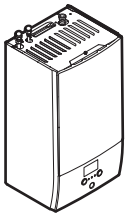
Installation manual

Daikin Altherma 3 R W



https://daikintechnicaldatahub.eu

EBBH11DF6V
EBBH11DF9W
EBBH16DF6V
EBBH16DF9W

EBBX11DF6V
EBBX11DF9W
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Daikin Altherma 3 R W

English

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Daikin Europe N.V.

01 declares under its sole responsibility that the equipment to which this declaration relates:
02 erklärt auf seine alleinige Verantwortung daß die Ausrüstung für die diese Erklärung bestimmt ist:
03 déclare sous sa seule responsabilité que l'équipement visé par la présente déclaration:
04 verklaart hierbij op eigen exclusieve verantwoordelijkheid dat de apparatuur waarop deze verklaring betrekking heeft:
05 declara bajo su única responsabilidad que el equipo al que hace referencia la declaración:
06 dichiara sotto la propria responsabilità che gli apparecchi a cui è riferita questa dichiarazione:
07 δηλώνει με αποκλειστική της ευθύνη ότι ο εξοπλισμός στον οποίο αναφέρεται η παρούσα δήλωση:
08 declara sob sua exclusiva responsabilidade que os equipamentos a que esta declaração se refere:
09 заявляет, исключительно под свою ответственность, что оборудование, к которому относится настоящее заявление:
10 erklærer under eneansvarlig, at udstyret, som er omfattet af denne erklæring:
11 deklarerar i egenskap av huvudansvarig, att utrustningen som berörs av denna deklaration innebär att:
12 erklærer et fullstendig ansvar for at det utstyr som berøres av denne deklarasjon innebærer at:
13 ilmoittaa yksinomaan omalla vastuullaan, että tämän ilmoituksen tarkoittamat laitteet
14 prohlašuje ve své plné odpovědnosti, že zařízení, k němuž se toto prohlášení vztahuje:
15 izjavljuje pod isključivo vlastitom odgovornošću da oprema na koju se ova izjava odnosi:
16 teljes felelősségé tudatában kijelenti, hogy a berendezések, melyekre e nyilatkozat vonatkozik:
17 deklaruje na własną i wyłączną odpowiedzialność, że urządzenia, których ta deklaracja dotyczy:
18 declară pe proprie răspundere că echipamentele la care se referă această declaraţie:
19 z vso odgovornostjo izjavlja, da je oprema naprav, na katero se izjava nanaša:
20 kinnitab oma täielikul vastutusel, et käesoleva deklaratsiooni alla kuuluv varustus:
21 декларира на своя отговорност, че оборудването, за което се отнася тази декларация:
22 visiška savo atsakomybe skelbia, kad įranga, kuriai taikoma ši deklaracija:
23 ar pilnu atbildību apliecina, ka tāläk aprakstītās iekārtas, uz kurām attiecas šī deklarācija:
24 vyhlasuje na vlastnú zodpovednosť, že zariadenie, na ktoré sa vzťahuje toto vyhlásenie:
25 tamamen kendi sorumluluğunda olmak üzere bu bildirinin ilgili olduğu donanımının aşağıdaki gibi olduğunu beyan eder:

EBBH11DF6V, EBBH11DF9W, EBBH16DF6V, EBBH16DF9W,
EBBX11DF6V, EBBX11DF9W, EBBX16DF6V, EBBX16DF9W,

01 are in conformity with the following standard(s) or other normative document(s), provided that these are used in accordance with our instructions:
02 der/den folgenden Norm(en) oder einem anderen Normdokument oder -dokumenten entspricht/entsprechen, unter der Voraussetzung, daß sie gemäß unseren Anweisungen eingesetzt werden:
03 sont conformes à la/aux norme(s) ou autre(s) document(s) normatif(s), pour autant qu'ils soient utilisés conformément à nos instructions:
04 conform de volgende norm(en) of één of meer andere bindende documenten zijn, op voorwaarde dat ze worden gebruikt overeenkomstig onze instructies:
05 están en conformidad con la(s) siguiente(s) norma(s) u otro(s) documento(s) normativo(s), siempre que sean utilizados de acuerdo con nuestras instrucciones:
06 sono conformi al(i) seguente(i) standard(s) o altro(i) documento(i) a carattere normativo, a patto che vengano usati in conformità alle nostre istruzioni:
07 είναι σύμφωνα με το(α) ακόλουθο(α) πρότυπο(α) ή άλλο έγγραφο(α) κανονισμών, υπό την προϋπόθεση ότι χρησιμοποιούνται σύμφωνα με τις οδηγίες μας:
08 estão em conformidade com a(s) seguinte(s) norma(s) ou outro(s) documento(s) normativo(s), desde que estes sejam utilizados de acordo com as nossas instruções:
09 соответствуют следующим стандартам или другим нормативным документам, при условии их использования согласно нашим инструкциям:
10 overholder følgende standard(er) eller andet/andre retningsgivende dokument(er), forudsat at disse anvendes i henhold til vore instrukser:
11 respektive utrustning är utförd i överensstämmelse med och följer följande standard(er) eller andra normgivande dokument, under förutsättning att användning sker i överensstämmelse med våra instruktioner:
12 respektive utstyr er i overensstemmelse med følgende standard(er) eller andre normgivende dokument(er), under forutsetning av at disse brukes i henhold til våre instrukser:
13 vastaavat seuraavien standardien ja muiden ohjeellisten dokumenttien vaatimuksia edellyttäen, että niitä käytetään ohjeidemme mukaisesti:
14 za předpokladu, že jsou využívány v souladu s našimi pokyny, odpovídají následujícím normám nebo normativním dokumentům:
15 u skladu sa slijedećim standardom(ima) ili drugim normativnim dokumentom(ima), uz uvjet da se oni koriste u skladu s našim uputama:
16 megfelelnek az alábbi szabvány(ok)nak vagy egyéb irányadó dokumentum(ok)nak, ha azokat előírás szerint használják:
17 spełniają wymogi następujących norm i innych dokumentów normalizacyjnych, pod warunkiem że używane są zgodnie z naszymi instrukcjami:
18 sunt în conformitate cu următorul (următoarele) standard(e) sau alt(e) document(e) normativ(e), cu condiţia ca acestea să fie utilizate în conformitate cu instrucţiunile noastre:
19 skladni z naslednjimi standardi in drugimi normativi, pod pogojem, da se uporabljajo v skladu z našimi navodili:
20 on vastavuses järgmis(t)e standardi(te)ga või teiste normatiivsete dokumentidega, kui neid kasutatakse vastavalt meie juhenditele:
21 съответстват на следните стандарти или други нормативни документи, при условие, че се използват съгласно нашите инструкции:
22 atitinka žemiau nurodytus standartus ir (arba) kitus norminius dokumentus su sąlyga, kad yra naudojami pagal mūsų nurodymus:
23 tad, ja lietoti atbilstoši ražotāja norādījumiem, atbilst sekojošiem standartiem un citiem normatīviem dokumentiem:
24 sú v zhode s nasledovnou(ými) normou(ami) alebo iným(i) normatívnym(i) dokumentom(ami), za predpokladu, že sa používajú v súlade s našim návodom:
25 ürünün, talimatlarımıza göre kullanılması koşuluyla aşağıdaki standartlar ve norm belirten belgelerle uyumludur:

EN60335-2-40,

01 following the provisions of:
02 gemäß den Vorschriften der:
03 conformément aux stipulations des:
04 overeenkomstig de bepalingen van:
05 siguiendo las disposiciones de:
06 secondo le prescrizioni per:
07 με τήρηση των διατάξεων των:
08 de acordo com o previsto em:
09 в соответствии с положениями:
10 under iagttagelse af bestemmelserne i:
11 enligt villkoren i:
12 gitt i henhold til bestemmelsene i:
13 noudattaen määräyksiä:
14 za dodržení ustanovení předpisu:
15 prema odredbama:
16 követi a(z):
17 zgodnie z postanowieniami Dyrektyw:
18 în urma prevederilor:
19 ob upoštevanju določb:
20 vastavalt nõuetele:
21 следвайки клаузите на:
22 laikantis nuostatų, pateikiamų:
23 ievērojot prasības, kas noteiktas:
24 održiavajúc ustanovenia:
25 bunun koşullarına uygun olarak:

Low Voltage 2014/35/EU
Electromagnetic Compatibility 2014/30/EU *
Pressure Equipment 2014/68/EU **

01 Directives, as amended.
02 Direktiven, gemäß Änderung.
03 Directives, telles que modifiées.
04 Richtlijnen, zoals geamendeerd.
05 Directivas, según lo enmendado.
06 Direttive, come da modifica.
07 Οδηγιών, όπως έχουν τροποποιηθεί.
08 Directivas, conforme alteração em.
09 Директив со всеми поправками.
10 Direktiver, med senere ændringer.
11 Direktiv, med företagna ändringar.
12 Direktiver, med foretatte endringer.
13 Direktiivejä, sellaisina kuin ne ovat muutettuina.
14 v platném znění.
15 Smjernice, kako je izmijenjeno.
16 irányelv(ek) és módosításaik rendelkezéseit.
17 z późniejszymi poprawkami.
18 Directivelor, cu amendamentele respective.
19 Direktive z vsemi spremembami.
20 Direktiivid koos muudatustega.
21 Директиви, с техните изменения.
22 Direktyvose su papildymais.
23 Direktīvās un to papildinājumos.
24 Smernice, v platnom znení.
25 Değiştirilmiş halleriyle Yönetmelikler.

01 * as set out in **<A>** and judged positively by **<B>** according to the **Certificate <C>**.
** as set out in the Technical Construction File **<D>** and judged positively by **<E>** (Applied module **<F>**). **<G>**. Risk category **<H>**. Also refer to next page.
02 * wie in **<A>** aufgeführt und von **<B>** positiv beurteilt gemäß **Zertifikat <C>**.
** wie in der Technischen Konstruktionsakte **<D>** aufgeführt und von **<E>** (Angewandtes Modul **<F>**) positiv ausgezeichnet. **<G>**. Risikoart **<H>**. Siehe auch nächste Seite.
03 * tel que défini dans **<A>** et évalué positivement par **<B>** conformément au **Certificat <C>**.
** tel que stipulé dans le Fichier de Construction Technique **<D>** et jugé positivement par **<E>** (Module appliqué **<F>**). **<G>**. Catégorie de risque **<H>**. Se reporter également à la page suivante.
04 * zoals vermeld in **<A>** en positief beoordeeld door **<B>** overeenkomstig **Certificaat <C>**.
** zoals vermeld in het Technisch Constructiedossier **<D>** en in orde bevonden door **<E>** (Toegepaste module **<F>**). **<G>**. Risicocategorie **<H>**. Zie ook de volgende pagina.
05 * como se establece en **<A>** y es valorado positivamente por **<B>** de acuerdo con el **Certificado <C>**.
** tal como se expone en el Archivo de Construcción Técnica **<D>** y juzgado positivamente por **<E>** (Modulo aplicado **<F>**). **<G>**. Categoría de riesgo **<H>**. Consulte también la siguiente página.
06 * delineato nel **<A>** e giudicato positivamente da **<B>** secondo il **Certificato <C>**.
** delineato nel File Tecnico di Costruzione **<D>** e giudicato positivamente da **<E>** (Modulo **<F>** applicato). **<G>**. Categoria di rischio **<H>**. Fare riferimento anche alla pagina successiva.
07 * όπως καθορίζεται στο **<A>** και κρίνεται θετικά από το **<B>** σύμφωνα με το **Πιστοποιητικό <C>**.
** όπως προσδιορίζεται στο Αρχείο Τεχνικής Κατασκευής **<D>** και κρίνεται θετικά από το **<E>** (Χρησιμοποιούμενη υπομονάδα **<F>**). **<G>**. Κατηγορία επικινδυνότητας **<H>**. Ανατρέξτε επίσης στην επόμενη σελίδα.
08 * tal como estabelecido em **<A>** e com o parecer positivo de **<B>** de acordo com o **Certificado <C>**.
** tal como estabelecido no Ficheiro Técnico de Construção **<D>** e com o parecer positivo de **<E>** (Módulo aplicado **<F>**). **<G>**. Categoria de risco **<H>**. Consultar também a página seguinte.
09 * как указано в **<A>** и в соответствии с положительным решением **<B>** согласно **Свидетельству <C>**.
** как указано в Досье технического толкования **<D>** и в соответствии с положительным решением **<E>** (Прикладной модуль **<F>**). **<G>**. Категория риска **<H>**. Также смотрите следующую страницу.
10 * som anført i **<A>** og positivt vurderet af **<B>** i henhold til **Certifikat <C>**.
** som anført i den Tekniske Konstruktionsfil **<D>** og positivt vurderet af **<E>** (Anvendt modul **<F>**). **<G>**. Risikoklasse **<H>**. Se også næste side.
11 * enligt **<A>** och godkänts av **<B>** enligt **Certifikatet <C>**.
** i enlighet med den Tekniska Konstruktionsfilen **<D>** som positivt intygats av **<E>** (Fastsatt modul **<F>**). **<G>**. Riskkategori **<H>**. Se även nästa sida.
12 * som det fremkommer i **<A>** og gjennom positiv bedømmelse av **<B>** ifølge **Sertifikat <C>**.
** som det fremkommer i den Tekniske Konstruksjonsfilen **<D>** og gjennom positiv bedømmelse av **<E>** (Anvendt modul **<F>**). **<G>**. Risikokategori **<H>**. Se også neste side.
13 * jotka on esitetty asiakirjassa **<A>** ja jotka **<B>** on hyväksynyt **Sertifikaatin <C>** mukaisesti.
** jotka on esitetty Teknisessä Asiakirjassa **<D>** ja jotka **<E>** on hyväksynyt (Sovellettu moduli **<F>**). **<G>**. Vaaraluokka **<H>**. Katso myös seuraava sivu.
14 * jak bylo uvedeno v **<A>** a pozitivně zjištěno **<B>** v souladu s **osvědčením <C>**.
** jak bylo uvedeno v souboru technické konstrukce **<D>** a pozitivně zjištěno **<E>** (použitý modul **<F>**). **<G>**. Kategorie rizik **<H>**. Viz také následující strana.
15 * kako je izloženo u **<A>** i pozitivno ocijenjeno od strane **<B>** prema **Certifikatu <C>**.
** kako je izloženo u Datoteci o tehničkoj konstrukciji **<D>** i pozitivno ocijenjeno od strane **<E>** (Primijenjen modul **<F>**). **<G>**. Kategorija opasnosti **<H>**. Također pogledajte na slijedećoj stranici.
16 * a(z) **<A>** alapján, a(z) **<B>** igazolta a megfelelést, a(z) **<C>** **tanúsítvány** szerint.
** a(z) **<D>** műszaki konstrukciós dokumentáció alapján, a(z) **<E>** igazolta a megfelelést (alkalmazott modul: **<F>**). **<G>**. Veszélyességi kategória **<H>**. Lásd még a következő oldalon.
17 * zgodnie z dokumentacją **<A>**, pozytywną opinią **<B>** i **Świadectwem <C>**.
** zgodnie z archiwalną dokumentacją konstrukcyjną **<D>** i pozytywną opinią **<E>** (Zastosowany moduł **<F>**). **<G>**. Kategoria zagrożenia **<H>**. Patrz także następna strona.
18 * aşa cum este stabilit în **<A>** şi apreciat pozitiv de **<B>** în conformitate cu **Certificatul <C>**.
** conform celor stabilite în Dosarul tehnic de construcţie **<D>** şi apreciate pozitiv de **<E>** (Modul aplicat **<F>**). **<G>**. Categorie de risc **<H>**. Consultaţi de asemenea pagina următoare.
19 * kot je določeno v **<A>** in odobreno s strani **<B>** v skladu s **certifikatom <C>**.
** kot je določeno v tehnični mapi **<D>** in odobreno s strani **<E>** (Uporabljen modul **<F>**). **<G>**. Kategorija tveganja **<H>**. Glejte tudi na naslednji strani.
20 * nagu on näidatud dokumendis **<A>** ja heaks kiidetud **<B>** järgi vastavalt **sertifikaadile <C>**.
** nagu on näidatud tehnilises dokumentatsioonis **<D>** ja heaks kiidetud **<E>** järgi (lisamoodul **<F>**). **<G>**. Riskikategooria **<H>**. Vaadake ka järgmist lehekülge.
21 * както е изложено в **<A>** и оценено положително от **<B>** съгласно **Сертификата <C>**.
** както е заложено в Акта за техническа конструкция **<D>** и оценено положително от **<E>** (Приложен модул **<F>**). **<G>**. Категория риск **<H>**. Вижте също на следващата страница.
22 * kaip nustatyta **<A>** ir kaip teigiamai nuspręsta **<B>** pagal **Sertifikatą <C>**.
** kaip nurodyta Techninėje konstrukcijos byloje **<D>** ir patvirtinta **<E>** (taikomas modulis **<F>**). **<G>**. Rizikos kategorija **<H>**. Taip pat žiūrėkite ir kitą puslapį.
23 * kā norādīts **<A>** un atbilstoši **<B>** pozitīvajam vērtējumam saskaņā ar **sertifikātu <C>**.
** kā noteikts tehniskajā dokumentācijā **<D>**, atbilstoši **<E>** pozitīvajam lēmumam (piekritīgā sadaļa: **<F>**). **<G>**. Riska kategorija **<H>**. Skat. arī nākošo lappusi.
24 * ako bolo uvedené v **<A>** a pozitívne zistené **<B>** v súlade s **osvedčením <C>**.
** ako je to stanovené v Súbore technickej konštrukcie **<D>** a kladne posúdené **<E>** (Aplikovaný modul **<F>**). **<G>**. Kategória nebezpečia **<H>**. Viď tiež nasledovnú stranu.
25 * **<A>**'da belirtildiği gibi ve **<C>** **Sertifikasına** göre **<B>** tarafından olumlu olarak değerlendirildiği gibi.
** **<D>** Teknik Yapı Dosyasında belirtildiği gibi ve **<E>** tarafından olumlu olarak (Uygulanan modül **<F>**) değerlendirilmiştir. **<G>**. Risk kategorisi **<H>**. Ayrıca bir sonraki sayfaya bakın.

<A>	**DAIKIN.TCF.034.B4/05-2021**
<B>	**DEKRA (NB0344)**
<C>	**2192529.0551-EMC**
<D>	**Daikin.TCFP.0184L**
<E>	**VINÇOTTE nv (NB0026)**
<F>	**D1**
<G>	**—**
<H>	II

3P663124-1A

DAIKIN

Hiromitsu Iwasaki
Director
Ostend, 1st of September 2021

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Zandvoordestraat 300, B-8400 Oostende, Belgium

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01 (GB) continuation of previous page:
02 (D) Fortsetzung der vorherigen Seite:
03 (F) suite de la page précédente:
04 (NL) vervolg van vorige pagina:

05 (E) continuación de la página anterior:
06 (I) continua dalla pagina precedente:
07 (GR) συνέχεια από την προηγούμενη σελίδα:

08 (P) continuação da página anterior:
09 (RUS) продолжение предыдущей страницы:
10 (DK) fortsat fra forrige side:
11 (S) fortsättning från föregående sida:

12 (N) fortsettelse fra forrige side:
13 (FIN) jatkoa edelliseltä sivulta:
14 (CZ) pokračování z předchozí strany:

15 (HR) nastavak s prethodne stranice:
16 (H) folytatás az előző oldalról:
17 (PL) ciąg dalszy z poprzedniej strony:
18 (RO) continuarea paginii anterioare:

19 (SLO) nadaljevanje s prejšnje strani:
20 (EST) eelmise leheküljе järg:
21 (BG) продължение от предходната страница:

22 (LT) ankstesnio puslapio tęsinys:
23 (LV) iepriekšējās lappuses turpinājums:
24 (SK) pokračovanie z predchádzajúcej strany:
25 (TR) önceki sayfadan devam:

01 Design Specifications of the models to which this declaration relates:
02 Konstruktionsdaten der Modelle auf die sich diese Erklärung bezieht:
03 Spécifications de conception des modèles auxquels se rapporte cette déclaration:
04 Ontwerpspecificaties van de modellen waarop deze verklaring betrekking heeft:
05 Especificaciones de diseño de los modelos a los cuales hace referencia esta declaración:
06 Specifiche di progetto dei modelli cui fa riferimento la presente dichiarazione:

07 Προδιαγραφές Σχεδιασμού των μοντέλων με τα οποία σχετίζεται η δήλωση:
08 Especificações de projecto dos modelos a que se aplica esta declaração:
09 Проектные характеристики моделей, к которым относится настоящее заявление:
10 Typespecifikationer for de modeller, som denne erklæring vedrører:
11 Designspecifikationer för de modeller som denna deklaration gäller:
12 Konstruksjonsspesifikasjoner for de modeller som berøres av denne deklarasjonen:

13 Tätä ilmoitusta koskevien mallien rakennemäärittely:
14 Specifikace designu modelů, ke kterým se vztahuje toto prohlášení:
15 Specifikacije dizajna za modele na koje se ova izjava odnosi:
16 A jelen nyilatkozat tárgyát képező modellek tervezési jellemzői:
17 Specyfikacje konstrukcyjne modeli, których dotyczy deklaracja:
18 Specificaţiile de proiectare ale modelelor la care se referă această declaraţie:
19 Specifikacije tehničnega načrta za modele, na katere se nanaša ta deklaracija:

20 Deklaratsiooni alla kuuluvate mudelite disainispetsifikatsioonid:
21 Проектни спецификации на моделите, за които се отнася декларацията:
22 Konstrukcinės specifikacijos modelių, kurie susiję su šia deklaracija:
23 To modeļu dizaina specifikācijas, uz kurām attiecas šī deklarācija:
24 Konštrukčné špecifikácie modelu, ktorého sa týka toto vyhlásenie:
25 Bu bildirinin ilgili olduğu modellerin Tasarım Özellikleri:

---

01 · Maximum allowable pressure (PS): **<K>** (bar)
· Minimum/maximum allowable temperature (TS*):
* TSmin: Minimum temperature at low pressure side: **<L>** (°C)
* TSmax: Saturated temperature corresponding with the maximum allowable pressure (PS): **<M>** (°C)
· Refrigerant: **<N>**
· Setting of pressure safety device: **<P>** (bar)
· Manufacturing number and manufacturing year: refer to model nameplate

02 · Maximal zulässiger Druck (PS): **<K>** (Bar)
· Minimal/maximal zulässige Temperatur (TS*):
* TSmin: Mindesttemperatur auf der Niederdruckseite: **<L>** (°C)
* TSmax: Sättigungstemperatur die dem maximal zulässigen Druck (PS) entspricht: **<M>** (°C)
· Kältemittel: **<N>**
· Einstellung der Druck-Schutzvorrichtung: **<P>** (Bar)
· Herstellungsnummer und Herstellungsjahr: siehe Typenschild des Modells

03 · Pression maximale admise (PS): **<K>** (bar)
· Température minimum/maximum admise (TS*):
* TSmin: température minimum côté basse pression: **<L>** (°C)
* TSmax: température saturée correspondant à la pression maximale admise (PS): **<M>** (°C)
· Réfrigérant: **<N>**
· Réglage du dispositif de sécurité de pression: **<P>** (bar)
· Numéro de fabrication et année de fabrication: se reporter à la plaquette signalétique du modèle

04 · Maximaal toelaatbare druk (PS): **<K>** (bar)
· Minimaal/maximaal toelaatbare temperatuur (TS*):
* TSmin: Minimumtemperatuur aan lagedrukzijde: **<L>** (°C)
* TSmax: Verzadigde temperatuur die overeenstemt met de maximaal toelaatbare druk (PS): **<M>** (°C)
· Koelmiddel: **<N>**
· Instelling van drukbeveiliging: **<P>** (bar)
· Fabricagenummer en fabricagejaar: zie naamplaat model

05 · Presión máxima admisible (PS): **<K>** (bar)
· Temperatura mínima/máxima admisible (TS*):
* TSmin: Temperatura mínima en el lado de baja presión: **<L>** (°C)
* TSmax: Temperatura saturada correspondiente a la presión máxima admisible (PS): **<M>** (°C)
· Refrigerante: **<N>**
· Ajuste del presostato de seguridad: **<P>** (bar)
· Número de fabricación y año de fabricación: consulte la placa de especificaciones técnicas del modelo

06 · Pressione massima consentita (PS): **<K>** (bar)
· Temperatura minima/massima consentita (TS*):
* TSmin: temperatura minima nel lato di bassa pressione: **<L>** (°C)
* TSmax: temperatura satura corrispondente alla pressione massima consentita (PS): **<M>** (°C)
· Refrigerante: **<N>**
· Impostazione del dispositivo di controllo della pressione: **<P>** (bar)
· Numero di serie e anno di produzione: fare riferimento alla targhetta del modello

07 · Μέγιστη επιτρεπόμενη πίεση (PS): **<K>** (bar)
· Ελάχιστη/μέγιστη επιτρεπόμενη θερμοκρασία (TS*):
* TSmin: Ελάχιστη θερμοκρασία για την πλευρά χαμηλής πίεσης: **<L>** (°C)
* TSmax: Κορεσμένη θερμοκρασία που αντιστοιχεί με τη μέγιστη επιτρεπόμενη πίεση (PS): **<M>** (°C)
· Ψυκτικό: **<N>**
· Ρύθμιση της διάταξης ασφάλειας πίεσης: **<P>** (bar)
· Αριθμός κατασκευής και έτος κατασκευής: ανατρέξτε στην πινακίδα αναγνώρισης του μοντέλου

08 · Pressão máxima permitida (PS): **<K>** (bar)
· Temperaturas mínima e máxima permitidas (TS*):
* TSmin: Temperatura mínima em baixa pressão: **<L>** (°C)
* TSmax: Temperatura de saturação correspondente à pressão máxima permitida (PS): **<M>** (°C)
· Refrigerante: **<N>**
· Regulação do dispositivo de segurança da pressão: **<P>** (bar)
· Número e ano de fabrico: consultar a placa de especificações da unidade

