

"ODYSSEY SERIES" THERMAL OVERLOAD RELAYS

OVERLOAD PART # [JAPANESE TYPE #]		3NK1Q* [TK-N2]		3NK2H* [TK-N3]		3NK3F* [TK-N5]	
CONTACTOR USED ON		3NC0T... [SC-N1]	3NC1Q... [SC-N2]	3NC2F... [SC-N2S]	3NC2H... [SC-N3]	3NC2T... [SC-N4]	3NC3F... [SC-N5]
AMPERE RANGE CODE LETTER	N	4-6	4-6				
	P	5-8	5-8				
	Q	6-9	6-9				
	S	7-11	7-11	7-11	7-11		
	T	9-13	9-13	9-13	9-13		
	V	12-18	12-18	12-18	12-18		
	W	18-26	18-26	18-26	18-26	18-26	18-26
	Y	24-36	24-36	24-36	24-36	24-36	24-36
	Z			28-40	28-40	28-40	28-40
	A		32-42				
	E			34-50	34-50	34-50	34-50
	F			45-65	45-65	45-65	45-65
	G				48-68		
	H					53-80	53-80
K						65-95	
M						85-105	

OVERLOAD PART # [JAPANESE TYPE #]		3NK3H* [TK-N6]	3NK4F* [TK-N7]	3NK4Q* [TK-N8]	3NK4H* [TK-N10]	3NK5H* [TK-N12]	
CONTACTOR USED ON		3NC3H... [SC-N6]	3NC4F... [SC-N7]	3NC4Q... [SC-N8]	3NC4H... [SC-N10]	3NC5F... [SC-N11]	3NC5H... [SC-N12]
AMPERE RANGE CODE LETTER	F	45-65	45-65				
	H	53-80	53-80				
	K	65-95	65-95	65-95			
	L	85-125	85-125	85-125	85-125		
	N		110-160	110-160	110-160	110-160	110-160
	P			125-185	125-185	125-185	125-185
	Q				160-240	160-240	160-240
	R					200-300	200-300
	T						240-360
							300-450

EXPLANATION OF PART NUMBER SYSTEM

3 N K 3 H *

• **PRODUCT LINE**
3N=Odyssey Series

• **STYLE**
K=Open Phase Protection
(offered as a standard feature)

• **AMPERE RANGE CODE**
See above chart

• **FRAME SIZE**
1Q-5H

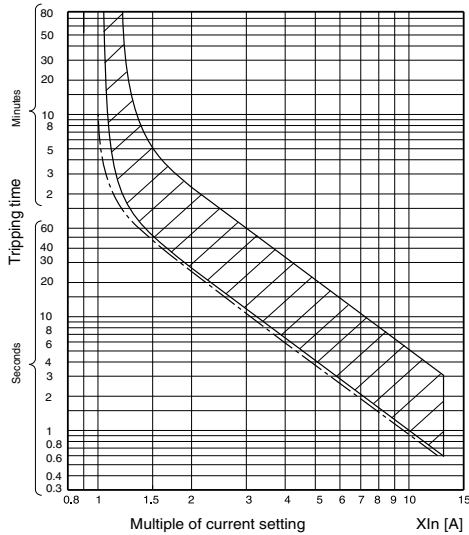
"ODYSSEY SERIES" THERMAL OVERLOAD RELAYS

