

# BU12F-LOCO

**12 TON LOCOMOTIVE (FLP)**



## Salient Features:

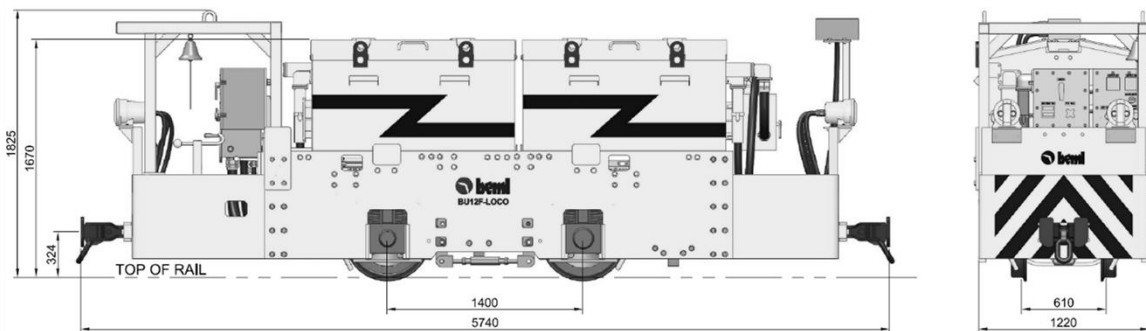
- Chassis is designed with structural steel materials to provide maximum durability and excellent service life and stability
- Axles and Wheels are from reputed source made out of cast steel machined and mounted with anti-friction roller bearings housed in a steel cast bearing housing with grease lubrication.
- Simplified service and maintenance features provide easy access to service locations allowing maintenance to be done quickly and efficiently.
- Effective hand lever operated braking system through linkage mechanism.
- Flame proof DC series traction motor is prime mover, DGMS approved Flameproof electrical control system



# BU12F-LOCO

Operating weight : 12000 kg  
Trailing Load : 42000 kg  
Rail Gauge : 610 mm  
Rated Power : 192 VDC

# SPECIFICATIONS



## PRIME MOVER

Type	Bi-Directional DC Series Traction Motor – 2 no.
Feature	Flame Leakage Protected (FLP)
Rating	192V DC, 24 HP @ 530 RPM
Cooling & IP	Self-Cooled, IP55 rated
Conformance	IS/IEC 60079-1:2007 & IS 4691: 1985 suitable for use in Degree-III Gassy underground coal mines (Gas Group-1 Atmosphere)
Type	Bi-Directional DC Series Traction Motor – 2 no.
Feature	Flame Leakage Protected (FLP)



## WHEEL & AXLE

Wheel	Four Cast wheel of high strength steel
Axle	Worm Gear box integrated with axle
Bearings	Heavy duty Taper Roller bearings
Suspension	Leaf spring suspension on both axles



## BATTERY BANK

Source	192V, 515Ah (C-2 rated) Battery Bank (96V x 2 no. of battery boxes)
Enclosure	M.S box with special (FRP) coating on inner surface



## BRAKE

Service Brake	Hand Lever operated self-locking screw nut Mechanism. Four cast iron brake blocks with substantial braking surface acting on rail Wheels
Emergency/ Parking Brake	Hand Wheel operated Caliper type Mechanical Disc brake with self-locking screw nut & Linkage mechanism.



## DRIVE CONTROL

Type	PWM Type Drive, 192V DC
Features	Interlocks with Brake switch & Deadman switch Controller inhibition on Earth Leakage
Enclosure	FLP & IP65, DGMS approved



## SANDING SYSTEM

Type	Hand lever operated sanding system.
Special feature	Four interconnected sandboxes operated simultaneously to prevent wheel slip



## OPERATOR CONTROLS

Power-ON	Key-switch
Direction select	Forward-OFF-Reverse
Throttle	Pot-box knob
Panel meters	<ul style="list-style-type: none"> <li>Battery EMF and Current</li> <li>Individual Motor Voltage &amp; Current</li> <li>Earth Leakage Voltage</li> <li>Battery Discharge Indicator-cum-Hour Meter</li> </ul>
Indicators	Brake Applied/ Released, Foot-pedal Pressed/ Released, ELCB tripped, E-stop pressed
Emergency	Resettable Emergency Stop switch
Enclosure & Conformance	FLP & IP65, DGMS Approved IS/IEC 60079-1: 2007, IS/IEC 60079-0: 2004 and IS 12063: 1987 (IEC 60529:1989)



## SAFETY FEATURES

Dead-man s/w Protections	FLP Foot pedal switch with spring retention Overload, Short Circuit, Emergency Stop, ELCB, Pre-start Alarm
Audio-Visual Alarm (Forward & Reverse)	IS A-V Alarm as per DGMS directives conforming to IS/IEC 60079-11:2006 IS/IEC 60079-0:2004 and IS12063:1987 (IEC 60529:1989)
Speedometer	Mechanical Type
FLP Components	<ul style="list-style-type: none"> <li>Battery Isolator Box</li> <li>Battery Connectors (Plug &amp; Socket)</li> <li>Panel Enclosure</li> <li>Wire Harness with FLP cables conforming to IS14494:1998</li> <li>Head Lamp with integrated Tail Lamp</li> </ul>
Overhead Protection	FOPS Canopy