09 · Максимально допустимое давление (PS): **<K>** (бар)
· Минимально/Максимально допустимая температура (TS*):
* TSmin: Минимальная температура на стороне низкого давления: **<L>** (°C)
* TSmax: Температура кипения, соответствующая максимально допустимому давлению (PS): **<M>** (°C)
· Хладагент: **<N>**
· Настройка устройства защиты по давлению: **<P>** (бар)
· Заводской номер и год изготовления: смотрите паспортную табличку модели

10 · Maks. tilladt tryk (PS): **<K>** (bar)
· Min./maks. tilladte temperatur (TS*):
* TSmin: Min. temperatur på lavtrykssiden: **<L>** (°C)
* TSmax: Mættet temperatur svarende til maks. tilladte tryk (PS): **<M>** (°C)
· Kølemiddel: **<N>**
· Indstilling af tryksikringsudstyr: **<P>** (bar)
· Produktionsnummer og fremstillingsår: se modellens fabriksskilt

11 · Maximalt tillåtet tryck (PS): **<K>** (bar)
· Min/max tillåten temperatur (TS*):
* TSmin: Minimumtemperatur på lågtrycksidan: **<L>** (°C)
* TSmax: Mättnadstemperatur som motsvarar maximalt tillåtet tryck (PS): **<M>** (°C)
· Köldmedel: **<N>**
· Inställning för trycksäkerhetsenhet: **<P>** (bar)
· Tillverkningsnummer och tillverkningsår: se modellens namnplåt

12 · Maksimalt tillatt trykk (PS): **<K>** (bar)
· Minimalt/maksimalt tillatt temperatur (TS*):
* TSmin: Minimumstemperatur på lavtrykkssiden: **<L>** (°C)
* TSmax: Metningstemperatur i samsvar med maksimalt tillatt trykk (PS): **<M>** (°C)
· Kjølemedium: **<N>**
· Innstilling av sikkerhetsanordning for trykk: **<P>** (bar)
· Produksjonsnummer og produksjonsår: se modellens merkeplate

13 · Suurin sallittu paine (PS): **<K>** (bar)
· Pienin/suurin sallittu lämpötila (TS*):
* TSmin: Alhaisin matalapainepuolen lämpötila: **<L>** (°C)
* TSmax: Suurinta sallittua painetta (PS) vastaava kyllästyslämpötila: **<M>** (°C)
· Kylmäaine: **<N>**
· Varmuuspainelaitteen asetus: **<P>** (bar)
· Valmistusnumero ja valmistusvuosi: katso mallin nimikilpi

14 · Maximální přípustný tlak (PS): **<K>** (bar)
· Minimální/maximální přípustná teplota (TS*):
* TSmin: Minimální teplota na nízkotlaké straně: **<L>** (°C)
* TSmax: Saturovaná teplota odpovídající maximálnímu přípustnému tlaku (PS): **<M>** (°C)
· Chladivo: **<N>**
· Nastavení bezpečnostního tlakového zařízení: **<P>** (bar)
· Výrobní číslo a rok výroby: viz typový štítek modelu

15 · Najveći dopušten tlak (PS): **<K>** (bar)
· Najniža/najviša dopuštena temperatura (TS*):
* TSmin: Najniža temperatura u području niskog tlaka: **<L>** (°C)
* TSmax: Standardna temperatura koja odgovara najvećem dopuštenom tlaku (PS): **<M>** (°C)
· Rashladno sredstvo: **<N>**
· Postavke sigurnosne naprave za tlak: **<P>** (bar)
· Proizvodni broj i godina proizvodnje: pogledajte natpisnu pločicu modela

16 · Legnagyobb megengedhető nyomás (PS): **<K>** (bar)
· Legkisebb/legnagyobb megengedhető hőmérséklet (TS*):
* TSmin: Legkisebb megengedhető hőmérséklet a kis nyomású oldalon: **<L>** (°C)
* TSmax: A legnagyobb megengedhető nyomásnak (PS) megfelelő telítettségi hőmérséklet: **<M>** (°C)
· Hűtőközeg: **<N>**
· A túlnyomás-kapcsoló beállítása: **<P>** (bar)
· Gyártási szám és gyártási év: lásd a berendezés adattábláján

17 · Maksymalne dopuszczalne ciśnienie (PS): **<K>** (bar)
· Minimalna/maksymalna dopuszczalna temperatura (TS*):
* TSmin: Minimalna temperatura po stronie niskociśnieniowej: **<L>** (°C)
* TSmax: Temperatura nasycenia odpowiadająca maksymalnemu dopuszczalnemu ciśnieniu (PS): **<M>** (°C)
· Czynnik chłodniczy: **<N>**
· Nastawa ciśnieniowego urządzenia bezpieczeństwa: **<P>** (bar)
· Numer fabryczny oraz rok produkcji: patrz tabliczka znamionowa modelu

18 · Presiune maximă admisibilă (PS): **<K>** (bar)
· Temperatură minimă/maximă admisibilă (TS*):
* TSmin: Temperatură minimă pe partea de presiune joasă: **<L>** (°C)
* TSmax: Temperatură de saturaţie corespunzând presiunii maxime admisibile (PS): **<M>** (°C)
· Agent frigorific: **<N>**
· Reglarea dispozitivului de siguranţă pentru presiune: **<P>** (bar)
· Numărul de fabricaţie şi anul de fabricaţie: consultaţi placa de identificare a modelului

19 · Maksimalni dovoljeni tlak (PS): **<K>** (bar)
· Minimalna/maksimalna dovoljena temperatura (TS*):
* TSmin: Minimalna temperatura na nizkotlačni strani: **<L>** (°C)
* TSmax: Nasičena temperatura, ki ustreza maksimalnemu dovoljenemu tlaku (PS): **<M>** (°C)
· Hladivo: **<N>**
· Nastavljanje varnostne naprave za tlak: **<P>** (bar)
· Tovarniška številka in leto proizvodnje: glejte napisno ploščico

20 · Maksimaalne lubatud surve (PS): **<K>** (bar)
· Minimaalne/maksimaalne lubatud temperatuur (TS*):
* TSmin: Minimaalne temperatuur madalsurve küljel: **<L>** (°C)
* TSmax: Maksimaalsele lubatud survele (PS) vastav küllastunud temperatuur: **<M>** (°C)
· Jahutusaine: **<N>**
· Surve turvaseadme seadistus: **<P>** (bar)
· Tootmisnumber ja tootmisaasta: vaadake mudeli andmeplaati

21 · Максимално допустимо налягане (PS): **<K>** (bar)
· Минимално/максимално допустима температура (TS*):
* TSmin: Минимална температура от страната на ниското налягане: **<L>** (°C)
* TSmax: Температура на насищане, съответстваща на максимално допустимото налягане (PS): **<M>** (°C)
· Охладител: **<N>**
· Настройка на предпазното устройство за налягане: **<P>** (bar)
· Фабричен номер и година на производство: вижте табелката на модела

22 · Maksimalus leistinas slėgis (PS): **<K>** (bar)
· Minimali/maksimali leistina temperatūra (TS*):
* TSmin: Minimali temperatūra žemo slėgio pusėje: **<L>** (°C)
* TSmax: Prisotinta temperatūra, atitinkamti maksimalų leistiną slėgį (PS): **<M>** (°C)
· Šaldymo skystis: **<N>**
· Apsauginio slėgio prietaiso nustatymas: **<P>** (bar)
· Gaminio numeris ir pagaminimo metai: žiūrėkite modelio pavadinimo plokštelę

23 · Maksimālais pieļaujamais spiediens (PS): **<K>** (bar)
· Minimālā/maksimālā pieļaujamā temperatūra (TS*):
* TSmin: Minimālā temperatūra zemā spiediena pusē: **<L>** (°C)
* TSmax: Piesātinātā temperatūra saskaņā ar maksimālo pieļaujamo spiedienu (PS): **<M>** (°C)
· Dzesinātājs: **<N>**
· Spiediena drošības ierīces iestatīšana: **<P>** (bar)
· Izgatavošanas numurs un izgatavošanas gads: skat. modeļa izgatavotājuzņēmuma plāksnītie

24 · Maximálny povolený tlak (PS): **<K>** (bar)
· Minimálna/maximálna povolená teplota (TS*):
* TSmin: Minimálna teplota na nízkotlakovej strane: **<L>** (°C)
* TSmax: Nasýtená teplota korešpondujúca s maximálnym povoleným tlakom (PS): **<M>** (°C)
· Chladivo: **<N>**
· Nastavenie tlakového poistného zariadenia: **<P>** (bar)
· Výrobné číslo a rok výroby: nájdete na výrobnom štítku modelu

25 · İzin verilen maksimum basınç (PS): **<K>** (bar)
· İzin verilen minimum/maksimum sıcaklık (TS*):
* TSmin: Düşük basınç tarafındaki minimum sıcaklık: **<L>** (°C)
* TSmax: İzin verilen maksimum basınca (PS) karşı gelen doyma sıcaklığı: **<M>** (°C)
· Soğutucu: **<N>**
· Basınç emniyet düzeninin ayarı: **<P>** (bar)
· İmalat numarası ve imalat yılı: modelin ünite plakasına bakın

<K>	PS	**41.5 bar**
<L>	TSmin	**–25 °C**
<M>	TSmax	**63 °C**
<N>		**R32**
<P>		**— bar**

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01 Name and address of the Notified body that judged positively on compliance with the Pressure Equipment Directive: **<Q>**
02 Name und Adresse der benannten Stelle, die positiv unter Einhaltung der Druckanlagen-Richtlinie urteilte: **<Q>**
03 Nom et adresse de l'organisme notifié qui a évalué positivement la conformité à la directive sur l'équipement de pression: **<Q>**
04 Naam en adres van de aangemelde instantie die positief geoordeeld heeft over de conformiteit met de Richtlijn Drukapparatuur: **<Q>**
05 Nombre y dirección del Organismo Notificado que juzgó positivamente el cumplimiento con la Directiva en materia de Equipos de Presión: **<Q>**

06 Nome e indirizzo dell'Ente riconosciuto che ha riscontrato la conformità alla Direttiva sulle apparecchiature a pressione: **<Q>**
07 Όνομα και διεύθυνση του Κοινοποιημένου οργανισμού που απεφάνθη θετικά για τη συμμόρφωση προς την Οδηγία Εξοπλισμών υπό Πίεση: **<Q>**
08 Nome e morada do organismo notificado, que avaliou favoravelmente a conformidade com a directiva sobre equipamentos pressurizados: **<Q>**
09 Название и адрес органа технической экспертизы, принявшего положительное решение о соответствии Директиве об оборудовании под давлением: **<Q>**

10 Navn og adresse på bemyndiget organ, der har foretaget en positiv bedømmelse af, at udstyret lever op til kravene i PED (Direktiv for Trykbærende Udstyr): **<Q>**
11 Namn och adress för det anmälda organ som godkänt uppfyllandet av tryckutrustningsdirektivet: **<Q>**
12 Navn på og adresse til det autoriserte organet som positivt bedømte samsvar med direktivet for trykkutstyr (Pressure Equipment Directive): **<Q>**
13 Sen ilmoitetun elimen nimi ja osoite, joka teki myönteisen päätöksen painelaitedirektiivin noudattamisesta: **<Q>**

14 Název a adresa informovaného orgánu, který vydal pozitivní posouzení shody se směrnicí o tlakových zařízeních: **<Q>**
15 Naziv i adresa prijavljenog tijela koje je donijelo pozitivnu prosudbu o usklađenosti sa Smjernicom za tlačnu opremu: **<Q>**
16 A nyomástartó berendezésekre vonatkozó irányelvnek való megfelelőséget igazoló bejelentett szervezet neve és címe: **<Q>**
17 Nazwa i adres Jednostki notyfikowanej, która wydała pozytywną opinię dotyczącą spełnienia wymogów Dyrektywy dot. Urządzeń Ciśnieniowych: **<Q>**
18 Denumirea şi adresa organismului notificat care a apreciat pozitiv conformarea cu Directiva privind echipamentele sub presiune: **<Q>**

19 Ime in naslov organa za ugotavljanje skladnosti, ki je pozitivno ocenil združljivost z Direktivo o tlačni opremi: **<Q>**
20 Teavitatud organi, mis hindas Surveseadmete Direktiiviga ühilduvust positiivselt, nimi ja aadress: **<Q>**
21 Наименование и адрес на упълномощения орган, който се е произнесъл положително относно съвместимостта с Директивата за оборудване под налягане: **<Q>**
22 Atsakingos institucijos, kuri davė teigiamą sprendimą pagal slėginės įrangos direktyvą pavadinimas ir adresas: **<Q>**
23 Sertifikācijas institūcijas, kura ir devusi pozitīvu slēdzienu par atbilstību Spiediena iekārtu Direktīvai, nosaukums un adrese: **<Q>**

24 Názov a adresa certifikačného úradu, ktorý kladne posúdil zhodu so smernicou pre tlakové zariadenia: **<Q>**
25 Basınçlı Teçhizat Direktifine uygunluk hususunda olumlu olarak değerlendiren Onaylanmış kuruluşun adı ve adresi: **<Q>**

<Q> VINÇOTTE nv
Jan Olieslagerslaan 35
1800 Vilvoorde, Belgium

3P663124-1A

DAIKIN

Hiromitsu Iwasaki
Director
Ostend, 1st of September 2021

DAIKIN EUROPE N.V.
Zandvoordestraat 300, B-8400 Oostende, Belgium

Table of contents

1 About this document

Target audience

Authorised installers

Documentation set

This document is part of a documentation set. The complete set consists of:

- **General safety precautions:**
  - Safety instructions that you must read before installing
  - Format: Paper (in the box of the indoor unit)
- **Operation manual:**
  - Quick guide for basic usage
  - Format: Paper (in the box of the indoor unit)
- **User reference guide:**
  - Detailed step-by-step instructions and background information for basic and advanced usage
  - Format: Digital files on http://www.daikineurope.com/support-and-manuals/product-information/
- **Installation manual – Outdoor unit:**
  - Installation instructions
  - Format: Paper (in the box of the outdoor unit)
- **Installation manual – Indoor unit:**
  - Installation instructions
  - Format: Paper (in the box of the indoor unit)
- **Installer reference guide:**
  - Preparation of the installation, good practices, reference data, …
  - Format: Digital files on http://www.daikineurope.com/support-and-manuals/product-information/
- **Addendum book for optional equipment:**
  - Additional info about how to install optional equipment
  - Format: Paper (in the box of the indoor unit) + Digital files on http://www.daikineurope.com/support-and-manuals/product-information/

Latest revisions of the supplied documentation may be available on the regional Daikin website or via your dealer.

The original documentation is written in English. All other languages are translations.

Technical engineering data

- A **subset** of the latest technical data is available on the regional Daikin website (publicly accessible).
- The **full set** of latest technical data is available on the Daikin Business Portal (authentication required).

Online tools

In addition to the documentation set, some online tools are available for installers:

- **Daikin Technical Data Hub**
  - Central hub for technical specifications of the unit, useful tools, digital resources, and more.
  - Publicly accessible via https://daikintechnicaldatahub.eu.
- **Heating Solutions Navigator**
  - Digital toolbox that offers a variety of tools to facilitate the installation and configuration of heating systems.
  - To access Heating Solutions Navigator, registration to the Stand By Me platform is required. For more information, see https://professional.standbyme.daikin.eu.
- **Daikin e-Care**
  - Mobile app for installers and service technicians that allows you to register, configure and troubleshoot heating systems.
  - The mobile app can be downloaded for iOS and Android devices using the QR codes below. Registration to the Stand By Me platform is required to access the app.

App Store Google Play

2 Specific installer safety instructions

Always observe the following safety instructions and regulations.

Installation site (see "4.1 Preparing the installation site" [▶ 6])

WARNING

The appliance shall be stored in a room without continuously operating ignition sources (example: open flames, an operating gas appliance or an operating electric heater).

WARNING

DO NOT reuse refrigerant piping that has been used with any other refrigerant. Replace the refrigerant pipes or clean thoroughly.

WARNING

Follow the service space dimensions in this manual for correct installation of the unit. See "4.1.1 Installation site requirements of the indoor unit" [▶ 6].

Special requirements for R32 (see "4.1.2 Special requirements for R32 units" [▶ 7])

WARNING

- Do NOT pierce or burn.
- Do NOT use means to accelerate the defrosting process or to clean the equipment, other than those recommended by the manufacturer.
- Be aware that R32 refrigerant does NOT contain an odour.

WARNING

The appliance shall be stored so as to prevent mechanical damage and in a well-ventilated room without continuously operating ignition sources (example: open flames, an operating gas appliance or an operating electric heater).

WARNING

Make sure installation, servicing, maintenance and repair comply with instructions from Daikin and with applicable legislation and are executed ONLY by authorised persons.

Opening and closing the unit (see "4.2 Opening and closing the unit" [▶ 13])

DANGER: RISK OF ELECTROCUTION

DANGER: RISK OF BURNING/SCALDING

Mounting the indoor unit (see "4.3 Mounting the indoor unit" [▶ 14])

WARNING

Fixing method of the indoor unit MUST be in accordance with the instructions from this manual. See "4.3 Mounting the indoor unit" [▶ 14].

Piping installation (see "5 Piping installation" [▶ 15])

WARNING

Field piping method MUST be in accordance with the instructions from this manual. See "5 Piping installation" [▶ 15].

Electrical installation (see "6 Electrical installation" [▶ 17])

DANGER: RISK OF ELECTROCUTION

WARNING

Electrical wiring connection method MUST be in accordance with the instructions from:

- This manual. See "6 Electrical installation" [▶ 17].
- The wiring diagram, which is delivered with the unit, located on the inside of the indoor unit switch box cover. For a translation of its legend, see "10.2 Wiring diagram: Indoor unit" [▶ 41].

WARNING

- All wiring MUST be performed by an authorised electrician and MUST comply with the applicable legislation.
- Make electrical connections to the fixed wiring.
- All components procured on-site and all electrical construction MUST comply with the applicable legislation.

WARNING

If the supply cord is damaged, it MUST be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

WARNING

ALWAYS use multicore cable for power supply cables.

CAUTION

Do NOT push or place redundant cable length in the unit.

WARNING

The backup heater MUST have a dedicated power supply and MUST be protected by the safety devices required by the applicable legislation.

CAUTION

If the indoor unit has a tank with a built-in electrical booster heater, use a dedicated power circuit for the backup heater and booster heater. NEVER use a power circuit shared by another appliance. This power circuit MUST be protected with the required safety devices according to the applicable legislation.

CAUTION

To guarantee the unit is completely earthed, ALWAYS connect the backup heater power supply and the earth cable.

INFORMATION

Details of type and rating of fuses, or rating of circuit breakers are described in "6 Electrical installation" [▶ 17].

Commissioning (see "8 Commissioning" [▶ 37])

WARNING

Commissioning method MUST be in accordance with the instructions from this manual. See "8 Commissioning" [▶ 37].

WARNING

Air purging heat emitters or collectors. Before you purge air from heat emitters or collectors, check if 🔔 or ⚠ is displayed on the home screen of the user interface.

- If not, you can purge air immediately.
- If yes, make sure that the room where you want to purge air is sufficiently ventilated. **Reason:** Refrigerant might leak into the water circuit, and subsequently into the room when you purge air from the heat emitters or collectors.

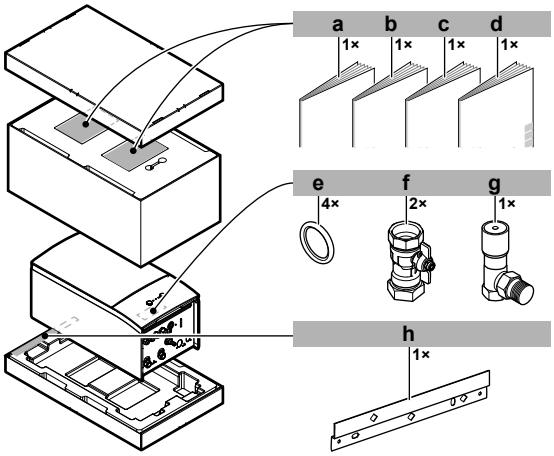
3 About the box

3.1 Indoor unit

- At delivery, the unit MUST be checked for damage. Any damage MUST be reported immediately to the claims agent of the carrier.
- Bring the packed unit as close as possible to its final installation position to prevent damage during transport.
- Unpack the indoor unit completely according to the instructions mentioned on the unpacking instructions sheet.

3.1.1 To remove the accessories from the indoor unit

Some accessories are located inside the unit. For more information on opening the unit, see "4.2.1 To open the indoor unit" [▶ 13].



a General safety precautions
b Addendum book for optional equipment
c Indoor unit installation manual
d Operation manual
e Sealing ring for shut-off valve
f Shut-off valve
g Overpressure bypass valve
h Wall bracket

4 Unit installation

4.1 Preparing the installation site

WARNING

The appliance shall be stored in a room without continuously operating ignition sources (example: open flames, an operating gas appliance or an operating electric heater).

WARNING

DO NOT reuse refrigerant piping that has been used with any other refrigerant. Replace the refrigerant pipes or clean thoroughly.

4.1.1 Installation site requirements of the indoor unit

- The indoor unit is designed for indoor installation only and for the following ambient temperatures:
  - Space heating operation: 5~30°C
  - Space cooling operation: 5~35°C
  - Domestic hot water production: 5~35°C

INFORMATION

Cooling is only applicable in case of:

- Reversible models
- Heating only models + conversion kit (EKHBCONV*)

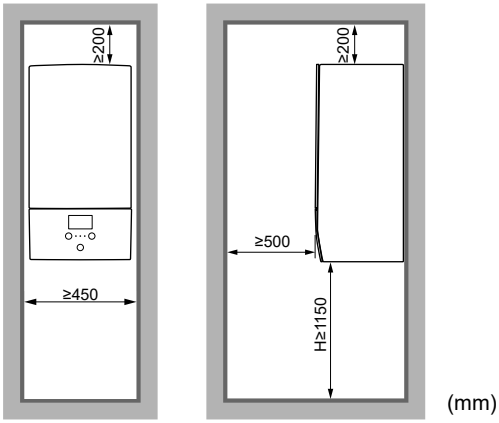
- Mind the following measurements guidelines:

Maximum refrigerant piping length[(a)] between indoor unit and outdoor unit	50 m
Minimum refrigerant piping length[(a)] between indoor unit and outdoor unit	3 m

Maximum height difference between indoor unit and outdoor unit	30 m
Maximum height difference between indoor unit and domestic hot water tank	5 m
Maximum distance between indoor unit and domestic hot water tank	10 m
Maximum distance between indoor unit and 3-way valve (for installations with domestic hot water tank)	10 m

(a) Refrigerant piping length is the one-way length of liquid piping.

- Mind the following spacing installation guidelines:



(mm)

H Height measured from the bottom of the casing to the floor

4.1.2 Special requirements for R32 units

Because the total refrigerant charge in the system is ≥1.84 kg, the room where you install the indoor unit must comply with the conditions described in "4.1.3 Installation patterns" [▸ 8].

WARNING

- Do NOT pierce or burn.
- Do NOT use means to accelerate the defrosting process or to clean the equipment, other than those recommended by the manufacturer.
- Be aware that R32 refrigerant does NOT contain an odour.

WARNING

The appliance shall be stored so as to prevent mechanical damage and in a well-ventilated room without continuously operating ignition sources (example: open flames, an operating gas appliance or an operating electric heater) and have a room size as specified below.

NOTICE

- Do NOT re-use joints and copper gaskets which have been used already.
- Joints made in installation between parts of refrigerant system shall be accessible for maintenance purposes.

WARNING

Make sure installation, servicing, maintenance and repair comply with instructions from Daikin and with applicable legislation and are executed ONLY by authorised persons.

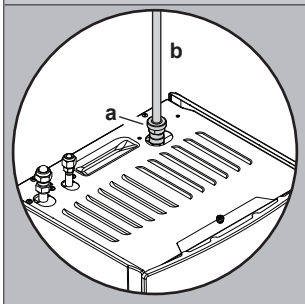
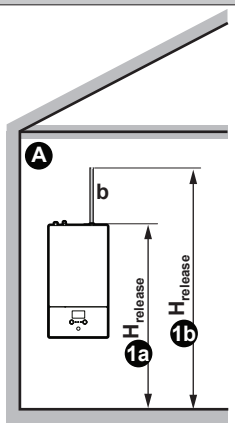
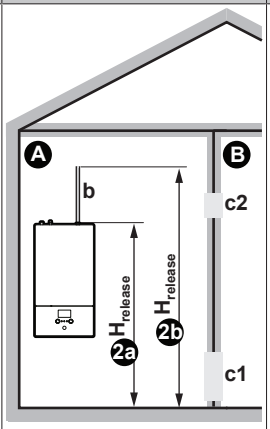
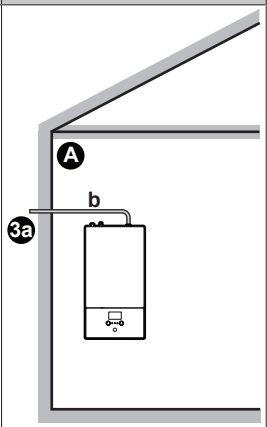
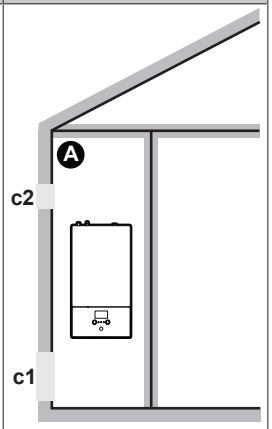
NOTICE

- Pipework shall be protected from physical damage.
- Installation of pipework shall be kept to a minimum.

