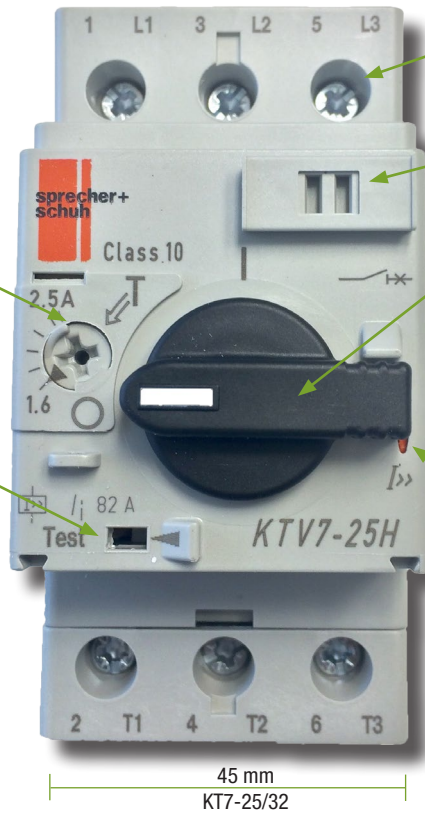


# Series KTV7 Multi-Motor Controllers for Application at Output of VFD



Finger safe terminals and terminal screws

Marking plate for Sprecher+Schuh labeling system

Ergonomic handle provides clear status indication of ON-OFF vs. Tripped state

Visible Short-circuit indicator provides differentiation between short-circuit trip (red) and overload trip

Easy mounting on DIN-rail

Large scale markings for precise overload setting

Test trip feature assures operation of trip mechanism

45 mm  
KT7-25/32



## Overview

The Sprecher+Schuh KTV7 series self-protected combination motor controllers are suitable for application at the output of variable frequency drives (VFDs) in multi-motor installations. They provide individual overload protection in multiple motor applications as required by NEC §430, part III.

KTV7 self-protected combination motor controllers may provide the following protective and control functions:

- Disconnect for motor branch circuit
- Branch-circuit, short-circuit protection (magnetic protection)
- Overload protection (thermal protection)
- Manual controller (ON/OFF)

## Features and Benefits

- Suitable for application at output of variable frequency drives in multi-motor applications
- PWM Frequency < 4kHz
- Variable frequency drive output frequency ≤ 400Hz
- Fixed magnetic trip
- Motor overload protection, Trip Class 10
- Current limiting
- Nominal max rated voltage UL: 480V
- Interrupt rating @ 480Y/277V: up to 65kA



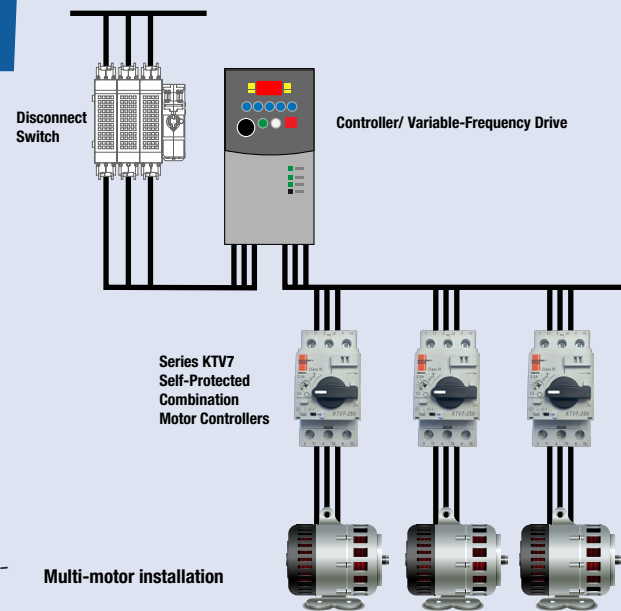
# Series KTV7 for Motor Control Centers

The Sprecher+Schuh KTV7 series motor controllers are suitable for two types of applications under cULus listings:

- (1) as a Manual, Self-protected Motor Controller or
- (2) as a Manual Motor Controller with approval for group installation (and as a motor disconnect)

When UL/CSA listed as a manual, self-protected combination motor controller, the KTV7 provides all of the necessary NEC requirements for protection and control of individual motor branch circuits without additional protective devices (per NEC 430-52C option 6).

When KTV7 devices are applied as manual motor controllers in group installations, then NEC group installation rules state these devices must be applied per the appropriate rules, which require the use of an upstream BCPD-branch circuit protection device (per NEC 430-53C option 2).



## Suitable for use with Variable Frequency Drives

The output frequency of the VFD must be limited to 400Hz or less to prevent thermal degradation. Various models of the KTV7 series self-protected combination motor controllers provide disconnection for motor branch circuits, branch-circuit and short-circuit protection (including magnetic protection), overload/thermal protection and manual switching.

The KTV7 self-protected combination motor controllers are current limiting and have a fixed magnetic trip. Interrupt ratings at 400V and 480V are available up to 65KaIC. The VFD output pulse-width modulation frequency must be limited to 4 kilohertz or less. The circuit breakers provide motor overload protection with a trip class 10 characteristic.

## Ratings & Selection

Rated Operational Current (I <sub>n</sub> ) [A]	Current Adjustment Range [A]	Nominal Magnetic Trip Current [A]	Maximum Short Circuit Current [kA]		Maximum Horsepower Typical ①Ⓜ Three Phase [HP]				Catalog Number
			480Y/277V Type E	480V (group motor)	200V	230V	460V	575V	
<b>KTV7-25...32H — High Interrupting Capacity</b>									
1.6	1.0...1.6	82	65	65	1/4	1/3	1	~	KTV7-25H-1.6A
2.5	1.6...2.5	82	65	65	1/2	3/4	1-1/2	~	KTV7-25H-2.5A
4.0	2.5...4.0	82	65	65	1	1	3	~	KTV7-25H-4.0A
6.3	4.0...6.3	82	65	65	1-1/2	2	5	~	KTV7-25H-6.3A
10	6.3...10	130	65	65	3	3	7-1/2	~	KTV7-25H-10A
16	10...16	208	65	65	5	5	10	~	KTV7-25H-16A
20	14.5...20	260	65	65	5	7-1/2	15	~	KTV7-25H-20A
25	18...25	325	30	30	7-1/2	7-1/2	20	~	KTV7-25H-25A
29	24...29	406	~	30	7-1/2	10	20	~	KTV7-32H-29A
32	27...32	448	~	30	7-1/2	10	25	~	KTV7-32H-32A

① HP ratings shown are for reference. Final selection of MPCB is determined by actual motor full load current.

② KTV7 is not applicable at 575V.

## Accessories

Compact Busbar (45 or 54mm) • Feeder & Connection Terminals • Spacing Adapter • Lockable Twist Knobs & Handles • And much more at [www.sprecherschuh.com/ecatalog](http://www.sprecherschuh.com/ecatalog)



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