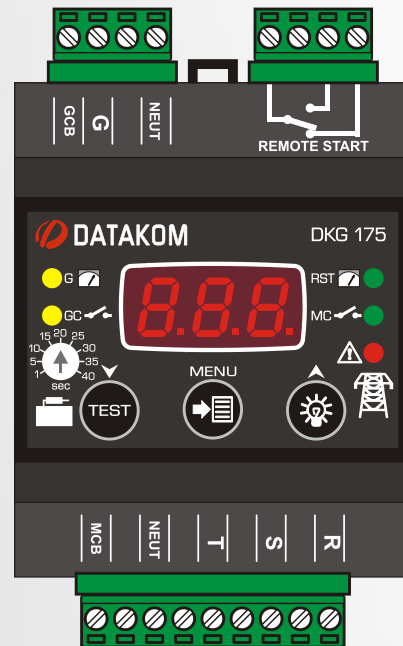


DKG-175

AUTOMATIC TRANSFER SWITCH (WITHOUT DC SUPPLY)



DESCRIPTION

Datakom DKG-175 is a DIN Rail mounted ATS controller not requiring DC supply. Thanks to this feature, it is not required to carry the DC supply from the battery to the transfer panel, providing ease of installation.

The unit monitors 3-phase mains voltages, sends remote start command to the generating set and performs changeover of both generator and mains contactors.

The front panel leds provide information about mains and generator power availability as well as contactor positions. Moreover, mains phase voltages and frequency can be seen on front panel.

Mains voltage and frequency high and low limits, mains waiting timer, mains fail timer, generator start delay, cooldown timer and mains contactor timer are front panel programmable. Generator contactor timer is adjustable between 1 and 40 seconds through front panel knob.

FEATURES

DIN Rail mounted

No DC supply required

Mains phase order check

Adjustable MCB and GCB delays

Programmable mains frequency and voltage high and low limits

Programmable delay timers

10A/250VAC MCB and GCB outputs

10A/28VDC remote start output

Isolated mains and genset inputs

Test mode

OPERATION

If 3-phases of mains voltage and frequency are within limits and phase order is correct:

-MC, RST leds turn on.

-MCB terminal is supplied with voltage R.

-REMOTE START relay will be energised. (Normally closed and normally open contacts will switch position.)

If any phase voltage or the frequency goes outside of the limits:

-ALARM led turns on, RST led turns off.

-After the expiration of mains fail timer MCB terminal is open, MC led turns off.

-REMOTE START relay de-energises after engine start delay timer. (Contacts switch back to normal positions) Generator must run.

When genset voltage is over the limit:

-G led turns on.

-GC led turns on after generator contactor timer. GCB terminal is supplied with voltage G.

When mains voltages and frequency are inside the limits:

-RST led turns on.

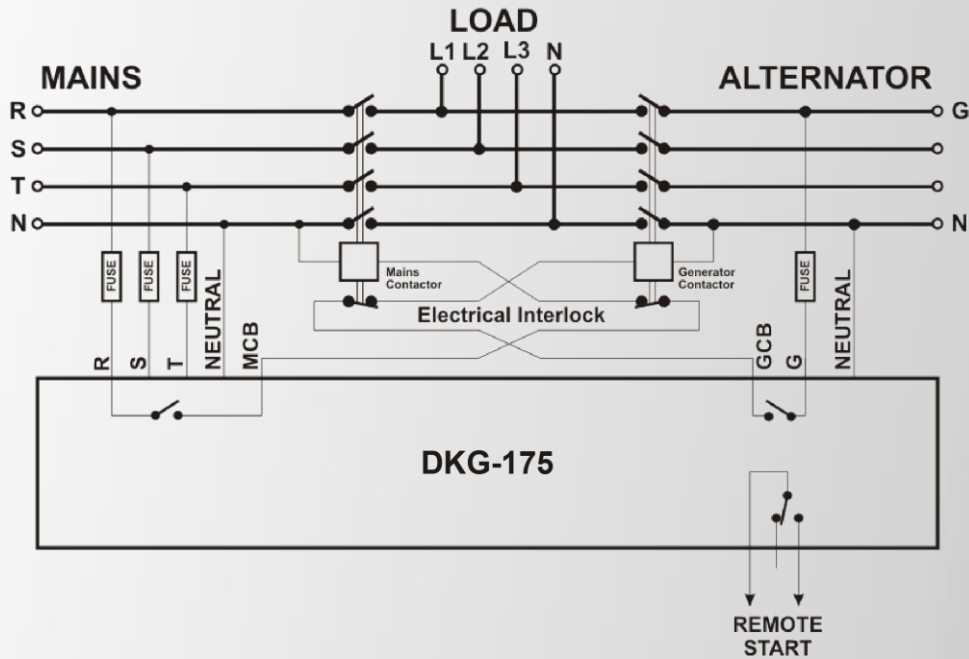
-ALARM led turns off.

-After the expiration of mains waiting timer, GCB terminal is open.

-After the expiration of mains contactor timer, MC led turns on, MCB terminal is supplied with voltage R.

-After expiration of Cooldown timer (Cooldown timer starts counting when GCB terminal is open) REMOTE START relay energises. (Normally closed and normally open contacts will switch position.)

CONNECTION DIAGRAM



INPUTS

R-S-T: Mains phase voltages
NEUT-MN: Mains neutral
G: Generator phase voltage
NEUT-GN: Generator neutral

OUTPUTS

MCB-MAINS CONTACTOR: Mains phase-R voltage is supplied, normally open relay output (10A@250V-AC)
GCB-GENERATOR CONTACTOR: Generator phase-G voltage is supplied, normally open relay output. (10A@250V-AC)
REMOTE START: Normally open and normally closed relay output. (10A@28V-DC/250V-AC)

LED INDICATORS

G: Generator voltage is within limits.
GC: Generator contactor is energised.
RST: Mains voltage and frequency is inside limits and phase order is correct. It blinks when mains waiting timer is counting.
MC: Mains contactor is energised.
ALARM: Mains voltage or frequency is outside the programmed limits. It blinks when phase order is wrong.

TECHNICAL SPECIFICATIONS

Alternator voltage: 170-300 V-AC (Phase-Neutral)
Mains voltage: 170-300 V-AC configurable (Phase-Neutral)
Mains frequency: 30 – 70 Hz configurable
Generator contactor timer: 1 - 40 sec. configurable
Mains contactor timer: 0 - 999 sec configurable
Mains waiting timer: 0 - 999 sec configurable
Mains fail timer: 0 - 999 sec configurable
Cooldown timer: 0 - 999 sec configurable
Remote start delay: 0 - 999 sec configurable
Mains contactor output: 10A @ 250V-AC
Generator contactor output: 10A @ 250V-AC
Remote start output: 10A @ 250V-AC/28V-DC
Operating temperature: -30°C to 70 °C
Storage temperature: -30°C to 80 °C
Maximum humidity: 95% non-condensing.
Dimensions: 70x115x66mm (WxHxD)
Weight: 180g (approx.)
Installation: DIN Rail mounted.
Case material: High temperature, non-flammable ABS/PC
IP protection: IP20
The unit conforms to the EU directives
 -2006/95/EC (low voltage)
 -2004/108/EC (EMC)
Norms of reference:
 EN 61010 (safety requirements)
 EN 61326 (EMC requirements)

