



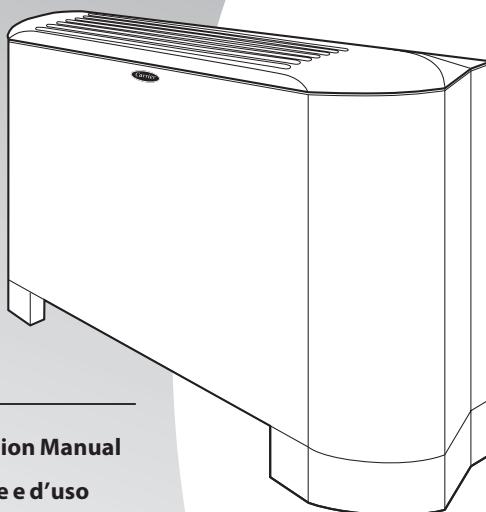
United Technologies



42N_S

42N_E

CE



- GB** Installation and Operation Manual
- I** Manuale d'installazione e d'uso
- F** Manuel d'installation e d'emploi
- D** Installations- und Bedienanweisungen
- E** Manual de instalación y de uso
- NL** Montage- en gebruikshandleiding
- GR** ΕΓΧΕΙΡΙΔΙΟ ΕΓΚΑΤΑΣΤΑΣΗΣ ΚΑΙ ΧΡΗΣΗΣ
- P** Manual de instalação e uso
- S** Installations- och bruksmanual
- FIN** Käyttäjän käskirja

GB

ENGLISH

Fan coil units

I

ITALIANO

Ventilconvettori

F

FRANÇAIS

Ventilo-convecteurs

D

DEUTSCH

Ventilator-Konvektoren

E

ESPAÑOL

Unidades fan coil

NL

NEDERLANDS

Ventilatorconvectoren

GR

ΕΛΛΗΝΙΚΑ

Συσκευές πηνίου ανεμιστήρα

P

PORTUGUÊS

Unidades de ventilação

S

SVENSKA

Fläktkonvektorer

FIN

SUOMI

Puhallinkonvektori

Contents

(GB)

Page

	Legend	21
	General information	22
	Warnings: avoid	22 (7)
	Dimensions and Weights	(8)
	Operating limits	(17-18)
	Technical data	(19)
	Material supplied	(20)
	Installation	23 - (9)
	Water connections	24 - (10)
	Electrical connections	24 - (10-14)
	Controls	25 - 30 - (14-15)
	Electric heater	30
	Fan Motor	31
	Low Energy Consumption Fan Motor	31
	Maintenance	31 - (16)

Indice

I

Pagina

	Legenda	32
	Informazioni generali	33
	Avvertenze: evitare	33 (7)
	Dimensioni e masse	(8)
	Limi di funzionamento	(17-18)
	Dati tecnici	(19)
	Materiale a corredo	(20)
	Installazione	34 - (9)
	Collegamenti idraulici	35 - (10)
	Collegamenti elettrici	35 - (10-14)
	Controlli	36 - 41 - (14-15)
	Elemento riscaldante	41
	Motore ventilatore	42
	Low Energy Consumption Fan Motor	42
	Manutenzione	42 - (16)

Sommaire

F

Page

	Légende	43
	Information générale	44
	Attention: éviter	44 (7)
	Dimensions et poids	(8)
	Limites de fonctionnement	(17-18)
	Caractéristiques techniques	(19)
	Matériel fourni	(20)
	Installation	45 - (9)
	Connections hydrauliques	46 - (10)
	Connexions électriques	46 - (10-14)
	Commandes	47 - 52 - (14-15)
	Résistance électrique	52
	Moteur du ventilateur	53
	Low Energy Consumption Fan Motor	53
	Entretien	53 - (16)

Inhalt

(D)

	Legende	54
	Allgemeine Informationen	55
	Vorsicht: vermeiden...	55 - (7)
	Maße und Gewichte	(8)
	Betriebs - Grenzwerte	(17-18)
	Technische Daten	(19)
	Mitgeliefertes Material	(20)
	Installation	56 - (9)
	Wasseranschlüsse	57 - (10)
	Elektroanschlüsse	57 - (10-14)
	Steuerungen	58 - 63 - (14-15)
	Heizwiderstand	63
	Ventilatormotor	64
	Low Energy Consumption Fan Motor	64
	Wartung	64 - (16)

Página

Tabla de materias

(E)

	Legende	65
	Información general	66
	Advertencias: evitar	66 - (7)
	Dimensiones y pesos	(8)
	Límites de funcionamiento	(17-18)
	Datos técnicos	(19)
	Material suministrado	(20)
	Instalación	67 - (9)
	Conecciones de agua	68 - (10)
	Conecciones eléctricas	68 - (10-14)
	Mandos	69 - 74 - (14-15)
	Resistencia eléctrica	74
	Motor del ventilador	75
	Low Energy Consumption Fan Motor	75
	Mantenimiento	75 - (16)

Blz.

Inhoud

(NL)

	Verklaring	76
	Algemene informatie	77
	Waarschuwingen: vermijd	77 - (7)
	Afmetingen en gewicht	(8)
	Bedrijfslimieten	(17-18)
	Technische gegevens	(19)
	Geleverde materialen	(20)
	Montage	78 - (9)
	Waterzijdige aansluitingen	79 - (10)
	Elektrische aansluitingen	79 - (10-14)
	Regelaars	80 - 85 - (14-15)
	Elektrisch verwarmingselement	85
	Motor voor de Ventilator	86
	Low Energy Consumption Fan Motor	86
	Onderhoud	86 - (16)

Περιεχόμενα

GR

	σελίδα
ΥΠΟΜΝΗΜΑ	87
Γενικές πληροφορίες	88
Διαστάσεις και βάρος	88 - (7)
Όρια λειτουργίας	(8)
Τεχνικά χαρακτηριστικά	(17-18)
Υλικά που παρέχονται	(19)
Εγκατάσταση	(20)
Συνδέσεις νερού	89 - (9)
Ηλεκτρικές συνδέσεις	90 - (10)
Χειριστήρια	90 - (10-14)
Ηλεκτρική αντίσταση	91 - 96 - (14-15)
Κινητήρας ανεμιστήρα	96
Low Energy Consumption Fan Motor	97
Συντήρηση	97
	97 - (16)

ΕΛΛΗΝΙΚΑ



Índice

P

	Página
Legenda	98
Informações gerais	99
Atenção: evitar...	99 - (7)
Dimensões e peso	(8)
Limites de funcionamento	(17-18)
Dados técnicos	(19)
Material fornecido	(20)
Instalação	100 - (9)
Ligações hidráulicas	101 - (10)
Ligações eléctricas	101 - (10-14)
Controles	102 - 107 - (14-15)
Resistência eléctrica	107
Motor do ventilador	108
Low Energy Consumption Fan Motor	108
Manutenção	108 - (16)

Português



Innehållsförteckning

S

	Sida
Förklaring	109
Allmän information	110
Varningar: undvik	110 - (7)
Dimensioner och vikter	(8)
Driftsgränsen	(17-18)
Tekniska data	(19)
Bifogat material	(20)
Installation	111 - (9)
Vattenanslutningar	112 - (10)
Elektriska anslutningar	112 - (10-14)
Styrning	113 - 118 - (14-15)
Värmeelement	118
Fläktmotor	119
Low Energy Consumption Fan Motor	119
Underhåll	119 - (16)

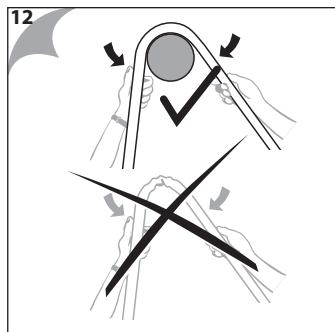
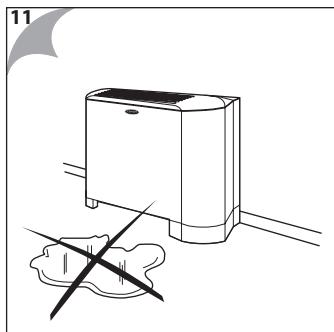
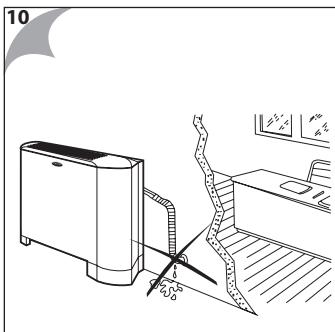
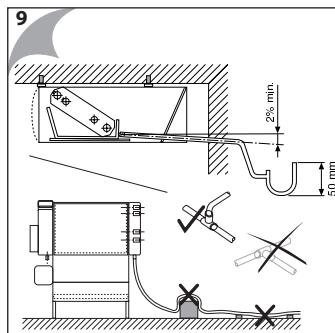
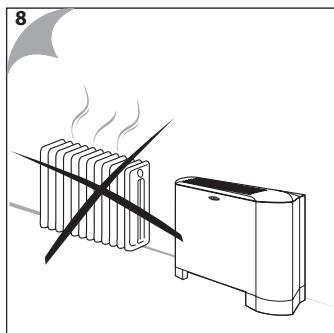
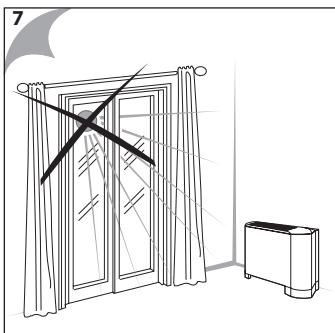
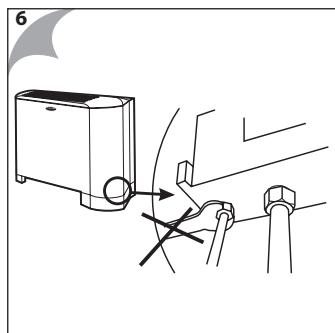
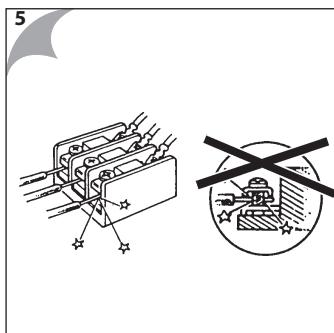
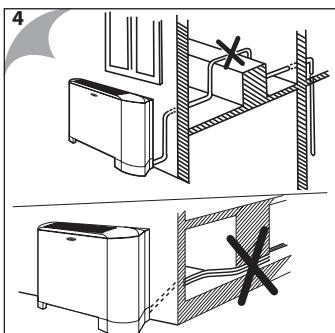
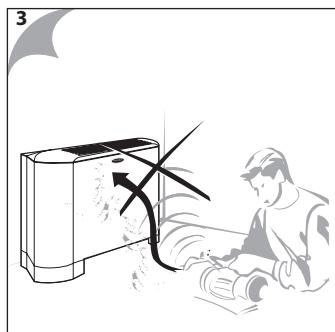
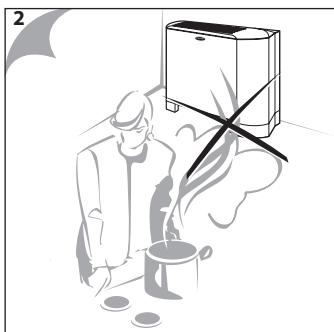
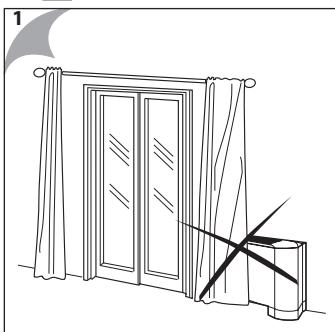
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Sisältö

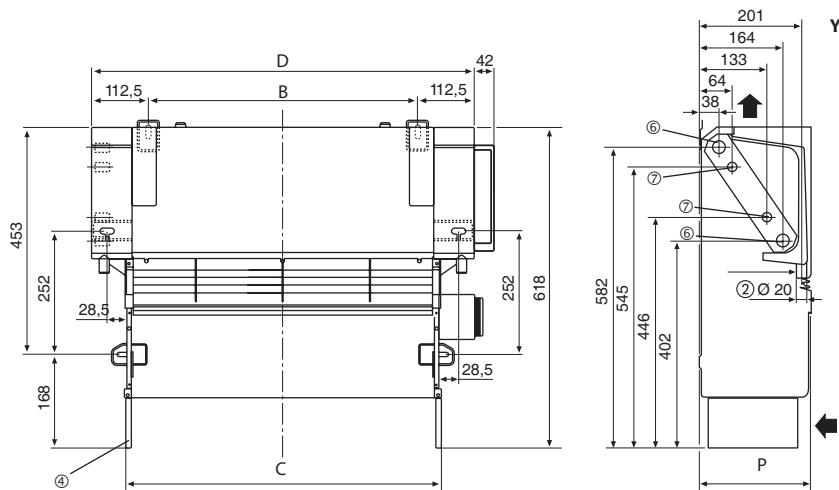
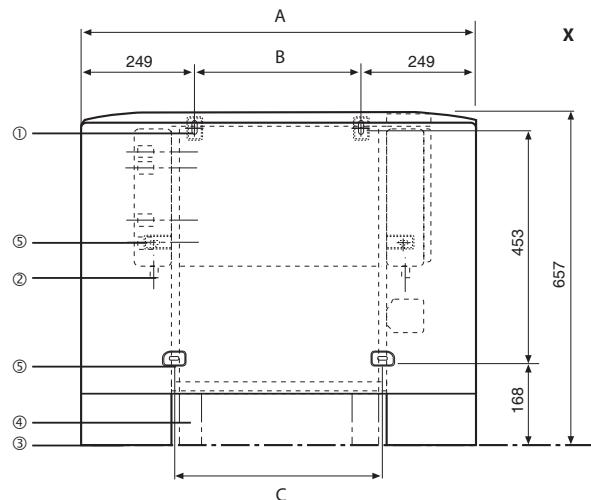
(FIN)

	Merkkien selitykset	120
	Yleistä	121
	Varoitukset: vältä...	121 - (7)
	Mitat ja painot	(8)
	Käyttörajoitukset	(17-18)
	Tekniset tiedot	(19)
	Toimituksen sisältö	(20)
	Asennus	122 - (9)
	Vesiliittännät	123 - (10)
	Sähköliittännät	123 - (10-14)
	Ohjauslaitteet	124 - 129 - (14-15)
	Sähkölämmitin	129
	Puhallinmoottori	130
	Low Energy Consumption Fan Motor	130
	Huolto	130 - (16)





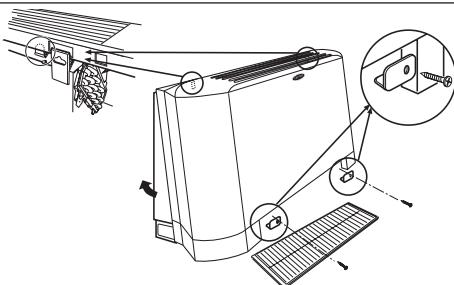
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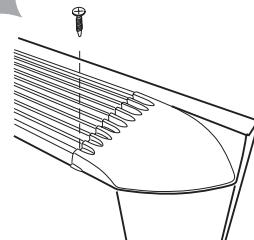
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A mm	830	1030	1230	1430
B mm	332	532	732	932
C mm	432	632	832	1032
P mm	220	220	220	220
Q kg	17	19	22	35
Y kg	13	15	16	28



