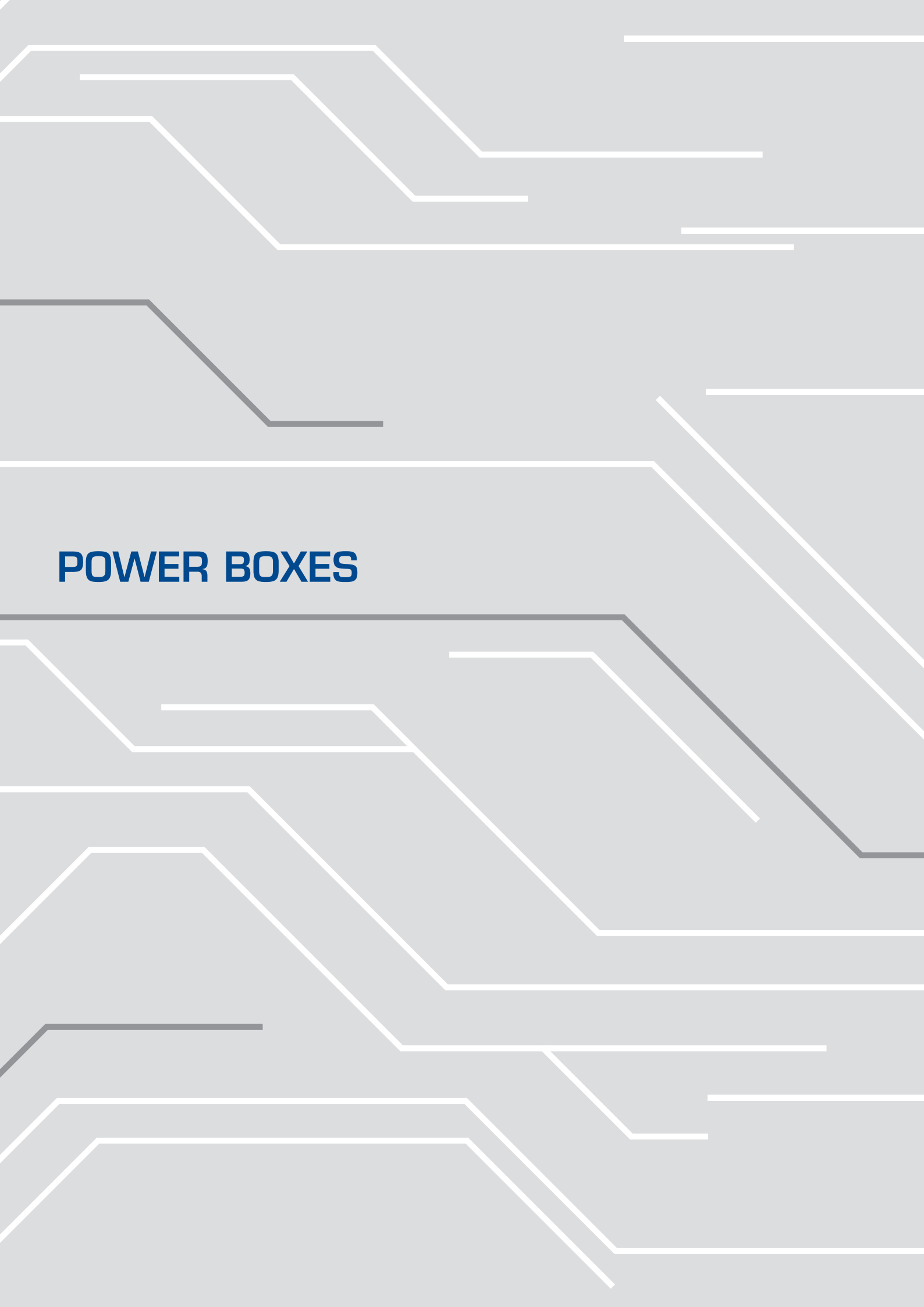




POWER BOXES

Power Box

- Il modulo Powerbox permette di distribuire in modo sicuro la tensione della batteria nei vari rami del circuito. Si installa facilmente e grazie ai moduli componibili fra loro si adatta alle diverse esigenze.

- Alimentazione: 21V max
- Fissaggio: staffe o viti
- Grado di protezione: IP30
- Temperatura di funzionamento: - 40° C ÷ + 120° C

- *The Powerbox enables a safe distribution of battery voltage among all circuit lines. Its easy assembly through modules makes it flexible and suitable for different types of application.*

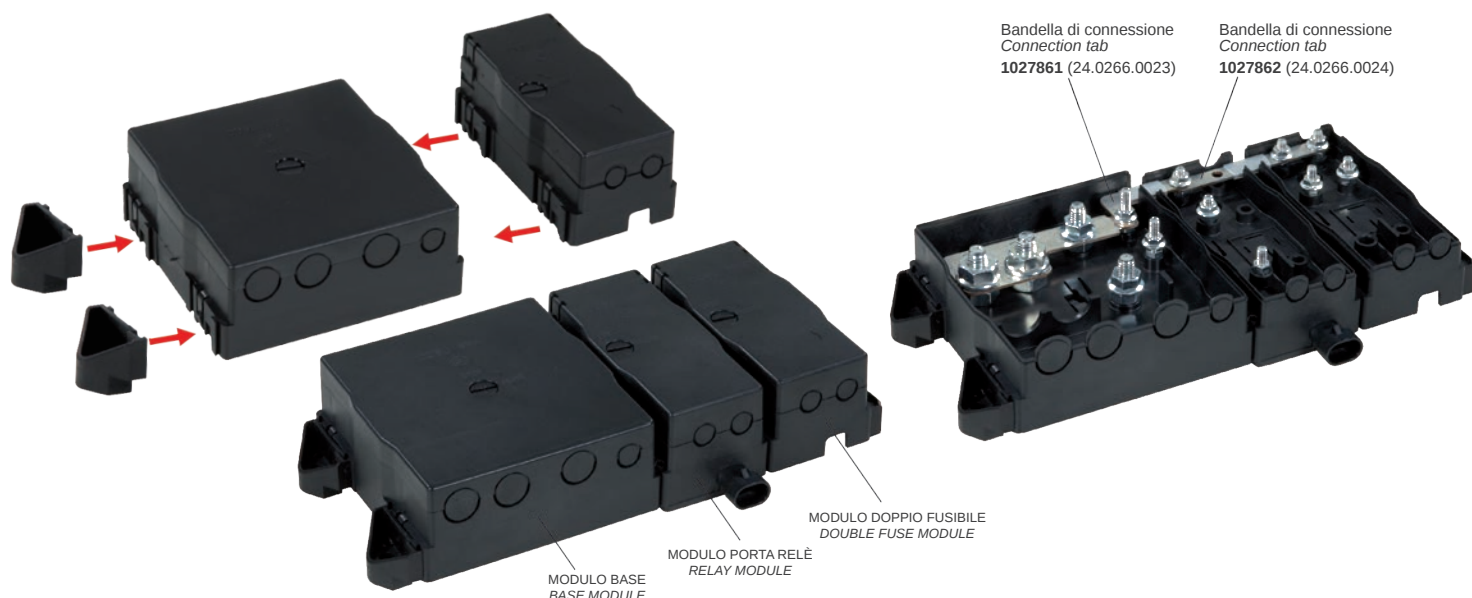
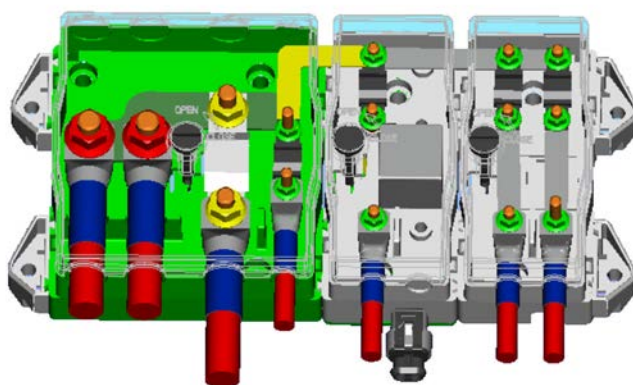
- *Power supply: 12V max*
- *Fixing: brackets or screws*
- *Sealing degree: IP30*
- *Operating temperature: -40° C ÷ + 120° C*

