

IEC Performance Data

		Catalog Number KTA7-25S...32S														
		0.16A	0.25A	0.4A	0.63A	1A	1.6A	2.5A	4A	6.3A	10A	16A	20A	25A	29A	32A
Rated Operational Current, I_e	[A]	0.16	0.25	0.4	0.63	1	1.6	2.5	4	6.3	10	16	20	25	29	32
Magnetic Release Current	[A]	2.1	3.3	5.2	8.2	13	21	33	52	82	130	208	260	325	406	448
Switching of Standard Three-Phase Motors																
AC-2, AC-3																
230/240V	[kW]	~	~	0.06	0.09	0.18	0.25	0.37	0.75	1.5	2.2	4.0	5.5	5.5	7.5	7.5
400/415V	[kW]	0.02	0.04	0.09	0.18	0.25	0.55	0.75	1.5	2.2	4.0	7.5	10	11	13	15
500V	[kW]	0.06	0.09	0.12	0.18	0.37	0.75	1.1	2.2	3.0	6.3	10	11	15	18.5	20
690V	[kW]	0.06	0.09	0.18	0.25	0.55	1.1	1.8	3.0	4.0	7.5	13	17	22	25	25
Back-up Fuses																
gG, gL, only if $I_{cc} \geq I_{cu}$																
230/240V	[A]	⓪	⓪	⓪	⓪	⓪	⓪	⓪	⓪	⓪	⓪	⓪	100	100	125	125
400/415V	[A]	⓪	⓪	⓪	⓪	⓪	⓪	⓪	⓪	⓪	⓪	80	100	100	125	125
440/460V	[A]	⓪	⓪	⓪	⓪	⓪	⓪	⓪	⓪	⓪	63	63	80	80	100	100
500V	[A]	⓪	⓪	⓪	⓪	⓪	⓪	⓪	⓪	⓪	80	80	80	80	100	100
690V	[A]	⓪	⓪	⓪	⓪	⓪	16	20	35	50	50	63	63	63	80	80
Ultimate Short-Circuit Breaking Capacity																
I_{cu}																
230/240V	[kA]	100	100	100	100	100	100	100	100	100	100	100	65	65	50	50
400/415V	[kA]	100	100	100	100	100	100	100	100	100	100	65	50	15	15	15
440/460V	[kA]	100	100	100	100	100	100	100	100	100	50	10	6	6	6	6
500V	[kA]	100	100	100	100	100	100	100	100	100	50	10	6	6	6	6
690V	[kA]	100	100	100	100	100	8	6	6	4	4	3	3	3	3	3
Rated Service Short-Circuit Breaking Capacity																
I_{cs}																
230/240V	[kA]	100	100	100	100	100	100	100	100	100	100	100	50	50	25	25
400/415V	[kA]	100	100	100	100	100	100	100	100	100	100	50	15	15	15	15
440/460V	[kA]	100	100	100	100	100	100	100	100	100	50	6	6	6	6	6
500V	[kA]	100	100	100	100	100	100	100	100	100	50	6	6	6	6	6
690V	[kA]	100	100	100	100	100	8	6	6	4	4	3	3	3	3	3

F KT7 Motor Circuit Controllers

⓪ No backup fuse required.

IEC Performance Data

		Catalog Number KTA7-25H...32H								Catalog Number KTA7-45H...						
		2.5A	4A	6.3A	10A	16A	20A	25A	29A	32A	10A	16A	20A	25A	32A	45A
Rated Operational Current, I_e	[A]	2.5	4	6.3	10	16	20	25	29	32	10	16	20	25	32	45
Magnetic Release Current	[A]	33	52	82	130	208	260	325	406	448	130	208	260	325	416	585
Switching of Standard Three-Phase Motors																
AC-2, AC-3																
230/240V	[kW]	0.37	0.75	1.5	2.2	4.0	5.5	5.5	7.5	7.5	2.2	4.0	5.5	6.3	7.5	13
400/415V	[kW]	0.75	1.5	2.2	4.0	7.5	10	11	13	15	4.0	7.5	10	11	15	22
500V	[kW]	1.1	2.2	3.0	6.3	10	11	15	18.5	20	6.3	10	11	15	20	30
690V	[kW]	1.8	3.0	4.0	7.5	13	17	22	25	25	7.5	13	17	22	30	40
Back-up Fuses																
gG, gL, only if $I_{cc} \geq I_{cu}$																
230/240V	[A]	⓪	⓪	⓪	⓪	⓪	⓪	⓪	⓪	⓪	⓪	⓪	⓪	⓪	⓪	⓪
400/415V	[A]	⓪	⓪	⓪	⓪	⓪	100	100	125	125	80	100	100	100	125	125
440/460V	[A]	⓪	⓪	⓪	⓪	80	100	100	125	125	80	100	100	100	125	125
500V	[A]	⓪	⓪	⓪	⓪	80	80	80	100	100	80	100	100	100	125	125
690V	[A]	20	35	50	50	63	63	63	80	80	63	80	80	80	100	100
Ultimate Short-Circuit Breaking Capacity																
I_{cu}																
230/240V	[kA]	100	100	100	100	100	100	100	65	65	100	100	100	100	100	100
400/415V	[kA]	100	100	100	100	100	100	65	50	50	100	100	100	100	65	65
440/460V	[kA]	100	100	100	50	50	50	50	25	25	65	65	65	65	65	50
500V	[kA]	100	100	100	50	50	50	50	25	25	50	50	50	50	50	50
690V	[kA]	10	10	6	6	6	6	6	6	6	10	10	10	10	10	10
Rated Service Short-Circuit Breaking Capacity																
I_{cs}																
230/240V	[kA]	100	100	100	100	100	100	100	50	50	100	100	100	100	100	100
400/415V	[kA]	100	100	100	100	50	25	25	25	25	50	50	50	50	50	50
440/460V	[kA]	100	100	100	50	50	25	25	20	20	50	50	50	50	50	50
500V	[kA]	100	100	100	50	50	25	25	20	20	50	50	50	50	50	50
690V	[kA]	10	10	6	6	4	4	4	4	4	10	10	10	10	6	6

⓪ No backup fuse required.

IEC Performance Data

		Catalog Number KTB7-25S...						
		0.16A	0.25A	0.4A	0.63A	1A	1.6A	2.5A
Rated Operational Current, I_e	[A]	0.16	0.25	0.4	0.63	1	1.6	2.5
Magnetic Release Current	[A]	2.1	3.3	5.2	8.2	13	21	32
Switching of Standard Three-Phase Motors								
AC-2, AC-3								
230/240V	[kW]	~	~	0.06	0.09	0.18	0.25	0.37
400/415V	[kW]	0.02	0.04	0.09	0.18	0.25	0.55	0.75
500V	[kW]	0.06	0.09	0.12	0.18	0.37	0.75	1.1
690V	[kW]	0.06	0.09	0.18	0.25	0.55	1.1	1.8
Back-up Fuses								
gG, gL, only if $I_{cc} \geq I_{cu}$								
230/240V	[A]	①	①	①	①	①	①	①
400/415V	[A]	①	①	①	①	①	①	①
440/460V	[A]	①	①	①	①	①	①	①
500V	[A]	①	①	①	①	①	①	①
690V	[A]	①	①	①	①	①	16	20
Ultimate Short-Circuit Breaking Capacity								
I_{cu}								
230/240V	[kA]	100	100	100	100	100	100	100
400/415V	[kA]	100	100	100	100	100	100	100
440/460V	[kA]	100	100	100	100	100	100	100
500V	[kA]	100	100	100	100	100	100	100
690V	[kA]	100	100	100	100	100	10	6
Rated Service Short-Circuit Breaking Capacity								
I_{cs}								
230/240V	[kA]	100	100	100	100	100	100	100
400/415V	[kA]	100	100	100	100	100	100	100
440/460V	[kA]	100	100	100	100	100	100	100
500V	[kA]	100	100	100	100	100	100	100
690V	[kA]	100	100	100	100	100	8	6

① No backup fuse required.

IEC Performance Data

		Catalog Number KTB7-25H...32H							Catalog No. KTB7-45H...		
		2.5A	4A	6.3A	10A	16A	25A	32A	25A	32A	45A
Rated Operational Current, I_e	[A]	2.5	4	6.3	10	16	25	32	25	32	45
Magnetic Release Current	[A]	32	52	82	130	208	325	448	325	416	585
Switching of Standard Three-Phase Motors											
AC-2, AC-3											
230/240V	[kW]	0.37	0.75	1.5	2.2	4.0	5.5	7.5	6.3	7.5	13
400/415V	[kW]	0.75	1.5	2.2	4.0	7.5	11	15	11	15	22
500V	[kW]	1.1	2.2	3.0	6.3	10	15	20	15	20	30
690V	[kW]	1.8	3.0	4.0	7.5	13	22	25	22	25	40
Back-up Fuses											
gG, gL, only if $I_{cc} \geq I_{cu}$											
230/240V	[A]	①	①	①	①	①	①	①	100	125	125
400/415V	[A]	①	①	①	①	①	100	125	100	125	125
440/460V	[A]	①	①	①	①	80	100	125	100	125	125
500V	[A]	①	①	①	①	80	80	100	100	125	125
690V	[A]	20	35	50	50	63	63	80	80	100	100
Ultimate Short-Circuit Breaking Capacity											
I_{cu}											
230/240V	[kA]	100	100	100	100	100	100	65	100	100	100
400/415V	[kA]	100	100	100	100	100	65	50	100	65	65
440/460V	[kA]	100	100	100	50	50	50	25	65	65	50
500V	[kA]	100	100	100	50	50	25	25	50	50	50
690V	[kA]	10	6	10	6	6	6	6	10	10	10
Rated Service Short-Circuit Breaking Capacity											
I_{cs}											
230/240V	[kA]	100	100	100	100	100	100	50	100	100	100
400/415V	[kA]	100	100	100	100	50	25	25	50	50	50
440/460V	[kA]	100	100	100	50	50	25	20	50	50	50
500V	[kA]	100	100	100	50	50	25	20	50	50	50
690V	[kA]	10	6	10	6	4	4	4	10	6	6

① No backup fuse required.

IEC Performance Data

		Catalog Number KTC7-25S...										
		0.16A	0.25A	0.4A	0.63A	1A	1.6A	2.5A	4A	6.3A	10A	16A
Rated Operational Current, I_e	[A]	0.16	0.25	0.4	0.63	1	1.6	2.5	4	6.3	10	16
Magnetic Release Current	[A]	3.2	5.2	8.2	13	21	32	52	82	130	208	260
Switching of Standard Three-Phase Motors												
AC-2, AC-3												
230/240V	[kW]	~	~	0.06	0.09	0.18	0.25	0.37	0.75	1.5	2.2	4.0
400/415V	[kW]	0.02	0.04	0.09	0.18	0.25	0.55	0.75	1.5	2.2	4.0	7.5
500V	[kW]	0.06	0.09	0.12	0.18	0.37	0.75	1.1	2.2	3.0	6.3	10
690V	[kW]	0.06	0.09	0.18	0.25	0.55	1.1	1.8	3.0	4.0	7.5	13
Back-up Fuses												
gG, gL, only if $I_{cc} \geq I_{cu}$												
230/240V	[A]	⓪	⓪	⓪	⓪	⓪	⓪	⓪	⓪	⓪	⓪	⓪
400/415V	[A]	⓪	⓪	⓪	⓪	⓪	⓪	⓪	⓪	⓪	⓪	80
440/460V	[A]	⓪	⓪	⓪	⓪	⓪	⓪	⓪	⓪	⓪	63	80
500V	[A]	⓪	⓪	⓪	⓪	⓪	⓪	⓪	⓪	⓪	80	80
690V	[A]	⓪	⓪	⓪	⓪	⓪	16	20	35	50	50	63
Ultimate Short-Circuit Breaking Capacity												
I_{cu}												
230/240V	[kA]	100	100	100	100	100	100	100	100	100	100	100
400/415V	[kA]	100	100	100	100	100	100	100	100	100	100	50
440/460V	[kA]	100	100	100	100	100	100	100	100	100	10	10
500V	[kA]	100	100	100	100	100	100	100	100	100	10	10
690V	[kA]	100	100	100	100	100	8	6	6	4	4	3
Rated Service Short-Circuit Breaking Capacity												
I_{cs}												
230/240V	[kA]	100	100	100	100	100	100	100	100	100	100	100
400/415V	[kA]	100	100	100	100	100	100	100	100	100	100	15
440/460V	[kA]	100	100	100	100	100	100	100	100	100	10	6
500V	[kA]	100	100	100	100	100	100	100	100	100	10	6
690V	[kA]	100	100	100	100	100	8	6	6	4	4	3

⓪ No backup fuse required.

