

**APPROVAL OF ELECTRICAL APPARATUS & CABLES UNDER Regulation 181(3) of
the COAL MINES REGULATIONS, 1957**

**The list of approved flameproof, intrinsically safe electrical motors is not exhaustive and
subject to verification of the approval documents.**

Sl. No	Description of motors	Name of Manufacturer (M/S)	Approval no.	Valid upto
CG 1	FLP squirrel cage induction motor rated at 7.5 HP (5.5 KW), 381/440 V, 3 phase, 50 Hz, 3000 RPM with class 'E' insulation with detachable (3 terminals) terminal box fitted with sealing box and glands for wire armoured cables and with class 'E' insulation in frame size-E 132 M conforming to IS:2148-2004 & IS:13346-2004 for use in belowground Coal Mines.	Crompton Greaves Ltd. A-6/2 : MIDC Ahmednagar-414 111(Maharashtra).	103 Group-I of 1975	20.01.2010
CG 2	Flameproof induction motor rated at 2 HP(1.5 KW), 381/440 V, 3 phase, 50 Hz, 2830 RPM continuous duty with class 'E' insulation and having detachable terminal box for terminals with sealing box and gland for wire armoured cable and with external fan and fan cooled in frame size- E 90L conforming to IS:2148-2004 & IS:13346-2004 for use in belowground Coal Mines.	Crompton Greaves Ltd. A-6/2 : MIDC Ahmednagar-414 111 (Maharashtra).	104 Group-I of 1975	21.01.2010
CG 3	Flameproof squirrel cage induction motor rated at 250 HP (187 KW), 500/550 V, 3 phase, 50 Hz, 1480 RPM continuous duty in frame size-E 315L for use in belowground Coal Mines.	Crompton Greaves Ltd. A-6/2 : MIDC Ahmednagar-414 111(Maharashtra).	160 Group-I of 1978	27.04.2009
CG 4	FLP slipring electric induction motor rated at 75 KW(100 HP), 381/440 V, 3 phase, 50 Hz, 980 RPM continuous duty in frame size-EW 315 S/M conforming to IS:2148-2004 & IS:13346-2004 for use in belowground Coal Mines.	Crompton Greaves Ltd. A-6/2 : MIDC Ahmednagar-414 111(Maharashtra).	136 Group-I of 1977	11.12.2009
CG 5	Flameproof fan cooled squirrel cage induction motor upto 5 HP(3.7 KW), 3 phase, 381/440 V, 50 Hz, 2920 RPM with detachable (3 terminals) terminal box fitted with sealing box and glands for wire armoured cables and with class 'E' insulation in frame size-E112M conforming to IS:2148-2004 & IS:13346-2004 for use in belowground Coal Mines.	Crompton Greaves Ltd. A-6/2 : MIDC Ahmednagar-414 111 (Maharashtra).	137 Group-I of 1977	21.01.2010
CG 6	FLP squirrel cage induction motor rated at 22 KW (30 HP), upto 650 V, 3 phase, 50 Hz, 3000	Crompton Greaves Ltd.	122 Group-I	31.07.2009

	RPM fan cooled with detachable (3 terminals) box fitted with cable sealing box and glands for wire armoured cables with class 'E' insulation in frame size-E180L conforming to IS:2148-2004 & IS:13346-2004 for use in belowground coal mines.	A-6/2 : MIDC Ahmednagar-414 111(Maharashtra).	of 1976	
CG 7	Flameproof squirrel cage induction motor rated at 150 HP, 500/550 V, 3 phase, 50 Hz, 1475 RPM in frame size E 315 M for use in belowground Coal Mines.	Crompton Greaves Ltd. A-6/2 : MIDC Ahmednagar-414 111(Maharashtra).	125 Group-I of 1976	04.04.2010