VERSIONE COMBINATA

- L'immagine sotto rappresenta una combinazione dei tre moduli esistenti ed è puramente indicativa. Al modulo base possono essere aggiunti moduli derivati in numero variabile a condizione che la somma delle loro correnti non superi 200A.

COMBINED VERSION

- *Picture below represents a combination of the 3 existing modules but it only sets an example. It is possible to add a different number of modules to the base module, on condition that the sum of their electric charge is not higher than 200A.*



Power Box - Base Fuse Holder Module



- Il modulo base permette di distribuire la tensione della batteria nei vari rami del circuito. E' possibile connettere in parallelo n°2 cavi di sezione max 50 mmq (**A** e **B**) e di avere due uscite protette da fusibile; una (**C**) con protezione da 40-250A (fusibile tipo Mega) e l'altra (**D**) da 30-100A (fusibile tipo Midi).
- The base module enables battery voltage distribution among all circuit lines. It allows parallel connection of n°2 cables, max sect. 50 mmq (**A** & **B**) and to have two outputs protected by a fuse; one output (**C**) protected by a 40-250A fuse (Mega series or equivalent) and the other one (**D**) protected by a 30-100A fuse (Midi series or equivalent).

FORNITE SENZA RELAYS E FUSIBILI

SUPPLIED WITHOUT RELAYS AND FUSES

Modulo Base Composto da 1 Bandella di Connessione (*), 6 Dadi
Base Module Consisting of 1 Connection Tab (*), 6 Nuts

with BRACKETS



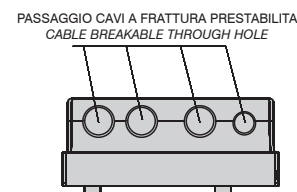
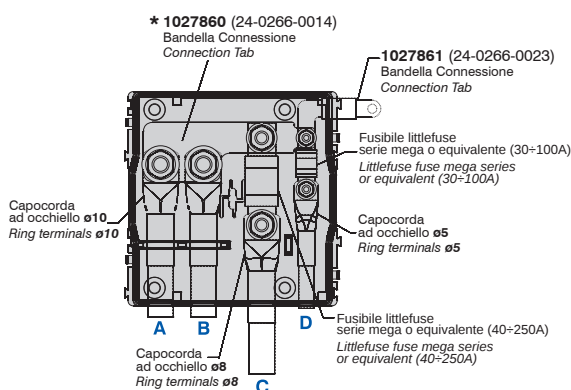
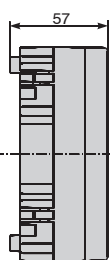
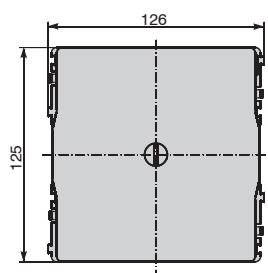
P/N	Q.ta Q.ty
1027866	1
1027867	20
24-0266-0100	

Modulo Base Composto da 1 Bandella di Connessione (*), 6 Dadi
Base Module Consisting of 1 Connection Tab (*), 6 Nuts

without BRACKETS

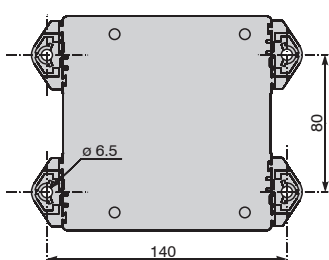


P/N	Q.ta Q.ty
1027868	20
24-0266-0150	

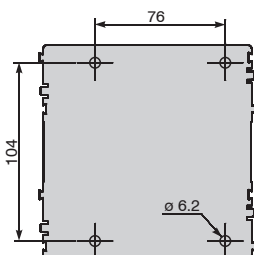


Forature di Applicazione
Fixing Hole

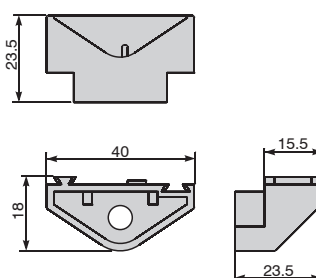
con Staffe
with Brackets



con Viti M6
with M6 Screws



Staffe
Brackets



P/N	Q.ta Q.ty
1028047	5
1028048	50
24-236-014	

Power Box - Relay and Fuse Holder Module



- Il modulo porta relè può essere impiegato in abbinamento al “modulo base” oppure in modo a sé stante; nel primo caso l'alimentazione viene derivata dal modulo base attraverso l'apposita bandella di conduzione, mentre nel secondo caso viene alimentato tramite cavo esterno (A). In entrambe le configurazioni l'uscita (B) è pilotata da un relè da 70A (alimentato tramite connettore AMP Superseal 2 vie) e protetta da un fusibile 30-100A (tipo Midi).
- The relay module can be used in combined version with the “base module” or independently; in the first case power supply is derived from the base module through the connection tab, while in the second case power is supplied by an external cable (A). For both versions the output (B) is driven by a 70A relay (supplied by a 2-way AMP Superseal connector) and protected by a 30-100A fuse (Midi series or equivalent).

FORNITE SENZA RELAYS E FUSIBILI

SUPPLIED WITHOUT RELAYS AND FUSES

Modulo Base Composto da 2 Bandelle di Connessione, 3 Dadi
Base Module Consisting of 2 Connection Tabs, 3 Nuts

with BRACKETS



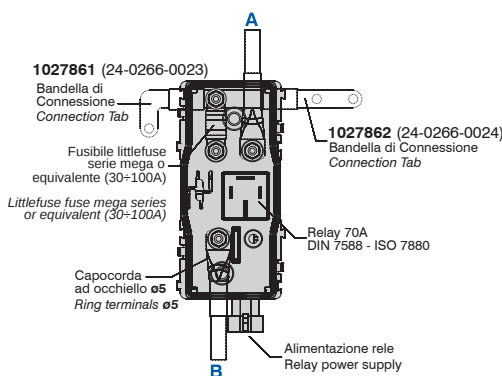
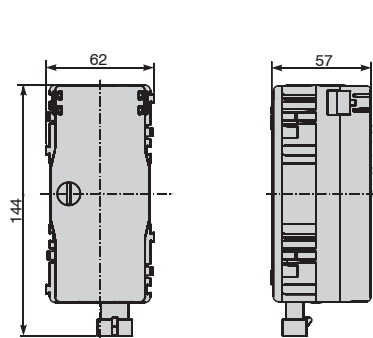
P/N	Q.ta Q.ty
1027869	1
1027870	40
24-0266-0200	

