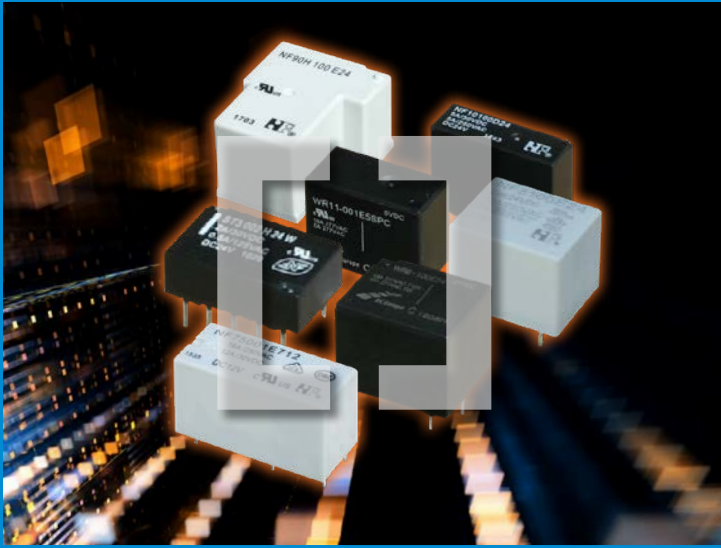




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Committed to excellence

Relays

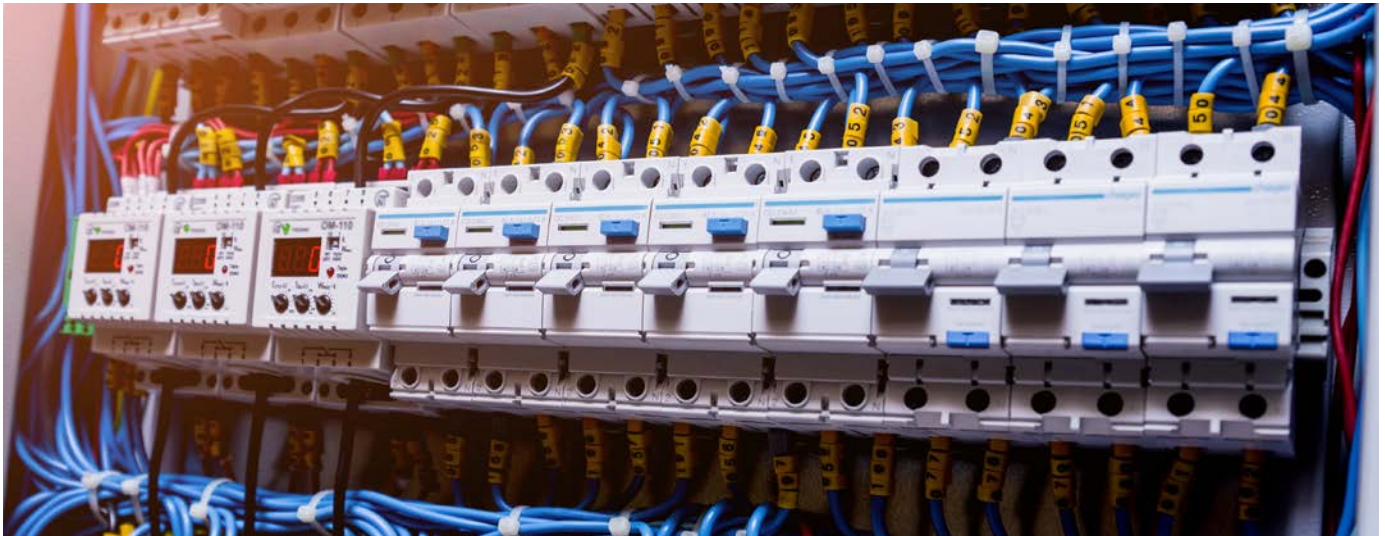
Sugar Cube Relays
Pcb Power Relays
Signal Relays
Automotive Relays
eMobility & New Energy






Consult | Components | Logistics | Quality

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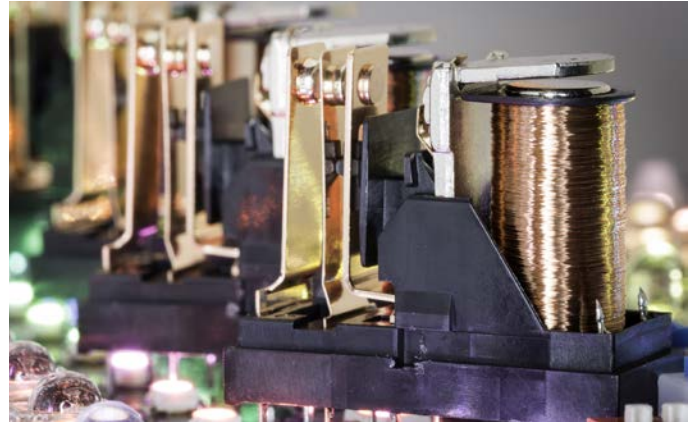
Sugar Cube Relays



