

**CENTRAL INDUSTRIAL SECURITY FORCE**  
**(Ministry Of Home Affairs)**

**EXPRESSION OF INTEREST**

AIG/Tech  
Technical Branch  
CISF Hqrs, Block No. 13  
CGO Complex, Lodhi Road  
New Delhi-110003  
Email: [aigtech@cisf.gov.in](mailto:aigtech@cisf.gov.in)

The Sub-group of Technical Experts constituted as per direction issued vide MHA UO No. IV-24011/12/2011-Prov-I dated 13.06.2012, UO dated 28.12.2012 and UO dated 27.06.2013 and UO No 11012/02/2009-Fin-I/Prov-I-17 dated 02.01.2018 held its meeting at CISF Hqrs on 04.04.2018 to formulate the Qualitative Requirement of **MOTORISED SLIDING GATE WITH OPEN PROTOCOL AND SAFETY MECHANISMS.** After detailed deliberations the referred Sub-group has formulated the QRs which are as under:

**DRAFT QRS/TECHNICAL SPECIFICATION OF MOTORISED SLIDING GATE WITH OPEN PROTOCOL AND SAFETY MECHANISMS.**

<b>DRAFT QR/TECHNICAL SPECIFICATION</b>		
<b>SN</b>	<b>Technical Features</b>	<b>Specification</b>
01	Features of Gate	<ul style="list-style-type: none"><li>i) Gate of material should be Steel, and should have standard design for use in government premises.</li><li>ii) The gate leaf should comprise rectangular hollow section, square hollow section, square base and perimeter frame of sufficient strength.</li><li>iii) The gate should be supported by galvanized adjustable upper guide bracket with roller, guide post with safety strike, galvanized wheels with ball bearings and excel with lubrication point.</li><li>iv) The gate should be coated with epoxy primer.</li><li>v) The dimension of the gate should be 20ft (length)X 4.5ft (Height)</li><li>vi) The gate weight should be minimum 900 kg (<math>\pm 10\%</math>). Side poles 300 kg (<math>\pm 10\%</math>). Iron track weight 200 kg (<math>\pm 10\%</math>).The complete system should be sustainable for smooth operation of the gate.</li><li>vii) The gate system should have electromechanical operation.</li><li>viii) It should have non reversing system by an electric break to prevent movement of sliding leaves when the motor is stop.</li><li>ix) The gate sliding rail must be linear and horizontal.</li></ul>

02	Operational features of Motor	<ul style="list-style-type: none"> <li>i) It should be capable to operate industrial sliding gate weighing up to 900 kg (<math>\pm 10\%</math>).</li> <li>ii) Speed of motor should be adjustable.</li> <li>iii) Speed upto 0.7 mtr/sec or more.</li> <li>iv) It should be ideal for fast operation and continuous duty 100%.</li> <li>v) It should have irreversible gear motor of minimum 1KW with electric brake.</li> <li>vi) It should have frequency Inverter of at least 1.5 KW for programming of <ul style="list-style-type: none"> <li>a) Running Speed.</li> <li>b) Deceleration Speed.</li> <li>c) Rump-up time (acceleration)</li> <li>d) Rump-down time (deceleration)</li> </ul> </li> <li>vii) The control penal should be integrated and protected by metal housing and plastic transparent cover in all weather condition.</li> <li>viii) There should be slot holes and height adjustment pins for adjusting position of the operator.</li> <li>ix) It should have 1.5mm steel cover with zinc primer protection treatment plus powder coated painting.</li> <li>x) In the event of power failure, should be possible to move the gate manually and the manual release device can be activated from the outside of the operator without removing the cover.</li> </ul>
03	Technical features of motor	<ul style="list-style-type: none"> <li>a) Power supply 230v~(<math>\pm 5\%</math>), 50Hz</li> <li>b) Max. absorbed power (W) 1800</li> <li>c) Thrust on pinion (N) 1800</li> <li>d) Max. torque (Nm) 110</li> <li>e) Carriage Speed (m/min) Min 20 Max 42</li> <li>f) Type of limit switch Mechanical</li> <li>g) Motor Control Inverter</li> <li>h) Inverter max power 1.5 KW</li> <li>i) Use temperature (<math>^{\circ}\text{C}</math>) -20 to +55 deg <math>^{\circ}\text{C}</math>.</li> <li>J) Type of gear motor Irreversible, 1 KW or more</li> <li>k) Protection class IP 54 or better.</li> </ul>