4.1.3 Installation patterns

Depending on the type of room in which you install the indoor unit, different installation patterns are allowed:

Room type	Allowed patterns
Living room, kitchen, garage, attic, basement, storage room	1, 2, 3
Technical room (i.e. room that is NEVER occupied by persons)	1, 2, 3, 4

	PATTERN 1	PATTERN 2	PATTERN 3	PATTERN 4
					
Ventilation openings	N/A	Between room A and B	N/A	Between room A and outside
Minimum floor area	Room A	Room A + Room B	N/A	N/A
Chimney	Might be needed	Might be needed	Connected to outside	N/A
Release in case of refrigerant leakage	Inside room A	Inside room A	Outside	Inside room A
Restrictions	See "PATTERN 1" [▶ 9], "PATTERN 2" [▶ 9], "PATTERN 3" [▶ 11], and "Tables for PATTERN 1, 2 and 3" [▶ 11]			See "PATTERN 4" [▶ 13]

Ⓐ	Room A (= room where indoor unit is installed)
Ⓑ	Room B (= adjacent room)
a	If no chimney is installed, this is the default point of release in case of refrigerant leakage. If needed, you can connect a chimney here: ▪ Unit's connection point for the chimney = 1" male thread. Use a compatible counterpart for the chimney. ▪ Make sure the connection is airtight.
b	Chimney
c1	Bottom opening for natural ventilation
c2	Top opening for natural ventilation
$H_{release}$	Actual release height: ①a②a: Without chimney. From floor to top of the unit. (minimum 1.95 m) ①b②b: With chimney. From floor to top of the chimney.
③a	Installation with chimney connected to the outside. The release height is not relevant. There are no requirements to the minimum floor area.
N/A	Not applicable

Minimum floor area / Release height:

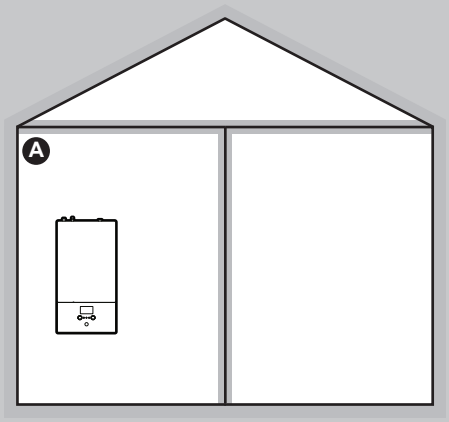
- The minimum floor area requirements depend on the release height of the refrigerant in case of a leakage. The higher the release height, the lower the minimum floor area requirements.
- The default point of release (without chimney) is at the top of the unit. To decrease the minimum floor area requirements, you can increase the release height by installing a chimney. If the chimney leads outside of the building, there are no requirements anymore to the minimum floor area.
- You can also take advantage of the floor area of the adjacent room (= room B) by providing ventilation openings between the two rooms.
- For installations in technical rooms (i.e. room that is NEVER occupied by persons), additionally to patterns 1, 2 and 3, you can also use **PATTERN 4**. For this pattern there are no requirements to the minimum floor area if you provide 2 openings (one at the bottom, one at the top) between the room and the outside to ensure natural ventilation. The room must be protected from frost.

PATTERN 1

START PATTERN 1

See table 1:
Is the floor area of room A (A_{roomA}) large enough for the given refrigerant charge and the given release height without chimney?

Yes → **1a** You can install the unit in room A. You do not need a chimney.



No

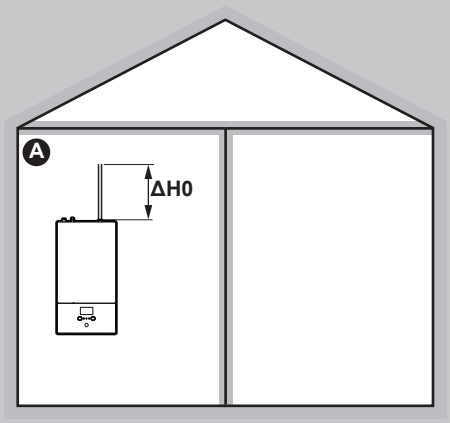
H0, ΔH0

See table 2: Look up the minimum release height (**H0**) for the given floor area (A_{roomA}) and the given refrigerant charge.

Calculate **ΔH0:** difference between the minimum release height required (**H0**) and the release height without chimney.

See table 3:
For ΔH0: Can the maximum chimney length be respected, and is the chimney practically feasible?

Yes → **1b** You can install the unit in room A if you install a chimney.
Chimney height = **ΔH0**



No

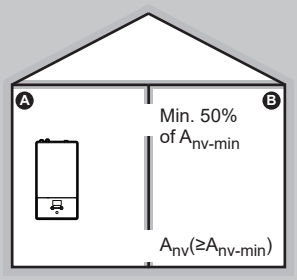
Go to PATTERN 2

PATTERN 2

PATTERN 2: Conditions ventilation openings

If you want to take advantage of the floor area of the adjacent room, you must provide 2 openings (one at the bottom, one at the top) between the rooms to ensure natural ventilation. The openings must comply with the following conditions:

- **Bottom opening (A_{nv}):**
  - Must be a permanent opening that cannot be closed.
  - Must be completely located between 0 and 300 mm from the floor.
  - Must be ≥$A_{nv\text{-}min}$ (minimum bottom opening area).
  - ≥50% of the required opening area $A_{nv\text{-}min}$ must be ≤200 mm from the floor.
  - The bottom of the opening must be ≤100 mm from the floor.
  - If the opening starts from the floor, the height of the opening must be ≥20 mm.
- **Top opening:**
  - Must be a permanent opening that cannot be closed.
  - Must be ≥50% of $A_{nv\text{-}min}$ (minimum bottom opening area).
  - Must be ≥1.5 m from the floor.



Start PATTERN 2

H1, ΔH1

Calculate the total floor area.
(A_{total}=A_{roomA}+A_{roomB})

See table 2: Look up the minimum release height (**H1**) for the given floor area (**A_{total}**) and the given refrigerant charge.

Calculate **ΔH1:** difference between the minimum release height required (**H1**) and the release height without chimney.

See table 3:
For ΔH1: Can the maximum chimney length be respected, and is the chimney practically feasible?

Yes

No

Go to PATTERN 3

A_{nv}, A_{nv-min}

See table 4: Look up the minimum bottom opening area for natural ventilation with the adjacent room (**A_{nv-min}**) for the given refrigerant charge, the given floor area of room A (**A_{roomA}**) **[! NOT room A + room B !]** and the given release height (**H1**).

Is it practically feasible to create ventilation openings that comply with **A_{nv-min}** and with the **"Conditions ventilation openings"** on previous page)?

No

Yes

See table 2: Do you need a chimney or not?
(i.e. does table 2 result in a value or "**(*)**"?)

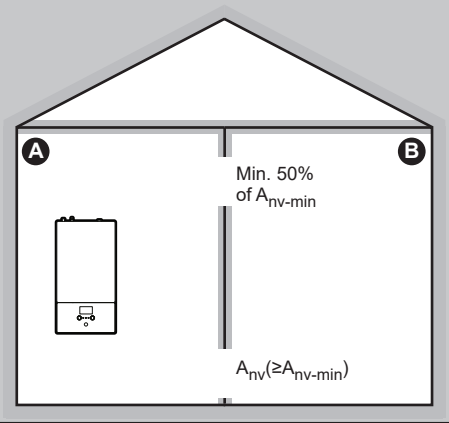
Not needed
(i.e. table 2 results in "**(*)**")

Needed
(i.e. table 2 results in a value)

2a

You can install the unit in room A if you create ventilation openings. You do not need a chimney.

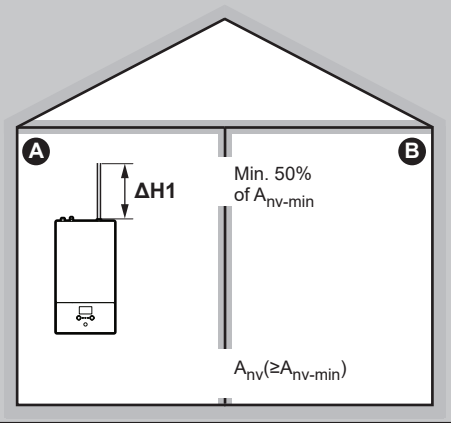
Ventilation openings must comply with **A_{nv-min}** and with **"Conditions ventilation openings"** on previous page).



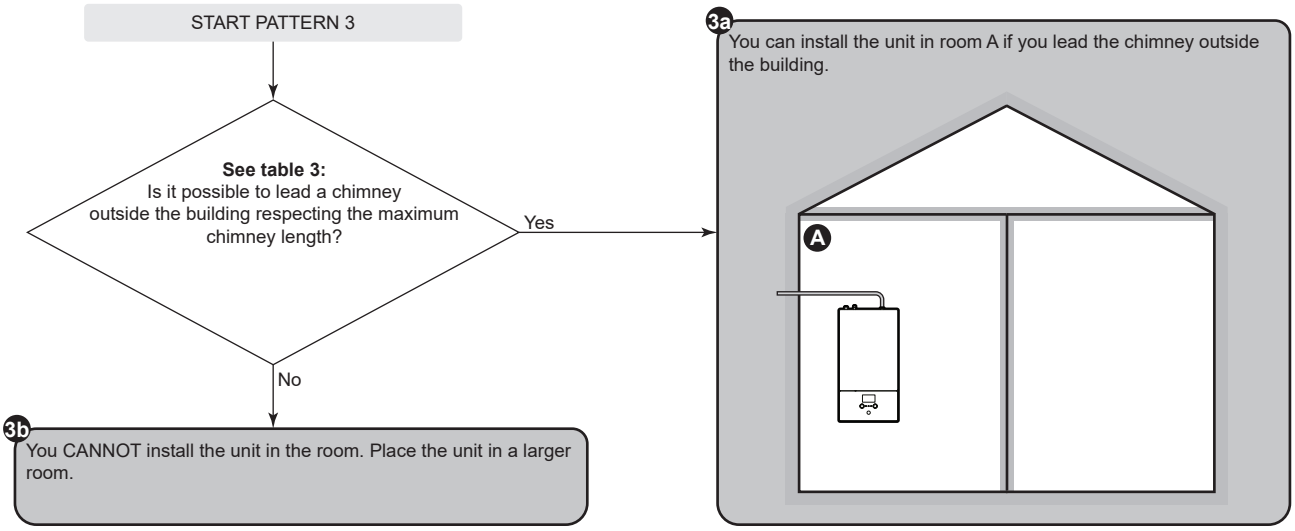
2b

You can install the unit in room A if you install a chimney, and create ventilation openings.

Chimney height = **ΔH1**.
Ventilation openings must comply with **A_{nv-min}** and with **"Conditions ventilation openings"** on previous page).



PATTERN 3



Tables for PATTERN 1, 2 and 3

Table 1: Minimum floor area

For intermediate refrigerant charges, use the row with the higher value. **Example:** If the refrigerant charge is 4.3 kg, use the row of 4.5 kg.

Minimum floor area (m²)											
Charge (kg)	Release height without chimney (m)										
	1.95	2.05	2.15	2.25	2.35	2.45	2.55	2.65	2.75	2.85	2.95
3.8	11.64	10.53	9.57	8.74	8.01	7.37	6.80	6.30	6.00	5.79	5.59
4	12.89	11.67	10.61	9.68	8.88	8.17	7.54	6.98	6.48	6.10	5.89
4.5	16.32	14.76	13.42	12.26	11.23	10.34	9.54	8.84	8.20	7.64	7.13
5	20.14	18.23	16.57	15.13	13.87	12.76	11.78	10.91	10.13	9.43	8.80
5.5	24.37	22.05	20.05	18.31	16.78	15.44	14.25	13.20	12.26	11.41	10.65
5.8	27.11	24.53	22.30	20.36	18.66	17.17	15.85	14.68	13.63	12.69	11.84

Table 2: Minimum release height

Take the following into account:
- For intermediate floor areas, use the column with the lower value. **Example:** If the floor area is 22.50 m², use the column of 20.00 m².
- For intermediate refrigerant charges, use the row with the higher value. **Example:** If the refrigerant charge is 4.3 kg, use the row of 4.5 kg.
- (*): The release height of the unit without chimney (minimum 1.95 m) is already higher than the minimum required release height. => OK (no chimney needed).

Minimum release height (m)						
Charge (kg)	Floor area (m²)					
	5.00	10.00	15.00	20.00	25.00	30.00
3.8	3.30	2.10	(*)	(*)	(*)	(*)
4	3.47	2.21	(*)	(*)	(*)	(*)
4.5	3.91	2.49	2.03	(*)	(*)	(*)
5	4.34	2.77	2.26	1.96	(*)	(*)
5.5	4.78	3.04	2.49	2.15	(*)	(*)
5.8	5.04	3.21	2.62	2.27	2.03	(*)

Table 3: Maximum chimney length

When installing a chimney, the chimney length must be less than the maximum chimney length.

- Use the columns with the correct refrigerant charge. For intermediate refrigerant charges, use the columns with the higher value. **Example:** If the refrigerant charge is 4.0 kg, use the columns of 5.8 kg.
- For intermediate diameters, use the column with the lower value. **Example:** If the diameter is 23 mm, use the column of 22 mm.
- X: Not allowed

Maximum chimney length (m) – In case of Refrigerant charge=3.8 kg (and T=60°C)							In case of Refrigerant charge=5.8 kg (and T=60°C)				
Chimney	Inside diameter of chimney (mm)						Inside diameter of chimney (mm)				
	20	22	24	26	28		20	22	24	26	28
Straight pipe	19.03	33.90	55.16	84.54	124.06		3.37	9.47	18.40	30.91	47.91
1× 90° elbow	17.23	31.92	53.00	82.20	121.54		1.57	7.49	16.24	28.57	45.39
2× 90° elbow	15.43	29.94	50.84	79.86	119.02		X	5.51	14.08	26.23	42.87
3× 90° elbow	13.63	27.96	48.68	77.52	116.50		X	3.53	11.92	23.89	40.35

Table 4: Minimum bottom opening area for natural ventilation

Take the following into account:

- Use the correct table. For intermediate refrigerant charges, use the table with the higher value. **Example:** If the refrigerant charge is 4.3 kg, use the table of 4.8 kg.
- For intermediate floor areas, use the column with the lower value. **Example:** If the floor area is 12.50 m², use the column of 10.00 m².
- For intermediate release height values, use the row with the lower value. **Example:** If the release height is 2.20 m, use the row of 2.1 m.
- A_{nv}: Bottom opening area for natural ventilation.
- $A_{nv\text{-}min}$: Minimum bottom opening area for natural ventilation.
- (*): Already OK (no ventilation openings needed).

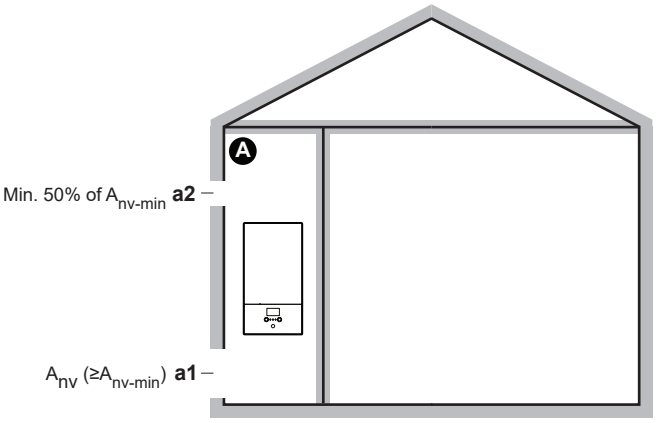
$A_{nv\text{-}min}$ (dm²) – In case of Refrigerant charge=3.8 kg							
Release height (m)	Floor area of room A (m²) [! NOT room A + room B !]						
	5.00	10.00	15.00	20.00	25.00	30.00	35.00
1.95	3.5	0.7	(*)	(*)	(*)	(*)	(*)
2.1	3.0	(*)	(*)	(*)	(*)	(*)	(*)
2.25	2.5	(*)	(*)	(*)	(*)	(*)	(*)
2.4	2.1	(*)	(*)	(*)	(*)	(*)	(*)
2.55	1.7	(*)	(*)	(*)	(*)	(*)	(*)
2.7	1.3	(*)	(*)	(*)	(*)	(*)	(*)
2.85	1.0	(*)	(*)	(*)	(*)	(*)	(*)
3	0.6	(*)	(*)	(*)	(*)	(*)	(*)

$A_{nv\text{-}min}$ (dm²) – In case of Refrigerant charge=4.8 kg							
Release height (m)	Floor area of room A (m²) [! NOT room A + room B !]						
	5.00	10.00	15.00	20.00	25.00	30.00	35.00
1.95	5.7	3.2	1.4	(*)	(*)	(*)	(*)
2.1	5.2	2.5	0.4	(*)	(*)	(*)	(*)
2.25	4.6	1.7	(*)	(*)	(*)	(*)	(*)
2.4	4.1	1.1	(*)	(*)	(*)	(*)	(*)
2.55	3.7	0.4	(*)	(*)	(*)	(*)	(*)
2.7	3.2	(*)	(*)	(*)	(*)	(*)	(*)
2.85	2.8	(*)	(*)	(*)	(*)	(*)	(*)
3	2.4	(*)	(*)	(*)	(*)	(*)	(*)

$A_{nv\text{-}min}$ (dm²) – In case of Refrigerant charge=5.8 kg							
Release height (m)	Floor area of room A (m²) [! NOT room A + room B !]						
	5.00	10.00	15.00	20.00	25.00	30.00	35.00
1.95	8.0	5.8	4.2	2.5	0.7	(*)	(*)
2.1	7.3	4.9	3.1	1.3	(*)	(*)	(*)
2.25	6.7	4.1	2.1	0.1	(*)	(*)	(*)
2.4	6.1	3.3	1.2	(*)	(*)	(*)	(*)
2.55	5.6	2.6	0.4	(*)	(*)	(*)	(*)
2.7	5.1	2.0	(*)	(*)	(*)	(*)	(*)
2.85	4.7	1.4	(*)	(*)	(*)	(*)	(*)
3	4.2	0.8	(*)	(*)	(*)	(*)	(*)

PATTERN 4

PATTERN 4 is only allowed for installations in technical rooms (i.e. room that is NEVER occupied by persons). For this pattern there are no requirements to the minimum floor area if you provide 2 openings (one at the bottom, one at the top) between the room and the outside to ensure natural ventilation. The room must be protected from frost.



A	Unoccupied room where the indoor unit is installed. Must be protected from frost.
a1	A_{nv}: **Bottom opening** for natural ventilation between the unoccupied room and the outside. ▪ Must be a permanent opening that cannot be closed. ▪ Must be above ground level. ▪ Must be completely located between 0 and 300 mm from the floor of the unoccupied room. ▪ Must be ≥A_{nv-min} (minimum bottom opening area as specified in the table below). ▪ ≥50% of the required opening area A_{nv-min} must be ≤200 mm from the floor of the unoccupied room. ▪ The bottom of the opening must be ≤100 mm from the floor of the unoccupied room. ▪ If the opening starts from the floor, the height of the opening must be ≥20 mm.
a2	**Top opening** for natural ventilation between room A and the outside. ▪ Must be a permanent opening that cannot be closed. ▪ Must be ≥50% of A_{nv-min} (minimum bottom opening area as specified in the table below). ▪ Must be ≥1.5 m from the floor of the unoccupied room.

A_{nv-min} (minimum bottom opening area for natural ventilation)

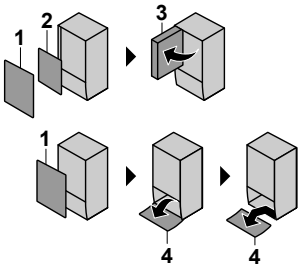
The minimum bottom opening area for natural ventilation between the unoccupied room and the outside depends on the total refrigerant in the system. For intermediate refrigerant charges, use the row with the higher value. **Example:** If the refrigerant charge is 4.3 kg, use the row of 4.4 kg.

Total refrigerant charge (kg)	A_{nv-min} (dm²)
3.8	9.9
4	10.1
4.2	10.4
4.4	10.6
4.6	10.9
4.8	11.1
5	11.3
5.2	11.5
5.4	11.8
5.6	12.0
5.8	12.2

4.2 Opening and closing the unit

4.2.1 To open the indoor unit

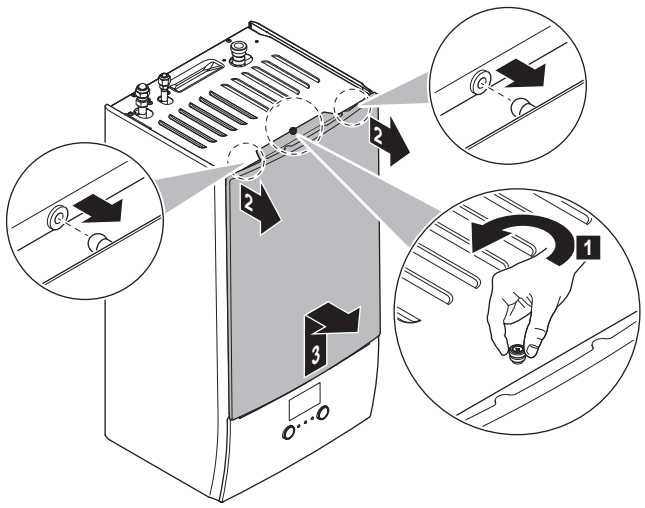
Overview



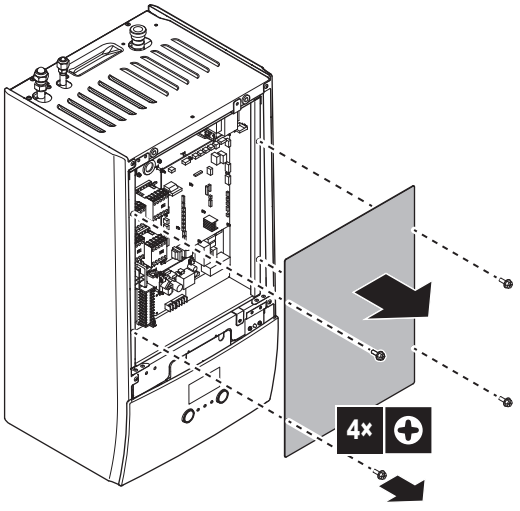
1 Front panel
2 Switch box cover
3 Switch box
4 User interface panel

Open

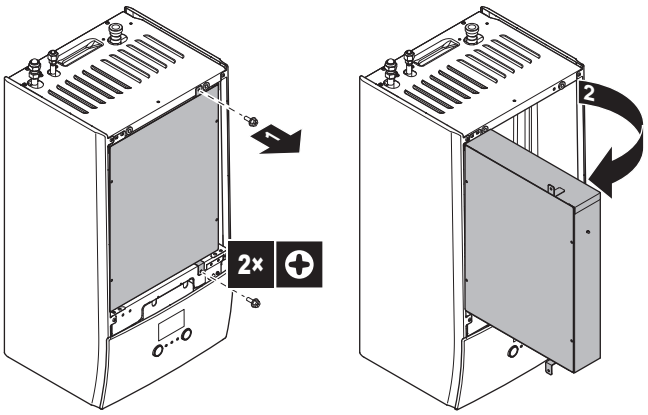
1 Remove the front panel.



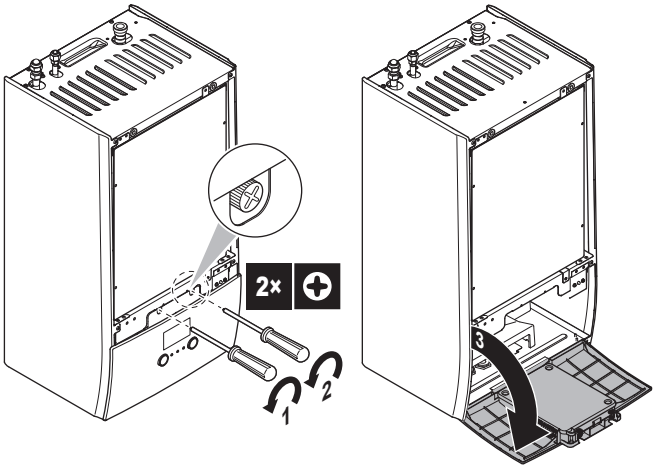
2 If you have to connect electrical wiring, remove the switch box cover.



3 If you have to do work behind the switch box, open the switch box.



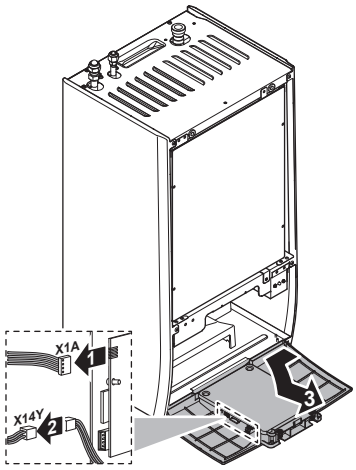
4 If you have to do work behind the user interface panel or upload new software into the user interface, open the user interface panel.



5 Optional: Remove the user interface panel.

NOTICE

If you remove the user interface panel, also disconnect the cables from the back of the user interface panel to prevent damage.



4.2.2 To close the indoor unit

1 Reinstall the user interface panel.

2 Reinstall the switch box cover and close the switch box.

3 Reinstall the front panel.

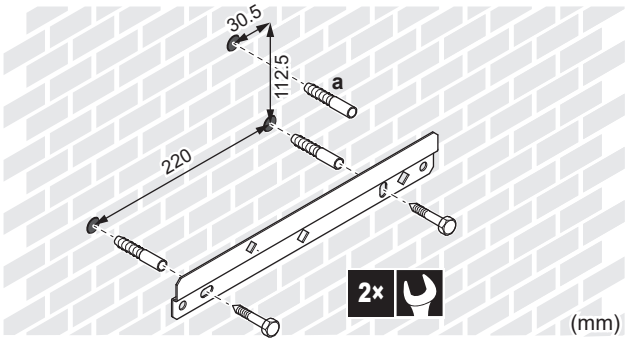
NOTICE

When closing the indoor unit cover, make sure that the tightening torque does NOT exceed 4.1 N•m.