Modulo Base Composto da 2 Bandelle di Connessione, 3 Dadi
Base Module Consisting of 2 Connection Tabs, 3 Nuts

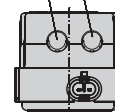
without BRACKETS



P/N	Q.ta Q.ty
1078450	1
1027871	40
24-0266-0250	

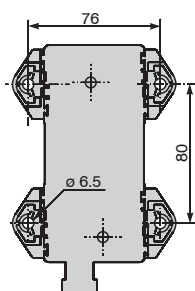


PASSAGGIO CAVI A FRATTURA PRESTABILITA
CABLE BREAKABLE THROUGH HOLE

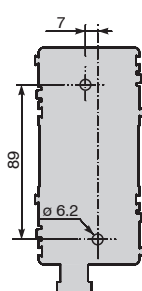


Forature di Applicazione
Fixing Hole

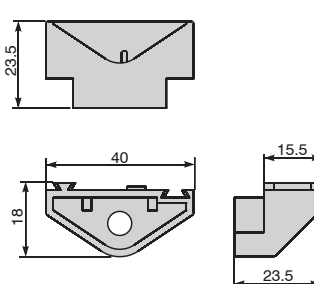
con Staffe
with Brackets



con Viti M6
with M6 Screws



Staffe
Brackets



P/N	Q.ta Q.ty
1028047	5
1028048	50
24-236-014	

Power Box - Double Fuse Module



- Il modulo doppio fusibile può essere impiegato in abbinamento al "modulo base" oppure in modo a sé stante; nel primo caso l'alimentazione viene derivata dal modulo base attraverso l'apposita bandella di conduzione, mentre nel secondo caso viene alimentato tramite cavo esterno (A). In entrambe le configurazioni le due uscite (B) sono protette ciascuna da un fusibile 30 -100A (tipo Midi).
- The double fuse module can be used in combined version with the "base module" or independently; in the first case power supply is derived from the base module through the connection tab, while in the second case power is supplied by an external cable (A). For both versions the outputs (B) are protected by a 30 -100A fuse (Midi series or equivalent).

FORNITE SENZA RELAYS E FUSIBILI

SUPPLIED WITHOUT RELAYS AND FUSES

Modulo Base Composto da 1 Bandelle di Connessione, 4 Dadi
Base Module Consisting of 1 Connection Tabs, 4 Nuts

with BRACKETS



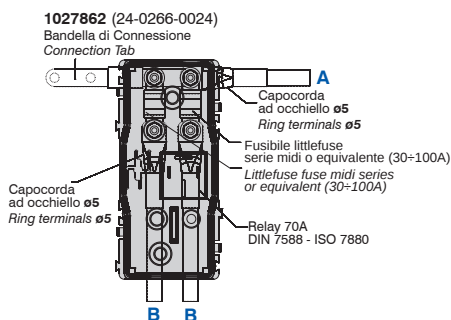
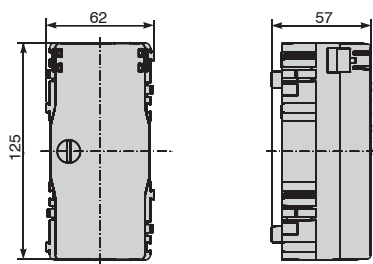
P/N	Q.ta Q.ty
1027872	1
1027873	40
24-0266-0300	

Modulo Base Composto da 1 Bandelle di Connessione, 4 Dadi
Base Module Consisting of 1 Connection Tabs, 4 Nuts

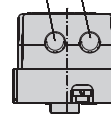
without BRACKETS



P/N	Q.ta Q.ty
1027876	40
24-0266-0350	

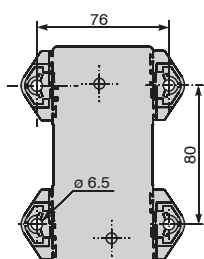


PASSAGGIO CAVI A FRATTURA PRESTABILITA
CABLE BREAKABLE THROUGH HOLE

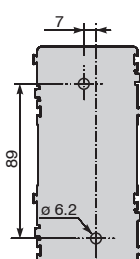


Forature di Applicazione
Fixing Hole

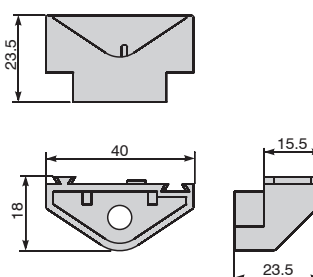
con Staffe
with Brackets



con Viti M6
with M6 Screws



Staffe
Brackets



P/N	Q.ta Q.ty
1028047	5
1028048	50
24-236-014	

Power Box - Double Fuse Module with Base Covering



- Il modulo doppio fusibile può essere impiegato in abbinamento al "modulo base" oppure in modo a sé stante; nel primo caso l'alimentazione viene derivata dal modulo base attraverso l'apposita bandella di conduzione, mentre nel secondo caso viene alimentato tramite cavo esterno (A). In entrambe le configurazioni le due uscite (B) sono protette ciascuna da un fusibile 30 -100A (tipo Midi).
- The double fuse module can be used in combined version with the "base module" or independently; in the first case power supply is derived from the base module through the connection tab, while in the second case power is supplied by an external cable (A). For both versions the outputs (B) are protected by a 30 -100A fuse (Midi series or equivalent).

FORNITE SENZA RELAYS E FUSIBILI

SUPPLIED WITHOUT RELAYS AND FUSES

Modulo Base Composto da 1 Bandelle di Connessione, 4 Dadi
Base Module Consisting of 1 Connection Tabs, 4 Nuts

with BRACKETS



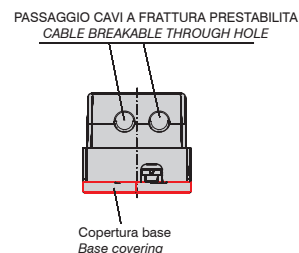
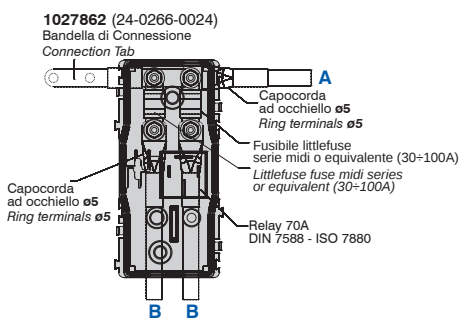
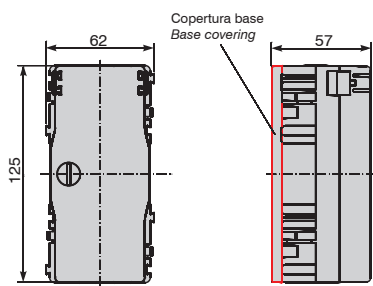
P/N	Q.ta Q.ty
1027877 24-0266-0400	1