CG 8	Flameproof fan cooled slipring electric induction motor with detachable independent terminal boxes for starter core and rotor core fitted with cable sealing boxes and glands for wire armoured cables and independent detachable cast iron slipring housing rated at 45 KW(60 HP), 50 Hz, 3 phase, 381/440 V, 1500 RPM synchronous continuous duty class 'F' insulation in frame size EW 250 S/M conforming to IS:2148-2004 & IS:13346-2004 for use in belowground coal mines.	Crompton Greaves Ltd. A-6/2 : MIDC Ahmednagar-414 111(Maharashtra).	126A Group-I of 1976	05.12.2009
CG 9	Flameproof squirrel cage induction motor, 18.5 KW(25 HP), 381/440 V, 50 Hz, 3 phase, 2920 RPM in frame size-E 160L with detachable terminal box for 3 terminals with sealing box and gland for wire armoured cable with external fan and fan cover for use in belowground Coal Mines.	Crompton Greaves Ltd. A-6/2 : MIDC Ahmednagar-414 111(Maharashtra).	119 Group-I of 1976	03.04.2010
CG 10	Flameproof squirrel cage induction motor rated at 125 HP, 500/550 V, 50 Hz, 3 phase, 1480 RPM in frame size-E 280 M for use in belowground Coal Mines.	Crompton Greaves Ltd. A-6/2 : MIDC Ahmednagar-414 111(Maharashtra).	127 Group-I of 1976	04.04.2010
CG 11	Flameproof fan cooled squirrel cage induction motor rated at 3 HP (2.2 KW), 381/440 V, 3 phase, 50 Hz, 3000 RPM with class 'E' insulation in frame size-E 100L conforming to IS:2148-2004 & IS:13346-2004 for use in belowground Coal Mines.	Crompton Greaves Ltd. A-6/2 : MIDC Ahmednagar-414 111 (Maharashtra).	145 Group-I of 1977	05.12.2009
CG 12	FLP squirrel cage induction motor in frame size E-225 S rated at 50 HP, 3000 RPM, 550 V, 3 phase, 50 Hz with detachable terminal box with sealing box and gland for wire armoured cable with external fan and fan cooled conforming to IS:2148-2004 & IS:13346-2004 for use in	Crompton Greaves Ltd. A-6/2 : MIDC Ahmednagar-414 111(Maharashtra).	78 Group-I of 1974	06.04.2009

	belowground coal mines.			
CG 13	Flameproof squirrel cage induction motor rated at 75 HP, 550 V, 3 phase, 50 Hz, 3000 RPM synchronous speed, continuous duty in class 'F' insulation in frame size-E 250 M conforming to IS:2148-2004 & IS:13346-2004 for use in belowground coal mines.	Crompton Greaves Ltd. A-6/2 : MIDC Ahmednagar-414 111(Maharashtra).	79 Group-I of 1974	13.05.2009
CG 14	Flameproof squirrel cage induction motor rated at 60 HP, 550 V, 3000 RPM, 3 phase, 50 Hz in frame size-E 225M with detachable terminal box with sealing box and gland for wire armoured cable with external fan & fan cool conforming to IS:2148-2004 & IS:13346-2004 for use in belowground coal mines.	Crompton Greaves Ltd. A-6/2 : MIDC Ahmednagar-414 111 (Maharashtra).	80 Group-I of 1974	04.04.2010
CG 15	Squirrel cage induction motor in flameproof enclosure rated upto and including 30 KW (40 HP), voltage range 100 to 650 V, 3 phase, 50 Hz, frame size-E 200L conforming to IS:2148-2004 & IS:13346-2004 for use in belowground coal mines.	Crompton Greaves Ltd. A-6/2 : MIDC Ahmednagar-414 111(Maharashtra).	45 of 1970	31.07.2009
CG 16	FLP squirrel cage induction motor rated at 15 KW, upto 660 V, 50 Hz, 3 phase, 3000 RPM (syn.) in frame size-E160L provided with cable gland and sealing box	Crompton Greaves Ltd. A-6/2 : MIDC Ahmednagar-414 111(Maharashtra).	95 Group-I of 1975	11.03.2011
CG 17	Flameproof slipring induction motor rated at 75 KW (100 HP), 550 V, 3 phase, 50 Hz in frame size-EW315L conforming to IS:2148-2004 & IS:13346-2004 for use in belowground Coal Mines	Crompton Greaves Ltd. A-6/2 : MIDC Ahmednagar-414 111(Maharashtra).	221 Group-I of 1982	13.05.2009
