



> Time switches

> The 36 and 45 mm digital time switches



**IHP 1c**      **IHP 2c**      **IHP+1c**      **IHP+2c**

Automatically switch On and Off loads according to the program entered by the user with 4 keys and a display, they operate on a weekly cycle: the same program is repeated week after week.

**IHP+ DCF 1c + DCF77 antenna**  
Synchronised on the frankfort transmitter via the DCF77 antenna.

> The 18 mm digital time switches



**IHP 1c/+ 1c**

Automatically switch On and Off loads according to the program entered by the user with 4 keys and a display, they operate on a weekly cycle: the same program is repeated week after week.

> The 54 mm mechanical time switches

**IH 60mn 1c SRM**    **IH 24h 1c SRM/ ARM**    **IH 24h 2c ARM**

**IH 24h + 7j 1+c ARM**    **IH 7j 1c ARM**

Automatically switch On and Off loads according to the program entered by the user they operate on an hourly, daily or weekly cycle: the same program is repeated hour after hour (IH 60mn), day after day (IH 24h) or week after week (IH 7j).

> The 18 mm mechanical time switches

**IH 24h 1c SRM/ ARM**    **IHH 7j 1c ARM**

Automatically switch On and Off loads according to the program entered by the user they operate daily on a weekly cycle.

> The digital yearly time switches

**ITA 1C**    **ITA 4C**

They operate on an daily, weekly or yearly program (ITA 1c: 1 channel, ITA 4c: 1, 2, 3 or 4 channels - 2 external inputs).

### Selection table

The time switches control opening and closing of one or more separate circuits according to a programming pre-set by the user:

- by memorisation of On and Off switching operations for the IHP and ITA digital time switches
- by positioning of jumpers or captive segments on a programming dial for the IH mechanical time switches.

An IHP, IH or ITA time switch is chosen according to the following criteria:

Designation	Number of channels	Cycle period (d: day)	Minimum time between 2 switching operations	Number of switching operations	Saving on mains cut off	Width (modules of 9 mm)	Override controls On / Off	Output contact changeover switch (cos φ =1)	Time changeover (summer / winter)
<b>The 36 or 45 mm digital time switches</b>									
IHP 1c	1	24 h and/or 7 d	1 min.	56	6 years	5	On / Off	16 A	Auto
IHP + 1c	1	24 h and/or 7 d	1 s	84	6 years	5	On / Off	16 A	Auto
IHP 2c	2	24 h and/or 7 d	1 min.	56	6 years	5	On / Off	16 A	Auto
IHP + 2c	2	24 h and/or 7 d	1 s	84	6 years	5	On / Off	16 A	Auto
IHP+ DCF 1c <sup>(1)</sup>	1	24 h and/or 7 d	1 s	84	10 years	4	On / Off	16 A	Auto
<b>The 18 mm digital time switches</b>									
IHP 1c 18 mm	1	24 h and/or 7 d	1 min.	56	10 years	2	On / Off	16 A	Auto
IHP + 1c 18 mm	1	24 h and/or 7 d	1 s.	84	10 years	2	On / Off	16 A	Auto
<b>The 36 or 72 mm digital yearly time switches</b>									
ITA 1c <sup>(2)</sup>	1	24 h, 7 d, year	1 s	300	10 years	4	On/Off	16 A	Manual / Auto <sup>(3)</sup>
ITA 4c <sup>(2)</sup>	4	24 h, 7 d, year	1 s	300	10 years	8	On/Off	16 A	Manual / Auto <sup>(3)</sup>
<b>The 54 mm mechanical time switches</b>									
IH 60mn 1c SRM	1	60 min.	37.5 s	48 On - 48 Off	none	6	On / Off	10 A	Manual
IH 24h 1c SRM	1	24 h	15 min.	48 On - 48 Off	none	6	On / Off	16 A	Manual
IH 24h 1c ARM	1	24 h	15 min.	48 On - 48 Off	200 h <sup>(4)</sup>	6	On / Off	16 A	Manual
IH 24h 2c ARM	2	24 h	30 min.	24 On - 24 Off	150 h	6	On	16 A	Manual
IH 7j 1c ARM	1	7 days	2 h	42 On - 42 Off	200 h <sup>(4)</sup>	6	On / Off	16 A	Manual
IH 24h + 7j 1+1c ARM	1+1	24 h + 7 days	45 min. + 12 h	16 On -16 Off + 7 On -7 Off	150 h	6	On	16 A	Manual
<b>The 18 mm mechanical time switches</b>									
IHH 7j 1c ARM	1	7 days	2 h	42 On - 42 Off	100 h	2	On / Off	16 A	Manual
IH 24h 1c ARM	1	24 h	15 min.	48 On - 48 Off	100 h	2	On / Off	16 A	Manual
IH 24h 1c SRM	1	24 h	15 min.	48 On - 48 Off	none	2	On / Off	16 A	Manual

<sup>(1)</sup> The IHP+ DCF 1c can be synchronised on the Frankfurt's DCF77 radio station via the DCF77 antenna.

<sup>(2)</sup> The ITA 1c and ITA 4c can be synchronised on the Frankfurt's DCF77 radio station via the DCF antenna for ITA or GPS antenna for ITA.

