



Cat. No. **MFP/1600/IIC-IEC (Up to 50 HP Motor or more,
Up to 200 HP or more also available)**

Item **Ex'd' IP-66°, FLP/WP. D-O-L STARTER
WITH OR WITHOUT ISOLATOR
(Direct On Lines)**

MECHANICAL DATA

Type of protection

Flameproof Ex'd'.

Area Classification

Zone 1 & 2.

Gas Groups

Group IIA, IIB, IIC.

Apparatus Standard

IS/IEC: 60079-1 (Latest Edition)

Construction

Cast Aluminium alloy LM-6.

Temp. Class

T-3 or better.

IP Protection

IP-65° confirming to IS/IEC: 60529.

Finishing

Epoxy coated as per shade 631/632 of IS-5.

Hardware

High tensile M. steel duly cadmium plated.

Gasket

Endless neoprene rubber.

Mounting

Mounting on wall, column, steel structure etc.

Cover Joint

Flanged, Bolted/Spigotted Bolted.

ELECTRICAL DATA

DOL STARTER (Direct On Lines)

Rating: Up to 50HP. & more.

Voltage: 415V., 50 Hz AC.

Components: Contactor, O/L Relay, with or without Isolator.

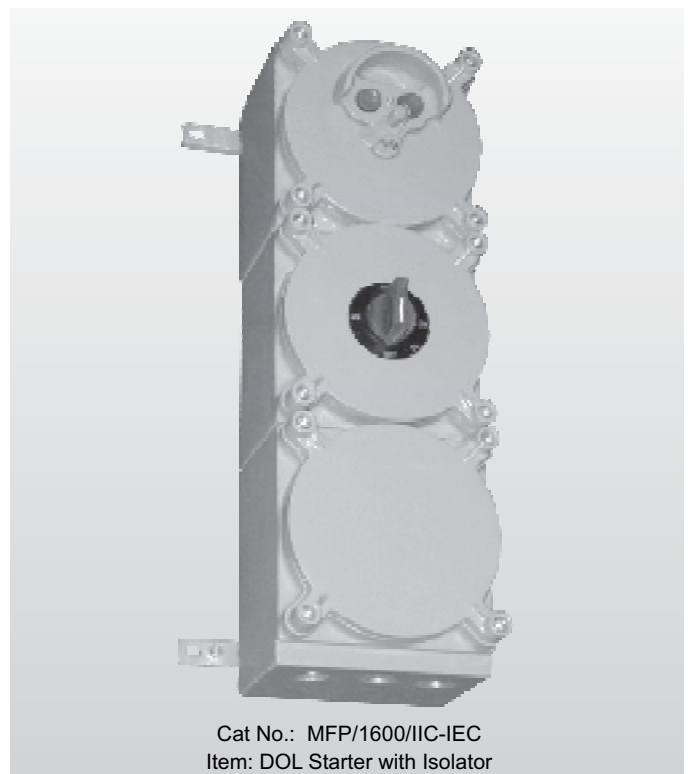
Push Button: START-STOP.

Terminals: Clip-on/Busbar type.

Earthing: Internal: 1 No.-M6 & External 2 Nos.-M6.



Cat No.: MFP/1600/IIC-IEC
Item: DOL Starter without Isolator



Cat No.: MFP/1600/IIC-IEC
Item: DOL Starter with Isolator

Cat. Numbers▶

MFP/1600/IIC-IEC (For IIA / IIB & IIC)

RATING

Up to 200HP.

