 EPD - BANGALORE	Drive -In Racking System for SPV Module storage	SPECIFICATION NO. EP-WEX-SPV-FG/2016-17
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TECHNICAL SPECIFICATION
FOR
DRIVE-IN-RACKING SYSTEM FOR SPV FG YARD

BHARAT HEAVY ELECTRICALS LIMITED
ELECTROPORCELIAN DIVISION
IISC POST, BANGALORE , INDIA 560012


REVISION DETAILS :(00)	PREPARED BY	DATE 25.08.2016
	APPROVED BY	

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General

Sl No	Specification	Requirement
1	Purpose	To Store SPV modules using pallet truck or forklift of capacity 2T having maximum loading height of 6 meters
2	Description of Operation	SPV modules packed in card board carton weighing app.1 Ton, placed on wooden pallets of 115 mm height will be lifted using the pallet truck and placed in the decks/levels, starting from the top deck /level. Two bottom most pallet placed one above the other will be placed on the ground . The truck will pick up the pallet, raise it to the required level and start placing from top downwards, from the inner most rack. For removal of pallets, reverse sequence(LIFO) is proposed.
3.	Scope of Supply	Design, manufacture , supply and E&C of complete Drive-In racking system as per specification no EP-WEX-SPV-FG/2016-17,tobe accommodated in the finished goods yard as per drawing no SK-MN-236/ 16

Technical


Slno	Description	Indicative Dimensions / Features
i)	Upright	
	Profile width	90 mm
	Profile depth	72 mm
	Material thickness	14 swg
	Mfg process	Roll Forming
	No of bends	12
	Profile	Omega with reinforced
	Surface Finish	Powder coated
	Color	Golden Yellow
	Upright adjustability	60 mm
ii)	Bracings	
	Type of profile	C Type
	Profile section	10 x 20 x 40 x 20 x 10
	Material thickness	16 SWG
	Mfg process	Forming Operation
	No of bends	4



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	<i>Fixing</i>	<i>Bolt Nut fastening</i>
	<i>Surface Finish</i>	<i>Powder coated</i>
	<i>Color</i>	<i>Golden Yellow</i>
iii)	Base Plates	
	<i>Construction Process & Profile</i>	<i>Square profile with edge chamfered</i>
	<i>Width</i>	<i>150 mm</i>
	<i>Depth</i>	<i>150 mm</i>
	<i>Material thickness</i>	<i>4 / 5 mm</i>
	<i>Fixing method</i>	<i>Bolted Type</i>
	<i>Surface Finish</i>	<i>Powder Coated</i>
	<i>Color</i>	<i>Golden Yellow</i>
	<i>Managing Floor Level Variation</i>	<i>5 - 10 mm</i>
iv)	Runner	
	<i>Type of profile</i>	<i>Rixel Profile</i>
	<i>Height</i>	<i>85mm</i>
	<i>Width</i>	<i>200 mm</i>
	<i>Runner Length</i>	<i>To suit the racking layout</i>
	<i>Thickness</i>	<i>14 SWG</i>
	<i>Locking Mechanism</i>	<i>Bolt Locking with stiffener</i>
	<i>Mfg process</i>	<i>Roll forming</i>
	<i>Surface Finish</i>	<i>Orange</i>
v)	Top Tie	
	<i>Type of profile</i>	<i>Multi Bended Support with Top Diagonal support of Roll formed stiffener</i>
	<i>Size</i>	<i>100 x 50</i>
	<i>No of Bends</i>	<i>6</i>
	<i>Thickness</i>	<i>14 SWG</i>
	<i>Surface Finish</i>	<i>Powder Coated</i>
	<i>Colour</i>	<i>AB Orange</i>
vi)	Stiffener	
	<i>Type of profile</i>	<i>L Type with Triple ended Teeth Clip & reinforced center Support</i>
	<i>Size</i>	<i>50 x 50</i>
	<i>Thickness</i>	<i>6 mm</i>
	<i>Surface Finish</i>	<i>Powder coated orange colour</i>
vii)	Upright Guard	
	<i>Type of profile</i>	<i>U Type</i>
	<i>Size</i>	<i>100 x 150</i>
	<i>Thickness</i>	<i>12 SWG</i>
	<i>Surface Finish</i>	<i>Powder coated</i>
	<i>Colour</i>	<i>Orange</i>

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viii)	Guide Rail	
	Type of profile	Multi bended section with single clip
	Size	100 x 50
	Thickness	12 SWG
	Surface Finish	Powder coated
	Colour	Yellow
ix)	Note	
1	The fasteners for integrating the racking system shall be electro-galvanised, high tensile type of suitable size to with stand the design load. Bidders to indicate various fasteners adopted.	
2	Make of fasteners : TVS, Unbrako, LPS	
3	The racking members of the entry and sides of runners shall be provided with reflective stickers for guiding the operator	
4	The profile, dimensions and surface protection given above is indicative. Bidders to provide their selection to suit the design load for full capacity storage. Adequate provision in design to be taken for possible swing / vibration while placing and removing the pallets.	
5	The drawing no Sk-MN-236/ 16 is only indicative. Bidders may suitably modify and suggest for maximizing the storage capacity.	
6	Bidders to visit the site in BHEL-EPD Bengaluru for assessment of exact requirement and for clarifications if any before submission of their offer.	
	Qualification Criteria	
1	Bidder should be original equipment manufacturer (OEM) of the quoted item. Bidder to submit company credentials to prove as OEM. Registration certificate as a manufacturer or any other document to establish the bidder as manufacturer	
2	Bidder should have manufactured, supplied and successfully commissioned minimum of 4 numbers storage rack system in the last 3 years. Bidder to submit copy of purchase orders and performance certificates from the users for each PO	
3	The bidder shall submit audited balance Sheet or tax returns or profit loss Account for the last 3 years	
4	Offer shall be for new equipment and not For any refurbished or used equipment	