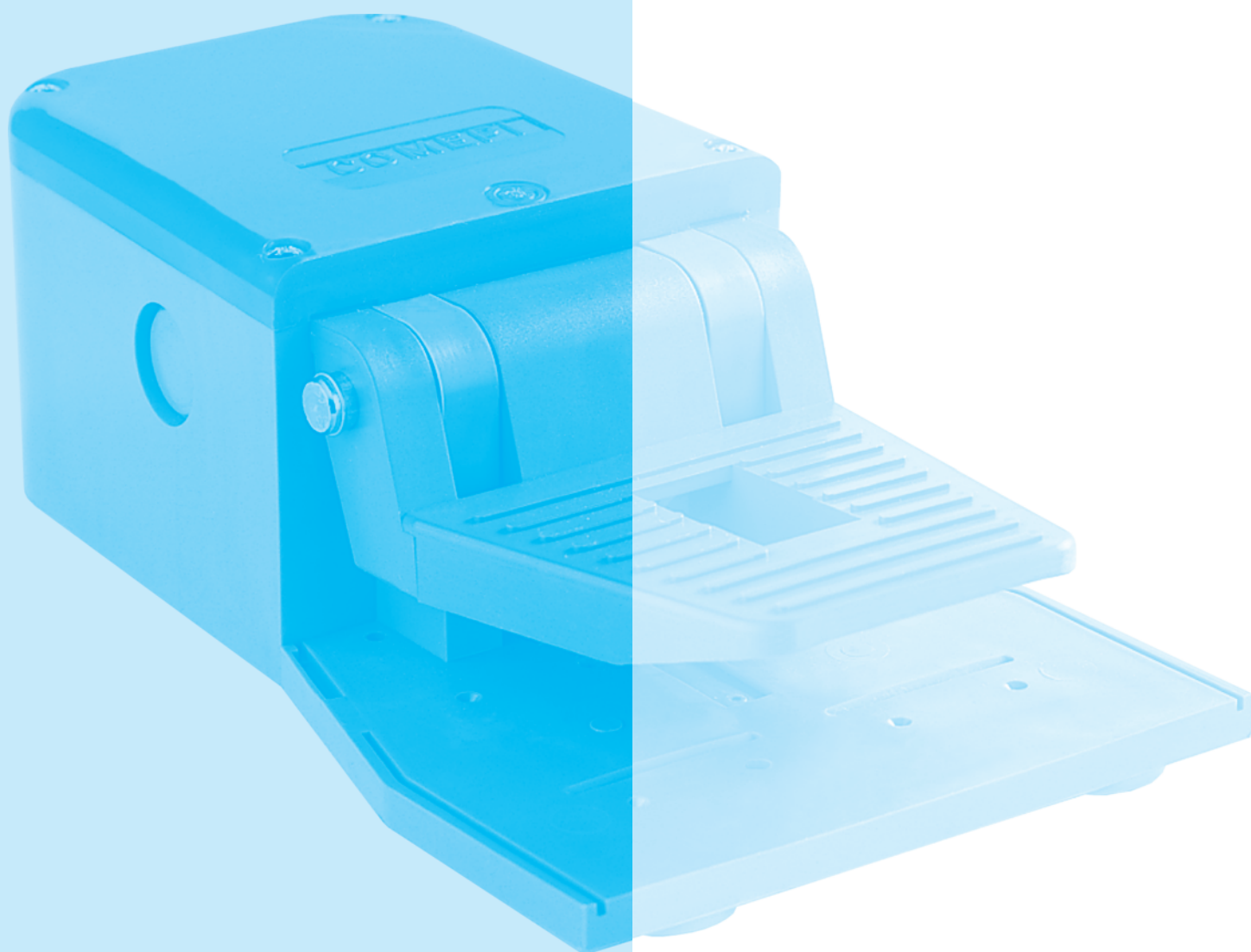




FOOT SWITCHES



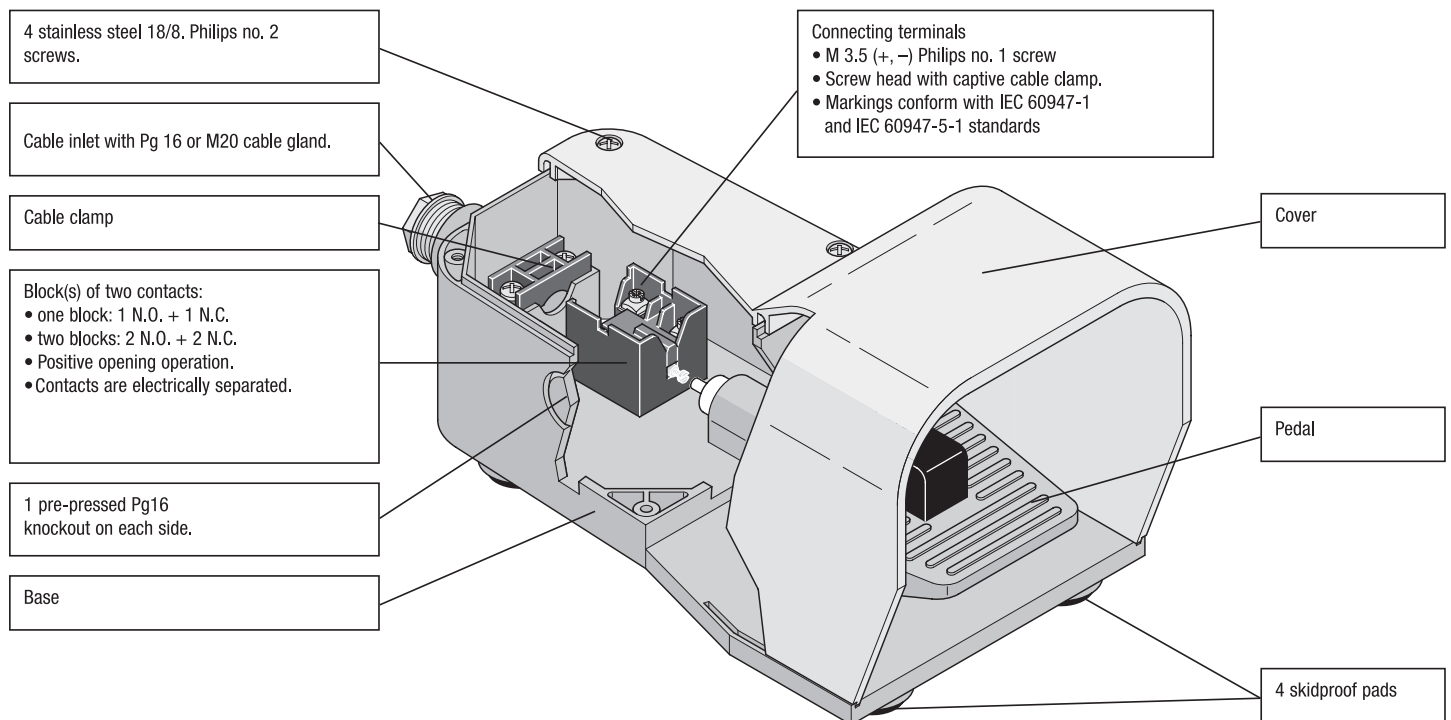
Applications

Foot switch operated machines such as: shearing machines, spinning machines, spinning lathers, machine tools, wrapping machines, riveting presses, etc. Foot switches come in five operation formats:

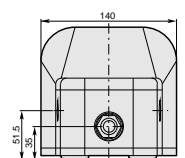
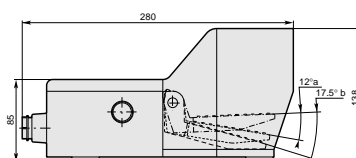
- **Free movement:** contact position follows pedal movement: actuated when the pedal is pushed down, released when pedal is in state of rest.
- **Foot switch locked in neutral position:** same operation as above, after unlocking the pedal with the end of the foot.
- **Foot switch latched in low position:** same operation as free movement, excepted that a state of rest is obtained only after having unlatched the pedal with the end of the foot.
- **Free movement with two-stage actuating force:** two different contact blocks are actuated with a different force on the lever.
- **Foot switch locked in neutral position with two-stage actuating force:** same operation as above, after unlocking the pedal with the end of the foot