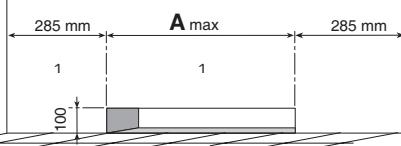
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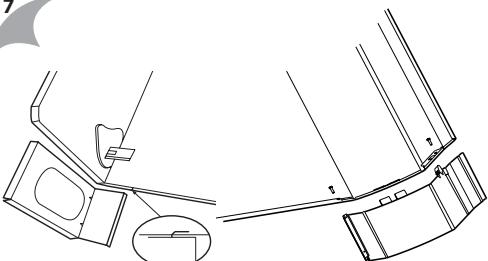


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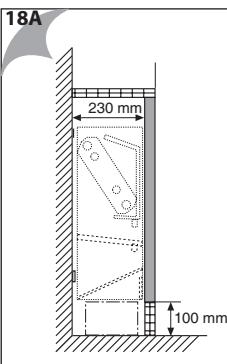
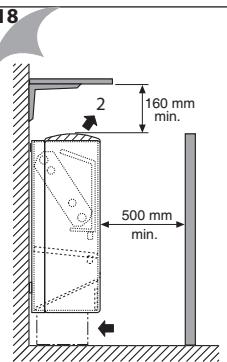


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A mm	267	467	667	867

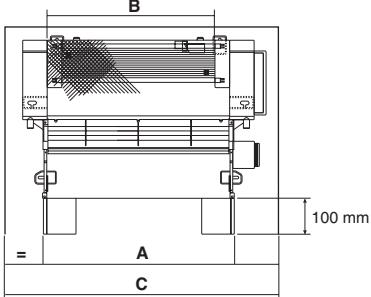
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18

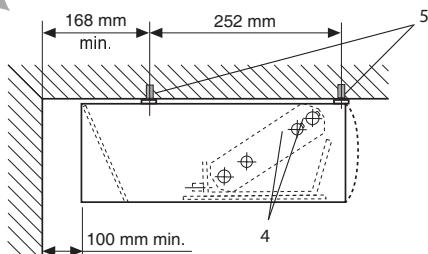


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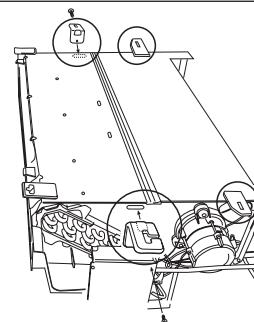


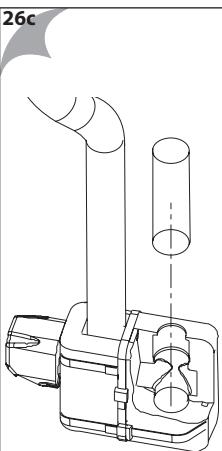
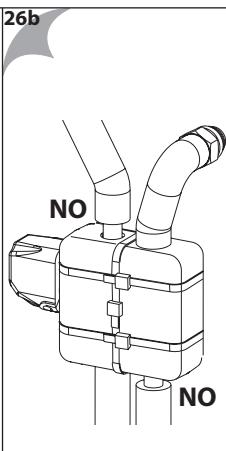
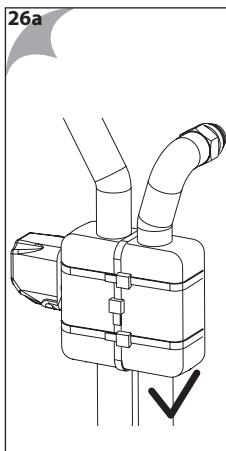
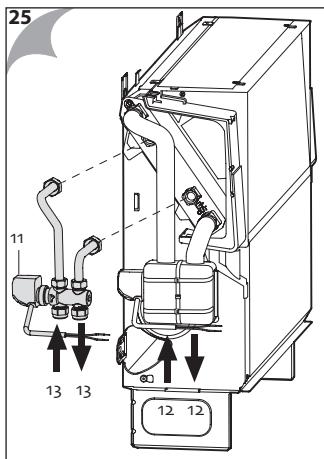
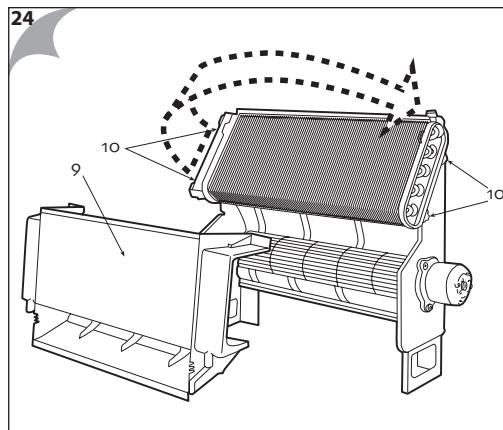
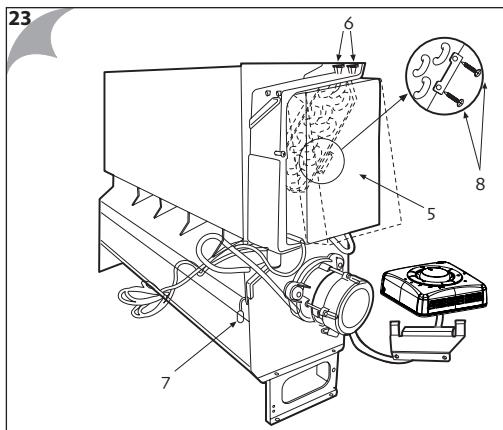
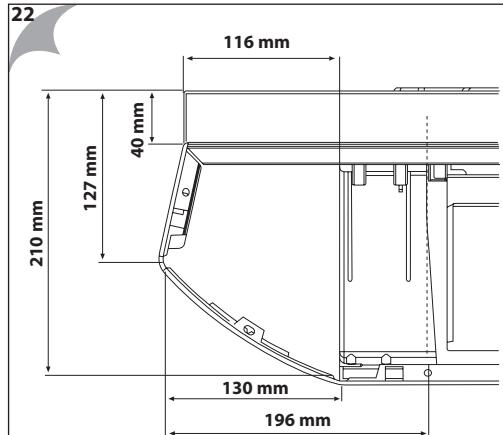
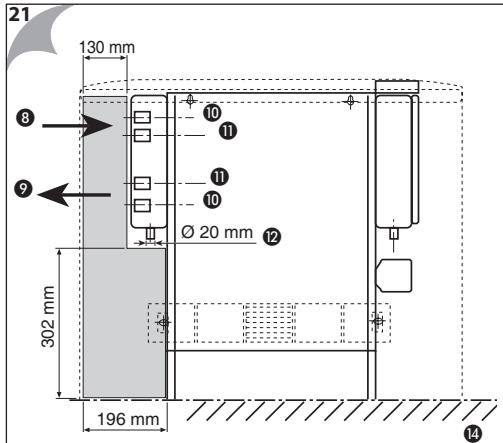
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A	393	593	793	953
B	400	600	2x400	(400+600)
C	593	793	993	1153

19



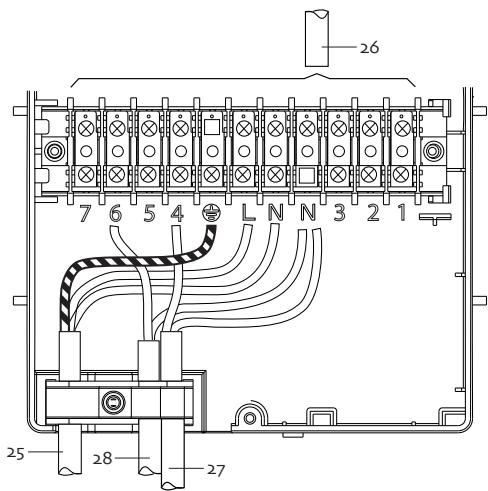
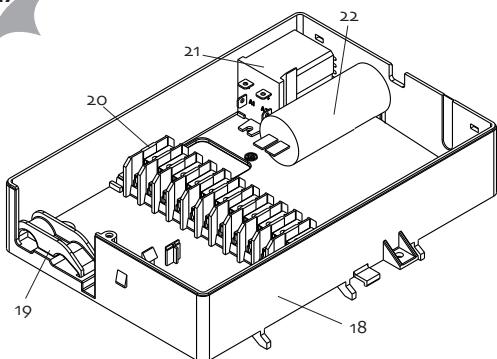
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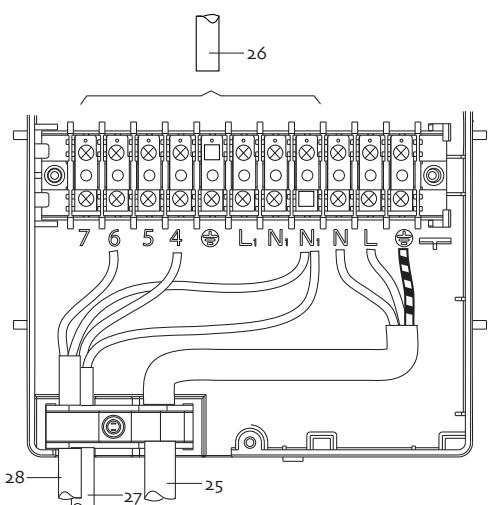
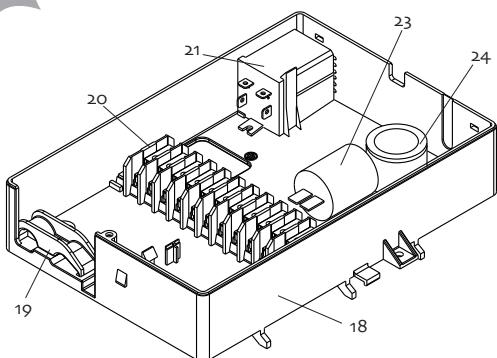




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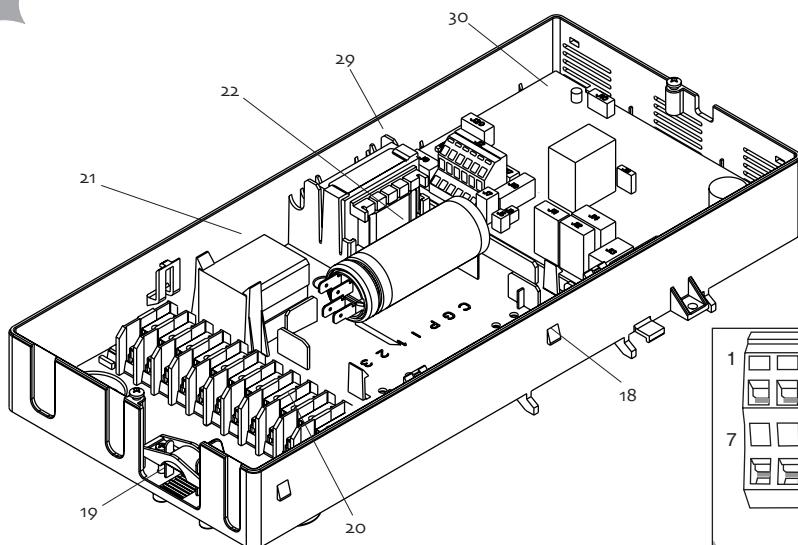


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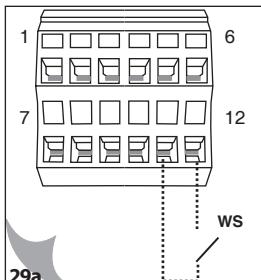




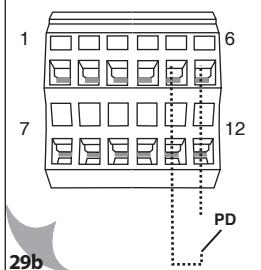
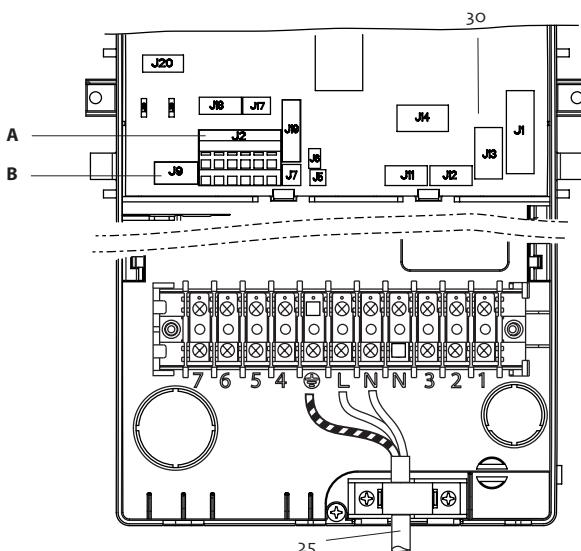
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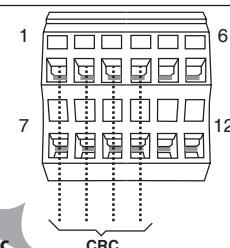
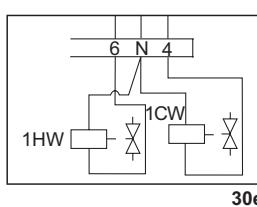
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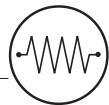


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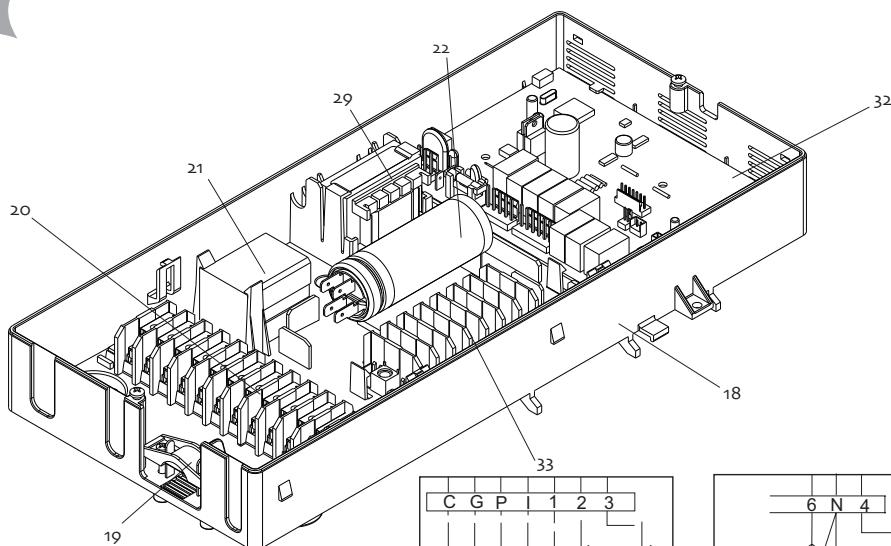


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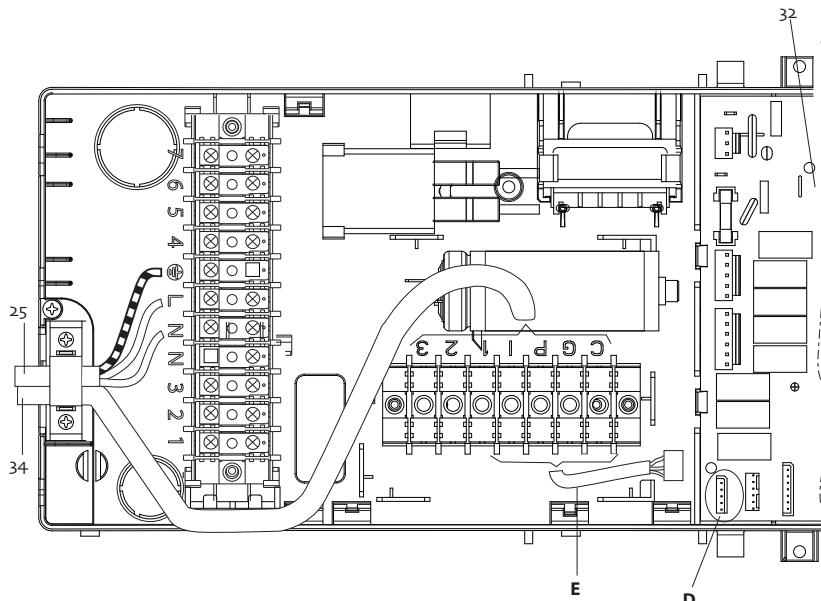