4.3 Mounting the indoor unit

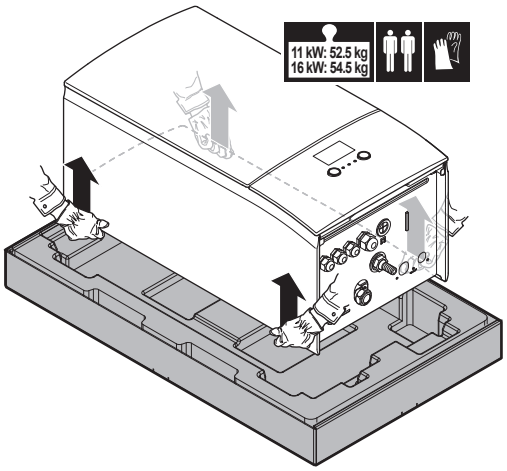
4.3.1 To install the indoor unit

1 Fix the wall bracket (accessory) to the wall (level) with 2× Ø8 mm bolts.



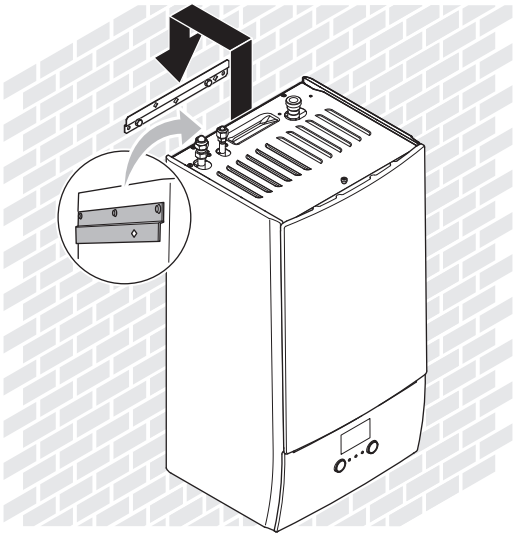
a Optional: If you want to fix the unit to the wall from inside the unit, provide an additional screw plug.

2 Lift the unit.



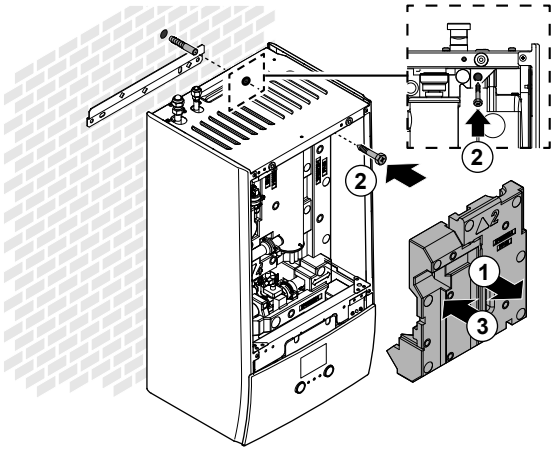
3 Attach the unit to the wall bracket:

- Tilt the top of the unit against the wall at the position of the wall bracket.
- Slide the bracket on the back of the unit over the wall bracket. Make sure the unit is fixed properly.



4 Optional: If you want to fix the unit to the wall from inside the unit:

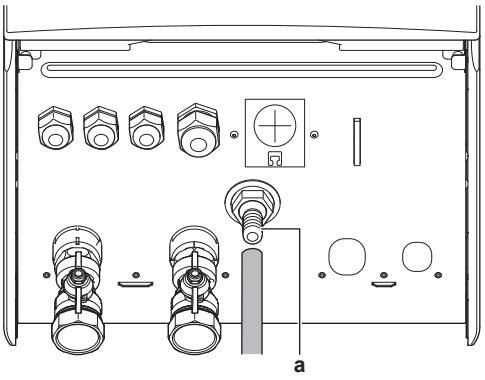
- Remove the upper front panel, and open the switch box. See "4.2.1 To open the indoor unit" [▶ 13].
- Remove the EPP block.
- Fix the unit to the wall with an Ø8 mm screw.
- Reattach the EPP block.



4.3.2 To connect the drain hose to the drain

Water coming from the pressure relief valve is collected in the drain pan. You must connect the drain pan to an appropriate drain according to the applicable legislation.

1 Connect a drain tube (field supply) to the drain pan connector as follows:



a Drain pan connector

It is recommended to use a tundish to collect the water.

5 Piping installation

5.1 Preparing refrigerant piping

5.1.1 Refrigerant piping requirements

Also see "4.1.2 Special requirements for R32 units" [▶ 7] for additional requirements.

- **Piping length:** See "4.1.1 Installation site requirements of the indoor unit" [▶ 6].
- **Piping material:** Phosphoric acid deoxidised seamless copper.
- **Piping connections:** Only flare and brazed connections are allowed. The indoor and outdoor units have flare connections. Connect both ends without brazing. If brazing should be needed, take the guidelines in the installer reference guide into account.
- **Flare connections:** Only use annealed material.
- **Piping diameter:**

Liquid piping	Ø9.5 mm (3/8")
Gas piping	Ø15.9 mm (5/8")

- **Piping temper grade and thickness:**

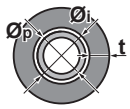
Outer diameter (Ø)	Temper grade	Thickness (t)[a]	
9.5 mm (3/8")	Annealed (O)	≥0.8 mm	
15.9 mm (5/8")	Annealed (O)	≥1.0 mm	

[a] Depending on the applicable legislation and the maximum working pressure of the unit (see "PS High" on the unit name plate), larger piping thickness might be required.

5.1.2 Refrigerant piping insulation

- Use polyethylene foam as insulation material:
  - with a heat transfer rate between 0.041 and 0.052 W/mK (0.035 and 0.045 kcal/mh°C)
  - with a heat resistance of at least 120°C
- Insulation thickness

Pipe outer diameter ($Ø_p$)	Insulation inner diameter ($Ø_i$)	Insulation thickness (t)
9.5 mm (3/8")	12~15 mm	≥13 mm
15.9 mm (5/8")	17~20 mm	≥13 mm



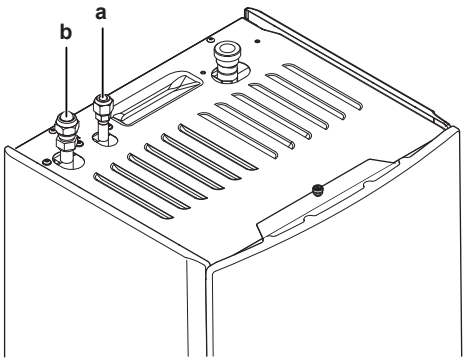
If the temperature is higher than 30°C and the humidity is higher than RH 80%, the thickness of the insulation materials should be at least 20 mm to prevent condensation on the surface of the insulation.

5.2 Connecting refrigerant piping

See the installation manual of the outdoor unit for all guidelines, specifications and installation instructions.

5.2.1 To connect the refrigerant piping to the indoor unit

1 Connect the liquid stop valve from the outdoor unit to the refrigerant liquid connection of the indoor unit.



a Refrigerant liquid connection
b Refrigerant gas connection

2 Connect the gas stop valve from the outdoor unit to the refrigerant gas connection of the indoor unit.

5.3 Preparing water piping

NOTICE

In case of plastic pipes, make sure they are fully oxygen diffusion tight according to DIN 4726. The diffusion of oxygen into the piping can lead to excessive corrosion.

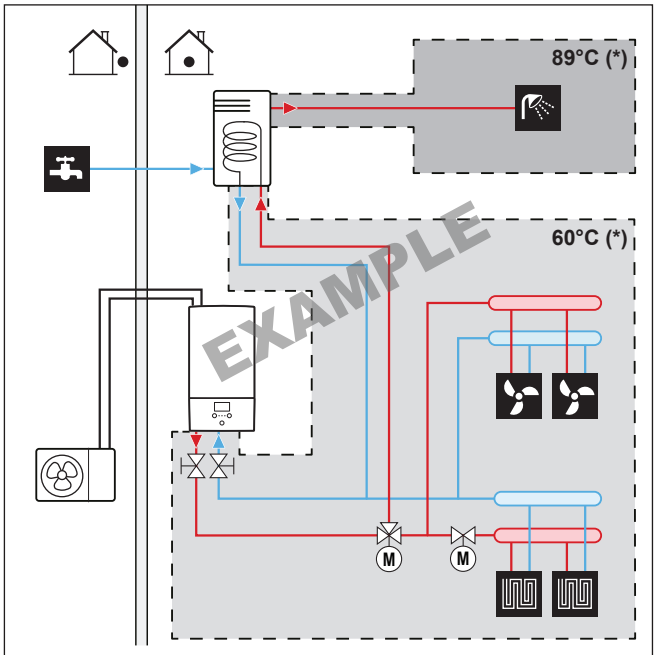
NOTICE

Water circuit requirements. Make sure to comply with the water pressure and water temperature requirements below. For additional water circuit requirements, see the installer reference guide.

- **Water pressure – Space heating/cooling circuit.** The maximum water pressure is 3 bar. Provide adequate safeguards in the water circuit to ensure that the maximum pressure is NOT exceeded. The minimum water pressure to operate is 1 bar.
- **Water temperature.** All installed piping and piping accessories (valve, connections,…) MUST withstand the following temperatures:

INFORMATION

The following illustration is an example and might NOT match your system layout.



(*) Maximum temperature for piping and accessories

5.3.1 To check the water volume and flow rate

Minimum water volume

Check that the total water volume in the installation is higher than the minimum water volume, the internal water volume of the indoor unit NOT included:

If…	Then the minimum water volume is…
Cooling operation	20 l
Heating operation	20 l

NOTICE

When circulation in each space heating/cooling loop is controlled by remotely controlled valves, it is important that the minimum water volume is guaranteed, even if all of the valves are closed.

Minimum flow rate

Check that the minimum flow rate in the installation is guaranteed in all conditions. For this purpose, use the overpressure bypass valve delivered with the unit, and respect the minimum water volume.

If operation is…	Then the minimum required flow rate is…
Cooling	16 l/min
Heating/defrost	22 l/min
Domestic hot water production	

NOTICE

When circulation in each or certain space heating loops is controlled by remotely controlled valves, it is important that the minimum flow rate is guaranteed, even if all valves are closed. In case the minimum flow rate cannot be reached, a flow error 7H will be generated (no heating or operation).

See the installer reference guide for more information.

See the recommended procedure as described in "8.2 Checklist during commissioning" [▶ 37].

5.3.2 Third-party tank requirements

In case of a third-party tank, the tank shall adhere to the following requirements:

- The heat exchanger coil of the tank is ≥1.05 m² and ≤3.7 m².
- The tank thermistor must be located above the heat exchanger coil.
- The booster heater must be located above the heat exchanger coil.

NOTICE

Performance. Performance data for third-party tanks CANNOT be provided, and performance CANNOT be guaranteed.

5.4 Connecting water piping

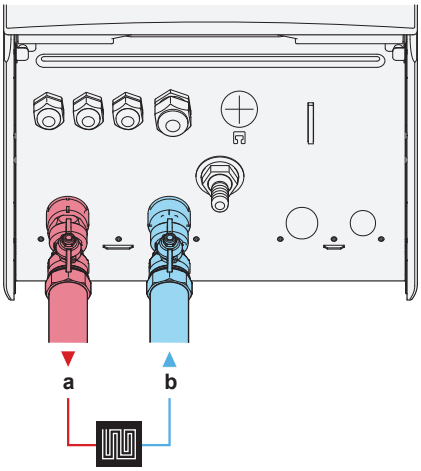
5.4.1 To connect the water piping

NOTICE

Do NOT use excessive force when connecting the piping. Deformation of the piping can cause malfunctioning of the unit.

To facilitate service and maintenance, 2 shut-off valves and 1 overpressure bypass valve are provided. Mount the shut-off valves on the space heating water inlet and space heating water outlet. To ensure the minimum flow rate (and prevent overpressure), install the overpressure bypass valve on the space heating water outlet.

1 Install the shut-off valves on the water pipes.



a Space heating/cooling – Water OUT (screw connection, 1")
b Space heating/cooling – Water IN (screw connection, 1")

2 Screw the indoor unit nuts on the shut-off valves.

3 Connect the field piping on the shut-off valves.

4 In case of connection with the optional domestic hot water tank, see the installation manual of the domestic hot water tank.

NOTICE

Install air purge valves at all local high points.

NOTICE

Overpressure bypass valve (delivered as accessory). We recommend to install the overpressure bypass valve in the space heating water circuit.

- Mind the minimum water volume when choosing the installation location of the overpressure bypass valve (at the indoor unit, or at the collector). See "5.3.1 To check the water volume and flow rate" [▶ 16].
- Mind the minimum flow rate when adjusting the overpressure bypass valve setting. See "5.3.1 To check the water volume and flow rate" [▶ 16] and "8.2.1 To check the minimum flow rate" [▶ 38].

NOTICE

In case an optional domestic hot water tank is installed: A pressure relief valve (field supply) with an opening pressure of maximum 10 bar (= 1 MPa) must be installed on the domestic cold water inlet connection in accordance with the applicable legislation.

5.4.2 To fill the water circuit

To fill the water circuit, use a field supply filling kit. Make sure you comply with the applicable legislation.

NOTICE

Pump. To prevent blocking of the pump rotor, commission the unit as quickly as possible after filling the water circuit.

INFORMATION

Make sure both air purge valves (one on the magnetic filter and one on the backup heater) are open.

5.4.3 To fill the domestic hot water tank

See the installation manual of the domestic hot water tank.

5.4.4 To insulate the water piping

The piping in the complete water circuit MUST be insulated to prevent condensation during cooling operation and reduction of the heating and cooling capacity.

If the temperature is higher than 30°C and the humidity is higher than RH 80%, the thickness of the insulation materials should be at least 20 mm to prevent condensation on the surface of the insulation.

6 Electrical installation

DANGER: RISK OF ELECTROCUTION

WARNING

ALWAYS use multicore cable for power supply cables.

INFORMATION

When installing field supply or option cables, foresee sufficient cable length. This will make it possible to open the switch box and gain access to other components during service.

6.1 About electrical compliance

Only for the backup heater of the indoor unit

See "6.3.2 To connect the backup heater power supply" [▶ 20].

6.2 Guidelines when connecting the electrical wiring

Tightening torques

Indoor unit:

Item	Tightening torque (N•m)
X1M	2.45 ±10%
X2M	0.88 ±10%
X5M	0.88 ±10%
X6M	2.45 ±10%
X7M, X8M	2.45 ±10%
X10M	0.88 ±10%
M4 (earth)	1.47 ±10%

6.3 Connections to the indoor unit

Item	Description
Power supply (main)	See "6.3.1 To connect the main power supply" [▶ 19].
Power supply (backup heater)	See "6.3.2 To connect the backup heater power supply" [▶ 20].
Shut-off valve	See "6.3.3 To connect the shut-off valve" [▶ 22].
Electricity meters	See "6.3.4 To connect the electricity meters" [▶ 22].
Domestic hot water pump	See "6.3.5 To connect the domestic hot water pump" [▶ 22].
Alarm output	See "6.3.6 To connect the alarm output" [▶ 23].
Space cooling/heating operation control	See "6.3.7 To connect the space cooling/heating ON/OFF output" [▶ 23].

Item	Description
Changeover to external heat source control	See "6.3.8 To connect the changeover to external heat source" [▶ 24].
Power consumption digital inputs	See "6.3.9 To connect the power consumption digital inputs" [▶ 24].
Safety thermostat	See "6.3.10 To connect the safety thermostat (normally closed contact)" [▶ 25].
Smart Grid	See "6.3.11 To connect a Smart Grid" [▶ 25].
Room thermostat (wired or wireless)	See below table.
	Wires: 0.75 mm² Maximum running current: 100 mA
	For the main zone: ▪ [2.9] `Control` ▪ [2.A] `Thermostat type` For the additional zone: ▪ [3.A] `Thermostat type` ▪ [3.9] (read-only) `Control`
Heat pump convector	There are different controllers and setups possible for the heat pump convectors. Depending on the setup, you also need to implement a relay (field supply, see addendum book for optional equipment). For more information, see: ▪ Installation manual of the heat pump convectors ▪ Installation manual of the heat pump convector options ▪ Addendum book for optional equipment
	Wires: 0.75 mm² Maximum running current: 100 mA
	For the main zone: ▪ [2.9] `Control` ▪ [2.A] `Thermostat type` For the additional zone: ▪ [3.A] `Thermostat type` ▪ [3.9] (read-only) `Control`
Remote outdoor sensor	See: ▪ Installation manual of the remote outdoor sensor ▪ Addendum book for optional equipment
	Wires: 2×0.75 mm²
	[9.B.1]=1 (`External sensor` = `Outdoor`) [9.B.2] `Ext. amb. sensor offset` [9.B.3] `Averaging time`

Item	Description
Remote indoor sensor	See: ▪ Installation manual of the remote indoor sensor ▪ Addendum book for optional equipment
	Wires: 2×0.75 mm²
	[9.B.1]=2 (`External sensor` = `Room`) [1.7] `Room sensor offset`
Human Comfort Interface	See: ▪ Installation and operation manual of the Human Comfort Interface ▪ Addendum book for optional equipment
	Wires: 2×(0.75~1.25 mm²) Maximum length: 500 m
	[2.9] `Control` [1.6] `Room sensor offset`
(in case of DHW tank) 3-way valve	See: ▪ Installation manual of the 3-way valve ▪ Addendum book for optional equipment
	Wires: 3×0.75 mm² Maximum running current: 100 mA
	[9.2] `Domestic hot water`
(in case of DHW tank) Domestic hot water tank thermistor	See: ▪ Installation manual of the domestic hot water tank ▪ Addendum book for optional equipment
	Wires: 2 The thermistor and connection wire (12 m) are delivered with the domestic hot water tank.
	[9.2] `Domestic hot water`
(in case of DHW tank) Power supply for booster heater (from indoor unit to DHW tank)	See: ▪ Installation manual of the DHW tank ▪ Addendum book for optional equipment
	Wires: (2+GND)×2.5 mm²
	[9.4] `Booster heater`
(in case of DHW tank) Power supply for booster heater (from mains to indoor unit)	See: ▪ Installation manual of the domestic hot water tank ▪ Addendum book for optional equipment
	Wires: 2+GND Maximum running current: 13 A
	[9.4] `Booster heater`

Item	Description
LAN adapter	See: ▪ Installation manual of the LAN adapter ▪ Addendum book for optional equipment
	Wires: 2×(0.75~1.25 mm²). Must be sheathed. Maximum length: 200 m
	See installation manual of the LAN adapter
WLAN cartridge	See: ▪ Installation manual of the WLAN cartridge ▪ Installer reference guide
	—
	[D] `Wireless gateway`
WLAN module	See: ▪ Installation manual of the WLAN module ▪ Addendum book for optional equipment ▪ Installer reference guide
	Use the cable delivered with the WLAN module.
	[D] `Wireless gateway`
Bizone kit	See: ▪ Installation manual of the bizone kit ▪ Addendum book for optional equipment
	Use the cable delivered with the bizone kit.
	[9.P] `Bizone kit`

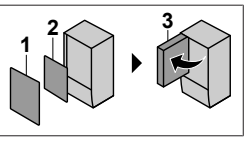
for room thermostat (wired or wireless):

In case of…	See…
Wireless room thermostat	▪ Installation manual of the wireless room thermostat ▪ Addendum book for optional equipment
Wired room thermostat without multi-zoning base unit	▪ Installation manual of the wired room thermostat ▪ Addendum book for optional equipment
Wired room thermostat with multi-zoning base unit	▪ Installation manual of the wired room thermostat (digital or analogue) + multi-zoning base unit ▪ Addendum book for optional equipment ▪ In this case: ▪ You need to connect the wired room thermostat (digital or analogue) to the multi-zoning base unit ▪ You need to connect the multi-zoning base unit to the outdoor unit ▪ For cooling/heating operation, you also need to implement a relay (field supply, see addendum book for optional equipment)

6.3.1 To connect the main power supply

1 Open the following (see "4.2.1 To open the indoor unit" [▶ 13]):

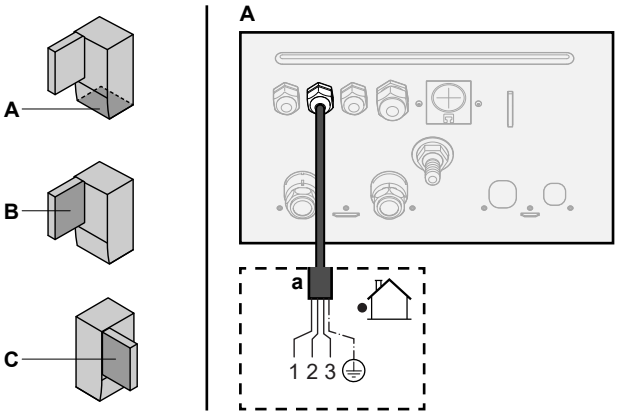
1	Front panel
2	Switch box cover
3	Switch box

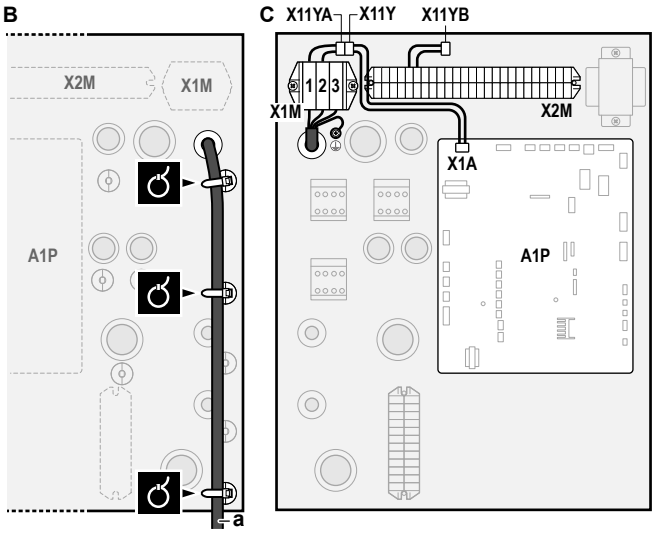


2 Connect the main power supply.

In case of normal kWh rate power supply

	Interconnection cable (= main power supply)	Wires: (3+GND)×1.5 mm²
	—	



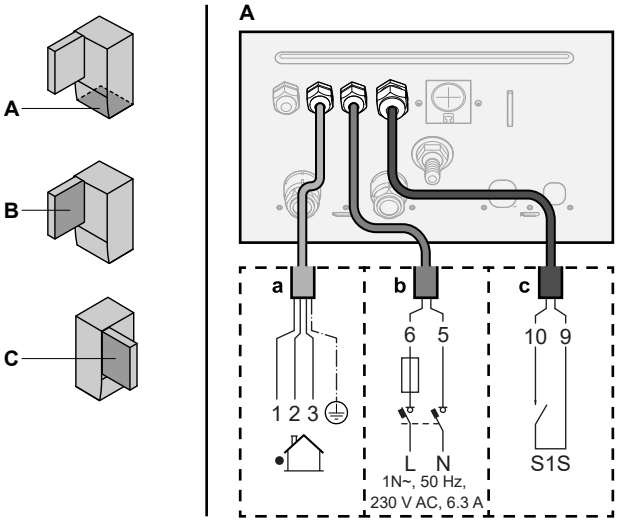


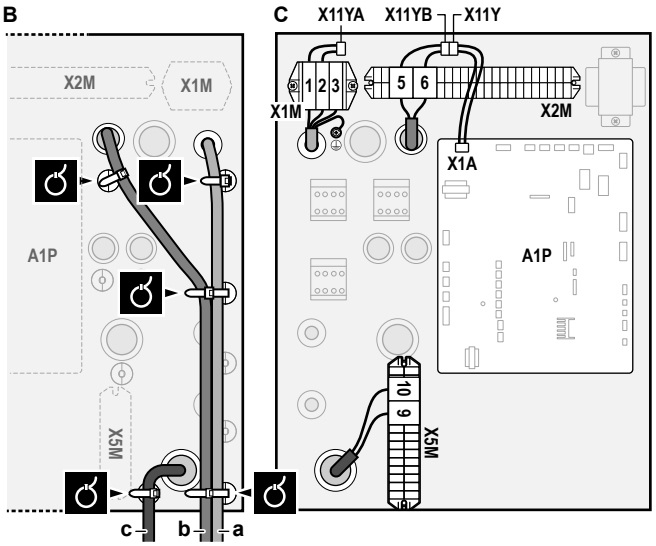
a Interconnection cable (=main power supply)

In case of preferential kWh rate power supply

	Interconnection cable (= main power supply)	Wires: (3+GND)×1.5 mm²
	Normal kWh rate power supply	Wires: 1N Maximum running current: 6.3 A
	Preferential kWh rate power supply contact	Wires: 2×(0.75~1.25 mm²) Maximum length: 50 m. Preferential kWh rate power supply contact: 16 V DC detection (voltage supplied by PCB). The voltage-free contact shall ensure the minimum applicable load of 15 V DC, 10 mA.
	[9.8] `Benefit kWh power supply`	

Connect X11Y to X11YB.





a Interconnection cable (=main power supply)
b Normal kWh rate power supply
c Preferential power supply contact

3 Fix the cables with cable ties to the cable tie mountings.

INFORMATION

In case of preferential kWh rate power supply, connect X11Y to X11YB. The necessity of separate normal kWh rate power supply to indoor unit (b) X2M/5+6 depends on the type of preferential kWh rate power supply.

Separate connection to the indoor unit is required:

- if preferential kWh rate power supply is interrupted when active, OR
- if no power consumption of the indoor unit is allowed at the preferential kWh rate power supply when active.