CIMFR/ERTL

CIMFR/TC/P/H 705 + CIMFR/TC/SR/99

CCE/PESO

P210206/1

BIS

CM/L-0708044

DGMS

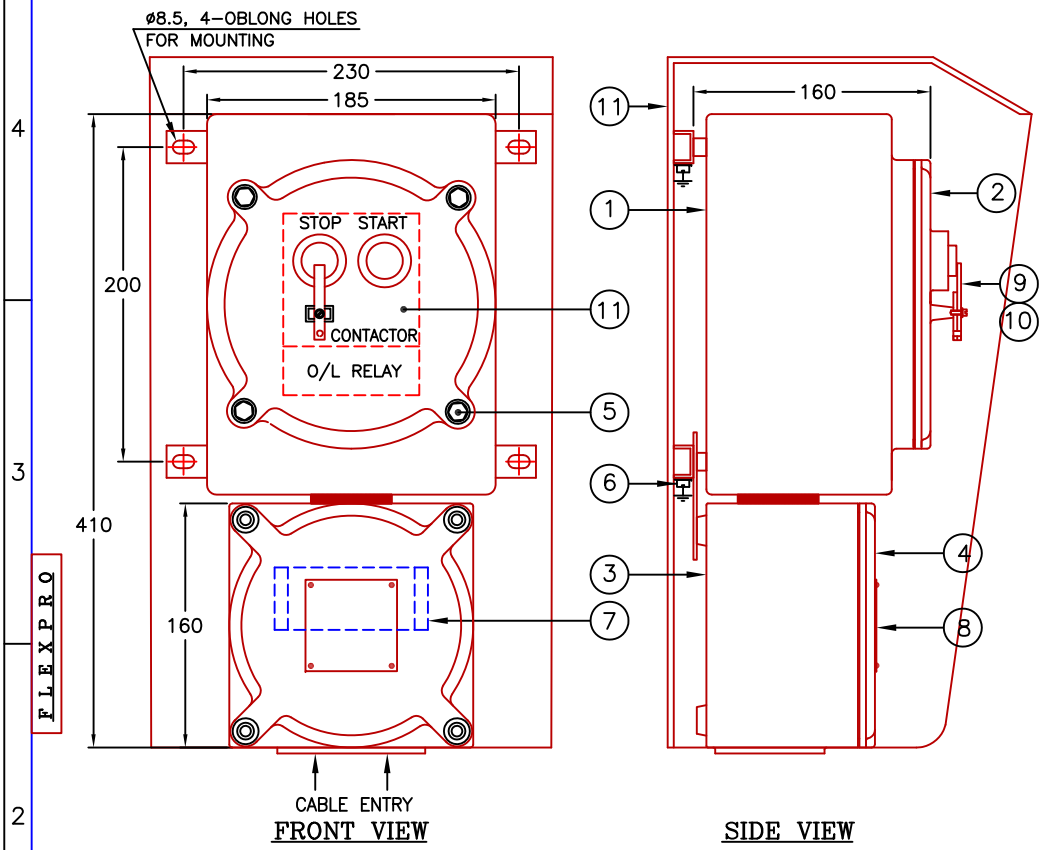
201 (for oil mines) For all variations.



NOTE : ALL DIMENSIONS ARE IN MM. UNLESS OTHERWISE STATED. (TOLERANCE ±10mm)

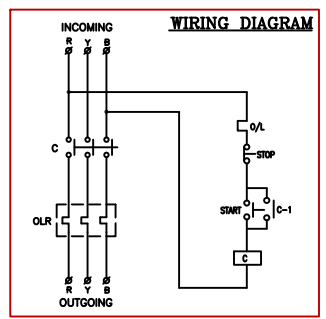
FLEXPRO

NO.	REVISION	DATE	CKD.BY	APPR.BY



TECHNICAL DATA:-

CONSTRUCTION : CAST ALUMINIUM ALLOY LM-6.
 TYPE OF ENCLOSURE : Ex'd, ZONE - I/II.
 AREA CLASSIFICATION : GAS GROUP IIA/IIB/IIC.
 PROTECTION : IP-66.
 TEMP. CLASS : T-3 OR BETTER.
 GASKET : ENDLESS MOULDED NEOPRENE RUBBER.
 RATING : 5.5KW, 3-PHASE, 415V. AC. DOL STARTER.
 PUSH BUTTONS : 1 NO. GREEN "START" SHROUDED & MOMENTARY TYPE ACTUATOR & 1 NO. RED MUSHROOM "STOP" ACTUATOR WITH STAYPUT FEATURE & PAD LOCKING FACILITY.
 P. B. ELEMENT COMPONENTS : 1NO, 1NC, 5A. 415V. AC.
 TERMINALS : 8 NOS. 4mm2 SCREW CLAMP TYPE.
 CABLE ENTRY : AS PER CLIENT REQUIREMENTS.
 CABLE ENTRY : AS PER CLIENT REQUIREMENTS.
 STOPPER PLUG : Ex'd, NICKEL PLATED BRASS STOPPER PLUG (OPTIONAL AT AN EXTRA COST).
 EARTHING : 1 NO. INSIDE & 2 NOS. OUTSIDE.
 FINISHING : DARK GREY, EPOXY COATED, AS PER SHADE 632 OF IS-5.
 HARDWARE : SS. EXTERNAL HARDWARE.
 MOUNTING : AS SHOWN IN DRAWING.
 NAME/TAG PLATE : NAME CUM WARNING LABEL AS PER IS. REQUIREMENT.
 CANOPY : FRP/G.I. SHEET STEEL CANOPY FOR EXTRA PROTECTION. (OPTIONAL AT AN EXTRA COST).
SPECIAL NOTE : PURCHASER OR THEIR CONSULTANT TO PROVIDE CABLE SIZE WITH ITS CABLE DIMENSIONS (LIKE O.D., φU.A. & φO.A) AT THE TIME OF APPROVING THIS DRAWING.