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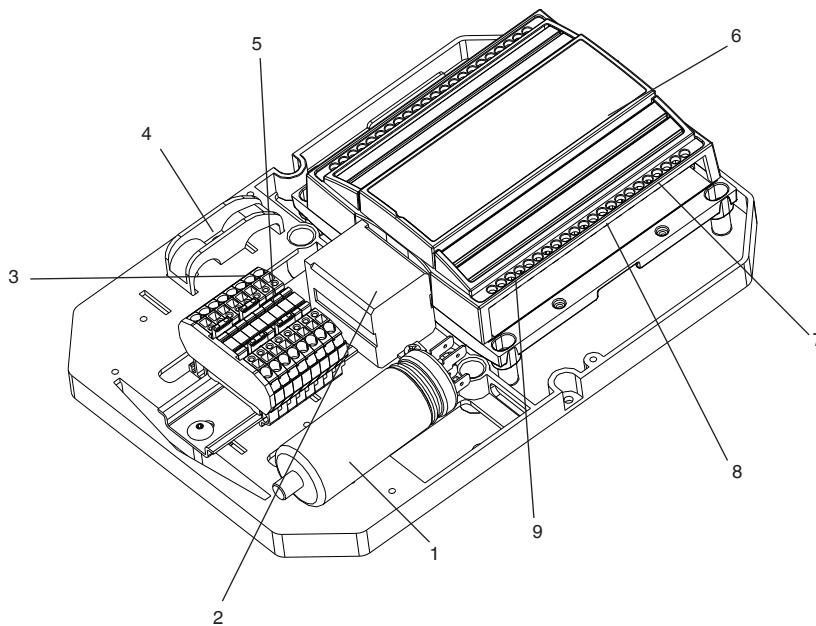
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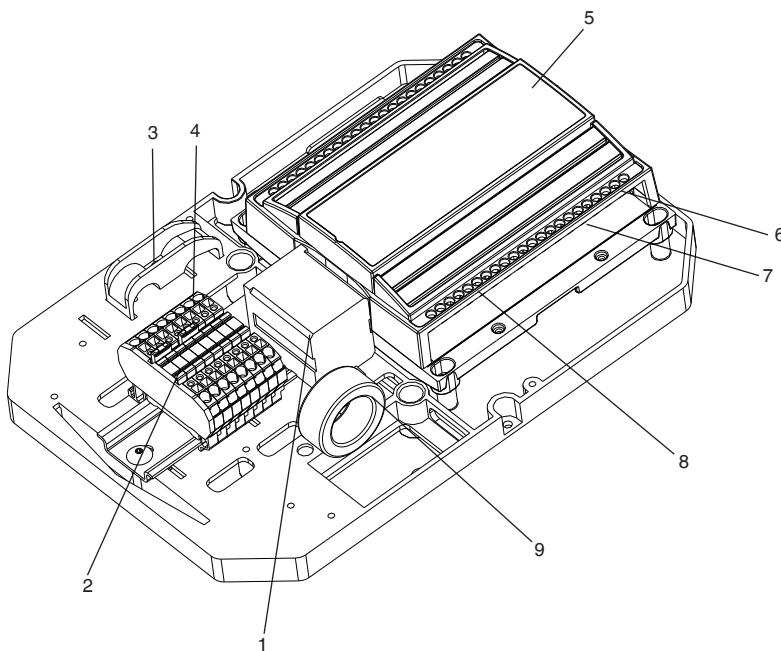




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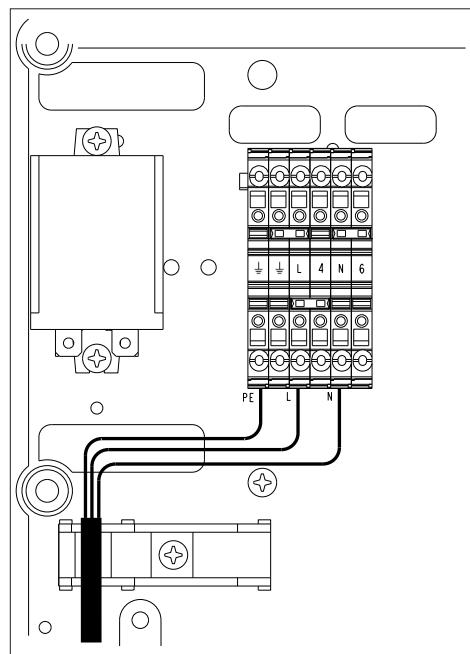
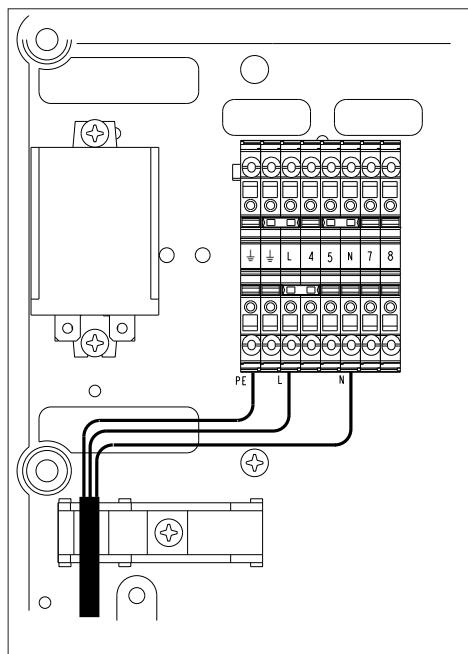


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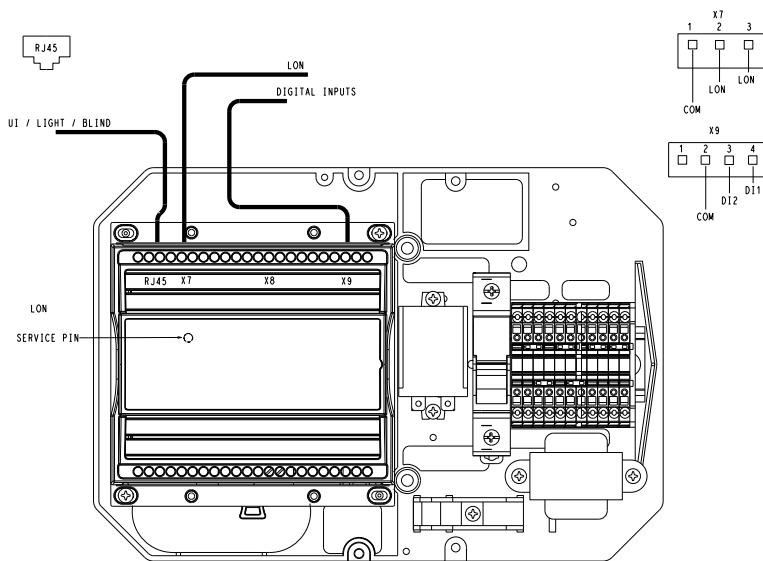


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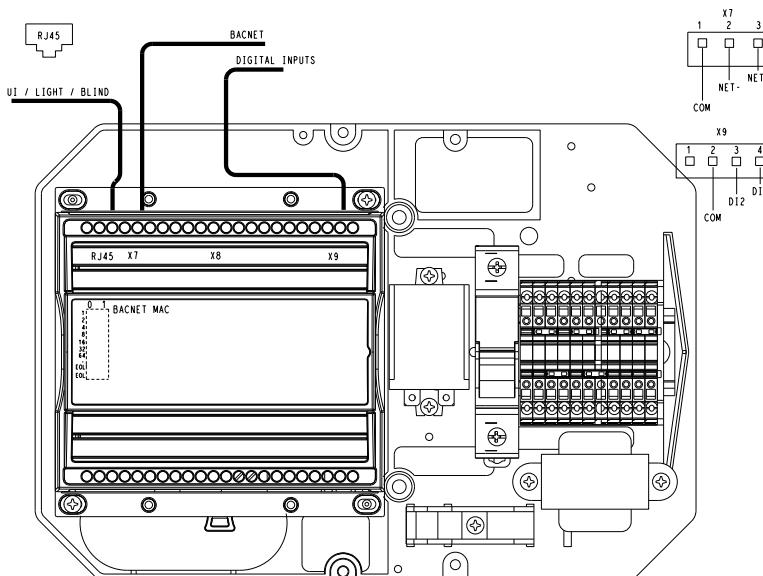


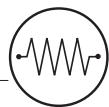


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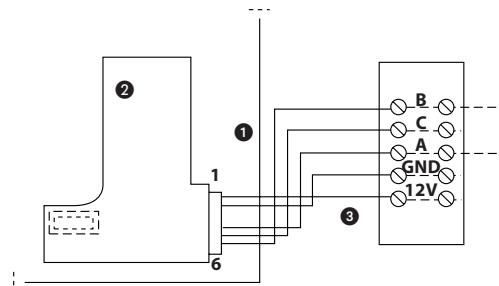


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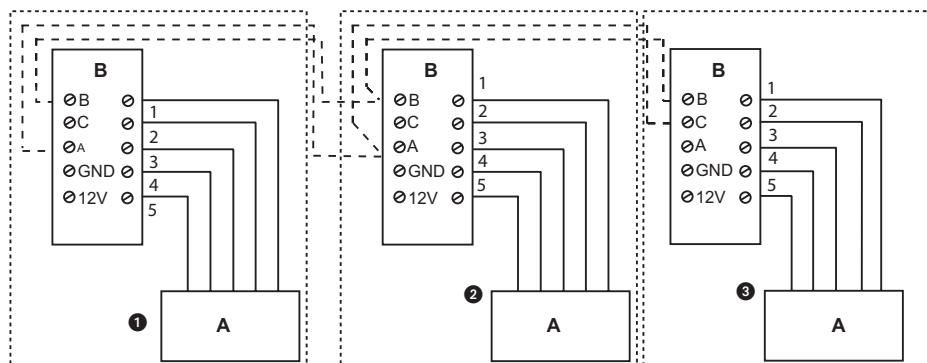




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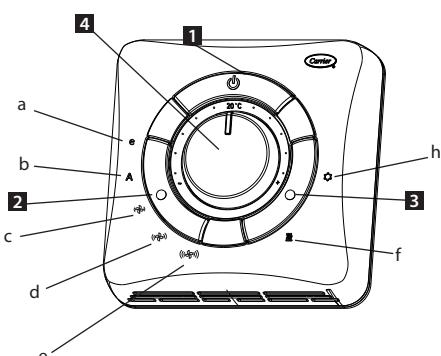


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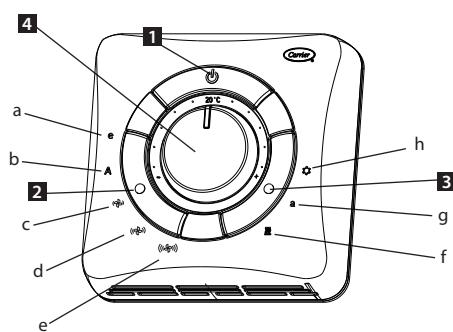


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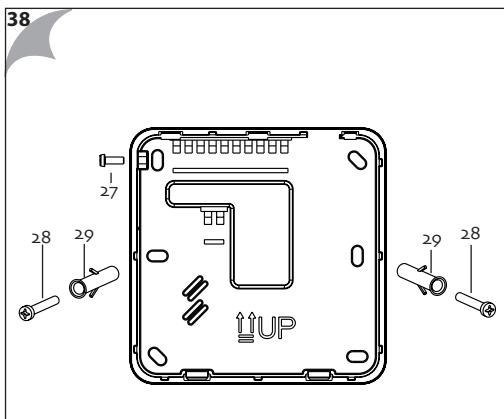


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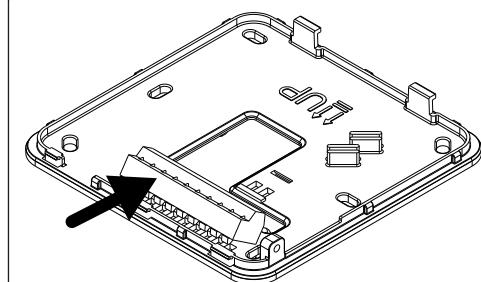




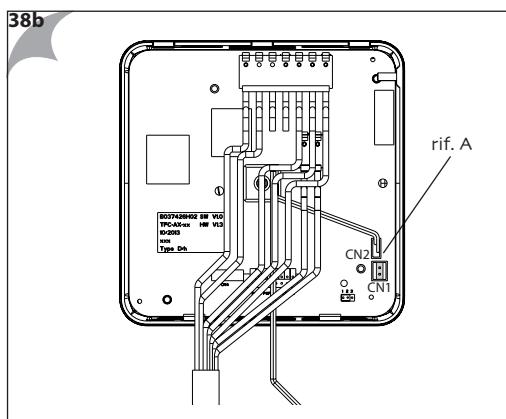
38



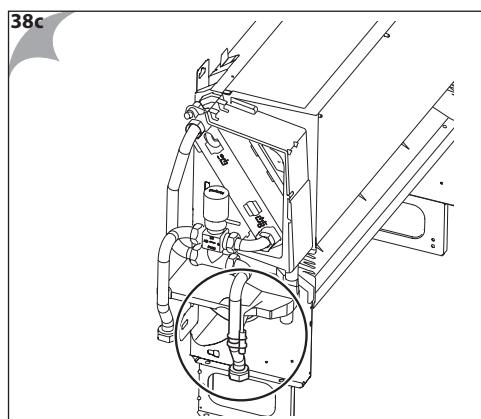
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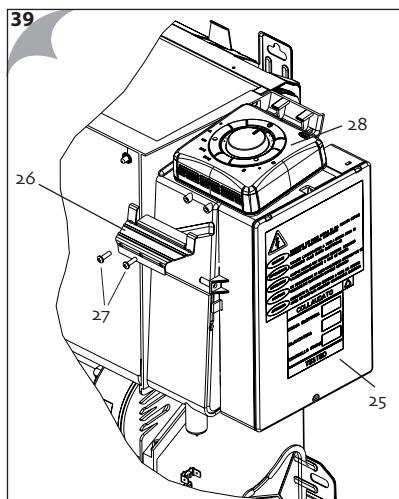
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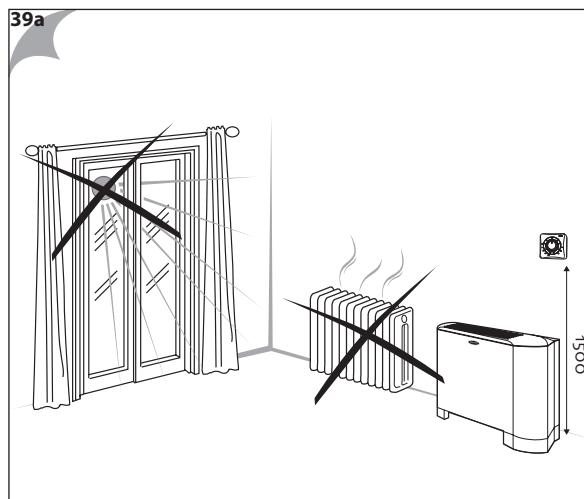
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39

