
SCAMBIATORI DI CALORE IN ALLUMINIO
ALUMINIUM HEAT EXCHANGERS
ALUMINIUM WÄRMETAUSCHER

12V - 24V

LV013



INTRODUZIONE <i>INTRODUCTION</i> EINLEITUNG	3
BY-PASS	5
A10	7
A16 - A20	8
A22 - A26	10
A31 - A35	12
A46 - A48	14
A50 - A56	16
A60 - A65	18
A70 - A75	20
A80 - A83	22
A86	24
ACCESSORI <i>ACCESSORIES</i> ZUBEHÖR	25
CONNESSIONI ELETTRICHE SUGLI SCAMBIATORI <i>ELECTRICAL CONNECTIONS ON HEAT EXCHANGERS</i> ELEKTRISCHE VERBINDUNGEN AN DEN WÄRMETAUSCHERN	26

PERSONALIZZAZIONE

Alla FIRA ogni cliente ed ogni esigenza sono considerate nella loro unicità. Per questo in primo luogo valutiamo attentamente ogni richiesta e poi ne delineamo le possibili soluzioni. E' con questa metodologia affermata giorno dopo giorno nella realizzazione di prodotti mirati alle necessità della clientela, che l'Azienda ha formato i propri collaboratori creando un forte patrimonio tecnologico.

ISTRUZIONI GENERALI DI IMPIEGO

Gli scambiatori di calore FIRA sono costruiti in lega di alluminio e saldobraçati, un processo produttivo moderno che garantisce un prodotto di grande affidabilità.

Le geometrie delle alette a contatto con l'aria e le geometrie dei passaggi interni dell'olio sono studiate per garantire la massima efficienza del sistema. Inoltre l'attenta scelta delle elettrovalvole o delle ventole azionate da motore idraulico e dei convogliatori in ABS garantiscono un insieme che consente grandi rese pur tenendo in massima considerazione i parametri di sicurezza e di rumorosità.

INSTALLAZIONE

Per una corretta installazione si consiglia di adottare dei supporti elastici e di montare lo scambiatore in una zona con ridotte vibrazioni ed urti. Inoltre il posizionamento deve consentire all'aria libera circolazione sia in aspirazione che in scarico (Fig.1). Evitare che l'aria sia riscaldata da componenti esterni tipo marmite motori o altro.

Si raccomanda di evitare brusche variazioni di portata e di non superare la pressione di esercizio statica massima ammissibile che è di 15 bar ad una temperatura di 130°C.

Per la sicurezza dello scambiatore si suggerisce l'installazione di una valvola di bypass, questo consentirà di ridurre i rischi in avviamento dell'impianto a freddo (Fig.2).

Il sistema By-Pass integrato nella massa radiante, è disponibile a richiesta su tutti i modelli.

PERSONALIZATION

FIRA considers the unique needs of each client and each application. That's why each request is carefully evaluated before we propose suitable design solutions. This is the method applied on a day to day basis as we develop fully tailored products, and it has formed the ideal training environment for our personnel, supporting the accumulation of an impressive store of technological know-how.

CONSTRUCTION FEATURES

FIRA heat exchangers are built in brazed aluminum alloy in a thoroughly modern process that guarantees top quality totally reliable results.

The geometry of the tube fins in the air stream and the inside of the oil-ways is designed to support the maximum efficiency of the system. The same meticulous attention is applied to selecting electric fan units or hydraulically driven fans and ABS shrouds, to assure a finished product that guarantees maximum efficiency and exemplary safety and noise levels.

INSTALLATION

For correct installation use flexible supports and install the heat exchanger in a place that is protected from vibration and impact. The unit must also be mounted so as to ensure unrestricted intake and exhaust air flows (Fig.1). All these measures must taken to prevent the heat exchanger from drawing in warm air heated by external components such as engine exhaust systems.

We also recommend avoiding sudden changes of flow rate and ensuring that the maximum permissible static working pressure of 15 bar at 130°C is not exceeded.

For increased safety of the unit, clients are advised to install a bypass valve to reduce start up risks when the system is cold (Fig.2).

Integrated By-Pass system is available on request on all models.

PERSONALISIERUNG

Jeder Kunde und jede Anfrage erfährt bei FIRA eine den jeweiligen Anforderungen entsprechende Behandlung. Die Anfragen werden zunächst sorgfältig ausgewertet, anschließend erfolgt die Ausarbeitung möglicher Lösungen. Mit dieser Vorgehensweise, die sich für die Umsetzung kundenseitiger Wünsche täglich neu bestätigt, hat das Unternehmen die Ausbildung der eigenen Mitarbeiter optimiert und sich ein umfassendes technisches Know-how zugelegt.

ALLGEMEINE GEBRAUCHSANLEITUNG

Die FIRA-Wärmetauscher sind aus Aluminiumlegierung mit Schweißlötzung gefertigt, ein modernes Produktionsverfahren, das eine hohe Zuverlässigkeit der Produkte gewährleistet.

Form und Größe der Kühlrippen mit Luftkontakt und der innenliegenden Oldurchläufe sind so projektiert, daß die maximale Leistungsabgabe des Systems sichergestellt wird. Die sorgfältig ausgewählten Elektrolüfter, Lüfter mit Hydraulikmotorantrieb und Fördervorrichtungen in ABS werden höchsten Ansprüchen gerecht und weisen optimierte Eigenschaften bezüglich Sicherheit und Geräuschemissionen auf.

INSTALLATION

Zur korrekten Installation empfiehlt sich die Verwendung von schwungsdämpfenden Halterungen; die Montage des Wärmetauschers ist zudem in Bereichen vorzunehmen, in denen Vibrationen oder Stöße nur in reduziertem Maße zu erwarten sind und eine freie Luftzirkulation sowohl für die Ansaugung als auch für den Auslaß sichergestellt ist (Abb. 1). Bei der Positionierung ist ferner zu beachten, daß die Luft nicht durch außenliegende Teile, z.B. Auspuff oder dergleichen, erwärmt wird.

Beim Betrieb ist darauf zu achten, daß plötzliche Änderungen der Durchflußmenge vermieden werden und der maximal zugelassene statische Druck von 15 bar bei einer Temperatur von 130°C nicht überschritten wird.

Zur Sicherheit des Wärmetauschers ist die Installation eines Bypass-Ventils vorzusehen, welches die Risiken bei einem Kaltstart der Anlage reduziert (Abb. 2).

Das integrierte By-Pass-System im Strahlungskörper ist auf Anfrage für alle Modelle lieferbar.

Fig. 1
Fig. 1
Abb. 1

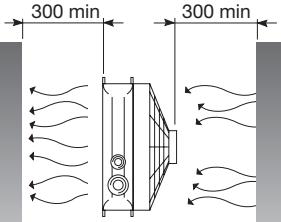
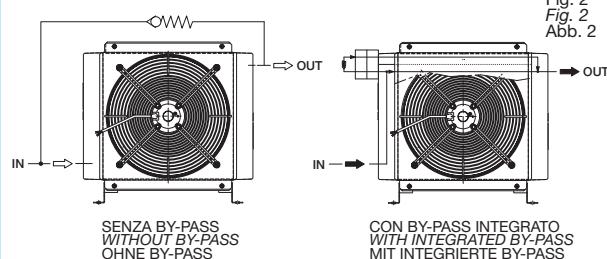


Fig. 2
Fig. 2
Abb. 2



INTRODUZIONE INTRODUCTION EINLEITUNG

A causa delle svariate condizioni di montaggio e delle differenti sollecitazioni alle quali risultano sottoposti gli scambiatori di calore, riteniamo sia utile ed importante chiedere la collaborazione della nostra organizzazione tecnica al momento della progettazione dell'impianto.

Ogni scambiatore di calore è dotato di un libretto di istruzioni che contiene alcune fondamentali indicazioni per un montaggio corretto.

SICUREZZA

Nell'utilizzo delle scambiatori di calore occorre attenersi ad alcune importanti avvertenze.

- non togliere le protezioni dalle ventole.
- far eseguire i collegamenti elettrici a personale specializzato seguendo gli schemi allegati.
- Le superfici esterne dello scambiatore potrebbero avere temperature molto elevate bisogna quindi prevedere nel montaggio adeguate protezioni, o posizionamenti poco accessibili.
- non intervenire sul motore idraulico senza prima avere scollegato i tubi.

Because of the differing installation conditions and the various type of stress to which the units may be subjected, we advise clients to consult our Engineering Department during their system design phase.

Each heat exchanger is supplied with a comprehensive instruction booklet that contains important recommendations for correct installation.

SAFETY

During operation of our heat exchangers observe the following instructions:

- do not remove the fan grilles
- electrical connections must be made by skilled electricians in accordance with the attached electrical diagrams
- exterior surfaces of the heat exchanger may reach high temperatures so adequate guards must be installed or the unit must be mounted in an inaccessible position.
- do not perform work on the hydraulic motor until the hydraulic pipelines have been disconnected.

Aufgrund der unterschiedlichen Montagebedingungen und der verschiedenen Belastungen, denen die Wärmetauscher ausgesetzt sein können, empfiehlt sich bei der Projektierung der Anlage die Zusammenarbeit mit unserer technischen Abteilung.

Zum Lieferumfang jedes Wärmetauschers zählt eine entsprechende Gebrauchsanleitung mit den wesentlichen Hinweisen für eine korrekte Montage.

SICHERHEIT

Beim Gebrauch des Wärmetauschers sind folgende wichtige Hinweise zu beachten:

- Schutzaufrichtungen an den Lüftern auf keinen Fall abnehmen;
- elektrische Anschlüsse von Fachpersonal und gemäß den beiliegenden Plänen ausführen lassen;
- die Außenoberflächen des Wärmetauschers können beim Betrieb sehr hohe Temperaturen aufweisen; bei der Montage sind demnach entsprechende Schutzaufrichtungen vorzusehen oder schwer erreichbare Positionen auszuwählen;
- Eingriffe am Hydraulikmotor nur nach Abnahme der Leitungen vornehmen.

ISTRUZIONI PER L'ORDINAZIONE ORDERING INSTRUCTIONS BESTELLANLEITUNG

SCM A46

1E

AP

12V

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**PRODOTTO
PRODUCT
PRODUKT**

SCM A10 - SCM A16
SCM A20 - SCM A22
SCM A26 - SCM A31
SCM A35 - SCM A46
SCM A48 - SCM A50
SCM A56 - SCM A60
SCM A65 - SCM A70
SCM A75 - SCM A80
SCM A83 - SCM A86

**VERSIONE
VERSION
AUSFÜHRUNG**

1E - UNA ELETTROVENTOLA
ONE FAN UNIT
EIN ELEKTROLÜFTERAD
2E - DUE ELETTROVENTOLE
(SOLO A48/A50/A75/
A80/A83/A86)
TWO FAN UNITS
(A48/A50/A75/A80/
A83/A86 ONLY)
ZWEI ELEKTROLÜFTERAD
(NUR BEI A48/A50/
A75/A80/A83/A86)

**TIPO DI VENTOLA
FAN UNIT TYPE
LÜFTERTYP**

A - ASPIRANTE
ASPIRATING TYPE
ANSaugung
S - SOFFIANTE
BLOWER TYPE
GEBLÄSE
AP - ASPIRANTE POTENZIATO
HIGH POWER ASPIRATING
VERSTÄRKTE ANSAUGUNG
SP - SOFFIANTE POTENZIATO
HIGH POWER BLOWER
VERSTÄRKTES GEBLÄSE
AX - ASPIRANTE SUPERPOTENZIATO
EXTRA HIGH POWER ASPIRATING
EXTRAVERSTÄRKTE ANSAUGUNG
SX - SOFFIANTE SUPERPOTENZIATO
EXTRA HIGH POWER BLOWER
EXTRAVERSTÄRKTES GEBLÄSE

**TENSIONE
ELETROVALVOLE
FAN UNIT VOLTAGE
SPANNUNG DER
ELEKTROLÜFTER**

12V - 24V

**OPZIONI
OPTIONS
OPTIONEN**

P - CON PIEDINI
WITH FEET
MIT FUßSEN
S - FILETTATURE
A NORME UNF
UNF
THREADED
ÖFFNUNGEN
MIT
STANDARD
UNF GEWINDE
B - BY-PASS

NOTA:

Lo scambiatore non prevede di serie il termostato e i piedini. Vedere per i piedini ogni singolo modello. Riferirsi a pag. 23 per informazioni sugli accessori, le possibilità di scelta e le istruzioni di ordinazione.

