

CP26 / ARE02A Contract (Addendum 03)

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1	Part 1	Section - IV (Bidding Forms)	2. Schedule of Adjustment Data Table D	<p align="center">Table D. For Price Centre RS-CMC and Price Centre DM&P-CMC (Applicable for INR) <u>DETAILS NOT TO BE SUBMITTED IN TECHNICAL BID. IT SHALL BE FILLED AND UPLOADED ONLY IN THE PRICE BID DOCUMENT OF E-PROCUREMENT PORTAL.</u></p> <table border="1"> <thead> <tr> <th>Code</th> <th>Description</th> <th>Source</th> <th>Weightage</th> <th>Base value and date</th> </tr> </thead> <tbody> <tr> <td align="center">a</td> <td>Non-adjustable (Fixed)</td> <td align="center">N/a</td> <td align="center">0.33</td> <td></td> </tr> <tr> <td align="center">b</td> <td>All India Consumer Price Index for Industrial Workers for Chennai (CPI-IW)</td> <td align="center">*i</td> <td align="center">0.27</td> <td></td> </tr> <tr> <td align="center">c</td> <td>Wholesale Price Index for Manufacture of Electrical Equipment (WPI-MEE)</td> <td align="center">*ii</td> <td align="center">0.20</td> <td></td> </tr> <tr> <td align="center">d</td> <td>Wholesale Price Index for Manufacture of Computer, Electronic and Optical Products (WPIMCEOP)</td> <td align="center">*iii</td> <td align="center">0.20</td> <td></td> </tr> </tbody> </table>	Code	Description	Source	Weightage	Base value and date	a	Non-adjustable (Fixed)	N/a	0.33		b	All India Consumer Price Index for Industrial Workers for Chennai (CPI-IW)	*i	0.27		c	Wholesale Price Index for Manufacture of Electrical Equipment (WPI-MEE)	*ii	0.20		d	Wholesale Price Index for Manufacture of Computer, Electronic and Optical Products (WPIMCEOP)	*iii	0.20		<p align="center">Table D. For Price Centre RS-CMC and Price Centre DM&P-CMC (Applicable for INR) <u>DETAILS NOT TO BE SUBMITTED IN TECHNICAL BID. IT SHALL BE FILLED AND UPLOADED ONLY IN THE PRICE BID DOCUMENT OF E-PROCUREMENT PORTAL.</u></p> <table border="1"> <thead> <tr> <th>Code</th> <th>Description</th> <th>Source</th> <th>Weightage</th> <th>Base value and date</th> </tr> </thead> <tbody> <tr> <td align="center">a</td> <td>Non-adjustable (Fixed)</td> <td align="center">N/a</td> <td align="center">0.2</td> <td></td> </tr> <tr> <td align="center">b</td> <td>All India Consumer Price Index for Industrial Workers for Chennai (CPI-IW)</td> <td align="center">*i</td> <td align="center">0.4</td> <td></td> </tr> <tr> <td align="center">c</td> <td>Wholesale Price Index for Manufacture of Electrical Equipment (WPI-MEE)</td> <td align="center">*ii</td> <td align="center">0.20</td> <td></td> </tr> <tr> <td align="center">d</td> <td>Wholesale Price Index for Manufacture of Computer, Electronic and Optical Products (WPIMCEOP)</td> <td align="center">*iii</td> <td align="center">0.20</td> <td></td> </tr> </tbody> </table>	Code	Description	Source	Weightage	Base value and date	a	Non-adjustable (Fixed)	N/a	0.2		b	All India Consumer Price Index for Industrial Workers for Chennai (CPI-IW)	*i	0.4		c	Wholesale Price Index for Manufacture of Electrical Equipment (WPI-MEE)	*ii	0.20		d	Wholesale Price Index for Manufacture of Computer, Electronic and Optical Products (WPIMCEOP)	*iii	0.20	
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2	Part 2	Section - VI A (ERTS - RS)	2.11.3	With maximum allowable wheel and rail wear, the rakes shall be able to operate in water 100 mm above top of rail, and to creep at up to 8 kmph for a distance of 120 m.	The Traction Equipment mounted on the under-frame shall be designed to permit propulsion of the train at 10 km/h through water up to a depth of 75mm above rail level (with maximum allowable wheel and rail wear). Traction equipment shall be made splash proof in accordance with International Standards.																																																		
3	Part 2	Section - VI A (ERTS - RS)	2.25.10 (b) (vi)	Loading Condition: Heat load of AW4 numbers of persons as per EN 14750-1, throughout the round trip including the terminal turnaround time.	Loading Condition: Heat load of AW3 numbers of persons as per EN 14750-1, throughout the round trip including the terminal turnaround time.																																																		
4	Part 2	Section - VI A (ERTS - RS)	2.25.11 (b) (v)	Doors shall be opened and closed as detailed for a round trip and passenger load throughout the Round Trip (including terminal detention) shall be AW4.	Doors shall be opened and closed as detailed for a round trip and passenger load throughout the Round Trip (including terminal detention) shall be AW3 .																																																		