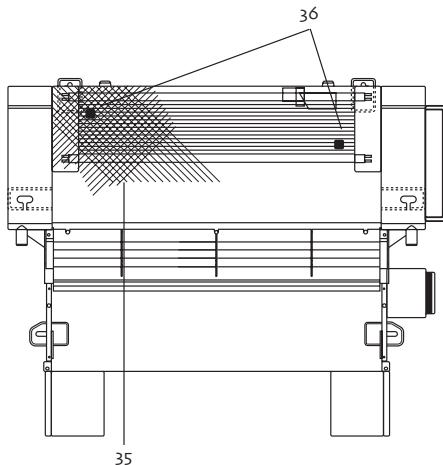


39a



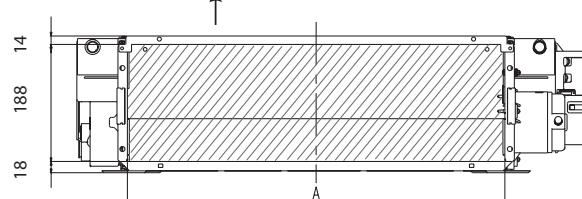
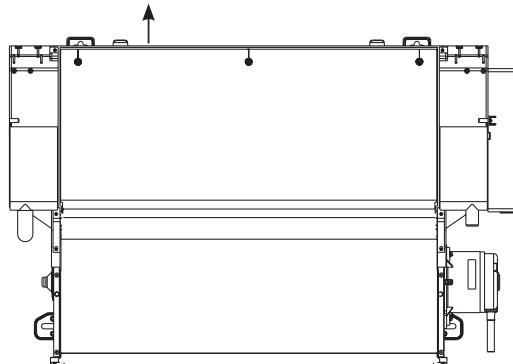
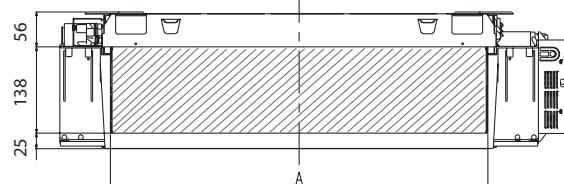


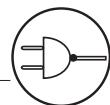
40



41

42N	S15/E19	S20-S26-E29	S30-S42-E39	S45-S65-E49-E69
A	397	597	797	997





GB Table I: Operating limits

Water circuit	Water-side maximum pressure: 1400 kPa (142 m WG)	Minimum entering water temperature: +2°C Maximum entering water temperature: +80°C Minimum temperature: 5°C Maximum temperature: 32°C
Indoor temperature		
Power supply	Nominal Operating limits	230V ~ 50 Hz - 1ph min. 216V - max. 244V
	Shi speed - 1, dry coil (*)	size 15: 30Pa - size 20: 50Pa - size 30: 50Pa - size 45: 110Pa
	Me speed - 3, dry coil (*)	size 15: 20Pa - size 20: 35Pa - size 30: 45Pa - size 45: 85Pa
Maximum available static pressure	Hlo speed - 5, dry coil (*)	size 15: 5Pa - size 20: 20Pa - size 30: 40Pa - size 45: 50Pa
	High speed -1 dry cool (*)	size 26: 110Pa - size 42: 120Pa - size 65: 120Pa
	Med speed -2 dry cool (*)	size 26: 80Pa - size 42: 110Pa - size 65: 110Pa
	Low speed -3 dry cool (*)	size 26: 25Pa - size 42: 60Pa - size 65: 75Pa

(*) in DRY operation, reduce 5Pa

I Tabella I: Limiti di funzionamento

Circuito acqua	Pressione massima lato acqua: 1400 kPa (142 m c.a.)	Temperatura minima acqua entrante: +2°C Temperatura massima acqua entrante: +80°C
Temperatura interna		Temperatura minima: 5°C Temperatura massima: 32°C
Alimentazione elettrica	Nominale Limiti di funzionamento	230V ~ 50 Hz - 1ph min. 216V - max. 244V
	Velocità Super alta - 1, batteria asciutta (*)	grand. 15: 30Pa - grand. 20: 50Pa - grand. 30: 50Pa - grand. 45: 110Pa
	Velocità media - 3, batteria asciutta (*)	grand. 15: 20Pa - grand. 20: 35Pa - grand. 30: 45Pa - grand. 45: 85Pa
Pressione statica massima disponibile	Velocità ultra bassa - 5, batteria asciutta (*)	grand. 15: 5Pa - grand. 20: 20Pa - grand. 30: 40Pa - grand. 45: 50Pa
	Alta velocità -1 fresco e asciutto (*)	grand. 26: 110Pa - grand. 42: 120Pa - grand. 65: 120Pa
	Media velocità -2 fresco e asciutto (*)	grand. 26: 80Pa - grand. 42: 110Pa - grand. 65: 110Pa
	Bassa velocità -3 fresco e asciutto (*)	grand. 26: 25Pa - grand. 42: 60Pa - grand. 65: 75Pa

(*) In funzionamento deumidificazione, ridurre 5Pa

F Tableau I : limites de fonctionnement

Circuit d'eau	Pression maximale côté eau : 1400 kPa (142 m WG)	Température minimale de l'eau à l'entrée : +2°C Température maximale de l'eau à l'entrée : +80°C
Température intérieure		Température minimale : 5°C Température maximale : 32°C
Alimentation secteur	Nominale Limites de fonctionnement	230V ~ 50 Hz - 1ph min. 216V - max. 244V
	Vitesse très haute - 1, batterie sèche (*)	taille 15: 30Pa - taille 20: 50Pa - taille 30: 50Pa - taille 45: 110Pa
	Vitesse moyenne - 3, batterie sèche (*)	taille 15: 20Pa - taille 20: 35Pa - taille 30: 45Pa - taille 45: 85Pa
Pression statique maximale disponible	Vitesse très basse - 5, batterie sèche (*)	taille 15: 5Pa - taille 20: 20Pa - taille 30: 40Pa - taille 45: 50Pa
	Hauta vitesse -1 sec et frais (*)	taille 26: 110Pa - taille 42: 120Pa - taille 65: 120Pa
	Vitesse moyenne -2 frais et sec (*)	taille 26: 80Pa - taille 42: 110Pa - taille 65: 110Pa
	basse vitesse -3 frais et sec (*)	taille 26: 25Pa - taille 42: 60Pa - taille 65: 75Pa

(*) En fonctionnement à sec, réduire 5 Pa

D Tabelle I: Betriebs-Grenzwerte

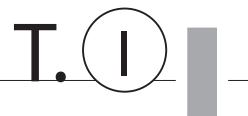
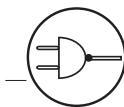
Wasserkreislauf	Wasserseitiger Maximaldruck: 1400 kPa (142 m WS)	Mindest-Wassereintrittstemperatur: +2°C Maximale Wassereintrittstemperatur: +80°C
Raumtemperatur		Mindesttemperatur: 5°C Maximaltemperatur: 32°C
Netzstromversorgung	Nennspannung Betriebsspannungsbereich	230V ~ 50 Hz - 1ph min. 216V - max. 244V
	äußerst hohe Geschwindigkeit - 1, Trockenbatterie (*)	GRÖSSE 15: 30Pa - GRÖSSE 20: 50Pa - GRÖSSE 30: 50Pa - GRÖSSE 45: 110Pa
Max. statischer Druck	mittlere Geschwindigkeit - 3, Trockenbatterie (*)	GRÖSSE 15: 20Pa - GRÖSSE 20: 35Pa - GRÖSSE 30: 45Pa - GRÖSSE 45: 85Pa
	äußerst niedrige Geschwindigkeit - 5, Trockenbatterie (*)	GRÖSSE 15: 5Pa - GRÖSSE 20: 20Pa - GRÖSSE 30: 40Pa - GRÖSSE 45: 50Pa
	Hohe Geschwindigkeit - 1 kühl und trocken (*)	GRÖSSE 26: 110Pa - GRÖSSE 42: 120Pa - GRÖSSE 65: 120Pa
	Durchschnittliche Geschwindigkeit - 2 kühl und trocken (*)	GRÖSSE 26: 80Pa - GRÖSSE 42: 110Pa - GRÖSSE 65: 110Pa
	Niedrige Drehzahl - 3 kühl und trocken (*)	GRÖSSE 26: 25Pa - GRÖSSE 42: 60Pa - GRÖSSE 65: 75Pa

(*) im Trockenlauf, reduzieren 5Pa

E Tabla I: Límites de funcionamiento

Circuito hidráulico	Presión máxima hidráulica: 1400 kPa (142 m CA)	Temperatura mínima de entrada de agua: +2°C Temperatura máxima de entrada de agua: +80°C
Temperatura interior		Temperatura mínima: 5°C Temperatura máxima: 32°C
Alimentación eléctrica	Nominal Límites de tensión en funcionamiento	230V ~ 50 Hz - 1ph min. 216V - máx. 244V
	Velocidad Super alto - 1, batería seca (*)	TAMAÑO 15: 30Pa - TAMAÑO 20: 50Pa - TAMAÑO 30: 50Pa - TAMAÑO 45: 110Pa
	Velocidad Promedio - 3, batería seca (*)	TAMAÑO 15: 20Pa - TAMAÑO 20: 35Pa - TAMAÑO 30: 45Pa - TAMAÑO 45: 85Pa
Presión estática máxima	Velocidad Ultra baja - 5, batería seca (*)	TAMAÑO 15: 5Pa - TAMAÑO 20: 20Pa - TAMAÑO 30: 40Pa - TAMAÑO 45: 50Pa
	De alta velocidad -1 seco y fresco (*)	TAMAÑO 26: 110Pa - TAMAÑO 42: 120Pa - TAMAÑO 65: 120Pa
	Velocidad media -2 fresco y seco (*)	TAMAÑO 26: 80Pa - TAMAÑO 42: 110Pa - TAMAÑO 65: 110Pa
	De baja velocidad -3 fresco y seco (*)	TAMAÑO 26: 25Pa - TAMAÑO 42: 60Pa - TAMAÑO 65: 75Pa

(*) En función de deshumidificación, reducir 5Pa



NL Tabel I: Bedrijfslimieten

Watercircuit	Maximum druk waterzijdig: 1400 kPa (142 m c.a.)	Minimum waterintredetemperatuur: +2°C Maximum waterintredetemperatuur: +80°C
Ruimtemperatuur		Minimum temperatuur: 5°C Maximum temperatuur: 32°C
Elektrische voeding	Nominale Bedrijfsspannings-limieten	230V ~ 50 Hz - 1ph min. 216V - max. 244V
	Erg hoge snelheid - 1, droge batterij (*)	TYPE 15: 30Pa - TYPE 20: 50Pa - TYPE 30: 50Pa - TYPE 45: 110Pa
	Gemiddelde snelheid - 3, droge batterij (*)	TYPE 15: 20Pa - TYPE 20: 35Pa - TYPE 30: 45Pa - TYPE 45: 85Pa
	Erg lage snelheid - 5, droge batterij (*)	TYPE 15: 5Pa - TYPE 20: 20Pa - TYPE 30: 40Pa - TYPE 45: 50Pa
Max. statische druk	Hoge snelheid-1 droge en koele (*)	TYPE 26: 10Pa - TYPE 42: 120Pa - TYPE 65: 120Pa
	Medium snelheid - 2 koele en droog (*)	TYPE 26: 80Pa - TYPE 42: 110Pa - TYPE 65: 110Pa
	Lage snelheid - 3 koele en droog (*)	TYPE 26: 25Pa - TYPE 42: 60Pa - TYPE 65: 75Pa

(*) In DRY, verminderen 5Pa

GR Πίνακας I: Όρια λειτουργίας

Κύκλωμα νερού	Μέγιστη πίεση νερού: 1400 kPa (142 μ. WG)	Ελάχιστη θερμοκρασία εισερχόμενου νερού: +2 βαθμοί Κελσίου Μέγιστη θερμοκρασία εισερχόμενου νερού: +80 βαθμοί Κελσίου
Εσωτερική θερμοκρασία		Ελάχιστη θερμοκρασία: 5 βαθμοί Κελσίου Μέγιστη θερμοκρασία: 32 βαθμοί Κελσίου
Κύρια παροχή ρεύματος	Ονομαστική Λειτουργικά όρια τάσης	230V ~ 50 Hz - 1ph min. 216V - max. 244V
	πολύ υψηλή ταχύτητα - 1, στεγνό πνυγί (*)	μέγεθος 15: 30Pa - μέγεθος 20: 50Pa - μέγεθος 30: 50Pa - μέγεθος 45: 110Pa
	μέτρια ταχύτητα - 3, στεγνό πνυγί (*)	μέγεθος 15: 20Pa - μέγεθος 20: 35Pa - μέγεθος 30: 45Pa - μέγεθος 45: 85Pa
	πολύ χαμηλή ταχύτητα - 5, στεγνό πνυγί (*)	μέγεθος 15: 5Pa - μέγεθος 20: 20Pa - μέγεθος 30: 40Pa - μέγεθος 45: 50Pa
Μέγιστη στατική πίεση	Υψηλή ταχύτητα - 1 έντονο δροσερό (*)	μέγεθος 26: 110Pa - μέγεθος 42: 120Pa - μέγεθος 65: 120Pa
	Med ταχύτητα - 2 στεγνό δροσερό (*)	μέγεθος 26: 80Pa - μέγεθος 42: 110Pa - μέγεθος 65: 110Pa
	Χαμηλή ταχύτητα - 3 στεγνό δροσερό (*)	μέγεθος 26: 25Pa - μέγεθος 42: 60Pa - μέγεθος 65: 75Pa

(*) Σε λειτουργία DRY, να μειώσει 5Pa

P Tabela I: Limites de funcionamento

Circuito de água	Pressione massima lato acqua: 1400 kPa (142 m c.a.)	Temperatura mínima da água à entrada: +2°C Temperatura máxima da água à entrada: +80°C
Temperatura na sala		Temperatura mínima: 5°C Temperatura máxima: 32°C
Corrente eléctrica do circuito principal	Nominal Limites da funcionamento	230V ~ 50 Hz - 1ph min. 216V - max. 244V
	Velocidade Super alta - 1, bateria seca (*)	TAMANHO 15: 30Pa - TAMANHO 20: 50Pa - TAMANHO 30: 50Pa - TAMANHO 45: 110Pa
	Velocidade média - 3, bateria seca (*)	TAMANHO 15: 20Pa - TAMANHO 20: 35Pa - TAMANHO 30: 45Pa - TAMANHO 45: 85Pa
	Velocidade ultra baixa - 5, bateria seca (*)	TAMANHO 15: 5Pa - TAMANHO 20: 20Pa - TAMANHO 30: 40Pa - TAMANHO 45: 50Pa
Pressão estática máxima	Velocidade alta-1 seco e frio (*)	TAMANHO 26: 110Pa - TAMANHO 42: 120Pa - TAMANHO 65: 120Pa
	Velocidade média -2 seco e frio (*)	TAMANHO 26: 80Pa - TAMANHO 42: 110Pa - TAMANHO 65: 110Pa
	Velocidade baixa -3 seco e frio (*)	TAMANHO 26: 25Pa - TAMANHO 42: 60Pa - TAMANHO 65: 75Pa