IEC Performance Data

		Catalog No. KTC7-25H...		Catalog No. KTC7-45H...	
		16A	20A	25A	32A
Rated Operational Current, I_e	[A]	16	20	25	32
Magnetic Release Current	[A]	260	325	416	585
Switching of Standard Three-Phase Motors					
AC-2, AC-3					
230/240V	[kW]	4.0	5.5	6.3	7.5
400/415V	[kW]	7.5	10	11	15
500V	[kW]	10	11	15	20
690V	[kW]	13	17	22	30
Back-up Fuses					
gG, gL, only if $I_{cc} \geq I_{cu}$					
230/240V	[A]	❶	❶	❶	❶
400/415V	[A]	80	100	100	125
440/460V	[A]	80	100	100	125
500V	[A]	80	80	100	125
690V	[A]	63	63	80	100
Ultimate Short-Circuit Breaking Capacity					
I_{cu}					
230/240V	[kA]	100	100	100	100
400/415V	[kA]	100	65	65	65
440/460V	[kA]	50	25	65	65
500V	[kA]	50	25	50	50
690V	[kA]	6	6	10	10
Rated Service Short-Circuit Breaking Capacity					
I_{cs}					
230/240V	[kA]	100	100	100	100
400/415V	[kA]	25	25	50	50
440/460V	[kA]	25	25	50	50
500V	[kA]	25	25	50	50
690V	[kA]	4	4	6	6

❶ No backup fuse required.

IEC Performance Data

		Catalog Number KTV7-25H...									
		1.6A	2.5A	4A	6.3A	10A	16A	20A	25A	29A	32A
Rated Operational Current, I_e	[A]	1.6	2.5	4.0	6.3	10	16	20	25	29	32
Magnetic Release Current	[A]	82	82	82	82	130	208	260	325	402	448
Switching of Standard Three-Phase Motors											
AC-3											
230/240V	[kW]	0.25	0.37	0.75	1.5	2.2	4	5.5	5.5	7.5	7.5
400/415V	[kW]	0.55	0.75	1.5	2.2	4	7.5	10	11	13	15
500V	[kW]	0.75	1.1	2.2	3	6.3	10	11	15	18.5	20
690V	[kW]	~	~	~	~	~	~	~	~	~	~
Back-up Fuses											
gG, gL, only if $I_{cc} \geq I_{cu}$											
230/240V	[A]	⓪	⓪	⓪	⓪	⓪	⓪	⓪	⓪	⓪	⓪
400/415V	[A]	⓪	⓪	⓪	⓪	⓪	⓪	100	100	125	125
440/460V	[A]	⓪	⓪	⓪	⓪	⓪	80	100	100	125	125
500V	[A]	⓪	⓪	⓪	⓪	⓪	80	80	80	100	100
690V	[A]	~	~	~	~	~	~	~	~	~	~
Ultimate Short-Circuit Breaking Capacity											
I_{cu}											
230/240V	[kA]	65	65	65	65	65	65	65	65	65	65
400/415V	[kA]	65	65	65	65	65	65	65	65	50	50
440/460V	[kA]	65	65	65	65	65	50	50	50	25	25
500V	[kA]	65	65	65	65	65	50	50	50	25	25
690V	[kA]	~	~	~	~	~	~	~	~	~	~
Rated Service Short-Circuit Breaking Capacity											
I_{cs}											
230/240V	[kA]	65	65	65	65	65	65	65	65	50	50
400/415V	[kA]	65	65	65	65	65	50	25	25	25	25
440/460V	[kA]	65	65	65	65	65	50	25	25	20	20
500V	[kA]	65	65	65	65	65	50	25	25	20	20
690V	[kA]	~	~	~	~	~	~	~	~	~	~

F KT7 Motor Circuit Controllers

⓪ No backup fuse required.

General Data

		KT7-25S/32S	KT7-25H/32H	KT7-45H
Rated Insulation Voltage IEC, SEV, VDE 0660 UL, CSA		690V 600V	690V 600V	690V 600V
Rated Impulse Withstand Voltage (main & auxiliary circuits) U_{imp} /pollution degree		6kV/3	6kV/3	6kV/3
Rated Frequency		50/60 Hz	50/60 Hz	50/60 Hz
Utilization Category • IEC 60949-2 (Motor Protector) • IEC 60949-4-1 (Motor Starter)		A AC-3	A AC-3	A AC-3
Life Span Mechanical Electrical (I_e max.)	[operations] [operations]	100,000 100,000	100,000 100,000	30,000 30,000
Switching Frequency	[operations]	max. 25/h. (motor starts)		
Ambient Temperature Storage Operation		-40° C... +80° C -25° C... +60° C		
Resistance to Climatic Change		IEC 68-2		
Moisture / Heat Resistance	(600068-2-3)	40°C, 93% relative humidity, 56 days		
Moisture / Change Resistance	(600068-2-3)	23°C, 83% relative humidity / 40°C, 92%, 56 cycles		
Dry Heat	(60086-2-2)	100°C Relative Humidity <50% 7 Days		
Site Altitude		to 2,000 m N.N.		
Protection Class		KT 7-25/32 : IP2X from all directions KT 7-45: IP2X from front with front (upper) terminal wired		
Resistance to Shock	(60068-2-2)	30 G, 11 ms All Axes		
Resistance to Vibration	(60068-2-6)	5G		
Rated Thermal Current I_{th} IEC, SEV, VDE 0660 Up to 60° C ambient temperature	[A]	0.1...32	1.6...32	6.3...45
Dependence on Temperature		40°C - 60°C No Reduction 70°C 15% Reduction of the upper rated current I_e		
Overload Protection Characteristics Ambient temperature Compensation Phase-failure protection Trip Class		IEC60947-4-1 Motor protection (except KTB7) -20° C... +60° C yes, differential release 10 (Except KTB7) fixed setting		
Magnetic Release Response Current (+/- 20%)		13...14 x / I_e max. (for KTA7/KTB7) 16...21 x / I_e max. (for KTC7) I_e max. = maximum values of setting ranges Fixed magnetic setting for KTV7, see ratings		
Total Power Loss P_v Motor protector at rated load Operating temperature	[W]	6...11.5	6...11.6	9...16
Application Conditions (KTV7)		PWM frequency ≤ 4kHz VFD output frequency ≤ 400 Hz		

Weights

Description	Catalog Number	Weight	Description	Catalog Number	Weight
Motor Protectors	KTA7-25S/32S	317 g	Lockable Twist Knob	KT7-KN1	5 g
	KTA7-25H/32H	373 g		KT7-KRY1	
	KTA7-45H	782 g	Locking Tag	KT7-DS	30 g
	KTB7-25S/32S	315 g		KT7-HTN	
	KTB7-25H/32H	365 g	Door Coupling Handle	KT7-HTRY	123 g
	KTB7-45H	782 g		KT7-HT	
	KTC7-25S/32S	315 g	Extension Shaft	KT7-HT	46 g
	KTC7-25H/32H	365 g	Legend Plate	KT7-HTFC	4 g
	KTC7-45H	782 g	Feeder Terminal	KT7-32-A3E	172 g
	KT7-PE1	10 g		KT7-45-A3E	
Auxiliary Contacts	KT7-PA1	15 g	Commoning Links	KT7-32-DB-45-2	47 g
	KT7-PEF1	15 g		KT7-32-DB-45-3	80 g
	KT7-PAF1	15 g		KT7-32-DB-45-4	104 g
	KT7-UA-*	108 g		KT7-32-DB-45-5	132 g
Undervoltage Trip	KT7-AA-*	110 g		KT7-32-DB-54-2	52 g
Anti-Tamper Cover	KT7-UA-L20-*	116 g	KT7-32-DB-54-3	86 g	
	KT7-25-CA	2 g	KT7-32-DB-54-4	118 g	
			KT7-32-DB-54-5	154 g	

General Data



KT_7-25S/32S



KT_7-25H/32H



KT_7-45H

Features and Approvals

Max. Current I _n	32 A	32 A	45 A
Current Rating	0.1...32 A	1.6...32 A	6.3...45 A
Short Circuit Protection	✓	✓	✓
Standard magnetic Trip	✓	✓	✓
High Magnetic Trip	✓	✓	✓
Magnetic Only Trip (MCP)	✓	✓	✓
Overload Protection	✓	✓	✓
Trip Class	✓	✓	✓
Application at output of VFD (multi-motor)		✓ (KTV7)	✓

Standards Compliance:

CSA22.2, No. 14	✓	✓	✓
UL508 (Group Installation)	✓ (see ratings)	✓ (see ratings)	✓ (see ratings)
UL508 Manual, Self-protected (Type E)	✓ (see ratings)	✓ (see ratings)	✓ (see ratings)
UL508 (Overload Protection)	✓	✓	✓
IEC60947-1,-2	✓	✓	✓
IEC60947-4-1	✓	✓	✓
CE	✓	✓	✓
ATEX (IEC60079-14)	✓ (up to 25 A)	✓ (up to 25 A except KTV7)	✓
CCC	✓ (up to 25 A)	✓ (up to 25 A except KTV7)	✓

Accessories

External Rotary Operator	✓	✓	✓
Auxiliary Contacts	✓	✓	✓
Trip Indicator Contacts	✓	✓	✓

KT_7-25S/32S

KT_7-25H/32H

KT_7-45H

Power Terminals

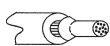
Terminal Type



Screwdriver

Pozidrive No. 2/Blade No. 3

Pozidrive No. 2/Blade No. 3



1 conductor

[mm²]/[AWG]

1...6 / No. 16...10

2.5...16 / No. 14...4



2 conductor

[mm²]/[AWG]

1...4 / No. 16...10

2.5...10 / No. 14...4



1 conductor

[mm²]/[AWG]

1.5...6 / No. 16...8

2.5...16 / No. 14...4

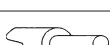


2 conductor

[mm²]/[AWG]

1.5...6 / No. 16...8

2.5...10 / No. 14...4



1 conductor

[mm²]/[AWG]

1...6 / No. 16...10

2.5...10 / No. 14...8



2 conductor

[mm²]/[AWG]

1...6 / No. 16...10

2.5...10 / No. 14...8



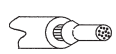


Tightening torque

[Nm]/[lb-in.]