## DIMENSIONS

Overall Length	3645 mm
Overall Width	1015 mm
Overall Height	1960 mm (with FOPS) 1240 mm (without FOPS)
Wheel Base	940 mm
Track gauge	610 mm
Overall Weight	6 Metric Ton



## OPTIONAL

Nomenclature	Battery Charger
Input	3-phase, 550V AC, 50 Hz available at mines
Output	Suitable for 80V DC, 305Ah, C2 rated Battery
Protections	<ul style="list-style-type: none"> <li>Overcharging</li> <li>Undercharging</li> <li>Short Circuit</li> <li>Earth Leakage</li> </ul>

# बी ई एम एल लिमिटेड BEML LIMITED

Schedule 'A' Company under Ministry of Defence, Govt. of India

## Business Network

## Corporate Office

BEML Soudha, 23/1, 4th Main,  
S.R. Nagar, Bangalore – 560 027

T + 91 80 22963240, 22963250

F + 91 80 22963278/516/280/164

E-mail: office.cpd@beml.co.in  
corpcomm@beml.co.in

## International Business Division

Flat No. E,F,G, H, 'Vandana' 11<sup>th</sup> Floor,  
11, Tolstoy Marg, Connaught Place  
New Delhi – 110 001

T + 91 11 23316500

F + 91 11 23325085

E-mail: mx@beml.co.in

## Marketing Division

5th Floor, Unity Building,  
J.C. Road, Bangalore – 560 002

T + 91 80 22963501/02/07/510/540

F + 91 80 22963541

E-mail: m@beml.co.in  
mmd@beml.co.in

## REGIONAL OFFICES

<b>Bangalore</b> 4th Floor, Unity Building, J. C. Road, Bangalore - 560 002	T + 91 97413 51588 E-mail: mg@beml.co.in
<b>Karnataka</b>	
<b>Bilaspur</b> 1-A, Industrial Area, Sector-C, Sirgitti, Bilaspur - 495 223.	T + 91 7752 252745, 252598 F + 91 7752 252065 E-mail: mv@beml.co.in
<b>Chhattisgarh</b>	
<b>Neyveli</b> F-4, Dr. Rajendraprasad Road, Block-27, Neyveli - 607 803	T/F + 91 4142 268517 T + 91 4142 265517 / 229392 E-mail: ma@beml.co.in
<b>Tamil Nadu</b>	
<b>Dhanbad</b> Mouza - Kangalo, Amaghata, Govindpur, KG Ashram Post, Dhanbad Jharkhand - 828 109	T + 91 94711 92023 E-mail: ml@beml.co.in
<b>Hyderabad</b> 3-6-114, Street No. 18, Himayat Nagar, Hyderabad - 500 029	T + 91 40 2322 7032 / 94907 93117 F + 91 40 23221794 E-mail: rm.hyderabad@beml.co.in
<b>Telangana</b>	
<b>Kolkata</b> 35/1A, Taratala Road, Kolkata - 700 088.	T + 91 33 2401 5286 / 87 / 98 / 99 F + 91 33 2401 5288 E-mail: rm.kolkata@beml.co.in
<b>West Bengal</b>	
<b>Mumbai</b> 32A, Bazar Road, Near Jain Mandir, Bandra (West), Mumbai, Maharashtra - 400 050	T + 91 22 26431875 / 26435875 F + 91 22 26423928 E-mail: rm.mumbai@beml.co.in
<b>Nagpur</b> No 33, Cement Road, Shivaji Nagar, Nagpur - 440 010, Maharashtra	T + 91 712 2248435 / 2248343 F + 91 712 2249997 E-mail: mn@beml.co.in
<b>New Delhi</b> Flat E,F,G,H, 'Vandana', 11th Floor, 11, Tolstoy Marg, Connaught Place, New Delhi - 110 001	T + 91 11 2334 3511 / 3528 / 2331 6500 F + 91 11 2332 5085 E-mail: ml@beml.co.in
<b>Ranchi</b> 206/D-1, Bhagirathi, (Behind NCC Campus) Rameshwaram Colony, Barasu Road, Ranchi, Jharkhand - 834 009	T + 91 651 2540710 / 94311 08531 E-mail: mr@beml.co.in
<b>Sambalpur</b> BEML Complex, NH-6, Panchagachhia, Baraipalli Post, Sambalpur 768 006 Odisha.	T + 91 663 2521604 / 2521389 E-mail: mb@beml.co.in
<b>Singrauli</b> PB No. 5, Jhingurdha Colliery, Singrauli - 486 889 Madhya Pradesh.	T + 91 7805 272668 / 272318 F + 91 7805 272282 E-mail: rm.singrauli@beml.co.in

