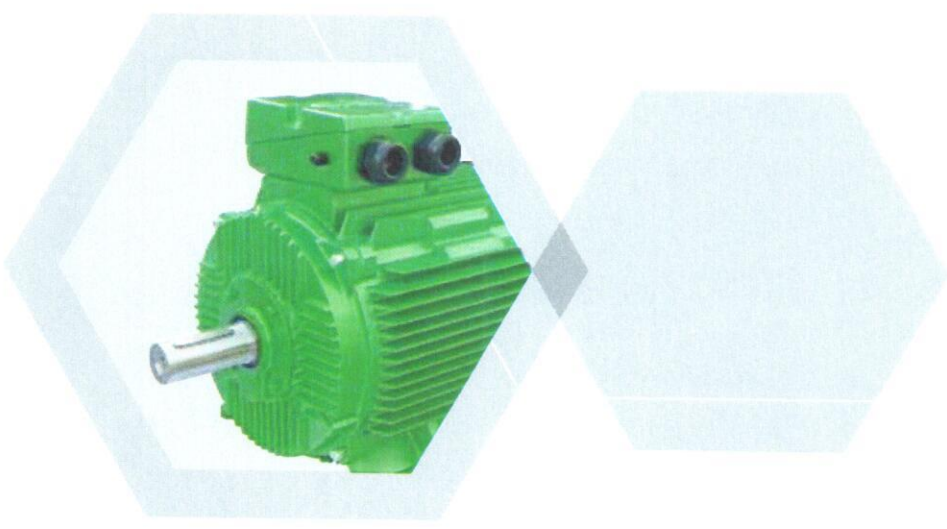
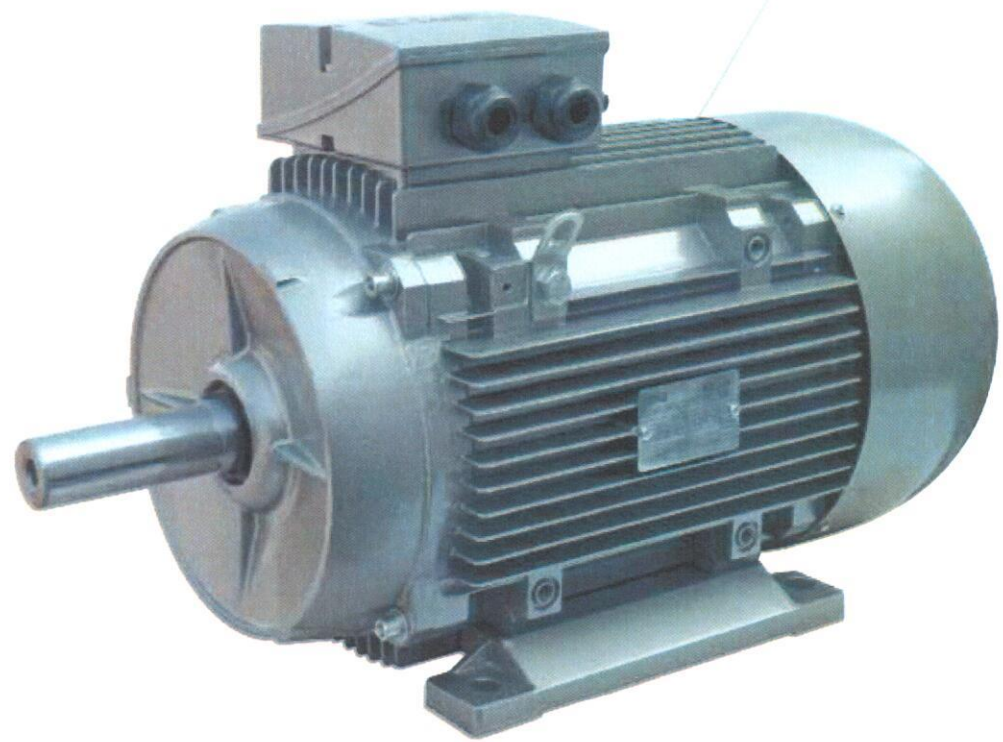


PRODUCT LINE



Mining motors:

Series: XB-low voltage mines motors

Area: Exd I
Power: 2,2-315kW
Seat No: H90-355-Full stell
Poles: 2-10
Voltage: 380 to 1140V
Frequency: 50Hz
Insulation class: F/H
Protection: IP55
Cooling: IC411
Alternative:
Form: IM:B3,B5,B35



Series: XBQ-motor for shearer traction

Area: Exd I
Power: 22-75kW
Poles: 4
Voltage: 380,660,1140V
Frequency: 50Hz
Insulation class: H
Protection: IP44
Cooling: water



Series: XBH-High voltage mines motors

Area: Exd I
Power: 110-315kW
Seat No: H280-355-Full stell
Poles: 4
Voltage: 3300V
Frequency: 50Hz
Insulation class: F/H
Protection: IP55
Cooling: IC411, IC3W7
Alternative:
Form: IM:B3, B5, B35



Series: XBU-motor for roadheader

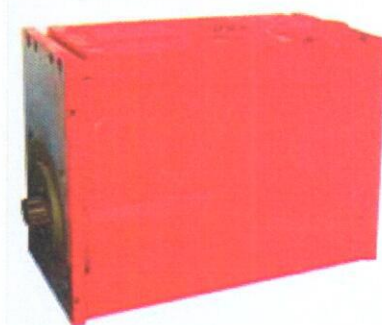
Area: Exd I
Power: 11-200kW
Poles: 4
Voltage: 660,1140V
Frequency: 50Hz
Insulation class: H
Protection: IP55
Cooling: IC411,01
Mounting: IMB5



Special mining machines:

Series: XBCS-motor for shearer

Area: Exd I
Power: 160-400kW
Poles: 4
Voltage: 660, 1140, 3300V
Frequency: 50Hz
Insulation class:H
Protection: IP55
Cooling: water



Series:HBSG-mines transformers

Type: dry type transformers
Area: Exd I
Insulation class: H
Protection: IP55



Series: HR-slip ring motors

Power: 220-11200kW
Seat No: H355-1120-steel
Poles: 2-24
Voltage: 3kV, 6kV, 10kV
Frequency: 50/60Hz
Insulation class: F/H
Protection: IP55
Cooling:
IC06,411, 416,81W,
86W, 611, 616.



