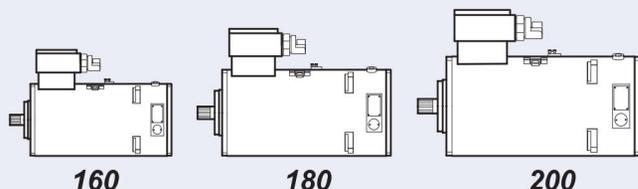


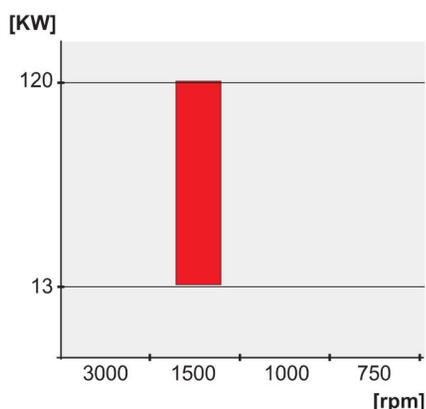
Flame-Proof Squirrel Cage Motors for Mining

Range of Motors:
dSKKs, dSKK (Water Cooled)

AVAILABLE FRAME SIZE



OUTPUT RANGE: 13 - 120 kW



The motors are designed for working in the mines endangered by the explosion of methane and coal dust. For driving of mining devices which work in undergrounds of coal mines.

Ex I M2 EExd I acc. to EN 50014
I M2 Exd I acc. to EN 60079-0

DESCRIPTION

- Operating duty S1 and S4 60% (40 c/h for dSKK200), (80 c/h for dSKK180L4)
- Rated voltage : dSKK - 500 V or 1000V, dSKKs 440V - designed to the power supply with the frequency inverter
- Frequency 50 Hz
- Insulation class F dSKK, H - dSKKs
- Degree of protection IP 66
- Terminal box with one cable inlet equipped with 3 current terminals, 8 auxiliary terminals, 2 terminals for PE wire, CK1 unit and plug of auxiliary cable inlet
- Thermal protection of winding and bearings (bimetallic or PTC)
- Pt100 in winding and drive end bearing (dSKKs)
- The cable inlet and terminals adapted for connection of mining copper cable conductors
- According to PN-EN 60034-1, PN-G- 38010:1997 (for 1000V)
- Motors as device from group I category M2 acc. to Directive 94/9/CE

CUSTOMISED VERSION

- Different supply voltage to 1140V
- Frequency 60 Hz
- With thermal protection with Pt100 (dSKK)
- With heaters in winding
- Terminal unit CK2 for testing of PE wire continuity (diode and resistor)
- With rubber ring seals for other cable diameter
- Different versions according to customer's specifications

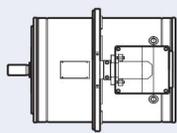


Detailed technical data on request.

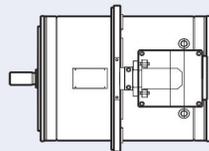
Flame-Proof Squirrel Cage Motors for Mining

Range of Motors:
dSKKs 355 (Water Cooled)

AVAILABLE FRAME SIZE



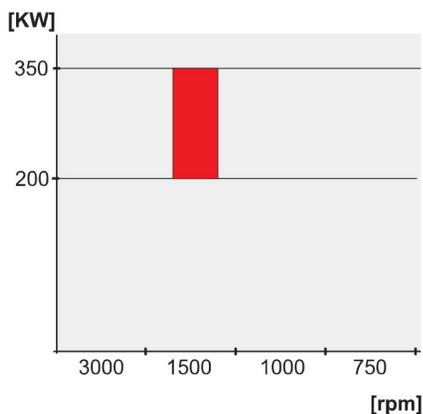
315



355



OUTPUT RANGE: 250 - 350 kW



The motors are designed for working in the mines endangered by the explosion of methane and coal dust. The motor designed in cooperation with the firm FAMUR S.A. Katowice for driving the organ which moulds a coal- the combine harvesters in undergrounds of coal mines.



