Category		SIGNAL RELAY	
Product Model	HRA	HRB1	HRS1
Relay Picture	A Company of the Comp		ASIS NO SECONDARY OF THE PROPERTY OF THE PROPE
Dimensions L×W×H (mm)	10.2×7.4×10.0	12.3×7.3×10.2	15.6×10.6×11.8
Safety Standards	<b>⊕ .₹\</b> us	<b>⊕</b> . <b>₹1</b> ∪s	c <b>R</b> us 🛕 œ
Characteristics	■ Microminiature relay ■ Light weight ■ Contact: 1 Form C (SPDT)	■ Microminiature relay ■ Light weight ■ Contact: 1 Form C ■ High sensitivity 150mW	<ul> <li>Microminiature relay</li> <li>High sensitivity</li> <li>Contact: 1 Form C</li> <li>Max. Switching capacity 3A</li> </ul>
Contact Form	1C	1C	1C
Contact Rating (Resistive Load)	1A 120VAC/24VDC	1A 125VAC/24VDC 2A 125VAC/24VDC	1A 120VAC/24VDC 3A 120VAC/24VDC
Max. Switching Voltage	120VAC/30VDC	125VAC/60VDC	220VAC/30VDC
Max. Switching Current	2A	2A	3A
Max. Switching Power	120VA,30W	250VA,48W	360VA,72W
Min. Switching Load	5VDC,10mA	5VDC,10mA	5VDC,10mA
Coil Voltage	3~24VDC	3~24VDC	3~24VDC
Coil Power (mW)	330mW,450mW	150mW	200mW,360mW
DielectricStrength: ① Open Contacts ② Coil and Contacts	① 500VAC,1min ② 500VAC,1min	① 500VAC,1min ②1,000VAC,1min	① 750VAC,1min ② 1,000VAC,1min
Electrical Life (ops.)	100,000	100,000	100,000(1A 120VAC/24VDC) 50,000(3A 120VAC/24VDC)
Operating Temperature	-25°C to +70°C	-40°C to +70°C	-25°C to +70°C
Terminal Type	PCB	PCB	PCB
Terminal Layout (Bottom View) (mm)	1.5±0.3 254±0.1 5.08±0.1 1	125±0.3 254±0.1 7.62±0.1 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2.54±0.1 10.16±0.1 1.3±0.3
Weight (Approximately)	1.7g	2.2g	4.0g
Page	34	37	40

**FKE** Selection Chart-4

Category	SIGNAL RELAY		
Product Model	HRS1K	HR\$2H	
Relay Picture	THE WAY OF THE PARTY OF THE PAR	All State A Salar	
Dimensions L×W×H(mm)	15.6×10.6×11.8	20.5×9.9×11.4	
Safety Standards	cas 🛕 🚾	cec 🛕 us	
Characteristics	<ul> <li>Microminiature relay</li> <li>High sensitivity</li> <li>Contact: 1 Form C</li> <li>Dielectric strength of 2500V between coil and contacts</li> </ul>	<ul> <li>Microminiature relay</li> <li>High sensitivity</li> <li>2 Form C contacts (DPDT)</li> </ul>	
Contact Form	1C	2C	
Contact Rating (Resistive Load)	1A 120VAC/24VDC 3A 120VAC/24VDC	1A 120VAC/24VDC 2A 120VAC/24VDC	
Max. Switching Voltage	220VAC/30VDC	125VAC/30VDC	
Max. Switching Current	3A	2A	
Max. Switching Power	360VA,72W	240VA,48W	
Min. Switching Load	5VDC,10mA	5VDC,10mA	
Coil Voltage	3~24VDC	3~24VDC	
Coil Power (mW)	200mW,360mW	150mW、200mW、360mW、450mW	
DielectricStrength: ① Open Contacts ② Coil and Contacts	① 750VAC,1min ②Standard: 1,500VAC, 1 min ②E: 2,500VAC, 1 min	① 500VAC,1min ② 1,000VAC,1min	
Electrical Life (ops.)	100,000次 (1A 120VAC/24VDC) 50,000次 (3A 120VAC/24VDC)	100,000	
Operating Temperature	-25°C to +70°C	-25°C to +70°C	
Terminal Type	PCB	PCB	
Terminal Layout (Bottom View) (mm)	5-Φ1.0°0.1 	8-Φ1.0 <sup>+0.1</sup>   0	
Weight (Approximately)	4.0g	5.0g	
Page	43	46	

Category		POWER RELAY	
Product Model	HRS1KH3	HRS3	HRS3F
Relay Picture	A CONTROL OF THE STATE OF THE S		
Dimensions L×W×H (mm)	15.6×10.6×11.8	18.6×10.4×15.8	18.2×10.2×15.5
Safety Standards	(See 21) IN (See 18)	<b>③</b> . <b>™</b>	c <b>Al</b> us 🛕 œ
Characteristics	<ul> <li>Microminiature relay</li> <li>High sensitivity</li> <li>Contact: 1 Form A</li> <li>Switching capacity 3A</li> </ul>	<ul> <li>Microminiature relay</li> <li>Max. Switching capacity: 10A</li> <li>Contact: 1 Form A, 1 Form C</li> </ul>	<ul> <li>Microminiature relay</li> <li>5A switching capacity</li> <li>Contact: 1 Form A</li> <li>Reinforced insulation between coil and contact</li> </ul>
Contact Form	1A	1A,1C	1A
Contact Rating (Resistive Load)	3A 220VAC/30VDC	A:10A250VAC,5A 250VAC/28VDC C:NO/NC:5A/3A250VAC/28VDC	5A 250VAC/30VDC Horsepower : 1/3HP 240VAC(0.45M) 1/4HP 240VAC
Max. Switching Voltage	220VAC/30VDC	250VAC/28VDC	277VAC/30VDC
Max. Switching Current	3A	10A	5A
Max. Switching Power	660VA,90W	1,250VA,280W	1,250VA,150W
Min. Switching Load	5VDC,100mA	5VDC,100mA	5VDC,100mA
Coil Voltage	3~24VDC	3~24VDC	5~24VDC
Coil Power (mW)	200mW	200mW,450mW	200mW,450mW
DielectricStrength:  ① Open Contacts ② Coil and Contacts	① 750VAC,1min ②1,000VAC,1min	① 1,000VAC,1min ② A: 3,500VAC,1 min ② C: 2,500VAC,1 min	① 1,000VAC,1min ② 4,000VAC,1min
Electrical Life (ops.)	100,000	100,000	100,000
Operating Temperature	-25°C to +70°C	-40°C to +85°C	-40°C to +85°C
Terminal Type	PCB	PCB	PCB
Terminal Layout (Bottom View) (mm)	2.54±0.1 10.16±0.1 1.3±0.3	5-Ø13 <sup>*0.1</sup>	1.7±0.3 12.7±0.1 2.54±0.1
Weight (Approximately)	4.0g	6.0g	6.0g
Page	50	53	57
<b>KE</b> Selection Chart-6			

		DOWED DELAY	
Category	POWER RELAY		
Product Model	HRS3FN	HRS3FT	HRS3T
Relay Picture		MS 3/2 San San Maddid A The San	3
Dimensions L×W×H(mm)	18.2×10.2×15.5	18.2×10.2×15.5	20.9×10.2×15.5
Safety Standards	cac 🛕 cac	c <b>A</b> us 🛕 œ	c <b>Al</b> us 🛕 œ
Characteristics	<ul> <li>Microminiature relay</li> <li>10A switching capacity</li> <li>Contact: 1 Form A</li> <li>Reinforced insulation between coil and contact</li> </ul>	<ul> <li>Microminiature relay</li> <li>16A switching capacity</li> <li>Contact: 1 Form A</li> <li>Reinforced insulation between coil and contact</li> <li>Dielectric strength of 4000V between coil and contacts</li> <li>TV-5, TV-8 rating</li> </ul>	<ul> <li>Microminiature relay</li> <li>Max. Switching capacity: 10A</li> <li>Contact: 1 Form A, 1 Form C</li> </ul>
Contact Form	1A	1A	1A,1C
Contact Rating (Resistive Load)	10A 250VAC Horsepower:1/3HP 240VAC(0.45W) Horsepower:1/4HP 240VAC TV-5 250VAC	16A 250VAC TV-5 250VAC TV-8 250/125VAC	A:5A:250VAC/28VDC C:NO/NC:5A/3A:250VAC/28VDC
Max. Switching Voltage	277VAC/30VDC	250VAC/30VDC	250VAC/28VDC
Max. Switching Current	10A	16A	10A
Max. Switching Power	2,500VA,300W	4,000VA,480W	1,250VA,280W
Min. Switching Load	5VDC,100mA	5VDC,100mA	5VDC,100mA
Coil Voltage	5~24VDC	3~24VDC	3~48VDC
Coil Power (mW)	200mW,450mW	200mW,450mW	200mW,450mW
DielectricStrength: ① Open Contacts ② Coil and Contacts	① 1,000VAC,1min ② 4,000VAC,1min	① 1,000VAC,1min ② 4,000VAC,1min	① 1,000VAC,1min ② 4,000VAC,1min
Electrical Life (ops.)	100,000	50,000	100,000
Operating Temperature	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C
Terminal Type	PCB	PCB	PCB
Terminal Layout (Bottom View) (mm)	4-Ø1.3 *0.1 	2-Ø1.3 0 1 2-Ø1.6 0 1 1 2	5-Ø1.3 *0.1 
Weight (Approximately)	6.0g	约6.0g	7.0g
Page	59	61	63