Frequency convertors:

Low voltage:

Standard:

Output frequency: 0-400Hz
Voltage: 400 or 690V
Control mode: V/F sensorless vector control
Overload: 150%-1min, 180%-10sec, 200%-1sec
Filter: C3 as standard for GD1 and GD2
Braking modul: to 30kW
Cooling: AIR
Protection: IP20
Frequency Setting: Digital setting, analog setting, pulse frequency setting, multi-stage speed running setting, simple PLC setting, PID setting, MODBUS communication setting. Realize the shifting between the set combination and set channel.(Profibus on request)

Type:

Series: GD1-threephase, 0,75kW-15kW

Series: GD2-threephase, 1,5kW-500kW

Series: GD3-threephase, 300kW-2000kW



Frequency convertors:

High voltage:

Series: GDH - high voltage invertas

Power: 175-7100kW
Input voltage: 3-10kV
Output frequency: 0-120Hz
Operation mode: Vector device
Overload: 120% for 1min, 160% fo 1sec
Cooling: AIR
Protection: IP20



Flame proof motors:

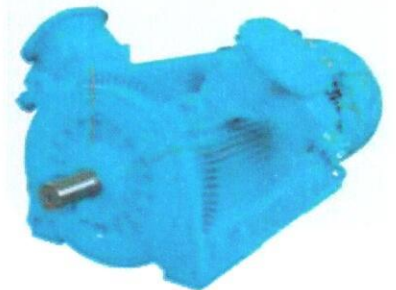
Series: HB-low voltage motors

Area: Exd II, BT1-4, IICT1-4
Power: 0,75-355kW
Seat No: H80-400-cast iron
Poles: 2-10
Voltage: 230 to 690V
Frequency: 50/60Hz
Insulation class: F/H
Protection: IP55
Cooling: IC411



Series: HBH-high voltage motors

Area: Exd II, BT1-4, IICT1-4
Power: 185-1800kW
Seat No: H355-800-cast iron
Poles: 2-10
Voltage: 3kV, 6kV, 10kV
Frequency: 50/60Hz
Insulation class: F/H
Protection: IP55
Cooling: IC411,511

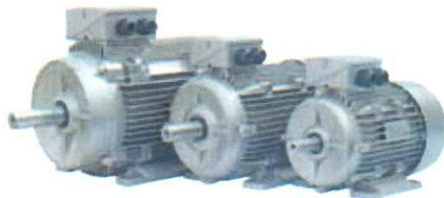


Electric motors:

Low voltage motors:

Series: HA-three phase motors

Power: 0,04-55kW
Seat No:
H56-H160 Aluminium
H160-H250-cast iron
Poles: 2,4,6,8
Efficiency: IE1,IE2,IE3
Standard voltage:
230/400V - 400/690V
Frequency: 50/60Hz
Insulation class: F
Protection: IP55
Cooling: IC411, 416
Alternative: two speeds,brake motors
Form IM: B5,B14,B35,B34



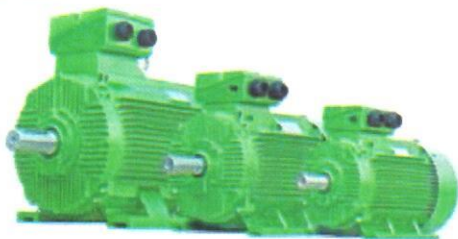
Series: HM-single phase motors

Power:0,04-3kW
Seat No:
H56-H112 aluminium frame
Poles: 2,4,6
Standard voltage:230V
Frequency: 50/60Hz
Insulation class:F
Protection: IP55
Cooling: IC411, 416
Alternative:
Form IM: B5,B14,B35,B34



Series: HG- three phase motors

Power:11-355kW
Seat No:
H160-H355-cast iron
Poles: 2,4,6,8,10
Efficiency: IE1,IE2,IE3
Standard voltage:
230/400V - 400/690V
Frequency: 50/60Hz
Insulation class: F/H
Protection: IP55
Cooling: IC411, 416
Alternative:
two speeds,brake motors
Form IM: B5,B35



Series: HJ-squirrel cage motors

Power: 200-2000kW
Seat No:
H355-H630-cast iron
Poles: 2,4,6,8,10,12
Voltage: 3kV, 6kV, 10kV
Frequency: 50/60Hz
Insulation class: F/H
Protection: IP55
Cooling: IC01,411, 416
Alternative: Form IM:B3,B35



Series: HGH-three phase motors

Power: 355-1200kW
Seat No:
H355-H500-cast iron
Poles: 2,4,6,8,10,12
Efficiency: IE2
Standard voltage:
230/400V - 400/690V
Frequency: 50/60Hz
Insulation class: F/H
Protection: IP55
Cooling: IC411, 416
Alternative:
Form IM: B5



Series: HK-squirrel cage motors

Power: 180-5500kW
Seat No: H355-1120-steel
Poles: 2-24
Voltage: 3kV, 6kV, 10kV
Frequency: 50/60Hz
Insulation class: F/H
Protection: IP55
Cooling: IC06,411, 416,81W,
86W, 611,616.