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S. No.	Part	Section	Clause No.	Original Bid Condition	Revised Bid Condition
5	Part 2	Section - VI A (ERTS - RS)	7.4.1	<p>Ventilation of the car shall be provided by overhead fan-coil units or rotary fans in diffusers or with any better design. Outside air shall normally be supplied into each saloon as per EN 14750 Category B whenever the system is energized at the nominal line voltage. The VAC system shall however reduce the fresh air intake proportionately based on the passenger loading in each car.</p> <p>In order to minimize energy consumption, fresh air intake volume control shall be based on coach load weight signal. The fresh air intake shall be taken as minimum 2.5 liter per sec per passenger at AW4 condition. The proposal of levels of opening of fresh air dampers shall be finalized during detailed design stage with the approval of CMRL.</p>	<p>Ventilation of the car shall be provided by overhead fan-coil units or rotary fans in diffusers or with any better design. Outside air shall normally be supplied into each saloon as per EN 14750 Category B whenever the system is energized at the nominal line voltage. The VAC system shall however reduce the fresh air intake proportionately based on the passenger loading in each car.</p> <p>In order to minimize energy consumption, fresh air intake volume control shall be based on coach load weight signal. The fresh air intake shall be rated for at least 2.2 liters / sec / passenger (8m³ / hour / passenger) @ AW4 load condition. The proposal of levels of opening of fresh air dampers shall be finalized during detailed design stage with the approval of CMRL.</p>
6	Part 2	Section - VI A (ERTS - RS)	7.4.3	<p>The air discharge velocities at any outlet grille, shall not create noise disturbing the passengers and shall vary progressively as per EN14750. Minimum air discharge velocities at any outlet grille shall not be less than 0.5 m/s measured at 300mm below ceiling. The air intake velocity at the re-circulation and exhaust grilles shall not exceed 3m/s. The minimum volume of fresh air supplied by the artificial ventilation shall be 2.5 liters per second per passenger at AW4 Load. This air shall be filtered. The Contractor may propose design improvements to the above parameters for CMRLs' review and approval.</p>	<p>The air discharge velocities at any outlet grille, shall not create noise disturbing the passengers and shall vary progressively as per EN14750. Minimum air discharge velocities at any outlet grille shall not be less than 0.5 m/s measured at 300mm below ceiling. The air intake velocity at the re-circulation and exhaust grilles shall not exceed 3m/s. The minimum volume of fresh air supplied by the artificial ventilation shall be 2.5 liters per second per passenger at AW4 Load. This air shall be filtered. The Contractor may propose design improvements to the above parameters for CMRLs' review and approval.</p>
7	Part 2	Section - VI A (ERTS - RS)	7.4.4	Not Used	<p>The minimum volume of fresh air supplied by the artificial ventilation shall be 2.2 liters / sec / passenger (8m³ / hour / passenger) @ AW4 load condition. The air shall be filtered and the CO2 level inside the car shall not exceed 2600 PPM at any passenger location when the outside (ambient) CO2 level is ≤450 PPM.</p>
8	Part 2	Section - VI A (ERTS - RS)	7.4.5.5	<p>At the end of the emergency ventilation period, the airflow shall be not less than 5 liters / sec / passenger (@ AW4 load) for the saloon, including the emergency operator's desk.</p>	Deleted