Product Model  AC5N  HRS4  HRS4F  Relay Picture  Dimensions L×W×H(mm)  20.4×7.0×15.4  19.0×15.5×15.8  19.0×15.5×15  Safety Standards  ■ Microminiature relay ■ Slim type, 7mm width High mounting density ■ High sensitivity 200mW ■ High sensitivity 200mW ■ High sensitivity 200mW	
Dimensions L×W×H (mm)  20.4×7.0×15.4  19.0×15.5×15.8  19.0×15.5×15  Safety Standards   **Microminiature relay  Slim type, 7mm width High mounting density High sensitivity 200mW High sensitivity 200mW High sensitivity 200mW	
Safety Standards  **Microminiature relay  Slim type, 7mm width High mounting density High sensitivity 200mW  High sensitivity 200mW  TV-5 rating  **Miniature relay  **Miniature relay  **Dielectric strength 2500V between contacts	
Characteristics    Microminiature relay   Miniature relay   Miniature relay   Dielectric streng   2500V between	ec
Characteristics    Microminiature relay   Contact: 1 Form A, 1 Form B, 1 Form C   2500V between contacts   TV-5 rating   Contacts   Contact: 1 Form A, 1 Form B, 1 Form C   2500V between contacts   Contact C	
■ Tight sensitivity 200111VV ■ UL Class F insulation ■ Contact: 1 Form A	coil and
Contact Form         1A         1A,1B,1C         1A,1C	
Contact Rating (Resistive Load)  5A 250VAC  C: NO:10A 250VAC  C: NO:10A 250VAC/24VDC  NC:6A 250VAC/24VDC  TV-5 125VAC  10A 250VAC/30	VDC
Max. Switching Voltage 250VAC/30VDC 250VAC/28VDC 250VAC/30VD	OC
Max. Switching Current 5A 15A 10A	
Max. Switching Power 1,250VA,150W 2,500VA,280W 2,500VA,300V	W
Min. Switching Load 5VDC,100mA 5VDC,100mA 5VDC,100mA	A
Coil Voltage         5~24VDC         3~48VDC         3~48VDC	
Coil Power (mW)         200mW         360mW,450mW         360mW,450mW	ıW
DielectricStrength:         ① 750VAC,1min         ① 750VAC,1min         ① 1,000VAC,1min           ② Coil and Contacts         ② 4,000VAC,1min         ② 1,500VAC,1min         ② 2,500VAC,1min	
Electrical Life (ops.) 100,000 100,000 100,000	
Operating Temperature -40°C to +85°C -40°C to +85°C -40°C to +85°C	°C
Terminal Type PCB PCB PCB	
Terminal Layout (Bottom View) (mm)	5-Ø1.3 <sup>+0.1</sup>
Weight (Approximately) 3.0g 10.0g 11.0g	
Page 66 68 72	

Category	POWER RELAY	
Product Model	HRS4N	HRS4T
Relay Picture		AR masterious  Su.  A significant source  sour
Dimensions L×W×H (mm)	21.0×16.0×20.8	20.0×16.3×20.2
Safety Standards	<b>△</b> cec	c <b>Al</b> us 🛕 œ
Characteristics	<ul> <li>Max.20A switching capability</li> <li>High temperature load: 17A 277VAC at 105°C</li> <li>Available for single pin and double pins terminal</li> <li>Compliance to standard EN 60335-1</li> <li>Compliance to RoHS Directive</li> <li>UL Insulation system: F Class</li> </ul>	<ul> <li>Miniature relay</li> <li>Contact: 1 Form A, 1 Form B, 1 Form C</li> <li>UL Class F insulation</li> </ul>
Contact Form	1A,1B,1C	1A,1B,1C
Contact Rating (Resistive Load)	A: 20A 125VAC 17A 277VAC TV-8 125VAC C: NO:17A 277VAC NC:7A 277VAC	10A 250VAC/24VDC
Max. Switching Voltage	400VAC/28VDC	250VAC/28VDC
Max. Switching Current	20A(A),17A(C)	15A
Max. Switching Power	4,700VA	2,500VA,280W
Min. Switching Load	5VDC,100mA	5VDC,100mA
Coil Voltage	3~48VDC	3~48VDC
Coil Power (mW)	360mW	360mW,450mW
DielectricStrength:  ① Open Contacts ② Coil and Contacts	① 1,000VAC,1min ② 2,500VAC,1min	1,000VAC,1min 2 1,500VAC,1min
Electrical Life (ops.)	100,000	100,000
Operating Temperature	-40°C to +85°C(Single pin) -40°C to +105°C(Double pin)	-40°C to +85°C
Terminal Type	PCB	PCB
Terminal Layout (Bottom View) (mm)	Single pin version  Double pin version  2080.1 12240.1 224	1.75±0.3 5-Ø1.3 <sup>+0.1</sup> 0.1 0.2 0.2 0.2 0.2 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3
Weight (Approximately)	约14.0g	12.0g
Page	75	78

Category	POWER RELAY		
Product Model	V6	V6T	HRM
Relay Picture	The out of state of the state o	TAL VOTS-DC12V  16A - SOUNCE 16	The state of the s
Dimensions L×W×H (mm)	23.0×16.1×10.2	23.0×16.1×10.2	29.0×12.6×20.8
Safety Standards	(F) call us (A) (G)	us <b>//</b>	
Characteristics	<ul> <li>Low profile, flat type relay</li> <li>Max. Switching capacity: 15A</li> <li>Tungsten lamp load: 10A 125VAC</li> <li>High sensitivity 200mW</li> </ul>	<ul> <li>Low profile, flat type relay</li> <li>Max. Switching capacity: 16A</li> <li>Lever type(Manual Operation)</li> <li>High sensitivity 200mW</li> </ul>	<ul> <li>General purpose power relay</li> <li>TV-5 rating</li> <li>Creepage distance: 8mm</li> </ul>
Contact Form	1A	1A	1A,1C
Contact Rating (Resistive Load)	15A125VAC 10A 250VAC/24VDC	16A 250VAC 16A 30VDC	10A 250VAC/30VDC, TV-5 Inductive: 5A 240VAC (COSΦ=0.4) 16A 250VAC(For T type)
Max. Switching Voltage	250VAC/30VDC	250VAC/30VDC	250VAC/30VDC
Max. Switching Current	16A	16A	16A
Max. Switching Power	4,000VA,480W	4,000VA,480W	2,500VA,300W
Min. Switching Load	5VDC,100mA	5VDC,100mA	5VDC,100mA
Coil Voltage	3~48VDC	3~48VDC	3~48VDC
Coil Power (mW)	200mW	200mW	540mW,720mW
DielectricStrength: ① Open Contacts ② Coil and Contacts	① 750VAC,1min ② 2,500VAC,1min	① 750VAC,1min ② 2,500VAC,1min	① 1,000VAC,1min ② 4,000VAC,1min
Electrical Life (ops.)	100,000	50,000	100,000
Operating Temperature	-40°C to +85°C	-40°C to +85°C	-30~+55°C(720mW) -30~+70°C(540mW)
Terminal Type	PCB	PCB	PCB
Terminal Layout (Bottom View) (mm)	17.78±0.1 3.0±0.3 2.0±1.0 <sup>0</sup> .1 0.1.6 <sup>0</sup> .1 1.5±0.3	2-910 *** 177.880.1 3.020.3 *** 177.880.1 **	HRM 1.8±0.3 16.6±0.1 3.5±0.1 3.5±0.1 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
Weight (Approximately)	9.00g	10.00g	13.00g
Page	82	85	87

Contact Form  Contact Rating (Resistive Load)  Max. Switching Voltage  Max. Switching Current  Max. Switching Power  Min. Switching Load  Coil Voltage  Coil Power (mW)  DielectricStrength:	HRM1  29.0×12.6×20.8  □ → □ ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ←	HRM2  29.0×12.6×20.8  □ General purpose power relay □ Contact: 1 Form A, 1 Form C □ Dielectric strength of 4000V between coil and contacts □ 16A contact current □ Creepage distance: 8mm  1A,1C  16A 250VAC/30VDC, TV-8 □ Inductive Load □ 8A 250VAC/30VDC (COSΦ=0.4,L/R=7ms)	Sealed: 24.6×10.6×25.0 Unsealed: 24.0×10.0×25.0 Unsealed: 24.0×10.0×25.0  Available in sealed and unsealed versions High sensitivity type with power consumption of 250mW 1 form A contact configuration Comply with TV-5 standards required for TV and audio power supplies  1A  10A 250VAC/30VDC,TV-5
Dimensions L×W×H (mm) Safety Standards  Characteristics  Contact Form  Contact Rating (Resistive Load)  Max. Switching Voltage Max. Switching Current Max. Switching Current Max. Switching Load Coil Voltage Coil Power (mW) DielectricStrength:	Slim type Contact: 2 Form A, 2 Form C Dielectric strength of 4000V between coil and contacts Creepage distance: 8mm  2A,2C  5A 250VAC/24VDC, TV-5 Inductive Load 5A 250VAC/24VDC (COSФ=0.4,L/R=7ms)	General purpose power relay Contact: 1 Form A, 1 Form C Dielectric strength of 4000V between coil and contacts 16A contact current Creepage distance: 8mm 1A,1C 16A 250VAC/30VDC, TV-8 Inductive Load 8A 250VAC/30VDC	Unsealed: 24.0×10.0×25.0
Safety Standards  Characteristics  Contact Form  Contact Rating (Resistive Load)  Max. Switching Voltage  Max. Switching Current  Max. Switching Power  Min. Switching Load  Coil Voltage  Coil Power (mW)  DielectricStrength:	Slim type Contact: 2 Form A, 2 Form C Dielectric strength of 4000V between coil and contacts Creepage distance: 8mm  2A,2C  5A 250VAC/24VDC, TV-5 Inductive Load 5A 250VAC/24VDC (COSФ=0.4,L/R=7ms)	General purpose power relay Contact: 1 Form A, 1 Form C Dielectric strength of 4000V between coil and contacts 16A contact current Creepage distance: 8mm 1A,1C 16A 250VAC/30VDC, TV-8 Inductive Load 8A 250VAC/30VDC	Unsealed: 24.0×10.0×25.0
Contact Form  Contact Rating (Resistive Load)  Max. Switching Voltage  Max. Switching Current  Max. Switching Power  Min. Switching Load  Coil Voltage  Coil Power (mW)  DielectricStrength:	Slim type Contact: 2 Form A, 2 Form C Dielectric strength of 4000V between coil and contacts Creepage distance: 8mm  2A,2C  5A 250VAC/24VDC, TV-5 Inductive Load 5A 250VAC/24VDC (COSФ=0.4,L/R=7ms)	General purpose power relay Contact: 1 Form A, 1 Form C Dielectric strength of 4000V between coil and contacts 16A contact current Creepage distance: 8mm  1A,1C  16A 250VAC/30VDC, TV-8 Inductive Load 8A 250VAC/30VDC	Available in sealed and unsealed versions I High sensitivity type with power consumption of 250mW I form A contact configuration Comply with TV-5 standards required for TV and audio power supplies  1A
Contact Form  Contact Rating (Resistive Load)  Max. Switching Voltage  Max. Switching Current  Max. Switching Power  Min. Switching Load  Coil Voltage  Coil Power (mW)  DielectricStrength:	Contact: 2 Form A, 2 Form C Dielectric strength of 4000V between coil and contacts Creepage distance: 8mm  2A,2C  5A 250VAC/24VDC, TV-5 Inductive Load 5A 250VAC/24VDC (COSΦ=0.4,L/R=7ms)	<ul> <li>Contact: 1 Form A, 1 Form C</li> <li>Dielectric strength of 4000V between coil and contacts</li> <li>16A contact current</li> <li>Creepage distance: 8mm</li> <li>1A,1C</li> <li>16A 250VAC/30VDC, TV-8 Inductive Load 8A 250VAC/30VDC</li> </ul>	unsealed versions  I High sensitivity type with power consumption of 250mW  1 form A contact configuratior  Comply with TV-5 standards required for TV and audio power supplies  1A
Contact Rating (Resistive Load)  Max. Switching Voltage  Max. Switching Current  Max. Switching Power  Min. Switching Load  Coil Voltage  Coil Power (mW)  DielectricStrength:	5A 250VAC/24VDC, TV-5 Inductive Load 5A 250VAC/24VDC (COSΦ=0.4,L/R=7ms)	16A 250VAC/30VDC, TV-8 Inductive Load 8A 250VAC/30VDC	
Contact Rating (Resistive Load)  Max. Switching Voltage  Max. Switching Current  Max. Switching Power  Min. Switching Load  Coil Voltage  Coil Power (mW)  DielectricStrength:	Inductive Load 5A 250VAC/24VDC (COSΦ=0.4,L/R=7ms)	Inductive Load 8A 250VAC/30VDC	10A 250VAC/30VDC,TV-5
Max. Switching Current Max. Switching Power Min. Switching Load Coil Voltage Coil Power (mW) DielectricStrength:			
Max. Switching Power Min. Switching Load Coil Voltage Coil Power (mW) DielectricStrength:	250VAC/30VDC	250VAC/30VDC	250VAC/30VDC
Min. Switching Load  Coil Voltage  Coil Power (mW)  DielectricStrength:	5A	16A	10A
Coil Voltage Coil Power (mW) DielectricStrength:	1,250VA,150W	4,000VA,480W	2,500VA,300W
Coil Power (mW) DielectricStrength:	5VDC,100mA	5VDC,100mA	5VDC,100mA
DielectricStrength:	3~48VDC	3~48VDC	3~48VDC
•	540mW,720mW	540mW,720mW	150mW,250mW,540mW
Open Contacts     Coil and Contacts	① 1,000VAC,1min ② 4,000VAC,1min	① 1,000VAC,1min ② 4,000VAC,1min	① 1,000VAC,1min ② 4,000VAC,1min
Electrical Life (ops.)	100,000	100,000	100,000
Operating Temperature	-30~+55°C(720mW) -30~+70°C(540mW)	-30~+55°C(720mW) -30~+70°C(540mW)	-40°C to+70°C
Terminal Type	PCB	PCB	PCB
Terminal Layout (Bottom View) (mm)	15.24±0.1 5.08±0.1 5.08±0.1 5.08±0.1	1.8±0.3 15.24±0.1 15.24±0.1 15.08±0.1 15.08±0.1 15.08±0.1	4-Ø1.3°0.1 
Weight (Approximately)	13.0g	13.0g	10.0g
Page	91	95	99

