

Modular Devices and Enclosures



Features

- Modular contactors for control of motor, heating and lighting applications
- Digital and Analogue Time Switches for remote command and control of circuits
- Selectable Voltage Bell Transformer
- Modular Enclosures with hinged lockable door for mounting DIN devices



HAVELLS

Havells extends its product portfolio with a complementary range of command and control products for use in both residual and commercial applications. The range includes AC7a Modular Contactors up to 63A, Programmable Time Switches in both analogue and digital and a selectable voltage bell transformer from 8-16V DC.

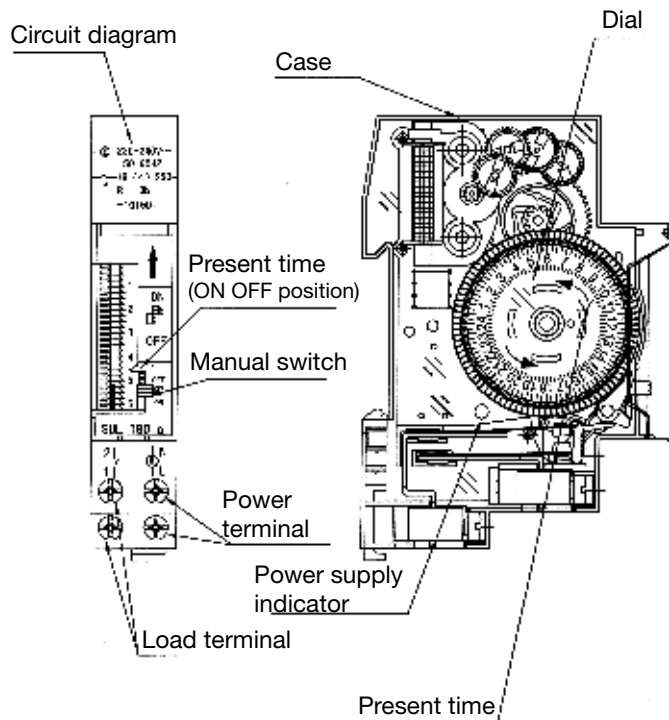
Time Switches

- Analogue and digital versions available (Time Switches)
- Din rail mountable
- Manual override (Time Switches)
- Fully programmable (Time Switches)
- Bell transformer compliant to IEC 61558-1

Analogue Time Switch 1Channel

Technical Data

Rated Voltage	: 230V – 240V
Frequency	: 50-60 Hz
Own consumption	: Max 1W
Contact	: Zero, less then 3mm
Switching Power	: 16A, 250V COS =1 12A, 250V COS = 0.7
Incandescent lamp load	: 2300W
Halogen lamp load	: 2300W
Timing basic	: Quartz
Working Precision	: <+1 sec/ day
Shortest switching time	: 15 mins
Display	: Mechanical dial
Operating control	: Dial
Power Reserve	: 72 hours
Weight	: 85 g

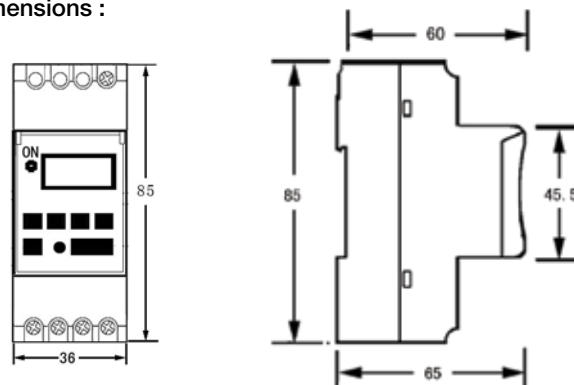


Digital Time Switch 1 Channel

Technical Data

Voltage limit	: AC220V ~ 240V 50Hz
On/off operation	: 8on & 8off
Minimum interval	: 1 minute
Weight	: Approx 150g
Display	: LCD
Battery backup	: 15 day
Number of circuits	: 1 NO / NC
Load capacity	: 16A 250VAC (ohmic load cos Ø=1)
Service life	: Mechanically 107, Electrically 105
Ambient temperature	: 0~40 °C
Storage temperature	: -20~70 °C
Power consumption	: 5VA

Dimensions :



Connections:

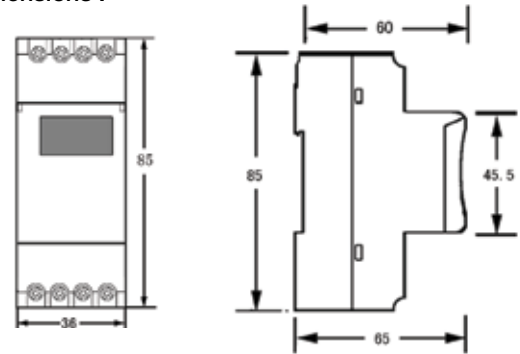


Digital Time Switch 2 Channel

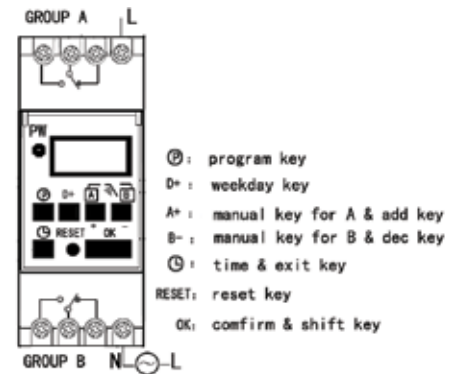
Technical Data

Voltage	: AC200V~240V 50HZ
Clock precision	: ± 2 Second/day (25 °C)
Set numbers for on/off	: 4 ON and 4 OFF each
Power Consumption	: <4VA
Display	: LCD Display
Electric life	: 105
Mechanical life	: 107
Number of contacts	: 2NO / 2NC
Control current	: Resistance Load: 16A/250VAC COS ϕ =1)
Induction Load	: 8A/250VAC COS ϕ =0.6)
Operation temperature	: 0~+40 °C
Humidity	: 35~85%RH
Weight	: About 125g
Charge Reserve	: 2 years approx (if not powered)
(With Lithium Battery)	

Dimensions :



Connections:



Description	Modules Width	Part No.
Analogue 1 Channel Timer 24/7	1	PSAT1
Digital 1 Channel Timer 24/7	2	PSDT1
Digital 2 Channel Timer 24/7	2	PSDT2

Bell Transformer

Designed for bell circuits with a rated input voltage 230V~ and rated frequency 50/60Hz which require a low voltage output.

Technical Data

Rated Input Voltage	: 230V~
Rated Output Voltage	: 8, 16, 24V
Rated Frequency	: 50/60Hz
Rated Power Output	: 8VA
Power Consumption	: 1.15W
Max Cable Capacity	: 10mm ²

Description	Modules Width	Part No.
Bell Transformer	2	HSBT



Modular Contactors

Dinrail modular contactor for control of motor, heating and lighting applications.

Standard – IEC 60195

- Thermal Rating per pole (AC7a) – 20A, 25A, 40A, 63A
- Control Circuit/ Coil – 230V
- Normally Open and Closed options Available:
 - ✓ 20A – 2 Pole Normally Open/ Closed
 - ✓ 25A – 2 Pole Normally Open/ Closed
 - ✓ 40A – 4 Pole Normally Open/ Closed
 - ✓ 63A – 4 Pole Normally Open / Closed
- Conductor Cross Section, Control Circuit to – 25mm²
- Conductor Cross Section, Main Circuit to – 10mm² solid/ 6mm² stranded



Description	No. of Contacts	Width	Cat No.
Contactor 20A	2NC	18MM (1 Module)	PSC202NC
Contactor 20A	2NO	18MM (1 Module)	PSC202NO
Contactor 25A	4NC	36MM (2 Module)	PSC254NC
Contactor 25A	4NO	36MM (2 Module)	PSC254NO
Contactor 40A	2NO2NC	54MM (3 Module)	PSC402NO2NC
Contactor 40A	4NO	54MM (3 Module)	PSC404NO
Contactor 40A	4NC	54MM (3 Module)	PSC404NC
Contactor 63A	2NO2NC	54MM (3 Module)	PSC632NO2NC
Contactor 63A	4NO	54MM (3 Module)	PSC634NO
Contactor 63A	4NC	54MM (3 Module)	PSC634NC