2...2.5 / 18...22

3...3.5 / 27...30

Accessories for KT7 Motor Circuit Controllers

		Auxiliary Contact Blocks for Front Mounting Catalog Number KT7-PE1, KT7-PEF1			Auxiliary Contact Blocks for Right-Side Mounting Catalog Number KT7-PA1, KT7-PAF1					
IEC Rated Thermal Current I_{th}			300 max.			600 max.				
Rated Voltage	[V]									
at 40°C ambient temperature	[A]		5			10				
at 60°C ambient temperature	[A]		4			6				
UL/CSA Rated Thermal Current I_{th}			300 max.			600 max.				
Rated Voltage	[V]									
Continuous Thermal Current According to NEMA ①		Class	Amps		Class	Amps				
	AC	B 300	5		B 600	5				
	DC	Q 300	2.5		Q 600	2.5				
Back-Up Fuses gG, gL		[A]	10			10				
Rated Thermal Current I_{th}										
AC-15	[V]	24	120	240	24	120	240	415	690	
	[A]	4	3	1.5	6	5	3	2		0.7
DC-13	[V]	24	120	240	24	120	240	415		
	[A]	2	0.5	0.25	2	0.5	0.25	0.15		
Terminal Parts										
Terminal Type										
Screwdriver			Pozidrive No. 2/Blade No. 3			Pozidrive No. 2/Blade No. 3				
	1 conductor	[mm²]/[AWG]	0.5...1.5 / No. 18...14		0.5...2.5 / No. 18...14					
	2 conductor	[mm²]/[AWG]	0.75...1.5 / No. 18...14		0.75...2.5 / No. 18...14					
	1 conductor	[mm²]/[AWG]	0.75...1.5 / No. 18...14		0.75...2.5 / No. 18...14					
	2 conductor	[mm²]/[AWG]	0.75...1.5 / No. 18...14		0.75...2.5 / No. 18...14					
	1 conductor	[mm²]/[AWG]	0.75...1.5 / No. 18...14		0.75...2.5 / No. 18...14					
	2 conductor	[mm²]/[AWG]	0.75...1.5 / No. 18...14		0.75...2.5 / No. 18...14					
Tightening torque		[Nm]/[lb-in.]	1.2...1.5 / 10.6...13			1.2...1.5 / 10.6...13				
Lockable Twist Knob (KT7-KN1 & KT7-KRY1)										
Tightening torque		[Nm]/[lb-in.]				1 / 8.8 (T10)				
Mounting Depth – Door Coupling Handles (All KT7-HT...)										
Mounting Depth when using motor circuit controller:										
	KT7-25S/32S	[mm]/[in.]	105.5 mm ± 5 mm (4.15" ± 3/16")							
	KT7-25H/32H	[mm]/[in.]	114.5 mm ± 5 mm (4.5" ± 3/16")							
	KT7-45H	[mm]/[in.]	137.1 mm ± 5 mm (5.4" ± 3/16")							
Mounting Depth – Extension Shaft (KT7-HT)										
Mounting Depth range when using motor circuit controller:										
	KT7-25S/32S	[mm]/[in.]	117...338 mm (4.6"...13.3")							
	KT7-25H/32H	[mm]/[in.]	126...347 mm (5.0"...13.7")							
	KT7-45H	[mm]/[in.]	149...369 mm (5.9"...14.5")							

① See page A7 for details of NEMA Contact Class.

KT7 Accessories

		Undervoltage Trip for Left-Side Mounting Cat. Number KT7-UA-*	Undervoltage Trip with 2 Auxiliary Contacts for Left-Side Mounting Cat. Number KT7-UA-L20-*	Shunt Trip for Left-Side Mounting Cat. Number KT7-AA-*
Actuating Voltage	Pull-in Drop-out	0.85...1.1 x U_s 0.7...0.35 x U_s	0.85...1.1 x U_s 0.7...0.35 x U_s	0.7...1.1 x U_s
Rated Control Voltage	minimum maximum	21V 50 Hz, 24V 60 Hz 600V 50 Hz	21V 50 Hz, 24V 60 Hz 600V 50 Hz	21V 50 Hz, 24V 60 Hz 600V 50 Hz
On-Time		100%	100%	AC - 100% DC - Max. 5 sec.
Coil Rating	Pull-in Hold	8.5 VA, 8 W 4 VA, 2 W	8.5 VA, 8 W 4 VA, 2 W	8.5 VA, 8 W 4 VA, 2 W

Terminal Parts


Terminal Type

Screwdriver



1 conductor
2 conductor

[mm²]/[AWG]
[mm²]/[AWG]


PoziDrive No. 2/BLADE No. 3
0.5...2.5 / No. 18...14
0.75...2.5 / No. 18...14



1 conductor
2 conductor

[mm²]/[AWG]
[mm²]/[AWG]

0.75...2.5 / No. 18...14
0.75...2.5 / No. 18...14



1 conductor
2 conductor

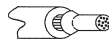


[mm²]/[AWG]
[mm²]/[AWG]

0.75...2.5 / No. 18...14
0.75...2.5 / No. 18...14

Tightening torque

[Nm]/[lb-in.]

1.2...1.5 / 10.6...13.3

			Feeder Block KT7-25-A2E	Feeder Terminal KT7-32-A3E	Compact Busbar KT7-32-DB...	Feeder Terminal KT7-45-A3E	Compact Busbar KT7-45-DB...
Rated Thermal Current I_{th}	[V]		600	600	600	600	600
at 60° C ambient temperature	[A]		64	64	64	120	120
	1 conductor	[mm ²]/[AWG]	4...25/No. 10...4	2.5...25/No. 14...4	~	4...50/12...1/0	~
	1 conductor	[mm ²]/[AWG]	4...25/No. 10...4	2.5...25/No. 14...4	~	2.5...50/12...1/0	~
	1 conductor	[mm ²]/[AWG]	2.5...25/No. 14...4	2.5...25/No. 14...4	~	2.5...50/12...1/0	~
Tightening torque		[Nm]/[lb-in.]	3...3.5 / 27...31	3...3.5 / 27...31	~	5...6/45...54	~

KF7 Fuse Holder Accessories

		KF7 Fuse Holder
Rated Thermal Current I_{th}	[V]	600
at 60° C ambient temperature	[A]	30
Short Circuit		
Withstand	[KA]	200
U_{imp}	[KV]	6

Terminal Parts

Terminal Type

Screwdriver



1 conductor

[mm²]/[AWG]


PoziDrive No. 2/
Blade No. 3



1 conductor

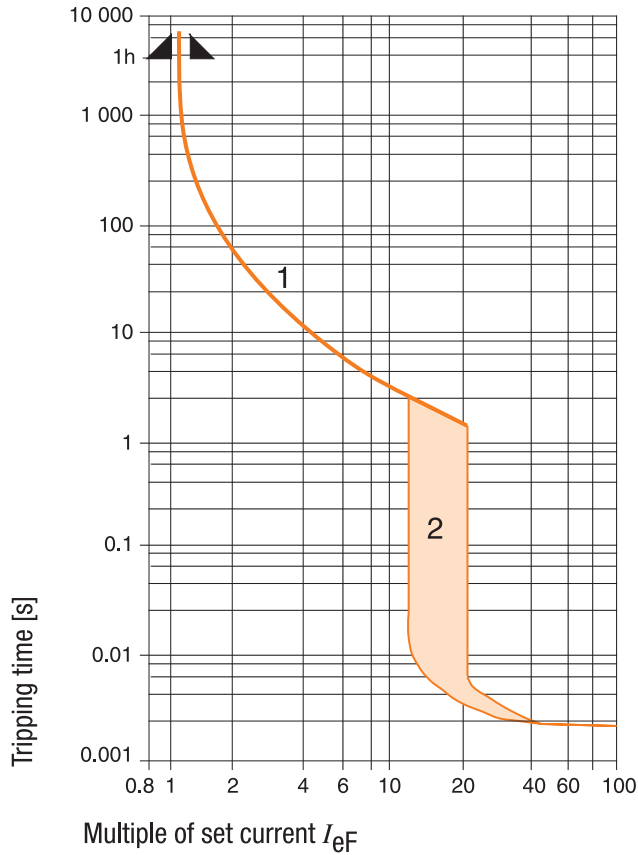
[mm²]/[AWG]

Tightening torque

[Nm]/[lb-in.]

1.7 / 15

Time-Current Characteristic



KTA7 Motor Protection (for KTV7, see ratings)

1. Thermal Release Trip Current

The adjustable current-dependent delayed bimetal release protects motors against overload. The curve shows the mean operating current at an ambient temperature of 20°C starting from the cold state. Careful testing and setting ensures effective motor protection even in the case of single-phasing. The overload characteristic is also valid for transformer protection.

2. Magnetic Release Trip Current

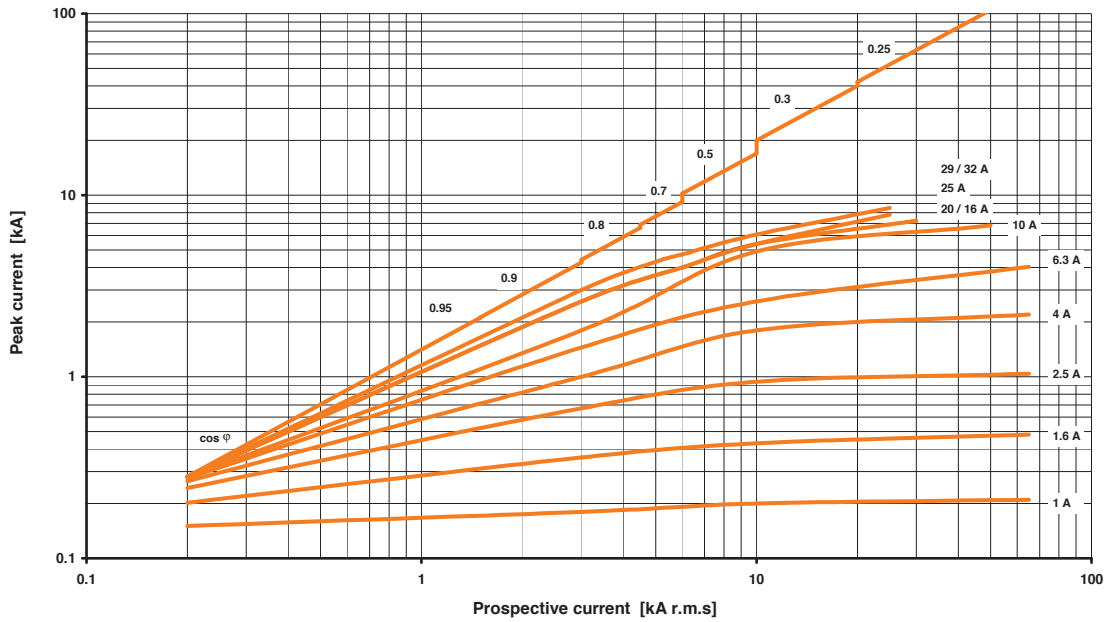
The instantaneous magnetic trip has a fixed operating current setting. This corresponds to 13 times the maximum value of setting range (high inrush protection -20 x I_e maximum). At a lower overload setting the magnetic trip is correspondingly higher.

Current Setting I_{ef}

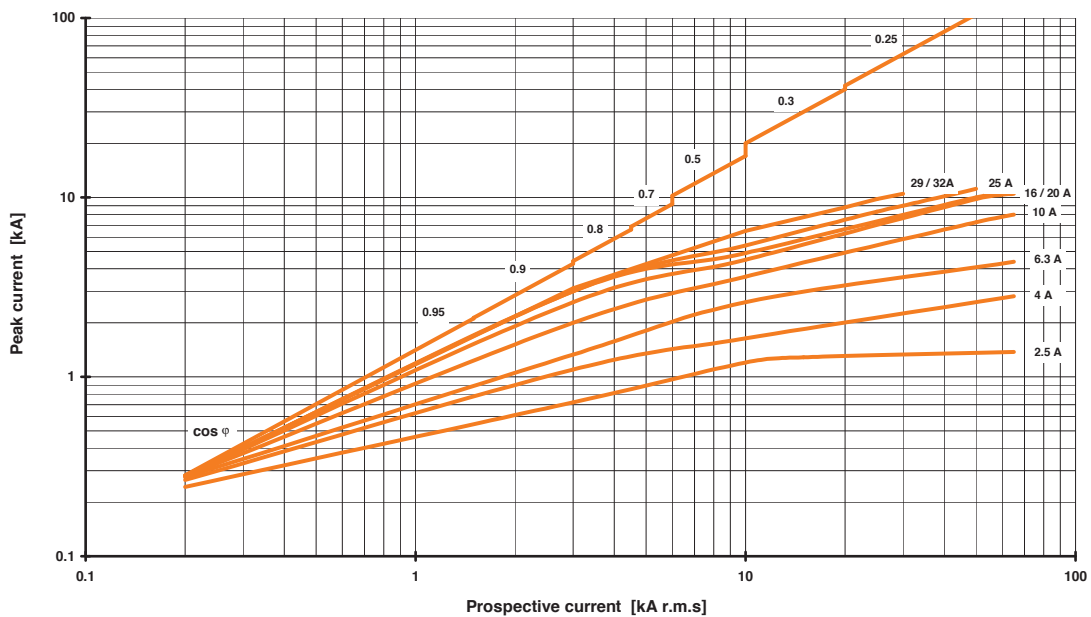
The overload trip corresponds to a thermal overload relay in a motor starter conforming to IEC 947-4-1. If a different value is prescribed (e.g., reduced I_e for cooling medium having a temperature higher than 40°C or a place of installation higher than 2000m above sea level), the setting current is equal to the reduced rated current I_e of the motor.