Description of the switch

- **Dimensions:** 280 x 140 x 138mm.
- **Materials: Standard version (IMQ approved):** Base, cover and pedal made of shock resistant ABS material.
Self-extinguishing / VO (IMQ, UL, CSA approved): Base, cover and pedal made of Polycarbonate/ABS-VO.
Metal version / VO-M (IMQ, UL, CSA approved): Cover made in die cast aluminium, base and pedal made of Polycarbonate/ABS-VO.
- **Colour choice:** Grey base; grey, yellow or red cover.
- **Variations:** Grey base, half-red cover. Especially used for emergency stop function.



Dimensions (in mm)



Symbols

Example: P S 1 2 1 1 / V0

Structure: P [] [] [] [] [] / []

Type
S = Simple Foot Switch
D = Double Foot Switch

Electrical connection
1 = Pg 16 cable gland
2 = M20 cable gland

Devices
1 = Free movement of the lever
2 = Movement of the lever dependent of the safety device notch
3 = Device to maintain the lever in lowered position
4 = Free movement with two-stage actuating force
5 = With safety device notch and two-stage actuating force

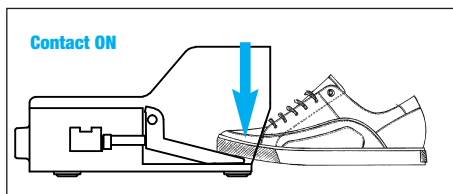
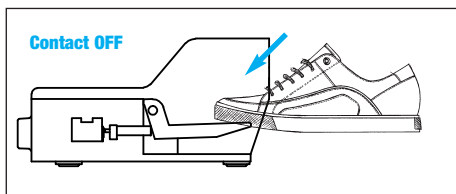
Contact blocks
1 - One (NO+NC) snap action contact
2 - One (NO+NC) slow action contact
3 - Two (NO+NC) snap action contacts
4 - Two (NO+NC) slow action contacts

Cover material
 - = Shock resistant ABS (standard)
V0 = UL approved self-extinguishing
VO-M = UL approved with aluminium cover

Cover colour **1** = Yellow / **2** = Grey / **3** = Yellow + Grey (PD series)
4 = Red / **5** = Half red cover / **7** = Half yellow cover / **8** = Half grey cover

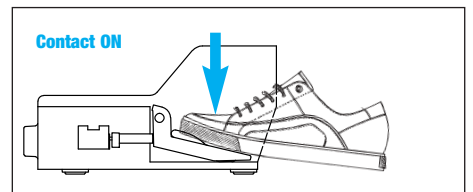
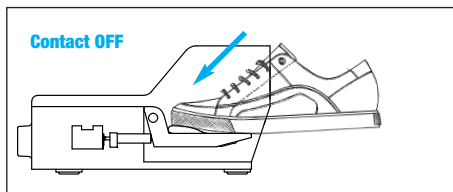
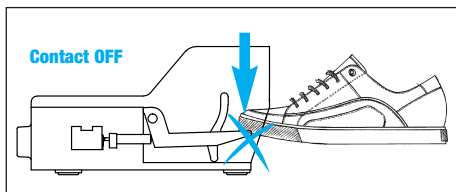
Devices

1: Free movement of the lever



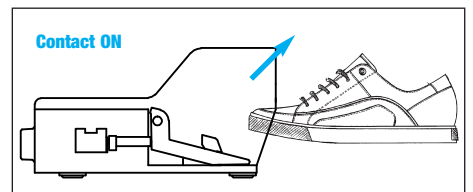
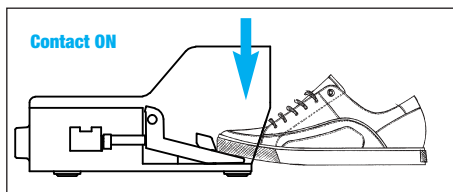
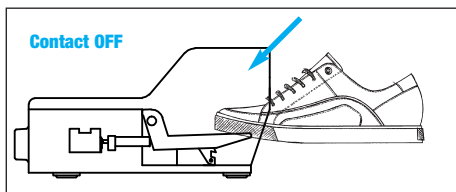
The lever can be actuated without any particular device.