Modulo Base Composto da 1 Bandelle di Connessione, 4 Dadi
Base Module Consisting of 1 Connection Tabs, 4 Nuts

without BRACKETS

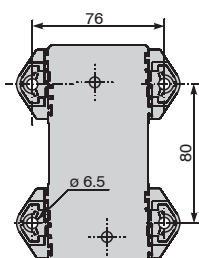


P/N	Q.ta Q.ty
1027878 24-0266-0450	40

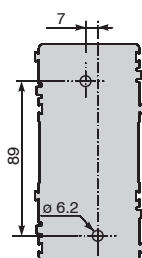


Forature di Applicazione
Fixing Hole

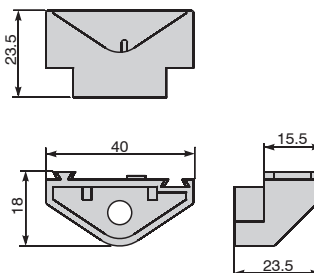
con Staffe
with Brackets



con Viti M6
with M6 Screws



Staffe
Brackets



P/N	Q.ta Q.ty
1028047 1028048 24-236-014	5 50

Smart Power Box



- La Smart Power Box riunisce i segnali di potenza e dispositivi di controllo e protezione in un unico box. La soluzione facilita la gestione dei moderni motori TIER IV FINAL e oltre.
- *The Smart Power Box groups power, control, signals, and protection devices in a single unit. This solution facilitates the management of modern TIER IV FINAL engines and beyond.*

PLUS

- PCB personalizzabile con relais & fusibili (tecnologia "Press Fit")
- Versioni motori Mercedes e FPT già disponibili
- FTP completo di relais temporizzato (180") per spegnimento ECU motore
- Opzione con terminali di potenza a tenuta ed innesto rapido "SurLok™"
- Disponibile modulo CAN per diagnostica
- Design robusto
- Architettura impianto elettrico semplificata
- Ridotti costi di connessione

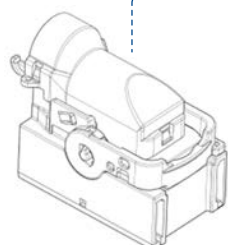
ADVANTAGES

- *PCB relays & fuses with "Press Fit" technology*
- *Mercedes and FPT engines versions are already available*
- *FTP version with timer relays (180") for ECU engine shutdown*
- *Available option water proof power terminals and "SurLok™" quick coupling*
- *Available CAN module for diagnostics*
- *Robust design*
- *Simplified electric system architecture*
- *Less connection costs*

Alimentazione	12 - 24V
Alimentazione max	16V (12V); 30V (24V)
Minima alimentazione utile	8V (12V); 18V (24V)
Picco di amperaggio	190A @105°C (12V); 115A @105°C (24V)
Connettore principale controparte	Tyco 21 vie 1534127
Connettore CAN controparte	Tyco 4 vie 174257
Grado di protezione	IP66
Resistente ai fluidi minerali	X
Resistente al Diesel e alla benzina	X
Fori di fissaggio meccanici	N° 4 (ø 7mm)
Temperatura di funzionamento	- 40°C ÷ +85°C
Autoestinguenza	UL 94V-0
Conformità CE	ISO 14982; EN 13309
Conformità radiodisturbo	CISPR 25
Prestazioni elettriche	ISO 7637
Prove ambientali	EN 60068-2-1; EN 60068-2-2; EN 60068-2-6; EN 60068-2-27; EN 60068-2-32

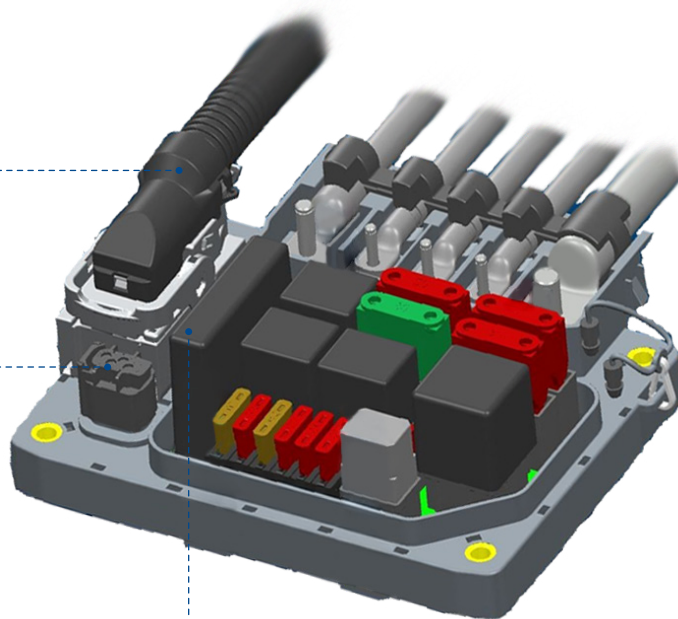
Power supply	12 - 24V
Max power supply	16V (12V); 30V (24V)
Usable min voltage supply	8V (12V); 18V (24V)
Total peak amperage	190A @105°C (12V); 115A @105°C (24V)
Mating main connector	21 ways Tyco 1534127
Mating CAN connector	4 ways Tyco 174257
Sealing degree	IP66
Mineral fluid resistant	X
Diesel and gasoline resistant	X
Mechanical fixing holes	N° 4 (ø 7mm)
Operative temperature	- 40°C ÷ +75°C
Self-extinguishing	UL 94V-0
CE compliance	ISO 14982; EN 13309
Radio disturbance conformity	CISPR 25
Electrical performance	ISO 7637
Enviromental test	EN 60068-2-1; EN 60068-2-2; EN 60068-2-6; EN 60068-2-27; EN 60068-2-32

Smart Power Box



Connettore automotive
21 vie (Tyco)
per segnali di comando

*Automotive connector
21 ways (Tyco)
for signals control command*



Connettore 4 vie MQS
per monitoraggio dei dati CAN

*MQS 4 ways connector
for CAN data monitoring*

Dispositivo per monitoraggio (optional)

- tensione della batteria
- stato dei fusibili
- stato del relè

Device for monitoring (optional)

- battery voltage
- status of fuses
- status of relays

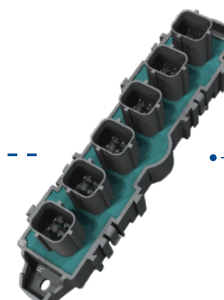
Valvola Gore-Tex
Gore-Tex valve



- Le valvole di sfiato equalizzano la pressione consentendo all'aria di passare attraverso la membrana ePTFE
 - prevengono la contaminazione perché bloccano efficacemente l'ingresso di liquidi e particolato
 - riducono la condensa permettendo alle molecole di vapore acqueo di uscire attraverso la membrana ePTFE
- *Protective vents valves equalize pressure by enabling air through the ePTFE membrane*
 - prevent contamination by effectively block of liquids and particulates
 - reduce condensation by exit water vapor molecules through the ePTFE membrane

OPTIONAL:
Dispositivo Multilink collegamento rapido
CAN BUS di sensori e dispositivi elettronici

OPTIONAL:
*Multilink hub to easily connect CAN BUS
sensors and electronic devices*