<sup>(3)</sup> Summer/Winter-Time can be set to auto without any antenna.

<sup>(4)</sup> 110 h for 100 V AC supply voltage.

Back-lit display, random function and pulse programming	"Absence for holidays" function	Screwless connection	Mechanical compatibility with electrical distribution comb busbars	Input for external control	Instruction manual holder on front face	Memory key supplied with the product	Cat. no.
	■	■	■		■		CCT15400 <sup>(6)</sup> , CCT15420 <sup>(7)</sup> , CCT15450 <sup>(8)</sup> , CCT15720 <sup>(9)</sup> , CCT15850 <sup>(10)</sup>
■ + Cycle programming	■	■	■	1 input	■	■	CCT15401 <sup>(6)</sup> , CCT15451 <sup>(8)</sup> , CCT15721 <sup>(9)</sup> , CCT15851 <sup>(10)</sup>
	■	■	■		■		CCT15402 <sup>(6)</sup> , CCT15422 <sup>(7)</sup> , CCT15452 <sup>(8)</sup> , CCT15722 <sup>(9)</sup> , CCT15852 <sup>(10)</sup>
■ + Cycle programming	■	■	■	2 inputs	■	■	CCT15423 <sup>(7)</sup> , CCT15723 <sup>(9)</sup> , CCT15853 <sup>(10)</sup>
■ + Cycle programming	■	■		1 input		■	CCT15857
	■	■				(12)	CCT15854 <sup>(11)</sup>
■ + Cycle programming	■	■		1 input		■	CCT15838 <sup>(11)</sup>
Back-lit display, pulse and cycle programming	■ <sup>(5)</sup>					(13)	CCT15910
Back-lit display, pulse and cycle programming	■ <sup>(5)</sup>			2 inputs		(13)	CCT15940
		■					CCT15338
		■					CCT16364
		■					CCT15365
							15337
		■					CCT15367
							15366
							15331
							15336
							15335

(5) Function included and can be realized through special program entry.

(6) English, Russian, Ukrainian, Latvian, Lituani, Estonian languages.

(7) English, Bulgarian, Greek, Slovene, Serbian, Croatian languages.

(8) English, Hungarian, Polish, Romanian, Czech, Slovak languages.

(9) French, English, Italian, Spanish, German, Portuguese languages.





(10) French, English, Swedish, Dutch, Finnish, Norwegian/Danish languages.

(11) French, English, Italian, Spanish, German, Portuguese, Dutch languages.

(12) Memory key (CCT15861) is not supplied with IHP 1c 18 mm (CCT15854) but this memory key and the programming kit (CCT15860) can be used and operate on IHP 1c 18 mm (see "Accessories selection table").

(13) Memory key (CCT15955) is not supplied with ITA 1c/4c but this memory key and the programming kit (CCT15950) can be used and operate on ITA 1c/4c (see "Accessories selection table").

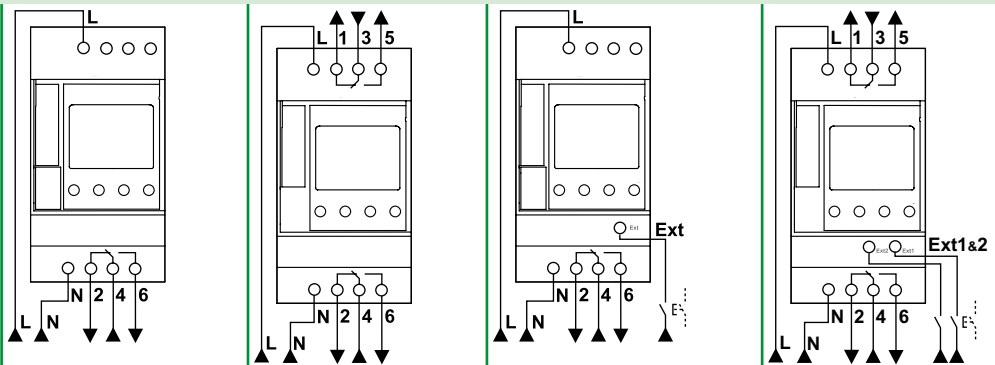
**Selection table** Programmable time switches

	IHP 1c	IHP2c	IHP+1c	IHP+2c
				

**Function**

- These time switches automatically switch on and off loads according to the program entered by the user
  - They operate on weekly cycle: the same program is repeated week after week
  - They offer automatic summer/winter time change and allow to adjust it according to where you are located
  - The program can be overridden temporary or permanently by pressing 2 keys on the product
  - They also offer holidays program, by configuring the starting and ending dates of the absence.
- A memory key and a programming kit can be used to duplicate on another IHP+ or to save the program created by the contractor (see "Accessories selection table")
  - Override control with switch or push-button via external input (1 external input for IHP+1c and 2 external inputs for IHP+ 2c)