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9	Part 2	Section - VI A (ERTS - RS)	7.6.3	An average temperature of 25°C and relative humidity of 60% shall be automatically maintained within the saloon and emergency operator's desk areas that are under AW4 loading. The system shall be rated to fulfil this requirement until an outside ambient design condition of 38°C & 65% RH in summer, and 35°C & 80% RH in winter.	<p>The VAC System shall automatically maintain the internal environmental condition (throughout the saloon and emergency operator's desk areas) as per the criteria shown below for the corresponding exterior climatic condition at each design point:-</p> <table border="1"> <thead> <tr> <th>Design Point</th> <th>External Condition</th> <th>Internal Condition</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>37.3°C Dry Bulb, 40% RH</td> <td>25°C Dry Bulb, ≤60% RH</td> </tr> <tr> <td>2</td> <td>34°C Dry Bulb, 65% RH</td> <td>25°C Dry Bulb, ≤60% RH</td> </tr> <tr> <td>3</td> <td>31.3°C Dry Bulb, 80% RH</td> <td>25°C Dry Bulb, ≤60% RH</td> </tr> </tbody> </table> <p>Stated requirements shall be met in AW4 load condition (8 passengers / m2).</p>	Design Point	External Condition	Internal Condition	1	37.3°C Dry Bulb, 40% RH	25°C Dry Bulb, ≤60% RH	2	34°C Dry Bulb, 65% RH	25°C Dry Bulb, ≤60% RH	3	31.3°C Dry Bulb, 80% RH	25°C Dry Bulb, ≤60% RH
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10	Part 2	Section - VI A (ERTS - RS)	7.6.11	The fresh air intake shall be taken as minimum 2.5 liter per second per passenger for AW4 condition in cooling mode.	Deleted												
11	Part 2	Section - VI A (ERTS - RS)	7.7.1	The saloon temperature setting shall be controllable automatically by the TCMS program as per the requirements of clause 7.6. There shall also be a provision to over-ride control it from OCC & DCC and the local communicating port to the control unit in train.	<p>The saloon interior set point temperature as well as humidity settings shall be controlled automatically by TCMS.</p> <p>It shall be possible to apply an offset to the target set point temperature via the DDU to the range of +2°C to -2°C in steps of 0.5°C.</p> <p>It shall also be possible to apply the same offset adjustment remotely via OCC & DCC. The user interface in OCC & DCC shall include an option to apply the offset adjustment to all trains in the fleet simultaneously through a single-step action. Trains shall memorise the offset setting so it will be retained after trains are shutdown.</p>												
12	Part 2	Section - VI A (ERTS - RS)	11.4.10.e	The Helical springs shall be designed for the lifetime of train / carbody. Helical springs shall be designed and tested as per EN 13298 and EN 13906. The service life of rubber bonded metal components / rubber of spring type primary suspension shall be not less than 12 years. The Contractor shall ensure that the chosen supplier provides a warranty for the same.	<p>The Helical springs shall have a fatigue life of not less than 10,00,000kms and shall be designed and tested as per EN 13298 and EN 13906.</p> <p>The service life of rubber bonded metal components / rubber of spring type primary suspension shall be OEM rated for not less than 8 years. The Contractor shall ensure that the chosen supplier provides a warranty for the same.</p>												

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13	Part 2	Section - VI A (ERTS - RS)	11.8.2	A way side mounted axle bearing temperature measurement system shall be provided and fitted in situ by the Contractor in all CMRL corridors where the bogies are expected to ply. The cost of these systems shall be deemed to be included in the quoted price. The equipment details shall be submitted to CMRL during design stage, for approval.	Deleted