6.3.2 To connect the backup heater power supply

	Backup heater type	Power supply	Wires
	*6V	1N~ 230 V (6V3)	2+GND
		3~ 230 V (6T1)	3+GND
	*9W	3N~ 400 V	4+GND
	[9.3] `Backup heater`		

WARNING

The backup heater MUST have a dedicated power supply and MUST be protected by the safety devices required by the applicable legislation.

CAUTION

If the indoor unit has a tank with a built-in electrical booster heater, use a dedicated power circuit for the backup heater and booster heater. NEVER use a power circuit shared by another appliance. This power circuit MUST be protected with the required safety devices according to the applicable legislation.

CAUTION

To guarantee the unit is completely earthed, ALWAYS connect the backup heater power supply and the earth cable.

The backup heater capacity can vary, depending on the indoor unit model. Make sure that the power supply is in accordance with the backup heater capacity, as listed in the table below.

Backup heater type	Backup heater capacity	Power supply	Maximum running current	Z_{max}
*6V	2 kW	1N~ 230 V[(a)]	9 A	—
	4 kW	1N~ 230 V[(a)]	17 A[(b)(c)]	0.22 Ω
	6 kW	1N~ 230 V[(a)]	26 A[(b)(c)]	0.22 Ω
	2 kW	3~ 230 V[(d)]	5 A	—
	4 kW	3~ 230 V[(d)]	10 A	—
	6 kW	3~ 230 V[(d)]	15 A	—
*9W	3 kW	3N~ 400 V	4 A	—
	6 kW	3N~ 400 V	9 A	—
	9 kW	3N~ 400 V	13 A	—

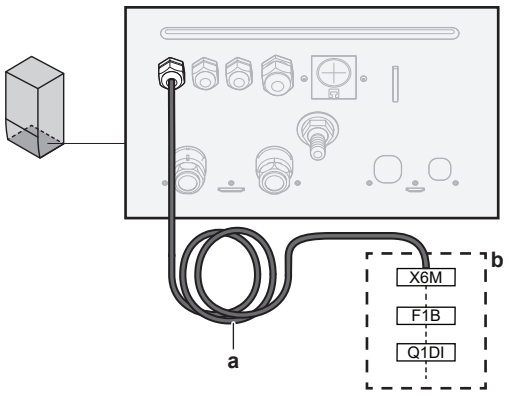
[(a)] 6V3

[(b)] Electrical equipment complying with EN/IEC 61000-3-12 (European/International Technical Standard setting the limits for harmonic currents produced by equipment connected to public low-voltage systems with input current >16 A and ≤75 A per phase).

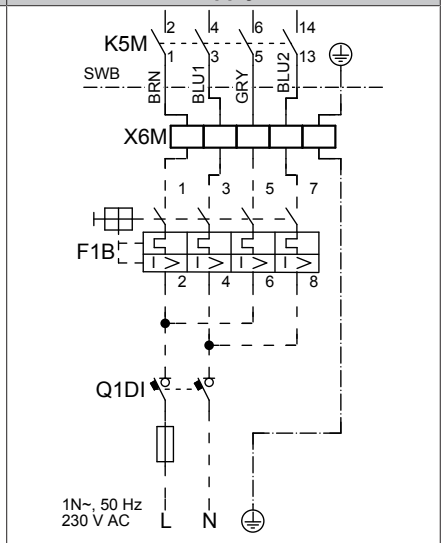
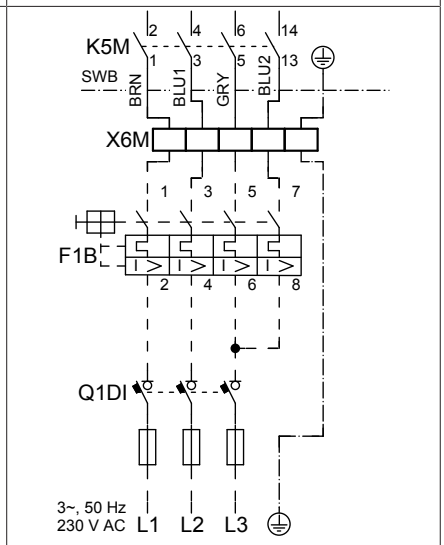
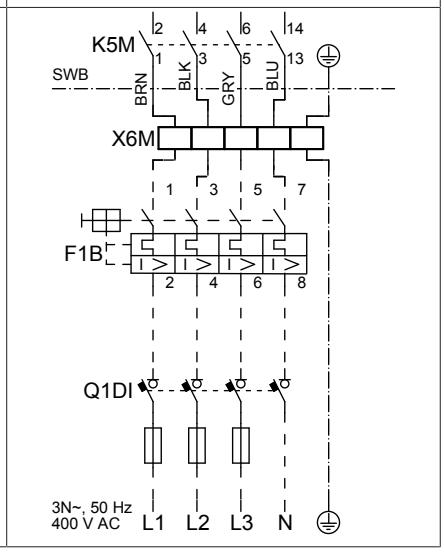
[(c)] This equipment complies with EN/IEC 61000-3-11 (European/International Technical Standard setting the limits for voltage changes, voltage fluctuations and flicker in public low-voltage supply systems for equipment with rated current ≤75 A) provided that the system impedance Z_{sys} is less than or equal to Z_{max} at the interface point between the user's supply and the public system. It is the responsibility of the installer or user of the equipment to ensure, by consultation with the distribution network operator if necessary, that the equipment is connected only to a supply with a system impedance Z_{sys} less than or equal to Z_{max}.

[(d)] 6T1

Connect the backup heater power supply as follows:



a Factory-mounted cable connected to the contactor of the backup heater, inside the switch box (K5M)
b Field wiring (see table below)

Model (power supply)	Connections to backup heater power supply
*6V (6V3: 1N~ 230 V)	
*6V (6T1: 3~ 230 V)	
*9W (3N~ 400 V)	

F1B Overcurrent fuse (field supply). Recommended fuse: 4-pole; 20 A; curve 400 V; tripping class C.
K5M Safety contactor (in the switch box)
Q1DI Earth leakage circuit breaker (field supply)
SWB Switch box
X6M Terminal (field supply)

NOTICE

Do NOT cut or remove the backup heater power supply cable.

6.3.3 To connect the shut-off valve

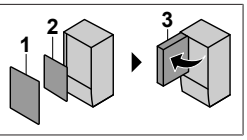
INFORMATION

Shut-off valve usage example. In case of one LWT zone, and a combination of underfloor heating and heat pump convectors, install a shut-off valve before the underfloor heating to prevent condensation on the floor during cooling operation. For more information, see the installer reference guide.

Wires: 2×0.75 mm² Maximum running current: 100 mA 230 V AC supplied by PCB
[2.D] `Shut off valve`

1 Open the following (see "4.2.1 To open the indoor unit" [▶ 13]):

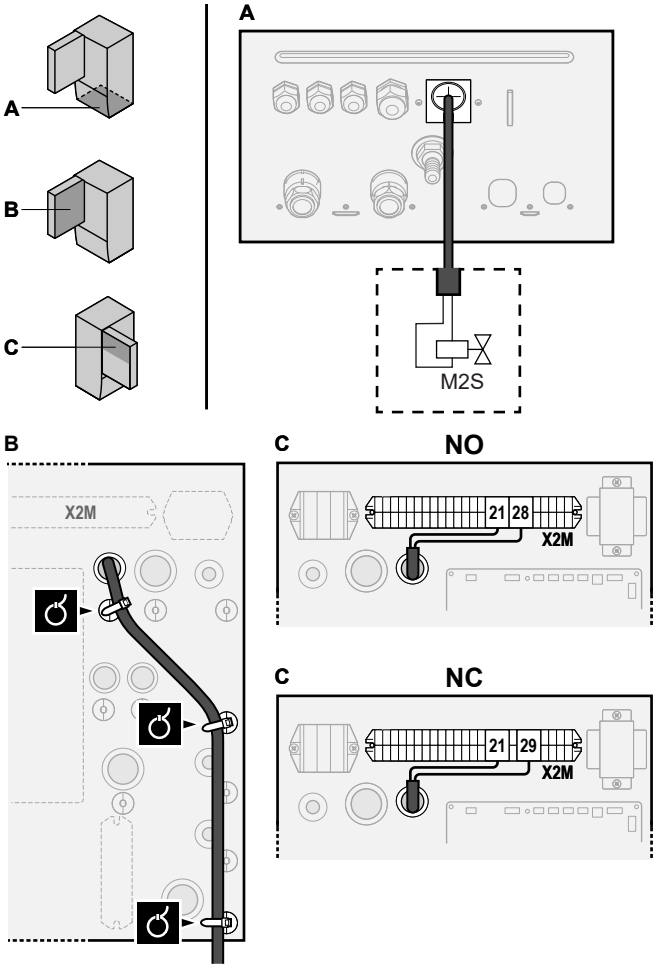
1	Front panel
2	Switch box cover
3	Switch box



2 Connect the valve control cable to the appropriate terminals as shown in the illustration below.

NOTICE

Wiring is different for a NC (normally closed) valve and a NO (normally open) valve.



3 Fix the cable with cable ties to the cable tie mountings.

6.3.4 To connect the electricity meters

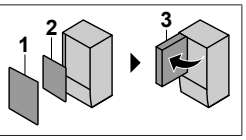
Wires: 2 (per meter)×0.75 mm² Electricity meters: 12 V DC pulse detection (voltage supplied by PCB)
[9.A] `Energy metering`

INFORMATION

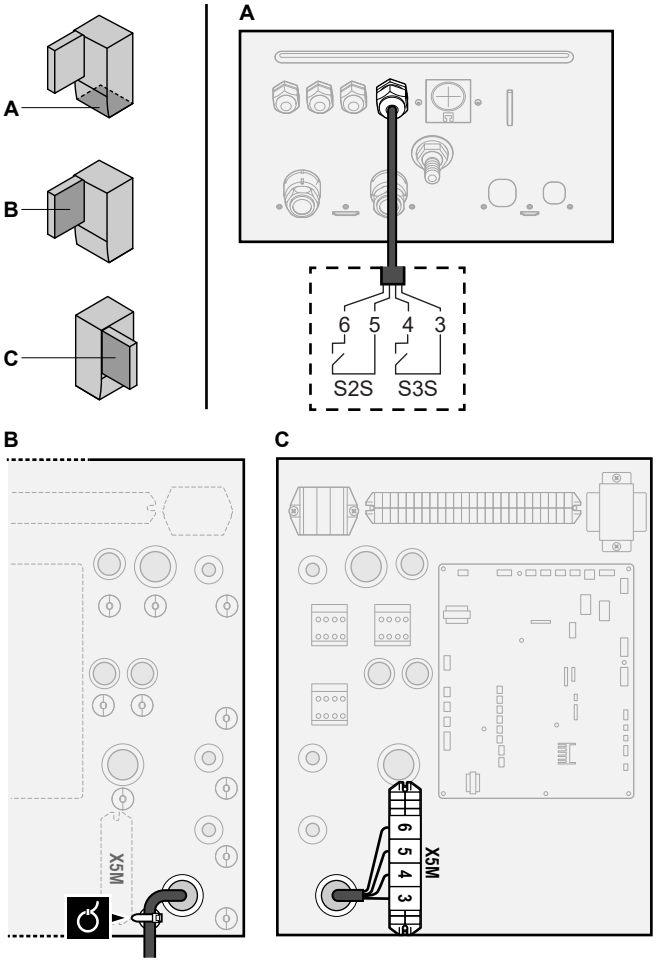
In case of an electricity meter with transistor output, check the polarity. The positive polarity MUST be connected to X5M/6 and X5M/4; the negative polarity to X5M/5 and X5M/3.

1 Open the following (see "4.2.1 To open the indoor unit" [▶ 13]):

1	Front panel
2	Switch box cover
3	Switch box



2 Connect the electricity meters cable to the appropriate terminals as shown in the illustration below.



3 Fix the cable with cable ties to the cable tie mountings.

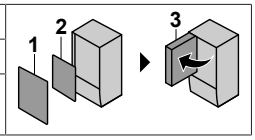
6.3.5 To connect the domestic hot water pump

Wires: (2+GND)×0.75 mm² DHW pump output. Maximum load: 2 A (inrush), 230 V AC, 1 A (continuous)

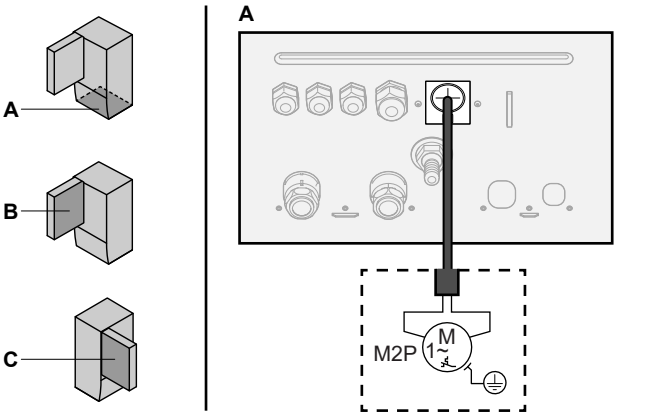
	[9.2.2] DHW pump [9.2.3] DHW pump schedule

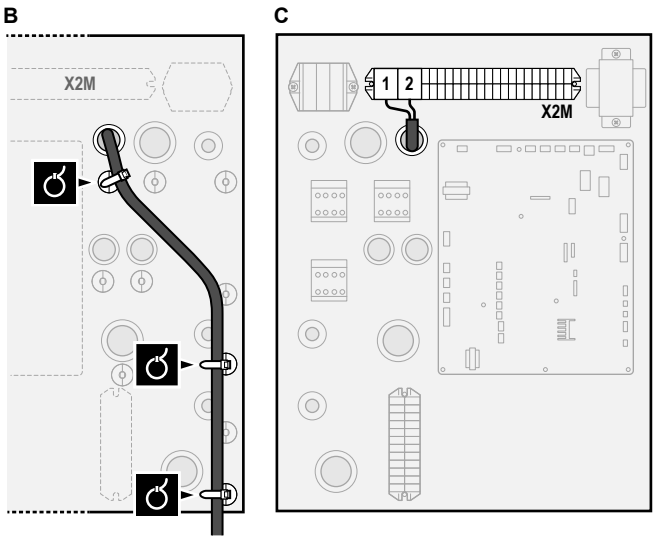
1 Open the following (see "4.2.1 To open the indoor unit" [▶ 13]):

1	Front panel
2	Switch box cover
3	Switch box



2 Connect the domestic hot water pump cable to the appropriate terminals as shown in the illustration below.





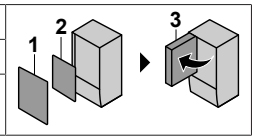
3 Fix the cable with cable ties to the cable tie mountings.

6.3.6 To connect the alarm output

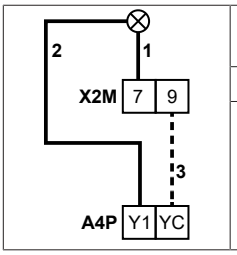
	Wires: (2+1)×0.75 mm² Maximum load: 0.3 A, 250 V AC
	[9.D] Alarm output

1 Open the following (see "4.2.1 To open the indoor unit" [▶ 13]):

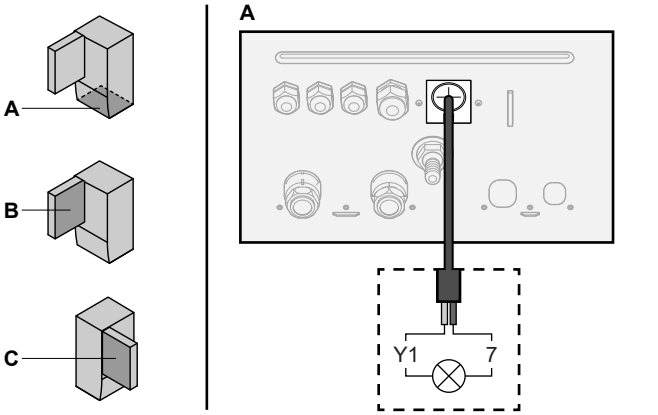
1	Front panel
2	Switch box cover
3	Switch box

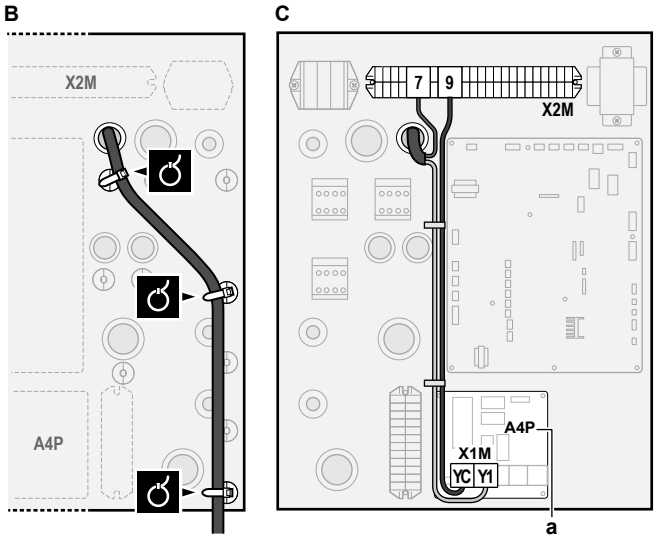


2 Connect the alarm output cable to the appropriate terminals as shown in the illustration below.



1+2	Wires connected to the alarm output
3	Wire between X2M and A4P
A4P	Installation of EKRP1HBAA is required.





a Installation of EKRP1HBAA is required.

3 Fix the cable with cable ties to the cable tie mountings.

6.3.7 To connect the space cooling/heating ON/OFF output

INFORMATION

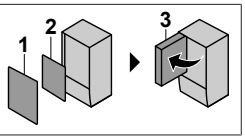
Cooling is only applicable in case of:

- Reversible models
- Heating only models + conversion kit (EKHBCONV*)

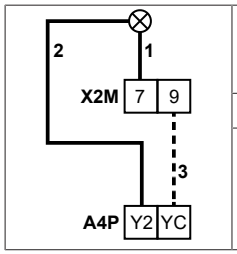
	Wires: (2+1)×0.75 mm² Maximum load: 0.3 A, 250 V AC
	—

1 Open the following (see "4.2.1 To open the indoor unit" [▶ 13]):

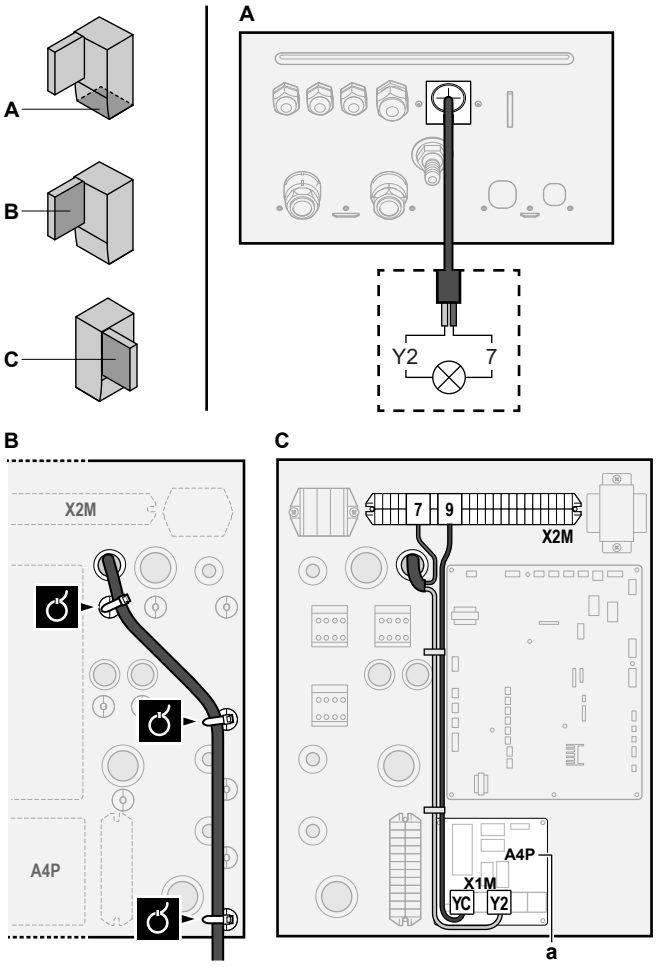
1	Front panel
2	Switch box cover
3	Switch box



2 Connect the space cooling/heating ON/OFF output cable to the appropriate terminals as shown in the illustration below.



1+2	Wires connected to the space cooling/heating ON/OFF output
3	Wire between X2M and A4P
A4P	Installation of EKRP1HBAA is required.



a Installation of EKRP1HBAA is required.

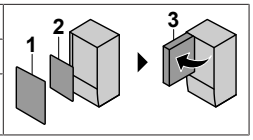
3 Fix the cable with cable ties to the cable tie mountings.

6.3.8 To connect the changeover to external heat source

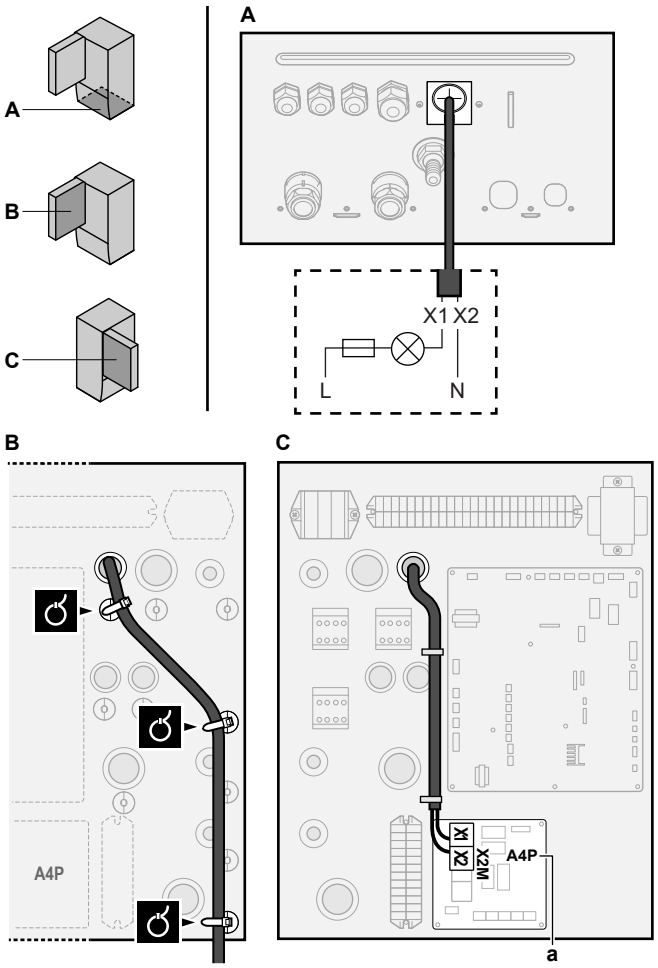
	Wires: 2×0.75 mm² Maximum load: 0.3 A, 250 V AC Minimum load: 20 mA, 5 V DC
	[9.C] `Bivalent`

1 Open the following (see "4.2.1 To open the indoor unit" [▶ 13]):

1	Front panel
2	Switch box cover
3	Switch box



2 Connect the changeover to external heat source cable to the appropriate terminals as shown in the illustration below.



a Installation of EKRP1HBAA is required.

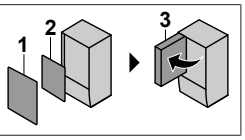
3 Fix the cable with cable ties to the cable tie mountings.

6.3.9 To connect the power consumption digital inputs

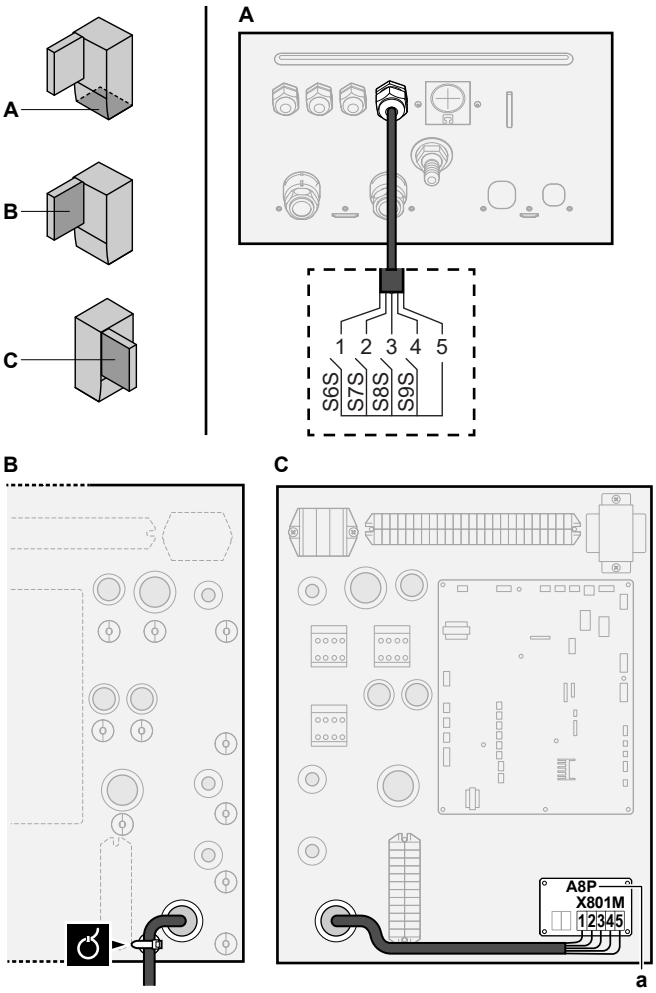
	Wires: 2 (per input signal)×0.75 mm² Power limitation digital inputs: 12 V DC / 12 mA detection (voltage supplied by PCB)
	[9.9] `Power consumption control`.