**Wiring diagrams**



**Catalogue numbers**






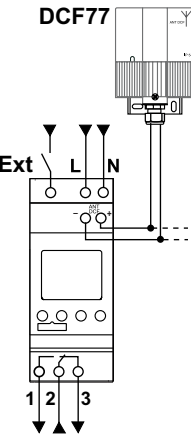
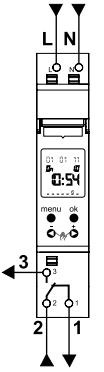
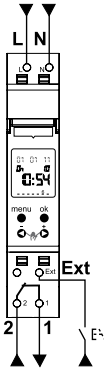
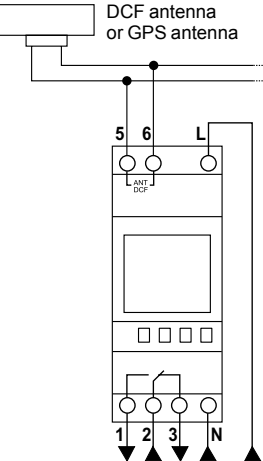
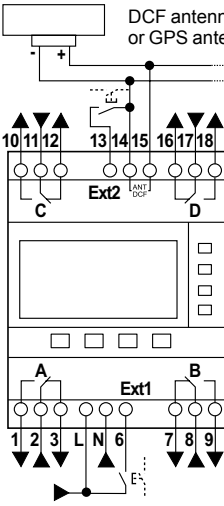
<b>CCT15400</b> <sup>(1)</sup> <b>CCT15420</b> <sup>(2)</sup> <b>CCT15450</b> <sup>(3)</sup> <b>CCT15720</b> <sup>(4)</sup> <b>CCT15850</b> <sup>(5)</sup>	<b>CCT15402</b> <sup>(1)</sup> <b>CCT15422</b> <sup>(2)</sup> <b>CCT15452</b> <sup>(3)</sup> <b>CCT15722</b> <sup>(4)</sup> <b>CCT15852</b> <sup>(5)</sup>	<b>CCT15401</b> <sup>(1)</sup> <b>CCT15451</b> <sup>(3)</sup> <b>CCT15721</b> <sup>(4)</sup> <b>CCT15851</b> <sup>(5)</sup>	<b>CCT15423</b> <sup>(2)</sup> <b>CCT15723</b> <sup>(4)</sup> <b>CCT15853</b> <sup>(5)</sup>
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**Technical specifications**

Voltage rating (Ue)	230 V AC, ±10 %, 50/60 Hz	230 V AC, ±10 %, 50/60 Hz	230 V AC, ±10 %, 50/60 Hz	230 V AC, ±10 %, 50/60 Hz
Consumption	0.8 W	0.8 W	0.8 W	0.8 W
Output contact current (250 V AC)	Cos φ = 1 : 16 A Cos φ = 0.6 : 10 A	16 A 10 A	16 A 10 A	16 A 10 A
Degree of protection	IP20B	IP20B	IP20B	IP20B
Operating temperature	-10°C to +50°C	-10°C to +50°C	-10°C to +50°C	-10°C to +50°C
Time accuracy	± 1 s per day at 20°C	± 1 s per day at 20°C	± 1 s per day at 20°C	± 1 s per day at 20°C
Program saving and time by lithium battery	Lifetime	6 years	6 years	6 years
	Back-up time, cumulated mains cut off	6 years	6 years	6 years





(1) English, russian, ukrainian, latvian, lituanien, estonian. (2) English, bulgarian, greek, slovene, serbian, croatian. (3) English, hungarian, polish, romanian, czech, slovak. (4) French, english, italian, spanish, german, portuguese. (5) French, english, swedish, dutch, finnish, norwegian/danish.

## Yearly programmable time switches

IHP+ DCF 1c	IHP 1c 18 mm	IHP+1c 18 mm	ITA 1c	ITA 4c
				
<ul style="list-style-type: none"> <li>■ A memory key and a programming kit can be used to duplicate on another IHP or to save the program created by the contractor (see "Accessories selection table")</li> <li>■ 100% time precision enabled via optional DCF77 antenna (to be ordered separately - see "Accessories selection table")</li> </ul>			<ul style="list-style-type: none"> <li>■ Weekly or yearly time programming to be distributed over 1 channel</li> <li>■ Weekly or yearly time programming to be distributed over 1, 2, 3 or 4 channels</li> <li>■ Override control with switch or push-button via external inputs</li> </ul>	
<ul style="list-style-type: none"> <li>■ A memory key and a programming kit can be used to duplicate on another IHP or to save the program created by the contractor (see "Accessories selection table")</li> </ul>			<ul style="list-style-type: none"> <li>■ A memory key and a programming kit can be used to duplicate on another ITA or to save the program created by the user (see "Accessories selection table").</li> </ul>	
				
CCT15857	CCT15854 <sup>(6)</sup>	CCT15838 <sup>(6)</sup>	CCT15910	CCT15940
230 V AC, ±10 %, 50/60 Hz	230 V AC, +10 %, -15 %, 50/60 Hz	230 V AC, +10 %, -15 %, 50/60 Hz	230 V AC, 50/60 Hz	230 V AC, 50/60 Hz
1.4 W	0.4 W	0.4 W	1.4 - 1.9 W (depending on the switching status)	1.2 - 3.2 W (depending on the switching status)
16 A	16 A	16 A	16 A	16 A
10 A	4 A	4 A	6 A	6 A
IP20B	IP20B	IP20B	IP20	IP20
-30°C to +55°C	-25°C to +55°C	-25°C to +55°C	-30°C to +55°C	-30°C to +55°C
Without antenna: ± 0.25 s per day at 25°C With antenna: 1 s on 1 million years <sup>(7)</sup>	± 0.25 s per day at 25°C	± 0.25 s per day at 25°C	Without antenna: ± 0.5 s per day at 20°C With antenna: 1 s on 1 million years <sup>(7)</sup>	Without antenna: ± 0.5 s per day at 20°C With antenna: 1 s on 1 million years <sup>(7)</sup>
10 years	10 years	10 years	10 years	10 years
10 years	10 years	10 years	10 years	10 years