12	CANOPY	1	FRP/G.I. SHEET STEEL
11	CONTACTOR & OVER LOAD RELAY	1+1	L&T/SCHNEIDER
10	PUSH BUTTON ELEMENTS	2	TEKNIC/VAISHNO
9	PUSH BUTTON ACTUATOR (RED & GREEN)	2	FLEXPRO
8	DETAILED LABEL WITH WARNING INSCRIPTION	1	SS.
7	TERMINALS	8	ELMEX/WAGO
6	EARTHING SCREW WITH SP.& PL. WASHER	3	M6 x 10
5	ALLEN CAP SCREW & SP. WASHER	8	M6 x 30
4	TERMINAL ENCLOSURE COVER	1	
3	TERMINAL ENCLOSURE	1	AL. LM-6
2	ENCLOSURE COVER	1	
1	MAIN ENCLOSURE	1	
SR.NO.	DESCRIPTION	QTY.	MATL. & SIZE

CAT. NO.	MFP/1600/IIC-IEC
CERT. NO.	CMRI CIMFR/TC/P/H 705 + CIMFR/TC/SR/99
CCOE	P210206/1
BIS	CM/L-0708044

DRG. NAME: Ex'd/IIA/IIB/IP-66		MFG. SUPPLIED BY :	
FLP/WP. 5.5KW		FLEXPRO	
DOL STARTER		DGN. BY SHP	IS. REF.:
CLIENT		CKD. BY AMP	IS/IEC: 60079-1
CONSULTANT		APPR. BY PAM	IS/IEC: 60079-0
PROJECT		DATE 25.10.11	IS/IEC: 60529
ITEM NO.		SCALE N.T.S	FOR IP 66 OF PROTECTION
QTY.		GROUP IIA/IIB	INDENT NO.:
PO. NO.			DRG. NO.:
			MFP/0061/11
			Sheet No. 01

ACAD FILE NO.: DOL STARTER

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केन्द्रीय खनन एवं ईंधन अनुसंधान संस्थान

(वैज्ञानिक एवं औद्योगिक अनुसंधान परिषद्)
बरवा रोड, धनबाद - 826001, झारखण्ड, भारत

ORIGINAL COPY



Central Institute of Mining and Fuel Research

Formerly : Central Mining Research Institute,
(Council of Scientific & Industrial Research)
BARWA, ROAD, DHANBAD 826001 JHARKHAND, INDIA

REGISTERED POST/COURIER SERVICE

No. CIMFR/TC/P/H705
Equipment ID NO. 401/06

Dated: 13th December 2007
Code No. FLP/155/06

To
M/S. FLEXPLO ELECTRICALS PVT. LTD.,
GIDC, KABILPORE,
NAVSARI - 396 424,
GUJARAT

Sub: Flameproof Testing as per IS: 2148- 2004 (IEC 60079-1/2001) and weatherproof testing as per IS: 12063-1987 (IEC 60529/1989) for IP-66 of your "**FLEXPLO**" Ex 'd' Flameproof-cum-Weatherproof Enclosure for Distribution Type Panel Board/Junction Box/Marshalling Box, in cast aluminium alloy LM-6 construction suitable upto 1500Amp. 650V AC/DC, 50/60 Hz (max.) designated by **Cat. No.: MFP/1600/IIC-IEC** for use in Zone 1 & 2 areas Gas Group - IIC only.