2: Movement of the lever dependent of the safety device notch

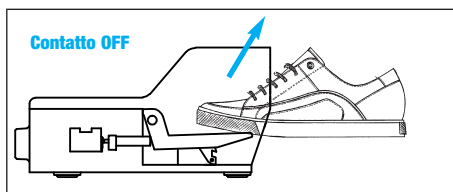
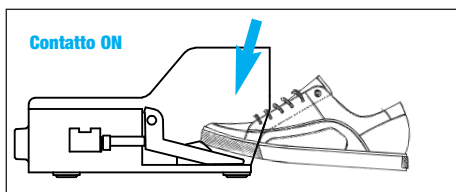


The pedal can be actuated only by lowering the safety lever fully inserting the foot, thus preventing any accidental actuation.

3: Device to maintain the lever in lowered position

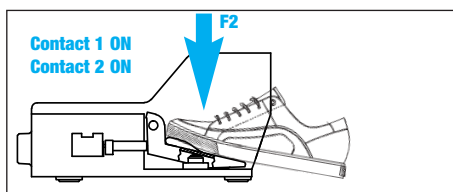
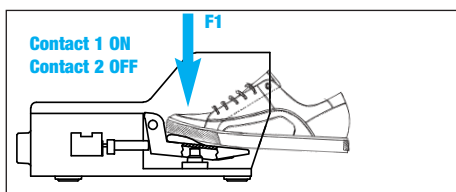


By pushing the lever the contact switches and the lever remains locked in lowered position.



Push the locking device in order to unlock the pedal actuator. Once you release the lever the contacts return to their initial position.

4: Free movement with two-stage actuating force



By applying a light pressure F1 on the lever, the first contact block will be actuated while the second keeps in state. An higher pressure F2 on the lever will switch also the second contact block.

5: With safety device notch and two-stage actuating force

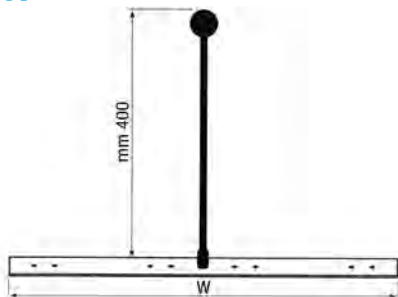
Same as above but the pedal can be actuated only by completely inserting the foot in the device.

Carrying Rod Kits

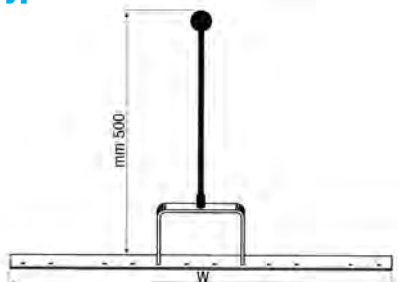
Example of application



Type A



Type B

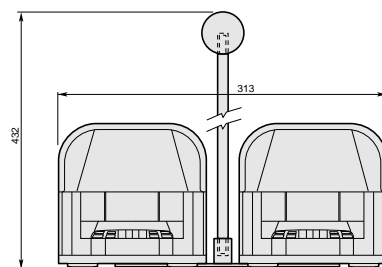


Order Code	Description	W (mm)	Type
PD1000	Max 2 Foot Switches*	350	A
PD1001	Max 3 Foot Switches*	520	B
PD1002	Max 4 Foot Switches*	700	A
PD1003	Max 5 Foot Switches*	850	B