NOTE:

*Heat exchangers are not equipped with thermostat and feet as a standard.
Please refer to each model to have your heat exchanger supplied with feet, and to page 23 for accessories and for a description of available range and ordering instructions.*

ANMERKUNG:

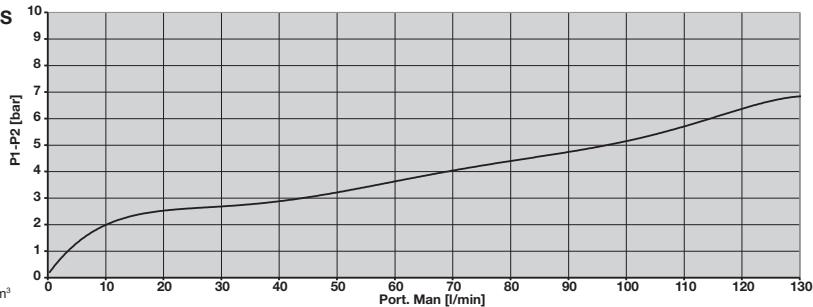
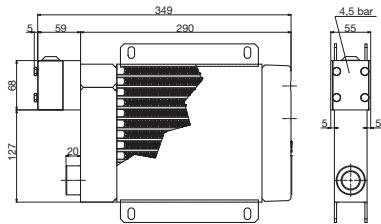
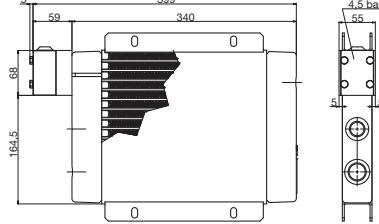
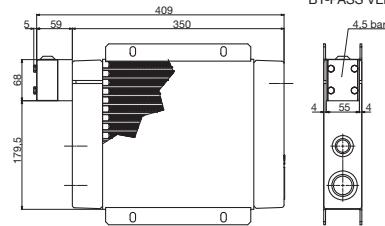
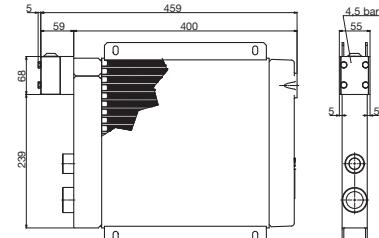
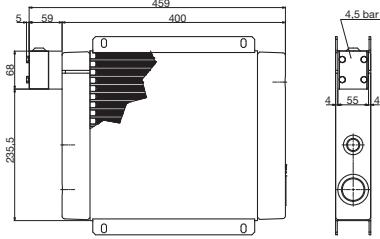
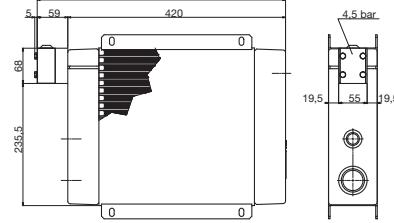
Der Wärmetauscher wird serienmäßig ohne Füsse und Thermostat geliefert. Die Füsse sind bei jedem Modell ersichtlich. Auf Seite 23 sind Infos ueber Zubehör, Auswahlmöglichkeiten und Bestellnummern zu finden.

**VALVOLA BY-PASS
BY-PASS VALVE
BY-PASS VENTIL**
6K01040K000006

Temperatura: 60°C
 Olio: Ergoline H32
 Viscosità 40°C: 32 cSt
 Densità: 0,870 kg/dm³

Temperature: 60°C
 Oil: Ergoline H32
 Viscosity 40°C: 32 cSt
 Density: 0,870 kg/dm³

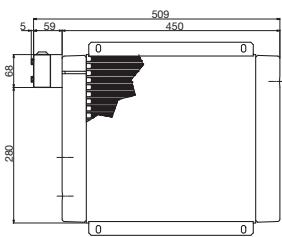
Temperatur 60°C
 Öl: Ergoline H32
 Viskosität 40°C: 32 cSt
 Dichte: 0,870 kg/dm³

**A16**VALVOLA BY-PASS
BY-PASS VALVE
BY-PASS VENTIL**A20**VALVOLA BY-PASS
BY-PASS VALVE
BY-PASS VENTIL**A22**VALVOLA BY-PASS
BY-PASS VALVE
BY-PASS VENTIL**A26**VALVOLA BY-PASS
BY-PASS VALVE
BY-PASS VENTIL**A31**VALVOLA BY-PASS
BY-PASS VALVE
BY-PASS VENTIL**A35**VALVOLA BY-PASS
BY-PASS VALVE
BY-PASS VENTIL

BY-PASS

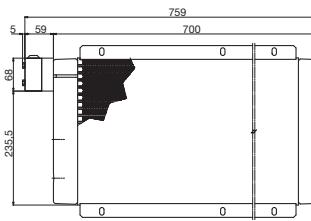
A46

VALVOLA BY-PASS
BY-PASS VALVE
BY-PASS VENTIL



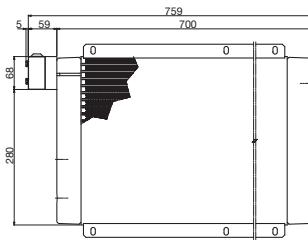
A48

VALVOLA BY-PASS
BY-PASS VALVE
BY-PASS VENTIL



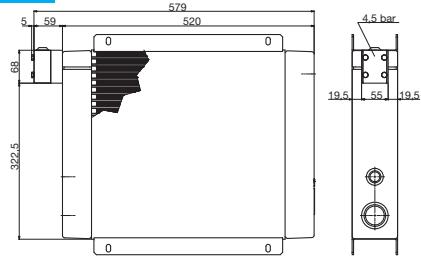
A50

VALVOLA BY-PASS
BY-PASS VALVE
BY-PASS VENTIL



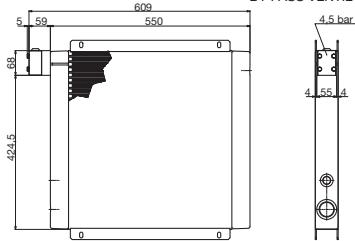
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VALVOLA BY-PASS
BY-PASS VALVE
BY-PASS VENTIL



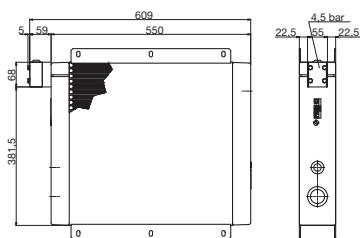
A60

VALVOLA BY-PASS
BY-PASS VALVE
BY-PASS VENTIL



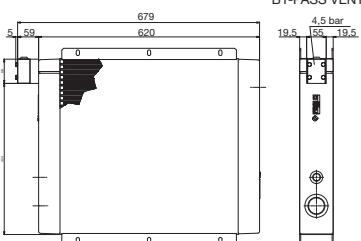
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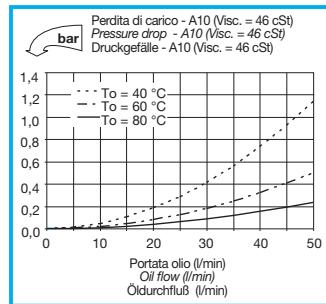
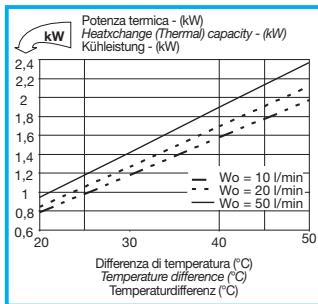
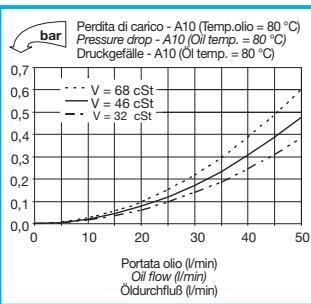
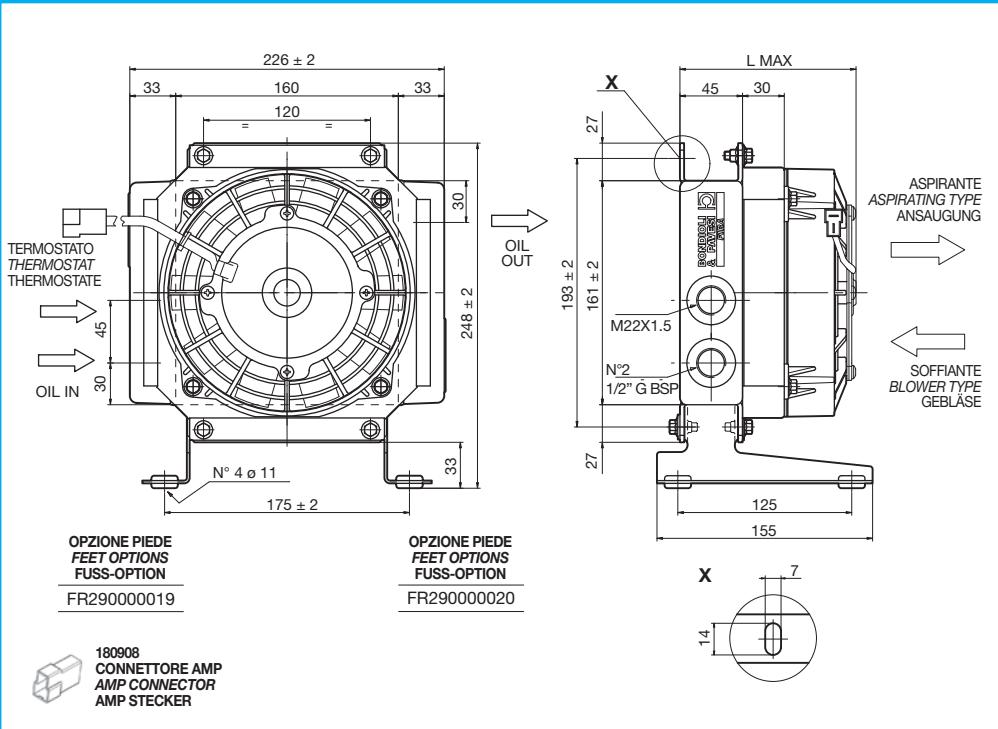
VALVOLA BY-PASS
BY-PASS VALVE
BY-PASS VENTIL



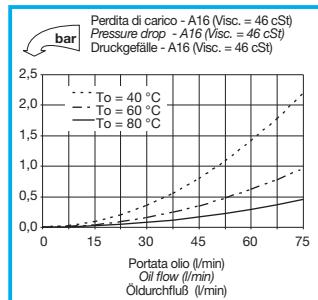
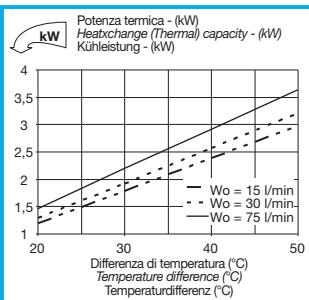
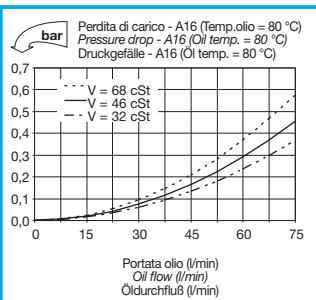
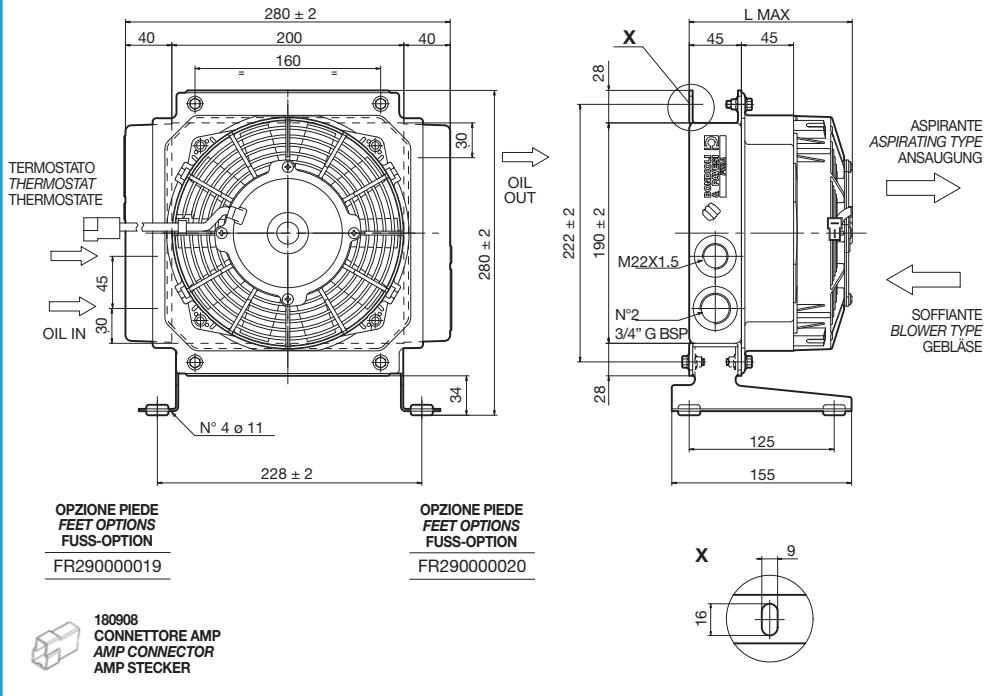
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VALVOLA BY-PASS
BY-PASS VALVE
BY-PASS VENTIL