Cut-off Current ❶

KT A/B/C7-25/32S
Max. Cut-Off-Current, $U_e = 500V$



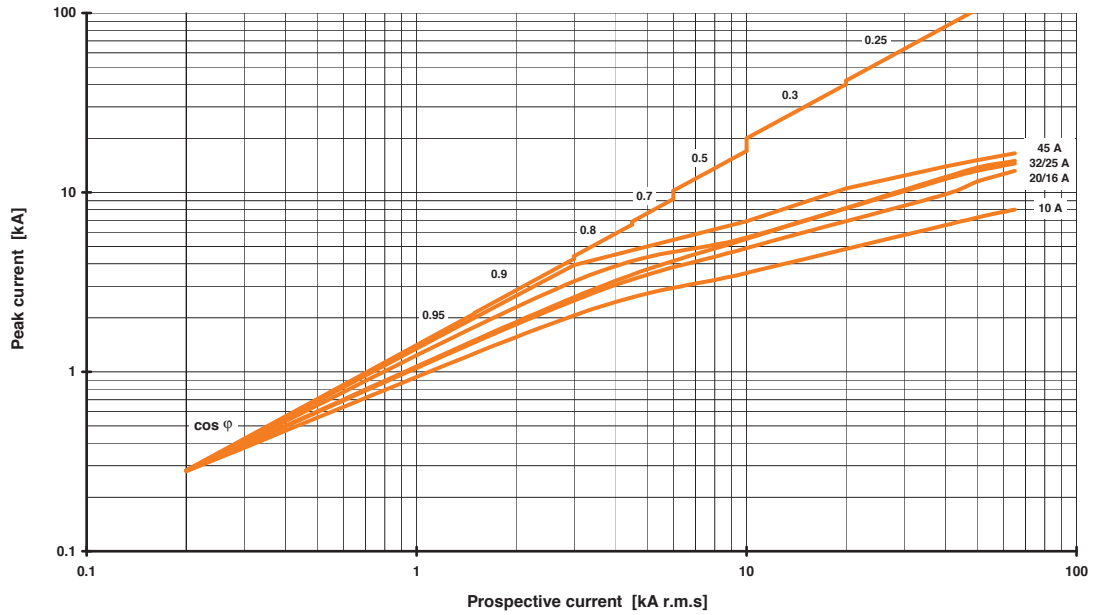
KT A/B/C7-25/32H
Max. Cut-Off Current, $U_e = 500V$



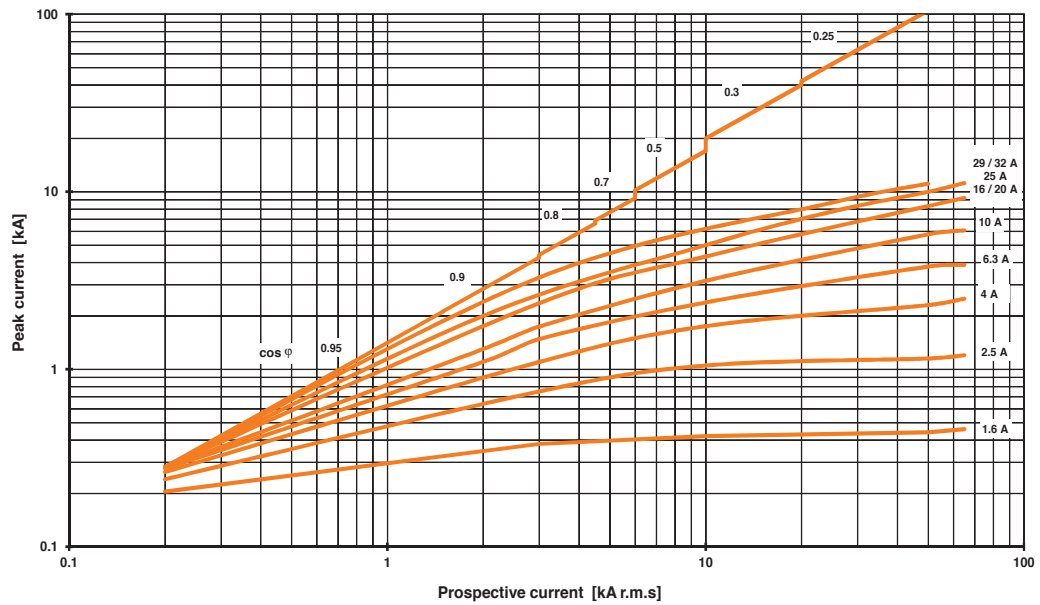
❶ A full size (8-1/2 x 11) set of "Maximum Cut-Off Current (Let-Thru Current)" and "Maximum Let-thru Energy (I^2t)" curves for 400...415V, 500V and 690V can be downloaded from <http://www.sprecherschuh.com>.

Cut-off Current ①

KTA/B/C7-45H
 Max. Cut-Off Current, $U_e = 500V$

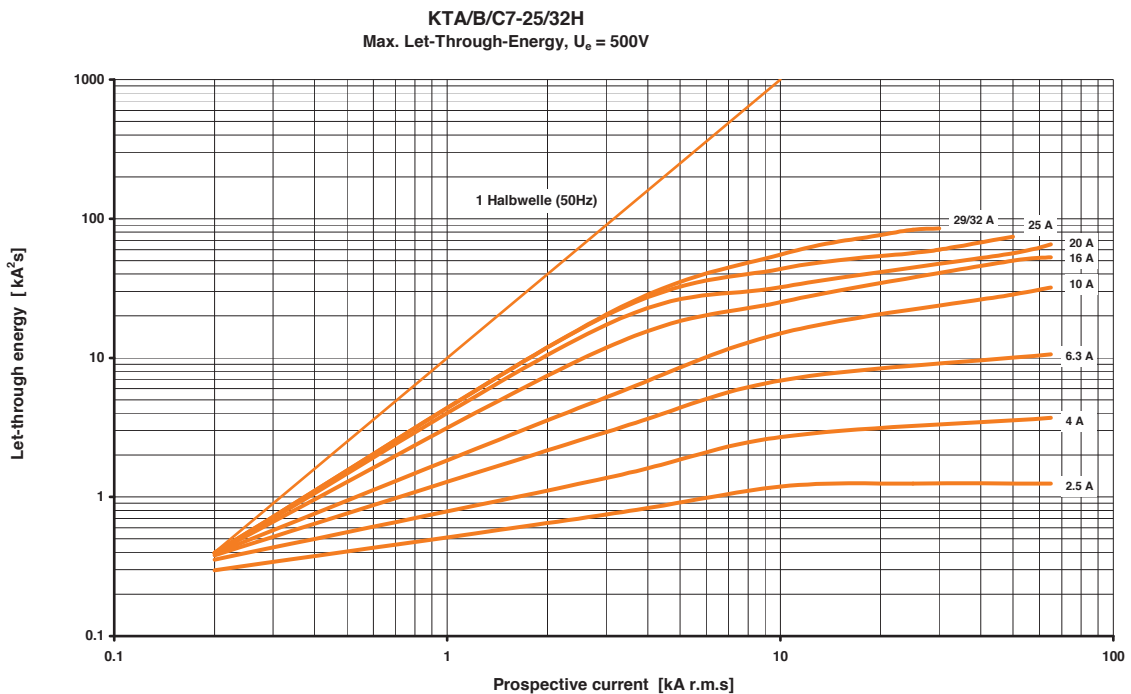
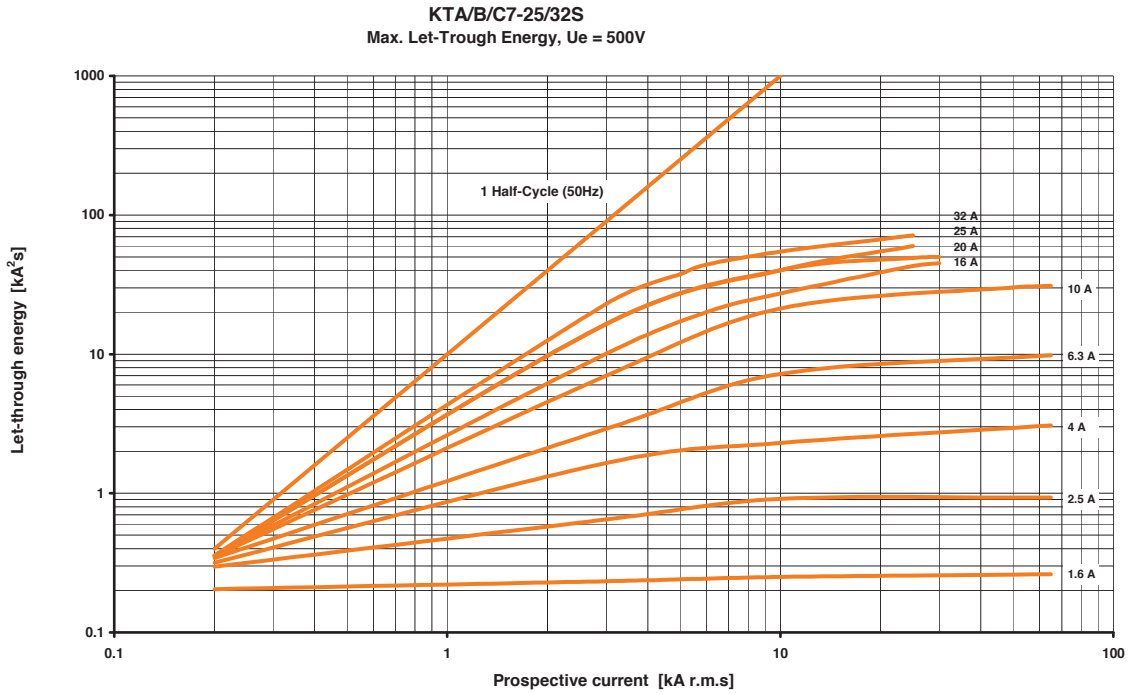


KT7
 Max. Cut-Off Current, $U_e = 400...415V$



① A full size (8-1/2 x 11) set of "Maximum Cut-Off Current (Let-Thru Current)" and "Maximum Let-thru Energy (I²t)" curves for 400...415V, 500V and 690V can be downloaded from <http://www.sprecherschuh.com>.