CG 18	Flameproof foot mounted fan-cooled slipring induction motor rated at 37 KW, 550 V in frame size-EW 280 S/M conforming to IS:2148-2004 & IS:13346-2004 for use in belowground Coal Mines	Crompton Greaves Ltd. A-6/2 : MIDC Ahmednagar-414 111(Maharashtra).	252 Group-I of 1984	23.09.2009
CG 19	Flameproof fan cooled slipring induction motor with detachable terminal box fitted with cable sealing boxes rated at & upto 75 KW (100 HP), for intermittent duty, upto 550 V, 3 phase, 50 Hz, 975 RPM with class 'F' insulation in frame size-EW 280 M manufactured by M/S Crompton Greaves Ltd., Ahmednagar conforming to IS:2148-2004 & IS:13346-2004 for use in belowground Coal Mines.	Crompton Greaves Ltd. A-6/2 : MIDC Ahmednagar-414 111(Maharashtra).	580 of 2009	27.03.2010
CG (B	Flameproof squirrel cage induction motor rated at 400 HP(300 KW), 3.3 KV, 3 phase, 50 Hz,	Crompton Greaves Ltd.	178 Group-I	24.06.2010

1)	frame size-E 355L conforming to IS:2148-2004 and IS:13346-2004 for use in belowground coal mines.	M-7 Division, D5, Industrial Area Mandideep, Distt.-Raisen-462 046 Near Bhopal (Madhya Pradesh).	of 1979	
CG (B 2)	Flameproof squirrel cage induction motor 350 KW, 4 pole, 3.3 KV, 3 phase, 1492 RPM, 50 Hz AC frame size-E 450B conforming to IS:2148-2004, IS:325-1996 and IS:13346-2004 for use in belowground Coal Mines	Crompton Greaves Ltd. M-7 Division, D5, Industrial Area Mandideep, Distt.-Raisen-462 046 Near Bhopal (Madhya Pradesh).	289 Group-I of 1988	24.06.2009
K1	3 phase, rated voltage upto 650 V, 50 Hz, flameproof squirrel cage induction motors in frame sizes NE-112, NE-132, NE-160, NE-180 and NE-200 redesignated as frame sizes LE-112, LE-132, LE-160, LE-180 and LE-200 rated upto and including 3.7 KW, 1430 RPM, 5.5 KW, 2900 RPM, 11 KW, 2935 RPM, 22 KW, 1500 RPM and 30 KW, 2955 RPM respectively for use in belowground Coal Mines.	Kirloskar Electric Company Limited Unit-II, P.B. no.112, Gokul Road, Hubli-580 030 (Karnataka).	36 Group-I of 1969	25.08.2009
K2	Flameproof fan cooled foot mounted squirrel cage induction motor in frame size LE225M, rated at 37 KW, 75 A, 415 V, 3 phase, 50 Hz, 1475 RPM for use in belowground Coal Mines.	Kirloskar Electric Company Limited Unit-II, P.B. no.112 Hubli-580 030 (Karnataka).	226 Group-I of 1982	05.12.2009
K3	Flameproof squirrel cage induction motor rated at 220 KW, 550 V, 1476 RPM, 3 phase, 50 Hz, 4 pole in frame size-LE315L for use in belowground Coal Mines.	Kirloskar Electric Company Limited Post box no. 5555, Malleswaram West, Bangalore-560 055.	171 Group-I of 1979	30.05.2009
K4	FLP fan cooled and foot mounted squirrel cage induction motor rated upto and including 125 KW, in frame size LE 280M	Kirloskar Electric Company Limited Unit-II, P.B. no.112 Hubli-580 030 (Karnataka).	245 Group-I of 1984	13.03.2010
K5	Flameproof squirrel cage induction motor rated at 350 KW, 3300 V, 1482 RPM, 3 phase, 4 pole, class 'F' duty SI, frame size-FLP 355 conforming to IS:2148-2004, IS:4691-1985 & IS:13346-2004 for use in belowground Coal	Kirloskar Electric Company Limited Unit-II, P.B. no.112 Hubli-580 030	503 of 2004	09.02.2010

	Mines.	(Karnataka).		