<sup>(6)</sup> French, english, italian, spanish, german, portuguese, dutch. <sup>(7)</sup> Thanks to the synchronisation on the DCF Frankfurt's DCF77 radio station via the DCF antenna or GPS antenna.

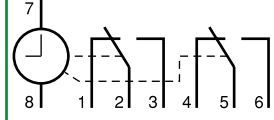
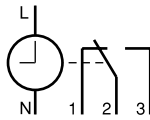
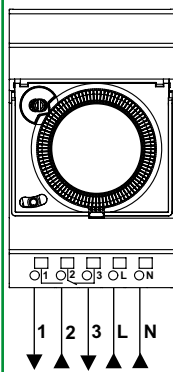
**Selection table** Mechanical time switches

	IH 60mn 1c SRM	IH 24h 1c SRM	IH 24h 1c ARM	IH 24h 2c ARM
P116860		P116861		P116892
				P116816
				



**Function**

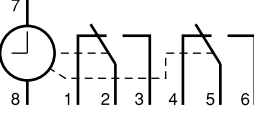
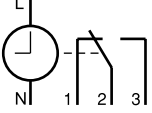
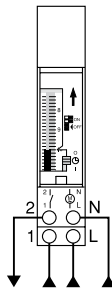
- They operate on hourly, daily or weekly cycle: the same program is repeated hour after hour (IH 60mn), day after day (IH 24h) or week after week (IH 7), (IHH 7)
- The program can be overridden On

**Wiring diagrams**



Catalogue numbers		CCT15338	CCT16364	CCT15365	15337
<b>Technical specifications</b>					
Voltage rating (Ue)		230 V AC +10 %, -15%, 50 Hz	230 V AC +10 %, -15%, 50/60 Hz	110-230 V AC +10 %, -15%, 50/60 Hz	230 V AC +10 %, -15%, 50/60 Hz
Consumption		1 VA	2.5 VA	2.5 VA	2.5 VA
Output contact current under 250 VAC	Cos φ = 1	10 A	16 A	16 A	16 A
	Cos φ = 0.6	4 A	4 A	4 A	4 A
Degree of protection		IP20B	IP20B	IP20B	IP20B
Operating temperature		-20°C to +55°C	-20°C to +55°C	-20°C to +55°C	-20°C to +55°C
Time accuracy		±1 s per day at 20°C	±1 s per day at 20°C	±1 s per day at 20°C	±1 s per day at 20°C
Saving of program and time by lithium battery	Lifetime	–	–	6 years	6 years
	Back-up time, cumulated mains cut off	–	–	200 h with 230 V AC 100 h with 100 V AC	150 h
Programming by:	Jumpers (supplied)	–	–	–	4 red + 4 green + 2 white
	Captive segments	96	96	96	–

	IH 24h + 7j 1+1c ARM	IH 7j 1c ARM	IH24h 1c SRM 18 mm	IH 24h 1c ARM 18 mm	IHH 7j 1c ARM 18 mm
P111619		P111663		P111615	P111613

				
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	15366	CCT15367	15335	15336	15331
	230 V AC +10 %, -15%, 50 Hz	110-230 V AC +10 %, -15%, 50/60 Hz	230 V AC, ±10 %, 50/60 Hz	230 V AC, ±10 %, 50/60 Hz	230 V AC, ±10 %, 50/60 Hz
	2.5 VA	2.5 VA	2.5 VA	2.5 VA	2.5 VA
	16 A	16 A	16 A	16 A	16 A
	4 A	4 A	4 A	4 A	4 A
	IP20B	IP20B	IP20B	IP20B	IP20B
	-20°C to +55°C	-20°C to +55°C	-10°C to +50°C	-10°C to +50°C	-10°C to +50°C
	±1 s per day at 20°C	±1 s per day at 20°C	±1 s per day at 20°C	±1 s per day at 20°C	±1 s per day at 20°C
	6 years	6 years	10 years	10 years Exchangeable battery	10 years Exchangeable battery
	150 h	200 h with 230 V AC 100 h with 110 V AC	-	100 h	100 h
	6 yellow (24 h), 12 blue + 2 red (7 days)	-	-	-	-
	-	84	96	96	84



## Accessories selection table

## Programming kits for PC

## Memory keys




Accessories selection table	Programming kits for PC		Memory keys	
	IHP+	ITA	IHP+	ITA
				