1 Open the following (see "4.2.1 To open the indoor unit" [▶ 13]):

1	Front panel
2	Switch box cover
3	Switch box



2 Connect the power consumption digital inputs cable to the appropriate terminals as shown in the illustration below.



a Installation of EKRP1AHTA is required.

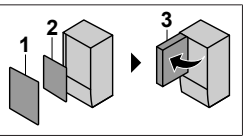
3 Fix the cable with cable ties to the cable tie mountings.

6.3.10 To connect the safety thermostat (normally closed contact)

	Wires: 2×0.75 mm² Maximum length: 50 m Safety thermostat contact: 16 V DC detection (voltage supplied by PCB). The voltage-free contact shall ensure the minimum applicable load of 15 V DC, 10 mA.
	—

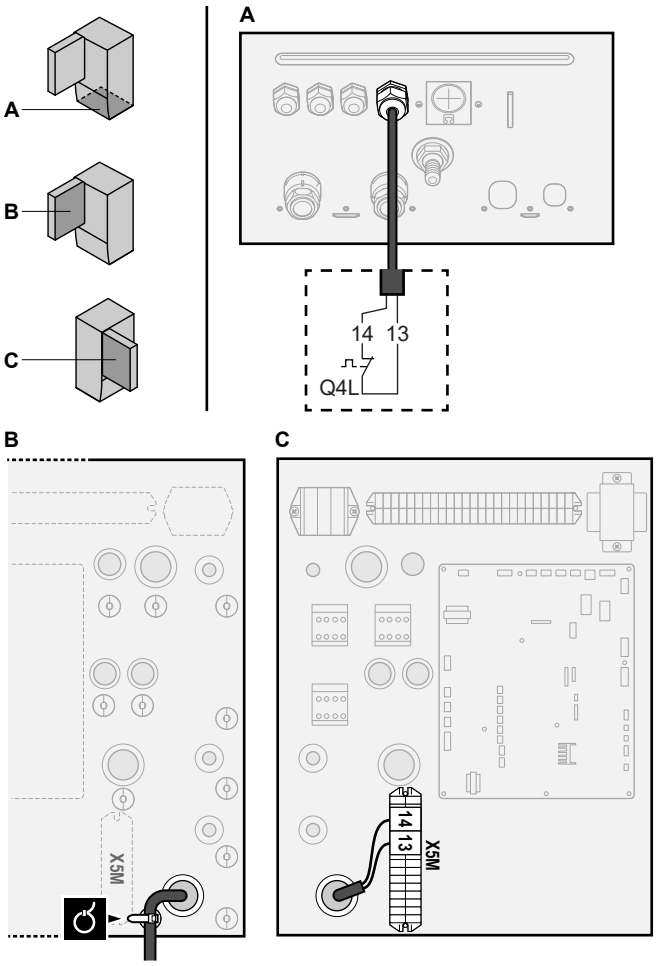
1 Open the following (see "4.2.1 To open the indoor unit" [▸ 13]):

1	Front panel
2	Switch box cover
3	Switch box



2 Connect the safety thermostat (normally closed) cable to the appropriate terminals as shown in the illustration below.

Note: The jumper wire (factory-mounted) must be removed from the respective terminals.



3 Fix the cable with cable ties to the cable tie mountings.

NOTICE

Make sure to select and install the safety thermostat according to the applicable legislation.

In any case, to prevent unnecessary tripping of the safety thermostat, we recommend the following:

- The safety thermostat is automatically resettable.
- The safety thermostat has a maximum temperature variation rate of 2°C/min.
- There is a minimum distance of 2 m between the safety thermostat and the motorized 3-way valve delivered with the domestic hot water tank.

NOTICE

Error. If you remove the jumper (open circuit) but do NOT connect the safety thermostat, stop error 8H-03 will occur.

6.3.11 To connect a Smart Grid

This topic describes 2 possible ways to connect the indoor unit to a Smart Grid:

- In case of low voltage Smart Grid contacts
- In case of high voltage Smart Grid contacts. This requires the installation of the Smart Grid relay kit (EKRELSG).

The 2 incoming Smart Grid contacts can activate the following Smart Grid modes:

Smart Grid contact		Smart Grid operation mode
❶	❷	
0	0	Free running

Smart Grid contact		Smart Grid operation mode
❶	❷	
0	1	Forced off
1	0	Recommended on
1	1	Forced on

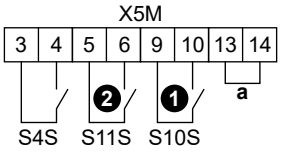
The use of a Smart Grid pulse meter is not mandatory:

If Smart Grid pulse meter is…	Then [9.8.8] Limit setting kW is…
Used ([9.A.2] Electricity meter 2 ≠ None)	Not applicable
Not used ([9.A.2] Electricity meter 2 = None)	Applicable

In case of low voltage Smart Grid contacts

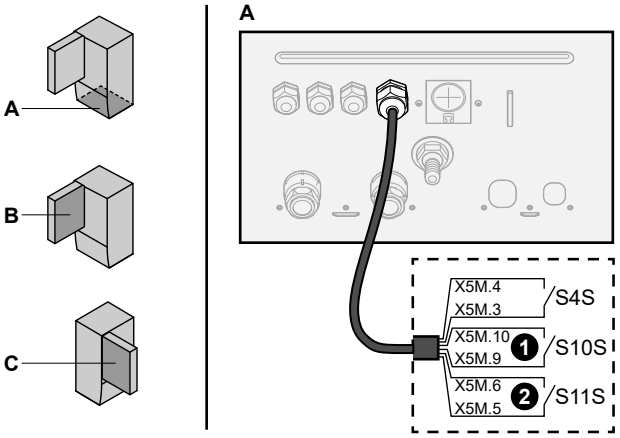
	Wires (Smart Grid pulse meter): 0.5 mm² Wires (low voltage Smart Grid contacts): 0.5 mm²
	[9.8.4]=3 (Benefit kWh power supply = Smart grid) [9.8.5] Smart grid operation mode [9.8.6] Allow electrical heaters [9.8.7] Enable room buffering [9.8.8] Limit setting kW

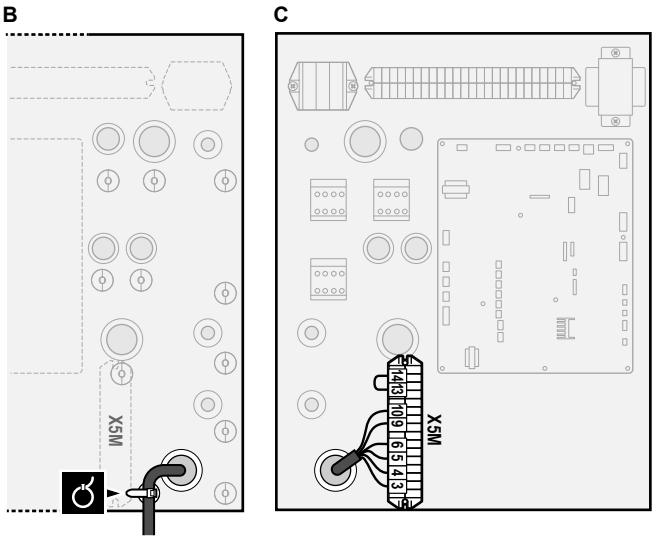
The wiring of the Smart Grid in case of low voltage contacts is as follows:



a Jumper (factory-mounted). If you also connect a safety thermostat (Q4L), replace the jumper with the safety thermostat wires.
S4S Smart Grid pulse meter
❶**/S10S** Low voltage Smart Grid contact 1
❷**/S11S** Low voltage Smart Grid contact 2

1 Connect the wiring as follows:



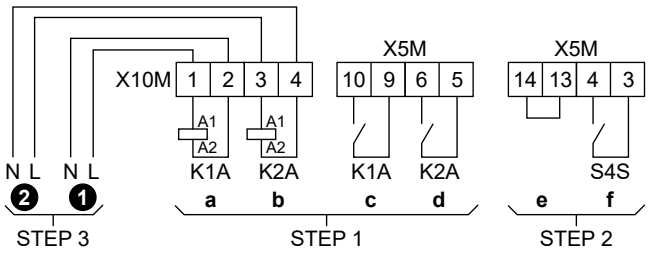


2 Fix the cables with cable ties to the cable tie mountings.

In case of high voltage Smart Grid contacts

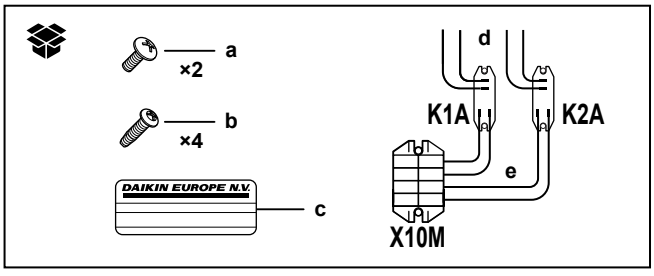
	Wires (Smart Grid pulse meter): 0.5 mm² Wires (high voltage Smart Grid contacts): 1 mm²
	[9.8.4]=3 (Benefit kWh power supply = Smart grid) [9.8.5] Smart grid operation mode [9.8.6] Allow electrical heaters [9.8.7] Enable room buffering [9.8.8] Limit setting kW

The wiring of the Smart Grid in case of high voltage contacts is as follows:



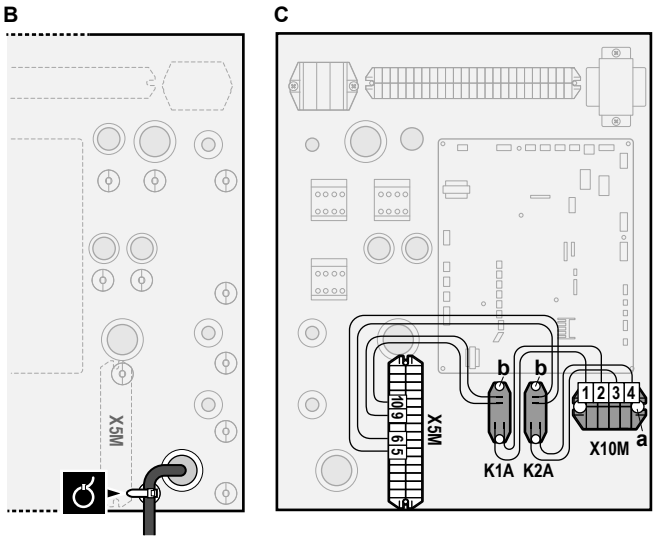
STEP 1 Smart Grid relay kit installation
STEP 2 Low voltage connections
STEP 3 High voltage connections
❶ High voltage Smart Grid contact 1
❷ High voltage Smart Grid contact 2
a, b Coil sides of relays
c, d Contact sides of relays
e Jumper (factory-mounted). If you also connect a safety thermostat (Q4L), replace the jumper with the safety thermostat wires.
f Smart Grid pulse meter

1 Install the components of the Smart Grid relay kit as follows:

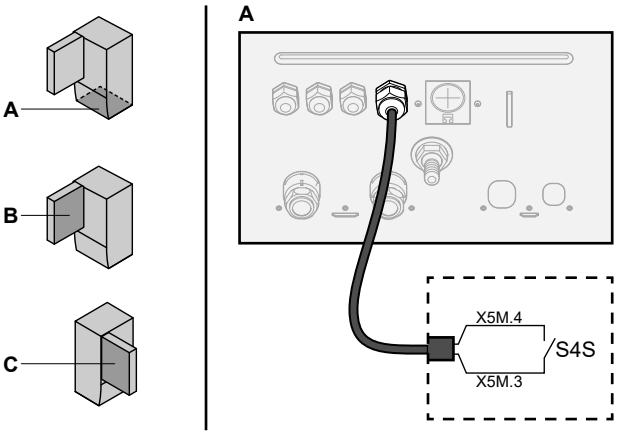


K1A, K2A Relays
X10M Terminal block
a Screws for X10M
b Screws for K1A and K2A
c Sticker to put on the high voltage wires

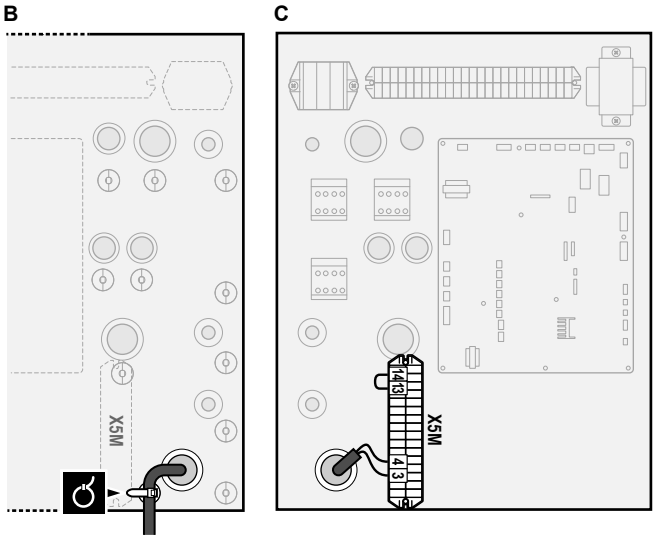
d Wires between the relays and X5M (AWG22 ORG)
e Wires between the relays and X10M (AWG18 RED)



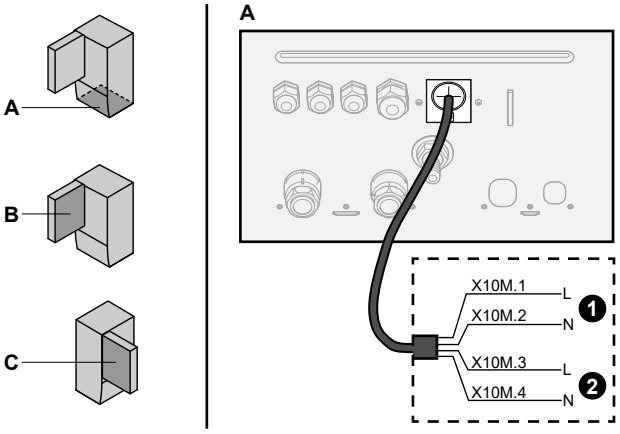
2 Connect the low voltage wiring as follows:



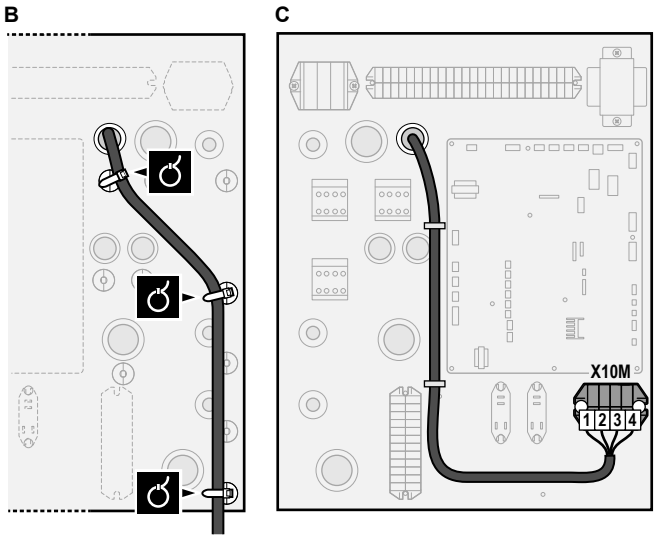
S4S Smart Grid pulse meter



3 Connect the high voltage wiring as follows:



1 High voltage Smart Grid contact 1
2 High voltage Smart Grid contact 2



4 Fix the cables with cable ties to the cable tie mountings. If necessary, bundle excessive cable length with a cable tie.

7 Configuration

INFORMATION

Cooling is only applicable in case of:

- Reversible models
- Heating only models + conversion kit (EKHBCONV*)

7.1 Overview: Configuration

This chapter describes what you have to do and know to configure the system after it is installed.

NOTICE

This chapter explains only the basic configuration. For more detailed explanation and background information, see the installer reference guide.

Why

If you do NOT configure the system correctly, it might NOT work as expected. The configuration influences the following:

- The calculations of the software
- What you can see on and do with the user interface

How

You can configure the system via the user interface.

- **First time – Configuration wizard.** When you turn ON the user interface for the first time (via the unit), the configuration wizard starts to help you configure the system.
- **Restart the configuration wizard.** If the system is already configured, you can restart the configuration wizard. To restart the configuration wizard, go to `Installer settings` > `Configuration wizard`. To access `Installer settings`, see "7.1.1 To access the most used commands" [▶ 28].
- **Afterwards.** If necessary, you can make changes to the configuration in the menu structure or the overview settings.

INFORMATION

When the configuration wizard is finished, the user interface will show an overview screen and request to confirm. When confirmed, the system will restart and the home screen will be displayed.

Accessing settings – Legend for tables

You can access the installer settings using two different methods. However, NOT all settings are accessible via both methods. If so, the corresponding table columns in this chapter are set to N/A (not applicable).

Method	Column in tables
Accessing settings via the breadcrumb in the **home menu screen** or the **menu structure**. To enable breadcrumbs, press the **?** button in the home screen.	**#** For example: [2.9]
Accessing settings via the code in the **overview field settings**.	**Code** For example: [C-07]

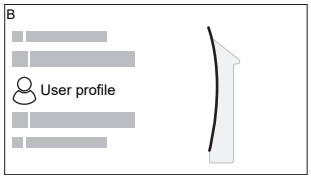
See also:

- "To access the installer settings" [▶ 28]
- "7.5 Menu structure: Overview installer settings" [▶ 36]

7.1.1 To access the most used commands

To change the user permission level

You can change the user permission level as follows:

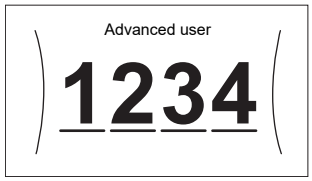
1	Go to [B]: `User profile`. 	
2	Enter the applicable pin code for the user permission level.	—
	▪ Browse through the list of digits and change the selected digit.	
	▪ Move the cursor from left to right.	
	▪ Confirm the pin code and proceed.	

Installer pin code

The `Installer` pin code is **5678**. Additional menu items and installer settings are now available.

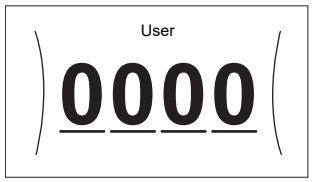
Advanced user pin code

The `Advanced user` pin code is **1234**. Additional menu items for the user are now visible.



User pin code

The `User` pin code is **0000**.



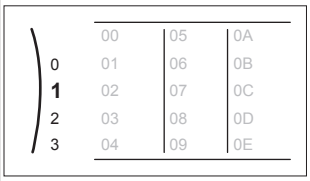
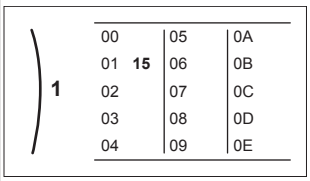
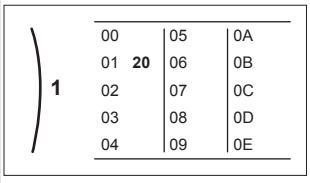
To access the installer settings

1. Set the user permission level to `Installer`.
2. Go to [9]: `Installer settings`.

To modify an overview setting

Example: Modify [1-01] from 15 to 20.

Most settings can be configured via the menu structure. If for any reason it is required to change a setting using the overview settings, then the overview settings can be accessed as follows:

1	Set the user permission level to `Installer`. See "To change the user permission level" [▶ 28].	—
2	Go to [9.I]: `Installer settings` > `Overview field settings`.	
3	Turn the left dial to select the first part of the setting and confirm by pressing the dial. 	
4	Turn the left dial to select the second part of the setting 	
5	Turn the right dial to modify the value from 15 to 20. 	
6	Press the left dial to confirm the new setting.	
7	Press the center button to go back to the home screen.	

INFORMATION

When you change the overview settings and you go back to the home screen, the user interface will show a popup screen and request to restart the system.

When confirmed, the system will restart and recent changes will be applied.

7.2 Configuration wizard

After first power ON of the system, the user interface will guide you using the configuration wizard. This way you can set the most important initial settings. This way the unit will be able to run properly. Afterwards, more detailed settings can be done via the menu structure if required.

Protective functions

The unit is equipped with the following protective functions:

- Room antifrost [2-06]
- Tank disinfection [2-01]

The unit automatically runs the protective functions when necessary. During installation or service, this behaviour is undesired. Therefore, the protective functions can be disabled. For more information, see the Installer reference guide, chapter Configuration.

7.2.1 Configuration wizard: Language

#	Code	Description
[7.1]	N/A	Language

7.2.2 Configuration wizard: Time and date

#	Code	Description
[7.2]	N/A	Set the local time and date

INFORMATION

By default, daylight savings time is enabled and clock format is set to 24 hours. These settings can be changed during initial configuration or via the menu structure [7.2]: `User settings` > `Time/date`.

7.2.3 Configuration wizard: System

Indoor unit type

The indoor unit type is displayed, but cannot be adjusted.

Backup heater type

The backup heater is adapted to be connected to most common European electricity grids. The type of backup heater can be viewed but not changed.

#	Code	Description
[9.3.1]	[E-03]	▪ 3: 6V ▪ 4: 9W

Domestic hot water

The following setting determines if the system can prepare domestic hot water or not, and which tank is used. Set this setting according to the actual installation.

#	Code	Description
[9.2.1]	[E-05][(a)] [E-06][(a)] [E-07][(a)]	▪ `No DHW` No tank installed. ▪ `EKHWS/E, small volume` Tank with booster heater installed at the side of the tank, with a volume of 150 l or 180 l. ▪ `EKHWS/E, big volume` Tank with booster heater installed at the side of the tank, with a volume of 200 l, 250 l or 300 l. ▪ `EKHWP/HYC` Tank with optional booster heater installed at the top of the tank. ▪ `3rd party, small coil` Third-party tank with a coil size larger than 1.05 m². ▪ `3rd party, big coil` Third-party tank with a coil size larger than 1.80 m².

(a) Use the menu structure instead of the overview settings. Menu structure setting [9.2.1] replaces the following 3 overview settings:
- [E-05]: Can the system prepare domestic hot water?
- [E-06]: Is a domestic hot water tank installed in the system?
- [E-07]: What kind of domestic hot water tank is installed?

In case of EKHWP, we recommend to use the following settings:

#	Code	Item	EKHWP
[9.2.1]	[E-07]	Tank type	5: `EKHWP/HYC`
N/A	[4-05]	Thermistor type	0: Automatic
[5.8]	[6-0E]	Maximum tank temperature	≤70°C

In case of EKHWS*D* / EKHWSU*D*, we recommend to use the following settings:

#	Code	Item	EKHWS*D* / EKHWSU*D*	
			150/180	200/250/300
[9.2.1]	[E-07]	Tank type	0: `EKHWS/E, small volume`	3: `EKHWS/E, big volume`
N/A	[4-05]	Thermistor type	0: Automatic	1: Type 1
[5.8]	[6-0E]	Maximum tank temperature	≤60°C	≤75°C

In case of a third-party tank, we recommend to use the following settings:

#	Code	Item	Third-party tank	
			Coil≥1.05 m²	Coil≥1.8 m²
[9.2.1]	[E-07]	Tank type	7: `3rd party, small coil`	8: `3rd party, big coil`
N/A	[4-05]	Thermistor type	0: Automatic	1: Type 1
[5.8]	[6-0E]	Maximum tank temperature	≤60°C	≤75°C

Emergency

When the heat pump fails to operate, the backup heater and/or booster heater can serve as an emergency heater. It then takes over the heat load either automatically or by manual interaction.

- When `Emergency` is set to `Automatic` and a heat pump failure occurs, the backup heater automatically takes over the heat load, and the booster heater in the optional tank takes over the domestic hot water production.

- When Emergency is set to Manual and a heat pump failure occurs, the domestic hot water heating and space heating stops.

  To manually recover it via the user interface, go to the Malfunctioning main menu screen and confirm whether the backup heater and/or booster heater can take over the heat load or not.

- Alternatively, when Emergency is set to:
  - auto SH reduced/DHW on, space heating is reduced but domestic hot water is still available.
  - auto SH reduced/DHW off, space heating is reduced and domestic hot water is NOT available.
  - auto SH normal/DHW off, space heating operates as normally but domestic hot water is NOT available.

  Similarly as in Manual mode, the unit can take the full load with the backup heater and/or booster heater if the user activates this via the Malfunctioning main menu screen.

To keep energy consumption low, we recommend to set Emergency to auto SH reduced/DHW off if the house is unattended for longer periods.

#	Code	Description
[9.5.1]	[4-06]	▪ 0: Manual ▪ 1: Automatic ▪ 2: auto SH reduced/DHW on ▪ 3: auto SH reduced/DHW off ▪ 4: auto SH normal/DHW off

INFORMATION

The auto emergency setting can be set in the menu structure of the user interface only.

INFORMATION

If [4-03]=1 or 3, then Emergency = Manual is not applicable for the booster heater.

INFORMATION

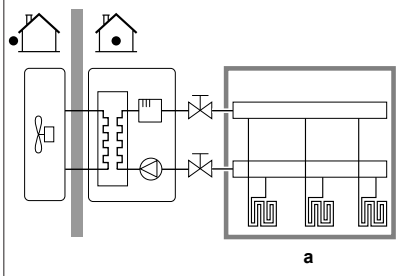
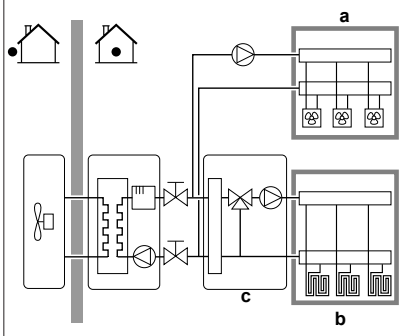
If a heat pump failure occurs and Emergency is not set to Automatic (setting 1), the room frost protection function and the underfloor heating screed dryout function will remain active even if the user does NOT confirm emergency operation.