* Foot Switches not included

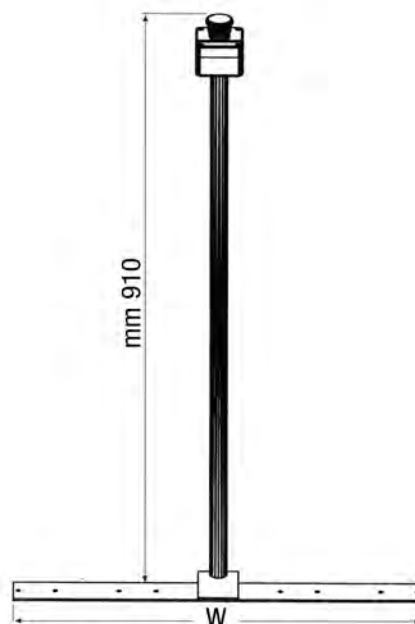
Note: Each carrying rod kit includes necessary fixing screws and cable glands for the specified number of foot switches.

Example of double foot switch application



Metal Steel Frame

Example of application



Order Code	Description	W (mm)
GR2025	For 1 Foot Switch only*	230
GR2026	Max 2 Foot Switches*	350
GR2027	Max 3 Foot Switches*	530
GR2028	Max 4 Foot Switches*	700

* Foot Switches not included

Attention!

Push button and plastic box not included: please consult our "Control Units 022" catalog.

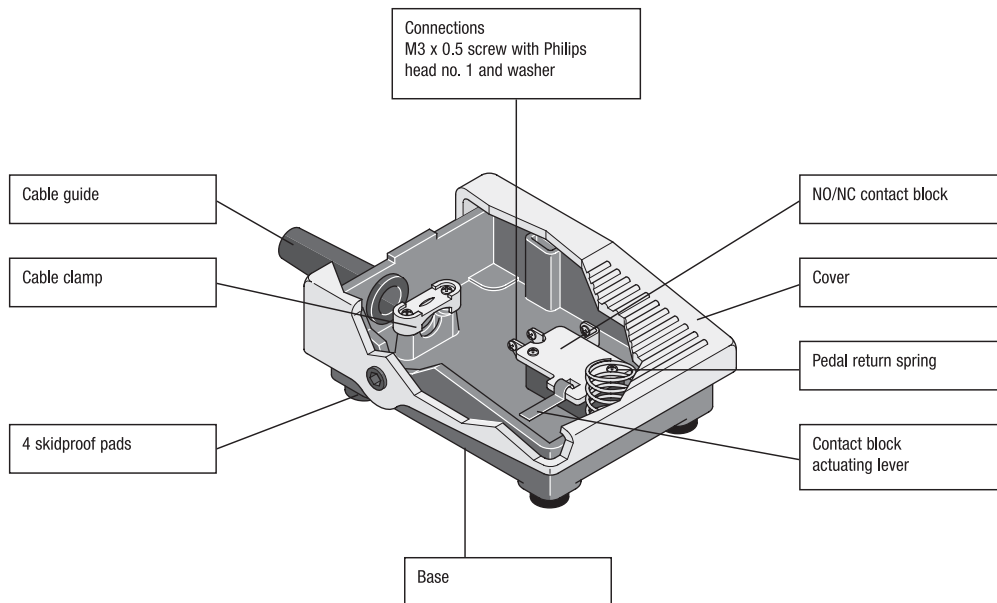
Note: Each carrying rod kit includes necessary fixing screws and cable glands for the specified number of foot switches.

Applications

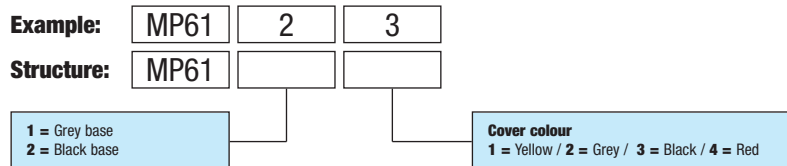
Comepi foot switches of the MP series are plastic foot switches in mini design that besides their robust form and technical versatility are specially convincing for their functionality and ergonomic design. They can be applied on foot switch operated machines such as: shearing machines, spinning lathers, machine tools, wrapping machines, riveting presses, etc.