Category		POWER RELAY	
Product Model	HRM4	НСР1	HCP2
Relay Picture	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
Dimensions L×W×H (mm)	Sealed: 24.4×12.9×24.8 Unsealed: 23.5×12.0×24.8	29.0×12.6×15.8	29.0×12.6×15.8
Safety Standards	<b>☆</b> ∞ △ ∞ <b>/</b> •		. <b>Al</b> us 🛕 🐽 🙆
Characteristics	<ul> <li>Small size</li> <li>Sealed and unsealed versions</li> <li>5A contact current</li> <li>2 form A contact configuration</li> <li>Creepage distance: 6mm</li> <li>Cross bar or rivet contacts</li> </ul>	<ul> <li>Low profile,height 15.8mm</li> <li>Switching capacity 12A</li> <li>Contact: 1 Form A, 1 Form C</li> <li>Sensitivity 400mW</li> <li>Insulation: 5KV</li> <li>Creepage:10mm</li> </ul>	<ul> <li>Low profile, height 15.8mm</li> <li>Switching capacity 8A</li> <li>Contact: 2 Form A, 2 Form C</li> <li>Sensitivity 400mW</li> <li>Insulation: 5KV Creepage:10mm</li> </ul>
Contact Form	2A	1A,1C	2A,2C
Contact Rating (Resistive Load)	5A 250VAC/30VDC,TV-5 3A 125VAC/30VDC(SP)	12A 250VAC/30VDC Inductive load 5A 250VAC Cosφ=0.4	8A 250VAC/30VDC Inductive load 4A 250VAC Cosφ=0.4
Max. Switching Voltage	250VAC/30VDC	440VAC/120VDC	440VAC/120VDC
Max. Switching Current	5A	12A	8A
Max. Switching Power	1,250VA,150W	3,000VA,360W	2,000VA,240W
Min. Switching Load	5VDC,100mA	5VDC,100mA	5VDC,100mA
Coil Voltage	3~48VDC	5~48VDC	5~48VDC
Coil Power (mW)	250mW,540mW	400mW	400mW
DielectricStrength:  ① Open Contacts ② Coil and Contacts	① 1,000VAC,1min ② 4,000VAC,1min	① 1,000VAC,1min ② 5,000VAC,1min	① 1,000VAC,1min ② 5,000VAC,1min
Electrical Life (ops.)	100,000	100,000	100,000
Operating Temperature	-30°C to +70°C	-40°C to +85°C	-40°C to +85°C
Terminal Type	PCB	PCB	PCB
Terminal Layout (Bottom View) (mm)	9-Ø13 °01 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5.08±0.1  5.08±0	8-\$\phi_13^{\cdot 0.1} \\ \begin{picture} 5.08\text{ato}.1 \\ \begin{picture} 5.08\text{ato}.1 \\ \begin{picture} 5.08\text{ato}.1 \\ \begin{picture} 20.32\text{ato}.1 \\ \begin{picture} 20.32\text{ato}.1 \\ \begin{picture} 1.1\text{ato}.3 \\ \begin{picture} 1.1\text{ato}.3 \\ \begin{picture} 20.32\text{ato}.1 \\ \begin{picture} 20.32\text{ato}.2 \\ \begin{picture} 20.32at
Weight (Approximately)	13.0g	13.00g	13.0g
Page	103	107	111

Category		POWER RELAY	
Product Model	НСР3	НСР4	
Relay Picture		The control of the co	
Dimensions L×W×H (mm)	29.0×12.6×15.8	28.4×10.0×12.7	
Safety Standards	e <b>Al</b> us 🛕 œ 🏝	. <b>₩ @</b>	
Characteristics	<ul> <li>Low profile, height 15.8mm</li> <li>Switching capacity 16A</li> <li>Contact: 1 Form A, 1 Form C</li> <li>Sensitivity:400mW,250mW</li> <li>Insulation: 5KV Creepage:10mm</li> </ul>	Contact: 1 Form A, 1 Form C High sensitivity 220mw	
Contact Form	1A,1B,1C	1A,1C	
Contact Rating (Resistive Load)	16A 250VAC/30VDC Inductive load 8A 250VAC Cosφ=0.4	8A 250VAC/30VDC	
Max. Switching Voltage	440VAC/120VDC	440VAC/30VDC	
Max. Switching Current	16A	10A	
Max. Switching Power	4,000VA,480W	2,000VA,240W	
Min. Switching Load	5VDC,100mA	5VDC,100mA	
Coil Voltage	3~48VDC	5 ∼48VDC	
Coil Power (mW)	250m,400mW	0.22W	
DielectricStrength: ① Open Contacts ② Coil and Contacts	① 1,000VAC,1min ② 5,000VAC,1min	① 1,000VAC,1min ② 5,000VAC,1min	
Electrical Life (ops.)	100,000	100,000	
Operating Temperature	-40°C to +85°C	-40°C to +85°C	
Terminal Type	PCB	PCB	
Terminal Layout (Bottom View) (mm)	8-\$\psi 1.3^{\frac{1}{0.1}}\$ 5.08±0.1 5.08±0.1 5.08±0.1 5.08±0.1 1.1±0.3	C(3.2mm) A(5.0mm) A(5	
Weight (Approximately)	13.0g	8.00g	
Page	114	117	

Category	POWER RELAY		
Product Model	F5	F6	
Relay Picture	FFH-3-DC12V-P1 150 -3-DVAC B. A. B.	FKE F6-S-0C12V-A 252 250VAC №  COLOR  SEE 100	
Dimensions L×W×H (mm)	24.2×12.3×20.1	30.5×16.0×20.1	
Safety Standards		A US COC	
Characteristics	<ul> <li>Compact and small in size</li> <li>Switching capacity: 20A</li> <li>Dielectric strength of 5000V between coil and contacts</li> <li>Available in PCB or quick connect terminals</li> <li>Ideal for switching magnetron and heater loads in microwave oven</li> </ul>	Miniature relay with high switching contact capacity, 20A/Z50VAC and 25A/Z50VAC. Low profile, height 16mm Dielectric strength of 5000V between coil and contacts Ideal for switching compressor and inverter loads Available in both PCB and quick connect terminals Applications: Air conditioners, refrigerators, OA equipment, etc	
Contact Form	1A	1A	
Contact Rating (Resistive Load)	16A 250VAC, 20A 125VAC	F6:25A 250VAC F6-P:20A 250VAC 20 FLA/80 LRA 120VAC	
Max. Switching Voltage	250VAC/30VDC	250VAC	
Max. Switching Current	20A	25A	
Max. Switching Power	4,000VA/480W	6,250VA	
Min. Switching Load	5VDC,100mA	5VDC,100mA	
Coil Voltage	3~48VDC	5~24VDC	
Coil Power (mW)	500mW,400mW	900mW	
DielectricStrength:  ① Open Contacts ② Coil and Contacts	① 1,000VAC,1min ② 5,000VAC,1min	① 1,500VAC,1min ② 5,000VAC,1min	
Electrical Life (ops.)	100,000(16A 250VAC)	100,000	
Operating Temperature	-40°C to +85°C	-40°C to +85°C	
Terminal Type	PCB, Quick connect	PCB, Quick connect	
Terminal Layout (Bottom View) (mm)	P1	27.6±0.1 2.0±0.8 <sup>-0.1</sup> 2.0±0.1 2.0±0.1 3.8±0.1	
Weight (Approximately)	10.00	18.0g	
Page	120	124	