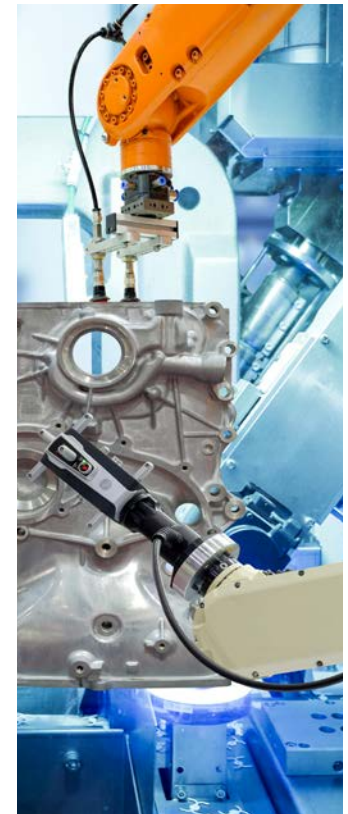
Type of Relay	NF8	NF6, NF6T	NF7
			
Mounting height (mm)	15.3	15.3	21.0
Mounting space (mm)	19.5x15.6	19.5x15.6	21.3x16.2
Contact arrangement	1a, 1c	1a, 1c	1a, 1c
Contact rating	10A 250VAC	12A 250VAC	16A 250VAC
Coil voltage	5, 6, 9, 12, 18, 24, 48	5, 6, 9, 12, 18, 24, 48	5, 6, 9, 12, 24, 48
Coil power	360mW	360mW	360mW
T (ambient)	-40 to 105°C	-40 to 105°C	-40 to 105°C
Approvals	UL, VDE, CQC	UL, VDE, CQC	UL, VDE, CQC
IEC60335-1 Ed. 5			
EN60079-15, clause 22. 4			
Application examples	Home appliances Building automation	Home appliances Building automation	Home appliances Building automation
Competition	HF3F, LS	HF7FD	HF152F, G5LE



Pcb Power Relays



Type of Relay	SG3	NF10	S7	NF75	NF90
Mounting height (mm)	12.5	15.3	12.5	15.7	20.5
Mounting space (mm)	17.5x6.5	20.3x7	28.5x10.1	29x12.7	32.5x27.6
Contact arrangement	1a	1a	1a, 1c	1a, 1c	1a, 1c
Contact rating	5A 250VAC, 30VDC	5A 250VAC	10A 250VAC, 30VDC	16A 250VAC	30 / 40 / 50A 250VAC
Coil voltage	5, 12, 24	5, 12, 18, 24	5, 6, 9, 12, 18, 24, 48	5, 12, 24	5, 6, 9, 12, 24, 48
Coil power	200mW	200mW	220, 250mW	250, 410mW	900, 1500mW
T (ambient)	-25 to 70°C	-40 to 105°C	-40 to 85°C	-40 to 105°C	-55 to 100°C
Approvals	UL	UL, VDE	UL, VDE	UL, VDE, CQC	UL
IEC60335-1 Ed. 5					
EN60079-15, clause 22. 4					
Application examples		Home appliances	Home appliances	Home appliances	Building automation
	Programmable controller	Building automation	Control equipment	Building automation	Automotive
	Building automation		Timers	Industrial machinery	
Competition	G6D	HF46F, G5NB, LD, PCJ	HF86F, G6RN, PYII	HF115F, G2RL, ALZ, RZ	HF105F, T9A



Signal Relays



Type of Relay	ST1	ST2	ST3 (mono-stable)	NF42
Mounting height (mm)	10	12	5	11.5
Mounting space (mm)	12.5x7.5	20x9.8	14x9	15.5x11
Contact arrangement	1c	2c	2c	1c
Contact rating	0.5A 125VAC, 1A 24VDC	0.6A 125VAC, 2A 30VDC	0.5A 125VAC, 2A 30VDC	3A 125VAC, 30VDC
Coil voltage	5, 6, 9, 12, 24	5, 6, 9, 12, 24, 48	5, 6, 9, 12, 24	5, 6, 9, 12, 18, 24
Coil power	150mW	150, 200, 300mW	140, 200mW	200mW
T (ambient)	-30 to 70°C	-40 to 90°C	-40 to 70°C	-25 to 70°C
Approvals	UL	UL	UL	UL
Application examples	Security equipment Building automation	Security equipment Building automation	Security equipment Building automation	Security equipment Building automation
Competition	HFD23, G5V-1, HY1	HFD27, G5V-2, OVR	HFD31, G6H, TQ2, TSB	HFD41, G2E, OUAT