(*) Na operação a seco, reduzir 5Pa

S Tabell I: Driftsgränser

Vattenkrets	Maximalt tryck, vattensidan: 1400 kPa (142 m WG)	Minimal ingående vattentemperatur: +2°C Maximalt ingående vattentemperatur: +80°C
Inhomustemperatur		Minimal temperatur: 5°C Maximal temperatur: 32°C
Huvudkraftmatning	Nominell Gränser för driftsspänning	230V ~ 50 Hz - 1ph min. 216V - max. 244V
	Mycket högt varvtal - 1, torrbatteri (*)	STORLEK 15: 30Pa - STORLEK 20: 50Pa - STORLEK 30: 50Pa - STORLEK 45: 110Pa
	Medelvarvtal - 3, torrbatteri (*)	STORLEK 15: 20Pa - STORLEK 20: 35Pa - STORLEK 30: 45Pa - STORLEK 45: 85Pa
	Mycket lågt varvtal - 5, torrbatteri (*)	STORLEK 15: 5Pa - STORLEK 20: 20Pa - STORLEK 30: 40Pa - STORLEK 45: 50Pa
Maximalt statiskt tryck	Hög hastighet-1 torr och sval (*)	STORLEK 26: 110Pa - STORLEK 42: 120Pa - STORLEK 65: 120Pa
	Medhastighet -2 torr och sval (*)	STORLEK 26: 80Pa - STORLEK 42: 110Pa - STORLEK 65: 110Pa
	Låg hastighet -3 torr och sval (*)	STORLEK 26: 25Pa - STORLEK 42: 60Pa - STORLEK 65: 75Pa

(*) I avfuktning, minskta 5Pa

FIN Taulukko I: Käyttörajoitukset

Vesipiiri	Vesipuolen maksimi paine: 1400 kPa (142 m WG)	Minimi tulevan veden lämpötila: +2°C Maksimi tulevan veden lämpötila: +80°C
Sisälämpötila		Minimi lämpötila: 5°C Maksimi lämpötila: 32°C
Liittäntäjännite	Nimellinen Liittäntäjännitteenv raja-arvot	230V ~ 50 Hz - 1ph min. 216V - max. 244V
	Erittäin korkean nopeus - 1, kuiva kierukka (*)	KOOT 15: 30Pa - KOOT 20: 50Pa - KOOT 30: 50Pa - KOOT 45: 110Pa
	Keskimääräinen nopeus - 3, kuiva kierukka (*)	KOOT 15: 20Pa - KOOT 20: 35Pa - KOOT 30: 45Pa - KOOT 45: 85Pa
	Erittäin alhainen nopeus - 5, kuiva kierukka (*)	KOOT 15: 5Pa - KOOT 20: 20Pa - KOOT 30: 40Pa - KOOT 45: 50Pa
Pressione statica massima disponibile	High speed-1 kuivaa ja viileää (*)	KOOT 26: 110Pa - KOOT 42: 120Pa - KOOT 65: 120Pa
	Med nopeus -2 kuivaa ja viileää (*)	KOOT 26: 80Pa - KOOT 42: 110Pa - KOOT 65: 110Pa
	Alhainen nopeus -3 kuivaa ja viileää (*)	KOOT 26: 25Pa - KOOT 42: 60Pa - KOOT 65: 75Pa

(*) Jos toimii kuivattavissa olosuhteissa salittua stattista painetta tulee pienentää 5 Pa.



Table II: Electrical data of units with 230V motor / Tabella II: Dati Elettrici unità con motore 230V / Tableau II : Caractéristiques électriques des unités avec moteur 230V / Tabelle II: Elektrische Daten von Geräten mit 230 V Motor / Tabla II: Datos eléctricos de unidades con motor 230 V / Tabel II: Electrische gegevens van toestellen met een motor van 230V / Πίνακας II: Ηλεκτρικά στοιχεία μονάδων με κινητήρα 230V / Tabela II: Dados eléctricos das unidades com um motor de 230 V / Tabell II: Elektrisk data för enheter med 230V-motor / Taulukko II: 230 Vn moottorilla varustettujen yksiköiden sähkötiedot

42N	S15	S20	S26	S30	S42	S45	S65
1 A	0.13	0.16	0.30	0.25	0.45	0.55	0.72
2 W		36	65	57	100	128	165
3 W	500	500	500	1000	1000	1000	1000
4 W	800	1000	1000	2000	2000	2000	2000
5 W	5	5	5	5	5	5	5
6 A	0.2	0.25	0.5	0.4	0.63	0.8	1
7 A	3.15	3.15	3.15	6.3	6.3	6.3	8
8 A	5	6.3	6.3	12.5	12.5	12.5	12.5
9 mm ²	3x1.5	3x1.5	3x1.5	3x2.5	3x2.5	3x2.5	3x2.5

(GB) LEGEND / TABLE II

- 1: Motor current requirement
- 2: Motor power input
- 3: Electric heater power (low capacity)
- 4: Electric heater power (high capacity)
- 5: Cold + hot water valve consumption
- 6: Fuse of unit without heaters
- 7: Fuse of unit with heaters (low capacity)
- 8: Fuse of unit with heaters (high capacity)
- 9: Power supply cable section

(I) LEGENDA / TABELLA II

- 1: Corrente assorbita motore
- 2: Potenza assorbita motore
- 3: Potenza riscaldatori elettrici (bassa capacità)
- 4: Potenza riscaldatori elettrici (alta capacità)
- 5: Assorbimento valvole fredda + calda
- 6: Fusibile unità senza riscaldatori
- 7: Fusibile unità con riscaldatori (bassa capacità)
- 8: Fusibile unità con riscaldatori (alta capacità)
- 9: Sezione cavi alimentazione

(F) LÉGENDE / TABLEAU II

- 1: Intensité absorbée
- 2: Puissance absorbée
- 3: Puissance résistance électrique (capacité faible)
- 4: Puissance résistance électrique (capacité haute)
- 5: Consommation vanne eau froide + eau chaude
- 6: Fusible unité sans résistances
- 7: Fusible unité avec résistances (capacité faible)
- 8: Fusible unité avec résistances (capacité haute)
- 9: Section câble d'alimentation

(D) LEGENDE / TABELLE II

- 1: Motorstrombedarf
- 2: Motoraufnahmleistung
- 3: Elektrische Heizleistung (Niedrige Leistung)
- 4: lektrische Heizleistung (Hohe Leistung)
- 5: Stromverbrauch Kalt- und Warmwasserventil
- 6: Sicherung von Gerät ohne Erhitzer
- 7: Sicherung von Gerät mit Erhitzer (Niedrige Leistung)
- 8: Sicherung von Gerät mit Erhitzer (Hohe Leistung)
- 9: Querschnitt Speisekabel

(NL) LEYENDA / TABLA II

- 1: Requisito de corriente del motor
- 2: Potencia de entrada del motor
- 3: Potencia de la resistencia eléctrica (baja capacidad)
- 4: Potencia de la resistencia eléctrica (alta capacidad)
- 5: Consumo de la válvula de agua fría + caliente
- 6: Fusible de unidad sin resistencias
- 7: Fusible de unidad con resistencias (baja capacidad)
- 8: Fusible de unidad con resistencias (alta capacidad)
- 9: Sección de cable de alimentación de potencia

(NL) VERKLARING / TABEL II

- 1: Vereiste motorstroom
- 2: Motor stroominput
- 3: Stroom elektrische verwarmers (inhoud lage)
- 4: Stroom elektrische verwarmers (inhoud hoge)
- 5: Consumptie klep koud + warm water
- 6: Zekering van toestel zonder verwarmers
- 7: Zekering van toestel met verwarmers (inhoud lage)
- 8: Zekering van toestel met verwarmers (inhoud hoge)
- 9: Kabel stroomvoorziening sectie

(P) LEGENDA / TABELA II

- 1: Requisito di corrente del motor
- 2: Entrada de energía del motor
- 3: Potencia do aquecedor eléctrico (baixa capacidade)
- 4: Potência do aquecedor eléctrico (alta capacidade)
- 5: Consumo da válvula de água quente + fria
- 6: Fusível da unidade sem aquecedores
- 7: Fusível da unidade com aquecedores (baixa capacidade)
- 8: Fusível da unidade com aquecedores (alta capacidade)
- 9: Secção do cable de abastecimento de energia

(S) FÖRKLARING / TABELL II

- 1: Motor aktuella krav
- 2: Motor strömförsl
- 3: Ströms elektriskt värmeelement (läg kapacitet)
- 4: Ströms elektriskt värmeelement (hög kapacitet)
- 5: Kalt + varmt vattenflötsförbryning
- 6: Enhets säkring utan värmeelement
- 7: Enhets säkring utan värmeelement (läg kapacitet)
- 8: Enhets säkring med värmeelement (läg kapacitet)
- 9: Kabeltänning för strömförsl

Table III: Electrical data of units with LEC (BRUSHLESS) motor / Tabella II: Dati Elettrici unità con motore LEC (BRUSHLESS) /

Tableau II : Caractéristiques électriques des unités avec moteur LEC (SANS BALAIS) / Tabelle II : Caractéristiques électriques des unités avec moteur LEC (SANS BALAIS) / Tabla II: Datos eléctricos de unidades con motor de bajo consumo de energía LEC (sin escobillas) / Tabel II: Electrische gegevens van toestellen met LEC (BORSTELLOZE) motor / Πίνακας II: Ηλεκτρικά στοιχεία κινητήρα LEC (ΧΩΡΙΣ ΨΗΦΤΡΕΣ) / Tabela II: Dados eléctricos das unidades com um motor LEC (SEM ESCOVAS) / Tabell II: Elektrisk data för enheter med LEC (BRUSHLESS)-motor / Taulukko II: LEC (BRUSHLESS) -moottoreilla varustettujen yksiköiden sähkötiedot

42NE	E19	E29	E39	E49	14
10 W	4.5	4.6	6.4	9	7.4
11 mA	57	61	76	90	80
12 W	14.5	14.5	30.1	60.9	14.5
13 mA	144	144	271	514	144

(GB) LEGEND / TABLE III

- 10: LEC motor power input (minimum speed)
- 11: LEC motor current requirement (minimum speed)
- 12: LEC motor power input (maximum speed)
- 13: LEC motor current requirement (maximum speed)
- 14: E19+Electric heaters

(D) LEGENDE / TABELLE III

- 10: LEC-Motoraufnahmleistung (Min. Drehzahl)
- 11: LEC-Motorstrombedarf (Min. Drehzahl)
- 12: LEC-Motoraufnahmleistung (Max. Drehzahl)
- 13: LEC-Motorstrombedarf (Max. Drehzahl)
- 14: E19+Elektrohitzer

(GR) ΥΠΟΜΝΗΜΑ / Πίνακας III

- 10: Καταναλόκουμενης ισχύς κινητήρα LEC (έλαχιστη ταχύτητα)
- 11: Ανατρητή ηλεκτρικού ρεύματος κινητήρα LEC (έλαχιστη ταχύτητα)
- 12: LEC motor power input (μέγιστη ταχύτητα)
- 13: Ανατρητή ηλεκτρικού ρεύματος κινητήρα LEC (μέγιστη ταχύτητα)
- 14: E19+ηλεκτρικού θερμαντήρας

(I) FÖRKLARING / TABELLA III

- 10: LEC-motor strömförsl (lägsta hastighet)
- 11: LEC-motor aktuella krav (lägsta hastighet)
- 12: LEC motor strömförsl (högsta hastighet)
- 13: LEC motor aktuella krav (högsta hastighet)
- 14: E19+Elektriska värmeelement

(I) LEGENDA / TABELLA III

- 10: Potenza assorbita motore LEC (minima velocità)
- 11: Corrente assorbita motore LEC (minima velocità)
- 12: Potenza assorbita motore LEC (massima velocità)
- 13: Corrente assorbita motore LEC (massima velocità)
- 14: E19+Riscaldatori

(F) LÉGENDE / TABLEAU III

- 10: Puissance absorbée moteur LEC (vitessé minimale)
- 11: Intensité absorbée moteur LEC (vitessé minimale)
- 12: Puissance absorbée moteur LEC (vitessé maximale)
- 13: Intensité absorbée moteur LEC (vitessé maximale)
- 14: E19+ Résistances électriques

(NL) VERKLARING / TABEL III

- 10: LEC motor stroominput (minimum snelheid)
- 11: LEC motor stroominput vereiste (minimum snelheid)
- 12: LEC motor stroominput (maximum snelheid)
- 13: LEC motor stroom vereiste (maximum snelheid)
- 14: E19+Elektrische verwarmers

(P) LEGENDA / TABELA III

- 10: Entrada de energía do motor LEC (velocidade mínima)
- 11: Requisito de corrente do motor LEC (velocidade mínima)
- 12: Entrada de energía do motor LEC (velocidade máxima)
- 13: Requisito de corrente do motor LEC (velocidade máxima)
- 14: E19+aquecedores eléctricos

(FIN) MERKKIEN SELITYKSET / TAULUKKO III

- 10: LEC-moottorin syöttöteho (minimipaineus)
- 11: LEC-moottorin jännitteinen tarve (minimipaineus)
- 12: LEC-moottorin syöttöteho (maksimipaineus)
- 13: LEC-moottorin jännitteinen tarve (maksimipaineus)
- 14: E19+Sähkölämmittimet



T. IV

(GB) **Table IV: Material supplied**

Q.ty	Description
2	Brackets for horizontal installation (only for units without cabinet)
2	Fixing screws
2	Angles to secure filter slides
2	Screws for cabinet fixing
1	Installation manual

(I) **Tab. IV: Materiale a corredo**

Q.tà	Descrizione
2	Staffe per appensione orizzontale (solo per unità senza mobile)
2	Viti di fissaggio
2	Piastrine fermo guida filtro
2	Viti per fissaggio mobiletto
1	Manuale di installazione

(F) **Tableau IV : matériel fourni**

Q.té	Description
2	Supports de montage horizontal (Uniquement pour unités non carrossées)
2	Vis de fixation
2	Cornières de consolidation des glissières de guidage du filtre
2	Vis de fixation de l'unité carrossée
1	Manuel d'installation

(D) **Tabelle IV: Mitgeliefertes Material**

Anz.	Beschreibung
2	Halterungen für horizontale Montage (nur für Geräte ohne Schrank)
2	Befestigungsschrauben
2	Winkel zur Sicherung der Filterschienen
2	Schrauben zur Gehäusebefestigung
1	Installationsanweisung

(E) **Tabla IV: Material suministrado**

Cant.	Descripción
2	Estreros para fijación horizontal (Únicamente para unidades sin mueble)
2	Tornillos de fijación
2	Angulos para fijar las guías del filtro
2	Tornillos para la fijación del mueble
1	Manual de instalación

(NL) **Tabel IV: Geleverde materialen**

H.	Omschrijving
2	Beugels voor horizontale installatie (alleen voor units zonder meubel)
2	Bevestigingsschroeven
2	Hoekprofielen om filtergeleiders vast te zetten
2	Schroeven om omkasting vast te zetten
1	Montagehandboek

(GR) **Πίνακας IV: Υλικό που παρέχεται**

Ποσότητα	Περιγραφή
2	Υποστηριγμάτα για οριζόντια εγκατάσταση (μονάχα για μονάδες χωρίς έπιπλο)
2	Βίδες στερέωσης
2	Γωνίες για ασφάλιση των οδηγών του φίλτρου
2	Βίδες για στερέωση του περιβλήματος
1	Εγχειρίδιο Εγκατάστασης

(P) **Tabela IV: Material fornecido**

Q.de	Descrição
2	Suportes para instalação horizontal (somente para unidades sem móvel)
2	Parafusos de fixação
2	Cantos para segurar as guias dos filtros
2	Parafusos para fixação do armário
1	Manual de instalação

(S) **Tabell IV: Bifogat material**

Antal	Beskrivning
2	Konsoler för horisontellt montage (Endast för enhet utan möbel)
2	Säkringskruvar
2	Vinklar för säkring av filterskenor
2	Skruvar för fixering av kabinett
1	Installationsmanual

(FIN) **Taulukko IV: Toimituksen sisältö**

Määrä	Kuvaus
2	Kiinnikkeet vaaka-asennusta varten (Vain yksikölle ilman telinettä)
2	Kiinnitysruuvit
2	Suodatinpitimiien kulmakappaleet
2	Kiinnitysruuvit kotelolle
1	Asennusohje

42N - FAN COIL UNITS

Legend

Fig.13.