## ACTIVITY CENTRES

<b>Bhopal</b> Ground Floor, Hall No. 1, Chitrod Complex, Zone-1, Maharajapuratap Nagar (MP Nagar), Bhopal - 462 011	T + 91 755 2550711 / 8989456753
<b>Panjim</b> BEML Limited, 5/4, Victor Building, Fontanhas, Mala, Panjim - 403 001, Goa	T + 91 832 2225135 / 77566 87178
<b>Ranagar</b> C/o. Toborn Riba, H-Sector, Papum Itanagar - 791 113, Arunachal Pradesh	T + 91 94029 34205 / 88372 15852
<b>Kochi</b> No. 39/222, Chittoor Road, Emakulam South, Kochi - 682 016	T + 91 484 2375138 E-mail: rm.kochi@beml.co.in
<b>Mailhar</b> Mailhar, Madhya Pradesh	Mob: +91 76875 53768
<b>Silapathar</b> : Surya Vatika, Amritpur, Silapathar, Assam - 787 050	T + 91 95311 29059

## DISTRICT OFFICES

<b>Ahmedabad</b> 99/100, BEML HOUSE, 2nd Street, Azad Society, Ambawadi, Ahmedabad - 380 015, Gujarat	T + 91 79 26445523 / 94264 13620 F + 91 79 26423950 E-mail: rm.ahmedabad@beml.co.in
<b>Asansol</b> 3, Bumpur Road, Asansol - 713 304 West Bengal	T + 91 341 2252480 F + 91 341 2250601 E-mail: mca@beml.co.in
<b>Bacheli</b> Behind Central Stores of NMDC Ltd., Depot 5, Bacheli - 494 553. Chhattisgarh	T/F + 91 7857 230005 E-mail: rm.bacheli@beml.co.in
<b>Bhilai</b> Room no 22/C, BSP Expansion Building, Near Ispat Bhavan, Bhilai 490 001, Chhattisgarh	T + 91 788 2223880 F + 91 788 2221652 E-mail: mnb@beml.co.in
<b>Bhubaneswar</b> 25/2A, Lewis Road Bhubaneswar - 751 014	T + 91 674 2434427 / 99373 83950
<b>Odisha</b>	E-mail: mbb@beml.co.in
<b>Chandrapur</b> Mamidwar, Tiles Factory Compound Ghugus Road, Padoli Chandrapur - 442 406 Maharashtra	T + 91 7172 287230 F + 91 7172 287560 E-mail: mnc@beml.co.in
<b>Chennai</b> Flat No. 10, Supriya Estates, No.3, Sterling Road, Nungambakkam, Chennai - 600 034, Tamil Nadu,	T + 91 44 28220844 F + 91 44 28257319 E-mail: rm.chennai@beml.co.in
<b>Guwahati</b> No.11, Ward 43, Hengrabari Road, Ganesh Puri, Dispur, Guwahati - 781 006 Assam	T + 91 361 2232966 F + 91 361 2232967 E-mail: rm.guwahati@beml.co.in
<b>Hospet</b> No.1431, Marjunatha Complex, Bhagat Singh Nagar, Opp. KSSIDC Indl. Estate, Darn Road, Hospet - 583 203, Karnataka	T/F + 91 8394 230172 E-mail: rm.hospet@beml.co.in
<b>Jammu</b> 62C, Block DiC, Gandhi Nagar, Jammu tawi - 180 004	T + 91 191 2459 437 F + 91 191 2430 447 E-mail: mj@beml.co.in
<b>Jammu and Kashmir</b>	
<b>Kothagudem</b> Old Project Planning Department, Near SCCL Corporate Office, Kothagudem - 507 101, Telangana	T + 91 8744 245572 F + 91 8744 245530 E-mail: rm.kothagudem@beml.co.in
<b>Leh</b> 174-B, (Near Royal Enfield Showroom), Housing Colony, Leh, Ladakh - 194 101	T + 91 1982 258828 / 94198 71008 E-mail: ml@beml.co.in
<b>Ramagundam</b> Near SCCL TTC, Jawahar Nagar, Behind CISF Camp, Godavankhani - 505 209. Peddapalli Dist. Telangana	T + 91 8728 248299 / 94408 58441 E-mail: mhn@beml.co.in
<b>Udaipur</b> 20-B, Uchhab Bhavan, Bedla Road, Fatehpura, Udaipur - 313 001. Rajasthan	T + 91 294 2452054 E-mail: mwu@beml.co.in
<b>Visakhapatnam</b> No. 9-45-11, 4th Lane, Vidyanagar Chinnu Waltair Colony Visakhapatnam - 530 003, Andhra Pradesh	T/F + 91 891 2754608 / 83320 54590 E-mail: rm.vizag@beml.co.in

[www.bemlindia.in](http://www.bemlindia.in)

Represented by:

बी ई एम एल लिमिटेड  
BEML LIMITED

Schedule 'A' Company under Ministry of Defence, Govt. of India

**BU12F – LOCO (12 Ton Locomotive - FLP)**

Form No. BU12F-LOCO/01/2012