Characteristics  Switching capacity: 20A PCB or quick connect terminals  Contact Form  1A  1A,1C  Contact Rating (Resistive Load)  Switching capacity: 40A PCB terminal Class F insulation  Contact Form  1A  1A,1C  A:30A 250VAC/24VDC AT:40A 250VAC/24VDC C:NO:20A 250VAC/24VDC	SELECTI	ON CHART		
Dimensions L×W×H(mm)	Category		POWER RELAY	
Dimensions L×W×H(mm)	Product Model	СМР6	CMP7	CMP8
Switching capacity: 20A	Relay Picture	RE A A	All Colleges	
Switching capacity: 20A	Dimensions L×W×H (mm)	QC:30.4×15.9×23.4 P:30.4×15.9×26.4	31.8×27.4×20.0	Exposed: 31.8×27.4×19.8 Concealed: 31.8×27.4×27.7
Switching capacity: 20A	Safety Standards		S A Us 🙆 🐽	
Contact Rating (Resistive Load)    20A 250VAC/30VDC   Inrush Current: 80A   Break Current: 80A   Break Current: 20A   Ct. NO. 20A 250VAC/24VDC   NC. 15A 250VAC/24VDC	Characteristics	■ PCB or quick connect	■ PCB terminal	<ul> <li>Dielectric strength of 2500V between coil and contacts</li> <li>PCB or quick connection terminals</li> <li>Available in exposed or</li> </ul>
Contact Rating   Inrush Current: 80A   Break Current: 20A   Ec: NO: 20A 250VAC/24VDC   NC: 15A 250VAC/24VDC   NC	Contact Form	1A	1A,1C	1A,1C
Max. Switching Current         20A         40A(T)         30A         30A           Max. Switching Power         5,000VA,600W         10,000VA,560W         7,500VA,560W         7,500VA,560W           Min. Switching Load         5VDC,100mA         5VDC,100mA         5VDC,100mA         5VDC,100mA           Coil Voltage         5~24VDC         5~48VDC         5~48VDC           Coil Power (mW)         900mW         900mW         900mW           DielectricStrength:	0	Inrush Current: 80A	C:NO:20A 250VAC/24VD0	C: NO:20A 250VAC/24VDC
Max. Switching Power         5,000VA,600W         10,000VA,560W         7,500VA,560W         7,500VA,560W           Min. Switching Load         5VDC,100mA         5VDC,100mA         5VDC,100mA         5VDC,100mA           Coil Voltage         5~24VDC         5~48VDC         5~48VDC           Coil Power (mW)         900mW         900mW         900mW           DielectricStrength: ① Open Contacts         ① 1,500VAC,1min         ① 1,500VAC,1min         ① 1,500VAC,1min           ② Coil and Contacts         ① 4,500VAC,1min         ② 2,500VAC,1min         ② 2,500VAC,1min         ② 2,500VAC,1min           Electrical Life (ops.)         100,000         100,000         100,000         100,000           Operating Temperature         -20°C to +55°C         -40°C to +85°C         -40°C to +85°C           Terminal Type         PCB, Quick connect         PCB, Quick connect         PCB, Quick connect    Weight (Approximately)  21.0g  27.0g  29.0g	Max. Switching Voltage	250VAC/30VDC	250VAC/28VDC	250VAC/28VDC
Min. Switching Load         5VDC,100mA         5VDC,100mA         5VDC,100mA           Coil Voltage         5~24VDC         5~48VDC         5~48VDC           Coil Power (mW)         900mW         900mW         900mW           DielectricStrength: ① Open Contacts ② Coil and Contacts         ① 1,000VAC,1min ② 4,500VAC,1min         ① 1,500VAC,1min ② 2,500VAC,1min         ① 1,500VAC,1min ② 2,500VAC,1min         ② 2,500VAC,1min           Electrical Life (ops.)         100,000         100,000         100,000           Operating Temperature         -20°C to +55°C         -40°C to +85°C         -40°C to +85°C           Terminal Type         PCB, Quick connect         PCB, Quick connect         PCB, Quick connect	Max. Switching Current	20A	40A(T) 30A	30A
Coil Voltage 5~24VDC 5~48VDC 5~48VDC  Coil Power (mW) 900mW 900mW 900mW  DielectricStrength: ① Open Contacts ② Coil and Contacts ② Coil and Contacts Electrical Life (ops.) 100,000 100,000  Operating Temperature -20°C to +55°C -40°C to +85°C -40°C to +85°C  Terminal Type PCB, Quick connect  PCB PCB, Quick connect  Terminal Layout (Bottom View) (mm)  Terminal Layout (Bottom View) (mm) 21.0g 27.6e0.1 15.6550.1 20.0g 27.0g 29.0g  Weight (Approximately) 21.0g 27.0g 29.0g	Max. Switching Power	5,000VA,600W	10,000VA,560W 7,500VA,560V	7,500VA,560W
Coil Power (mW)         900mW         900mW         900mW           DielectricStrength: • Open Contacts • Coil and Contacts • Coil and Contacts               • 1,000VAC,1min • 2,500VAC,1min             • 2,500VAC	Min. Switching Load	5VDC,100mA	5VDC,100mA	5VDC,100mA
DielectricStrength: ① Open Contacts ② Coil and Contacts ② Coil and Contacts Electrical Life (ops.)  Operating Temperature  Terminal Type  PCB, Quick connect  Terminal Layout (Bottom View) (mm)  Terminal Layout (Bottom View) (mm)  Weight (Approximately)  21.0g  10,000 VAC,1min ② 1,500VAC,1min ② 2,500VAC,1min	Coil Voltage	5∼24VDC	5~48VDC	5~48VDC
① Open Contacts ② Coil and Contacts ② Life (ops.)  Operating Temperature  Terminal Type  PCB, Quick connect  PCB  PCB, Quick connect  Terminal Layout (Bottom View) (mm)  Terminal Layout (Bottom View) (mm)  Weight (Approximately)  2 2,500VAC, 1min ② 2,500VAC, 1min	Coil Power (mW)	900mW	900mW	900mW
Operating Temperature         -20°C to +55°C         -40°C to +85°C         -40°C to +85°C           Terminal Type         PCB, Quick connect         PCB         PCB, Quick connect           Terminal Layout (Bottom View) (mm)         1880.1         12090.1         1450.1         1780.1         1780.1         1780.1         1780.1         1780.1         1780.1         1780.1         1880.1         1780.1         1880.1	① Open Contacts			
Terminal Layout (Bottom View) (mm)  PCB, Quick connect  PCB  PCB, Quick connect  PCB  PCB, Quick connect  FCB  PCB, Quick connect  Salou 3 17.840.1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Electrical Life (ops.)	100,000	100,000	100,000
Terminal Layout (Bottom View) (mm)  Weight (Approximately)  21.0g  27.6e.0.1  5.3e.0.3  17.8e.0.1  18.e.0.1  18.	Operating Temperature	-20°C to +55°C	-40°C to +85°C	-40°C to +85°C
Terminal Layout (Bottom View) (mm)  Weight (Approximately)  21.0g  27.6sc0.1  27.6sc0.1  27.6sc0.1  27.0sc0.1	Terminal Type	PCB, Quick connect	PCB	PCB, Quick connect
	(Bottom View)	1.8±0.1 12.0±0.1 1.5±0	4.02.1 **0.1 **1.0	38±0.1 58±0.3
Page 127 130 135	Weight (Approximately)	21.0g	27.0g	29.0g
	Page	127	130	135

Category	POWER RELAY		
Product Model	L	н	
Relay Picture			
Dimensions L×W×H (mm)	27.6×21	1.6 ×35.0	
Safety Standards	₹.	<b>∆</b> us	
Characteristics	<ul> <li>Switching capacity: 15A</li> <li>Contact: 1 Form, 2 Form</li> <li>Transparent cover</li> <li>AC/DC Coil</li> </ul>		
Contact Form	1A, 1B, 1C	2A, 2B, 2C	
Contact Rating (Resistive Load)	15A 220VAC/28VDC 10A 220VAC/28VDC		
Max. Switching Voltage	250VAC/30VDC	250VAC/30VDC	
Max. Switching Current	15A	10A	
Max. Switching Power	3300VA/420W	2200VA/280W	
Min. Switching Load	_	_	
Coil Voltage	5~110VDC,6~240VAC	5~110VDC,6~240VAC	
Coil Power (mW)	900mW, 1100mW, 1200mVA	900mW, 1100mW, 1200mVA	
DielectricStrength:  ① Open Contacts ② Coil and Contacts	① 1,000VAC,1min ② 1,500VAC,1min	① 1,000VAC,1min ② 1,500VAC,1min	
Electrical Life (ops.)	100,000	100,000	
Operating Temperature	-40°C to +70°C	40°C to +70°C	
Terminal Type	PCB, Quick connect	PCB, Quick connect	
Terminal Layout (Bottom View) (mm)	10.0 14.2		
Weight (Approximately)	PCB: 37g ,Quick	connect: 37g	
Page	140		
<b>KE</b> Selection Chart-1	6		

Category		POWER RELAY	
Product Model		LT	
Relay Picture			
Dimensions L×W×H (mm)		27.6×21.6×35.0	
Safety Standards			
Characteristics	<ul> <li>Dimensions: 27.6×21.6×35.0(mm)</li> <li>Available in various types mounting terminals</li> <li>Contact form: 2A, 2B, 2C; 3A, 3B, 3C; 4A, 4B, 4C</li> <li>Transparent cover</li> <li>AC/DC Coil</li> </ul>		
Contact Form	2A, 2B, 2C	3A, 3B, 3C	4A, 4B, 4C
Contact Rating (Resistive Load)	5A 220VAC/28VDC 7A 220VAC/28VDC	5A 220VAC/28VDC 7A 220VAC/28VDC	3A 220VAC/28VDC 5A 220VAC/28VDC
Max. Switching Voltage	250VAC/30VDC	250VAC/30VDC	250VAC/30VDC
Max. Switching Current	5A, 7A	5A, 7A	3A, 5A
Max. Switching Power	5A: 1100VA/140W 7A: 1540VA/196W	5A: 1100VA/140W 7A: 1540VA/196W	3A: 660VA/84W 5A: 1100VA/140W
Min. Switching Load	_	_	_
Coil Voltage	5~110VDC,6~240VAC	5~110VDC,6~240VAC	5~110VDC,6~240VAC
Coil Power (mW)		900mW, 1100mW,1200mVA	
DielectricStrength: ① Open Contacts ② Coil and Contacts	① 1,000VAC,1min ② 5,000VAC,1min	① 1,000VAC,1min ② 5,000VAC,1min	① 1,000VAC,1min ② 5,000VAC,1min
Electrical Life (ops.)	100,000	100,000	100,000
Operating Temperature	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C
Terminal Type	PCB, Quick connect	PCB, Quick connect	PCB, Quick connect
Terminal Layout (Bottom View) (mm)	13.2 13.2 13.2 13.2 13.2 13.2 13.2	13.2 6.6 2.2 2.2 9.9 4.9 4.9 4.9 4.9 4.9 4.9 4.9	13.2
Weight (Approximately)	PCB: 37g ,Quick connect: 37g		
Page		143	