Overload Trip Curves

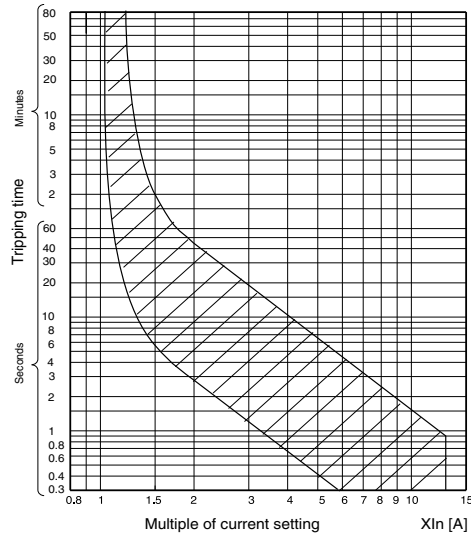
■ THERMAL OVERLOAD RELAYS/OPEN-PHASE PROTECTION TYPE K

3NK1Q* - 3NK4Q*

Cold start

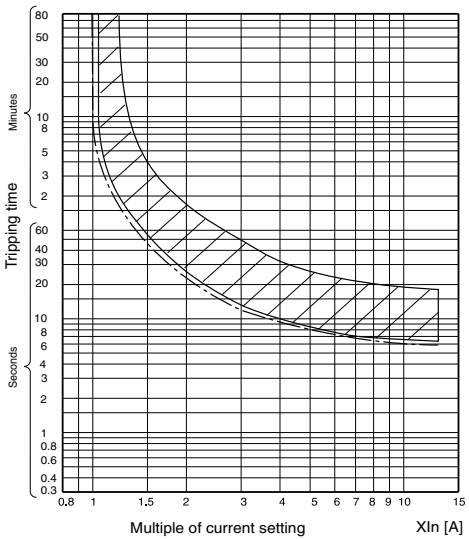


Hot start

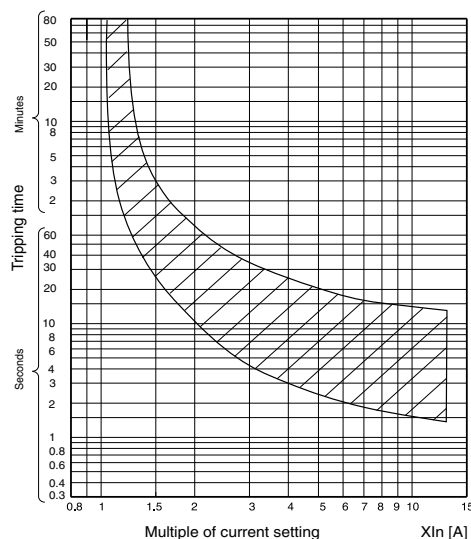


3NK4H* - 3NK5H*

Cold start



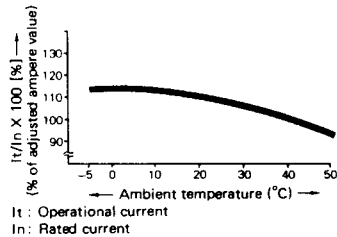
Hot start



■ AMBIENT TEMPERATURE COMPENSATOR

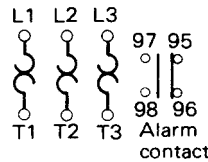
FUJI overload relays are provided with an ambient temperature compensator. Their characteristics limit ampere value changes to approx. 10% as the ambient temperature changes between -5°C and 40°C.

Compensation characteristics (Average value)

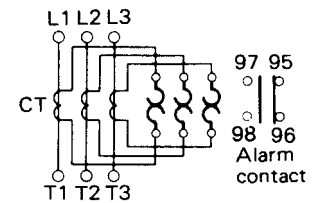


■ WIRING DIAGRAMS

(3NK1Q* through 3NK4Q*)



(3NK4H* through 3NK5H*)



■ ALARM CONTACT RATINGS

Contact rating Code Designation	Continuous Ampere Rating	Current-Make/Break (A)			
		110 to 120V	220 to 240V	440 to 480V	550 to 600V
C600	2.5	15/1.5	7.5/0.75	3.75/0.375	3.0/0.3