Smart Power Box - SURLOK Power Terminals

- Max amperaggio totale circuito principale + 30, (connettore Surlok 8 mm): 140A @ 105°C (12V); 65A @ 105°C (24V)
 - Max amperaggio totale circuito + 30 con timer BDR, (connettore SurLok 5.7 mm): 50A @ 105°C (12V); 50A @105°C (24V)
 - Terminale principale di alimentazione dimensioni perno: SurLok 8 mm
 - Terminale secondario di alimentazione dimensioni perno: SurLok 5.7 mm
 - Terminali di uscita dimensioni Stud: SurLok 5.7 mm
-
- *Max total amperage main circuit +30, (SurLok connector 8 mm): 140A @ 105°C (12V); 65A @ 105°C (24V)*
 - *Max total amperage circuit +30 with timer BDR, (SurLok connector 5.7 mm): 50A @ 105°C (12V); 50A @105°C (24V)*
 - *Main supply terminal stud size: SurLok 8 mm*
 - *Secondary supply terminal stud size: SurLok 5.7 mm*
 - *Output Terminals stud size: SurLok 5.7 mm*

P/N	Q.ta Q.ty
1080802 24-0275-0000	1

FORNITA COMPLETA DI: RELAYS E FUSIBILI

SUPPLIED COMPLETE WITH: RELAYS AND FUSES



Connettore SurLok
SurLok connector
8 mm



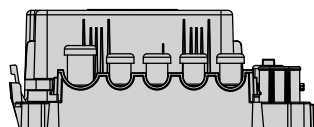
Connettore SurLok
SurLok connector
5.7 mm

Amphenol's SurLok Plus™ è una versione a tenuta dell'originale SurLok™ e dispone di un blocco rapido e di un design Press-to-release. Incorporando l'ultima tecnologia R4 RADSOK®, SurLok Plus™ è una linea di prodotti compatta, robusta e ad innesto rapido.

La soluzione SurLok è un'evoluzione del contatto tecnologico RADSOK, sviluppato per il mercato automotive e Heavy Truck.

I connettori SurLock garantiscono:

- Bassa forza di inserzione
- Grande superficie conduttiva di contatto
- Alta conduttività
- IP67 nominale

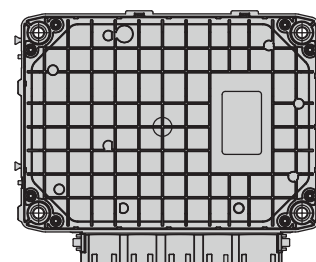
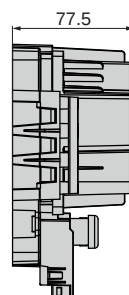
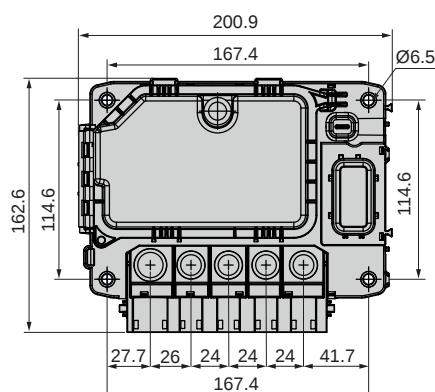


Amphenol's SurLok Plus™ is an environmentally sealed version of original SurLok™, and features a quick lock and press-to-release design. Incorporating the latest R4 RADSOK® Technology, SurLok Plus™ is a compact, quick mating, and robust product line.

The SurLok solution is an evolution of Radsok technology contact, developed for the automotive and heavy truck market.

The SurLok connectors ensure a:

- Low insertion force
- Large conductive surface area of contact
- High conductivity
- IP67 rated



Smart Power Box - SCREW Power Terminals

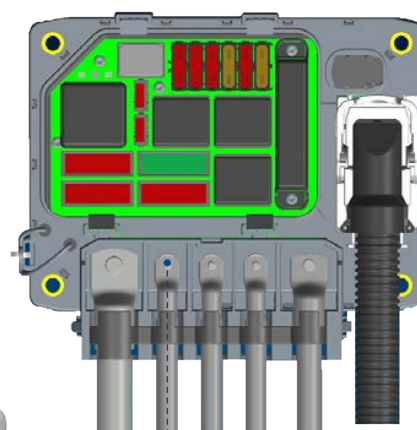
- Max amperaggio totale circuito principale + 30, (terminali M8): 140A @ 105°C (12V); 65A @ 105°C (24V)
- Max amperaggio totale circuito + 30 con timer BDR, (terminali M5): 50A @ 105°C (12V); 50A @ 105°C (24V)
- Terminale principale di alimentazione dimensioni perno: Vite M8
- Terminale secondario di alimentazione dimensioni perno: Vite M5
- Terminali di uscita dimensioni Stud: Vite M5

- *Max total amperage main circuit +30, (M8 terminal): 140A @ 105°C (12V); 65A @ 105°C (24V)*
- *Max total amperage circuit +30 (M5 terminal): 50A @ 105°C (12V); 50A @ 105°C (24V)*
- *Main supply terminal stud size: Screw M8*
- *Secondary supply terminal stud size: Screw M5*
- *Output Terminals stud size: Screw M5*

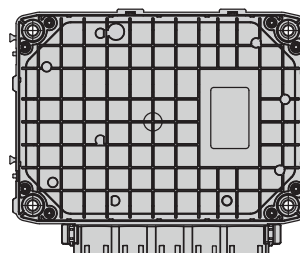
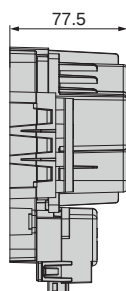
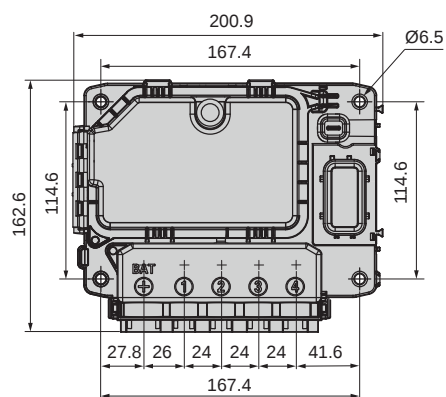
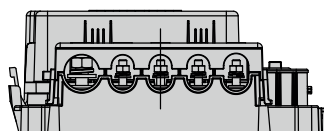
P/N	Q.ta Q.ty
1080803 24-0276-0000	1

