

CLIENT: M/S Brahmaputra Cracker and Polymer Ltd.,		Data sheet for MV Motor COPERION IDEAL PVT. LTD.					
CONSULTANT: ENGINEERS INDIA LTD.		PROJECT: BCPL (Additive Unloading System)	PLANT: LLDPE/HDPE	LOCATION: Assam	Sheet	1 of 1	Rev. 0
VENDOR  coperion Performance through partnership					Vendor Document No. OSI2010008.0.305.0100.4.00		

Data sheet for MV Motor

117-KM-815 (11 kW)

Total No. of Pages: 4 (Including Cover Sheet & Certificate)

Refer Comments as marked.

0	Issue for Approval	DB	BK	AKN	27.05.11
Rev.	Description	Prepared	Checked	Approved	Date

With minor Comments

REVIEW CODE	1	2	3
समीक्षा कोड			
Signature & Name	RI		
हस्ताक्षर एवं नाम			
Date/दिनांक	8/6/11		
V.P. No.	6907/4498		
वी.पी.नं.			

 ENGINEERS INDIA LIMITED (A Govt. of India Undertaking)		MEDIUM VOLTAGE SQUIRREL CAGE INDUCTION MOTOR	
PURCHASER's DATA			
A.Site Conditions			
1	Ambient Temperature, Minimum:	1 0c	3 Atmospheric Condition:
	Maximum:	39.8 oC	4 Altitude:
	Design:	40 oC	5 Location:
			6 Outdoor
2	Relative Humidity:	93%	
B. Technical particulars			
1	Motor tag no	117-KM- 815	
2	Driven Equipment Name:	Centrifugal fan	
3	Voltage :	415V+/-6%	16 Hazardous area classification:
4	Phase :	Three	17 Gas group:
5	Frequency:	50 Hz+/-3 %	18 Type of explosion protection :
6	Fault level:	50 Ka	19 Type of ingress protection:
7	Method of starting	D.O.L	20 Color shade:
8	Winding Connection:	Delta	21 Thermistors;
9	No. of terminals:	6	22 RTD
10	Cable size:	3C x 16 mm ² - Note-1 Copper	23 LTD
11	Cable Type :	EX FV	24 RTD/LTD monitoring device:
12	Temperature rise:	80 deg C	
13	Cooling:	TEFC	25 Applicable specification: EIL spec. 6-51-0032 &
14	Insulation class:	F	26 690Z-118-XZ-SP-5325 6907-117- L2-SP- 4410
DRIVEN EQUIPMENT MANUFACTURER's DATA			
1	Suggested motor rating	11 kW	9 Torque required Starting :
2	Manufacturer:	Reitz	maximum:
3	Bkw at full load:	NA	10 GD2 of eqpt.(NA) including flywheel: N.A kgm2
4	Kw at end of curve: 8.5 @ 1 deg.C / 7.3 @ 40 deg.C.		excluding flywheel 2.8 kgm2
5	Speed:	2857 rpm	11 Thrust(NA), up: NA
6	Rotation viewed from coupling end: Bidirectional		down: NA
7	Driven Equipment:	Centrifugal Fan	12 Starting condition:
8	Coupling type:	Direct Mounted	
MOTOR MANUFACTURER's DATA			
1	Rating:	11 KW	16 Efficiency at, 75% voltage:
2	Manufacturer:	Bharat Bijlee Ltd.	100% voltage
3	No. of poles:	2 pole	17 Power factor at, starting:
4	Frame designation:	160M/MD16M213	100% load:
5	Full load speed:	2920 rpm	18 Moment of inertia, GD2:
6	Mounting:	B3	19 NDE bearing type & no:
7	Full load torque(FLT):	3.67 mkg	20 DE bearing type & no:
8	Starting Torque:	200 % of FLT	21 Type of lubrication: Grease(Lithium based grade-3)
9	Break down or pull out torque:	300 % of FLT	22 Weight of motor: 145kg
10	Full load current(FLC):	19.3 amp	23 Thermistors; (not required) quantity no.
11	Starting current at 100% voltage:	580% of FLC	make: type:
12	Rotation viewed from coupling end: Bidirectional		24 RTD, (not required) quantity: no.
13	Starting time at, 75 %voltage:	1.67 sec.	make: type:
	100% voltage:	0.9 sec	25 LTD, (not required) quantity: no.
14	Locked rotor withstand time(cold/hot) at,		make: type: NA
	75% voltage	53/27 Sec.	26 Shaft voltage:
	100% voltage-	30/15 Sec.	27 Critical speed, 1st/2nd stage:
15	Space heater-voltage & power:	not required	28 Canopy : not required Required

