

TECHNICAL SPECIFICATION FOR HIGHMAST LIGHTING SYSTEM

HIGHMAST TOWER:

Supply of 16 mts High mast Tower of Polygonal Shape for Asymmetric loading of up to eight luminaries for Wind Speed up to 180 Km/hr. The Mast shall be made from steel grade of BSEN 10025 and should be in two sections (each of length 8375 mm or top length 5470mm & bottom length 10980mm) with the bottom section shall be of 4 mm thick and top section of 3 mm thick. Both the sections should be joined by telescopic slip joint. The bottom dia should be of 410 mm or more while top dia should of 150 mm. The bottom section should have Anti Vandalism locking type door size of 1200 mm x 250mm .The mast section should be fabricated for metal protection through hot dip galvanization and thickness of galvanization should not be less than 86 microns. The mast should be supplied with Components including Head Frame & Pulley Assembly, Winch Bracket, Lantern Carriage Ring for Luminaries and C.G Box Mtg. Arms, Resting Bracket Guide Ring, compensating Disc, Lightening Arrestor, LED AOL, Wire Rope, Safety Wire Rope, D Suckle Clamps, nuts and Bolts, internal Cable, foundation Accessories., winch assembly with two drums with SWL 750 KG and internal power tool of 2 HP with control panel. The size of base plate diameter should be of 570 mm or more with thickness should be of 25 mm.

LIGHT FITTING:

Compact, sturdy general purpose floodlight with integral gear suitable for use with High Pressure Tubular Sodium Vapour SON 400W. All weather construction designed for simple cleaning and speedy servicing. High grade symmetrical or asymmetrical reflector projects a highly efficient light beam. Wall, ceiling and surface mounting with wide ranges of adjustment offer versatile directionality for both down and up-lighting. Non corrosive, high pressure die cast aluminium housing with low copper content and black coated powder finish. Electrochemically brighten and anodised high purity stippled aluminium reflector .Heat -resistant powder coated mounting bracket with all external fixings in stainless steel .Rugged corrosion -resistant housing with integral gear box. Compensated electrical control gear .Quick easy access to lamp and gear without affecting beam adjustment, through hinge front window with quick release clips. Heat resistant EPR/silicon rubber gasket bonded to the housing renders the luminaire dust proof and jet proof to IP65.

Lamp: 400W, 230V SON.

TECHNICAL DATA SHEET FOR 16 MTR HIGH MAST

REQUIREMENT

Highmast	:	2 nos
Light Fittings	:	16 nos (8+8)

HIGH MAST SYSTEM

Height of mast	:	16 Meter,
No. of sections	:	Two
Material construction	:	S 355 grade as per BS-EN10025
Base dia. and top diameter (A/F)	:	Top : 150 mm, Bottom :410 mm or more
Plate thickness & section Length	:	Top : 3 mm, Length: 5470/8375 mm Bottom : 4 mm, Length: 10980 / 8375mm
Cross section of Mast	:	20 side polygon.
Standard for of galvanisation	:	As per BS EN ISO 1461
Size of opening and door at base	:	1200 x 250 mm
Diameter of base plate	:	570 mm or more
Thickness of base plate	:	25 mm
Lightning protection finial	:	G.I single spike.
Max.wind speed	:	50m/s as per IS : 875 (Part - III)
Number of foundation bolts	:	8 nos.
PCD of foundation bolts	:	490 mm
Type / diameter / length of foundation bolts	:	TS 600 / 30 mm dia / 850 mm long

LUMINAIRES CARRIAGE

Material of construction	:	50 NB ERW Class B - M. S. Pipe
Diameter of carriage ring (mm)	:	710 mm (ID)
Construction	:	8 Arm, Welded, 2 sections
Load carrying capacity	:	8 Luminaire

TRAILING CABLE

Conductor	:	Copper, 5 core, 4 sq mm
Insulation	:	EPR insulated PVC sheathed
No. of circuits per mast	:	One

WINCH / POWER TOOL

Type / SWL of winch	:	Double drum, SWL 750 Kg
Method of operation	:	Integral Motor
Motor capacity	:	2HP
No of speeds	:	6 Pole, Single speed

STAINLESS STEEL WIRE ROPE

Grade / construction	:	AISI 316, 7/19 construction
Number of ropes	:	Two continuous
Diameter (mm)	:	6 mm
Braking load capacity	:	2350 kg x 2

PRE QUALIFICATION CRITERIA:

	<p>Only those vendors, who have supplied and commissioned at least one High Mast of same or higher size for similar applications in the past five years and such high mast system is working satisfactorily for more than one year, after commissioning, should quote. The following information should be submitted by the vendor about the companies where similar system has been supplied. This is required from all the vendors for qualification of their offer.</p>
	1. Name of the customer / company where similar machine is installed.
	2. Complete postal address of the customer.
	3. Month & Year of commissioning.
	4. Application for which the high mast system is supplied with details of accuracies achieved on the job.
	5. Name and designation of the contact person of the customer.
	6. Phone, FAX no. and email address of the contact person of the customer.
	7. Performance certificate from the customers regarding satisfactory performance of transformer supplied to them
	8. BHEL reserves the right to verify the information provided by vendor. In case the information provided by vendor is found to be false/incorrect the offer shall be rejected.