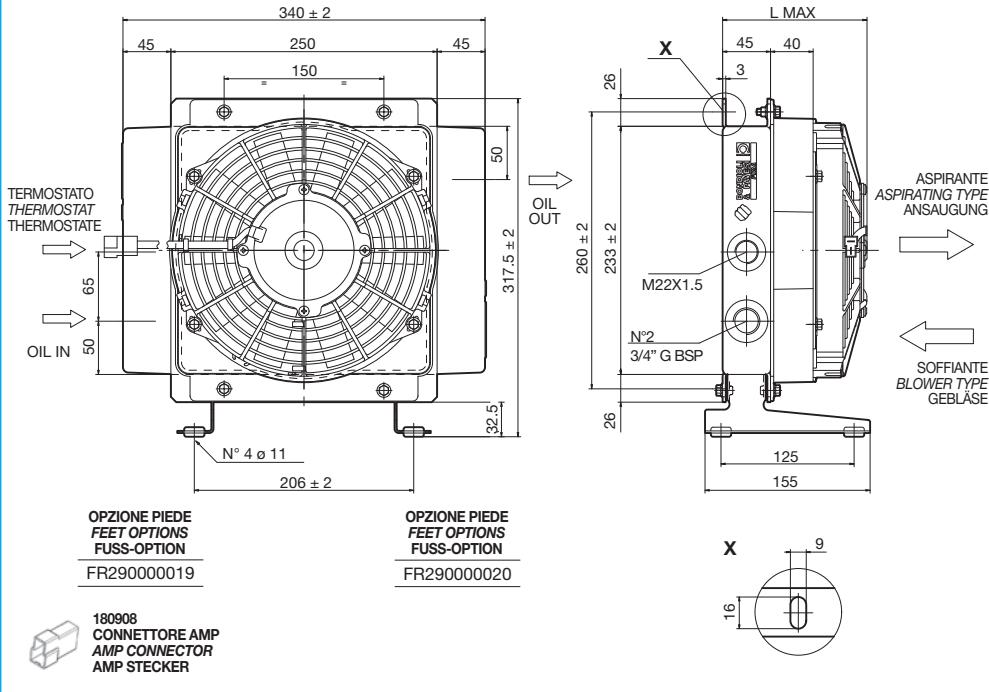




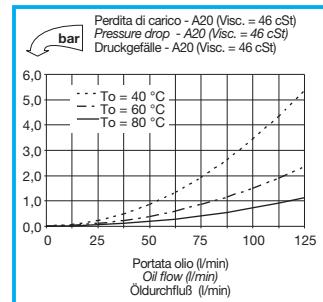
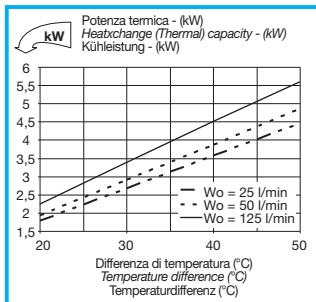
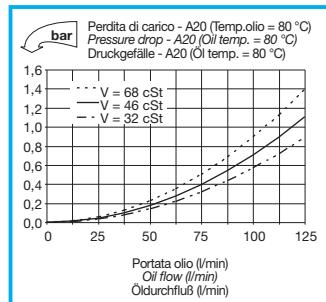
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							V	A
FR633010001	SCM A10 1EA 12V	167	550	12	6,3	130	2,6	0,7
FR633010002	SCM A10 1ES 12V	167	550	12	6,3	130	2,6	0,7
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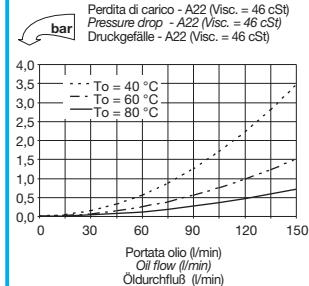
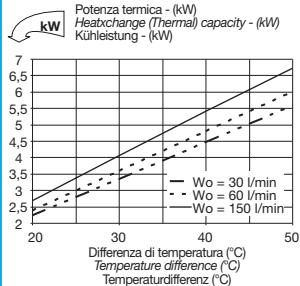
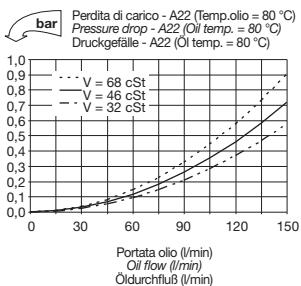
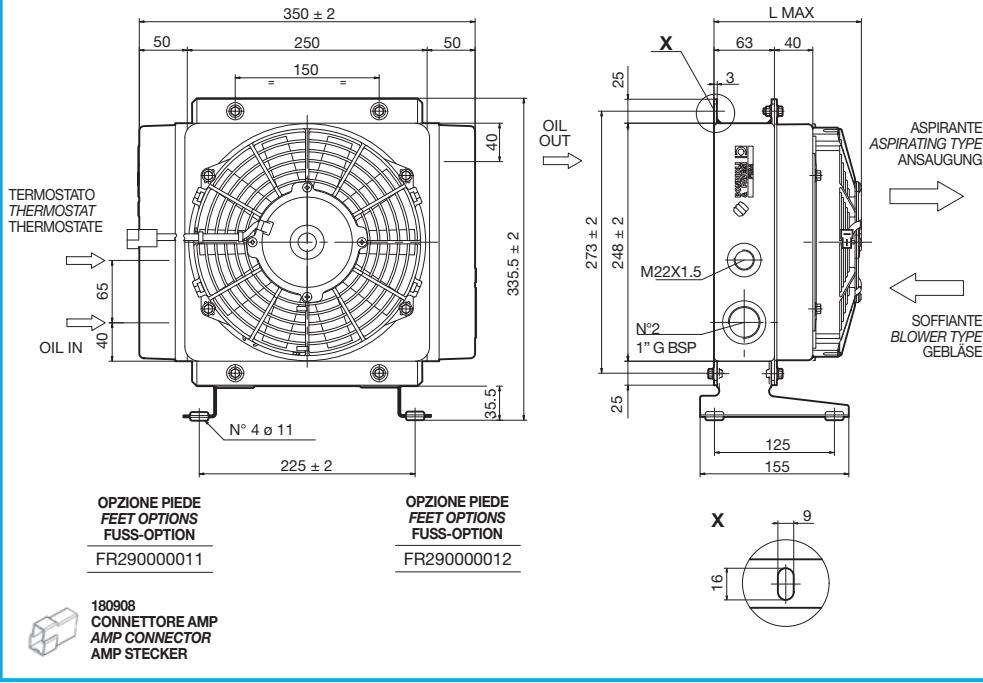
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FR633050003	SCM A16 1EAP 12V	190	740	12	7,7	145	3,7	1
FR633050004	SCM A16 1ESP 12V	190	740	12	7,7	145	3,7	1
FR633050013	SCM A16 1EAP 24V	190	740	24	5,5	145	3,7	1
FR633050014	SCM A16 1ESP 24V	190	740	24	5,5	145	3,7	1



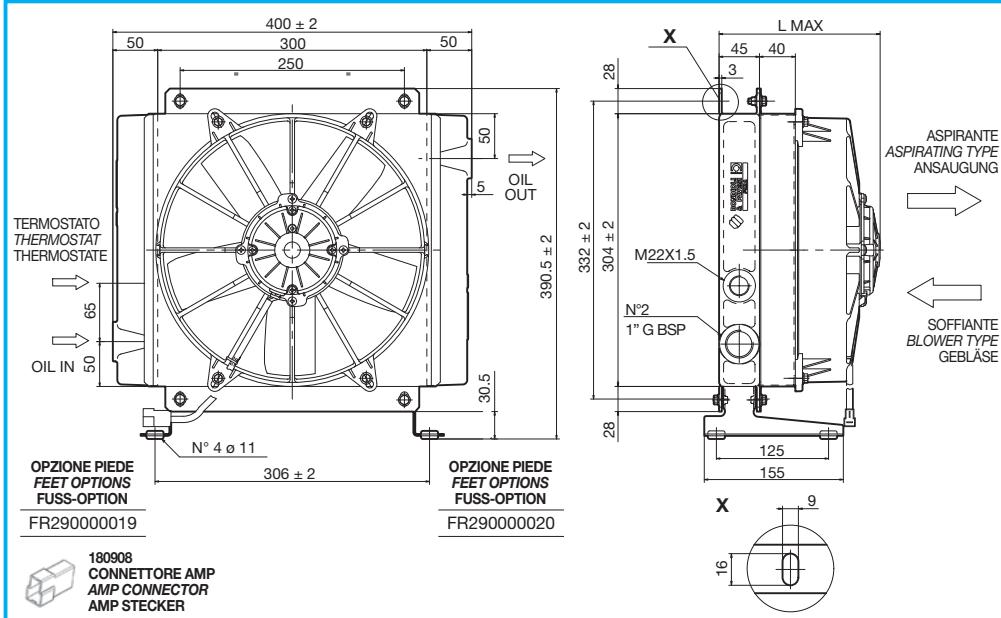
180908
CONNETTORE AMP
AMP CONNECTOR
AMP STECKER



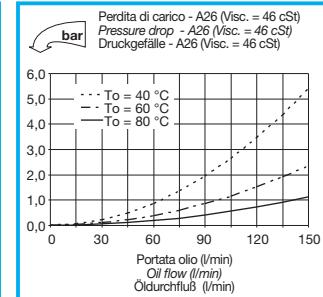
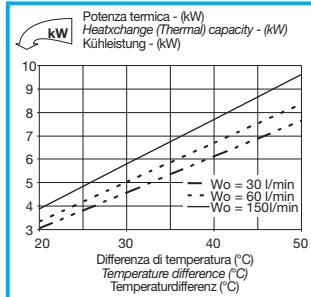
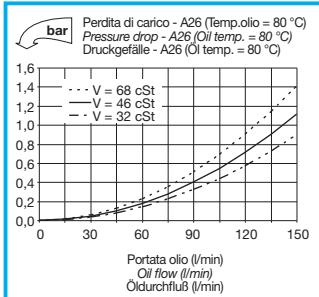
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FR633030003	SCM A20 1EAP 12V	225	1060	12	7,1	140	4,7	1,45
FR633030004	SCM A20 1ESP 12V	225	1060	12	7,1	140	4,7	1,45
FR633030013	SCM A20 1EAP 24V	225	1060	24	3,5	140	4,7	1,45
FR633030014	SCM A20 1ESP 24V	225	1060	24	3,5	140	4,7	1,45