Description of MP6... Mini Foot Switches

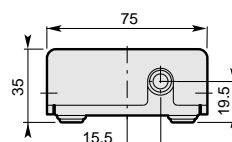
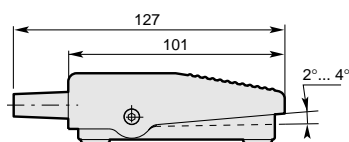
- **Dimensions:** 100 x 75 x 34 mm.
- **Materials:** cover and base made of self-extinguishing ABS.
- **Colour choice:** black or grey base; black, grey, yellow or red cover.



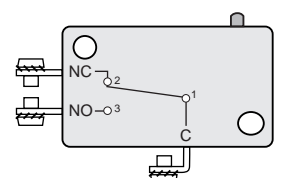
Symbols



Dimensions (in mm)



NO / NC Contact Block



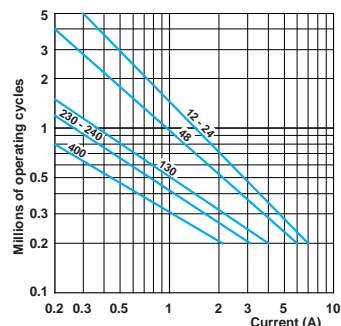
General Technical Data

Standards	Mini Foot Switch	Foot Switch with Cover
	IEC 1058-1	IEC 60947-5-1
Certifications - Approvals	–	IMQ - UL and CSA (upon request) - EAC
Air temperature near the device		
– during operation	°C	– 25 ... + 70
– for storage	°C	– 30 ... + 80
Climatic withstand	–	according to IEC 60068-2-3 and salty mist according to IEC 60068-2-11
Shock withstand (according to IEC 60068-2-27 and EN 60068-2-27)	g	50g (1/2 sinusoidal shock for 11 ms) no change in contact position
Degree of protection (according to IEC 60529 and EN 60529)	IP 40	IP 65
Operating Torque	N.m	0,25
Operating angle	Degree	15
Cable inlet	Cable guide ø 6 mm; ø max. 8.5	Pg 16

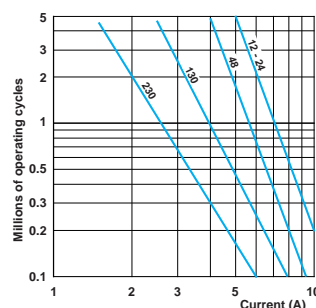
Electrical Data

Rated insulation voltage U_i	V	250	690 (according to IEC 60947-1 and EN 60947-1) Degree of pollution 3
Rated impulse withstand voltage U_{imp} (according to IEC 60947-1 and EN 60947-1)	kV	1	6
Conventional free air thermal current I_{th} $\theta < 40$ °C		15	10 (according to IEC 60947-1)
Short-circuit protection $U_p < 500$ V a.c. - gG (gl) type fuses	A	10	10
Rated operational current	A	3 (250 V a.c.)	A 600 (according to UL 508 and CSA C22-2 n° 14)
	A	0.06 (230 V d.c.)	Q 600 (according to UL 508 and CSA C22-2 n° 14)
AC-15 (according to IEC 60947-5-1)	24 V A	–	10
	120 V A	–	6
	400 V A	–	4
DC-13 (according to IEC 60947-5-1)	24 V A	–	6
	125 V A	–	0.55
	250 V A	–	0.4
Resistance between contacts	mΩ	30	25
Connecting terminals		M3 x 0.5 screw with Philips head no. 1 and washer	M3.5 (+, –) pozidriv with cable clamp
Positive opening operation (according to IEC 947-5-1)		–	⊖
Connecting capacity	1 or 2 x mm ²	–	0.75 ... 2.5
Terminal marking		(Refer to contact block page 95)	According to IEC 60947-5-1
Mechanical durability	Millions of operations	10	30
Electrical durability	Operations	100 000	utilization categories AC-15 and DC-13 (Load factor of 0.5 according to curves below)

AC-15 - Snap action



AC-15 - Slow action



DC-13	Snap action	Slow action
	Power breaking for a durability of 5 million operating cycles	
Voltage 24 V	9.5 W	12 W
Voltage 48 V	6.8 W	9 W
Voltage 110 V	3.6 W	6 W