SZ-HD
SZ-HE

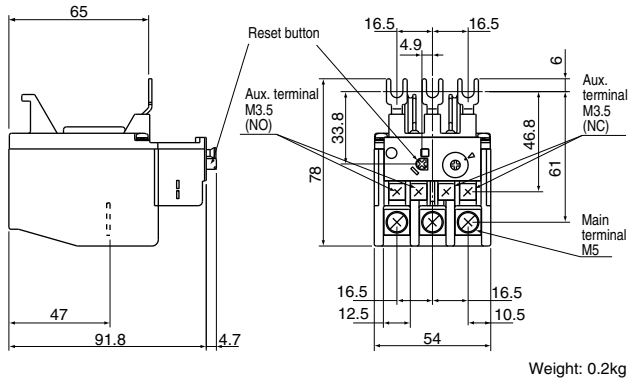


Base unit for separate mounting

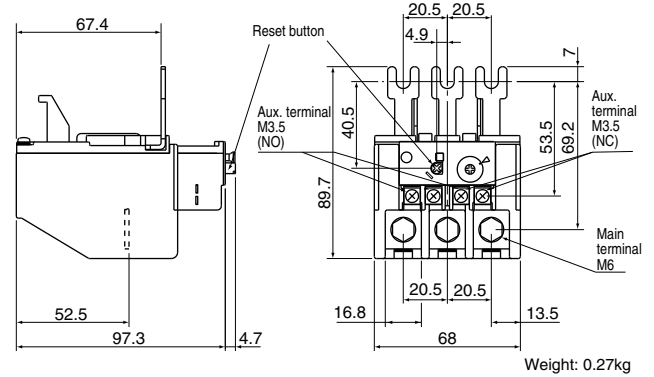
"ODYSSEY SERIES" Dimensions

■ THERMAL OVERLOAD RELAYS FOR USE WITH CONTACTORS Approximate Dimensions, mm

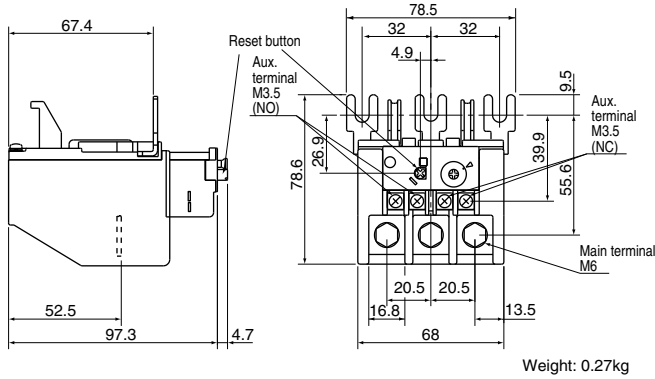
3NK1Q*



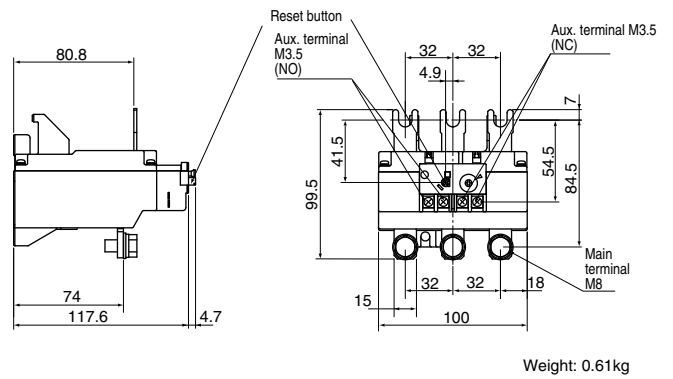
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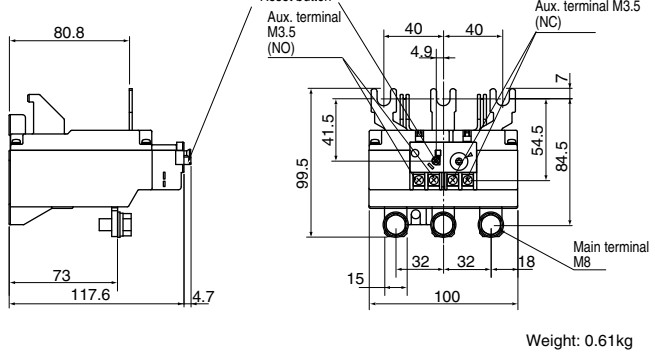
3NK3F*