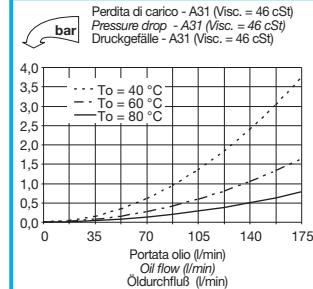
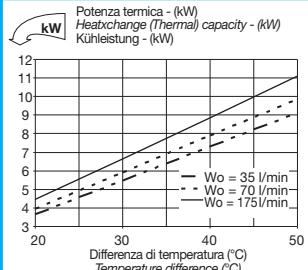
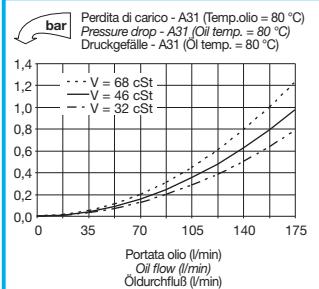
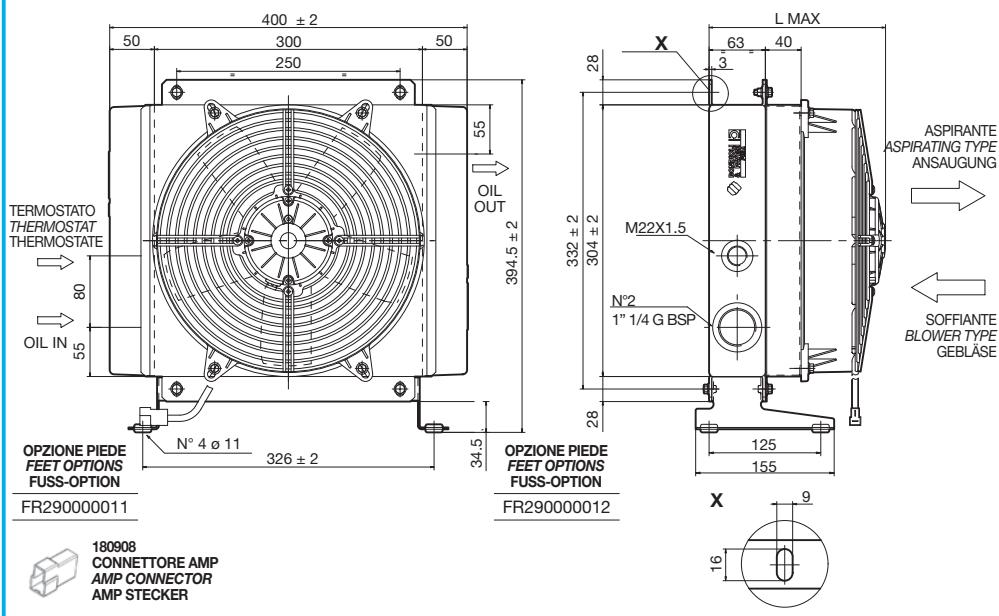
CODICE CODE BEST.-NR.	TIPO TYPE TYP	DIAMETRO VENTOLA FAN DIAMETER LUFTERS- DURCHMESSER	PORTATA ARIA AIR FLOW LUFT- FÖRDERUNG	TENSIONE VOLTAGE SPANNUNG	CORRENTE AMPERAGE STROMSTÄRKE	L MAX mm	MASSA WEIGHT GEWICHT	CAPACITÀ CAPACITY KAPAZITÄT
FR633110003	SCM A22 1EAP 12V	225	1060	12	7,1	160	5,5	1,7
FR633110004	SCM A22 1ESP 12V	225	1060	12	7,1	160	5,5	1,7
FR633110013	SCM A22 1EAP 24V	225	1060	24	3,5	160	5,5	1,7
FR633110014	SCM A22 1ESP 24V	225	1060	24	3,5	160	5,5	1,7



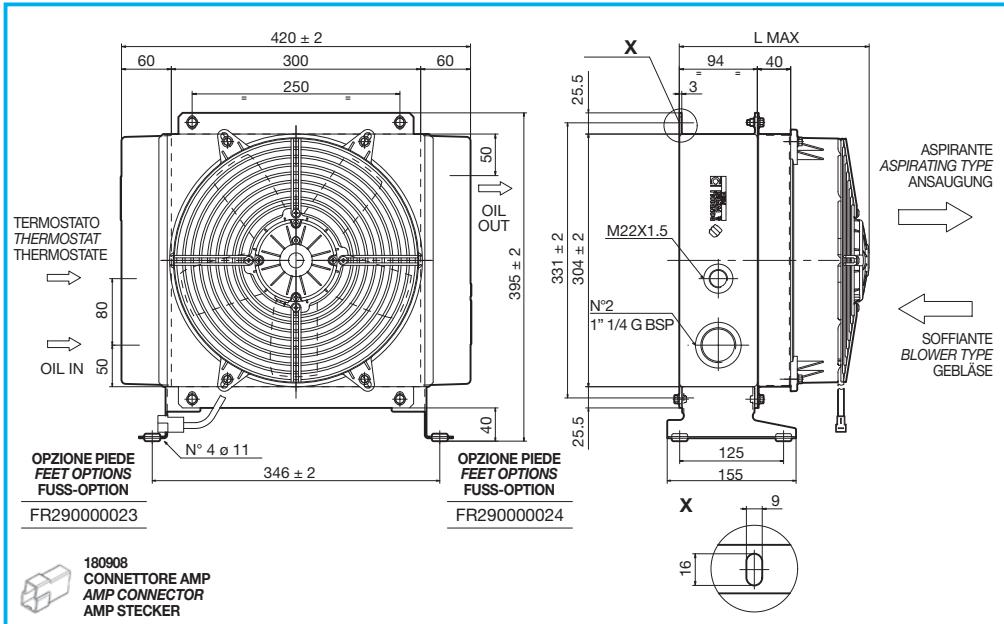
180908
CONNETTORE AMP
AMP CONNECTOR
AMP STECKER



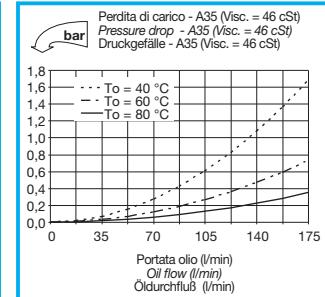
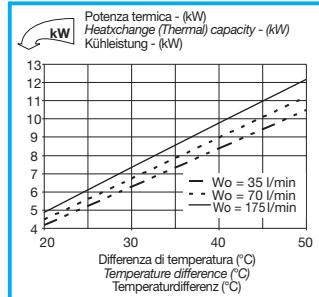
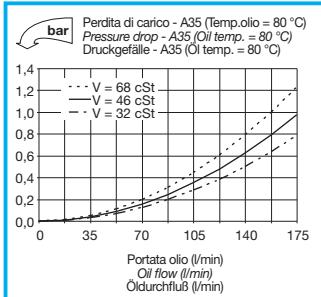
CODICE CODE BEST.-NR.	TIPO TYPE TYP	DIAMETRO VENTOLA FAN DIAMETER LUFTFÖRDERUNGS- DURCHMESSER mm	PORTATA ARIA AIR FLOW LUFT- FÖRDERUNG m³/h	TENSIONE VOLTAGE SPANNUNG	CORRENTE AMPERAGE STROMSTÄRKE A	L MAX mm	MASSA WEIGHT GEWICHT kg	CAPACITÀ CAPACITY KAPAZITÄT lt
FR633130003	SCM A26 1EAP 12V	280	1420	12	9	160	7	2,3
FR633130004	SCM A26 1ESP 12V	280	1420	12	9	160	7	2,3
FR633130005	SCM A26 1EAX 12V	280	2350	12	15	160	7,8	2,3
FR633130006	SCM A26 1ESX 12V	280	2350	12	15	160	7,8	2,3
FR633130013	SCM A26 1EAP 24V	280	1550	24	5	160	7	2,3
FR633130014	SCM A26 1ESP 24V	280	1550	24	5	160	7	2,3
FR633130015	SCM A26 1EAX 24V	280	2500	24	7	160	7,8	2,3
FR633130016	SCM A26 1ESX 24V	280	2500	24	7	160	7,8	2,3

A31
SCAMBIATORI DI CALORE IN ALLUMINIO
ALUMINIUM HEAT EXCHANGERS
ALUMINIUM WÄRMETAUSCHER


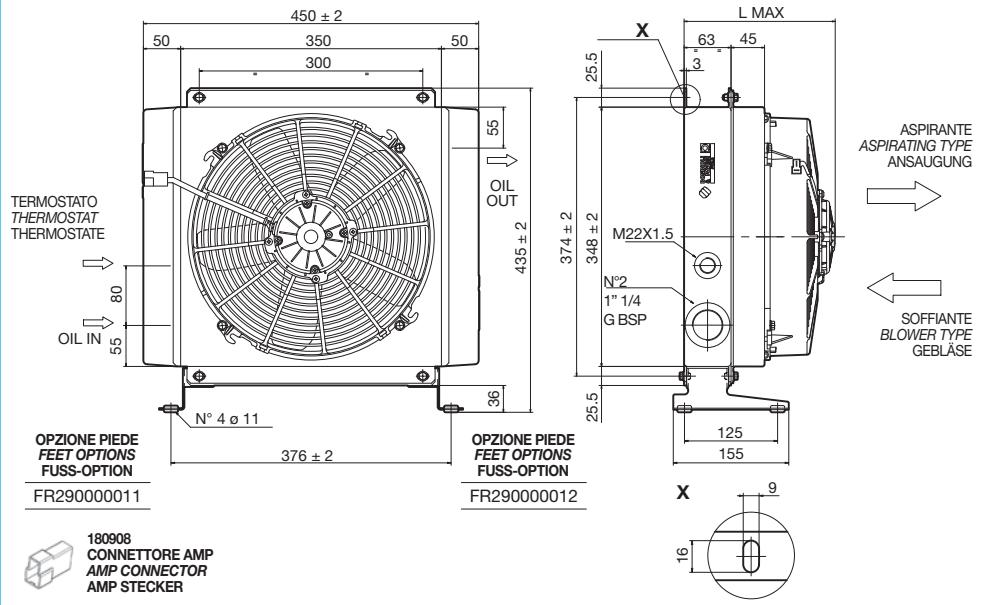
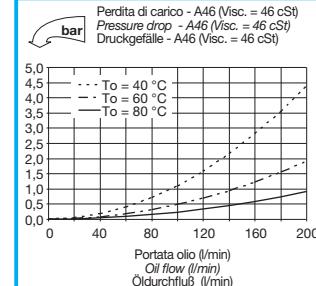
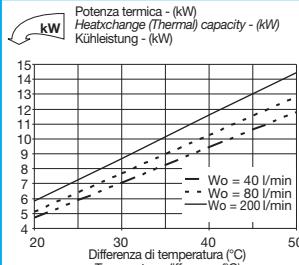
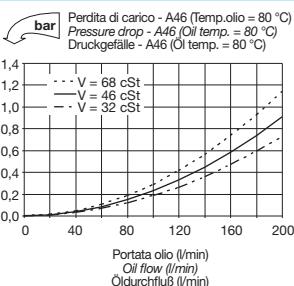
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FR633170003	SCM A31 1EAP 12V	280	1420	12	9	155	9,7	3,2
FR633170004	SCM A31 1ESP 12V	280	1420	12	9	155	9,7	3,2
FR633170005	SCM A31 1EAX 12V	280	2350	12	15	200	10,5	3,2
FR633170006	SCM A31 1ESX 12V	280	2350	12	15	200	10,5	3,2
FR633170013	SCM A31 1EAP 24V	280	1550	24	5	155	9,7	3,2
FR633170014	SCM A31 1ESP 24V	280	1550	24	5	155	9,7	3,2
FR633170015	SCM A31 1EAX 24V	280	2500	24	7	200	10,5	3,2
FR633170016	SCM A31 1ESX 24V	280	2500	24	7	200	10,5	3,2



