Motor starters, selector switches

Manual push-button motor starters of PRK series and accessories

PRK motor-starters of IEK® trade mark are designed for managing and protecting three-phase asynchronous electric motors from overloads, short-circuit and open-phase operating conditions. They combine the functions of a modular circuit breaker serving for motor protection and a manual starter.
These starters are used at industrial sites, agriculture and construction. It is possible to apply them for the local management of separate electric motors as well as residential and administrative building automation.

Application category: AC-3.


СИСТЕМА СЕРТИФИКАЦИИ ГОСТ Р
ГОССТАНДАРТ РОССИИ

СЕРТИФИКАТ СООТВЕТСТВИЯ

Design and technical features of PRK push-button motor-starters meet requirements of Russian and international standards.
According to their constructive and technical features, PRK motor-starters meet the requirements of international standards IEC 60947-4-1, IEC 60947-5-1.

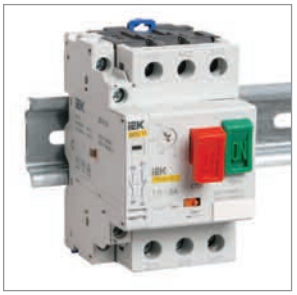
Design Features

PRK32 motor-starter can be locked with a padlock.

Possible joint installation of two DK32 or DK32 and DK/AK32.

Possibility to increase the number of auxiliary contacts.

All parts are protected from direct access.



Saving space and time at the installation. Easy and convenient adjustment of the thermal release setting range. TEST button is intended for checking PRK32 without its connection to the power circuit.

Screw size provides for using one screw driver when dealing with power clamps and control circuit electric terminals.

Auxiliary and emergency contacts joined under one casing DK/AK32.

Protective enclosure with a turn-push button
STOP and a transparent safety cover for a START button ensures IP54 protection degree.

Range

Name	Setting current, A	Package amount, transport	Package amount, multiple	Product ID
PRK32-0,63 starter, I_n=0,63 A I_r=0,4-0,63 A U_e=660 V IEK	0,4÷0,63	50	1	DMS11-C63
PRK32-1 starter, I_n=1 A I_r=0,63-1 A U_e=660 V IEK	0,63÷1,0	50	1	DMS11-001
PRK32-1,6 starter, I_n=1,6 A I_r=1-1,6 A U_e=660 V IEK	1,0÷1,6	50	1	DMS11-D16
PRK32-2,5 starter, I_n=2,5A I_r=1,6-2,5A U_e=660 V IEK	1,6÷2,5	50	1	DMS11-D25
PRK32-4 starter, I_n=4 A I_r=2,5-4 A U_e=660 V IEK	2,5÷4,0	50	1	DMS11-004
PRK32-6,3 starter, I_n=6,3 A I_r=4-6,3 A U_e=660 V IEK	4,0÷6,3	50	1	DMS11-D63
PRK32-10 starter, I_n=10 A I_r=6-10 A U_e=660 V IEK	6,0÷10,0	50	1	DMS11-010
PRK32-14 starter, I_n=14 A I_r=9-14 A U_e=660 V IEK	9,0÷14,0	50	1	DMS11-014
PRK32-18 starter, I_n=18 A I_r=13-18 A U_e=660 V IEK	13,0÷18,0	50	1	DMS11-018
PRK32-25 starter, I_n=25 A I_r=20-25 A U_e=660 V IEK	20,0÷25,0	50	1	DMS11-025

Auxiliary devices for PRK motor-starters

Auxiliary contact of transverse installation DKP32
DK32 auxiliary contact
Auxiliary and signal auxiliary contacts in one case DK/AK32

Auxiliary contacts of transverse installation DKP32 and simple auxiliary contacts DK32 are intended for boosting the number of supplementary contacts.
Auxiliary and signal auxiliary contacts in one case DK/AK32 are designed for boosting the number of supplementary contacts and overcurrent tripping alarm PRK32.

