

## DC permanent magnet motors Frame: P90S For 12V, 24V & 48V supplies Ambient temperature range: -20°C to +60°C



### Application

For use in non-hazardous areas, designed for operation on low voltage generated DC, battery or solar power supplies. Typical applications include hydraulic pump drives, electric actuator drives, hydraulic power packs, hoists and portable lifting equipment, industrial trucks.

The P90 is a permanent magnet motor in an IEC 90 frame (90mm centre height) available in a range of voltages, speeds, outputs and duty cycles.

### Supply range

12V, 24V, or 48V 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

### Insulation Class

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

### Environment

Standard ratings based on an ambient temperature range of -20°C to +60°C.  
Altitude up to 1000 metres above sea level.  
De-rated motors suitable for higher temperatures and altitudes are available.

### Enclosure

Ventilated to IP22, totally enclosed (T.E.) to IP55, higher upon request.

### Cooling

Ventilated – IC01  
IP54 (or higher) –IC41

### 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.

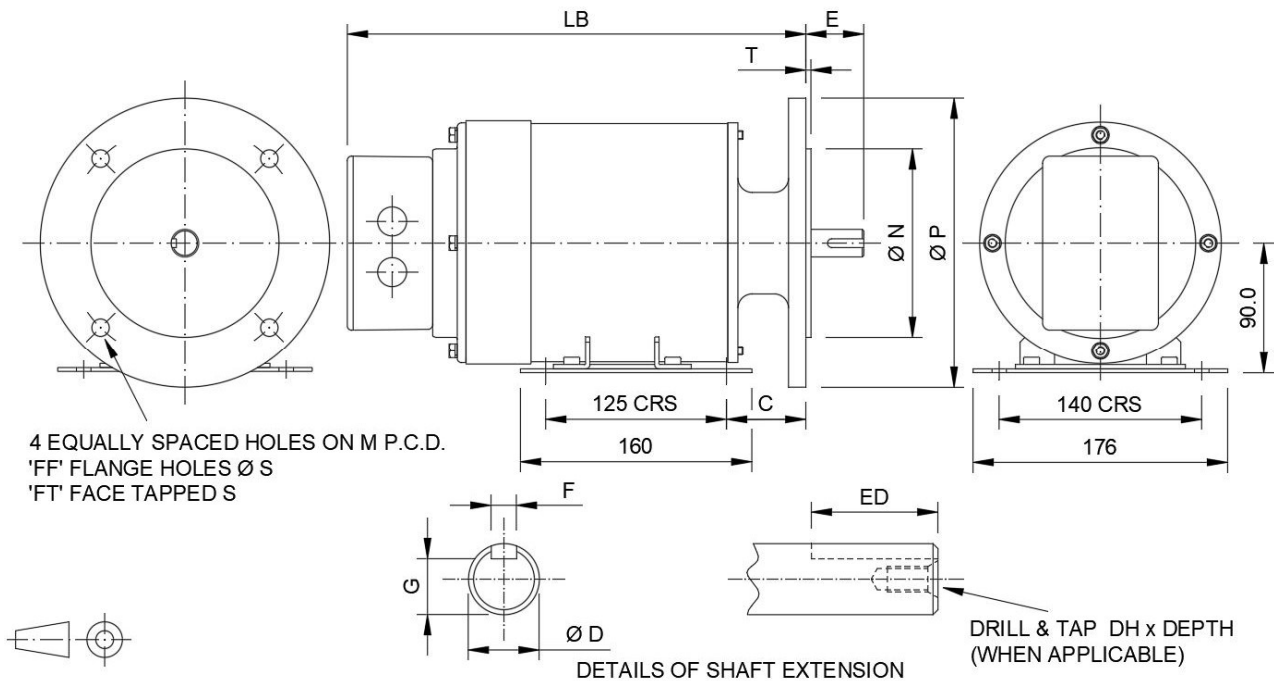
### Typical ratings for 24V, 1500RPM motors (T.E.)

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

1800RPM, 3000RPM and other speeds are available.

### Other motors manufactured by STS Motors

Ex d certified DC motors - 1.5 to 6.5kW  
Wound field motors – 0.25 to 40kW  
Traction motors – 5 to 75kW  
90V to 180V P.M. motors – 0.12kW to 1.3kW.



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	281
FT100 (C80)	100	80	120	M6	3.0	84	
FF130 (D71)	130	110	160	10	3.5	81.5	318
FF165 (D80)	165	130	200	12	3.5	84	318
Foot mounted	-	-	-	-	-	48	278
Nema 56C	5.875"	4.5"	6.5"	0.375"	0.125"	81.5	284

### 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
24	8	20	50	40	M8 x 14
0.625"	0.188"	0.517"	2"	1.5"	-