<b>Function</b>	Consists of a programming device, a memory key, a CDROM and a 2 m USB cable For IHP+ 1c/2c, IHP 1c 18 mm, IHP+ 1c 18 mm	Consists of a programming device, a CDROM and a 1.5 m USB cable For ITA 1c and ITA 4c	Saving and duplicating programs For IHP+ 1c/2c, IHP 1c 18 mm, IHP+ 1c 18 mm, IHP+ DCF 1c	For ITA 1c and ITA 4c
<b>Mounting</b>	–		Located on front face	
<b>Catalogue numbers</b>	<b>CCT15860</b>	<b>CCT15950</b>	<b>CCT15861</b>	<b>CCT15955</b>
<b>Technical specifications</b>				
Degree of protection	–		–	–
Operating temperature	–		–	–

## Specific technical data

IHP+ 1c, IHP+ 2c, IHP+ DCF 1c	
Manual functions	Temporary cancellation of programming for holidays, public holidays, etc. by configuration of the 2 dates - start and end of absence Simulation of presence thanks to random operation during On periods
Pulse functions	Programming of pulses adjustable from 1 to 59 s (pulse takes priority over switching)
Back-lighting of the screen	
External input (only for IHP+ 1c, IHP+ 2c)	
External inputs for external control with a standard switch or a push-button	1 input for IHP+ 1c 2 inputs for IHP+ 2c
Voltage rating (Ue)	230 V AC, +10 %, -15 %
Frequency	50/60 Hz
Input current	≤ 1.2 mA
Consumption	≤ 0.3 mW
Cable length	≤ 100 m
(2) The ITA 1c and ITA 4c can be synchronised on the Frankfurt 's DCF77 radio station via the DCF or GPS antenna	
Automatic on commissioning, then at 1 am, 2 am, 3 am and 4 am every day	
Manual by pressing the IHP or ITA keys or after a "reset"	
Displayed on the screen by the letters RC	
Programming of pulses adjustable from 1 to 59 s (pulse takes priority over switching)	

## Antennas

## Additional jumpers

	DCF77 antenna for IHP+ DCF	DCF antenna for ITA	GPS antenna for ITA	IH jumpers		
P135728		P140482		P140491		
	Antenna for IHP+ DCF 1c	Antenna for ITA 1c and ITA 4c	Antenna for ITA 1c and ITA 4c	They are used to program a larger number of sequences for: <ul style="list-style-type: none"> <li>■ IH 24h 2c ARM (<b>15337</b>)</li> <li>■ IH 24h + 7j 1+1c ARM (<b>15366</b>)</li> </ul>		
	<ul style="list-style-type: none"> <li>■ 10 IHP+ DCF 1c maximum per antenna, maximum distance between the IHP+ DCF 1c and the antenna: 100 m</li> <li>■ Outside the electrical switchboard, outdoors, under shelter</li> </ul>	<ul style="list-style-type: none"> <li>■ 10 ITA maximum per antenna, maximum distance between the ITA and the antenna: 200 m</li> <li>■ Outside the electrical switchboard, outdoors, under shelter</li> </ul>	<ul style="list-style-type: none"> <li>■ 10 ITA maximum per antenna, maximum distance between the ITA and the antenna: 200 m</li> <li>■ Outside the electrical switchboard, outdoors, under shelter</li> </ul>	1 bag containing: <ul style="list-style-type: none"> <li>■ 5 red</li> <li>■ 5 green</li> <li>■ 5 white</li> <li>■ 5 yellow</li> </ul>		
	<b>MTN6606-0070</b>	<b>CCT15960</b>	<b>CCT15970</b> <sup>(1)</sup>	<b>15341</b>		
	IP54	IP54	IP54	–		
	-20 °C to +70 °C	-20 °C to +50 °C	-30 °C to +55 °C	–		

<sup>(1)</sup> external 12-30 V DC power supply needed

### ITA 1c, ITA 4c

Switching functions	On, Off, pulse, cycle, yearly program	
Pulse lenght pulse function (switching time)	1 s to 59 min 59s	
Pulse lenght timer (manual switching)	1 s to 9 h 59 min 59 s	
Pulse/pause length cycle	1 s to 9 h 59 min 59 s	
Minimum interval	1 min	
<b>External inputs (only for ITA 4c)</b>		
External inputs for external control with a standard switch or a push-button	2 inputs : <ul style="list-style-type: none"> <li>■ <b>Ext1</b> input: supplied with 230 V AC, ±10%- 50/60 Hz</li> <li>■ <b>Ext2</b> input Ext2: potential free</li> </ul>	
<b>Antennas</b>	<b>DCF- ITA</b>	<b>GPS- ITA</b>
Power supply	Via time switch (without battery)	External 12 - 30 V DC
Output	Protocole DCF	DCF time telegraph (no weather data)
Receiver	Narrowband-heterodyne receiver	–
Operation indicator	Flashing LED on receiving	Flashing LED on receiving

### Programming principle

- For the digital time switches, this consists of memorising the days and times of the required switching operations.
- For the mechanical time switches, this is performed by positioning captive segments or jumpers on a switching dial.