FORNITA COMPLETA DI: RELAYS E FUSIBILI

SUPPLIED COMPLETE WITH: RELAYS AND FUSES



Connessione a VITE
SCREW connection



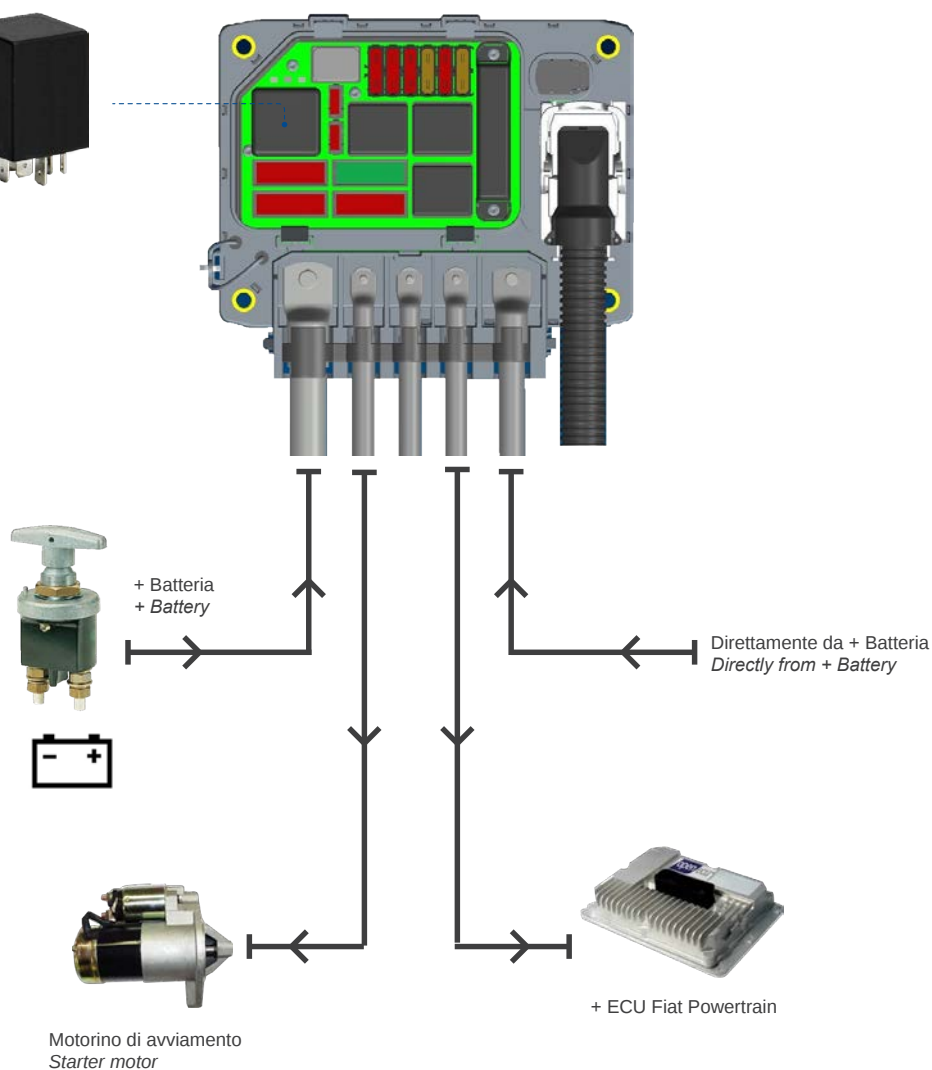
Smart Power Box - FTP Engine Version

P/N	Q.ta Q.ty	Descrizione Description
1080804 24-0277-0000	1	Terminali di potenza SURLOK SURLOK power terminals
1083419 24-0277-0000	27	Terminali di potenza SURLOK SURLOK power terminals
1080805 24-0278-0000	1	Terminali di potenza a VITE SCREW power terminals
1083420 24-0278-0000	27	Terminali di potenza a VITE SCREW power terminals
1087615 24-0275-0140	1	Kit antivibrante power box Power box anti-vibration kit

**FORNITE COMPLETE DI:
RELAYS E FUSIBILI**

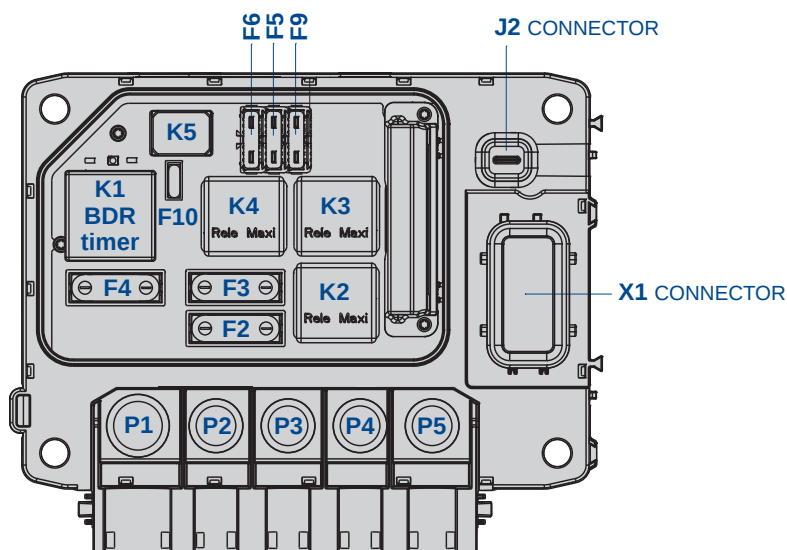
**SUPPLIED COMPLETE WITH:
RELAYS AND FUSES**

Relè timer
 Ritardo off 180s
 Conforme alla richiesta FPT
 Timer Relay
 Delay Off 180s
 Compliant to FPT request
1077892



Smart Power Box - FTP Engine Version

Connettori - Connectors



J2

AMP ECONSEAL 4 pins:

Connettore controparte CAN
CAN mating connector
P/N COBO 3009118 (XE0800334)
P/N TYCO 174257-2



OPTIONAL KIT

Connettore controparte / Mating connector:
AMP ECONSEAL 4 pins
(Includes: connector, rubber taps, female terminals)