Dimensions (mm) and weight, cabinet unit

X Cabinet version

- ① Slots for wall vertical fixing
- ② Condensate discharge Ø 20 mm O.D.
drain connection
- ③ Cover panels (accessories)
- ④ Supporting feet (accessories)
- ⑤ Slots for horizontal ceiling fixing

Dimensions (mm) and weight, concealed unit

Y Concealed version

- ② Condensate discharge Ø 20 mm O.D.
drain connection
- ④ Supporting feet (accessories)
- ⑥ Cool Ø 3/4" gas female
- ⑦ Heat Ø 1/2" gas female

Fig.16.

1 Minimum distance from the wall

Fig.17.

**Supporting feet and cover panels
assembly for floor-mounted vertical
unit**

Fig.18.

**Example of installation of unit with
cabinet**

- 2 Turn by 180°

Fig.18A.

**Example of vertical installation of
concealed unit**

Fig.18B.

**Distance between panel – concealed
unit**

- A Intake grille size
- B Supply grille size
- C Panel size

Fig.19.

- 3 Screw anchor with double screw
- 4 Air vent

Fig.21.

**Space for water connections
Front view**

- ⑧ IN
- ⑨ OUT
- ⑩ Cool Ø 3/4" gas female
- ⑪ Heat Ø 1/2" gas female
- ⑫ Condensate drain
- ⑭ Floor

Fig.22.

**Space for water connections
Top view**

Fig.23-24-25.

- 5 Control box panel
- 6 Hooks for control fixing
- 7 Temperature sensor
- 8 No. 2 screws for coil earthing
- 9 Front drain pan
- 10 Rubber tabs for coil hook
- 11 Thermoelectric valve head
- 12 Cold water circuit
- 13 Hot water circuit

Fig.27

Standard electrical box

- 18 Electrical box
- 19 Cable holder
- 20 Terminal block
- 21 Electric heaters relay
- 22 Capacitor
- 25 Power supply cable
- 26 Control cable
- 27 Cold valve cables
- 28 Hot valve cables

Fig.28

L.E.C. motor control box panel

- 18 Electrical box
- 19 Cable holder
- 20 Terminal block
- 21 Electric heaters relay
- 25 Power supply cable
- 26 Control cable
- 27 Cold valve cables
- 28 Hot valve cables

Fig.29.

NTC electrical box

- 18 Electrical box
- 19 Cable holder
- 20 Terminal block
- 21 Electric heaters relay
- 22 Capacitor
- 25 Power supply cable
- 29 Transformer
- 30 NTC board

Fig.30.

HDB electrical box

- 18 Electrical box
- 19 Cable holder
- 20 Terminal block
- 21 Electric heaters relay
- 22 Capacitor
- 25 Power supply cable
- 29 Transformer
- 32 HDB board
- 33 Terminal block
- 34 CRC control cable (optional)

Fig.31.

WTC control box (AC fan)

- 1 Fan capacitor (3-speed fans)
- 2 Electric heater relay (if heater>1400W)
- 3 Power supply
- 4 Supply cable clamp
- 5 Terminal block
- 6 WTC controller
- 7 User Interface / Light / Blind module
RJ45 connector
- 8 LON / BACnet connector
- 9 Digital inputs

Fig.32.

WTC control box (EC fan)

- 1 Electric heater relay (if heater>1400W)
- 2 Terminal block
- 3 Supply cable clamp
- 4 Power supply
- 5 WTC controller
- 6 User Interface / Light / Blind module
RJ45 connector
- 7 LON / BACnet connector
- 8 Digital inputs
- 9 Filter (EC fan motor option)

Fig.33.

Power supply connections for 42N

Fig.34a.

**Connectors for UI and Light / Blind
modules communication bus,
LON network communication bus and
digital inputs DI1/DI2 (42N)**

Fig.34b.

**Connectors for UI and Light / Blind
modules communication bus,
BACnet network communication bus
and digital inputs DI1/DI2 (42N)**

Fig.35.

- ① Main board (ref. 32)
- ② Communication board
- ③ 5-wire wiring
- ④ Auxiliary terminal block
- 1 BLUE
- 2 GREY
- 3 WHITE
- 4 BLACK
- 5 RED

42N - FAN COIL UNITS

Legend		
Fig.36. ① First indoor unit ② Second indoor unit ③ Third indoor unit A Communication board B To the other terminal block 1 BLUE 2 GREY 3 WHITE 4 BLACK 5 RED	Fig.38. 28 Screw to close the control 28 Screw 29 Screw anchor	Fig.40. 35 Protection grille 36 Safety thermostat
Fig.37. ① POWER button ② Fan speed selector/energy saving ③ Seasonal changeover selector ④ Temperature knob a Green LED - energy saving b Yellow LED "FAN auto" c Red LED - Low speed d Red LED - Medium speed e Red LED - High speed f Red LED - heating operation g Yellow LED - Automatic Seasonal changeover operation h Blue LED - cooling operation	Fig.39. 22 Control 25 Control box panel 26 Metal plate to fix the control 27 Screws	Fig.41. Concealed units size of return/supply duct
	Fig.39A. Control installation	



General information

Unit installation

Read this instruction manual thoroughly before using the unit and keep it for further consultation even after installation.

This unit is not intended for use by persons (including children) with reduced physical, sensorial or mental capacities or by inexperienced persons unless they have been instructed regarding use of the appliance and are supervised by a person responsible for their safety. Children must be supervised to ensure they do not play with the unit.

- The unit complies with all applicable standards for EC marking (for further details see Declaration of Conformity).

Except the unit size 42N_S65 which is not CE labeled due to fan efficiency regulation 327/2011 but is fully compliant with Machinery (2006/42/EC) and Electromagnetic Compatibility (2004/108/EC) directives.

- The installation must be carried out by a qualified installer.
- For safety reasons, installers are required to read the general information carefully.
- Follow all the instructions below to ensure safety.
- Inspect the unit for damage due to improper transport. Do not install or use damaged equipment.
- To prevent fire, explosion or injury, do not operate the unit near dangerous substances or close to naked light equipment.
- Ensure that national safety code requirements have been followed for the main supply circuit.
- Follow all current national safety code requirements. **Ensure that a properly sized and connected ground wire is in place.**
- Check that voltage and frequency of the mains power supply are those required for the unit to be installed; the available power must be adequate to operate any other appliances connected to the same line.
- Make sure that properly sized disconnecting and safety switches are installed.
- The manufacturer declines any liability for damage resulting from modifications or errors in the electrical or hydraulic connections. Failure to observe the installation instructions, or use of the unit under conditions other than those indicated in the table "Operating limits" of the unit installation manual, will immediately invalidate the unit warranty.
- After installation thoroughly test system operation and explain all system functions to the owner.
- **All of the manufacturing and packaging materials used for your new appliance are compatible with the environment and can be recycled.**
- Dispose of the packaging material in accordance with local requirements.
- **If the product is supplied without a Carrier control device, verification of EMC conformity is the responsibility of the installer.**



Warnings: avoid...

- ... any obstruction of the unit air outlet or return. Leave 1 metre minimum of free space (See fig. 1)
- ... exposure to oil vapours (See fig. 2)
- ... installation in areas with high frequency waves (See fig. 3)
- ... any rise in the condensate drain piping.
- ... horizontal condensate drain piping with less than 2% slope (See fig. 4)
- ... slack on electrical connections (See fig. 5)
- ... disconnecting water connections after installation (See fig. 6)
- ... exposure to direct sunshine, when unit is operating in

Unit operation

- In order to avoid electric shock, fire or injury, stop the unit and disconnect the safety switch in case of abnormal events (such as smell of burning) and call Carrier Service for further instructions.

- Do not place containers filled with liquids or other objects onto the unit.

Maintenance

WARNING: Disconnect the mains power supply prior to any maintenance operations or prior to handling any internal parts of the unit.

- A routine maintenance should be carried out on the unit to check the correct operation of the electric connections and protection devices.
- Maintenance operations must be carried out by specially trained personnel.
- Do not attempt to repair, move, modify or re-install the unit on your own. To avoid electric shock or fire make sure these operations are carried out by qualified personnel only.
- Contact the qualified service if one of the following events takes place:
 - hot or damaged power supply cable;
 - unusual noise during operation;
 - frequent operation of the protection devices;
 - unusual smell (such as smell of burning).

Choosing the installation site

- Choose an area free from obstructions which may cause irregular air distribution and/or return.
- Check that the wall surface is flat enough to allow easy and safe installation of the unit. The wall structure should be strong enough to carry the unit weight and avoid deformation, rupture or vibration during operation.
- Consider using an area where installation is easy.
- Choose a position that allows for the clearances required (see drawing).
- Look for a position in the room which assures the best possible air distribution.
- Install unit in a position where condensate can easily be piped to an appropriate drain.
- The minimum distance of the unit from any combustible surface must not be lower than the values shown in fig. 18, 18A, 18b, 19.

Positions to avoid:

- Exposed to direct sun.
- Too close to heat sources.
- On humid walls or positions with water hazard, e.g. laundry premises.
- Exposure to oil vapours (e.g. kitchens, workshops).
- Where curtains or furniture may obstruct free air circulation.

cooling mode; always use shutters or shades (See fig. 7)

... positions too close to heating sources which may damage the unit (See fig. 8)

... connecting condensate piping to sewage system drain without appropriate trap (See fig. 9)

... only partial insulation of the piping (See fig. 10)

... installation not correctly levelled which will cause condensate dripping (See fig. 11)

... flattening or kinking pipes or condensate pipes (See fig. 12)



Installation

Receipt of unit

- Check that packaging is undamaged.
- Unpack unit and check immediately for damage during transportation.
- Packaging contains the base unit and, if supplied, the unit cabinet.
- Verify that all components ordered are supplied.

Unit preparation

- Take out and position template printed on the packaging. It is advisable to keep cabinet packed until installation is complete.
- To install the cabinet, position it onto the base unit and fix it to the special tabs on the unit rear side and then secure it with the two screws supplied (See fig.14-15).
- If the unit is installed at 150 mm from the floor or lower, use the angles supplied with the base unit to prevent the user from touching the moving parts (See fig.14-15).
- If, instead, the unit is installed higher than 150 mm from the floor, use the rear closing grille kit (code 42N0954-42N0955-42N0956-42N0957) according to the unit size. For horizontal installation at more than 2.5 meters from the floor, the angles supplied need not be used. For horizontal installation at more than 2.5 meters from the floor, the angles supplied need not be used.

Installation

- Before proceeding to unit installation, it is recommended to assemble the accessories according to the instructions supplied with the kit.
- It is advisable to lock the cover on the opposite side to the control or on both sides if the control is not positioned on the unit.
- Knock out the prepunched part of the cover to insert the screw.
- Furthermore it is possible to lock the control cover.

Floor-mounted vertical unit (See fig. 18)

The unit is provided with supporting feet and cover panels (models with cabinet).

- For positioning and drilling use the template printed on the packaging.
- Drill four holes for the screw anchors close to the upper and lower hooks.
- Install the supporting feet by inserting the special tab into the corresponding slot on the unit plate (See fig. 17). Centre the two indentations and secure each supporting feet using the corresponding clips supplied with the kit.
- If a baseboard is mounted onto the wall, remove the pre-cut tab from the cover panel. Install the cover panels by hooking them to the slots on the cabinet lower part and secure them with the screws supplied.
- Position unit to wall and secure it with screws. To facilitate cabinet installation, it is suggested to use flathead screws.
- To complete the installation make electrical and water connections as per the diagram inside the control box panel. When all connections have been made, install the cabinet as previously described.
- Start-up of all units supplied without cabinet (42NF – 42NP) should be carried out by the installer according to safety directions for easy access to live and moving parts provided for by EN 60335-1 and EN 60335-2-40 standards (see Fig. 18A and 18B but only as an indicative example).

WARNING: With wall-to-wall carpet the hole points must be moved up by 10 mm (as indicated on the template).

Wall-mounted vertical unit

- This unit is not provided with supporting feet and cover panels.
- Install the unit as indicated above and keep it at least 100 mm from the floor.

Ceiling-mounted horizontal unit

(See fig. 19-20)

- Use the template printed on the packaging for ceiling mounting of the unit.

Units with cabinet 42NM and 42NZ

- Make four holes for the screw anchors near the four hooks fig. 19 (2 side and 2 front hooks).

Concealed units 42NF and 42NP

- Attach the two brackets supplied for horizontal installation to the unit, securing them with the screws as shown in figure 20.
- Make four holes for the screw anchors near the four side hooks.
- Hook the unit on the screw anchors in the ceiling and adjust the 4 screws.
- Make certain the fan coil is horizontally levelled.
- Make electrical and water connections and install the cabinet.

Condensate drain

Coil surface condensation formed during the cooling cycle is collected in a pan purposely placed under the coil and then drained out through a drain pipe fitted on the coil connection side.

A simple flexible tube which fits Ø 20 mm is recommended. To facilitate correct condensate draining, make sure that the drain pipe is not bent or restricted and that it has the required slope (at least 2%) along its length. A drain trap is recommended (See fig. 9).

Checking

Before unit operation verify that the water flows into the internal condensate drain pan by pouring some water into it. If problems are detected, check the drain pipe slope and look for possible obstructions.



Water connections

Water piping can enter either from the floor or from the wall. Leave the space shown in the figure 21-22. The unit coil can be supplied with water connections positioned as requested. However field conversion of the connections is achieved quite simply as follows:

- Remove the control box panel;
- Unscrew the 6 self-threading screws and remove the front drain pan;
- Unscrew the two screws holding the heat exchanger to the structure, necessary for earthing the coil;
- Remove the coil by unhooking it with the rubber tabs and turn it horizontally through 180°;
- Place the coil into its new position by hooking it using the special rubber tabs;
- Refit the front drain pan with the 6 self-threading screws;
- Retighten the two screws holding the heat exchanger to the structure, necessary for earthing the coil (Fig. 23, rif. 8);
- Position the control box panel opposite the coil connections;
- Place the temperature sensor into its seat and seal with filler (see fig. 23 - rif. 7);
- Position the control into the tabs provided, blocking it with the supplied metal plate (see paragraph "Controls");
- Change the position of the condensate drain closing plug of the drain pan and put it on the same side of water connections.

NOTE: The connection pipes must be insulated with a condensation-proof material such as polyurethane, propylene or neoprene of 5 to 10 mm thickness.

NOTE 1: On units with valves already installed, reversal of the coil can be made by ordering the corresponding valve kit.

Automatic water valves

(See fig. 25-26)

The fan coils can be equipped with valves, both in 2-pipe or 4-pipe versions. We recommend using the valves in order to prevent condensate formation on the unit when the fan is not working and room humidity is very high.

The valve heads are thermal type with 230V power supply, average consumption 2,5 VA, maximum operating pressure 1400 kPa. Opening time depends on the temperature and is from 120 to 240 seconds. The tightness of the connections is ensured by a rubber sealing (O-ring) inserted in the connection (tightening torque 30 Nm).

If valves are installed by the installer (accessories), do not forget to use the (O-ring) sealing ring supplied.

The motorized valves can be 3-way with bypass or 2-way.