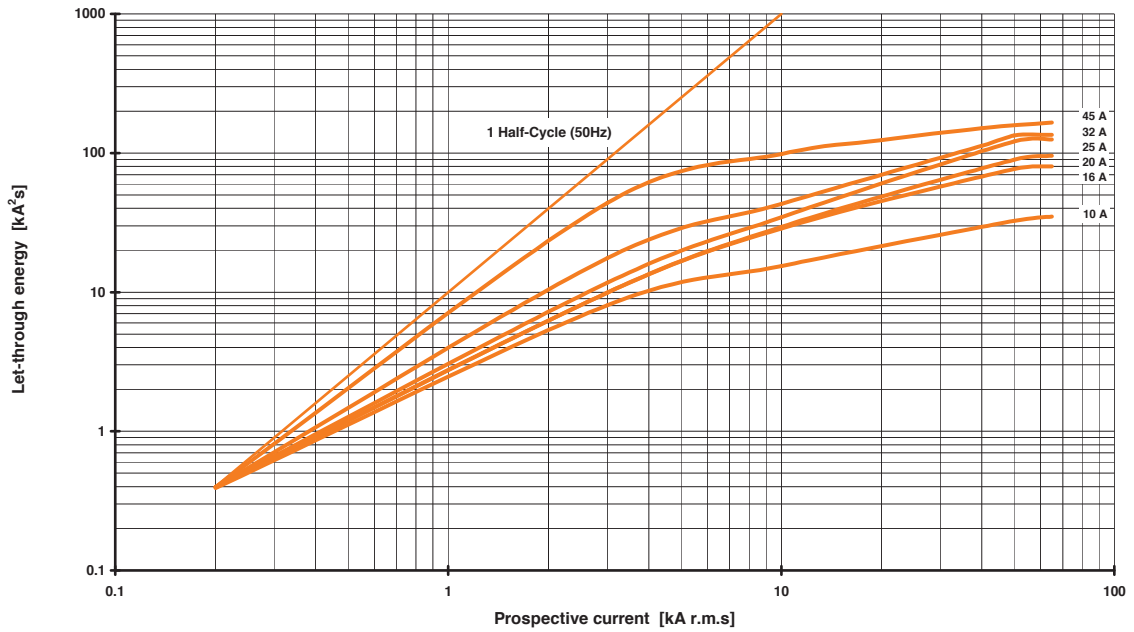
Let-Through Energy ①



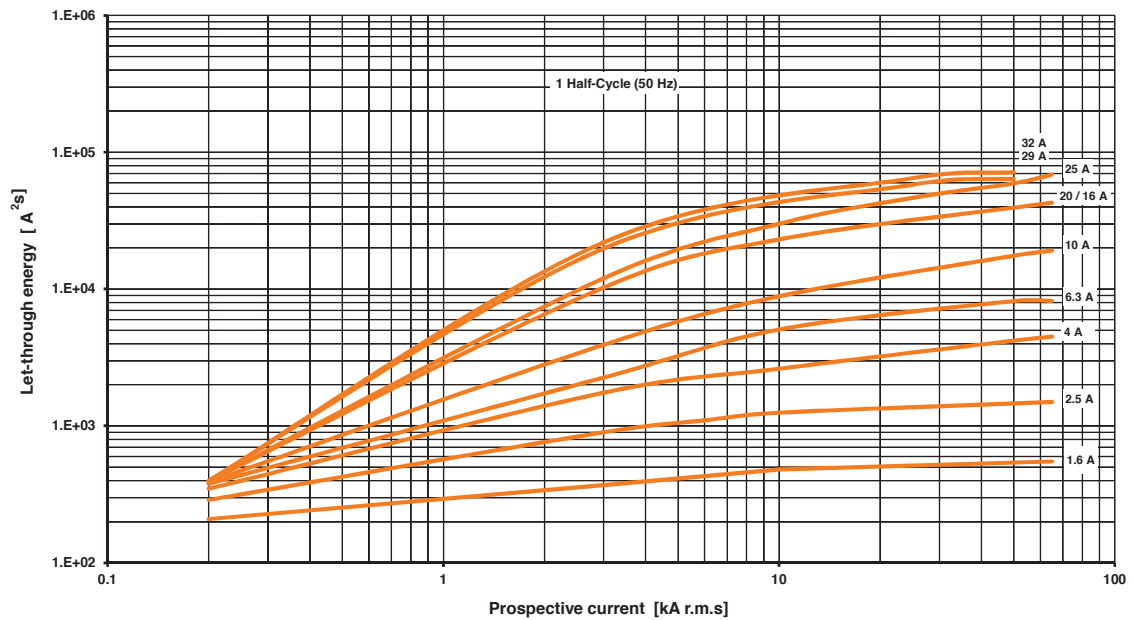
① A full size (8-1/2 x 11) set of "Maximum Cut-Off Current (Let-Thru Current)" and "Maximum Let-thru Energy (I²t)" curves for 400...415V, 500V and 690V can be downloaded from <http://www.sprecherschuh.com>.

Let-Through Energy ①

KTA/B/C7-45H
Max. Let-Through-Energy, $U_o = 500V$



KTV7
Max. Let-Through-Energy, $U_o = 400... 415V$

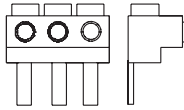


① A full size (8-1/2 x 11) set of "Maximum Cut-Off Current (Let-Thru Current)" and "Maximum Let-thru Energy (I²t)" curves for 400...415V, 500V and 690V can be downloaded from <http://www.sprecherschuh.com>.

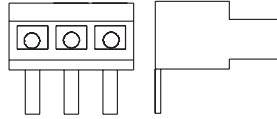
KTA7/KTB7 & KTC7 Bus Bar and Supply Blocks

Dimensions are in millimeters (inches). Dimensions not intended for manufacturing purposes.

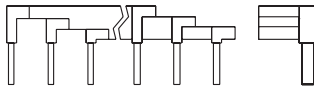
KT7-32-A3E



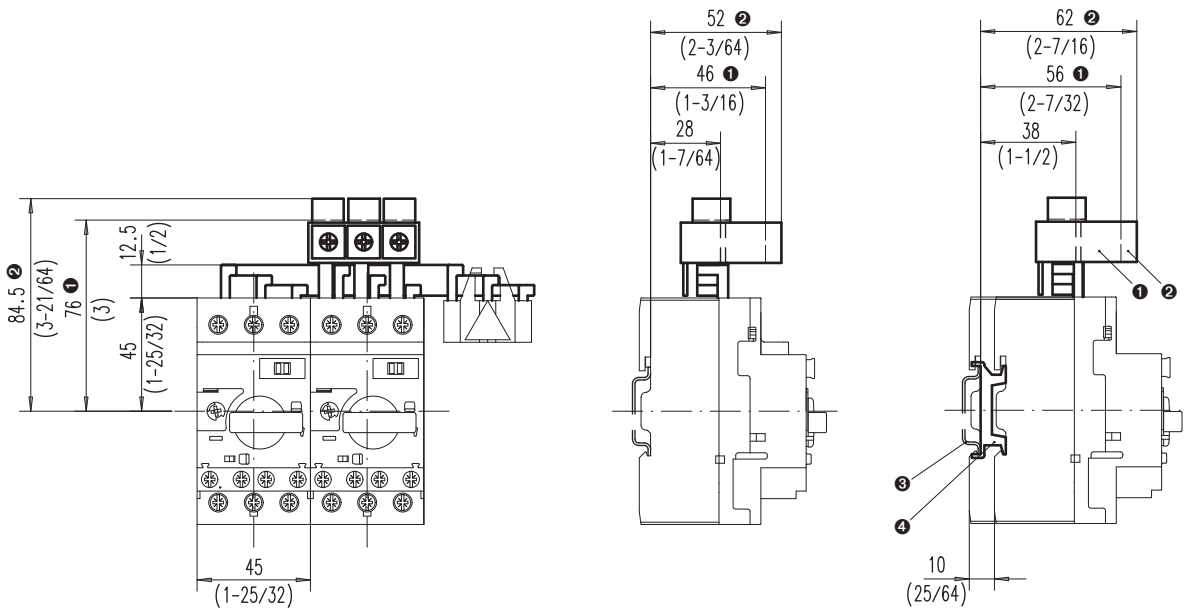
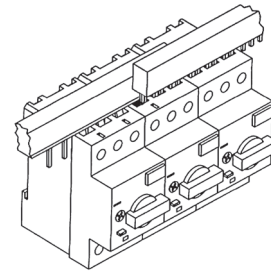
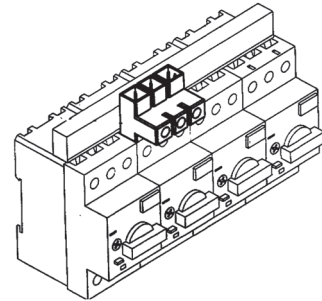
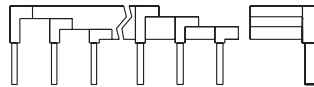
KT7-45-A3E



KT7-32-DB



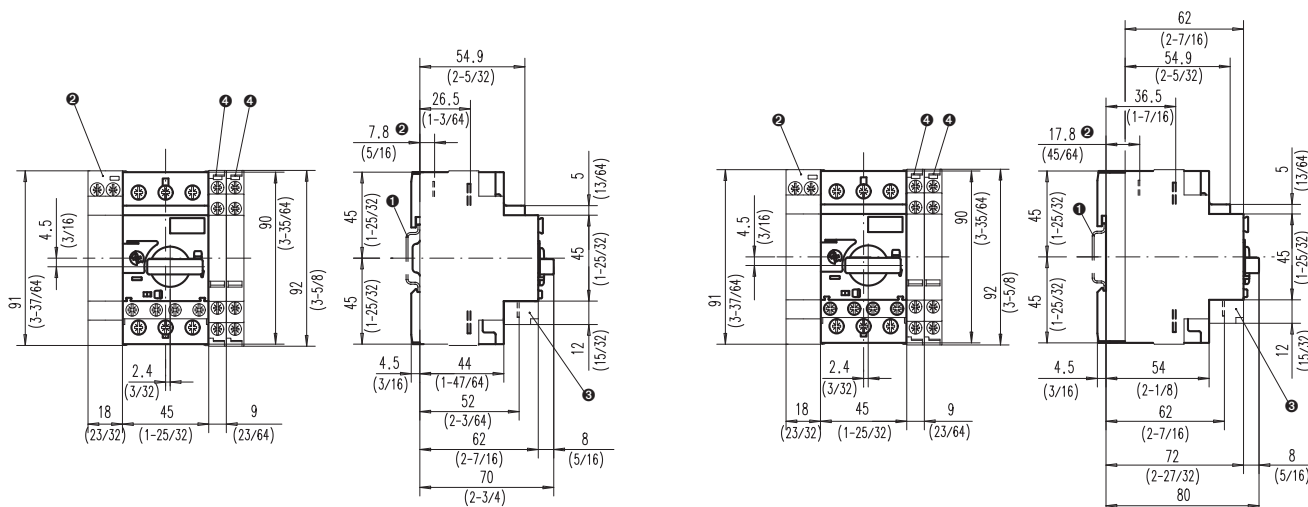
KT7-45-DB



- ❶ Compact Busbar Feeder Terminal IEC
- ❷ Compact Busbar Feeder Terminal UL type E and IEC
- ❸ Mounting on 35 mm DIN Rail
- ❹ Top Hat Rail Adapter 10 mm

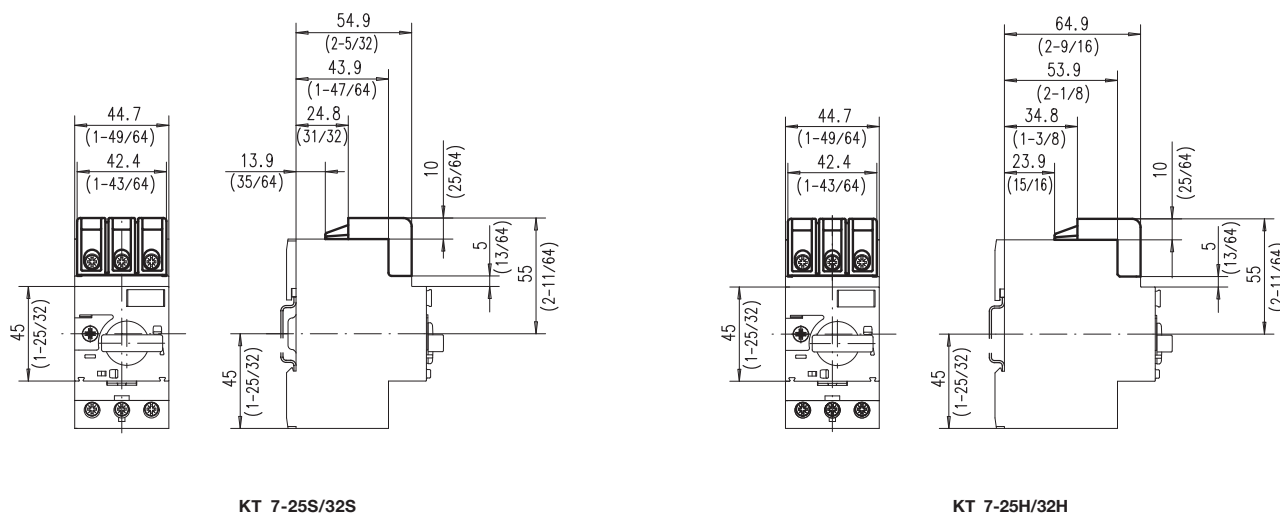
KT_7-25/32 Motor Circuit Controllers (without Terminal Adaptor KT7-25-TE1)

Dimensions are in millimeters (inches). Dimensions not intended for manufacturing purposes.