Number of zones

The system can supply leaving water to up to 2 water temperature zones. During configuration, the number of water zones must be set.

INFORMATION

Mixing station. If your system layout contains 2 LWT zones, you need to install a mixing station in front of the main LWT zone.

#	Code	Description
[4.4]	[7-02]	▪ 0: Single zone Only one leaving water temperature zone:  **a** Main LWT zone
[4.4]	[7-02]	▪ 1: Dual zone Two leaving water temperature zones. The main leaving water temperature zone consists of the higher load heat emitters and a mixing station to achieve the desired leaving water temperature. In heating:  **a** Additional LWT zone: Highest temperature **b** Main LWT zone: Lowest temperature **c** Mixing station

NOTICE

NOT configuring the system in the following way can cause damage to the heat emitters. If there are 2 zones, it is important that in heating:

- the zone with the lowest water temperature is configured as the main zone, and
- the zone with the highest water temperature is configured as the additional zone.

NOTICE

If there are 2 zones and the emitter types are wrongly configured, water of high temperature can be sent towards a low temperature emitter (underfloor heating). To avoid this:

- Install an aquastat/thermostatic valve to avoid too high temperatures towards a low temperature emitter.
- Make sure you set the emitter types for the main zone [2.7] and for the additional zone [3.7] correctly in accordance with the connected emitter.

NOTICE

An overpressure bypass valve can be integrated in the system. Keep in mind that this valve might not be shown on the illustrations.

Booster heater capacity

The capacity of the booster heater must be set for the energy metering and/or power consumption control feature to work properly. When measuring the resistance value of the booster heater, you can set the exact heater capacity and this will lead to more accurate energy data.

#	Code	Description
[9.4.1]	[6-02]	`Booster heater capacity` [kW]. Only applies to domestic hot water tank with an internal booster heater. The capacity of the booster heater at nominal voltage. Range: 0~10 kW

7.2.4 Configuration wizard: Backup heater

The backup heater is adapted to be connected to most common European electricity grids. If the backup heater is available, the voltage, configuration and capacity must be set on the user interface.

The capacities for the different steps of the backup heater must be set for the energy metering and/or power consumption control feature to work properly. When measuring the resistance value of each heater, you can set the exact heater capacity and this will lead to more accurate energy data.

Backup heater type

The backup heater is adapted to be connected to most common European electricity grids. The type of backup heater can be viewed but not changed.

#	Code	Description
[9.3.1]	[E-03]	▪ 3: `6V` ▪ 4: `9W`

Voltage

- For a `6V` model, this can be set to:
  - `230V, 1ph`
  - `230V, 3ph`
- For a `9W` model, this is fixed to `400V, 3ph`.

#	Code	Description
[9.3.2]	[5-0D]	▪ 0: `230V, 1ph` ▪ 1: `230V, 3ph` ▪ 2: `400V, 3ph`

Configuration

The backup heater can be configured in different ways. It can be chosen to have a 1-step only backup heater or a backup heater with 2 steps. If 2 steps, the capacity of the second step depends on this setting. It can also be chosen to have a higher capacity of the second step in emergency.

#	Code	Description
[9.3.3]	[4-0A]	▪ 0: Relay 1 ▪ 1: Relay 1 / Relay 1+2 ▪ 2: Relay 1 / Relay 2 ▪ 3: Relay 1 / Relay 2 `Emergency` Relay 1+2

INFORMATION

Settings [9.3.3] and [9.3.5] are linked. Changing one setting influences the other. If you change one, check if the other is still as expected.

INFORMATION

During normal operation, the capacity of the second step of the backup heater at nominal voltage is equal to [6-03]+[6-04].

INFORMATION

If [4-0A]=3 and emergency mode is active, the power usage of the backup heater is maximal and equal to 2×[6-03]+[6-04].

Capacity step 1

#	Code	Description
[9.3.4]	[6-03]	▪ The capacity of the first step of the backup heater at nominal voltage.

Additional capacity step 2

#	Code	Description
[9.3.5]	[6-04]	▪ The capacity difference between the second and first step of the backup heater at nominal voltage. Nominal value depends on backup heater configuration.

7.2.5 Configuration wizard: Main zone

The most important settings for the main leaving water zone can be set here.

Emitter type

Heating up or cooling down the main zone can take longer. This depends on:

- The water volume of the system
- The heater emitter type of the main zone

The setting `Emitter type` can compensate for a slow or a quick heating/cooling system during the heat up/cool down cycle. In room thermostat control, `Emitter type` influences the maximum modulation of the desired leaving water temperature, and the possibility for usage of the automatic cooling/heating changeover based on the indoor ambient temperature.

It is important to set `Emitter type` correctly and in accordance with your system layout. The target delta T for the main zone depends on it.

#	Code	Description
[2.7]	[2-0C]	▪ 0: `Underfloor heating` ▪ 1: `Fancoil unit` ▪ 2: `Radiator`

The setting of the emitter type has an influence on the space heating setpoint range and the target delta T in heating as follows:

Description	Space heating setpoint range	Target delta T in heating
0: `Underfloor heating`	Maximum 55°C	Variable
1: `Fancoil unit`	Maximum 55°C	Variable
2: `Radiator`	Maximum 60°C	Fixed 8°C

NOTICE

Average emitter temperature = Leaving water temperature – (Delta T)/2

This means that for a same leaving water temperature setpoint, the average emitter temperature of radiators is lower than that of underfloor heating because of a bigger delta T.

Example radiators: 40–8/2=**36°C**

Example underfloor heating: 40–5/2=**37.5°C**

To compensate, you can:

- Increase the weather-dependent curve desired temperatures [2.5].
- Enable leaving water temperature modulation and increase the maximum modulation [2.C].

Control

Define how the operation of the unit is controlled.

Control	In this control...
`Leaving water`	Unit operation is decided based on the leaving water temperature regardless the actual room temperature and/or heating or cooling demand of the room.
`External room thermostat`	Unit operation is decided by the external thermostat or equivalent (e.g. heat pump convector).
`Room thermostat`	Unit operation is decided based on the ambient temperature of the dedicated Human Comfort Interface (BRC1HHDA used as room thermostat).

#	Code	Description
[2.9]	[C-07]	▪ 0: `Leaving water` ▪ 1: `External room thermostat` ▪ 2: `Room thermostat`

Setpoint mode

Define the setpoint mode:

- `Fixed`: the desired leaving water temperature does not depend on the outdoor ambient temperature.
- In `WD heating, fixed cooling` mode, the desired leaving water temperature:
  - depends on the outdoor ambient temperature for heating
  - does NOT depend on the outdoor ambient temperature for cooling
- In `Weather dependent` mode, the desired leaving water temperature depends on the outdoor ambient temperature.

#	Code	Description
[2.4]	N/A	`Setpoint mode`: ▪ `Fixed` ▪ `WD heating, fixed cooling` ▪ `Weather dependent`

When weather dependent operation is active, low outdoor temperatures will result in warmer water and vice versa. During weather dependent operation, the user can shift the water temperature up or down by a maximum of 10°C.

Schedule

Indicates if the desired leaving water temperature is according to a schedule. Influence of the LWT setpoint mode [2.4] is as follows:

- In `Fixed` LWT setpoint mode, the scheduled actions consist of desired leaving water temperatures, either preset or custom.
- In `Weather dependent` LWT setpoint mode, the scheduled actions consist of desired shift actions, either preset or custom.

#	Code	Description
[2.1]	N/A	▪ 0: `No` ▪ 1: `Yes`

7.2.6 Configuration wizard: Additional zone

The most important settings for the additional leaving water zone can be set here.

Emitter type

For more info about this functionality, see "7.2.5 Configuration wizard: Main zone" [▸ 31].

#	Code	Description
[3.7]	[2-0D]	▪ 0: `Underfloor heating` ▪ 1: `Fancoil unit` ▪ 2: `Radiator`

Control

The control type is displayed here, but cannot be adjusted. It is determined by the control type of the main zone. For more info about the functionality, see "7.2.5 Configuration wizard: Main zone" [▸ 31].

#	Code	Description
[3.9]	N/A	▪ 0: `Leaving water` if the control type of the main zone is `Leaving water`. ▪ 1: `External room thermostat` if the control type of the main zone is `External room thermostat` or `Room thermostat`.

Setpoint mode

For more info about this functionality, see "7.2.5 Configuration wizard: Main zone" [▸ 31].

#	Code	Description
[3.4]	N/A	▪ 0: `Fixed` ▪ 1: `WD heating, fixed cooling` ▪ 2: `Weather dependent`

If you choose `WD heating, fixed cooling` or `Weather dependent`, the next screen will be the detailed screen with weather-dependent curves. Also see "7.3 Weather-dependent curve" [▸ 33].

Schedule

Indicates if the desired leaving water temperature is according to a schedule. Also see "7.2.5 Configuration wizard: Main zone" [▸ 31].

#	Code	Description
[3.1]	N/A	▪ 0: `No` ▪ 1: `Yes`

7.2.7 Configuration wizard: Tank

This part only applies to systems with an optional domestic hot water tank installed.

Heat up mode

The domestic hot water can be prepared in 3 different ways. They differ from each other by the way the desired tank temperature is set and how the unit acts upon it.

#	Code	Description
[5.6]	[6-0D]	`Heat up mode`: ▪ 0: `Reheat only`: Only reheat operation is allowed. ▪ 1: `Schedule + reheat`: The domestic hot water tank is heated according to a schedule and between the scheduled heat up cycles, reheat operation is allowed. ▪ 2: `Schedule only`: The domestic hot water tank can ONLY be heated according to a schedule.

See the operation manual for more details.

INFORMATION

Risk of space heating capacity shortage for domestic hot water tank without internal booster heater: In case of frequent domestic hot water operation, frequent and long space heating/cooling interruption will happen when selecting the following:

`Tank` > `Heat up mode` > `Reheat only`.

Comfort setpoint

Only applicable when domestic hot water preparation is `Schedule only` or `Schedule + reheat`. When programming the schedule, you can make use of the comfort setpoint as a preset value. When you later want to change the storage setpoint, you only have to do it in one place.

The tank will heat up until the **storage comfort temperature** has been reached. It is the higher desired temperature when a storage comfort action is scheduled.

Additionally, a storage stop can be programmed. This feature puts a stop to tank heating even if the setpoint has NOT been reached. Only program a storage stop when tank heating is absolutely undesirable.

#	Code	Description
[5.2]	[6-0A]	`Comfort setpoint`: ▪ 30°C~[6-0E]°C

Eco setpoint

The **storage economic temperature** denotes the lower desired tank temperature. It is the desired temperature when a storage economic action is scheduled (preferably during day).

#	Code	Description
[5.3]	[6-0B]	`Eco setpoint`: ▪ 30°C~min(50,[6-0E])°C

Reheat setpoint

Desired reheat tank temperature, used:

- in `Schedule + reheat` mode, during reheat mode: the guaranteed minimum tank temperature is set by the `Reheat setpoint` minus the reheat hysteresis. If the tank temperature drops below this value, the tank is heated up.
- during storage comfort, to prioritize the domestic hot water preparation. When the tank temperature rises above this value, domestic hot water preparation and space heating/cooling are executed sequentially.

#	Code	Description
[5.4]	[6-0C]	`Reheat setpoint`: ▪ 30°C~min(50,[6-0E])°C

7.3 Weather-dependent curve

7.3.1 What is a weather-dependent curve?

Weather-dependent operation

The unit operates 'weather dependent' if the desired leaving water or tank temperature is determined automatically by the outdoor temperature. It therefore is connected to a temperature sensor on the North wall of the building. If the outdoor temperature drops or rises, the unit compensates instantly. Thus, the unit does not have to wait for feedback by the thermostat to increase or decrease the temperature of the leaving water or tank. Because it reacts more quickly, it prevents high rises and drops of the indoor temperature and water temperature at tap points.

Advantage

Weather-dependent operation reduces energy consumption.

Weather-dependent curve

To be able to compensate for differences in temperature, the unit relies on its weather-dependent curve. This curve defines how much the temperature of the tank or leaving water must be at different outdoor temperatures. Because the slope of the curve depends on local circumstances such as climate and the insulation of the house, the curve can be adjusted by an installer or user.

Types of weather-dependent curve

There are 2 types of weather-dependent curves:

- 2-points curve
- Slope-offset curve

Which type of curve you use to make adjustments, depends on your personal preference. See "7.3.4 Using weather-dependent curves" [▶ 34].

Availability

The weather-dependent curve is available for:

- Main zone - Heating
- Main zone - Cooling
- Additional zone - Heating
- Additional zone - Cooling
- Tank (only available to installers)

INFORMATION

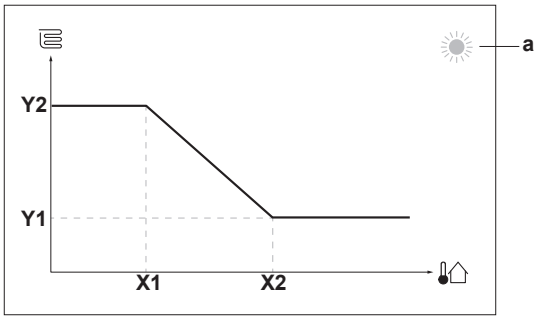
To operate weather dependent, correctly configure the setpoint of the main zone, additional zone or tank. See "7.3.4 Using weather-dependent curves" [▶ 34].

7.3.2 2-points curve

Define the weather-dependent curve with these two setpoints:

- Setpoint (X1, Y2)
- Setpoint (X2, Y1)

Example



Item	Description
a	Selected weather dependent zone: ▪ : Main zone or additional zone heating ▪ : Main zone or additional zone cooling ▪ : Domestic hot water
X1, X2	Examples of outdoor ambient temperature
Y1, Y2	Examples of desired tank temperature or leaving water temperature. The icon corresponds to the heat emitter for that zone: ▪ : Underfloor heating ▪ : Fan coil unit ▪ : Radiator ▪ : Domestic hot water tank

Possible actions on this screen	
	Go through the temperatures.
	Change the temperature.
	Go to the next temperature.
	Confirm changes and proceed.

7.3.3 Slope-offset curve

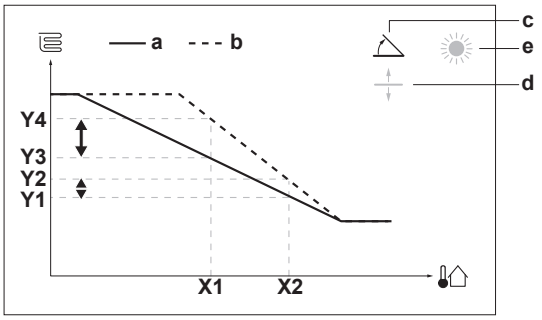
Slope and offset

Define the weather-dependent curve by its slope and offset:

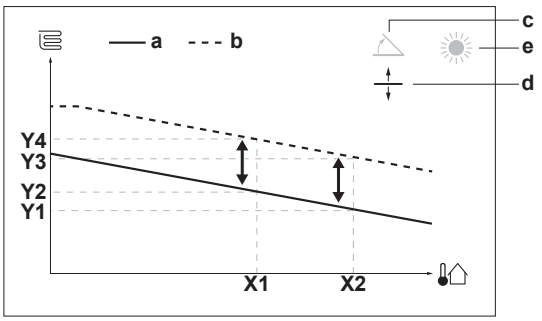
- Change the **slope** to differently increase or decrease the temperature of the leaving water for different ambient temperatures. For example, if leaving water temperature is in general fine but at low ambient temperatures too cold, raise the slope so that leaving water temperature is heated increasingly more at decreasingly lower ambient temperatures.
- Change the **offset** to equally increase or decrease the temperature of the leaving water for different ambient temperatures. For example, if leaving water temperature is always a bit too cold at different ambient temperatures, shift the offset up to equally increase the leaving water temperature for all ambient temperatures.

Examples

Weather-dependent curve when slope is selected:



Weather-dependent curve when offset is selected:



Item	Description
a	WD curve before changes.
b	WD curve after changes (as example): ▪ When slope is changed, the new preferred temperature at X1 is unequally higher than the preferred temperature at X2. ▪ When offset is changed, the new preferred temperature at X1 is equally higher as the preferred temperature at X2.
c	Slope
d	Offset
e	Selected weather dependent zone: ▪ : Main zone or additional zone heating ▪ : Main zone or additional zone cooling ▪ : Domestic hot water
X1, X2	Examples of outdoor ambient temperature
Y1, Y2, Y3, Y4	Examples of desired tank temperature or leaving water temperature. The icon corresponds to the heat emitter for that zone: ▪ : Underfloor heating ▪ : Fan coil unit ▪ : Radiator ▪ : Domestic hot water tank

Possible actions on this screen	
	Select slope or offset.
	Increase or decrease the slope/offset.
	When slope is selected: set slope and go to offset. When offset is selected: set offset.
	Confirm changes and return to the submenu.

7.3.4 Using weather-dependent curves

Configure weather-dependent curves as following:

To define the setpoint mode

To use the weather-dependent curve, you need to define the correct setpoint mode:

Go to setpoint mode …	Set the setpoint mode to …
Main zone – Heating	
[2.4] `Main zone` > `Setpoint mode`	`WD heating, fixed cooling` OR `Weather dependent`
Main zone – Cooling	
[2.4] `Main zone` > `Setpoint mode`	`Weather dependent`
Additional zone – Heating	

Go to setpoint mode …	Set the setpoint mode to …
[3.4] Additional zone > Setpoint mode	WD heating, fixed cooling OR Weather dependent
Additional zone – Cooling	
[3.4] Additional zone > Setpoint mode	Weather dependent
Tank	
[5.B] Tank > Setpoint mode	**Restriction:** Only available to installers. Weather dependent

To change the type of weather-dependent curve

To change the type for all zones (main + additional) and for the tank, go to [2.E] Main zone > WD curve type.

Viewing which type is selected is also possible via:

- [3.C] Additional zone > WD curve type
- [5.E] Tank > WD curve type

  Restriction: Only available to installers.

To change the weather-dependent curve

Zone	Go to …
Main zone – Heating	[2.5] Main zone > Heating WD curve
Main zone – Cooling	[2.6] Main zone > Cooling WD curve
Additional zone – Heating	[3.5] Additional zone > Heating WD curve
Additional zone – Cooling	[3.6] Additional zone > Cooling WD curve
Tank	**Restriction:** Only available to installers. [5.C] Tank > WD curve

INFORMATION

Maximum and minimum setpoints

You cannot configure the curve with temperatures that are higher or lower than the set maximum and minimum setpoints for that zone or for the tank. When the maximum or minimum setpoint is reached, the curve flattens out.

To fine-tune the weather-dependent curve: slope-offset curve

The following table describes how to fine-tune the weather-dependent curve of a zone or tank:

You feel …		Fine-tune with slope and offset:	
At regular outdoor temperatures …	At cold outdoor temperatures …	Slope	Offset
OK	Cold	↑	—
OK	Hot	↓	—
Cold	OK	↓	↑
Cold	Cold	—	↑
Cold	Hot	↓	↑
Hot	OK	↑	↓
Hot	Cold	↑	↓
Hot	Hot	—	↓

To fine-tune the weather-dependent curve: 2-points curve

The following table describes how to fine-tune the weather-dependent curve of a zone or tank:

You feel …		Fine-tune with setpoints:			
At regular outdoor temperatures …	At cold outdoor temperatures …	Y2[a]	Y1[a]	X1[a]	X2[a]
OK	Cold	↑	—	↑	—
OK	Hot	↓	—	↓	—
Cold	OK	—	↑	—	↑
Cold	Cold	↑	↑	↑	↑
Cold	Hot	↓	↑	↓	↑
Hot	OK	—	↓	—	↓
Hot	Cold	↑	↓	↑	↓
Hot	Hot	↓	↓	↓	↓

[a] See "7.3.2 2-points curve" [▶ 33].

7.4 Settings menu

You can set additional settings using the main menu screen and its submenus. The most important settings are presented here.

7.4.1 Main zone

Thermostat type

Only applicable in external room thermostat control.

NOTICE

If an external room thermostat is used, the external room thermostat will control the room frost protection. However, the room frost protection is only possible if [C.2] Space heating/cooling=On.

#	Code	Description
[2.A]	[C–05]	External room thermostat type for the main zone: ▪ 1: 1 contact: The used external room thermostat can only send a thermo ON/OFF condition. There is no separation between heating or cooling demand. ▪ 2: 2 contacts: The used external room thermostat can send a separate heating/cooling thermo ON/OFF condition.

7.4.2 Additional zone

Thermostat type

Only applicable in external room thermostat control. For more info about the functionality, see "7.4.1 Main zone" [▶ 35].

#	Code	Description
[3.A]	[C–06]	External room thermostat type for the additional zone: ▪ 1: 1 contact ▪ 2: 2 contacts

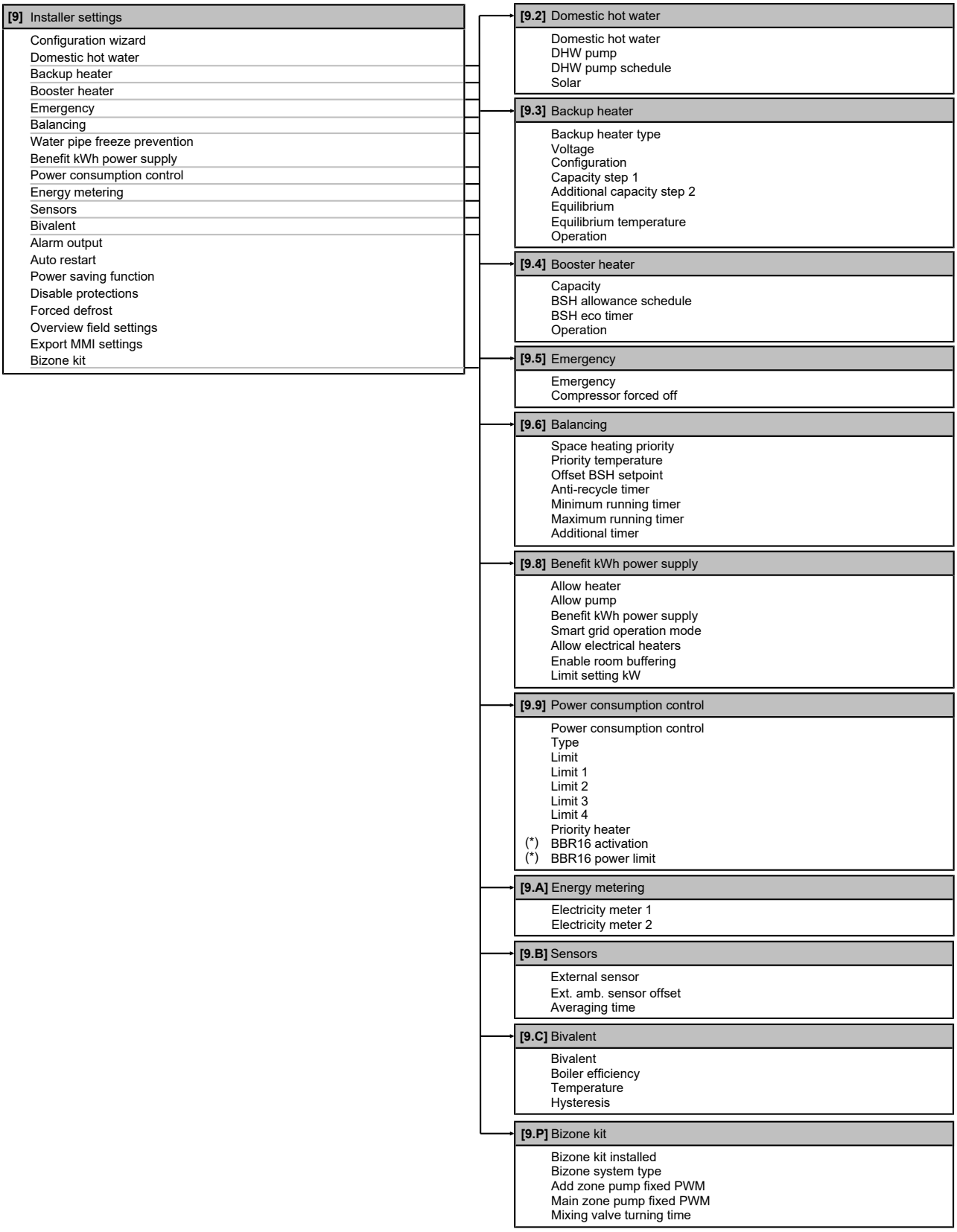
7.4.3 Information

Dealer information

The installer can fill in his contact number here.

#	Code	Description
[8.3]	N/A	Number that users can call in case of problems.

7.5 Menu structure: Overview installer settings



(*) Only applicable in Swedish language.

INFORMATION

Solar kit settings are shown but are NOT applicable for this unit. Settings shall NOT be used or changed.

INFORMATION

Depending on the selected installer settings and unit type, settings will be visible/invisible.

8 Commissioning

NOTICE

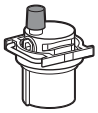
General commissioning checklist. Next to the commissioning instructions in this chapter, a general commissioning checklist is also available on the Daikin Business Portal (authentication required).

The general commissioning checklist is complementary to the instructions in this chapter and can be used as a guideline and reporting template during the commissioning and hand-over to the user.

NOTICE

ALWAYS operate the unit with thermistors and/or pressure sensors/switches. If NOT, burning of the compressor might be the result.

NOTICE




Make sure both air purge valves (one on the magnetic filter and one on the backup heater) are open.

All automatic air purge valves MUST remain open after commissioning.

NOTICE

Pump. To prevent blocking of the pump rotor, commission the unit as quickly as possible after filling the water circuit.

INFORMATION

Protective functions – "Installer-on-site mode". The software is equipped with protective functions, such as room antifrost. The unit automatically runs these functions when necessary.

