ESTA PhMKP POWER CAPACITORS + ESTAspring

Vishay ESTA

World's First Terminal Block With Lever-Operated Spring Connection

INTRODUCTION

Time is money, and in the control cabinet the wiring of capacitors makes up a considerable part of the assembly time.

Most tubular power capacitors have an IP20 terminal block with a screw connection. Vishay is now introducing a new generation of power capacitors with fast connection technology. Completely screw-less, this new technology is significantly faster and simpler through spring force and lever actuation. Due to the lever position, a simple check for the completeness of all connections is possible. The necessary connection force results automatically, free from torque specifications.

In addition, fast connection technology offers maximum contact reliability over the entire service life of the capacitors, and is completely maintenance-free without the need to tighten screws. Particularly in the case of environments with permanent vibrations, such as those experienced in wind power plants, valuable investments remain secure against irreparable damage caused by loose connections.

APPLICATIONS

- Wind power plants
- Solar panels and inverters
- Thermal power stations
- Power factor correction ≤ 1000 VAC_{RMS}
- Harmonic filters

ESTAspring

A WORLD OF SOLUTIONS

RESOURCES

- Datasheet: PhMKP with ESTAspring - www.vishay.com/doc?13179
- For technical questions contact esta@vishay.com

ESTA PhMKP POWER CAPACITORS + ESTAspring

Vishay ESTA

Features:	
√	Maintenance-free
√	Reduced assembly times up to 60 %
√	Vibration-proof in wind power plants and during transport
√	Optical connection check: lever closed = successfully contacted
√	2.5 mm² up to 25 mm² with wire-end sleeve
√	Defined continuous contact force through spring technology
√	Stainless steel spring
√	Corrosion proof
√	Fast and easy lever-operated wire connection
√	Copper alloy for conductor material
Standards for ESTAspring Terminal Block:	
√	Conductor pull-out test according to IEC 60998-2-1
√	Impulse withstand voltage test according to IEC 60664-1
√	Current carrying capacity up to 90 A / phase according to IEC 60512-5-2
√	Vibration test according to IEC 60068-2-6
√	Corrosion test according to IEC 6988
√	Temperature shock test according to IEC 60512-11-4, clause 11d
√	Degree of protection IP20, tested according to DIN 40050-9/60529
√	UL / ULC pending

ESTAspring

ESTA PhMKP POWER CAPACITORS + ESTAspring

Vishay ESTA

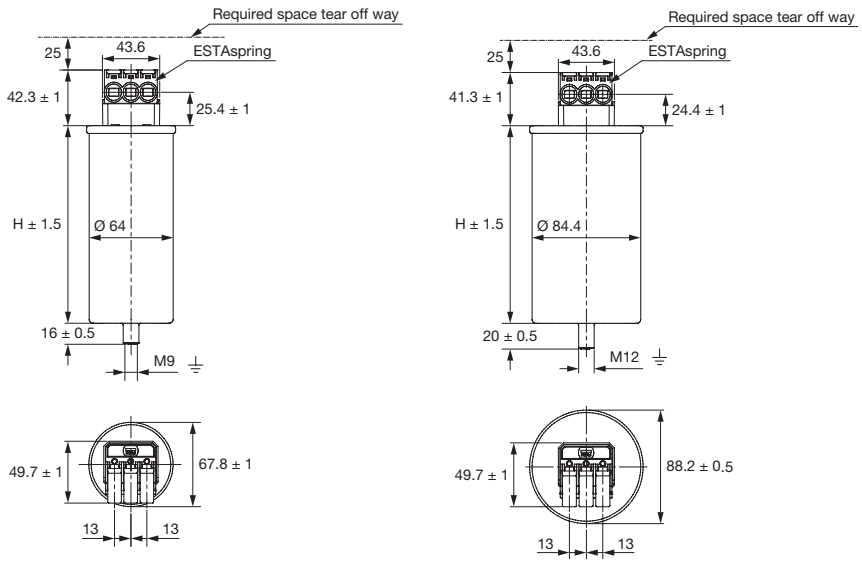
Type	Article No.	Voltage (V)	Output (kvar)	Cap. (µF) delta	Current (A)	Dimensions Ø x H mm
PhMKP400.3.12,50-S64	5341-48108-XX	400	12.5	3 x 82.9	18	64 x 265
PhMKP400.3.20,00-S84	5341-48807-XX	400	20	3 x 132.6	28.8	84.4 x 265
PhMKP400.3.25,00-S84	5341-48808-XX	400	25	3 x 165.8	36.1	84.4 x 265
PhMKP440.3.25,00-S84	5341-48816-XX	440	25	3 x 137	32.8	84.4 x 265
PhMKP440.3.28,10-S84	5341-48817-XX	440	28.1	3 x 154	36.9	84.4 x 265
PhMKP525.3.12,50-S84	5341-48820-XX	525	12.5	3 x 48.1	13.7	84.4 x 190
PhMKP525.3.20,00-S84	5341-48823-XX	525	20	3 x 77	22	84.4 x 265
PhMKP525.3.25,00-S84	5341-48824-XX	525	25	3 x 96.2	27.5	84.4 x 265
PhMKP660.3.22,90-S84	5341-48831-XX	660	22.9	3 x 55.8	20	84.4 x 340