Modular Contactors Technical Data

Type	PSC202		PSC254		PSC404		PSC634	Unit of Measure
Standards	IEC/EN 61095, IEC/EN 60947-4-1, IEC/EN 60947-5-1							
Module width	1		2		3			
Ambient temp.			-5 ...+55					°C
Storage temp.			-30 ...+80					°C
No. of contactors (side-by-side)	max. 3 (<40°C) max. 2 (40-55°C)		no limitation		max. 3 (<40°C) max. 2 (40-55°C)			
Contact reliability			17V; ≥50 mA					
Min. distance of open contacts			3.6					mm
Power dissipation per pole	1.7		1.7		4		8	W
Overload current withstand capability	72		68		176		240	A
Max. back-up fuse for short-circuit protection gL Coordination type 2	20		25		63 300		80	A
Max. operating frequency	AC-1/AC-3/ AC-5b/AC-6b				600			op. c./h
	AC-15				1,200			
	no load				3,000			
Weight	0.13		0.24		0.42		0.42	kg
Rated insulation voltage	230		440		400			V
Rated impulse withstand voltage			4					kV
Thermal current	20		25		40		63	A
Rated operational voltage	230				400			V
Rated frequency					50/60			Hz
Rated operational current	AC-1/AC-7a		20		25		40	63
Operational power AC-1/AC-7a	1-pole	230 V	4		5.4		8.7	13.3
	3-pole	230 V	-		9		16	24
	3-pole	400 V	-		16		26	40

Modular Contactors Technical Data Continued

	Type			PSC202	PSC254	PSC404	PSC634	Unit of Measure
GENERAL	Electrical endurance	AC-1/AC-7a		2,00,000		1,00,000		op.c
	Rated operational current	AC-3/AC-7b		9	8.5	22	30	A
	Operational power	1-phase motor	230V	1.3 ²⁾	3.7 ²⁾	5 ²⁾		1.3 only for NO ¹⁾
	AC-3/AC-7b	3-phase motor	230V	-	2,2	5.5	8.5	kW
MAIN CIRCUIT		3-phase motor	400V		4	11	15	
	Electrical endurance	AC-3/AC-7b		3,00000	5,00,000	150,000	150,000	op.c
	Switching of capacitors	AC-6b	230V	30	36	220	330	μF
	Electrical endurance	AC-6b		2,00,000		1,00,000		op.c
	Rated operational current endurance	DC-1						
	1-pole	U	e = 24 V DC	20	25	40	63	
		U	e = 110 V DC	6	6	4	4	A
		U	e = 220 V DC	0.6	0.6	1.2	1.2	
	2-poles connected in series	U	e = 24 V DC	20	25	40	63	
		U	e = 110 V DC	10	10	10	10	A
		U	e = 220 V DC	6	6	8	8	
	3-poles connected in series	U	e = 24 V DC	-	25	40	63	
		U	e = 110 V DC	-	20	30	35	A
		U	e = 220 V DC	-	15	20	30	
	4-poles connected in series	U	e = 24 V DC	-	25	40		
		U	e = 110 V DC	-	20	40	63	A
		U	e = 220 V DC	-	15	40	63	
	Electrical endurance	DC-1		-	100000			op.c
	Terminal capacity		rigid flexible	M3.5		1.5...25 1.5...25		mm ²⁾
	Screw			M3.5		M5		
	Screw head			PZ2		PZ2		
	Tightening torque			2		3		
AUXILIARY CONTACTSD	Rated operational voltage			230	400			Nm
	Coil consumption		switch-on	12/10	33/25	5/5	5/5	VA/W
			operation	2.8/1.2	5.5/1.6	5/5	5/5	
	Make/break delays		make	15_25	10_30	15_20	15_20	MS
			break	10_30	10_30	35_45	35_45	
CONTRTOL CIRCUIT	Terminal capacity		rigid	1....2.5				S
			flexible	1....2.5				
	Screw			M3,5		M3		
	Screw head			PZ1				
	Tightening torque			0.6				Nm

Modular Enclosures

- Can be used above or below PowerSafe TPN distribution Boards
- Can be used stand alone
- Single and Double Row version available
- Holds Most Modular DINrail devices



Description	No. of Modules	Height (mm)	Width (mm)	Depth (mm)	Part No.
15 Module DIN Enclosure	15	250	440	126.5	PSME15D
30 Module DIN Enclosure	30	405	440	126.5	PSME30D



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