Automotive Relays

Automotive PCB Relays

Type of Relay	NF125 (single and twin)	NF108 (single and twin)	NF123H (single & twin)	NF120
Mounting height (mm)	13.8	14.4	9.9	22.3
Mounting space (mm)	14.3x7.5 (twin: 15.7)	16.0x12.5 (twin: 25.5)	12x12.9	26.8x21.5
Contact arrangement	1c (1c x2)	1c, 1u (1c x2)	1a, 1c (1a x2, 1c x2)	1a, 1c
Terminals	pcb	pcb	pcb	pcb
Contact rating	25A motor lock 14VDC	20A 14VDC	30A 14VDC	45A 14VDC
Coil voltage	12	12, 24	12, 24	12, 24
Coil power	640, 800mW	690mW	570mW	1600mW
T (ambient)	-40 to 105°C	-40 to 105°C	-40 to 105°C	-40 to 125°C
Comment	wave and reflow (PIP)			open and covered types
Competition	G8NB, EX, HFKA, V23138	HFkw, G8Q, FBR51	ET1, V23086-C (Micro K)	HFkP, G8PE, Power K



Automotive Plug-In Relays



Type of Relay	ISO Micro low profile	ISO Micro	ISO Mini	ISO Maxi
Mounting height (mm)	16.2	26	24.5	25.2
Mounting space (mm)	22.5x15.2	23x15.5	26.5x26.5	26.5x26.5
Contact arrangement	1a	1a, 1c	1a, 1c	1a
Terminals	plug-in	plug-in	pcb, plug-in	pcb, plug-in
Contact rating	25A 14VDC	30A / 35A 14VDC	40A / 45A 14VDC	70A 14VDC
Coil voltage	12	12, 24	12, 24	12, 24
Coil power	960, 1070mW	1200, 1500mW	1900, 2300mW	1600mW
T (ambient)	-40 to 100°C	-40 to 125°C	-40 to 125°C	-40 to 105°C
Competition	G8HL, CV	HFV6, G8HN, CM, V23074	HFV4, G8JN, VF4	V23134





NF Forward GmbH, located in Altendiez in Germany, manufactures and distributes a wide range of general purpose, power, signal, automotive and solid state relays, certified with approvals customary in the particular market. Whether standard off-the-shelf or modified to fulfill specific requirements, all relays are produced on certified, highly automated production lines at Ningbo Forward factories in China.

Providing highest product quality and reliability, our relays are developed for a broad field of white goods and domestic appliances, for management of air conditioning and building access, for automotive and electric mobility, for renewable energies, as well as for many other types of electric and electronic equipment.

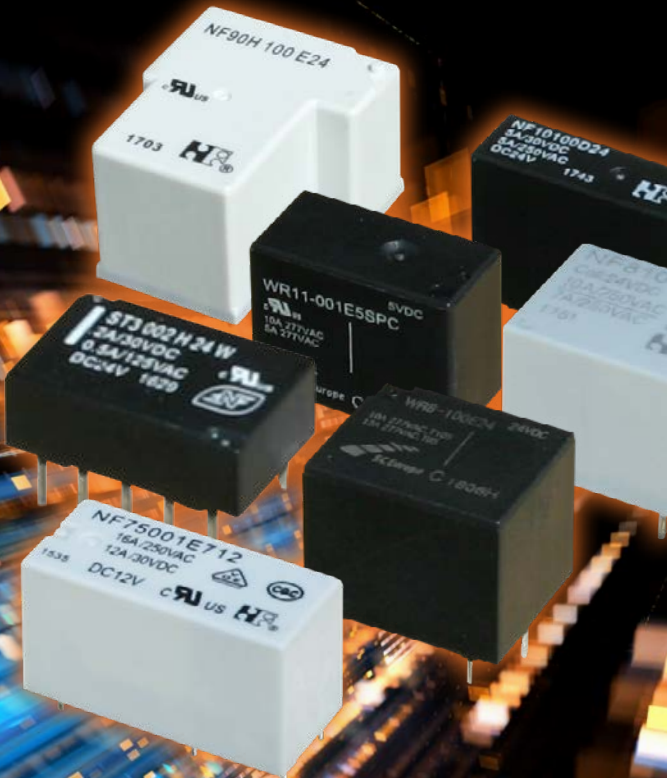
Type of Relay	NF32	NF90-G
		
Mounting height (mm)	21.0	20.5
Mounting space (mm)	21.3x16.2	32.5x27.6
Contact arrangement	1a	1a, 1c
Contact rating	32A 250VAC	30A / 40A 250VAC
Coil voltage	9, 12, 24	5, 6, 9, 12, 24, 48
Coil power	2800mW	1400mW
T (ambient)	-40 to 85°C	-40 to 85°C
Approvals		UL
Application examples	Solar inverter	Solar inverter
	EV charging	EV charging
Comment		>1.8 mm contact gap
Competition	110BE, 207BX	HF105F, T9A



NF Forward GmbH, Altendiez/ Germany



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ELECTRONICS WORLDWIDE



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