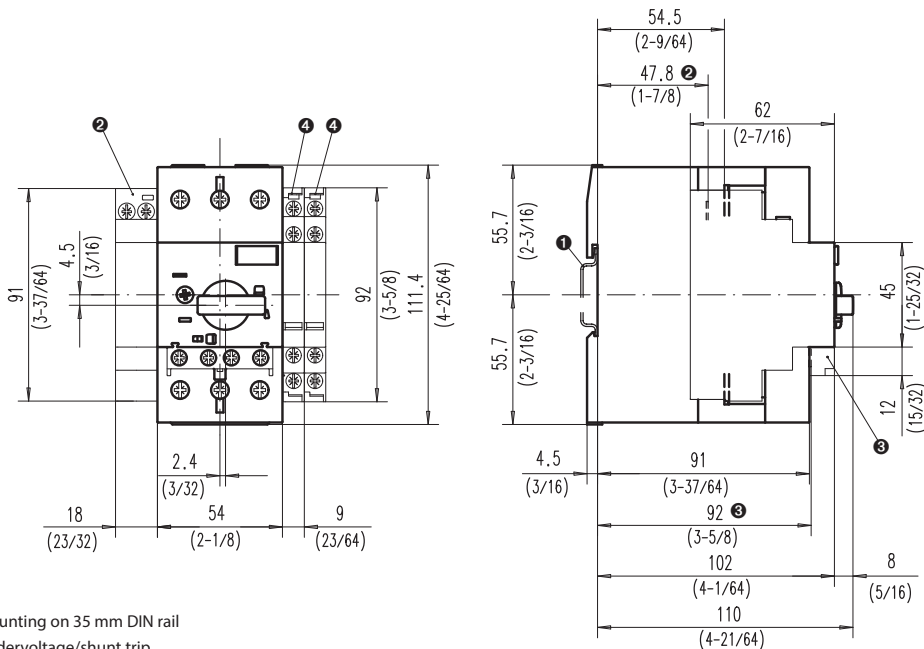
- ① Mounting on 35 mm DIN rail
- ② Undervoltage/shunt trip
- ③ Auxiliary contact (front mounted)
- ④ Auxiliary contact (side mounted)

KT_7-25/32 Motor Circuit Controllers (with Terminal Adaptor KT7-25-TE1)



KT_7-45H Motor Circuit Controllers (without Terminal Adaptor KT7-45-TE)

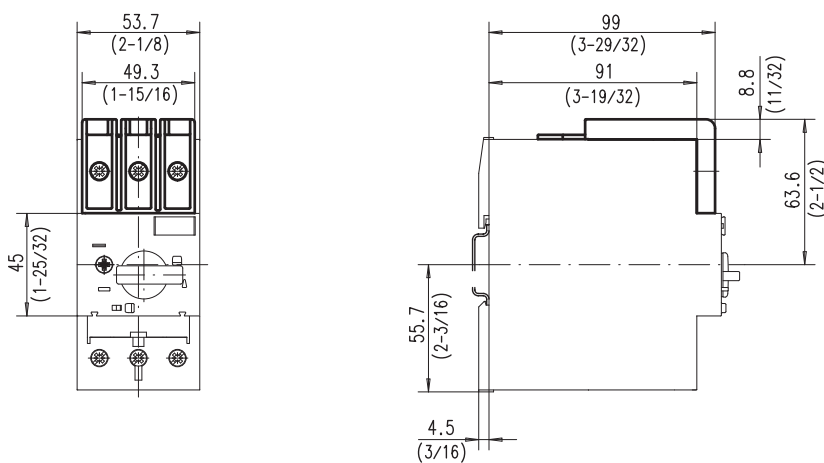
Dimensions are in millimeters (inches). Dimensions not intended for manufacturing purposes.



- ❶ Mounting on 35 mm DIN rail
- ❷ Undervoltage/shunt trip
- ❸ Auxiliary contact (front mounted)
- ❹ Auxiliary contact (side mounted)

KT_7-45H

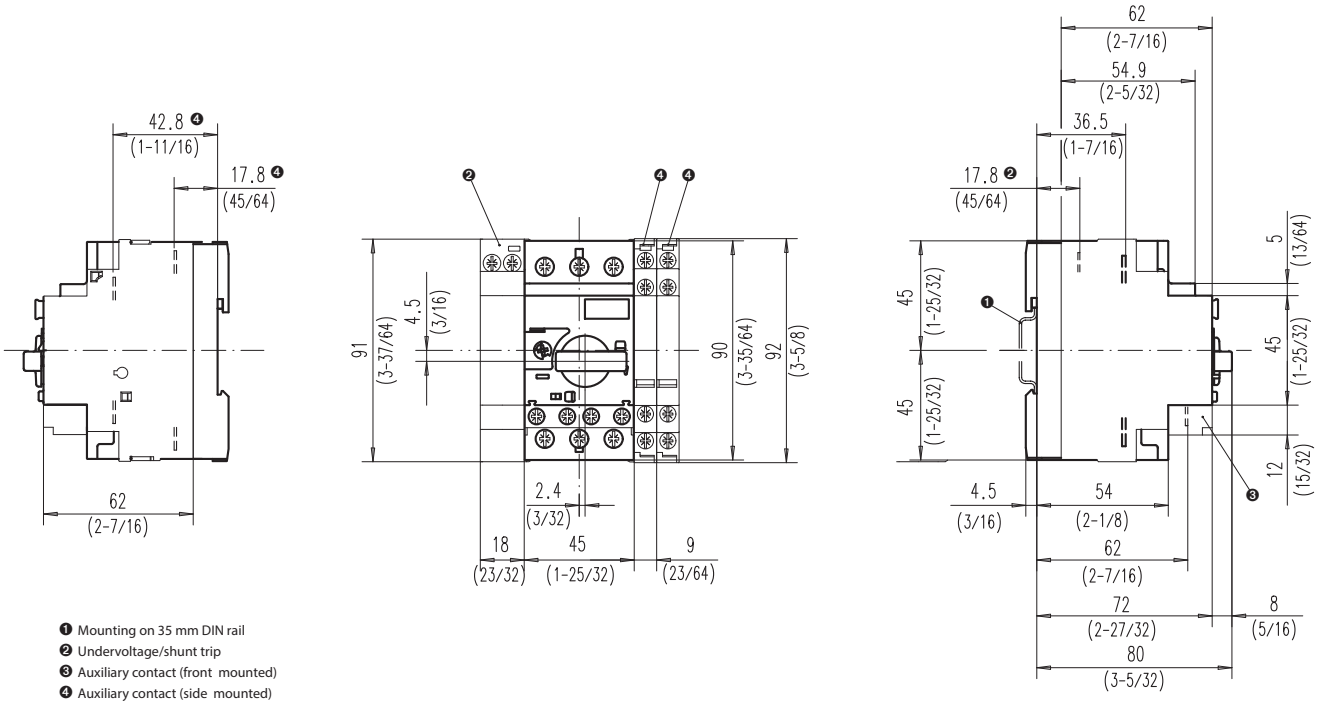
KT_7-45H Motor Circuit Controllers (with Terminal Adaptor KT7-45-TE)



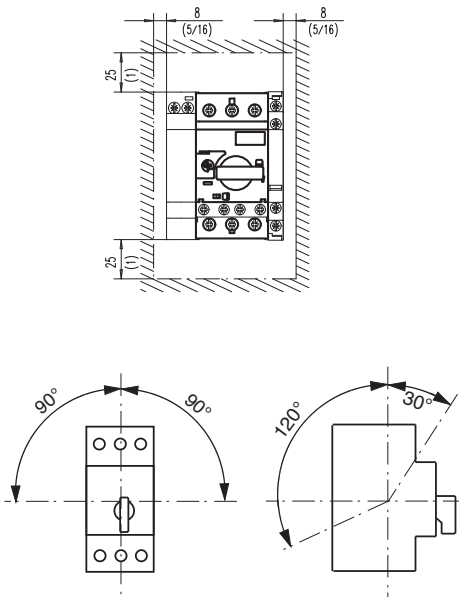
KT_7-45H

KTV7-25/32 Motor Circuit Controllers

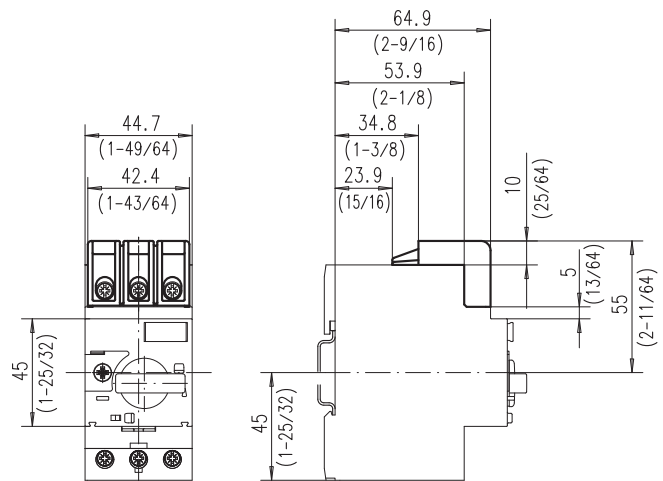
Dimensions are in millimeters (inches). Dimensions not intended for manufacturing purposes.



Minimum distance to grounded parts or walls

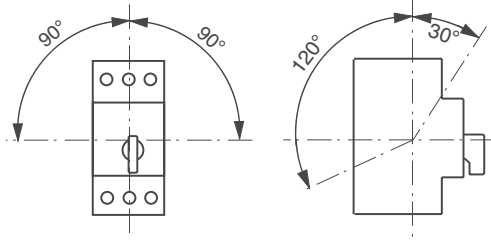


KT7-TE1 Type E adapter on KTV7



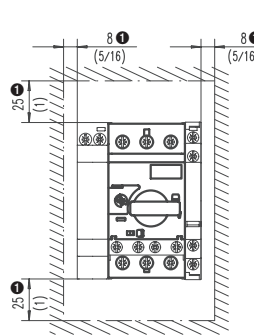
KT7 Motor Circuit Controllers Mounting/Safety Clearance

Dimensions are in millimeters (inches). Dimensions not intended for manufacturing purposes.

