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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|------------------------------------------------------------------------------|----------------------|-----------------------------|--------|-----------------------|--|-----------------------------|------|------|------------|--|
|  <b>中国石化集团</b><br><b>洛阳石化工程公司</b><br>LUOYANG PETROCHEMICAL<br>ENGINEERING CORP./SINOPEC |                        | <b>调节阀规格书</b><br><br><b>CONTROL VALVE</b><br><b>INSTRUMENT SPECIFICATION</b> |                      |                             |        | 项目文件号<br>Proj.Doc.No. |  | 专业文件号<br>Discipline Doc.No. |      | Rev. |            |  |
|                                                                                                                                                                          |                        |                                                                              |                      |                             |        | LPEC's                |  | 413091D2256                 |      |      | 50-00/R701 |  |
|                                                                                                                                                                          |                        |                                                                              |                      |                             |        | 顾客要求<br>Client's      |  |                             |      |      |            |  |
|                                                                                                                                                                          |                        |                                                                              |                      |                             |        | 第 119 页 共 126 页       |  |                             |      |      |            |  |
| 概况<br>General                                                                                                                                                            | 1                      | 位号 Tag Number                                                                |                      | 数量 Quantity                 |        | 16-PV-505B            |  | 1                           |      |      |            |  |
|                                                                                                                                                                          | 2                      | 工艺管号 Line No.                                                                |                      | 管道等级 Class                  |        |                       |  | A1P1                        |      |      |            |  |
|                                                                                                                                                                          | 3                      | 工艺管线尺寸 Pipe Size mm                                                          |                      | 工艺管道材质 Pipe Mat'l           |        | DN40                  |  | ASTM A106 Gr. B             |      |      |            |  |
| 操作条件<br>Process Condition                                                                                                                                                | 4                      | 介质名称 Fluid                                                                   |                      | 介质状态 Phase                  |        | 氮气                    |  | 气体                          |      |      |            |  |
|                                                                                                                                                                          | 5                      | 流量<br>Flow Rate                                                              | 液体 Liquid kg/h       | 最大 MaxFlow                  |        |                       |  |                             |      |      |            |  |
|                                                                                                                                                                          |                        |                                                                              | 气体 Gas Nm³/h         | 正常 NorFlow                  |        | 48                    |  | Nm³/h                       |      |      |            |  |
|                                                                                                                                                                          |                        |                                                                              | 蒸汽 STM kg/h          | 最小 MinFlow                  |        | 32                    |  | Nm³/h                       |      |      |            |  |
|                                                                                                                                                                          | 6                      | 阀前压力 Inlet Pressure MPa(G)                                                   |                      | 压降 Press Drop MPa(G)        |        | 0.58                  |  | 0.26                        |      |      |            |  |
|                                                                                                                                                                          | 7                      | 全关时的压力降 Max DP for Shut-off MPa(G)                                           |                      |                             |        | 0.8                   |  |                             |      |      |            |  |
|                                                                                                                                                                          | 8                      | 操作温度 Oper. Temp. °C                                                          |                      | 摩尔分子量 Molecular WT          |        | 30                    |  | 28.02                       |      |      |            |  |
|                                                                                                                                                                          | 9                      | 操作密度 Oper. Density kg/m³                                                     |                      | 标准密度 Std. Density (标) kg/m³ |        |                       |  | 1.25                        |      |      |            |  |
|                                                                                                                                                                          | 10                     | 操作粘度 Oper. Viscidity                                                         |                      | 粘度单位 Visc Unit              |        | 0.01                  |  | mPa · s                     |      |      |            |  |
|                                                                                                                                                                          | 11                     | 绝热指数 CP/CV                                                                   |                      | 压缩系数 Com. Factor            |        | 1.39                  |  | 1.00                        |      |      |            |  |
| 12                                                                                                                                                                       | 饱和蒸汽压力 Vapor Press     |                                                                              | 临界压力 Critical Press. |                             |        |                       |  |                             |      |      |            |  |
| 13                                                                                                                                                                       | 固体物质含量 Solid Mass Cont |                                                                              | 汽化量 Mass Vap         |                             |        |                       |  |                             |      |      |            |  |
| 调节阀<br>Control Valve                                                                                                                                                     | 14                     | 调节阀类型 Body Type                                                              |                      |                             |        | Globe                 |  |                             |      |      |            |  |
|                                                                                                                                                                          | 15                     | 公称直径 Body Size mm                                                            |                      | 阀座直径 Trim Size mm           |        | 1"                    |  |                             |      |      |            |  |
|                                                                                                                                                                          | 16                     | 流量特性 Character                                                               |                      | 过程连接 Proc.Conn              |        | 等百分比                  |  | ASME B16.5 Class300 RF      |      |      |            |  |
|                                                                                                                                                                          | 17                     | 阀体材质及阀盖材质 Body/Bonnet Mat'l                                                  |                      |                             |        | WCB                   |  |                             |      |      |            |  |
|                                                                                                                                                                          | 18                     | 阀芯材质 Trim Mat'l                                                              |                      | 阀座材质 Seat Mat'l             |        | 316SS                 |  | 316SS                       |      |      |            |  |