- Report on (PROTOTYPE)

Your Ref. No.: FEPL/CMRI/APPLI-TT/0022/2006-07, dated: 16.10.2006 &
FEPL/CIMFR/G/0005/2007-08, dated: 05.12.2007

Dear Sir,

Please find enclosed the **Test Report (Prototype)** of the above sample submitted by you.

Charges of **Rs. 1,24,541/- (Rupees One Lakh twenty four thousand five hundred forty one only)** including applicable service charges involved towards the testing /issuing the schedule have been adjusted against the advance deposit made by you.

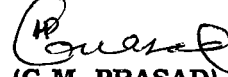
Kindly arrange to collect the sample within 90 days from the date of receipt of this letter failing which CIMFR would dispose off the sample by public auction without any further NOTICE to you.

Kindly acknowledge receipt.

Thanking you.

Encl: As above.
Test Report in duplicate.
Copy to: 1. Head, Flame & Explosion Lab
2. Bill Section.

Yours faithfully,


(G.M. PRASAD)

HEAD OF THE DEPARTMENT
TESTING CELL

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फोन - निदेशक Director

पी० ए० एक्स PAX

फैक्स FAX

Ph.: 0091 326 2202326/2203043

Ph.: 0091 326 - 2203010/2203070/2203090/2205045/2209041

0091-326-2201442/2202429/2204339/2203156

e-mail : dcmrips@yahoo.co.in, dcmri@csir.res.in / Website : www. cmriindia. nic. in

कार्यालय के दिन : सोमवार से शुक्रवार तक Working days : Monday to Friday

21

सीएसआईआर-केन्द्रीय खनन एवं ईंधन अनुसंधान संस्थान

(वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद्)

बरवा रोड , धनबाद - 826015 , झारखण्ड, भारत



CSIR-Central Institute of Mining & Fuel Research

(Council of Scientific & Industrial Research)

Barwa Road, Dhanbad - 826015 , Jharkhand , India

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SPEED POST/COURIER SERVICE

No. CIMFR/TC/SR/99
Equipment ID NO. 645/11

Dated: 24th April, 2012
Code No. FLP/274/11-12

To,
M/S. FLEXPLO ELECTRICALS PVT. LTD.,
C-1/27 & 37 G.I.D.C, KABILPORE,
NAVSARI - 396 424 GUJARAT (INDIA)

Sub: Flameproof Testing as per IS/IEC 60079-1: 2007 **Flameproof cum Weatherproof Enclosure for Distribution Type panel Board/Junction Box/Marshalling Box**, in cast aluminum alloy LM-6 construction designated by Cat No. **MFP/1600/IIC-IEC** for use in Zone 1 & 2 and Gas Group: IIC atmosphere only.

- Report on (Revalidation)

Your Ref. Appl. No.: FEPL/CIMFR/APPLI-TT/0026/11-12

Dated: 05/11/2011

Dear Sir,

Please find enclosed the **Test Report (Revalidation)** of the above sample submitted by you.

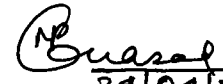
Charges of Rs. ~~3,11,520/-~~ ^{4,23,607/-} (Rupees ~~Three lakh thousand Five hundred Six hundred & Twenty only~~ ^{Four Twenty three six seven}) including applicable service charges involved towards the testing /issuing the schedule have been adjusted against the advance deposit made by you.

Kindly arrange to collect the sample within 90 days from the date of receipt of this letter failing which CIMFR would dispose off the sample by public auction without any further NOTICE to you.

Kindly acknowledge receipt.

Thanking you.

Yours faithfully,


24/04/2012

(G. M. PRASAD)

HEAD OF THE DEPARTMENT
TESTING CELL

Encl: As above.

Revalidation Test Report in **Two copies**

Copy to: 1. Head, Flame & Explosion Lab.
2. Bill Section.

EPABX : 0091-326-229-6027/6028/6029

Fax : 0091-326-229-6025 , email : dcmrips@yahoo.co.in

Working Days : Monday to Friday, Website : www.cimfr.nic.in