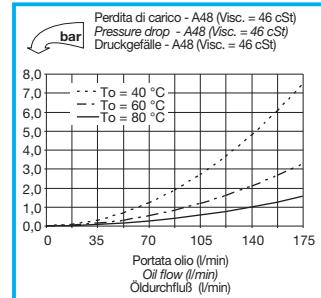
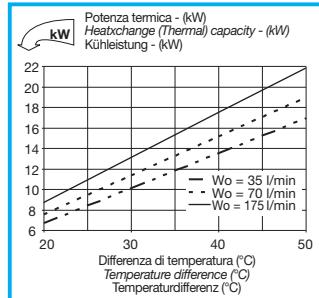
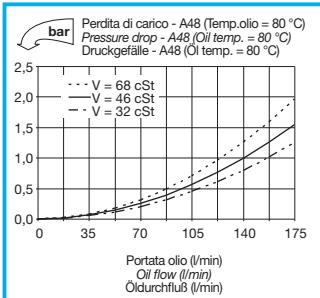
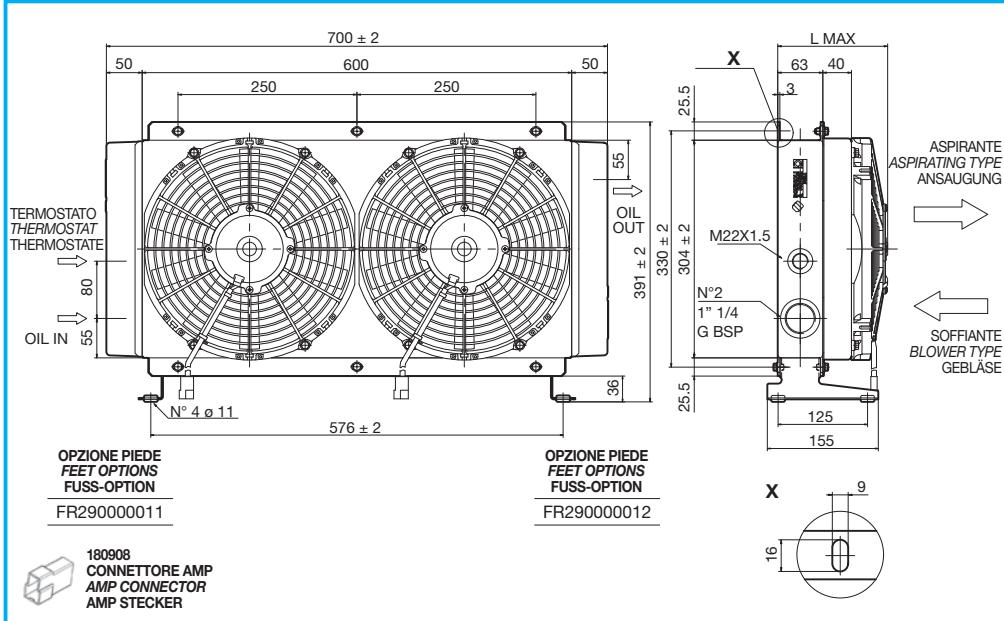
180908
CONNETTORE AMP
AMP CONNECTOR
AMP STECKER



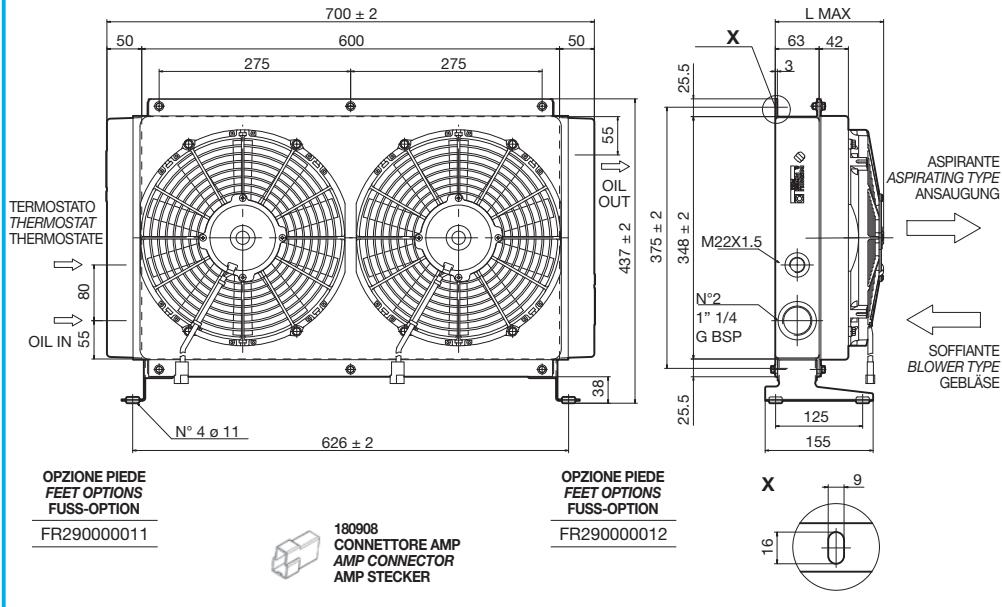
CODICE CODE BEST.-NR.	TIPO TYPE TYP	DIAMETRO VENTOLA FAN DIAMETER LUFTFÜRS. DURCHMESSER mm	PORTATA ARIO AIR FLOW LUFT- FÖRDERUNG m³/h	TENSIONE VOLTAGE SPANNUNG	CORRENTE AMPERAGE STROMSTÄRKE	L MAX mm	MASSA WEIGHT GEWICHT	CAPACITÀ CAPACITY KAPAZITÄT
FR633060003	SCM A35 1EAP 12V	280	1420	12	9	210	14,5	4,8
FR633060004	SCM A35 1ESP 12V	280	1420	12	9	210	14,5	4,8
FR633060005	SCM A35 1EAX 12V	280	2350	12	15	230	15,5	4,8
FR633060006	SCM A35 1ESX 12V	280	2350	12	15	230	15,5	4,8
FR633060013	SCM A35 1EAP 24V	280	1550	24	5	210	14,5	4,8
FR633060014	SCM A35 1ESP 24V	280	1550	24	5	210	14,5	4,8
FR633060015	SCM A35 1EAX 24V	280	2500	24	7	230	15,5	4,8
FR633060016	SCM A35 1ESX 24V	280	2500	24	7	230	15,5	4,8

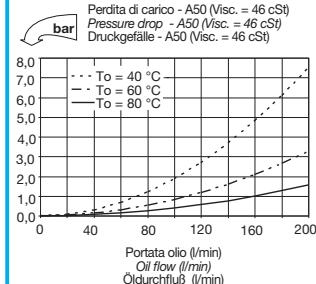
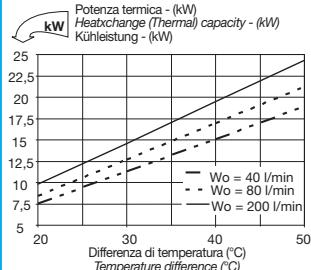
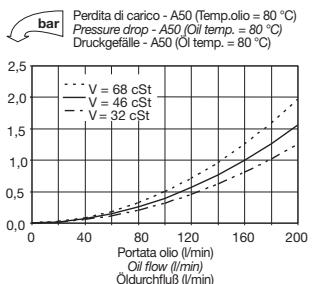
A46
SCAMBIATORI DI CALORE IN ALLUMINIO
ALUMINIUM HEAT EXCHANGERS
ALUMINIUM WÄRMETAUSCHER

180908
CONNETTORE AMP
AMP CONNECTOR
AMP STECKER


CODICE CODE BEST.-NR.	TIPO TYPE TYP	DIAMETRO VENTOLA FAN DIAMETER LÜFTERS- DURCHMESSER mm	PORTATA ARIA AIR FLOW LUFT- FÖRDERUNG m³/h	TENSIONE VOLTAGE SPANNUNG V	CORRENTE AMPERAGE STROMSTÄRKE A	L MAX mm	MASSA WEIGHT GEWICHT kg	CAPACITÀ CAPACITY KAPAZITÄT lt
FR633200003	SCM A46 1EAP 12V	305	2080	12	12	180	12,5	4
FR633200004	SCM A46 1ESP 12V	305	2080	12	12	180	12,5	4
FR633200005	SCM A46 1EAX 12V	305	2750	12	15	210	13,5	4
FR633200006	SCM A46 1ESX 12V	305	2750	12	15	210	13,5	4
FR633200013	SCM A46 1EAP 24V	305	2060	24	6	180	12,5	4
FR633200014	SCM A46 1ESP 24V	305	2060	24	6	180	12,5	4
FR633200015	SCM A46 1EAX 24V	305	2900	24	8,5	210	13,5	4
FR633200016	SCM A46 1ESX 24V	305	2900	24	8,5	210	13,5	4

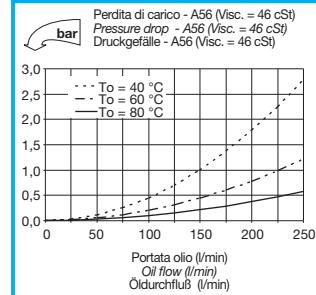
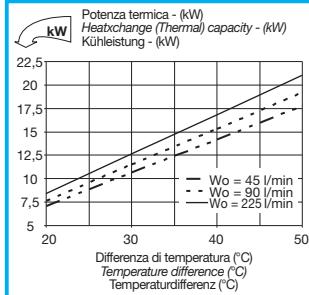
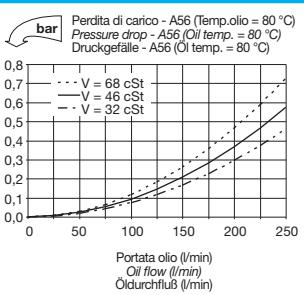
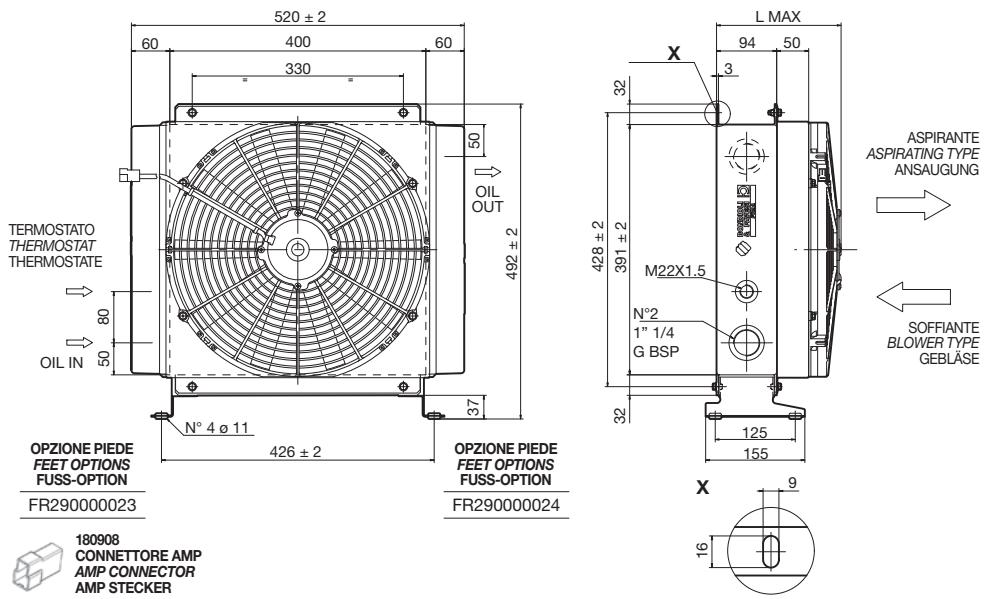


CODICE CODE BEST.-NR.	TIPO TYPE TYP	DIAMETRO VENTOLA FAN DIAMETER LUFTFÖRDERUNGS- DURCHMESSER mm	PORTATA ARIA AIR FLOW LUFT- FÖRDERUNG m³/h	TENSIONE VOLTAGE SPANNUNG	CORRENTE AMPERAGE STROMSTÄRKE	L MAX mm	MASSA WEIGHT GEWICHT	CAPACITÀ CAPACITY KAPAZITÄT
FR633210003	SCM A48 2EAP 12V	2X280	2X1420	12	8,7	160	13,5	3,2
FR633210004	SCM A48 2ESP 12V	2X280	2X1420	12	8,7	160	13,5	3,2
FR633210005	SCM A48 2EAX 12V	2X280	2X2350	12	12,5	200	16	3,2
FR633210006	SCM A48 2ESX 12V	2X280	2X2350	12	12,5	200	16	3,2
FR633210013	SCM A48 2EAP 24V	2X280	2X1600	24	4,7	160	13,5	3,2
FR633210014	SCM A48 2ESP 24V	2X280	2X1600	24	4,7	160	13,5	3,2
FR633210015	SCM A48 2EAX 24V	2X280	2X2500	24	7,2	200	16	3,2
FR633210016	SCM A48 2ESX 24V	2X280	2X2500	24	7,2	200	16	3,2