#### Example

- Controlling an air conditioner in a hairdressing salon:

	Monday <sup>(1)</sup>	Tuesday	Wednesday	Thursday <sup>(2)</sup>	Etc.	
On n° 1		08 h 30	08 h 30	08 h 30		Switch on
Off n° 1		12 h 00	12 h 00			Switch off
On n° 2		13 h 30	13 h 30			Switch on
Off n° 2		20 h 00	20 h 00	20 h 00		Switch off

<sup>(1)</sup> Closed on Mondays

<sup>(2)</sup> Non-stop

### Programming by copying or blocks

Whenever identical switching operations are found at the same times, several days in the week, this function lets you program these operations once only. In this case a single switching operation is used. If this function is used wisely, the number of possible switching operations can be greatly increased.

#### Example

	Monday	Tuesday	Wednesday	Thursday	Friday	
On n°1	10 h 00			10 h 00		Switch on
Off n°1		18 h 00	18 h 00		18 h 00	Switch off

### Number of switching operations

Designation	Number of switching operations
IHP 1c	56
IHP + 1c	84
IHP+ DCF 1c	84
IHP 2c	56
IHP + 2c	84
IHP 1c 18 mm	56
IHP + 1c 18 mm	84
ITA 1c, ITA 4c	300
IH 24h 1c ARM	48 On - 48 Off
IH 24h 1c SRM	48 On - 48 Off
IH 60mn 1c SRM	48 On - 48 Off
IH 24h 1c SRM	48 On - 48 Off
IH 24h 1c ARM	48 On - 48 Off
IH 24h 2c ARM	24 On - 24 Off
IH 7j 1c ARM	42 On - 42 Off
IH 24 h + 7j 1+1c ARM	16 On - 16 Off + 7 On - 7 Off

### Saving on mains cut off

For digital switches equipped with this function, a lithium battery is used for saving. The program, date and time are preserved. Switching operations are not performed.

Lets you control starting and stopping of a group of loads according to a cycle that is repeated every 60 minutes.

## 60 min. time programming

Example

Controlling automatic watering	
On n° 1	2 min. 30 s
Off n° 1	5 min.
On n° 2	25 min.
Off n° 2	37 min. 30 s

### Relevant time switches

IH 60mn 1c SRM.

Lets you control starting and stopping of one or two groups of loads according to a daily cycle that is repeated, in identical manner, every day of the week.

## 24 h daily programming

Example

- Controlling a door of a block of flats:
  - from 8 am to 7.30 pm: contact on "On", free access,
  - from 7.30 pm to 8 am the next day: contact on "Off", access by confidential code every day of the week:

	From Monday to Sunday
On n° 1	8 am
Off n° 1	7.30 pm

### Relevant time switches

- IH 24h 1c SRM/ARM.
- IH 24h 2c ARM.
- IHP 1c 18 mm.
- IHP + 1c 18 mm.
- IHP+ DCF 1c.
- IHP 1c, IHP + 1c.
- IHP 2c, IHP + 2c.
- ITA 1c, ITA 4c.

Lets you control starting and stopping of one to 4 groups of loads according to a weekly cycle, that can be different each day, repeated each week.

## 7 days weekly programming

Example

- Controlling an air conditioner in a hairdressing salon:

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
On n° 1			09 h 00	09 h 00	09 h 00		
Off n° 1			12 h 00	12 h 00			
On n° 2			14 h 00	14 h 00			
Off n° 2			20 h 00	20 h 00	20 h 00		
On n° 3						8 h 30	8 h 30
Off n° 3						12 h 30	12 h 30
On n° 4						14 h 30	14 h 30
Off n° 4						21 h 00	21 h 00

### Relevant time switches

- IH 7j 1c ARM.
- IHP 1c, IHP + 1c.
- IHP 2c, IHP + 2c.
- IHP 1c 18 mm.
- IHP + 1c 18 mm.
- IHP+ DCF 1c.
- ITA 1c, ITA 4c.

Lets you control by pulses (adjustable from 1 to 59 s) one to four groups of loads (pulse relays, bells, etc.).

## Pulse programming

Example

■ Automatic controlling of bells, lighting and distribution of food: bells sounding the resumption and finish of work (channel 1), lighting of premises (channel 2), feeding fish in the aquarium (channel 3):

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
<b>Channel 1: bell (20 s pulse order)</b>							
On	08 h 00	08 h 00	08 h 00	08 h 00	07 h 00	09 h 00	–
Duration	20 s	20 s	20 s	20 s	20 s	20 s	–
On	12 h 00	12 h 00	12 h 00	12 h 00	11 h 00	13 h 00	–
Duration	20 s	20 s	20 s	20 s	20 s	20 s	–
On	14 h 00	14 h 00	14 h 00	14 h 00	13 h 00	–	–
Duration	20 s	20 s	20 s	20 s	20 s	–	–
On	18 h 00	18 h 00	18 h 00	18 h 00	16 h 00	–	–
Duration	20 s	20 s	20 s	20 s	20 s	–	–
<b>Channel 2: lighting (latched order)</b>							
On	07 h 30	07 h 30	07 h 30	07 h 30	06 h 30	08 h 30	–
Off	18 h 30	18 h 30	18 h 30	18 h 30	17 h 00	13 h 30	–
<b>Channel 3: aquarium (15 s pulse order)</b>							
On	10 h 00	–	10 h 00	–	10 h 00	–	10 h 00
Duration	15 s	–	15 s	–	15 s	–	15 s

## Programming

- Programming of a pulse takes up 2 memory spaces.
- Combination of the two order types (pulse and latched) is possible on the same channel.