B1	Flameproof foot mounted squirrel cage induction motor rated at 7.5 KW, upto and including 660 V, 3 phase, 50 Hz, 3000 RPM in cast iron construction in frame size-MJ130 (IEC frame size-132M) conforming to IS:2148-2004 and IS:13346-2004 for use in belowground Coal Mines.	Bharat Bijlee Ltd.,Post box no. 100, Thane : Belapur Road – 400 601.	247 Group-I of 1984	31.08.2009
B2	Flameproof foot mounted fan cooled squirrel cage induction motor rated at 2.2 KW, 525 V, 3 phase, 1500 RPM, 50 Hz in class B insulation in frame size MJ100 (IEC frame size-100) conforming to IS:2148-2004 and IS:13346-2004 for use in belowground Coal Mines.	Bharat Bijlee Ltd.,Post box no. 100, Thane : Belapur Road – 400 601.	333 of 1994	01.08.2009
B3	Flameproof squirrel cage induction motor rated at 30 KW, 550 V, 3 phase, 1465 RPM, 50 Hz in frame size MJ200 (IEC frame size-200L) conforming to IS:2148-2004, IS:325-1996 and IS:13346-2004 for use in belowground Coal Mines.	Bharat Bijlee Ltd.,Post box no. 100, Thane : Belapur Road – 400 601.	543 of 2006	24.03.2010
B4	Flameproof foot mounted fan cooled squirrel cage induction motor rated at 45 KW, 550 V, 3 phase, 4 pole, 3000 RPM, 50 Hz in frame size MJ225 (IEC frame size-225 S/M) conforming to IS:2148-2004 and IS:13346-2004 for use in belowground Coal Mines.	Bharat Bijlee Ltd.,Post box no. 100, Thane : Belapur Road – 400 601.	455 of 1998	01.08.2009
B5	Flameproof squirrel cage induction motor rated at 55 KW, 550 V, 3 phase, 3000 RPM, 50 Hz in frame size MJ250 (IEC frame size-250M) in cast iron construction conforming to IS:2148-2004 and IS:13346-2004 for use in belowground Coal Mines.	Bharat Bijlee Ltd.,Post box no. 100, Thane : Belapur Road – 400 601.	456 of 1998	01.08.2009
B6	Flameproof foot mounted fan cooled squirrel cage induction motor rated at 22 KW, 550 V, 3 phase, 4 pole, 3000 RPM, 50 Hz AC insulation class 'F' in frame size MJ180 (IEC frame size-180) in cast iron construction conforming to IS:2148-2004, IS:325-1996 and IS:13346-2004 for use in belowground Coal Mines.	Bharat Bijlee Ltd.,Post box no. 100, Thane : Belapur Road – 400 601.	281 Group-I of 1987	23.10.2009
B7	Flameproof foot mounted fan cooled squirrel cage induction motor rated at 0.75 KW, upto & including 660 V, 3 phase, 4 pole, 3000 RPM, 50 Hz "CR" duty rating with class 'B' insulation in frame size-MJ90 (IEC frame size-90) in cast iron construction conforming to IS:2148-2004 and IS:13346-2004 for use in belowground Coal	Bharat Bijlee Ltd.,Post box no. 100, Thane : Belapur Road – 400 601.	234 Group-I of 1983	31.08.2009

	Mines.			