I M2 EExd I

acc. to EN 50014

I M2 Exd I

acc. to EN 60079-0

DESCRIPTION

- Operating duty S1
- Rated voltage : 1000V
- Frequency 50 Hz
- Insulation class H
- Degree of protection IP 66
- Terminal box with one cable inlet (for cable's diameter : 46-49 mm) equipped in 3 current terminals, 12 auxiliary terminals, 2 terminals for PE wire, CK1 unit and plug of auxiliary cable inlet
- Thermal protection of winding and bearings (bimetallic or PTC)
- Pt100 in winding and both bearing
- The cable inlet and terminals adapted for connection of mining copper cable conductors
- According to PN-EN 60034-1, PN-G- 38010:1997 (for 1000V) and EN 50014, EN 50018 for I group dSKK 355-4z, dSKKs 355-L4z, EN 60079-0 i EN 60079-1 for I group dSKKs 355-4
- Motors as device from group I category M2 acc. to Directive 94/9/EC

CUSTOMISED VERSION

- Different supply voltage to 1140V
- Frequency 60 Hz
- Terminal unit CK2 for testing of PE wire continuity (diode and resistor)
- Terminal box without CK unit
- With rubber ring seals for other cable diameter
- Different versions per customer's specifications



ISO 9001

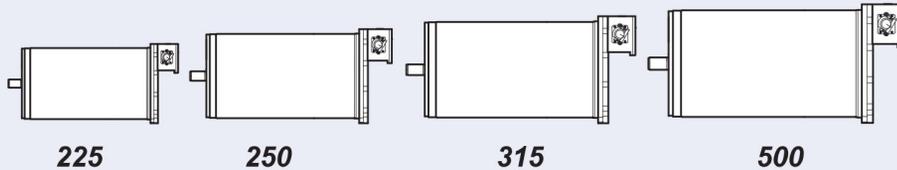
IEC

Detailed technical data on request.

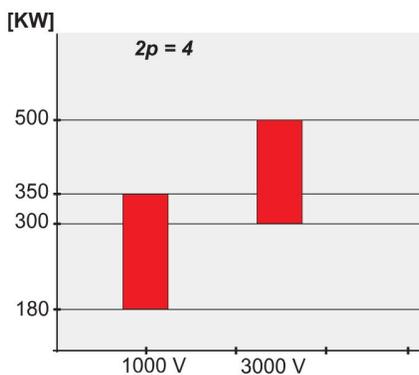
Flame-Proof Squirrel Cage Motors for Mining

Range of Motors:
dSKgw (Water Cooled)

AVAILABLE FRAME SIZE



OUTPUT RANGE: 180 - 500 kW



dSKgw motors are used for driving the mining organ of combined-cutter-loaders and conveyors under extremely tough conditions in underground headings with class "a", "b", "c" of a methane explosion danger and class "A" and "B" of a coal dust explosion danger. The motors of this range are three-phase squirrel cage induction motors in the explosion-proof execution, Exd I confirmed by ATEX certificate issued by KD "BARBARA".

Depending on clients' requirements **dSKgw** motors can be adjusted to 1000V, 1140V and 3300V which gives the opportunity to use them both in Polish and in foreign mines.

The motors are cooled with water flowing through ducts in the frame and end shields. Water inlets are placed on the frame next to the terminal box. The water supply is realized by the special connection which consists of armoured hose screwed into the threaded socket and then mounted with a special bush.

Ex I M2 Exd I

acc. to EN 60079-1

The motor is equipped with the mechanical overload protection - a safety shaft placed in shaft's hole and which has a contraction and additional notch. Functioning of protection consists in twisting the shaft in notch area that stops the driven machine without damaging the motor.