OLLEO II	SELECTION CHART		
Category		AUTOMOTIVE RELAY	
Product Model	CMA1	CMA2	CMA31
Relay Picture	Sharks, a Sharks, a Soldy ass Soldy Soldy		HEE NO CANASTA CON DOCAY ON STATE ON ST
Dimensions L×W×H(mm)	19.0×15.5×15.8	Sealed:17.3×14.8×19.5 Open:15.7×12.7×17.7	27.8×27.8×24.6
Characteristics	<ul> <li>Miniature automotive relay</li> <li>High Switching capacity 20A</li> <li>Available in 3 contact configurations, 1 Form A, B and C</li> <li>Applications: car alarm, central locking system, power windows, seat control, etc</li> </ul>	<ul> <li>Miniature automotive relay</li> <li>Available in both open frame and plastic sealed package</li> <li>Numerous contact arrangements</li> <li>High switching capacity 20A</li> </ul>	<ul> <li>Heavy duty general purpose automotive relay</li> <li>Switching capacity 40A</li> <li>Available in 2 mounting options, socket or bracket mount</li> <li>Applications: air compressor, heater, fan motor, blower fan, defogger, etc</li> </ul>
Contact Form	1A,1B,1C	1A,1C,1U,1V,1W	1A,1B,1C
Contact Rating (Resistive Load)	15A 14VDC( B、C) 20A 14VDC( A)	A:15A 14VDC C:NO/NC:15A/10A 14VDC W:NO/NC:2×7A/2×5A 14VDC U:2×10A 14VDC V:2×7A 14VDC	12VDC: 40A 14VDC (A) 30A 14VDC (B) 30A 14VDC (C) 24VDC: 20A 28VDC (A) 10A 28VDC (B) NO/NC: 20A /10A 28VDC(C)
Max. Switching Voltage	75VDC	75VDC	75VDC
Max. Switching Current	20A	20A	40A
Max. Switching Power	280W	280W	420W(C) ,560W(A)
Coil Voltage	6~24VDC	3~24VDC	6~24VDC
Coil Power (W)	0.8W,0.36mW	1.1W	1.6W,1.8W
① Open Contacts ② Coil and Contacts	① 750VAC,1min ② 1,000VAC,1min	① 550VAC,1min ②1,000VAC,1min	① 550VAC,1min ② 550VAC,1min
Electrical Life (ops.)	100,000	100,000	100,000
Operating Temperature	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C -40°C to +125°C(T)
Terminal Type	PCB	PCB	Quick Connect
Terminal Layout (Bottom View) (mm)	1.75±0.3  5-Ø1.3*0.1  G	7-Ø1.3 *0.1	3,446,3 10,446,
Weight (Approximately)	10.0g	sealed :12.0g,open:8.0g	Bracket : 37.0g Without Bracket: 32.0g
Page	149	152	155



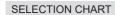
Category	AUTOMOTIVE RELAY		
Product Model	CMA31(A1/B1)	CMA32	4133
Relay Picture	TKE RD CMA31-B1 COLLOCIEVE SOA 14V/DC SOA 14	Control of the second of the s	## 180 *180 00 00 00 00 00 00 00 00 00 00 00 00 0
Dimensions L×W×H (mm)	27.9×27.9×25.0	27.8×27.8×24.6	20.4×15.1×22.0
Characteristics	<ul> <li>Automotive relay</li> <li>Switching capacity: 40A</li> <li>Contact: 1 Form A,1 Form B</li> </ul>	<ul> <li>Heavy duty general purpose automotive relay</li> <li>Available in 2 mounting options, with bracket or without bracket</li> <li>Two contact configurations, 1 Form A and 2 Form A</li> </ul>	<ul> <li>Miniature heavy duty general purpose automotive relay</li> <li>Switching capacity 35A</li> <li>1 Form A and C contact configurations</li> <li>Operating ambient temperature: 125°C</li> <li>Applications: air compressor, heater, fan motor, blower fan, defogger, etc</li> </ul>
Contact Form	1A,1B	1A,1U	1A,1C
Contact Rating (Resistive Load)	12VDC:40A 14VDC(A1) 30A 14VDC(B1) 24VDC:20A 28VDC(A1) 10A 28VDC(B1)	12VDC: 30A 14VDC(A) 2×20A 14VDC(U) 24VDC: 10A 28VDC(A) 2×10A 28VDC(U)	12VDC:NO:35A 14VDC NC:20A 14VDC 24VDC:NO:20A 28VDC NC:10A 28VDC
Max. Switching Voltage	75VDC	75VDC	28VDC
Max. Switching Current	40A	30A	35A
Max. Switching Power	420W	420W	490W(12V),420W(24V)
Coil Voltage	12~24VDC	12~24VDC	12~24VDC
Coil Power (W)	1.6W	1.6W,1.8W	1.5W,1.7W,1.8W,2.0W
DielectricStrength: ① Open Contacts ② Coil and Contacts	① 550VAC,1min ② 550VAC,1min	① 550VAC,1min ② 550VAC,1min	① 550VAC,1min ② 550VAC,1min
Electrical Life (ops.)	50,000	100,000	100,000
Operating Temperature	-40°C to +85°C	-40°C to +85°C	-40°C to +125°C
Terminal Type	Quick Connect	Quick Connect	Quick Connect
Terminal Layout (Bottom View) (mm)	8 440.1 10.88 0.1 10.88 0.1 10.88 0.1	108401 108401 108401 108401 108401	4.1±0.1 14.0±0.1 8.0±0.1 15.0±0.1 16.0±0.1
Weight (Approximately)	Bracket : 26.0g Without Bracket: 23.0g	Bracket : 37.0g Without Bracket: 32.0g	18.0g
Page	158	160	163

SELECTI	SELECTION CHART		
Category		AUTOMOTIVE RELAY	
Product Model	4133W	CMA34	CMA35
Relay Picture	THE TOTAL STREET OF THE PARTY O	IKE CMMADDIFFICA MC320A	HATE COMMISSIONAR  GAR STOOL
Dimensions L×W×H(mm)	20.4×15.1×23.0	22.5×15.0×25.0	26.0×26.0×24.8
Characteristics	<ul> <li>Miniature heavy duty general purpose automotive relay</li> <li>Switching capacity 30A</li> <li>1 Form A and C contact configurations</li> <li>Operating ambient temperature: 125°C</li> <li>Applications: air compressor, heater, fan motor, blower fan, defogger, etc</li> </ul>	■ Microminiature automotive relay ■ 125°C of operating ambient temperature ■ 2.8mm of Flat quick connection terminal ■ Compliance to Rohs、ELV Directive	<ul> <li>Heavy duty general purpose automotive relay</li> <li>70A of contact switching capacity</li> <li>125°C of working temperature</li> <li>Normal open contact configuration</li> <li>Availlable for Plastic sealed and unsealed type</li> <li>Quick Connect Terminals and PCB Terminals</li> </ul>
Contact Form	1A,1C	1A,1C	1A
Contact Rating (Resistive Load)	12VDC:NO:30A 14VDC NC:20A 14VDC 24VDC:NO:20A 28VDC NC:10A 28VDC	12VDC:NO:35A 14VDC NC:20A 14VDC 24VDC:NO:20A 28VDC NC:10A 28VDC	6V,12VDC: 70A 14VDC 24VDC: 40A 28VDC
Max. Switching Voltage	28VDC	40VDC	50VDC
Max. Switching Current	30A	Make(NO):150A, Break(NO):35A	70A
Max. Switching Power	490W(12V),420W(24V)	490W(12V),560W(24V)	1120W
Coil Voltage	12~24VDC	12~24VDC	6∼24VDC
Coil Power (W)	1.5W,1.7W,1.8W,2.0W	1.2W, 1.4W,1.6W	1.6W, 1.8W
① Open Contacts ② Coil and Contacts	① 550VAC,1min ② 550VAC,1min	① 550VAC,1min ② 550VAC,1min	① 550VAC,1min ② 550VAC,1min
Electrical Life (ops.)	100,000	100,000	100,000
Operating Temperature	-40°C to +125°C	-40°C to +125°C	-40°C to +125°C
Terminal Type	Quick connect	Quick connect	Quick connect,PCB
Terminal Layout (Bottom View) (mm)	4.1±0.1 14.0±0.1 3.	3.15±0.1 100 86 85 87a 87 8.1±0.1 16.2±0.1	10 max 1 max
Weight (Approximately)	18.0g	20.0g	38.0g
Page	166	169	172
DZC			

Category	AUTOMOTIVE RELAY		
Product Model	CMA36	CMA36N	CMA39
Relay Picture	BER COMMANDED TO CO. THE CO. THE CO. THE CO.	HE SHARE STATE OF THE SHARE STAT	
Dimensions L×W×H (mm)	26.0×26.0×22.7	26.6×26.0×22.7	28.0×28.0×25.0
Characteristics	<ul> <li>50A of switching capacity</li> <li>125°C of operating ambient temperature</li> <li>SPST and SPDT contact form</li> <li>Compliance to Rohs ELV Directive</li> <li>Availlable for Plastic sealed and unsealed type</li> </ul>	<ul> <li>General purpose automotive relay</li> <li>70A of switching capability</li> <li>Contact:1 Form A</li> <li>Availlable for Plastic sealed and unsealed type</li> <li>Quick Connect Terminals and PCB Terminals</li> <li>125°C of operating ambient temperature</li> </ul>	<ul> <li>2.8mm of quick flat connection terminal</li> <li>Contact: 1 Form A, 1 Form C</li> <li>125°C of working temperature</li> <li>Available for Sealed type or bayonet-type</li> <li>Compliance for Rohs and ELV directive</li> </ul>
Contact Form	1A,1C	1A	1A,1C
Contact Rating (Resistive Load)	Standard: NO:40A/14VDC,NC:30A/14VDC NO:20A/28VDC,NC:10A/28VDC T: NO:50A/14VDC,NC:30A/14VDC NO:30A/28VDC,NC:10A/28VDC	Resistive: NO:70A/14VDC NO:40A/28VDC Inductive: Make150A/14VDC break50A/14VDC Lamp: Surge200A/14VDC break40A/14VDC	NO: 35A 14VDC NC: 20A 14VDC
Max. Switching Voltage	75VDC	Refer to 'Max.switching power curve'	30VDC
Max. Switching Current	Make: 150A (NO,surge) Break: 50A (steady-state)	Make(NO,lamp)200A Break (steady state) 70A (res, 13.5V)	Make:150A(lamp),Break:35A
Max. Switching Power	640W	640W	490W
Coil Voltage	12~24VDC	12~24VDC	12~24VDC
Coil Power (W)	1.6W,1.8W,2.0W,2.2W	1.6W,1.8W,2.0W	1.6W,1.8W
DielectricStrength:  ① Open Contacts ② Coil and Contacts	① 550VAC,1min ② 550VAC,1min	① 550VAC,1min ② 550VAC,1min	① 550VAC,1min ② 550VAC,1min
Electrical Life (ops.)	100,000	100,000	100,000
Operating Temperature	-40°C to +125°C	-40°C to +125°C	-40°C to +125°C
Terminal Type	Quick connect,PCB	Quick connect,PCB	Quick connect
Terminal Layout (Bottom View) (mm)	2.00.1 2.00.1	27033 2703 27033 270	10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Weight (Approximately)	35.0g	38.0g	35.0g
Page	175	179	183