B8	FLP squirrel cage induction motor with detachable terminal box fitted with sealing box rated at 15 KW, 415 V, 3 phase, 1460 RPM, 50 Hz in frame size-16 LFP (IEC frame size-160L) conforming to IS:2148-2004 and IS:13346-2004 for use in belowground Coal Mines.	Bharat Bijlee Ltd., Post box no. 100, Thane : Belapur Road – 400 601.	168 Group-I of 1978	31.08.2009
LH P1	Flameproof squirrel cage induction motor in frame size LF-160 M/L rated at 15 KW, 550 V, 3 phase, 50 Hz conforming to IS:2148-2004 and IS:13346-2004 for use in belowground Coal Mines.	Laxmi Hydraulics Pvt. Ltd. B-11, MIDC : Chincholi Solapur-413 255(Maharashtra)	527 of 2005	04.03.2010
LH P2	Flameproof foot mounted squirrel cage induction motor rated at 18.5 KW(25 HP), 550 V, 3 phase, 50 Hz in frame size-LF-180 M/L conforming to IS:2148-2004 and IS:13346-2004 for use in belowground Coal Mines.	Laxmi Hydraulics Pvt. Ltd. B-11, MIDC : Chincholi Solapur-413 255(Maharashtra)	551 of 2006	21.11.2009
LH P3	Flameproof induction motor in cast iron construction rated at 30 KW, 550 V, 3 phase, 50 Hz insulation class 'F', in frame size-200 M/L conforming to IS:2148-2004 and IS:13346-2004 for use in belowground Coal Mines.	Laxmi Hydraulics Pvt. Ltd. B-11, MIDC : Chincholi Solapur-413 255(Maharashtra)	552 of 2006	21.11.2009
LH P4	Flameproof induction motor in cast iron construction rated at 45 KW, 550 V, 3 phase, 50 Hz insulation class 'F', in frame size-225 S/M conforming to IS:2148-2004 and IS:13346-2004 for use in belowground Coal Mines.	Laxmi Hydraulics Pvt. Ltd. B-11, MIDC : Chincholi Solapur-413 255(Maharashtra)	553 of 2006	21.11.2009
LH P5	Flameproof foot mounted induction motor in cast iron construction rated at 75 KW, 550 V, 3 phase, 50 Hz, 1480 RPM insulation class 'F' in frame size-280 S conforming to IS:2148-2004 and IS:13346-2004 for use in belowground Coal Mines.	Laxmi Hydraulics Pvt. Ltd. B-11, MIDC : Chincholi Solapur-413 255(Maharashtra)	557 of 2007	26.06.2009
LH P6	Flameproof foot mounted induction motor in cast iron construction rated at 110 KW, 550 V, 3 phase, 50 Hz, 1485 RPM, insulation class 'F' in frame size 315 S conforming to IS:2148-2004 and IS:13346-2004 for use in belowground Coal Mines.	Laxmi Hydraulics Pvt. Ltd. B-11, MIDC : Chincholi Solapur-413 255(Maharashtra)	558 of 2007	02.07.2009
LH P7	Flameproof/weatherproof foot mounted induction motor in cast iron construction rated at	Laxmi Hydraulics Pvt. Ltd.	559 of 2007	03.08.2009

	55 KW, 550 V, 3 phase, 50 Hz, 4 pole, 1440 RPM insulation class 'F' in frame size-250 M conforming to IS:2148-2004, IS:4691-1985 and IS:13346-2004 for use in belowground Coal Mines.	B-11, MIDC : Chincholi Solapur-413 255(Maharashtra)		
IB S1	FLP flange mounted squirrel cage induction motor rated at 132 KW, 550 V, 185 A, 3 phase, 1475 RPM in frame size-250 with indirect cable entry (type-X) type dMCV-425Z04T9B manufactured by M/S IBS, Germany	M/S APHMEL, Vijaywada (AP).	539 of 2005	12.08.2009
M1	Flameproof/weatherproof motor in MS fabricated construction rated at 315 KW, 4 pole, 3.3 KV, 3 phase, 50 Hz in frame size-KF400 conforming to IS:2148-2004, IS:4691-1985 and IS:13346-2004 for use in belowground Coal Mines.	Marathon Electric Motors (India) Limited, Paharpur Works, 58, Taratala Road, Kolkata-700 024	573 of 2008	22.07.2009
