INTER PLANT STANDARD – STEEL INDUSTRY		
IPSS	**STANDARD INFORMATION FOR ENQUIRY AND ORDER FOR dc ELECTRIC MOTORS (*FIRST REVISION*)**	**IPSS: 1-03-037-14**
	BASED ON IS/ IEC 60034-1	Formerly : IPSS: 1-03-037-07

0. FOREWORD

0.1 This Interplant Standard has been prepared by the Standards Committee on Rotating Electrical Machinery, IPSS 1:3 with the active participation of the representatives of the steel plants and major reputed consultancy organizations and was adopted in July, 2014.

0.2 Interplant Standards for steel industry primarily aim at achieving rationalization and unification of parts and assemblies used in steel plant equipment and accessories, and provide guidance in indenting stores or equipment (or while placing orders for additional requirements) by individual steel plants. For exercising effective control on inventories, it is advisable to select a fewer number of sizes (or types) from among those mentioned in this standard, for the purpose of company standards of individual steel plants. It is not desirable to make deviations in technical requirements.

0.3 This first revision has been undertaken to assimilate the experience of users and manufacturers over six years.

0.4 This Interplant Standard should be read in conjunction with the published Interplant standards on dc electric motors.

INFORMATION TO BE GIVEN WITH ENQUIRY AND ORDER FOR dc MOTORS	INFORMATION
1. Frame size 2. Site and operating conditions • Ambient temperature (…… deg C) • Maximum humidity (……. %) • Altitude (…… m) • Environment condition • Rated voltage & permissible variation (± ……%) • Source of dc power (dc generator / thyristor convertor) 3. Reference to relevant Interplant Standard, i.e. IPSS.... 4. a) Type of enclosure (DPFV/TEFC/TENV/TESV/ TEDC: Air to air / Air to water) b) Degree of protection 5. Method of cooling (IC ……) as per IS 6362:1995. 6. a) Type of duty (AISE/Industrial) b) Duty cycle 7. Type of mounting (…..) as per IS 2253:1974. 8. Torque: full load, maximum, starting torque, over load requirements.	

INFORMATION TO BE GIVEN WITH ENQUIRY AND ORDER FOR dc MOTORS	INFORMATION
9. a) GD^2 value of load referred to motor shaft b) GD^2 value of the armature	
10. Rated output in kW	at 50 deg C / at operating ambient temperature (….. deg C)
11(a) Class of insulation corresponding to above class (……) as per IS 1271:2012.	
(b) Permitted temperature rise above the specified ambient temperature.	Temperature-rise limit limited to __^{o}C over the specified ambient ^{o}C.
12. Rated speed (rpm)	
13(a). Base speed 13(b) Maximum speed (with field weakening regime, if applicable)	
14. Direction of rotation	Uni-directional / Bi-directional
15. Direction of rotation, viewing from the driving end	Clockwise / anti-clockwise
16. Maximum temperature of cooling medium	
17. System of earthing, if any, to be adopted	
18. Tests at manufacturer's works a) Routine b) Type tests (please specify)	

INFORMATION TO BE GIVEN WITH ENQUIRY AND ORDER FOR dc MOTORS	INFORMATION
19. Type of excitation & voltage: shunt, separate, compound, series. 20. Preferred location of rocker arms. 21. Application (crane/mill duty or any other application like fan/pump/conveyor/reciprocating device) etc 22. Details of shaft extension required for example, whether cylindrical or tapered, details of key way, etc 23. Method of starting, braking and reversal to be employed 24. Resistance & Inductance of the armature 25. Resistance & Inductance of the shunt field 26. Thermistor required between main pole and interpole.	

INFORMATION TO BE GIVEN WITH ENQUIRY AND ORDER FOR dc MOTORS	INFORMATION
27. Terminal box - Terminal box position as viewed from drive end (left / right / top) - Degree of protection (IP …….) 28. Earthing as per IE Rules and IS 3043:1987. 29. T_{start} / T_{rated} 30. T_{max} / T_{rated} 31. I_{start} / I_{rated} 32. Type of construction 33. Brush size and grade 34. Any specific requirement	Non-split solid yoke/split solid yoke/non split laminated yoke