DESCRIPTION

- Exd I according to EN 60079-0, EN 60079-1 and ATEX 100A Directive
- Degree of protection IP55 according to PN-EN 60034-5, insulation class H
- Water cooling, cooling system ICW37 according to PN-EN 60034-6
- Long-lasting anti-corrosive protection - corrosive aggression class C acc. to PN-71/H-04651
- Durable bearings
- Continuous duty S1 and intermittent duty S4-60% (40c/h; $J_{ext}/J_m=1$)
- Declutching device with safety shaft
- Durable welded frame with double coat
- Low noise and vibrations

DUTY CONDITIONS

- Atmospheric pressure 800 -1070 hPa, ambient temperature 0-40°C
- Relative humidity at 35°C 97-100%
- Altitude <1000m, dustiness <1000mg/m³
- Operation in areas with class "a", "b" and "c" of methane explosion danger and class "A" and "B"
- Corrosive aggression class C according to PN-71/H-04651
- Operating voltage (0,95-1,05) U_N
- Allowable inclination of shaft from horizontal position 30°
- Parameters of cooling water (on inlet): max. temp. 30°C, max. stat. pressure 3MPa, flow 15dm³/min

CE

ISO 9001

IEC

Detailed technical data on request.

Flame-Proof Squirrel Cage Motors for Mining

Range of Motors:
dSKgwp (Water Cooled)

AVAILABLE FRAME SIZE



315



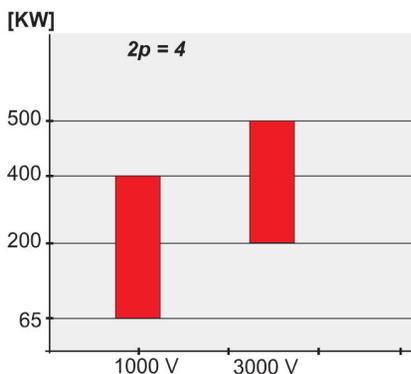
355



500



OUTPUT RANGE: 65 - 500 kW



dSKgwp series motors are used for driving mining machines and devices especially belt and push-plate conveyors in extremely tough conditions in underground headings with class "a", "b", "c" of methane explosion danger and class "A" and "B" of coal dust explosion danger.

dSKgwp series motors are three phase squirrel cage induction motors in flanged execution for horizontal operation mechanical execution Im3001 (B5) and IM4001 (B10). Motors are available in single speed and two speed execution.

Motors are executed as explosion proof with flameproof cover "d" class **IM2 Exd I** acc. to PN-EN 60079-1.

Depending on clients' requirements dSKgwp motors can be adjusted to 1000V, 1140V and 3300V which gives the opportunity to use them both in Polish and in foreign mines.

The motors are cooled with water flowing through ducts in the frame and end shields.

Winding is made of copper wire with class H insulation materials.

Rotor has single or double cage construction with brass and copper bars.

**IM2 Exd I**

Acc. to PN-EN 60079-1

DESCRIPTION

- Exd I according to EN 60079-0, EN 60079-1 and ATEX 100A Directive
- Degree of protection IP55 according to PN-EN 60034-5, insulation class H
- Water cooling, cooling system ICW37 according to PN-EN 60034-6
- Long-lasting anti-corrosive protection - corrosive aggression class C acc. to PN-71/H-04651
- Durable bearings
- Single speed motors continuous duty S1 and intermittent duty S4-60% (40c/h; $J_{ext}/J_M=1$)
- Two speed motors continuous duty S1 and intermittent duty S4-60% (75c/h; $J_{ext}/J_M=0,6$)
- Declutching device with safety shaft
- Durable welded frame with double coat
- Low noise and vibrations

DUTY CONDITIONS

- Atmospheric pressure 800 -1070 hPa, ambient temperature 0-40°C
- Relative humidity at 35°C 97-100%
- Altitude <1000m, dustiness <1000mg/m³
- Operation in areas with class "a", "b" and "c" of methane explosion danger and class "A" and "B"
- Corrosive aggression class C according to PN-71/H-04651
- Operating voltage (0,95-1,05) U_N
- Allowable inclination of shaft from horizontal position 30°
- Parameters of cooling water (on inlet): max. temp. 30°C, max. stat. pressure 3MPa, flow 15dm³/min



ISO 9001

IEC

Detailed technical data on request.