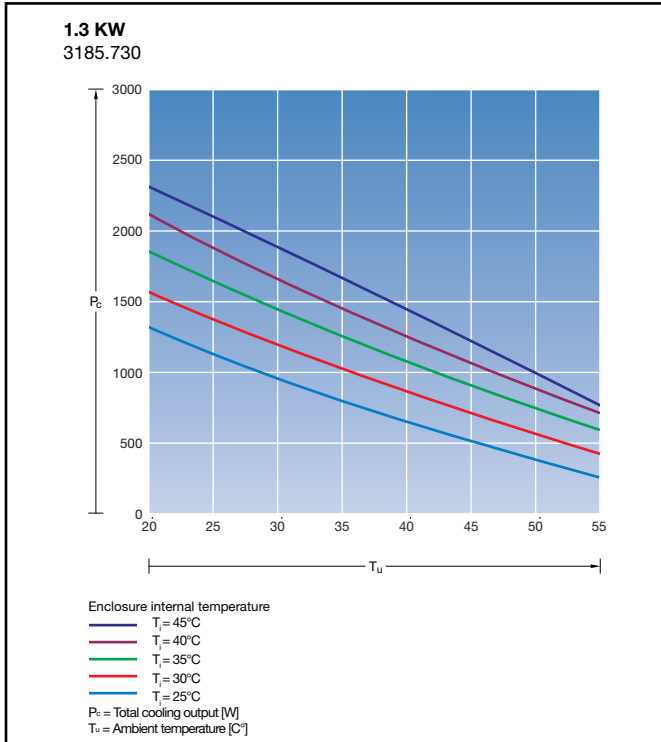
Important installation instructions for external mounting on 500 mm deep enclosures

- Partial internal mounting and full internal mounting not supported
- External mounting only possible with mounting cut-out for 500 mm deep enclosures

Blue e+ air conditioners

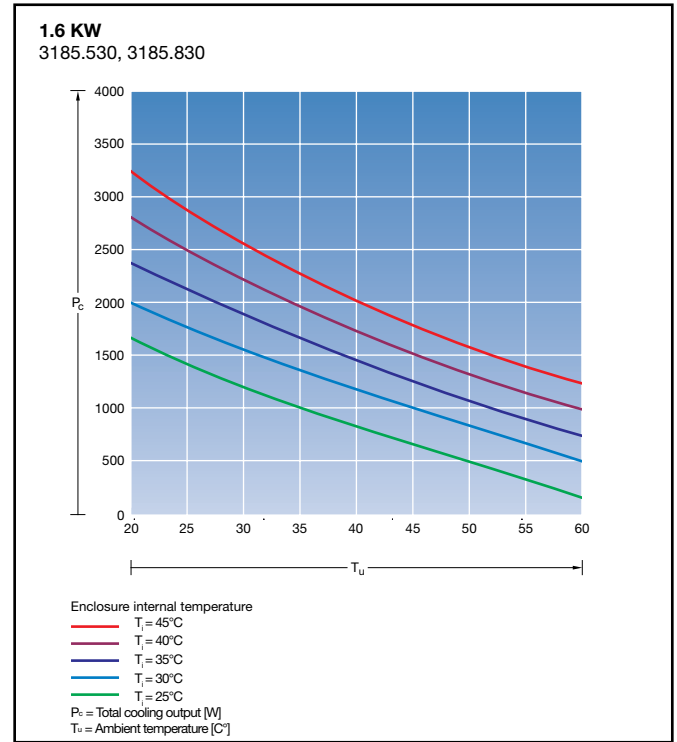
Blue e+ roof-mounted air conditioners

Output class 1300 W (110 – 240 V, 1 ~, 50 – 60 Hz / 380 – 480 V, 3 ~, 50 – 60 Hz)



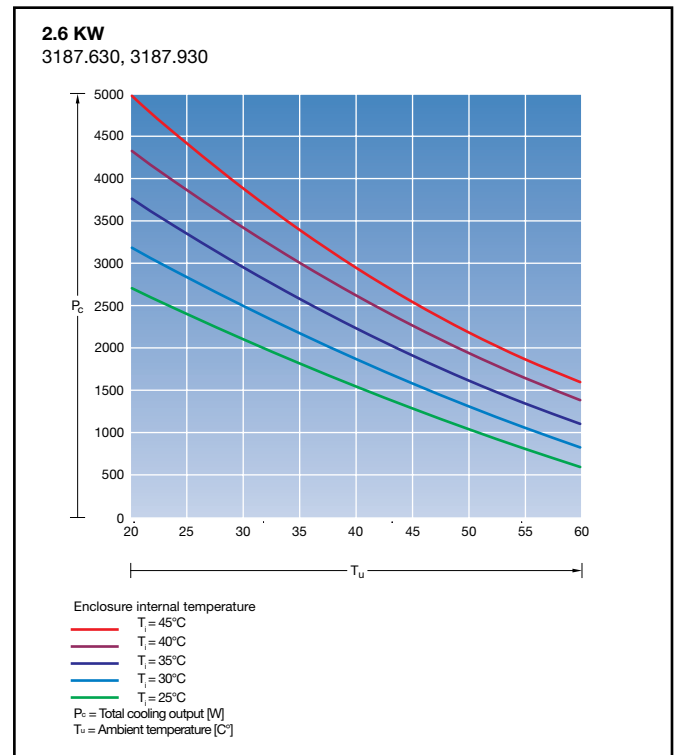
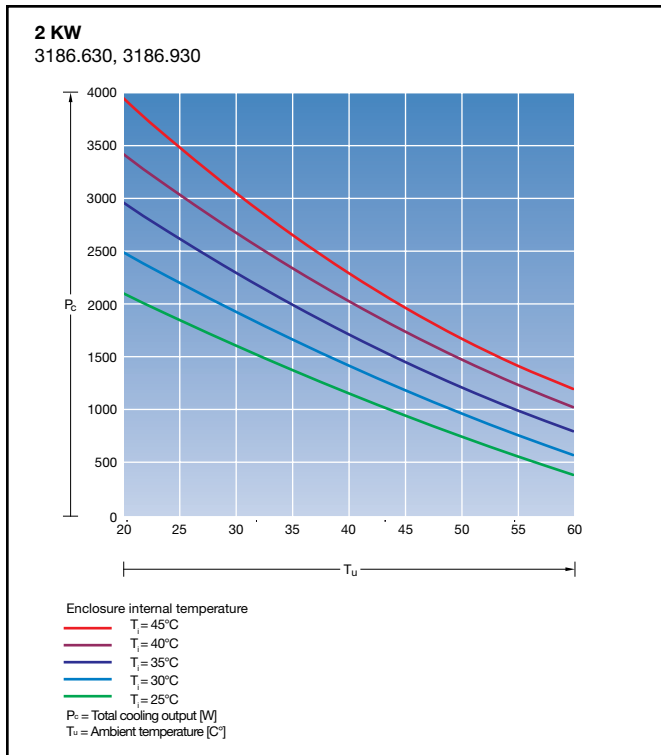
Blue e+ wall-mounted air conditioners