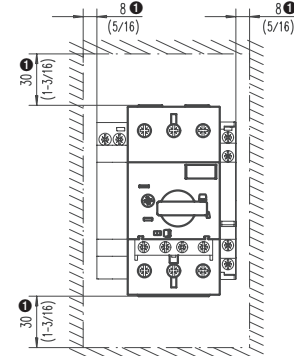


① Minimum distance to grounded parts or walls

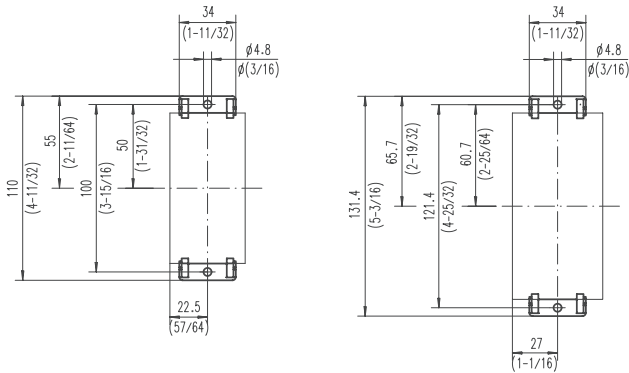
KT_7-25/32



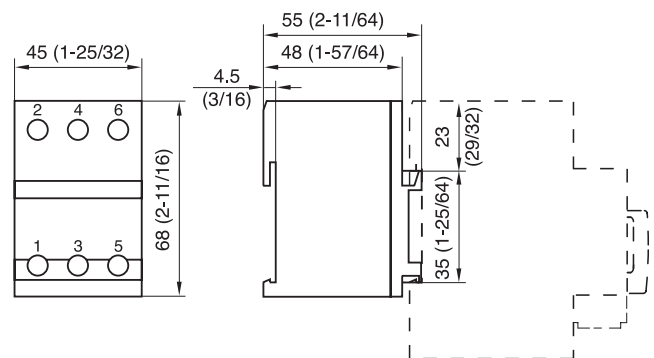
KT_7-45H



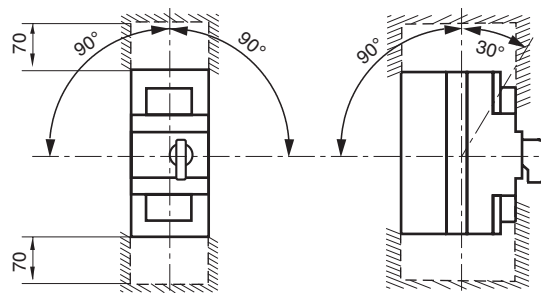
KT7-45-AS Screw Adapter



KT7-25-A2E Terminal Block



Mounting Position KT7, KTU7

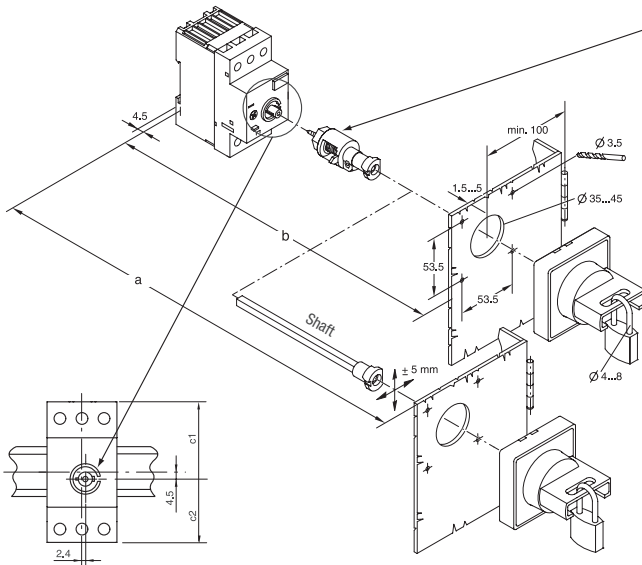


Mounting position/safety clearance

F
KT7 Motor Circuit Controllers

KT7-HTN/HTRY Motor Circuit Controller Door Coupling Handle

Dimensions are in millimeters (inches). Dimensions not intended for manufacturing purposes.



KT7-HTC Coupling is included in Door Handle Kits KT7-HTN and KT7-HTRY. This coupling replaces the knob shipped as standard on the controller. Design "D" Door Coupling Handle Kits include an interface for the "Stops" molded into Design "C" KTA7/KTB7/KTC7 Controllers, which inhibits excessive rotation of the handle mechanism. The old Design "C" Door Handle Kits will fit new Design "C" Controllers (shipped in WHITE boxes), but will not take advantage of the "Stops". Design "D" Door Handle Kits are backward compatible.

Shaft Dimensions

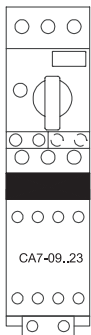
	a		b No Shaft	c1	c2
	Includes 250mm Shaft KT7-HT	Includes 400mm Shaft KT7-HTL			
KT7-25S/32S	117...338 (4.6...13.3 in)	117...488 (4.6...19.2 in)	105.5 ± 5	49.5	40.5
KT7-25H/32H	126...347 (5.0...13.7 in)	126...497 (5.0...19.6 in)	114.5 ± 5	49.5	40.5
KT7-45H	148.6...369.6 (5.9...14.5 in)	148.6...519 (5.9...20.4 in)	137.1 ± 5	59.35	50.35

If using KT7-SHS Shaft Support see page F41 for dimensions

KTA7/KTB7/KTC7 with CA7 Connection Modules and Kits

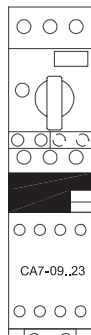
Combo 1)

KT7-25S-Pec23
KT7-25H-Pec23

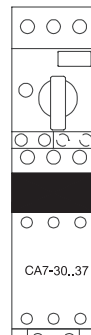


Standard Connection Modules 2)

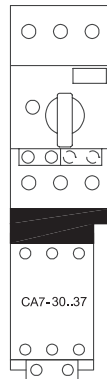
KT7-25S-PNC23
KT7-25H-PNC23



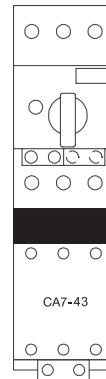
KT7-25H -PNC37



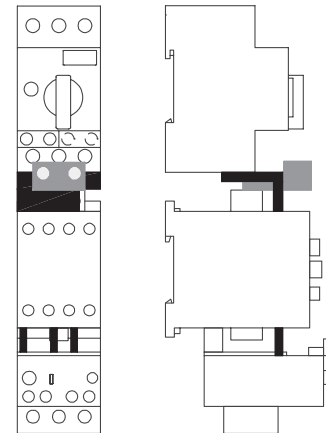
KT7-45H-PNC37



KT7-45H-PNC43



Coil Extension Modules 3)



1) Combo Modules

Electrical and mechanical connection between motor circuit controller and contactors with AC coil. For CA7-9...23 only. Compatible with the reversing- and WYE-delta starter components.

2) Standard Connection Modules

Electrical connection between motor circuit controller and contactors with AC coil. For CA7-9...43. Compatible with the reversing- and WYE-delta starter components.

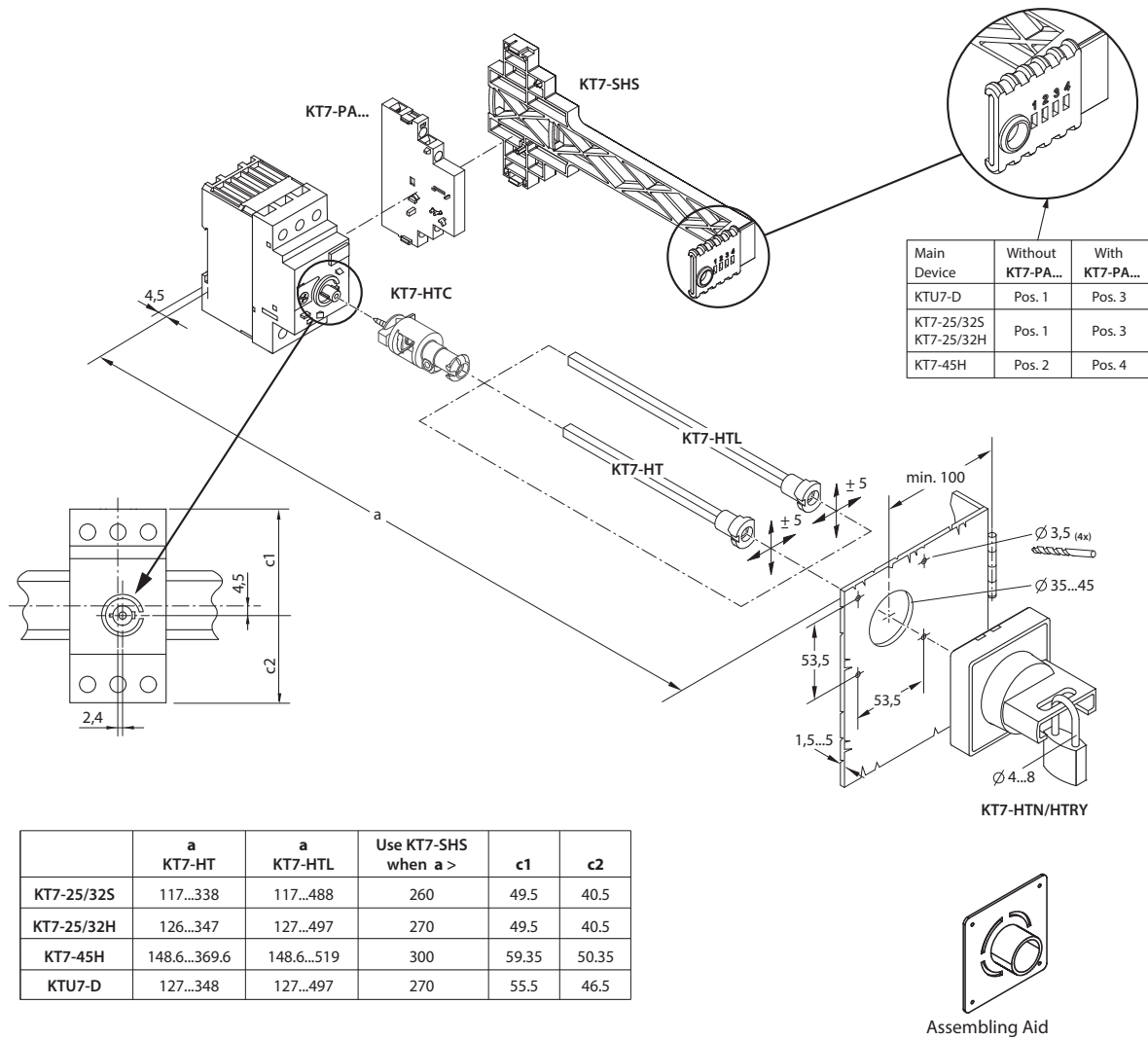
3) Coil Extension Modules

Simplifies access to the coil terminals on 3-component starters.