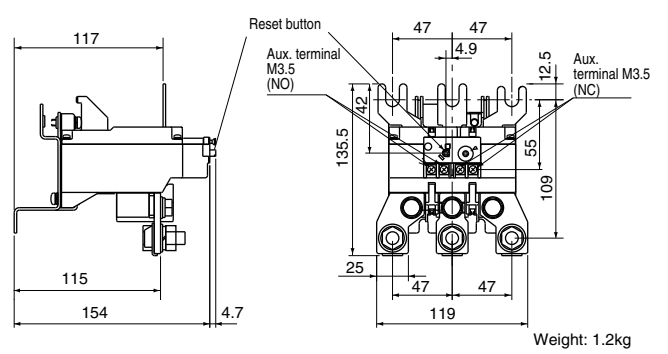
3NK3H*



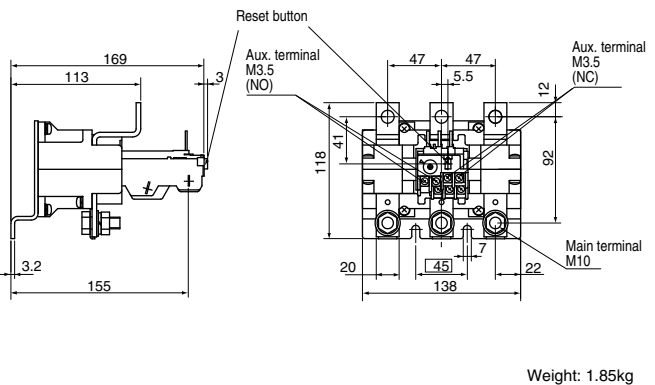
3NK4F*



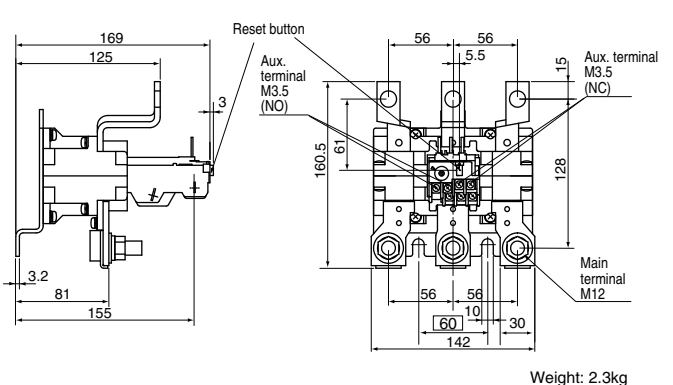
3NK4Q*



3NK4H*



3NK5H*



Terminal Tightening Torque Chart

Type No.		Terminal Size		Cable Size Maximum		Applicable Max. Width for Ring Terminal		Tightening Torque	
Contactor or Starter	Thermal Overload Relay	Contactor	Thermal Overload Relay	Contactor	Thermal Overload Relay	Contactor	Thermal Overload Relay	Contactor	Thermal Overload Relay
4NC0A0 4NC0F0 4NC0G0 4NW0A0 4NW0F0 4NW0G0	4NK0A	M3.5	M3.5	12AWG (3.3mm ²)	12AWG (3.3mm ²)	7.7mm	7.7mm	7-9 in.lbs. 0.8-1 Nm	7-9 in.lbs. 0.8-1 Nm
4NC0Q0 4NC0R0 4NC0H0 4NW0Q0 4NW0R0 4NW0H0	4NK0H	M4	M4	10AWG (5.3mm ²)	10AWG (5.3mm ²)	9.7mm	9.7mm	11-13 in.lbs. 1.2-1.5 Nm	11-13 in.lbs. 1.2-1.5 Nm
3NC0T0 3NC1Q0 3NW0T0 3NW1Q0	3NK1Q	M5	M5	6AWG (13.3mm ²)	6AWG (13.3mm ²)	12.4mm	12.4mm	18-22 in.lbs. 2-2.5 Nm	18-22 in.lbs. 2-2.5 Nm
3NC2F0 3NC2H0 3NW2F0 3NW2H0	3NK2H	M6	M6	2AWG (33.6mm ²)	4AWG (21.2mm ²)	16.8mm	16.7mm	35-44 in.lbs. 4-5 Nm	35-44 in.lbs. 4-5 Nm
3NC2T0 3NC3F0 3NW2T0 3NW3F0	3NK3F	M6	M6	1/0AWG (53.5mm ²)	2AWG (33.6mm ²)	22.3mm	16.7mm	35-44 in.lbs. 4-5 Nm	35-44 in.lbs. 4-5 Nm
3NC3H0 3NW3H0	3NK3H	M8	M8	1/0AWG (53.5mm ²)	1/0AWG (53.5mm ²)	22.3mm	22.3mm	80-97 in.lbs. 9-11 Nm	80-97 in.lbs. 9-11 Nm
3NC4F0 3NW4F0	3NK4F	M8	M8	3/0AWG (85mm ²)	1/0AWG (53.5mm ²)	28.9mm	22.3mm	80-97 in.lbs. 9-11 Nm	80-97 in.lbs. 9-11 Nm
3NC4Q0 3NW4Q0	3NK4Q	M10	M10	300MCM (152mm ²)	300MCM (152mm ²)	36.5mm	36.5mm	133-177 in.lbs. 15-20 Nm	133-177 in.lbs. 15-20 Nm
3NC4H0 3NW4H0	3NK4H	M10	M10	300MCM (152mm ²)	300MCM (152mm ²)	36.5mm	36.5mm	133-177 in.lbs. 15-20 Nm	133-177 in.lbs. 15-20 Nm
3NC5F0 3NC5H0 3NW5F0 3NW5H0	3NK5H	M12	M12	400MCM (203mm ²)	400MCM (203mm ²)	44.5mm	44.5mm	310-399 in.lbs. 35-45 Nm	310-399 in.lbs. 35-45 Nm
3NC6F0 3NC6H0	-	M16	-	600MCM (304mm ²)	-	51.0mm	-	663-884 in.lbs. 75-100 Nm	-