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Range

Name	Number and type of contacts	Package amount, pcs. multiple	Package amount, pcs. transport	Product ID
Transverse auxiliary contact DKP32-11 IEK	1 NO+1 NC	20	1000	DMS11D-AE11
Transverse auxiliary contact DKP32-20 IEK	2 NO	20	1000	DMS11D-AE20

DK32-11 auxiliary contact	1 NO+1 NC	4	200	DMS11D-AU11
DK32-20 auxiliary contact	2 NO	4	200	DMS11D-AU20

Signal-auxiliary contact DK/AK32-01 IEK	1 NC	3	150	DMS11D-FA01
Signal-auxiliary contact DK/AK32-02 IEK	2 NC	3	150	DMS11D-FA02
Signal-auxiliary contact DK/AK32-11 IEK	1 NO+1 NC	3	150	DMS11D-FA11
Signal-auxiliary contact DK/AK32-20 IEK	2 NO	3	150	DMS11D-FA20

Technical characteristics
PRK

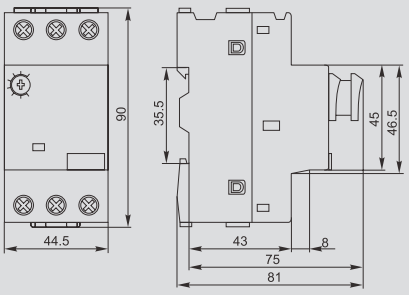
Rated operating voltage U_e, V		230, 400, 660									
Mains rated frequency, Hz		50									
Rated operating current I_e, A		0,63	1,0	1,6	2,5	4,0	6,3	10	14	18	25
Range of settings for heat release activation, A		0,4÷0,63	0,63÷1,0	1,0÷1,6	1,6÷2,5	2,5÷4,0	4,0÷6,3	6,3÷10	9,0÷14	13÷18	20÷25
Rated load of AC.3 category, kW	230 V	–	–	–	0,37	0,75	1,1	2,2	3,0	4,0	5,5
	400 V	0,12	0,25	0,37	0,75	1,5	2,2	4,0	5,5	7,5	11
	660 V	0,37	0,55	1,1	1,5	30,0	4,0	7,5	9,0	11,0	18,5
Setting of electromagnetic release, A		8	13	22,5	33,5	51	78	138	170	223	327
Rated maximum breaking capacity I_{cu}, kA	230 V	100	100	100	100	100	100	100	100	100	50
	400 V	100	100	100	100	100	100	100	15	15	15
	660 V	100	100	100	2,25	2,25	2,25	2,25	2,25	2,25	2,25
aThermal loss, W/pole		2,5									
Electrical endurance, ON-OFF cycles		10 000									
Mechanical endurance, ON-OFF cycles		10 000									
Thermal protection class of release		10 A									
Range of operating temperatures, °C		-25…+55 for PRK without protective enclosure; -25…+40 for PRK with protective enclosure									

Additional devices

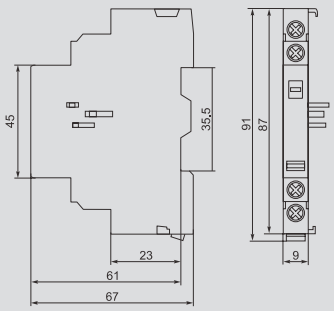
Parameters		DKP32					DK32						DK/AK32				
Rated operating voltage U_e, V		24	48	60	110	230	24	48	110	230	400	660	24	48	60	110	230
Rated current, A	AC-15	2,0	1,25	–	1,0	0,5	–	6,0	4,5	3,3	2,2	0,6	1,5	1,0	–	0,5	0,3
	DC-13	1,0	0,3	0,15	–	–	6,0	5,0	1,3	0,5	–	–	1,0	0,3	0,15	–	–
Conditional thermal current I_{th}, A	aux. contact	2,5					6						6				
	alarm contact	–					–						2,5				
Rated insulation voltage U_i, V		250					690						690				
Wear resistance, ON-OFF cycles, at least		10 000					10 000						10 000				
Visual trip indication		–					–						indicator of PRK32 trip caused by overcurrent				
Degree of protection		IP20					IP20						IP20				
Cross-section of connected wires, mm²		0,75÷1,5					0,75÷1,5						0,75÷1,5				
Side of connection to PRK32 motor starter		top, from side of input terminals					left						left				
Weight, kg		not more than 0.1					not more than 0.1						not more than 0.1				
Operating temperature range		-25…+55 without protective enclosure -25…+40 with protective enclosure					-25…+55 without protective enclosure -25…+40 with protective enclosure						-25…+55 without protective enclosure -25…+40 with protective enclosure				

Overall dimensions

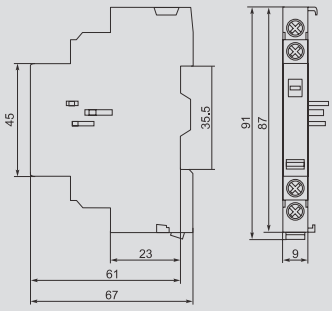
PRK



DK32



DK/AK32



DKP32