|                                                                                                                                                                          | 19                     | 填料材质 Packing Mat'l                                                           |                      | 垫片材质 Gasket Material        |        | 制造厂标准                 |  | 制造厂标准                       |      |      |            |  |
|                                                                                                                                                                          | 20                     | 计算Cv值 Sizing Cv                                                              |                      | 最大Max.                      | 正常Nor. | 最小Min.                |  | 0.62                        | 0.41 |      |            |  |
|                                                                                                                                                                          | 21                     | 选用Cv值 Selected Cv                                                            |                      |                             |        | 1.6                   |  |                             |      |      |            |  |
|                                                                                                                                                                          | 22                     | 调节阀开度 % Valve Opening%                                                       |                      | 最大Max.                      | 正常Nor. | 最小Min.                |  | 72                          | 60   |      |            |  |
|                                                                                                                                                                          | 23                     | 执行机构型式 Actuator Type                                                         |                      | 弹簧范围 Spring Range MPa       |        | 气动                    |  |                             |      |      |            |  |
|                                                                                                                                                                          | 24                     | 上阀盖型式 Bonnet Type                                                            |                      |                             |        | 制造厂标准                 |  |                             |      |      |            |  |
|                                                                                                                                                                          | 25                     | 气源故障时阀门状态 Failure Action to Open/Colse                                       |                      |                             |        | F.0                   |  |                             |      |      |            |  |
|                                                                                                                                                                          | 26                     | 电磁阀失电时阀门位置 Val. Posn. when Sol. Val. De-energized                            |                      |                             |        |                       |  |                             |      |      |            |  |
|                                                                                                                                                                          | 27                     | 噪声估计 DBA                                                                     |                      | 泄漏等级 Leakage Class          |        | <85                   |  | TS0不低于ANSI Class V          |      |      |            |  |
| 28                                                                                                                                                                       | 作用型式 Action            |                                                                              |                      |                             |        |                       |  |                             |      |      |            |  |
| 转换器或定位器<br>Transducer/Positioner                                                                                                                                         | 29                     | 名称 Name                                                                      |                      |                             |        | 智能电/气阀门定位器            |  |                             |      |      |            |  |
|                                                                                                                                                                          | 30                     | 输入信号 Input Singal                                                            |                      | 输出信号 Output Singal          |        | FF现场总线                |  |                             |      |      |            |  |
|                                                                                                                                                                          | 31                     | 防爆等级 Explosion Proof                                                         |                      | 防护等级 Enclosure Protection   |        | ExiaIICT4             |  | IP65                        |      |      |            |  |
|                                                                                                                                                                          | 32                     | 气源 Air Supply MPa(G)                                                         |                      | 电源 Power Supply             |        | 0.4(最低)               |  |                             |      |      |            |  |
|                                                                                                                                                                          | 33                     | 气动连接 Pneu.Conn.                                                              |                      | 电气连接 Eelec.Conn.            |        | Rc1/4                 |  | 1/2"NPT(F)                  |      |      |            |  |
|                                                                                                                                                                          | 34                     |                                                                              |                      |                             |        |                       |  |                             |      |      |            |  |
| 附件<br>Accessories                                                                                                                                                        | 36                     | 过滤器减压阀 Filter-Regulator W/gauge                                              |                      |                             |        | 随阀带                   |  |                             |      |      |            |  |
|                                                                                                                                                                          | 37                     | 电磁阀 Solenoid Valve                                                           |                      | 电源 Power Supply             |        |                       |  |                             |      |      |            |  |
|                                                                                                                                                                          | 38                     | 阀位开关 Position Switch                                                         |                      | 手轮装置 Hand Wheel             |        |                       |  | 无                           |      |      |            |  |
|                                                                                                                                                                          | 39                     | 防爆等级 Explosion Proof                                                         |                      |                             |        |                       |  |                             |      |      |            |  |
|                                                                                                                                                                          | 40                     |                                                                              |                      |                             |        |                       |  |                             |      |      |            |  |
| 其他<br>Miscell                                                                                                                                                            | 41                     | 推荐制造商 Manufacturer                                                           |                      |                             |        |                       |  |                             |      |      |            |  |
|                                                                                                                                                                          | 42                     | 型号 Model                                                                     |                      |                             |        |                       |  |                             |      |      |            |  |
|                                                                                                                                                                          | 43                     | 流程图号 PID No.                                                                 |                      |                             |        | 30-02/04-057          |  |                             |      |      |            |  |
| 说明 Note:                                                                                                                                                                 |                        |                                                                              |                      |                             |        |                       |  |                             |      |      |            |  |