## Relevant time switches

- IHP + 1c.
- IHP + 1c 18 mm.
- IHP+ DCF 1c.
- IHP + 2c.
- ITA 1c, ITA 4c.

Lets you create special programs for dated days.

## Programming special days.

Example

- Controlling lighting and heating in a school:
- basic programming: program lighting (channel 1) and heating (channel 2):

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
<b>Channel 1: lighting</b>							
On	07 h 00	07 h 00	07 h 00	07 h 00	07 h 00	–	–
Off	20 h 00	20 h 00	16 h 00	20 h 00	16 h 00	–	–
<b>Channel 2: heating</b>							
On	06 h 00	06 h 00	06 h 00	06 h 00	06 h 00	–	–
Off	18 h 00	18 h 00	12 h 00	18 h 00	12 h 00	–	–

- dated programming: periods of non-operation, school holidays, etc. Just memorise an Off at the start and another Off at the end of each period of absence:

		Holidays				
		Winter	Spring	Summer	Autumn	End of year
<b>Channel 1: lighting</b>						
Off	Date	20 feb.	17-apr	07-july	23 oct.	18 dec.
	Time	12 h 00	17 h 00	12 h 00	17 h 00	12 h 00
Off	Date	08-march	03-may	9 sept.	2 nov.	4 jan.
	Time	01 h 00	01 h 00	01 h 00	01 h 00	01 h 00
<b>Channel 2: heating</b>						
Off	Date	20 feb.	17-apr		23 oct.	18 dec.
	Time	12 h 00	17 h 00		17 h 00	12 h 00
Off	Date	08-march	03-may		2 nov.	4 jan.
	Time	01 h 00	01 h 00		01 h 00	01 h 00

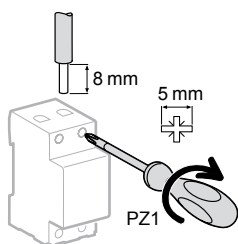
## Relevant time switches

- ITA 1c, ITA 4c.

## Load table

Type of lighting (230 V AC)	Max. power (for higher power, relay with a contactor)							
	IHP 45 mm	IHP 18 mm	IHP+ 18 mm	IHP+ DCF 36 mm	IH 18 mm	IH 54 mm	ITA	
Incandescent and halogen lamps	2600 W	1000 W	2000 W	2600 W	1000 W	1000 W	2000 W	
LED lamps	Power for one lamp < 2 W	30 W	6 W	55 W	30 W	15 W	5 W	200 W
	Power for one lamp from 2 to 8 W	100 W	20 W	180 W	100 W	50 W	15 W	200 W
Non-corrected / serial-corrected / dual mounted fluorescent tubes with conventional ballast	2300 VA	1000 VA	2000 VA	1000 VA	700 VA	600 VA	1000 VA	
Parallel corrected fluorescent tubes with conventional ballast	730 W (80 µF)	80 W (14 µF) 2 x 40 W (4.7 µF) 2 x 58 W (7 µF)	1300 W (140 µF)	730 VA (80 µF)	400 W (37 µF)	80 W (12 µF)	550 VA	
Fluocompact lamps with electronic ballast	170 W	30 W	300 W	22 x 7 W, 18 x 11 W, 16 x 15 W, 16 x 20 W, 14 x 23 W	80 W	25 W	200 W	

## Connection



Type	Tightening torque	Copper cables	
		Rigid	Flexible or with ferrule
IHP 1c, 2c, +1c, +2c	2 screwless / pole	2 x 2.5 mm <sup>2</sup>	2 x 2.5 mm <sup>2</sup>
IHP 18 mm 1c, +1c	2 screwless / pole	2 x 2.5 mm <sup>2</sup>	2 x 2.5 mm <sup>2</sup>
IHP+ DCF 1c	2 screwless / pole	2 x 2.5 mm <sup>2</sup>	2 x 2.5 mm <sup>2</sup>
IH 60mn 1c SRM	2 screwless / pole	2 x 2.5 mm <sup>2</sup>	2 x 2.5 mm <sup>2</sup>
	24h 1c SRM, ARM	2 screwless / pole	2 x 2.5 mm <sup>2</sup>
	24h 2c ARM	1.2 N.m	≤ 6 mm <sup>2</sup>
	7j 1c ARM	2 screwless / pole	2 x 2.5 mm <sup>2</sup>
24h + 7j 1+1c ARM	1.2 N.m	≤ 6 mm <sup>2</sup>	≤ 6 mm <sup>2</sup>
IH 18 mm 24h 1c SRM / ARM	1.2 N.m	≤ 6 mm <sup>2</sup>	≤ 6 mm <sup>2</sup>
IHH 18 mm 7j 1c ARM	1.2 N.m	≤ 6 mm <sup>2</sup>	≤ 6 mm <sup>2</sup>
ITA 1c, ITA 4c	1.2 N.m	≤ 6 mm <sup>2</sup>	≤ 6 mm <sup>2</sup>

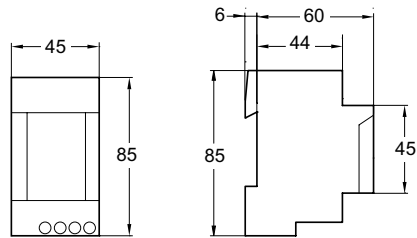
IHP 1c/2c, IHP+ 1c/2c are mechanical compatible with electrical distribution comb busbar.