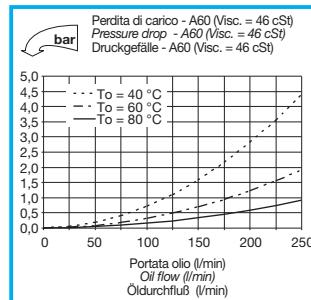
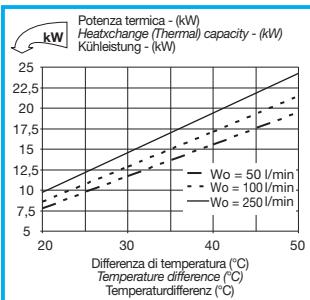
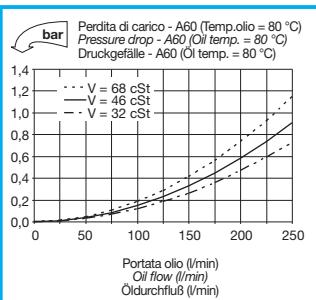
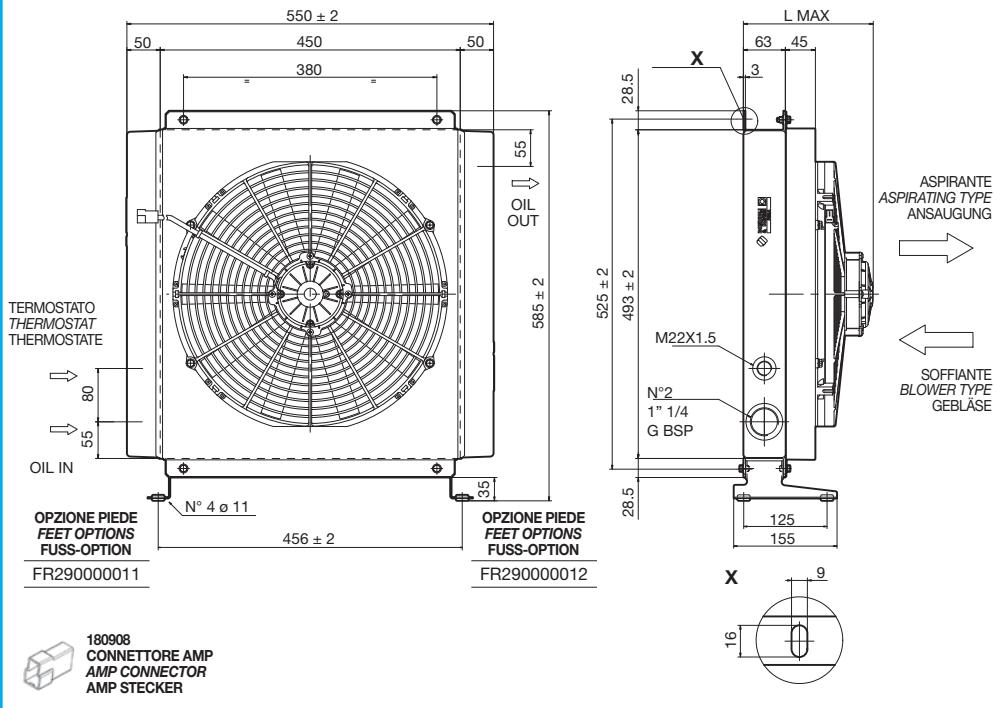
A50
SCAMBIATORI DI CALORE IN ALLUMINIO
ALUMINIUM HEAT EXCHANGERS
ALUMINIUM WÄRMETAUSCHER

OPZIONE PIEDE
FEET OPTIONS
FUSS-OPTION
FR290000011

180908
CONNETTORE AMP
AMP CONNECTOR
AMP STECKER
OPZIONE PIEDE
FEET OPTIONS
FUSS-OPTION
FR290000012


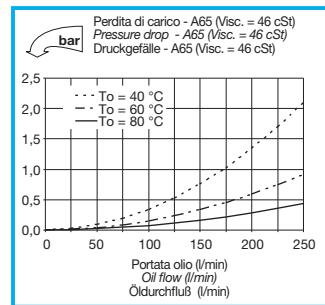
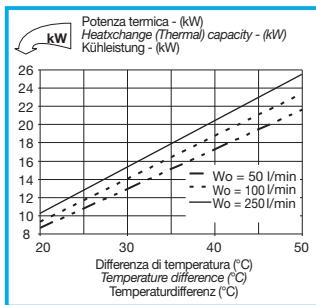
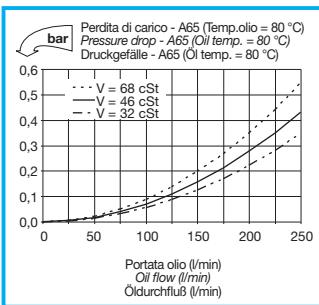
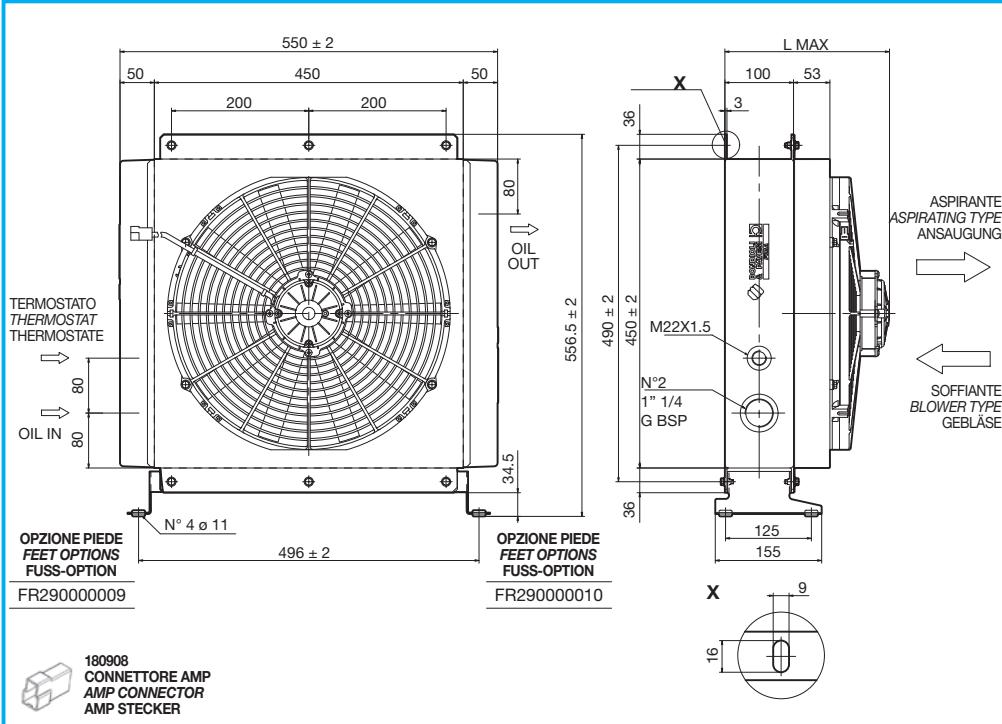
CODICE CODE BEST.-NR.	TIPO TYPE TYP	DIAMETRO VENTOLA FAN DIAMETER LÜFTERS- DURCHMESSER mm	PORTATA ARIA AIR FLOW LUFT- FÖRDERUNG m³/h	TENSIONE VOLTAGE SPANNUNG V	CORRENTE AMPERAGE STROMSTÄRKE A	L MAX mm	MASSA WEIGHT GEWICHT kg	CAPACITÀ CAPACITY KAPAZITÄT lt
FR633100003	SCM A50 2EAP 12V	2X280	2X1420	12	8,7	160	15,5	3,4
FR633100004	SCM A50 2ESP 12V	2X280	2X1420	12	8,7	160	15,5	3,4
FR633100005	SCM A50 2EAX 12V	2X280	2X2350	12	12,5	200	18	3,4
FR633100006	SCM A50 2ESX 12V	2X280	2X2350	12	12,5	200	18	3,4
FR633100013	SCM A50 2EAP 24V	2X280	2X1600	24	4,7	160	15,5	3,4
FR633100014	SCM A50 2ESP 24V	2X280	2X1600	24	4,7	160	15,5	3,4
FR633100015	SCM A50 2EAX 24V	2X280	2X2500	24	7,2	200	18	3,4
FR633100016	SCM A50 2ESX 24V	2X280	2X2500	24	7,2	200	18	3,4

A56
SCAMBIATORI DI CALORE IN ALLUMINIO
ALUMINIUM HEAT EXCHANGERS
ALUMINIUM WÄRMETAUSCHER


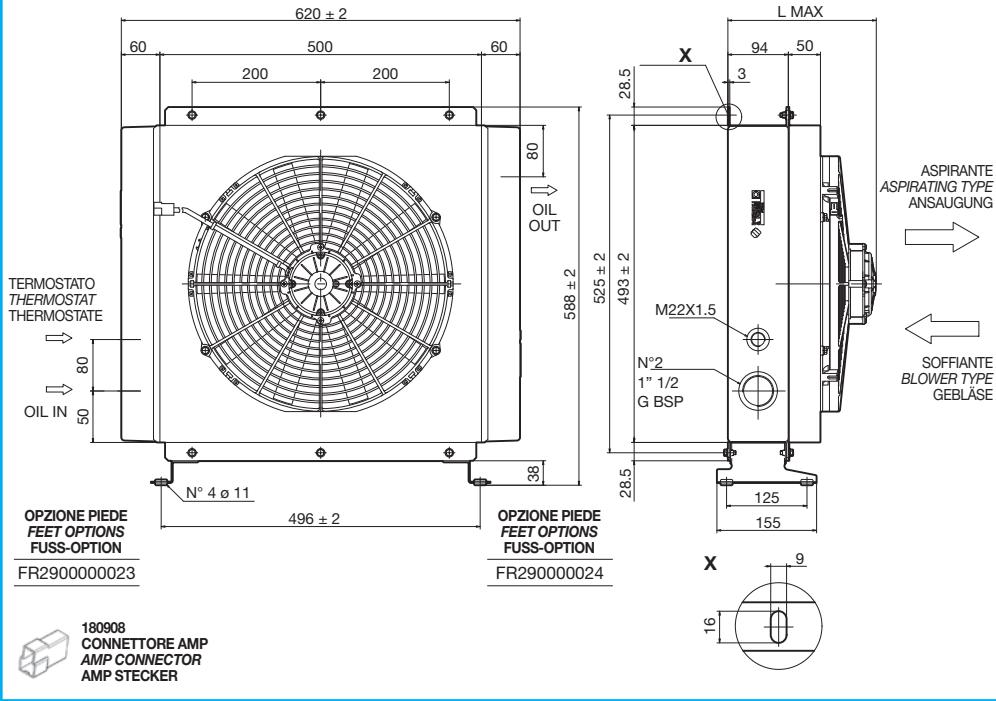
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FR633220003	SCM A56 1EAP 12V	385	2200	12	22	200	15,5	7,5
FR633220004	SCM A56 1ESP 12V	385	2200	12	22	200	15,5	7,5
FR633220005	SCM A56 1EAX 12V	385	4000	12	22	235	16,5	7,5
FR633220006	SCM A56 1ESX 12V	385	4000	12	22	235	16,5	7,5
FR633220013	SCM A56 1EAP 24V	385	2200	24	11	200	15,5	7,5
FR633220014	SCM A56 1ESP 24V	385	2200	24	11	200	15,5	7,5
FR633220015	SCM A56 1EAX 24V	385	4000	24	11	235	16,5	7,5
FR633220016	SCM A56 1ESX 24V	385	4000	24	11	235	16,5	7,5

A60
SCAMBIATORI DI CALORE IN ALLUMINIO
ALUMINIUM HEAT EXCHANGERS
ALUMINIUM WÄRMETAUSCHER


CODICE CODE BEST.-NR.	TIPO TYPE TYP	DIAMETRO VENTOLA FAN DIAMETER LÜFTERS- DURCHMESSER mm	PORTATA ARIA AIR FLOW LUFT- FÖRDERUNG m³/h	TENSIONE VOLTAGE SPANNUNG	CORRENTE AMPERAGE STROMSTÄRKE	L MAX mm	MASSA WEIGHT GEWICHT	CAPACITÀ CAPACITY KAPAZITÄT
FR633090001	SCM A60 1EAX 12V	385	4000	12	22	200	18	5,7
FR633090002	SCM A60 1ESX 12V	385	4000	12	22	200	18	5,7
FR633090013	SCM A60 1EAX 24V	385	4000	24	11	200	18	5,7
FR633090014	SCM A60 1ESX 24V	385	4000	24	11	200	18	5,7