Cotogoni		AUTOMOTIVE RELAY	
Category Product Model	CM		CMA51
Relay Picture	KE (RE) CMA4-S-C-E COIL-DCIZV 30A 14VDC (3A3K2)		Chapter occine  State occine
Dimensions L×W×H(mm)	Sealed: 25.8×20.6×21.0	Open: 18.0×23.4×17.9	15.6×12.2×13.7
Characteristics	<ul> <li>General purpose auto</li> <li>Available in open fram</li> <li>High contact capacity</li> <li>USA or European fool</li> </ul>	ne and plastic sealed packages 40A	Compact microminiature general purpose automotive relay High inrush capability: 60A Contains no lead and features cadmium-free contacts ensuring environment-friendly use Applications: car alarm, power window, central locking system, seat adjustment control, etc
Contact Form	1A,1C	1A,1C	1A,1B,1C
Contact Rating (Resistive Load)	30A 14VDC (C) 40A 14VDC (A)	30A 14VDC (C) 40A 14VDC (A)	A: 20A 14VDC B\ C: 15A 14VDC
Max. Switching Voltage	75VDC	75VDC	30VDC
Max. Switching Current	40A	40A	35A
Max. Switching Power	560W	560W	280W
Coil Voltage	6∼24VDC	6~24VDC	6~24VDC
Coil Power (W)	1.6W	1.6W	0.6W,0.8W
① Open Contacts ② Coil and Contacts	① 550VAC,1min ② 550VAC,1min	① 550VAC,1min ② 550VAC,1min	① 550VAC,1min ② 550VAC,1min
Electrical Life (ops.)	100,000	100,000	100,000
Operating Temperature	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C
Terminal Type	PCB	PCB	PCB
Terminal Layout (Bottom View) (mm)	European footprint:  5.000.3	USA footprint:  6.4±0.3  5.35±0.1  14.88±0.1  3.75±0.1  6.2  4±0.3  4±0.3  4±0.3  4±0.3  4±0.3  4±0.3	2.5±0.1 10.2±0.1 10.2±0.1 11.2±0.3 11.2±0.1 10.2±0.
Weight (Approximately)	Sealed::21.0g	Open: 15.0g	6.0g
Page	18	36	190



KE

Product Model  CMA512  CMA53/CMA532  **Ministure automotive him relay win relay win relay high contacts ensuring free contacts ensuring win relay high country and power window, central locking system, seat adjustment control, etc adjustment contr	SELECTI	ON CHART		
Dimensions L×W×H(mm)  23.2×16.0×14.1  Miniature automotive twin relay   High inrush capability: 60A   Contains no lead and compact   Available in single and twin relay   ChA53: 1single relay   ChA53: 1singl	Category	AUTOMOTIVE RELAY		
Dimensions L×W×H(mm)  23.2×16.0×14.1  CMA53: 13.0×12.0×10.0  CMA532:23.6×13.0×10.0  **Miniature automotive win relay high inrush capability: 60A care cadmum fee contacts ensuring environment-friendly use adulties cadmum fee contacts ensuring environment-friendly use applications: car alarm, power window, central locking system, seat adjustment control, etc.  Contact Form  2×1C  Contact Rating (Resistive Load)  15A 14VDC  NO/NC:20A/15A 14VDC  NO/NC:20A/15A 14VDC  NO/NC:20A/15A 14VDC  NO/NC:20A/15A 14VDC  NO/NC:20A/15A 14VDC  NO/NC:20A/15A 14VDC  Max. Switching Voltage  30VDC  16VDC  16VDC  16VDC  Max. Switching Current  35A  30A  30A  Max. Switching Power  280W  280W  280W  280W  Coil Voltage  6~24VDC  6~24VDC  6~24VDC  6~24VDC  6~24VDC  6~24VDC  6~24VDC  6~24VDC  Coil Power (W)  0.6W  0.55W,0.8W  0.55W,0.8W  0.55W,0.8W  0.55W,0.8Tmin  0.550VAC, 1min	Product Model	CMA512	CMA53/CMA532	
* Miniature automotive twin relay high inrush capability: 60A Contains no lead and features cadmiumfree contacts ensuring new relay environment-frendly use environment-frendly use environment-frendly use explications: car alarm, power growth contacts ensuring environment-frendly use explications: car alarm, power growth contact sensuring environment-frendly use explications: car alarm, power window, central locking system, seat adjustment control, etc applications: car alarm, power window, central locking system, seat adjustment control, surroof motor control, wiper, etc applications: car alarm, power window, central locking system, seat adjustment control, surroof motor control, wiper, etc applications: car alarm, power window, central locking system, seat adjustment control, surroof motor control, wiper, etc and power window, central locking system, seat adjustment control, surroof motor control, wiper, etc and power window, central locking system, seat adjustment control, surroof motor control, wiper, etc and power window, central locking system, seat adjustment control, surroof motor control, wiper, etc and power window, central locking system, seat adjustment control, surroof motor control, wiper, etc and features cadmium-free contacts adjustment control, etc and features cadmium-free contacts and power window, central locking system, seat adjustment control, surroof motor control, wiper, etc and features cadmium-free contacts adjustment control, etc and features cadmium-free contacts and fe	Relay Picture		Charles and Charle	MASS SOCIONO NO TON A MODE SONO
itwin relay i High incush capability: 60A Contains no lead and Characteristics  Contact Rating (Resistive Load)  15A 14VDC  NO/NC:20A/15A 14VDC	Dimensions L×W×H (mm)	23.2×16.0×14.1	CMA53: 13.0×12.0×10.0	CMA532:23.6×13.0×10.0
Contact Rating (Resistive Load)  Max. Switching Voltage  Max. Switching Current  Max. Switching Power  280W  280W  280W  280W  280W  280W  Coil Voltage  6~24VDC  6~24VDC  6~24VDC  6~24VDC  Coil Power (W)  DielectricStrength: ① Open Contacts ② Coil and Contacts ② Electrical Life (ops.)  100,000  Operating Temperature  -40°C to +85°C  Terminal Layout (Bottom View) (mm)  Terminal Layout (Bottom View) (mm)  Weight (Approximately)  12.0g  CMA532-8.0g  NO/NC:20A/15A 14VDC	Characteristics	twin relay  High inrush capability: 60A  Contains no lead and features cadmiumfree contacts ensuring environment-friendly use  Applications: car alarm, power window, central locking system, seat	<ul> <li>Small and compact</li> <li>Available in single and twin relay CMA53 - single relay CMA532 - twin relay</li> <li>High contact capacity 30A</li> <li>Low noise operation</li> </ul>	
Max. Switching Voltage   30VDC   16VDC   16VDC	Contact Form	2×1C	1A, 1C	2×1A, 2×1C
Max. Switching Current         35A         30A         30A           Max. Switching Power         280W         280W         280W           Coil Voltage         6~24VDC         6~24VDC         6~24VDC           Coil Power (W)         0.6W         0.55W,0.8W         0.55W,0.8W           DielectricStrength: ① Open Contacts ② Coil and Contacts         ① 550VAC,1min ② 550VAC,1min         ① 550VAC,1min ② 550VAC,1min         ① 550VAC,1min ② 550VAC,1min         ② 550VAC,1min ② 550VAC,1min           Electrical Life (ops.)         100,000         100,000         100,000         100,000           Operating Temperature         -40°C to +85°C         -40°C to +105°C         -40°C to +105°C           Terminal Type         PCB         PCB         CMA532           CMA532         CMA532         CMA532           Weight (Approximately)         12.0g         CMA53.4.0g         CMA532.8.0g		15A 14VDC	NO/NC:20A/15A 14VDC	NO/NC:20A/15A 14VDC
Max. Switching Power         280W         280W         280W           Coil Voltage         6~24VDC         6~24VDC         6~24VDC           Coil Power (W)         0.6W         0.55W,0.8W         0.55W,0.8W           DielectricStrength: ① Open Contacts ② Coil and Contacts         ① 550VAC,1min ② 550VAC,1min         ① 550VAC,1min ② 550VAC,1min         ① 550VAC,1min ② 550VAC,1min         ② 550VAC,1min           Electrical Life (ops.)         100,000         100,000         100,000         100,000           Operating Temperature         -40°C to +85°C         -40°C to +105°C         -40°C to +105°C           Terminal Type         PCB         PCB         PCB           Terminal Layout (Bottom View) (mm)         CMA53         CMA532           Weight (Approximately)         12.0g         CMA53:4.0g         CMA53:28.0g	Max. Switching Voltage	30VDC	16VDC	16VDC
Coil Voltage         6~24VDC         6~24VDC         6~24VDC           Coil Power (W)         0.6W         0.55W,0.8W         0.55W,0.8W           DielectricStrength: ① Open Contacts ② Coil and Contacts         ① 550VAC,1min ② 550VAC,1min ② 550VAC,1min ② 550VAC,1min ② 550VAC,1min ② 550VAC,1min ② 550VAC,1min ② 550VAC,1min         ① 550VAC,1min ② 550VAC,1min           Coperating Temperature         -40°C to +85°C         -40°C to +105°C         -40°C to +105°C           Terminal Type         PCB         PCB         PCB           PCB         PCB         PCB           CMA532         CMA532           Weight (Approximately)         12.0g         CMA53:4.0g         CMA532:8.0g	Max. Switching Current	35A	30A	30A
DielectricStrength:	Max. Switching Power	280W	280W	280W
DielectricStrength:         ⊕ 550VAC,1min         ⊕ 60VAC,1min         ⊕ 60VAC,1min <td>Coil Voltage</td> <td>6~24VDC</td> <td>6~24VDC</td> <td>6~24VDC</td>	Coil Voltage	6~24VDC	6~24VDC	6~24VDC
① Open Contacts ② Coil and Contacts ② Electrical Life (ops.)  Operating Temperature  100,000  100,000  100,000  100,000  100,000  100,000  100,000  100,000  100,000  Terminal Type  PCB  PCB  PCB  CMA53  CMA532  CMA532  Terminal Layout (Bottom View) (mm)  Weight (Approximately)  12.0g  CMA53:4.0g  CMA53:4.0g  CMA532:8.0g	Coil Power (W)	0.6W	0.55W,0.8W	0.55W,0.8W
Operating Temperature         -40°C to +85°C         -40°C to +105°C         -40°C to +105°C           Terminal Type         PCB         PCB         PCB           Terminal Layout (Bottom View) (mm)         15:03   5:01   5:15:01   5:15:01   5:0	① Open Contacts			
Terminal Layout (Bottom View) (mm)  Weight (Approximately)  PCB  PCB  PCB  PCB  PCB  PCB  PCB  PC	Electrical Life (ops.)	100,000	100,000	100,000
Terminal Layout (Bottom View) (mm)  Weight (Approximately)  15:03 5501 51501 51501 51501 51501 51501 51001 5	Operating Temperature	-40°C to +85°C	-40°C to +105°C	-40°C to +105°C
Terminal Layout (Bottom View) (mm)  Weight (Approximately)  15.10.3   5.15.0.1   5.15.0.	Terminal Type	PCB	PCB	PCB
	(Bottom View)	0.8x1.5 198 4-0.4x10 198	8-00.1 7-00.01 3-01.8 0.1 2-10.3 3-01.8 0.1 3-01.8 0.1	2.1103
Page 194 196	Weight (Approximately)	12.0g	CMA53:4.0g	CMA532:8.0g
	Page	194	19	96