Make sure that all unit pipe connections are aligned and well supported, to prevent abnormal strains on the unit. Check for leaks after the system has been filled with water. Once water connections are completed, check for tightness, use nylon strips to close the shell and insulate the valve and make sure that all cold parts are properly insulated (fig. 25-26). For 2-way valve units, close the free space of the insulating shell using the plug supplied (fig. 26c). Fix the insulating shell using nylon strips (fig. 26a). Make sure the pipe insulation is correctly positioned inside the shell (fig. 26a) to prevent condensate on the pipes. The manufacturer cannot guarantee seal quality and tightness of the valve group provided by the installer (which is therefore not factory tested). The manufacturer thus declines all responsibility for possible malfunction of said items and for damage resulting from leaks in said items.

WARNING: After the electric control panel has placed on the opposite side, connect the ground to the unit's frame (see fig. 23, - rif. 8).



Electrical connections

Install the unit according to the national standards on plants.

Connect L (LINE) ,N (NEUTRAL) e E (EARTH) power supply as shown in fig. 27-28-29-30.

The fuses on the mains, as shown in the wiring diagrams, are those mentioned in table II. These fuses shall be supplied by installer.

IMPORTANT:

- Make earth connection prior to any other electrical connections.
- Disconnect the power supply to all circuits prior to handling any electrical components.
- Remove the control box panel casing by means of the fixing screw/s.
- The power supply connection is of type Y. Only the staff of the technical assistance department are authorized to replace

the cable.

• According to the installation instructions, the disconnecting switches from the mains power supply should have a contact gap (4 mm) such that total disconnection can be ensured under the conditions provided for by overvoltage class III.

- All fan coil connecting cables as well as accessory wires must be of the H05 VV-F type.
- The cables used to connect power supply should be of the same section indicated in table II.
- Use the special cover and the screw or screws previously removed to close the control box panel after electrical connections are completed.

CONTROL BOX PANEL: The control box panel is always positioned opposite the water connections.

Terminal boxes for connections are contained into the control box panels. (see fig. 27-28-29-30).



Controls "A"- "B"- "C"- "D"

The units can be equipped, on demand, with one of the four available types of controls.

Controls are of the electronic type with microprocessor control. The controls can be wall-mounted.

Each control can manage one single unit; using A and B controls and an optional auxiliary board several units can be managed by one control, see accessories.

All controls must be opened and installed only by qualified

personnel as they contain electrical and electronic components, connected to 230V power supply.

WARNING:

- Disconnect the power supply before opening the control cover
- All inputs (external contact, seasonal changeover etc.) must be electrically insulated consistent with 230V requirements.

Control characteristics	Type	A	C	B	D
ON/OFF		●	●	●	●
Three fan speeds manually selected		●	●	●	●
Fan speed automatically selected		●	●	●	●
Temperature selector		●	●	●	●
Blue LED – cooling operation		●	●	●	●
Red LED – heating operation		●	●	●	●
Yellow LED – automatic seasonal changeover				●	●
Yellow LED – energy saving		●	●	●	●
Manual seasonal changeover button		●	●	●	●
Central seasonal changeover		●	●		
Automatic seasonal changeover button				●	●
Energy saving button		●	●	●	●
Return air temperature sensor		●	●	●	●
Temperature sensor located on the board		●	●	●	●
Cooling / Heating valve outlet (2-pipe)		●	●		
Heating valve outlet (4-pipe)				●	●
Cooling valve outlet (4-pipe)				●	●
Electric heater outlet				●	●
Frost-protection		●	●	●	●
External contact		●	●	●	●
Water minimum temperature sensor		●	●		
Air sampling (periodic fan starting)		●	●	●	●
Continuous ventilation		●	●	●	●
Temperature block		●	●	●	●
Autotest		●	●	●	●
Supplementary heating				●	●

Unit with AC motors

Type "A" control is used in 2-pipe systems.

Type "B" control is used in 4-pipe systems and 2-pipe systems with electric heater.

Unit with EC motors

The "C"-type control is used for 2-pipe systems.

The "D"-type control is used for 4-pipe and 2-pipe systems with electric heater.

The controls keep the internal temperature set by means of the knob between 10 °C and 30 °C.



Controls "A"- "B"- "C"- "D"

Control installation

- Remove the locking screw in the upper left side to separate the unit from the control (see fig. 38). Secure the unit on the wall and mark the drill holes.
- Drill the holes previously marked.
Avoid drilling with the plastic unit already placed on wall.
- Install the control at 1500 mm from the floor.
- Remove the control connector by exerting pressure as shown in fig. 38a.
- Carry out the connections to the control connector.
- After the connections to the control connector, place it back on its base (see fig. 38a).
- Fix the base to the wall using the special dowels.
- Put the control cover back to its place by reinstalling the screw previously removed.

NOTE: To install the unit control you have to buy the corresponding kits

IMPORTANT:

- All connections between the unit and the control must be placed into a proper plastic conduit.
- Handle the control with extreme care. Do not touch electronic components to avoid damaging them.
- Do not forget to configure the dip-switches (if so required) before closing the control.
- The control cable for connection to the unit must be a PVC cable with 1 mm² minimum or higher section for A-C controls, and 1.5 mm² minimum section for A and B controls.
- Use a clip to join the control output cables.

Control use

A and C controls are used in 2-pipe systems and B and D controls in 4-pipe systems with electric heaters.

Functions

The controls help keep the internal temperature set using the knob between 10°C and 30°C.

Fan operation

Use the speed selection button of the fan to select the manual or automatic operating mode of the fan.

In **manual** mode, it is possible to select three fan speeds (low/medium/high) according to the need, or the **economy** mode. In the **auto** mode fan speed is regulated by a microprocessor in the control in relation to the temperature chosen. During installation, it is possible to select continuous fan operation via the switch located on the electronic board (see section dip-switch configuration).

As an option, fan operation can be disabled during heating by means of a sensor if water temperature is below 35°C, and during cooling if water temperature is above 18°C (only for A and C control).

These two functions allow improved comfort levels during winter by avoiding undesired fan operation and during summer by turning the fan coils on and off automatically in relation to the water temperature.

Frost - protection

This function keeps the temperature from dropping below 7°C in rooms not used for long periods of time. When this temperature is reached, the control activates the valve and puts the fan on high speed.

The frost protection function can be activated through the associated micro-switch (see section dip-switch configuration); if enabled, this function activates even when the control is in the OFF position.

Energy saving

This function is especially useful when air conditioning at night or in rooms where the user is likely to be absent for a longer period of time.

In this case, by selecting the function E and pressing the FAN button repeatedly it is possible to raise temperature by 4°C in cooling mode and reduce it by 4°C in heating mode.

Enabling this function (Green LED ON) cuts out other displays.

Seasonal changeover

Manual (A, B, C, D controls)

Selection of heating/cooling is done manually by pushing the button on the control.

Automatic (B and D controls)

The automatic seasonal changeover allows automatic switching of the fan coil operating mode to cooling or heating, depending on the temperature set by the user and on the room temperature.

Centralised (A and C controls)

Centralised seasonal changeover can be done in two ways:

- by a switch located on the central control panel that allows heating/cooling mode changeover;
- by a temperature sensor (Accessory) located in contact with the entering water pipe.

In this last mode, fan coil operation is driven by the control, in cooling or heating, depending on the temperature read by the sensor.

Switch and sensor operate on 230V power supply, so both must be adequately insulated.

If the seasonal manual changeover button is pushed while the centralised changeover mode is activated, the corresponding LED will briefly flash while maintaining the activated mode. In any case, centralised changeover takes priority over local changeover.

External contact

The control has an input that can be used as window contact or presence detection.

When such a signal is activated (presence of line voltage on the terminal block contact) the control is set to **OFF** (open window) or to **Energy Saving** (empty room), depending on the control configuration. If the control is set to **OFF**, as a consequence all outputs are disconnected (fan, valves, etc.) and only the frost protection function is active if it has been enabled by its corresponding dip-switch. If the control is set to Energy Saving, the internal temperature is raised by 4°C in cooling mode and reduced by 4°C in heating mode.

To switch from one operating mode to the other, keep the Power button and the speed selection button pressed for at least 5 seconds. The switching from one configuration to the other is signalled by a light. The Green LED flashes 3 times when switching from OFF to Energy Saving and the same green LED remains ON for 3 seconds when switching from Energy Saving to OFF.



Controls "A" - "B" - "C" - "D"

"Night" and "Darkening" mode

If the buttons and the knob are not pressed or used for 10 seconds, the light is dimmed by the LEDs to reduce the disturbing light. This function is called "Night" mode. By a special selection, the LEDs light can be fully darkened ("Darkening" mode).

The "Darkening" mode can be selected by setting the fan speed to its maximum value and keeping the selection button of fan speed pressed for 5 seconds. 4 flashes of the red LED indicate the fan maximum speed.

With the same operation it is possible to return to "Night" mode. In this case, the same LED is flashing 3 times.

Booster heating (B and D controls)

This function allows the water solenoid valve and the electric heaters to work simultaneously. This function can be activated by means of dip-switch (no. 5) – see dip-switch configuration section. To avoid over heating due to simultaneous operation of water and heating elements, the temperature of the incoming water of the coil is adjusted by a special sensor (optional) that **must be positioned on the inlet pipe**. If the function is active but the sensor is not connected, the control enters the alarm mode, the red led flashes and all the user devices are switched off.

Sensor installation

Open the control by loosening the screw 27 (see fig. 38). Connect the sensor on the connector side of the electronic board to connector (see fig. 38b - rif. A). Place the sensor on the incoming water pipe using the clips and the nylon strips supplied (see fig. 38 c). Complete by insulating the pipe with the insulating tape supplied.

Use

Button operation:

POWER this button is used to turn the control on and off. When it is OFF, all functions are disconnected but the control is still powered at 230V. If the frost protection function is selected by the special microswitch, this function is activated even if the control is off.

MODE this button is used to manually switch from cooling to heating mode and vice versa. The automatic operating mode is also available: the heating or cooling mode are automatically selected by the microprocessor depending on the external temperature (only for B and D control).

FAN this button is used to select the fan speed manually (low, medium and high speed). Keep on pressing this button to select the automatic fan speed selection, which is controlled by the microprocessor. If this operating mode is selected, the yellow LED is on. Moreover, by using the same button it is possible to select the Energy Saving function where the room temperature required is raised by 4°C in cooling mode and reduced by 4°C in heating mode. The green LED turns on when the Energy Saving mode is active.

Temperature selector

Its purpose is to maintain the temperature at the desired level. The reference value at the centre of the range is 20°C. By turning the knob towards the symbol (–) the temperature is reduced from the original setting (minimum value is 10°C).

By turning the knob towards the symbol (+), the temperature is raised from the original setting (maximum value is 30°C).

"Dip-switch" function (JUMPER)

A - B - C - D Controls

Dip-switch 1

In open contact position, it allows the control to activate the frost protection function (F).

Dip-switch 2

In open contact position, it permits the fan operation at the selected speed even if the set point temperature is satisfied.

Dip-switch 3

In open contact position, it restricts the range of the temperature selection knob according to the following limits:

Cooling: minimum selectable temperature: 23°C.

Heating: maximum selectable temperature: 21°C.

Dip-switch 4

In open contact position, it permits to activate the fan periodically even if the set point temperature is satisfied (air sampling).

Dip-switch 5 (B and D Controls)

In open contact position, it permits to activate the Booster Heating function (additional heating).

Dip-switches 6, 7 and 8 (C and D Controls)

The position of these dip-switches regulates the motor pilot voltage; a higher voltage indicates a higher fan speed. The selection is made according to the table below.

"Dip-switch" configuration (JUMPER)

A - B - C - D Controls

Dip-switch 1

Closed Frost protection (F) disabled.

Open Frost protection (F) enabled.

Dip-switch 2

Closed Ventilation controlled by thermostat.

Open Continuous ventilation.

Dip-switch 3

Closed Temperature block disabled.

Open Temperature block enabled.

Dip-switch 4

Closed "Air sampling" disabled.

Open "Air sampling" enabled.

B and D Controls

Dip-switch 4

Closed Booster Heating disabled.

Open Booster Heating enabled.

C and D Controls

Dip-switch			Motor speed		
6	7	8	LOW	MID	HIGH
Closed	Closed	Closed	→ 2V	6V	10V
Closed	Closed	Open	→ 2V	4V	6V
Closed	Open	Closed	→ 6V	8V	10V
Closed	Open	Open	→ 2V	3V	4V
Open	Closed	Closed	→ 8V	9V	10V
Open	Closed	Open	→ 5V	6V	7V
Open	Open	Closed	→ 4V	6V	8V
Open	Open	Open	→ 3V	6V	9V

NOTE: Factory setting is with all dip-switches in close position.



Controls "A"- "B"- "C"- "D"

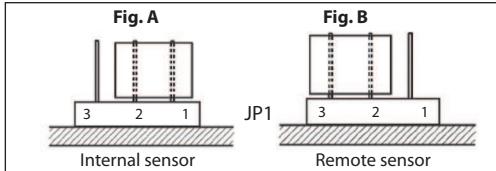
Use of temperature sensor

Internal sensor:

This is used in all installations where the control is wall-mounted. To activate it, close jumper JP1 as shown in figure A and on the electronic board screenprint.

Remote sensor

This is used on all installations with unit-mounted control. It is positioned on the return air, close to the fan. To activate it, close jumper JP1 as shown in figure B and on the electronic board screenprint.



NOTE: Factory setting is with activated internal sensor.

Diagnostic warnings

The following alarm situations are indicated:

Blue LED Flashing	Indicates that the control is in frost protection mode (氷).
--------------------------	---

Red LEDs (group on the right)

Indicates the presence of a fault (sensor failed or not connected)

Green LED (E)

Indicates that the control is in OFF mode forced by the external contact.

Red / Blue LED Flashing

Indicates that the control is in "Autotest" mode.

Autotest

The "Autotest" function is activated by holding the seasonal changeover button pressed and at the same time pressing the "E" button three times within 1 second. In this way it is possible to check the starting of all fan coils. The blue and red LEDs will begin to flash.

Each of the various units will be activated for 10 seconds in the following sequence:

- ()) Low fan speed.
- (()) Medium fan speed.
- (((())) High fan speed.
- CV** Motorized cold-water valve.
- HV** Motorized hot-water valve (only for B and D control).



NTC Control

Power supply connection (fig. 29)

IMPORTANT: Make earth connection prior to any other electrical connections.

- Before proceeding with the unit connection to the mains supply locate live L and neutral N, then make connections as shown in the figure 29.

Communication bus connection

- Use connector "J9" (ref. B) on the card to connect the communication "bus" and make sure to respect the polarities indicated on the card. We suggest that a BELDEN 9842 cable is used.

IMPORTANT: The unit can be equipped with a "CRC" wire control or I.R. control which are supplied as accessories. If the "CRC" control is used, connect it to the "J2" ref. "A" terminal block and configure the system.

Window contact (Normally open) (fig. 29a)

Depending on the contact you need to open, use a small flat blade screwdriver to prize a spring as shown in the figure. Route the cable through the underlying space.

If the window contact is open for longer than one minute, the unit is switched to the "frost protect" mode.

The unit will return to normal operation, when the window contact closes. Connect pin 11 and 12 of connector J2 as shown in the figure.

Configuration of the digital input can be made by software, by setting it to normally open (default) or normally close modes by means of the "Service tool" programme.

Presence detecting contact (PD) (fig. 29b)

The unit is equipped with a "Presence detecting" contact. If this input is disabled, the unit follows the pre-set time configuration, but when this input indicates a presence state for at least 5 seconds, the unit is forced to operate in the "Occupancy" operating mode.

Connection to be made on pin 5 and 6 of connector J2 as shown in the figure.

Configuration of the digital input can be made by software, by setting it to normally open (preferably) or normally close modes.