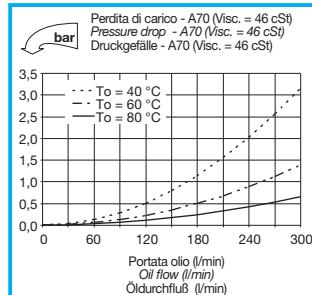
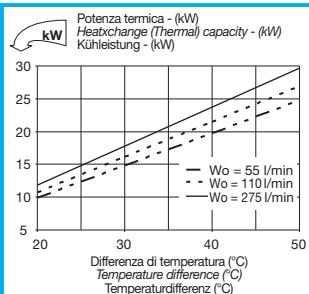
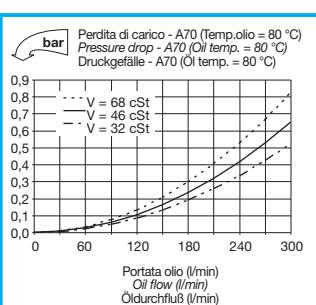
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FR633120001	SCM A65 1EAX 12V	385	4000	12	22	240	20	8,5
FR633120002	SCM A65 1ESX 12V	385	4000	12	22	240	20	8,5
FR633120013	SCM A65 1EAX 24V	385	4000	24	11	240	20	8,5
FR633120014	SCM A65 1ESX 24V	385	4000	24	11	240	20	8,5

A70
SCAMBIATORI DI CALORE IN ALLUMINIO
ALUMINIUM HEAT EXCHANGERS
ALUMINIUM WÄRMETAUSCHER


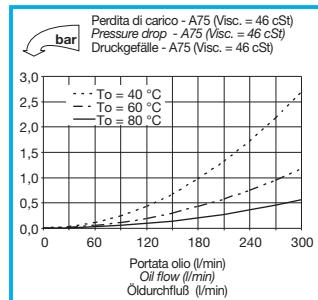
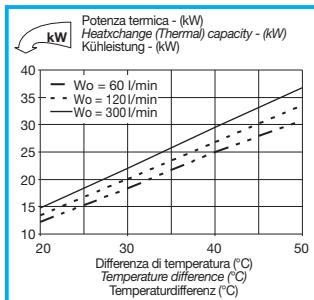
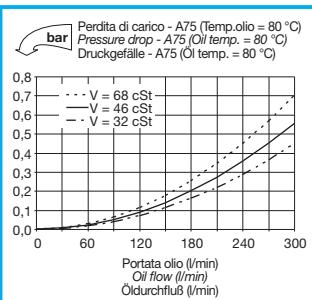
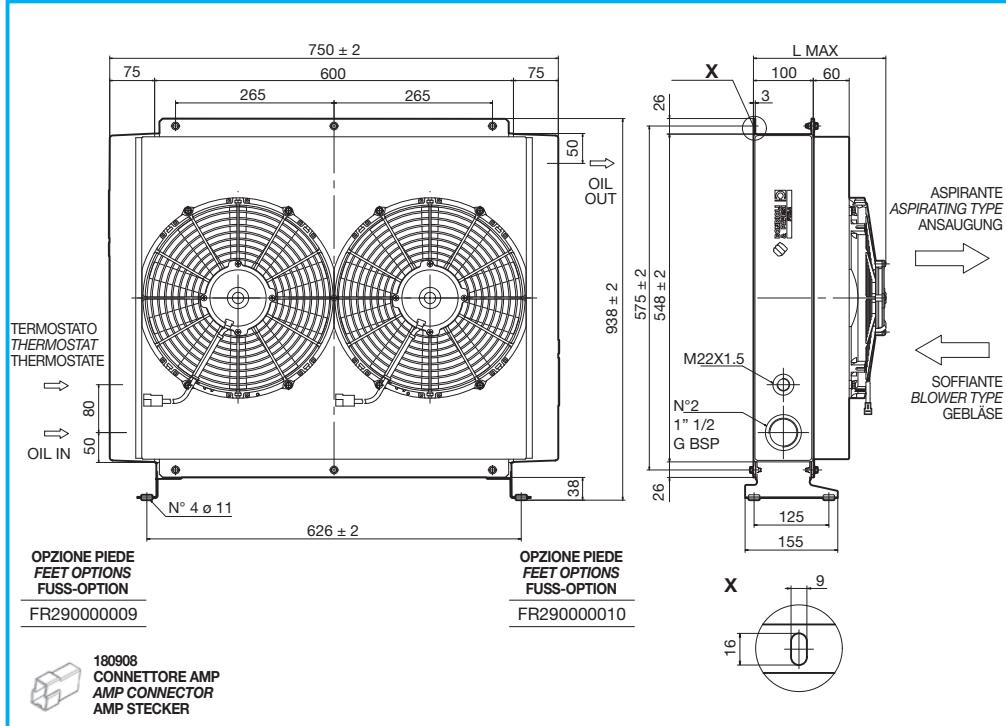
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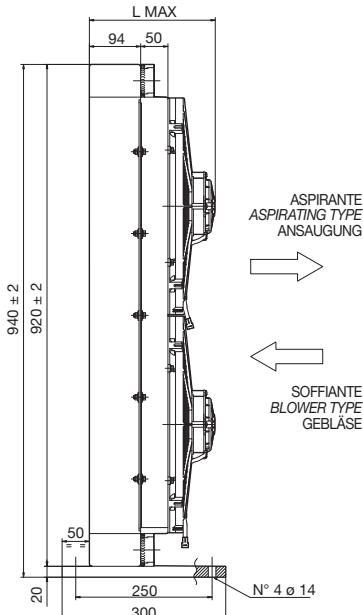
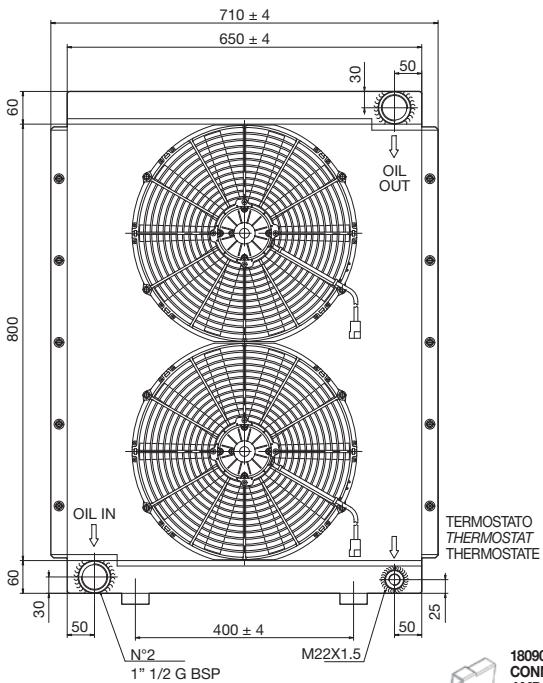
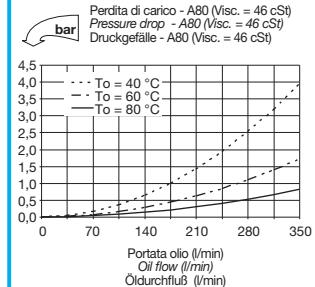
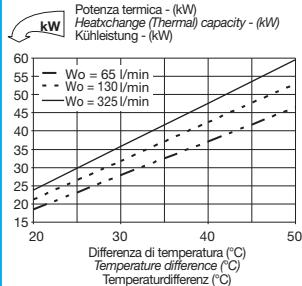
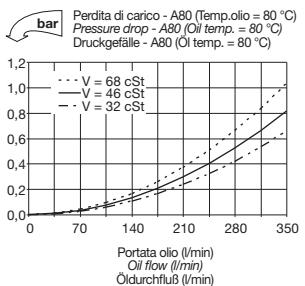
180908
CONNETTORE AMP
AMP CONNECTOR
AMP STECKER



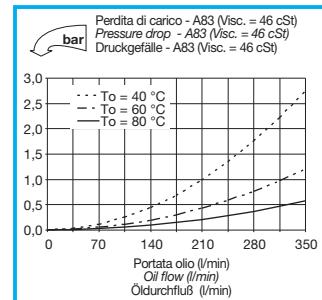
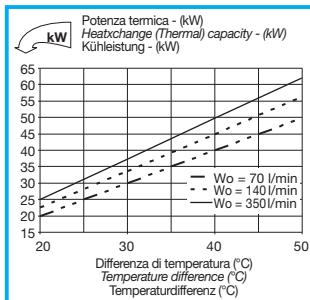
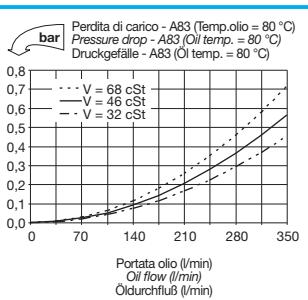
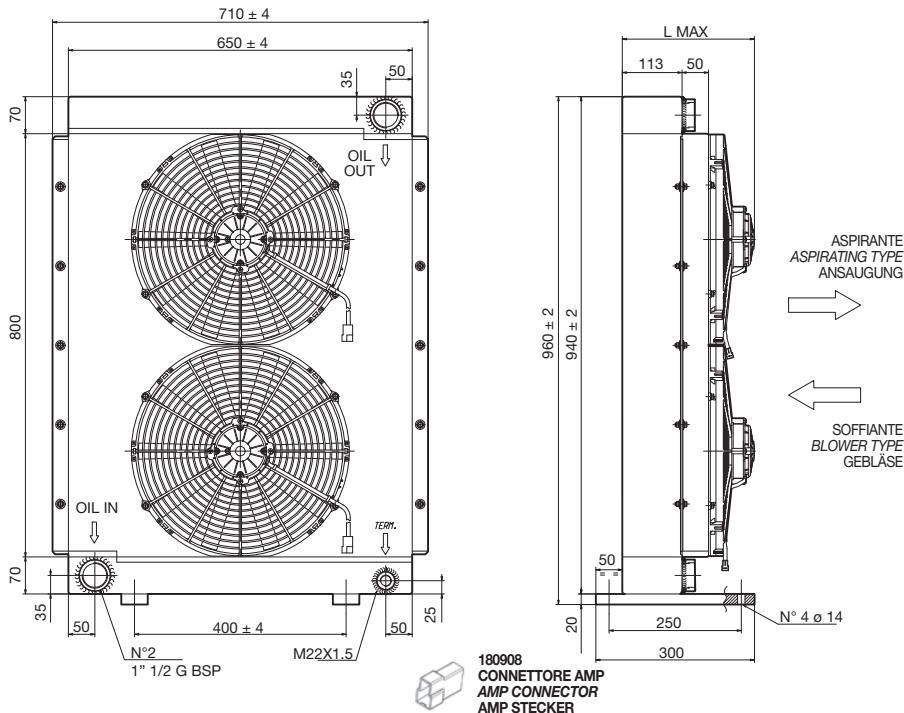
CODICE CODE BEST.-NR.	TIPO TYPE TYP	DIAMETRO VENTOLA FAN DIAMETER LÜFTERS- DURCHMESSER mm	PORTATA ARIA AIR FLOW LUFT- FÖRDERUNG m³/h	TENSIONE VOLTAGE SPANNUNG	CORRENTE AMPERAGE STROMSTÄRKE	L MAX mm	MASSA WEIGHT GEWICHT	CAPACITÀ CAPACITY KAPAZITÄT
FR633230005	SCM A70 1EAX 12V	385	4000	12	22	230	22	10,5
FR633230006	SCM A70 1ESX 12V	385	4000	12	22	230	22	10,5
FR633230015	SCM A70 1EAX 24V	385	4000	24	11	230	22	10,5
FR633230016	SCM A70 1ESX 24V	385	4000	24	11	230	22	10,5

