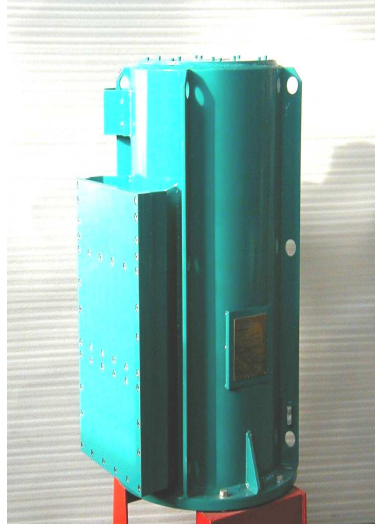
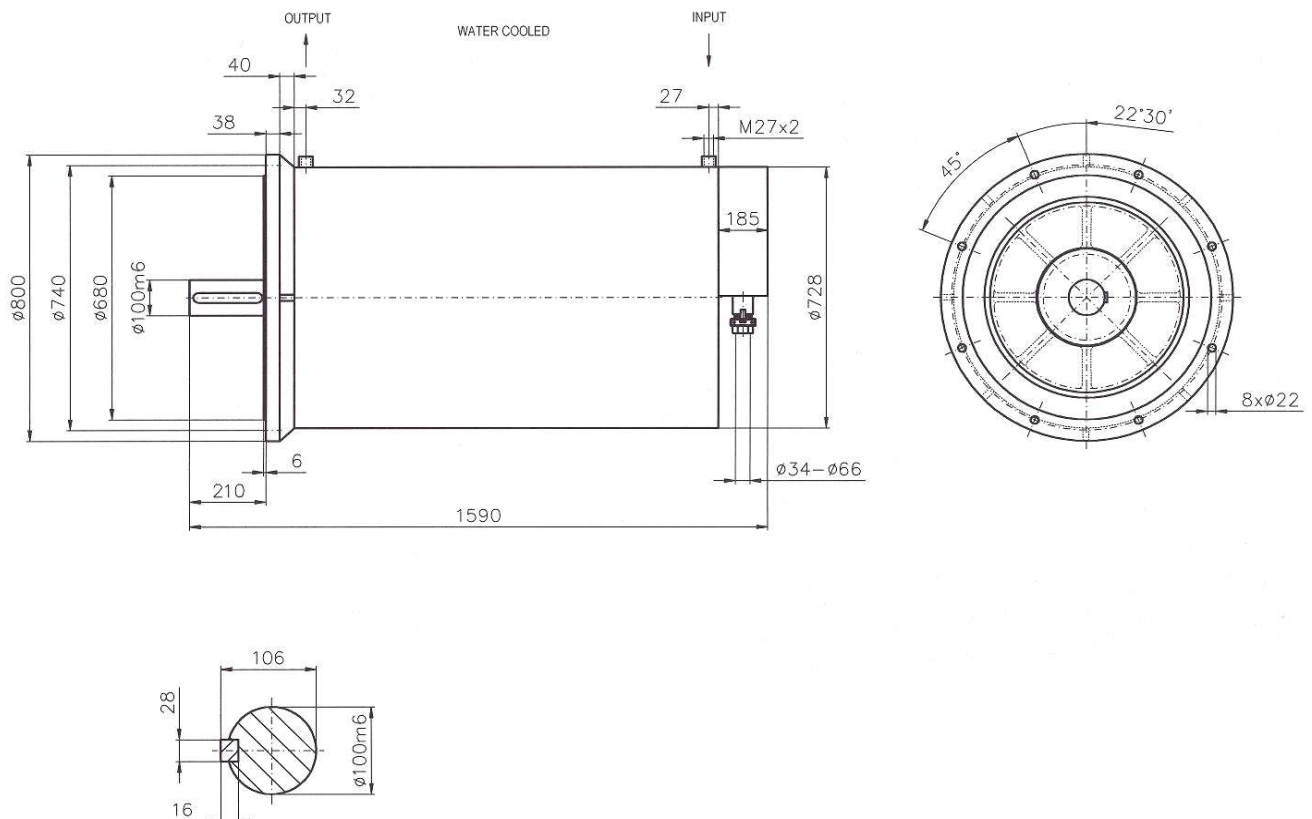


EXPLOSION-PROOF TWO-SPEED WATER-COOLED ELECTRO-MOTORS TYPE DVM



The motors are determined for gassy mines in areas with high explosion hazard of methane and coal dust. They serve for mining machines drive, especially for heavy drag chain conveyors. The two-speed electro-motors with their design and workmanship enable to start-up the electro-motor with a half of power and revolutions and at the same time with a comparable torque by the full output of the motor. The advantage of this solution is a fundamental reduction of current supply by the mining machine start-up accompanied with lower voltage drops and lower impulses in electrical network.