M2	Flameproof foot mounted fan cooled squirrel cage induction motor in frame size KF-250M rated at 55 KW, 4 pole, 500/550 V, 3 phase, 50 Hz, 1500 RPM	Marathon Electric Motors (India) Limited, Paharpur Works, 58, Taratala Road, Kolkata-700 024	134 Group-I of 1977	17.10.2009
M3	Flameproof squirrel cage induction motor in frame size- KF 200L rated at 30 KW, 550 V, 3 phase, 50 Hz, 1500 RPM conforming to IS:2148-2004 and IS:13346-2004 for use in belowground Coal Mines.	Marathon Electric Motors (India) Limited, Paharpur Works, 58, Taratala Road, Kolkata-700 024	305 of 1991	19.03.2010
M4	Flameproof squirrel cage induction motor in frame size 225M redesignated as frame size KF 225M, 50 HP, 500/550 V, 3 phase, 50 Hz, 4 pole	Marathon Electric Motors (India) Limited, Paharpur Works, 58, Taratala Road, Kolkata-700 024	98 Group-I of 1975	19.03.2010
M5	FLP fan cooled, 3 phase, foot mounted squirrel cage induction motor in frame size KF 160 L rated at 15 KW, 415 V, 50 Hz, 1470 RPM, class 'B' insulation	Marathon Electric Motors (India) Limited, Paharpur Works, 58, Taratala Road, Kolkata-700 024	199 of 1980	24.03.2010
M6	FLP squirrel cage induction motor in frame size-KF 132M rated at 7.5 KW(10 HP), upto 550 V conforming to IS:2148-2004 and IS:13346-2004 for use in belowground Coal Mines.	Marathon Electric Motors (India) Limited, Paharpur Works, 58, Taratala Road, Kolkata-700 024	273 Group-I of 1986	24.03.2010

M7	FLP squirrel cage induction motor in frame size KF-315M rated at 110 KW (150 HP), 500/550 V or 415 V, 3 phase, 50 Hz, 1500 RPM	Marathon Electric Motors (India) Limited, Paharpur Works, 58, Taratala Road, Kolkata-700 024	322 of 1993	16.06.2009
M8	Flameproof squirrel cage induction motor of cast iron body in frame size KF 280M rated at 90 KW, 550 V	Marathon Electric Motors (India) Limited, Paharpur Works, 58, Taratala Road, Kolkata-700 024	246 of 1984	13.08.2009
M9	Flameproof fan cooled foot mounted squirrel cage induction motor in frame size KF112M rated at 4 KW, 415 V, 3 phase, 50 Hz conforming to IS:2148-2004 & IS:13346-2004 for use in Zone 1 & Zone 2 hazardous areas of oil mines.	Marathon Electric Motors (India) Limited, Paharpur Works, 58, Taratala Road, Kolkata-700 024	306 of 1991	12.06.2009
N1	Flameproof/weatherproof foot mounted motor in grey cast iron construction in frame size-YB400-4 rated at 220 KW, 4 pole, 3.3 KV, 50 Hz with compound filled cable and sealing box manufactured by M/S Nanyang Explosion Protection Group Co. Ltd., Nanyang, Henan PRC-473008 conforming to IS:2148-2004, IS:13346-2004 & IS:4691-1985 for use in belowground Coal Mines in India002E	Nanyang Explosion Protection Group Co. Ltd. No. 22, North Zhongjing Road Nanyang, Henan PRC-473008 P. R. China.	574 of 2008	05.09.2009
P1	Flameproof/weatherproof induction motor in cast iron construction rated upto 37 KW (50 HP), upto 650 V, 3 phase, 50 Hz in frame size-K200L manufactured by M/S Precision Engineering Works, Mumbai conforming to IS:2148-2004, IS:13346-2004 & IS:4691-1985 for use in belowground Coal Mines.	Precision Engineering Works 51, A-Z Industrial Estate, Ganpat Rao Kadam Marg, Lower Parel, Mumbai-400 013.	577 of 2008	17.12.2009