Output class 1600 W (110 – 240 V, 1 ~, 50 – 60 Hz / 380 – 480 V, 3 ~, 50 – 60 Hz)



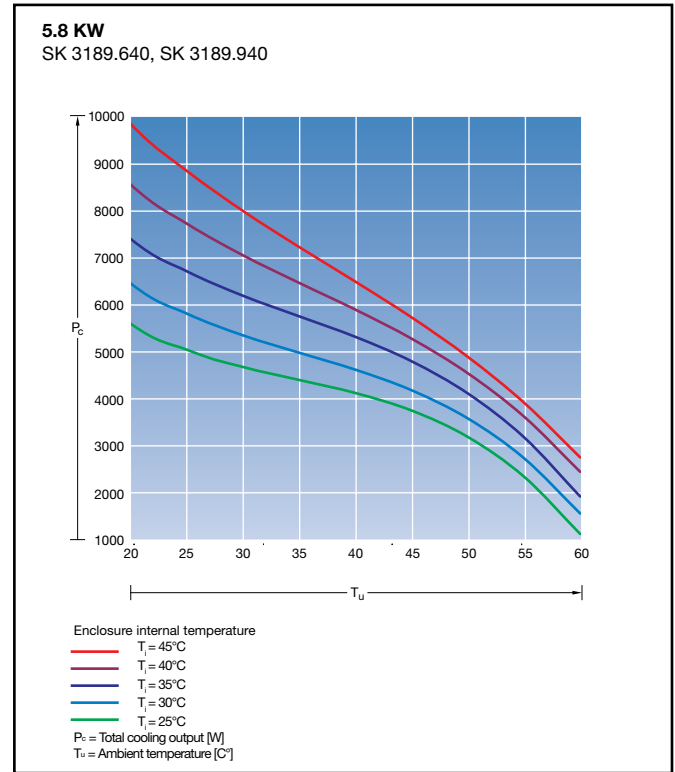
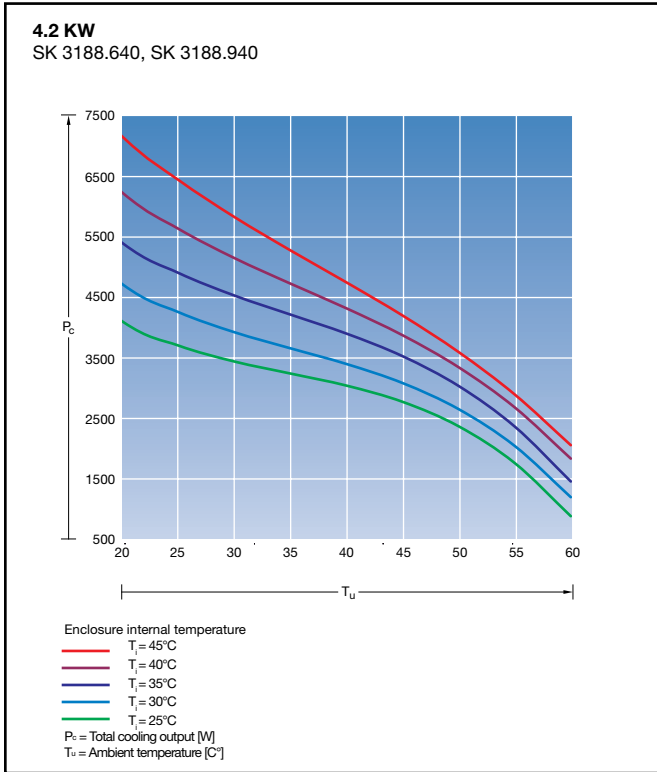
Blue e+ wall-mounted air conditioners

Output class 2000/2600 W (110 – 240 V, 1 ~, 50 – 60 Hz / 380 – 480 V, 3 ~, 50 – 60 Hz)



Blue e+ wall-mounted air conditioners

Output category 4200/5800 W (380 – 480 V, 3 ~, 50 – 60 Hz)



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