

Explosion-proof DC motors Frame: BM6 ATEX & IECEx certified: II 2 G Ex db IIB T4 Gb Amb. temperature range: -20°C to +60°C



Application

Explosion-proof motors are designed for use where flammable or explosive substances (such as gas vapours or mist) are processed, handled or stored and where during normal operations an explosive or flammable concentration is likely to occur in sufficient quantity to produce a hazard.

The BM6 is a 24V explosion-proof permanent magnet motor in an IEC 90 frame (90mm centre height) available in a range of outputs and duty cycles.

Certification

These designs are ATEX certified to directive 2014/34/EU in compliance with EN60079-0 & EN60079-1 and IECEx in compliance with IEC60079-0 & IEC60079-1.

ATEX marking: II 2 G Ex db IIB T4 Gb
IECEx marking: Ex db IIB T4 Gb

Environment

-20°C to +58°C (S1 ratings)
-20°C to +60°C (S2 ratings)
Ex d temperature classification: T4

Enclosure

Protection to IP56

Supply range

24V (battery or pure D.C.)

Rating and performance

All motors within this range are assigned ratings in line with the requirements of EN60034-1 & IEC60034-1

Typical ratings for 1500RPM motors

Voltage	Output	Duty
24	0.75kW	* S1 (MCR)
24	0.90kW	S2 60 mins
24	1.00kW	S2 30 mins
24	1.20kW	S2 15 mins

*At a maximum ambient of +58°C. 1800RPM, 3000RPM and other speeds are available.

Insulation Class

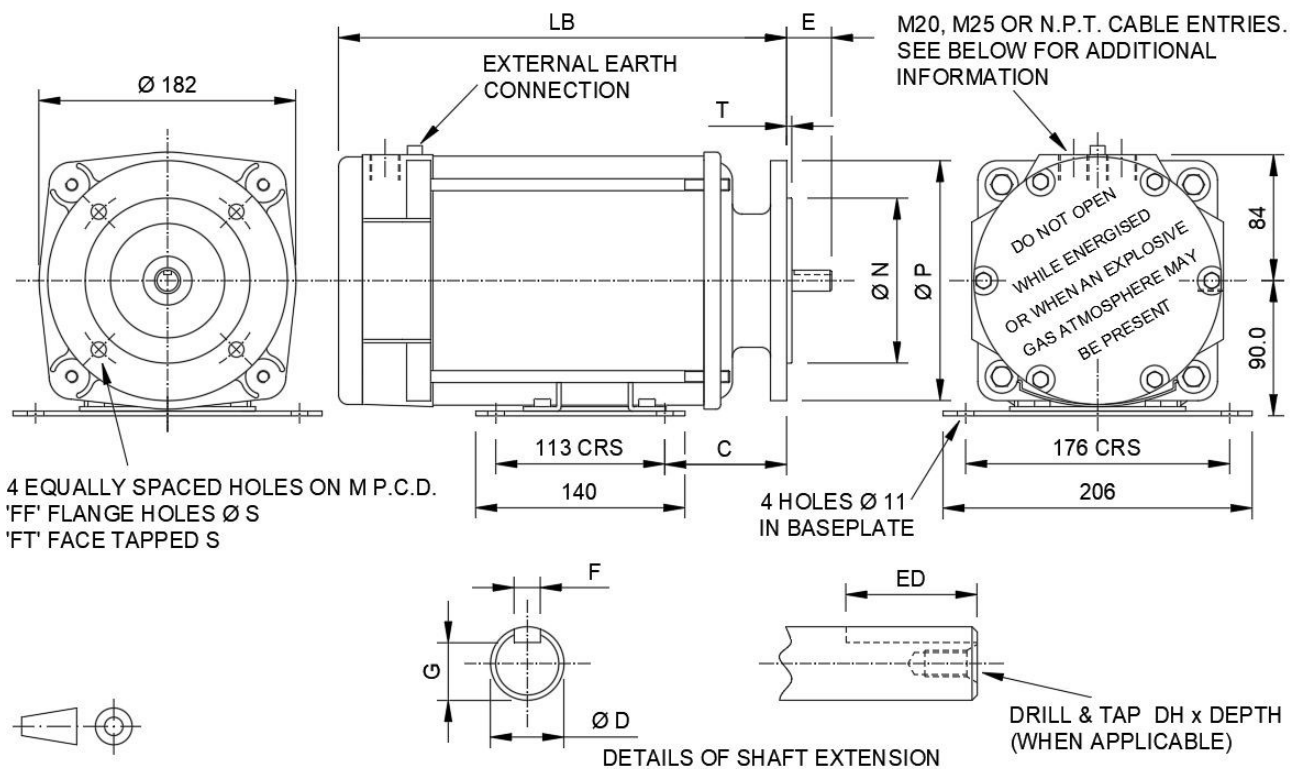
Motors are wound with Class H insulation, class F rise.

Mounting arrangements

Motors are available with B5 (D type) flange or B14 (C type) face mountings, with or without feet (B35/B34), metric flange/face and shaft dimensions to IEC72-1. NEMA and custom mountings can also be provided upon request. See reverse for standard dimensions.

Other motors manufactured by STS Motors

Ex d certified DC motors - 1.5 to 6.5kW
Safe area PM DC motors - 0.18 to 2.0kW
Wound field motors – 0.25 to 40kW
Traction motors – 5 to 75kW



All dimensions are in metric unless stated.

Flange details (Custom mountings available upon request.)

Flange size	M	N	P	S	T	C	LB
FT85 (C71)	85	70	105	M5	2.5	71	290
FT100 (C80)	100	80	120	M6	3.0	84	302
FF130 (D71)	130	110	160	10	3.5	81.5	299
FF165 (D80)	165	130	200	12	3.5	84	302
Foot mounted	-	-	-	-	-	48	266
Nema 56C	5.875"	4.5"	6.5"	0.375"	0.125"	81.5	299

Shaft details (Custom shafts available upon request.)

D	F	G	E	ED	DH x depth
14	5	11	30	20	M5 x 10
19	6	15.5	40	25	M6 x 12
0.625"	0.188"	0.517"	2"	1.5"	-

Cable entries

M20 or M25 cable entries can be supplied on the top, bottom, left or right faces. $\frac{1}{2}$ ", $\frac{3}{4}$ " or 1" N.P.T. cable entries can also be provided. External earth positioned on the same flat as the cable entries.