## Weight (g)

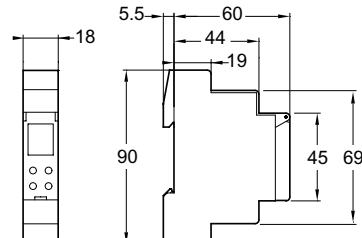
Time switches		
IHP	1c / 2c	170 / 205
IHP+	1c / 2c	190 / 211
IHP 18 mm	1c / +1c	90
IHP+ DCF	1c	244
IH 54 mm	60mn 1c SRM	208
	24h 1c SRM/ARM	212 / 119
	24h 2c ARM	216
	7j 1c ARM	119
	24h + 7j 1+1c ARM	223
IH 18 mm	24h 1c SRM / ARM	97
IHH 18 mm	7j 1c ARM	101
ITA 1c		152
ITA 4c		303

## Dimensions (mm)

### IHP time switches

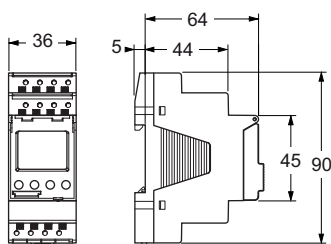


5P (45 mm)  
IHP1c, IHP2c, IHP+1c, IHP+2c



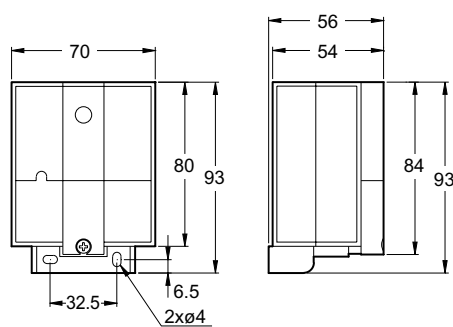
2P (18 mm)  
IHP1c, IHP+1c

### IHP+ DCF 1c

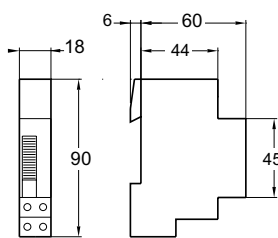


4P (36 mm)  
IHP+ DCF 1c

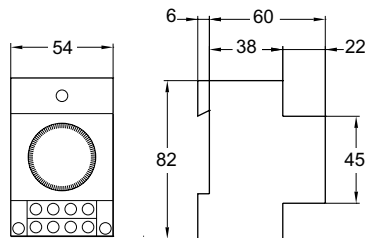
### DCF77 antenna for IHP+ DCF 1c



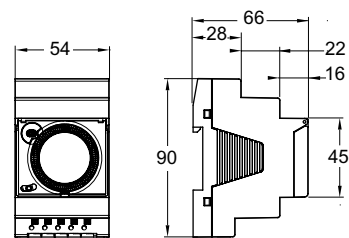
### IH, IHH time switches



2P (18 mm)  
IH 24h 1c SRM/ARM  
IHH 7j1c ARM

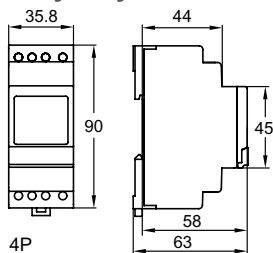


6P (54 mm)  
IH 24h 2c ARM,  
IH 24h +7j 1+1c ARM

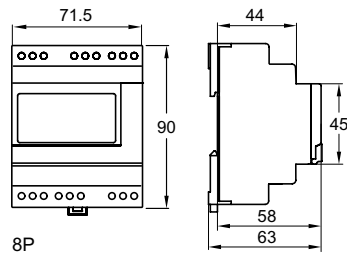


6P (54 mm)  
IH 60mn 1c SRM, IH 24h 1c SRM/ARM  
IH 7j 1c ARM

### ITA yearly time switches

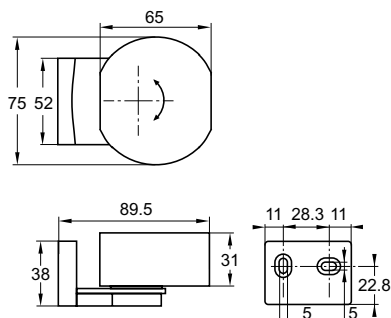


4P



8P

### DCF antenna and GPS antenna for ITA





Indice	Date	Modification	Name
4.2	19/01/2015	Changed table values page 4, 5 and 7	Sedoc
4.1	5/11/2014	Changed IHP+ DCF 1c and DCF antenna - IHP+ 1c 18 mm product (CCT15837 to CCT15838) - Added load table	Sedoc
4.0	26/08/2013	ITM 4c-6E replaced by ITA 1c and ITA 4c	Arriba
3.0	13/01/2012	Changed IHP 18 mm - Texts and photos	Sedoc
2.0	19/05/2011	InDesign CS5	Sedoc
1.0	30/03/2011	Creation	Sedoc