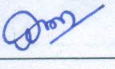
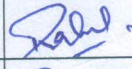
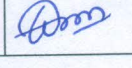


नामाची मूली संख्या INVENTORY NO.	दिनांक एवं हस्ताक्षर SIGN & DATE	स्वामिकाधिकार एवं गोपनीय इस प्रलेख में दी गई सूचना भारत की परामर्शदाता की सम्पत्ति है इसका उपयोग एवं प्रकाशक रूप में किसी भी तरह प्रयोग को बिना कंपनी के लिखित में हस्ताक्षरकृत हो न किया	COPYRIGHT AND CONFIDENTIAL The information on this documents is the property of Bharat Heavy Electrical Limited. It must not be used directly or indirectly in any way detrimental to the interest of the company		नामाची मूली संख्या को अधिकृतित करना है SUPERSEDES INVENTORY NO.	दिनांक एवं हस्ताक्षर SIGN & DATE
			उत्पाद क्रय विनिर्देश PRODUCT PURCHASE SPECIFICATION		HXE/SK/2268	Page 1 of 4
THERMO- HYDRAULIC DESIGN SOFTWARE OF AIR COOLED CONDENSER						
Rev. no.00			निर्माणकर्ता WORKED BY	RAHUL KR CHANDRA		05.09.2020
			जांचकर्ता CHECKED BY	DEEPAK KR. YADAV		05.09.2020

दिनांक एवं हस्ताक्षर SIGN & DATE		उत्पाद क्रय विनिर्देश		HXE/SK/2268	
		PRODUCT PURCHASE SPECIFICATION		Page 2 of 4	
सामग्री सूची संख्या INVENTORY NO.	SUPERSEDES INVENTORY NO.	<u>THERMO- HYDRAULIC DESIGN SOFTWARE OF AIR COOLED CONDENSER</u> 1.0 General: The specification is for the purchase for software of thermo-hydraulic design of ACC. 2.0 Application: The software shall be used for the thermo-hydraulic design/calculation of ACC for direct air cooled forced cooling, Single Row Tube / Tube Bundle 3.0 Software / Platform: - Software Type: One (01) license with multi-user (min.2 users) facility. - Software may be either standalone (with key) or web based. Software may be with perpetual license with AMC or subscription based, as per bidder practice. 4.0 Standards: Software should incorporate the guidelines/recommendations of the following national/international codes: - HEI for ACC - PTC 30.1 (for performance curves) 5.0 Deliverables : 5.1 Software must have the feature of thermo –hydraulic design/ calculation of ACC and should provide the output but not limited to as per Annexure-III 5.2 Additional Requirements: - Bidder to provide online/ offline training for software familiarization for at least three (3) days. The number of participants shall be around five (05) per day. - Bidder to provide vetting and design optimization of thermo-hydraulic output from the software for one project of the owner/client choice. 6.0 Technical Requirement: 6.1 General Technical Requirement: Software should comply with the following technical requirements: - Bidder to confirm that BHEL is free to use the design output of the software for commercial design, manufacturing and supply of Air Cooled Condenser as per Annexure-II. - Software should have capability to generate the performance curves as per PTC 30.1.			
दिनांक एवं हस्ताक्षर SIGN & DATE	सामग्री सूची संख्या INVENTORY NO.	Rev. no.00	निर्माणकर्ता WORKED BY	RAHUL KR CHANDRA	05.09.2020
दिनांक एवं हस्ताक्षर SIGN & DATE	सामग्री सूची संख्या INVENTORY NO.	Rev. no.00	जांचकर्ता CHECKED BY	DEEPAK KR. YADAV	05.09.2020

सापेक्ष सूची संख्या INVENTORY NO.	दिनांक एवं हस्ताक्षर SIGN & DATE	स्वामित्व अधिकार एवं गोपनीय यह दस्तावेज भारतीय स्वामित्व का है। इसमें कोई भी अंश बिना लिखित अनुमति के प्रसारित नहीं किया जा सकता है। This document is the property of Bharat Heavy Electricals Limited. It must not be used directly or indirectly in any way detrimental to the interest of the company.	सुपरसेड्स INVENTORY NO. भारतीय सूची संख्या को अधिकारित करना है	उत्पाद क्रय विनिर्देश  PRODUCT PURCHASE SPECIFICATION	HXE/SK/2268 Page 3 of 4
				3. Software must take into consideration following conditions but not limited to : - Cross-flow wind variations - Ambient air temperature, pressure and relative humidity - Layout of ducting with provision of center, side and asymmetric configuration. - Capability to calculate off-design cases to investigate ACC behavior based on street shut-off, fan row off etc. 4. Bidder to provide suggestive list of vendors for the supply of ACC Tubes and Tube Bundle (used in the software) with their locations. At least three vendors should have their manufacturing and testing facilities in the countries not sharing land borders with India. 5. Bidder to confirm that BHEL is free to get the Tubes/ Tube bundle manufactured (as per the documents against the clause. 6.2) itself or by any third party. 6. Bidder to allow online remote access of the software for the trial for about three (03) days during enquiry stage. Alternatively bidder may physically show the working of software. Output of software should have minimum parameters as per Annexure -III 7. Bidder to furnish price schedule as per Annexure-IV 6.2 Documents Required: Bidder to provide the detailed drawings of the followings, corresponding to heat transfer/ hydraulic correlation used in the software: - Drawing (Finned Tube and Tube Bundle) used in the software - A-Frame drawing (typical) - Tube bundle manufacture list	
Rev. no.00				निर्माणकर्ता WORKED BY RAHUL KR CHANDRA  05.09.2020	
				जांचकर्ता CHECKED BY DEEPAK KR. YADAV  05.09.2020	