
Explosion-proof DC motors Frame: BM6KN/PM ATEX & IECEx Certified: II 2 G Ex db IIB T4 Gb T amb. -20°C to +60°C



Application

STS 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 an explosion proof permanent magnet motor in a 90 frame available for a range of outputs and duty cycles.

Certification

These designs are ATEX certified to directive 2014/34/EU in compliance with EN60079-0:2018 & EN60079-1:2014. and IECEx in compliance with IEC60079-0:2017 & IEC60079-1:2014.

Insulation Class

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

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 EN60034-1:2010.

Typical ratings for 1500 RPM 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

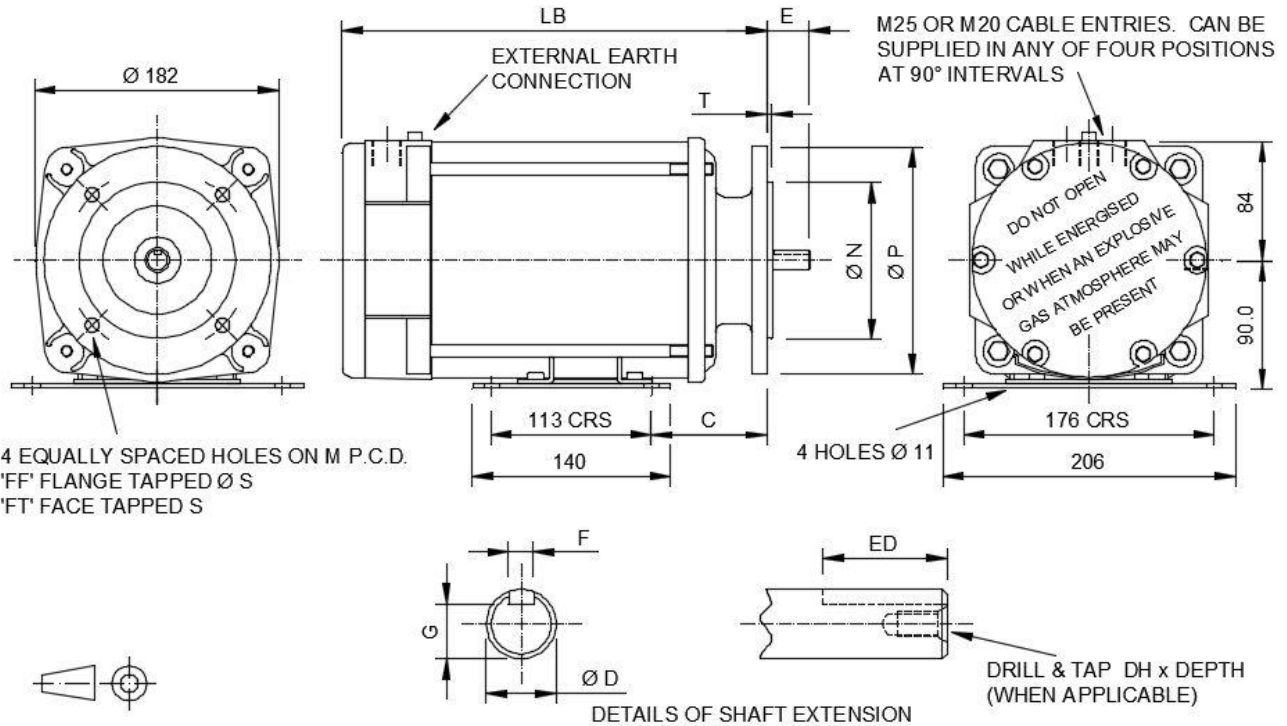
*At maximum ambient of 58°C.

Mounting arrangements

Motors are available foot and/or B5 (D type) flange or B14 (C type) face mountings with metric dimensions to IEC72-1. Although non-standard within the range, NEMA flanges can also be provided. See reverse for dimensions.

Other machines manufactured by STS

Ex db certified DC motors 1.5 - 6.5kW
Safe area DC motors 0.25 . 150kW
DC generators and dynamometers



Flange details

Flange size	M	N	P	S	T	C	LB
FT85 (C71)	85	70	105	M5	2.5	71	290
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

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+	0.5156+	0.1875+	2+	1.5+	-

All dimensions are in metric unless stated.