During installation or service this behaviour is undesired. Therefore, the protective functions can be disabled:

- **At first power-on:** The protective functions are disabled by default. After 12 hours they will be automatically enabled.
- **Afterwards:** An installer can manually disable the protective functions by setting [9.G]: `Disable protections=Yes`. After his work is done, he can enable the protective functions by setting [9.G]: `Disable protections=No`.

Also see "Protective functions" [▸ 29].

8.1 Checklist before commissioning

After the installation of the unit, first check the items listed below. Once all checks are fulfilled, the unit MUST be closed. Power-up the unit after it is closed.

☐	You read the complete installation instructions, as described in the **installer reference guide**.
☐	The **indoor unit** is properly mounted.
☐	The **outdoor unit** is properly mounted.
☐	The following **field wiring** has been carried out according to this document and the applicable legislation: ▪ Between the local supply panel and the outdoor unit ▪ Between indoor unit and outdoor unit ▪ Between the local supply panel and the indoor unit ▪ Between the indoor unit and the valves (if applicable) ▪ Between the indoor unit and the room thermostat (if applicable) ▪ Between the indoor unit and the domestic hot water tank (if applicable)
☐	The system is properly **earthed** and the earth terminals are tightened.
☐	The **fuses** or locally installed protection devices are installed according to this document, and have NOT been bypassed.
☐	The **power supply voltage** matches the voltage on the identification label of the unit.
☐	There are NO **loose connections** or damaged electrical components in the switch box.
☐	There are NO **damaged components** or **squeezed pipes** on the inside of the indoor and outdoor units.
☐	**Backup heater circuit breaker** F1B (field supply) is turned ON.
☐	Only for tanks with built-in booster heater: **Booster heater circuit breaker** F2B (field supply) is turned ON.
☐	There are NO **refrigerant leaks**.
☐	The **refrigerant pipes** (gas and liquid) are thermally insulated.
☐	The correct pipe size is installed and the **pipes** are properly insulated.
☐	There is NO **water leak** inside the indoor unit.
☐	The **shut-off valves** are properly installed and fully open.
☐	The **stop valves** (gas and liquid) on the outdoor unit are fully open.
☐	The **air purge** valve is open (at least 2 turns).
☐	The **pressure relief valve** purges water when opened. Clean water MUST come out.
☐	The **minimum water volume** is guaranteed in all conditions. See "To check the water volume and flow rate" in "5.3 Preparing water piping" [▸ 16].
☐	(if applicable) The **domestic hot water tank** is filled completely.

8.2 Checklist during commissioning

☐	The **minimum flow rate** during backup heater/defrost operation is guaranteed in all conditions. See "To check the water volume and flow rate" in "5.3 Preparing water piping" [▸ 16].
☐	To perform an **air purge**.
☐	To perform a **test run**.
☐	To perform an **actuator test run**.

☐	**Underfloor screed dryout function** The underfloor screed dryout function is started (if necessary).

8.2.1 To check the minimum flow rate

1	Check the hydraulic configuration to find out which space heating loops can be closed by mechanical, electronic, or other valves.	—
2	Close all space heating loops that can be closed.	—
3	Start the pump test run (see "8.2.4 To perform an actuator test run" [▶ 38]).	—
4	Read out the flow rate[a] and modify the bypass valve setting to reach the minimum required flow rate + 2 l/min.	—

[a] During pump test run, the unit can operate below the minimum required flow rate.

If operation is…	Then the minimum required flow rate is…
Cooling	16 l/min
Heating/defrost	22 l/min
Domestic hot water production	

8.2.2 To perform an air purge

Conditions: Make sure all operation is disabled. Go to [C]: `Operation` and turn off `Space heating/cooling` and `Tank` operation.

1	Set the user permission level to Installer. See "To change the user permission level" [▶ 28].	—
2	Go to [A.3]: `Commissioning` > `Air purge`.	
3	Select `OK` to confirm. **Result:** The air purge starts. It stops automatically when air purge cycle is finished.	
	To stop the air purge manually:	—
	1 Go to `Stop air purge`.	
	2 Select `OK` to confirm.	

Air purging heat emitters or collectors

We recommend to purge air with the unit's air purge function (see above). However, if you purge air from the heat emitters or collectors, mind the following:

WARNING

Air purging heat emitters or collectors. Before you purge air from heat emitters or collectors, check if 🔔 or ⚠ is displayed on the home screen of the user interface.

- If not, you can purge air immediately.
- If yes, make sure that the room where you want to purge air is sufficiently ventilated. **Reason:** Refrigerant might leak into the water circuit, and subsequently into the room when you purge air from the heat emitters or collectors.

8.2.3 To perform an operation test run

Conditions: Make sure all operation is disabled. Go to [C]: `Operation` and turn off `Space heating/cooling` and `Tank` operation.

1	Set the user permission level to `Installer`. See "To change the user permission level" [▶ 28].	—
2	Go to [A.1]: `Commissioning` > `Operation test run`.	
3	Select a test from the list. **Example:** `Heating`.	
4	Select `OK` to confirm. **Result:** The test run starts. It stops automatically when ready (±30 min).	
	To stop the test run manually:	—
	1 In the menu, go to `Stop test run`.	
	2 Select `OK` to confirm.	

INFORMATION

If the outdoor temperature is outside the range of operation, the unit may NOT operate or may NOT deliver the required capacity.

To monitor leaving water and tank temperatures

During test run, the correct operation of the unit can be checked by monitoring its leaving water temperature (heating/cooling mode) and tank temperature (domestic hot water mode).

To monitor the temperatures:

1	In the menu, go to `Sensors`.	
2	Select the temperature information.	

8.2.4 To perform an actuator test run

Conditions: Make sure all operation is disabled. Go to [C]: `Operation` and turn off `Space heating/cooling` and `Tank` operation.

Purpose

Perform an actuator test run to confirm the operation of the different actuators. For example, when you select `Pump`, a test run of the pump will start.

1	Set the user permission level to Installer. See "To change the user permission level" [▶ 28].	—
2	Go to [A.2]: `Commissioning` > `Actuator test run`.	
3	Select a test from the list. **Example:** `Pump`.	
4	Select `OK` to confirm. **Result:** The actuator test run starts. It stops automatically when ready (±30 min).	
	To stop the test run manually:	—
	1 In the menu, go to `Stop test run`.	
	2 Select `OK` to confirm.	

Possible actuator test runs

- `Booster heater` test
- `Backup heater 1` test
- `Backup heater 2` test
- `Pump` test

INFORMATION

Make sure that all air is purged before executing the test run. Also avoid disturbances in the water circuit during the test run.

- `Shut off valve` test
- `Diverter valve` test (3-way valve for switching between space heating and tank heating)
- `Bivalent signal` test
- `Alarm output` test
- `C/H signal` test
- `DHW pump` test

- Bizone kit direct pump test (bizone kit EKMIKPOA or EKMIKPHA)
- Bizone kit mixed pump test (bizone kit EKMIKPOA or EKMIKPHA)
- Bizone kit mixing valve test (bizone kit EKMIKPOA or EKMIKPHA)

8.2.5 To perform an underfloor heating screed dryout

Conditions: Make sure all operation is disabled. Go to [C]: Operation and turn off Space heating/cooling and Tank operation.

1	Set the user permission level to Installer. See "To change the user permission level" [▶ 28].	—
2	Go to [A.4]: Commissioning > UFH screed dryout.	
3	Set a dryout program: go to Program and use the UFH screed dryout programming screen.	
4	Select OK to confirm. **Result:** The underfloor heating screed dryout starts. It stops automatically when done.	
	To stop the test run manually:	—
	1 Go to Stop UFH screed dryout.	
	2 Select OK to confirm.	

NOTICE

To perform an underfloor heating screed dryout, room frost protection needs to be disabled ([2-06]=0). By default, it is enabled ([2-06]=1). However, due to the "installer-on-site" mode (see "Commissioning"), room frost protection will be automatically disabled for 12 hours after the first power-on.

If the screed dryout still needs to be performed after the first 12 hours of power-on, manually disable room frost protection by setting [2-06] to "0", and KEEP it disabled until the screed dryout has finished. Ignoring this notice will result in cracking of the screed.

NOTICE

For the underfloor heating screed dryout to be able to start, make sure the following settings are met:

- [4-00]=1
- [C-02]=0
- [D-01]=0
- [4-08]=0
- [4-01]≠1

9 Hand-over to the user

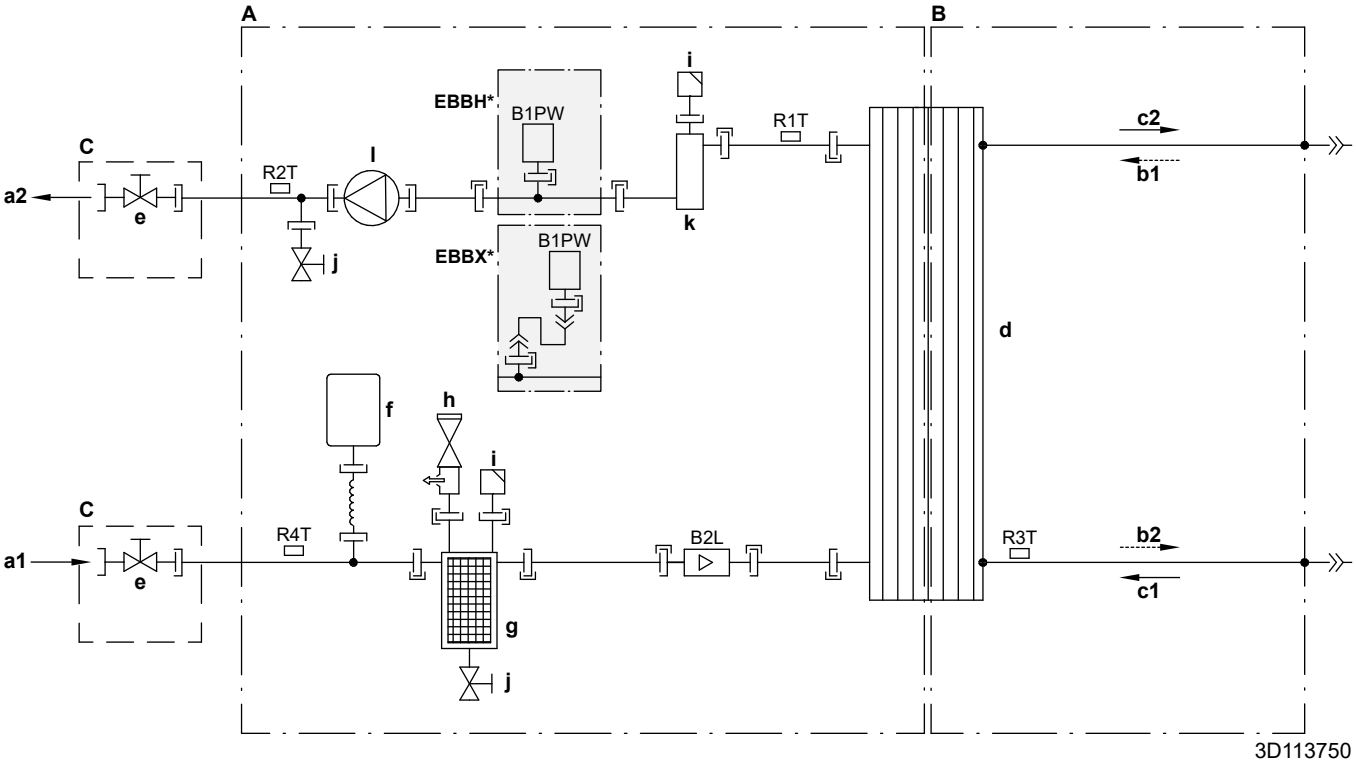
Once the test run is finished and the unit operates properly, please make sure the following is clear for the user:

- Fill in the installer setting table (in the operation manual) with the actual settings.
- Make sure that the user has the printed documentation and ask him/her to keep it for future reference. Inform the user that he can find the complete documentation at the URL mentioned earlier in this manual.
- Explain the user how to properly operate the system and what to do in case of problems.
- Show the user what to do for the maintenance of the unit.
- Explain the user about energy saving tips as described in the operation manual.

10 Technical data

A **subset** of the latest technical data is available on the regional Daikin website (publicly accessible). The **full set** of latest technical data is available on the Daikin Business Portal (authentication required).

10.1 Piping diagram: Indoor unit



A Water side
B Refrigerant side
C Field installed
a1 Space heating/cooling – Water IN (screw connection, 1")
a2 Space heating/cooling – Water OUT (screw connection, 1")
b1 Gas refrigerant IN (heating mode; condenser)
b2 Liquid refrigerant OUT (heating mode; condenser)
c1 Liquid refrigerant IN (cooling mode; evaporator)
c2 Gas refrigerant OUT (cooling mode; evaporator)
d Plate heat exchanger
e Shut-off valve for service
f Expansion vessel
g Magnetic filter/dirt separator
h Safety valve
i Automatic air purge
j Drain valve
k Backup heater
l Pump

B1PW Space heating water pressure sensor
B2L Flow sensor

Thermistors:
R1T Heat exchanger – Water OUT
R2T Backup heater – Water OUT
R3T Liquid refrigerant
R4T Heat exchanger – Water IN

Connections:
Screw connection
Flare connection
Quick coupling
Brazed connection

10.2 Wiring diagram: Indoor unit

See the internal wiring diagram supplied with the unit (on the inside of the indoor unit switch box cover). The abbreviations used are listed below.

Notes to go through before starting the unit

English	Translation
Notes to go through before starting the unit	Notes to go through before starting the unit
X1M	Main terminal
X2M	Field wiring terminal for AC
X5M	Field wiring terminal for DC
X6M	Backup heater power supply terminal
X7M, X8M	Booster heater power supply terminal
X10M	Smart Grid terminal
—·—·—·—	Earth wiring
– – – – – – –	Field supply
①	Several wiring possibilities
	Option
	Not mounted in switch box
	Wiring depending on model
	PCB
Note 1: Connection point of the power supply for the BUH/BSH should be foreseen outside the unit.	Note 1: Connection point of the power supply for the backup heater/booster heater should be foreseen outside the unit.
Backup heater power supply	Backup heater power supply
☐ 6T1 (3~, 230 V, 6 kW)	☐ 6T1 (3~, 230 V, 6 kW)
☐ 6V3 (1N~, 230 V, 6 kW)	☐ 6V3 (1N~, 230 V, 6 kW)
☐ 6WN/9WN (3N~, 400 V, 6/9 kW)	☐ 6WN/9WN (3N~, 400 V, 6/9 kW)
User installed options	User installed options
☐ Domestic hot water tank	☐ Domestic hot water tank
☐ Remote user interface	☐ Dedicated Human Comfort Interface (BRC1HHDA used as room thermostat)
☐ Ext. indoor thermistor	☐ External indoor thermistor
☐ Ext outdoor thermistor	☐ External outdoor thermistor
☐ Digital I/O PCB	☐ Digital I/O PCB
☐ Demand PCB	☐ Demand PCB
☐ Safety thermostat	☐ Safety thermostat
☐ Smart Grid	☐ Smart Grid
☐ WLAN module	☐ WLAN module
☐ WLAN cartridge	☐ WLAN cartridge
☐ Bizone mixing kit	☐ Bizone mixing kit
Main LWT	Main leaving water temperature
☐ On/OFF thermostat (wired)	☐ ON/OFF thermostat (wired)
☐ On/OFF thermostat (wireless)	☐ ON/OFF thermostat (wireless)
☐ Ext. thermistor	☐ External thermistor
☐ Heat pump convector	☐ Heat pump convector
Add LWT	Additional leaving water temperature
☐ On/OFF thermostat (wired)	☐ ON/OFF thermostat (wired)
☐ On/OFF thermostat (wireless)	☐ ON/OFF thermostat (wireless)
☐ Ext. thermistor	☐ External thermistor
☐ Heat pump convector	☐ Heat pump convector

Position in switch box

English	Translation
Position in switch box	Position in switch box

Legend

A1P		Main PCB
A2P	*	ON/OFF thermostat (PC=power circuit)
A3P	*	Heat pump convector
A4P	*	Digital I/O PCB
A8P	*	Demand PCB
A11P		Main PCB of the MMI (= user interface of the indoor unit)
A14P	*	PCB of the dedicated Human Comfort Interface (BRC1HHDA used as room thermostat)
A15P	*	Receiver PCB (wireless ON/OFF thermostat)
A20P	*	WLAN module
A30P	*	Bizone mixing kit PCB
BSK (A3P)		Solar pump station relay
CN* (A4P)	*	Connector
DS1(A8P)	*	DIP switch
F1B	#	Overcurrent fuse backup heater
F2B	#	Overcurrent fuse booster heater
F1U, F2U (A4P)	*	Fuse 5 A 250 V for digital I/O PCB
K1A, K2A	*	High voltage Smart Grid relay
K1M, K2M		Contactor backup heater
K3M	*	Contactor booster heater
K5M		Safety contactor backup heater
K*R (A4P)		Relay on PCB
M2P	#	Domestic hot water pump
M2S	#	2-way valve for cooling mode
M3S	*	3-way valve for space heating/domestic hot water
PC (A15P)	*	Power circuit
PHC1 (A4P)	*	Optocoupler input circuit
Q1L		Thermal protector backup heater
Q4L	#	Safety thermostat
Q*DI	#	Earth leakage circuit breaker
R1H (A2P)	*	Humidity sensor
R1T (A2P)	*	Ambient sensor ON/OFF thermostat
R2T (A2P)	*	External sensor (floor or ambient)
R5T	*	Domestic hot water thermistor
R6T	*	External indoor or outdoor ambient thermistor
S1S	#	Preferential kWh rate power supply contact
S2S	#	Electrical meter pulse input 1
S3S	#	Electrical meter pulse input 2
S4S	#	Smart Grid feed-in
S6S~S9S	*	Digital power limitation inputs
S10S-S11S	#	Low voltage Smart Grid contact
SS1 (A4P)	*	Selector switch
TR1		Power supply transformer

X6M	#	Backup heater power supply terminal strip
X6M	*	Booster heater power supply connector
X7M, X8M	*	Booster heater power supply terminal strip
X10M	*	Smart Grid power supply terminal strip
X*, X*A, X*Y*, Y*		Connector
X*M		Terminal strip

* Optional

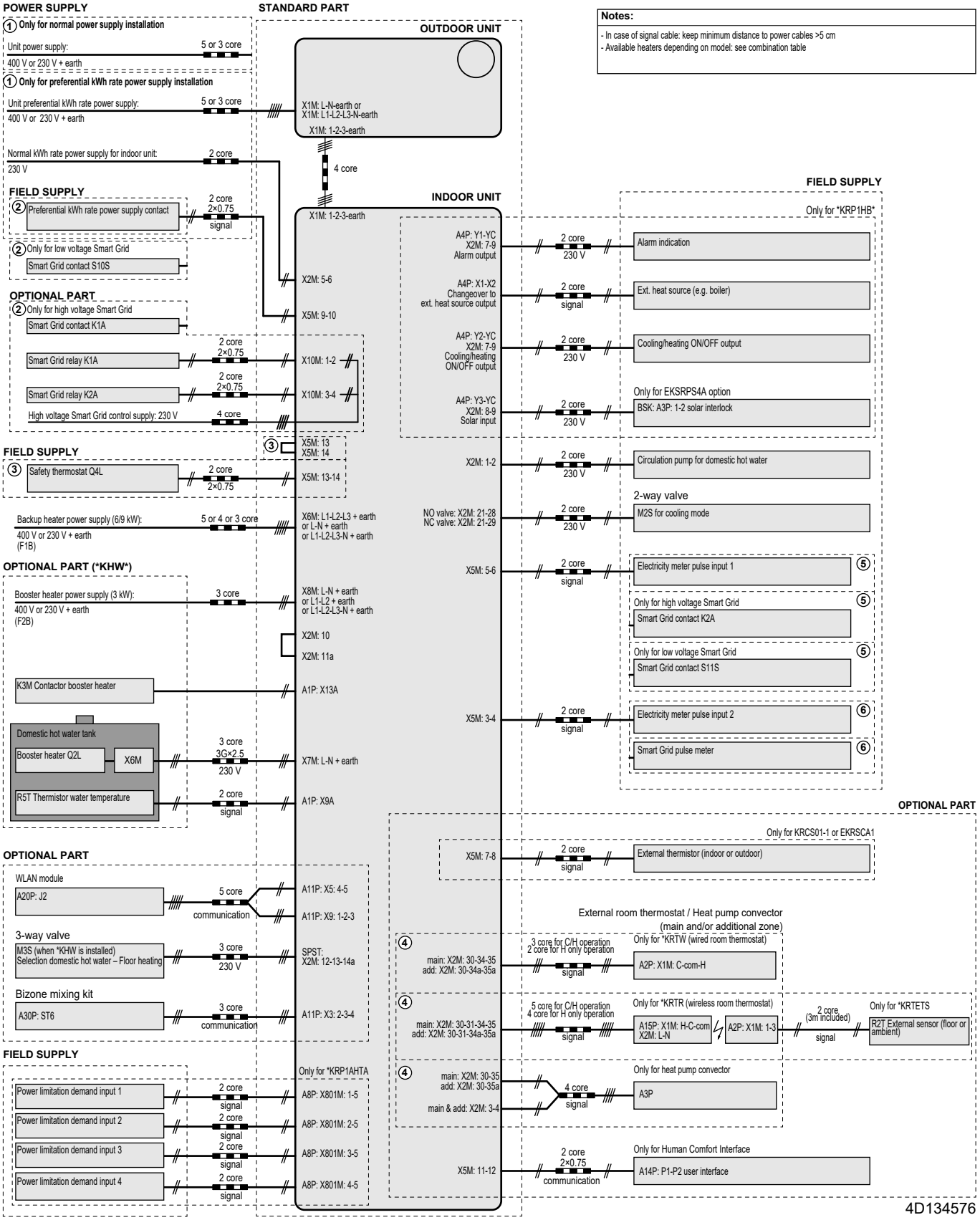
\# Field supply

Translation of text on wiring diagram

English	Translation
(1) Main power connection	(1) Main power connection
For HP tariff	For heat pump tariff
Indoor unit supplied from outdoor	Indoor unit supplied from outdoor
Normal kWh rate power supply	Normal kWh rate power supply
Only for normal power supply (standard)	Only for normal power supply (standard)
Only for preferential kWh rate power supply (outdoor)	Only for preferential kWh rate power supply (outdoor)
Outdoor unit	Outdoor unit
Preferential kWh rate power supply contact: 16 V DC detection (voltage supplied by PCB)	Preferential kWh rate power supply contact: 16 V DC detection (voltage supplied by PCB)
SWB	Switch box
Use normal kWh rate power supply for indoor unit	Use normal kWh rate power supply for indoor unit
(2) Backup heater power supply	(2) Backup heater power supply
Only for ***	Only for ***
(3) User interface	(3) User interface
Only for remote user interface	Only for the dedicated Human Comfort Interface (BRC1HHDA used as room thermostat)
SD card	Card slot for WLAN cartridge
SWB	Switch box
WLAN cartridge	WLAN cartridge
(4) Domestic hot water tank	(4) Domestic hot water tank
3 wire type SPST	3 wire type SPST
Booster heater power supply	Booster heater power supply
Only for ***	Only for ***
SWB	Switch box
(5) Ext. thermistor	(5) External thermistor
SWB	Switch box
(6) Field supplied options	(6) Field supplied options
12 V DC pulse detection (voltage supplied by PCB)	12 V DC pulse detection (voltage supplied by PCB)
230 V AC Control Device	230 V AC Control Device
230 V AC supplied by PCB	230 V AC supplied by PCB
Bizone mixing kit	Bizone mixing kit
Continuous	Continuous current
DHW pump output	Domestic hot water pump output
DHW pump	Domestic hot water pump
Electrical meters	Electrical meters
For HV smartgrid	For high voltage Smart Grid
For LV smartgrid	For low voltage Smart Grid
For safety thermostat	For safety thermostat
For smartgrid	For Smart Grid
Inrush	Inrush current
Max. load	Maximum load
Normally closed	Normally closed
Normally open	Normally open
Safety thermostat contact: 16 V DC detection (voltage supplied by PCB)	Safety thermostat contact: 16 V DC detection (voltage supplied by PCB)
Shut-off valve	Shut-off valve
Smartgrid contacts	Smart Grid contacts
Smartgrid PV power pulse meter	Smart Grid photovoltaic power pulse meter
SWB	Switch box
(7) Option PCBs	(7) Option PCBs
Alarm output	Alarm output
Changeover to ext. heat source	Changeover to external heat source
Max. load	Maximum load
Min. load	Minimum load
Only for demand PCB option	Only for demand PCB option
Only for digital I/O PCB option	Only for digital I/O PCB option
Options: external heat source output, solar pump connection, alarm output	Options: external heat source output, solar pump connection, alarm output
Options: On/OFF output	Options: ON/OFF output
Power limitation digital inputs: 12 V DC / 12 mA detection (voltage supplied by PCB)	Power limitation digital inputs: 12 V DC / 12 mA detection (voltage supplied by PCB)
Refer to operation manual	Refer to the operation manual
Solar input	Solar input
Solar pump connection	Solar pump connection
Space C/H On/OFF output	Space cooling/heating ON/OFF output
SWB	Switch box
(8) External On/OFF thermostats and heat pump convector	(8) External ON/OFF thermostats and heat pump convector
Additional LWT zone	Additional leaving water temperature zone
Main LWT zone	Main leaving water temperature zone
Only for external sensor (floor/ ambient)	Only for external sensor (floor or ambient)
Only for heat pump convector	Only for heat pump convector
Only for wired On/OFF thermostat	Only for wired ON/OFF thermostat
Only for wireless On/OFF thermostat	Only for wireless ON/OFF thermostat

Electrical connection diagram

For more details, please check the unit wiring.



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