For CA7-9...23 = **KT7-25S-PSC23**

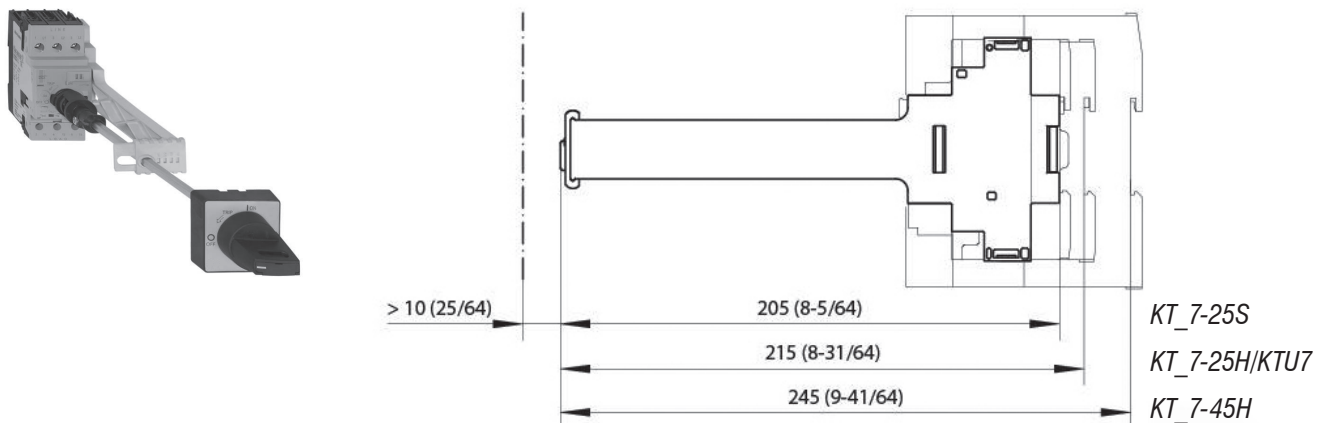
For CA7-30...43 = **KT7-45H-PSC43**

KT7 Handle Assembly with KT7-SHS Shaft Support

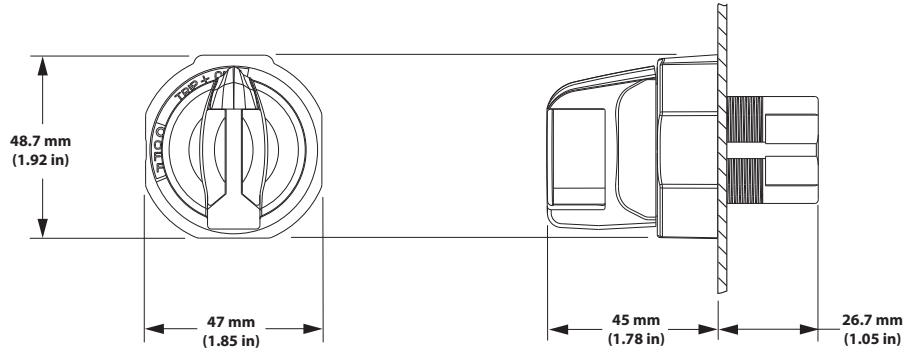


F
 KT7 Motor Circuit Controllers

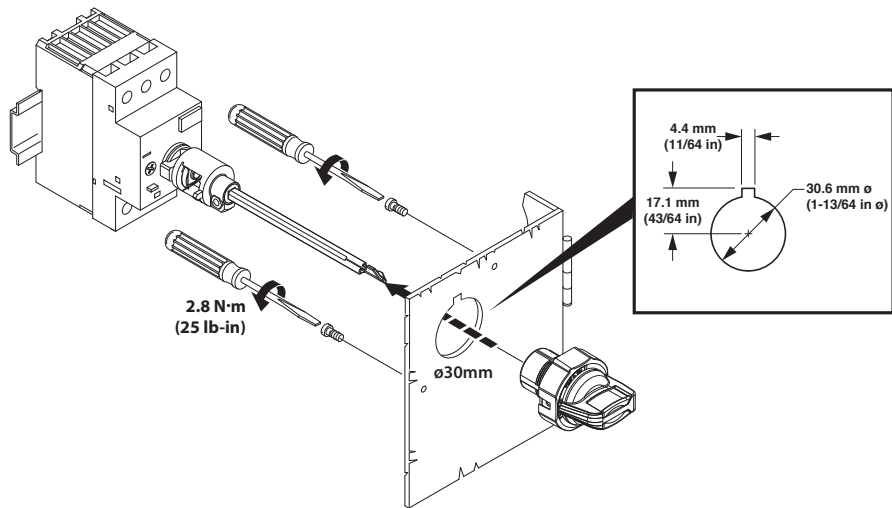
KT7-SHS Shaft Support Dimensions



KT7-SY/SB Switch Handle



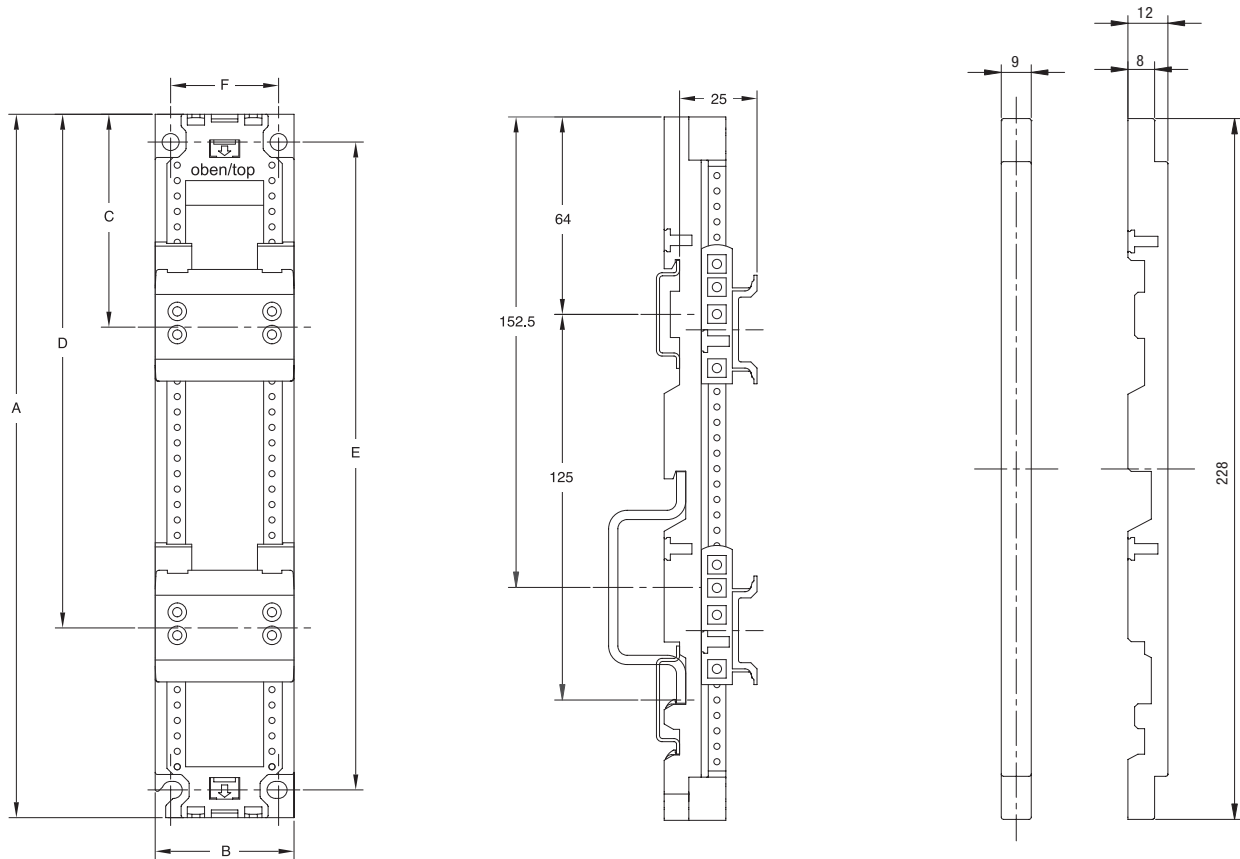
KT7-SY/SB Assembly



F
Motor Circuit Controllers

Type W Mounting Modules & Spacer ①

Dimensions are in millimeters (inches). Dimensions not intended for manufacturing purposes.



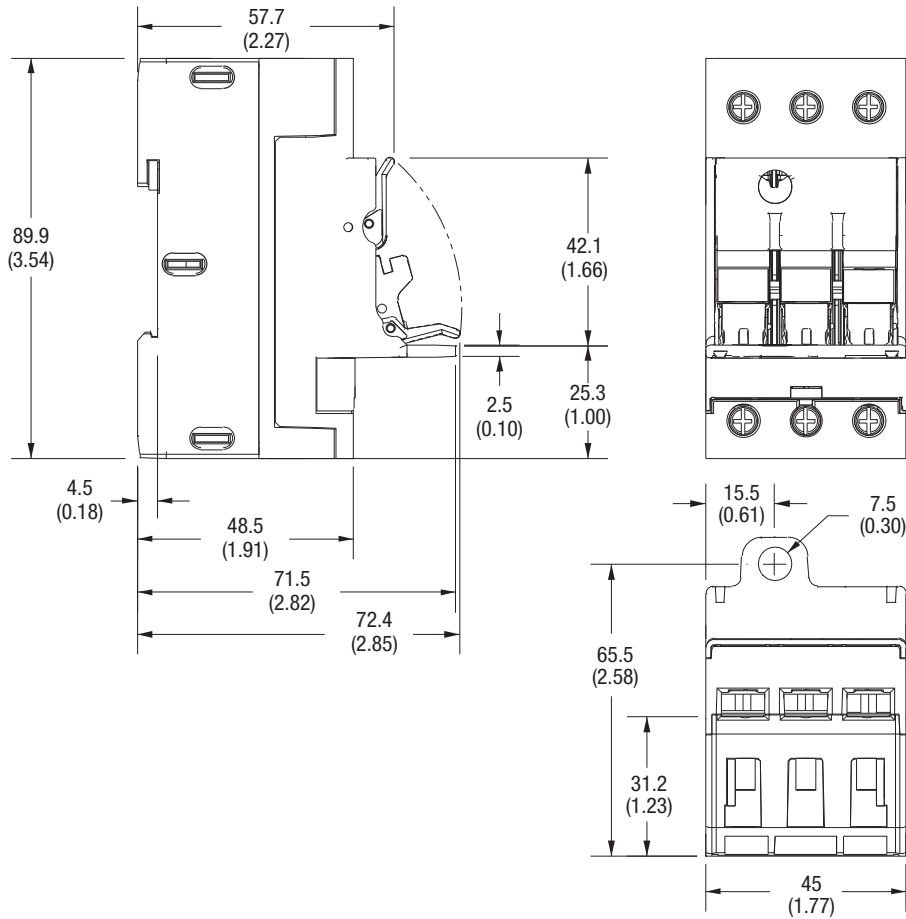
Spacer W-32955

Catalog Number	A	B	C	D	E	F
W-32489	228 (8-31/32)	45 (1-25/32)	69 (2-23/32)	165.5 (6-35/64)	210 (8-17/64)	35 (1-3/8)
W-32490	228 (8-31/32)	54 (2-1/8)	69 (2-23/32)	174 (6-27/32)	210 (8-17/64)	40 (1-37/64)
W-32496	283 (11-9/64)	45 (1-25/32)	69 (2-23/32)	166.5 (6-35/64)	265 (10-7/16)	40 (1-37/64)
W-32497	283 (11-9/64)	54 (2-1/8)	69 (2-23/32)	174 (6-27/32)	265 (10-7/16)	40 (1-37/64)

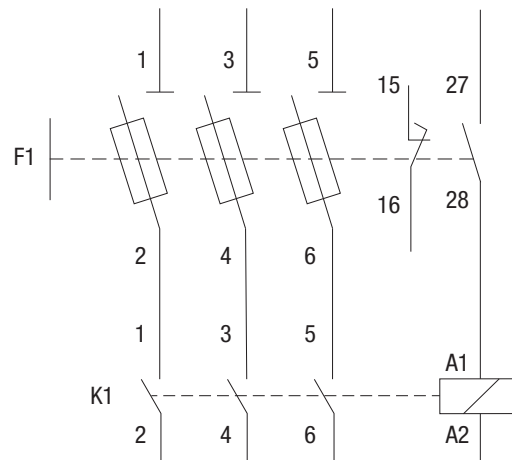
① Use Pozidriv #1 (PZ1) screwdriver on DIN rail screws.

KF7 Fuse Holders Dimensions

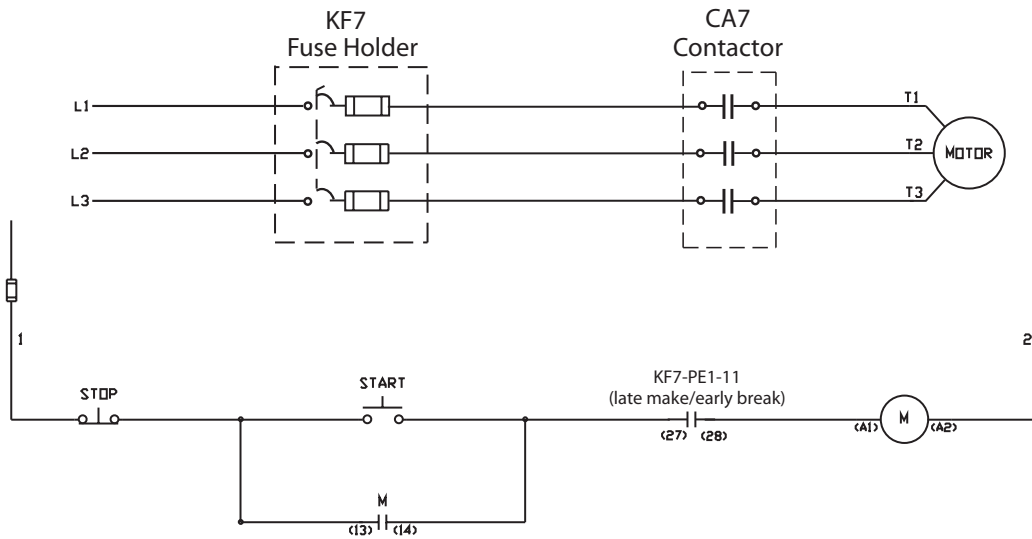
Dimensions are in millimeters (inches). Dimensions not intended for manufacturing purposes.



KF7 Fuse Holders Wiring Diagram (IEC)



KF7 Fuse Holder used with CA7 Contactor



KF7 Fuse Holder used with KTA7 Motor Circuit Controller and CA7 Contactor