Category	AUTOMOTIVE RELAY		
Product Model	CMA54/	CMA542	CMA55
Relay Picture	Company of the compan	1845 - 00 1840 -	CASCASTORA CASCASTORA TO TO LOCA TAKE BOD FRANK
Dimensions L×W×H(mm)	CMA54:17.5×9.2×13.2	CMA542:17.5×16.9×13.2	15.6×12.2×13.7
Characteristics	<ul> <li>Small and compact</li> <li>Available in single and twin relay CMA54 - single relay, CMA542 - twin relay CMA54 dimensions: 17.5×9.2×13.2(mm)</li> <li>CMA542 dimensions: 17.5×9.2×13.2(mm)</li> <li>High contact capacity 25A</li> <li>Low noise operation</li> <li>Contains no lead and features cadmium-free contacts ensuring environment-friendly use</li> <li>Applications: car alarm, power window, central locking system, seat adjustment control, sunroof motor control, wiper, etc</li> </ul>		
Contact Form	1C	2×1C	2A
Contact Rating (Resistive Load)	20A 14VDC	2×20A 14VDC	12V: 2×6A 13.5VDC 24V: 2×5A 28VDC
Max. Switching Voltage	40VDC	40VDC	14VDC
Max. Switching Current	25A	2×25A	2×10A
Max. Switching Power	280W	2×280W	2×81W
Coil Voltage	12VDC	12VDC	6~24VDC
Coil Power (W)	0.56W	0.56W	1.0W
DielectricStrength: ① Open Contacts ② Coil and Contacts	① 550VAC,1min ② 550VAC,1min	① 550VAC,1min ② 550VAC,1min	① 550VAC,1min ② 550VAC,1min
Electrical Life (ops.)	100,000	100,000	100,000
Operating Temperature	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C
Terminal Type	PCB	PCB	PCB
Terminal Layout (Bottom View) (mm)	28±0.3 13.75±0.1 2±0.3 3.75±0.1 2±0.3 3.75±0.1 2±0.0 9.2 1 3.75±0.0 9.2 1 3.75±0.0 9.2 1 3.75±0.1 2 3.75±0.1 2 3.7	CMA542  2.8±0.3  13.75±0.1  2.2±0.3  4.±0.9%  1.5±0.1  2.5±0.1	2.5±0.1 10.2±0.1 1 10.
Weight (Approximately)	CMA54:5.0g	CMA542:10.0g	6.0g
Page	20		203
Onlanting Object O			

Category		AUTOMOTIVE RELAY	
Product Model	CMA56	/CMA562	CMA57
Relay Picture	O flatering	State Of Control of the Control of Control o	Marketons on the second of the
Dimensions L×W×H (mm)	CMA56:14×7.2×13.7 CMA56T:14×7.2×14.2	CMA562: 14×15.4×13.7 CMA562T: 14×15.4×14.2	15.6×15.2×16.5
Characteristics	■ Miniature aut ■ 25A of Motor ■ Single relay o	Load	<ul> <li>125°C of operating ambient temperature</li> <li>2.8mm of Flat quick connection terminal</li> <li>Compliance to Rohs, ELV Directive</li> </ul>
Contact Form	1C	2×1C	1A
Contact Rating (Resistive Load)	12V: 25A(Inrush) 14VDC(Motor) 12V: 20A 14VDC(Resistance) 24V: 10A 24VDC(Resistance)	` '	12V: 20A 14VDC 24V: 15A 28VDC
Max. Switching Voltage	16VDC	16VDC	16VDC
Max. Switching Current	30A	2×30A	Make:100A Break:30A
Max. Switching Power	350W	2×350W	320W
Coil Voltage	6~24VDC	6~24VDC	12VDC
Coil Power (W)	0.64W,0.8W	0.64W,0.8W	0.95W,1.1W
DielectricStrength: ① Open Contacts ② Coil and Contacts	① 550VAC,1min ② 550VAC,1min	① 550VAC,1min ② 550VAC,1min	① 550VAC,1min ② 550VAC,1min
Electrical Life (ops.)	100,000	100,000	100,000
Operating Temperature	-40°C to +105°C (Standard) -40°C to +125°C (Reflow)	-40°C to +105°C (Standard) -40°C to +125°C (Reflow)	-40°C to +125°C
Terminal Type	PCB	PCB	PCB
Terminal Layout (Bottom View) (mm)	CMA56  8.4±0.1  8.4±0.1  0.8±0.3  2.Φ1.0.*12  2.Φ1.0.*12  3.Φ1.8.*12  2.Φ1.0.*12	CMA562	55 2
Weight (Approximately)	CMA56:4.0g	CMA562:8.0g	10.0g
Page	20	)5	209
			Soloction Chart 25

Category	AUTOMOTIVE RELAY		
Product Model	CMA58	CMA59	
Relay Picture	Committee Construction of the Construction of	Manage Colleges	
Dimensions L×W×H(mm)	17.0×13.0×16.0	20.4×15.1×22.0	
Characteristics	<ul> <li>■ Reduction of 20dB sound pressure</li> <li>■ Saving Space</li> <li>■ Plastic Cover Sealed</li> <li>■ Compliance to Rohs、ELV Directive</li> </ul>	<ul> <li>Automative Mute Relay</li> <li>100,000operations for 25A 14VDC (Locked rotor current)</li> <li>Quick-Flat connection terminal</li> <li>sound pressures50dB</li> <li>Compliance to RoHS and ELV</li> </ul>	
Contact Form	1C	1A,1C	
Contact Rating (Resistive Load)	NO/NC:20A/10A 14VDC	A(Resistive): 20A 14VDC C(Resistive): NO:20A 14VDC NC:10A 14VDC Motor: 25A (peak) 14VDC	
Max. Switching Voltage	16VDC	16VDC	
Max. Switching Current	20A	30A	
Max. Switching Power	320W	480W	
Coil Voltage	12VDC	12VDC	
Coil Power (W)	0.64W	0.64W,0.85W	
DielectricStrength:  ① Open Contacts ② Coil and Contacts	① 550VAC,1min ② 550VAC,1min	① 550VAC,1min ② 550VAC,1min	
Electrical Life (ops.)	100,000	100,000	
Operating Temperature	-40°C to +85°C	-40°C to +125°C	
Terminal Type	PCB	Quick connect	
Terminal Layout (Bottom View) (mm)	2.5±0.1 10.2±0.1 10.2±0.1 10.2±0.1 10.2±0.1 10.2±0.1 10.2±0.1	4.1±0.1	
Weight (Approximately)	6.5g	11.6g	
Page	211	214	



Category	MAGNETIC LA	TCHING RELAY	
Product Model	HKE16	HKE17	
Relay Picture	A Section of the sect	3	
Dimensions L×W×H (mm)	29.0×12.7×16.0	24.0×10	0.0×15.8
Safety Standards	c <b>⊕</b> 🛕 cec	-	_
Characteristics	<ul> <li>DPST 16A Magnetic latching relay</li> <li>Max.Surge Current 350A/2ms</li> <li>Energy-saving and Environmental Friendly product(RoHS Compliant)</li> </ul>	<ul> <li>Magnetic Latching Relay</li> <li>SPST 16A Magnetic latching relay</li> <li>Max.Surge Current 100A/2ms</li> <li>Comply to IEC 60335-1:household and similal electrical appliances-safety</li> <li>Impulse voltage is 12000V,Dielectric strength is 5000V</li> </ul>	
Contact Form	2A	1/	4
Contact Rating (Resistive Load)	16A 250VAC,5×10 <sup>4</sup> (Res) 20A 250VAC,2×10 <sup>4</sup> (Res) 1.5HP 250VAC,3×10 <sup>4</sup> (HP) 8A 220VAC,cosφ0.4,3×10 <sup>4</sup> 3300W 277VAC,2×10 <sup>4</sup> (Electronic Ballast)	Standard: 8A 250VAC T: 16A 277VAC	
Max. Switching Voltage	277VAC	250VAC	277VAC
Max. Switching Current	20A	8A	16A
Max. Switching Power	5000VA	2000VA	4432VA
Coil Voltage	3~48VDC	3~24	VDC
Coil Power (W)	0.6W,0.8W,1.2W	0.2W,0.4W,	0.6W,1.0W
DielectricStrength: ① Open Contacts ② Coil and Contacts	① 1,000VAC,50/60Hz,1min ② 4,000VAC,50/60Hz,1min	① 1,000VAC,5 ② 5,000VAC,5	
Electrical Life (ops.)	Refer to 'contact load'		lectrical life'
Operating Temperature	-40°C to +85°C	-40°C to +70°	to +85°C(8A ) °C(8A∼16A )
Terminal Type	PCB	PC	
Terminal Layout (Bottom View) (mm)	3.Ø1.0*8² 4.Ø1.5*8² 2.1 16.6±0.1 7.0±0.1	17.5±0.1 3,5±0.1	
Weight (Approximately)	12.0g	8	5.0g
3 , , , , , , , , , , , , , , , ,	. 3		-