Other connections (fig. 29c)

1. COM IN
2. COM OUT/Occupancy LED
3. GND
4. +12 Vdc.
5. Discrete Input
6. GND
7. Fan Speed In
8. Setpoint In
9. GND
10. AMB Air
11. Discrete Input 2
12. GND

{ "CRC"



NTC Control

Operation of STATUS and CCN leds Fig. 29d

Make all connections and position the covers of the switchboard.

After the unit has been connected to the mains, the red led "Status" blinks and this can be seen through the window of cover 1.

If the unit is transmitting or receiving data from the remote controls, the CCN green led flashes.

Warning:

Prior to any other operation on the electric components of the electric panel, make sure power supply is disconnected.

Check through the special window (shown at the side) that the STATUS RED led is always off.

The Status red led can flash in two different ways:

- Normal operation: regular flashing, one second on, one second off.

- Abnormal operation: the led emits a certain number of pulses depending on the irregularity detected on the unit. The led remains on for 60 sec. and off for other 60 sec. with 5 seconds between the two flashings.

The detectable failures are the following:

Operation of STATUS and CCN leds

Alarm number	Description of alarm (60msec on, 60msec off if not otherwise indicated)	Pulse number
ND	Unit not fed or card not powered because of failure	Always off
ND	Card fed but microprocessor not active or broken	Always on
ND	Card is working without application software or Bootloader is initialised (normally at start-up for a few seconds)	On for 800ms off for 200ms (1 Hz)
ALARM 1	The RAT sensor detects an out-of-range value for 192 consecutive seconds	1
ALARM 2	The changeover sensor detects an out-of-range value for 192 consecutive seconds	2
ALARM 3	The Supply Air sensor detects an out-of-range value for 192 consecutive seconds	3
ALARM 4	The Air sensor of SUI remote control detects an out-of-range value for at least 192 consecutive seconds	4
ALARM 5	CO2 sensor (if any) detects a value lower than 300 ppm (15%) for at least 192 consecutive seconds	5
ALARM 6	Incorrect operation of the condensate drainage pump (if any) <ul style="list-style-type: none"> With pump/contact inside the unit: The contact is open for 10 consecutive minutes With pump/contact outside the unit: The contact is still active after the 4th reading 	6
ALARM 7	UV lamp (if any) not working	7
ALARM 8	Communication error with a remote control (CRC2, ZUI if failure after 3 consecutive communication attempts	8
ALARM 9	Communication error with Master unit. If "temperature check" message is not received within more than 10 minutes	9
ALARM 10	Communication error with Leader unit. If "temperature check" message is not received within more than 10 minutes	10
ALARM 11	CO2Tvc reading error. If no Co2Tvc reading is received by the Leader unit within more than 10 minutes	11
ALARM 12	Communication error with Master Zonig. If no Zoning value is received by the Master within more than 10 minutes	12
ALARM 13	Maintenance required	13
ALARM 14	EEPROM error. If checksum is wrong	14
ALARM 15	Electric heaters (if any) error <ul style="list-style-type: none"> If the Supply Air temperature sensor detects a value lower than the minimum admitted value for 10 consecutive minutes Or If the Supply Air sensor temperature detects a value higher than the maximum admitted value for 5 consecutive seconds 	15
ALARM 16	Configuration error. An inaccurate configuration value of the card is detected	16
ALARM 17	ALARM 1 or ALARM 2 or ALARM 3 or ALARM 4 or ALARM 5 or... ALARM 15 If the "Summary Alarm Enable" decision indicated in table ALRMDEF is correct, only this alarm is displayed. When any bit in Alarm Status is set, the alarm displayed will be "Summary Alarm - Alarm Status XX"	17
ALARM XX	The card is not working correctly	



WTC Control

Power supply connection (fig. 33)

IMPORTANT: Make earth connection prior to any other electrical connections.

- Before proceeding with the unit connection to the mains supply. Make earth connection prior to any other electrical connections. Locate live L and neutral N and then make connections as shown in the figure 33.

Communication bus connection

- Use connector "X7" on the WTC to connect the communication "bus" and in the case of WTC BACnet (fig. 34b) make sure to respect the polarities indicated on the WTC. There is no polarity to respect for LON (fig. 34a). We recommend using BELDEN cables of series 8332, 9842, 9829, 8102, 8302 can also be used.

User Interface connection

- The unit can be equipped with a user interface or an infrared receiver. They could also be supplied as accessories.
- Connect it to the WTC RJ45 connector (fig. 34a, 34b). It will be recognized automatically by the WTC.

Window contact (Normally open) (fig. 34a, 34b)

Use a small screwdriver to connect it to "X9" connector as shown in the figure 34a (LON) or figure 34b (BACnet). Route the cable through the underlying space.

If the window contact is open for longer than one minute, the unit is switched to the "anti-freeze protection" mode. The unit will return to normal operation, when the window contact closes. Connect pin 2 and 4 or pin 2 and 3 of connector "X9" as shown in the figure 34a/34b.

Configuration of the digital input can be made by software, by setting it to 'normally open' (default) or 'normally closed' modes by means of the "Service tool" programme or the RCI-D user interface.



WTC LEDs operation

LONWORKS

Rx/Tx LEDs (Rx – Receiving / Tx – Transmitting)	
Rx LED not blinking	Data is not being received from the LonWorks data bus.
Tx LED not blinking	Data is not being transmitted onto the LonWorks data bus.
Status LED – Normal Operation	
One fast blink •	Initialization: The device is starting up.
Fast blink continuous: ••••• (150ms On, 150ms Off, continuous)	Firmware upgrade in progress. Controller operation is temporarily unavailable. The new firmware is being loaded into memory. This takes a few seconds. Do not interrupt power to the device during this time.
The Status LED is always ON	The controller is operating normally.
Status LED blink patterns – Repeats every 2 seconds (highest priority shown first)	
Long Blink Continuous — — — — (1s On, 1s Off, continuous)	The controller is not configured. Action: Commission the controller.
Long Long Long blink — — — (800ms On, 300ms Off, 800ms On, 300ms Off, 800ms On)	The controller is offline. Action: Set the controller Online.
Long Short Short Short blink — • • (800ms On, 300ms Off, 150ms On, 300ms Off, 150ms On, 300ms Off, 150ms On)	The controller is in bypass mode. Action: Set the controller Online.
Fast blink 12x: •••••••••••• (80ms On, 80ms Off, 12x)	Wink. The wink function is used to identify a device.

BACNET

Rx/Tx LEDs (Rx – Receiving / Tx – Transmitting)	
Rx LED not blinking	Data is not being received from the BACnet MS/TP data bus.
Tx LED not blinking	Data is not being transmitted onto the BACnet MS/TP data bus.
Status LED – Normal Operation	
One fast blink	Initialization: The device is starting up.
Fast blink continuous: ••••• (150ms On, 150ms Off, continuous)	Firmware upgrade in progress. Controller operation is temporarily unavailable. The new firmware is being loaded into memory. This takes a few seconds. Do not interrupt power to the device during this time.
The Status LED is always ON	The controller is operating normally.
Status LED blink patterns – Repeats every 2 seconds (highest priority shown first)	
Long Long Long blink — — — — (800ms On, 300ms Off, 800ms On, 300ms Off, 800ms On)	The device has not received a BACnet token, and therefore cannot communicate on the network: Verify that the controller's MAC Address is unique on the BACnet MS/TP Data Bus. Make sure the controller's BAUD rate is the same as the BACnet MS/TP Data Bus' BAUD rate. Verify that the Max Master is set high enough to include this controller's MAC Address (see also NCI documentation).
Short Long blink • — (150ms On, 300ms Off)	Invalid MAC address: The device's MAC address is set to zero (0) or is set to an address higher than the Max Master (see also NCI documentation).



Alarms

In the event of an alarm, the red LED on the WTC IR receiver module (WTC-IS) will start blinking and the alarm icon on the Room Control Interface will be displayed (only if this option is enabled).

The alarm type can be verified:

- Using a network tool (see also NCI documentation).
- Using a RCI with a display.

For RCI with a display, the alarm message is binary coded as follows:

Message	Description	Reset	Trigger
bit_0	The Space Temperature is out of range	Auto	Space temperature returns to normal
bit_1	The Water Temperature is out of range	Auto	Water temperature returns to normal
bit_2	The Supply Air Temperature is out of range	Auto	SAT returns to normal
bit_3	The CO ₂ value is too low	Auto	CO ₂ level returns to normal
bit_4	The Drain Pan is full	Auto	Drain pan water level lowers
bit_5	Communication Failure with User Interface	Auto	Communication is re-established
bit_6	Communication Failure with Master WTC	Auto	Communication is re-established
bit_7	Communication Failure with C/O Leader	Auto	Communication is re-established
bit_8	Communication Failure with Occupancy Leader	Auto	Communication is re-established
bit_9	Communication Failure with Loadshed Leader	Auto	Communication is re-established
bit_10	Electric Heater Failure	Manual	Power cycle is required

IMPORTANT: Alarm message 0 stands for "no alarm". All alarm messages will be reset at power-up.

Bit 10	Bit 9	Bit 8	...	Bit 1	Bit 0
MSB	LSB				



HDB Control

Power supply connection (fig. 30)

- Make earth connection prior to any other electrical connections.
- Disconnect the power supply to all circuits prior to handling any electrical components.
- Before proceeding with the unit connection to the mains supply locate live L and neutral N, then make connections as shown in the figure 30 (ref. 25, 20).
- The unit can be equipped with a "CRC" wire control or an I.R. control which are supplied as accessories. If the "CRC" control is used connected to the terminal block ref. 33 fig. 30, disconnect the I.R. receiver cable of connector J5 (remote) ref. D.
- Connect the "CRC" cable ref. "E" in the box to connector J5 (remote) ref. "D".

Window (1WS) and presence (1ECO) control (fig. 30c)

The window and presence contacts must be connected to the terminal block ref. 33 fig. 30 according to the diagram.

Valve connection (fig. 30d)

The valves must be connected to the terminal block ref. 33 fig. 30 according to the diagram.

Grouping connection (fig. 35)

The communication card must be inserted into the special connector "communication J8" provided on the card. For more information refer to the manual provided with the grouping kit.

Grouping configuration of several units (fig. 36)

Connect the units in daisy chain configuration (white and blue cables in parallel) for grouping. Refer to the figure below.

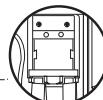
Fault codes:

In the case of failure and with the unit ON, the red LED on the board starts flashing according to the fault code: 0.5 seconds ON and 0.5 seconds OFF followed by 5 seconds OFF.

The fault code table is shown below:

Fault Code	Description	Resettable
2	Air temperature sensor	Yes
3	Changeover sensor	Yes
4	Cold Draft thermistor	Yes
5	Condensate pump error	No
6	Electric heater configuration error	Yes
7	EEprom error	Yes
8	Chilled Beam configuration error	Yes

Electric heater



The electric heaters are controlled by CARRIER type "B" and "D" controls.

The electric heaters are equipped with two safety thermostats, one with automatic reset, the second with manual reset, to protect the unit against overtemperature that may happen in case of incorrect filter cleaning or obstructions of the air flow.

NOTES:

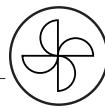
- In the size 15 unit with "HIGH -LOW POWER" heating element, the ULOW and LOW speed wire (RED and yellow MOTOR WIRE) must be disconnected and insulated.
- In case of failure in the electric fan, replace the electric heater too. Only qualified personnel should carry out this operation.

To access the control box panel, remove the screw located at the bottom of the cover and delicately bend the tab to remove the cover. Connect the power supply to the electric heater terminal. Size the cables according to current drawn (see table III "Technical data of electric heater").

It is important not to obstruct the supply or air flow and to periodically check that the filter is clean.

NOTE:

The simultaneous use of hot water and electric heater is possible in "ONLY LOW POWER" mode. Electric heaters and hot water can not be used in high power mode. To operate the additional heating function you need to buy the 42N9084 kit and connect the special sensor as described in the installation manual. After this, the corresponding dip switch no. 5 of the type B control must be set to ON.



Fan Motor

The units have tangential/centrifugal motors with selectable speeds.

There are 5 speeds available:

For sizes S15-S20-S30-S45, there are 5 available speeds Ultra Low- Low-Medium-High-Super High (see table on the right).

All machines are configured at the factory as follows:

ULTRA LOW - MEDIUM – SUPER HIGH.

In the case of particular needs, it is possible to move the speed connections (with Faston quick-connectors) following the enclosed table and relative drawing (see Fig. 29).

For sizes S26-S42-S65 3 speeds are available: Low-Medium-High (see tab. on the side).

Motor 5 speed

MOTOR SPEED	CABLE COLOR ENGINE	FACTORY CONNECTION	ONLY FOR SIZE 15 WITH ELECTRIC HEATER
ULTRA LOW	RED	RED	-
LOW	YELLOW		-
MEDIUM	WHITE	WHITE	RED
HIGH	ORANGE		WHITE
SUPER HIGH	BLACK	BLACK	BLACK
MOTOR NEUTRAL	BLUE	BLUE	BLUE

Motor 3 speed

MOTOR SPEED	CABLE COLOR ENGINE	FACTORY CONNECTION
HIGH	BLACK	BLACK
MEDIUM	WHITE	WHITE
LOW	RED	RED
MOTOR NEUTRAL	BLUE	BLUE



Low Energy Consumption Fan Motor

Low Energy Consumption Fan Motor version

The fan coil units of the series 42NE... can ensure a 0% - 100% constant air flow modulation (and therefore the thermal and refrigerating capacity) thanks to the Inverter technology combined with the last generation of high energy-efficient electric motors (EC brushless). This enables a constant control on the power supplied according to the room that needs to be

conditioned. The result is 50% electric energy saving compared to traditional 3-speed asynchronous motors and a considerable reduction of acoustic emissions.

The new range of fan coil units 42NE is equipped with 4 Low Energy Consumption Fan Motors one of which is tangential and 3 centrifugal.



Maintenance

IMPORTANT:

The following maintenance operations should be carried out by qualified personnel.

Disconnect the mains power supply prior to any maintenance operations or prior to handling any internal parts of the unit.

Heat exchanger coil

At the beginning of any winter and summer season it is advisable to check that the coil fins are not clogged with dust, lint or other foreign matter.

Clean the heat exchanger after having removed the supply grille, taking care not to damage the fins.

Motor

The motor is permanently lubricated. Therefore no periodical maintenance is required.

Condensate draining

During the summer season check that the condensate drain is free from dust and lint that could clog it, causing condensate water overflow.



Lidická 323 - 266 39 Beroun 3 - Czech Republic

-
- | | |
|------------|--|
| GB | The manufacturer reserves the right to change any product specifications without notice. |
| I | La cura costante per il miglioramento del prodotto può comportare senza preavviso, cambiamenti o modifiche a quanto descritto. |
| F | La recherche permanente de perfectionnement du produit peut nécessiter des modifications ou changements, sans préavis. |
| D | Änderungen im Zuge der technischen Weiterentwicklung vorbehalten. |
| E | El fabricante se reserva el derecho de cambiar algunas especificaciones de los productos sin previo aviso. |
| NL | Wijzigingen voorbehouden. |
| GR | Η σταθερή προσπάθεια για την καλυτέρευση του προϊόντος μπορεί να επιφέρει, χωρίς προειδοποίηση, αλλαγές ή τροποποιήσεις σε όσα περιγράφηκαν. |
| P | O fabricante reserva o direito de alterar quaisquer especificações do produto, sem aviso prévio. |
| S | Tillverkaren förbehåller sig rätten till ändringar utan föregående meddelande. |
| FIN | Valmistaja pidättää kaikki oikeudet mahdollisiin muutoksiin ilman erillistä ilmoitusta. |