P/N	Q.ta Q.ty
1028547 27-0938-0000	1

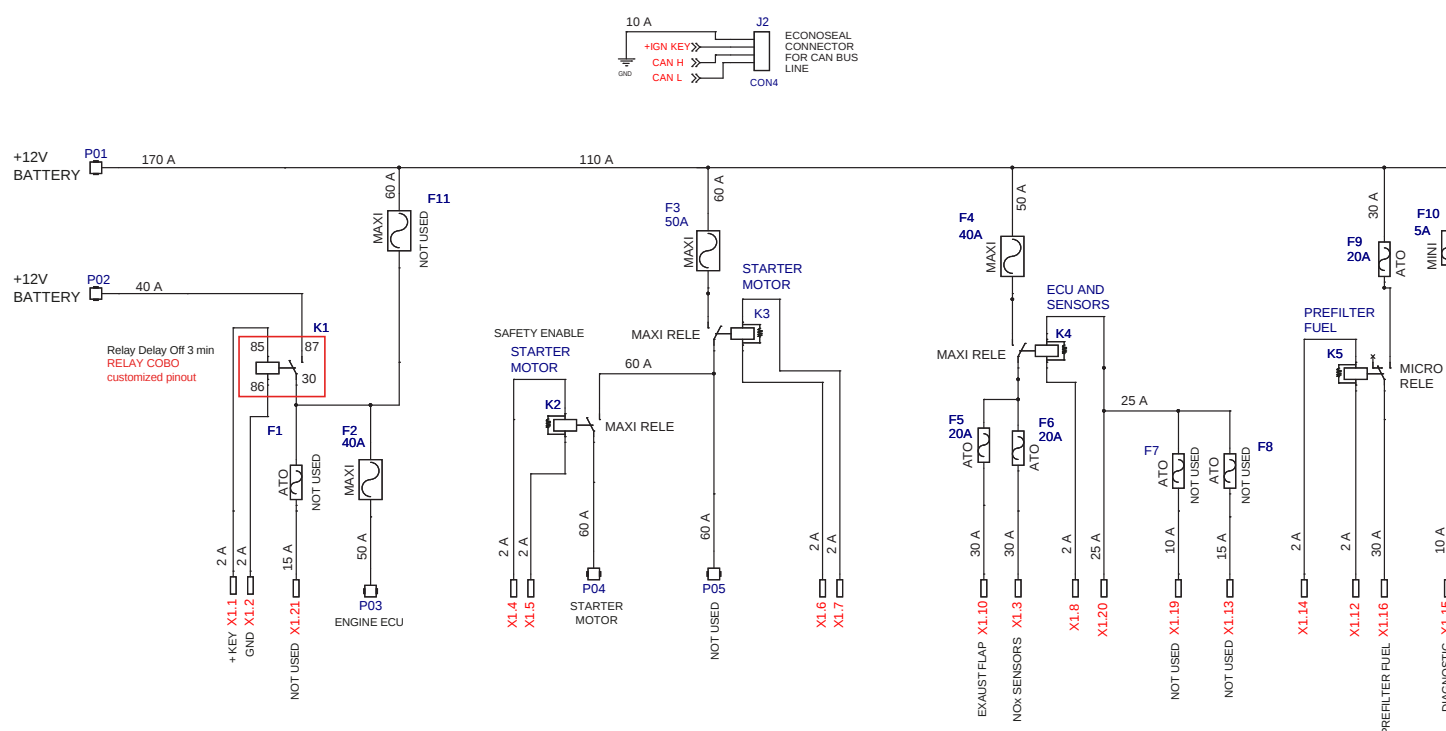
X1

TYCO 21 pins:

Connettore controparte CAN
CAN mating connector
P/N COBO 3024562 (XE0805445)
P/N TYCO 1-1534127-1



Schema di Collegamento - Circuit diagram

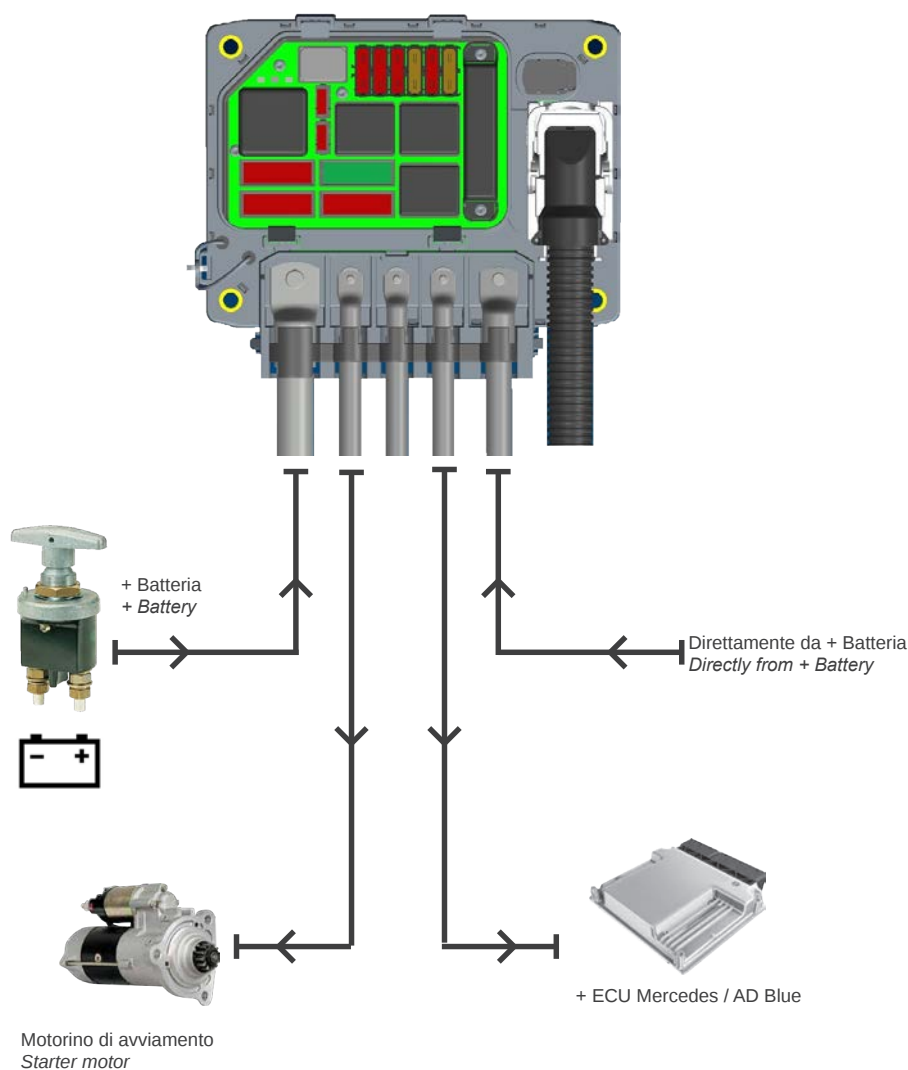


Smart Power Box - MERCEDES Engine Version

P/N	Q.ta Q.ty	Descrizione Description
1083421 24-0279-0000	1	Terminali di potenza SURLOK <i>SURLOK power terminals</i>
1083422 24-0279-0000	27	Terminali di potenza SURLOK <i>SURLOK power terminals</i>
1083423 24-0280-0000	1	Terminali di potenza a VITE <i>SCREW power terminals</i>
1083424 24-0280-0000	27	Terminali di potenza a VITE <i>SCREW power terminals</i>
1087615 24-0275-0140	1	Kit antivibrante power box <i>Power box anti-vibration kit</i>

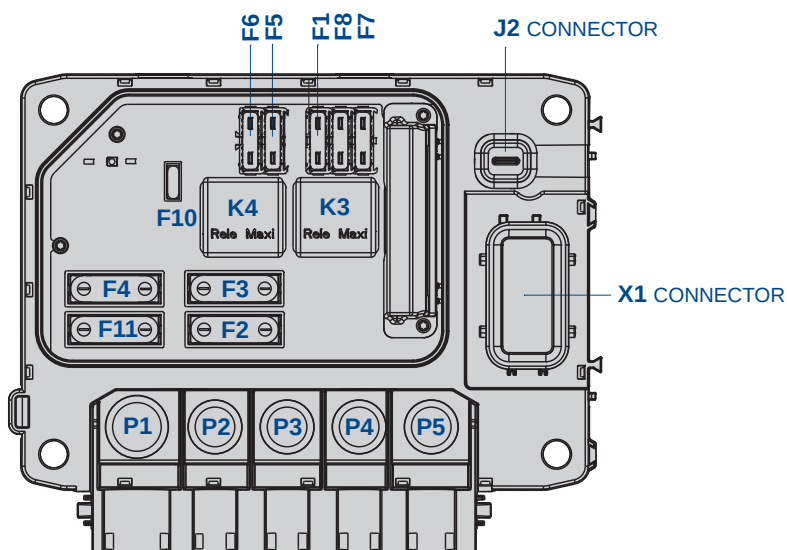
**FORNITE COMPLETE DI:
RELAYS E FUSIBILI**

**SUPPLIED COMPLETE WITH:
RELAYS AND FUSES**



Smart Power Box - MERCEDES Engine Version

Connettori - Connectors



J2

AMP ECONOSEAL 4 pins:

Connettore controparte CAN
CAN mating connector
P/N COBO 3009118 (XE0800334)
P/N TYCO 174257-2



OPTIONAL KIT

Connettore controparte / Mating connector:
AMP ECONOSEAL 4 pins
(Includes: connector, rubber taps, female terminals)