Type designation

PhMKP	440	.3.	28,10	-S84
Series (oil-filled)	Voltage (V)	Delta-connected	Output (kvar)	ESTAspring on 84 mm diameter can

Additional ratings on request

Series	PhMKP, oil-filled; PhMKPg, DRY, gas-filled
Voltage (VAC)	230 – 1000
Connection	Single = 1; star = 2; delta = 3
Output (kvar)	2.5 – 30
Terminal / diameter	S = ESTAspring / 64 mm, 84 mm, 116 mm, 136 mm



ESTA PhMKP POWER CAPACITORS + ESTAspring

Vishay ESTA

SEMICONDUCTORS

MOSFETs Segment

MOSFETs
- Low-Voltage TrenchFET® Power MOSFETs
- Medium-Voltage Power MOSFETs
- High-Voltage Planar MOSFETs
- High-Voltage Superjunction MOSFETs
- Automotive-Grade MOSFETs

ICs
- VRPower® DrMOS Integrated Power Stages
- Power Management and Power Control ICs
- Smart Load Switches
- Analog Switches and Multiplexers

Diodes Segment

Rectifiers
- Schottky Rectifiers
- Ultra-Fast Recovery Rectifiers
- Standard and Fast Recovery Rectifiers
- High-Power Rectifiers/Diodes
- Bridge Rectifiers

Small-Signal Diodes
- Schottky and Switching Diodes
- Zener Diodes
- RF PIN Diodes

Protection Diodes
- TVS Diodes or TRANSZORB® (unidirectional, bidirectional)
- ESD Protection Diodes (including arrays)

Thyristors/SCRs
- Phase-Control Thyristors
- Fast Thyristors

IGBTs
- Field Stop Trench
- Punch-Through Trench

Power Modules
- Input Modules (diodes and thyristors)
- Output and Switching Modules (contain MOSFETs, IGBTs, and diodes)
- Custom Modules

Optoelectronic Components Segment

Infrared Emitters and Detectors

Optical Sensors
- Proximity
- Ambient Light
- Light Index (RGBW, UV, IR)
- Humidity
- Quadrant Sensors
- Transmissive
- Reflective

Infrared Remote Control Receivers

Optocouplers
- Phototransistor, Photodarlington
- Linear
- Phototriac
- High-Speed
- IGBT and MOSFET Drivers

Solid-State Relays

LEDs and 7-Segment Displays

Infrared Data Transceiver Modules

Custom Products

PASSIVE COMPONENTS

Resistors and Inductors Segment

Film Resistors
- Metal Film Resistors
- Thin Film Resistors
- Thick Film Resistors
- Power Thick Film Resistors
- Metal Oxide Film Resistors
- Carbon Film Resistors

Wirewound Resistors
- Vitreous, Cemented, and Housed Resistors
- Braking and Neutral Grounding Resistors
- Custom Load Banks

Power Metal Strip® Resistors

Battery Management Shunts

Crowbar and Steel Blade Resistors

Thermo Fuses

Chip Fuses

Pyrotechnic Initiators / Igniters

Variable Resistors
- Cermet Variable Resistors
- Wirewound Variable Resistors
- Conductive Plastic Variable Resistors
- Contactless Potentiometers
- Hall Effect Position Sensors
- Precision Magnetic Encoders

Networks/Arrays

Non-Linear Resistors
- NTC Thermistors
- PTC Thermistors
- Thin Film RTDs
- Varistors

Magnetics
- Inductors
- Wireless Charging Coils
- Planar Devices
- Transformers
- Custom Magnetics

Connectors

Capacitors Segment

Tantalum Capacitors
- Molded Chip Tantalum Capacitors
- Molded Chip Polymer Tantalum Capacitors
- Coated Chip Tantalum Capacitors
- Solid Through-Hole Tantalum Capacitors
- Wet Tantalum Capacitors

Ceramic Capacitors
- Multilayer Chip Capacitors
- Disc Capacitors
- Multilayer Chip RF Capacitors
- Chip Antennas
- Thin Film Capacitors

Film Capacitors

Power Capacitors

Heavy-Current Capacitors

Aluminum Electrolytic Capacitors

ENYCAP™ Energy Storage Capacitors