Category	MAGNETIC LATCHING RELAY		
Product Model	HKE18	HKE19	
Relay Picture		The second of th	
Dimensions L $\times$ W $\times$ H (mm)	24.2×13.0×16.4	19.0×15.5×15.8	
Safety Standards	cac 🛕 us Ro	_	
Characteristics	<ul> <li>Magnetic Latching Relay</li> <li>20A of switching capability</li> <li>Contact: 1 Form A</li> <li>Only pulse excitation, single and double coil work available</li> <li>Dielectric strength of 4000V between coil and contacts</li> <li>Friendly product(RoHS Compliant)</li> </ul>	<ul> <li>Magnetic Latching Relay</li> <li>15A of switching capability</li> <li>Contact: 1 Form A, 1 Form C</li> <li>Only pulse excitation, single and double coil work available</li> <li>Dielectric strength of 2700V between coil and contacts</li> <li>Friendly product(RoHS Compliant)</li> </ul>	
Contact Form	1A	1A,1C	
Contact Rating (Resistive Load)	16A 250VAC/30VDC,5×10 <sup>4</sup> (Res) 20A 250VAC,2×10 <sup>4</sup> (Res) 1.5HP 250VAC,4×10 <sup>4</sup> (HP) TV-8 250VAC,2.5×10 <sup>4</sup>	10A 277VAC (Res) 15A 120VAC (Tungsten lamp)	
Max. Switching Voltage	277VAC/30VDC	277VAC/30VDC	
Max. Switching Current	20A	15A(1 Form A), 10A (1 Form C)	
Max. Switching Power	5000VA	2770VAC/300W	
Coil Voltage	3~48VDC	5~48VDC	
Coil Power (W)	0.6W,0.8W,1.2W	0.4W,0.8W	
DielectricStrength: ① Open Contacts ② Coil and Contacts	① 1,000VAC,50/60Hz,1min ② 4,000VAC,50/60Hz,1min	① 750VAC,50/60Hz,1min ② 2,700VAC,50/60Hz,1min	
Electrical Life (ops.)	Refer to "contact load"	6×10 <sup>3</sup> (15A 120VAC Tungsten lamp ON/OFF:1S/59S) 1×10 <sup>4</sup> (10A 277VAC Resistance ON/OFF:1S/9S)	
Operating Temperature	-40°C to +85°C	-40°C to +85°C	
Terminal Type	PCB	PCB	
Terminal Layout (Bottom View) (mm)	L1 - Single coil  2.1 a.0.1 5  2.2 a.0.1 5	L1 - Single coil 1.75:03.3 5:03.3 0.1 1.75:03.3 0.1	
Weight (Approximately)	11.0g	11.0g	

Category	FLASHER	
Product Model	CMAF01	CMAF01L
Relay Picture	IAE CAMPGO FEASHING TO 21V-150W	FACE CAMPOIL FEASING IV. TW. 150W TO. T.
Dimensions L×W×H (mm)	30.0×30.0×40.0	30.0×30.0×30.0
Characteristics	Special integrate circuit, stable reliable performance     Use of special high performance contacts, ultra-long electrical endurance     Surface mounting technology, advanced technology     Solid base design, stable structure     Protection IP50     Steering light of the automobile control,     Hazard warning flash lamp control	Special integrate circuit, stable reliable performance     Use of special high performance contacts, ultra-long electrical endurance     Surface mounting technology, advanced technology     Solid base design, stable structure     Protection IP50     Steering light of the automobile control, Hazard warning flash lamp control
Norminal Load	2×21W+5W Turning Mode	2×21W+5W Turning Mode
	2×(2×21W+5W) Hazard warning mode	2×(2×21W+5W) Hazard warning mode
	21W+5W Failure mode	21W+5W Failure mode
Norminal Voltage	12VDC,24VDC	12VDC
Flash Frequency	(60∼110)ops/min	(60∼110)ops/min
Lamp Failure Flash Frequency	(140~230)ops/min	(140~230)ops/min
Duty cycle	30%~70%	30%~70%
Electrical Endurance	12V:1000h(Turning15s on / 15s off) 360h(hazard warning continuously) 24V:400h(Turning15s on / 15s off) 200h(hazard warning continuously)	1000h(Turning15s on / 15s off) 360h(hazard warning continuously)
Ambient temperature	-40°C∼85°C	-40°C∼85°C
Terminal Layout (Bottom View) (mm)	30.0±0.3 16.9±0.2 49.(E) (B).31 (L).49a (L).49a	30.0±0.3 16.9±0.2 49.(E) (B):31 (L):49a (L):49a
Wiring Diagram (Bottom View)	49 31 反級性 反級性	49a 正极性 反极性
Weight (Approximately)	40g	30g
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Category		HV DIRECT DURRENT RELAY	
Product Model		HEV50	
Relay Pict	ure	IKE HENSOS A.R COL. ZANDO TOMA ZANDO TOMA ZANDO	
Dimension	ns L×W×H(mm)	66.0×34.0×52.0	
Characteristics		<ul> <li>150A of switching capability</li> <li>Contact: 1 Form A</li> <li>With arc extinguishing device,increased load capacity</li> <li>Optional resistor or diode to protect the coil circuit</li> <li>75°C of working temperature</li> <li>According to customer needs to select connector</li> <li>Friendly product(RoHS Compliant)</li> </ul>	
Contact Fo	orm	1 Form A	
Contact Re	esistance	Max.50mΩ(24VDC 1A)	
Coil Voltag	е	DC12V,DC24V,DC36V,DC48V	
Max.Contin	uous Current	150A	
Max.Conn	ect Current	300A	
Operate T	ime (at 23°C)	Max.50ms	
Release T	ïme (at 23°C)	Max.50ms	
Insulation I	Resistance	Min.100MΩ 500VDC	
Dielectric	Between open contacts	550VAC,50/60Hz,1min	
Strength	Between coil and contacts	550VAC,50/60Hz,1min	
Ambient to	emperature	-40°C to +75°C	
Relative Hu	ımidity	5∼85% R.H	
Vibration re	sistance	Sine wave 10-500Hz Peak, 5G	
Shock resis	stance	10G	
Electrical (23°C)		Resistance: 12VDC 150A 5×10 <sup>4</sup> ops ON/OFF:1S/4S 24VDC 100A 5×10 <sup>4</sup> ops ON/OFF:1S/4S 36VDC 70A 5×10 <sup>4</sup> ops ON/OFF:1S/4S 48VDC 60A 5×10 <sup>4</sup> ops ON/OFF:1S/4S 72VDC 50A 5×10 <sup>4</sup> ops ON/OFF:1S/4S 110VDC 30A 5×10 <sup>4</sup> ops ON/OFF:1S/4S	
Mechanical		1×10 <sup>7</sup>	
Weight (Approximately)		85g	
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Category		HV DIRECT DURRENT RELAY	
Product M	odel	HEV200	
Relay Picture			
Dimension	ns L×W×H(mm)	80.0×62.3×72.3	
Characteristics		■ Compact,light weight,low cost for enclosure,high current HV relay ■ Able to attach energy saving module for coil ■ Optional auxiliary contact,monitor the status of main contact in real time ■ Highly sealed,safe and reliable because fully insulated from coil and contacts ■ Availiable for multiple coil supply mode ■ Compliance with ROHS	
Contact Fo	orm	1 Form A	
Contact Re	esistance	Typical 0.2mΩ(@200A)	
Coil Voltag	е	DC9~36V,DC32V~95V,DC48~95V	
Rated swit	ching load(Res)	200A 12~900VDC	
Rated swit	ching current(Res)	200A	
Rated swit	ching voltage	12~900VDC	
Max.switch	ning current	Make500A,Break2000A@320VDC	
Insulation I	Resistance	Min.100MΩ 500VDC	
Dielectric	Between open contacts	2,200VAC,50/60Hz,1min	
Strength	Between coil and contacts	2,200VAC,50/60Hz,1min	
Ambient to	emperature	-40°C to +85°C	
Relative Hu	ımidity	5∼85%RH(no dew and frost at low temp) , 40 $^{\circ}\text{C}$	
Vibration re	sistance	Sine wave80-2000Hz peak, ≤20G	
Shock resis	stance	11ms,1/2Sine wave peak,≤20G	
Electrical (Res 200A)		1×10 <sup>5</sup> cycles(28VDC) 25000cycles(120VDC) 10000cycles(270VDC) 3000cycles(400VDC) 800cycles(600VDC) 150cycles(900VDC)	
Mechanica	al	1×10 <sup>6</sup>	
Weight (A	pproximately)	43g	
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**KE** Selection Chart-32

Category	SOLID STATE RELAY
Product Model	смѕ
Relay Picture	
Dimensions L×W×H (mm)	26.4×26.4×22.7
Safety Standards	_
Characteristics	<ul> <li>22A continuous current carrying capacity</li> <li>Contact: 1 Form A</li> <li>No noise, low power consumption</li> <li>No mechanical wear, high switching life</li> <li>Operating temperature: -40°C ~ +85 °C</li> <li>Rated voltage 9 ~ 32V</li> <li>Compliance to ROHS</li> </ul>
Contact Form	1 Form A
Output switching resistance	≤20mΩ
Rated switching current(Res)	22A
Rated switching voltage	9~32VDC
Max.protection current	250A(23°C); 150A(150°C)
Max.output leakage current	≤0.1mA
Operate Time	Max.400μs
Release Time	Max.150μs
Temperature	-40°C to +85°C
Humidity	5~85%RH
Vibration resistance	$10{\sim}55$ Hz, 1.5mm double amplitude
Shock resistance	980m/s²
Terminal Type	Quick connect
Terminal Layout (Bottom View) (mm)	2.9±0.3 158 158 158 17.9±0.1
Weight (Approximately)	29g
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