Technical Parameters:

Type	DVM355LK23	DVM355LK412	DVM355L412	DVM400LK412
Active output rating	$P_n = 80/160$ kW	$P_n = 65/200$ kW	$P_n = 85/250$ kW	$P_n = 105/315$ kW
Voltage rating	$U_n = 1000$ V	$U_n = 1000$ V	$U_n = 1000$ V	$U_n = 1000$ V
Frequency	$f = 50$ Hz	$f = 50$ Hz	$f = 50$ Hz	$f = 50$ Hz
Stator rated current	$I_s = 78/110$ A	$I_s = 94/144$ A	$I_s = 112/170$ A	$I_s = 138/214$ A
Relative starting current	$I_z / I_s = 5,9/6,4$	$I_z / I_s = 5,5/6,2$	$I_z / I_s = 4,5/6,2$	$I_z / I_s = 4,5/6,5$
Rated efficiency	$\eta = 85,2/93,9$ %	$\eta = 86,6/94,7$ %	$\eta = 88,2/95,4$ %	$\eta = 88,5/95,6$ %
Rated power factor	$\cos\phi$ 0,7/0,9	$\cos\phi$ 0,46/0,85	$\cos\phi$ 0,49/0,86	$\cos\phi$ 0,49/0,86
Rated revolutions	744/1485 r.p.m.	488/1480 r.p.m.	490/1480 r.p.m.	490/1480 r.p.m.
Number of the poles	$2p = 8/4$	$2p = 12/4$	$2p = 12/4$	$2p = 12/4$
Rated moment	1027/1029 Nm	1272/1291 Nm	1660/1620 Nm	2050/2040 Nm
Type of design	Explosion-proof, EexdI (according to EN 50 014), switchable	Explosion-proof, EexdI (according to EN 50 014), switchable	Explosion-proof, EexdI (according to EN 50 014), switchable	Explosion-proof, EexdI (according to EN 50 014), switchable
Ambient	Wet, with relative air humidity up to 95% / 25°C (marking M)	Wet, with relative air humidity up to 95% / 25°C (marking M)	Wet, with relative air humidity up to 95% / 25°C (marking M)	Wet, with relative air humidity up to 95% / 25°C (marking M)
Load	S4-40 %	S4-40 %	S4-60 %	S4-60 %
Covering	IP54	IP54	IP55	IP55
Cooling	ICW37 A/41-water	ICW37 A/41-water	ICW37 A/81-water	ICW37 A/81-water
Max. cooling-water temperature	Up to 25 °C	Up to 25 °C	Up to 30 °C	Up to 30 °C
Rated cooling-water quantity	30 l.p.m.	10 l.p.m.	14 l.p.m.	17 l.p.m.
Min. cooling-water quantity	11 l.p.m.	5 l.p.m.	5 l.p.m.	5 l.p.m.
Min. cooling-water pressure	0,3 MPa	0,3 MPa	0,3 MPa	0,3 MPa
Max. cooling-water pressure	2,5 MPa	3,0 MPa	3,0 MPa	3,0 MPa
Shape	IM3001 – flange-mounted	IM3001 – flange-mounted	IM3001 – flange-mounted	IM3001 – flange-mounted
Shaft height	H = 355 mm	H = 355 mm	H = 355 mm	H = 400 mm
Insulation	H	H	H	H
Bearings	Anti-friction	Anti-friction	Anti-friction	Anti-friction
Bearings lubrication	Lubricant LV2	Lubricant LV2	Lubricant LV2	Lubricant LV2
PT100 sensors in winding	2 pc in each phase	2 pc in each phase	2 pc in each phase	2 pc in each phase
PT100 sensors in bearings	1pc in each bearing	1pc in each bearing	1pc in each bearing	1pc in each bearing
Altitude	Up to 1000 m above sea-level	Up to 1000 m above sea-level	Up to 1000 m above sea-level	Up to 1000 m above sea-level
Ambient temperature	+5°C up to +40°C	0°C up to +40°C	0°C up to +40°C	0°C up to +40°C
Electro-motor weight	about 1850 kg	about 1950 kg	about 2400 kg	about 2900 kg
Delivery term	11 weeks	11 weeks	15 weeks	17 weeks

The manufacturer provides for these electro-motors the guarantee of 30 months.