P/N	Q.ta Q.ty
1028547 27-0938-0000	1

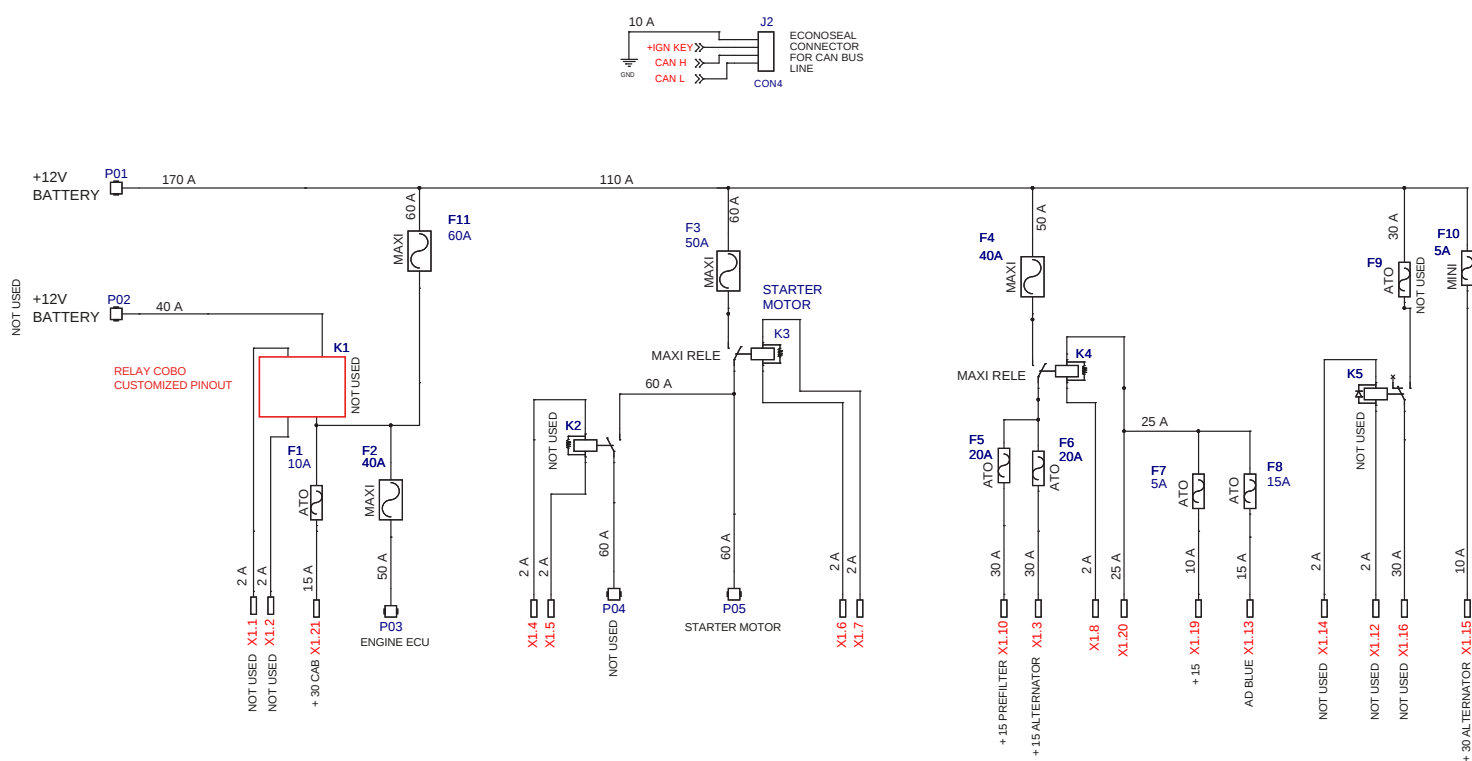
X1

TYCO 21 pins:

Connettore controparte CAN
CAN mating connector
P/N COBO 3024562 (XE0805445)
P/N TYCO 1-1534127-1



Schema di Collegamento - Circuit diagram



MISCELLANEOUS - Power Box

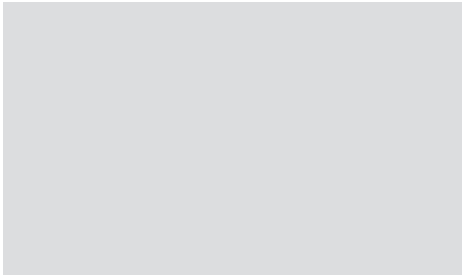
Copertura base power box per P/N:

Base covering power box for P/N:

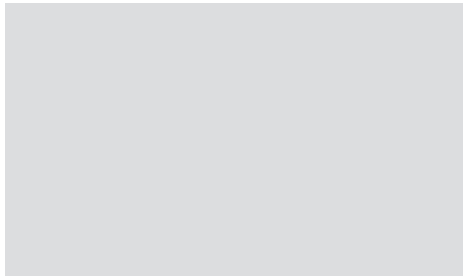
1027866 - 1027867 - 1027868



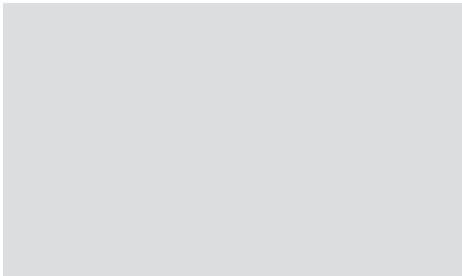
P/N	Q.ta Q.ty
1027859 24-0266-0011	1



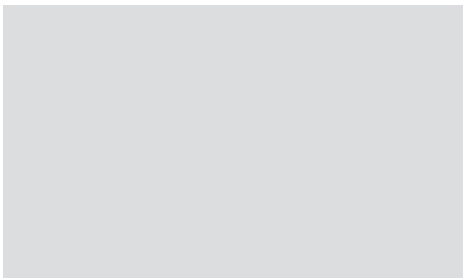
P/N	Q.ta Q.ty



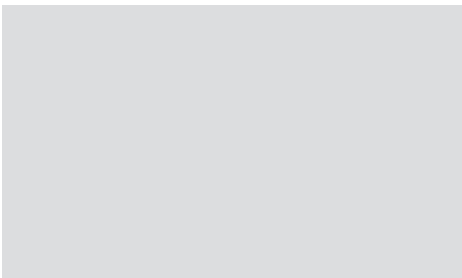
P/N	Q.ta Q.ty



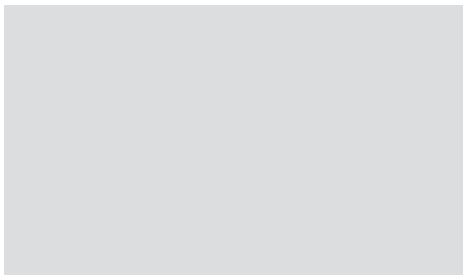
P/N	Q.ta Q.ty



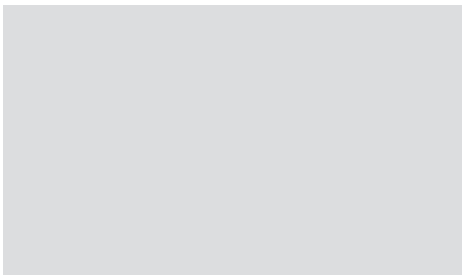
P/N	Q.ta Q.ty



P/N	Q.ta Q.ty



P/N	Q.ta Q.ty



P/N	Q.ta Q.ty