* Subjected to IS tolerance

Note-1 ~~EIL to inform~~ Cable size/ cable type

Cable Size:- 3C x 16mm², PVC insulated Copper Conductor armoured Cable

Cable details:-

UAD :- 14.2 ± 2 mm

OAD :- 15.8 ± 2 mm

OD :- 19.5 ± 2 mm



GOVERNMENT OF INDIA
MINISTRY OF COMMERCE & INDUSTRY
PETROLEUM AND EXPLOSIVES SAFETY ORGANISATION (PESO)
(Formerly Department of Explosives)
CGO COMPLEX SEMINARY HILLS
NAGPUR 440006



Letter No: A/P/HQ/MH/104/ 1516
(P210864)

Email :explosives@explosives.gov.in

Phone/Fax No.2510248/2510577

Dated : 1/4/2008

To
M/s. Bharat Bijlee Ltd
100 Thane Belapur Road,
THANE (District)
Maharashtra (State).

2 APR 2008

Sub :Approval of Flameproof 3 phase Squirrel Cage AC Induction Motor Frame Size MJ160 (IEC Frame Size 160 M/L).

Dear Sir(s),

The following equipment(s) manufactured by you according to IS:2148-2004 standards is approved for use in Zone 1 , group IIA hazardous areas coming under the purview of the Petroleum Rules, 2002 administered by this Organization.

Sno	Description	Safety Protection	CCEs Identification Number	Test House	Test Report	Drawing Numbers
1	Flameproof 3 phase Squirrel Cage AC Induction Motor Frame Size MJ160 (IEC Frame Size 160 M/L).	Ex d	P210864/1	CIMFR	CIMFR/TC/SR/H1050 Dtd.6/3/2008	As per Test Report

This Approval is granted subject to observance of the following conditions:-

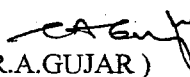
- 1 The equipment is covered under a valid BIS licence
- 2 The design and construction of the equipment shall be strictly in accordance with description, condition and drawings as mentioned in the CIMFR Test Reports referred to above.
- 3 The equipment shall be used only with approved type of accessories and associated apparatus.

- 4 Each equipment shall be marked either by raised lettering cast integrally or by plate attached to the main structure to indicate conspicuously:-
 - 1) Name of the manufacturer
 - 2) Name and number by which the equipment is identified.
 - 3) Number & date of the test report of the CIMFR applicable to the equipment.
 - 4) CCEs Identification Number of this letter by which use of apparatus is approved.
- 5 A certificate to the effect that the equipment has been manufactured strictly in accordance with the drawing referred to in the CIMFR Test report and is identical with the one tested and certified at CIMFR, Dhanbad shall be furnished with each equipment.
- 6 The customer shall be supplied with a copy of this letter, an extract of the conditions and maintenance schedule, if any, recommended by CIMFR in their test reports and copy of instructions booklet detailing operation & maintenance of the equipment so as to maintain its Flame Proof characteristics.

This approval also covers the permissible variations as approved under the CIMFR test reports referred to above. This approval may be deemed to have been revoked with immediate effect at any time, if any of the conditions subject to which approval has been granted is violated or not complied with. The approval may also be amended or withdrawn at any time, if considered necessary in the interest of safety.

The field performance report from actual users/your customers of the subject equipment may please be collected and furnished to this office for verification and record at regular intervals. The Approval otherwise is valid for a period of five years from the date of issue

Yours faithfully,


(R.A. GUJAR)

Controller of Explosives
for Chief Controller of Explosives
Nagpur

Copy to the Jt. Chief Controller of Explosives, West Circle, Mumbai.

for Chief Controller of Explosives