A75
SCAMBIATORI DI CALORE IN ALLUMINIO
ALUMINIUM HEAT EXCHANGERS
ALUMINIUM WÄRMETAUSCHER
BONDIOLI & PAVESI
FIRA


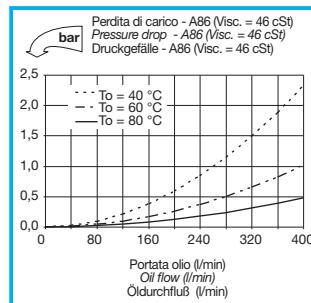
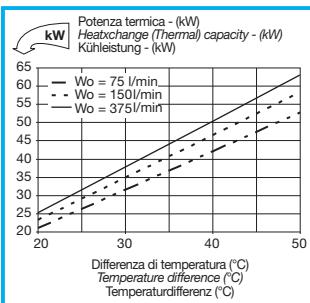
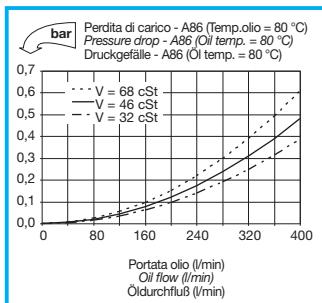
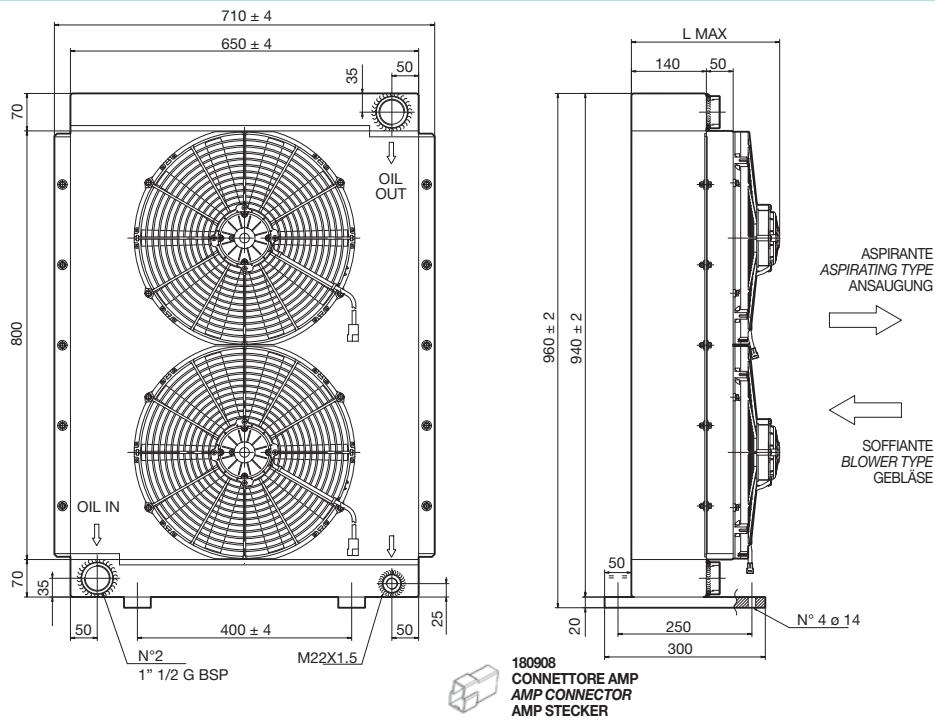
CODICE CODE BEST.-NR.	TIPO TYPE TYP	DIAMETRO VENTOLA FAN DIAMETER LUFTFERS- DURCHMESSER mm	PORTATA ARIA AIR FLOW LUFT- FÖRDERUNG m ³ /h	TENSIONE VOLTAGE SPANNUNG	CORRENTE AMPERAGE STROMSTÄRKE	L MAX mm	MASSA WEIGHT GEWICHT	CAPACITÀ CAPACITY KAPAZITÄT
FR633140003	SCM A75 2EAP 12V	2X305	2X2080	12	2X12	225	24	14
FR633140004	SCM A75 2ESP 12V	2X305	2X2080	12	2X12	225	24	14
FR633140013	SCM A75 2EAP 24V	2X305	2X2080	24	2X6	225	24	14
FR633140014	SCM A75 2ESP 24V	2X305	2X2080	24	2X6	225	24	14

A80
SCAMBIATORI DI CALORE IN ALLUMINIO
ALUMINIUM HEAT EXCHANGERS
ALUMINIUM WÄRMETAUSCHER

180908
CONNETTORE AMP
AMP CONNECTOR
AMP STECKER


CODICE CODE BEST.-NR.	TIPO TYPE TYP	DIAMETRO VENTOLA FAN DIAMETER LÜFTERS- DURCHMESSER mm	PORTATA ARIA AIR FLOW LUFT- FÖRDERUNG m³/h	TENSIONE VOLTAGE SPANNUNG	CORRENTE AMPERAGE STROMSTÄRKE	L MAX mm	MASSA WEIGHT GEWICHT	CAPACITÀ CAPACITY KAPAZITÄT
FR633150003	SCM A80 2EAP 12V	2X385	2X4000	12	2X22	230	38	18
FR633150004	SCM A80 2ESP 12V	2X385	2X4000	12	2X22	230	38	18
FR633150013	SCM A80 2EAP 24V	2X385	2X4000	24	2X11	230	38	18
FR633150014	SCM A80 2ESP 24V	2X385	2X4000	24	2X11	230	38	18

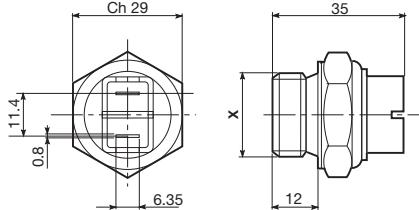


CODICE CODE BEST.-NR.	TIPO TYPE TYP	DIAMETRO VENTOLA FAN DIAMETER LUFTFERS- DURCHMESSER mm	PORTATA ARIA AIR FLOW LUFT- FÖRDERUNG m³/h	TENSIONE VOLTAGE SPANNUNG	CORRENTE AMPERAGE STROMSTÄRKE A	L MAX mm	MASSA WEIGHT GEWICHT kg	CAPACITÀ CAPACITY KAPAZITÄT lt
FR633240003	SCM A83 2EAP 12V	2X385	2X4000	12	2X22	250	45	23
FR633240004	SCM A83 2ESP 12V	2X385	2X4000	12	2X22	250	45	23
FR633240013	SCM A83 2EAP 24V	2X385	2X4000	24	2X11	250	45	23
FR633240014	SCM A83 2ESP 24V	2X385	2X4000	24	2X11	250	45	23

A86
SCAMBIATORI DI CALORE IN ALLUMINIO
ALUMINIUM HEAT EXCHANGERS
ALUMINIUM WÄRMETAUSCHER


CODICE CODE BEST.-NR.	TIPO TYPE TYP	DIAMETRO VENTOLA FAN DIAMETER LÜFTERS- DURCHMESSER mm	PORTATA ARIA AIR FLOW LUFT- FÖRDERUNG m³/h	TENSIONE VOLTAGE SPANNUNG	CORRENTE AMPERAGE STROMSTÄRKE	L MAX mm	MASSA WEIGHT GEWICHT	CAPACITÀ CAPACITY KAPAZITÄT
FR633260003	SCM A86 2EAP 12V	2X385	2X4000	12	2X22	280	55	28
FR633260004	SCM A86 2ESP 12V	2X385	2X4000	12	2X22	280	55	28
FR633260013	SCM A86 2EAP 24V	2X385	2X4000	24	2X11	280	55	28
FR633260014	SCM A86 2ESP 24V	2X385	2X4000	24	2X11	280	55	28

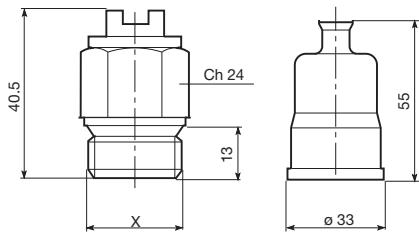
TERMOSTATI
THERMOSTATS
THERMOSTATE



TEMPERATURE DI INTERVENTO (C°)
TRIGGER TEMPERATURE (C°)
SCHALTTEMPERATUR (C°)

	CODICE CODE BEST. - NR.
45 - 35	M22x1,5 FR 361104535
60 - 50	M22x1,5 FR 361106050
80 - 70	M22x1,5 FR 361108070
82 - 68	M22x1,5 FR 361108268
85 - 76	M22x1,5 FR 361108576

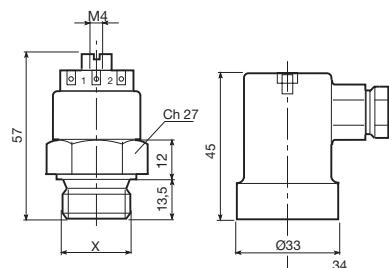
TERMOSTATI PROTETTI IP54
IP54 PROTECTED THERMAL SWITCH
GESCHÜTZTE THERMOSTATE IP 54



TEMPERATURE DI INTERVENTO (C°)
TRIGGER TEMPERATURE (C°)
SCHALTTEMPERATUR (C°)

	CODICE CODE BEST. - NR.
45 - 35	M22x1,5 FR 361124535
50 - 40	M22x1,5 FR 361125040
60 - 50	M22x1,5 FR 361126050
70 - 60	M22x1,5 FR 361127060
80 - 70	M22x1,5 FR 361128070

TERMOSTATI PROTETTI IP65
IP65 PROTECTED THERMAL SWITCH
GESCHÜTZTE THERMOSTATE IP 65

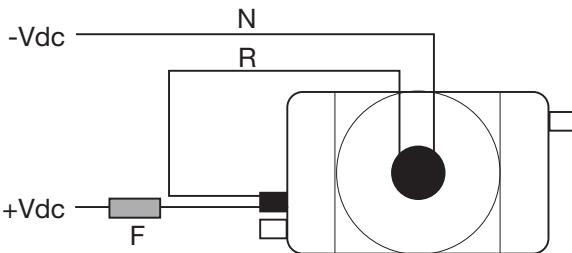


TEMPERATURE DI INTERVENTO (C°)
TRIGGER TEMPERATURE (C°)
SCHALTTEMPERATUR (C°)

	CODICE CODE BEST. - NR.
45 - 35	M22x1,5 FR 361154535
47 - 36	M22x1,5 FR 361155040
60 - 50	M22x1,5 FR 361156050
60 - 50	1/2" G FR 361146050
70 - 60	1/2" G FR 361147060
80 - 70	M22x1,5 FR 361158070

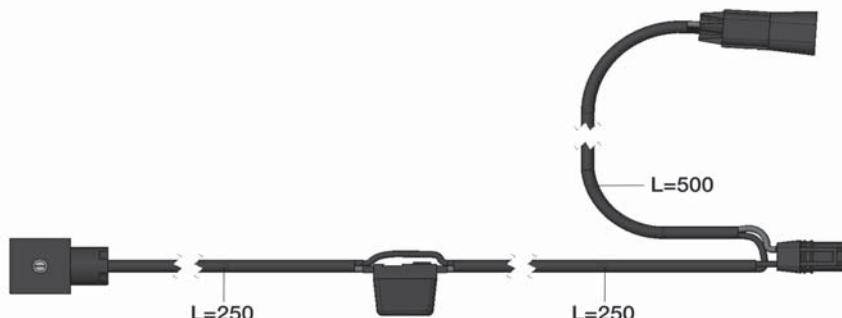
CONNESSIONI ELETTRICHE SUGLI SCAMBIATORI
ELECTRICAL CONNECTIONS ON HEAT EXCHANGERS
ELEKTRISCHE VERBINDUNGEN AN DEN WÄRMETAUSCHERN

ELETTOVENTOLE IN CORRENTE CONTINUA 12/24 VCC
 ELECTRICAL CONNECTIONS ON HEAT EXCHANGERS 12/24V DC FAN UNITS
 ELEKTRO-LÜFTER MIT 12/24 V GLEICHSTROM



R	ROSSO RED ROT
N	NERO BLACK SCHWARZ
F	Fusibile (vedi tabella ventole) Fuse (see table of fan units) Sicherung (siehe Lüfter-Tabelle)
Vdc	12/24 Volt

KIT CABLAGGIO CON CONNETTORE A TENUTA STAGNA
 WIRING KIT WITH HERMETICALLY SEALED CONNECTOR
 KABELSATZ FÜR ELEKTRISCHE LÜFTERSTEUERUNG



KIT CABLAGGIO CON CONNETTORE A TENUTA STAGNA, SENSORE DI TEMPERATURA MPC
 E VARIATORE ELETTRONICO DI VELOCITÀ
 WIRING KIT WITH HERMETICALLY SEALED CONNECTOR, MPC TEMPERATURE SENSOR, AND ELECTRONIC
 SPEED INVERTER
 ELEKTRONISCHE, PROPORZIONALE LÜFTERSTEUERUNG TEMPERATURABHÄNGIG

